

MEGANE

1 Engine and peripherals

13B

DIESEL INJECTION

EDC16CP33

Program No.: C4

Vdiag No.: 04, 08, 18, 1C, 20, 24, 26,
28, 34, 38, 44, 4C, 54, 58, 5C, 60, 62, 74

Fault finding – Introduction	13B - 2
Fault finding – Cleanliness guidelines	13B - 8
Fault finding – System operation	13B - 11
Fault finding – Configurations	13B - 21
Fault finding – Replacement of components	13B - 22
Fault finding – Fault summary table	13B - 28
Fault finding – Interpretation of faults	13B - 31
Fault finding – Conformity check	13B - 256
Fault finding – Status summary table	13B - 257
Fault finding – Interpretation of statuses	13B - 259
Fault finding – Parameter summary table	13B - 320
Fault finding – Interpretation of parameters	13B - 325
Fault finding – Command summary table	13B - 417
Fault finding – Interpretation of commands	13B - 418
Fault finding – Customer complaints	13B - 464
Fault finding – Fault Finding Chart	13B - 465
Fault finding – Test	13B - 487

V9

Edition Anglaise

"The repair procedures given by the manufacturer in this document are based on the technical specifications current when it was prepared.

The procedures may be modified as a result of changes introduced by the manufacturer in the production of the various component units and accessories from which his vehicles are constructed."

All rights reserved by Renault s.a.s.

Copying or translating, in part or in full, of this document or use of the service part reference numbering system is forbidden without the prior written authority of Renault s.a.s.

© Renault s.a.s. 2009

1. SCOPE OF THIS DOCUMENT

This document presents the fault finding procedure applicable to all computers with the following specifications:

Vehicle(s): **Laguna II Phase 2 / Vel Satis Phase 2 /
Espace IV Phase 2 / Mégane II phase 2 / Scénic II phase 2**

Engine: **M9R 700 – 721 – 722 – 724 – 740 – 750 – 760 – 761
– 762 – 763**

Function concerned: **Bosch Diesel Injection**

Computer name: **BOSCH EDC16CP33**

Program No.: **C4**

Vdiag No.: **04, 08, 18, 1C, 20, 24, 26, 28, 34,
38, 44, 4C, 54, 58, 5C, 60, 62, 74**

2. PREREQUISITES FOR FAULT FINDING

Documentation type

Fault finding procedures (this document):

- Assisted fault finding (integrated into the diagnostic tool), Dialogys.

Wiring Diagrams:

- Visu-Schéma.

Type of diagnostic tools

- CLIP

Special tooling required

Special tooling required	
Diagnostic tool	
Multimeter	
Elé. 1681	Universal bornier

3. REMINDERS

Procedure

To save energy, the UCH of the vehicle interrupts the **+ after ignition feed** after **3 minutes**.

To run fault finding on a computer, it is possible to force the **+ after ignition feed** for **1 hour** by applying the following procedure:

- Press the card unlocking button,
- insert the card in the reader,
- press the start button (interrupting the timed **+ after ignition feed** mode),
- press the start button for more than **5 seconds**, until the immobiliser warning light flashes rapidly (4 Hz).

This forced **+ after ignition feed** mode remains active for **1 hour**.

Pressing the start button or removing the card from the card reader interrupts the forced **+ after ignition feed**, but does not interrupt the timed forced **+ after ignition feed** mode. As long as one hour has not elapsed, activating the **+ after ignition feed** will restart **forced + after ignition feed** for the remaining time.

Faults

Faults are declared present or stored (depending on whether they appeared in a certain context and have disappeared since, or whether they remain present but are not diagnosed within the current context).

The **present** or **stored** status of faults should be taken into consideration when the **diagnostic tool** is switched on following + after ignition feed is activated (no system components active).

For a **present fault**, apply the procedure described in the **Interpretation of faults** section.

For a **stored fault**, note the faults displayed and apply the **Notes** section.

If the fault is **confirmed** when the instructions are applied, the fault is present. Deal with the fault.

If the fault is **not confirmed**, check:

- the electrical lines which correspond to the fault,
- the connectors on these lines (corrosion, bent pins, etc.),
- the resistance of the faulty component,
- the condition of the wires (melted or cut insulation, wear).

WARNING:

Deal first with instrument panel faults (eg. "Particle filter" warning light).
Then carry out scheduled maintenance on the vehicle.

Conformity check

The purpose of the conformity check is to check data that does not produce a fault on the **diagnostic tool** if the data is inconsistent. Therefore, this stage is used to:

- carry out fault finding on faults that do not have a fault display, and which may correspond to a customer complaint.
- check that the system is operating correctly and that there is no risk of a fault recurring after repair.

The conformity check is a fault finding procedure carried out using the interpretation of statuses and parameters.

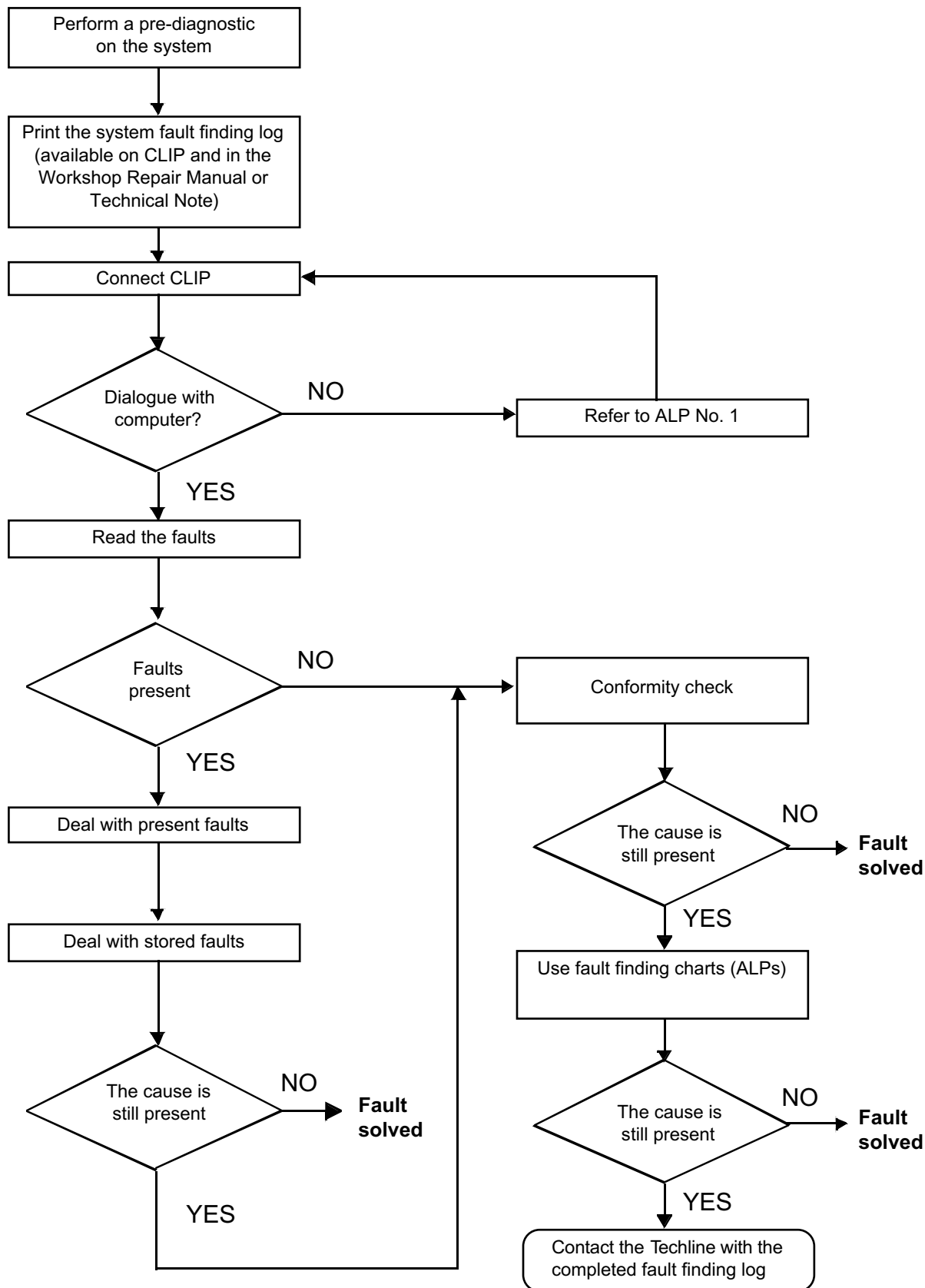
If a status does not function normally or a parameter is outside the permitted tolerance values, consult the corresponding fault finding pages (see interpretation of statuses and parameters).

Customer complaints - Fault finding chart

If the test with the **diagnostic tool** is correct but the customer complaint is still present, the fault should be dealt with by **customer complaints**.

A synopsis of the general procedure to follow is provided on the following page in the form of a flow chart.

4. FAULT FINDING PROCEDURE



4. FAULT FINDING PROCEDURE (continued)

4.1 Wiring check

Fault finding problems

Disconnecting the connectors and/or manipulating the wiring may temporarily clear the cause of a fault. Electrical measurements of voltage, resistance and insulation are generally correct, especially if the fault is not present when the analysis is made (stored fault).

Visual inspection

Look for damage under the bonnet and in the passenger compartment.
Carefully check the fuses, insulators and wiring harness routing.
Look for signs of oxidation.

Physical inspection

When handling the wiring, use the **diagnostic tool** to detect any change in the status of the fault from **stored** to **present**.

Make sure that the connectors are firmly secured.

Apply light pressure to the connectors.

Twist the wiring harness.

If there is a change in status, try to locate the source of the fault.

Inspection of each component

Disconnect the connectors and check the appearance of the clips and tabs, as well as the crimping (no crimping on the insulating section).

Make sure that the clips and tabs are properly locked in the sockets.

Check that the clips or tabs have not been bent back during connection.

Check the clip contact pressure using an appropriate model of tab.

Resistance check

Check the continuity of entire lines, then section by section.

Look for a short circuit to earth, to **+ 12 V** or with another wire.

If a fault is detected, repair or replace the wiring harness.

4.2 Connector check

Note:

Carry out each requested check visually. Do not remove a connector if it is not required.

Note:

The check is carried out on the 2 parts of the connection. There may be 2 types of connections:

- Connector/Connector.
- Connector/Device.

1. Visual inspection of the connection:

- Check that the connector is connected correctly and that the male and female parts of the connection are correctly coupled.

2. Visual inspection of the area around the connection:

- Check the condition of the mounting (pin, strap, adhesive tape, etc.) if the connectors are attached to the vehicle.
- Check that there is no damage to the wiring trim (sheath, foam, adhesive tape, etc.) near the wiring.
- Check that there is no damage to the electrical wires at the connector outputs, in particular on the insulating material (wear, cuts, burns, etc.).

Disconnect the connector to continue the checks.

3. Visual inspection of the plastic casing:

- Check that there is no mechanical damage (casing crushed, cracked, broken, etc.), in particular to the fragile components (lever, lock, terminal locations, etc.).
- Check that there is no heat damage (casing melted, blackened, deformed, etc.).
- Check that there is no dirt (grease, mud, liquid, etc.).

4. Visual inspection of the metal contacts:

(The female contact is called CLIP. The male contact is called TAB).

- Check that there are no bent contacts (the contact is not inserted correctly and can come out of the back of the connector). The spring contact of the connector when the wire is pulled slightly.
- Check that there is no damage (tabs bent, clips open too wide, blackened or melted, etc.).
- Check that there is no oxidation on the metal contacts.

Visual inspection of the sealing:

(Only for watertight connectors)

- Check for the seal on the connection (between the 2 parts of the connection).
- Check the seal at the back of the connectors:
- For unit joints (1 for each wire), check that the unit joints are present on each electrical wire and that they are correctly positioned in the opening (level with the housing). Check that plugs are present on openings which are not used.
- For a grommet seal (one seal which covers the entire internal surface of the connector), check that the seal is present.
- For gel seals, check for gel in all of the openings without removing the excess or any protruding sections (it does not matter if there is gel on the contacts).
- For hotmelt sealing (heat-shrink sleeve with adhesive), check that the sleeve has shrunk correctly on the back of the connectors and electrical wires, and that the hardened adhesive is evident from the wire ends.
- Check that there is no damage to any of the seals (cuts, burns, significant deformation, etc.).

If a fault is detected, consult **Technical Note 6015A, Repairing electrical wiring**.

5. FAULT FINDING LOG



IMPORTANT

IMPORTANT

All faults involving a complex system call for thorough diagnostics with the appropriate tools. The FAULT FINDING LOG, which should be completed during the fault finding procedure, ensures a record is kept of the procedure carried out. It is an essential document when consulting the manufacturer.

IT IS THEREFORE ESSENTIAL THAT THE FAULT FINDING LOG IS FILLED OUT EVERY TIME IT IS REQUESTED BY TECHLINE OR THE WARRANTY RETURNS DEPARTMENT.

You will always be asked for this log:

- when requesting technical assistance from the Techline,
- when requesting approval before replacing parts for which approval is compulsory,
- to be attached to monitored parts for which reimbursement is requested. The log is needed for warranty reimbursement, and enables better analysis of the parts removed.

6. SAFETY INSTRUCTIONS

Safety rules must be observed during any work on a component to prevent any material damage or personal injury:

- check the battery voltage to avoid incorrect operation of computer functions,
- use the proper tools.

I - HAZARDS ASSOCIATED WITH CONTAMINATION

The high pressure direct injection system is highly sensitive to contamination. The risks caused by the introduction of contamination are:

- damage to or destruction of the high pressure injection system,
- a component seizing up,
- a component losing its sealing.

All After-Sales operations must be performed under very clean conditions. This means that no impurities (particles a few microns in size) should have penetrated the system during dismantling.

The cleanliness guidelines must be applied from the filter through to the injectors.

What are the sources of contamination?

- metal or plastic swarf,
- paint,
- fibres:
 - from cardboard,
 - from brushes,
 - from paper,
 - from clothing,
 - from cloths,
- foreign bodies such as hair,
- the ambient atmosphere
- etc.

IMPORTANT:

Cleaning the engine using a high pressure washer is prohibited because of the risk of damaging connections. In addition, moisture may collect in the connectors and create faults in the electrical connections.

II - INSTRUCTIONS TO BE FOLLOWED PRIOR TO ALL OPERATIONS

IMPORTANT:

Before carrying out any work on the high pressure injection system, protect:

- the accessories and timing belts,
- the electrical accessories, (starter, alternator, electric power-assisted steering pump),
- the flywheel surface, to prevent any diesel from running onto the clutch friction plate,
- timing chain.

Check that you have plugs for the unions to be opened (set of plugs available from the Parts Department). The plugs are single-use only. After use, they must be discarded (once used they are soiled and cleaning is not sufficient to make them reusable). Unused plugs must be discarded.

Check that you have hermetically resealable plastic bags for storing removed parts. Parts stored in this way will be less susceptible to the risk of contamination. The bags are to be used once only, and discarded after use.

Use lint-free cleaning cloths (cloth part reference **77 11 211 707**). Using normal cloth or paper is prohibited. They are not lint-free and could contaminate the fuel circuit. A lint-free cloth should only be used once.

Use fresh cleaning agent for each operation (used cleaning agent is contaminated). Pour it into a clean receptacle.

For each operation, use a clean brush in good condition (the brush must not shed its bristles).

Use a brush and cleaning agent to clean the unions to be opened.

Blow compressed air over the cleaned parts (tools, workbench, the parts, unions and injection system zones). Check that no bristles are left.

Wash your hands before and during the operation if necessary.

When wearing leather protective gloves cover them with latex gloves to prevent contamination.

III - INSTRUCTIONS TO BE FOLLOWED DURING THE OPERATION

As soon as the circuit is open, all openings must be plugged to prevent impurities from entering the system. The plugs to be used are available from the Parts Department. The plugs must not be reused under any circumstances.

Seal the pouch shut, even if it has to be opened shortly afterwards. The ambient atmosphere carries contamination.

All components removed from the injection system must be stored in a hermetically-sealed plastic bag once the plugs have been inserted.

Using a brush, cleaning agent, air gun, brush or normal cloth is strictly prohibited once the circuit has been opened. These items could allow contamination to enter the system.

A new component replacing an old one must not be removed from its packaging until it is to be fitted to the vehicle.

System outline

The high pressure injection system is designed to deliver a precise quantity of diesel fuel to the engine at a set moment.

It is fitted with a **BOSCH** computer, type **EDC16CP33**.

The system comprises:

- a priming bulb,
- a diesel filter,
- a high pressure pump,
- a fuel pressure regulator (or actuator) on the high pressure pump (MPROP),
- a fuel pressure regulator (or actuator) mounted on the injector rail (DRV),
- an injector rail,
- a fuel pressure sensor,
- four piezoelectric injectors,
- a diesel temperature sensor,
- a coolant temperature sensor,
- an upstream air temperature sensor,
- a cylinder reference sensor,
- an engine speed sensor,
- a turbocharger pressure sensor,
- an exhaust gas recirculation valve,
- a recycled gas cooling solenoid valve,
- an accelerator pedal potentiometer,
- an atmospheric pressure sensor integrated into the injection computer,
- a flow sensor,
- a turbocharging limiter solenoid valve,
- a damper valve,
- a particle filter,
- a turbo upstream temperature sensor,
- a turbo upstream pressure sensor,
- a particle filter differential pressure sensor,
- a particle filter upstream temperature sensor,
- a particle filter downstream temperature sensor,
- an electric coolant pump (turbocharger),
- four thermoplungers.

The **common rail** direct high pressure injection system works sequentially (based on the petrol engine multipoint injection).

This system uses piezoelectric injectors which enable a more precise injection since opening and closing times are shorter compared to conventional solenoid injectors.

This injection system reduces operating noise, reduces the volume of pollutant gases and particles and produces high engine torque at low engine speeds thanks to a pre-injection procedure.

The high pressure pump generates the high pressure and transmits it to the injector rail. The actuator located on the pump controls the quantity of diesel supplied, according to the demand determined by the computer.

The rail supplies each injector through a steel pipe. The actuator located on the injector rail controls the pressure of diesel fuel in the rail according to the demand determined by the computer.

a. The computer:

Determines the injection pressure value necessary for the correct operation of the engine; the pressure can reach **1600 bar** in the rail and it must be constantly regulated.

Checks that the pressure value is correct by analysing the value transmitted by the pressure sensor located on the rail.

Determines the injection duration required to deliver the right quantity of diesel fuel and the moment when injection should start. Controls each injector electrically and individually after determining these two values.

The quantity of fuel injected is determined by:

- Engine speed (Crankshaft + Cam for synchronisation).
- Accelerator pedal.
- Turbocharging pressure.
- Coolant temperature,
- Inlet air temperature.
- Air flow
- Pressure in the rail.
- Vehicle speed.

The computer manages:

- idling regulation,
- exhaust gas flow reinjection to the inlet,
- fuel supply check (advance, flow and rail pressure),
- the fan assembly control,
- the air conditioning (cold loop function),
- cruise control/speed limiter function,
- pre-post heating control,
- indicator lights control via the multiplex network,
- the operation of the catalysed particle filter,
- turbocharging pressure.

The high pressure pump is supplied at low pressure by an integrated low pressure pump (transfer pump).

It supplies the rail, the pressure in which is regulated by:

- **the pressure regulator on the rail (DRV)** for starting phases, starting the engine when cold (increase in temperature to heat the diesel circuit) and when throttling-off,
- **the pressure regulator on the pump (MPROP)** for all other phases (90% of cases).

As natural leaks in piezoelectric injectors are very low, opening the pressure regulator (DRV) is the only quick method of dumping the rail pressure and it prevents overpressure when injection is restarted.

The pressure regulator on the pump (MPROP) enables the high pressure pump to supply just the exact quantity of diesel fuel required to maintain the rail pressure. This component minimises the heat generated and improves engine output.

Note:

Each piezoelectric injector is connected to the return rail. The injector return rail is kept pressurised by a mechanical valve at the end of the return rail with a **10 bar** calibration (by comparison, solenoid injectors used to return directly into the common fuel return circuit). This feature is linked to the operation of piezoelectric injectors.

Fuel surplus from the pump, injector return rail or rail is collected in a low pressure "octopus manifold" and is then sent to the fuel filter, providing that the fuel is cold (recirculation), and then to the tank.

The system can inject diesel fuel into the engine at a pressure of up to **1600 bar**. Before each operation, check that the injector rail is depressurised and that the fuel temperature is not too high.

You must respect the cleanliness guidelines and safety advice specified in this document for any work on the high pressure injection system.

Removal of the internal parts of the pump and injectors is prohibited. Only the fuel pressure regulator (or actuator) on the high pressure pump (MPROP), the fuel pressure regulator (or actuator) on the injector rail (DRV) or the diesel temperature sensor can be replaced.

For safety reasons, it is strictly prohibited to undo a high pressure pipe union when the engine is running.

It is not possible to remove the pressure sensor from the fuel rail because this may cause circuit contamination faults. If the pressure sensor fails, replace the pressure sensor, the rail and the high pressure pipes.

Some vehicles have a presence sensor mounted in the filter for detecting water in the diesel. If there is water in the diesel fuel, the orange "Injection and pre-post heating" warning light will come on.

WARNING:

The engine must not operate with:

- Diesel fuel containing more than **10%** diester,
- petrol, even in tiny quantities.

Supplying **+ 12 V** directly to any component in the system is prohibited.

Ultrasonic decoking and cleaning are prohibited.

Never start the engine unless the battery is connected correctly.

Disconnect the injection computer when carrying out any welding work on the vehicle.

Note:

For the **M9R 724 (Vdiag 5C and 58)**:

The engine is limited to **3000 rpm** if the vehicle is stationary or if the vehicle speed is less than **4 mph (7 km/h)** and if the engine is warm.

b. The connections between the vehicle's various computers are multiplexed.

The electronic system fitted in this vehicle is multiplexed.

This enables dialogue between the various vehicle computers. As a result:

- the fault warning lights on the instrument panel are lit by the multiplex network,
- vehicle faults are displayed by the multiplex network,
- the vehicle speed sensor on the gearbox is not needed.

The vehicle speed signal on the instrument panel is sent by the ABS computer via the multiplex network. The vehicle speed signal is mainly used by the injection computer, the airbag computer and the automatic transmission computer (if the vehicle is fitted with this).

c. Functions hosted:

Air conditioning management assistance:

For vehicles with air conditioning, the **EDC16CP33** system provides the option of deactivating the air conditioning via the UCH, under certain conditions of use:

- when requested by the driver,
- when starting the engine,
- if the engine overheats (in order to reduce the power the engine has to supply),
- when the engine speed is kept at a very high level (to protect the compressor),
- during transition phases (e.g. under heavy acceleration when overtaking, anti-stalling and moving off strategies).
These conditions are only taken into account when they do not occur repeatedly, in order to prevent system instabilities (erratic deactivations),
- when certain faults appear.

I - Cold loop air conditioning management:

The air conditioning is the cold loop type and its management shared between several computers.

The injection computer is responsible for:

- authorising requests for cold air depending on the engine coolant temperature and the engine speed,
- calculating the power absorbed by the compressor from the refrigerant pressure.
- **requesting** fan assembly actuation (**Mégane II ph2 and Scénic II ph2**) and **controlling** fan assembly actuation (**Laguna II, Vel Satis ph2 and Espace IV ph2**), according to the vehicle speed, the refrigerant pressure and the engine coolant temperature.

The driver requests the air conditioning to be switched on by means of the ventilation selector coupled to a switch. The cold air request is authorised or denied depending on the pressure measured. If this pressure is outside the operating limits, the cold loop program is not activated.

The air conditioning system is authorised by the injection computer **2 to 8 seconds** after the engine is started.

Management of the thermoplungers:

To improve cold starting, the vehicle is fitted with thermoplungers. These thermoplungers are managed and controlled by the injection computer, according to the operating phases, primarily to accelerate the increase in engine coolant temperature.

The maximum number of thermoplungers that can be actuated is four and their actuation depends mainly on the coolant temperature and the air temperature.

See configuration reading **LC056 Thermoplungers: WITH or WITHOUT**.

When necessary, they are actuated by the injection system only during particle filter regeneration by means of a special unit.

The maximum number of thermoplungers that can be managed is four and their activation depends mainly on the coolant temperature (< 15°C) and air temperature (< 5°C).

II - Cruise control/speed limiter management:

The **cruise control function**, when activated, allows you to keep the vehicle speed at a selected value regardless of the driving conditions encountered.

Using the control buttons, the driver can increase or reduce the speed of the vehicle.

If the driver wishes to exceed the cruising speed, he may:

- press the accelerator pedal and exceed the cruising speed (the vehicle will return to the initial cruising speed once the driver takes his foot off the pedal),
- press the system control buttons.

The cruise control function can be deselected either by:

- the system control buttons,
- deactivating the cruise control switch,
- when system events are detected, such as the brake pedal or clutch being pressed,
- when system errors are detected such as an inconsistent vehicle speed.

The cruise control function can also be temporarily disabled when the driver wants to increase the speed by depressing the accelerator pedal. The cruising speed is resumed when the driver releases the accelerator pedal. The vehicle will then attempt to reach the cruising speed at a controlled acceleration rate.

It is possible to reactivate the vehicle speed control and resume the last cruising speed after deactivation (computer supply not cut off).

When activated (using the selection switch) the vehicle speed limiter function limits the vehicle speed to a preselected value. The driver controls the vehicle in the normal way using the accelerator pedal until the cruising speed is reached.

If the driver attempts to exceed this speed, the system ignores the pedal request and controls the vehicle speed in the same way as the cruise control function, as long as the accelerator pedal is kept sufficiently depressed. As with cruise control, the cruising speed can be altered using the one-touch control buttons or by pressing and holding.

For safety reasons, it is possible to exceed the cruising speed by depressing the accelerator pedal beyond the pedal position limiting value. The vehicle speed is fully controlled through pedal position, until the vehicle speed falls back below the limit speed when the speed limiter function will once again be reactivated.

If the driver wishes to exceed the cruising speed, he may:

- exceed the accelerator pedal's kickdown point,
- increase it by pressing or pressing and holding the switch.

The speed limiter function can be deselected either:

- the system control buttons,
- by switching off the speed limiter switch,
- when system events are detected, such as the brake pedal or clutch being pressed,
- when system errors are detected such as an inconsistent vehicle speed.

III - Management of the damper valve

The damper valve is now responsible for two functions:

- Damping: when the engine is switched off, the flap closes in order to block the passage of air towards the cylinders. The aim of this is to stop the engine as quickly as possible and to reduce instabilities when the engine is switched off.
- "Valving" function depending on the engine operation: the damper valve closes by a few % to create a "venturi" effect at the EGR valve passage section.

The aim of this is to accelerate the air flow of EGR gases and to reduce the emission of pollutants.

IV - Exhaust gas recirculation management

The EGR (Exhaust Gas Recirculation) system involves removing exhaust gases and reintroducing them into the inlet.

This system plays a major role in reducing diesel engine emissions. The EGR system is cooled by a gas - water exchanger, as on most Euro IV engines. This cooler has a dual position bypass valve, which allows the gas to be cooled or not depending on the emission control requirements. The bypass circuit is inside the cooler (not visible from the outside). The valve control rod is visible from the outside.

The exhaust gases are collected in the exhaust manifold (before the turbocharger), then directed to the EGR cooler and the EGR valve. The EGR valve connects the air circuit between the damper valve and the inlet manifold; the EGR valve is positioned next to the damper valve.

The EGR valve is activated every time the engine stops by performing **10** opening/closing cycles. This programming activates the EGR valve in order to prevent it from clogging. The program is no longer active if there are any system faults.

The EGR system does not operate below **5°C** (air flowmeter temperature).

– The controlled EGR cooler bypass

The EGR cooler bypass is controlled by an all-or-nothing solenoid valve, connected on one side to the vacuum pump, and on the other side to the bypass control diaphragm. It is actuated according to the coolant temperature and the engine operating status. Gases flow into the EGR section of the cooler unless the engine is cold, in which case they flow through the bypass valve. There is also a regular actuation function for the bypass valve to prevent it from clogging.

– EGR valve

The EGR valve is supplied by direct current and connected to a potentiometer copying the position of the valve. The opening of the valve is actuated (**H bridge**) by a positive command **0** to **100%**.

The valve is controlled using a double regulation loop.

The first loop (fastest) is a position loop. It brings the valve to the desired position by a loop connection using the signal from the position sensor.

The second loop is slower and is an air flow loop. At a given operating point, the air flow setpoint is attained by adjusting the quantity of exhaust gas flowing through the EGR valve and the flow of fresh air passing through the damper valve. At a total constant flow, the more exhaust gas recirculation, the less fresh air there is and vice versa. The air flow is measured by the flowmeter and the setpoint is attained using both the EGR valve position setpoint and the damper valve position setpoint.

The potentiometer serves to control and run fault finding on the valve. The very first time the engine is started, then each subsequent engine start, the "valve closed" position is programmed (offset). This value is compared to the very first offset or last programmed offset, for the purposes of fault finding. It is also used to readjust the valve control function. It is therefore important to associate the EGR valve with the computer that controls it.

Important: the EGR valve offsets must be reinitialised when replacing the valve or reprogramming/replacing the computer.

V - Catalysed particle filter management (only for Vdiag: **18, 1C, 54, 20, 58, 5C, 24, 28** and **62**).

The particle filter prevents the escape of carbon particles emitted by the engine but not yet removed from the exhaust gases.

The particle filter is a microporous structure containing channels in order to force filter the exhaust gas.

The exhaust pipe consists of several components:

- an oxidation catalytic converter mounted after the turbocharger. This catalytic converter ensures that HC/CO levels meet current standards by generating the heat (rise in exhaust temperature caused by catalysis) required for particle filter regeneration,
- a catalysed particle filter located under the bodywork,
- a differential pressure sensor to tell the computer the pressure upstream and downstream of the particle filter,
- a particle filter upstream and downstream temperature sensor,
- a turbine upstream temperature sensor (TAVT).

As the vehicle is driven, the particle filter is loaded with particles (soot). Using a given weight of soot determined via mapping in the computer, regeneration mode can be triggered if the maximum weight of soot in the particle filter is reached and all engine operating conditions are met (coolant temperature, etc.).

Particle filter regeneration consists of burning the particles of soot accumulated in the filter.

The differential pressure sensor measures the particle filter inlet/outlet pressure differential; this measurement is used to estimate the weight of soot present in the particle filter by mapping in the computer:
(weight of soot = pressure differential as a function of exhaust volume flow rate).

If all the criteria are met, the computer enters regeneration mode. The injection programming is then adjusted in order to raise the target exhaust gas temperature to between **550** and **650°C**.

This temperature allows the particles accumulated in the filter to be partially or completely burnt (regeneration). Regeneration efficiency depends on the particle filter inlet temperature and the time spent in regeneration mode.

Regeneration can be performed automatically while driving if:

- the **soot weight** is less than the threshold for **DF308 Clogged particle filter**
- the **number of regeneration failures while driving** is less than the threshold for **DF311 Failed regenerations limit exceeded**.

VI - Pre-postheating actuation

Pre/postheating control involves actuating the heater plugs and the preheating indicator light on the instrument panel (multiplex signal).

The heater plugs are actuated by a static relay.

After the ignition is switched on, a preheating delay is activated. The length of time that the warning light is lit depends on the coolant temperature, air temperature, atmospheric pressure and battery voltage. When the coolant temperature is below a certain threshold, a postheating function can be used to improve the combustion stability, and consequently engine operation (reducing unburnt particles and pollutant emissions). Postheating can last up to **5 minutes**.

IMPORTANT:

There are two types of heater plug: **SLOW** and **FAST**:

SLOW plugs are identified by a **black ring**.

FAST plugs are identified by a **white ring**.

The heater plugs fitted on the vehicle must be replaced with plugs of the same type; otherwise there is a risk of the heater plugs deteriorating which could lead to engine destruction.

Only **Vdiag 20, 24, 38 and 74**:

when replacing heater plugs with plugs which differ from those currently fitted on the vehicle (replacement of **SLOW** plugs with **FAST** plugs), the computer must be configured (see **Replacement of components, Replacing heater plugs**) by running command **SC036 Reinitialise programming** and selecting **Heater plugs** if this choice is available, then following the procedure.

Warning light management:

Instrument panel display

The computer displays certain information on the instrument panel relating to engine operation. This concerns five functions:

- the pre-postheating warning light,
- the coolant temperature warning light,
- the **level 1** fault warning light (non-critical fault),
- the **level 2** fault warning light (emergency stop),
- the **EOBD (European On Board Diagnostic)** warning light,

These six functions are represented by 3 warning lights and/or messages displayed by the on-board computer.

Orange pre-post heating/non-critical fault SERVICE warning light (severity 1)

This light is used both as an in-operation indicator light and as a system fault indicator:

- Continuously lit with **+ after ignition feed**:

Indicates preheating of the spark plugs.

- Continuously lit with the **Check injection** message:

Indicates a **level 1** fault (involving operation of the injection system in defect mode).

The driver should have the repairs carried out as soon as possible.

Temperature / red emergency STOP warning light (level 2)

This indicator light is used both as an in-operation indicator light and as a system fault warning light. It lights up for **3 seconds** after the ignition is switched on (automatic test procedure managed by the instrument panel):

- Continuously lit:

Indicates engine overheating (the driver is free to choose whether or not to stop the vehicle).

- Continuously lit with the **faulty injection** message:

Indicates a **level 2** fault (In this case, the injection is automatically cut after a few seconds).

The driver should carry out repairs as soon as possible.

ORANGE Excessive pollution EOBD warning light

Symbolised by an engine, it lights up for approximately **3 seconds** when the ignition is switched on.

This warning light comes on if the system has one or more EOBD faults.

This warning light is used to alert the driver to injection faults that could lead to excessive pollution, or if the **EOBD system (European On Board Diagnostic)** has been deactivated.

The injection computer requests illumination of the **EOBD** warning light for a **present** fault only after three consecutive driving cycles.

The **3 second** visual inspection when the ignition is switched on (automatic test procedure managed by the instrument panel) is carried out by the injection computer.

Special particle filter ORANGE warning light or warning message (depending on instrument panel)

Only for **Vdiag: 18, 1C, 54, 20, 58, 5C, 24, 26 and 60**.

This warning light or message is used to warn the driver that the particle filter is loaded with particles, (see the soot weight thresholds for illumination of the warning light for fault **DF312 Speed request**) due to driving conditions which were not suitable for regeneration to take place. The driver must then drive as soon as possible at an average speed of **48 mph (80 km/h)** subject to the road conditions and authorised speed limits, until the warning light goes out.

EOBD management (European On Board Diagnostic):

The **EOBD** system enables the detection of any faults relating to the vehicle emission control system (**EOBD EURO IV** emission control standards exceeded).

This system should be active for the entire life of the vehicle.

1. Conditions for an EOBD fault appearing

An **EOBD** fault will be detected after **3 driving cycles**.

It allows the driver to know whether the vehicle has a fault directly linked to the emission control system.

2. System faults displayed by the EOBD

Only a few faults are indicated by the **EOBD** system:

- **DF002 Air temperature sensor circuit.**
- **DF004 Turbocharging pressure sensor circuit.**
- **DF011 Sensor feed voltage no. 1.**
- **DF012 Sensor feed voltage no. 2.**
- **DF013 Sensor feed voltage no. 3.**
- **DF026 Cylinder 1 injector control circuit.**
- **DF027 Cylinder 2 injector control circuit.**
- **DF028 Cylinder 3 injector control circuit.**
- **DF029 Cylinder 4 injector control circuit.**
- **DF054 Turbocharging solenoid valve control circuit.**
- **DF056 Air flow sensor circuit.**
- **DF107 Computer memory.**
- **DF200 Atmospheric pressure sensor.**
- **DF209 EGR position sensor circuit.**
- **DF272 EGR valve control circuit.**
- **DF569 Turbocharging circuit.**

Some repair operations require programming to ensure that certain engine components function correctly.

Follow the programming procedures (see **Replacement of components**), if replacing the exhaust gas recirculation valve or an injector.

3. Conditions for clearing an EOBD fault

An **EOBD** fault is cleared in several phases.

The fault **present** in the **diagnostic tool** will only be **stored** (following repair) after the vehicle has been driven 3 times.

The EOBD warning light will only go out after these 3 driving cycles.

The instrument panel warning light coming on does not automatically mean that the system has a fault.

In order for the EOBD fault and display parameters to be cleared from the computer, the system must go through 40 engine heating cycles.

An engine heating cycle is a driving cycle during which:

- the engine coolant temperature reaches at least 71.1°C,
- the engine coolant temperature varies by 22.2°C in relation to the engine starting temperature.

If one of these conditions is not fulfilled, the EOBD fault will still be present or stored in the injection computer.

DIESEL INJECTION

Fault finding – Configurations

13B

Summary of available configuration readings

NOTES

Configuration readings are used to check the state of configurations performed.
The configuration readings cannot be changed.

LC009:	Air conditioning	WITH OR WITHOUT
LC056:	Thermoplungers	WITH OR WITHOUT
LC065:	Water in diesel fuel sensor	WITH OR WITHOUT
LC120:	Cruise control	WITH OR WITHOUT
LC121:	Speed limiter	WITH OR WITHOUT

COMPUTER REPLACEMENT OR REPROGRAMMING

Operations to be carried out before the injection computer is reprogrammed:

Before reprogramming the injection computer, move the main cruise control/speed limiter switch to the rest position. The information about the cruise control or the speed limiter displayed on the instrument panel disappears.

Otherwise, if the main switch remains in the cruise control or speed limiter position during and after reprogramming, the cruise control/speed limiter function will not be operational.

The procedure for resetting the function is as follows:

Vehicle ignition on.

- Position the cruise control/speed limiter switch in the **rest** position (the computer detects the rest position at that moment).
- Position the cruise control/speed limiter switch in the **Cruise control** position to activate the cruise control function.
- Position the cruise control/speed limiter switch in the **Speed limiter** position to activate the speed limiter function.

Two operations must be performed when replacing or reprogramming the computer:

SC003 Save computer data and **SC001 Enter saved data**.

- Run **SC003 before replacing or reprogramming** the computer. This enables certain data to be saved in the **diagnostic tool** so that the new computer* can be reconfigured like the old one. The saved data includes: injector codes, EGR programming, specific data for particle filter operation and vehicle options.
- Run **SC001 after replacing or reprogramming** the computer. It enables you to rewrite the data (saved by command **SC003**) to the new computer*.

Only **Vdiag 20, 24, 38** and **74**:

- Run **SC036 Reinitialise programming** and select **Heater plugs** (see **Interpretation of commands**); this will allow you to configure the correct type of heater plugs fitted on the vehicle, if necessary.

If you cannot establish dialogue with the computer being replaced: you will not be able to save anything.

After replacing the computer:

- Write the **IMA* codes** for each injector manually by reading the code on each injector; run command **SC002 Enter injector codes**.
- Perform an After-Sales regeneration, follow the procedure for command **SC017 Particle filter regeneration** (see **Interpretation of commands**).
- It is essential to change the **engine oil** and **oil filter**.
- Enter the data specific to particle filter operation by running **SC036 Reinitialise programming** and selecting **after replacing injection computer with no save option**.
- Enter the VIN into the computer, use command **VP010 Enter VIN**.
- Only for **Vdiag 20, 24, 38** and **74**: Configure the type of **heater plugs** fitted on the vehicle by running **SC036 Reinitialise programming** and selecting **Heater plugs** (see **Interpretation of commands**).

Exhaust gas recirculation valve data is programmed automatically the 1st time the new computer is turned on*.

* new computer or reprogrammed computer.

IMA*: Individual injector correction

PROCEDURE

- **Before replacing or reprogramming the computer:**

- Select **SC003 Save computer data**,
- if the following message appears: **there is a saved file; do you want to overwrite this data?:** (this file corresponds to the last save carried out on the tool)
- Select **YES**,

When the save has been performed, replace the computer or carry out the programming then proceed to the next step.

- **After replacing or reprogramming the computer:**

Select **SC001 Write saved data**.

Follow the instructions,

- When the command is finished, switch off the ignition, wait for the message to appear on the **diagnostic tool** (maximum time **8 minutes**): **Loss of dialogue with the computer: EDC16 CP33, check the connection of the tool and the computer supply**.
- Switch on the ignition again and use command **VP010 Enter VIN** if the VIN has been cleared.
- Only **Vdiag 20, 24, 38** and **74**: Establish communication and run **SC036 Reinitialise programming** and select **Heater plugs** (see **Interpretation of commands**), this will allow you to configure the correct type of heater plugs fitted on the vehicle, if necessary.
- For all **Vdiags**, clear the fault memory.
- End of procedure.

REPLACING THE EXHAUST GAS RECIRCULATION (EGR) VALVE

After the exhaust gas recirculation valve has been replaced, the computer must store the new valve offset, and the offset measured when the ignition was last switched off (in power latch phase), which corresponds to the valve closing.

Using this data, the computer can detect whether the valve is clogged or seized.

When the valve is replaced, clear the stored offsets so that the program uses the new valve's offset value.

The data associated with this program is compiled in the **Emission control / EOBD (European On Board Diagnostic)** sub-function.

– **PR128**: FIRST EGR VALVE OFFSET.

– **PR129**: LAST EGR VALVE OFFSET > or = **PR128** if the valve is new.

Programming **PR128** and **PR129** must be cleared every time the exhaust gas recirculation valve is replaced.

PROCEDURE to be followed **after replacing** the exhaust gas recirculation valve:

- Run command **SC036 Reinitialise programming**.
- Select EGR valve as the operation type, then follow the instructions given by the **diagnostic tool**.

Note:

When reinitialisation is complete, the **Emission control / EOBD** sub-function displays: **PR128 = PR129 = 0%**

- When the command is finished,
 - **switch off the ignition**,
 - wait for the **diagnostic tool** message (maximum wait **8 minutes**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply**.

The new EGR valve offset is automatically reprogrammed the next time the ignition is switched on.

Note:

When the new EGR valve offset has been reprogrammed, the **Emission control / EOBD** sub-function will display:
10% < PR128 < 40%
PR129 = 0%

- start the vehicle to enable the latest EGR valve offset to be programmed,
- switch off the ignition,
- wait for the **diagnostic tool** message (maximum wait **8 minutes**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply** before switching the ignition back on.

The last EGR valve offset reprogrammed is stored on the computer.

Note:

When the last EGR valve offset has been reprogrammed, the **Emission control / EOBD** sub-function will display:
10% < PR128 < 40%,
10% < PR129 < 40%

- then check the system faults, and clear any **stored** faults,
- if there are faults, deal with the **present** faults,
- clear the faults from the computer **memory**.

Carry out a road test followed by a complete test with the diagnostic tool.

End of the procedure.

REPLACING THE INJECTORS

Note:

The **"IMA" code (individual injector correction)** is a calibration with corrective values unique to each injector, and is used to adjust their flow accurately (injector classification). This correction takes into account mechanical variances and the variances of the **piezo** actuator. An injector's class is determined by measurements taken at different pressures on a test bench. The **IMA** class identification (**7-character alphanumeric code**) is then engraved on the collar of the injector.

The **IMA** codes must be read from left to right:

- Foolproofing for reading the **IMA** codes is carried out using the low pressure return connector and/or the electrical connector on the injector.
- This reading direction is valid when these connectors are located to the left of the cotech.

The **IMA** codes are read from left to right (see illustration in **MR 402 (Vel Satis ph2)**, **MR 395 (Laguna II ph2)**, **MR 364 (Mégane II ph2)**, **MR 370 (Scénic II ph2)**, **MR 405 (Espace IV ph2) Mechanical**, **13B Diesel injection, Diesel injector, Removal – Refitting**)

Note: When entering characters, confusion can arise between:

- Figure **1** and the letters **I** and **L**,
- Figure **2** and the letter **Z**,
- Figure **5** and the letter **S**,
- Figure **6** and the letter **G**,
- Figure **8** and the letter **B**.

After programming or reprogramming the computer, it is essential to enter the 4 injector codes before confirming the entry.

These individual corrective values are then written to the computer EEPROM, which can then control the injectors, taking into account their manufacturing variation.

After one or more injectors have been replaced, enter the IMA codes again and then run command SC036 Reinitialise programming.

To do this, record the **IMA** code(s) etched on the injector bodies, and enter the codes into the computer using command **SC002 Enter injector codes**, and follow the instructions given by the **diagnostic tool**. Use **SC036 Reinitialise programming** and select **injectors** then follow the procedure.

IMPORTANT:

Engines can only operate correctly if the correct **IMA*** codes have been entered. If no code has been entered, or if an invalid code has been entered, fault **DF066 Injector code(s)** will be present and the engine will run in defect mode (engine speed limited significantly). If another injector's code has been entered, the system will accept it but will make the wrong correction. This could lead to engine damage, loss of performance and excessive pollution.

Always use the correct injector codes for the engine cylinder/computer.

Note:

On the **M9R** engine (Renault - Nissan partnership engine), cylinder no. 1 is located at the timing end.

IMPORTANT:

- When the command is complete, switch off the ignition and exit fault finding mode.
 - Wait for the **diagnostic tool** message (maximum wait **8 min**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply.**
 - Return to fault finding mode.
 - select the **Identify computer** function from the main screen.
 - Check that the injector codes entered into the computer correspond to those on the injector bodies.
 - If the codes do not match, restart the command **SC002 Enter injector codes** procedure.
 - Check the system faults, and clear any **stored** faults.
 - If the computer does not have any faults, the operation is complete.
- If not, deal with the **present** faults.

***IMA: Individual injector correction**

REPLACING THE DAMPER VALVE

After replacing the damper valve, run command **SC036 Reinitialise programming** and select **Damper valve**. When the command is complete, switch off the ignition and exit fault finding mode.

Wait for the **diagnostic tool** message (maximum wait **8 minutes**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply** before switching the ignition back on.

Note:

When reinitialisation is complete, the **Emission control / EOBD (European On Board Diagnostic)** sub-function displays:

PR858 ≠ 0%, PR859 ≠ 0%, PR860 ≠ 0% and PR861 ≠ 0%.

REPLACING THE PARTICLE FILTER (Vdiag: 18, 1C, 54, 20, 58, 5C, 24, 26, 28, 60 and 62 only)

After replacing the particle filter, reconfigure the computer.

The system must be configured via the diagnostic socket using the **RENAULT CLIP** tool.

Carry out the following steps:

- switch on the ignition,
- run command **SC036**,
- select **After particle filter replacement** as the operation type and follow the instructions,
- **switch off the ignition and wait** for the **diagnostic tool** message (maximum wait **8 minutes**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage**,
- **then switch on the ignition again**,
- **clear** the faults from the computer memory (**this operation must be carried out within 3 minutes of the ignition being switched on**)

Carry out a road test followed by a complete check with the **diagnostic tool**.

REPLACING THE HEATER PLUGS (Vdiag 20, 24, 38 and 74 only)

SLOW plugs are identified by a **black ring**.

FAST plugs are identified by a **white ring**.

After replacing the heater plugs with plugs of a different type, reconfigure the type of plugs fitted on the vehicle.

Carry out the following steps:

- switch on the ignition,
- run command **SC036 Reinitialise programming**,
- select **Heater plugs** as the operation type and follow the instructions,
- **switch off the ignition and wait** for the **diagnostic tool** message (maximum wait **8 minutes**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage**,
- then switch on the ignition again,
- clear the faults from the computer memory.

Carry out a road test followed by a complete check with the **diagnostic tool**.

DIESEL INJECTION

Fault finding – Fault summary table

13B

Tool fault	Associated DTC	Diagnostic tool title
DF001	115	Coolant temperature sensor circuit
DF002	110	Air temperature sensor circuit
DF004	235	Turbocharging pressure sensor circuit
DF007	190	Rail pressure sensor circuit
DF011	641	Sensor supply voltage no. 1
DF012	651	Sensor supply voltage no. 2
DF013	697	Sensor supply voltage no. 3
DF017	670	Preheating unit control circuit
DF018	480	Low speed fan assembly control circuit (except Vdiag 58, 5C)
DF019	481	High speed fan assembly control circuit (except Vdiag 58, 5C)
DF025	380	Pre-postheating unit diagnostic line
DF026	201	Cylinder 1 injector control circuit
DF027	202	Cylinder 2 injector control circuit
DF028	203	Cylinder 3 injector control circuit
DF029	204	Cylinder 4 injector control circuit
DF032	1641	Thermoplunger 1 relay control circuit
DF033	1642	Thermoplunger 2 relay control circuit
DF034	1643	Thermoplunger 3 relay control circuit
DF038	606	Computer
DF046	560	Battery voltage
DF047	2505	Computer feed voltage
DF051	575	Cruise control/speed limiterfunction
DF052	200	Injector control circuit
DF054	45	Turbocharging solenoid valve control circuit
DF056	100	Air flow sensor circuit
DF059	301	Misfiring on cylinder 1
DF060	302	Misfiring on cylinder 2
DF061	303	Misfiring on cylinder 3
DF062	304	Misfiring on cylinder 4
DF065	300	Combustion misfire

DIESEL INJECTION

Fault finding – Fault summary table

13B

Tool fault	Associated DTC	Diagnostic tool title
DF066	611	Injector code(s)
DF069	1655	Impact detected signal
DF086	2600	Coolant pump relay control circuit
DF091	500	Vehicle speed signal
DF098	180	Fuel temperature sensor circuit
DF107	62F	Computer memory
DF119	340	Camshaft sensor signal
DF120	335	Engine speed sensor signal
DF151	685	Main relay circuit
DF165	2299	Accelerator pedal position sensor circuit
DF195	16	Camshaft/engine speed sensor consistency
DF196	225	Pedal sensor circuit gang 1
DF198	2120	Pedal sensor circuit gang 2
DF200	2226	Atmospheric pressure sensor
DF209	409	EGR valve position sensor circuit
DF221	830	Clutch switch signal
DF228	571	Brake signal
DF249	62B	Injector control
DF265	1201	Injector No. 1
DF266	1202	Injector No. 2
DF267	1203	Injector No.3
DF268	1204	Injector No. 4
DF272	487	EGR valve control circuit
DF293	2269	Water in diesel fuel sensor
DF297	2002	Particle filter
DF304	2425	EGR by-pass circuit
DF308	242F	Clogged particle filter
DF309	242A	Particle filter downstream temp.* sensor
DF310	2031	Particle filter upstream temp.* sensor
DF311	1435	Failed regenerations limit exceeded
DF312	1436	Speed request

DIESEL INJECTION

Fault finding – Fault summary table

13B

Tool fault	Associated DTC	Diagnostic tool title
DF315	2452	Particle filter diff.* pressure sensor
DF323	2100	Damper valve
DF333	C101	Injection -> automatic gearbox connection
DF364	530	Air conditioning
DF502	565	Cruise control or speed limiter button
DF532	2502	Alternator charge signal
DF569	2263	Turbocharging circuit
DF645	2101	Damper valve position regulation
DF646	120	Damper valve position sensor
DF647	488	EGR valve position regulation
DF651	470	Turbine upstream pressure sensor circuit
DF652	544	Turbine upstream temperature sensor circuit
DF717	2453	Particle filter upstream pressure
DF890	297	Movement during particle filter regener*
DF891	2146	Group 1 injectors feed
DF892	2149	Group 2 injectors feed
DF895	2293	Pressure regulation on rail
DF896	89	Pressure regulation on pump
DF897	90	Pressure regulator circuit on pump
DF898	2294	Pressure regulator circuit on rail
DF899	3031	Regeneration temperature limit exceeded
DF997	1640	Control unit -> thermoplunger connection
DF1020	253F	Engine oil dilution
DF1069	1670	Heater plugs not configured
DF1188	12B	Air leak in turbocharging circuit

* temp: Temperature

* Diff: Differential

* regen.: Regeneration

DF001 PRESENT OR STORED	<p><u>COOLANT TEMPERATURE SENSOR CIRCUIT</u></p> <p>CC.0: Short circuit to earth CO.1: Open circuit or short circuit to + 12 V</p>
NOTES	<p>Priorities when dealing with a number of faults:</p> <ul style="list-style-type: none"> – DF046 Battery voltage. <p>Conditions for applying the fault finding procedure to stored faults: If the fault is declared present after:</p> <ul style="list-style-type: none"> – the ignition is switched on, – starting the engine, – a road test. <p>Special notes: If the fault is present:</p> <ul style="list-style-type: none"> – the thermoplungers are no longer controlled, – the coolant temperature: PR064 Coolant temperature is fixed at 119°C (with the engine running), – the preheating phase lasts longer than 4 seconds, – the low-speed fan assembly is continuously supplied, – the high speed fan assembly is continuously supplied (for Vdiag 20, 24, 58, 5C, 26, 28, 60, 62), – smoke may be emitted from the exhaust, – noise may be heard when hot starting. <p>The level 1 warning light is illuminated. The EOBD (European On Board Diagnostic) warning light is lit (for Vdiag 20, 24, 58, 5C, 26, 28, 60, 62) Use bornier Elé. 1681 for any operations on the computer connectors.</p> <p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

EDC16CP33_V18_DF001 / EDC16CP33_V1C_DF001 / EDC16CP33_V54_DF001 / EDC16CP33_V20_DF001 / EDC16CP33_V58_DF001 / EDC16CP33_V5C_DF001 / EDC16CP33_V24_DF001 / EDC16CP33_V04_DF001 / EDC16CP33_V08_DF001 / EDC16CP33_V44_DF001 / EDC16CP33_V4C_DF001 / EDC16CP33_V34_DF001 / EDC16CP33_V38_DF001 / EDC16CP33_V74_DF001 / EDC16CP33_V28_DF001 / EDC16CP33_V62_DF001 / EDC16CP33_V26_DF001 / EDC16CP33_V60_DF001

DF001 CONTINUED 1	
------------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the coolant temperature sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 244).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3C and 3JK of component 244.</p> <p>If the resistance is less than 87 Ω, replace the sensor</p>
<p>Check the insulation to earth of the following connections:</p> <ul style="list-style-type: none"> • 3C and 3JK between components 120 and 244. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF001 CONTINUED 2	
------------------------------------	--

CO.1	NOTES	None.
------	--------------	-------

<p>Check the condition of the coolant temperature sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 244).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3C and 3JK of component 244.</p> <p>If the resistance is greater than 83 kΩ, replace the sensor</p>
<p>Check the insulation from + 12 V of the following connections:</p> <ul style="list-style-type: none"> • 3C and 3JK between components 120 and 244. <p>Check the continuity of the following connections:</p> <ul style="list-style-type: none"> • 3C between components 120 and 244, • 3JK between components 120 and 244. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF002 PRESENT OR STORED	<p><u>AIR TEMPERATURE SENSOR CIRCUIT</u></p> <p>CC.0: Short circuit to earth CO.1: Open circuit or short circuit to + 12 V</p>
NOTES	<p>Priorities when dealing with a number of faults:</p> <ul style="list-style-type: none"> – DF046 Battery voltage. <p>Conditions for applying the fault finding procedure to stored faults: If the fault is declared present after:</p> <ul style="list-style-type: none"> – the ignition is switched on, – starting the engine, – a road test. <p>Special notes: If the fault is present:</p> <ul style="list-style-type: none"> – The EOBD (European On Board Diagnostic) warning light is lit. – the thermoplungers are inhibited, – the inlet air temperature is in defect mode, PR059 Inlet air temperature = 20°C (with the engine running). <p>The air temperature sensor is integrated into the air flowmeter. Use bornier Elé. 1681 for all operations on the connectors of the engine management computer.</p> <p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

EDC16CP33_V18_DF002 / EDC16CP33_V1C_DF002 / EDC16CP33_V54_DF002 / EDC16CP33_V20_DF002 / EDC16CP33_V58_DF002 / EDC16CP33_V5C_DF002 / EDC16CP33_V24_DF002 / EDC16CP33_V04_DF002 / EDC16CP33_V08_DF002 / EDC16CP33_V44_DF002 / EDC16CP33_V4C_DF002 / EDC16CP33_V34_DF002 / EDC16CP33_V38_DF002 / EDC16CP33_V74_DF002 / EDC16CP33_V28_DF002 / EDC16CP33_V62_DF002 / EDC16CP33_V26_DF002 / EDC16CP33_V60_DF002

DF002 CONTINUED 1	
------------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the air flowmeter connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 799).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3ABQ and 3DW of component 799.</p> <p>If the resistance is less than 87 Ω, replace the air flowmeter</p>
<p>With the flowmeter disconnected, check the insulation to earth of the following connections:</p> <ul style="list-style-type: none"> • 3ABQ and 3DW, between components 120 and 799. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF002 CONTINUED 2	
------------------------------	--

CO.1	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the air flowmeter connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 799).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3ABQ and 3DW of component 799.</p> <p>If the resistance is greater than 50 kΩ, replace the air flowmeter.</p>
<p>Check the insulation from + 12 V of the following connections:</p> <ul style="list-style-type: none"> • 3ABQ between components 120 and 799, • 3DW between components 120 and 799. <p>Check the continuity of the following connections:</p> <ul style="list-style-type: none"> • 3ABQ between components 120 and 799, • 3DW between components 120 and 799. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF004 PRESENT OR STORED	<p><u>TURBOCHARGING PRESSURE SENSOR CIRCUIT</u></p> <p>CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Consistency between turbocharging pressure and atmospheric pressure.</p>
NOTES	<p>Priorities when dealing with a number of faults:</p> <ul style="list-style-type: none"> – DF011 Sensor supply voltage no. 1. – DF046 Battery voltage. <p>Conditions for applying the fault finding procedure to stored faults: If the fault is declared present after:</p> <ul style="list-style-type: none"> – the ignition is switched on, – starting the engine, – a road test. <p>Special notes Use bornier Elé. 1681 for any operations on the injection computer connectors. If the fault is present:</p> <ul style="list-style-type: none"> – engine torque limited, – turbocharging pressure is in defect mode, PR041 Turbocharging pressure = 0.75 bar, – the level 1 and EOBD (European On Board Diagnostic) warning lights are lit. <p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

EDC16CP33_V18_DF004 / EDC16CP33_V1C_DF004 / EDC16CP33_V54_DF004 / EDC16CP33_V20_DF004 / EDC16CP33_V58_DF004 / EDC16CP33_V5C_DF004 / EDC16CP33_V24_DF004 / EDC16CP33_V04_DF004 / EDC16CP33_V08_DF004 / EDC16CP33_V44_DF004 / EDC16CP33_V4C_DF004 / EDC16CP33_V34_DF004 / EDC16CP33_V38_DF004 / EDC16CP33_V74_DF004 / EDC16CP33_V28_DF004 / EDC16CP33_V62_DF004 / EDC16CP33_V26_DF004 / EDC16CP33_V60_DF004

DF004 CONTINUED 1	
------------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

Check the condition of the turbocharging pressure sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1071**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation to earth** of the following connections:

- **3LP** and **3LN** between components **120** and **1071**.

Check the **continuity** of the following connections:

- **3LQ** between components **120** and **1071**,
- **3LP** and **3LN** between components **120** and **1071**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the wiring of the particle filter downstream temperature sensor, component code **1288**, is present (with or without the sensor being present), check the electrical insulation in relation to **+ 12 V** between the following connections:

- **3XU** between components **120** and **1288**,
- **3TG** between components **120** and **1288**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the turbocharger pressure sensor.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF004 CONTINUED 2	
------------------------------------	--

CC.1	NOTES	None.
-------------	--------------	-------

Check the condition of the turbocharging pressure sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1071**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation** in relation to **+ 12 V** or **+ 5 V** (computer feed) of the following connections:

- **3LP** and **3LQ**, between components **120** and **1071**.

Check the **continuity** of the following connection:

- **3LN** between components **120** and **1071**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Run **Test 8 Turbocharger rotating part**.

If the fault is still present, replace the turbocharger pressure sensor.

1.DEF	NOTES	None.
--------------	--------------	-------

Check the condition of the turbocharging pressure sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1071**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Perform fault finding procedure on parameter **PR041 Turbocharging pressure**.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF007 PRESENT OR STORED	<p><u>RAIL PRESSURE SENSOR CIRCUIT</u></p> <p>CC.0: Short circuit to earth CO.1: Open circuit or short circuit to + 12 V 1.DEF: Below minimum threshold 2.DEF: Above maximum threshold</p>
NOTES	<p>Priorities when dealing with a number of faults:</p> <ul style="list-style-type: none"> – DF013 Sensor supply voltage no. 3.
	<p>Conditions for applying the fault finding procedure to stored faults:</p> <p>If the fault is declared present after:</p> <ul style="list-style-type: none"> – the ignition is switched on, – starting the engine, – a road test.
	<p>Special notes:</p> <p>If the fault is present,</p> <ul style="list-style-type: none"> – the rail pressure is in defect mode, PR038 Rail pressure ≤ 1150 bar, – the level 1 warning light is illuminated, – particle filter regeneration is inhibited, <p>Use bornier Elé. 1681 for any operations on the injection computer connectors.</p>
	<p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

EDC16CP33_V18_DF007 / EDC16CP33_V1C_DF007 / EDC16CP33_V54_DF007 / EDC16CP33_V20_DF007 / EDC16CP33_V58_DF007 / EDC16CP33_V5C_DF007 / EDC16CP33_V24_DF007 / EDC16CP33_V04_DF007 / EDC16CP33_V08_DF007 / EDC16CP33_V44_DF007 / EDC16CP33_V4C_DF007 / EDC16CP33_V34_DF007 / EDC16CP33_V38_DF007 / EDC16CP33_V74_DF007 / EDC16CP33_V28_DF007 / EDC16CP33_V62_DF007 / EDC16CP33_V26_DF007 / EDC16CP33_V60_DF007

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF007 CONTINUED 1	
------------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

Check the condition of the rail pressure sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1032**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity** of the following connection:

- **3LX** between components **120** and **1032**.

Check the **insulation** to **earth** of the following connection:

- **3LY** between components **120** and **1032**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the wiring of the particle filter downstream temperature sensor, component code **1288**, is present (with or without the sensor being present), check the electrical insulation in relation to **+ 12 V** between the following connections:

- **3XU** between components **120** and **1288**,
- **3TG** between components **120** and **1288**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF007 CONTINUED 2	
------------------------------------	--

CO.1	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the rail pressure sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1032).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity of the following connections:</p> <ul style="list-style-type: none"> • 3LX between components 120 and 1032, • 3LY between components 120 and 1032. <p>Check the insulation from + 12 V or + 5 V (computer feeds) of the following connection:</p> <ul style="list-style-type: none"> • 3LY between components 120 and 1032. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF007 CONTINUED 3	
------------------------------------	--

1.DEF 2.DEF	NOTES	Special notes: The fault is declared present or stored after an attempt to start or after starting, with the engine cold, several hours after the last trip (the difference in the coolant temperature from the last engine stop and the present attempt to start must be at least 60°C).
------------------------------	--------------	---

<p>Check the condition of the rail pressure sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1032).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check that there are no external diesel leaks from the high pressure fuel circuit.</p>
<p>Check the continuity and absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • 3LX between components 120 and 1032, • 3LY between components 120 and 1032, • 3LZ between components 120 and 1032. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>With the ignition on and the engine stopped for over 1 minute:</p> <p>View parameter PR038 Rail pressure.</p> <ul style="list-style-type: none"> – If the pressure is below 90 bar, the sensor is in order. – If the pressure is above 90 bar, contact the Techline.
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF011 PRESENT OR STORED	<p>SENSOR FEED VOLTAGE NO. 1</p> <p>1.DEF: Above maximum threshold 2.DEF: Below minimum threshold</p>
NOTES	<p>Conditions for applying the fault finding procedure to stored faults: If the fault is declared present after:</p> <ul style="list-style-type: none"> – the ignition is switched on. – starting the engine, – a road test. <p>Special notes If the fault is present,</p> <ul style="list-style-type: none"> – air conditioning is switched off, – engine torque limited, – cruise control/speed limiter function is switched off, – thermoplungers are switched off – the EGR function is disabled by the engine management computer. – Safe mode on the accelerator pedal sensor: gang 2 value used instead of gang 1, – particle filter regenerations when driving are inhibited. <p>the level 1 and EOBD (European On Board Diagnostic) warning lights are lit. Use bornier Elé. 1681 for all operations on the connectors of the engine management computer.</p> <p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

EDC16CP33_V18_DF011 / EDC16CP33_V1C_DF011 / EDC16CP33_V54_DF011 / EDC16CP33_V20_DF011 / EDC16CP33_V58_DF011 /
EDC16CP33_V5C_DF011 / EDC16CP33_V24_DF011 / EDC16CP33_V04_DF011 / EDC16CP33_V08_DF011 / EDC16CP33_V44_DF011 /
EDC16CP33_V4C_DF011 / EDC16CP33_V34_DF011 / EDC16CP33_V38_DF011 / EDC16CP33_V74_DF011 / EDC16CP33_V28_DF011 /
EDC16CP33_V62_DF011 / EDC16CP33_V26_DF011 / EDC16CP33_V60_DF011

DF011 CONTINUED 1	
------------------------------------	--

1.DEF	NOTES	None.
-------	--------------	-------

Note:

Supply no.1 is for the following component:

- accelerator pedal sensor (gang 1),
- turbocharger pressure sensor,
- turbine upstream pressure sensor (**Vdiag 18, 1C, 54, 20, 58, 5C, 24** only).

Measure the sensor feed **voltage** on the following connections:

- **3LR** of component **921**,
- **3LQ** of component **1071**,
- **3MX** of component **1299** (**Vdiag 18, 1C, 54, 20, 58, 5C, 24** only).

if at least one of the three voltages is greater than **+ 5.1 V**, disconnect the sensor connectors one by one.

If, after disconnecting the turbocharging pressure sensor, component code **1071**, the voltage returns to normal, Check the **insulation** against **+ 12 V** of the following connection:

- **3LQ** between components **120** and **1071**.

If, after disconnecting the accelerator pedal sensor, component code **921**, the voltage returns to normal, Check the **insulation** against **+ 12 V** of the following connection:

- **3LR** between components **120** and **921**.

If, after disconnecting the turbine upstream pressure sensor, component code **1299**, the voltage returns to normal, Check the **insulation** against **+ 12 V** of the following connection:

- **3MX** between the components **120** and **1299** (**Vdiag 18, 1C, 54, 20, 58, 5C, 24** only).

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
Clear the faults created by the multiple disconnections.

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, contact the Techline.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF011 CONTINUED 2	
------------------------------------	--

2.DEF	NOTES	None.
--------------	--------------	-------

Note:

Supply no.1 is for the following component:

- accelerator pedal sensor (gang 1),
- turbocharger pressure sensor,
- turbine upstream pressure sensor (**Vdiag 18, 1C, 54, 20, 58, 5C, 24** only).

Measure the sensor feed **voltage** on the following connections:

- **3LR** of component **921**,
- **3LQ** of component **1071**,
- **3MX** of component **1299** (**Vdiag 18, 1C, 54, 20, 58, 5C, 24** only).

If at least one of the three voltages is less than **+ 4.9 V**, disconnect the sensor connectors one by one.

If, after disconnecting the turbocharging pressure sensor, the voltage returns to normal,

Check the **insulation to earth** of the following connection:

- **3LQ** between components **120** and **1071**.

If, after disconnecting the accelerator pedal sensor, the voltage returns to normal,

Check the **insulation to earth** of the following connection:

- **3LR** between components **120** and **921**.

If the voltage returns to normal after the turbine upstream pressure sensor is disconnected,

Check the **insulation to earth** of the following connection:

- **3MX** between components **120** and **1299**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Clear the faults created by the multiple disconnections.

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, contact the Techline.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF012 PRESENT OR STORED	<u>SENSOR SUPPLY VOLTAGE NO. 2</u> 1.DEF: Above maximum threshold 2.DEF: Below minimum threshold
--	---

NOTES	Conditions for applying the fault finding procedure to stored faults: If the fault is declared present after: – the ignition is switched on. – starting the engine, – a road test.
	Special notes: If the fault is present , – engine torque limited, – cruise control/speed limiter function is switched off, – the thermoplungers are switched off, – air conditioning is switched off, – the low speed fan assembly is continuously supplied. – safe mode on the accelerator pedal sensor: gang 1 value used, – particle filter regenerations when driving are inhibited. The level 1 and EOBD (European On Board Diagnostic) warning lights are lit. Use bornier Elé. 1681 for all operations on the connectors of the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

1.DEF	NOTES	None.
--------------	--------------	-------

Note: Supply no.2 is for the following components: – accelerator pedal sensor (gang 2), component code 921 , – EGR valve position sensor, component code 1460 or 169 , – damper valve position sensor, component code 1461 , – cruise control/speed limiter button (button on steering wheel), component code 689 , – refrigerant sensor, component code 1202 , – particle filter differential pressure sensor, component code 1290 .
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF012 / EDC16CP33_V1C_DF012 / EDC16CP33_V54_DF012 / EDC16CP33_V20_DF012 / EDC16CP33_V58_DF012 / EDC16CP33_V5C_DF012 / EDC16CP33_V24_DF012 / EDC16CP33_V04_DF012 / EDC16CP33_V08_DF012 / EDC16CP33_V44_DF012 / EDC16CP33_V4C_DF012 / EDC16CP33_V34_DF012 / EDC16CP33_V38_DF012 / EDC16CP33_V74_DF012 / EDC16CP33_V28_DF012 / EDC16CP33_V62_DF012 / EDC16CP33_V26_DF012 / EDC16CP33_V60_DF012

DF012 CONTINUED 1

Measure the sensor feed **voltage** on the following connections:

- **3LU** of component **921**,
- **86G** of component **689**,
- **38KQ** of component **1461**,
- **3AAQ** of component **1290**,
- **38Y** of component **1202**,
- **3GC** of component **1460** or **169**.

If at least one of the five voltages is greater than **+ 5.1 V**, disconnect these connectors one by one.

If, after disconnecting the damper valve, the voltage returns to normal,

Check the **insulation** against **+ 12 V** of the following connection:

- **38KQ** between components **120** and **1461**.

If after disconnecting the accelerator pedal sensor the voltage returns to normal,

Check the **insulation** against **+ 12 V** of the following connection:

- **3LU** between components **120** and **921**.

If, after disconnecting the EGR valve, the voltage returns to normal,

Check the **insulation** against **+ 12 V** of the following connection:

- connection code **3GC** between components **120** and **1460** or **169**.

If the voltage returns to normal after the particle filter differential pressure sensor is disconnected,

Check the **insulation** against **+ 12 V** of the following connection:

- **3AAQ** between components **120** and **1290**.

If the voltage returns to normal after the refrigerant sensor is disconnected,

Check the **insulation** against **+ 12 V** of the following connection:

- **38Y** between components **120** and **1202**.

If the voltage returns to normal after the cruise control/speed limiter button is disconnected,

Check the **insulation** against **+ 12 V** of the following connection:

- **86G** between components **120** and **689**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Clear the faults created by the multiple disconnections.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF012
CONTINUED 2

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF012 CONTINUED 3	
------------------------------	--

2.DEF	NOTES	None.
--------------	--------------	-------

Note:

Supply no.2 is for the following components:

- accelerator pedal sensor (gang 2), component code **921**,
- EGR valve position sensor, component code **1460** or **169**,
- damper valve position sensor, component code **1461**,
- cruise control/speed limiter button (button on steering wheel), component code **689**,
- refrigerant sensor, component code **1202**,
- particle filter differential pressure sensor, component code **1290**.

Measure the supply **voltage** on the following sensors:

- **3LU** of component **921**,
- **86G** of component **689**,
- **38KQ** of component **1461**,
- **3AAQ** of component **1290**,
- **38Y** of component **1202**,
- **3GC** of component **1460** or **169**.

If at least one of the voltages is less than **4.9 V**, disconnect these connectors one by one.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF012 CONTINUED 4

If the voltage returns to normal after the damper valve is disconnected,
Check the **insulation to earth** of the following connection:

- **38KQ** between components **120** and **1461**.

If, after disconnecting the accelerator pedal sensor, the voltage returns to normal,

Check the **insulation to earth** of the following connection:

- **3LU** between components **120** and **921**.

If, after disconnecting the EGR valve, the voltage returns to normal,

Check the **insulation to earth** of the following connection:

- connection code **3GC** between components **120** and **1460** or **169**.

If the voltage returns to normal after the particle filter differential pressure sensor is disconnected,

Check the **insulation** against **+ 12 V** of the following connection:

- **3AAQ** between components **120** and **1290**.

If the voltage returns to normal after the refrigerant sensor is disconnected,

Check the **insulation** against **+ 12 V** of the following connection:

- **38Y** between components **120** and **1202**.

If the voltage returns to normal after the cruise control/speed limiter button is disconnected,

Check the **insulation** against **+ 12 V** of the following connection:

- **86G** between components **120** and **689**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Clear the faults created by the multiple disconnections.

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF013 PRESENT OR STORED	SENSOR SUPPLY VOLTAGE No. 3 1.DEF: Above maximum threshold 2.DEF: Below minimum threshold
--	--

NOTES	Conditions for applying the fault finding procedure to stored faults: If the fault is declared present after: <ul style="list-style-type: none"> – the ignition is switched on. – starting the engine, – a road test.
	Special notes: If the fault is present , <ul style="list-style-type: none"> – engine torque is limited – test SC031 Operational fault finding of cylinders (except Vdiag 04 and 44) inhibited, – particle filter regenerations when driving are inhibited, – particle filter fault finding is inhibited. The level 1 and EOBD (European On Board Diagnostic) warning lights are lit. Use bornier Elé. 1681 for all operations on the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

1.DEF	NOTES	None.
--------------	--------------	-------

Note: Supply no. 3 is for the following components: <ul style="list-style-type: none"> – air flowmeter, component code 799, – rail pressure sensor, component code 1032.
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF013 / EDC16CP33_V1C_DF013 / EDC16CP33_V54_DF013 / EDC16CP33_V20_DF013 / EDC16CP33_V58_DF013 / EDC16CP33_V5C_DF013 / EDC16CP33_V24_DF013 / EDC16CP33_V04_DF013 / EDC16CP33_V08_DF013 / EDC16CP33_V44_DF013 / EDC16CP33_V4C_DF013 / EDC16CP33_V34_DF013 / EDC16CP33_V38_DF013 / EDC16CP33_V74_DF013 / EDC16CP33_V28_DF013 / EDC16CP33_V62_DF013 / EDC16CP33_V26_DF013 / EDC16CP33_V60_DF013

DF013 CONTINUED 1

Measure the sensor feed **voltage** on the following connections:

- **3KJ** of component **799**,
- **3LX** of component **1032**.

If at least one of the two voltages is greater than **+ 5.1 V**, disconnect the sensor connectors one by one.

If, after disconnecting the air flow sensor, the voltage returns to normal,

Check the **insulation** against **+ 12 V** of the following connection:

- **3KJ** between components **120** and **799**.

If, after disconnecting the rail pressure sensor, the voltage returns to normal,

Check the **insulation** from **+ 12 V** of the following connection: **3LX** between components **120** and **1032**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Clear the faults created by the multiple disconnections.

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF013 CONTINUED 2	
------------------------------------	--

2.DEF	NOTES	None.
--------------	--------------	-------

Note:

Supply no. 3 is for the following components:

- air flowmeter, component code **799**,
- rail pressure sensor, component code **1032**.

Measure the sensor feed **voltage** on the following connections:

- **3KJ** of component **799**,
- **3LX** of component **1032**.

If at least one of the two voltages is less than **4.9 V**, disconnect the sensor connectors one by one.

If, after disconnecting the air flow sensor, the voltage returns to normal,

Check the **insulation to earth** of the following connection:

- **3KJ** between components **120** and **799**.

If, after disconnecting the rail pressure sensor, the voltage returns to normal,

Check the **insulation to earth** of the following connection:

- **3LX** between components **120** and **1032**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Clear the faults created by the multiple disconnections.

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, contact the Techline.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF017 PRESENT OR STORED	<u>PRE-POSTHEATING UNIT CONTROL CIRCUIT</u> CO: Open circuit CC.1: Short circuit to + 12 V CC.0: Short circuit to earth 1.DEF: Internal electronic fault
--	---

NOTES	Conditions for applying the fault finding procedure to stored faults: If DF025 Preheating unit diagnostic line is present, disregard it. If the fault is declared present after: <ul style="list-style-type: none"> – the ignition is switched on. – starting the engine, – a road test, – relay actuation using command AC037 Preheating relay.
	Special notes: <ul style="list-style-type: none"> – preheating inhibited. Use bornier Elé. 1681 for all operations on the connectors of the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the preheating unit connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 257).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3FF and BP35 of component 257.</p> <p>If the resistance is greater than 2 kΩ, replace the preheating unit.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

EDC16CP33_V18_DF017 / EDC16CP33_V1C_DF017 / EDC16CP33_V54_DF017 / EDC16CP33_V20_DF017 / EDC16CP33_V58_DF017 / EDC16CP33_V5C_DF017 / EDC16CP33_V24_DF017 / EDC16CP33_V04_DF017 / EDC16CP33_V08_DF017 / EDC16CP33_V44_DF017 / EDC16CP33_V4C_DF017 / EDC16CP33_V34_DF017 / EDC16CP33_V38_DF017 / EDC16CP33_V74_DF017 / EDC16CP33_V28_DF017 / EDC16CP33_V62_DF017 / EDC16CP33_V26_DF017 / EDC16CP33_V60_DF017

DF017 CONTINUED 1	
------------------------------------	--

Check the **continuity** of the following connection:

- **3FF** between components **120** and **257**.

Check the **+ 12 V battery supply** to the preheating unit on the following connection:

- **BP35** of component **257**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the pre-postheating unit.

CC.1	NOTES	None.
-------------	--------------	-------

Check the condition of the preheating unit connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 257**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3FF** and **BP35** of component **257**.

If the resistance is less than **1 kΩ**, replace the preheating unit.

Check the **insulation** in relation to **+ 12 V** of the following connection:

- **3FF** between components **120** and **257**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the pre-postheating unit.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF017 CONTINUED 2	
------------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the preheating unit connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 257).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3FF and BP35 of component 257.</p> <p>If the resistance is less than 450 Ω, replace the preheating unit.</p>
<p>Check the insulation to earth of the following connection:</p> <ul style="list-style-type: none"> • 3FF between components 120 and 257. <p>Check the + 12 V battery supply to the preheating unit:</p> <ul style="list-style-type: none"> • BP35 of component 257, <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, replace the pre-postheating unit.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF017 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	Special notes: This fault occurs if the computer's control section overheats when command AC037 Preheating relay is run or during normal operation of the preheating unit.
--------------	--------------	---

<p>Check the condition of the preheating unit connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 257).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity and absence of interference resistance on the following connection:</p> <ul style="list-style-type: none"> • 3FF between components 120 and 257. <p>Check the + 12 V battery supply to the preheating unit:</p> <ul style="list-style-type: none"> • BP35 of component 257. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF018 PRESENT OR STORED	<u>LOW SPEED FAN ASSEMBLY CONTROL CIRCUIT</u> CO: Open circuit CC.1: Short circuit to + 12 V CC.0: Short circuit to earth 1.DEF: Internal electronic fault
--	---

NOTES	Conditions for applying the fault finding procedure to stored faults: The fault reappears after: <ul style="list-style-type: none"> – the ignition is switched on. – clearing the fault from the memory, – the relay is actuated using command AC154 Low speed fan assembly.
	Special notes: <ul style="list-style-type: none"> – the high speed fan assembly is actuated at the same time as the low speed fan assembly. – the level 1 warning light is illuminated.
	Use bornier Elé. 1681 for all operations on the connector of the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	No low speed fan assembly control.
-----------	--------------	------------------------------------

<p>Check the condition of the low speed fan assembly relay mounting connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 700 or 336).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF018 CONTINUED 1

Measure **the resistance** of the low-speed fan assembly relay coil.

IMPORTANT:

Respect the measuring direction (polarity) as a protection diode is used.

Replace the relay if its resistance is greater than **1 kΩ** or less than **6 Ω**.

Remove the low speed relay and check the **continuity** of the following connection:

- **3JN** between components **120** and **700** or **336**.

Check the **+ 12 V after relay supply** to the low speed fan assembly relay.

- **3FB** of component **700** or **336**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

CC.1

NOTES

No low speed fan assembly control.

Check the condition of the low speed fan assembly relay mounting connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 700 or 336**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure **the resistance** of the low-speed fan assembly relay coil.

IMPORTANT:

Respect the measuring direction (polarity), protective diode present.

Replace the relay if its resistance is greater than **1 kΩ** or less than **6 Ω**.

Remove the low-speed relay and check the **insulation** in relation to **+ 12 V** of the following connection:

- **3JN** between components **120** and **700** or **336**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF018 CONTINUED 2	
------------------------------------	--

CC.0	NOTES	Low speed fan assembly constantly activated.
-------------	--------------	--

<p>Check the condition of the low speed fan assembly relay mounting connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 700 or 336).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance of the low-speed fan assembly relay coil.</p> <p>IMPORTANT:</p> <p>Respect the measuring direction (polarity) as a protection diode is used.</p> <p>Replace the relay if its resistance is greater than 1 kΩ or less than 6 Ω.</p>
<p>Remove the low speed relay and check the insulation to earth of the following connection:</p> <ul style="list-style-type: none"> • 3JN between components 120 and 700 or 336. <p>Check the + 12 V after relay supply to the low speed fan assembly relay.</p> <ul style="list-style-type: none"> • 3FB of component 700 or 336. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF018 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	Special notes: This fault occurs if the computer's control section overheats when running command AC154 Low speed fan assembly or during normal operation of the fan assembly relay.
--------------	--------------	---

<p>Check the condition of the low speed fan assembly relay mounting connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 700 or 336).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance of the low-speed fan assembly relay coil.</p> <p>IMPORTANT:</p> <p>Respect the measuring direction (polarity), protective diode present.</p> <p>Replace the relay if the resistance of the relay coil is greater than 200 Ω or less than 20 Ω.</p>
<p>Remove the low speed relay and check the insulation and continuity of the following connection:</p> <ul style="list-style-type: none"> • 3JN between components 120 and 700 or 336. <p>Check the + 12 V after relay supply to the low speed fan assembly relay.</p> <ul style="list-style-type: none"> • 3FB of component 700 or 336. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF019 PRESENT OR STORED	<u>HIGH SPEED FAN ASSEMBLY CONTROL CIRCUIT</u> CO: Open circuit CC.1: Short circuit to + 12 V CC.0: Short circuit to earth 1.DEF: Internal electronic fault
--	--

NOTES	Conditions for applying the fault finding procedure to stored faults: The fault reappears after: <ul style="list-style-type: none"> – the ignition is switched on. – clearing the fault from the memory, – relay actuated using command AC153 High speed fan assembly.
	Special notes The level 1 warning light is on.
	Use bornier Elé. 1681 for all operations on the connector of the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	No the high-speed fan assembly control.
-----------	--------------	---

<p>Check the condition of the high speed fan assembly relay mounting connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 234 or 335).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance of the high speed fan assembly relay coil.</p> <p>IMPORTANT</p> <p>Respect the measuring direction (polarity), protective diode present.</p> <p>Replace the relay if its resistance is greater than 1 kΩ or less than 6 Ω.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF019 / EDC16CP33_V1C_DF019 / EDC16CP33_V54_DF019 / EDC16CP33_V20_DF019 / EDC16CP33_V24_DF019 / EDC16CP33_V04_DF019 / EDC16CP33_V08_DF019 / EDC16CP33_V44_DF019 / EDC16CP33_V4C_DF019 / EDC16CP33_V34_DF019 / EDC16CP33_V38_DF019 / EDC16CP33_V74_DF019 / EDC16CP33_V28_DF019 / EDC16CP33_V62_DF019 / EDC16CP33_V26_DF019 / EDC16CP33_V60_DF019

DF019 CONTINUED 1

Remove the high speed relay and check **the continuity** of the following connection:

- **3JP** between components **120** and **234** or **335**.

Check the **+ 12 V after relay feed** to the high speed fan assembly relay on the following connection:

- **3FB** of component **234** or **335**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

CC.1

NOTES

No the high-speed fan assembly control.

Check the condition of the high speed fan assembly relay mounting connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 234 or 335**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure **the resistance** of the "high-speed fan assembly" relay coil.

IMPORTANT:

Respect the measuring direction (polarity), protective diode present.

Replace the relay if the resistance of the relay coil is greater than **1 Ω** or less than **6 Ω**.

Remove the high-speed relay and check the **insulation** in relation to **+ 12 V** of the following connection:

- **3JP** between components **120** and **234** or **335**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF019 CONTINUED 2	
------------------------------------	--

CO.0	NOTES	No the high-speed fan assembly control.
-------------	--------------	---

<p>Check the condition of the high speed fan assembly relay mounting connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 234 or 335).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance of the "high-speed fan assembly" relay coil.</p> <p>IMPORTANT:</p> <p>Respect the measuring direction (polarity), protective diode present.</p> <p>Replace the relay if the resistance of the relay coil is greater than 1 Ω or less than 6 Ω.</p>
<p>Remove the high speed relay and check the insulation to earth of the following connection:</p> <ul style="list-style-type: none"> • 3JP between components 120 and 234 or 335. <p>Check the + 12 V after relay supply to the high speed fan assembly relay:</p> <ul style="list-style-type: none"> • 3FB of component 234 or 335. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF019 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	Special notes: This fault occurs if the computer's control section overheats when running command AC153 High speed fan assembly or during normal operation of the fan assembly relay .
--------------	--------------	---

<p>Check the condition of the high speed fan assembly relay mounting connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 234 or 335).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance of the "high-speed fan assembly" relay coil.</p> <p>IMPORTANT:</p> <p>Respect the measuring direction (polarity), protective diode present.</p> <p>Replace the relay if the resistance of the relay coil is greater than 200 Ω or less than 20 Ω.</p>
<p>Remove the high speed relay and check the insulation and continuity of the following connection: 3JP between components 120 and 234 or 335.</p> <p>Check the + 12 V after relay feed to the high speed fan assembly relay on the following connection: 3FB of component 234 or 335.</p> <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF025 PRESENT OR STORED	<u>PRE-POSTHEATING UNIT DIAGNOSTIC LINE</u> CC.0: Short circuit to earth CO.1: Open circuit or short circuit to + 12 V
--	--

NOTES	Priorities when dealing with a number of faults: – DF017 Pre-postheating unit control circuit.
	Conditions for applying the fault finding procedure to stored faults: The fault reappears after: – the ignition is switched on in the preheating phase, – engine running in postheating phase, – controlling the heater plugs using command AC037 Preheating relay .
	IMPORTANT: – Please observe the cleanliness guidelines and safety advice. – Respect the type of plugs fitted to the vehicle, either slow or fast : – Slow plugs are identified by a black ring – fast plugs have a white ring. In Vdiag 20, 24, 38 and 74 , if the heater plugs are being replaced with plugs of a different type, see Replacement of components, Replacing heater plugs .
	Use bornier Elé. 1681 for all operations on the connectors of the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF025 / EDC16CP33_V1C_DF025 / EDC16CP33_V54_DF025 / EDC16CP33_V20_DF025 / EDC16CP33_V58_DF025 / EDC16CP33_V5C_DF025 / EDC16CP33_V24_DF025 / EDC16CP33_V04_DF025 / EDC16CP33_V08_DF025 / EDC16CP33_V44_DF025 / EDC16CP33_V4C_DF025 / EDC16CP33_V34_DF025 / EDC16CP33_V38_DF025 / EDC16CP33_V74_DF025 / EDC16CP33_V28_DF025 / EDC16CP33_V62_DF025 / EDC16CP33_V26_DF025 / EDC16CP33_V60_DF025

DF025 CONTINUED 1	
------------------------------------	--

CC.0 CO.1	NOTES	None.
----------------------------	--------------	-------

Check the condition of the preheating unit connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 257**).

Check the condition of all of the heater plugs (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component codes 680, 681, 682, 683**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

During a phase where the heater plugs are actuated by command **AC037 Preheating relay**, measure **the current across** the heater plugs.

Replace heater plugs with currents less than **1A** or greater than **6A** after **5 seconds'** actuation.

Check the **continuity** of the following connections:

- **37AB** between components **257** and **682**,
- **37AA**, between components **257** and **681**,
- **37Z** between components **257** and **680**,
- **37AC** between components **257** and **683**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF025 CONTINUED 2

Check the **+ 12 V battery supply** to the preheating unit on the following connection:

- **BP35** of component **257**.

Check the engine **earthing**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

interpret command **AC037 "Preheating relay"**.

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity** and **absence of interference resistance** on the following connection (preheating relay unit diagnostic line):

- **3FY** between components **120** and **257**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF026 PRESENT OR STORED	<u>CYLINDER 1 INJECTOR CONTROL CIRCUIT</u> CO: Open circuit CC: Short circuit 1.DEF: Internal electronic fault
--	--

NOTES	Conditions for applying the fault finding procedure to stored faults: If the fault becomes present after: <ul style="list-style-type: none"> – the ignition is switched on. – starting the engine, – a road test.
	Special notes If the fault is present : <ul style="list-style-type: none"> – the EOBD (European On Board Diagnostic) warning light is lit, – the level 2 warning light is lit for CC and 1.DEF, – the level 1 warning light comes on for CO. Use bornier Elé. 1681 for all operations on the engine management computer. After replacing an injector, run commands SC002 Enter injector codes (the IMA* codes are read from left to right) and SC036 Reinitialise programming and follow the procedure.
	IMPORTANT: <ul style="list-style-type: none"> – cylinder no.1 is located at the timing end. – please observe the cleanliness guidelines and safety advice. – do not disconnect the injectors with the engine running as this may damage the engine.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF026 / EDC16CP33_V1C_DF026 / EDC16CP33_V54_DF026 / EDC16CP33_V20_DF026 / EDC16CP33_V58_DF026 / EDC16CP33_V5C_DF026 / EDC16CP33_V24_DF026 / EDC16CP33_V04_DF026 / EDC16CP33_V08_DF026 / EDC16CP33_V44_DF026 / EDC16CP33_V4C_DF026 / EDC16CP33_V34_DF026 / EDC16CP33_V38_DF026 / EDC16CP33_V74_DF026 / EDC16CP33_V28_DF026 / EDC16CP33_V62_DF026 / EDC16CP33_V26_DF026 / EDC16CP33_V60_DF026

DF026 CONTINUED 1	
------------------------------------	--

CO	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the injector no. 1 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 193).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity of the following connections:</p> <ul style="list-style-type: none"> • 3KW between components 120 and 193, • 3CR between components 120 and 193. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Measure the resistance between connections 3CR and 3KW of component 193.</p> <p>Replace injector no. 1 if its resistance is not between 150 kΩ < X < 210 kΩ.</p>
<p>If the fault is still present, contact the Techline.</p>

IMA*: Individual injector correction

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF026 CONTINUED 2	
------------------------------------	--

CC	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the injector no. 1 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 193).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the insulation between the following two connections:</p> <ul style="list-style-type: none"> • 3KW between components 120 and 193, • 3CR between components 120 and 193. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Measure the resistance between connections 3CR and 3KW of component 193.</p> <p>Replace injector no. 1 if its resistance is not between 150 kΩ < X < 210 kΩ.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF026 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	None.
-------	--------------	-------

<p>Check the condition of the injector no. 1 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 193).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check for continuity and absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • 3KW between components 120 and 193, • 3CR between components 120 and 193. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Measure the resistance between connections 3CR and 3KW of component 193.</p> <p>Replace injector no. 1 if its resistance is not between 150 kΩ < X < 210 kΩ.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF027 PRESENT OR STORED	<u>INJECTOR CYLINDER 2 CONTROL CIRCUIT</u> CO: Open circuit CC: Short circuit 1.DEF: Internal electronic fault
--	---

NOTES	Conditions for applying the fault finding procedure to stored faults: If the fault becomes present after: <ul style="list-style-type: none"> – the ignition is switched on. – starting the engine, – a road test.
	Special notes If the fault is present : <ul style="list-style-type: none"> – the EOBD (European On Board Diagnostic) warning light is lit – the level 2 warning light is lit for CC and 1.DEF, – the level 1 warning light is lit for CO Use bornier Elé. 1681 for all operations on the engine management computer. After replacing an injector, run commands SC002 Enter injector codes (the IMA* codes are read from left to right) and SC036 Reinitialise programming and follow the procedure.
	IMPORTANT: <ul style="list-style-type: none"> – cylinder no.1 is located at the timing end. – please observe the cleanliness guidelines and safety advice. – do not disconnect the injectors with the engine running as this may damage the engine
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF027 / EDC16CP33_V1C_DF027 / EDC16CP33_V54_DF027 / EDC16CP33_V20_DF027 / EDC16CP33_V58_DF027 / EDC16CP33_V5C_DF027 / EDC16CP33_V24_DF027 / EDC16CP33_V04_DF027 / EDC16CP33_V08_DF027 / EDC16CP33_V44_DF027 / EDC16CP33_V4C_DF027 / EDC16CP33_V34_DF027 / EDC16CP33_V38_DF027 / EDC16CP33_V74_DF027 / EDC16CP33_V28_DF027 / EDC16CP33_V62_DF027 / EDC16CP33_V26_DF027 / EDC16CP33_V60_DF027

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF027 CONTINUED 1	
------------------------------------	--

CO	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the injector no. 2 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 194).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity of the following connections:</p> <ul style="list-style-type: none"> • 3KX between components 120 and 194, • 3CS between components 120 and 194. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Measure the resistance between connections 3KX and 3CS of component 194.</p> <p>Replace injector no. 2 if its resistance is not between 150 kΩ < X < 210 kΩ.</p>
<p>If the fault is still present, contact the Techline.</p>

IMA*: Individual injector correction

CC	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the injector no. 2 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 194).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF027 CONTINUED 2

Check **the insulation** between the following two connections:

- **3KX** between components **120** and **194**,
- **3CS** between components **120** and **194**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Measure the **resistance** between connections **3CR** and **3KW** of component **193**.
Replace injector no. 2 if its resistance is not between **150 kΩ < X < 210 kΩ**.

If the fault is still present, contact the Techline.

1.DEF

NOTES

None.

Check the condition of the injector no. 2 connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 194**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check **for continuity** and **absence of interference resistance** of the following connections:

- **3KX** between components **120** and **194**,
- **3CS** between components **120** and **194**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Measure the **resistance** between connections **3CR** and **3KW** of component **193**.
Replace injector no. 2 if its resistance is not between **150 kΩ < X < 210 kΩ**.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF028 PRESENT OR STORED	<u>CYLINDER 3 INJECTOR CONTROL CIRCUIT</u> CO: Open circuit CC: Short circuit 1.DEF: Internal electronic fault
--	---

NOTES	Conditions for applying the fault finding procedure to stored faults: If the fault becomes present after: <ul style="list-style-type: none"> – the ignition is switched on. – starting the engine, – a road test.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – the EOBD (European On Board Diagnostic) warning light is lit – the level 2 warning light is lit for CC and 1.DEF, – the level 1 warning light is lit for CO Use bornier Elé. 1681 for all operations on the engine management computer. After replacing an injector, run commands SC002 Enter injector codes (the IMA* codes are read from left to right) and SC036 Reinitialise programming and follow the procedure.
	IMPORTANT: <ul style="list-style-type: none"> – cylinder no.1 is located at the timing end. – please observe the cleanliness guidelines and safety advice. – do not disconnect the injectors with the engine running as this may damage the engine
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF028 / EDC16CP33_V1C_DF028 / EDC16CP33_V54_DF028 / EDC16CP33_V20_DF028 / EDC16CP33_V58_DF028 / EDC16CP33_V5C_DF028 / EDC16CP33_V24_DF028 / EDC16CP33_V04_DF028 / EDC16CP33_V08_DF028 / EDC16CP33_V44_DF028 / EDC16CP33_V4C_DF028 / EDC16CP33_V34_DF028 / EDC16CP33_V38_DF028 / EDC16CP33_V74_DF028 / EDC16CP33_V28_DF028 / EDC16CP33_V62_DF028 / EDC16CP33_V26_DF028 / EDC16CP33_V60_DF028

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF028 CONTINUED 1	
------------------------------------	--

CO	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the injector no. 3 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 195).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity of the following connections:</p> <ul style="list-style-type: none"> • 3KY between components 120 and 195, • 3CT between components 120 and 195. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Measure the resistance between connections 3CT and 3KY of component 195.</p> <p>Replace injector no. 3 if its resistance is not between 150 kΩ < X < 210 kΩ.</p>
<p>If the fault is still present, contact the Techline.</p>

IMA*: Individual injector correction

CC	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the injector no. 3 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 195).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF028 CONTINUED 2

Check the **insulation** between the following two connections:

- **3KY** between components **120** and **195**,
- **3CT** between components **120** and **195**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Measure the **resistance** between connections **3CR** and **3KW** of component **193**.
Replace injector no. 3 if its resistance is not between **150 kΩ < X < 210 kΩ**.

If the fault is still present, contact the Techline.

1.DEF

NOTES

None.

Check the condition of the injector no. 3 connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 195**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check for **continuity** and **absence of interference resistance** of the following connections:

- **3KY** between components **120** and **195**,
- **3CT** between components **120** and **195**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Measure the **resistance** between connections **3CR** and **3KW** of component **193**.
Replace injector no. 3 if its resistance is not between **150 kΩ < X < 210 kΩ**.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF029 PRESENT OR STORED	<u>CYLINDER 4 INJECTOR CONTROL CIRCUIT</u> CO: Open circuit CC: Short circuit 1.DEF: Internal electronic fault
--	---

NOTES	Conditions for applying the fault finding procedure to stored faults: If the fault becomes present after: – the ignition is switched on. – starting the engine, – a road test.
	Special notes: If the fault is present: – the EOBD (European On Board Diagnostic) warning light is lit – the level 2 warning light is lit for CC and 1.DEF , – the level 1 warning light is lit for CO Use bornier Elé. 1681 for any operations on the engine management computer connectors. After replacing an injector, run commands SC002 Enter injector codes (the IMA* codes are read from left to right) and SC036 Reinitialise programming and follow the procedure.
	IMPORTANT: – cylinder no.1 is located at the timing end. – please observe the cleanliness guidelines and safety advice. – do not disconnect the injectors with the engine running as this may damage the engine
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF029 / EDC16CP33_V1C_DF029 / EDC16CP33_V54_DF029 / EDC16CP33_V20_DF029 / EDC16CP33_V58_DF029 /
EDC16CP33_V5C_DF029 / EDC16CP33_V24_DF029 / EDC16CP33_V04_DF029 / EDC16CP33_V08_DF029 / EDC16CP33_V44_DF029 /
EDC16CP33_V4C_DF029 / EDC16CP33_V34_DF029 / EDC16CP33_V38_DF029 / EDC16CP33_V74_DF029 / EDC16CP33_V28_DF029 /
EDC16CP33_V62_DF029 / EDC16CP33_V26_DF029 / EDC16CP33_V60_DF029

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF029 CONTINUED 1	
------------------------------------	--

CO	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the injector no. 4 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 196).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity of the following connections:</p> <ul style="list-style-type: none"> • 3KZ between components 120 and 196, • 3CU between components 120 and 196. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Measure the resistance between connections 3CU and 3KZ of component 196.</p> <p>Replace injector no. 4 if its resistance is not between 150 kΩ < X < 210 kΩ.</p>
<p>If the fault is still present, contact the Techline.</p>

IMA*: Individual injector correction

CC	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the injector no. 4 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 196).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF029 CONTINUED 2

Check the **insulation** between the following two connections:

- **3KZ** between components **120** and **196**,
- **3CU** between components **120** and **196**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Measure the **resistance** between connections **3CR** and **3KW** of component **193**.
Replace injector no. 4 if its resistance is not between **150 kΩ < X < 210 kΩ**.

If the fault is still present, contact the Techline.

1.DEF

NOTES

None.

Check the condition of the injector no. 4 connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 196**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check for **continuity** and **absence of interference resistance** of the following connections:

- **3KZ** between components **120** and **196**,
- **3CU** between components **120** and **196**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Measure the **resistance** between connections **3CR** and **3KW** of component **193**.
Replace injector no. 4 if its resistance is not between **150 kΩ < X < 210 kΩ**.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF032 PRESENT OR STORED	<u>THERMOPLUNGER 1 RELAY CONTROL CIRCUIT</u> CO: Open circuit CC.1: Short circuit to + 12 V CC.0: Short circuit to earth 1.DEF: Internal electronic fault
--	--

NOTES	Conditions for applying the fault finding procedure to stored faults: If the fault becomes present following an actuator command AC063 Thermoplunger no. 1 relay .
	Special notes: Use bornier Elé. 1681 for all operations on the connectors of the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	None.
-----------	--------------	-------

<p>Check the conformity of fuse: FM14 (70A) or FM3 (30A) (see MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2) Mechanical, 81C, Fuses, Fuses: List and location of components).</p> <p>Check the condition of the thermoplunger 1 relay mounting connector on the engine fuse box or additional heater interface unit (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1067 or 1550).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the conformity of the thermoplunger 1 relay (with the relay removed) or the additional heater interface unit:</p> <ul style="list-style-type: none"> – Insulation between connections BP9 and 3JB of component 1067 or 1550. – Measure the resistance between connections 3FB and 3JA of component 1067 or 1550. <p>Replace the relay if its resistance is greater than 1 kΩ or less than 6 Ω. Replace the unit if its resistance is greater than 2 kΩ (M9R721).</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF032 / EDC16CP33_V1C_DF032 / EDC16CP33_V54_DF032 / EDC16CP33_V20_DF032 / EDC16CP33_V58_DF032 / EDC16CP33_V5C_DF032 / EDC16CP33_V24_DF032 / EDC16CP33_V04_DF032 / EDC16CP33_V08_DF032 / EDC16CP33_V44_DF032 / EDC16CP33_V4C_DF032 / EDC16CP33_V34_DF032 / EDC16CP33_V38_DF032 / EDC16CP33_V74_DF032 / EDC16CP33_V28_DF032 / EDC16CP33_V62_DF032 / EDC16CP33_V26_DF032 / EDC16CP33_V60_DF032

DF032 CONTINUED 1	
------------------------------------	--

Check the **continuity** of the following connection:

- **3JA** between components **120** and **1067** or **1550**.

Check the **+ 12 V after relay supply** to the thermoplunger **1** relay mounting or the additional heater interface unit on the following connection:

- **3FB** of component **1067** or **1550**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

CC.1	NOTES	None.
-------------	--------------	-------

Check the conformity of fuse: **FM14 (70A)** or **FM3 (30A)** (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2)** **Mechanical**, **81C, Fuses, Fuses: List and location of components**).

Check the condition of the thermoplunger **1** relay mounting connector on the engine fuse box or additional heater interface unit (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1067** or **1550**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the thermoplunger **1** relay (with the relay removed) or the additional heater interface unit:

- **Insulation** between connections **BP9** and **3JB** of component **1067** or **1550**.
- Measure the **resistance** between connections **3FB** and **3JA** of component **1067** or **1550**.

Replace the relay if its resistance is greater than **1 kΩ** or less than **6 Ω**.

Replace the unit if its resistance is greater than **1 kΩ (M9R721)**.

Check the **insulation** in relation to **+ 12 V** of the following connection:

- **3JA** between components **120** and **1067** or **1550**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF032 CONTINUED 2	
------------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

Check the conformity of fuse: **FM14 (70A)** or **FM3 (30A)** (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2)** Mechanical, 81C, Fuses, Fuses: List and location of components).

Check the condition of the thermoplunger 1 relay mounting connector on the engine fuse box or additional heater interface unit (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1067 or 1550**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the thermoplunger 1 relay (with the relay removed) or the additional heater interface unit:

- **Insulation** between connections **BP9** and **3JB** of component **1067** or **1550**.
- Measure the **resistance** between connections **3FB** and **3JA** of component **1067** or **1550**.

Replace the relay if its resistance is greater than **1 kΩ** or less than **6 Ω**.

Replace the unit if its resistance is less than **450 Ω (M9R721)**.

Check the **insulation to earth** of the following connection:

- **3JA** between components **120** and **1067**.

Check the **+ 12 V after relay supply** to the thermoplunger 1 relay mounting on the following connection:

- **3FB** of component **1067**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF032 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	Special notes: This fault occurs if the computer control section overheats or when command AC063 Thermoplunger no. 1 relay is run.
--------------	--------------	---

<p>Check the conformity of fuse: FM14 (70A) or FM3 (30A) (see MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2) Mechanical, 81C, Fuses, Fuses: List and location of components).</p> <p>Check the condition of the thermoplunger 1 relay mounting connector on the engine fuse box or additional heater interface unit (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1067 or 1550).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the conformity of the thermoplunger 1 relay (with the relay removed) or the additional heater interface unit:</p> <ul style="list-style-type: none"> – Insulation between connections BP9 and 3JB of component 1067 or 1550. – Measure the resistance between connections 3FB and 3JA of component 1067 or 1550. <p>Replace the relay if its resistance is greater than 1 kΩ or less than 6Ω.</p> <p>Replace the unit if its resistance is less than 450 Ω (M9R721).</p>
<p>Check the absence of interference resistance of the following connection:</p> <ul style="list-style-type: none"> • 3JA between components 120 and 1067 or 1550. <p>Check the + 12 V after relay feed of the thermoplunger 1 relay mounting on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 1067 or 1550. <p>Check the + 12 V after fuse battery supply to the thermoplunger 1 relay mounting on the following connection:</p> <ul style="list-style-type: none"> • BP9 of component 1067 or 1550. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF033 PRESENT OR STORED	<u>THERMOPLUNGER 2 RELAY CONTROL CIRCUIT</u> CO: Open circuit CC.1: Short circuit to + 12 V CC.0: Short circuit to earth 1.DEF: Internal electronic fault
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: actuator command AC064 Thermoplunger no. 2 relay .
	Special notes: Use bornier Elé. 1681 for all operations on the engine management computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	None.
-----------	--------------	-------

<p>Check the conformity of fuse: FM13 (70A) or FM3 (30A) (see MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2) Mechanical, 81C, Fuses, Fuses: List and location of components).</p> <p>Check the condition of the thermoplunger 2 relay mounting connector on the engine fuse box or additional heater interface unit (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1068 or 1550).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the conformity of the "thermoplunger 2" relay (relay removed):</p> <ul style="list-style-type: none"> – Insulation between connections BP91 and 3JAD or 3JD and 3JAC of component 1068 or 1550. – Measure the resistance between connections 3FB and 3JAA of component 1068 or 1550. <p>Replace the relay if its resistance is greater than 1 kΩ or less than 6 Ω. Replace the unit if the resistance is less than 2kΩ (M9R721).</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF033 / EDC16CP33_V1C_DF033 / EDC16CP33_V54_DF033 / EDC16CP33_V20_DF033 / EDC16CP33_V58_DF033 / EDC16CP33_V5C_DF033 / EDC16CP33_V24_DF033 / EDC16CP33_V04_DF033 / EDC16CP33_V08_DF033 / EDC16CP33_V44_DF033 / EDC16CP33_V4C_DF033 / EDC16CP33_V34_DF033 / EDC16CP33_V38_DF033 / EDC16CP33_V74_DF033 / EDC16CP33_V28_DF033 / EDC16CP33_V62_DF033 / EDC16CP33_V26_DF033 / EDC16CP33_V60_DF033

DF033 CONTINUED 1

Check the **continuity** of the following connection:

- **3JAA** between components **120** and **1068** or **1550**.

Check the **+ 12 V after relay feed** of the thermoplunger **2** relay mounting on the following connection:

- **3FB** of component **1068** or **1550**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

CC.1

NOTES

None.

Check the conformity of fuse: **FM13 (70A)** or **FM3 (30A)** (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2)** Mechanical, 81C, Fuses, Fuses: List and location of components).

Check the condition of the thermoplunger **2** relay mounting connector on the engine fuse box or additional heater interface unit (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1068** or **1550**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the "thermoplunger **2**" relay (relay removed):

- **Insulation** between connections **BP91** and **3JAD** or **3JD** and **3JAC** of component **1068** or **1550**.
- Measure the **resistance** between connections **3FB** and **3JAA** of component **1068** or **1550**.

Replace the relay if its resistance is greater than **1 kΩ** or less than **6 Ω**.

Replace the unit if its resistance is less than **1 kΩ (M9R721)**.

Check the **insulation** in relation to **+12 V** of the following connection:

- **3JAA** between components **120** and **1068** or **1550**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF033 CONTINUED 2	
------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

Check the conformity of fuse: **FM13 (70A)** or **FM3 (30A)** (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2)** Mechanical, 81C, Fuses, Fuses: List and location of components).

Check the condition of the thermoplunger 2 relay mounting connector on the engine fuse box or additional heater interface unit (see **Wiring Diagram Technical Note**, **Laguna II ph2**, **Vel Satis ph2**, **Espace IV ph2**, **Mégane II ph2**, **Scénic II ph2**, component code 1068 or 1550).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note**, **Laguna II ph2**, **Vel Satis ph2**, **Espace IV ph2**, **Mégane II ph2**, **Scénic II ph2**, component code 120).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A**, **Repairing electrical wiring**, **Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the "thermoplunger 2" relay (relay removed):

- **Insulation** between connections **BP91** and **3JAD** or **3JD** and **3JAC** of component **1068** or **1550**.
- Measure the **resistance** between connections **3FB** and **3JAA** of component **1068** or **1550**.

Replace the relay if its resistance is greater than **1 kΩ** or less than **6 Ω**.

Replace the unit if the resistance is less than **450 Ω (M9R721)**.

Check the **insulation** to **earth** of the following connection:

- **3JAA** between components **120** and **1068** or **1550**.

Check the **+ 12 V after relay feed** of the thermoplunger 2 relay mounting on the following connection:

- **3FB** of component **1068** or **1550**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A**, **Electrical wiring repair**, **Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF033 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	Special notes: This fault appears when the computer control section has overheated.
--------------	--------------	---

<p>Check the conformity of fuse: FM13 (70A) or FM3 (30A) (see MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2) Mechanical, 81C, Fuses, Fuses: List and location of components).</p> <p>Check the condition of the thermoplunger 2 relay mounting connector on the engine fuse box or additional heater interface unit (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1068 or 1550).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the conformity of the "thermoplunger 2" relay (relay removed):</p> <ul style="list-style-type: none"> – Insulation between connections BP91 and 3JAD or 3JD and 3JAC of component 1068 or 1550. – Measure the resistance between connections 3FB and 3JAA of component 1068 or 1550. <p>Replace the relay if the resistance is greater than 200 Ω or less than 20 Ω.</p>
<p>Check the absence of interference resistance of the following connection:</p> <ul style="list-style-type: none"> • 3JAA between components 120 and 1068 or 1550. <p>Also check the insulation on the following connections:</p> <p>Check the + 12 V after relay supply to the thermoplunger 2 relay mounting on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 1068 or 1550. <p>Check the + 12 V after fuse battery supply to the thermoplunger 2 relay mounting on the following connection:</p> <ul style="list-style-type: none"> • BP91 of component 1068 or 1550. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF034 PRESENT OR STORED	<u>THERMOPLUNGER 3 RELAY CONTROL CIRCUIT</u> CO: Open circuit CC.1: Short circuit to + 12 V CC.0: Short circuit to earth 1.DEF: Internal electronic fault
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: – actuator command AC031 Thermoplunger no. 3 relay .
	Special notes: Use bornier Elé. 1681 for all operations on the engine management computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	None.
-----------	--------------	-------

<p>Check the conformity of fuse: FM13 (70A) or FM14 (70A) or FM3 (30A) (see MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2) Mechanical, 81C, Fuses, Fuses: List and location of components).</p> <p>Check the condition of the thermoplunger 2 relay mounting connector on the engine fuse box or additional heater interface unit (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1069 or 1550).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the conformity of the thermoplunger 3 relay (relay removed):</p> <ul style="list-style-type: none"> – Insulation between components BP9 and 3JAC or 3JC of component 1069 or 1550. – Measure the resistance between connections 3FB and 3JAB of component 1069 or 1550. <p>Replace the relay if its resistance is greater than 1 kΩ or less than 6 Ω.</p> <p>Replace the unit if the resistance is less than 2kΩ (M9R721).</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF034 CONTINUED 1

Check the **continuity** of the following connection:

- **3JAB** between components **120** and **1069** or **1550**.

Check the **+ 12 V after relay supply** to the thermoplunger **3** relay mounting on the following connection:

- **3FB** of component **1069** or **1550**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

CC.1

NOTES

None.

Check the conformity of fuse: **FM13 (70A)** or **FM14 (70A)** or **FM3 (30A)** (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2) Mechanical**, **81C, Fuses, Fuses: List and location of components**).

Check the condition of the thermoplunger **3** relay mounting connector on the engine fuse box or additional heater interface unit (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1069** or **1550**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the thermoplunger **3** relay (relay removed):

- **Insulation** between components **BP9** and **3JAC** or **3JC** of component **1069** or **1550**.
- Measure the **resistance** between connections **3FB** and **3JAB** of component **1069** or **1550**.

Replace the relay if the resistance is greater than **1 kΩ** or less than **6 Ω**.

Replace the unit if the resistance is less than **1 kΩ (M9R721)**.

Check the **insulation** in relation to **+12 V** of the following connection:

- **3JAB** between components **120** and **1069** or **1550**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF034 CONTINUED 2	
------------------------------------	--

CC.0	<i>NOTES</i>	None.
------	--------------	-------

Check the conformity of fuse: **FM13 (70A)** or **FM14 (70A)** or **FM3 (30A)** (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2)** Mechanical, 81C, Fuses, **Fuses: List and location of components**).

Check the condition of the thermoplunger **3** relay mounting connector on the engine fuse box or additional heater interface unit (see **Wiring Diagram Technical Note**, **Laguna II ph2**, **Vel Satis ph2**, **Espace IV ph2**, **Mégane II ph2**, **Scénic II ph2**, **component code 1069 or 1550**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note**, **Laguna II ph2**, **Vel Satis ph2**, **Espace IV ph2**, **Mégane II ph2**, **Scénic II ph2**, **component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A**, **Electrical wiring repair**, **Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the thermoplunger **3** relay (relay removed):

- **Insulation** between components **BP9** and **3JAC** or **3JC** of component **1069** or **1550**.
- Measure the **resistance** between connections **3FB** and **3JAB** of component **1069** or **1550**.

Replace the relay if its resistance is greater than **1 kΩ** or less than **6 Ω**.

Replace the unit if the resistance is less than **450 Ω (M9R721)**.

Check the **insulation** to **earth** of the following connection:

- **3JAB** between components **120** and **1069** or **1550**.

Check the **+ 12 V after relay supply** to the thermoplunger **3** relay mounting on the following connection:

- **3FB** of component **1069** or **1550**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A**, **Electrical wiring repair**, **Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF034 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	Special notes: This fault appears when the computer control section has overheated.
--------------	--------------	---

Check the conformity of fuse: **FM13 (70A)** or **FM14 (70A)** or **FM3 (30A)** (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2)** **Mechanical**, **81C**, **Fuses**, **Fuses: List and location of components**).

Check the condition of the thermoplunger **3** relay mounting connector on the engine fuse box or additional heater interface unit (see **Wiring Diagram Technical Note**, **Laguna II ph2**, **Vel Satis ph2**, **Espace IV ph2**, **Mégane II ph2**, **Scénic II ph2**, **component code 1069 or 1550**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note**, **Laguna II ph2**, **Vel Satis ph2**, **Espace IV ph2**, **Mégane II ph2**, **Scénic II ph2**, **component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A**, **Repairing electrical wiring**, **Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the thermoplunger **3** relay (relay removed):

- **Insulation** between components **BP9** and **3JAC** or **3JC** of component **1069 or 1550**.
 - Measure the **resistance** between connections **3FB** and **3JAB** of component **1069 or 1550**.
- Replace the relay if the resistance is greater than **1 kΩ** or less than **6 Ω**.

Check **the absence of interference resistance** of the following connection:

- **3JAB** between components **120** and **1069 or 1550**.

Also check the **insulation** on the following connections:

Check the **+ 12 V after relay feed** to the "thermoplunger **3**" relay mounting on the following connection:

- **3FB** of component **1069 or 1550**.

Check the **+ 12 V after fuse battery supply** to the thermoplunger **3** relay mounting on the following connection:

- **BP9** of component **1069 or 1550**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A**, **Electrical wiring repair**, **Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF038 PRESENT OR STORED	<u>COMPUTER</u> 1.DEF: Internal electronic fault 2.DEF: Data inconsistency 3.DEF: Computer feed voltage
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: <ul style="list-style-type: none"> – starting the engine, – a road test.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – depending on the situation, the level 1 or 2 warning light is lit for 1.DEF, – the level 1 warning light is lit for 2.DEF, – the level 2 warning light is lit for 3.DEF, – engine torque limited, – the engine stops.

1.DEF	NOTES	None.
--------------	--------------	-------

<p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the fault is stored, clear the fault from the computer memory.</p> <p>Switch off the ignition, wait for the diagnostic tool message (maximum wait 8 minutes): Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply then switch the ignition back on.</p> <p>Start the engine and re-establish dialogue.</p> <p>If the fault is still present, contact the Techline.</p>
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF038 / EDC16CP33_V1C_DF038 / EDC16CP33_V54_DF038 / EDC16CP33_V20_DF038 / EDC16CP33_V58_DF038 / EDC16CP33_V5C_DF038 / EDC16CP33_V24_DF038 / EDC16CP33_V04_DF038 / EDC16CP33_V08_DF038 / EDC16CP33_V44_DF038 / EDC16CP33_V4C_DF038 / EDC16CP33_V34_DF038 / EDC16CP33_V38_DF038 / EDC16CP33_V74_DF038 / EDC16CP33_V28_DF038 / EDC16CP33_V62_DF038 / EDC16CP33_V26_DF038 / EDC16CP33_V60_DF038

DF038 CONTINUED	
----------------------------	--

2.DEF	NOTES	None.
--------------	--------------	-------

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the fault is still present contact Techline.

3.DEF	NOTES	Priorities when dealing with a number of faults: Deal with faults DF047 Computer supply voltage or DF046 Battery voltage first if they are present or stored.
--------------	--------------	--

If either of faults **DF047 Computer supply voltage** or **DF046 Battery voltage** is **present** or **stored**, clear the fault after dealing with **DF046** or **DF047**.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF046 PRESENT OR STORED	BATTERY VOLTAGE 1.DEF: Above maximum threshold 2.DEF: Below minimum threshold 3.DEF: Initialisation not done.
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – starting the engine, – a road test.
	Special notes: Computer operating voltage: 6 V < operating voltage < 16.5 V . It is then not possible to start the engine. Use bornier Elé. 1681 for any operations on the injection computer connectors.
	Use the Wiring Diagram Technical Note , Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

1.DEF	NOTES	None.
--------------	--------------	-------

Check the charging circuit; apply **Technical Note 6014A Checking the charging circuit**.
Carry out the necessary repairs.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF046 / EDC16CP33_V1C_DF046 / EDC16CP33_V54_DF046 / EDC16CP33_V20_DF046 / EDC16CP33_V58_DF046 /
EDC16CP33_V5C_DF046 / EDC16CP33_V24_DF046 / EDC16CP33_V04_DF046 / EDC16CP33_V08_DF046 / EDC16CP33_V44_DF046 /
EDC16CP33_V4C_DF046 / EDC16CP33_V34_DF046 / EDC16CP33_V38_DF046 / EDC16CP33_V74_DF046 / EDC16CP33_V28_DF046 /
EDC16CP33_V62_DF046 / EDC16CP33_V26_DF046 / EDC16CP33_V60_DF046

DF046 CONTINUED	
----------------------------	--

2.DEF	NOTES	None.
--------------	--------------	-------

Using a voltmeter, take a reading of the battery **voltage** at its terminals.
Compare this value with the value displayed by the **diagnostic tool PR074 Battery voltage**.

If there is no difference (less than **1 V**):

- Recharge and test the battery. If it is faulty, replace it.
- Check the charging circuit: **Technical Note 6014A Checking the charging circuit**.

If there is a difference (greater than **1 V**):

- Check the tightness and the condition of the battery terminals.

Using the appropriate wiring diagram:

- Check **the continuity** and **absence of interference resistance** on the following connection:

- **3FB** between components **120** and **983** or **1337**.

Check the conformity of the **earths** on connections **NT** of component **120**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

3.DEF	NOTES	Only deal with this fault when it is present .
--------------	--------------	---

Switch off the ignition, wait for the **diagnostic tool** message (maximum wait **8 min**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage** then switch on the ignition again and check whether the fault is still **present**.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF047 PRESENT OR STORED	COMPUTER SUPPLY VOLTAGE 1.DEF: Voltage outside permitted range of values
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – starting the engine, – a road test.
	Special notes: Use bornier Elé.1681 for any operations on the injection computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

<p>Check the tightness and the condition of the battery terminals.</p> <p>Using the appropriate wiring diagram: – Check the continuity and absence of interference resistance on the following connection:</p> <ul style="list-style-type: none"> • 3FB between components 120 and 983 or 1337. <p>Check the conformity of the earths on connections NT of component 120.</p> <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF047 / EDC16CP33_V1C_DF047 / EDC16CP33_V54_DF047 / EDC16CP33_V20_DF047 / EDC16CP33_V58_DF047 / EDC16CP33_V5C_DF047 / EDC16CP33_V24_DF047 / EDC16CP33_V04_DF047 / EDC16CP33_V08_DF047 / EDC16CP33_V44_DF047 / EDC16CP33_V4C_DF047 / EDC16CP33_V34_DF047 / EDC16CP33_V38_DF047 / EDC16CP33_V74_DF047 / EDC16CP33_V28_DF047 / EDC16CP33_V62_DF047 / EDC16CP33_V26_DF047 / EDC16CP33_V60_DF047

DF051 STORED	<u>CRUISE CONTROL/SPEED LIMITER</u> 1.DEF: Cruise control/speed limiter steering wheel control
-------------------------	--

NOTES	Priority when dealing with a number of faults: – DF196 Pedal sensor circuit gang 1 – DF198 Pedal sensor circuit gang 2.
	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – a road test with activation of the cruise control/speed limiter function, – the engine is started.
	Special notes: If the fault is present : – the cruise control/speed limiter function is switched off. Use bornier Elé. 1681 for any operations on the injection computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

If the wiring of the particle filter downstream temperature sensor, component code **1288**, is present (with or without the sensor being present), check the electrical insulation in relation to **+ 12 V** between the following connections:

- **3XU** between components **120** and **1288**,
- **3TG** between components **120** and **1288**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF051M / EDC16CP33_V1C_DF051M / EDC16CP33_V54_DF051M / EDC16CP33_V20_DF051M /
EDC16CP33_V58_DF051M / EDC16CP33_V5C_DF051M / EDC16CP33_V24_DF051M / EDC16CP33_V04_DF051M /
EDC16CP33_V08_DF051M / EDC16CP33_V44_DF051M / EDC16CP33_V4C_DF051M / EDC16CP33_V34_DF051M /
EDC16CP33_V38_DF051M / EDC16CP33_V74_DF051M / EDC16CP33_V28_DF051M / EDC16CP33_V62_DF051M /
EDC16CP33_V26_DF051M / EDC16CP33_V60_DF051M

DF051 CONTINUED	
----------------------------------	--

Check the conformity of the steering wheel controls as follows: disconnect connector **689** under the centre cover of the steering wheel (ohmmeter connected on the steering wheel control side). The measurement should read:

- **890 Ω < X < 910 Ω** when the **Resume** button is pressed.
(or the one-touch switch **R** on the right-hand side of the steering wheel)
 - **0 Ω < X < 0.8 Ω** when the **Suspend** button is pressed.
(or the one-touch switch **O** on the right-hand side of the steering wheel)
 - **290 Ω < X < 310 Ω** when the **Set +** button is pressed.
(or the one-touch switch on the left of the steering wheel)
 - **90 Ω < X < 110 Ω** when the **Set -** button is pressed.
(or the one-touch switch on the left of the steering wheel)
 - **Infinite resistance** in rest position.
- If the values are not correct, replace the controls on the steering wheel.
 - If the values are correct, take the same measurements on connections **86G** and **86M** from component **120** (**steering wheel control connector connected**).

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the values are correct, clear the fault, switch off the ignition, wait for the **diagnostic tool** message (maximum wait **8 min**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage** and switch on the ignition again.

If the fault is still present (after pressing the steering wheel controls), contact the Techline.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF052 PRESENT OR STORED	<u>INJECTORS CONTROL CIRCUIT</u> CC.0: Short circuit to earth CC.1: Short circuit to + 12 volts CC: Short circuit
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: <ul style="list-style-type: none"> – the ignition is switched on. – starting the engine, – a road test.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – the level 2 warning light is lit, – the engine stops. Use bornier Elé. 1681 for all operations on the engine management computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .
	IMPORTANT: <ul style="list-style-type: none"> – cylinder no.1 is located at the timing end. – do not disconnect the injectors when the engine is running. – please observe the cleanliness guidelines and safety advice.

CC.0	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the injectors (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component codes 193, 194, 195, 196).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF052 CONTINUED 1

Check the **continuity** and **insulation** to **earth** of the following connections:

- **3KW** between components **120** and **193**,
- **3CR** between components **120** and **193**,
- **3KX** between components **120** and **194**,
- **3CS** between components **120** and **194**,
- **3KY** between components **120** and **195**,
- **3CT** between components **120** and **195**,
- **3KZ** between components **120** and **196**,
- **3CU** between components **120** and **196**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

CC.1

NOTES

None.

Check the condition of the injectors (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component codes 193, 194, 195, 196**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity** and **insulation** from **+ 12 V** of the following connections:

- **3KW** between components **120** and **193**,
- **3CR** between components **120** and **193**,
- **3KX** between components **120** and **194**,
- **3CS** between components **120** and **194**,
- **3KY** between components **120** and **195**,
- **3CT** between components **120** and **195**,

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF052 CONTINUED 2	
------------------------------------	--

- **3KZ** between components **120** and **196**,
- **3CU** between components **120** and **196**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

CC	NOTES	None.
-----------	--------------	-------

Check the condition of the injectors (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component codes 193, 194, 195, 196**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity** and **insulation** of the following connections:

- **3KW** between components **120** and **193**,
- **3CR** between components **120** and **193**,

3KX between components **120** and **194**,
3CS between components **120** and **194**,

- **3KY** between components **120** and **195**,
- **3CT** between components **120** and **195**,

- **3KZ** between components **120** and **196**,
- **3CU** between components **120** and **196**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF054 PRESENT OR STORED	<u>TURBOCHARGING SOLENOID VALVE CONTROL CIRCUIT</u> CO: open circuit CC.1: short-circuit to + 12 V CC.0: Short circuit to earth 1.DEF: Internal electronic fault
--	---

NOTES	Priorities when dealing with a number of faults: – DF046 Battery voltage.
	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: <ul style="list-style-type: none"> – the ignition is switched on. – starting the engine, – a road test, – actuator command AC004 Turbocharging solenoid valve.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – turbocharging is no longer authorised, – the EGR function is inhibited, – the level 1 and EOBD (European On Board Diagnostic) warning lights are lit. Use bornier Elé.1681 for any work on the injection computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	None.
-----------	--------------	-------

Check the condition of the turbocharging solenoid valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1475). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF054 CONTINUED 1

Measure the **resistance** between connections **3FB** and **3MG** of component **1475**.
Replace the turbocharging solenoid valve if the resistance measured is greater than **1 kΩ** or less than **6 Ω**.

Check the **continuity** of the following connection:

- **3MG** between components **120** and **1475**.

Check the **+ 12 V after relay supply** of the turbocharging solenoid valve on the following connection:

- **3FB** of component **1475**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the turbocharging solenoid valve.

CC.1

NOTES

None.

Check the condition of the turbocharging solenoid valve connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1475**).
Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3FB** and **3MG** of component **1475**.
Replace the turbocharging solenoid valve if the resistance measured is greater than **1 kΩ** or less than **6 Ω**.

Check the **insulation** in relation to **+12 V** of the following connection:

- **3MG** between components **120** and **1475**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the turbocharging solenoid valve.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF054 CONTINUED 2	
------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the turbocharging solenoid valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1475).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3FB and 3MG of component 1475.</p> <p>Replace the turbocharging solenoid valve if the resistance measured is greater than 1 kΩ or less than 6 Ω</p>
<p>Check the insulation to earth of the following connection:</p> <ul style="list-style-type: none"> • 3MG between components 120 and 1475. <p>Check the + 12 V after relay supply of the turbocharging solenoid valve on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 1475. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, replace the turbocharging solenoid valve.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF054 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	Special notes: This fault appears when the computer control section overheats or when command AC004 "Turbocharging solenoid valve" is run.
--------------	--------------	---

<p>Check the condition of the turbocharging solenoid valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1475).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3FB and 3MG of component 1475.</p> <p>Replace the turbocharging solenoid valve if the resistance measured is greater than 1 kΩ or less than 6 Ω</p>
<p>Check the continuity and absence of interference resistance on the following connection:</p> <ul style="list-style-type: none"> • 3MG between components 120 and 1475. <p>Check the + 12 V after relay supply of the turbocharging solenoid valve on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 1475. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is stored, clear the fault and run command AC004.</p> <p>If, when command AC004, DF054 Turbocharging solenoid valve control circuit 1.DEF is present or stored, contact the Techline.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

<p>DF056 PRESENT OR STORED</p>	<p><u>AIR FLOW SENSOR CIRCUIT</u> CO.0: Open circuit or short circuit to earth CC.1: Short circuit + 12 volts 1.DEF: Consistent after switching off the ignition</p>
--	---

<p>NOTES</p>	<p>Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – the ignition is switched on. – starting the engine, – a road test, – the ignition is switched off: 1.DEF.</p>
	<p>Priorities when dealing with a number of faults: – DF013 Sensor supply voltage no. 3, 1.DEF</p>
	<p>Special notes: If the fault is present: – the EOBD (European On Board Diagnostic) warning light is lit, – the level 1 warning light is lit and turbocharging is no longer authorised for CO.0 and CC.1, – the level 1 warning light is lit for 1.DEF (for Vdiag 20, 24, 58 and 5C), – the EGR function is inhibited by the engine management computer, – engine torque limited, – safe value PR132 Air flow = 90 kg/h at idle speed, – particle filter regeneration is inhibited. Use bornier Elé. 1681 for all operations on the engine management computer connectors.</p>
	<p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

<p>AFTER REPAIR</p>	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
----------------------------	---

EDC16CP33_V18_DF056 / EDC16CP33_V1C_DF056 / EDC16CP33_V54_DF056 / EDC16CP33_V20_DF056 / EDC16CP33_V58_DF056 / EDC16CP33_V5C_DF056 / EDC16CP33_V24_DF056 / EDC16CP33_V04_DF056 / EDC16CP33_V08_DF056 / EDC16CP33_V44_DF056 / EDC16CP33_V4C_DF056 / EDC16CP33_V34_DF056 / EDC16CP33_V38_DF056 / EDC16CP33_V74_DF056 / EDC16CP33_V28_DF056 / EDC16CP33_V62_DF056 / EDC16CP33_V26_DF056 / EDC16CP33_V60_DF056

DF056 CONTINUED 1	
------------------------------------	--

CO.0	NOTES	<p>In the event of the simultaneous presence of fault DF002 Air temperature sensor circuit, check that the air flow sensor connector is connected correctly.</p>
-------------	--------------	---

<p>Check the condition of the air flowmeter connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 799).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity and insulation to earth of the following connections:</p> <ul style="list-style-type: none"> • 3DV between components 120 and 799, • 3KJ between components 120 and 799, • 3DW between components 120 and 799. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Check the + 5 V feed to the air flowmeter.</p> <ul style="list-style-type: none"> • 3KJ of component 799. <p>Check the +12 V after relay feed to the air flowmeter.</p> <ul style="list-style-type: none"> • 3FB of component 799. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>Run Test 5 Air flowmeter.</p> <p>With the flowmeter connected, the vehicle ignition on and engine stopped:</p> <p>Measure the voltage between connections 3DW and 3DV of component 799.</p> <p>Replace the air flowmeter if the voltage is not between 0.3 V < X < 0.7 V.</p>
<p>If the fault is still present, replace the air flowmeter.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF056 CONTINUED 2	
------------------------------------	--

CC.1	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the air flowmeter connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 799).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the insulation in relation to + 12 V of the following connections:</p> <ul style="list-style-type: none"> • 3DV between components 120 and 799, • 3KJ between components 120 and 799, • 3DW between components 120 and 799. <p>Check the + 5 V supply of the air flowmeter on the following connection:</p> <ul style="list-style-type: none"> • 3KJ of component 799. <p>Check the + 12 V after relay supply of the air flowmeter on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 799. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>With the flowmeter connected, the vehicle ignition on and engine stopped:</p> <p>Measure the voltage between connections 3DW and 3DV of component 799.</p> <p>Replace the air flowmeter if the voltage is not between 0.3 V < X < 0.7 V.</p>
<p>If the fault is still present, replace the air flowmeter.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF056 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	None.
-------	--------------	-------

<p>Check the condition of the air flowmeter connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 799).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check for continuity and absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • 3DV between components 120 and 799, • 3KJ between components 120 and 799, • 3DW between components 120 and 799. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Check the condition of the flowmeter: no visible damage to the sensing element of the flowmeter.</p>
<p>Use the Monitool application: MT001 Turbocharging function to check the entire air line (for Vdiag 04 and 44).</p>
<p>If the fault is still present, replace the air flowmeter.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF059 PRESENT OR STORED	<u>COMBUSTION MISFIRES ON CYLINDER 1</u>
--	---

NOTES	<p>Conditions for applying the fault finding procedure to a stored fault: The fault reappears after:</p> <ul style="list-style-type: none"> – engine speed PR055 Engine speed between idle speed and 1050 rpm, – a coolant temperature PR064 Coolant temperature $\geq 20^{\circ}\text{C}$.
	<p>Priorities when dealing with a number of faults:</p> <ul style="list-style-type: none"> – DF026 Cylinder 1 injector control circuit – DF052 Injector control circuit.
	<p>Special notes: After an injector has been replaced, run commands SC002 Enter injector codes and SC036 Reinitialise programming and follow the procedure.</p>
	<p>IMPORTANT: Cylinder no. 1 is located at the timing end. Do not disconnect the injectors when the engine is running. When removing and refitting an injector, respect the cleanliness guidelines and safety advice (see MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2), Mechanical, 13B Diesel injection, Diesel injectors: Removal - Refitting).</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

EDC16CP33_V18_DF059 / EDC16CP33_V1C_DF059 / EDC16CP33_V54_DF059 / EDC16CP33_V20_DF059 / EDC16CP33_V58_DF059 /
EDC16CP33_V5C_DF059 / EDC16CP33_V24_DF059 / EDC16CP33_V04_DF059 / EDC16CP33_V08_DF059 / EDC16CP33_V44_DF059 /
EDC16CP33_V4C_DF059 / EDC16CP33_V34_DF059 / EDC16CP33_V38_DF059 / EDC16CP33_V74_DF059 / EDC16CP33_V28_DF059 /
EDC16CP33_V62_DF059 / EDC16CP33_V26_DF059 / EDC16CP33_V60_DF059

DF059 CONTINUED	
----------------------------------	--

DF059 appears on the **diagnostic tool** when the engine management computer has detected a fault during the combustion phase several times in succession.

Several components may be responsible:

- the piston rings,
- the piston,
- the valves,
- the injector,
- the heater plug sealing.

Check that the stored injector codes are consistent with those engraved on each injector. If not, run command **SC002 Enter injector codes** and follow the procedure. The **IMA*** codes must be read from left to right:

Check the engine compressions: use a compression gauge, **M9R** hose end piece, part no. **Mot. 1772** and apply command **VP036 Fuel supply inhibition** (see **Interpretation of commands**).

If the fault is **stored**, start the engine and leave it running at idle speed for more than 1 minute with a temperature **PR064 Coolant temperature > 30°C**.

If the fault becomes **present**, remove the injector concerned in accordance with the methods and the safety instructions provided (see **MR 402 (Vel Satis ph2)**, **MR 395 (Laguna II ph2)**, **MR 364 (Mégane II ph2)**, **MR 370 (Scénic II ph2)** or **MR 405 (Espace IV ph2) Mechanical**, 13B, Diesel injection, Diesel injectors: Removal - Refitting).

If no injector fitting fault is observed (in particular injector thrust washer):

- replace the injector concerned,
- modify the **IMA* code** of the injector using command **SC002 Enter injector codes** (the **IMA codes** are read from left to right),
- Use command **SC036 Reinitialise programming**, select **Injector**, select **YES** only for the injector replaced and follow the procedure.

If the fitting of the injector is not correct, refit the injector in accordance with the fitting instructions specified in the mechanical MR, taking care to fit a new washer.

Clear the fault and carry out a road test.

Check that the fault is not **present** again.

If the fault is still present, contact the Techline.

IMA*: Individual injector correction

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF060 PRESENT OR STORED	<u>MISFIRING ON CYLINDER 2</u>
--	--------------------------------

NOTES	<p>Conditions for applying the fault finding procedure to a stored fault: The fault reappears after:</p> <ul style="list-style-type: none"> – engine speed PR055 Engine speed between idle speed and 1050 rpm, – a coolant temperature PR064 Coolant temperature $\geq 20^{\circ}\text{C}$.
	<p>Priorities when dealing with a number of faults:</p> <ul style="list-style-type: none"> – DF027 Cylinder 2 injector control circuit – DF052 Injector control circuit.
	<p>Special notes: After an injector has been replaced, run commands SC002 Enter injector codes and SC036 Reinitialise programming and follow the procedure.</p>
	<p>IMPORTANT: Cylinder no. 1 is located at the timing end. Do not disconnect the injectors when the engine is running. When removing and refitting an injector, respect the cleanliness guidelines and safety advice (see MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2), Mechanical, 13B, Diesel injection, Diesel injectors: Removal - Refitting).</p>

<p>DF060 appears on the diagnostic tool when the engine management computer has detected a fault during the combustion phase several times in succession. Several components may be responsible:</p> <ul style="list-style-type: none"> – the piston rings, – the piston, – the valves, – the injector, – the heater plug sealing.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

EDC16CP33_V18_DF060 / EDC16CP33_V1C_DF060 / EDC16CP33_V54_DF060 / EDC16CP33_V20_DF060 / EDC16CP33_V58_DF060 / EDC16CP33_V5C_DF060 / EDC16CP33_V24_DF060 / EDC16CP33_V04_DF060 / EDC16CP33_V08_DF060 / EDC16CP33_V44_DF060 / EDC16CP33_V4C_DF060 / EDC16CP33_V34_DF060 / EDC16CP33_V38_DF060 / EDC16CP33_V74_DF060 / EDC16CP33_V28_DF060 / EDC16CP33_V62_DF060 / EDC16CP33_V26_DF060 / EDC16CP33_V60_DF060

DF060 CONTINUED	
----------------------------------	--

<p>Check that the stored injector codes are consistent with those engraved on each injector. If not, run command SC002 Enter injector codes and follow the procedure. The IMA* codes must be read from left to right:</p>
<p>Check the engine compressions: use a compression gauge, M9R hose end piece, part no. Mot. 1772 and apply command VP036 Fuel supply inhibition (see Interpretation of commands).</p>
<p>If the fault is stored, start the engine and leave it running at idle speed for more than 1 minute with a temperature PR064 Coolant temperature > 30°C.</p> <p>If the fault becomes present, remove the injector concerned in accordance with the methods and the safety instructions provided (see MR 402 (Vel Satis ph2), MR 395 (Laguna II ph2), MR 364 (Mégane II ph2), MR 370 (Scénic II ph2) or MR 405 (Espace IV ph2) Mechanical, 13B, Diesel injection, Diesel injectors: Removal - Refitting).</p> <p>If no injector fitting fault is observed (in particular injector thrust washer):</p> <ul style="list-style-type: none"> – replace the injector concerned, – modify the IMA* code of the injector using command SC002 Enter injector codes (the IMA codes are read from left to right), – Use command SC036 Reinitialise programming, select Injector, select YES only for the injector replaced and follow the procedure. <p>If the fitting of the injector is not correct, refit the injector in accordance with the fitting instructions specified in the mechanical MR, taking care to fit a new washer.</p> <p>Clear the fault and carry out a road test. Check that the fault is not present again.</p>
<p>If the fault is still present, contact the Techline.</p>

IMA*: Individual injector correction

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

DF061 PRESENT OR STORED	<u>MISFIRING ON CYLINDER 3</u>
--	--------------------------------

NOTES	<p>Conditions for applying the fault finding procedure to a stored fault: The fault reappears after:</p> <ul style="list-style-type: none"> – engine speed PR055 Engine speed between idle speed and 1050 rpm, – a coolant temperature PR064 Coolant temperature $\geq 20^{\circ}\text{C}$.
	<p>Priorities when dealing with a number of faults:</p> <ul style="list-style-type: none"> – DF028 Cylinder 3 injector control circuit – DF052 Injector control circuit.
	<p>Special notes: After an injector has been replaced, run commands SC002 Enter injector codes and SC036 Reinitialise programming and follow the procedure.</p>
	<p>IMPORTANT: Cylinder no. 1 is located at the timing end. Do not disconnect the injectors when the engine is running. When removing and refitting an injector, respect the cleanliness guidelines and safety advice (see MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2), Mechanical, 13B Diesel injection, Diesel injectors: Removal - Refitting).</p>

<p>DF061 appears on the diagnostic tool when the engine management computer has detected a fault during the combustion phase several times in succession. Several components may be responsible:</p> <ul style="list-style-type: none"> – the piston rings, – the piston, – the valves, – the injector, – the heater plug sealing.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

EDC16CP33_V18_DF061 / EDC16CP33_V1C_DF061 / EDC16CP33_V54_DF061 / EDC16CP33_V20_DF061 / EDC16CP33_V58_DF061 / EDC16CP33_V5C_DF061 / EDC16CP33_V24_DF061 / EDC16CP33_V04_DF061 / EDC16CP33_V08_DF061 / EDC16CP33_V44_DF061 / EDC16CP33_V4C_DF061 / EDC16CP33_V34_DF061 / EDC16CP33_V38_DF061 / EDC16CP33_V74_DF061 / EDC16CP33_V28_DF061 / EDC16CP33_V62_DF061 / EDC16CP33_V26_DF061 / EDC16CP33_V60_DF061

DF061 CONTINUED	
----------------------------------	--

Check that the stored injector codes are consistent with those engraved on each injector. If not, run command **SC002 Enter injector codes** and follow the procedure. The **IMA*** codes must be read from left to right:

Check the engine compressions: use a compression gauge, **M9R** hose end piece, part no. **Mot. 1772** and apply command **VP036 Fuel supply inhibition** (see **Interpretation of commands**).

If the fault is **stored**, start the engine and leave it running at idle speed for more than 1 minute with a temperature **PR064 Coolant temperature > 30°C**.

If the fault becomes **present**, remove the injector concerned in accordance with the methods and the safety instructions provided (see **MR 402 (Vel Satis ph2)**, **MR 395 (Laguna II ph2)**, **MR 364 (Mégane II ph2)**, **MR 370 (Scénic II ph2)** or **MR 405 (Espace IV ph2) Mechanical**, **13B, Diesel injection, Diesel injectors: Removal - Refitting**).

If no injector fitting fault is observed (in particular injector thrust washer):

- replace the injector concerned,
- modify the **IMA* code** of the injector using command **SC002 Enter injector codes** (the **IMA codes** are read from left to right),
- Use command **SC036 Reinitialise programming**, select **Injector**, select **YES** only for the injector replaced and follow the procedure.

If the fitting of the injector is not correct, refit the injector in accordance with the fitting instructions specified in the mechanical MR, taking care to fit a new washer.

Clear the fault and carry out a road test. Check that the fault is not **present** again.

If the fault is still present, contact the Techline.

IMA*: Individual injector correction

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF062 PRESENT OR STORED	<u>MISFIRING ON CYLINDER 4</u>
--	--------------------------------

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault reappears after: <ul style="list-style-type: none"> – engine speed PR055 Engine speed between idle speed and 1050 rpm, – a coolant temperature PR064 Coolant temperature $\geq 20^{\circ}\text{C}$.
	Priorities when dealing with a number of faults: <ul style="list-style-type: none"> – DF029 Cylinder 4 injector control circuit – DF052 Injector control circuit.
	Special notes: After an injector has been replaced, run commands SC002 Enter injector codes and SC036 Reinitialise programming and follow the procedure.
	IMPORTANT: Cylinder no. 1 is located at the timing end. Do not disconnect the injectors when the engine is running. When removing and refitting an injector, respect the cleanliness guidelines and safety advice (see MR364 (Mégane II ph2) , MR370 (Scénic II ph2) , MR 395 (Laguna II ph2) , 402 (Vel Satis ph2) , 405 (Espace IV ph2) , Mechanical, 13B Diesel injection, Diesel injectors: Removal - Refitting).

DF062 appears on the diagnostic tool when the engine management computer has detected a fault during the combustion phase several times in succession. Several components may be responsible: <ul style="list-style-type: none"> – the piston rings, – the piston, – the valves, – the injector, – the heater plug sealing.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF062 / EDC16CP33_V1C_DF062 / EDC16CP33_V54_DF062 / EDC16CP33_V20_DF062 / EDC16CP33_V58_DF062 / EDC16CP33_V5C_DF062 / EDC16CP33_V24_DF062 / EDC16CP33_V04_DF062 / EDC16CP33_V08_DF062 / EDC16CP33_V44_DF062 / EDC16CP33_V4C_DF062 / EDC16CP33_V34_DF062 / EDC16CP33_V38_DF062 / EDC16CP33_V74_DF062 / EDC16CP33_V28_DF062 / EDC16CP33_V62_DF062 / EDC16CP33_V26_DF062 / EDC16CP33_V60_DF062

DF062 CONTINUED	
----------------------------------	--

<p>Check that the stored injector codes are consistent with those engraved on each injector. If not, run command SC002 Enter injector codes and follow the procedure. The IMA* codes must be read from left to right:</p>
<p>Check the engine compressions: use a compression gauge, M9R hose end piece, part no. Mot. 1772 and apply command VP036 Fuel supply inhibition (see Interpretation of commands).</p>
<p>If the fault is stored, start the engine and leave it running at idle speed for more than 1 minute with a temperature PR064 Coolant temperature > 30°C.</p> <p>If the fault becomes present, remove the injector concerned in accordance with the methods and the safety instructions provided (see MR 402 (Vel Satis ph2), MR 395 (Laguna II ph2), MR 364 (Mégane II ph2), MR 370 (Scénic II ph2) or MR 405 (Espace IV ph2) Mechanical, 13B, Diesel injection, Diesel injectors: Removal - Refitting).</p> <p>If no injector fitting fault is observed (in particular injector thrust washer):</p> <ul style="list-style-type: none"> – replace the injector concerned, – modify the IMA* code of the injector using command SC002 Enter injector codes (the IMA codes are read from left to right), – Use command SC036 Reinitialise programming, select Injector, select YES only for the injector replaced and follow the procedure. <p>If the fitting of the injector is not correct, refit the injector in accordance with the fitting instructions specified in the mechanical MR, taking care to fit a new washer.</p> <p>Clear the fault and carry out a road test. Check that the fault is not present again.</p> <p>If the fault is still present, contact the Techline.</p>

IMA*: Individual injector correction

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF065 PRESENT OR STORED	<u>COMBUSTION MISFIRES</u> 1.DEF: Combustion misfires detected on several cylinders.
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault reappears after: <ul style="list-style-type: none"> – engine speed PR055 Engine speed between idle speed and 1050 rpm, – a coolant temperature PR064 Coolant temperature $\geq 20^{\circ}\text{C}$.
	Priorities when dealing with a number of faults: <ul style="list-style-type: none"> – DF052 Injector control circuit – DF026 Cylinder 1 injector control circuit – DF027 Cylinder 2 injector control circuit – DF028 Cylinder 3 injector control circuit – DF029 Cylinder 4 injector control circuit
	IMPORTANT: When removing and refitting an injector, respect the cleanliness guidelines and safety advice (see MR364 (Mégane II ph2) , MR370 (Scénic II ph2) , MR 395 (Laguna II ph2) , 402 (Vel Satis ph2) , 405 (Espace IV ph2) , Mechanical , 13B Diesel injection , Diesel injectors: Removal - Refitting).

DF065 appears on the diagnostic tool when the engine management computer has detected a fault during the combustion phase several times in succession. Several components may be responsible: <ul style="list-style-type: none"> – the piston rings, – the piston, – the valves, – the injector, – the heater plug sealing.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF065 / EDC16CP33_V1C_DF065 / EDC16CP33_V54_DF065 / EDC16CP33_V20_DF065 / EDC16CP33_V58_DF065 / EDC16CP33_V5C_DF065 / EDC16CP33_V24_DF065 / EDC16CP33_V04_DF065 / EDC16CP33_V08_DF065 / EDC16CP33_V44_DF065 / EDC16CP33_V4C_DF065 / EDC16CP33_V34_DF065 / EDC16CP33_V38_DF065 / EDC16CP33_V74_DF065 / EDC16CP33_V28_DF065 / EDC16CP33_V62_DF065 / EDC16CP33_V26_DF065 / EDC16CP33_V60_DF065

DF065 CONTINUED

Check that the stored injector codes are consistent with those engraved on each injector. If not, run command **SC002 Enter injector codes** and follow the procedure. The **IMA*** codes must be read from left to right:

Check the engine compressions: use a compression gauge, **M9R** hose end piece, part no. **Mot. 1772** and apply command **VP036 Fuel supply inhibition** (see **Interpretation of commands**).

If the fault is still present, contact the Techline.

IMA*: Individual injector correction

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF066 PRESENT OR STORED	<u>INJECTOR(S) CODE(S)</u> 1.DEF: No code stored 2.DEF: Configuration/Initialisation
--	--

NOTES	Special notes: If the fault is present : – the injection flow will be limited, – engine torque limited, resulting in a maximum engine speed of 1500 rpm , – the level 1 warning light is illuminated.
--------------	---

1.DEF	NOTES	Special notes: This fault appears when an incorrect injector code is entered from command SC002 Enter injector codes . The IMA* codes must be read from left to right.
--------------	--------------	--

Check the injector codes and reprogram the correct codes using command SC002 Enter injector codes , see Interpretation of commands . (Consult the procedures defined in the Interpretation of commands section). – After the codes have been written: – Switch off the ignition. – Wait for the diagnostic tool message (maximum wait 8 minutes): Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply before switching the ignition back on. – Establish dialogue and clear the fault memory. – End of the procedure.	
--	--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF066 / EDC16CP33_V1C_DF066 / EDC16CP33_V54_DF066 / EDC16CP33_V20_DF066 / EDC16CP33_V58_DF066 /
EDC16CP33_V5C_DF066 / EDC16CP33_V24_DF066 / EDC16CP33_V04_DF066 / EDC16CP33_V08_DF066 / EDC16CP33_V44_DF066 /
EDC16CP33_V4C_DF066 / EDC16CP33_V34_DF066 / EDC16CP33_V38_DF066 / EDC16CP33_V74_DF066 / EDC16CP33_V28_DF066 /
EDC16CP33_V62_DF066 / EDC16CP33_V26_DF066 / EDC16CP33_V60_DF066

DF066 CONTINUED 1

WARNING:

If fault **DF066** is still **present** after the injector codes have been entered, check that power latch occurs each time the ignition is switched off:

- Switch off the ignition.
- Wait for the **diagnostic tool** message (maximum wait **8 min**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage** and switch on the ignition again.
- Establish dialogue.

If the fault has become **stored**, clear the fault memory and end the operation.

If the fault is still present, contact the Techline.

IMA*: Individual injector correction

2.DEF

NOTES

Conditions for applying the fault finding procedure to a stored fault:

The fault is declared present after:

- the injection computer has been replaced,
- reprogramming.

This fault is **present** on all blank computers (new or after reprogramming).

- Program the injector codes using:
 - either command **SC001 Write saved data**,
 - or command **SC002 Enter injector codes** or **Interpretation of commands**.
- The **IMA*** codes must be read from left to right.

(Consult the procedures defined in the **Interpretation of commands** section).

IMA*: Individual injector correction

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF066 CONTINUED 2

- After the codes have been written:
- Switch off the ignition.
- Wait for the **diagnostic tool** message (maximum wait **8 min**): **Loss of dialogue with the computer:**
EDC16 CP33, check the tool connection and the computer supply voltage and switch on the ignition again.
- Establish dialogue and clear the fault memory.

End of the procedure.

WARNING:

If fault **DF066** is still **present** after the injector codes have been entered, check that power latch occurs each time the ignition is switched off:

- Switch off the ignition.
- Wait for the **diagnostic tool** message (maximum wait **8 min**): **Loss of dialogue with the computer:**
EDC16 CP33, check the tool connection and the computer supply voltage and switch on the ignition again.
- Establish dialogue.

If the fault is still present, contact the Techline.

IMA*: Individual injector correction

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF069 PRESENT OR STORED	<u>IMPACT DETECTED SIGNAL</u>
--	-------------------------------

NOTES	Conditions for applying the fault finding procedure to stored faults: The fault is declared present under + after ignition feed.
	Special notes: As soon as the injection computer receives this signal: – engine operation is prohibited, the level 2 warning light is lit.

The fault appears when the injection computer receives a frontal impact signal from the Airbag computer via the multiplex network.

Do not deal with this fault.

If the vehicle has been involved in an accident:

Carry out any necessary repairs,

- clear the fault,
- switch off the ignition,
- wait for **1 minute**,
- switch on the ignition.

If the fault does not recur, end the fault finding procedure.

If the fault recurs, run fault finding on the **AIRBAG** computer.

If the vehicle has not been involved in an accident:

Run fault finding on the **AIRBAG** computer (see 88C, Airbag and pretensioner).

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF069 / EDC16CP33_V1C_DF069 / EDC16CP33_V54_DF069 / EDC16CP33_V20_DF069 / EDC16CP33_V58_DF069 /
 EDC16CP33_V5C_DF069 / EDC16CP33_V24_DF069 / EDC16CP33_V04_DF069 / EDC16CP33_V08_DF069 / EDC16CP33_V44_DF069 /
 EDC16CP33_V4C_DF069 / EDC16CP33_V34_DF069 / EDC16CP33_V38_DF069 / EDC16CP33_V74_DF069 / EDC16CP33_V28_DF069 /
 EDC16CP33_V62_DF069 / EDC16CP33_V26_DF069 / EDC16CP33_V60_DF069

DF086 PRESENT OR STORED	<u>COOLANT PUMP RELAY CONTROL CIRCUIT</u> CO: Open circuit CC.0: Short circuit to earth CC.1: Short-circuit on +12 volts. 1.DEF: Internal electronic fault
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: – the ignition is switched on. – starting the engine, – a road test.
	Special notes: The control relay is located in the engine compartment connection unit. Use bornier Elé. 1681 for all operations on the engine management computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the coolant pump relay mounting connector on the engine fuse box (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 597).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the conformity of the coolant pump relay (relay removed):</p> <ul style="list-style-type: none"> • Insulation between connections 3FB and 3VH of component 573. • Measure the resistance between connections 3AAZ and 3FB of component 573. <p>Replace the relay if the resistance of the coolant pump relay is greater than 1 kΩ or less than 6 Ω.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF086 CONTINUED 1

Check the **continuity** of the following connections:

- **3AAZ** between components **120** and **573**,
- **3VH** between components **573** and **369**,
- **M** between components **369** and the vehicle **earth**.

Check the **+ 12 V after relay supply** to the coolant pump relay:

- **3FB** of component **573**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

CC.1

NOTES

None.

Check the condition of the coolant pump relay mounting connector on the engine fuse box (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 597**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the coolant pump relay (relay removed):

- **Insulation** between connections **3FB** and **3VH** of component **573**.
- Measure the **resistance** between connections **3AAZ** and **3FB** of component **573**.

Replace the relay if the resistance of the coolant pump relay is greater than **1 kΩ** or less than **6 Ω**.

Check the **insulation** from **+ 12 V** of the following connections:

- **3AAZ** between components **120** and **573**,
- **3VH** between components **573** and **369**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF086 CONTINUED 2	
------------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

Check the condition of the coolant pump relay mounting connector on the engine fuse box (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 597**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the coolant pump relay (relay removed):

- **Insulation** between connections **3FB** and **3VH** of component **573**.
- Measure the **resistance** between connections **3AAZ** and **3FB** of component **573**.

Replace the relay if the resistance of the coolant pump relay is greater than **1 kΩ** or less than **6 Ω**.

Check the **insulation to earth** of the following connections:

- **3AAZ** between components **120** and **573**,
- **3VH** between components **573** and **369**.

Check the **+ 12 V after relay supply** to the coolant pump relay on the following connection:

- **3FB** of component **573**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF086 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	Special note: This fault appears when the computer control section has overheated.
--------------	--------------	--

Check the condition of the coolant pump relay mounting connector on the engine fuse box (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 597**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the coolant pump relay (relay removed):

- **Insulation** between connections **3FB** and **3VH** of component **573**.
- Measure the **resistance** between connections **3AAZ** and **3FB** of component **573**.

Replace the relay if the resistance of the coolant pump relay is greater than 200 Ω or less than 20 Ω .

Check **the absence of interference resistance** of the following connection:

- **3AAZ** between components **120** and **573**.

Check the **+ 12 V after relay supply** to the coolant pump relay on the following connection:

- **3FB** of component **573**.

Check the **+ 12 V battery supply** to the coolant pump relay on the following connection:

- **3FB** of component **573**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF091 STORED	<u>VEHICLE SPEED SIGNAL</u> 1.DEF: Vehicle speed too high.
-------------------------	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after a road test.
	Special notes: <ul style="list-style-type: none"> – the vehicle speed signal sent by the ABS computer to the injection computer is greater than the threshold defined in the calibration, – use bornier Elé.1681 for any operations on the injection computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

<p>Check the condition of the ABS computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1094).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
Run complete fault finding on the ABS computer (see 38C, Anti-lock braking system).
Run complete fault finding on the multiplex network (see 88B, Multiplexing).
If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF091M / EDC16CP33_V1C_DF091M / EDC16CP33_V54_DF091M / EDC16CP33_V20_DF091M /
EDC16CP33_V58_DF091M / EDC16CP33_V5C_DF091M / EDC16CP33_V24_DF091M / EDC16CP33_V04_DF091M /
EDC16CP33_V08_DF091M / EDC16CP33_V44_DF091M / EDC16CP33_V4C_DF091M / EDC16CP33_V34_DF091M /
EDC16CP33_V38_DF091M / EDC16CP33_V74_DF091M / EDC16CP33_V28_DF091M / EDC16CP33_V62_DF091M /
EDC16CP33_V26_DF091M / EDC16CP33_V60_DF091M

DF098 PRESENT OR STORED	FUEL TEMPERATURE SENSOR CIRCUIT CC.0: Short circuit to earth CO.1: Open circuit or short circuit to +12 V
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present when the ignition is switched on.
	Special notes: If the fault is present , – fuel temperature safe value PR063 Fuel temperature = 100°C , – use bornier Elé. 1681 for all operations on the engine management computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CC.0	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the fuel temperature sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1066).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3FAB and 3LD of component 1066.</p> <p>Replace the fuel temperature sensor if its resistance is less than 85 Ω or greater than 50 kΩ.</p>
<p>Check the insulation to earth of the following connection:</p> <ul style="list-style-type: none"> • 3FAB between components 120 and 1066. <p>If the connection is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF098 CONTINUED	
----------------------------	--

CO.1	NOTES	None.
-------------	--------------	-------

If the wiring of the particle filter downstream temperature sensor, component code **1288**, is present (with or without the sensor being present), check the electrical insulation in relation to **+ 12 V** between the following connections:

- **3XU** between components **120** and **1288**,
- **3TG** between components **120** and **1288**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the condition of the fuel temperature sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1066**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3FAB** and **3LD** of component **1066**.

Replace the fuel temperature sensor if its resistance is less than **85 Ω** or greater than **50 kΩ**.

Check **the continuity** of the following connections:

- **3FAB** between components **120** and **1066**,
- **3LD** between components **120** and **1066**.

Check **the insulation** in relation to **+12 V** of the following connection:

- **3FAB** between components **120** and **1066**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF107 PRESENT OR STORED	<u>COMPUTER MEMORY</u> 1.DEF: Internal electronic fault
--	--

NOTES	<p>Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – a road test followed by a power latch phase.</p>
	<p>Special notes: The level 1 and EOBD (European On Board Diagnostic) warning lights are lit.</p>

<p>If the fault is stored, clear the fault from the computer memory.</p> <p>In the main screen of the CLIP diagnostic tool, note the injector codes. Clear the computer memory using command RZ034 Computer memory.</p> <p>Switch off the ignition, wait for the diagnostic tool message (maximum wait 8 min): Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage then switch on the ignition again. Switch on the ignition and re-establish dialogue.</p>
<p>If the fault is still present, contact the Techline.</p>
<p>If the fault is no longer present, carry out the programming (see Programming). Switch off the ignition, wait for the diagnostic tool message (maximum wait 8 min): Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage then switch on the ignition again.</p> <p>For vehicles fitted with a particle filter, perform a particle filter regeneration using command SC017 Particle filter regeneration and perform an oil change if the vehicle is not new.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

EDC16CP33_V18_DF107 / EDC16CP33_V1C_DF107 / EDC16CP33_V54_DF107 / EDC16CP33_V20_DF107 / EDC16CP33_V58_DF107 /
EDC16CP33_V5C_DF107 / EDC16CP33_V24_DF107 / EDC16CP33_V04_DF107 / EDC16CP33_V08_DF107 / EDC16CP33_V44_DF107 /
EDC16CP33_V4C_DF107 / EDC16CP33_V34_DF107 / EDC16CP33_V38_DF107 / EDC16CP33_V74_DF107 / EDC16CP33_V28_DF107 /
EDC16CP33_V62_DF107 / EDC16CP33_V26_DF107 / EDC16CP33_V60_DF107

DF119 PRESENT OR STORED	<u>CAMSHAFT SENSOR SIGNAL</u> 1.DEF: No camshaft signal or timing fault (tension or setting) 2.DEF: Supply fault, signal interference, camshaft sensor internal fault
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – starting the engine, – a road test.
	Special notes: – the level 1 warning light is lit. Use bornier Elé.1681 for any operations on the injection computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

1.DEF	NOTES	None.
--------------	--------------	-------

<p>Check the condition of the camshaft sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 746).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>If the fault is stored:</p> <p>Visually check the condition of the surrounding area.</p> <p>If, on detection of the fault, the engine speed is considerably lower than the idling speed (less than 150 rpm) and no customer complaint is declared (warning light indicated by the customer does not come on and vehicle can be started), the fault was detected because the engine had stalled.</p> <p>Clear the fault and carry out a road test.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF119 / EDC16CP33_V1C_DF119 / EDC16CP33_V54_DF119 / EDC16CP33_V20_DF119 / EDC16CP33_V58_DF119 / EDC16CP33_V5C_DF119 / EDC16CP33_V24_DF119 / EDC16CP33_V04_DF119 / EDC16CP33_V08_DF119 / EDC16CP33_V44_DF119 / EDC16CP33_V4C_DF119 / EDC16CP33_V34_DF119 / EDC16CP33_V38_DF119 / EDC16CP33_V74_DF119 / EDC16CP33_V28_DF119 / EDC16CP33_V62_DF119 / EDC16CP33_V26_DF119 / EDC16CP33_V60_DF119

DF119 CONTINUED 1

Note:

Measure the **resistance** between the connections indicated without producing a short circuit between the connections.

1. Disconnect the sensor before measuring the resistance with an Ohmmeter or multimeter.
2. Resistance between connections **3CQ** and **3FB** of component **746** (signal and supply) must be between **7.2 kΩ** and **13.4 kΩ** (**10.2 kΩ** nominal).
3. The resistance between connections **3PL** and **3FB** of component **746** (earth and supply) must be greater than **100 kΩ**.
4. The resistance between connections **3PL** and **3CQ** of component **746** (earth and signal) must be greater than **100 kΩ**.

If the values are incorrect, replace the camshaft sensor.

Check the **continuity** of the following connections:

- **3PL** between components **120** and **746**,
- **3CQ** between components **120** and **746**.

Check the **+ 12 V after relay feed** to the camshaft sensor on the following connection:

- **3FB** of component **746**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the camshaft sensor.

2.DEF

NOTES

Priorities when dealing with a number of faults:
– DF120 Engine speed sensor signal

Check the condition of the camshaft sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 746**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF119 CONTINUED 2

Check the **continuity** of the following connections:

- **3PL** between components **120** and **746**,
- **3CQ** between components **120** and **746**.

Check the **+ 12 V after relay feed** to the camshaft sensor on the following connection:

- **3FB** of component **746**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

– Check the conformity of the camshaft sprocket/camshaft assembly.

– Check the timing adjustment.

Carry out the necessary repairs.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF120 PRESENT OR STORED	<u>ENGINE SPEED SENSOR SIGNAL</u> 1.DEF: Engine speed signal interference, broken tooth on flywheel or engine speed sensor internal fault 2.DEF: No engine speed signal, or interference affecting engine speed signal
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – starting the engine, – a road test, – attempting to start the engine.
	Special notes: The engine speed sensor is consistent with the camshaft sensor. If the fault is present : – particle filter regeneration is inhibited, – the level 2 warning light is lit. Use bornier Elé.1681 for any operations on the injection computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

<p>Check the condition of the engine speed sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 149).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check that the sensor is securely attached.</p> <p>Measure the resistance between connections 3BG and 3BL of component 149.</p> <p>If the winding resistance is not between 600 Ω and 1000 Ω, replace the engine speed sensor.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

EDC16CP33_V18_DF120 / EDC16CP33_V1C_DF120 / EDC16CP33_V54_DF120 / EDC16CP33_V20_DF120 / EDC16CP33_V58_DF120 / EDC16CP33_V5C_DF120 / EDC16CP33_V24_DF120 / EDC16CP33_V04_DF120 / EDC16CP33_V08_DF120 / EDC16CP33_V44_DF120 / EDC16CP33_V4C_DF120 / EDC16CP33_V34_DF120 / EDC16CP33_V38_DF120 / EDC16CP33_V74_DF120 / EDC16CP33_V28_DF120 / EDC16CP33_V62_DF120 / EDC16CP33_V26_DF120 / EDC16CP33_V60_DF120

DF120 CONTINUED

Check the **continuity, insulation** from **+ 12 V** and **absence of interference resistance** of the following connections:

- **3BG** between components **120** and **149**,
- **3BL** between components **120** and **149**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the engine speed sensor.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF151 STORED	MAIN RELAY CIRCUIT 1.DEF: Relay cut off too soon 2.DEF: Relay cut off too late
-------------------------	---

NOTES	Special notes: The level 1 warning light is on.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .
	IMPORTANT: For Mégane II ph2 and Scénic II ph2 , the injection supply relay is located on the UPC. For Laguna II ph2 and Espace IV ph2 , the injection supply relay is located on the engine fuse and relay box.

1.DEF	NOTES	None.
--------------	--------------	-------

Check the condition of the injection supply relay mounting connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 983**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the tightness and the condition of the "+" and "-" battery terminals.

Check the conformity of the main relay (relay removed) (**Laguna II ph2** and **Espace IV ph2**):

- **Insulation** between connections **3FB** and **BP37** or **3MV** of component **983**.
- Measure the **resistance** between connections **3AA** and **BP37** of component **983**.

(see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, Component code 983**).

Replace the relay if its resistance is less than **6 Ω** or greater than **1 kΩ**.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF151M / EDC16CP33_V1C_DF151M / EDC16CP33_V54_DF151M / EDC16CP33_V20_DF151M /
 EDC16CP33_V58_DF151M / EDC16CP33_V5C_DF151M / EDC16CP33_V24_DF151M / EDC16CP33_V04_DF151M /
 EDC16CP33_V08_DF151M / EDC16CP33_V44_DF151M / EDC16CP33_V4C_DF151M / EDC16CP33_V34_DF151M /
 EDC16CP33_V38_DF151M / EDC16CP33_V74_DF151M / EDC16CP33_V28_DF151M / EDC16CP33_V62_DF151M /
 EDC16CP33_V26_DF151M / EDC16CP33_V60_DF151M

DF151 CONTINUED 1

Check the **+ 12 V battery supply** to the injection supply relay on the following connection:

- **BP37** or **3MV** of component **983** (**Laguna II ph2** and **Espace IV ph2**),
- **BP31** of component **1337** (**Mégane II ph2** and **Scénic II ph2**).

Check the **+ 12 V after relay feed** to the injection supply relay on the following connection:

- **3FB** of component **983** or **1337**.

Check the **continuity** and **insulation** from **+ 12 V** of the following connection:

- **3AA** between components **120** and **983** or **1337**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the **+ 12 V after relay supply** to the engine management computer on the following connection:

- **3FB** of component **120**.

Check the conformity of the **earths** on connections **NT** of component **120**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the injection supply relay.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF151 CONTINUED 2	
------------------------------	--

2.DEF	NOTES	None.
--------------	--------------	-------

Check the condition of the injection supply relay mounting connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 983 or 1337**).
Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the conformity of the main relay (relay removed) (**Laguna II ph2 and Espace IV ph2**):

- **Insulation** between connections **3FB** and **BP37** of component **983**.
- Measure the **resistance** between connections **3AA** and **BP37** (or **3MV**) of component **983**.
(see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 983**).

Replace the relay if its resistance is less than **6 Ω** or greater than **1 kΩ**.

Check the **insulation** to **earth** of the following connection:

- **3AA** between components **120** and **983** or **1337**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the injection supply relay.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF165 PRESENT OR STORED	<u>ACCELERATOR PEDAL POSITION SENSOR CIRCUIT</u> 1.DEF: Detection of the accelerator pedal depressed at the same time as the brake pedal. 2.DEF: No signal 3.DEF: Jammed accelerator pedal detected
--	---

NOTES	Priorities when dealing with a number of faults: – DF012 Sensor supply voltage no. 2.
	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present when the brake pedal and accelerator pedal are depressed simultaneously.
	Special notes: – Turbocharging and cruise control are not authorised. – The engine speed is fixed at 1700 rpm . – the level 1 warning light comes on for 2.DEF and 3.DEF . Use bornier Elé.1681 for any operations on the computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

Check that the accelerator pedal is not jammed
Check the condition of the pedal sensor connector (component code 921). Check the condition of the engine management computer connector (component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.
Measure the resistance between connections 3LT and 3LR of component 921 . If the accelerator pedal sensor resistance is not between: 0.7 kΩ < X < 1.7 kΩ or 0.91 kΩ < X < 2.49 kΩ (M9R721) , replace the sensor.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF165 / EDC16CP33_V1C_DF165 / EDC16CP33_V54_DF165 / EDC16CP33_V20_DF165 / EDC16CP33_V58_DF165 / EDC16CP33_V5C_DF165 / EDC16CP33_V24_DF165 / EDC16CP33_V04_DF165 / EDC16CP33_V08_DF165 / EDC16CP33_V44_DF165 / EDC16CP33_V4C_DF165 / EDC16CP33_V34_DF165 / EDC16CP33_V38_DF165 / EDC16CP33_V74_DF165 / EDC16CP33_V28_DF165 / EDC16CP33_V62_DF165 / EDC16CP33_V26_DF165 / EDC16CP33_V60_DF165

DF165 CONTINUED

Measure the **resistance** between connections **3LU** and **3LV** of component **921**.

If the accelerator pedal sensor resistance is not between: $1\text{ k}\Omega < X < 2.4\text{ k}\Omega$ or $385.97\text{ k}\Omega < X < 388.03\text{ k}\Omega$ (**M9R721**), replace the sensor.

Check the **continuity** and **absence of interference resistance** of the following connections:

- **3LR** between components **120** and **921**.
- **3LS** between components **120** and **921**.
- **3LT** between components **120** and **921**.
- **3LU** between components **120** and **921**.
- **3LW** between components **120** and **921**.
- **3LV** between components **120** and **921**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF195 PRESENT OR STORED	ENGINE SPEED/CAMSHAFT SENSOR CONSISTENCY 1.DEF: No engine speed signal, or engine speed signal interference
--	---

NOTES	Priorities when dealing with a number of faults: – DF119 Camshaft sensor signal – DF120 Engine speed sensor signal.
	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after the starter has been running for 10 seconds or a 1 minute delay with the engine running.
	Special notes: Use bornier Elé. 1681 for any operations on the computer connector.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

Check the sensor mounting and the conformity of the camshaft target.
Check the condition of the engine speed sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 149). Check the condition of the camshaft sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 746). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.
– Check the conformity of the camshaft sprocket/camshaft assembly. – Check the timing adjustment. Carry out the necessary repairs.
If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF195 / EDC16CP33_V1C_DF195 / EDC16CP33_V54_DF195 / EDC16CP33_V20_DF195 / EDC16CP33_V58_DF195 / EDC16CP33_V5C_DF195 / EDC16CP33_V24_DF195 / EDC16CP33_V04_DF195 / EDC16CP33_V08_DF195 / EDC16CP33_V44_DF195 / EDC16CP33_V4C_DF195 / EDC16CP33_V34_DF195 / EDC16CP33_V38_DF195 / EDC16CP33_V74_DF195 / EDC16CP33_V28_DF195 / EDC16CP33_V62_DF195 / EDC16CP33_V26_DF195 / EDC16CP33_V60_DF195

DF196 PRESENT OR STORED	PEDAL SENSOR CIRCUIT GANG 1 CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Consistency between gang 1 and gang 2
--	---

NOTES	Priorities when dealing with a number of faults: – DF011 Sensor voltage supply no. 1
	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after a series of full load / no load actions on the accelerator pedal.
	Special notes: – engine torque limited, – cruise control not authorised, – the level 1 warning light is illuminated, – idle speed is 1400 rpm , Use bornier Elé. 1681 for any work on the computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO.0	NOTES	If there is a simultaneous occurrence of fault DF198 Pedal sensor circuit gang 2 , check that the pedal sensor connector is connected correctly.
-------------	--------------	---

Check the condition of the pedal sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 921**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF196 / EDC16CP33_V1C_DF196 / EDC16CP33_V54_DF196 / EDC16CP33_V20_DF196 / EDC16CP33_V58_DF196 / EDC16CP33_V5C_DF196 / EDC16CP33_V24_DF196 / EDC16CP33_V04_DF196 / EDC16CP33_V08_DF196 / EDC16CP33_V44_DF196 / EDC16CP33_V4C_DF196 / EDC16CP33_V34_DF196 / EDC16CP33_V38_DF196 / EDC16CP33_V74_DF196 / EDC16CP33_V28_DF196 / EDC16CP33_V62_DF196 / EDC16CP33_V26_DF196 / EDC16CP33_V60_DF196

DF196 CONTINUED 1	
------------------------------------	--

Measure the **resistance** between connections **3LT** and **3LR** of component **921**.
 If the resistance of the pedal sensor gang 1 is less than **500 Ω** or greater than **2 kΩ**, replace the sensor.
 Measure the **resistance** between connections **3LT** and **3LS** of component **921**.
 If the resistance of the pedal sensor gang 1 is less than **500 Ω** or greater than **10 kΩ**, replace the sensor.

Check the **continuity** of the following connections:

- **3LS** between components **120** and **921**,
- **3LR** between components **120** and **921**.

Check the **insulation to earth** of the following connection:

- **3LS** between components **120** and **921**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

CO.1	NOTES	None.
-------------	--------------	-------

Check the condition of the pedal sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 921**).
 Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
 If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF196 CONTINUED 2	
------------------------------------	--

Measure the **resistance** between connections **3LT** and **3LR** of component **921**.
If the resistance of the pedal sensor gang 1 is less than **500 Ω** or greater than **2 kΩ**, replace the sensor.

Measure the **resistance** between connections **3LT** and **3LS** of component **921**.
If the resistance of the pedal sensor gang 1 is less than **500 Ω** or greater than **10 kΩ**, replace the sensor.

Check the **insulation** from **+ 12 V** and **+ 5 V** (computer feeds) of the following connection:
• **3LS** between components **120** and **921**.

Check the **continuity** of the following connection:
• **3LT** between components **120** and **921**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

1.DEF	NOTES	None.
--------------	--------------	-------

Check the condition of the pedal sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 921**).
Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF196 CONTINUED 3

Measure the **resistance** between connections **3LT** and **3LR** of component **921**.
If the resistance of the pedal sensor gang 1 is less than **500 Ω** or greater than **2 kΩ**, replace the sensor.

Measure the **resistance** between connections **3LT** and **3LS** of component **921**.
If the resistance of the pedal sensor gang 1 is less than **500 Ω** or greater than **10 kΩ**, replace the sensor.

Measure the **resistance** between connections **3LU** and **3LV** of component **921**.
If the resistance of the pedal sensor gang 1 is less than **500 Ω** or greater than **3 kΩ**, replace the sensor.

Measure the **resistance** between connections **3LV** and **3LW** of component **921**.
If the resistance of the pedal sensor gang 1 is less than **500 Ω** or greater than **10 kΩ**, replace the sensor.

Check for **continuity** and **absence of interference resistance** of the following connections:

- **3LR** between components **120** and **921**,
- **3LS** between components **120** and **921**,
- **3LT** between components **120** and **921**,
- **3LU** between components **120** and **921**,
- **3LW** between components **120** and **921**,
- **3LV** between components **120** and **921**.

Check the **insulation** between the following connections:

- **3LS** between components **120** and **921**,
- **3LW** between components **120** and **921**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, vary the pedal position and refer to the interpretation of **PR030 Accelerator pedal position** to check the operating values of the accelerator pedal sensor.
If the values displayed are inconsistent, replace the accelerator pedal sensor.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF198 PRESENT OR STORED	PEDAL SENSOR CIRCUIT GANG 2 CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Consistency between gang 1 and gang 2
--	---

NOTES	Priorities when dealing with a number of faults: – DF012 Sensor supply voltage no. 2.
	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after a series of full load / no load actions on the accelerator pedal.
	Special notes: – engine torque limited, – cruise control not authorised, – the level 1 warning light is illuminated, – the idling speed is 1400 rpm . Use bornier Elé. 1681 for any work on the computer connectors
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO.0	NOTES	If there is a simultaneous occurrence of fault DF196 Pedal sensor circuit gang 1 , check that the pedal sensor connector is connected correctly.
-------------	--------------	---

Check the condition of the pedal sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 921). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF198 / EDC16CP33_V1C_DF198 / EDC16CP33_V54_DF198 / EDC16CP33_V20_DF198 / EDC16CP33_V58_DF198 /
EDC16CP33_V5C_DF198 / EDC16CP33_V24_DF198 / EDC16CP33_V04_DF198 / EDC16CP33_V08_DF198 / EDC16CP33_V44_DF198 /
EDC16CP33_V4C_DF198 / EDC16CP33_V34_DF198 / EDC16CP33_V38_DF198 / EDC16CP33_V74_DF198 / EDC16CP33_V28_DF198 /
EDC16CP33_V62_DF198 / EDC16CP33_V26_DF198 / EDC16CP33_V60_DF198

DF198 CONTINUED 1	
------------------------------------	--

Measure the **resistance** between connections **3LV** and **3LU** of component **921**.
If the resistance of the pedal sensor gang 2 is less than **500 Ω** or greater than **3 kΩ**, replace the sensor.

Measure the **resistance** between connections **3LV** and **3LW** of component **921**.
If the resistance of the pedal sensor gang 2 is less than **500 Ω** or greater than **10 kΩ**, replace the sensor.

Check the **continuity** of the following connections:

- **3LU** between components **120** and **921**,
- **3LW** between components **120** and **921**.

Check the **insulation to earth** of the following connection:

- **3LW** between components **120** and **921**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

CO.1	NOTES	None.
-------------	--------------	-------

Check the condition of the pedal sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 921**).
Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3LV** and **3LU** of component **921**.
If the resistance of the pedal sensor gang 2 is less than **500 Ω** or greater than **3 kΩ**, replace the sensor.

Measure the **resistance** between connections **3LV** and **3LW** of component **921**.
If the resistance of the pedal sensor gang 2 is less than **500 Ω** or greater than **10 kΩ**, replace the sensor.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

DF198 CONTINUED 2

Check the **insulation** from + 12 V and + 5 V (computer feeds) of the following connection:

- 3LW between components 120 and 921.

Check the **continuity** of the following connection:

- 3LV between components 120 and 921.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

1.DEF

NOTES

None.

Check the condition of the pedal sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 921**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections 3LR and 3LT of component 921.

If the resistance of the pedal sensor gang 2 is less than 500 Ω or greater than 2 kΩ, replace the sensor.

Measure the **resistance** between connections 3LS and 3LT of component 921.

If the resistance of the pedal sensor gang 2 is less than 500 Ω or greater than 10 kΩ, replace the sensor.

Measure the **resistance** between connections 3LV and 3LU of component 921.

If the resistance of the pedal sensor gang 2 is less than 500 Ω or greater than 3 kΩ, replace the sensor.

Measure the **resistance** between connections 3LV and 3LW of component 921.

If the resistance of the pedal sensor gang 2 is less than 500 Ω or greater than 10 kΩ, replace the sensor.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF198 CONTINUED 3

Check **for continuity** and **absence of interference resistance** on the following connections:

- **3LR** between components **120** and **921**,
- **3LS** between components **120** and **921**,
- **3LT** between components **120** and **921**,
- **3LU** between components **120** and **921**,
- **3LW** between components **120** and **921**,
- **3LV** between components **120** and **921**.

Check the **insulation** between the following connections:

- **3LW** between components **120** and **921**,
- **3LS** between components **120** and **921**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, vary the pedal position and refer to the interpretation of **PR030 Accelerator pedal position** to check the operating values of the accelerator pedal sensor.

If the values displayed are inconsistent, replace the accelerator pedal sensor.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF200 PRESENT OR STORED	<u>ATMOSPHERIC PRESSURE SENSOR</u> 1.DEF: Above maximum threshold 2.DEF: Below minimum threshold
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after: – the ignition is switched on. – the engine is started, – a road test.
	Special notes: The EOBD (European On Board Diagnostic) warning light is lit. The atmospheric pressure sensor is integrated in the injection computer, and cannot be separated.
	If the fault is present : – there is light smoke, – the atmospheric pressure value changes to safe mode, PR035 Atmospheric pressure = 0.75 bar . Use bornier Elé. 1681 for any work on the computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

<p>Disconnect the injection computer and check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Check the value of PR035 Atmospheric pressure by comparing it with the reading on a conforming vehicle in the workshop.</p> <p>If the value of PR035 is not correct (difference greater than 0.1 bar between the 2 vehicles), contact the Techline.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF200 / EDC16CP33_V1C_DF200 / EDC16CP33_V54_DF200 / EDC16CP33_V20_DF200 / EDC16CP33_V58_DF200 / EDC16CP33_V5C_DF200 / EDC16CP33_V24_DF200 / EDC16CP33_V04_DF200 / EDC16CP33_V08_DF200 / EDC16CP33_V44_DF200 / EDC16CP33_V4C_DF200 / EDC16CP33_V34_DF200 / EDC16CP33_V38_DF200 / EDC16CP33_V74_DF200 / EDC16CP33_V28_DF200 / EDC16CP33_V62_DF200 / EDC16CP33_V26_DF200 / EDC16CP33_V60_DF200

DF209 PRESENT OR STORED	<u>EGR VALVE POSITION SENSOR CIRCUIT</u> CC.0: Short circuit to earth CO.0: Open circuit or short circuit to earth CO.1: Open circuit or short circuit to +12 V 1.DEF: Open circuit or short circuit
--	--

NOTES	Priorities when dealing with a number of faults: – DF046 Battery voltage. – DF012 Sensor supply voltage no. 2.
	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after: – the ignition is switched on. – the engine is started, – a road test.
	Special notes: If the fault is present : – the EOBD (European On Board Diagnostic) warning light is lit, – EGR programming cut-off: valve in the closed position, – particle filter regeneration is inhibited. Use bornier Elé. 1681 for all operations on the engine management computer connector.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

CO.1 1.DEF	NOTES	None.
-----------------------	--------------	-------

<p>Check the condition of the EGR valve (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1460 or 169).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF209 / EDC16CP33_V1C_DF209 / EDC16CP33_V54_DF209 / EDC16CP33_V20_DF209 / EDC16CP33_V58_DF209 / EDC16CP33_V5C_DF209 / EDC16CP33_V24_DF209 / EDC16CP33_V04_DF209 / EDC16CP33_V08_DF209 / EDC16CP33_V44_DF209 / EDC16CP33_V4C_DF209 / EDC16CP33_V34_DF209 / EDC16CP33_V38_DF209 / EDC16CP33_V74_DF209 / EDC16CP33_V28_DF209 / EDC16CP33_V62_DF209 / EDC16CP33_V26_DF209 / EDC16CP33_V60_DF209

DF209 CONTINUED 1

Measure the **resistance** between connections **3GC** and **3JM** (sensor supply and sensor earth), and between connections **3EL** and **3JM** (sensor signal and sensor earth) of component **1460** or **169**.

If the resistances of the EGR valve are less than **1 kΩ**, replace the valve.

After replacement, run command **SC036 Reinitialise programming** and select **EGR VALVE** to reinitialise the EGR valve offsets.

Check the **insulation** from **+ 12 V** and **+ 5 V** (computer feeds) of the following connection:

- **3EL** between components **120** and **1460** or **169**.

Check the **continuity** of the following connection:

- **3JM** between components **120** and **1460** or **169**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the **insulation** between the following connections:

- **3EL** between components **120** and **1460** or **169**,
- **3VP** between components **120** and **1460** or **169**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF209 CONTINUED 2	
------------------------------	--

CO.0 CC.0	NOTES	None.
----------------------	--------------	-------

<p>Check the condition of the EGR valve (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1460 or 169).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3GC and 3JM (sensor supply and sensor earth), and between connections 3EL and 3JM (sensor signal and sensor earth) of component 1460 or 169.</p> <p>If the resistances of the EGR valve are greater than 15 kΩ, replace the valve.</p> <p>After replacement, run command SC036 Reinitialise programming and select EGR valve to reinitialise the EGR valve offsets.</p>
<p>Check the continuity of the following connections:</p> <ul style="list-style-type: none"> • 3EL between components 120 and 1460 or 169, • 3GC between components 120 and 1460 or 169. <p>Check the insulation to earth of the following connection:</p> <ul style="list-style-type: none"> • 3EL between components 120 and 1460 or 169. <p>Check the insulation between the following connections:</p> <ul style="list-style-type: none"> • 3EL between components 120 and 1460 or 169, • 3VQ between components 120 and 1460 or 169. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF221 STORED	<u>CLUTCH CONTACT SIGNAL</u> 1.DEF: Clutch inconsistency upon gear change
-------------------------	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present during a road test at over 21 mph (35 km/h) .
	Special notes: – the cruise control/speed limiter function is switched off. Use bornier Elé. 1681 for all operations on the engine management computer connector.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

<p>Check the condition of the clutch sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 675).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Display status ET405 Clutch pedal switch (can only be displayed for Manual Gearboxes) which is normally INACTIVE when the pedal is not depressed.</p> <p>Depress the clutch pedal and note whether this status becomes ACTIVE.</p>
<p>If the status becomes ACTIVE when the clutch pedal is in the rest position.</p> <p>Clear the fault, switch off the ignition, wait for the end of the power-latch and wait for the diagnostic tool message (maximum wait 8 min): Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage and switch on the ignition again.</p> <p>Carry out a road test and then take a fault reading.</p> <p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF221M / EDC16CP33_V1C_DF221M / EDC16CP33_V54_DF221M / EDC16CP33_V20_DF221M /
 EDC16CP33_V58_DF221M / EDC16CP33_V5C_DF221M / EDC16CP33_V24_DF221M / EDC16CP33_V04_DF221M /
 EDC16CP33_V08_DF221M / EDC16CP33_V44_DF221M / EDC16CP33_V4C_DF221M / EDC16CP33_V34_DF221M /
 EDC16CP33_V38_DF221M / EDC16CP33_V74_DF221M / EDC16CP33_V28_DF221M / EDC16CP33_V62_DF221M /
 EDC16CP33_V26_DF221M / EDC16CP33_V60_DF221M

DF221 CONTINUED

If the status does not become **ACTIVE** when the clutch pedal is depressed.

Remove the clutch pedal switch, check the **insulation** with the switch in the rest position between connections **M** or **MAM** and **86D** of component **675**.

Press the clutch switch and check the **continuity** between connections **M** or **MAM** and **86D** of component **675**.

If these 2 checks are faulty, replace the switch.

Then check **the continuity** and **absence of interference resistance** of the following connection:

- **86D** between components **120** and **675**.

Check that the **earth** is in order on connection **M** or **MAM** of component **675**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF228 PRESENT OR STORED	<u>BRAKE SIGNAL</u> 1.DEF: Consistency with redundant brakes 2.DEF: Engine deceleration too high
--	---

1.DEF	NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after the brake pedal is depressed.
		Special notes: If the fault is present – the cruise control/speed limiter function is switched off. Use bornier Elé. 1681 for all operations on the engine management computer connectors.
		Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

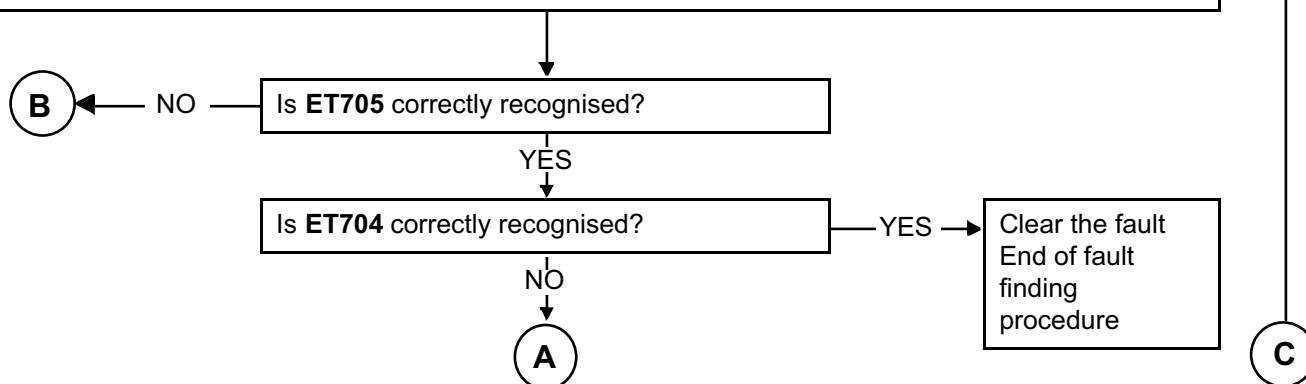
AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF228 / EDC16CP33_V1C_DF228 / EDC16CP33_V54_DF228 / EDC16CP33_V20_DF228 / EDC16CP33_V58_DF228 / EDC16CP33_V5C_DF228 / EDC16CP33_V24_DF228 / EDC16CP33_V04_DF228 / EDC16CP33_V08_DF228 / EDC16CP33_V44_DF228 / EDC16CP33_V4C_DF228 / EDC16CP33_V34_DF228 / EDC16CP33_V38_DF228 / EDC16CP33_V74_DF228 / EDC16CP33_V28_DF228 / EDC16CP33_V62_DF228 / EDC16CP33_V26_DF228 / EDC16CP33_V60_DF228

DF228 CONTINUED 1

From the "List of statuses" menu, check **ET704 Brake contact no. 1** and **ET705 Brake contact no. 2** and check:

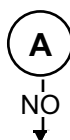
- brake pedal in rest position **ET704 = INACTIVE** and **ET705 = INACTIVE**
- brake pedal depressed **ET704 = ACTIVE** and **ET705 = ACTIVE**



AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF228 CONTINUED 2



Check the condition of the brake pedal switch connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 160**).

Check the condition of the ABS computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1094 or 118**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **+ 12 V after relay supply** to the brake pedal switch on the following connections:

- **SP13** of component **160**,
- **AP10** of component **160**.

Disconnect the ABS/ESP (electronic stability program) computer and check the **continuity** and **insulation** from **+ 12 V** and from **earth** of the following connections:

- **65A** between components **1094** (or **118**) and **160**,
- **65G** between components **1094** and **160**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Remove the brake pedal switch and check that it is working correctly:

- in the rest position: infinite resistance between connections **SP13** and **5A** of component **160**.
- depressed: continuity between connections **SP13** and **5A** of component **160**.

Replace the switch if necessary.

If the fault is still present, run **fault finding on the ABS/ESP** (see **38C, Anti-lock braking system**), then if no faults are detected, run **fault finding on the multiplex network** (see **88B, Multiplexing**).

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF228 CONTINUED 3



Check the condition of the brake pedal switch connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 160**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Remove and check the condition and adjustment of the brake pedal switch.
Repair if necessary.

Check the **+ 12 V after relay supply** to the brake pedal switch on the following connections:

- **SP13** of component **160**,
- **AP10** of component **160**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Disconnect the ABS/ESP (electronic stability program) computer and check the **continuity and insulation** from **+ 12 V** and from **earth** of the following connection:

- **5A** between components **120** and **160**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check that the brake pedal switch is working correctly:

- in the rest position: infinite resistance between connections **SP13** and **5A** of component **160**,
- depressed: continuity between connections **SP13** and **5A** of component **160**.

Replace the switch if necessary.

If the fault is still present, repeat the procedure from the start.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF228 CONTINUED 4	
------------------------------------	--

2.DEF	NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after the brake pedal is depressed.
		Special notes: If the fault is present – the cruise control/speed limiter function is switched off. Use bornier Elé. 1681 for all operations on the engine management computer connectors.

Check the condition of the ABS computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1094). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120). If the connector or connectors are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.
Run complete fault finding on the ABS (see 38C Anti-lock braking system).
Run complete fault finding on the multiplex network (see 88B, Multiplexing).
If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF249 PRESENT OR STORED	INJECTOR CONTROL 1.DEF: Internal electronic fault
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: <ul style="list-style-type: none"> – the ignition is switched on, – the engine is started.
	Priorities when dealing with a number of faults: <ul style="list-style-type: none"> – DF046 Battery voltage, – DF026 Cylinder 1 injector control circuit, – DF027 Cylinder 2 injector control circuit, – DF028 Cylinder 3 injector control circuit, – DF029 Cylinder 4 injector control circuit.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – in certain cases, the level 2 warning light is lit and the engine is stopped. Use bornier Elé.1681 for all operations on the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

This fault appears when the computer detects a fault on the injector control section.
Check the condition of the injector connectors (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component codes 193, 194, 195, 196). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF249 / EDC16CP33_V1C_DF249 / EDC16CP33_V54_DF249 / EDC16CP33_V20_DF249 / EDC16CP33_V58_DF249 / EDC16CP33_V5C_DF249 / EDC16CP33_V24_DF249 / EDC16CP33_V04_DF249 / EDC16CP33_V08_DF249 / EDC16CP33_V44_DF249 / EDC16CP33_V4C_DF249 / EDC16CP33_V34_DF249 / EDC16CP33_V38_DF249 / EDC16CP33_V74_DF249 / EDC16CP33_V28_DF249 / EDC16CP33_V62_DF249 / EDC16CP33_V26_DF249 / EDC16CP33_V60_DF249

DF249
CONTINUED

Check the **continuity** and **insulation** of the following connections:

- **3KW** between components **120** and **193**,
- **3CR** between components **120** and **193**,
- **3KX** between components **120** and **194**,
- **3CS** between components **120** and **194**,
- **3KY** between components **120** and **195**,
- **3CT** between components **120** and **195**,
- **3KZ** between components **120** and **196**,
- **3CU** between components **120** and **196**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF265 PRESENT OR STORED	INJECTOR No. 1 1.DEF: Internal electronic fault
--	---

NOTES	Priorities when dealing with a number of faults: – DF026 Cylinder 1 injector control circuit.
	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: – the engine is started, – a road test.
	IMPORTANT: – cylinder no. 1 is located at the timing end, – observe the cleanliness guidelines and safety advice, – do not disconnect the injector connections with the engine running as this may damage the engine.
	Special notes: If the fault is present : – reduced driving pleasure, – injector is not controlled or incorrectly controlled. Use bornier Elé.1681 for all operations on the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

Apply Test 10 Poor injector operation .
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF265 / EDC16CP33_V1C_DF265 / EDC16CP33_V54_DF265 / EDC16CP33_V20_DF265 / EDC16CP33_V58_DF265 / EDC16CP33_V5C_DF265 / EDC16CP33_V24_DF265 / EDC16CP33_V04_DF265 / EDC16CP33_V08_DF265 / EDC16CP33_V44_DF265 / EDC16CP33_V4C_DF265 / EDC16CP33_V34_DF265 / EDC16CP33_V38_DF265 / EDC16CP33_V74_DF265 / EDC16CP33_V28_DF265 / EDC16CP33_V62_DF265 / EDC16CP33_V26_DF265 / EDC16CP33_V60_DF265

DF265 CONTINUED	
----------------------------------	--

<p>Check the condition of the injector no. 1 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 193).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Vehicle, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity and absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • 3KW between components 120 and 193, • 3CR between components 120 and 193. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF266 PRESENT OR STORED	INJECTOR No. 2 1.DEF: Internal electronic fault
--	---

NOTES	Priorities when dealing with a number of faults: – DF027 Cylinder 2 injector control circuit.
	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: – the engine is started, – a road test.
	IMPORTANT: – Cylinder no. 1 is located at the timing end. – Please observe the cleanliness guidelines and safety advice. – Do not disconnect the injector connections with the engine running as this may damage the engine.
	Special notes: If the fault is present : – reduced driving pleasure, – injector is not controlled or incorrectly controlled. Use bornier Elé.1681 for all operations on the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

Apply Test 10 Poor injector operation .
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF266 / EDC16CP33_V1C_DF266 / EDC16CP33_V54_DF266 / EDC16CP33_V20_DF266 / EDC16CP33_V58_DF266 / EDC16CP33_V5C_DF266 / EDC16CP33_V24_DF266 / EDC16CP33_V04_DF266 / EDC16CP33_V08_DF266 / EDC16CP33_V44_DF266 / EDC16CP33_V4C_DF266 / EDC16CP33_V34_DF266 / EDC16CP33_V38_DF266 / EDC16CP33_V74_DF266 / EDC16CP33_V28_DF266 / EDC16CP33_V62_DF266 / EDC16CP33_V26_DF266 / EDC16CP33_V60_DF266

DF266 CONTINUED	
----------------------------------	--

<p>Check the condition of the injector no. 2 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 194).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity and absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • 3KX between components 120 and 194, • 3CS between components 120 and 194. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF267 PRESENT OR STORED	INJECTOR No. 3 1.DEF: Internal electronic fault
--	---

NOTES	Priorities when dealing with a number of faults: – DF028 Cylinder 3 injector control circuit.
	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: – the engine is started, – a road test.
	IMPORTANT: – Cylinder no. 1 is located at the timing end. – Please observe the cleanliness guidelines and safety advice. – Do not disconnect the injector connections with the engine running as this may damage the engine.
	Special notes: If the fault is present : – reduced driving pleasure, – injector is not controlled or incorrectly controlled. Use bornier Elé. 1681 for all operations on the engine management computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

Apply Test 10 Poor injector operation.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF267 / EDC16CP33_V1C_DF267 / EDC16CP33_V54_DF267 / EDC16CP33_V20_DF267 / EDC16CP33_V58_DF267 / EDC16CP33_V5C_DF267 / EDC16CP33_V24_DF267 / EDC16CP33_V04_DF267 / EDC16CP33_V08_DF267 / EDC16CP33_V44_DF267 / EDC16CP33_V4C_DF267 / EDC16CP33_V34_DF267 / EDC16CP33_V38_DF267 / EDC16CP33_V74_DF267 / EDC16CP33_V28_DF267 / EDC16CP33_V62_DF267 / EDC16CP33_V26_DF267 / EDC16CP33_V60_DF267

DF267 CONTINUED	
----------------------------------	--

<p>Check the condition of the injector no. 3 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 195).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity and absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • 3KY between components 120 and 195, • 3CT between components 120 and 195. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF268 PRESENT OR STORED	INJECTOR No. 4 1.DEF: Internal electronic fault
--	---

NOTES	Priorities when dealing with a number of faults: – DF029 Cylinder 4 injector control circuit.
	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: – the engine is started, – a road test.
	IMPORTANT: – Cylinder no. 1 is located at the timing end. Please observe the cleanliness guidelines and safety advice. – Do not disconnect the injector connections with the engine running as this may damage the engine.
	Special notes: If the fault is present : – reduced driving pleasure, – injector is not controlled or incorrectly controlled. Use bornier Elé.1681 for all operations on the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

Apply Test 10 Poor injector operation .
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF268 / EDC16CP33_V1C_DF268 / EDC16CP33_V54_DF268 / EDC16CP33_V20_DF268 / EDC16CP33_V58_DF268 / EDC16CP33_V5C_DF268 / EDC16CP33_V24_DF268 / EDC16CP33_V04_DF268 / EDC16CP33_V08_DF268 / EDC16CP33_V44_DF268 / EDC16CP33_V4C_DF268 / EDC16CP33_V34_DF268 / EDC16CP33_V38_DF268 / EDC16CP33_V74_DF268 / EDC16CP33_V28_DF268 / EDC16CP33_V62_DF268 / EDC16CP33_V26_DF268 / EDC16CP33_V60_DF268

DF268 CONTINUED	
----------------------------------	--

<p>Check the condition of the injector no. 4 connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 196).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity and absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • 3KZ between components 120 and 196, • 3CU between components 120 and 196. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF272 PRESENT OR STORED	<u>EGR VALVE CONTROL CIRCUIT</u> CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CC: Short circuit 1.DEF: Internal electronic fault
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after: – the ignition is switched on, – the engine is started, – a road test.
	Special notes: If the fault is present : – the EOBD (European On Board Diagnostic) warning light is lit, – the EGR function is inhibited, Use bornier Elé. 1681 for all operations on the engine management computer connector.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the EGR valve (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1460 or 169).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3VP and 3VQ of component 1460 or 169. If the resistance of the EGR valve is greater than 400 Ω, replace the valve.</p> <p>After replacement, run command SC036 Reinitialise programming and select EGR valve to reinitialise the EGR valve offsets.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

EDC16CP33_V18_DF272 / EDC16CP33_V1C_DF272 / EDC16CP33_V54_DF272 / EDC16CP33_V20_DF272 / EDC16CP33_V58_DF272 /
EDC16CP33_V5C_DF272 / EDC16CP33_V24_DF272 / EDC16CP33_V04_DF272 / EDC16CP33_V08_DF272 / EDC16CP33_V44_DF272 /
EDC16CP33_V4C_DF272 / EDC16CP33_V34_DF272 / EDC16CP33_V38_DF272 / EDC16CP33_V74_DF272 / EDC16CP33_V28_DF272 /
EDC16CP33_V62_DF272 / EDC16CP33_V26_DF272 / EDC16CP33_V60_DF272

DF272 CONTINUED 1

Check the **continuity** of the following connections:

- **3VP** between components **120** and **1460** or **169**,
- **3VQ** between components **120** and **1460** or **169**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

CC.0
CC.1

NOTES

None.

Check the condition of the EGR valve (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1460 or 169**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3VP** and **3VQ** of component **1460** or **169**.

If the resistance of the EGR valve is less than **1 Ω** or greater than **400 Ω**, replace the EGR valve.

After replacement, run command **SC036 Reinitialise programming** and select **EGR valve** to reinitialise the EGR valve offsets.

Check the **insulation** from **+ 12 V** of the following connections:

- **3VP** between components **120** and **1460** or **169**,
- **3VQ** between components **120** and **1460** or **169**.

Check the **insulation** to **earth** of the following connections:

- **3VP** between components **120** and **1460** or **169**,
- **3VQ** between components **120** and **1460** or **169**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF272 CONTINUED 2	
------------------------------------	--

CC	NOTES	None.
-----------	--------------	-------

Check the condition of the EGR valve (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1460 or 169**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3VP** and **3VQ** of component **1460** or **169**.
If the resistance of the EGR valve is less than **1 Ω** or greater than **400 Ω**, replace the EGR valve.

After replacement, run command **SC036 Reinitialise programming** and select **EGR valve** to reinitialise the EGR valve offsets.

Check the **insulation** between the following connections:

- **3VP** between components **120** and **1460** or **169**,
- **3VQ** between components **120** and **1460** or **169**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

1.DEF	NOTES	Special notes: This fault appears when the computer control section has overheated.
		Priorities when dealing with a number of faults: Deal with CO , CC.O , CC.1 and CC first if they are present or stored .

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF293 PRESENT OR STORED	<u>WATER IN DIESEL FUEL SENSOR</u> 1.DEF: Open circuit on the line or water present in the diesel fuel
--	--

NOTES	IMPORTANT: Please observe the cleanliness guidelines and safety advice.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

<p>Check that there is no water in the fuel filter. Bleed the fuel filter and the low pressure diesel circuit if necessary. Start the engine and wait at least 1 minute to confirm the repair. If the fault was stored but not present, carry out a road test (see Note).</p>
<p>If the fault is still present: Check the continuity and absence of interference resistance on the following connection: • 3WT between the components 120 and 414.</p> <p>Check the + 12 V after relay supply to the water detection sensor on the following connection: • 3FB of component 414.</p> <p>Check that the earth is in order on connection NT or M of component 414.</p> <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>Start the engine and wait at least 1 minute to confirm the repair.</p>
<p>If the fault is still present, check the conformity of the fuel used:</p> <ul style="list-style-type: none"> – Check that the fuel tank has been filled correctly. – Run Test 12 Fuel conformity check. – If the diesel fuel is not correct: <ul style="list-style-type: none"> – Replace the diesel fuel. – Change the diesel filter. – Bleed the low pressure diesel circuit.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF293 / EDC16CP33_V1C_DF293 / EDC16CP33_V54_DF293 / EDC16CP33_V20_DF293 / EDC16CP33_V58_DF293 /
EDC16CP33_V5C_DF293 / EDC16CP33_V24_DF293 / EDC16CP33_V04_DF293 / EDC16CP33_V08_DF293 / EDC16CP33_V44_DF293 /
EDC16CP33_V4C_DF293 / EDC16CP33_V34_DF293 / EDC16CP33_V38_DF293 / EDC16CP33_V74_DF293 / EDC16CP33_V28_DF293 /
EDC16CP33_V62_DF293 / EDC16CP33_V26_DF293 / EDC16CP33_V60_DF293

DF293 CONTINUED

If none of these checks reveal any faults:

- Replace the water detection sensor.
- Clear the fault.

Start the engine and wait **at least 1 minute** to confirm the repair.

Note:

When the water level in the fuel filter unit is below the sensor's electrodes, some driving conditions (cornering, gradients) may result in water being detected (in fact, the sensor's off-centre position in the fuel filter unit, combined with the driving conditions, causes water to be detected).

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF297 PRESENT OR STORED	<u>PRESSURE SENSOR</u> 1. DEF: Absent
--	--

NOTES	Conditions for applying fault finding procedures to stored faults: The fault is declared present after the engine is started or following a road test.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – particle filter regeneration is inhibited, – blue/white smoke and black particles coming from the exhaust, – the EOBD (European On Board Diagnostic) warning light will come on after three consecutive driving cycles (starting + 5 seconds + switch off the ignition and wait 40 seconds). – The level 1 warning light is lit (for Vdiag 20, 24, 58, 5C, 26, 28, 60 and 62).
	Priorities when dealing with a number of faults: <ul style="list-style-type: none"> – DF315 Particle filter differential pressure sensor if it is present or stored. – DF717 Particle filter upstream pressure if it is present or stored.
	IMPORTANT: In the long term, this fault may lead to premature wear and a greater risk of turbocharger failure.

Check the condition of the differential pressure sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1290**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF297 / EDC16CP33_V1C_DF297 / EDC16CP33_V54_DF297 / EDC16CP33_V20_DF297 / EDC16CP33_V58_DF297 / EDC16CP33_V5C_DF297 / EDC16CP33_V24_DF297 / EDC16CP33_V28_DF297 / EDC16CP33_V62_DF297 / EDC16CP33_V26_DF297 / EDC16CP33_V60_DF297

DF297
CONTINUED

Check the particle filter is present.

If it is present:

Visually check that the particle filter is in good condition by positioning the vehicle on a lift:

- not damaged (no abnormal welds, if necessary compare it with another vehicle fitted with particle filter),
- if there are After-Sales sleeves, as a result of a previous operation, check that the particle filter's contents were not emptied out when it was removed.

If the particle filter is not working correctly or is absent:

- replace it,
- run command **SC036 Reinitialise programming** and select **After particle filter replacement** (see **Interpretation of commands**),
- switch off the ignition and wait for the **diagnostic tool** message (maximum time **8 minutes**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage**,
- then switch on the ignition again,
- clear the faults from the computer memory (this operation must be carried out within **3 minutes** of the ignition being switched on).

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF304 PRESENT OR STORED	<u>EGR BY-PASS CIRCUIT</u> CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Internal electronic fault
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault reappears when the ignition is switched on.
	Special notes: Use bornier Elé. 1681 for all operations on the engine management computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	None.
-----------	--------------	-------

<p>Check the condition of the EGR bypass solenoid valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1301).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3FB and 3TP of component 1301.</p> <p>If the resistance is greater than 1 kΩ or less than 6 Ω, replace the EGR bypass solenoid valve.</p>
<p>Check the continuity of the following connection:</p> <ul style="list-style-type: none"> • 3TP between components 120 and 1301. <p>Check the + 12 V after relay supply to the EGR bypass solenoid valve on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 1301. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, replace the EGR by-pass solenoid valve.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

EDC16CP33_V18_DF304 / EDC16CP33_V1C_DF304 / EDC16CP33_V54_DF304 / EDC16CP33_V20_DF304 / EDC16CP33_V58_DF304 / EDC16CP33_V5C_DF304 / EDC16CP33_V24_DF304 / EDC16CP33_V04_DF304 / EDC16CP33_V08_DF304 / EDC16CP33_V44_DF304 / EDC16CP33_V4C_DF304 / EDC16CP33_V34_DF304 / EDC16CP33_V38_DF304 / EDC16CP33_V74_DF304 / EDC16CP33_V28_DF304 / EDC16CP33_V62_DF304 / EDC16CP33_V26_DF304 / EDC16CP33_V60_DF304

DF304 CONTINUED 1	
------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the EGR bypass solenoid valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1301).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3FB and 3TP of component 1301.</p> <p>If the resistance is greater than 1 kΩ or less than 6 Ω, replace the EGR bypass solenoid valve.</p>
<p>Check the continuity and insulation from earth of the following connection:</p> <ul style="list-style-type: none"> • 3TP between components 120 and 1301. <p>Check the + 12 V after relay supply to the EGR bypass solenoid valve on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 1301. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, replace the EGR by-pass solenoid valve.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF304 CONTINUED 2	
------------------------------	--

CC.1	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the EGR bypass solenoid valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1301).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3FB and 3TP of component 1301.</p> <p>If the resistance is greater than 1 kΩ or less than 6 Ω, replace the EGR bypass solenoid valve.</p>
<p>Check the continuity and insulation from + 12 V of the following connection:</p> <ul style="list-style-type: none"> • 3TP between components 120 and 1301. <p>If the connection is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, replace the EGR by-pass solenoid valve.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF304 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	Special notes: This fault appears when the computer control section has overheated. A road test may be necessary to reveal this fault.
--------------	--------------	---

<p>Check the condition of the EGR bypass solenoid valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1301).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3FB and 3TP of component 1301.</p> <p>If the resistance is greater than 1 kΩ or less than 6 Ω, replace the EGR bypass solenoid valve.</p>
<p>Check the continuity and the absence of interference resistance on the following connection:</p> <ul style="list-style-type: none"> • 3TP between components 120 and 1301. <p>Check the + 12 V after relay supply to the EGR bypass solenoid valve on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 1301. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF308 PRESENT OR STORED	<u>CLOGGED PARTICLE FILTER</u> 1.DEF: Maximum limit
NOTES	Conditions for applying fault finding procedures to stored faults: The fault is declared present after the engine is started or following a road test.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – particle filter regeneration is inhibited, – the EGR function is inhibited, – the vehicle performance is reduced, – the level 1 warning light is lit and a warning message (or warning light) is displayed on the instrument panel, – the EOBD (European On Board Diagnostic) warning light is lit (except Vdiag 18, 1C and 54).
	Priorities when dealing with a number of faults: Deal with the following faults first: <ul style="list-style-type: none"> – DF315 Particle filter differential pressure sensor if it is present. – DF308 if DF315 is stored. – DF717 Particle filter upstream pressure if it is present or stored. – DF645 Damper valve position regulation if it is present or stored. – DF272 EGR valve control circuit if it is present or stored. – DF647 EGR valve position regulation if it is present or stored. – DF309 Particle filter downstream temperature sensor if it is present or stored. – DF899 Regeneration temperature threshold exceeded if it is present or stored. – DF310 Particle filter upstream temperature sensor if it is present or stored. – DF652 Turbine upstream temperature sensor circuit if it is present or stored.

diff.*: Differential

temp.*: Temperature

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF308 / EDC16CP33_V1C_DF308 / EDC16CP33_V54_DF308 / EDC16CP33_V20_DF308 / EDC16CP33_V58_DF308 /
EDC16CP33_V5C_DF308 / EDC16CP33_V24_DF308 / EDC16CP33_V28_DF308 / EDC16CP33_V62_DF308 / EDC16CP33_V26_DF308 /
EDC16CP33_V60_DF308

DF308 CONTINUED	
----------------------------	--

1.DEF	NOTES	None.
--------------	--------------	-------

The fault appears if the **weight** of soot contained in the particle filter is:

- **Vdiag 18 and 54: above 56 g.**
- **Vdiag 1C, 20, 24, 5C, 58: above 58 g.**
- **Vdiag 26 and 28: greater than 68 g.**

If **Vdiag 18**, reprogram the computer (see **Replacement of components**). Then apply the procedure corresponding to the new Vdiag.

For **other Vdiag**, perform an After-Sales regeneration. Run command **SC017 Particle filter regeneration** (see **interpretation of commands**).

Clear fault **DF308 Present** or **Stored**.

If the fault is still present, contact the Techline.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF309 PRESENT OR STORED	PARTICLE FILT. DOWNSTREAM TEMP. SENSOR CC.0: Short circuit to earth CO.1: Open circuit or short circuit to +12 V
--	---

NOTES	Conditions for applying fault finding procedures to stored faults: The fault becomes present if: – ignition is on (CC.0), – following a road test, engine warm (CO.1).
	IMPORTANT: The particle filter downstream temperature sensor only measures temperatures greater than 50°C.
	Special notes: – If the fault is present : – After-Sales particle filter regeneration is inhibited, – particle filter fault finding is inhibited (for Vdiags 18, 1C and 54).

CC.0	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the particle filter downstream temperature sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1288).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the insulation from earth of the following connections:</p> <ul style="list-style-type: none"> • 3TG between components 120 and 1288, • 3XU between components 120 and 1288. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
If the fault is still present, replace the particle filter downstream temperature sensor.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF309 / EDC16CP33_V1C_DF309 / EDC16CP33_V54_DF309 / EDC16CP33_V20_DF309 / EDC16CP33_V58_DF309 / EDC16CP33_V5C_DF309 / EDC16CP33_V24_DF309 / EDC16CP33_V60_DF309 / EDC16CP33_V62_DF309

DF309 CONTINUED	
----------------------------	--

CO.1	NOTES	None.
-------------	--------------	-------

Check the condition of the particle filter downstream temperature sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1288**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity** and **insulation** from **+ 12 V** of the following connections:

- **3TG** between components **120** and **1288**,
- **3XU** between components **120** and **1288**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the particle filter downstream temperature sensor.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF310 PRESENT OR STORED	PARTICLE FILT. UPSTREAM TEMP SENSOR CC.0: Short circuit to earth CO.1: Open circuit or short circuit to +12 V
--	--

NOTES	Conditions for applying fault finding procedures to stored faults: The fault becomes present if: – ignition is on (CC.0), – following a road test, engine warm (CO.1).
	Special notes: If the fault is present : – particle filter regeneration is inhibited, – the level 1 warning light is lit, – the EOBD (European On Board Diagnostic) warning light will come on after three consecutive driving cycles (starting + 5 seconds + switching off the ignition and waiting for 1 minute).
	IMPORTANT: The particle filter upstream temperature sensor only measures temperatures above 50°C .

CC.0	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the particle filter upstream temperature sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1287).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the insulation from earth of the following connections:</p> <ul style="list-style-type: none"> • 3XT between components 120 and 1287, • 3TD between components 120 and 1287. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF310 / EDC16CP33_V1C_DF310 / EDC16CP33_V54_DF310 / EDC16CP33_V20_DF310 / EDC16CP33_V58_DF310 / EDC16CP33_V5C_DF310 / EDC16CP33_V24_DF310 / EDC16CP33_V28_DF310 / EDC16CP33_V62_DF310 / EDC16CP33_V26_DF310 / EDC16CP33_V60_DF310

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF310 CONTINUED	
----------------------------	--

If the wiring of the particle filter downstream temperature sensor, component code **1288**, is present (with or without the sensor being present), check the electrical insulation in relation to **+ 12 V** between the following connections:

- **3XU** between components **120** and **1288**,
- **3TG** between components **120** and **1288**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the particle filter upstream temperature sensor.

CO.1	NOTES	None.
-------------	--------------	-------

Check the condition of the particle filter upstream temperature sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1287**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity** and **insulation** from **+ 12 V** of the following connections:

- **3XT** between components **120** and **1287**,
- **3TD** between components **120** and **1287**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the particle filter upstream temperature sensor.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF311 PRESENT OR STORED	<u>FAILED REGENERATIONS LIMIT EXCEEDED</u>
NOTES	Conditions for applying fault finding procedures to stored faults: The fault is declared present after the engine is started or following a road test.
	Special notes: If the fault is present : – the level 1 warning light is lit, – particle filter regenerations when driving are inhibited.
	Priorities when dealing with a number of faults: Deal with the following faults first: – DF308 Particle filter clogged if it is present or stored. – DF315 Particle filter diff.* pressure sensor if it is present or stored. – DF717 Particle filter upstream pressure if it is present or stored. – DF569 Turbocharging circuit if it is present or stored. – DF309 Particle filter downstream temperature sensor if it is present or stored. – DF899 Regeneration temperature threshold exceeded if it is present or stored. – DF310 Particle filter upstream temperature sensor if it is present or stored. – DF652 Turbine upstream temperature sensor circuit if it is present or stored. – DF272 EGR valve control circuit if it is present or stored. – DF647 EGR valve position regulation if it is present or stored.

diff.*: Differential

temp.*: Temperature

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF311 / EDC16CP33_V1C_DF311 / EDC16CP33_V54_DF311 / EDC16CP33_V20_DF311 / EDC16CP33_V58_DF311 /
EDC16CP33_V5C_DF311 / EDC16CP33_V24_DF311 / EDC16CP33_V26_DF311 / EDC16CP33_V60_DF311

**DF311
CONTINUED**

The fault appears following:

- 7 failed regenerations when driving for **Laguna II ph2**.
- Between 9 and 11 failed regenerations when driving for **Mégane II ph2**, **Vel Satis ph2** and **Espace IV ph2**.

If **Vdiag 18**, reprogram the computer (see **Replacement of components**). Then apply the procedure corresponding to the new Vdiag.

For **other Vdiag**, perform an After-Sales regeneration. Run command **SC017 Particle filter regeneration** (see **Interpretation of commands**).

Explain the regeneration procedure when driving to the customer to avoid unnecessary repairs: see **SECTION D** in the interpretation of **DF312 Speed request**.

If the fault is still present, contact the Techline.

diff.*: Differential

temp.*: Temperature

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF312 PRESENT OR STORED	<u>SPEED REQUEST</u>
NOTES	<p>Conditions for applying fault finding procedures to stored faults: The fault is declared present after the engine is started or following a road test.</p>
	<p>Special notes: If the fault is present:</p> <ul style="list-style-type: none"> – the special Regenerate particle filter warning light is lit or a warning message is displayed on the instrument panel, – A specific kind of driving is required to bring about regeneration of the particle filter when driving.
	<p>Priorities when dealing with a number of faults: Firstly, deal with the following faults:</p> <ul style="list-style-type: none"> – DF308 Particle filter clogged if it is present or stored. – DF311 Failed regenerations limit exceeded if it is present. – DF315 Particle filter diff* pressure sensor if it is present or stored. – DF717 Particle filter upstream pressure if it is present or stored.

diff.*: Differential

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

EDC16CP33_V18_DF312 / EDC16CP33_V1C_DF312 / EDC16CP33_V54_DF312 / EDC16CP33_V20_DF312 / EDC16CP33_V58_DF312 / EDC16CP33_V5C_DF312 / EDC16CP33_V24_DF312 / EDC16CP33_V26_DF312 / EDC16CP33_V60_DF312

DF312 CONTINUED 1

The fault appears:

– **Vdiag 18 and 1C:**

4 failed regeneration attempts (for **Laguna II ph2**) and 5 failed regeneration attempts (for **Vel Satis ph2** and **Espace IV ph2**) when driving and the weight of soot in the particle filter is above **20 g**.

– **Vdiag 54:**

5 failed regeneration attempts (for **Mégane ph2**) when driving and the weight of soot in the particle filter is above **20 g**.

– **Vdiag 20, 24 and 26:**

4 failed regeneration attempts (for **Laguna II ph2**) and 5 failed regeneration attempts (for **Vel Satis ph2** and **Espace IV ph2**) and 7 failed regeneration attempts (for **Espace IV ph2**, **M9R 761** only) when driving and the weight of soot in the particle filter is above **20 g** for **M9R760** and **M9R762** or **36 g** for **M9R761** and **M9R763**.

– **Vdiag 5C and 58:**

5 failed regeneration attempts (for **Mégane II ph2**, **M9R 722/724** only) and 7 failed regeneration attempts (for **Mégane II ph2**, **M9R 721** only) when driving and the weight of soot in the particle filter is above **20 g** for **M9R 722/724** or **36 g** for **M9R 721**.

PART A

The flow chart on the following page allows analysis of the driving profile and the causes for the warning to come on.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF312 CONTINUED 2

Repair request with **DF312 Speed request present** or **stored ONLY**

Read the information from the **Particle filter history sub-function: PR784 to PR793 Stored DF312 No. 1 to No. 10**

Are **PR784 to PR793** all equal to **0 miles (0 km)**?

YES

NO

Among these parameters (**PR784 to PR793**):
– Find the parameter with the highest mileage: it is the **Mileage of the last DF312**.
– Note the parameter index on the order of repair with the relevant mileage value.
E.g.: **PR787 = 2794 miles (4657 Km)**.

Read the information in the **Particle filter history sub-function: PR794 to PR803 Stored regeneration failures No. 1 to No. 10**.

Vdiag 18, 1C, 54

Vdiag 20, 58, 5C
and 24

Is at least one of parameters **PR794 to PR803 = 19660 miles (32766 km)**?

YES

NO

Identify the distance(s) from the values of parameters **PR794 to PR803 Stored regeneration failures No. 1 to No. 10** included between the **Distance of the last DF312** and the **Distance of the last DF312 - 120 miles (- 200 km)**. This is the **Distance of the most recent failures**.
Example: **2674 miles (4457 km) < PR801 = 2760 miles (4600 km) < 2794 miles (4657 km)**

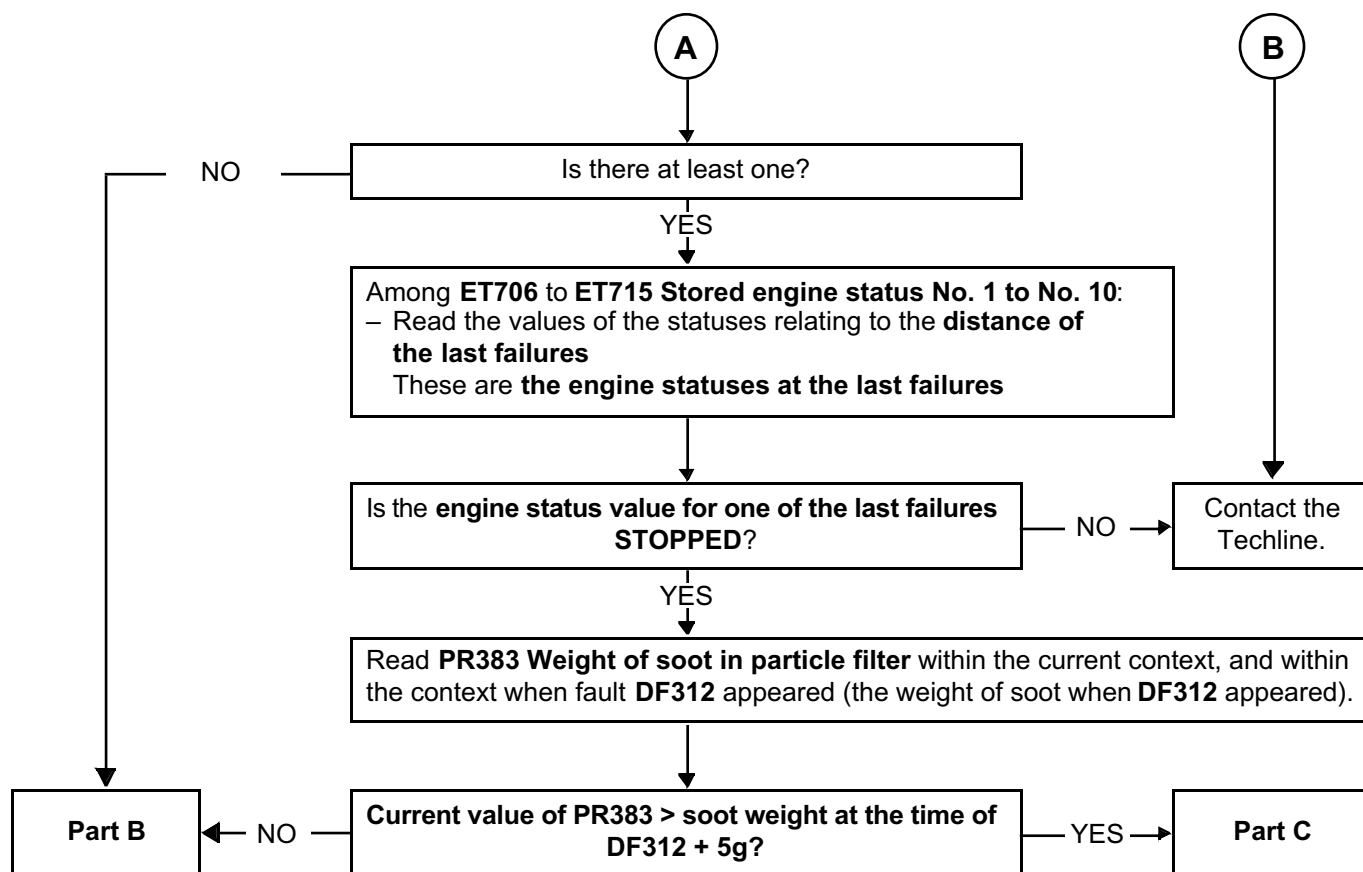
A

B

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF312 CONTINUED 3



AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF312
CONTINUED 4

PART B

1. No particle filter regeneration.

2. Write on the repair order the parameter and status relating to the last failure:

- **Mileage of the last DF312 Speed request.**
- **Mileage of the last failures.**
- **Engine statuses of the last failures.**

E.g.: **PR787 = 2794 miles (4657 km); PR801 = 2760 miles (4600 km);** engine status = STOPPED

3. Interpretation of the values written on the repair order by the service advisor for the customer:

Before the last time the **particle filter warning light or message** came on (appeared at the **Mileage of the last DF312**), the customer had not respected the driving recommendations: the failure that occurred at the **Mileage of the last failure** is due to the engine being switched off.

4. Explain to the customer the procedure to turn off the warning light, making use of the parameters noted in the repair order: see PART D.

PART C

If Vdiag 18:

Reprogram the computer in **Vdiag 1C**.

Then apply the procedure corresponding to **Vdiag 1C**.

If Vdiag 1C, 54, 58, 20 and 24:

- Carry out an After-Sales regeneration with **approval from the Techline**.
- Follow the procedure for command **SC017 Particle filter regeneration** (see **Interpretation of commands**).
- Explain to the customer the procedure for regeneration when driving to avoid unnecessary repairs: see **PART D**.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF312
CONTINUED 5

PART D

Procedure to switch off the Particle filter message or warning light on the instrument panel

Certain types of driving can trigger illumination of the particle filter warning light or message, and activate fault **DF312**. The customer must carry out a specific driving operation (cf. vehicle user manual) that consists of:

1. When the engine is warm, drive at a speed greater than **48 mph (80 km/h)** for **2 minutes** to trigger the regeneration procedure.
2. Keep driving at an average speed of **48 mph (80 km/h)**, until the "particle filter" warning light or message on the instrument panel goes out. In order for the procedure to succeed, it is necessary to drive without stopping the engine or leaving the engine running at idle speed for an extended period of time. The regeneration time depends on the vehicle and driving conditions but should last for **20 minutes maximum**.
3. If regeneration fails when driving (the warning light does not go out or the service warning light comes on), carry out an After-Sales regeneration. Run command **SC017** (see **Interpretation of commands**).

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF315 PRESENT OR STORED	<u>DIFFERENTIAL PRESSURE SENSOR PRESSURE SENSOR</u> CO: Open circuit CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V
--	--

NOTES	Conditions for applying fault finding procedures to stored faults: The fault is declared present after the engine is started or following a road test.
	Special notes: If the fault is present : – the level 1 warning light is lit, – the EOBD (European On Board Diagnostic) warning light will come on after three consecutive driving cycles (starting + 5 seconds + switching off the ignition and waiting for 1 minute), – the particle filter fault finding procedure is inhibited, – particle filter regeneration is inhibited.
	Priorities when dealing with a number of faults: – DF315 if it is present . – DF308 Particle filter clogged if DF315 is stored and DF308 is present . – DF011 Sensor supply voltage no. 1 if it is present or stored .

CC.1	NOTES	None.
-------------	--------------	-------

Check the condition of the differential pressure sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1290). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF315 CONTINUED	
----------------------------------	--

Check the continuity and insulation from +12 V of the following connections:

- **3TL** between components **120** and **1290**,
- **3TM** between components **120** and **1290**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the differential pressure sensor.

CO.0 CO	NOTES	None.
--------------------------	--------------	-------

Check the condition of the differential pressure sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1290**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity** and **insulation** to **earth** of the following connections:

- **3TL** between components **120** and **1290**,
- **3TM** between components **120** and **1290**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the wiring of the particle filter downstream temperature sensor, component code **1288**, is present (with or without the sensor being present), check the electrical insulation in relation to **+ 12 V** between the following connections:

- **3XU** between components **120** and **1288**,
- **3TG** between components **120** and **1288**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the differential pressure sensor.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF323 PRESENT OR STORED	<u>DAMPER VALVE</u> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CC: Short circuit C0: Open circuit 1.DEF: Internal electronic fault
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after the ignition has been switched on.
	Special notes: If the fault is present : – the level 1 warning light is lit (for Vdiag 20, 58, 24, 5C, 26, 28, 60 and 62), – particle filter regeneration is inhibited. Use bornier Elé. 1681 for all operations on the engine management computer connector.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CC.0 CC.1	NOTES	None.
----------------------	--------------	-------

<p>Check the condition of the damper valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1461).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3AAX and 3AAY of component 1461. If the resistance of the damper valve is less than 0.5 Ω or greater than 400 Ω, replace the damper valve.</p> <p>Then run command SC036: Reinitialise programming and select Damper valve to reinitialise the valve's opening and closing stops.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF323 CONTINUED 1

Check the **insulation** to **earth** of the following connections:

- **3AAX** between components **120** and **1461**,
- **3AAY** between the components **120** and **1461**.

Check the **insulation** from **+ 12 V** of the following connections:

- **3AAX** between components **120** and **1461**,
- **3AAY** between the components **120** and **1461**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

CC

NOTES

None.

Check the condition of the damper valve connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1461**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3AAX** and **3AAY** of component **1461**.

If the resistance of the damper valve is less than **0.5 Ω** or greater than **400 Ω**, replace the damper valve.

Then run command **SC036 Reinitialise programming** and select **Damper valve** to reinitialise the valve's opening and closing stops.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF323 CONTINUED 2

Check the **insulation** between the following connections:

- **3AAX** between components **120** and **1461**,
- **3AAY** between the components **120** and **1461**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

CO

NOTES

None.

Check the condition of the damper valve connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1461**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3AAX** and **3AAY** of component **1461**.

If the resistance of the damper valve is less than **0.5 Ω** or greater than **400 Ω**, replace the damper valve.

Then run command **SC036: Reinitialise programming** and select **Damper valve** to reinitialise the valve's opening and closing stops.

Check the **continuity** of the following connections:

- **3AAX** between components **120** and **1461**,
- **3AAY** between the components **120** and **1461**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF323 CONTINUED 3	
------------------------------------	--

1.DEF	NOTES	Special notes: This fault appears when the computer control section has overheated. A road test may be necessary.
		Priorities when dealing with a number of faults: Deal with CO , CO.0 , CC.1 and CO first if they are present or stored .

<p>Check the condition of the damper valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1461).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the continuity of the following connections:</p> <ul style="list-style-type: none"> • 3AAX between components 120 and 1461, • 3AAY between the components 120 and 1461. <p>Check the insulation from + 5 V (computer supplies) of the following connections:</p> <ul style="list-style-type: none"> • 3AAX between components 120 and 1461, • 3AAY between the components 120 and 1461. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF333 PRESENT OR STORED	<u>INJECTION -> AUTOMATIC TRANSMISSION CONNECTION</u> 1.DEF: Multiplex network
--	---

NOTES	Special notes: <ul style="list-style-type: none"> – Use bornier Elé. 1681 for all operations on the engine management computer connectors. – Do not clear the fault before reading the contexts of the fault. (see Wiring diagram Technical Note for Mégane II ph2, Scénic II ph2, Espace IV ph2)
	Conditions for applying the fault finding procedure to a stored fault: <ul style="list-style-type: none"> – The fault is declared present if the EOBD (European On Board Diagnostic) warning light is lit.

Check the multiplex network.
<p>Check the condition of the automatic transmission computer connector (see Wiring Diagram Technical Note, Mégane II ph2, Scénic II ph2, Espace IV ph2, component code 119).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Mégane II ph2, Scénic II ph2, Espace IV ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the insulation to earth, the continuity and absence of interference resistance on the following connections:</p> <ul style="list-style-type: none"> • 3MT between components 119 and 120, • 3MS between components 119 and 120. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>If the fault is still present, check that the automatic transmission computer is recognised by the CLIP diagnostic tool.</p> <p>If dialogue is not established (see MR 366, 372, 407, 23A, Automatic transmission).</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF364 PRESENT OR STORED	HEATING AND AIR CONDITIONING SYSTEM CC.0: Short circuit to earth CO.1: Open circuit or short circuit to +12 V
--	--

CC.0 CO.1	NOTES	Special notes: Use bornier Elé. 1681 for all operations on the engine management computer connectors.
		Use the Wiring Diagram Technical Note for Mégane II ph2 or Scénic II ph2 .

Check the heating and air conditioning circuit (see MR 364 (Mégane II ph2), 370 (Scénic II ph2) Mechanical, 62A, Air conditioning).
Check the condition of the refrigerant pressure sensor connector (see Wiring Diagram Technical Note, Mégane II ph2 or Scénic II ph2, component code 1202). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Mégane II ph2 or Scénic II ph2, component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.
Disconnect the battery and the injection computer. Check the insulation and continuity of the following connections: <ul style="list-style-type: none"> • 38Y between components 120 and 1202, • 38X between components 120 and 1202, • 38U between components 120 and 1202.
If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF364 / EDC16CP33_V1C_DF364 / EDC16CP33_V54_DF364 / EDC16CP33_V20_DF364 / EDC16CP33_V58_DF364 / EDC16CP33_V5C_DF364 / EDC16CP33_V24_DF364 / EDC16CP33_V04_DF364 / EDC16CP33_V08_DF364 / EDC16CP33_V44_DF364 / EDC16CP33_V4C_DF364 / EDC16CP33_V34_DF364 / EDC16CP33_V38_DF364 / EDC16CP33_V74_DF364 / EDC16CP33_V28_DF364 / EDC16CP33_V62_DF364 / EDC16CP33_V26_DF364 / EDC16CP33_V60_DF364

DF364 PRESENT OR STORED CONTINUED	
--	--

If the wiring of the particle filter downstream temperature sensor, component code **1288**, is present (with or without the sensor being present), check the electrical insulation in relation to **+ 12 V** between the following connections:

- **3XU** between components **120** and **1288**,
- **3TG** between components **120** and **1288**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the refrigerant pressure sensor.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF502 PRESENT OR STORED	<u>CRUISE CONTROL OR SPEED LIMITER BUTTON</u> 1.DEF: Cruise control/speed limiter on/off button inconsistency
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – a road test with activation of the cruise control/speed limiter function, – the engine is started.
	Special notes: If the fault is present : – the cruise control/speed limiter function is switched off. Use bornier Elé.1681 for any operations on the injection computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

Check the condition of the cruise control/speed limiter on/off button connector (see **Technical Note Wiring Diagram, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, component code 1081** or **component code 1546** for **Scénic II ph2**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

With the button in the rest position, check the **insulation** between the following connections:

- **AP10** and **3FX** of component **1081** (for **Vel Satis ph2, Laguna II ph2** and **Espace IV ph2**),
- **AP10** and **3PD** of component **1081** (for **Vel Satis ph2, Laguna II ph2** and **Espace IV ph2**),
- **AP43** and **3FX** of component **1081** (for **Mégane II ph2**),
- **AP43** and **3PD** of component **1081** (for **Mégane II ph2**),
- **AP43** and **3FX** of component **1546** (for **Mégane II ph2**),
- **AP43** and **3PD** of component **1546** (for **Scénic II ph2**).

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF502 CONTINUED	
----------------------------------	--

With speed limiter selected, check the **continuity** between the following connections:

- **AP10** and **3PD** of component **1081** (for **Vel Satis ph2**, **Laguna II ph2** and **Espace IV ph2**),
- **AP43** and **3PD** of component **1081** (for **Mégane II ph2**),
- **AP43** and **3PD** of component **1546** (for **Scénic II ph2**).

With cruise control selected, check the **continuity** between connections:

- **AP10** and **3FX** of component **1081** (for **Vel Satis ph2**, **Laguna II ph2** and **Espace IV ph2**),
- **AP43** and **3FX** of component **1081** (for **Mégane II ph2**),
- **AP43** and **3FX** of component **1546** (for **Scénic II ph2**).

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If necessary, replace the cruise control/speed limiter on/off button.

Check the **continuity** and **absence of interference resistance** of the following connections:

- **3FX** between components **120** and **1081** (for **Vel Satis ph2**, **Laguna II ph2**, **Espace IV ph2** and **Mégane II ph2**),
- **3PD** between components **120** and **1081** (for **Vel Satis ph2**, **Laguna II ph2**, **Espace IV ph2** and **Mégane II ph2**),
- **3FX** between components **120** and **1546** (for **Scénic II ph2**),
- **3PD** between components **120** and **1546** (for **Scénic II ph2**).

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF532 PRESENT OR STORED	<u>ALTERNATOR CHARGE SIGNAL</u> 1.DEF: Internal electronic fault 2.DEF: Inconsistent signal
--	---

NOTES	Priorities when dealing with a number of faults: – DF046 Battery voltage.
	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – starting the engine, – a road test.
	Special notes: Computer operating voltage: 6 V < operating voltage < 16.5 V . Use bornier Elé.1681 for any operations on the injection computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

Check the condition of the alternator connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 103**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF532 CONTINUED	
----------------------------------	--

Check the **continuity** and **the absence of interference resistance** on the following connection:

- **2K** between components **120** and **103**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the charging circuit; apply **Technical Note 6014A Checking the charging circuit**.
Carry out the necessary repairs.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF569 PRESENT OR STORED	<u>TURBOCHARGING CIRCUIT</u> 1.DEF: Turbocharging pressure too high 2.DEF: Turbocharging pressure too low 3.DEF: Inconsistency
--	--

NOTES	Priorities when dealing with a number of faults: – DF054 Turbocharging solenoid valve control circuit, – DF004 Turbocharging pressure sensor circuit.
	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – the ignition is switched on, – starting for 2.DEF , – a road test, – in turbo regulation phase for 1.DEF , – engine speed > 3000 rpm for 1.DEF , – system flow > 20 mg/st for 1.DEF .
	Special notes: Use bornier Elé.1681 for any operations on the injection computer connectors. If the fault is present : – particle filter regenerations are inhibited (for Vdiag 18, 1C, 54, 20, 58, 5C, 24 only), – engine torque limited, – turbocharging regulation is inhibited, – the EGR function is inhibited, – the level 1 and EOBD (European On Board Diagnostic) warning lights are lit.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF569 / EDC16CP33_V1C_DF569 / EDC16CP33_V54_DF569 / EDC16CP33_V20_DF569 / EDC16CP33_V58_DF569 /
EDC16CP33_V5C_DF569 / EDC16CP33_V24_DF569 / EDC16CP33_V04_DF569 / EDC16CP33_V08_DF569 / EDC16CP33_V44_DF569 /
EDC16CP33_V4C_DF569 / EDC16CP33_V34_DF569 / EDC16CP33_V38_DF569 / EDC16CP33_V74_DF569 / EDC16CP33_V28_DF569 /
EDC16CP33_V62_DF569 / EDC16CP33_V26_DF569 / EDC16CP33_V60_DF569

DF569 CONTINUED 1	
------------------------------------	--

1.DEF 2.DEF 3.DEF	NOTES	None.
--	--------------	-------

Perform the following road test (looking for a loss of power when accelerating under full load):

- in the highest gear ratio, accelerate fully,
- lift your foot off the accelerator pedal completely for at least 2 seconds,
- accelerate fully again,
- release the accelerator pedal completely,
- accelerate slightly.

If the loss of power was not noted during slight acceleration **and** if there was a loss of engine power during **each acceleration at full load**, replace the diesel fuel injector return rail and its overpressure valve (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2) Mechanical**, **13B, Diesel fuel injector return rail: Removal - Refitting**).

Check the condition of the turbocharging pressure sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1071**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF569 CONTINUED 2

Check **for continuity** and **absence of interference resistance** of the following connections:

- **3LQ** between components **120** and **1071**,
- **3LP** between components **120** and **1071**,
- **3LN** between components **120** and **1071**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Test the high pressure fuel circuit:

Apply scenario **SC035 High pressure fuel circuit fault finding**.

To interpret the result, apply the interpretation of command **SC035** (see **Interpretation of commands**).

With the engine stopped and ignition on, view parameters **PR035 Atmospheric pressure** and **PR041 Turbocharging pressure**.

If there is a difference of **> 100 mbar**, check that the atmospheric pressure reading is consistent (by comparison with another vehicle for example).

If atmospheric pressure is consistent, replace the turbocharging sensor.

If not, contact the Techline.

Use the **Monitool application: MT001 Turbocharging function** to check the entire air line (only for **Vdiag 04 and 44**).

Apply **Test 4 Turbocharged air inlet circuit check**.

Run **Test 7 Variable geometry turbocharger control**.

Run **Test 8 Turbocharger rotating part**.

If the fault is still present, refer to the interpretation of parameter **PR041 Turbocharging pressure**.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF645 PRESENT OR STORED	<u>DAMPER VALVE POSITION REGULATION</u> 1.DEF: Data inconsistency 2.DEF: Value outside permitted tolerance values 3.DEF: Damper valve jammed open
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after the engine has been started.
	Priorities when dealing with a number of faults: – DF038 Computer, – DF323 Damper valve, – DF012 Sensor supply voltage no. 2, – DF646 Damper valve position sensor.
	Special notes: If the fault is present : – the level 1 warning light is lit (for Vdiag 20, 58, 24, 5C, 26, 28, 60 and 62), – particle filter regeneration is inhibited. Use bornier Elé. 1681 for all operations on the engine management computer connector.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

1.DEF 2.DEF 3.DEF	NOTES	None.
--	--------------	-------

<p>Check that the valve is not mechanically jammed (ensure that the valve is clean and that no component is preventing it from closing, clean if necessary): With the engine stopped, disconnect the air inlet hose from the damper valve. Check that the valve is in the open position. Start, then switch off the engine. Check that the valve closes when the engine is switched off and then opens when the engine is stationary. If this is not the case, replace the damper valve.</p> <p>Then run command SC036 Reinitialise programming and select Damper valve to reinitialise the valve's opening and closing stops.</p>
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF645 / EDC16CP33_V1C_DF645 / EDC16CP33_V54_DF645 / EDC16CP33_V20_DF645 / EDC16CP33_V58_DF645 /
EDC16CP33_V5C_DF645 / EDC16CP33_V24_DF645 / EDC16CP33_V04_DF645 / EDC16CP33_V08_DF645 / EDC16CP33_V44_DF645 /
EDC16CP33_V4C_DF645 / EDC16CP33_V34_DF645 / EDC16CP33_V38_DF645 / EDC16CP33_V74_DF645 / EDC16CP33_V28_DF645 /
EDC16CP33_V62_DF645 / EDC16CP33_V26_DF645 / EDC16CP33_V60_DF645

DF645 CONTINUED	
----------------------------------	--

<p>Check the condition of the damper valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1461).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistances between connections 38KQ and 38KP (potentiometer supply and potentiometer earth) and between 38KS and 38KP (potentiometer signal and potentiometer earth) of component 1461.</p> <p>If the resistances of the damper valve are not between 290 Ω < X < 6 kΩ, replace the damper valve.</p> <p>Then run command SC036 Reinitialise programming and select Damper valve to reinitialise the valve's opening and closing stops.</p>
<p>Check for the absence of interference resistance on the following connections:</p> <ul style="list-style-type: none"> • 38KQ between components 120 and 1461, • 38KS between components 120 and 1461, • 38KP between components 120 and 1461. <p>Check the insulation against + 12 V (computer supplies) of the following connections:</p> <ul style="list-style-type: none"> • 3AAX between the components 120 and 1461, • 3AAY between the components 120 and 1461. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF646 PRESENT OR STORED	<u>DAMPER VALVE POSITION SENSOR</u> CC.0: Short circuit to earth CO.0: Open circuit or short circuit to earth CO.1: Open circuit or short circuit to +12 V 1.DEF: Open circuit or short circuit
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after: <ul style="list-style-type: none"> – the engine is started, – a road test.
	Priorities when dealing with a number of faults: <ul style="list-style-type: none"> – DF012 Sensor supply voltage no. 2.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – the level 1 warning light is lit (for Vdiag 20, 58, 24, 5C, 26, 28, 60 and 62), – particle filter regeneration is inhibited. Use bornier Elé. 1681 for all operations on the engine management computer connector.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO.1 1.DEF	NOTES	None.
-----------------------	--------------	-------

<p>Check the condition of the damper valve connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1461).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF646 / EDC16CP33_V1C_DF646 / EDC16CP33_V54_DF646 / EDC16CP33_V20_DF646 / EDC16CP33_V58_DF646 / EDC16CP33_V5C_DF646 / EDC16CP33_V24_DF646 / EDC16CP33_V04_DF646 / EDC16CP33_V08_DF646 / EDC16CP33_V44_DF646 / EDC16CP33_V4C_DF646 / EDC16CP33_V34_DF646 / EDC16CP33_V38_DF646 / EDC16CP33_V74_DF646 / EDC16CP33_V28_DF646 / EDC16CP33_V62_DF646 / EDC16CP33_V26_DF646 / EDC16CP33_V60_DF646

DF646 CONTINUED 1	
------------------------------------	--

Measure the **resistances** between connections **38KQ** and **38KP** (**potentiometer supply** and **potentiometer earth**) and between **38KS** and **38KP** (**potentiometer signal** and **potentiometer earth**) of component **1461**.
If the resistances of the damper valve are not between **290 Ω < X < 6 kΩ**, replace the damper valve.

Then run command **SC036: Reinitialise programming** and select **Damper valve** to reinitialise the valve's opening and closing stops.

Check the **insulation** from **+ 12 V** and **+ 5 V** between the following connections:

- **38KP** between components **120** and **1461**,
- **38KQ** between components **120** and **1461**,
- **38KS** between components **120** and **1461**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

CC.0 CO.0	NOTES	None.
----------------------------	--------------	-------

Check the condition of the damper valve connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1461**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF646 CONTINUED 2

Measure the **resistances** between connections **38KQ** and **38KP** (**potentiometer supply** and **potentiometer earth**) and between connections **38KS** and **38KP** (**potentiometer signal** and **potentiometer earth**) of component **1461**.

If the resistances of the damper valve are not between **290 Ω < X < 6 kΩ**, replace the damper valve.

Then run command **SC036: Reinitialise programming** and select **Damper valve** to reinitialise the valve's opening and closing stops.

Check the **insulation to earth** of the following connection:

- **38KS** between components **120** and **1461**.

Check the **continuity** of the following connections:

- **38KS** between components **120** and **1461**,
- **38KQ** between components **120** and **1461**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF647 PRESENT OR STORED	<u>EGR VALVE POSITION REGULATION</u> 1.DEF: EGR 1 offset inconsistency 2.DEF: EGR 2 offset inconsistency 3.DEF: Valve jammed closed 4.DEF: Valve jammed open
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after: – the ignition is switched on. – the engine is started, – a road test, – if the air flowmeter temperature > 5°C.
	Priorities when dealing with a number of faults: – DF209 EGR valve position sensor circuit, – DF046 Battery voltage, – DF012 Sensor supply voltage no. 2, – DF272 EGR valve control circuit.
	Special notes: – the level 1 and EOBD (European On Board Diagnostic) warning lights are lit for 1.DEF, 2.DEF, and 4.DEF – only the EOBD (European On Board Diagnostic) warning light is lit for 3.DEF , – the EGR function is inhibited by the engine management computer, – reduced performance for 2.DEF and 3.DEF or 1.DEF and 2.DEF (for Vdiags 5C, 58 and 24, and 20, 26, 28, 60, 62). Use bornier Elé. 1681 for all operations on the engine management computer connector.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF647 / EDC16CP33_V1C_DF647 / EDC16CP33_V54_DF647 / EDC16CP33_V20_DF647 / EDC16CP33_V58_DF647 / EDC16CP33_V5C_DF647 / EDC16CP33_V24_DF647 / EDC16CP33_V04_DF647 / EDC16CP33_V08_DF647 / EDC16CP33_V44_DF647 / EDC16CP33_V4C_DF647 / EDC16CP33_V34_DF647 / EDC16CP33_V38_DF647 / EDC16CP33_V74_DF647 / EDC16CP33_V28_DF647 / EDC16CP33_V62_DF647 / EDC16CP33_V26_DF647 / EDC16CP33_V60_DF647

DF647 CONTINUED 1	
------------------------------------	--

1.DEF 2.DEF	NOTES	None.
------------------------------	--------------	-------

Check the condition of the EGR valve (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1460 or 169**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3EL** and **3JM** of component **1460** or **169**.
If the resistance of the EGR valve is not between $1\text{ k}\Omega < X < 7,5\text{ k}\Omega$, replace the EGR valve.

Measure the **resistance** between connections **3EL** and **3GC** of component **1460** or **169**.
If the resistance of the EGR valve is not between $3.9\text{ k}\Omega < X < 12.6\text{ k}\Omega$, replace the EGR valve.

After replacement, run command **SC036 Reinitialise programming** and select **EGR valve** to reinitialise the EGR valve offsets.

Check the **continuity** and **absence of interference resistance** of the following connections:

- **3GC** between components **120** and **1460** or **169**,
- **3EL** between components **120** and **1460** or **169**,
- **3JM** between components **120** and **1460** or **169**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Remove and clean the EGR valve, then refit the EGR valve and start the engine (see **MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2), Mechanical, 14A, Emission control, Exhaust gas recirculation solenoid valve: Removal - Refitting**).

If the fault is still present, replace the EGR valve then run command **SC036 Reinitialise programming** and select **EGR valve** to reinitialise the EGR valve offsets.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF647 CONTINUED 2	
------------------------------------	--

3.DEF 4.DEF	NOTES	None.
------------------------------	--------------	-------

Remove and clean the EGR valve, then refit it and start the engine. (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2) Mechanical, 14A, Emission control, Exhaust gas recirculation valve: Removal - Refitting**).

If the fault is still present, replace the EGR valve then run command **SC036** and select **EGR valve** to reinitialise the EGR valve offsets.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF651 PRESENT OR STORED	<u>TURBINE UPSTREAM PRESSURE SENSOR CIRCUIT</u> CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Inconsistency
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: If the fault is declared present after: – With the ignition on, – when the engine is running.
	Special notes: If the fault is present : – engine torque limited, – the EGR function is inhibited by the engine management computer, – the vehicle performance is reduced, – particle filter regeneration is inhibited, – the level 1 warning light is illuminated, – the EOBD (European On Board Diagnostic) warning light is lit (for Vdiag 5C, 58, 24 and 20 (only for M9R761, M9R722 and M9R724)).
	Priorities when dealing with a number of faults: DF011 Sensor supply voltage no. 1.

CO.0	NOTES	None.
-------------	--------------	-------

Check the condition of the turbine upstream pressure sensor connector (**component code 1299**).
Check the condition of the engine management computer connector (**component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF651 CONTINUED 1

Check the continuity and insulation from earth of the following connections:

- **3MX** between components **120** and **1299**,
- **3MY** between components **120** and **1299**,
- **3MZ** between components **120** and **1299**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the wiring of the particle filter downstream temperature sensor, component code **1288**, is present (with or without the sensor being present), check the electrical insulation in relation to **+ 12 V** between the following connections:

- **3XU** between components **120** and **1288**,
- **3TG** between components **120** and **1288**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the faults **DF569 Turbocharging circuit** and/or **DF1188 Air taken into the turbocharging circuit** are present, perform **Test 8 Turbocharger rotating part**.

If the fault is still present, replace the turbine upstream pressure sensor.

CC.1

NOTES

None.

Check the condition of the turbine upstream pressure sensor connector (**component code 1299**).

Check the condition of the engine management computer connector (**component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF651 CONTINUED 2

Check the **continuity** and **insulation** from **+ 12 V** of the following connections:

- **3MX** between components **120** and **1299**,
- **3MY** between components **120** and **1299**,
- **3MZ** between components **120** and **1299**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the faults **DF569 Turbocharging circuit** and/or **DF1188 Air taken into the turbocharging circuit** are present, perform **Test 8 Turbocharger rotating part**.

If the fault is still present, replace the turbine upstream pressure sensor.

1.DEF

NOTES

None.

Check the condition of the turbine upstream pressure sensor connector (**component code 1299**).

Check the condition of the engine management computer connector (**component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check for continuity and absence of interference resistance on the following connection:

- **3MY** between components **120** and **1299**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the faults **DF569 Turbocharging circuit** and/or **DF1188 Air taken into the turbocharging circuit** are present, perform **Test 8 Turbocharger rotating part**.

Replace the turbine upstream pressure sensor if necessary.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF652 PRESENT OR STORED	<u>TURBINE UPSTREAM TEMPERATURE SENSOR CIRCUIT</u> CC.0: Short circuit to earth CO.1: Open circuit or short circuit to +12 V
--	---

NOTES	Conditions for applying fault finding procedures to stored faults: The fault becomes present if: – the ignition is on (CC.0) or after a road test with the engine warm (CO.1).
	Special notes: If the fault is present : – particle filter regeneration is inhibited, – the vehicle performance is reduced, – temperature regulation upstream of the particle filter is inhibited, – the level 1 warning light is illuminated, – the EOBD (European On Board Diagnostic) warning light is lit (for Vdiag 5C, 58, 24 and 20).

CC.0	NOTES	None.
-------------	--------------	-------

<p>Check the condition of the turbine upstream temperature sensor connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1589).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the insulation from earth of the following connections:</p> <ul style="list-style-type: none"> • 3ABS between components 120 and 1589, • 3ABT between components 120 and 1589. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If fault is still present, replace the turbine upstream temperature sensor</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF652 CONTINUED	
----------------------------	--

CO.1	NOTES	None.
-------------	--------------	-------

Check the condition of the turbine upstream temperature sensor connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1589**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check **the continuity** and **insulation** from **+ 12 V** of the following connections:

- **3ABS** between components **120** and **1589**,
- **3ABT** between components **120** and **1589**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If fault is still present, replace the turbine upstream temperature sensor.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF717 PRESENT OR STORED	<u>PARTICLE FILTER UPSTREAM PRESSURE</u> 1.DEF: Inconsistency
--	--

NOTES	Conditions for applying fault finding procedures to stored faults: The fault is declared present after the engine is started or following a road test.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – the level 1 warning light is lit, – the EOBD (European On Board Diagnostic) warning light will come on after three consecutive driving cycles (starting + 5 seconds + switching off the ignition and waiting for 1 minute), – the particle filter fault finding procedure is inhibited, – particle filter regeneration is inhibited.

Check the condition of the pressure pipe between the particle filter upstream take-off point and the differential pressure sensor.

Check that the pipe is not crushed, blocked or pierced.

Check that the differential pressure sensor is correctly positioned and connected (see **MR 395, 402, 405, 364, 370, Mechanical, 19B Exhaust, Particle filter pressure sensor: Removal - Refitting**).

Replace the pressure pipe if necessary.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF890 PRESENT OR STORED	<u>MOVEMENT DURING REGENERATION PRESSURE SENSOR</u> 1.DEF: Above max threshold
--	--

NOTES	Conditions for applying fault finding procedures to stored faults: The fault becomes present during an After-Sales regeneration carried out using the diagnostic tool at a speed above zero.
	Special notes: If the fault is present , the particle filter regeneration in progress is interrupted.

<p>IMPORTANT: The fault is present because the vehicle was driven while the After-Sales regeneration was in progress. The vehicle must remain stationary throughout regeneration.</p> <p>DO NOT DRIVE THE VEHICLE. CHECK THAT THE VEHICLE IS CORRECTLY IMMOBILISED.</p> <ul style="list-style-type: none"> – Switch off the ignition and wait for the diagnostic tool message (maximum wait 8 minutes): Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply, – switch on the ignition again, – establish dialogue with the injection computer, clear the faults from the computer memory, – carry out another After-Sales regeneration, – run command SC017 Particle filter regeneration and follow the procedure described in Interpretation of commands. <p>If the fault is still present, contact the Techline.</p>
--

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF891 PRESENT OR STORED	<u>GROUP 1 INJECTORS FEED</u> CC.0: Short circuit to earth 1.DEF: Faulty connections
--	---

NOTES	Group 1 corresponds to injectors 1 and 2.
	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: <ul style="list-style-type: none"> – the ignition is switched on, – the engine is started.
	Priorities when dealing with a number of faults: <ul style="list-style-type: none"> – DF026 Cylinder 1 injector control circuit – DF027 Cylinder 2 injector control circuit.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – particle filter regeneration is inhibited, – the level 2 warning light will be lit, – the engine stops. Use bornier Elé.1681 for all operations on the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

Check the condition of the injector connectors (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component codes 193, 194**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF891 / EDC16CP33_V1C_DF891 / EDC16CP33_V54_DF891 / EDC16CP33_V20_DF891 / EDC16CP33_V58_DF891 / EDC16CP33_V5C_DF891 / EDC16CP33_V24_DF891 / EDC16CP33_V04_DF891 / EDC16CP33_V08_DF891 / EDC16CP33_V44_DF891 / EDC16CP33_V4C_DF891 / EDC16CP33_V34_DF891 / EDC16CP33_V38_DF891 / EDC16CP33_V74_DF891 / EDC16CP33_V28_DF891 / EDC16CP33_V62_DF891 / EDC16CP33_V26_DF891 / EDC16CP33_V60_DF891

DF891
CONTINUED

Check the **continuity** and **insulation** of the following connections:

- **3KW** between components **120** and **193**,
- **3CR** between components **120** and **193**,
- **3KX** between components **120** and **194**,
- **3CS** between components **120** and **194**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF892 PRESENT OR STORED	<u>GROUP 2 INJECTORS FEED</u> CC.0: Short circuit to earth 1.DEF: Faulty connections
--	---

NOTES	Group 2 corresponds to injectors 3 and 4.
	Conditions for applying the fault finding procedure to a stored fault: If the fault becomes present after: <ul style="list-style-type: none"> – the ignition is switched on, – the engine is started.
	Priorities when dealing with a number of faults: <ul style="list-style-type: none"> – DF028 Cylinder 3 injector control circuit, – DF029 Cylinder 4 injector control circuit.
	Special notes: If the fault is present : <ul style="list-style-type: none"> – particle filter regeneration is inhibited, – the level 2 warning light will be lit, – the engine stops. Use bornier Elé.1681 for all operations on the engine management computer.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

Check the condition of the injector connectors (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component codes 195, 196**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF892 / EDC16CP33_V1C_DF892 / EDC16CP33_V54_DF892 / EDC16CP33_V20_DF892 / EDC16CP33_V58_DF892 / EDC16CP33_V5C_DF892 / EDC16CP33_V24_DF892 / EDC16CP33_V04_DF892 / EDC16CP33_V08_DF892 / EDC16CP33_V44_DF892 / EDC16CP33_V4C_DF892 / EDC16CP33_V34_DF892 / EDC16CP33_V38_DF892 / EDC16CP33_V74_DF892 / EDC16CP33_V28_DF892 / EDC16CP33_V62_DF892 / EDC16CP33_V26_DF892 / EDC16CP33_V60_DF892

DF892
CONTINUED

Check the **continuity** and **insulation** of the following connections:

- **3KY** between components **120** and **195**,
- **3CT** between components **120** and **195**,
- **3KZ** between components **120** and **196**,
- **3CU** between components **120** and **196**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF895 PRESENT OR STORED	<u>PRESSURE REGULATION ON RAIL</u> 1.DEF: Below minimum threshold 2.DEF: Above maximum threshold 3.DEF: Negative loop deviation 4.DEF: Positive loop deviation
--	---

NOTES	<p>Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after:</p> <ul style="list-style-type: none"> – the ignition is switched on, – with the engine running, – road test.
	<p>Priorities when dealing with a number of faults:</p> <ul style="list-style-type: none"> – DF898 Pressure regulator circuit on rail, – DF897 Pressure regulator circuit on pump, – DF896 Pressure regulation on pump.
	<p>Special notes: DF895 depends on the pressure regulator built into the rail (DRV). DF896 Pressure regulation on pump depends on the pressure regulator integrated in the pump (MPROP). The fuel pressure regulator built into the rail (DRV) and the fuel pressure regulator built into the pump (MPROP) are never actuated at the same time. If the fault is present:</p> <ul style="list-style-type: none"> – particle filter regeneration is inhibited, – the engine stops and the level 2 warning light comes on: 1.DEF, 4.DEF, – the level 1 warning light comes on: 2.DEF, 3.DEF, 4.DEF, – engine torque limited 2.DEF, 3.DEF, 4.DEF, – the rail pressure is regulated by a regulator built into the pump (MPROP): 2.DEF, 3.DEF, 4.DEF.
	<p>Use bornier Elé.1681 for all operations on the engine management computer.</p>
	<p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

EDC16CP33_V18_DF895 / EDC16CP33_V1C_DF895 / EDC16CP33_V54_DF895 / EDC16CP33_V20_DF895 / EDC16CP33_V58_DF895 /
EDC16CP33_V5C_DF895 / EDC16CP33_V24_DF895 / EDC16CP33_V04_DF895 / EDC16CP33_V08_DF895 / EDC16CP33_V44_DF895 /
EDC16CP33_V4C_DF895 / EDC16CP33_V34_DF895 / EDC16CP33_V38_DF895 / EDC16CP33_V74_DF895 / EDC16CP33_V28_DF895 /
EDC16CP33_V62_DF895 / EDC16CP33_V26_DF895 / EDC16CP33_V60_DF895

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF895 CONTINUED 1	
------------------------------	--

1.DEF 2.DEF 3.DEF 4.DEF	NOTES	None.
--	--------------	-------

Check that there are no leaks on the high pressure diesel fuel circuit.
Repair if necessary.

Check the level of fuel in the tank.
In the event of a fuel gauge sensor fault, deal with this fault first.
Check the low pressure circuit using **Test 3 Low pressure circuit test** and check that there are no exterior air leaks in the low pressure fuel circuit.

Test the high pressure fuel circuit:
Run scenario **SC035 High pressure fuel circuit fault finding** (see **Interpretation of commands**).

If the fault is still present, check the rail pressure regulator connections (**DRV**).
check the engine management computer connections.

Check the seal on the rail pressure regulator (**DRV**):
Disconnect the low-pressure return pipe from the rail pressure regulator (**DRV**). In its place, connect a transparent pipe, with the other end leading to a container of some sort in order to collect the drained diesel fuel.
Start the engine and let the engine idle.
When the engine is started, no diesel should flow into the transparent pipe as the rail pressure regulator (**DRV**) is closed so that the pressure in the hydraulic system can rise.
Diesel fuel should flow into the transparent pipe a few seconds after the engine is started, provided that the diesel is cold (less than **15°C**), as the regulation is provided by the rail pressure regulator (**DRV**).
If the diesel is warm (above **15°C**), regulation is controlled by the pump pressure regulator (**MPROP**). No diesel should flow into the pipe.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF895 CONTINUED 2

If the diesel does not behave in accordance with this description, replace the rail (removing the rail pressure regulator (**DRV**) is not permitted).

Note: the above description no longer applies if faults **DF898 Rail pressure regulator circuit**, **DF897 Pump pressure regulator circuit** and **DF896 Pump pressure regulation** are present.

Check the condition of the pressure regulator connector on the pump (**MPROP**) (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1105**).
Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3FB** and **3HI** of component **1105**.

If the resistance of the pressure regulator connector on the pump is not between $2\ \Omega < X < 6\ \Omega$ at **20°C**, contact the Techline.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DF896 PRESENT OR STORED	<u>PRESSURE REGULATOR ON PUMP</u> 1.DEF: Below minimum threshold 2.DEF: Above maximum threshold 3.DEF: Negative loop deviation 4.DEF: Positive loop deviation
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present after: – the ignition is switched on. – engine running.
	Priorities when dealing with a number of faults: – DF897 Pressure regulator circuit on pump – DF898 Pressure regulator circuit on rail.
	Special notes: If the fault is present : – particle filter regeneration is inhibited, – the engine stops and the level 2 warning light comes on: 1.DEF , – the level 1 warning light comes on: 2.DEF, 3.DEF, 4.DEF , – engine torque is limited: 2.DEF, 3.DEF, 4.DEF , – the rail pressure is regulated by a regulator built into the rail (DRV): 2.DEF, 3.DEF, 4.DEF .

1.DEF 2.DEF 3.DEF 4.DEF	NOTES	None.
--	--------------	-------

Check that there are no leaks on the high pressure diesel fuel circuit. Repair if necessary.
Check the level of fuel in the tank. Check the low pressure circuit using Test 3 Low pressure circuit test and check that there are no exterior air leaks in the low pressure fuel circuit.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

EDC16CP33_V18_DF896 / EDC16CP33_V1C_DF896 / EDC16CP33_V54_DF896 / EDC16CP33_V20_DF896 / EDC16CP33_V58_DF896 / EDC16CP33_V5C_DF896 / EDC16CP33_V24_DF896 / EDC16CP33_V04_DF896 / EDC16CP33_V08_DF896 / EDC16CP33_V44_DF896 / EDC16CP33_V4C_DF896 / EDC16CP33_V34_DF896 / EDC16CP33_V38_DF896 / EDC16CP33_V74_DF896 / EDC16CP33_V28_DF896 / EDC16CP33_V62_DF896 / EDC16CP33_V26_DF896 / EDC16CP33_V60_DF896

DF896 CONTINUED	
----------------------------------	--

<p>Test the high pressure fuel circuit: Run scenario SC035 High pressure fuel circuit fault finding.</p> <p>Check the condition of the pressure regulator connector on the pump (MPROP) (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1105). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Check the condition of the rail pressure regulator connector (DRV) (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1198). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

DF897 PRESENT OR STORED	<u>PUMP PRESSURE REGULATOR CIRCUIT</u> CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Internal electronic fault
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault reappears after: <ul style="list-style-type: none"> – the ignition is switched on, – the regulator is controlled using command AC226 Pump pressure regulator.
	Special notes: The fuel flow regulator is built into the high pressure pump. If the fault is present : <ul style="list-style-type: none"> – particle filter regeneration is inhibited, – the quantity of fuel injected is limited and the engine speed is limited to 3000 rpm: CO, CC.1, 1.DEF, – regulation with open loop for fuel flow, – the level 2 warning light comes on: CC.0: engine stop, – the level 1 warning light comes on: CO, CC.1, 1.DEF, – pressure is regulated by the pump pressure regulator (MPROP). Use bornier Elé. 1681 for all operations on the engine management computer connectors.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

CO	NOTES	None.
-----------	--------------	-------

Check the condition of the pressure regulator connector on the pump (MPROP) (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1105). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF897 CONTINUED 1

Measure the **resistance** between connections **3FB** and **3HI** of component **1105**.

If the resistance of the pressure regulator connector on the pump is less than **1.5 Ω** or greater than **1 kΩ**, contact the Techline.

Check the **continuity** of the following connection:

- **3HI** between the components **120** and **1105**.

Check the **+12 V after relay supply** to the pump pressure regulator (**MPROP**) on the following connection:

- **3FB** of component **1105**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

CC.0

NOTES

None.

Check the condition of the pressure regulator connector on the pump (**MPROP**) (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1105**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3FB** and **3HI** of component **1105**.

If the resistance of the pressure regulator connector on the pump is less than **1.5 Ω** or greater than **1 kΩ**, contact the Techline.

Check the **continuity** and **insulation** from **earth** of the following connection:

- **3HI** between the components **120** and **1105**.

Check the **+12 V after relay supply** to the pump pressure regulator (**MPROP**) on the following connection:

- **3FB** of component **1105**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF897 CONTINUED 2	
------------------------------	--

CC.1	NOTES	None.
-------------	--------------	-------

Check the condition of the pressure regulator connector on the pump (**MPROP**) (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1105**).
Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3FB** and **3HI** of component **1105**.
If the resistance of the pressure regulator connector on the pump is less than **1.5 Ω** or greater than **1 kΩ**, contact the Techline.

Check the **continuity** and **insulation** from + **12 V** of the following connection:
• **3HI** between the components **120** and **1105**.
Check the **+12 V after relay supply** to the pump pressure regulator (**MPROP**) on the following connection:
• **3FB** of component **1105**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

1.DEF	NOTES	This fault appears when the computer control section has overheated.
--------------	--------------	--

Check the condition of the pressure regulator connector on the pump (**MPROP**) (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1105**).
Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF897 CONTINUED 3

Measure the **resistance** between connections **3FB** and **3HI** of component **1105**.

If the resistance of the pressure regulator connector on the pump is less than **1.5 Ω** or greater than **1 k Ω** , contact the Techline.

Check the **continuity** and **absence of interference resistance** on the following connection:

- **3HI** between the components **120** and **1105**.

Check the **+12 V after relay supply** to the pump pressure regulator (**MPROP**) on the following connection:

- **3FB** of component **1105**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the **diagnostic tool**.

<p>DF898 PRESENT OR STORED</p>	<p><u>PRESSURE REGULATOR CIRCUIT ON RAIL</u> CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Internal electronic fault</p>
<p>NOTES</p>	<p>Conditions for applying the fault finding procedure to a stored fault: The fault reappears after:</p> <ul style="list-style-type: none"> – the ignition is switched on, – the regulator is controlled using command AC225 Rail pressure regulator.
	<p>Special notes: The rail pressure regulator (DRV) is built into the high pressure rail. The DF898 Rail pressure regulator circuit depends on the pressure regulator on the rail (DRV). If the fault is present:</p> <ul style="list-style-type: none"> – the quantity of fuel injected is limited and the engine speed is limited to 3000 rpm: CO, CC.1, 1.DEF, – the level 2 warning light will be lit, – the engine stops immediately for CO, CC.1, 1.DEF, – the engine stops after a few minutes for CC.0, – the rail pressure is regulated by the pump pressure regulator (MPROP). <p>Use bornier Elé. 1681 for all operations on the engine management computer connectors.</p>
	<p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

<p>AFTER REPAIR</p>	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
----------------------------	---

EDC16CP33_V18_DF898 / EDC16CP33_V1C_DF898 / EDC16CP33_V54_DF898 / EDC16CP33_V20_DF898 / EDC16CP33_V58_DF898 /
EDC16CP33_V5C_DF898 / EDC16CP33_V24_DF898 / EDC16CP33_V04_DF898 / EDC16CP33_V08_DF898 / EDC16CP33_V44_DF898 /
EDC16CP33_V4C_DF898 / EDC16CP33_V34_DF898 / EDC16CP33_V38_DF898 / EDC16CP33_V74_DF898 / EDC16CP33_V28_DF898 /
EDC16CP33_V62_DF898 / EDC16CP33_V26_DF898 / EDC16CP33_V60_DF898

DIESEL INJECTION

Fault finding – Interpretation of faults

13B

DF898 CONTINUED 1	
------------------------------------	--

CO	NOTES	None.
-----------	--------------	-------

Check the condition of the rail pressure regulator connector (**DRV**) (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1198**).
Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3FB** and **3RG** of component **1198**.
If the resistance of the rail pressure regulator connector is less than **2 Ω** or greater than **1 kΩ**, contact the Techline.

Check the **continuity** of the following connection:
• **3RG** between components **120** and **1198**.
Check the **+12 V after relay supply** to the rail pressure regulator (**DRV**) on the following connection:
• **3FB** of component **1198**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF898 CONTINUED 2	
------------------------------------	--

CC.0	NOTES	None.
-------------	--------------	-------

Check the condition of the rail pressure regulator connector (**DRV**) (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1198**).
Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3FB** and **3RG** of component **1198**.
If the resistance of the rail pressure regulator connector is less than **2 Ω** or greater than **1 kΩ**, contact the Techline.

Check the **continuity** and **insulation from earth** of the following connection:

- **3RG** between the components **120** and **1198**.

Check the **+12 V after relay supply** to the rail pressure regulator (**DRV**) on the following connection:

- **3FB** of component **1198**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

DF898 CONTINUED 3	
------------------------------------	--

CC.1	NOTES	None.
------	--------------	-------

Check the condition of the rail pressure regulator connector (**DRV**) (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1198**).
Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** between connections **3FB** and **3RG** of component **1198**.
If the resistance of the rail pressure regulator connector is less than **2 Ω** or greater than **1 kΩ**, contact the Techline.

Check the **continuity** and **insulation from + 12 V** of the following connection:

- **3RG** between the components **120** and **1198**.

Check the **+12 V after relay supply** to the rail pressure regulator (**DRV**) on the following connection:

- **3FB** of component **1198**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	---

DF898 CONTINUED 4	
------------------------------------	--

1.DEF	NOTES	Special notes: This fault appears when the computer control section has overheated.
--------------	--------------	---

<p>Check the condition of the rail pressure regulator connector (DRV) (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1198).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance between connections 3FB and 3RG of component 1198.</p> <p>If the resistance of the rail pressure regulator connector is less than 2 Ω or greater than 1 kΩ, contact the Techline.</p>
<p>Check the continuity and absence of interference resistance on the following connection:</p> <ul style="list-style-type: none"> • 3RG between the components 120 and 1198. <p>Check the +12 V after relay supply to the rail pressure regulator (DRV) on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 1198. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF899 PRESENT OR STORED	<u>REGENERATION TEMPERATURE LIMIT EXCEEDED</u>
--	--

NOTES	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present during an After-Sales regeneration, if the temperature threshold is exceeded.
	Special notes: If the fault is present : – regeneration in progress is stopped. IMPORTANT: The fault appears if the temperature threshold is exceeded during the After-Sales regeneration phase.

<ul style="list-style-type: none">• Carry out particle filter replacement• run command SC036 Reinitialise programming (see Interpretation of commands) and select After particle filter replacement.• switch off the ignition and wait for the diagnostic tool message (maximum wait 8 minutes): Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage,• then switch on the ignition again,• clear the present or stored faults from the computer memory (operation to be carried out within 3 minutes of switching on the ignition).
If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF997 PRESENT OR STORED	CONTROL UNIT -> THERMOPLUNGERS CONNECTION 1.DEF: Signal incoherent
--	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: the fault is declared present after the engine starts.
	Special notes: If the fault is present : The engine performance is impaired during the particle filter regeneration phase.

<p>Check the condition of the thermoplunger 1, 2, 3 relay mounting connector on the engine fuse box or additional heater interface unit (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 1067, 1068, 1069 or 1550).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>Check the condition of the thermoplunger connectors (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component codes 898, 1072, 1073, 1074).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>Check the conformity of the thermoplunger 1, 2, 3 relay (relay removed) or the additional heater interface unit:</p> <p>– Check the insulation between the following connections:</p> <ul style="list-style-type: none"> • BP9 and 3JB of component 1067 or 1550. • BP91 and 3JAD or 3JD and 3JAC of component 1068 or 1550. • BP9 and 3JAC or 3JC of component 1069 or 1550. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Check the continuity of the following connections:</p> <ul style="list-style-type: none"> • 3JAC or 3JC between component 1069 or 1550, • 3JAD or 3JD and 3JAC between component 1068 or 1550, • 3JA between component 1067 or 1550. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF997 CONTINUED	
----------------------------------	--

Check **the absence of interference resistance** on the following connections:

- **3JA** between components **120** and **1067** or **1550**,
- **3JAA** between components **120** and **1068** or **1550**,
- **3JAB** between components **120** and **1069** or **1550**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the **+ 12 V after relay supply** to the thermoplunger **1**, thermoplunger **2**, thermoplunger **3** relay mounting of the following connections:

- **3FB** of component **1067** or **1550**,
- **BP91** of component **1068** or **1550**,
- **BP9** of component **1069** or **1550**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Actuate the various thermoplunger relays one by one using commands:

- **AC063 Thermoplunger no. 1 relay**
- **AC064 Thermoplunger no. 2 relay**
- **AC031 Thermoplunger no. 3 relay**

Check the voltage using a multimeter. If the voltage is zero, the thermoplunger is faulty.

Only replace the faulty thermoplunger.

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF1020 PRESENT OR STORED	<u>ENGINE OIL DILUTION</u> 1.DEF: Above maximum threshold
---	---

NOTES	Conditions for applying the fault finding procedure to a stored fault: the fault is declared present after the engine starts.
	Special notes: If the fault is present : Particle filter regeneration inhibited, Level 1 warning light lit, Risk of engine damage.

Drain the engine oil.
Reset the oil wear counter.
Clear the faults.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF1069 PRESENT OR STORED	<u>HEATER PLUGS NOT CONFIGURED</u> 1.DEF: Configuration / Initialisation
---	--

NOTES	Special notes: If the fault is present : – engine torque limited, – an engine speed below 1500 rpm . The level 1 warning light is illuminated.
	Conditions under which the fault appears: This fault only appears when the computer is reprogrammed after a change of Vdiag.

<p>If the fault is present, display status ET781 Heater plugs in the sub-function Ignition/Preheating. If status ET781 is STATUS 3, this means that the heater plugs are not configured in the injection computer. To find out which type of heater plugs are fitted to the engine, look at the colour of the rings on the plugs.</p> <ul style="list-style-type: none"> – Slow plugs have a black ring. – Fast plugs have a white ring. <p>To configure the type of plugs, run command SC036 Reinitialise programming and select HEATER PLUGS (see Interpretation of commands). If the fault is stored, clear the fault. End of fault finding.</p>
<p>If the fault is still present or if status ET781 is not STATUS 3 or is inconsistent with the type of plug fitted, contact the Techline.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool.</p>
---------------------	--

DF1188 PRESENT OR STORED	<u>AIR TAKEN INTO THE TURBOCHARGING CIRCUIT</u> 1.DEF: Air leak in the turbocharging circuit
---	--

NOTES	Priorities when dealing with a number of faults: – DF004 Turbocharging pressure sensor circuit.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present with the engine running above 3000 rpm and during the turbocharger regulation phase (for at least 10 seconds).
	Special notes: If the fault is present : <ul style="list-style-type: none">– the level 1 and OBD warning lights are lit,– the vehicle performance is reduced,– engine torque is limited,– the turbo function is inhibited,– particle filter regeneration is inhibited,– the EGR function is inhibited by the engine management computer,

Check the condition of the turbocharging pressure sensor connector (**component code 1071**).
Check the condition of the turbocharging solenoid valve connector (**component code 1475**).
Check the condition of the engine management computer connector (**component code 120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity** and **insulation** of the following connections:

- **3LQ** between components **120** and **1071**,
- **3LP** between components **120** and **1071**,
- **3LN** between components **120** and **1071**,
- **3MG** between the components **120** and **1475**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

DF1188 CONTINUED	
-----------------------------	--

Apply Test 4 Turbocharged air inlet circuit check.
Apply Test 7 Variable geometry turbocharger control.
Apply Test 8 Turbocharger rotating part.
Run Test 11 Temperature upstream of turbine too low.
Check the take-off point of the turbine upstream pressure sensor.
If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition until the end of the power-latch phase, and carry out a road test followed by a check with the diagnostic tool .
---------------------	--

The global **conformity check** for the functions and sub-functions of this system is no longer explained in the conformity check sub-section. Instead, all of the information available in the **CLIP diagnostic tool** functions and sub-functions is detailed in the following sections:

For **STATUSES**, refer to the **INTERPRETATION OF STATUSES** section.

For **PARAMETERS**, refer to the **INTERPRETATION OF PARAMETERS** section.

For **COMMANDS**, refer to the **INTERPRETATION OF COMMANDS** section.

EDC16CP33_V18_CCONF / EDC16CP33_V1C_CCONF / EDC16CP33_V54_CCONF / EDC16CP33_V20_CCONF /
EDC16CP33_V58_CCONF / EDC16CP33_V5C_CCONF / EDC16CP33_V24_CCONF / EDC16CP33_V04_CCONF /
EDC16CP33_V08_CCONF / EDC16CP33_V44_CCONF / EDC16CP33_V4C_CCONF / EDC16CP33_V34_CCONF /
EDC16CP33_V38_CCONF / EDC16CP33_V74_CCONF / EDC16CP33_V28_CCONF / EDC16CP33_V62_CCONF /
EDC16CP33_V26_CCONF / EDC16CP33_V60_CCONF

DIESEL INJECTION

Fault finding – Status summary table

13B

Tool status	Diagnostic tool title
ET001	+ After ignition computer feed
ET003	Engine immobiliser
ET007	Pre-postheating control
ET024	Thermoplunger no. 1 request
ET025	Thermoplunger no. 2 request
ET026	Thermoplunger no. 3 request
ET034	Clutch signal registered
ET038	Engine
ET042	Cruise control/speed limiter
ET076	Starting
ET077	Impact detected
ET079	Air conditioning present
ET104	Injector code use
ET120	Pre-postheating signal
ET143	Low-speed fan assembly relay control
ET144	High-speed fan assembly relay control
ET205	Thermoplunger no. 1 relay control (only on Laguna II ph2 without particle filter)
ET206	Thermoplunger no. 2 relay control (only on Laguna II ph2 without particle filter)
ET207	Thermoplunger no. 3 relay control (only on Laguna II ph2 without particle filter)
ET238	Synchronisation
ET285	Injection -> automatic gearbox connection
ET341	Immobiliser code programmed
ET405	Clutch pedal switch (only for manual gearboxes)
ET415	Cruise control/Speed limiter deactivation
ET587	Cooling of recirculated exhaust gas
ET589	Electric coolant pump control (turbocharger)
ET615	Automatic gearbox lever position
ET651	EGR programming cut-off

DIESEL INJECTION

Fault finding – Status summary table

13B

Tool status	Diagnostic tool title
ET703	Cruise control/speed limiter buttons
ET704	Brakecontact No. 1
ET705	Brakecontact No. 2
ET706	Stored engine status no. 1
ET707	Stored engine status no. 2
ET708	Stored engine status no. 3
ET709	Stored engine status no. 4
ET710	Stored engine status no. 5
ET711	Stored engine status no. 6
ET712	Stored engine status no. 7
ET713	Stored engine status no. 8
ET714	Stored engine status no. 9
ET715	Stored engine status no. 10
ET742	Stored rege.* request status No.1
ET743	Stored rege.* request status No.2
ET744	Stored rege.* request status No.3
ET745	Stored rege.* request status No.4
ET746	Stored rege.* request status No.5
ET747	Stored rege.* request status No.6
ET748	Stored rege.* request status No.7
ET749	Stored rege.* request status No.8
ET750	Stored rege.* request status No.9
ET751	Stored rege.* request status No.10
ET776	Recirculated exhaust gas cool.* setpoint
ET781	Heater plugs

*rege.: regeneration

*cool.: cooling

DIESEL INJECTION

Fault finding – Interpretation of statuses

13B

ET001	<u>COMPUTER + AFTER IGNITION FEED</u>
-------	---------------------------------------

STATUS DEFINITION	<p>PRESENT: This status indicates that the + after ignition feed is active.</p> <p>ABSENT: This status indicates that the + after ignition feed is not active.</p>
--------------------------	--

NOTES	<p>Special notes:</p> <p>Only perform these tests if the parameters do not correspond with the system operation programming.</p> <p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Mégane II ph2, Scénic II ph2, Espace IV ph2.</p>
--------------	---

<p>Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C</p>

"PRESENT"	<p>Ignition on and engine running warm at idle speed with the + after ignition feed activated.</p> <p>Normal operating condition.</p> <p>The computer is correctly supplied after the ignition has been switched on.</p> <p>In the event of a fault, refer to the interpretation of DF046 Battery voltage or DF151 Main relay circuit.</p>
------------------	---

Sensor electrical conformity.

"ABSENT"	NOTES	Ignition on
-----------------	--------------	-------------

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET001 / EDC16CP33_V1C_ET001 / EDC16CP33_V54_ET001 / EDC16CP33_V20_ET001 / EDC16CP33_V58_ET001 / EDC16CP33_V5C_ET001 / EDC16CP33_V24_ET001 / EDC16CP33_V04_ET001 / EDC16CP33_V08_ET001 / EDC16CP33_V44_ET001 / EDC16CP33_V4C_ET001 / EDC16CP33_V34_ET001 / EDC16CP33_V38_ET001 / EDC16CP33_V74_ET001 / EDC16CP33_V28_ET001 / EDC16CP33_V62_ET001 / EDC16CP33_V26_ET001 / EDC16CP33_V60_ET001

ET001 CONTINUED	
----------------------------	--

If the ignition is not switched on, status **ET001** should be **ABSENT**.

As soon as the ignition is switched on, the computer should be supplied with power. Status **ET001** becomes **PRESENT**.

If this status remains locked on **ABSENT**, follow the procedure below:

- Check the condition of fuse **FM3 (30A)** in the engine fuse and relay box (see **MR 395 (Laguna II ph2), 405 (Espace IV ph2) Mechanical, 81C, Fuses, Fuses: List and location of components**).
- Check the condition of fuse **F18 (15A)** in the Protection and Switching Unit (UPC) (see **MR364 (Mégane II ph2), MR370 (Scénic II ph2) Mechanical, 81C, Fuses, Fuses: List and location of components**).

Check the **continuity** and **absence of interference resistance** on the following connection:

- **3AA** between components **120** and **983 or 1337**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120**).

If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, contact the Techline.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

ET003	<u>ENGINE IMMOBILISER</u>
--------------	---------------------------

STATUS DEFINITION	<p>ACTIVE: This status indicates that the immobiliser is active.</p> <p>INACTIVE: This status indicates that the immobiliser is inactive.</p>
------------------------------	---

NOTES	<p>Special notes:</p> <p>Only perform these tests if the parameters do not correspond with the system operation programming.</p>
--------------	---

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

ACTIVE	Refer to the fault finding note for the UCH (see 87B, Passenger compartment connection unit).
---------------	---

INACTIVE	Refer to the fault finding note for the UCH (see 87B, Passenger compartment connection unit).
-----------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET003 / EDC16CP33_V1C_ET003 / EDC16CP33_V54_ET003 / EDC16CP33_V20_ET003 / EDC16CP33_V58_ET003 / EDC16CP33_V5C_ET003 / EDC16CP33_V24_ET003 / EDC16CP33_V04_ET003 / EDC16CP33_V08_ET003 / EDC16CP33_V44_ET003 / EDC16CP33_V4C_ET003 / EDC16CP33_V34_ET003 / EDC16CP33_V38_ET003 / EDC16CP33_V74_ET003 / EDC16CP33_V28_ET003 / EDC16CP33_V62_ET003 / EDC16CP33_V26_ET003 / EDC16CP33_V60_ET003

ET007	<u>PRE-POSTHEATING UNIT CONTROL</u>
--------------	-------------------------------------

STATUS DEFINITION	<p>ACTIVE: when the heater plugs are activated according to the engine coolant temperature.</p> <p>INACTIVE: after the engine has been running for a certain period</p> <p>In the event of a fault, consult the interpretation of fault DF017 Preheating unit control circuit.</p>
------------------------------	---

NOTES	<p>Special notes:</p> <p>This status is specific to slow heater plugs (black ring).</p>
--------------	--

Conformity check with engine stopped and ignition on.

"ACTIVE"	<p>When the ignition is switched on, status ET007 should be ACTIVE for a time that varies according to the engine coolant temperature. Both the relay and the heater plugs are supplied.</p> <p>After starting, the status should remain ACTIVE for a time that varies according to the engine temperature. This is the postheating phase.</p> <p>If ET007 is INACTIVE when the ignition is switched on, check:</p> <ul style="list-style-type: none"> – Supply fuse FM12 (70A) of component 597 (engine fuse and relay box) or F2 (70A) of component 777 for Mégane II and Scénic II – The supply to the heater plugs after relay actuation, and the connections of the heater plugs. <p>Important: on this engine, the plug supply voltage is variable.</p> <ul style="list-style-type: none"> – Check the continuity and absence of interference resistance of the following connections: <ul style="list-style-type: none"> • 37AB between components 257 and 683, • 37AA between components 257 and 680, • 37Z between components 257 and 681, • 37AC between components 257 and 682. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
-----------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET007 / EDC16CP33_V1C_ET007 / EDC16CP33_V54_ET007 / EDC16CP33_V20_ET007 / EDC16CP33_V58_ET007 /
EDC16CP33_V5C_ET007 / EDC16CP33_V24_ET007 / EDC16CP33_V04_ET007 / EDC16CP33_V08_ET007 / EDC16CP33_V44_ET007 /
EDC16CP33_V4C_ET007 / EDC16CP33_V34_ET007 / EDC16CP33_V38_ET007 / EDC16CP33_V74_ET007 / EDC16CP33_V28_ET007 /
EDC16CP33_V26_ET007

<p>ET007 CONTINUED</p>	
<p>"ACTIVE"</p>	<p>– Check the connection and condition of the preheating unit (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 257).</p> <p>If the connector or connectors are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>If the vehicle starts, postheating has ended and status ET007 remains ACTIVE during the engine operating phase, refer to the interpretation of faults DF017 Preheating unit control circuit and DF025 Preheating unit diagnostic connection.</p>
<p>"INACTIVE"</p>	<p>If the vehicle does not start, the status remains INACTIVE and preheating does not start when the ignition is switched on or during the starting phase.</p> <p>Check the continuity and absence of interference resistance on the following connections:</p> <ul style="list-style-type: none"> • 3FY and 3FF between components 120 and 257. <p>Check the + 12 V battery supply to the preheating unit on the following connection:</p> <ul style="list-style-type: none"> • BP35 of component 257. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Conformity check with the engine running and engine coolant temperature > 80°C</p>	
<p>"ACTIVE" then "INACTIVE"</p>	<p>After the engine has been running for a certain period, the status changes from ACTIVE to INACTIVE.</p> <p>In the event of a fault, consult the interpretation of fault DF017 Preheating unit control circuit.</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

ET024 ET025 ET026	<u>THERMOPLUNGER NO. 1 REQUEST</u> <u>THERMOPLUNGER NO. 2 REQUEST</u> <u>THERMOPLUNGER NO. 3 REQUEST</u>
--	--

STATUS DEFINITION	ACTIVE: These statuses indicate that the thermoplungers are active. INACTIVE: These statuses indicate that the thermoplungers are inactive.
------------------------------	--

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

"INACTIVE"	Statuses ET024 , ET025 , and ET026 are INACTIVE when the ignition is switched on with the engine stopped, or when the engine is warm.
-------------------	---

"ACTIVE"	<p>Statuses ET024, ET025, and ET026 are ACTIVE when:</p> <ul style="list-style-type: none"> – the engine has been started, – and the engine coolant temperature is low (< 15°C), – and the air temperature is low (< 5°C). <p>This strategy allows the engine coolant to be heated and to allow the heating of the passenger compartment.</p> <p>To control the operation of the thermoplunger relays, run the following commands:</p> <ul style="list-style-type: none"> – AC063 Thermoplunger no. 1 relay, – AC064 Thermoplunger no. 2 relay, – AC031 Thermoplunger no. 3 relay. <p>In the event of a fault, refer to the interpretation of faults:</p> <ul style="list-style-type: none"> – DF032 Thermoplunger no. 1 relay control circuit, – DF033 Thermoplunger no. 2 relay control circuit, – DF034 Thermoplunger no. 3 relay control circuit.
-----------------	--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET024 / EDC16CP33_V18_ET025 / EDC16CP33_V18_ET026 / EDC16CP33_V1C_ET024 / EDC16CP33_V1C_ET025 / EDC16CP33_V1C_ET026 / EDC16CP33_V54_ET024 / EDC16CP33_V54_ET025 / EDC16CP33_V54_ET026 / EDC16CP33_V20_ET024 / EDC16CP33_V20_ET025 / EDC16CP33_V20_ET026 / EDC16CP33_V58_ET024 / EDC16CP33_V58_ET025 / EDC16CP33_V58_ET026 / EDC16CP33_V5C_ET024 / EDC16CP33_V5C_ET025 / EDC16CP33_V5C_ET026 / EDC16CP33_V24_ET024 / EDC16CP33_V24_ET025 / EDC16CP33_V24_ET026 / EDC16CP33_V28_ET024 / EDC16CP33_V28_ET025 / EDC16CP33_V28_ET026 / EDC16CP33_V62_ET024 / EDC16CP33_V62_ET025 / EDC16CP33_V62_ET026 / EDC16CP33_V26_ET024 / EDC16CP33_V60_ET024 / EDC16CP33_V26_ET025 / EDC16CP33_V60_ET025 / EDC16CP33_V26_ET026 / EDC16CP33_V60_ET026

ET034	<u>CLUTCH SIGNAL DETECTED</u>
STATUS DEFINITION	<p>NO: This status indicates that the clutch pedal has not been depressed since the ignition was switched on.</p> <p>YES: This status indicates that the clutch pedal has been depressed since the ignition was switched on.</p>
NOTES	<p>Special notes:</p> <p>Only perform these tests if the parameters do not correspond with the system operation programming.</p>
Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C	
NO	<p>When the vehicle ignition is switched on without depressing the clutch pedal, status ET034 is NO.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET034 / EDC16CP33_V1C_ET034 / EDC16CP33_V54_ET034 / EDC16CP33_V20_ET034 / EDC16CP33_V58_ET034 / EDC16CP33_V5C_ET034 / EDC16CP33_V24_ET034 / EDC16CP33_V04_ET034 / EDC16CP33_V08_ET034 / EDC16CP33_V44_ET034 / EDC16CP33_V4C_ET034 / EDC16CP33_V34_ET034 / EDC16CP33_V38_ET034 / EDC16CP33_V74_ET034 / EDC16CP33_V28_ET034 / EDC16CP33_V62_ET034 / EDC16CP33_V26_ET001 / EDC16CP33_V60_ET001

<p>ET034 CONTINUED</p>	
<p>YES</p>	<p>When the driver depresses the clutch pedal, status ET034 becomes YES until the ignition is next switched off.</p> <p>If NO appears despite the clutch pedal being depressed, carry out the following operations:</p> <ul style="list-style-type: none"> – Remove the clutch pedal switch, check the insulation between connections M and 86D of component 675, with the switch in the rest position. – Repeat this operation with the switch engaged and check the continuity between the two connections. <p>If these 2 checks are faulty, replace the switch.</p> <p>Check the condition of the clutch switch connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 675).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Then check the continuity and absence of interference resistance of the connection:</p> <ul style="list-style-type: none"> • 86D between components 120 and 675. <ul style="list-style-type: none"> – Check for complete earthing on connection M of component 675. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

ET038	<u>ENGINE</u>
-------	---------------

STATUS DEFINITION	<p>+ AFTER IGNITION: This status indicates that the engine is in + after ignition feed.</p> <p>RUNNING: This status indicates that the engine is running.</p> <p>STOPPED: This status indicates that the engine is stopped.</p>
------------------------------	---

Conformity check with engine stopped and ignition on.
--

+ APC	<p>This status indicates that the engine is in + after ignition feed.</p> <p>In the event of a fault, switch off the ignition, wait for the message to appear on the diagnostic tool (maximum time 8 minutes): Loss of dialogue with the computer: EDC16 CP33, check the connection of the tool and the computer supply.</p> <p>If the fault is still present, contact the Techline.</p>
--------------	--

Conformity check with the engine running and engine coolant temperature > 80°C
--

"RUNNING"	<p>This status indicates that the engine is running.</p> <p>In the event of a fault, switch off the ignition, wait for the message to appear on the diagnostic tool (maximum time 8 minutes): Loss of dialogue with the computer: EDC16 CP33, check the connection of the tool and the computer supply,</p> <p>If the fault is still present, contact the Techline.</p>
------------------	--

"STOPPED"	<p>This status indicates that the engine has just cut out, without the ignition being switched off.</p>
------------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET038 / EDC16CP33_V1C_ET038 / EDC16CP33_V54_ET038 / EDC16CP33_V20_ET038 / EDC16CP33_V58_ET038 /
EDC16CP33_V5C_ET038 / EDC16CP33_V24_ET038 / EDC16CP33_V04_ET038 / EDC16CP33_V08_ET038 / EDC16CP33_V44_ET038 /
EDC16CP33_V4C_ET038 / EDC16CP33_V34_ET038 / EDC16CP33_V38_ET038 / EDC16CP33_V74_ET038 / EDC16CP33_V28_ET038 /
EDC16CP33_V62_ET038 / EDC16CP33_V26_ET038 / EDC16CP33_V60_ET038

ET042	<u>CRUISE CONTROL/SPEED LIMITER</u>
STATUS DEFINITION	<p>NOT DETECTED: This status indicates that the cruise control or speed limiter function is not present on the vehicle.</p> <p>INACTIVE: This status indicates that the main on/off switch of the cruise control/speed limiter is in the rest (or neutral) position.</p> <p>LIMITER: This status indicates that the driver has used the main switch to select the speed limiter.</p> <p>CRUISE CONTROL: This status indicates that the driver has used the main switch to select the cruise control.</p>
NOTES	<p>Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.</p>
Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C	
NOT DETECTED	The cruise control or speed limiter function is not present on the vehicle.
INACTIVE	No button has been pressed.
LIMITER	The speed limiter ON/OFF button has been pressed. Lights the orange warning light on the instrument panel.
CRUISE CONTROL	The cruise control ON/OFF button has been pressed. Lights the green warning light on the instrument panel.
AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .

EDC16CP33_V18_ET042 / EDC16CP33_V1C_ET042 / EDC16CP33_V54_ET042 / EDC16CP33_V20_ET042 / EDC16CP33_V58_ET042 /
EDC16CP33_V5C_ET042 / EDC16CP33_V24_ET042 / EDC16CP33_V04_ET042 / EDC16CP33_V08_ET042 / EDC16CP33_V44_ET042 /
EDC16CP33_V4C_ET042 / EDC16CP33_V34_ET042 / EDC16CP33_V38_ET042 / EDC16CP33_V74_ET042 / EDC16CP33_V28_ET042 /
EDC16CP33_V62_ET042 / EDC16CP33_V26_ET042 / EDC16CP33_V60_ET042

**ET042
CONTINUED 1**

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C

NOT DETECTED

If the vehicle is not fitted with cruise control/speed limiter function buttons, status **ET042 Cruise control/speed limiter** is permanently **NOT DETECTED**. Confirmation of the absence of the cruise control or speed limiter function on the vehicle.

If the vehicle is fitted with cruise control or speed limiter function buttons and the main switch is in the rest (or neutral) position and after the injection computer has been programmed or reprogrammed, then status **ET042** is **NOT DETECTED**.

To activate the cruise control or speed limiter function, press the main switch in the cruise control position and then in the speed limiter position.

Return to rest position

The tool displays status **ET042: INACTIVE**.

If not, several steps must be checked:

1. Return to the multiplex network test page on the Clip application. Repeat the multiplex network test. Re-establish dialogue with the injection computer.
Check **ET042**. If **ET042** is **INACTIVE**, the injection computer has detected the various positions of the main switch. The cruise control/speed limiter is active.
2. If **ET042** is still **NOT DETECTED**, check that the owner of the vehicle has not had the cruise control/speed limiter function deactivated in the past. Contact the Techline.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

<p>ET042 CONTINUED 2</p>	
<p>"INACTIVE"</p>	<p>When the main button is in rest position (or Neutral), status ET042 Cruise control/speed limiter is INACTIVE.</p> <p>If CRUISE CONTROL or SPEED LIMITER appears despite the main switch being in the rest (or neutral) position, carry out the following operations:</p> <p>Check the connections of the cruise control/speed limiter main switch.</p> <p>Check for +12 V after ignition on the switch connector on the following connections:</p> <ul style="list-style-type: none"> • AP10 of component 1081 (for Vel Satis ph 2, Laguna II ph2 and Espace IV ph2), • AP43 of component 1081 (for Mégane II ph2), • AP43 of component 1546 (for Scénic II ph2). <p>Disconnect the main switch, and when it is in the rest position, check the insulation between the following connections:</p> <ul style="list-style-type: none"> • AP10 and 3FX of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP10 and 3PD of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP43 and 3FX of component 1081 (for Mégane II ph2), • AP43 and 3PD of component 1081 (for Mégane II ph2), • AP43 and 3FX of component 1546 (for Scénic II ph2), • AP43 and 3PD of component 1546 (for Scénic II ph2). <p>With speed limiter selected, check the continuity between the following connections:</p> <ul style="list-style-type: none"> • AP10 and 3PD of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP43 and 3PD of component 1081 (for Mégane II ph2), • AP43 and 3PD of component 1546 (for Scénic II ph2). <p>With cruise control selected, check the continuity between the following connections:</p> <ul style="list-style-type: none"> • AP10 and 3FX of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP43 and 3FX of component 1081 (for Mégane II ph2), • AP43 and 3FX of component 1546 (for Scénic II ph2).
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

<p>ET042 CONTINUED 3</p>	
<p>"INACTIVE"</p>	<p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>Check the continuity, insulation and the absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • 3FX and 3PD between components 1081 and 120 (for Vel Satis ph2, Laguna II ph2, Espace IV ph2 and Mégane II ph2), • 3FX and 3PD between components 1546 and 120 (for Scénic II ph2). <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>Also check:</p> <p>The engine management computer connections.</p> <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

<p>ET042 CONTINUED 4</p>	
<p>LIMITER</p>	<p>When the driver presses the main switch to the speed limiter position, status ET042 Cruise control / speed limiter becomes SPEED LIMITER.</p> <p>If CRUISE CONTROL or INACTIVE appears although the switch was pressed in the speed limiter position, carry out the following operations:</p> <p>Check the connections of the cruise control/speed limiter main switch.</p> <p>Check for +12 V after ignition on the switch connector on the following connections:</p> <ul style="list-style-type: none"> • AP10 of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP43 of component 1081 (for Mégane II ph2), • AP43 of component 1546 (for Scénic II ph2). <p>Disconnect the main switch, and when it is in the rest position, check the insulation between the following connections:</p> <ul style="list-style-type: none"> • AP10 and 3FX of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP10 and 3PD of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP43 and 3FX of component 1081 (for Mégane II ph2), • AP43 and 3PD of component 1081 (for Mégane II ph2), • AP43 and 3FX of component 1546 (for Scénic II ph2), • AP43 and 3PD of component 1546 (for Scénic II ph2). <p>With speed limiter selected, check the continuity between the following connections:</p> <ul style="list-style-type: none"> • AP10 and 3PD of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP43 and 3PD of component 1081 (for Mégane II ph2), • AP43 and 3PD of component 1546 (for Scénic II ph2). <p>With cruise control selected, check the continuity between the following connections:</p> <ul style="list-style-type: none"> • AP10 and 3FX of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP43 and 3FX of component 1081 (for Mégane II ph2), • AP43 and 3FX of component 1546 (for Scénic II ph2). <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

ET042 CONTINUED 5

LIMITER

Check the **continuity**, **insulation** and the **absence of interference resistance** of the following connections:

- **3FX** and **3PD** between components **1081** and **120** (for **Vel Satis ph2**, **Laguna II ph2**, **Espace IV ph2** and **Mégane II ph2**)
- **3FX** and **3PD** between components **1546** and **120** (for **Scénic II ph2**).

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Also check:

The engine management computer connections.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

<p>ET042 CONTINUED 6</p>	
<p>CRUISE CONTROL</p>	<p>When the driver presses the cruise control switch, status ET042 Cruise control/speed limiter becomes CRUISE CONTROL.</p> <p>If SPEED LIMITER or INACTIVE appears although the driver pressed the switch in the cruise control position, carry out the following operations:</p> <p>Check the connections of the cruise control/speed limiter main switch.</p> <p>Check for +12 V after ignition on the switch connector on the following connections:</p> <ul style="list-style-type: none"> • AP10 of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2). • AP43 of component 1081 (for Mégane II ph2). • AP43 of component 1546 (for Scénic II ph2). <p>Disconnect the main switch, and when it is in the rest position, check the insulation between the following connections:</p> <ul style="list-style-type: none"> • AP10 and 3FX of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP10 and 3PD of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP43 and 3FX of component 1081 (for Mégane II ph2), • AP43 and 3PD of component 1081 (for Mégane II ph2), • AP43 and 3FX of component 1546 (for Scénic II ph2), • AP43 and 3PD of component 1546 (for Scénic II ph2). <p>With speed limiter selected, check the continuity between the following connections:</p> <ul style="list-style-type: none"> • AP10 and 3PD of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP43 and 3PD of component 1081 (for Mégane II ph2), • AP43 and 3PD of component 1546 (for Scénic II ph2). <p>With cruise control selected, check the continuity between the following connections:</p> <ul style="list-style-type: none"> • AP10 and 3FX of component 1081 (for Vel Satis ph2, Laguna II ph2 and Espace IV ph2), • AP43 and 3FX of component 1081 (for Mégane II ph2), • AP43 and 3FX of component 1546 (for Scénic II ph2).
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

ET042 CONTINUED 7

CRUISE CONTROL

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the **continuity**, **insulation** and the **absence of interference resistance** of the following connections:

- **3FX** and **3PD** between components **1081** and **120** (for **Vel Satis ph2, Laguna II ph2, Espace IV ph2** and **Mégane II ph2**),
- **3FX** and **3PD** between components **1546** and **120** (for **Scénic II ph2**).

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Also check:

The engine management computer connections.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

ET076	<u>STARTING</u>
--------------	-----------------

STATUS DEFINITION	<p>PROHIBITED: This status indicates that starting is not possible.</p> <p>AUTHORISED: This status indicates that starting is possible.</p>
------------------------------	---

NOTES	<p>Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.</p>
--------------	--

<p>Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C</p>

"PROHIBITED"	Refer to the fault finding note for the UCH (see 87B, Passenger compartment connection unit).
---------------------	---

"AUTHORISED"	Refer to the fault finding note for the UCH (see 87B, Passenger compartment connection unit).
---------------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET076 / EDC16CP33_V1C_ET076 / EDC16CP33_V54_ET076 / EDC16CP33_V20_ET076 / EDC16CP33_V58_ET076 / EDC16CP33_V5C_ET076 / EDC16CP33_V24_ET076 / EDC16CP33_V04_ET076 / EDC16CP33_V08_ET076 / EDC16CP33_V44_ET076 / EDC16CP33_V4C_ET076 / EDC16CP33_V34_ET076 / EDC16CP33_V38_ET076 / EDC16CP33_V74_ET076 / EDC16CP33_V28_ET076 / EDC16CP33_V62_ET076 / EDC16CP33_V26_ET076 / EDC16CP33_V60_ET076

ET077	<u>IMPACT DETECTED</u>
--------------	-------------------------------

STATUS DEFINITION	<p>NO: This status indicates that the airbag computer has not detected an impact.</p> <p>YES: This status indicates that the airbag computer has detected an impact.</p>
------------------------------	--

NOTES	<p>Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.</p>
	This signal is transmitted by the airbag computer via the multiplex network.

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

"NO"	<p>The status is usually NO as no impact has been detected.</p> <p>Otherwise, check the airbag computer (see 88C, Airbags and pretensioners).</p>
-------------	---

"YES"	<p>If YES an impact must be present.</p> <p>Otherwise, check the airbag computer (see 88C, Airbags and pretensioners).</p> <p>After the repair, clear the faults (even if no fault is displayed).</p>
--------------	--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET077 / EDC16CP33_V1C_ET077 / EDC16CP33_V54_ET077 / EDC16CP33_V20_ET077 / EDC16CP33_V58_ET077 / EDC16CP33_V5C_ET077 / EDC16CP33_V24_ET077 / EDC16CP33_V04_ET077 / EDC16CP33_V08_ET077 / EDC16CP33_V44_ET077 / EDC16CP33_V4C_ET077 / EDC16CP33_V34_ET077 / EDC16CP33_V38_ET077 / EDC16CP33_V74_ET077 / EDC16CP33_V28_ET077 / EDC16CP33_V62_ET077 / EDC16CP33_V26_ET077 / EDC16CP33_V60_ET077

ET079	<u>AIR CONDITIONING PRESENT</u>
STATUS DEFINITION	YES: This status indicates that air conditioning is present on the vehicle. NO: This status indicates that air conditioning is not present on the vehicle.
NOTES	<p>Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.</p> <p>The heating and air conditioning system is present depending on the vehicle's equipment level.</p>
Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C	
YES or NO	YES or NO , depending on the vehicle equipment.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET079 / EDC16CP33_V1C_ET079 / EDC16CP33_V54_ET079 / EDC16CP33_V20_ET079 / EDC16CP33_V58_ET079 / EDC16CP33_V5C_ET079 / EDC16CP33_V24_ET079 / EDC16CP33_V04_ET079 / EDC16CP33_V08_ET079 / EDC16CP33_V44_ET079 / EDC16CP33_V4C_ET079 / EDC16CP33_V34_ET079 / EDC16CP33_V38_ET079 / EDC16CP33_V74_ET079 / EDC16CP33_V28_ET079 / EDC16CP33_V62_ET079 / EDC16CP33_V26_ET079 / EDC16CP33_V60_ET079

ET104	<u>INJECTOR CODE USE</u>
--------------	--------------------------

STATUS DEFINITION	<p>NO: This status indicates that the injector codes have not been entered.</p> <p>YES: This status indicates that the injector codes have been entered.</p> <p>FAULTY: This status indicates that there has been an injector code entry fault.</p>
--------------------------	--

NOTES	<p>Special notes:</p> <p>Only perform these tests if the parameters do not correspond with the system operation programming.</p>
--------------	---

<p>Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C</p>

"NO"	<p>If status ET104 is NO, program the injector codes using: either command SC002 Enter injector codes (the IMA* codes must be read from left to right), or command SC001 Write saved data when replacing with a blank computer or after reprogramming (see Interpretation of commands).</p>
-------------	---

"YES"	<p>When injector code programming is complete, status ET104 becomes YES.</p>
--------------	--

"FAULTY"	<p>If status ET104 is FAULTY, program the injector codes using:</p> <ul style="list-style-type: none"> – either command SC002 (the IMA* codes must be read from left to right), – or command SC001 when replacing with a blank computer or after reprogramming (see Interpretation of commands).
-----------------	--

IMA*: Individual injector correction

AFTER REPAIR	<p>Carry out a road test, then check with the diagnostic tool.</p>
---------------------	---

EDC16CP33_V18_ET104 / EDC16CP33_V1C_ET104 / EDC16CP33_V54_ET104 / EDC16CP33_V20_ET104 / EDC16CP33_V58_ET104 /
EDC16CP33_V5C_ET104 / EDC16CP33_V24_ET104 / EDC16CP33_V04_ET104 / EDC16CP33_V08_ET104 / EDC16CP33_V44_ET104 /
EDC16CP33_V4C_ET104 / EDC16CP33_V34_ET104 / EDC16CP33_V38_ET104 / EDC16CP33_V74_ET104 / EDC16CP33_V28_ET104 /
EDC16CP33_V62_ET104 / EDC16CP33_V26_ET104 / EDC16CP33_V60_ET104

ET120	<u>PRE-POSTHEATING SIGNAL</u>
--------------	-------------------------------

STATUS DEFINITION	<p>PRESENT: This status indicates that the pre-postheating signal is still active.</p> <p>ABSENT: This status indicates that the pre-postheating signal is not active.</p>
------------------------------	--

NOTES	Test the battery and run fault finding on the charging circuit (see Technical Note 6014A, Checking the charging circuit).
--------------	---

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

"PRESENT"	<p>Status ET120 is PRESENT when preheating is activated.</p> <p>Refer to the interpretation of fault DF025 Preheating unit diagnostic line, if status ET120 remains ABSENT.</p>
------------------	--

"ABSENT"	<p>Status ET120 is ABSENT when the pre-postheating is not activated.</p> <p>Consult the interpretation of faults DF025 Preheating unit diagnostic line and DF017 Preheating unit control circuit if status ET120 is PRESENT instead of ABSENT.</p>
-----------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET120 / EDC16CP33_V1C_ET120 / EDC16CP33_V54_ET120 / EDC16CP33_V20_ET120 / EDC16CP33_V58_ET120 /
EDC16CP33_V5C_ET120 / EDC16CP33_V24_ET120 / EDC16CP33_V04_ET120 / EDC16CP33_V08_ET120 / EDC16CP33_V44_ET120 /
EDC16CP33_V4C_ET120 / EDC16CP33_V34_ET120 / EDC16CP33_V38_ET120 / EDC16CP33_V74_ET120 / EDC16CP33_V28_ET120 /
EDC16CP33_V62_ET120 / EDC16CP33_V26_ET120 / EDC16CP33_V60_ET120

ET143	<u>LOW-SPEED FAN ASSEMBLY RELAY CONTROL</u>
--------------	---

STATUS DEFINITION	This status indicates whether the low speed fan assembly is active.
------------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
	If the vehicle is fitted with air conditioning, the fan assembly electrical circuit includes 2 relays . The 1 st speed fan assembly relay will be actuated when the engine coolant temperature exceeds 99°C and its function is to cool the engine so that the engine temperature does not exceed 102°C . If the engine coolant temperature exceeds 102°C , the 2 nd speed fan assembly relay will be actuated and the fan will rotate faster.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

IMPORTANT: If the vehicle is equipped with air conditioning, the engine cooling fan will operate at 1 st speed as soon as the air conditioning compressor is activated.
--

Conformity check with engine stopped and ignition on.
--

"INACTIVE"	Engine cold and air conditioning switched off In the event of a fault, consult the interpretation of fault DF018 Low speed fan assembly control circuit .
-------------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET143 / EDC16CP33_V1C_ET143 / EDC16CP33_V54_ET143 / EDC16CP33_V20_ET143 / EDC16CP33_V58_ET143 / EDC16CP33_V5C_ET143 / EDC16CP33_V24_ET143 / EDC16CP33_V04_ET143 / EDC16CP33_V08_ET143 / EDC16CP33_V44_ET143 / EDC16CP33_V4C_ET143 / EDC16CP33_V34_ET143 / EDC16CP33_V38_ET143 / EDC16CP33_V74_ET143 / EDC16CP33_V28_ET143 / EDC16CP33_V26_ET143

ET143 CONTINUED 1

Conformity check with the engine running and engine coolant temperature > 80°C

INACTIVE or **ACTIVE**, depending on the engine temperature (air conditioning switched off).
In the event of a fault, refer to the interpretation of fault **DF018**.

Sensor electrical conformity

"ACTIVE"

When the coolant reaches **99°C**, the injection computer actuates the low-speed fan assembly relay, and status **ET143** becomes **ACTIVE**. The relay then supplies the fan assembly and the cooling fan begins to turn.

If status **ET143** is **ACTIVE**, but the cooling fan is not running, perform the following operations:

Check the condition of fuse **FM15 (60 A)** in the engine fuse and relay box (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2) Mechanical**, **81C, Fuses, Fuses: List and location of components**).

Disconnect the low speed and high speed relays, check that they are operating correctly and check the condition of the relay mounting connectors (see **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 597**).

If one of the connectors is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, wiring: precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **+ 12 V after relay supply** to the low speed fan assembly relay on the following connection:

- **3FB** of component **700**.

Check the **continuity** and **absence of interference resistance** of the following connections:

- **49L** between components **700** and **321**,
- **49B** between components **262** and **321**,
- **3JN** between components **700** and **120**.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

ET143 CONTINUED 2	
"ACTIVE"	<p>Check that the earth is in order on connection MAS of component 262.</p> <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
"INACTIVE"	<p>If the engine temperature is lower than 99°C, the engine cooling fan cannot switch on and the low speed fan relay of the cannot be run.</p> <p>Status ET143 should therefore be INACTIVE when the control relay and the engine cooling fan are not supplied.</p>
AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .

ET144	<u>HIGH-SPEED FAN ASSEMBLY RELAY CONTROL</u>
--------------	--

STATUS DEFINITION	This status indicates whether the high speed fan assembly is active.
------------------------------	--

NOTES	<p>Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.</p> <p>If the vehicle is not fitted with air conditioning, low-speed fan assembly relay does not exist. The circuit therefor only contains a single command relay to supply the engine cooling fan. The engine cooling fan will thus have only one operating speed.</p> <p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>
--------------	--

Conformity check with engine stopped and ignition on.
--

"INACTIVE"	<p>Engine cold and air conditioning switched off In the event of a fault, consult the interpretation of fault DF019 High speed fan assembly control circuit.</p>
-------------------	---

Conformity check with the engine running and engine coolant temperature > 80°C
--

<p>INACTIVE or ACTIVE, depending on the engine temperature (air conditioning switched off). In the event of a fault, refer to the interpretation of fault DF019.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET144 / EDC16CP33_V1C_ET144 / EDC16CP33_V54_ET144 / EDC16CP33_V20_ET144 / EDC16CP33_V58_ET144 /
EDC16CP33_V5C_ET144 / EDC16CP33_V24_ET144 / EDC16CP33_V04_ET144 / EDC16CP33_V08_ET144 / EDC16CP33_V44_ET144 /
EDC16CP33_V4C_ET144 / EDC16CP33_V34_ET144 / EDC16CP33_V38_ET144 / EDC16CP33_V74_ET144 / EDC16CP33_V28_ET144 /
EDC16CP33_V26_ET144

ET144 CONTINUED 1	
------------------------------------	--

Sensor electrical conformity

"ACTIVE"	<p>When the coolant reaches 102°C, the injection computer actuates the fan assembly relay and status ET144 becomes ACTIVE. The relay then supplies the cooling fan.</p> <p>If status ET144 is ACTIVE, but the cooling fan is not running, perform the following operations:</p> <p>Check the condition of fuse FM15 (60 A) in the engine fuse and relay box (see MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2) Mechanical, 81C, Fuses, Fuses: List and location of components).</p> <p>Disconnect the low speed and high speed relays, check that they are operating correctly and check the condition of the relay mounting connectors (see Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2, component code 597).</p> <p>If one of the connectors is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, wiring: precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Check the + 12 V after relay supply to the high-speed fan assembly relay on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 234. <p>Check the continuity and absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • 3JP between components 234 and 120, • 49B between components 234 and 262. <p>Check that the earth is in order on connection MAS of component 262.</p> <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
-----------------	--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

ET144 CONTINUED 2	
------------------------------	--

"INACTIVE"	When the injection computer no longer requests cooling, status ET144 changes to INACTIVE . The fan assembly should then switch off.
-------------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

Only for Laguna II ph2 without a particle filter

ET205 ET206 ET207	<u>THERMOPLUNGER 1 RELAY CONTROL</u> <u>THERMOPLUNGER 2 RELAY CONTROL</u> <u>THERMOPLUNGER 3 RELAY CONTROL</u>
--	--

STATUS DEFINITION	ACTIVE: This status indicates that the thermoplunger is supplied. INACTIVE: This status indicates that the thermoplunger is not supplied.
------------------------------	--

NOTES	None.
--------------	-------

"INACTIVE"	Statuses ET205 , ET206 , ET207 are INACTIVE when the ignition is switched on and the engine stopped, or when the engine is warm.
-------------------	--

"ACTIVE"	<p>Statuses ET205, ET206 and ET207 are ACTIVE when the engine is started, the engine coolant temperature is low ($< 15^{\circ}\text{C}$) and the air temperature is low ($< 5^{\circ}$). This program allows the engine coolant to be heated to enable the passenger compartment to be heated.</p> <p>The thermoplungers also act both to load the engine to improve regeneration of the particle filter.</p> <p>To control the operation of the thermoplunger relays, run the following commands:</p> <ul style="list-style-type: none"> – AC063 Thermoplunger no.1 relay, – AC064 Thermoplunger no. 2 relay, – AC031 Thermoplunger no.3 relay. <p>In the event of a fault, refer to the interpretation of faults:</p> <ul style="list-style-type: none"> – DF034 "Thermoplunger 3 relay control circuit", – DF033 "Heating element 2 relay control circuit", – DF032 Thermoplunger 1 relay control circuit.
-----------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V04_ET205 / EDC16CP33_V04_ET206 / EDC16CP33_V04_ET207 / EDC16CP33_V08_ET205 / EDC16CP33_V08_ET206 / EDC16CP33_V08_ET207 / EDC16CP33_V44_ET205 / EDC16CP33_V44_ET206 / EDC16CP33_V44_ET207 / EDC16CP33_V4C_ET205 / EDC16CP33_V4C_ET206 / EDC16CP33_V4C_ET207 / EDC16CP33_V34_ET205 / EDC16CP33_V34_ET206 / EDC16CP33_V34_ET207 / EDC16CP33_V38_ET205 / EDC16CP33_V38_ET206 / EDC16CP33_V38_ET207 / EDC16CP33_V74_ET205 / EDC16CP33_V74_ET206 / EDC16CP33_V74_ET207

DIESEL INJECTION

Fault finding – Interpretation of statuses

13B

ET238	<u>SYNCHRONISATION</u>
--------------	------------------------

STATUS DEFINITION	<p>Synchronisation is carried out during the engine starting phase. The camshaft position sensor and the TDC sensor are synchronised. Once this synchronisation has been carried out, it enables the computer to identify cylinder n°1 and to ascertain the precise position of the cylinder's top dead centre.</p> <p>Synchronisation also allows the computer to determine the injection strategy.</p>
--------------------------	--

NOTES	<p>Special notes:</p> <p>Only perform these tests if the parameters do not correspond with the system operation programming.</p>
--------------	---

<p>Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C</p>

COMPLETED	<p>Status ET238 is DONE when the engine is started. The computer has identified cylinder no. 1 and has identified the exact top dead centre position. Injection phasing and engine management are now possible, and the engine should be working properly.</p>
------------------	--

NOT COMPLETED	<p>Status ET238 is NOT COMPLETED when the engine has been stopped with the + after ignition feed on.</p> <p>If status ET238 remains NOT COMPLETED after an attempted start, consult the interpretation of fault DF195 Camshaft sensor/engine speed consistency.</p>
----------------------	--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET238 / EDC16CP33_V1C_ET238 / EDC16CP33_V54_ET238 / EDC16CP33_V20_ET238 / EDC16CP33_V58_ET238 / EDC16CP33_V5C_ET238 / EDC16CP33_V24_ET238 / EDC16CP33_V04_ET238 / EDC16CP33_V08_ET238 / EDC16CP33_V44_ET238 / EDC16CP33_V4C_ET238 / EDC16CP33_V34_ET238 / EDC16CP33_V38_ET238 / EDC16CP33_V74_ET238 / EDC16CP33_V28_ET238 / EDC16CP33_V62_ET238 / EDC16CP33_V26_ET238 / EDC16CP33_V60_ET238

ET285	<u>INJECTION -> AUTOMATIC TRANSMISSION CONNECTION</u>
--------------	--

STATUS DEFINITION	PRESENT ABSENT
------------------------------	---------------------------

NOTES	Special notes: Only perform these tests if the statuses do not correspond with the system programming functions.
--------------	--

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

PRESENT	There is a multiplex connection between the injection computer and the automatic transmission computer.
----------------	---

ABSENT	<p>There is no multiplex connection between the injection computer and the automatic transmission computer, as there is a manual gearbox.</p> <p>If there is an automatic transmission and the message ABSENT appears:</p> <p>Run a multiplex network test (see 88B, Multiplex).</p> <p>Check the continuity and insulation to earth of the following connections:</p> <ul style="list-style-type: none"> • 3MS and 3MT between components 119 and 120. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
---------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET285 / EDC16CP33_V1C_ET285 / EDC16CP33_V54_ET285 / EDC16CP33_V20_ET285 / EDC16CP33_V58_ET285 / EDC16CP33_V5C_ET285 / EDC16CP33_V24_ET285 / EDC16CP33_V28_ET285 / EDC16CP33_V62_ET285 / EDC16CP33_V26_ET285 / EDC16CP33_V60_ET285

ET341	<u>IMMOBILISER CODE PROGRAMMED</u>
--------------	------------------------------------

STATUS DEFINITION	<p>YES: This status indicates that the immobiliser code has been programmed.</p> <p>NO: This status indicates that the immobiliser code has not been programmed.</p>
--------------------------	--

NOTES	<p>Special notes:</p> <p>Only perform these tests if the parameters do not correspond with the system operation programming.</p>
--------------	---

<p>Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C</p>

"YES"	<p>Status ET341 is YES if dialogue is possible between the UCH computer and the injection computer and the key code is recognised.</p> <p>The engine is only authorised to start if the code is correctly recognised by the UCH computer and status ET003 Engine immobiliser is INACTIVE.</p> <p>In the event of a fault, (see 87B, Passenger compartment connection unit, Conformity check).</p>
--------------	--

"NO"	<p>Status ET341 is NO if dialogue is not possible between the UCH computer and the injection computer (status ET003 remains ACTIVE).</p> <p>This fault may be caused by incorrect key programming or a lack of key programming. In this case, refer to the UCH fault-finding note (see 87B, Passenger compartment connection unit) and follow the key programming procedure.</p> <p>If the key programming is not the cause, run a multiplex network test (see 88B, Multiplexing) and check that dialogue between the UCH and the injection computer is possible.</p> <p>If dialogue is not established, contact Techline.</p>
-------------	--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET341 / EDC16CP33_V1C_ET341 / EDC16CP33_V54_ET341 / EDC16CP33_V20_ET341 / EDC16CP33_V58_ET341 / EDC16CP33_V5C_ET341 / EDC16CP33_V24_ET341 / EDC16CP33_V04_ET341 / EDC16CP33_V08_ET341 / EDC16CP33_V44_ET341 / EDC16CP33_V4C_ET341 / EDC16CP33_V34_ET341 / EDC16CP33_V38_ET341 / EDC16CP33_V74_ET341 / EDC16CP33_V28_ET341 / EDC16CP33_V62_ET341 / EDC16CP33_V26_ET341 / EDC16CP33_V60_ET341

ET405	<u>CLUTCH PEDAL SWITCH</u>
--------------	----------------------------

STATUS DEFINITION	ACTIVE: this status indicates that the clutch pedal is depressed. INACTIVE: this status indicates that the clutch pedal is released.
------------------------------	---

NOTES	Can only be displayed for manual gearboxes.
--------------	---

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

"ACTIVE"	Clutch pedal depressed. Non-conformity of the brake signals and/or the clutch switch signals can cause the engine to race during gear changes. In the event of a fault, check the electrical conformity of the sensor.
-----------------	---

"INACTIVE"	Clutch pedal released. Non-conformity of the brake signals and/or the clutch switch signals can cause the engine to race during gear changes. In the event of a fault, check the electrical conformity of the sensor.
-------------------	--

Sensor electrical conformity

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET405 / EDC16CP33_V1C_ET405 / EDC16CP33_V54_ET405 / EDC16CP33_V20_ET405 / EDC16CP33_V58_ET405 / EDC16CP33_V5C_ET405 / EDC16CP33_V24_ET405 / EDC16CP33_V04_ET405 / EDC16CP33_V08_ET405 / EDC16CP33_V44_ET405 / EDC16CP33_V4C_ET405 / EDC16CP33_V34_ET405 / EDC16CP33_V38_ET405 / EDC16CP33_V74_ET405 / EDC16CP33_V28_ET405 / EDC16CP33_V62_ET405 / EDC16CP33_V26_ET405 / EDC16CP33_V60_ET405

<p>ET405 CONTINUED</p>	
<p>"INACTIVE"</p>	<p>Check the condition and fitting of the clutch pedal switch.</p> <p>Remove the clutch pedal switch, check the insulation between connections M and 86D of component 675, with the switch in the rest position. If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it. Repeat this operation with the switch pressed, and check the continuity between the two connections. If these 2 checks are faulty, replace the switch. Then check the continuity and absence of interference resistance of the following connection:</p> <ul style="list-style-type: none"> • 86D between components 120 and 675. <p>Check that the earth is in order on connection M of component 675. If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>"ACTIVE"</p>	<p>Check the condition and fitting of the clutch pedal switch. Remove the clutch pedal switch, check the insulation between connections M and 86D of component 675, with the switch in the rest position.</p> <p>– Repeat this operation with the switch pressed, and check the continuity between the two connections.</p> <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it. If these 2 checks are faulty, replace the switch.</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

ET415	<u>CRUISE CONTROL/SPEED LIMITER DEACTIVATION</u>
--------------	--

STATUS DEFINITION	This status varies according to engine specifications.
------------------------------	--

NOTES	None.
--------------	-------

Note:

Cruise control can be activated when the vehicle speed exceeds **18 mph (30 km/h)**.

Status **ET415** shows various reasons for deactivation of the cruise control / speed limiter function, due to a driver request or the external environment (e.g. **STATUS 1**).

IMPORTANT:

Clear the fault memory by running command **RZ001 "Fault memory"** to reset this status to **"NONE"**.

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C

STATUS 1:	Traction control request.
------------------	---------------------------

STATUS 2:	Brake pedal depressed.
------------------	------------------------

STATUS 3:	Clutch pedal depressed.
------------------	-------------------------

STATUS 4:	Suspend button pressed.
------------------	-------------------------

STATUS 5:	Cruise control or speed limiter monitoring.
------------------	---

STATUS 6:	Gear lever in neutral (manual gearbox) or neutral position (automatic gearbox).
------------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET415 / EDC16CP33_V1C_ET415 / EDC16CP33_V54_ET415 / EDC16CP33_V20_ET415 / EDC16CP33_V58_ET415 /
EDC16CP33_V5C_ET415 / EDC16CP33_V24_ET415 / EDC16CP33_V04_ET415 / EDC16CP33_V08_ET415 / EDC16CP33_V44_ET415 /
EDC16CP33_V4C_ET415 / EDC16CP33_V34_ET415 / EDC16CP33_V38_ET415 / EDC16CP33_V74_ET415 / EDC16CP33_V28_ET415 /
EDC16CP33_V62_ET415 / EDC16CP33_V26_ET415 / EDC16CP33_V60_ET415

ET415 CONTINUED 1	
------------------------------	--

STATUS 7:	Inconsistency between the request and the vehicle speed.
------------------	--

STATUS 8:	Automatic transmission in defect mode.
------------------	--

STATUS 9:	Vehicle speed monitoring.
------------------	---------------------------

STATUS 10:	Monitoring by injection computer.
-------------------	-----------------------------------

Sensor electrical conformity	
-------------------------------------	--

WITHOUT	<p>This status is present on the diagnostic tool if: the computer has been reinitialised, The computer has been reprogrammed.</p>
----------------	--

STATUS 1	<p>Traction control request</p> <p>If the vehicle is fitted with a traction control system, the cruise control function is deactivated every time the ABS computer calls for traction control.</p> <p>Status ET415 becomes STATUS 1 when driving with the cruise control active (ET042 Cruise control / speed limiter: CRUISE CONTROL) and traction control is requested. This deactivates cruise control.</p> <p>Reinitialise status ET415 on the injection computer by running command RZ001 Fault memory.</p> <p>If status ET415 becomes STATUS 1 with no traction control request (see 38C, Anti-lock braking system).</p>
-----------------	--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

<p>ET415 CONTINUED 2</p>	
<p>STATUS 2</p>	<p>Brake pedal depressed</p> <p>The cruise control function is deactivated when the brake pedal is depressed.</p> <p>Status ET415 becomes STATUS 2, when driving with the cruise control active (ET042: CRUISE CONTROL) and brake pedal depressed. This deactivates cruise control.</p> <p>Reinitialise status ET415 on the injection computer by running command RZ001 Fault memory.</p> <p>If status ET415 becomes STATUS 2 without depressing the brake pedal, consult the interpretation of statuses ET704 Brake contact no. 1 and ET705 Brake contact no. 2.</p>
<p>STATUS 3</p>	<p>Clutch pedal depressed</p> <p>Manual gearbox ONLY The cruise control function is deactivated when the gearbox is not coupled to the engine (clutch pedal depressed).</p> <p>Status ET415 becomes STATUS 3 when driving with the cruise control active (ET042 Cruise control / speed limiter: CRUISE CONTROL) and the clutch pedal is depressed. This deactivates cruise control.</p> <p>Reinitialise status ET415 on the injection computer by running command RZ001 Fault memory.</p> <p>If status ET415 becomes STATUS 3 without the clutch pedal being depressed, consult the interpretation of status ET405 Clutch pedal switch.</p> <p>If the vehicle is fitted with an automatic transmission: Test the multiplex network: check the configuration of the multiplex network in relation to the vehicle's technical specification, especially the configuration of the automatic transmission computer (see 88B, Multiplexing).</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

<p>ET415 CONTINUED 3</p>	
<p>STATUS 4</p>	<p>Cancel button pressed</p> <p>The cruise control/speed limiter function is deactivated each time the suspend button is pressed.</p> <p>Status ET415 becomes STATUS 4, when driving when:</p> <ul style="list-style-type: none"> – Either the cruise control is active, or – the speed limiter is active – and when the "0" button is pressed by the driver. <p>This action deactivates the Cruise control/Speed limiter.</p> <p>Reinitialise status ET415 on the injection computer by running command RZ001 Fault memory.</p> <p>If status ET415 becomes STATUS 4 without pressing the 0 button, consult the interpretation of status ET703 Cruise control / speed limiter buttons and run fault finding on the R/0 control button located on the right-hand side of the steering wheel.</p>
<p>STATUS 5</p>	<p>Cruise control or speed limiter monitoring</p> <p>This status appears when the vehicle brakes or decelerates sharply without the injection computer receiving a signal that the brake pedal switch has been pressed.</p> <p>If status ET415 is STATUS 5, consult the interpretation:</p> <ul style="list-style-type: none"> - of status ET042 Cruise control / speed limiter, - of status ET703 Cruise control / speed limiter buttons, - of status ET704 Brake switch no. 1, - of status ET705 Brake switch no. 2, <p>to test the cruise control/speed limiter system components and find the defective component.</p> <p>In addition, check the operation of the accelerator pedal, and use the diagnostic tool to check for any faults associated with the accelerator pedal. Deal with them if necessary.</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

<p>ET415 CONTINUED 4</p>	
<p>STATUS 5</p>	<p>Reinitialise status ET415 on the injection computer by running command RZ001 Fault memory.</p> <p>If status ET415 changes to STATUS 5, deal with present faults or those stored in the injection computer. If the fault is still present, contact the Techline.</p>
<p>STATUS 6</p>	<p>Gear lever in neutral (manual gearbox) or neutral (automatic gearbox)</p> <p>Status ET415 changes to STATUS 6, when driving, with cruise control active (ET042: CRUISE CONTROL) and:</p> <ul style="list-style-type: none"> – if the driver puts the gear lever in neutral position on a manual gearbox without declutching or, – if the gear lever is put in neutral on an automatic transmission. <p>This deactivates cruise control.</p> <p>Reinitialise status ET415 on the injection computer by running command RZ001 Fault memory.</p> <p>If status ET415 becomes STATUS 6 without shifting the gear lever into neutral on a manual gearbox without declutching, or into the neutral position on an automatic transmission, run fault finding on the ABS computer and check the configuration of the tyre size stored in the computer. If the configuration is correct, contact the Techline.</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

<p>ET415 CONTINUED 5</p>	
<p>STATUS 7</p>	<p>Lack of correlation between the request and the vehicle speed</p> <p>Status ET415 becomes STATUS 7 if the computer detects too great a difference between the speed requested by the driver and the vehicle speed. This could occur when driving with the cruise control active (ET042 Cruise control / speed limiter: CRUISE CONTROL) on very steep terrain. This inconsistency deactivates cruise control.</p> <p>Reinitialise status ET415 on the injection computer by running command RZ001 Fault memory.</p> <p>If status ET415 becomes STATUS 7 where the surface is not uneven, contact the Techline.</p>
<p>STATUS 8</p>	<p>Automatic gearbox in defect mode.</p> <p>Status ET415 becomes STATUS 8, when driving with cruise control active (ET042: CRUISE CONTROL) and if the automatic transmission is in defect mode.</p> <p>This signal is conveyed on the multiplex line and deactivates the cruise control.</p> <p>Carry out a multiplex network test, then run fault finding on the automatic transmission computer.</p> <p>Deal with any present or stored faults (see 23A, Automatic transmission).</p> <p>Clear the automatic transmission computer memory by running command RZ001.</p> <p>Reinitialise status ET415 on the injection computer by running command RZ001 Fault memory.</p> <p>If STATUS 8 is still present, contact the Techline.</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

<p>ET415 CONTINUED 6</p>	
<p>STATUS 9</p>	<p>Vehicle speed monitoring.</p> <p>Status ET415 becomes STATUS 9 if the vehicle speed received by the computer is invalid or absent.</p> <p>This signal is conveyed on the multiplex line and deactivates the cruise control. Carry out a multiplex network test, then run fault finding on the ABS computer. Deal with any present or stored faults (see 38C, Anti-lock braking system, Interpretation of faults).</p> <p>Reinitialise status ET415 on the injection computer by running command RZ001 Fault memory. If STATUS 9 is still present, contact the Techline.</p>
<p>STATUS 10</p>	<p>Monitoring by injection computer.</p> <p>Status ET415 becomes STATUS 10 when driving with cruise control active (ET042 Cruise control / speed limiter: CRUISE CONTROL) and if the injection computer detects a fault anywhere in the engine management system, or an engine overspeed or underspeed.</p> <p>This signal is conveyed on the multiplex line and deactivates the cruise control.</p> <p>Carry out a multiplex network test, then Perform fault finding on the injection computer. Deal with any present or stored faults (see Interpretation of faults).</p> <p>Reinitialise status ET415 on the injection computer by running command RZ001. If STATUS 10 is still present, contact the Techline.</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

ET587	<u>RECIRCULATED EXHAUST GAS COOLING</u>
--------------	---

STATUS DEFINITION	ACTIVE: This status indicates that exhaust gas cooling is recirculated. INACTIVE: This status indicates that exhaust gas cooling is not recirculated.
--------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

INACTIVE: According to computer programming. In the event of a fault, consult the interpretation of faults DF209 EGR valve position sensor circuit and DF647 EGR valve position regulation .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET587 / EDC16CP33_V1C_ET587 / EDC16CP33_V54_ET587 / EDC16CP33_V20_ET587 / EDC16CP33_V58_ET587 / EDC16CP33_V5C_ET587 / EDC16CP33_V24_ET587 / EDC16CP33_V04_ET587 / EDC16CP33_V08_ET587 / EDC16CP33_V44_ET587 / EDC16CP33_V4C_ET587 / EDC16CP33_V34_ET587 / EDC16CP33_V38_ET587 / EDC16CP33_V74_ET587 / EDC16CP33_V28_ET587 / EDC16CP33_V62_ET587 / EDC16CP33_V26_ET587 / EDC16CP33_V60_ET587

ET615	<u>AUTOMATIC GEARBOX LEVER POSITION</u>
STATUS DEFINITION	Neutral, 1, 2, 3, 4, 5, 6, reverse.
NOTES	<p>Special notes: Only perform these tests if the statuses do not correspond with the system programming functions.</p> <p>Note: This status is specific to engine types M9R 721 and M9R 761.</p>
Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C	
NEUTRAL	<p>This status indicates that the gear lever is in neutral. If this status is incorrect, perform a multiplex network test (see 88B, Multiplexing). Run fault finding on the automatic transmission computer (see MR 372 (Scénic II ph 2), 407 (Espace IV ph 2), 23A, Automatic transmission).</p>
1	<p>This status indicates that the gearbox is in 1st gear. If this status is incorrect, perform a multiplex network test (see 88B, Multiplexing). Run fault finding on the automatic transmission computer (see MR 372 (Scénic II ph 2), 407 (Espace IV ph 2), 23A, Automatic transmission).</p>
2	<p>This status indicates that the gearbox is in 2nd gear. If this status is incorrect, perform a multiplex network test (see 88B, Multiplexing). Run fault finding on the automatic transmission computer (see MR 372 (Scénic II ph 2), 407 (Espace IV ph 2), 23A, Automatic transmission).</p>
AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .

EDC16CP33_V18_ET615 / EDC16CP33_V1C_ET615 / EDC16CP33_V54_ET615 / EDC16CP33_V20_ET615 / EDC16CP33_V58_ET615 / EDC16CP33_V5C_ET615 / EDC16CP33_V24_ET615 / EDC16CP33_V28_ET615 / EDC16CP33_V62_ET615 / EDC16CP33_V26_ET615 / EDC16CP33_V60_ET615

ET615 CONTINUED	
3	<p>This status indicates that the gearbox is in 3rd gear.</p> <p>If this status is incorrect, perform a multiplex network test (see 88B, Multiplexing). Run fault finding on the automatic transmission computer (see MR 372 (Scénic II ph 2), 407 (Espace IV ph 2), 23A, Automatic transmission).</p>
4	<p>This status indicates that the gearbox is in 4th gear.</p> <p>If this status is incorrect, perform a multiplex network test (see 88B, Multiplexing). Run fault finding on the automatic transmission computer (see MR 372 (Scénic II ph 2), 407 (Espace IV ph 2), 23A, Automatic transmission).</p>
5	<p>This status indicates that the gearbox is in 5th gear.</p> <p>If this status is incorrect, perform a multiplex network test (see 88B, Multiplexing). Run fault finding on the automatic transmission computer (see MR 372 (Scénic II ph 2), 407 (Espace IV ph 2), 23A, Automatic transmission).</p>
6	<p>This status indicates that the gearbox is in 6th gear.</p> <p>If this status is incorrect, perform a multiplex network test (see 88B, Multiplexing). Run fault finding on the automatic transmission computer (see MR 372 (Scénic II ph 2), 407 (Espace IV ph 2), 23A, Automatic transmission).</p>
REVERSE	<p>This status indicates that the gear lever is in the reverse gear position.</p> <p>If this status is incorrect, perform a multiplex network test (see 88B, Multiplexing). Run fault finding on the automatic transmission computer (see MR 372 (Scénic II ph 2), 407 (Espace IV ph 2), 23A, Automatic transmission).</p>
AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .

ET651	<u>EGR PROGRAMMING CUT-OFF</u>
STATUS DEFINITION	This status indicates the operating mode of the EGR valve and has 25 different definitions: STATUS 1 to 24 or NONE .
NOTES	None.
NONE	No EGR cut-off, the EGR valve is operating correctly in accordance with the computer programs.
STATUSES 1, 5, 6, 7, 9, 10, 12, 13, 15, 19, 23, 24	Switch off the engine and wait for the diagnostic tool message (maximum time 8 minutes) Communication lost with the computer: EDC16CP33, check the tool connection and computer supply. Switch the ignition on and check for faults. Check the battery voltage with the engine switched off and the engine running. If no faults are present or stored , restart the vehicle and test at idle speed. Do not accelerate too much or attain an engine speed that is too high.
STATUSES 3, 14, 16	Accelerate above idle speed for a few seconds.
STATUS 2	Check that the clutch pedal status (ET405 Clutch pedal switch) is not ACTIVE , and that the vehicle has stopped completely.
AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .

EDC16CP33_V18_ET651 / EDC16CP33_V1C_ET651 / EDC16CP33_V54_ET651 / EDC16CP33_V20_ET651 / EDC16CP33_V58_ET651 /
EDC16CP33_V5C_ET651 / EDC16CP33_V24_ET651 / EDC16CP33_V04_ET651 / EDC16CP33_V08_ET651 / EDC16CP33_V44_ET651 /
EDC16CP33_V4C_ET651 / EDC16CP33_V34_ET651 / EDC16CP33_V38_ET651 / EDC16CP33_V74_ET651 / EDC16CP33_V28_ET651 /
EDC16CP33_V62_ET651 / EDC16CP33_V26_ET651 / EDC16CP33_V60_ET651

ET651 CONTINUED	
STATUS 4, 17	Check for present and stored faults, and repair.
STATUS 8	Reset the EGR offsets by consulting the interpretation of command SC036 Reinitialise programming and select EGR valve .
STATUS 11, 22	Allow the engine to heat up until this cut-off disappears.
STATUS 18	Check that the regeneration of the particle filter in progress has completely finished.
STATUS 20	Allow the engine to cool until this cut-off disappears.
STATUS 21	Too low atmospheric pressure, the EGR valve is disabled.
AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .

DIESEL INJECTION

Fault finding – Interpretation of statuses

13B

ET703	<u>CRUISE CONTROL/SPEED LIMITER BUTTONS</u>
STATUS DEFINITION	RESUME: R button pressed. SUSPEND: 0 button pressed. PLUS: Increase button pressed. MINUS: Decrease button pressed. INACTIVE: This status indicates that no button has been pressed.
NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C	
"INACTIVE"	When no button has been pressed. In the event of a fault, refer to the interpretation of status ET703 .
"SUSPEND"	'0' button pressed. In the event of a fault, refer to the interpretation of status ET703 .
"REACTIVATE"	'R' button pressed. In the event of a fault, refer to the interpretation of status ET703 .
"MINUS"	Decrease button pressed. In the event of a fault, refer to the interpretation of status ET703 .
"PLUS"	Increase button pressed. In the event of a fault, refer to the interpretation of status ET703 .
AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .

EDC16CP33_V18_ET703 / EDC16CP33_V1C_ET703 / EDC16CP33_V54_ET703 / EDC16CP33_V20_ET703 / EDC16CP33_V58_ET703 /
 EDC16CP33_V5C_ET703 / EDC16CP33_V24_ET703 / EDC16CP33_V04_ET703 / EDC16CP33_V08_ET703 / EDC16CP33_V44_ET703 /
 EDC16CP33_V4C_ET703 / EDC16CP33_V34_ET703 / EDC16CP33_V38_ET703 / EDC16CP33_V74_ET703 / EDC16CP33_V28_ET703 /
 EDC16CP33_V62_ET703 / EDC16CP33_V26_ET703 / EDC16CP33_V60_ET703

ET703 CONTINUED 1

Sensor electrical conformity

"INACTIVE"

Status **ET703** becomes **INACTIVE** when none of the cruise control / speed limiter buttons is pressed. These buttons are located on the steering wheel.

If status **ET703** does not display **INACTIVE**,

- check the condition of the cruise control / speed limiter **+/-** button and the condition of its connector,
- check the condition of the cruise control / speed limiter **R/O** button and the condition of its connector.

"PLUS"

Status **ET703** becomes **PLUS** when the cruise control / speed limiter **+** button is pressed. This button is on the steering wheel, on the left-hand side.

If status **ET703** does not display **INCREASE**, check the condition of the cruise control/speed limiter **+/-** button and the condition of its connector. Repair if necessary.

To perform these checks and measurements in complete safety, observe the recommendations for removing the driver's front airbag (see **MR Mechanical, 88C, Airbag and pretensioners, Driver's front airbag: Removal - Refitting**).

Measure **the resistance** of the following connections while pressing the **+** button (on the button connections):

- **86G** of component **331**,
- **86M** of component **331**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the resistance is not approximately **300 Ω**, check the **continuity** of the connection when the button is not pressed.

If there is continuity, replace the **+/-** control button.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

<p>ET703 CONTINUED 2</p>	
<p>"MINUS"</p>	<p>Status ET703 becomes DECREASE when the - button of the cruise control/speed limiter is pressed. This button is on the steering wheel, on the left-hand side. If status ET703 does not change to MINUS, check the condition of the cruise control/speed limiter +/- button, and the condition of its connector. Repair if necessary.</p> <p>To perform these checks and measurements in complete safety, observe the recommendations for removing the driver's front airbag (see MR Mechanical, 88C, Airbag and pretensioners, Driver's front airbag: Removal - Refitting). Measure the resistance of the following connections while pressing the - button (on the button connections):</p> <ul style="list-style-type: none"> • 86G of component 331, • 86M of component 331. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>If the resistance is not approximately 100 Ω check the continuity of the connection when the button is not pressed.</p> <p>If there is continuity, replace the +/- control button.</p> <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>AFTER REPAIR</p>	<p>Carry out a road test, then check with the diagnostic tool.</p>

ET703 CONTINUED 3

"SUSPEND"

Status **ET703** becomes **SUSPEND** when the cruise control / speed limiter **0** button is pressed. This button is located on the steering wheel, to the right.

If status **ET703** does not change to **SUSPEND**, check the condition of the cruise control / speed limiter **R/0** button, and the condition of its connector.

To perform these checks and measurements in complete safety, observe the recommendations for removing the driver's front airbag (see **MR Mechanical, 88C, Airbag and pretensioners, Driver's front airbag: Removal - Refitting**).

Measure **the resistance** of the following connections while pressing the **0** button (on the button connections):

- **86G** of component **331**,
- **86M** of component **331**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the resistance is not approximately **0 Ω**, replace the **R/0** control button.

If there is **continuity**, replace the **R/0** control button.

If there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

ET703 CONTINUED 4

"REACTIVATE"

Status **ET703** becomes **RESUME** when the **R** button of the cruise control/speed limiter is pressed. This button is located on the steering wheel, to the right.

If status **ET703** does not change to **RESUME**, check the status of the cruise control/speed limiter **R/0** button, and the status of its connector. Repair if necessary.

To perform these checks and measurements in complete safety, observe the recommendations for removing the driver's front airbag (see **MR Mechanical, 88C, Airbag and pretensioners, Driver's front airbag: Removal - Refitting**).

Measure **the resistance** of the following connections while pressing the **R** button (on the button connections):

- **86G** of component **331**,
- **86M** of component **331**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the resistance is not approximately **900 Ω**, check the **continuity** of the connection when the button is not pressed.

If there is continuity, replace the **R/0** control button.

If there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

DIESEL INJECTION

Fault finding – Interpretation of statuses

13B

ET704 ET705	<u>BRAKE SWITCH NO. 1</u> <u>BRAKE SWITCH NO. 2</u>
------------------------------	--

STATUS DEFINITION	ACTIVE: This status indicates that the brake pedal is depressed. INACTIVE: This status indicates that the brake pedal is released.
------------------------------	---

NOTES	Note: Statuses ET704 and ET705 must change specification at the same time. If they are inconsistent, refer to the interpretation of fault DF228 Brake signal .
--------------	---

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

"ACTIVE"	Brake pedal depressed. A brake signal non-conformity may cause the engine to race during gear changes. In the event of a fault, consult the interpretation of ET704 and ET705 .
-----------------	--

"INACTIVE"	Brake pedal released. A brake signal non-conformity may cause the engine to race during gear changes. In the event of a fault, consult the interpretation of ET704 and ET705 .
-------------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET704 / EDC16CP33_V18_ET705 / EDC16CP33_V1C_ET704 / EDC16CP33_V1C_ET705 / EDC16CP33_V54_ET704 / EDC16CP33_V54_ET705 / EDC16CP33_V20_ET704 / EDC16CP33_V20_ET705 / EDC16CP33_V58_ET704 / EDC16CP33_V58_ET705 / EDC16CP33_V5C_ET704 / EDC16CP33_V5C_ET705 / EDC16CP33_V24_ET704 / EDC16CP33_V24_ET705 / EDC16CP33_V04_ET704 / EDC16CP33_V04_ET705 / EDC16CP33_V08_ET704 / EDC16CP33_V08_ET705 / EDC16CP33_V44_ET704 / EDC16CP33_V44_ET705 / EDC16CP33_V4C_ET704 / EDC16CP33_V4C_ET705 / EDC16CP33_V34_ET704 / EDC16CP33_V34_ET705 / EDC16CP33_V38_ET704 / EDC16CP33_V38_ET705 / EDC16CP33_V74_ET704 / EDC16CP33_V74_ET705 / EDC16CP33_V28_ET704 / EDC16CP33_V28_ET705 / EDC16CP33_V62_ET704 / EDC16CP33_V62_ET705 / EDC16CP33_V26_ET704 / EDC16CP33_V60_ET704 / EDC16CP33_V26_ET705 / EDC16CP33_V60_ET705

ET706	<u>STORED ENGINE STATUS NO. 1</u>
ET707	<u>STORED ENGINE STATUS NO. 2</u>
ET708	<u>STORED ENGINE STATUS NO. 3</u>
ET709	<u>STORED ENGINE STATUS NO. 4</u>
ET710	<u>STORED ENGINE STATUS NO. 5</u>
ET711	<u>STORED ENGINE STATUS NO. 6</u>
ET712	<u>STORED ENGINE STATUS NO. 7</u>
ET713	<u>STORED ENGINE STATUS NO. 8</u>
ET714	<u>STORED ENGINE STATUS NO. 9</u>
ET715	<u>STORED ENGINE STATUS NO. 10</u>

STATUS DEFINITION	These statuses indicate the recorded engine status in the event of a regeneration failure when driving.
------------------------------	---

NOTES	Special notes: These parameters must only be interpreted for DF312 Speed request if it is present or stored .
--------------	--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET706 / EDC16CP33_V18_ET707 / EDC16CP33_V18_ET708 / EDC16CP33_V18_ET709 / EDC16CP33_V18_ET710 /
 EDC16CP33_V18_ET711 / EDC16CP33_V18_ET712 / EDC16CP33_V18_ET713 / EDC16CP33_V18_ET714 / EDC16CP33_V18_ET715 /
 EDC16CP33_V1C_ET706 / EDC16CP33_V1C_ET707 / EDC16CP33_V1C_ET708 / EDC16CP33_V1C_ET709 / EDC16CP33_V1C_ET710 /
 EDC16CP33_V1C_ET711 / EDC16CP33_V1C_ET712 / EDC16CP33_V1C_ET713 / EDC16CP33_V1C_ET714 / EDC16CP33_V1C_ET715 /
 EDC16CP33_V54_ET706 / EDC16CP33_V54_ET707 / EDC16CP33_V54_ET708 / EDC16CP33_V54_ET709 / EDC16CP33_V54_ET710 /
 EDC16CP33_V54_ET711 / EDC16CP33_V54_ET712 / EDC16CP33_V54_ET712 / EDC16CP33_V54_ET713 / EDC16CP33_V54_ET714 /
 EDC16CP33_V54_ET715 / EDC16CP33_V20_ET706 / EDC16CP33_V20_ET707 / EDC16CP33_V20_ET708 / EDC16CP33_V20_ET709 /
 EDC16CP33_V20_ET710 / EDC16CP33_V20_ET711 / EDC16CP33_V20_ET712 / EDC16CP33_V20_ET713 / EDC16CP33_V20_ET714 /
 EDC16CP33_V20_ET715 / EDC16CP33_V58_ET706 / EDC16CP33_V58_ET707 / EDC16CP33_V58_ET708 / EDC16CP33_V58_ET709 /
 EDC16CP33_V58_ET710 / EDC16CP33_V58_ET711 / EDC16CP33_V58_ET712 / EDC16CP33_V58_ET713 / EDC16CP33_V58_ET714 /
 EDC16CP33_V58_ET715 / EDC16CP33_V5C_ET706 / EDC16CP33_V5C_ET707 / EDC16CP33_V5C_ET708 / EDC16CP33_V5C_ET709 /
 EDC16CP33_V5C_ET710 / EDC16CP33_V5C_ET711 / EDC16CP33_V5C_ET712 / EDC16CP33_V5C_ET713 / EDC16CP33_V5C_ET714 /
 EDC16CP33_V5C_ET715 / EDC16CP33_V24_ET706 / EDC16CP33_V24_ET707 / EDC16CP33_V24_ET708 / EDC16CP33_V24_ET709 /
 EDC16CP33_V24_ET710 / EDC16CP33_V24_ET711 / EDC16CP33_V24_ET712 / EDC16CP33_V24_ET713 / EDC16CP33_V24_ET714 /
 EDC16CP33_V24_ET715 / EDC16CP33_V26_ET706 / EDC16CP33_V26_ET707 / EDC16CP33_V26_ET708 / EDC16CP33_V26_ET709 /
 EDC16CP33_V26_ET710 / EDC16CP33_V26_ET711 / EDC16CP33_V26_ET712 / EDC16CP33_V26_ET713 / EDC16CP33_V26_ET714 /
 EDC16CP33_V26_ET715 / EDC16CP33_V60_ET706 / EDC16CP33_V60_ET707 / EDC16CP33_V60_ET708 / EDC16CP33_V60_ET709 /
 EDC16CP33_V60_ET710 / EDC16CP33_V60_ET711 / EDC16CP33_V60_ET712 / EDC16CP33_V60_ET713 / EDC16CP33_V60_ET714 /
 EDC16CP33_V60_ET715

ET706 ET707 ET708 ET709 ET710 ET711 ET712 ET713 ET714 ET715 CONTINUED	
--	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C

This status indicates the recorded engine status in the event of a regeneration failure when driving:
NONE, + AFTER IGNITION, RUNNING, STOPPED.

Each **STATUS** between **ET706** and **ET715** corresponds to failed regenerations for which the mileage is recorded by **PR794 Stored regeneration failure No. 1** to **PR803 Stored regeneration failure No. 10** (for example, **PR797 Stored regeneration failure No. 4** is linked to **ET709**).

"RUNNING"	If the STATUS is RUNNING , the regeneration failed because: <ul style="list-style-type: none"> – the customer's driving did not generate enough heat, – an engine management system component is defective.
"STOPPED"	If the STATUS is STOPPED , the regeneration failed because the engine was switched off.
+ APC	POWER LATCH
"NONE"	No failed regeneration is present.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

ET742	<u>STORED REGEN. REQUEST STATUS No. 1</u>
ET743	<u>STORED REGEN. REQUEST STATUS No. 2</u>
ET744	<u>STORED REGEN. REQUEST STATUS No. 3</u>
ET745	<u>STORED REGEN. REQUEST STATUS No. 4</u>
ET746	<u>STORED REGEN. REQUEST STATUS No. 5</u>
ET747	<u>STORED REGEN. REQUEST STATUS No. 6</u>
ET748	<u>STORED REGEN. REQUEST STATUS No. 7</u>
ET749	<u>STORED REGEN. REQUEST STATUS No. 8</u>
ET750	<u>STORED REGEN. REQUEST STATUS No. 9</u>
ET751	<u>STORED REGEN. REQUEST STATUS No. 10</u>

STATUS DEFINITION	Statuses ET742 to ET751 correspond to the causes for the regeneration request. They are associated with the parameters PR816 Stored regeneration start No. 1 to PR825 Stored regeneration start No. 10 which contain the record of the vehicle mileage at the start of regeneration (e.g. PR745 Stored regeneration start No. 4 is associated with ET745).
------------------------------	---

NOTES	Special notes: These statuses should only be interpreted for ALP 9 Particle filter warning light comes on too frequently .
--------------	---

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET742 / EDC16CP33_V18_ET743 / EDC16CP33_V18_ET744 / EDC16CP33_V18_ET745 / EDC16CP33_V18_ET746 / EDC16CP33_V18_ET747 / EDC16CP33_V18_ET748 / EDC16CP33_V18_ET749 / EDC16CP33_V18_ET750 / EDC16CP33_V18_ET751 / EDC16CP33_V1C_ET742 / EDC16CP33_V1C_ET743 / EDC16CP33_V1C_ET744 / EDC16CP33_V1C_ET745 / EDC16CP33_V1C_ET746 / EDC16CP33_V1C_ET747 / EDC16CP33_V1C_ET748 / EDC16CP33_V1C_ET749 / EDC16CP33_V1C_ET750 / EDC16CP33_V1C_ET751 / EDC16CP33_V54_ET742 / EDC16CP33_V54_ET743 / EDC16CP33_V54_ET744 / EDC16CP33_V54_ET745 / EDC16CP33_V54_ET746 / EDC16CP33_V54_ET747 / EDC16CP33_V54_ET748 / EDC16CP33_V54_ET749 / EDC16CP33_V54_ET750 / EDC16CP33_V54_ET751 / EDC16CP33_V20_ET742 / EDC16CP33_V20_ET743 / EDC16CP33_V20_ET744 / EDC16CP33_V20_ET745 / EDC16CP33_V20_ET746 / EDC16CP33_V20_ET747 / EDC16CP33_V20_ET748 / EDC16CP33_V20_ET749 / EDC16CP33_V20_ET750 / EDC16CP33_V20_ET751 / EDC16CP33_V58_ET742 / EDC16CP33_V58_ET743 / EDC16CP33_V58_ET744 / EDC16CP33_V58_ET745 / EDC16CP33_V58_ET746 / EDC16CP33_V58_ET747 / EDC16CP33_V58_ET748 / EDC16CP33_V58_ET749 / EDC16CP33_V58_ET750 / EDC16CP33_V58_ET751 / EDC16CP33_V5C_ET742 / EDC16CP33_V5C_ET743 / EDC16CP33_V5C_ET744 / EDC16CP33_V5C_ET745 / EDC16CP33_V5C_ET746 / EDC16CP33_V5C_ET747 / EDC16CP33_V5C_ET748 / EDC16CP33_V5C_ET749 / EDC16CP33_V5C_ET750 / EDC16CP33_V5C_ET751 / EDC16CP33_V24_ET742 / EDC16CP33_V24_ET743 / EDC16CP33_V24_ET744 / EDC16CP33_V24_ET745 / EDC16CP33_V24_ET746 / EDC16CP33_V24_ET747 / EDC16CP33_V24_ET748 / EDC16CP33_V24_ET749 / EDC16CP33_V24_ET750 / EDC16CP33_V24_ET751 / EDC16CP33_V26_ET742 / EDC16CP33_V26_ET743 / EDC16CP33_V26_ET744 / EDC16CP33_V26_ET745 / EDC16CP33_V26_ET746 / EDC16CP33_V26_ET747 / EDC16CP33_V26_ET748 / EDC16CP33_V26_ET749 / EDC16CP33_V26_ET750 / EDC16CP33_V26_ET751 / EDC16CP33_V60_ET742 / EDC16CP33_V60_ET743 / EDC16CP33_V60_ET744 / EDC16CP33_V60_ET745 / EDC16CP33_V60_ET746 / EDC16CP33_V60_ET747 / EDC16CP33_V60_ET748 / EDC16CP33_V60_ET749 / EDC16CP33_V60_ET750 / EDC16CP33_V60_ET751

ET742 ET743 ET744 ET745 ET746 ET747 ET748 ET749 ET750 ET751 CONTINUED	
--	--

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C

STATUS1	Request by weight of soot Regeneration was requested based on the measurement of maximum soot weight in the particle filter, without the particle filter warning light coming on.
STATUS2	Request by estimated weight of soot Regeneration was requested based on an estimation of maximum soot weight in the particle filter, without the particle filter warning light coming on.
STATUS3	Request by distance travelled Regeneration has been requested after a maximum distance has been travelled since the last successful regeneration without the particle filter warning light coming on.
STATUS4	Request by number of regeneration failures or weight of soot This status corresponds to the appearance of DF312 Speed request . This corresponds to the maximum number of failed regeneration or to the maximum weight of soot in the particle filter, with the particle filter warning light coming on.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

ET776	<u>RECIRCULATED EXHAUST GAS COOL* SETPOINTS</u>
--------------	---

STATUS DEFINITION	<p>ACTIVE: This status indicates that the recirculated exhaust gas cooling setpoint is active.</p> <p>INACTIVE: This status indicates that the recirculated exhaust gas cooling setpoint is not active.</p>
------------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on and Engine running and engine coolant temperature > 80°C

<p>This status gives a setpoint for status ET587 Recirculated exhaust gas cooling. This programming changes depending on the computer.</p> <p>In the event of a fault, see the interpretation of faults DF209 EGR valve position sensor circuit and DF647 EGR valve position regulation.</p>

COOL*: Cooling

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ET776 / EDC16CP33_V1C_ET776 / EDC16CP33_V54_ET776 / EDC16CP33_V20_ET776 / EDC16CP33_V58_ET776 / EDC16CP33_V5C_ET776 / EDC16CP33_V24_ET776 / EDC16CP33_V04_ET776 / EDC16CP33_V08_ET776 / EDC16CP33_V44_ET776 / EDC16CP33_V4C_ET776 / EDC16CP33_V34_ET776 / EDC16CP33_V38_ET776 / EDC16CP33_V74_ET776 / EDC16CP33_V28_ET776 / EDC16CP33_V62_ET776 / EDC16CP33_V26_ET776 / EDC16CP33_V60_ET776

ET781	<u>HEATER PLUGS</u>
--------------	---------------------

STATUS DEFINITION	This status indicates what type of heater plugs are fitted to the engine.
------------------------------	---

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

STATUS1	Slow plugs
----------------	------------

STATUS2	Fast plugs
----------------	------------

STATUS3	NOT DEFINED
----------------	-------------

Electrical conformity

STATUS1	Slow plugs
	Status ET781 is STATUS 1 if the heater plugs fitted to the engine have black rings, otherwise run command SC036 Reinitialise programming and select HEATER PLUGS (see Interpretation of commands).

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

ET781 CONTINUED	
STATUS2	<p>Fast plugs</p> <p>Status ET781 is STATUS 2 if the heater plugs fitted to the engine have white rings, otherwise run command SC036 and select HEATER PLUGS (see Interpretation of commands).</p>
STATUS3	<p>NOT DEFINED</p> <p>Status ET781 is STATUS 3 when the heater plugs are not configured in the injection computer. To determine the heater plugs fitted to the engine, visually check the colour of the plug rings, then run command SC036 and select HEATER PLUGS (see Interpretation of commands).</p>
AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .

DIESEL INJECTION

Fault finding – Parameter summary table

13B

Tool parameter	Diagnostic tool title
PR002	Alternator charge (Mégane II ph2/Scénic II ph2 only)
PR005	EGR valve opening setpoint
PR006	Rail pressure regulator current
PR007	Rail pressure regulator current setpoint
PR008	Rail reference pressure
PR009	Turbocharging pressure setpoint
PR015	Engine torque
PR017	Fuel flow
PR022	EGR valve position feedback loop difference
PR023	Air flow difference
PR030	Accelerator pedal position
PR035	Atmospheric pressure
PR037	Refrigerant pressure (Mégane II ph2/Scénic II ph2 only)
PR038	Rail pressure
PR041	Turbocharging pressure
PR042	Filtered turbocharging pressure
PR048	OCR* rail pressure regulation valve
PR051	EGR valve position feedback
PR053	Engine speed requested by air conditioning
PR055	Engine speed
PR059	Inlet air temperature
PR061	Exterior air temperature
PR063	Fuel temperature
PR064	Coolant temperature
PR074	Battery voltage
PR077	EGR valve position sensor voltage

OCR*: Opening Cyclic Ratio

DIESEL INJECTION

Fault finding – Parameter summary table

13B

Tool parameter	Diagnostic tool title
PR079	Atmospheric pressure sensor voltage
PR080	Rail pressure sensor voltage
PR082	Fuel temperature sensor voltage
PR083	Air temperature sensor voltage
PR084	Coolant temperature sensor voltage
PR086	Pedal potentiometer voltage gang 1
PR088	Pedal potentiometer gang 2 voltage
PR089	Vehicle speed
PR104	Turbocharging SV* OCR* setpoint
PR128	First EGR valve offset
PR129	Last EGR valve offset
PR130	Cruise control setpoint
PR132	Air flow
PR157	Fuel flow setpoint
PR171	Air flow setpoint for EGR
PR190	Engine idle speed setpoint.
PR209	Turbocharging pressure loop difference
PR213	Rail pressure loop difference
PR224	Turbocharging pressure sensor voltage
PR225	Air flow sensor voltage
PR290	AC refrigerant pressure sensor voltage (Mégane II ph2/Scénic II ph2 only)
PR364	Cylinder no. 1 fuel flow correction
PR365	Cylinder no. 4 fuel flow correction
PR381	Particle filter downstream temperature
PR382	Particle filter upstream temperature
PR383	Weight of soot in the particle filter

OCR*: Opening Cyclic Ratio

SV*: Solenoid valve

DIESEL INJECTION

Fault finding – Parameter summary table

13B

Tool parameter	Diagnostic tool title
PR385	Exhaust pipe flow
PR391	Mileage since particle filter repl*
PR405	Cylinder no. 2 fuel flow correction
PR406	Cylinder no. 3 fuel flow correction
PR412	Mileage at last successful regeneration
PR414	Particle filter diff* pressure
PR415	Time since last regeneration
PR484	Fuel regulation solenoid valve OCR*
PR490	Engine air flow
PR636	Turbine upstream pressure
PR667	Turbine upstream temperature
PR668	Turbine upstream temperature sensor voltage
PR672	Damper valve position setpoint
PR739	Fuel flow solenoid valve current
PR747	Damper valve position
PR782	Turbine upstream pressure sensor voltage
PR784	DF312 recording No. 1
PR785	DF312 recording No. 2
PR786	DF312 recording No. 3
PR787	DF312 recording No. 4
PR788	DF312 recording No. 5
PR789	DF312 recording No. 6
PR790	DF312 recording No. 7
PR791	DF312 recording No. 8

repl*: replacement,
diff.*: differential,
OCR*: Opening Cyclic Ratio.

DIESEL INJECTION

Fault finding – Parameter summary table

13B

Tool parameter	Diagnostic tool title
PR792	DF312 recording No. 9
PR793	DF312 recording No. 10
PR794	Stored regeneration failure no. 1
PR795	Stored regeneration failure no. 2
PR796	Stored regeneration failure no. 3
PR797	Stored regeneration failure no. 4
PR798	Stored regeneration failure no. 5
PR799	Stored regeneration failure no. 6
PR800	Stored regeneration failure no. 7
PR801	Stored regeneration failure no. 8
PR802	Stored regeneration failure no. 9
PR803	Stored regeneration failure no. 10
PR808	Supplier 1-0 signal
PR816	Stored regeneration start No.1
PR817	Stored regeneration start No. 2
PR818	Stored regeneration start No.3
PR819	Stored regeneration start No.4
PR820	Stored regeneration start No. 5
PR821	Stored regeneration start No.6
PR822	Stored regeneration start No.7
PR823	Stored regeneration start No.8
PR824	Stored regeneration start No.9
PR825	Stored regeneration start No. 10
PR846	Turbocharging SV* OCR*
PR848	Regeneration failure number
PR850	Fuel flow solen.* current setpoint

OCR*: Opening Cyclic Ratio,
SV*: Solenoid valve,
solen*: solenoid valve.

DIESEL INJECTION

Fault finding – Parameter summary table

13B

Tool parameter	Diagnostic tool title
PR858	Damper valve open first offset
PR859	Damper valve closed first offset
PR860	Damper valve closed last offset
PR861	Last open damper valve offset
PR863	Damper valve position feedback
PR873	Oil oxidation signal
PR874	Last service
PR875	Oil dilution signal
PR1012	Weight of soot after regeneration

PR002	<u>ALTERNATOR CHARGE</u>
--------------	--------------------------

PARAMETER DEFINITION	This parameter indicates the alternator charge value in %.
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

The alternator load value changes depending on the battery voltage and the electrical consumers.
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR005	<u>EGR VALVE OPENING VALUE REQUIRED</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates a theoretical opening value for the EGR valve giving optimum engine performance in %.
---------------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on

The theoretical opening value for the EGR valve should be between: - 10 < PR005 < 0% .
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

The theoretical opening value for the EGR valve is between: 10 < PR005 < 40% .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR005 / EDC16CP33_V1C_PR005 / EDC16CP33_V54_PR005 / EDC16CP33_V20_PR005 / EDC16CP33_V58_PR005 /
EDC16CP33_V5C_PR005 / EDC16CP33_V24_PR005 / EDC16CP33_V04_PR005 / EDC16CP33_V08_PR005 / EDC16CP33_V44_PR005 /
EDC16CP33_V4C_PR005 / EDC16CP33_V34_PR005 / EDC16CP33_V38_PR005 / EDC16CP33_V74_PR005 / EDC16CP33_V28_PR005 /
EDC16CP33_V62_PR005 / EDC16CP33_V26_PR005 / EDC16CP33_V60_PR005

PR006	<u>RAIL PRESSURE REGULATOR CURRENT</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the current absorbed by the rail pressure regulator in mA .
---------------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or Engine running, and engine coolant temperature > 80°C
--

This parameter indicates the current absorbed by the rail pressure regulator PR006 ≈ PR007 Rail pressure regulator current setpoint . In the event of a fault, consult the interpretation of fault DF898 Rail pressure regulator circuit .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR006 / EDC16CP33_V1C_PR006 / EDC16CP33_V54_PR006 / EDC16CP33_V20_PR006 / EDC16CP33_V58_PR006 / EDC16CP33_V5C_PR006 / EDC16CP33_V24_PR006 / EDC16CP33_V04_PR006 / EDC16CP33_V08_PR006 / EDC16CP33_V44_PR006 / EDC16CP33_V4C_PR006 / EDC16CP33_V34_PR006 / EDC16CP33_V38_PR006 / EDC16CP33_V74_PR006 / EDC16CP33_V28_PR006 / EDC16CP33_V62_PR006 / EDC16CP33_V26_PR006 / EDC16CP33_V60_PR006

PR007	<u>RAIL PRESSURE REGULATOR CURRENT SETPOINT</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the theoretical setpoint for the current absorbed by the rail pressure regulator in mA .
-----------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or Engine running, and engine coolant temperature > 80°C
--

This parameter indicates the theoretical current absorbed by the rail pressure regulator in mA .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR007 / EDC16CP33_V1C_PR007 / EDC16CP33_V54_PR007 / EDC16CP33_V20_PR007 / EDC16CP33_V58_PR007 / EDC16CP33_V5C_PR007 / EDC16CP33_V24_PR007 / EDC16CP33_V04_PR007 / EDC16CP33_V08_PR007 / EDC16CP33_V44_PR007 / EDC16CP33_V4C_PR007 / EDC16CP33_V34_PR007 / EDC16CP33_V38_PR007 / EDC16CP33_V74_PR007 / EDC16CP33_V28_PR007 / EDC16CP33_V62_PR007 / EDC16CP33_V26_PR007 / EDC16CP33_V60_PR007

PR008	<u>RAIL REFERENCE PRESSURES</u>
--------------	---------------------------------

PARAMETER DEFINITION	This parameter indicates the theoretical rail pressure value for optimum engine operation in bar .
-----------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or Engine running, and engine coolant temperature > 80°C
--

The theoretical rail pressure value must be between: 200 bar < PR008 < 300 bar.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR008 / EDC16CP33_V1C_PR008 / EDC16CP33_V54_PR008 / EDC16CP33_V20_PR008 / EDC16CP33_V58_PR008 / EDC16CP33_V5C_PR008 / EDC16CP33_V24_PR008 / EDC16CP33_V04_PR008 / EDC16CP33_V08_PR008 / EDC16CP33_V44_PR008 / EDC16CP33_V4C_PR008 / EDC16CP33_V34_PR008 / EDC16CP33_V38_PR008 / EDC16CP33_V74_PR008 / EDC16CP33_V28_PR008 / EDC16CP33_V62_PR008 / EDC16CP33_V26_PR008 / EDC16CP33_V60_PR008

PR009	<u>TURBOCHARGING PRESSURE SETPOINTS</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the theoretical turbocharging pressure setpoint value in bar .
---------------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or Engine running, and engine coolant temperature > 80°C
--

The theoretical turbocharging pressure value is a setpoint of: PR009 ≈ 1 bar.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR009 / EDC16CP33_V1C_PR009 / EDC16CP33_V54_PR009 / EDC16CP33_V20_PR009 / EDC16CP33_V58_PR009 /
EDC16CP33_V5C_PR009 / EDC16CP33_V24_PR009 / EDC16CP33_V04_PR009 / EDC16CP33_V08_PR009 / EDC16CP33_V44_PR009 /
EDC16CP33_V4C_PR009 / EDC16CP33_V34_PR009 / EDC16CP33_V38_PR009 / EDC16CP33_V74_PR009 / EDC16CP33_V28_PR009 /
EDC16CP33_V62_PR009 / EDC16CP33_V26_PR009 / EDC16CP33_V60_PR009

PR015	<u>ENGINE TORQUE</u>
--------------	----------------------

PARAMETER DEFINITION	This parameter indicates the engine torque in Nm .
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine running, engine coolant temperature > 80°C, without electrical consumers

The engine torque value must be between:
20 N.m < PR015 < 40 N.m.
This parameter is only valid when the engine is running.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR017	<u>FUEL FLOW</u>
--------------	------------------

PARAMETER DEFINITION	This parameter indicates the fuel flow in mg/st .
-----------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on

The fuel flow value must be: PR017 = 0 mg/st (ignition on). In the event of a fault, consult the interpretation of DF897 Pump pressure regulator circuit .
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

Engine running: PR017 = PR157: Fuel flow setpoint. In the event of a fault, refer to the interpretation of fault DF897 .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR017 / EDC16CP33_V1C_PR017 / EDC16CP33_V54_PR017 / EDC16CP33_V20_PR017 / EDC16CP33_V58_PR017 /
EDC16CP33_V5C_PR017 / EDC16CP33_V24_PR017 / EDC16CP33_V04_PR017 / EDC16CP33_V08_PR017 / EDC16CP33_V44_PR017 /
EDC16CP33_V4C_PR017 / EDC16CP33_V34_PR017 / EDC16CP33_V38_PR017 / EDC16CP33_V74_PR017 / EDC16CP33_V28_PR017 /
EDC16CP33_V62_PR017 / EDC16CP33_V26_PR017 / EDC16CP33_V60_PR017

PR022	<u>EGR VALVE POSITION FEEDBACK LOOP DIFFERENCE</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the percentage difference between the setpoint and the EGR valve position.
---------------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on

This parameter indicates the percentage difference between the setpoint and the EGR valve position. In the event of a fault, consult the interpretation of faults DF209 EGR valve position sensor circuit and DF647 EGR valve position regulation .
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

The PR022 value must be between: - 5% < PR022 < + 5%. In the event of a fault, refer to the interpretation of faults DF209 and DF647 .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR022 / EDC16CP33_V1C_PR022 / EDC16CP33_V54_PR022 / EDC16CP33_V20_PR022 / EDC16CP33_V58_PR022 /
EDC16CP33_V5C_PR022 / EDC16CP33_V24_PR022 / EDC16CP33_V04_PR022 / EDC16CP33_V08_PR022 / EDC16CP33_V44_PR022 /
EDC16CP33_V4C_PR022 / EDC16CP33_V34_PR022 / EDC16CP33_V38_PR022 / EDC16CP33_V74_PR022 / EDC16CP33_V28_PR022 /
EDC16CP33_V62_PR022 / EDC16CP33_V26_PR022 / EDC16CP33_V60_PR022

PR023	<u>DIFFERENCE IN AIR FLOW</u>
--------------	-------------------------------

PARAMETER DEFINITION	This parameter indicates the difference between the inlet air flow and the air entering the engine in mg/st .
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

In the event of a fault, consult the interpretation of fault DF056 Air flow sensor circuit .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR030	<u>ACCELERATOR PEDAL POSITION</u>
--------------	-----------------------------------

PARAMETER DEFINITION	This parameter indicates the accelerator pedal position as a percentage.
---------------------------------	--

NOTES	<p>There must be no present or stored faults.</p> <p>Perform this fault finding procedure:</p> <ul style="list-style-type: none"> – after finding an inconsistency in the parameter, – after a customer complaint (e.g. lack of power, etc.).
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>If no pressure is being applied to the pedal PR030 = 0%.</p> <p>In the event of a fault, consult the interpretation of DF196 Pedal sensor circuit gang 1 or DF198 Pedal sensor circuit gang 2.</p>
--

Sensor electrical conformity

<p>Check the continuity and absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> – 3LR between components 120 and 921, – 3LS between components 120 and 921, – 3LT between components 120 and 921, – 3LU between components 120 and 921, – 3LW between components 120 and 921, – 3LV between components 120 and 921. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR030 / EDC16CP33_V1C_PR030 / EDC16CP33_V54_PR030 / EDC16CP33_V20_PR030 / EDC16CP33_V58_PR030 / EDC16CP33_V5C_PR030 / EDC16CP33_V24_PR030 / EDC16CP33_V04_PR030 / EDC16CP33_V08_PR030 / EDC16CP33_V44_PR030 / EDC16CP33_V4C_PR030 / EDC16CP33_V34_PR030 / EDC16CP33_V38_PR030 / EDC16CP33_V74_PR030 / EDC16CP33_V28_PR030 / EDC16CP33_V62_PR030 / EDC16CP33_V26_PR030 / EDC16CP33_V60_PR030

PR030 CONTINUED

The accelerator pedal sensor should be **connected**, the vehicle should have the **ignition on** and the **engine switched off**:

– Check that the accelerator pedal value is:

PR030 = 0%: no load,

100% < PR030 < 120%: full load,

135% < PR030 < 145%: full load after pedal kickdown point.

If the value is not correct, replace the pedal sensor.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

PR035	<u>ATMOSPHERIC PRESSURE</u>
--------------	-----------------------------

PARAMETER DEFINITION	This parameter indicates the atmospheric pressure in bar . The sensor is integrated in the computer.
-----------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

The atmospheric pressure value must be between: 0.80 bar < PR035 < 1.20 bar. In the event of a fault, consult the interpretation of fault DF004 Turbocharging pressure sensor circuit and DF200 Atmospheric pressure sensor .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR035 / EDC16CP33_V1C_PR035 / EDC16CP33_V54_PR035 / EDC16CP33_V20_PR035 / EDC16CP33_V58_PR035 / EDC16CP33_V5C_PR035 / EDC16CP33_V24_PR035 / EDC16CP33_V04_PR035 / EDC16CP33_V08_PR035 / EDC16CP33_V44_PR035 / EDC16CP33_V4C_PR035 / EDC16CP33_V34_PR035 / EDC16CP33_V38_PR035 / EDC16CP33_V74_PR035 / EDC16CP33_V28_PR035 / EDC16CP33_V62_PR035 / EDC16CP33_V26_PR035 / EDC16CP33_V60_PR035

PR037	<u>REFRIGERANT PRESSURE</u>
--------------	-----------------------------

PARAMETER DEFINITION	This parameter indicates the refrigerant pressure in bar .
---------------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check with the engine running and engine coolant temperature > 80°C
--

The value should be higher than 2 bar .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR037 / EDC16CP33_V1C_PR037 / EDC16CP33_V54_PR037 / EDC16CP33_V20_PR037 / EDC16CP33_V58_PR037 /
EDC16CP33_V5C_PR037 / EDC16CP33_V24_PR037 / EDC16CP33_V04_PR037 / EDC16CP33_V08_PR037 / EDC16CP33_V44_PR037 /
EDC16CP33_V4C_PR037 / EDC16CP33_V34_PR037 / EDC16CP33_V38_PR037 / EDC16CP33_V74_PR037 / EDC16CP33_V60_PR037 /
EDC16CP33_V62_PR037

PR038	<u>RAIL PRESSURE</u>
--------------	----------------------

PARAMETER DEFINITION	This parameter indicates the rail pressure in bar .
---------------------------------	--

NOTES	<p>There must be no present or stored faults. Perform this fault finding procedure:</p> <ul style="list-style-type: none"> – after finding an inconsistency in the parameter, – after a customer complaint (starting faults, poor performance, stalling etc.), – after interpretation of command AC225 Rail pressure regulator.
	<p>Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.</p>

Conformity check: Engine stopped and ignition on

<p>The rail pressure value is between: 0 bar < PR038 < 90 bar if the coolant temperature < 30°C. In the event of a fault, consult the interpretation of fault DF007 Rail pressure sensor circuit.</p>
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

<p>The rail pressure value must be between: 250 bar < PR038 < 290 bar (at idle speed), 1680 bar < PR038 < 1720 bar (full load). In the event of a fault, refer to the interpretation of fault DF007.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR038 / EDC16CP33_V1C_PR038 / EDC16CP33_V54_PR038 / EDC16CP33_V20_PR038 / EDC16CP33_V58_PR038 /
EDC16CP33_V5C_PR038 / EDC16CP33_V24_PR038 / EDC16CP33_V04_PR038 / EDC16CP33_V08_PR038 / EDC16CP33_V44_PR038 /
EDC16CP33_V4C_PR038 / EDC16CP33_V34_PR038 / EDC16CP33_V38_PR038 / EDC16CP33_V74_PR038 / EDC16CP33_V38_PR028 /
EDC16CP33_V62_PR038 / EDC16CP33_V26_PR038 / EDC16CP33_V60_PR038

PR038 CONTINUED

Sensor electrical conformity

Check the condition of the rail pressure sensor connector (see **Wiring Diagram Technical Note, Vehicle, Component code 1032**).

Check the condition of the engine management computer connector (see **Wiring Diagram Technical Note, Vehicle, Component code 120**).

If one of the connectors is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity** and **absence of interference resistance** of the following connections:

- **3LX** between components **120** and **1032**,
- **3LY** between components **120** and **1032**,
- **3LZ** between components **120** and **1032**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check that there are no external diesel leaks from the high pressure fuel circuit.

With the ignition on and the engine stopped for over **1 minute**:

View parameter **PR038 Rail pressure**.

- If the pressure is below **90 bar**, the sensor is in order.
- If the pressure is above **90 bar**, contact the Techline.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

PR041	<u>TURBOCHARGING PRESSURE</u>
--------------	--------------------------------------

PARAMETER DEFINITION	This parameter indicates the turbocharging pressure in bar .
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The turbocharging pressure value must be: PR041 = PR035 Atmospheric pressure + /- 0.20 bar. In the event of a fault, consult the interpretation of DF004 Turbocharging pressure sensor circuit.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR041 / EDC16CP33_V1C_PR041 / EDC16CP33_V54_PR041 / EDC16CP33_V20_PR041 / EDC16CP33_V58_PR041 /
EDC16CP33_V5C_PR041 / EDC16CP33_V24_PR041 / EDC16CP33_V04_PR041 / EDC16CP33_V08_PR041 / EDC16CP33_V44_PR041 /
EDC16CP33_V4C_PR041 / EDC16CP33_V34_PR041 / EDC16CP33_V38_PR041 / EDC16CP33_V74_PR041 / EDC16CP33_V28_PR041 /
EDC16CP33_V62_PR041 / EDC16CP33_V26_PR041 / EDC16CP33_V60_PR041

PR041 CONTINUED

Sensor electrical conformity

Check the **continuity** and **absence of interference resistance** of the following connections:

- **3LQ** between components **120** and **1071**,
- **3LP** between components **120** and **1071**,
- **3LN** between components **120** and **1071**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Vehicle with the ignition on, and the engine stopped for at least 1 minute:

Compare the values of **PR041 Turbocharging pressure** and **PR035 Atmospheric pressure**.

If the difference between **PR041** and **PR035** is greater than **0.1 bar**,
check the value of **PR035** by comparing it with the reading on a vehicle in the workshop which is correct.

If the value of **PR035** is not correct (difference greater than **0.1 bar** between the 2 vehicles), contact the Techline.

Otherwise (when the value of **PR035** is correct), replace the turbocharger pressure sensor.

If the difference between **PR041** and **PR035** is less than **0.1 bar**.

Start the engine, with the engine idling:

Compare the values of **PR041** and **PR035**.

If the difference between **PR041** and **PR035** is greater than **0.2 bar**.

Check the air inlet circuit:

Apply **Test 4 Turbocharged air inlet circuit check**.

Low and **high pressure** air circuit **sealed** and **not obstructed**: ducts, mounting clamps present and tightened, turbocharging pressure sensor fitted, exchanger, etc.

Check that the damper valve is not jammed closed.

Repair if necessary.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

PR042	<u>FILTERED TURBOCHARGING PRESSURE</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the filtered turbocharging pressure in bar .
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

PR042 corresponds to the average value of PR041 Turbocharging pressure.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR042 / EDC16CP33_V1C_PR042 / EDC16CP33_V54_PR042 / EDC16CP33_V20_PR042 / EDC16CP33_V58_PR042 /
EDC16CP33_V5C_PR042 / EDC16CP33_V24_PR042 / EDC16CP33_V04_PR042 / EDC16CP33_V08_PR042 / EDC16CP33_V44_PR042 /
EDC16CP33_V4C_PR042 / EDC16CP33_V34_PR042 / EDC16CP33_V38_PR042 / EDC16CP33_V74_PR042 / EDC16CP33_V28_PR042 /
EDC16CP33_V62_PR042 / EDC16CP33_V26_PR042 / EDC16CP33_V60_PR042

PR048	<u>RAIL PRESSURE REGULATION VALVE OCR*</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the turbocharger pressure opening cyclic ratio in %.
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on

<p>The turbo pressure opening cyclic ratio value must be: PR048 = 15% In the event of a fault, consult the interpretation of faults DF007 Rail pressure sensor circuit and DF053 Rail pressure regulation function.</p>
--

Conformity check: Engine running, engine coolant temperature > 80°C, without electrical consumers

<p>The turbo pressure opening cyclic ratio value must be between: 35% < PR048 < 45% In the event of a fault, refer to the interpretation of fault DF007.</p>
--

OCR*: Opening Cyclic Ratio

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR048 / EDC16CP33_V1C_PR048 / EDC16CP33_V54_PR048 / EDC16CP33_V20_PR048 / EDC16CP33_V58_PR048 /
 EDC16CP33_V5C_PR048 / EDC16CP33_V24_PR048 / EDC16CP33_V04_PR048 / EDC16CP33_V08_PR048 / EDC16CP33_V44_PR048 /
 EDC16CP33_V4C_PR048 / EDC16CP33_V34_PR048 / EDC16CP33_V38_PR048 / EDC16CP33_V74_PR048 / EDC16CP33_V28_PR048 /
 EDC16CP33_V62_PR048 / EDC16CP33_V26_PR048 / EDC16CP33_V60_PR048

PR051	<u>EGR VALVE POSITION FEEDBACK</u>
--------------	------------------------------------

PARAMETER DEFINITION	This parameter indicates the opening ratio of the EGR valve in %.
---------------------------------	---

NOTES	<p>There must be no present or stored faults. Perform this fault finding procedure:</p> <ul style="list-style-type: none"> – after finding an inconsistency in the parameter, – after a customer complaint (loss of power, smoke etc.). – after interpretation of command AC103 EGR by-pass.
	Use the Technical Note Wiring Diagram, Laguna II ph2, Vel Satis ph2, Mégane II ph2, Scénic II ph2, Espace IV ph2 .

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

In the event of a fault, see the interpretation of faults DF209 EGR valve position sensor circuit and DF647 EGR valve position regulation .

Sensor electrical conformity

Check the continuity and absence of interference resistance of the following connections: <ul style="list-style-type: none"> • 3JM between components 120 and 1460 or 169, • 3EL between components 120 and 1460 or 169, • 3GC between components 120 and 1460 or 169. If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR051 / EDC16CP33_V1C_PR051 / EDC16CP33_V54_PR051 / EDC16CP33_V20_PR051 / EDC16CP33_V58_PR051 / EDC16CP33_V5C_PR051 / EDC16CP33_V24_PR051 / EDC16CP33_V04_PR051 / EDC16CP33_V08_PR051 / EDC16CP33_V44_PR051 / EDC16CP33_V4C_PR051 / EDC16CP33_V34_PR051 / EDC16CP33_V38_PR051 / EDC16CP33_V74_PR051 / EDC16CP33_V28_PR051 / EDC16CP33_V62_PR051 / EDC16CP33_V26_PR051 / EDC16CP33_V60_PR051

PR053	<u>SPEED REQUESTED BY HEATING/AIR CONDITIONING</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the engine's speed of rotation with air conditioning in rpm .
---------------------------------	---

NOTES	<p>Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.</p> <p>Note: Take parameter PR053 into account only if PR037 Refrigerant pressure > 12 bar.</p>
--------------	--

Conformity check: Engine stopped and ignition on

The value of the engine speed with air conditioning must be: PR053 = 0 rpm (ignition on).

Conformity check with the engine running and engine coolant temperature > 80°C
--

The speed requested by the air-conditioning is increased and varies around 850 rpm .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR053 / EDC16CP33_V1C_PR053 / EDC16CP33_V54_PR053 / EDC16CP33_V20_PR053 / EDC16CP33_V58_PR053 /
EDC16CP33_V5C_PR053 / EDC16CP33_V24_PR053 / EDC16CP33_V04_PR053 / EDC16CP33_V08_PR053 / EDC16CP33_V44_PR053 /
EDC16CP33_V4C_PR053 / EDC16CP33_V34_PR053 / EDC16CP33_V38_PR053 / EDC16CP33_V74_PR053 / EDC16CP33_V28_PR053 /
EDC16CP33_V62_PR053 / EDC16CP33_V26_PR053 / EDC16CP33_V60_PR053

PR055	<u>ENGINE SPEED</u>
--------------	---------------------

PARAMETER DEFINITION	This parameter indicates the engine's rotational speed in rpm .
-----------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on.
--

<p>The value of the engine speed must be: PR055 = 0 rpm (ignition on). In the event of a fault, refer to the interpretation of faults DF195 Camshaft sensor/engine speed consistency, DF119 Camshaft sensor signal and DF120 Engine speed sensor signal.</p>
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

<p>The value of the engine speed must be between: 750 rpm < PR055 < 850 rpm (with the engine running at idle speed). In the event of a fault, refer to the interpretation of faults DF195, DF119 and DF120.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR055 / EDC16CP33_V1C_PR055 / EDC16CP33_V54_PR055 / EDC16CP33_V20_PR055 / EDC16CP33_V58_PR055 / EDC16CP33_V5C_PR055 / EDC16CP33_V24_PR055 / EDC16CP33_V04_PR055 / EDC16CP33_V08_PR055 / EDC16CP33_V44_PR055 / EDC16CP33_V4C_PR055 / EDC16CP33_V34_PR055 / EDC16CP33_V38_PR055 / EDC16CP33_V74_PR055 / EDC16CP33_V28_PR055 / EDC16CP33_V62_PR055 / EDC16CP33_V26_PR055 / EDC16CP33_V60_PR055

PR059	<u>INLET AIR TEMPERATURE</u>
--------------	------------------------------

PARAMETER DEFINITION	This parameter indicates the air inlet temperature in °C.
-----------------------------	---

NOTES	<p>There must be no present or stored faults. Perform this fault finding procedure:</p> <ul style="list-style-type: none"> – after finding an inconsistency in the parameter, – after a customer complaint (e.g. lack of power).
	Use the Technical Note Wiring Diagram, Laguna II ph2, Vel Satis ph2, Mégane II ph2, Scénic II ph2, Espace IV ph2.

Conformity check: Engine stopped and ignition on

<p>With the ignition on the inlet air temperature varies according to the exterior temperature. In the event of a fault, consult the interpretation of fault DF002 Air temperature sensor circuit. Parameter PR059 ≈ PR064 Coolant temperature engine cold.</p>
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

<p>With the engine running at idle speed the inlet air temperature varies according to the engine coolant temperature. In the event of a fault, refer to the interpretation of fault DF002.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR059 / EDC16CP33_V1C_PR059 / EDC16CP33_V54_PR059 / EDC16CP33_V20_PR059 / EDC16CP33_V58_PR059 /
EDC16CP33_V5C_PR059 / EDC16CP33_V24_PR059 / EDC16CP33_V04_PR059 / EDC16CP33_V08_PR059 / EDC16CP33_V44_PR059 /
EDC16CP33_V4C_PR059 / EDC16CP33_V34_PR059 / EDC16CP33_V38_PR059 / EDC16CP33_V74_PR059 / EDC16CP33_V28_PR059 /
EDC16CP33_V62_PR059 / EDC16CP33_V26_PR059 / EDC16CP33_V60_PR059

PR059 CONTINUED

Sensor electrical conformity

With the flow sensor disconnected, check the **insulation** from **earth** of the following connection:

- **3ABQ** between components **120** and **799**.

Check the **+ 12 V after relay supply** of the air flowmeter on the following connection:

- **3FB** of component **799**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Measure **the resistance** between the following connections:

- **3ABQ** and **3DW** of component **799**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the resistances of the air flowmeter are not between:

8716 Ω < X < 9689 Ω (at - 10°C),

2353 Ω < X < 2544 Ω (at + 20°C),

794 Ω < X < 839 Ω (at + 50°C),

310 Ω < X < 321 Ω (at + 80°C),

5497 Ω < X < 6050 Ω (at + 0°C),

1613 Ω < X < 1730 Ω (at + 30°C),

569 Ω < X < 598 Ω (at + 60°C),

234 Ω < X < 242 Ω (at + 90°C),

3553 Ω < X < 3875 Ω (at +10°C),

1114 Ω < X < 1186 Ω (at +40°C),

418 Ω < X < 436 Ω (at +70°C),

replace the air flowmeter

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

PR061	<u>EXTERIOR AIR TEMPERATURE</u>
--------------	---------------------------------

PARAMETER DEFINITION	This parameter indicates the exterior air temperature in °C.
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The exterior air temperature value must be: PR061 = 20°C (default value). This parameter is controlled by the UCH and transmitted to the injection on the multiplex network. In the event of a fault, run fault finding on the UCH (see 87B, Passenger compartment connection unit).</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR061 / EDC16CP33_V1C_PR061 / EDC16CP33_V54_PR061 / EDC16CP33_V20_PR061 / EDC16CP33_V58_PR061 /
 EDC16CP33_V5C_PR061 / EDC16CP33_V24_PR061 / EDC16CP33_V04_PR061 / EDC16CP33_V08_PR061 / EDC16CP33_V44_PR061 /
 EDC16CP33_V4C_PR061 / EDC16CP33_V34_PR061 / EDC16CP33_V38_PR061 / EDC16CP33_V74_PR061 / EDC16CP33_V28_PR061 /
 EDC16CP33_V62_PR061 / EDC16CP33_V26_PR061 / EDC16CP33_V60_PR061

PR063	<u>FUEL TEMPERATURE</u>
--------------	-------------------------

PARAMETER DEFINITION	This parameter indicates the fuel temperature in °C.
-----------------------------	--

NOTES	<p>There must be no present or stored faults. Perform this fault finding procedure:</p> <ul style="list-style-type: none"> – after finding an inconsistency in the parameter, – after a customer complaint (e.g. lack of power).
	Use the Technical Note Wiring Diagram, Laguna II ph2, Vel Satis ph2, Mégane II ph2, Scénic II ph2, Espace IV ph2.

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The fuel temperature value must be between:</p> <ul style="list-style-type: none"> – 30°C < PR063 < 90°C PR063 = 100°C (default value). <p>In the event of a fault, consult the interpretation of fault DF098 Fuel temperature sensor circuit.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool.
---------------------	--

EDC16CP33_V18_PR063 / EDC16CP33_V1C_PR063 / EDC16CP33_V54_PR063 / EDC16CP33_V20_PR063 / EDC16CP33_V58_PR063 / EDC16CP33_V5C_PR063 / EDC16CP33_V24_PR063 / EDC16CP33_V04_PR063 / EDC16CP33_V08_PR063 / EDC16CP33_V44_PR063 / EDC16CP33_V4C_PR063 / EDC16CP33_V34_PR063 / EDC16CP33_V38_PR063 / EDC16CP33_V74_PR063 / EDC16CP33_V28_PR063 / EDC16CP33_V62_PR063 / EDC16CP33_V26_PR063 / EDC16CP33_V60_PR063

PR063 CONTINUED

Sensor electrical conformity

Check the **continuity** and **absence of interference resistance** of the following connections:

- **3FAB** between components **120** and **1066**,
- **3LD** between components **120** and **1066**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Measure **the resistance** between the following connections:

- **3FAB** and **3LD** of component **1066**.

If the fuel temperature sensor resistances are not between:

3538 Ω < X < 4502 Ω (at + 10°C),

1950 Ω < X < 2150 Ω (at + 25°C),

763 Ω < X < 857 Ω (at +50°C),

replace the sensor.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

PR064	<u>COOLANT TEMPERATURE</u>
--------------	----------------------------

PARAMETER DEFINITION	This parameter indicates the engine coolant temperature in °C.
-----------------------------	--

NOTES	<p>There must be no present or stored faults. Perform this fault finding procedure:</p> <ul style="list-style-type: none"> – after finding an inconsistency in the parameter, – after a customer complaint (e.g. lack of power).
	Use the Technical Note Wiring Diagram, Laguna II ph2, Vel Satis ph2, Mégane II ph2, Scénic II ph2, Espace IV ph2.

Conformity check with engine stopped and ignition on.
--

<p>With the ignition on the coolant temperature varies according to the exterior temperature. In the event of a fault, consult the interpretation of fault DF001 Coolant temperature sensor circuit. Parameter PR059: Inlet air temperature ≈ PR064 engine cold.</p>

Conformity check with the engine running and engine coolant temperature > 80°C
--

<p>With the engine running at idle speed the coolant temperature varies according to the engine temperature. If there is a fault, refer to the interpretation of fault DF001.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR064 / EDC16CP33_V1C_PR064 / EDC16CP33_V54_PR064 / EDC16CP33_V20_PR064 / EDC16CP33_V58_PR064 /
EDC16CP33_V5C_PR064 / EDC16CP33_V24_PR064 / EDC16CP33_V04_PR064 / EDC16CP33_V08_PR064 / EDC16CP33_V44_PR064 /
EDC16CP33_V4C_PR064 / EDC16CP33_V34_PR064 / EDC16CP33_V38_PR064 / EDC16CP33_V74_PR064 / EDC16CP33_V28_PR064 /
EDC16CP33_V62_PR064 / EDC16CP33_V26_PR064 / EDC16CP33_V60_PR064

PR064 CONTINUED

Sensor electrical conformity

Check the **continuity** and **absence of interference resistance** of the following connections:

- **3C** between components **120** and **244**,
- **3JK** between components **120** and **244**,

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Measure the **resistance** between the following connections:

- **3C** and **3JK** of component **244**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the temperature sensor resistances are not between:

11332 Ω < X < 13588 Ω (at - 10°C),

2140 Ω < X < 2364 Ω (at + 25°C),

772 Ω < X < 850 Ω (at + 50°C),

275 Ω < X < 291 Ω (at + 80°C),

112 Ω < X < 118 Ω (at + 110°C),

replace the sensor.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

PR074	<u>BATTERY VOLTAGE</u>
--------------	------------------------

PARAMETER DEFINITION	This parameter indicates the battery voltage in volts .
---------------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

The battery voltage value must be between: 8.5 V < PR074 < 15 V. Test the battery and run fault finding on the charging circuit (see Technical Note 6014A, Charging circuit check).
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR074 / EDC16CP33_V1C_PR074 / EDC16CP33_V54_PR074 / EDC16CP33_V20_PR074 / EDC16CP33_V58_PR074 /
EDC16CP33_V5C_PR074 / EDC16CP33_V24_PR074 / EDC16CP33_V04_PR074 / EDC16CP33_V08_PR074 / EDC16CP33_V44_PR074 /
EDC16CP33_V4C_PR074 / EDC16CP33_V34_PR074 / EDC16CP33_V38_PR074 / EDC16CP33_V74_PR074 / EDC16CP33_V28_PR074 /
EDC16CP33_V62_PR074 / EDC16CP33_V26_PR074 / EDC16CP33_V60_PR074

PR077	<u>EGR VALVE POSITION SENSOR VOLTAGE</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the EGR valve position sensor voltage in volts .
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on

<p>The EGR valve position sensor voltage value must be between: 0 < PR077 < 1.5 V The default value is: X = 0 V In the event of a fault, refer to the interpretation of fault DF012 Sensor supply voltage no. 2.</p>
--

Engine running, engine coolant temperature > 80°C, with no electrical consumers

<p>The EGR valve position sensor voltage value must be between: 0 V < PR077 < 5 V The default value is: X = 0 V In the event of a fault, refer to the interpretation of fault DF012.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR077 / EDC16CP33_V1C_PR077 / EDC16CP33_V54_PR077 / EDC16CP33_V20_PR077 / EDC16CP33_V58_PR077 /
EDC16CP33_V5C_PR077 / EDC16CP33_V24_PR077 / EDC16CP33_V04_PR077 / EDC16CP33_V08_PR077 / EDC16CP33_V44_PR077 /
EDC16CP33_V4C_PR077 / EDC16CP33_V34_PR077 / EDC16CP33_V38_PR077 / EDC16CP33_V74_PR077 / EDC16CP33_V28_PR077 /
EDC16CP33_V62_PR077 / EDC16CP33_V26_PR077 / EDC16CP33_V60_PR077

PR079	<u>ATMOSPHERIC PRESSURE SENSOR VOLTAGE</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the atmospheric pressure sensor voltage in volts .
-----------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

The value of the atmospheric pressure sensor voltage must be between: 0 V < PR079 < 5 V. In the event of a fault, consult the interpretation of faults DF011 Sensor supply no. 1 voltage , DF012 Sensor supply no. 2 voltage , and DF013 Sensor supply no. 3 voltage .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR079 / EDC16CP33_V1C_PR079 / EDC16CP33_V54_PR079 / EDC16CP33_V20_PR079 / EDC16CP33_V58_PR079 / EDC16CP33_V5C_PR079 / EDC16CP33_V24_PR079 / EDC16CP33_V04_PR079 / EDC16CP33_V08_PR079 / EDC16CP33_V44_PR079 / EDC16CP33_V4C_PR079 / EDC16CP33_V34_PR079 / EDC16CP33_V38_PR079 / EDC16CP33_V74_PR079 / EDC16CP33_V28_PR079 / EDC16CP33_V62_PR079 / EDC16CP33_V26_PR079 / EDC16CP33_V60_PR079

PR080	<u>RAIL PRESSURE SENSOR VOLTAGE</u>
--------------	-------------------------------------

PARAMETER DEFINITION	This parameter indicates the rail pressure sensor voltage in volts .
---------------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

The value of the rail position sensor voltage must be between: 0 V <PR080 <5 V. In the event of a fault, refer to the interpretation of fault DF013 Sensor feed voltage no. 3 .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR080 / EDC16CP33_V1C_PR080 / EDC16CP33_V54_PR080 / EDC16CP33_V20_PR080 / EDC16CP33_V58_PR080 /
EDC16CP33_V5C_PR080 / EDC16CP33_V24_PR080 / EDC16CP33_V04_PR080 / EDC16CP33_V08_PR080 / EDC16CP33_V44_PR080 /
EDC16CP33_V4C_PR080 / EDC16CP33_V34_PR080 / EDC16CP33_V38_PR080 / EDC16CP33_V74_PR080 / EDC16CP33_V28_PR080 /
EDC16CP33_V62_PR080 / EDC16CP33_V26_PR080 / EDC16CP33_V60_PR080

PR082	<u>FUEL TEMPERATURE SENSOR VOLTAGE</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the fuel temperature sensor voltage in volts .
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on, or Engine running and engine coolant temperature > 80°C without electrical consumers
--

0 V < PR082 < 5 V In the event of a fault, consult the interpretation of fault DF098 Fuel temperature sensor circuit .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR082 / EDC16CP33_V1C_PR082 / EDC16CP33_V54_PR082 / EDC16CP33_V20_PR082 / EDC16CP33_V58_PR082 /
EDC16CP33_V5C_PR082 / EDC16CP33_V24_PR082 / EDC16CP33_V04_PR082 / EDC16CP33_V08_PR082 / EDC16CP33_V44_PR082 /
EDC16CP33_V4C_PR082 / EDC16CP33_V34_PR082 / EDC16CP33_V38_PR082 / EDC16CP33_V74_PR082 / EDC16CP33_V28_PR082 /
EDC16CP33_V62_PR082 / EDC16CP33_V26_PR082 / EDC16CP33_V60_PR082

PR083	<u>AIR TEMPERATURE SENSOR VOLTAGE</u>
--------------	---------------------------------------

PARAMETER DEFINITION	This parameter indicates the air temperature sensor voltage in volts .
-----------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

The value of the air temperature sensor voltage must be between: 0 V < PR083 < 5 V. In the event of a fault, consult the interpretation of faults DF011 Sensor supply voltage no. 1 , DF012 Sensor supply voltage no. 2 and DF013 Sensor supply voltage no. 3 .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR083 / EDC16CP33_V1C_PR083 / EDC16CP33_V54_PR083 / EDC16CP33_V20_PR083 / EDC16CP33_V58_PR083 / EDC16CP33_V5C_PR083 / EDC16CP33_V24_PR083 / EDC16CP33_V04_PR083 / EDC16CP33_V08_PR083 / EDC16CP33_V44_PR083 / EDC16CP33_V4C_PR083 / EDC16CP33_V34_PR083 / EDC16CP33_V38_PR083 / EDC16CP33_V74_PR083 / EDC16CP33_V28_PR083 / EDC16CP33_V62_PR083 / EDC16CP33_V26_PR083 / EDC16CP33_V60_PR083

PR084	<u>COOLANT TEMPERATURE SENSOR VOLTAGE</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the coolant temperature sensor voltage in volts .
---------------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

The value of the coolant temperature sensor voltage must be between: 0 V < PR084 < 5 V. In the event of a fault, refer to the interpretation of DF001 Coolant temperature sensor circuit .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR084 / EDC16CP33_V1C_PR084 / EDC16CP33_V54_PR084 / EDC16CP33_V20_PR084 / EDC16CP33_V58_PR084 /
EDC16CP33_V5C_PR084 / EDC16CP33_V24_PR084 / EDC16CP33_V04_PR084 / EDC16CP33_V08_PR084 / EDC16CP33_V44_PR084 /
EDC16CP33_V4C_PR084 / EDC16CP33_V34_PR084 / EDC16CP33_V38_PR084 / EDC16CP33_V74_PR084 / EDC16CP33_V28_PR084 /
EDC16CP33_V62_PR084 / EDC16CP33_V26_PR084 / EDC16CP33_V60_PR084

PR086	<u>PEDAL POTENTIOMETER GANG 1 VOLTAGE</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the pedal potentiometer gang 1 voltage in volts .
-----------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The value of the pedal potentiometer gang 1 voltage must be between: 0.70 V < PR086 < 0.80 V (accelerator pedal released).</p> <p>IMPORTANT: This corresponds to normal operation.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR086 / EDC16CP33_V1C_PR086 / EDC16CP33_V54_PR086 / EDC16CP33_V20_PR086 / EDC16CP33_V58_PR086 /
EDC16CP33_V5C_PR086 / EDC16CP33_V24_PR086 / EDC16CP33_V04_PR086 / EDC16CP33_V08_PR086 / EDC16CP33_V44_PR086 /
EDC16CP33_V4C_PR086 / EDC16CP33_V34_PR086 / EDC16CP33_V38_PR086 / EDC16CP33_V74_PR086 / EDC16CP33_V28_PR086 /
EDC16CP33_V62_PR086 / EDC16CP33_V26_PR086 / EDC16CP33_V60_PR086

PR088	<u>PEDAL POTENTIOMETER GANG 2 VOLTAGE</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the pedal potentiometer gang 2 voltage in volts .
-----------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The value of the pedal potentiometer gang 2 voltage must be between: 0.30 V < PR088 < 0.40 V (accelerator pedal released).</p> <p>IMPORTANT: This corresponds to normal operation.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR088 / EDC16CP33_V1C_PR088 / EDC16CP33_V54_PR088 / EDC16CP33_V20_PR088 / EDC16CP33_V58_PR088 /
EDC16CP33_V5C_PR088 / EDC16CP33_V24_PR088 / EDC16CP33_V04_PR088 / EDC16CP33_V08_PR088 / EDC16CP33_V44_PR088 /
EDC16CP33_V4C_PR088 / EDC16CP33_V34_PR088 / EDC16CP33_V38_PR088 / EDC16CP33_V74_PR088 / EDC16CP33_V28_PR088 /
EDC16CP33_V62_PR088 / EDC16CP33_V26_PR088 / EDC16CP33_V60_PR088

PR089	<u>VEHICLE SPEED</u>
--------------	----------------------

PARAMETER DEFINITION	Gives the vehicle speed in km/h .
---------------------------------	--

NOTES	<p>Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.</p> <p>This parameter is transmitted by the ABS computer. This signal is transmitted to the injection on the multiplex network.</p>
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>In the event of a fault, test the multiplex network (see 88B, Multiplex).</p> <p>And then complete fault finding on the ABS computer (see 38C, Anti-lock braking system).</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR089 / EDC16CP33_V1C_PR089 / EDC16CP33_V54_PR089 / EDC16CP33_V20_PR089 / EDC16CP33_V58_PR089 /
EDC16CP33_V5C_PR089 / EDC16CP33_V24_PR089 / EDC16CP33_V04_PR089 / EDC16CP33_V08_PR089 / EDC16CP33_V44_PR089 /
EDC16CP33_V4C_PR089 / EDC16CP33_V34_PR089 / EDC16CP33_V38_PR089 / EDC16CP33_V74_PR089 / EDC16CP33_V28_PR089 /
EDC16CP33_V62_PR089 / EDC16CP33_V26_PR089 / EDC16CP33_V60_PR089

PR104	<u>TURBOCHARGING SV* OCR* SETPOINT</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the turbocharging solenoid valve opening ratio percentage.
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>PR104 ≈ PR846 TURBOCHARGING SOLENOID VALVE OCR, these 2 values must be similar. In the event of a fault, consult the interpretation of fault DF054 EGR valve position sensor circuit.</p>
--

OCR*: Opening Cyclic Ratio

SV*: Solenoid valve

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR104 / EDC16CP33_V1C_PR104 / EDC16CP33_V54_PR104 / EDC16CP33_V20_PR104 / EDC16CP33_V58_PR104 /
EDC16CP33_V5C_PR104 / EDC16CP33_V24_PR104 / EDC16CP33_V04_PR104 / EDC16CP33_V08_PR104 / EDC16CP33_V44_PR104 /
EDC16CP33_V4C_PR104 / EDC16CP33_V34_PR104 / EDC16CP33_V38_PR104 / EDC16CP33_V74_PR104 / EDC16CP33_V28_PR104 /
EDC16CP33_V62_PR104 / EDC16CP33_V26_PR104 / EDC16CP33_V60_PR104

PR128	<u>FIRST EGR VALVE OFFSET</u>
--------------	-------------------------------

PARAMETER DEFINITION	This parameter indicates the closing ratio of the EGR valve for the first offset of the EGR valve.
-----------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The EGR valve closure value during the first EGR valve offset must be between: 15% < PR128 < 25%. PR128 ≈ PR129 Last EGR valve offset, these 2 values should be similar. In the event of a fault, see the interpretation of faults DF209 EGR valve position sensor circuit and DF647 EGR valve position regulation.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR128 / EDC16CP33_V1C_PR128 / EDC16CP33_V54_PR128 / EDC16CP33_V20_PR128 / EDC16CP33_V58_PR128 /
EDC16CP33_V5C_PR128 / EDC16CP33_V24_PR128 / EDC16CP33_V04_PR128 / EDC16CP33_V08_PR128 / EDC16CP33_V44_PR128 /
EDC16CP33_V4C_PR128 / EDC16CP33_V34_PR128 / EDC16CP33_V38_PR128 / EDC16CP33_V74_PR128 / EDC16CP33_V28_PR128 /
EDC16CP33_V62_PR128 / EDC16CP33_V26_PR128 / EDC16CP33_V60_PR128

PR129	<u>LAST EGR VALVE OFFSET</u>
--------------	------------------------------

PARAMETER DEFINITION	This parameter indicates the closing ratio of the EGR valve for the first EGR valve offset.
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The EGR valve closure value during the last EGR valve offset must be between: 15% < PR129 < 25%. PR128 First EGR valve offset \approx PR129, these 2 values should be similar. In the event of a fault, consult the interpretation of faults DF209 EGR valve position sensor circuit and DF647 EGR valve position regulation.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR129 / EDC16CP33_V1C_PR129 / EDC16CP33_V54_PR129 / EDC16CP33_V20_PR129 / EDC16CP33_V58_PR129 /
EDC16CP33_V5C_PR129 / EDC16CP33_V24_PR129 / EDC16CP33_V04_PR129 / EDC16CP33_V08_PR129 / EDC16CP33_V44_PR129 /
EDC16CP33_V4C_PR129 / EDC16CP33_V34_PR129 / EDC16CP33_V38_PR129 / EDC16CP33_V74_PR129 / EDC16CP33_V28_PR129 /
EDC16CP33_V62_PR129 / EDC16CP33_V26_PR129 / EDC16CP33_V60_PR129

PR130	<u>CRUISE CONTROL SETPOINT</u>
--------------	--------------------------------

PARAMETER DEFINITION	This parameter indicates the cruise control speed setpoint in mph (km/h) .
---------------------------------	---

NOTES	<p>Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.</p>
	<p>There must be no faults present. Perform this fault finding procedure:</p> <ul style="list-style-type: none"> – after finding an inconsistency in the parameter, – or after a customer complaint (lack of power, smoke etc.).

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The cruise control speed setpoint closure value must be: PR130 > 18 mph (30 km/h).</p> <p>Cruise control can only be activated for a speed.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR130 / EDC16CP33_V1C_PR130 / EDC16CP33_V54_PR130 / EDC16CP33_V20_PR130 / EDC16CP33_V58_PR130 /
EDC16CP33_V5C_PR130 / EDC16CP33_V24_PR130 / EDC16CP33_V04_PR130 / EDC16CP33_V08_PR130 / EDC16CP33_V44_PR130 /
EDC16CP33_V4C_PR130 / EDC16CP33_V34_PR130 / EDC16CP33_V38_PR130 / EDC16CP33_V74_PR130 / EDC16CP33_V28_PR130 /
EDC16CP33_V62_PR130 / EDC16CP33_V26_PR130 / EDC16CP33_V60_PR130

PR132	<u>AIR FLOW</u>
--------------	-----------------

PARAMETER DEFINITION	This parameter indicates the inlet air flow in kg/h .
---------------------------------	--

NOTES	<p>There must be no faults present. Perform this fault finding procedure:</p> <ul style="list-style-type: none"> – after finding an inconsistency in the parameter, – or after a customer complaint (lack of power, smoke etc.).
	Use the Technical Note Wiring Diagram, Laguna II ph2, Vel Satis ph2, Mégane II ph2, Scénic II ph2, Espace IV ph2 .

Conformity check with engine stopped and ignition on.
--

The inlet air flow value must be: PR132 = 0 kg/h.

Conformity check with the engine running and engine coolant temperature > 80°C
--

The inlet air flow value must be between: 20 kg/h < PR132 < 30 kg/h.
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR132 CONTINUED

Sensor electrical conformity

Check the air inlet circuit (from the air filter inlet to the inlet manifold, apply **Test 4 Turbocharged air inlet circuit check**):

- air filter unit inlet not blocked and filter not clogged,
- **visual** inspection only, **apply Test 4 of ALP 2 Starting fault or starting impossible**,
- oil vapour recirculation circuit connection conformity.
- **absence of leaks or blockages** in the **low** and **high pressure** air circuits: pipes, presence and tightness of the mounting clips, mounting of the turbocharger pressure sensor, intercooler, etc.
- check that the damper valve is not jammed closed.

Carry out the necessary repairs.

Check the **electrical conformity of the air flowmeter**:

Check the **+ 5 V supply** of the air flowmeter on the following connection:

- **3KJ** of component **799**.

Check the **+ 12 V after relay supply** of the air flowmeter on the following connection:

- **3FB** of component **799**.

Check the **continuity** and **absence of interference resistance** of the following connections:

- **3DV** between components **120** and **799**,
- **3DW** between components **120** and **799**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

With the flowmeter connected, the vehicle **ignition on**, and the engine stopped:

Check the voltage between connections **3DW** and **3DV** of component **799**.

If the air flow sensor voltage is not between **0.3 V < X < 0.7 V**, replace the sensor.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

PR157	<u>FUEL FLOW SETPOINT</u>
--------------	---------------------------

PARAMETER DEFINITION	This parameter indicates the fuel flow setpoint in mg/st .
---------------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on

The fuel flow setpoint value must be: PR157 = 0 mg/st (ignition on). In the event of a fault, consult the interpretation of DF897 Pump pressure regulator circuit .

Conformity check with the engine running and engine coolant temperature > 80°C
--

Engine running: PR017: Fuel flow = PR157. In the event of a fault, refer to the interpretation of fault DF897 .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR157 / EDC16CP33_V1C_PR157 / EDC16CP33_V54_PR157 / EDC16CP33_V20_PR157 / EDC16CP33_V58_PR157 /
EDC16CP33_V5C_PR157 / EDC16CP33_V24_PR157 / EDC16CP33_V04_PR157 / EDC16CP33_V08_PR157 / EDC16CP33_V44_PR157 /
EDC16CP33_V4C_PR157 / EDC16CP33_V34_PR157 / EDC16CP33_V38_PR157 / EDC16CP33_V74_PR157 / EDC16CP33_V28_PR157 /
EDC16CP33_V62_PR157 / EDC16CP33_V26_PR157 / EDC16CP33_V60_PR157

PR171	<u>AIR FLOW SETPOINT FOR EGR</u>
--------------	----------------------------------

PARAMETER DEFINITION	This parameter indicates the fuel flow setpoint in mg/st .
---------------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

Indicates the air flow required by the EGR valve
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR171 / EDC16CP33_V1C_PR171 / EDC16CP33_V54_PR171 / EDC16CP33_V20_PR171 / EDC16CP33_V58_PR171 /
EDC16CP33_V5C_PR171 / EDC16CP33_V24_PR171 / EDC16CP33_V04_PR171 / EDC16CP33_V08_PR171 / EDC16CP33_V44_PR171 /
EDC16CP33_V4C_PR171 / EDC16CP33_V34_PR171 / EDC16CP33_V38_PR171 / EDC16CP33_V74_PR171 / EDC16CP33_V28_PR171 /
EDC16CP33_V62_PR171 / EDC16CP33_V26_PR171 / EDC16CP33_V60_PR171

PR190	<u>IDLE SPEED SETPOINT</u>
--------------	----------------------------

PARAMETER DEFINITION	This parameter indicates the engine's rotational speed in rpm .
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on.
--

<p>With the ignition on, the engine speed value must be: PR190 = 800 rpm or PR190 = 850 rpm (depending on the vehicle). In the event of a fault, refer to the interpretation of faults DF195 Camshaft sensor / engine speed consistency, DF119 Camshaft sensor signal and DF120 Engine speed sensor signal.</p>
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

<p>With the engine running at idle speed, the engine speed value must be: PR190 = 800 rpm or PR190 = 850 rpm (depending on the vehicle). In the event of a fault, refer to the interpretation of faults DF195, DF119 and DF120. The difference between the engine idle speed and its setpoint must be less than 50 rpm.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR209	<u>TURBOCHARGING PRESSURE LOOP DIFFERENCE</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the turbocharging pressure loop difference in bar .
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine running, engine coolant temperature > 80°C, without electrical consumers.
--

<p>The turbocharging pressure loop difference value must be: PR209 = PR009 Turbocharging pressure setpoint - PR041 Turbocharging pressure = ~ 0. If PR209 is significant, refer to the interpretation of the command AC004 Turbocharging solenoid valve.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR209 / EDC16CP33_V1C_PR209 / EDC16CP33_V54_PR209 / EDC16CP33_V20_PR209 / EDC16CP33_V58_PR209 /
 EDC16CP33_V5C_PR209 / EDC16CP33_V24_PR209 / EDC16CP33_V04_PR209 / EDC16CP33_V08_PR209 / EDC16CP33_V44_PR209 /
 EDC16CP33_V4C_PR209 / EDC16CP33_V34_PR209 / EDC16CP33_V38_PR209 / EDC16CP33_V74_PR209 / EDC16CP33_V28_PR209 /
 EDC16CP33_V62_PR209 / EDC16CP33_V26_PR209 / EDC16CP33_V60_PR209

PR213	<u>RAIL PRESSURE LOOP DIFFERENCE</u>
--------------	--------------------------------------

PARAMETER DEFINITION	This parameter indicates the rail pressure loop difference in bar .
---------------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

The rail pressure loop difference value must be: PR213 = PR008 Rail pressure setpoints - PR038 Rail pressure. In the event of a fault, consult the interpretation of fault DF007 Rail pressure sensor circuit .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR213 / EDC16CP33_V1C_PR213 / EDC16CP33_V54_PR213 / EDC16CP33_V20_PR213 / EDC16CP33_V58_PR213 /
EDC16CP33_V5C_PR213 / EDC16CP33_V24_PR213 / EDC16CP33_V04_PR213 / EDC16CP33_V08_PR213 / EDC16CP33_V44_PR213 /
EDC16CP33_V4C_PR213 / EDC16CP33_V34_PR213 / EDC16CP33_V38_PR213 / EDC16CP33_V74_PR213 / EDC16CP33_V28_PR213 /
EDC16CP33_V62_PR213 / EDC16CP33_V26_PR213 / EDC16CP33_V60_PR213

PR224	<u>TURBOCHARGING PRESSURE SENSOR VOLTAGE</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the turbocharging pressure sensor voltage in volts .
---------------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The turbocharger sensor voltage value must be between: 0 V < PR224 < 5 V. In the event of a fault, consult the interpretation of faults DF011 Sensor supply voltage no. 1, DF012 Sensor supply voltage no. 2 and DF013 Sensor supply voltage no. 3.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR224 / EDC16CP33_V1C_PR224 / EDC16CP33_V54_PR224 / EDC16CP33_V20_PR224 / EDC16CP33_V58_PR224 /
EDC16CP33_V5C_PR224 / EDC16CP33_V24_PR224 / EDC16CP33_V04_PR224 / EDC16CP33_V08_PR224 / EDC16CP33_V44_PR224 /
EDC16CP33_V4C_PR224 / EDC16CP33_V34_PR224 / EDC16CP33_V38_PR224 / EDC16CP33_V74_PR224 / EDC16CP33_V28_PR224 /
EDC16CP33_V62_PR224 / EDC16CP33_V26_PR224 / EDC16CP33_V60_PR224

PR225	<u>AIR FLOW SENSOR VOLTAGE</u>
--------------	--------------------------------

PARAMETER DEFINITION	This parameter indicates the air flow sensor voltage in volts .
---------------------------------	--

NOTES	<p>Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.</p> <p>There must be no faults present. Perform this fault finding procedure:</p> <ul style="list-style-type: none"> – after finding an inconsistency in the parameter, – or after a customer complaint (lack of power, smoke etc.).
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The air flow sensor voltage value must be between: 0 V < PR225 < 5 V.</p> <p>In the event of a fault, consult the interpretation of parameter DF056 Air flow sensor circuit.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR225 / EDC16CP33_V1C_PR225 / EDC16CP33_V54_PR225 / EDC16CP33_V20_PR225 / EDC16CP33_V58_PR225 /
EDC16CP33_V5C_PR225 / EDC16CP33_V24_PR225 / EDC16CP33_V04_PR225 / EDC16CP33_V08_PR225 / EDC16CP33_V44_PR225 /
EDC16CP33_V4C_PR225 / EDC16CP33_V34_PR225 / EDC16CP33_V38_PR225 / EDC16CP33_V74_PR225 / EDC16CP33_V28_PR225 /
EDC16CP33_V62_PR225 / EDC16CP33_V26_PR225 / EDC16CP33_V60_PR225

PR290	<u>AC REFRIGERANT PRESSURE SENSOR VOLTAGE</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the refrigerant pressure sensor voltage in volts .
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

The refrigerant pressure sensor voltage value must be between: 0 V ≤ PR290 ≤ 5 V. Carry out fault finding on the climate control computer (see 62B, Climate control).
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR364	<u>CYLINDER NO. 1 FUEL FLOW CORRECTION</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the cylinder's fuel flow correction in mg/st .
---------------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on

The cylinder no. 1 fuel flow correction value must be: PR364 = 0.0 mg/st. In the event of a fault, consult Test 10 Poor injector operation .
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

The cylinder no. 1 fuel flow correction value must be between: - 6 mg/st < PR364 < 6 mg/st. In the event of a fault, consult Test 10 Poor injector operation .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR365	<u>CYLINDER NO. 4 FUEL FLOW CORRECTION</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the cylinder's fuel flow correction in mg/st .
---------------------------------	--

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on

The cylinder fuel flow correction value must be: PR365 = 0.0 mg/st. In the event of a fault, consult Test 10 Poor injector operation .
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

The cylinder fuel flow correction value must be between: - 6 mg/st < PR365 < 6 mg/st. In the event of a fault, consult Test 10 .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR381	<u>PARTICLE FILTER DOWNSTREAM TEMPERATURE</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the particle filter downstream temperature in °C.
-----------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>Indicates the particle filter downstream air temperature in °C. PR381 ≈ PR382 Particle filter upstream temperature ≈ ± 200°C</p> <p>In the event of a fault, consult the interpretation of faults DF309 Particle filter downstream temperature sensor and DF310 Particle filter upstream temperature sensor.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR382	<u>PARTICLE FILTER UPSTREAM TEMPERATURE</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the air temperature of the exhaust gas upstream of the particle filter in °C.
-----------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The value of the air temperature of the exhaust gas upstream of the particle filter must be: PR382 ≈ 200°C</p> <p>In the event of a fault, consult the interpretation of faults DF309 Particle filter downstream temperature sensor and DF310 Particle filter upstream temperature sensor.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR383	<u>WEIGHT OF SOOT IN PARTICLE FILTER</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the weight of soot in the particle filter in g .
-----------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The value of the weight of soot in the particle filter must be: PR383 < 56 g.</p> <p>If the weight is greater than 56 g: For all Vdiags (except 18): carry out an After-Sales regeneration. Run command SC017 Particle filter regeneration and follow the procedure (see Interpretation of commands).</p> <p>For Vdiag 18: Reprogram the computer in Vdiag 1C. Then apply the procedure corresponding to Vdiag 1C. In the event of a fault, refer to the interpretation of fault DF315 Particle filter diff* pressure sensor.</p>
--

diff.*: differential

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR385	<u>EXHAUST SYSTEM FLOW</u>
--------------	----------------------------

PARAMETER DEFINITION	This parameter indicates the exhaust pipe flow in m³/h .
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on.
--

When stationary, the exhaust pipe flow value must be: PR385 = 0 m³/h.
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

The exhaust pipe flow value must be between: 20 m³/h < PR385 < 80 m³/h.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR385 / EDC16CP33_V1C_PR385 / EDC16CP33_V54_PR385 / EDC16CP33_V20_PR385 / EDC16CP33_V58_PR385 /
EDC16CP33_V5C_PR385 / EDC16CP33_V24_PR385 / EDC16CP33_V28_PR385 / EDC16CP33_V62_PR385 / EDC16CP33_V26_PR385 /
EDC16CP33_V60_PR385

PR391	<u>DISTANCE SINCE PARTICLE FILTER REPL*</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the distance since the particle filter was last replaced in miles (km) .
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

Indicates the mileage travelled since replacement of the particle filter.

REPL*: REPLACEMENT

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR405	<u>CYLINDER NO. 2 FUEL FLOW CORRECTION</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the cylinder's fuel flow correction in mg/st .
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on.
--

<p>The cylinder fuel flow correction value must be: PR405 = 0.0 mg/st. In the event of a fault, consult Test 10 Poor injector operation.</p>
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

<p>The cylinder fuel flow correction value must be between: - 6 mg/st < PR405 < 6 mg/st. In the event of a fault, consult Test 10.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR406	<u>CYLINDER NO. 3 FUEL FLOW CORRECTION</u>
PARAMETER DEFINITION	This parameter indicates the cylinder's fuel flow correction in mg/st .
NOTES	None.
Conformity check with engine stopped and ignition on.	
<p>The cylinder fuel flow correction value must be: PR406 = 0.0 mg/st. In the event of a fault, consult Test 10 Poor injector operation.</p>	
Conformity check with the engine running and engine coolant temperature > 80°C	
<p>The cylinder fuel flow correction value must be between: – 6 mg/st < PR406 < 6 mg/st. In the event of a fault, consult Test 10.</p>	
AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .

PR412	<u>DISTANCE AT LAST SUCCESSFUL REGENERATION</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the distance at the last successful regeneration in miles (km) .
-----------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

This parameter indicates the vehicle's mileage at the last successful regeneration.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR414	<u>PARTICLE FILTER DIFF* PRESSURE</u>
--------------	---------------------------------------

PARAMETER DEFINITION	This parameter indicates the particle filter differential pressure in mbar .
-----------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on

<p>The value of the particle filter differential pressure must be between: - 1 mbar < PR414 < 1 mbar</p> <p>In the event of a fault, refer to the interpretation of fault DF315 Particle filter diff* pressure sensor.</p>

Conformity check with the engine running and engine coolant temperature > 80°C
--

<p>The value of the particle filter differential pressure must be between: 10 mbar < PR414 < 100 mbar</p> <p>In the event of a fault, refer to the interpretation of fault DF315.</p>
--

diff.*: differential

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR415	<u>TIME SINCE LAST REGENERATION</u>
--------------	-------------------------------------

PARAMETER DEFINITION	This parameter indicates the time since the last regeneration in hours .
-----------------------------	---

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

Time counter since last regeneration in hours.
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR484	<u>FUEL REGULATION SOLENOID VALVE OCR*</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the solenoid valve opening ratio as a %.
---------------------------------	---

Conformity check with engine stopped and ignition on.
--

<p>The value of the solenoid valve opening ratio must be: PR484 = 0%. In the event of a fault, consult the interpretation of DF897 Pump pressure regulator circuit.</p>

Conformity check: Engine running, engine coolant temperature > 80°C

<p>The solenoid valve opening value must be between: 30% < PR484 < 40%. In the event of a fault, refer to the interpretation of fault DF897.</p>
--

OCR*: Opening Cyclic Ratio

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR484 / EDC16CP33_V1C_PR484 / EDC16CP33_V54_PR484 / EDC16CP33_V20_PR484 / EDC16CP33_V58_PR484 /
 EDC16CP33_V5C_PR484 / EDC16CP33_V24_PR484 / EDC16CP33_V04_PR484 / EDC16CP33_V08_PR484 / EDC16CP33_V44_PR484 /
 EDC16CP33_V4C_PR484 / EDC16CP33_V34_PR484 / EDC16CP33_V38_PR484 / EDC16CP33_V74_PR484 / EDC16CP33_V28_PR484 /
 EDC16CP33_V62_PR484 / EDC16CP33_V26_PR484 / EDC16CP33_V60_PR484

PR490	<u>ENGINE AIR FLOW</u>
--------------	------------------------

PARAMETER DEFINITION	This parameter indicates the air flow entering the engine in mg/st .
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on

The inlet air flow value must be: PR490 = 0 mg/st.
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

The inlet air flow value must be: PR490 ± 500 mg/st.
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR490 / EDC16CP33_V1C_PR490 / EDC16CP33_V54_PR490 / EDC16CP33_V20_PR490 / EDC16CP33_V58_PR490 /
EDC16CP33_V5C_PR490 / EDC16CP33_V24_PR490 / EDC16CP33_V04_PR490 / EDC16CP33_V08_PR490 / EDC16CP33_V44_PR490 /
EDC16CP33_V4C_PR490 / EDC16CP33_V34_PR490 / EDC16CP33_V38_PR490 / EDC16CP33_V74_PR490 / EDC16CP33_V28_PR490 /
EDC16CP33_V62_PR490 / EDC16CP33_V26_PR490 / EDC16CP33_V60_PR490

PR667	<u>TURBINE UPSTREAM TEMPERATURE</u>
--------------	-------------------------------------

PARAMETER DEFINITION	This parameter indicates the turbine upstream temperature in °C.
-----------------------------	--

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on, or Engine running and engine coolant temperature > 80°C

<p>The value of the turbine upstream air temperature must be: PR667 ≈ 200°C.</p> <p>In the event of a fault, refer to the interpretation of fault DF652 Turbine upstream temperature sensor circuit.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR668	<u>TURBINE UPSTREAM TEMPERATURE SENSOR VOLTAGE</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the turbine upstream temperature sensor voltage in volts .
-----------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>The turbine upstream temperature sensor voltage value must be between: PR668 ≈ 5 V.</p> <p>In the event of a fault, consult the interpretation of fault DF652 Turbine upstream temperature sensor circuit.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR672	<u>DAMPER VALVE POSITION SETPOINT</u>
--------------	---------------------------------------

PARAMETER DEFINITION	This parameter indicates the damper valve position setpoint as a %.
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on, or Engine running and engine coolant temperature > 80°C without electrical consumers
--

The value of the damper valve position must be: PR672 < 5%. In the event of a fault, consult the interpretation for fault DF323 Damper valve.
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool.
---------------------	--

EDC16CP33_V18_PR672 / EDC16CP33_V1C_PR672 / EDC16CP33_V54_PR672 / EDC16CP33_V20_PR672 / EDC16CP33_V58_PR672 /
EDC16CP33_V5C_PR672 / EDC16CP33_V24_PR672 / EDC16CP33_V04_PR672 / EDC16CP33_V08_PR672 / EDC16CP33_V44_PR672 /
EDC16CP33_V4C_PR672 / EDC16CP33_V34_PR672 / EDC16CP33_V38_PR672 / EDC16CP33_V74_PR672 / EDC16CP33_V28_PR672 /
EDC16CP33_V62_PR672 / EDC16CP33_V26_PR672 / EDC16CP33_V60_PR672

PR739	<u>FUEL FLOW SOLENOID VALVE CURRENT</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the current absorbed by the fuel flow solenoid valve in mA .
---------------------------------	--

Conformity check with engine stopped and ignition on.
--

The value of the current absorbed by the fuel flow solenoid valve must be: PR739 ≈ 200 mA. In the event of a fault, consult the interpretation of DF897 Pump pressure regulator circuit .

Conformity check with the engine running and engine coolant temperature > 80°C
--

The value of the current absorbed by the fuel flow solenoid valve must be: PR739 ≈ 300 mA. In the event of a fault, refer to the interpretation of fault DF897 .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR747	<u>DAMPER VALVE POSITION</u>
--------------	------------------------------

PARAMETER DEFINITION	This parameter indicates the damper valve position as a %.
---------------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on.
--

<p>The value of the damper valve position must be: PR747 = 0% (with the engine stopped), PR747 ≈ 5% (with the ignition on). In the event of a fault, consult the interpretation of faults DF645 Damper valve position regulation, DF646 Damper valve position sensor and DF323 Damper valve.</p>

Conformity check with the engine running and engine coolant temperature > 80°C
--

<p>The value of the damper valve position must be: PR747 ≈ 5% (at idle speed). In the event of a fault, refer to the interpretation of faults DF645, DF646 and DF323.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR747 / EDC16CP33_V1C_PR747 / EDC16CP33_V54_PR747 / EDC16CP33_V20_PR747 / EDC16CP33_V58_PR747 /
EDC16CP33_V5C_PR747 / EDC16CP33_V24_PR747 / EDC16CP33_V04_PR747 / EDC16CP33_V08_PR747 / EDC16CP33_V44_PR747 /
EDC16CP33_V4C_PR747 / EDC16CP33_V34_PR747 / EDC16CP33_V38_PR747 / EDC16CP33_V74_PR747 / EDC16CP33_V28_PR747 /
EDC16CP33_V62_PR747 / EDC16CP33_V26_PR747 / EDC16CP33_V60_PR747

PR782	<u>TURBINE UPSTREAM PRESSURE SENSOR VOLTAGE</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the turbine upstream pressure sensor voltage in volts .
-----------------------------	---

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
--------------	--

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

The turbine upstream pressure sensor voltage value must be between: PR782 ≈ 5 V. In the event of a fault consult the interpretation of fault DF651 Turbine upstream pressure sensor circuit .

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR784	<u>DF312 RECORD No. 1</u>
PR785	<u>DF312 RECORD No. 2</u>
PR786	<u>DF312 RECORD No. 3</u>
PR787	<u>DF312 RECORD No. 4</u>
PR788	<u>DF312 RECORD No. 5</u>
PR789	<u>DF312 RECORD No. 6</u>
PR790	<u>DF312 RECORD No. 7</u>
PR791	<u>DF312 RECORD No. 8</u>
PR792	<u>DF312 RECORD No. 9</u>
PR793	<u>DF312 RECORD No. 10</u>

PARAMETER DEFINITION	These parameters are shown in miles (km) .
-----------------------------	---

NOTES	Special notes: These parameters must only be interpreted for DF312 Speed request if it is present or stored .
--------------	--

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

In the event of a fault, refer to the interpretation of fault DF312 .
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR784 / EDC16CP33_V18_PR785 / EDC16CP33_V18_PR786 / EDC16CP33_V18_PR787 / EDC16CP33_V18_PR788 / EDC16CP33_V18_PR789 / EDC16CP33_V18_PR790 / EDC16CP33_V18_PR791 / EDC16CP33_V18_PR792 / EDC16CP33_V18_PR793 / EDC16CP33_V1C_PR784 / EDC16CP33_V1C_PR785 / EDC16CP33_V1C_PR786 / EDC16CP33_V1C_PR787 / EDC16CP33_V1C_PR788 / EDC16CP33_V1C_PR789 / EDC16CP33_V1C_PR790 / EDC16CP33_V1C_PR791 / EDC16CP33_V1C_PR792 / EDC16CP33_V1C_PR793 / EDC16CP33_V54_PR784 / EDC16CP33_V54_PR785 / EDC16CP33_V54_PR786 / EDC16CP33_V54_PR787 / EDC16CP33_V54_PR788 / EDC16CP33_V54_PR789 / EDC16CP33_V54_PR790 / EDC16CP33_V54_PR791 / EDC16CP33_V54_PR792 / EDC16CP33_V54_PR793 / EDC16CP33_V20_PR784 / EDC16CP33_V20_PR785 / EDC16CP33_V20_PR786 / EDC16CP33_V20_PR787 / EDC16CP33_V20_PR788 / EDC16CP33_V20_PR789 / EDC16CP33_V20_PR790 / EDC16CP33_V20_PR791 / EDC16CP33_V20_PR792 / EDC16CP33_V20_PR793 / EDC16CP33_V58_PR784 / EDC16CP33_V58_PR785 / EDC16CP33_V58_PR786 / EDC16CP33_V58_PR787 / EDC16CP33_V58_PR788 / EDC16CP33_V58_PR789 / EDC16CP33_V58_PR790 / EDC16CP33_V58_PR791 / EDC16CP33_V58_PR792 / EDC16CP33_V58_PR793 / EDC16CP33_V5C_PR784 / EDC16CP33_V5C_PR785 / EDC16CP33_V5C_PR786 / EDC16CP33_V5C_PR787 / EDC16CP33_V5C_PR788 / EDC16CP33_V5C_PR789 / EDC16CP33_V5C_PR790 / EDC16CP33_V5C_PR791 / EDC16CP33_V5C_PR792 / EDC16CP33_V5C_PR793 / EDC16CP33_V24_PR784 / EDC16CP33_V24_PR785 / EDC16CP33_V24_PR786 / EDC16CP33_V24_PR787 / EDC16CP33_V24_PR788 / EDC16CP33_V24_PR789 / EDC16CP33_V24_PR790 / EDC16CP33_V24_PR791 / EDC16CP33_V24_PR792 / EDC16CP33_V24_PR793 / EDC16CP33_V26_PR784 / EDC16CP33_V26_PR785 / EDC16CP33_V26_PR786 / EDC16CP33_V26_PR787 / EDC16CP33_V26_PR788 / EDC16CP33_V26_PR789 / EDC16CP33_V26_PR790 / EDC16CP33_V26_PR791 / EDC16CP33_V26_PR792 / EDC16CP33_V26_PR793 / EDC16CP33_V60_PR784 / EDC16CP33_V60_PR785 / EDC16CP33_V60_PR786 / EDC16CP33_V60_PR787 / EDC16CP33_V60_PR788 / EDC16CP33_V60_PR789 / EDC16CP33_V60_PR790 / EDC16CP33_V60_PR791 / EDC16CP33_V60_PR792 / EDC16CP33_V60_PR793

PR784 PR785 PR786 PR787 PR788 PR789 PR790 PR791 PR792 PR793 CONTINUED	
--	--

These parameters are used so that the history of the last ten activations of the particle filter warning light are known.

In **Vdiag 18, 1C, 54**:

Each parameter from **PR784** to **PR793** records the distance when the particle filter warning light comes on which is associated with the appearance of **DF312**.

Each time the particle filter warning light comes on, the vehicle mileage is stored in the following parameter (PR+1).

When all ten parameters have a value other than zero, and the particle filter warning light comes on again, the distance information for **PR784** is cleared and replaced by the new value.

For other Vdiags:

Each parameter from **PR784 DF312 record no. 1** to **PR793 DF312 record no. 10** contains a record of the vehicle mileage when the particle filter warning light comes on. The appearance of fault **DF312 Speed request** is associated with each of these parameters.

PR784 to **PR793** operate through successive copying (when the particle filter warning light comes on, the value of **PR784** is copied to **PR785 DF312 record no. 2**, the value of **PR785** is copied to **PR786 DF312 record no. 3** and so on).

When there are more than ten records, the value of **PR793** is deleted. The new mileage is allocated to **PR784**.

If none of the parameters between **PR784** and **PR793** is available in the sub-function, this means that no data has been saved. The parameters appear in the sub-function when they have a value above zero.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

PR794	<u>STORED REGENERATION FAILURE NO. 1</u>
PR795	<u>STORED REGENERATION FAILURE NO. 2</u>
PR796	<u>STORED REGENERATION FAILURE NO. 3</u>
PR797	<u>STORED REGENERATION FAILURE NO. 4</u>
PR798	<u>STORED REGENERATION FAILURE NO. 5</u>
PR799	<u>STORED REGENERATION FAILURE NO. 6</u>
PR800	<u>STORED REGENERATION FAILURE NO. 7</u>
PR801	<u>STORED REGENERATION FAILURE NO. 8</u>
PR802	<u>STORED REGENERATION FAILURE NO. 9</u>
PR803	<u>STORED REGENERATION FAILURE NO. 10</u>

PARAMETER DEFINITION	These parameters are shown in miles (km) .
-----------------------------	---

NOTES	Special notes: These parameters must only be interpreted for DF312 Speed request if it is present or stored .
--------------	--

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

These parameters are used so that the history of the last ten regeneration failures when driving can be found.
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR794 / EDC16CP33_V18_PR795 / EDC16CP33_V18_PR796 / EDC16CP33_V18_PR797 / EDC16CP33_V18_PR798 / EDC16CP33_V18_PR799 / EDC16CP33_V18_PR800 / EDC16CP33_V18_PR801 / EDC16CP33_V18_PR802 / EDC16CP33_V18_PR803 / EDC16CP33_V1C_PR794 / EDC16CP33_V1C_PR795 / EDC16CP33_V1C_PR796 / EDC16CP33_V1C_PR797 / EDC16CP33_V1C_PR798 / EDC16CP33_V1C_PR799 / EDC16CP33_V1C_PR800 / EDC16CP33_V1C_PR801 / EDC16CP33_V1C_PR802 / EDC16CP33_V1C_PR803 / EDC16CP33_V54_PR794 / EDC16CP33_V54_PR795 / EDC16CP33_V54_PR796 / EDC16CP33_V54_PR797 / EDC16CP33_V54_PR798 / EDC16CP33_V54_PR799 / EDC16CP33_V54_PR800 / EDC16CP33_V54_PR801 / EDC16CP33_V54_PR802 / EDC16CP33_V54_PR803 / EDC16CP33_V20_PR794 / EDC16CP33_V20_PR795 / EDC16CP33_V20_PR796 / EDC16CP33_V20_PR797 / EDC16CP33_V20_PR798 / EDC16CP33_V20_PR799 / EDC16CP33_V20_PR800 / EDC16CP33_V20_PR801 / EDC16CP33_V20_PR802 / EDC16CP33_V20_PR803 / EDC16CP33_V58_PR794 / EDC16CP33_V58_PR795 / EDC16CP33_V58_PR796 / EDC16CP33_V58_PR797 / EDC16CP33_V58_PR798 / EDC16CP33_V58_PR799 / EDC16CP33_V58_PR800 / EDC16CP33_V58_PR801 / EDC16CP33_V58_PR802 / EDC16CP33_V58_PR803 / EDC16CP33_V5C_PR794 / EDC16CP33_V5C_PR795 / EDC16CP33_V5C_PR796 / EDC16CP33_V5C_PR797 / EDC16CP33_V5C_PR798 / EDC16CP33_V5C_PR799 / EDC16CP33_V5C_PR800 / EDC16CP33_V5C_PR801 / EDC16CP33_V5C_PR802 / EDC16CP33_V5C_PR803 / EDC16CP33_V24_PR794 / EDC16CP33_V24_PR795 / EDC16CP33_V24_PR796 / EDC16CP33_V24_PR797 / EDC16CP33_V24_PR798 / EDC16CP33_V24_PR799 / EDC16CP33_V24_PR800 / EDC16CP33_V24_PR801 / EDC16CP33_V24_PR802 / EDC16CP33_V24_PR803 / EDC16CP33_V26_PR794 / EDC16CP33_V26_PR795 / EDC16CP33_V26_PR796 / EDC16CP33_V26_PR797 / EDC16CP33_V26_PR798 / EDC16CP33_V26_PR799 / EDC16CP33_V26_PR800 / EDC16CP33_V26_PR801 / EDC16CP33_V26_PR802 / EDC16CP33_V26_PR803 / EDC16CP33_V60_PR794 / EDC16CP33_V60_PR795 / EDC16CP33_V60_PR796 / EDC16CP33_V60_PR797 / EDC16CP33_V60_PR798 / EDC16CP33_V60_PR799 / EDC16CP33_V60_PR800 / EDC16CP33_V60_PR801 / EDC16CP33_V60_PR802 / EDC16CP33_V60_PR803

PR794 PR795 PR796 PR797 PR798 PR799 PR800 PR801 PR802 PR803 CONTINUED	
--	--

In Vdiag 18, 1C, 54:

Each of these parameters contains the vehicle mileage during a failed particle filter regeneration when driving. Each parameter relates to an engine status. The **statuses** and **parameters** are recorded at the same time (for example **PR797** is associated with **ET709 Stored engine status no. 4**).

Each new recorded value is saved under the next **PR (PR+1)**.

When all ten parameters have a value other than zero and there is a regeneration failure when driving, the distance information for **PR794** is cleared and replaced by the new value.

For other Vdiags:

Every parameter between **PR794 Stored regeneration failure no. 1** and **PR803 Stored regeneration failure no. 10** contains the vehicle mileage at the time of a particle filter regeneration failure when driving. Each parameter relates to an engine status. They are recorded simultaneously (for example **PR797 is associated with ET709 Stored engine status no. 4**).

PR794 to **PR803** operate through successive copying (when there is a regeneration failure when driving, the value of **PR794** is copied to **PR795 Stored regeneration failure no. 2**, the value of **PR795** is copied to **PR796 Stored regeneration failure no. 3** and so on).

When there are more than ten records, the value of **PR803** is deleted. The new mileage is allocated to **PR794**.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

PR816	<u>STORED REGENERATION START NO. 1</u>
PR817	<u>STORED REGENERATION START NO. 2</u>
PR818	<u>STORED REGENERATION START NO. 3</u>
PR819	<u>STORED REGENERATION START NO. 4</u>
PR820	<u>STORED REGENERATION START NO. 5</u>
PR821	<u>STORED REGENERATION START NO. 6</u>
PR822	<u>STORED REGENERATION START NO. 7</u>
PR823	<u>STORED REGENERATION START NO. 8</u>
PR824	<u>STORED REGENERATION START NO. 9</u>
PR825	<u>STORED REGENERATION START NO. 10</u>

PARAMETER DEFINITION	These parameters are shown in miles (km) .
---------------------------------	---

NOTES	Special notes: These parameters should only be interpreted for ALP 9 Particle filter warning light comes on too frequently .
--------------	---

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

These parameters are used so that the history of the last ten illuminations of the particle filter warning light are known.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR816 / EDC16CP33_V18_PR817 / EDC16CP33_V18_PR818 / EDC16CP33_V18_PR819 / EDC16CP33_V18_PR820 / EDC16CP33_V18_PR821 / EDC16CP33_V18_PR822 / EDC16CP33_V18_PR823 / EDC16CP33_V18_PR824 / EDC16CP33_V18_PR825 / EDC16CP33_V1C_PR816 / EDC16CP33_V1C_PR817 / EDC16CP33_V1C_PR818 / EDC16CP33_V1C_PR819 / EDC16CP33_V1C_PR820 / EDC16CP33_V1C_PR821 / EDC16CP33_V1C_PR822 / EDC16CP33_V1C_PR823 / EDC16CP33_V1C_PR824 / EDC16CP33_V1C_PR825 / EDC16CP33_V54_PR816 / EDC16CP33_V54_PR817 / EDC16CP33_V54_PR818 / EDC16CP33_V54_PR819 / EDC16CP33_V54_PR820 / EDC16CP33_V54_PR821 / EDC16CP33_V54_PR822 / EDC16CP33_V54_PR823 / EDC16CP33_V54_PR824 / EDC16CP33_V54_PR825 / EDC16CP33_V20_PR816 / EDC16CP33_V20_PR817 / EDC16CP33_V20_PR818 / EDC16CP33_V20_PR819 / EDC16CP33_V20_PR820 / EDC16CP33_V20_PR821 / EDC16CP33_V20_PR822 / EDC16CP33_V20_PR823 / EDC16CP33_V20_PR824 / EDC16CP33_V20_PR825 / EDC16CP33_V58_PR816 / EDC16CP33_V58_PR817 / EDC16CP33_V58_PR818 / EDC16CP33_V58_PR819 / EDC16CP33_V58_PR820 / EDC16CP33_V58_PR821 / EDC16CP33_V58_PR822 / EDC16CP33_V58_PR823 / EDC16CP33_V58_PR824 / EDC16CP33_V58_PR825 / EDC16CP33_V5C_PR816 / EDC16CP33_V5C_PR817 / EDC16CP33_V5C_PR818 / EDC16CP33_V5C_PR819 / EDC16CP33_V5C_PR820 / EDC16CP33_V5C_PR821 / EDC16CP33_V5C_PR822 / EDC16CP33_V5C_PR823 / EDC16CP33_V5C_PR824 / EDC16CP33_V5C_PR825 / EDC16CP33_V24_PR816 / EDC16CP33_V24_PR817 / EDC16CP33_V24_PR818 / EDC16CP33_V24_PR819 / EDC16CP33_V24_PR820 / EDC16CP33_V24_PR821 / EDC16CP33_V24_PR822 / EDC16CP33_V24_PR823 / EDC16CP33_V24_PR824 / EDC16CP33_V24_PR825 / EDC16CP33_V26_PR816 / EDC16CP33_V26_PR817 / EDC16CP33_V26_PR818 / EDC16CP33_V26_PR819 / EDC16CP33_V26_PR820 / EDC16CP33_V26_PR821 / EDC16CP33_V26_PR822 / EDC16CP33_V26_PR823 / EDC16CP33_V26_PR824 / EDC16CP33_V26_PR825 / EDC16CP33_V60_PR816 / EDC16CP33_V60_PR817 / EDC16CP33_V60_PR818 / EDC16CP33_V60_PR819 / EDC16CP33_V60_PR820 / EDC16CP33_V60_PR821 / EDC16CP33_V60_PR822 / EDC16CP33_V60_PR823 / EDC16CP33_V60_PR824 / EDC16CP33_V60_PR825

PR816 PR817 PR818 PR819 PR820 PR821 PR822 PR823 PR824 PR825 CONTINUED	
--	--

In Vdiag 18, 1C, 54:

Each parameter between **PR816** and **PR825** contains the vehicle distance stored when particle filter regeneration starts when driving. Each parameter is connected with a status "Regeneration request status record". They are recorded simultaneously (for example **PR819** is associated with **ET745 Stored regeneration request status No. 4**).

Each new recorded value is saved under the next **PR (PR+1)**.

When all ten parameters have a value other than zero, and a new regeneration starts when driving, the distance information for **PR816** is cleared and replaced by the new value.

For other Vdiags:

Each parameter from **PR816 Stored regeneration start No. 1** to **PR825 Stored regeneration start No. 10** records the mileage when particle filter regeneration starts for which the status request is recorded in **ET742 Stored rege*. request status No.1** to **ET751 Stored rege*. request status No.10**. (for example **PR819 Stored regeneration start No. 4** is associated with **ET745 Stored rege*. request status No.4**).

Each time a new regeneration when driving is started, the vehicle mileage is recorded in **PR816**, as well as its status in **ET742**.

PR816 to **PR825** operate through successive copying (when regeneration starts, the value of **PR816** is copied to **PR817 Stored regeneration start no. 2**, the value of **PR817** is copied to **PR818 Stored regeneration start no. 3** and so on).

rege*: Regeneration

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

DIESEL INJECTION

Fault finding – Interpretation of parameters

13B

PR846	<u>TURBOCHARGING SV* OCR*</u>
--------------	-------------------------------

PARAMETER DEFINITION	This parameter indicates the turbocharging solenoid valve opening ratio percentage.
-----------------------------	---

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>PR846 ≈ PR104 Turbocharging solenoid valve OCR, these 2 values must be similar. In the event of a fault, consult the interpretation of fault DF054 EGR valve position sensor circuit.</p>

OCR*: Opening Cyclic Ratio

SV*: Solenoid valve

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR848	<u>NUMBER OF REGENERATION FAILURES</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the number of regeneration failures.
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

This parameter indicates the number of failed regenerations when driving.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR848 / EDC16CP33_V1C_PR848 / EDC16CP33_V54_PR848 / EDC16CP33_V20_PR848 / EDC16CP33_V58_PR848 /
EDC16CP33_V5C_PR848 / EDC16CP33_V24_PR848 / EDC16CP33_V04_PR848 / EDC16CP33_V08_PR848 / EDC16CP33_V44_PR848 /
EDC16CP33_V4C_PR848 / EDC16CP33_V34_PR848 / EDC16CP33_V38_PR848 / EDC16CP33_V74_PR848 / EDC16CP33_V26_PR848 /
EDC16CP33_V60_PR848

PR850	<u>FUEL FLOW SOLEN.* CURRENT SETPOINT</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the setpoint for the current absorbed by the fuel flow solenoid valve in mA .
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

This parameter indicates the setpoint for the current absorbed by the fuel flow solenoid valve.

SOLEN.*: Solenoid valve

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR850 / EDC16CP33_V1C_PR850 / EDC16CP33_V54_PR850 / EDC16CP33_V20_PR850 / EDC16CP33_V58_PR850 /
EDC16CP33_V5C_PR850 / EDC16CP33_V24_PR850 / EDC16CP33_V04_PR850 / EDC16CP33_V08_PR850 / EDC16CP33_V44_PR850 /
EDC16CP33_V4C_PR850 / EDC16CP33_V34_PR850 / EDC16CP33_V38_PR850 / EDC16CP33_V74_PR850 / EDC16CP33_V28_PR850 /
EDC16CP33_V62_PR850 / EDC16CP33_V26_PR850 / EDC16CP33_V60_PR850

PR858	<u>DAMPER VALVE OPEN FIRST OFFSET</u>
--------------	---------------------------------------

PARAMETER DEFINITION	This parameter indicates the damper valve opening ratio during the first damper valve offset.
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>This parameter indicates the damper valve opening offset percentage.</p> <p>PR858 ≈ PR861 Damper valve open last offset, these two values must be similar.</p> <p>In the event of a fault, consult the interpretation of faults DF645 Damper valve position regulation, DF646 Damper valve position sensor and DF323 Damper valve.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR858 / EDC16CP33_V1C_PR858 / EDC16CP33_V54_PR858 / EDC16CP33_V20_PR858 / EDC16CP33_V58_PR858 /
EDC16CP33_V5C_PR858 / EDC16CP33_V24_PR858 / EDC16CP33_V04_PR858 / EDC16CP33_V08_PR858 / EDC16CP33_V44_PR858 /
EDC16CP33_V4C_PR858 / EDC16CP33_V34_PR858 / EDC16CP33_V38_PR858 / EDC16CP33_V74_PR858 / EDC16CP33_V28_PR858 /
EDC16CP33_V62_PR858 / EDC16CP33_V26_PR858 / EDC16CP33_V60_PR858

PR859	<u>DAMPER VALVE CLOSED FIRST OFFSET</u>
--------------	---

PARAMETER DEFINITION	This parameter indicates the damper valve closing ratio during the first damper valve offset.
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>This parameter indicates the damper valve closing offset percentage.</p> <p>PR859 ≈ PR860 Damper valve closed last offset, these two values must be similar.</p> <p>In the event of a fault, consult the interpretation of faults DF645 Damper valve position regulation, DF646 Damper valve position sensor and DF323 Damper valve.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR860	<u>DAMPER VALVE CLOSED LAST OFFSET</u>
--------------	--

PARAMETER DEFINITION	This parameter indicates the damper valve closing ratio during the first damper valve offset.
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>This parameter indicates the damper valve closing offset percentage.</p> <p>PR860 ≈ PR859 Damper valve closed first offset, these two values must be similar.</p> <p>In the event of a fault, consult the interpretation of faults DF645 Damper valve position regulation, DF646 Damper valve position sensor and DF323 Damper valve.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_PR860 / EDC16CP33_V1C_PR860 / EDC16CP33_V54_PR860 / EDC16CP33_V20_PR860 / EDC16CP33_V58_PR860 /
EDC16CP33_V5C_PR860 / EDC16CP33_V24_PR860 / EDC16CP33_V04_PR860 / EDC16CP33_V08_PR860 / EDC16CP33_V44_PR860 /
EDC16CP33_V4C_PR860 / EDC16CP33_V34_PR860 / EDC16CP33_V38_PR860 / EDC16CP33_V74_PR860 / EDC16CP33_V28_PR860 /
EDC16CP33_V62_PR860 / EDC16CP33_V26_PR860 / EDC16CP33_V60_PR860

PR861	<u>DAMPER VALVE OPEN LAST OFFSET</u>
--------------	--------------------------------------

PARAMETER DEFINITION	This parameter indicates the damper valve closing ratio during the first damper valve offset.
---------------------------------	---

NOTES	None.
--------------	-------

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C
--

<p>This parameter indicates the damper valve opening offset percentage.</p> <p>PR861 ≈ PR858 Damper valve open first offset, these two values must be similar.</p> <p>In the event of a fault, consult the interpretation of faults DF645 Damper valve position regulation, DF646 Damper valve position sensor and DF323 Damper valve.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR863	<u>DAMPER VALVE POSITION FEEDBACK</u>
--------------	---------------------------------------

PARAMETER DEFINITION	This parameter indicates the damper valve opening ratio.
-----------------------------	--

NOTES	None.
--------------	-------

Conformity check with engine stopped and ignition on.
--

<p>PR863 ≈ PR747 Damper valve position The damper valve opening percentage value must be: PR863 = 0% (with the engine stopped), PR863 ≈ 5% (with the ignition on). In the event of a fault, consult the interpretation of faults DF646 Damper valve position sensor and DF323 Damper valve.</p>
--

Conformity check with the engine running and engine coolant temperature > 80°C
--

<p>The damper valve opening percentage value must be: PR863 ≈ 5% (at idle speed). In the event of a fault, refer to the interpretation of faults DF646 and DF323.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR873	<u>OIL OXIDATION SIGNAL</u>
--------------	-----------------------------

STATUS DEFINITION	This parameter indicates the vehicle distance in miles (km) when the oil oxidation threshold is reached.
------------------------------	---

NOTES	This parameter should only be interpreted if the OCS (Oil Control System) program is activated on the instrument panel. On the instrument panel computer, check the configuration reading LC106 O.C.S: WITH .
--------------	---

Conformity check: Engine stopped and the ignition on, or Engine running and the engine coolant temperature > 80°C without electrical consumers
--

The oil condition is calculated by the oxidation program in the injection computer, according to the number of engine revolutions.

When this count reaches a certain threshold before the end of the oil service period, the injection computer sends a signal to the instrument panel, which will display **service due**. Parameter **PR873** corresponds to the vehicle mileage at the time this signal is sent.

Then the instrument panel computer deducts **900 miles (1500 km)** before displaying the message **Service required**.

IMPORTANT:

When the message **Service due** appears on the instrument panel, the customer must have the oil changed within the remaining **900 miles (1500 km)**.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR874	<u>LAST SERVICE</u>
STATUS DEFINITION	This parameter indicates the vehicle's mileage at the last service in miles (km) . It is updated when the oil service parameters are reinitialised on the instrument panel.
NOTES	None.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR875	<u>OIL DILUTION SIGNAL</u>
--------------	----------------------------

STATUS DEFINITION	This parameter indicates the vehicle mileage in miles (km) when the oil dilution threshold is reached.
------------------------------	---

NOTES	This parameter should only be interpreted if the OCS (Oil Control System) program is activated on the instrument panel. On the instrument panel computer, check the configuration reading LC106 O.C.S: WITH .
--------------	---

Conformity check: Engine stopped and ignition on, or engine running and engine coolant temperature > 80°C without electrical consumers
--

The injection computer estimates the degree of engine oil dilution according to the customer's driving style.

When the dilution level reaches a certain threshold before the end of the oil change interval, the injection computer sends a signal to the instrument panel which then displays **Service required**. Parameter **PR875** corresponds to the vehicle mileage at the time this signal is sent.

IMPORTANT:

When the message **Service required** appears on the instrument panel, the customer must arrange an immediate oil change to prevent damage to the engine.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

PR1012	<u>WEIGHT OF SOOT AFTER REGENERATION</u>
---------------	--

STATUS DEFINITION	This parameter indicates the weight in g of soot present in the particle filter following regeneration.
------------------------------	--

NOTES	This parameter should be consulted after running SC017 Particle filter regeneration .
--------------	--

Conformity check: Engine stopped and ignition on, or engine running and engine coolant temperature > 80°C without electrical consumers
--

<p>If this parameter is less than 15 g, particle filter regeneration was successful.</p> <p>If PR1012 is greater than 15 g, it is necessary to perform a second particle filter regeneration using command SC017 Particle filter regeneration.</p>
--

<p>IMPORTANT:</p> <p>Before performing a second After-Sales regeneration of the particle filter, the engine must be allowed to cool down for 2 hours with the bonnet open.</p> <p>Do not carry out an engine oil change before a second After-Sales regeneration.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V1C_PR1012 / EDC16CP33_V54_PR1012 / EDC16CP33_V20_PR1012 / EDC16CP33_V58_PR1012 /
EDC16CP33_V5C_PR1012 / EDC16CP33_V24_PR1012 / EDC16CP33_V28_PR1012 / EDC16CP33_V62_PR1012/
EDC16CP33_V26_PR1012 / EDC16CP33_V60_PR1012

DIESEL INJECTION

Fault finding – Command summary table

13B

NOTES	The commands are run to check the correct operation of certain components or to replace parts.
--------------	--

Tool command	Diagnostic tool title
SC001	Write saved data
SC002	Enter injector codes
SC003	Save computer data
SC017	Particle filter regeneration (except Vdiag 18, 04, 08, 44, 4C, 34, 38, 74)
SC031	Operational fault finding of cylinders (except Vdiag 18)
SC035	High pressure fuel circuit fault finding
SC036	Reinitialise programming
RZ001	Fault memory
RZ005	Programming
RZ034	Computer memory
AC004	Turbocharging solenoid valve
AC012	Damper valve
AC031	Thermoplunger No. 3 relay
AC037	Preheating relay
AC063	Thermoplunger No. 1 relay
AC064	Thermoplunger No. 2 relay
AC103	EGR by-pass
AC153	High speed fan assembly (except Mégane II ph2 and Scénic II ph2)
AC154	Low speed fan assembly (except Mégane II ph2 and Scénic II ph2).
AC195	Electric coolant pump (except Vdiag 04, 08, 44, 4C, 34, 38, 74)
AC225	Rail pressure regulator
AC226	Pump pressure regulator.
MT001	Turbocharging function (Vdiag 04 and 44 only)
VP010	Write VIN
VP036	Fuel supply inhibited

SC001	<u>WRITE SAVED DATA</u>
--------------	-------------------------

NOTES	<p>To use this command, first save the data with the SC003 Save computer data command.</p> <p>The writing is carried out after the computer has been reprogrammed or replaced Engine stopped.</p>
--------------	--

In the **diagnostic tool**, select scenario **SC001**.

Note:

If no files have been saved before, a write error appears when command **SC001** is activated.

Validating this command writes the data saved using command **SC003 Save computer data**.

The data is as follows:

- vehicle-specific idling,
- injector codes,
- various offsets for components, EGR, damper valve,
- options available on the vehicle and generated by the computer.

This data will configure the computer and will prevent:

- engine malfunction after reprogramming or replacing the computer,
- incorrect interpretation of the information provided by the **diagnostic tool**.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_SC001 / EDC16CP33_V1C_SC001 / EDC16CP33_V54_SC001 / EDC16CP33_V20_SC001 / EDC16CP33_V58_SC001 /
EDC16CP33_V5C_SC001 / EDC16CP33_V24_SC001 / EDC16CP33_V04_SC001 / EDC16CP33_V08_SC001 / EDC16CP33_V44_SC001 /
EDC16CP33_V4C_SC001 / EDC16CP33_V34_SC001 / EDC16CP33_V38_SC001 / EDC16CP33_V74_SC001 / EDC16CP33_V28_SC001 /
EDC16CP33_V62_SC001 / EDC16CP33_V26_SC001 / EDC16CP33_V60_SC001

SC002	<u>ENTER INJECTOR CODES</u>
--------------	-----------------------------

NOTES	This command is carried out after the replacement of one or more injectors. Engine stopped.
--------------	--

<p>To enter this information, select command SC002 in the diagnostic tool.</p> <p>Procedure to be followed:</p> <ul style="list-style-type: none"> – Read the 7-character alphanumeric codes engraved on the upper section of the injector bodies. The IMA* codes should be read from left to right (see illustration in MR 402 (Vel Satis ph2), MR 395 (Laguna II ph2), MR 364 (Mégane II ph2), MR 370 (Scénic II ph2), MR 405 (Espace IV ph2) Mechanical, 13B, Diesel injection, Diesel injector, Removal – Refitting) <p>Note: When entering characters, confusion can arise between:</p> <ul style="list-style-type: none"> – Figure 1 with the letters I and L, – Figure 2 with the letter Z, – Figure 5 with the letter S, – Figure 6 with the letter G, – Figure 8 with the letter B. <p>After computer programming or reprogramming, always enter the 4 injector codes before confirming the entry.</p> <ul style="list-style-type: none"> – Enter each injector code for the associated cylinder. – Important: cylinder no. 1 is located at the timing end. – Confirm the change of injector code configuration. – When the command is completed, the modified codes appear in the current column. – Check that the codes correspond to those read earlier. <p>If the codes entered appear in neither the "current" column nor the "desired" column, check the codes read and make sure the data has been entered correctly.</p> <ul style="list-style-type: none"> – Exit fault finding mode. – Switch off the ignition and wait for the diagnostic tool message (maximum wait 8 min): Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply. – Switch the ignition back on and check for faults. – DF066 Injector code(s) should be stored.

IMA*: Individual injector correction

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_SC002 / EDC16CP33_V1C_SC002 / EDC16CP33_V54_SC002 / EDC16CP33_V20_SC002 / EDC16CP33_V58_SC002 / EDC16CP33_V5C_SC002 / EDC16CP33_V24_SC002 / EDC16CP33_V04_SC002 / EDC16CP33_V08_SC002 / EDC16CP33_V44_SC002 / EDC16CP33_V4C_SC002 / EDC16CP33_V34_SC002 / EDC16CP33_V38_SC002 / EDC16CP33_V74_SC002 / EDC16CP33_V28_SC002 / EDC16CP33_V62_SC002 / EDC16CP33_V26_SC002 / EDC16CP33_V60_SC002

SC002 CONTINUED

If **DF066** is still **present**, the command has not been run correctly.

Start the procedure again and follow the instructions.

If this is still not effective, follow the procedure below:

A fault could cause **DF066** to be reported, and also incorrect confirmation of command **SC002**.

If the power latch does not occur after switching off the ignition, the injection computer will not store the new injector codes:

Switch off the ignition and wait for the **diagnostic tool** message (maximum wait **8 min**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply**.

Switch off the ignition and check that the immobiliser warning light flashes **2 seconds** after the ignition is switched off.

If the warning light flashes as soon as the ignition is switched off, the power latch has not been performed and the command will not be recognised.

If all these checks do not enable the command to be confirmed, contact the Techline.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

SC003	<u>SAVE COMPUTER DATA</u>
--------------	---------------------------

NOTES	<p>This save is performed before reprogramming or replacing the computer. Engine stopped.</p>
--------------	---

<p>In the diagnostic tool, select scenario SC003.</p> <p>Confirming this command saves the following vehicle-specific data:</p> <ul style="list-style-type: none"> – Vehicle-specific idling. – Injector code(s). – Options available on the vehicle and managed by the computer. – Various offsets for components, EGR, damper valve. <p>This information will be saved in the diagnostic tool.</p> <p>After saving has finished, use the command SC001 Enter saved data to be able to set the new computer parameters, after programming and reprogramming.</p>

AFTER REPAIR	<p>Carry out a road test, then check with the diagnostic tool.</p>
---------------------	---

EDC16CP33_V18_SC003 / EDC16CP33_V1C_SC003 / EDC16CP33_V54_SC003 / EDC16CP33_V20_SC003 / EDC16CP33_V58_SC003 /
EDC16CP33_V5C_SC003 / EDC16CP33_V24_SC003 / EDC16CP33_V04_SC003 / EDC16CP33_V08_SC003 / EDC16CP33_V44_SC003 /
EDC16CP33_V4C_SC003 / EDC16CP33_V34_SC003 / EDC16CP33_V38_SC003 / EDC16CP33_V74_SC003 / EDC16CP33_V28_SC003 /
EDC16CP33_V62_SC003 / EDC16CP33_V26_SC003 / EDC16CP33_V60_SC003

SC017	<u>PARTICLE FILTER REGENERATION</u>
-------	-------------------------------------

NOTES	Only run this command after interpretation of the following faults: <ul style="list-style-type: none">– DF308 Clogged particle filter,– DF311 "Failed regenerations limit exceeded",– DF312 Speed request.
-------	--

WARNING:

- It is essential to observe the health and safety guidelines (see **MR364 (Mégane II ph2)**, **MR370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2) Mechanical**, **19B, Exhaust, Particle filter: Cleaning**) and follow the procedure below.

SAFETY INSTRUCTIONS TO BE FOLLOWED:

The regeneration causes exhaust fumes and high temperatures.
It is strongly recommended that you put the vehicle outside during regeneration.
If it is not possible to carry out regeneration outside, use an extractor fan that can withstand the very high regeneration temperatures (**400°C at the exhaust outlet**).

Perform regeneration on a surface free from fire risks (oil, dry leaves, etc.).
Nothing should be left in the vicinity of the exhaust pipe.

WARNING:

Check the engine oil level before running the command to avoid any engine racing. The oil level must be between the minimum level and the middle level on the oil dipstick.
Before performing a particle filter regeneration, it is essential to deactivate the air conditioning compressor (risk of engine damage) and all the electrical consumers.

IF NECESSARY:

Regeneration can be stopped by pressing the engine start button twice briefly (less than **3 seconds**).
Switch off the ignition and wait for the **diagnostic tool** message (maximum time **8 minutes**) **Communication lost with computer: EDC16 C33, check the tool connection and the computer power supply** before switching the ignition back on.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

SC017 CONTINUED 1

PROCEDURE TO BE FOLLOWED:

To run this command, select the command mode on the **diagnostic tool** and run command **SC017**.

When regeneration is complete, a message will indicate whether regeneration was successful, and what operations need to be carried out (**filter replacement, whether an oil service is required, etc.**).

DESCRIPTION OF THE PROCESS

Particle filter regeneration takes place in 3 stages (values given as a guide only):

Heating phase: the speed is fixed or fluctuating around **3000 rpm**.

- This phase lasts at least **6 minutes**, until the coolant temperature is above **80°C**.
- **Regeneration phase:** the speed is fixed or varies around **2000 rpm**. Engine injection is retarded. The exhaust fumes rise in temperature and burn the soot retained in the particle filter. The **particle filter downstream temperature** starts to rise after the **particle filter upstream temperature** due to the volume of the particle filter. Then the combustion of the soot stored in the particle filter causes the **particle filter downstream temperature** to increase, possibly reaching more than **700°C** depending on the amount of soot in the filter (with a **particle filter upstream temperature** of around **600°C**). This phase lasts about **30 minutes**.

- **Cooling phase:** the engine speed is fixed or varies around **2000 rpm**.
- Engine injection returns to normal and the exhaust gases cool the particle filter.
- This phase lasts **3 minutes**. At the end of this period, the engine speed returns to idle speed or remains fixed at **2000 rpm**.

The process lasts at least 40 minutes (the regeneration time will be increased depending on how long it takes for the coolant to heat up to **80°C**).

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

SC017 CONTINUED 2

VALIDATING THE REGENERATION PROCESS:

At the end of regeneration, a message appears to announce whether the regeneration was successful:

- **Particle filter regeneration finished:**

Consult **PR1012 Weight of soot after regeneration**. If this parameter is less than **15 g**, the particle filter regeneration was successful. If **PR1012** is greater than **15 g**, it is necessary to carry out a second particle filter regeneration using **the diagnostic tool** and run command **SC017**.

IMPORTANT:

Before performing a second After-Sales regeneration of the particle filter, the engine must be allowed to cool down for **2 hours** with the bonnet open.

Do not carry out an engine oil change before a second After-Sales regeneration.

For **Vdiag 28 and 62**:

Change the engine oil if requested by a message on the instrument panel.

For the other **Vdiags**:

Consult **PR848 Number of regeneration failures**. If **PR848** is greater than **3**, change the engine oil.

Particle filter too full - replace the particle filter: regeneration has failed. The weight of soot in the particle filter is so great that it is creating a counter pressure. Deal with any faults that appear or replace the particle filter. Run command **SC036: Reinitialise programming** and select **After particle filter replacement**.

For **Vdiag 28 and 62**:

Change the engine oil if requested by a message on the instrument panel.

For the other **Vdiags**:

Consult **PR848 Number of regeneration failures**. If this parameter is greater than **3**, it is essential to change the engine oil.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

SC017 CONTINUED 3

- **Particle filter regeneration failed:** regeneration failed because the temperature upstream of the turbine is too low. Apply **Test 11 Temperature upstream of turbine too low**.

In all cases, the following actions must be carried out:

- switch off the ignition and wait for the **diagnostic tool** message (maximum time **8 minutes**) **Communication lost with computer: EDC16 CP33, check the tool connection and the computer supply**,
 - switch on the ignition and re-establish dialogue with the injection computer,
 - run command **SC036**,
 - depending on the operation carried out, select **After particle filter regeneration with the diagnostic tool or After particle filter replacement**,
 - **switch off the ignition and wait** for the **diagnostic tool** message (maximum wait **8 min**): **Loss of dialogue with the computer: EDC16 CP33, check the tool connection and the computer supply voltage**,
 - **then switch on the ignition again**,
- clear** the **present** or **stored** faults from the computer memory (**operation to be carried out within 3 minutes of switching on the ignition**).

Note:

Always change the **engine oil** and the **oil filter** in the following cases:

- following an After-Sales regeneration **only** if requested by a message on the **CLIP diagnostic tool**,
- after particle filter replacement following **DF311 Number of failed regenerations exceeded**,
- following a second regeneration (in the case of two successive regenerations).

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

SC031	<u>OPERATIONAL FAULT FINDING OF CYLINDERS</u>
--------------	---

NOTES	<p>This command allows fault finding to be carried out on the output of each cylinder and each injector and applies to all the Vdiags except Vdiag 18, 04 and 44.</p> <p>Note: For Vdiags 18, 04 and 44, check that the fuel flow correction value of parameters PR364 Cylinder no. 1 fuel flow correction, PR365 Cylinder no. 4 fuel flow correction, PR405 Cylinder no. 2 fuel flow correction and PR406 Cylinder no. 3 fuel flow correction is between: -5 mg/st < X < 5 mg/st.</p>
--------------	---

Reminder: cylinder no. 1 is located at the timing end.

Procedure to be followed:

- select scenario **SC031**,
- once the conditions have been met, press the **confirm** button; the test will take approximately **5 minutes**,
- the tool displays **cylinder no. 1 cut-off** and there will be a perceptible engine speed variation when the cylinder is cut off; then the same procedure for the other three cylinders,
- **the diagnostic tool** displays the results,
- end of test.

Interpretation of correct results:

- If the displayed results are **"VALID"**, it means that the entire cylinder and injector assembly is in order. There is no need for any operation.

	Results	Interpretation of results
Cylinder 1	VALID	No operation
Cylinder 2	VALID	No operation
Cylinder 3	VALID	No operation
Cylinder 4	VALID	No operation

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

SC031 CONTINUED

– If a displayed result is **INVALID**, the cylinder or injector is not correct.

	Difference compared to average	Results	Interpretation of results
Cylinder X	Negative number or Positive number	INVALID	Carry out the checks described below.

Apply **Part B of Test 10 Poor injector operation** to continue the fault finding.

If the result of scenario **SC031** is not valid, check the engine compressions:

Use a compression gauge and apply command **VP036 Fuel supply inhibition** (see **Interpretation of commands**).

Run the compressions on all cylinders.

Are the compressions correct?

NO
↓

Check the cylinder block.

YES
↓

Check the injector fitting and repair if necessary.
Otherwise change the concerned injector.
After replacing the injector, follow the injector code programming procedure (see **Replacement of components**), run **SC036 Reinitialise programming**, and select the number of the injector replaced.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

SC035	<u>HIGH PRESSURE FUEL CIRCUIT FAULT FINDING</u>
--------------	---

NOTES	This command is used to interpret the state of the high pressure fuel circuit (high pressure pump, rail, injectors and high pressure supply pipes).
--------------	---

To run this command, in **the diagnostic tool**, select scenario **SC035**.

Procedure to be followed:

- select scenario **SC035**,
- follow the instructions then "**confirm**",
- with the command in progress: do not operate on the vehicle,
- switch off the engine at the end of the test,
- **the diagnostic tool** displays the results,
- end of test.

Interpretation of correct results:

- If the results displayed are **OK**, the entire high pressure fuel circuit is in order. There is no need for any operation.

STEP X (X is the variable from 1 to 4)	Rail pressure Raise time	Rail pressure Dump time	Interpretation of results
STEP X	OK	OK	No operation
STEP 5		OK	No operation

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_SC035 / EDC16CP33_V1C_SC035 / EDC16CP33_V54_SC035 / EDC16CP33_V20_SC035 / EDC16CP33_V58_SC035 /
EDC16CP33_V5C_SC035 / EDC16CP33_V24_SC035 / EDC16CP33_V04_SC035 / EDC16CP33_V08_SC035 / EDC16CP33_V44_SC035 /
EDC16CP33_V4C_SC035 / EDC16CP33_V34_SC035 / EDC16CP33_V38_SC035 / EDC16CP33_V74_SC035 / EDC16CP33_V28_SC035 /
EDC16CP33_V62_SC035 / EDC16CP33_V26_SC035 / EDC16CP33_V60_SC035

SC035 CONTINUED 1

Interpretation of incorrect results:

- Is one of the value definitions for the various displayed stages is **"TOO SLOW"** or **"TOO FAST"**, see the following table:

STEP X (X is the variable from 1 to 4)	Rail pressure Raise time	Rail pressure Dump time	Interpretation of results
STEP X	TOO SLOW	TOO SLOW	Check 1
STEP X	TOO SLOW	TOO FAST	Check 2
STEP X	TOO SLOW	OK	Check 3
STEP X	OK	TOO SLOW	Check 4
STEP X	OK	TOO FAST	Check 5
STEP 5		TOO FAST	Check 5

Explanation of results interpretation:

Check 1:

- Run **Test 10 Incorrect injector operation**.
- Apply **ALP 6 Fuel circuit leaks**.
- Apply **Test 3 Low pressure circuit check**.
- Replace the high pressure pump.

Check 2:

- Apply **Test 10**.
- Apply **ALP 6**.
- Apply the part of **Test 3** concerning the fuel filter.
- Replace the high pressure pump.
- Check the injector return flow and the injectors.
- Check the rail pressure regulator by running command **AC225 Rail pressure regulator**.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

SC035 CONTINUED 2

Check 3:

- Apply **Test 10**.
- Apply **Test 3**.
- Replace the high pressure pump.

Check 4:

- Replace the high pressure pump.

Check 5:

- Check the injector return flow and the injectors.
- Check the pressure regulator on the rail by running command **AC225**.
- Consult the Repair Manual depending on the results of the various checks (from 1 to 5), (see **MR 395 (Laguna II ph2)**, **MR 364 (Mégane II ph2)**, **MR 370 (Scénic II ph2)**, **MR 405 (Espace IV ph2)**, **MR 402 (Vel Satis ph2)**, **Mechanical, 13B, Diesel injection, Injector rail, Removal - Refitting**).

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

SC036	<u>REINITIALISE PROGRAMMING</u>
--------------	---------------------------------

NOTES	<p>This command is used to reset the computer parameters according to the type of operation or component repaired or replaced from the following list:</p> <ul style="list-style-type: none"> – the injectors – the EGR valve, – damper valve; – after particle filter replacement, – after particle filter regeneration using the CLIP diagnostic tool, – after injection computer replacement with no backup option, – the heater plugs. <p>Ignition on and engine stopped.</p>
--------------	--

To run this command, select scenario **SC036** in the **diagnostic tool**.

Procedure to be followed:

- on the main screen, select the component to reinitialise after an operation (removal - refitting, regeneration or replacement of the component),
- select **YES** then **OK** to begin reinitialisation,
- **Important:** when reinitialising injectors, do not forget that cylinder no. 1 is located at the timing end,
- select **end** on the **configuration completed** screen to return to the main screen,
- end of operation.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_SC036 / EDC16CP33_V1C_SC036 / EDC16CP33_V54_SC036 / EDC16CP33_V20_SC036 / EDC16CP33_V58_SC036 / EDC16CP33_V5C_SC036 / EDC16CP33_V24_SC036 / EDC16CP33_V04_SC036 / EDC16CP33_V08_SC036 / EDC16CP33_V44_SC036 / EDC16CP33_V4C_SC036 / EDC16CP33_V34_SC036 / EDC16CP33_V38_SC036 / EDC16CP33_V74_SC036 / EDC16CP33_V28_SC036 / EDC16CP33_V62_SC036 / EDC16CP33_V26_SC036 / EDC16CP33_V60_SC036

RZ005	<u>PROGRAMMING</u>
--------------	--------------------

NOTES	Special notes: This command enables you to reinitialise the entire computer configuration according to the vehicle.
--------------	---

Command **RZ005** reconfigures the computer.

If the computer does not have any configuration data, use command **RZ005** to enter the vehicle options:

- air conditioning,
- Passenger compartment heating resistor,
- cruise control/speed limiter.

These options are detected by the computer even if command **RZ005** is not used.

The computer is configured as soon as the one of the vehicle's optional system components is operated.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_RZ005 / EDC16CP33_V1C_RZ005 / EDC16CP33_V54_RZ005 / EDC16CP33_V20_RZ005 / EDC16CP33_V58_RZ005 /
EDC16CP33_V5C_RZ005 / EDC16CP33_V24_RZ005 / EDC16CP33_V04_RZ005 / EDC16CP33_V08_RZ005 / EDC16CP33_V44_RZ005 /
EDC16CP33_V4C_RZ005 / EDC16CP33_V34_RZ005 / EDC16CP33_V38_RZ005 / EDC16CP33_V74_RZ005 / EDC16CP33_V28_RZ005 /
EDC16CP33_V62_RZ005 / EDC16CP33_V26_RZ005 / EDC16CP33_V60_RZ005

RZ034

COMPUTER MEMORY

NOTES

IMPORTANT

Only use this command if **DF107 Computer memory** is **Present**.
Ignition on and engine stopped.

Command **RZ034** reinitialises the computer memory.

With the ignition on:

- Use command **RZ034**.
- Switch off the ignition and wait for the message Communication lost with computer.
- Switch on the ignition again.
- Run the programming commands (see **Configuration and programming**).
- switch off the ignition and wait for the message Communication lost with computer.

Perform a road test to reinitialise the parameters of the vehicle.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

EDC16CP33_V18_RZ034 / EDC16CP33_V1C_RZ034 / EDC16CP33_V54_RZ034 / EDC16CP33_V20_RZ034 / EDC16CP33_V58_RZ034 /
EDC16CP33_V5C_RZ034 / EDC16CP33_V24_RZ034 / EDC16CP33_V04_RZ034 / EDC16CP33_V08_RZ034 / EDC16CP33_V44_RZ034 /
EDC16CP33_V4C_RZ034 / EDC16CP33_V34_RZ034 / EDC16CP33_V38_RZ034 / EDC16CP33_V74_RZ034 / EDC16CP33_V26_RZ034 /
EDC16CP33_V28_RZ034 / EDC16CP33_V60_RZ034 / EDC16CP33_V62_RZ034

AC004	<u>TURBOCHARGING SOLENOID VALVE</u>
--------------	-------------------------------------

NOTES	<p>Perform this fault finding procedure:</p> <ul style="list-style-type: none"> – following interpretation of an unresolved fault or, – following application of the interpretation of PR041 Turbocharging pressure or – after a customer complaint (loss of power, smoke etc.).
	<p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

<p>1. The following procedure is for checking that the turbocharger and its control circuit are working properly.</p> <p style="text-align: center;">Preliminary operation</p> <p>Check the high pressure air circuit is sealed: Apply Test4 Turbocharged air inlet circuit check or Test3 Low pressure circuit check. Pipe not joined or pierced, pressure sensor disconnected or poorly fitted (seal present), exchanger pierced. To test the exchanger: stabilise the engine speed between 3500 and 4000 rpm with the vehicle stopped and check that there are no leaks.</p> <p>Measure the resistance between connections 3FB and 3MG of component 1475. If the resistance is not between 18 Ω and 22 Ω at + 23°C, replace the turbocharging solenoid valve.</p> <p>Check the continuity of the following connection:</p> <ul style="list-style-type: none"> • 3MG between the components 120 and 1475. <p>Check the + 12 V after relay supply of the turbocharging solenoid valve on the following connection:</p> <ul style="list-style-type: none"> • 3FB of component 1475. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_AC004 / EDC16CP33_V1C_AC004 / EDC16CP33_V54_AC004 / EDC16CP33_V20_AC004 / EDC16CP33_V58_AC004 /
EDC16CP33_V5C_AC004 / EDC16CP33_V24_AC004 / EDC16CP33_V04_AC004 / EDC16CP33_V08_AC004 / EDC16CP33_V44_AC004 /
EDC16CP33_V4C_AC004 / EDC16CP33_V34_AC004 / EDC16CP33_V38_AC004 / EDC16CP33_V74_AC004 / EDC16CP33_V28_AC004 /
EDC16CP33_V62_AC004 / EDC16CP33_V26_AC004 / EDC16CP33_V60_AC004

AC004 CONTINUED

Run command **AC004**; if a faint whistling noise is heard along with a clicking from the solenoid valve, go to **STEP 2**, otherwise check the operation of the computer output stage:

Vehicle with + after ignition, clear the faults displayed by the diagnostic tool.

With the voltmeter in the direct current position:

With the turbocharging solenoid valve connected, connect the voltmeter earth lead to connection **3MG** of component **1475** and the positive lead to connection **3FB** of component **1475**. Run command **AC004**; the voltmeter must display four successive voltages between **2.2 V and 2.6 V**.

If the measurement is not correct, contact the Techline.

2. Turbocharger control circuit check

- Apply **Test 7 Variable geometry turbocharger control**.
- With the engine stopped, make sure that the control rod is in the resting position.
- Start the engine and make sure that the control rod actuates to the upper stop.
(when the engine stops, the control rod should return to the rest position).

If the control rod does not move correctly, carry out the following checks:

1. Check the control vacuum:

- Disconnect the solenoid valve inlet **hose** and connect it to a pressure gauge.
- Start the engine and run it at a stable idle speed.

If the vacuum does not reach a value **between 0.250 bar and 0.550 bar**, check the vacuum circuit from the vacuum pump.

- Stop the engine, reconnect the inlet **hose** and move onto step no. 2.

2. Check the solenoid valve control:

- Disconnect the solenoid valve outlet **hose**.
- Start the engine and run it at a stable idle speed.
- Place your hand on the solenoid valve and block the outlet **union** with your thumb.
- If there is no perceptible vibration of the solenoid valve, contact the Techline.

3. Check the solenoid valve operation:

- Connect the pressure gauge to the solenoid valve outlet **union**.
- Start the engine and run it at a stable idle speed.

If the vacuum does not reach a value **between 0.250 bar and 0.550 bar**, replace the solenoid valve.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

AC012	<u>DAMPER VALVE</u>
--------------	---------------------

NOTES	<p>Carry out this interpretation:</p> <ul style="list-style-type: none"> – after DF645 Damper valve position regulation, DF646 Damper valve position sensor, – or after a customer complaint (starting faults, poor performance).
	<p>Use the Wiring Diagram Technical Note, Laguna II ph2, Mégane II, Scénic II, Espace IV ph2, Vel Satis ph2.</p>

<p>Measure the resistance between connections 38KQ and 38KP of component 1461. If the resistance is not between 875 Ω and 1625 Ω replace the damper valve.</p> <p>Check the continuity and absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • 38KQ between components 120 and 1461, • 38KP between components 120 and 1461. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>With the vehicle ignition on, and the engine stopped: Make sure the damper flap is open, If not, clean or replace the damper valve. Actuate the valve using command AC012 and check the damper valve travel and rest position of the valve.</p> <p>Check the operation of the computer output stage with a voltmeter in the alternating current position: Actuate the valve with command AC012. Connect the voltmeter earth lead to connection 38KS of component 1461 and the positive lead to connection 38KQ of component 1461. The voltmeter should display three cycles of ON-OFF (12.5 V then return to 0 V). If the measurement is correct, replace the damper valve If the measurement does not show any lights, contact the Techline.</p>
--

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_AC012 / EDC16CP33_V1C_AC012 / EDC16CP33_V54_AC012 / EDC16CP33_V20_AC012 / EDC16CP33_V58_AC012 /
EDC16CP33_V5C_AC012 / EDC16CP33_V24_AC012 / EDC16CP33_V04_AC012 / EDC16CP33_V08_AC012 / EDC16CP33_V44_AC012 /
EDC16CP33_V4C_AC012 / EDC16CP33_V34_AC012 / EDC16CP33_V38_AC012 / EDC16CP33_V74_AC012 / EDC16CP33_V28_AC012 /
EDC16CP33_V62_AC012 / EDC16CP33_V26_AC012 / EDC16CP33_V60_AC012

AC031	<u>THERMOPLUNGER No. 3 RELAY</u>
--------------	----------------------------------

NOTES	<p>Check that the computer is correctly configured using command LC056 Thermoplungers</p> <p>There must be no present or stored faults:</p> <p>Perform this fault finding procedure if there is a fault with the passenger compartment heating - demisting.</p>
	<p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

<p>If the Thermoplunger no. 3 relay or the additional heater interface unit does not function when command AC031 is run.</p> <p>Check the condition of the thermoplunger 3 relay mounting on the engine fuse box or the additional heater interface unit (see Wiring Diagram Technical Note, Vehicle, component code 1069 or 1550).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Vehicle, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>If the fault is still present, check as follows that this relay is controlled by the engine management computer:</p> <p>Disconnect the thermoplunger no. 3 relay and fit a 50 Ω to 100 Ω resistor on its mounting instead of the coil and connect a voltmeter as follows:</p> <ul style="list-style-type: none"> – positive terminal to + 12 V battery, – negative terminal to connection 3JAB of component 1069 or 1550. <p>Run command AC031.</p> <p>If the voltmeter indicates the battery voltage (4 ON-OFF cycles of 10 seconds), replace the thermoplunger no. 3 relay.</p> <p>If the voltmeter does not show the battery voltage (4 ON-OFF cycles of 10 seconds), contact the Techline.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_AC031 / EDC16CP33_V1C_AC031 / EDC16CP33_V54_AC031 / EDC16CP33_V20_AC031 / EDC16CP33_V58_AC031 / EDC16CP33_V5C_AC031 / EDC16CP33_V24_AC031 / EDC16CP33_V04_AC031 / EDC16CP33_V08_AC031 / EDC16CP33_V44_AC031 / EDC16CP33_V4C_AC031 / EDC16CP33_V34_AC031 / EDC16CP33_V38_AC031 / EDC16CP33_V74_AC031 / EDC16CP33_V28_AC031 / EDC16CP33_V62_AC031 / EDC16CP33_V26_AC031 / EDC16CP33_V60_AC031

**AC031
CONTINUED**

If the thermoplunger no. 3 relay or the additional heater interface unit functions using command AC031, but there is still a passenger compartment heating/demisting problem, use the wiring diagram to check:

- The conformity of the thermoplunger maxi-fuse.
 - Check for **+ 12 V battery** feed on connection **BP9** of component **1069** or **1550**.
 - Check the conformity of heating element no. 3 relay.
 - Check **the continuity** of connection **3JAC** or **3JC** between components **1069** or **1550** and **1074**.
 - Measure the **resistance** of the thermoplunger*.
 - The presence of **earth** on the water chamber (thermoplunger mounting).
 - Also check the level of the cooling circuit and that there are no leaks.
- Carry out the necessary repairs.

* supplier: **Champion**: the load resistance is between: **547 mΩ < X < 669 mΩ**.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

AC037	<u>PREHEATING RELAY</u>
--------------	-------------------------

NOTES	This command is only run if fault DF025 Preheating unit diagnostic connection or DF017 Preheating unit control circuit is present or stored and if no other fault is present .
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .
	IMPORTANT: <ul style="list-style-type: none"> – Please observe the cleanliness guidelines and safety advice. – Make sure the correct type of plug is fitted on the vehicle, slow or fast: Slow plugs have a black ring Fast plugs have a white ring. For Vdiag 20, 24, 34, 38 and 74 , if replacing heater plugs by plugs of a different type (see Replacement of components and Replacing heater plugs).

Before applying the following fault finding procedure, check that the battery voltage is not below 12 V. Otherwise, recharge the battery.

STEP 1:

Using a multimeter fitted with a current clamp, bring together the 4 heater plug supply wires.

Run command **AC037** and measure the current consumed by the 4 heater plugs.

If the value of the current consumed is not between **60 A and 80 A**, move on to step 2, otherwise end of fault finding.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_AC037 / EDC16CP33_V1C_AC037 / EDC16CP33_V54_AC037 / EDC16CP33_V20_AC037 / EDC16CP33_V58_AC037 /
EDC16CP33_V5C_AC037 / EDC16CP33_V24_AC037 / EDC16CP33_V04_AC037 / EDC16CP33_V08_AC037 / EDC16CP33_V44_AC037 /
EDC16CP33_V4C_AC037 / EDC16CP33_V34_AC037 / EDC16CP33_V38_AC037 / EDC16CP33_V74_AC037 / EDC16CP33_V28_AC037 /
EDC16CP33_V62_AC037 / EDC16CP33_V26_AC037 / EDC16CP33_V60_AC037

AC037 CONTINUED	
----------------------------------	--

STEP 2:

Check the connections of the preheating unit, component code **257**, the heater plugs, component codes **680**, **681**, **682** and **683** and the injection computer, component code **120**.

Measure **the resistance** of the heater plugs. If the resistance value is **> 2 Ω**, replace the faulty plug or plugs, making sure that the correct plug type, **slow** or **fast**, is fitted on the vehicle.

Check the **continuity** and **absence of interference resistance** of the following connections:

- **37AB** between components **257** and **683**,
- **37AA** between components **257** and **680**,
- **37Z** between components **257** and **681**,
- **37AC** between components **257** and **682**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the condition of the preheating unit supply fuse (**70 A**) (see **MR 364 (Mégane II ph2)**, **MR 370 (Scénic II ph2)**, **MR 395 (Laguna II ph2)**, **402 (Vel Satis ph2)**, **405 (Espace IV ph2)** Mechanical, 81C, Fuses, Fuses: List and location of components).

Check the **+ 12 V battery supply** to the preheating unit on the following connection:

- **BP35** of component **257**.

Check the **continuity** and **absence of interference resistance** of the following connections:

- **3FY** between components **120** and **257**,
- **3FF** between components **120** and **257**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the preheating unit.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

AC063	<u>THERMOPLUNGER RELAY No. 1</u>
--------------	----------------------------------

NOTES	There must be no present or stored faults: Perform this fault finding procedure if there is a fault with the passenger compartment heating - demisting.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .

<p>If the Thermoplunger no. 1 relay or the additional heater interface unit does not function when command AC063 is run.</p> <p>Check the condition of the thermoplunger no. 1 relay mounting connector on the engine fuse box (see Wiring Diagram Technical Note, Vehicle, component code 1067 or 1550).</p> <p>Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Vehicle, component code 120).</p> <p>If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>If the fault is still present, check as follows that this relay is controlled by the engine management computer: Disconnect thermoplunger no. 1 relay, and fit a 50 Ω to 100 Ω resistor on the mounting instead of the coil and connect a voltmeter as follows:</p> <ul style="list-style-type: none"> – positive terminal to + 12 V battery, – negative terminal to connection 3JA of component 1067 or 1550. <p>Run command AC063.</p> <p>If the voltmeter shows the battery voltage (4 ON-OFF cycles of 10 seconds), replace the thermoplunger no. 1 relay.</p> <p>If the voltmeter does not show the battery voltage (4 ON-OFF cycles of 10 seconds), contact the Techline.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_AC063 / EDC16CP33_V1C_AC063 / EDC16CP33_V54_AC063 / EDC16CP33_V20_AC063 / EDC16CP33_V58_AC063 /
EDC16CP33_V5C_AC063 / EDC16CP33_V24_AC063 / EDC16CP33_V04_AC063 / EDC16CP33_V08_AC063 / EDC16CP33_V44_AC063 /
EDC16CP33_V4C_AC063 / EDC16CP33_V34_AC063 / EDC16CP33_V38_AC063 / EDC16CP33_V74_AC063 / EDC16CP33_V28_AC063 /
EDC16CP33_V62_AC063 / EDC16CP33_V26_AC063 / EDC16CP33_V60_AC063

AC063 CONTINUED

If the Thermoplunger no. 1 relay or the additional heater interface unit functions using command AC063, but there is still a passenger compartment heating/demisting problem, check using the wiring diagram:
The conformity of the thermoplunger maxi-fuse.
Check for **+ 12 V battery** on connection **BP9** of component **1067** or **1550**.
Check the conformity of the thermoplunger no. 1 relay or the **additional heater interface unit**.
Check **the continuity** of connection **3JB** between components **1067** or **1550** and **998**.
Measure the **resistance** of the thermoplunger*.
The presence of **earth** on the water chamber (thermoplunger mounting).
Also check the level of the cooling circuit and that there are no leaks.
Carry out the necessary repairs.

* supplier: **Champion**: the load resistance is between: **547 mΩ < X < 669 mΩ**.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

AC064	<u>THERMOPLUNGER No. 2 RELAY</u>
--------------	----------------------------------

NOTES	<p>There must be no present or stored faults. Perform this fault finding procedure if there is a fault with the passenger compartment heating - demisting. Consult the "Wiring diagrams" Technical Note to locate the relevant fuses and relays.</p>
	<p>Special notes: The thermoplunger no. 2 relay or the additional heater interface unit supplies thermoplungers 2 and 3 in parallel.</p>
	<p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>

<p>If the thermoplunger no. 2 relay does not operate during command AC064. Check the condition of the thermoplunger 2 relay mounting on the engine fuse box or the additional heater interface unit (see Wiring Diagram Technical Note, Vehicle, component code 1068 or 1550). Check the condition of the engine management computer connector (see Wiring Diagram Technical Note, Vehicle, component code 120). If the connector or connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>If the fault is still present, check as follows that this relay is controlled by the engine management computer: Disconnect the thermoplunger no. 2 relay, fit a 50 Ω to 100 Ω resistor on its mounting instead of the coil, and connect a voltmeter as follows: – positive terminal to + 12 V battery, – negative terminal on connection 3JAA of component 1068 or 1550.</p> <p>Run command AC064. If the voltmeter shows the battery voltage (4 ON-OFF cycles of 10 seconds), replace the thermoplunger no. 2 relay. If the voltmeter does not show the battery voltage (4 ON-OFF cycles of 10 seconds), contact the Techline.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_AC064 / EDC16CP33_V1C_AC064 / EDC16CP33_V54_AC064 / EDC16CP33_V20_AC064 / EDC16CP33_V58_AC064 / EDC16CP33_V5C_AC064 / EDC16CP33_V24_AC064 / EDC16CP33_V04_AC064 / EDC16CP33_V08_AC064 / EDC16CP33_V44_AC064 / EDC16CP33_V4C_AC064 / EDC16CP33_V34_AC064 / EDC16CP33_V38_AC064 / EDC16CP33_V74_AC064 / EDC16CP33_V28_AC064 / EDC16CP33_V62_AC064 / EDC16CP33_V26_AC064 / EDC16CP33_V60_AC064

AC064 CONTINUED	<u>THERMOPLUNGER No. 2 RELAY</u>
----------------------------	----------------------------------

If thermoplunger no. 2 relay operates with command AC064, but there is still a passenger compartment heating/demisting fault, use the wiring diagram to check:
The conformity of the thermoplunger maxi-fuse.

Check for **+ 12 V battery** on connection **BP91** of component **1068** or **1550**
Check the conformity of heating element no. 2 relay.

Check **the continuity** of connection **3JAD** or **3JD** and **3JAC** between components **1068** or **1550** and **(1072 and 1073)**.

Measure **the resistances** of the thermoplungers*

The presence of **earth** on the water chamber (thermoplunger mounting).

Also check the level of the cooling circuit and that there are no leaks.

Carry out the necessary repairs.

* supplier: **Champion**: the load resistance is between: **547 mΩ < X < 669 mΩ**.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

AC103	<u>EGR BY-PASS</u>
--------------	--------------------

NOTES	Carry out this fault finding procedure when the interpretation of fault DF304 EGR bypass circuit has not been resolved.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.

Measure the **resistance** between connections **3FB** and **3TP** of component **1301**.

If the resistance of the solenoid valve is not between:

- **43 Ω and 49 Ω** at **+ 25 °C**,
- **32 Ω and 37 Ω** at **- 40 °C**, replace the EGR bypass solenoid valve.

Check the **continuity** and **the absence of interference resistance** on the following connection:

- **3TP** between components **120** and **1301**.

Check the **+ 12 V after relay supply** to the EGR bypass solenoid valve of the following connection:

- **3FB** of component **1301**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If you notice no valve movement when running command **AC103**, ensure that the computer output stage is functioning:

Vehicle with + after ignition, clear the faults displayed by the diagnostic tool.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_AC103 / EDC16CP33_V1C_AC103 / EDC16CP33_V54_AC103 / EDC16CP33_V20_AC103 / EDC16CP33_V58_AC103 /
EDC16CP33_V5C_AC103 / EDC16CP33_V24_AC103 / EDC16CP33_V04_AC103 / EDC16CP33_V08_AC103 / EDC16CP33_V44_AC103 /
EDC16CP33_V4C_AC103 / EDC16CP33_V34_AC103 / EDC16CP33_V38_AC103 / EDC16CP33_V74_AC103 / EDC16CP33_V28_AC103 /
EDC16CP33_V62_AC103 / EDC16CP33_V26_AC103 / EDC16CP33_V60_AC103

AC103 CONTINUED

With the voltmeter in the direct current position:

With the EGR BYPASS solenoid valve connected, connect the voltmeter earth lead to connection **3TP** of component **1301** and the positive lead to connection **3FB** of component **1301**. Run command **AC103**, the voltmeter should display four successive readings which are approximately equal to the **12 V** battery voltage.

If the voltmeter indicates no control or a continuous voltage, contact the Techline.

If activation has run correctly, check the control vacuum:

- Disconnect the solenoid valve inlet **hose** and connect it to a pressure gauge.
- Start the engine and run it at a stable idle speed.
- If the vacuum does not reach a value between **0.250 bar** and **0.550 bar**, check the vacuum circuit from the vacuum pump.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

Laguna II ph2, Vel Satis ph2, Espace IV ph2 only.

AC153	<u>HIGH SPEED FAN ASSEMBLY</u>
--------------	--------------------------------

NOTES	There must be no present or stored faults: Perform this fault finding after an engine cooling fault. Engine stopped.
	Use the Wiring Diagram Technical Note for Laguna II ph2, Vel Satis ph2, Espace IV ph2 .

<p>If command AC153 does not actuate the high speed fan assembly relay. Check the condition of the high speed fan assembly relay mounting connectors (see Wiring Diagram Technical Note, Vehicle, component code 597). If the connector or connectors are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>
<p>If the fault is still present, check that the relay is actuated by the engine management computer as follows: Disconnect the high speed fan assembly relay, fit a 50 Ω to 100 Ω resistor on its mounting in place of the coil, and connect a voltmeter as follows:</p> <ul style="list-style-type: none"> – positive terminal to + 12 V battery, – negative terminal to connection 3JP of component 234. <p>Run command AC153. If the voltmeter shows the battery voltage (4 ON-OFF cycles of 10 seconds), replace the relay. If the voltmeter does not show the battery voltage (4 ON-OFF cycles of 10 seconds), contact the Techline.</p>
<p>If the high speed fan assembly relay is supplied using command AC153, but there is still a fan assembly actuation fault, use the wiring diagram to check: The conformity of the fan assembly maxi-fuse.</p>
<ul style="list-style-type: none"> – Check the + 12 V battery supply to connection BP71 of component 234. – Check the conformity of the high speed fan assembly relay. – Check the continuity of connection 49B between components 234 and 362. – Check the conformity of the fan assembly. – Check for complete earthing on connection MAS of component 162. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_AC153 / EDC16CP33_V1C_AC153 / EDC16CP33_V54_AC153 / EDC16CP33_V20_AC153 / EDC16CP33_V58_AC153 /
EDC16CP33_V5C_AC153 / EDC16CP33_V24_AC153 / EDC16CP33_V04_AC153 / EDC16CP33_V08_AC153 / EDC16CP33_V44_AC153 /
EDC16CP33_V4C_AC153 / EDC16CP33_V34_AC153 / EDC16CP33_V38_AC153 / EDC16CP33_V74_AC153 / EDC16CP33_V28_AC153 /
EDC16CP33_V26_AC153

Laguna II ph2, Vel Satis ph2, Espace IV ph2 only.

AC154	<u>LOW-SPEED FAN ASSEMBLY</u>
--------------	-------------------------------

NOTES	There must be no present or stored faults. Perform this fault finding after an engine cooling fault or air conditioning fault. Engine stopped.
	Use the Wiring Diagram Technical Note for Laguna II ph2, Vel Satis ph2, Espace IV ph2 .

If, when running command **AC154**, the **low speed fan assembly** relay does not operate:
Check the condition of the **low speed fan assembly** relay mounting connectors (see **Wiring Diagram Technical Note, Vehicle, component code 597**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, check that the relay is actuated by the engine management computer as follows:
Disconnect the **low speed fan assembly** relay, fit a **50 Ω** to **100 Ω** resistor on the relay mounting in place of the coil, and connect a voltmeter as follows:
– positive terminal to **+ 12 V** battery,
– negative terminal to connection **3JN** of component **700**.

Run command **AC154**.

If the voltmeter shows the battery voltage (4 ON-OFF cycles of **10 seconds**), replace the relay.
If the voltmeter does not show the battery voltage (4 ON-OFF cycles of **10 seconds**), contact the Techline.

If the **low speed fan assembly** relay is supplied using command **AC154**, but there is still a fan assembly actuation fault, use the wiring diagram to check:
The conformity of the fan assembly maxi-fuse.

- Check **the continuity** of connection **49L** between components **700** and **321**.
- Check the low speed **resistor** (resistance and connections).
- Check **the continuity** of connection **49B** between components **262** and **321**.
- Check for complete **earthing** on connection **MAS** of component **162**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_AC154 / EDC16CP33_V1C_AC154 / EDC16CP33_V54_AC154 / EDC16CP33_V20_AC154 / EDC16CP33_V58_AC154 /
EDC16CP33_V5C_AC154 / EDC16CP33_V24_AC154 / EDC16CP33_V04_AC154 / EDC16CP33_V08_AC154 / EDC16CP33_V44_AC154 /
EDC16CP33_V4C_AC154 / EDC16CP33_V34_AC154 / EDC16CP33_V38_AC154 / EDC16CP33_V74_AC154 / EDC16CP33_V28_AC154 /
EDC16CP33_V26_AC154

AC195	<u>ELECTRIC COOLANT PUMP</u>
--------------	------------------------------

NOTES	This command allows you to check the operation of the electric coolant pump.
--------------	--

<p>Check the connection and condition of the coolant pump relay connector, component code 573 and the injection computer connector, component code 120.</p> <p>If the connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the connector.</p> <p>Check the insulation, continuity and the absence of interference resistance on the following connections:</p> <ul style="list-style-type: none">• 3AAZ between components 573 and 120,• 3VH between components 573 and 369,• 3FB between components 573 and 983,• 3FB1 between components 573 and 983. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>If the fault is still present, contact the Techline.</p>

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

AC225	<u>RAIL PRESSURE REGULATOR</u>
--------------	--------------------------------

NOTES	Perform this fault finding procedure: <ul style="list-style-type: none">– following interpretation of an unresolved fault– following an inconsistency recorded in the parameters,– following a customer complaint (starting problems, engine speed instability, injection noise).
--------------	---

STEP 1

Check the **continuity** and **absence of interference resistance** on the following connection:

- **3RG** between the components **120** and **1198**.

Check the **+ 12 V after relay supply** to the rail pressure regulator (**DRV**) of the following connection:

- **3FB** of component **1198**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Run command **AC225**, if you can hear a slight whistling noise and rattling from the pressure regulator, go to **step 2**, otherwise, check the operation of the computer output stage:

Vehicle with + after ignition, clear the faults displayed by the diagnostic tool.

With the voltmeter in the direct current position:

With the rail pressure regulator connected, connect the voltmeter earth lead to connection **3RG** of component **1198** and the positive lead to connection **3FB** of component **1198**. Run command **AC225**, the voltmeter should display four successive voltages between **2 V** and **2.4 V**.

If the measurement is not correct, contact the Techline.

↓

STEP 2

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_AC225 / EDC16CP33_V1C_AC225 / EDC16CP33_V54_AC225 / EDC16CP33_V20_AC225 / EDC16CP33_V58_AC225 /
EDC16CP33_V5C_AC225 / EDC16CP33_V24_AC225 / EDC16CP33_V04_AC225 / EDC16CP33_V08_AC225 / EDC16CP33_V44_AC225 /
EDC16CP33_V4C_AC225 / EDC16CP33_V34_AC225 / EDC16CP33_V38_AC225 / EDC16CP33_V74_AC225 / EDC16CP33_V28_AC225 /
EDC16CP33_V62_AC225 / EDC16CP33_V26_AC225 / EDC16CP33_V60_AC225

AC225 CONTINUED

STEP 2

In the event of rail overpressure:

Check that there are no air bubbles in the diesel fuel low pressure circuit.

Check that the rail pressure sensor is working, and then interpret parameter **PR038 Rail pressure**.

If these checks do not reveal any faults, replace the rail regulator.

In the event of rail underpressure:

Check the correct operation of the rail pressure sensor, as well as the interpretation of parameter **PR038**.

Check the low pressure diesel circuit priming.

Check the conformity of the diesel filter connections.

Check the condition of the filter (clogging and water saturation).

Check that there are no air bubbles between the filter and the high pressure pump.

Check the sealing of the low and high pressure diesel fuel systems: use **ALP 6 Fuel circuit leaks** (visual inspections, touch tests, odours, etc.) on:

pump body, pressure release valve, pipes, rail and injectors unions, injector wells, etc.

Check the conformity of the seal fitting on the pressure regulator.

Check the operation of the injectors: run **Test 10 Poor injector operation**.

Carry out the necessary repairs.

If the engine starts:

Clear any faults.

Check the rail pressure regulator using **ALP 7 Rough idling**.

With the engine warm, leave it to idle for a few minutes (**3 to 5 minutes**):

- If it stalls and the fault reappears, replace the rail pressure regulator.
- If it does not stall, stabilise the engine speed at **2000 rpm (1 minute)** then depress the accelerator fully until the maximum engine speed imposed by the computer is obtained (**~5500 rpm**). The maximum rotation speed of the engine must be stabilised in the time taken to fully depress and then fully release the pedal. This test is carried out with no load (engine in neutral).
- If the engine stalls, contact the Techline

If the engine does not start or there is no timing, first replace the rail pressure regulator.

If the fault is still present, contact the Techline

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

AC226

PUMP PRESSURE REGULATOR

NOTES

Perform this fault finding procedure:

- following interpretation of an unresolved fault
- following an inconsistency recorded in the parameters,
- following a customer complaint (starting problems, engine speed instability, injection noise).

STEP 1

Check the **continuity** and **absence of interference resistance** on the following connection:

- **3HI** between the components **120** and **1105**.

Check the **+ 12 V after relay supply** to the pump pressure regulator (**MPROP**) of the following connection:

- **3FB** of component **1105**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Run command **AC226**, if you can hear a slight whistling noise and rattling from the pressure regulator, go to **step 2**, otherwise, ensure that the computer output stage is functioning correctly:

Vehicle with + after ignition, clear the faults displayed by the diagnostic tool.

With the voltmeter in the direct current position:

With the pump pressure regulator connected, connect the voltmeter earth lead to connection **3HI** of component **1105** and the positive lead to connection **3FB** of component **1105**. Run command **AC226**, the voltmeter must display four successive voltages between **2 V and 2.4 V**.

If the measurement is not correct, contact the Techline.

STEP 2

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

EDC16CP33_V18_AC226 / EDC16CP33_V1C_AC226 / EDC16CP33_V54_AC226 / EDC16CP33_V20_AC226 / EDC16CP33_V58_AC226 /
EDC16CP33_V5C_AC226 / EDC16CP33_V24_AC226 / EDC16CP33_V04_AC226 / EDC16CP33_V08_AC226 / EDC16CP33_V44_AC226 /
EDC16CP33_V4C_AC226 / EDC16CP33_V34_AC226 / EDC16CP33_V38_AC226 / EDC16CP33_V74_AC226 / EDC16CP33_V28_AC226 /
EDC16CP33_V62_AC226 / EDC16CP33_V26_AC226 / EDC16CP33_V60_AC226

AC226 CONTINUED

STEP 2

In the event of rail overpressure:

Check that there are no air bubbles in the diesel fuel low pressure circuit.

Check that the rail pressure sensor is working, and then interpret parameter **PR038 Rail pressure**.

If these checks do not reveal any faults, replace the pump regulator.

In the event of rail underpressure:

Check the correct operation of the rail pressure sensor, as well as the interpretation of parameter **PR038**.

Check the low pressure diesel circuit priming.

Check the conformity of the diesel filter connections.

Check the condition of the filter (clogging and water saturation).

Check that there are no air bubbles between the filter and the high pressure pump.

Check the sealing of the low and high pressure diesel fuel systems: use **ALP 6 Fuel circuit leaks** (visual inspections, touch tests, odours, etc.) on:

pump body, pressure release valve, pipes, rail and injectors unions, injector wells, etc.

Check the conformity of the seal fitting on the pressure regulator.

Check the operation of the injectors: run **Test 10 Poor injector operation** in this document.

Carry out the necessary repairs.

If the engine starts:

Clear any faults.

Check the pump pressure regulator by applying (see **ALP 7 Rough idle**).

With the engine warm, leave it to idle for a few minutes (**3 to 5 minutes**):

- If it stalls and the fault reappears, replace the pump regulator.
- If the engine does not stall, stabilise the engine speed at **2000 rpm (1 minute)** then depress the accelerator pedal fully until the maximum engine speed imposed by the computer is obtained (**~5500 rpm**). The maximum rotation speed of the engine must be stabilised in the time taken to fully depress and then fully release the pedal. This test is carried out with no load (engine in neutral).
- If the engine stalls, contact the Techline

If the engine does not start or does not stall, first replace the pump regulator.

If the fault is still present, contact the Techline.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

MT001	<u>TURBOCHARGING FUNCTION</u>
--------------	-------------------------------

NOTES	<p>Perform this fault finding procedure:</p> <ul style="list-style-type: none">– following the interpretation of a fault concerning the air line which cannot be rectified,– following an inconsistency found in the parameters concerning the air line (turbocharging pressure or inlet air flow),– following a customer complaint (starting faults, engine speed instability, lack of power).
--------------	---

NOTES	<p>This fault finding mode allows you to check dynamically certain mechanical components on the engine.</p> <p>To do this, the engine will run a 4-phase cycle which will enable the entire air line to be checked: air filter, air flowmeter, duct (hoses), air refrigerant, turbocharging pressure sensor, turbocharger, inlet manifold, exhaust manifold and exhaust pipe.</p> <p>This test lasts for approximately 50 seconds.</p>
--------------	---

Interpretation of test results:

The data recorded during this test is displayed in the DATA section.

- Identify any data which is outside the tolerance range and apply the different Monitool fault finding procedures if necessary.

Introduction:

Engine parameters used during this test:

- **PR055 Engine speed**
- **PR035 Atmospheric pressure**
- **PR059 Inlet air temperature**
- **PR064 Coolant temperature**
- **PR132 Air flow**
- **PR041 Turbocharging pressure**
- **PR051 EGR valve position feedback**

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

MT001 CONTINUED 1

Test procedure: the test on the **M9R** engine comprises 4 phases:

	Duration (in milliseconds)		Parameter observed
Phase 0	5000	Engine conditioning, checking the different systems needed for the test. Engine speed actuation,	
Phase 1	15000	Selection of the turbocharger control's minimum stop.	
Phase 2	15000	Selection of the turbocharger control's maximum stop.	
Phase 3	15000	Selection of the turbocharger control's minimum stop.	

Phase 0 deals with conformity; fault finding data is not recorded during this phase.
The measurements are only taken during phases 1, 2 and 3.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

MT001 CONTINUED 2

PHASE 1:

Preliminary test:

Engine speed between: **2480 rpm < X < 2520 rpm**

Coolant temperature **> 70°C**

EGR valve feedback position **< 1%**

If data from the preliminary checks indicates a non-conformity, check the fuel circuit then contact the Techline.

Interpretation:

If, during phase 1, no data is outside the maximum and minimum limits for each variable, interpret the Monitool analysis for phase 2.

Faults, Values outside the limits	Threshold	Fault finding procedure
Air flow < Minimum threshold	Minimum threshold < Turbocharging pressure < maximum threshold	Fault finding procedure Monitool no. 1
	Turbocharging pressure < minimum threshold	Fault finding procedure Monitool no. 2
	Turbocharging pressure > maximum threshold	Contact Techline
Air flow > maximum threshold	Minimum threshold < Turbocharging pressure < maximum threshold	Fault finding procedure Monitool no. 3
	Turbocharging pressure < minimum threshold	Contact Techline
	Turbocharging pressure > maximum threshold	Contact Techline
Turbocharging pressure < minimum threshold	Minimum threshold < Air flow < maximum threshold	Fault finding procedure Monitool no. 4
	Air flow < Minimum threshold	Fault finding procedure Monitool no. 2
	Air flow > maximum threshold	Contact Techline
Turbocharging pressure > maximum threshold	Minimum threshold < Air flow < maximum threshold	Fault finding procedure Monitool no. 5
	Air flow < Minimum threshold	Contact Techline
	Air flow > maximum threshold	Contact Techline

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

MT001 CONTINUED 3

Fault finding procedure Monitool no. 1:

- Check the fitting of the air flowmeter (direction of fitting to be observed).
- Check the tightness of the different air flowmeter clips.
- Check the **+ 5 V supply** of connection **3KJ** of component **799**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

- Check that there are no air leaks between the air flowmeter and the turbocharger.
- Run **Test 5 Air flowmeter**: check that there is no dust on the sensors.

If the checks do not reveal any non-conformity and the fault is still present, change the air flowmeter. Attach a screen copy of the Monitool results.

Monitool no. 2 fault finding procedure:

- Measure the internal **resistance** of the turbocharger control solenoid valve by applying the interpretation of **DF054 Turbocharging solenoid valve control circuit**.
- Check the connection of all the air hoses and the tightness of the clips.
- Check the condition of the air filter and replace it if necessary.
- Check that the exhaust pipe is not clogged, run **Test 1 Exhaust pipe check**.
- Apply **Test 7 Variable geometry turbocharger control**.
- Check that there are no leaks around the exhaust manifold.
- Check that there is no clogging obstructing the air refrigerant.
- Check that there are no air leaks on the engine (compression test).

If the checks do not reveal any non-conformity and the fault is still present, replace the turbocharger. Attach a screen copy of the Monitool results.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

MT001 CONTINUED 4

Monitool no. 3 fault finding procedure:

- Check the **+ 5 V supply** of connection **3KJ** of component **799**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

- Run **Test 5 Air flowmeter**: check that there is no dust on the sensors.

If the checks do not reveal any non-conformity and the fault is still present, change the air flowmeter. Attach a screen copy of the Monitool results.

Monitool no. 4 fault finding procedure:

- Check that there are no air leaks between the turbocharger and the inlet manifold.
- Check the tightness of the different clips.
- Check that there are no air refrigerant leaks.

If the checks do not reveal any non-conformity and the fault is still present, change the turbocharging pressure sensor. Attach a screen copy of the Monitool results.

Monitool no. 5 fault finding procedure:

- Check the turbocharging pressure sensor by interpreting the conformity check for **PR041 Turbocharging pressure**.

If the checks do not reveal any non-conformity and the fault is still present, change the turbocharging pressure sensor. Attach a screen copy of the Monitool results.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

**MT001
CONTINUED 5****PHASE 2:**

Preliminary test:

Engine speed between: **2480 rpm < X < 2520 rpm**Coolant temperature **> 70°C**EGR valve feedback position **< 1%****Interpretation:**

If, during phase 2, no data is outside the maximum and minimum limits for each variable, interpret the Monitool analysis for phase 3.

Note: the interpretation of faults during phase 2 should only be carried out in the following situation:

- The variables measured during phase 1 are correct, i.e. they are within the maximum and minimum authorised limits. If this is not the case, apply the different Monitool fault finding procedures which relate to the different faults revealed during the phase 1. To confirm the repairs or modifications carried out, run the **MT001** monitool test again.

Faults, Values outside the limits	Threshold	Fault finding procedure
Air flow < Minimum threshold	Minimum threshold < Turbocharging pressure < maximum threshold	Contact Techline
	Turbocharging pressure < minimum threshold	Contact Techline
	Turbocharging pressure > maximum threshold	Contact Techline
Air flow > maximum threshold	Minimum threshold < Turbocharging pressure < maximum threshold	Contact Techline
	Turbocharging pressure < minimum threshold	Contact Techline
	Turbocharging pressure > maximum threshold	Fault finding procedure Monitool no. 6
Turbocharging pressure < minimum threshold	Minimum threshold < Air flow < maximum threshold	Contact Techline
	Air flow < Minimum threshold	Contact Techline
	Air flow > maximum threshold	Contact Techline
Turbocharging pressure > maximum threshold	Minimum threshold < Air flow < maximum threshold	Contact Techline
	Air flow < Minimum threshold	Contact Techline
	Air flow > maximum threshold	Fault finding procedure Monitool no. 6

AFTER REPAIRCarry out a road test, then check with the **diagnostic tool**.

MT001 CONTINUED 6

Monitool no. 6 fault finding procedure:

– Apply **Test 7 Variable geometry turbocharger control**.

If the checks do not reveal any non-conformity and the fault is still present, replace the turbocharger. Attach a screen copy of the Monitool results.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

MT001 CONTINUED 7

PHASE 3:

Preliminary test:

Engine speed between: **2480 rpm < X < 2520 rpm**

Coolant temperature **> 70°C**

EGR valve feedback position **< 1%**

Interpretation:

If, during phase 3, there is no data outside of the maximum and minimum limits for each variable, then the air line is correct and no component replacement is to be carried out. Check the fuel circuit or deal with **present** or **stored** faults which are displayed on **the diagnostic tool**.

Note: the interpretation of faults during phase 3 should only be carried out in the following situation:

- The variables measured during phase 1 and 2 are correct, i.e. they are within the maximum and minimum authorised limits. If this is not the case, apply the different Monitool fault finding procedures which relate to the different faults revealed during the phase 1 and phase 2. To confirm the repairs or modifications carried out, run the **MT001** monitool test again.

Faults, Values outside the limits	Threshold	Fault finding procedure
Air flow < Minimum threshold	Minimum threshold < Turbocharging pressure < maximum threshold	Fault finding procedure Monitool no. 7
	Turbocharging pressure < minimum threshold	Fault finding procedure Monitool no. 8
	Turbocharging pressure > maximum threshold	Contact Techline
Air flow > maximum threshold	Minimum threshold < Turbocharging pressure < maximum threshold	Contact Techline
	Turbocharging pressure < minimum threshold	Contact Techline
	Turbocharging pressure > maximum threshold	Contact Techline
Turbocharging pressure < minimum threshold	Minimum threshold < Air flow < maximum threshold	Contact Techline
	Air flow < Minimum threshold	Fault finding procedure Monitool no. 8
	Air flow > maximum threshold	Contact Techline
Turbocharging pressure > maximum threshold	Minimum threshold < Air flow < maximum threshold	Contact Techline
	Air flow < Minimum threshold	Contact Techline
	Air flow > maximum threshold	Contact Techline

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

MT001 CONTINUED 8

Monitool no. 7 fault finding procedure:

- Check the fitting of the air flowmeter (direction of fitting to be observed).
- Check the tightness of the different air flowmeter clips.
- Check the **+ 5 V supply** of connection **3KJ** of component **799**.

If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

- Check that there are no air leaks between the air flowmeter and the turbocharger.
- Run **Test 5 Air flowmeter**: check that there is no dust on the sensors.

If the checks do not reveal any non-conformity and the fault is still present, change the air flowmeter. Attach a screen copy of the Monitool results.

Monitool no. 8 fault finding procedure:

- Measure the internal **resistance** of the turbocharger control solenoid valve by applying the interpretation of **DF054 Turbocharging solenoid valve control circuit**.
- Apply **Test 7 Variable geometry turbocharger control**.

If the checks do not reveal any non-conformity and the fault is still present, replace the turbocharger. Attach a screen copy of the Monitool results.

If all the checks do not allow the vehicle to be repaired, contact the Techline.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

VP036	<u>INHIBIT FUEL SUPPLY</u>
--------------	----------------------------

NOTES	This command enables you to disable the supply to the injectors. This command is carried out with the engine switched off, and ignition on.
--------------	--

This command allows the injectors to be locked, so that starting is not possible.
Command **VP036** allows the engine compressions to be checked in complete safety without disconnecting the connectors of the injectors or the TDC sensor.

Procedure to follow (cylinder no. 1 is located on the timing end):

- Remove **all** of the **heater plugs**, connect the **compression gauge** with the **M9R** flexible end piece, part no. **MOT 1772**, to a cylinder.
- Position the gear lever in neutral (manual gearbox) or to position P (automatic/sequential gearbox).
- Depress the brake pedal and keep in the depressed position for the duration of the test.
- Activate command **VP036**.
- Attempt to start the vehicle (within **10 seconds** of activating command **VP036**).

If the vehicle does not start, check the cylinder compressions.

Repeat the procedure for another cylinder.

WARNING:

Keep the brake pedal depressed for the duration of the test.

This command is inhibited automatically after **10 seconds**.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_VP036 / EDC16CP33_V1C_VP036 / EDC16CP33_V54_VP036 / EDC16CP33_V20_VP036 / EDC16CP33_V58_VP036 /
EDC16CP33_V5C_VP036 / EDC16CP33_V24_VP036 / EDC16CP33_V04_VP036 / EDC16CP33_V08_VP036 / EDC16CP33_V44_VP036 /
EDC16CP33_V4C_VP036 / EDC16CP33_V34_VP036 / EDC16CP33_V38_VP036 / EDC16CP33_V74_VP036 / EDC16CP33_V28_VP036 /
EDC16CP33_V62_VP036 / EDC16CP33_V26_VP036 / EDC16CP33_V60_VP036

DIESEL INJECTION

Fault finding – Customer complaints

13B

NOTES

Only refer to the customer complaints after a full check with the **diagnostic tool**.

NO DIALOGUE WITH ENGINE MANAGEMENT COMPUTER

ALP 1

STARTING FAULT OR STARTING IMPOSSIBLE

ALP 2

POOR PERFORMANCE

ALP 4

IRREGULAR ENGINE OPERATION

ALP 5

EXTERNAL LEAKS FROM THE FUEL CIRCUIT

ALP 6

ROUGH IDLE

ALP 7

ENGINE STALLING

ALP 8

PARTICLE FILTER WARNING LIGHT COMES ON TOO FREQUENTLY

ALP 9

AFTER REPAIR

Carry out a road test followed by a check with the **diagnostic tool**.

ALP 1	No dialogue with engine management computer
--------------	--

Use the **Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.**

STEP 1

Check the conformity of the vehicle type, and the domain selected on the tool.

Check that the tool is not faulty by trying to establish dialogue with a computer on another vehicle.

Check **the supply** to the diagnostic socket, component code **225**, of the following connections:

- **BCP4** of component **225 (+ before ignition)**,
- **AP10** of component **225 (+ after ignition)**,
- **NAP** and **MA** of component **225 (earth)**.

Check the conformity of the **after ignition** fuse.

– The conformity of the injection relay mounting.

Check the conformity of the main relay (relay removed):

– **Insulation** between connections **3FB** and **BP37** of component **983** or **1337**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

– Measure the **resistance** between connections **3AA** and **BP37** of component **983** or **1337**.

If the resistance of the injection relay is not between: $60\ \Omega < X < 70\ \Omega$, replace the relay.

Disconnect the engine management computer and check that there are no conducting parts on the computer studs.

If this reveals any kind of impurity, rectify it and try to establish dialogue.

If the fault is still present, place the bornier **Elé. 1681** on the engine harness:

Check the **continuity** and **absence of interference resistance** on the following multiplex connections:

- **133B** between components **120** and **225**,
- **133C** between components **120** and **225**.

Check the **+12 V after relay supply** to the engine management computer on the following connections:

- **3FB** of component **120**,
- **3FB1** of component **120**,
- **3FB2** of component **120**.

Check for complete **earthing** on connections **NT** of component **120**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ALP01 / EDC16CP33_V1C_ALP01 / EDC16CP33_V54_ALP01 / EDC16CP33_V20_ALP01 / EDC16CP33_V58_ALP01 /
EDC16CP33_V5C_ALP01 / EDC16CP33_V24_ALP01 / EDC16CP33_V04_ALP01 / EDC16CP33_V08_ALP01 / EDC16CP33_V44_ALP01 /
EDC16CP33_V4C_ALP01 / EDC16CP33_V34_ALP01 / EDC16CP33_V38_ALP01 / EDC16CP33_V74_ALP01 / EDC16CP33_V28_ALP01 /
EDC16CP33_V62_ALP01 / EDC16CP33_V26_ALP01 / EDC16CP33_V60_ALP01

ALP 1 CONTINUED

While shunting the "normally open" contact of the supply relay i.e. connections **BP37** and **3FB** of component **983** or **1337**:

- **3FB** of component **120**, (with test shunt)
- **3FB1** of component **120**, (with test shunt)
- **3FB2** of component **120**, (with test shunt)

Check the **continuity** and **absence of interference resistance** of the following connection:

- **3AA** between components **120** and **983** or **1337**.

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Try to establish dialogue with another computer on the same vehicle.

If dialogue is established with **another computer on the same vehicle**, go to **step 2**.

If dialogue is not established **with any other computer on the same vehicle**, (see **88B, Multiplexing, ALP 1**).

STEP 2

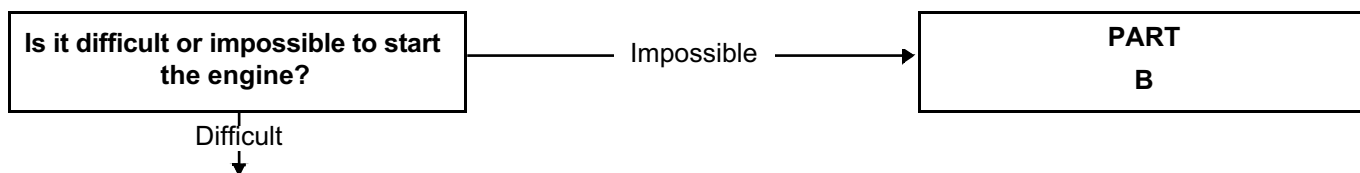
Contact the Techline.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

ALP 2	Starting difficult or impossible
--------------	---

NOTES	Before analysing this customer complaint, check that there are no faults, and the conformity (or otherwise) of the parameters and statuses, using the diagnostic tool . If the customer complaint is not eliminated, perform the following checks.
	Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2 .



PART A:

If fault **DF308 Clogged particle filter** is **present**, consult the interpretation of **DF308**.
 Check the engine **earths**.
 If the engine speed is less than **200 rpm**, refer to **Technical Note 6014A, Charging circuit check, Starter fault finding, Starter (formerly Technical Note 3632A)**.
 If an engine speed of **200 rpm** is achieved with starter motor in operation, **PR055 Engine speed**.
 If the engine speed is zero with the **diagnostic tool**:
 Measure **the resistance** between connections **3BG** and **3BL** of component **149**.
 If the sensor resistance is not between: **600 Ω < X < 1000 Ω**, replace the sensor.

Check the **continuity** and **absence of interference resistance** on the following connections:

- **3BG** between the components **120** and **149**,
- **3BL** between components **120** and **149**.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

ALP 2 CONTINUED 1

If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the conformity of the engine **earths** (oxidation, tightness, etc.).
Check the mounting and condition (overheating) of the sensor.

Check the synchronisation of the camshaft sensors and the engine speed sensors with the display of **ET238 Synchronisation**. If synchronisation is not active, refer to the checks described in **DF195 Camshaft/engine speed sensor consistency**.

Test the high pressure fuel circuit:

Run scenario **SC035 High pressure fuel circuit fault finding**.

To interpret the result, apply the interpretation of command **SC035** (see **Interpretation of commands**).

Check the fuel circuit sealing: run **Test 3 Low pressure circuit check**.

If **Test 3** is correct.

If **Test 3** is not correct, proceed as follows:

Check the conformity of the type of heater plugs configured:

For Vdiag 20, 24, 38 and 74: consult **ET781 Heater plugs** in the **Ignition/Preheating** subfunction and check the conformity with the type of plugs installed:

- **Slow plugs have a black ring.**
- **Fast plugs have a white ring.**

If the heater plugs are being replaced with plugs of a different type (see **Replacement of components, Replacing heater plugs**).

For all Vdiags, check that all **4 plugs have the same colour ring**.

Check that the heater plugs are actuated using the **AC037 Preheating relay** command.

Check the sealing and condition of the inlet circuit: run **Test 4 Turbocharged air inlet circuit check**, and follow the related fault finding procedure (see **Test 4**).

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

DIESEL INJECTION

Fault finding – Fault Finding Chart

13B

ALP 2 CONTINUED 2

Check that the exhaust is not blocked: run **Test 1 Exhaust pipe check**, and follow the related fault finding procedure (see **Test 4**).

Check the consistency of the signal from the engine coolant temperature sensor.

Check the operation of the rail pressure regulator (**DRV**) using command **AC225 Rail pressure regulator** and then the operation of the pump pressure regulator (**MPROP**) using command **AC226 Pump pressure regulator**.

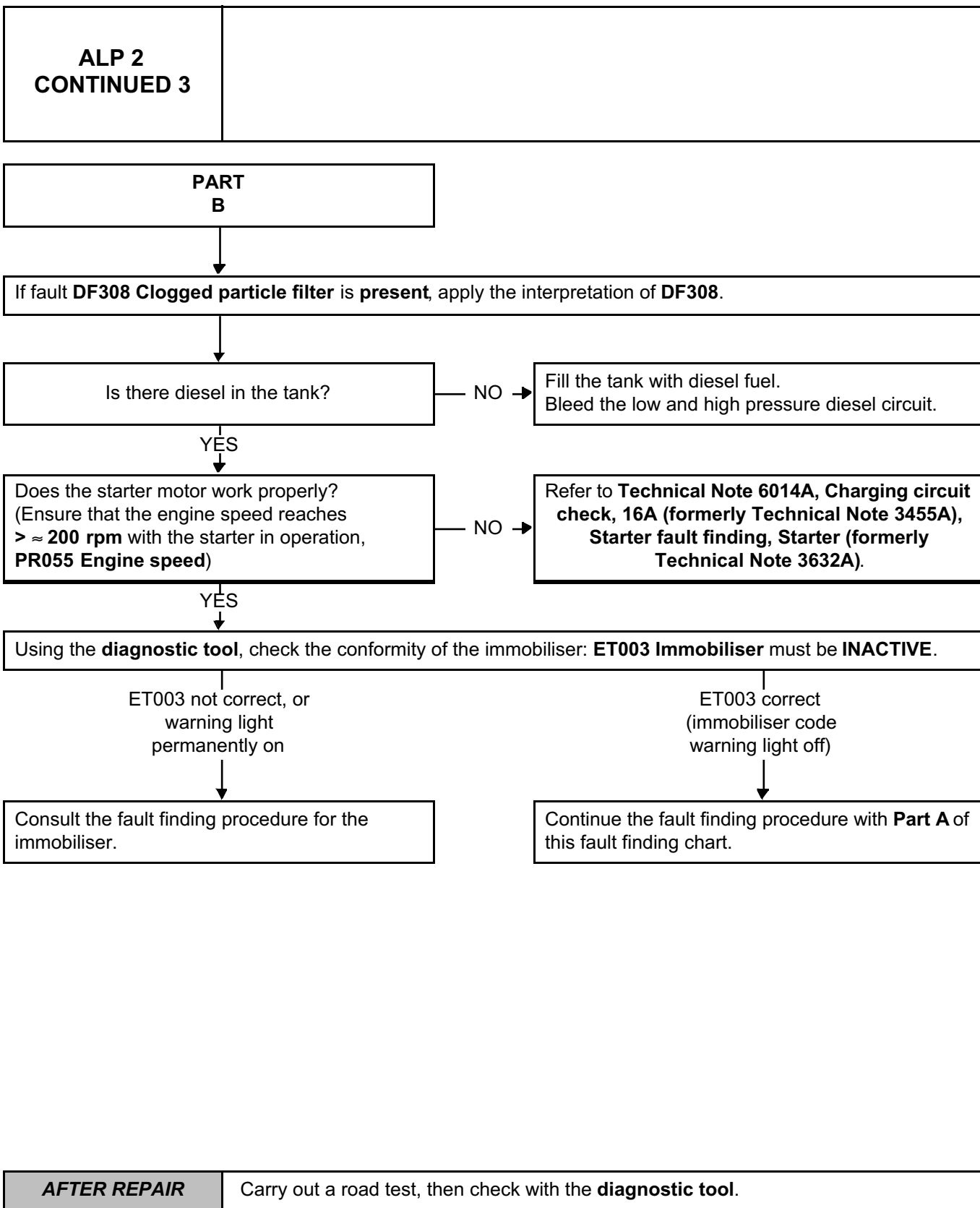
Check the timing setting.

Apply **part B** of **Test 10 Poor injector operation**.

End of part A.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.



ALP 4	Poor performance
--------------	-------------------------

NOTES	<p>Before analysing this customer complaint, check that there are no faults, and the conformity (or otherwise) of the parameters and statuses, using the diagnostic tool. If the customer complaint is not eliminated, perform the following checks.</p>
--------------	---

IMPORTANT:

In the event of the engine overheating above **118°C**, the computer deliberately limits the fuel flow (overheating warning light comes on from **115°C**).
– Please observe the cleanliness guidelines and safety advice.

Note:

For the **M9R 724 (Vdiag 5C and 58)**:

The engine is limited to **3000 rpm** if the vehicle is stationary or if the vehicle speed is less than **4 mph (7 km/h)** and if the engine is warm.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

EDC16CP33_V18_ALP04 / EDC16CP33_V1C_ALP04 / EDC16CP33_V54_ALP04 / EDC16CP33_V20_ALP04 / EDC16CP33_V58_ALP04 / EDC16CP33_V5C_ALP04 / EDC16CP33_V24_ALP04 / EDC16CP33_V04_ALP04 / EDC16CP33_V08_ALP04 / EDC16CP33_V44_ALP04 / EDC16CP33_V4C_ALP04 / EDC16CP33_V34_ALP04 / EDC16CP33_V38_ALP04 / EDC16CP33_V74_ALP04 / EDC16CP33_V28_ALP04 / EDC16CP33_V62_ALP04 / EDC16CP33_V26_ALP04 / EDC16CP33_V60_ALP04

DIESEL INJECTION

Fault finding – Fault Finding Chart

13B

ALP 4 CONTINUED 1

Is the engine running on all cylinders?

—YES→ **A**

NO
↓

Test the high pressure fuel circuit:

Run scenario **SC035 High pressure fuel circuit fault finding** (see **Interpretation of commands**).

Check that the fuel tank is correctly filled and that the fuel is correct: run **Test 12 Diesel fuel conformity check**.

If the fuel (diesel fuel) used is not correct:

- Replace the fuel (diesel fuel).
- Replace the fuel filter (diesel fuel).
- Bleed the low and high pressure fuel circuit (diesel fuel).

Check that the injectors are correctly fitted (presence and **conformity of the sealing washer**).

- Checking procedure:
- Take a straightedge approximately **40 cm** long and place it on the 4 injectors. The straightedge should rest on the 4 injectors.
- If one or more injector(s) are not in order, remove and check the conformity of the washer.
- If one injector does not touch the straightedge (clearance of more than **1 mm**), remove the injector and check that the washer is present.

Clean the injector well and the injector, refit the injector with the correct sealing washer.

Check the sealing and the condition of the inlet circuit: run **Test 4 Turbocharged air inlet circuit check**.

Check the condition of the air flowmeter: run **Test 5 Air flowmeter**.

Check the turbocharger: run **Test 7 Variable geometry turbocharger control** then **Test 8 Turbocharger rotating part**.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

ALP 4 CONTINUED 2



Perform the following road test (looking for a loss of power when accelerating under full load):

- in the highest gear ratio, accelerate fully,
- lift your foot off the accelerator pedal completely for at least 2 seconds,
- accelerate fully again,
- release the accelerator pedal completely,
- accelerate slightly.

If the loss of power was not noted during slight acceleration **and** if there was a loss of engine power during **each acceleration at full load**, replace the diesel fuel injector return rail and its overpressure valve (see **MR364 (Mégane II ph2), MR370 (Scénic II ph2), MR 395 (Laguna II ph2), 402 (Vel Satis ph2), 405 (Espace IV ph2) Mechanical, 13B, Diesel injection, Diesel injector fuel return rail: Removal - Refitting**).

Check the connection and positioning of the differential pressure sensor (see **MR 395 (Laguna II ph2), 402 (Vel Satis Ph2), 405 (Espace IV ph2), 364 (Mégane II ph2), 370 (Scénic II ph2) Mechanical, 19B, Exhaust, Particle filter pressure sensor: Removal - Refitting**).

Check the conformity of the accelerator pedal position sensor, the brake pedal sensor, the atmospheric pressure sensor, the exhaust gas recirculation valve, and the damper valve (see **Interpretation of statuses and parameters**).

Check the consistency of the signal from the air flowmeter, the engine coolant temperature sensor, the fuel temperature sensor and the engine speed sensor.

Check the connections, the **continuity** and the **absence of interference resistance** of the following components:

- the air flowmeter (apply **DF056 Air flow sensor circuit**)
- the engine coolant temperature sensor (apply **DF001 Coolant temperature sensor circuit**)
- the fuel temperature sensor (apply **DF098 Fuel temperature sensor circuit**)
- the engine speed sensor (apply **DF195 Engine speed/camshaft sensor consistency**).

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

ALP 4 CONTINUED 3

Check:

- That the diesel filter is not clogged.
- That there are no leaks on the high and low pressure diesel circuits: run **Test 3 Low pressure circuit check**.
- **Test the high pressure fuel circuit:**

Run scenario **SC035 High pressure fuel circuit fault finding** (see **Interpretation of commands**).

Continue by checking the following:

- The connection of the oil vapour rebreathing circuit.
- The pump pressure regulator (**MPROP**), (jamming - sticking); apply the interpretation of command **AC226 Pump pressure regulator**.
- The rail pressure regulator (**DRV**), (jamming - sticking); apply the interpretation of command **AC225 Rail pressure regulator**.
- Check the engine timing (and the position of the high pressure pump sprocket).
- Check the engine compressions: use a compression gauge, **M9R** hose end piece, part no. **Mot. 1772** and apply command **VP036 Fuel supply inhibition** (see **Interpretation of commands**).

If the fault is still present, contact the Techline.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

ALP 5	Irregular engine operation
--------------	-----------------------------------

NOTES	<p>Before analysing this customer complaint, check that there are no faults, and the conformity (or otherwise) of the parameters and statuses, using the diagnostic tool. If the customer complaint is not eliminated, perform the following checks.</p> <p>Use the Wiring Diagram Technical Note, Laguna II ph2, Vel Satis ph2, Espace IV ph2, Mégane II ph2, Scénic II ph2.</p>
--------------	---

<p>If the engine races during gear changes, if there is a floor mat, check that this is not blocking the accelerator pedal, the brake pedal and the clutch pedal, then check the conformity of the clutch switch and the conformity of the accelerator pedal sensor when the pedal is released (see PR086 Pedal potentiometer voltage gang 1 and PR088 Pedal potentiometer voltage gang 2, Sensor supply). Measure the resistance between connections 3BG and 3BL of component 149. If the sensor resistance is not between: 741 Ω < X < 905 Ω at +20°C, replace the sensor.</p>
<p>Check the continuity and absence of interference resistance on the following connections:</p> <ul style="list-style-type: none"> • 3BG between the components 120 and 149, • 3BL between components 120 and 149. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
<p>Check the conformity of the engine earths (oxidation, tightness, etc.). Check the mounting and condition (overheating) of the sensor.</p> <p>Check the low pressure circuit: run Test 3 Low pressure circuit check.</p> <p>Apply the air flow checking procedure, (see conformity in the interpretation of statuses and parameters).</p> <p>Check the turbocharger: apply Test 7 Variable geometry turbocharger control.</p>
<p>If the fault is still present, test the high pressure fuel circuit: Run scenario SC035 High pressure fuel circuit fault finding. To interpret the result, apply the interpretation of command SC035 (see Interpretation of commands).</p>

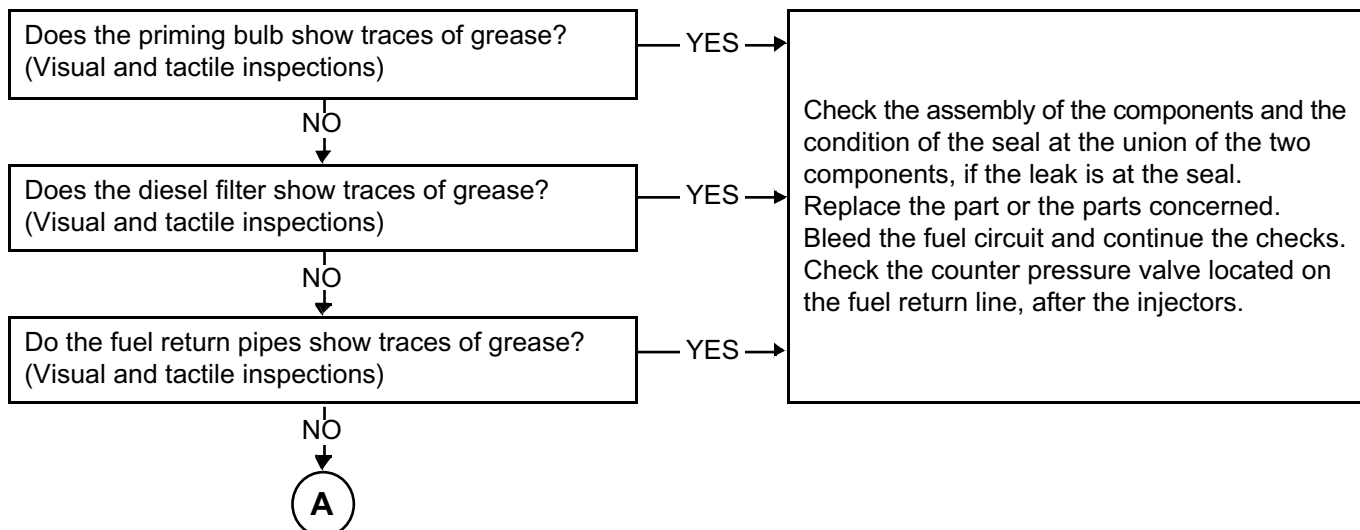
AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

ALP 6	Fuel system leaks
--------------	--------------------------

NOTES	<p>Before analysing this customer complaint, check that there are no faults, and the conformity (or otherwise) of the parameters and statuses, using the diagnostic tool. If the customer complaint is not eliminated, perform the following checks.</p> <p>IMPORTANT: Please observe the cleanliness guidelines and safety advice.</p>
--------------	---

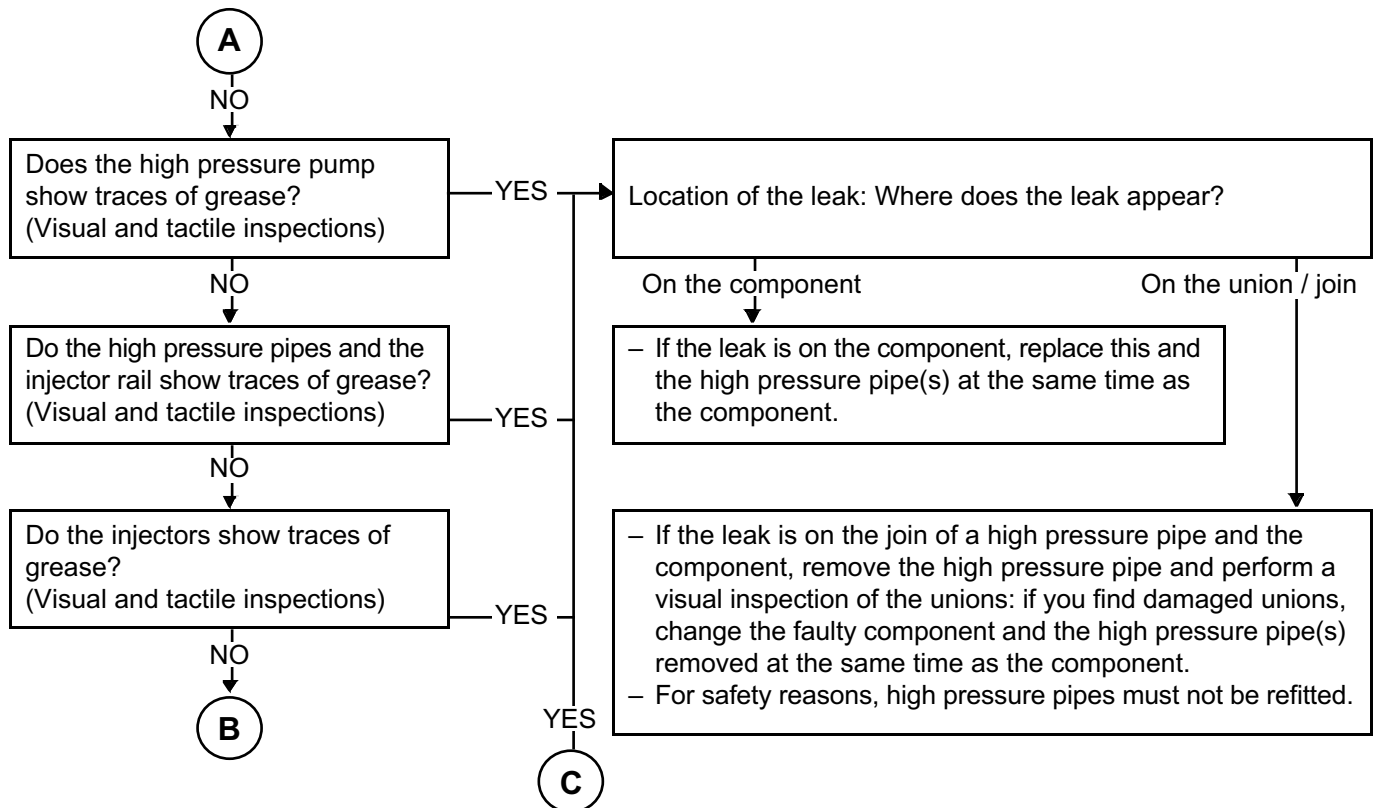
Procedure for checking for an external leak on the fuel circuit:

Clean away traces of grease with clean thinner and wipe the part or parts concerned with cleaning cloths. Start the engine and increase the engine temperature until the diesel fuel reaches **40/50°C**. Stop the engine and check for traces of grease on the part or parts concerned. If this is the case, replace the part or parts concerned.



AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

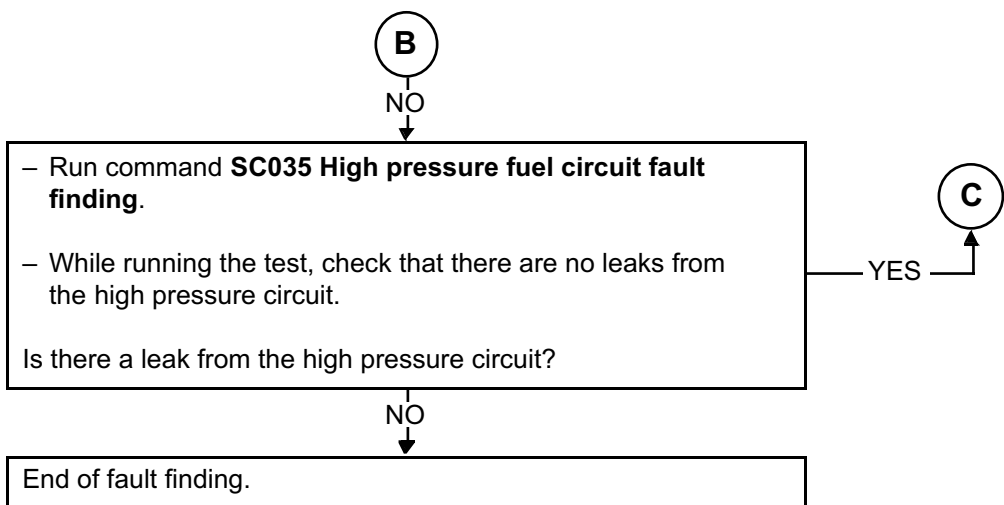
ALP 6 CONTINUED 1



AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

**ALP 6
CONTINUED 2**



Reminder:

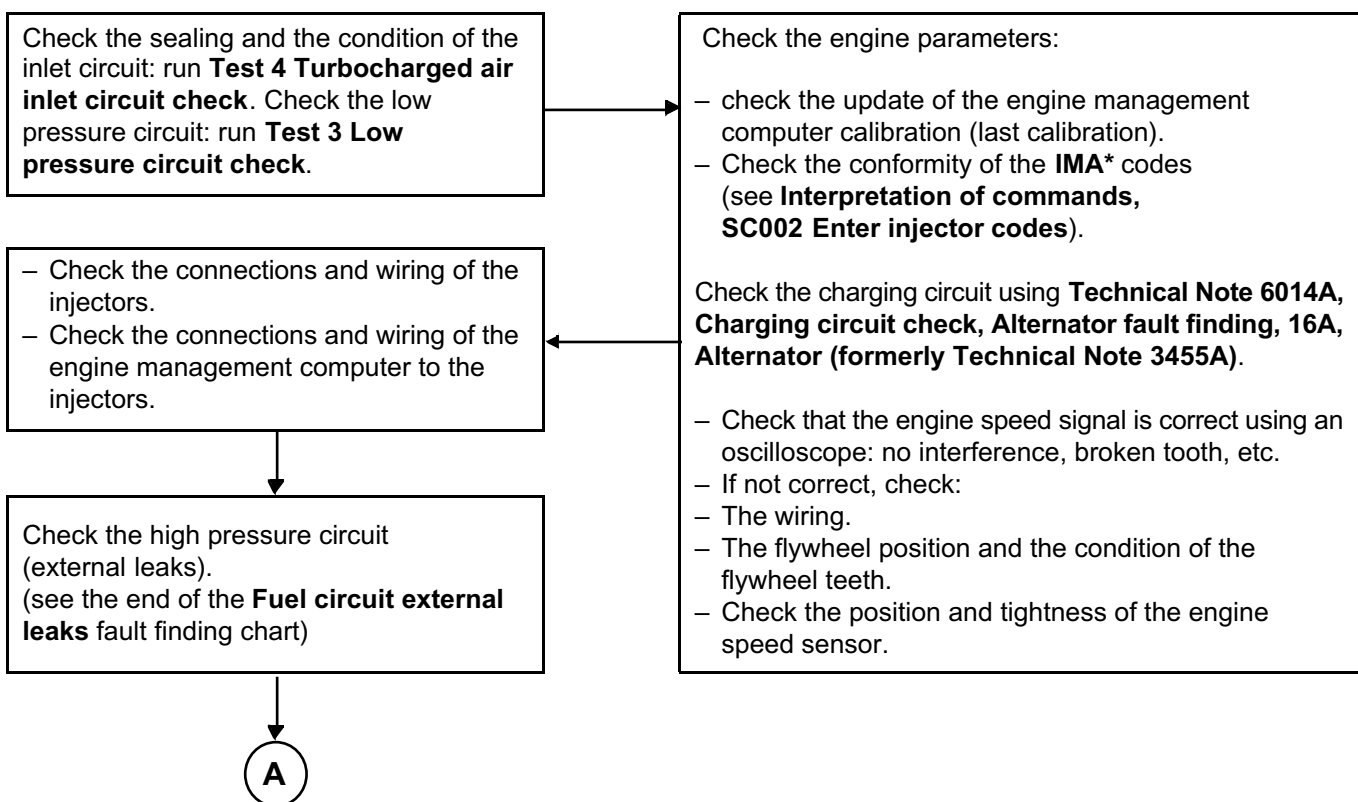
Only replace the rail, pump or injector if there is damage to the union and this damage is visible during checks. Bleed the fuel circuit and continue the checks.

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

ALP 7	Rough idle
--------------	-------------------

NOTES	<p>Before analysing this customer complaint, check that there are no faults, and the conformity (or otherwise) of the parameters and statuses, using the diagnostic tool.</p> <p>If the customer complaint is not eliminated, perform the following checks.</p>
--------------	--



AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

ALP 7 CONTINUED

A

- Check the engine timing (and the position of the high pressure pump sprocket).

- Apply **part B of Test 10 Poor injector operation**.
Check the lower engine:
 - Check the engine mountings.If the checks are correct, contact the Techline.

If fault **DF308 Clogged particle filter** is present, consult the interpretation of **DF308**.
Run command **SC036 Reinitialise programming** and select **After particle filter replacement** (see **Interpretation of commands**).

IMA*: Individual injector correction

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

DIESEL INJECTION

Fault finding – Fault Finding Chart

13B

ALP 8	Engine stalling
-------	-----------------

NOTES	<p>Before analysing this customer complaint, check that there are no faults, and the conformity (or otherwise) of the parameters and statuses, using the diagnostic tool.</p> <p>If the customer complaint is not eliminated, perform the following checks.</p>
-------	--

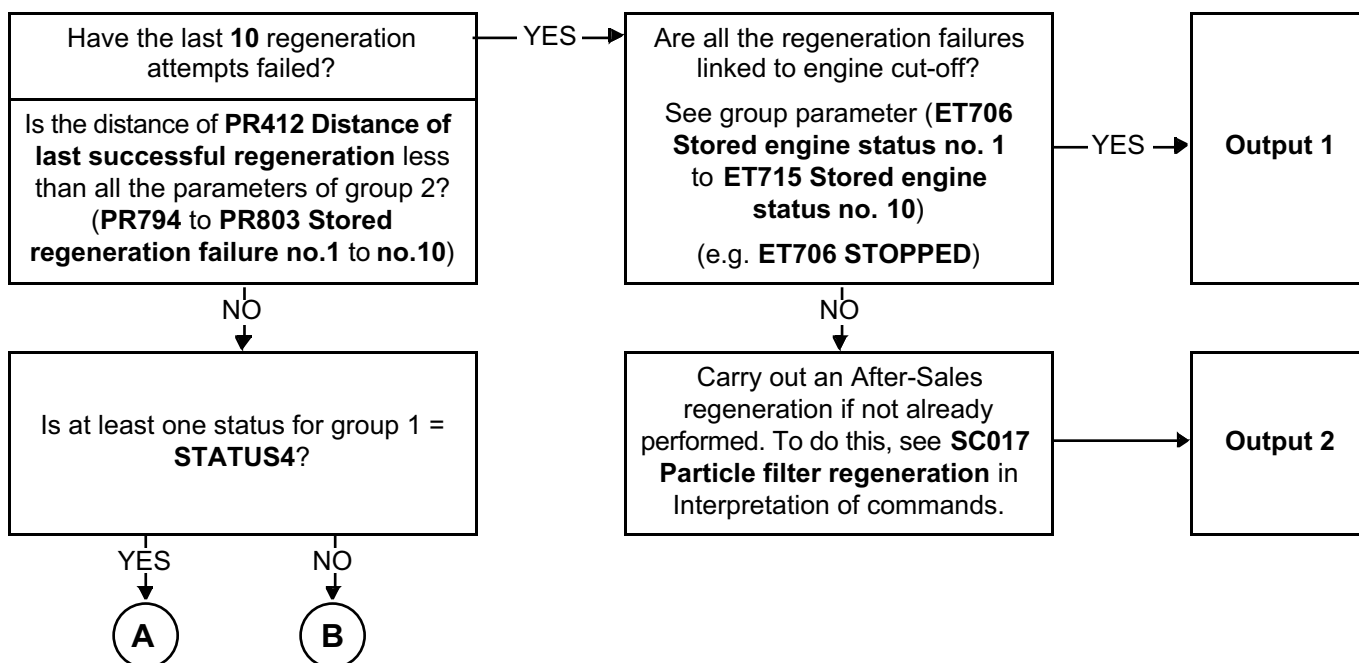
Apply the interpretation of fault **DF569 Turbocharging circuit** to deal with **ALP 8**.

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
--------------	---

EDC16CP33_V18_ALP08 / EDC16CP33_V1C_ALP08 / EDC16CP33_V54_ALP08 / EDC16CP33_V20_ALP08 / EDC16CP33_V58_ALP08 /
EDC16CP33_V5C_ALP08 / EDC16CP33_V24_ALP08 / EDC16CP33_V04_ALP08 / EDC16CP33_V08_ALP08 / EDC16CP33_V44_ALP08 /
EDC16CP33_V4C_ALP08 / EDC16CP33_V34_ALP08 / EDC16CP33_V38_ALP08 / EDC16CP33_V74_ALP08 / EDC16CP33_V28_ALP08 /
EDC16CP33_V62_ALP08 / EDC16CP33_V26_ALP08 / EDC16CP33_V60_ALP08

ALP 9	PARTICLE FILTER WARNING LIGHT COMES ON TOO OFTEN
--------------	---

NOTES	<p>Before dealing with this customer complaint, check that there are no faults except DF312 Speed request, and the conformity (or otherwise) of the "parameters" and "statuses" using the diagnostic tool. Deal with the other faults first.</p> <p>If the customer complaint is not eliminated, perform the following checks.</p>
--------------	--



AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

**ALP 9
CONTINUED 1**

A
YES

B
NO

Symptom not confirmed

Recognition of parameters
corresponding to the start of
successful regenerations.
Make adjustments to align the
parameter groups.

**Group 1 Stored regeneration
start no. 1 to 10**
and
**Group 2 Stored regeneration
failure no. 1 to 10**

For each **group 1** parameter, if
there is no **group 2** parameter in
the next 30 miles (50 km), note
that this means a successful
regeneration (R). If there is one,
this means a failure (e).

Note
group 1 here:

PR816: ____
ET742 ____
PR817: ____
ET743 ____
PR818: ____
ET744 ____
PR819: ____
ET745 ____
PR820: ____
ET746 ____
PR821: ____
ET747 ____
PR822: ____
ET748 ____
PR823: ____
ET749 ____
PR824: ____
ET750 ____
PR825: ____
ET751 ____

Note **group 2** here

PR794: ____
PR795: ____
PR796: ____
PR797: ____
PR798: ____
PR799: ____
PR800: ____
PR801: ____
PR802: ____
PR803: ____

Type of
regeneration

PR816: R E
PR817: R E
PR818: R E
PR819: R E
PR820: R E
PR821: R E
PR822: R E
PR823: R E
PR824: R E
PR825: R E

Vdiag 20, 5C,
24 and 58

C

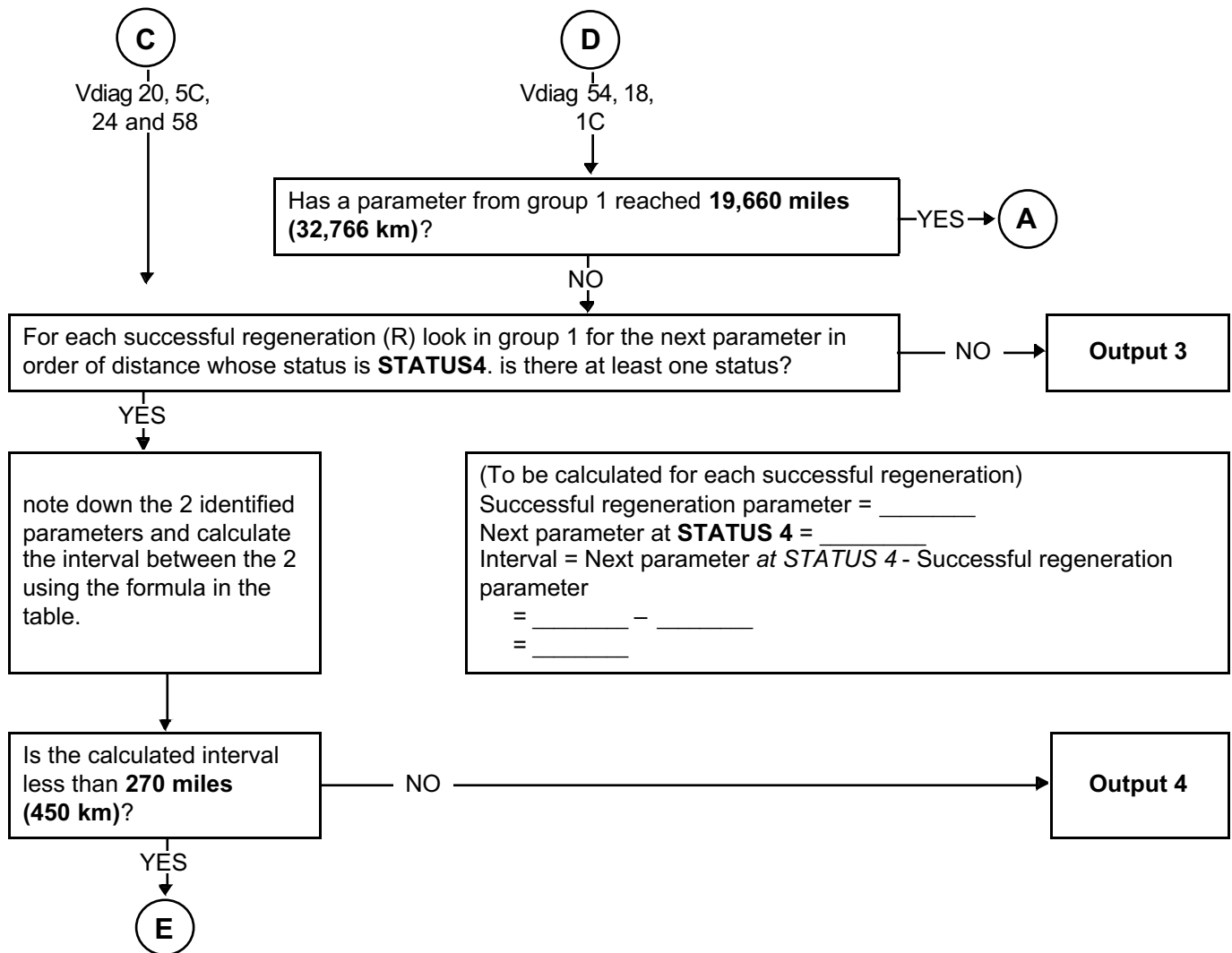
Vdiag 54, 18,
1C

D

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

**ALP 9
CONTINUED 2**



AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

DIESEL INJECTION

Fault finding – Fault Finding Chart

13B

ALP 9 CONTINUED 3

E

YES

- Check the consistency between the **IMA*** codes entered and the codes engraved on the injector bodies.
- Check that the particle filter differential pressure sensor is correctly positioned and connected (see **MR 395, 402, 405, 364 or 370 Mechanical, 19B Exhaust, Particle filter pressure sensor: Removal - Refitting**),
- Check the exhaust pipe (see **TEST1 Exhaust pipe check**),
- Check the air inlet circuit (see **TEST4 Turbocharged air inlet circuit check**),
- Check the air flowmeter (see **TEST5 Air flowmeter**),
- Check the turbocharger (see **TEST7 Variable geometry turbocharger check**),
- Check the injectors (see **TEST10 Poor injector operation**),
- Check the cylinder compressions.

If the fault has not been located and the customer complaint is still present, contact the Techline.

IMA*: Individual injector correction

AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

DIESEL INJECTION

Fault finding – Fault Finding Chart

13B

ALP 9 CONTINUED 4	
------------------------------	--

Analysis of output for **ALP 9**.

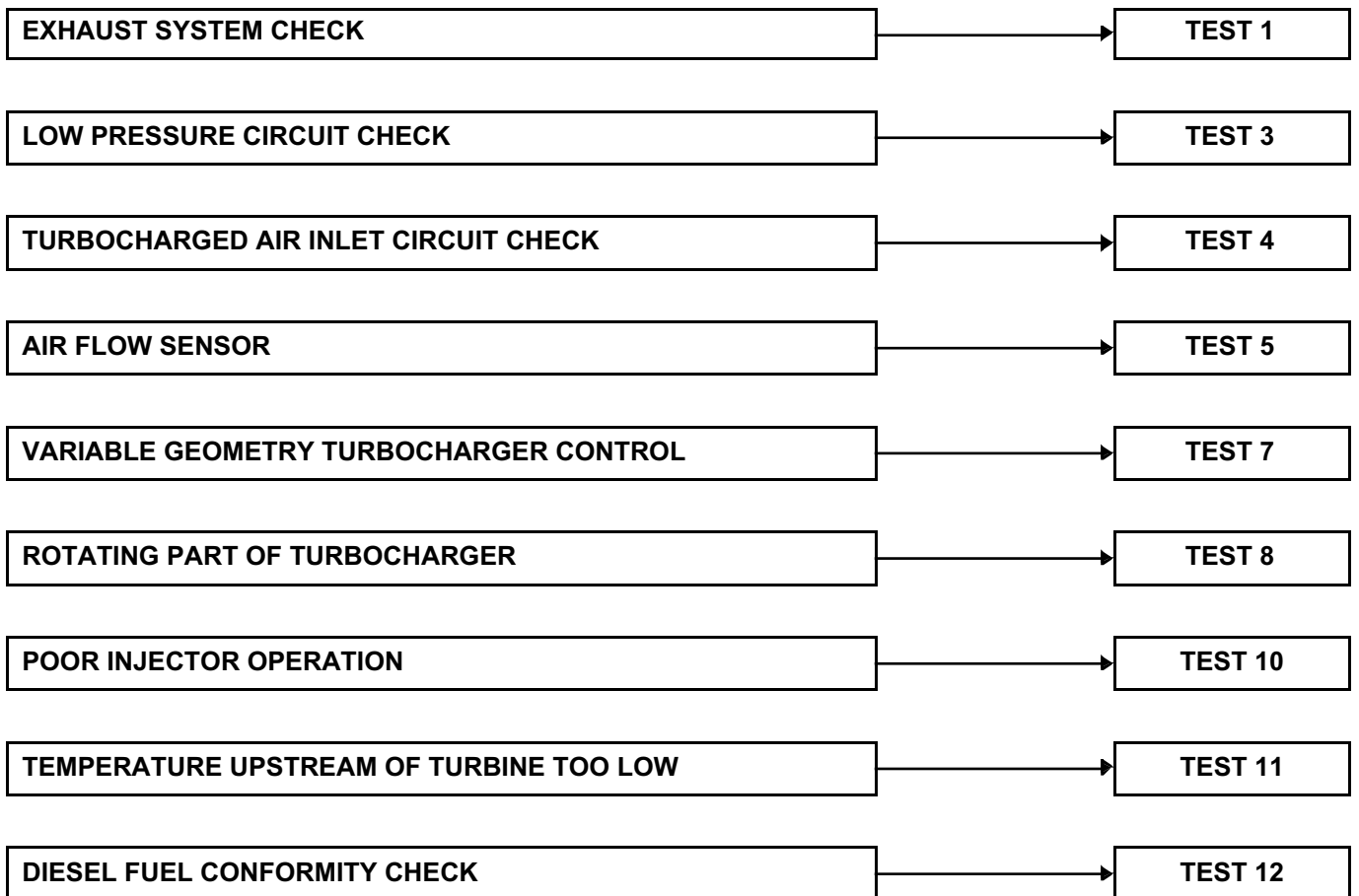
ALP output no.	Output conditions for ALP 9	Cause - type of driving	Regeneration frequency	What to tell the customer?
Output 1	The last 10 regeneration attempts have failed due to the engine cutting out.	Regeneration failures caused by engine cut-off .	No regeneration frequency analysis.	Explain to the customer the need to wait until the end of regeneration (warning light goes out) before switching off the engine.
Output 2	The last 10 regeneration attempts have failed but not because of the engine cutting out.	Unsuitable driving conditions.	No regeneration frequency analysis.	Explain again to the customer the driving criteria for when the warning light comes on.
Output 3	After successful regenerations stored in the memory, the warning light did not come on. No interval can be calculated.	Since the last successful stored regenerations, the driving conditions have not allowed the warning light to come on.	Should be normal	Vehicle correct
Output 4	The interval between a successful regeneration and the particle filter warning light coming on is correct (above the lowest possible values). The system does not have any irregular components.	Unfavourable driving (urban zone, underspeed, etc.)	Normal	Vehicle correct

AFTER REPAIR	Carry out a road test, then check with the diagnostic tool .
---------------------	---

DIESEL INJECTION

Fault finding – Test

13B



TEST 1

Exhaust system check

Engine stopped: Check that the silencer outlet is not blocked. Repair or replace the silencer, if necessary.

Check the seal of the exhaust manifold on the contact surface between the turbocharger and the exhaust manifold.
Is the seal in order?

NO →

Repair or replace the faulty part.

YES ↓

Loosen the catalytic converter on the turbocharger side.
Place a wooden block between the two parts.
Start the vehicle and check if the engine runs better.
Is the engine running normally?

NO →

The exhaust system is not the cause of the fault; repeat the engine fault finding (see **Customer complaints - Fault finding chart**).

YES ↓

Retighten the catalytic converter.
Loosen or separate the particle filter on the catalytic converter side. Place a wooden block between the two parts if necessary.
Start the vehicle and check if the engine runs better.
Is the engine running normally?

NO →

Replace the catalytic converter.

YES ↓

Retighten the particle filter.
Loosen or uncouple the silencer on the side of the particle filter (see **MR 395, 402, 405, 364, 370, Mechanical, 19B Exhaust, Parts and consumables for repair**).
Start the vehicle and check if the engine runs better.
Is the engine running normally?

NO →

Replace the particle filter (see **MR 395, 402, 405, 364, 370, Mechanical, 19B, Exhaust, Particle filter, Removal - Refitting**).
Reinitialise the parameters after the particle filter is replaced.
Run command **SC036 Reinitialise programming** and select **After particle filter replacement**.

YES ↓

Replace the silencer.

TEST 3

Low pressure circuit check

Check the fuel filter:

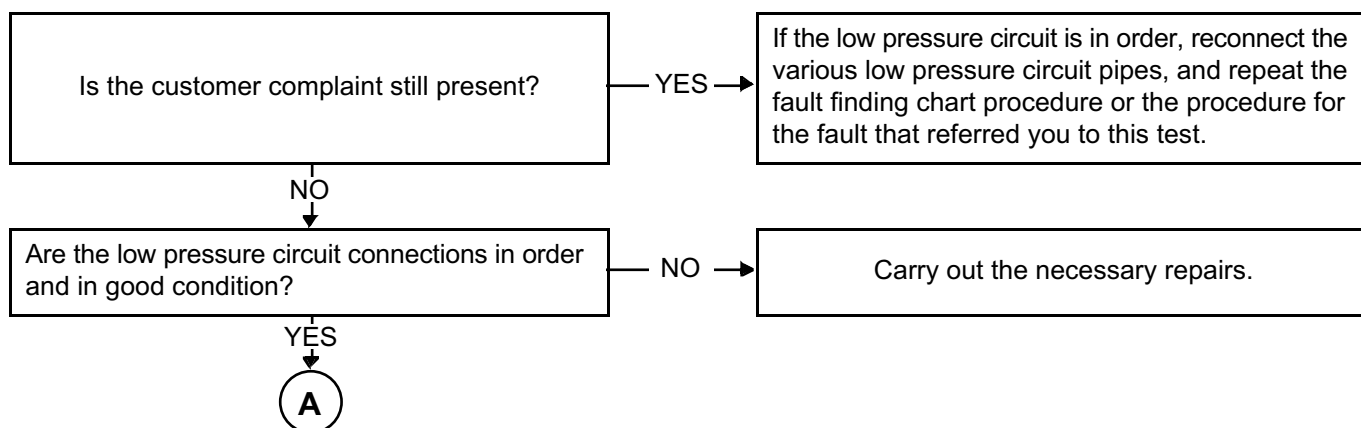
- Conformity of the fuel filter (correct part number and **RENAULT** filter).
- Positioning and degree of clogging of the filter cartridge.
- Positioning and condition of the seals.
- **If there is metal swarf in the filter:**
Replace the fuel filter, bleed the circuit and **continue the fault finding procedure.**

Supplying the injection system with fuel from an additional tank.

This operation aims to detect possible faults in the low pressure supply system of a vehicle by replacing it entirely with an additional tank.

Mode:

- Disconnect the diesel fuel supply pipe at the fuel filter inlet and block it with a plug.
- Connect a pipe to the fuel filter inlet and insert the other end in a **clean** container with a capacity of approximately **5 litres**.
- Disconnect the diesel fuel return pipe at the diesel temperature sensor (pump return and injector return join), and block it using a plug.
- Connect a transparent pipe to the union of the diesel fuel temperature sensor, and insert the other end in the container.
- Fill the container with **clean** diesel fuel.
- Start the engine and let the system drain itself of its air (there must not be any air bubbles in the return pipe).



TEST 3 CONTINUED

A
YES

Check the condition and operation of the priming bulb. Perform repairs if necessary and continue the test.

Check the condition of all the low pressure diesel pipes from the tank to the injection pump (in particular no pinching of pipes).

If the fault is still present with a low fuel level, check the consistency of the actual fuel level and that indicated on the instrument panel.
The transfer pump is supplied via a Venturi pipe located underneath it.
Check that the opening of the venturi (**6 mm to 8 mm** in diameter) is not blocked by dirt contained in the fuel tank.
Check the priming of the low pressure diesel circuit.

Check that the fuel tank is correctly filled and that the fuel is correct (see **Test 12 Diesel fuel conformity check**).
If the diesel fuel is not correct:
– Replace the fuel (diesel fuel).
– Replace the fuel filter (diesel fuel).
– Bleed the low and high pressure fuel circuit (diesel fuel).

Low pressure circuit correct.

TEST 4

Turbocharged air inlet circuit check

Engine stopped: Check the **sealing** (leak or air intake) of the low and high pressure air circuit (before/after turbocharger).

Check the parts that are abnormally greasy of the circuit and reveal a lack of tightness.

Check:

- the condition and fitting of the ducts (foreign, clogged, not joined, kinked, broken, pierced, cut bodies, tightness of the mounting bolts, etc.).
- the presence, condition and fitting of the seals.
- the present and tightening of the clamps.
- The fitting of the turbocharging pressure sensor.
- The pipes and the take-off point between the air duct and the turbocharging sensor.

Carry out the necessary repairs.

Check the air filter.

Check:

- That the inlet and outlet of the air filter unit is not blocked.
- the condition and the assembly of the air filter unit (disconnected, broken, pierced ...).
- The cleanliness, the conformity and the non-distortion of the filter element.
- The air flowmeter: run **Test 5 Air flowmeter**.

Carry out the necessary repairs

Check:

- the condition of the damper valve,
- the tightening of the mounting bolts,
- cracks in the damper valve.

Carry out the necessary repairs.

A

TEST 4 CONTINUED

Turbocharged air inlet circuit check

A

Check that there is no leak at the exhaust manifold, in particular at the exhaust manifold/turbocharger connection. Check the exhaust, run **Test 1 Exhaust pipe check**. Carry out the necessary repairs.

Visually check the EGR circuit sealing.

Note:

The operational clearance of the EGR exchanger flap shaft leaves slight traces of a black substance due to inconsequential leakage. Do not replace this part.

- Check the condition of the intercooler:
 - clogging,
 - leaks (vehicle stationary, stabilise the engine speed between **3500 rpm** and **4000 rpm** and check that there are no leaks).
- Replace if necessary.

Check that the turbocharging pressure sensor take-off point is not blocked. Carry out the necessary repairs

END OF TEST.

TEST 5

Air flowmeter

Damage to electrical components

Visual inspection: remove the flow sensor - the components should not be broken.

Replace the air flowmeter if necessary.



Oxidation of the electrical components

Visual inspection: remove the air flowmeter, there should not be any greenish deposits on the electrical components.

Replace the air flowmeter if necessary.



Clogging of the air flowmeter

Test:

- Check the values for conformity:
- During the first 5 seconds after starting,
- **PR064 Coolant temperature: 80°C.**
- **PR055 Engine speed:** idling.
- **PR059 Air temperature:** between 30 and 70°C.
- **PR146 Inlet air flow:** between 20 and 28 kg/h.
- **PR220 EGR valve OCR*:** between 22 and 30%.
- **PR132 Air flow:** between 20 and 28 kg/h.
- **PR051 EGR valve position feedback:** between 22 and 30%.
- **PR023 Air flow difference:** between - 50 and + 50 mg/stroke.
- Apply the procedure for **DF056 Air flow sensor circuit** for the checks on the air flowmeter.

Replace the air flowmeter if necessary.

END OF TEST.

OCR*: Opening Cyclic Ratio

TEST 7

Variable geometry turbocharger control

STEP 1

Is the pneumatic portion of the control circuit correct?

Start the engine.

Check that the battery voltage is greater than **13 V** (if not correct, take corrective measures before running the test).

Wait until the coolant temperature is greater than **80°C**

Measure the turbocharger control diaphragm vacuum:

- Disconnect the turbocharger control diaphragm pipe and connect a pressure gauge in place.
- Quickly depress the accelerator pedal to the full load position **for 1 second**. During this second, the vacuum value must be: **$X \leq -630 \text{ mbar}$** .
- Is the vacuum value correct?
- Before proceeding to the next step, reconnect everything that was disconnected during this step.

YES →

Move on to
STEP 7.

NO
↓

STEP 2

Is the pneumatic circuit correct from the solenoid valve to the turbocharger diaphragm?

- Disconnect the pipe at the solenoid valve outlet and connect the pressure gauge in its place.
- Quickly depress the accelerator pedal to the full load position **for 1 second**. During this second, the vacuum must be: **$X \leq -630 \text{ mbar}$** .
- Is the vacuum value correct?
- Before proceeding to the next step, reconnect everything that was disconnected during this step.

YES →

Repair the
pneumatic
circuit from the
solenoid valve to
the diaphragm,
then proceed
to **STEP 5**

NO
↓

Step 3

Is the electrical portion of the solenoid valve correct?

Check the condition of the connectors of the turbocharging solenoid valve (connection, oxidation, bent pins, etc.).

Measure the **resistance** between connections **3FB** and **3MG** of component **1475**. The resistance value must be between: **$18 \Omega < X < 22 \Omega$** (at **23°C**).

Before proceeding to the next step, reconnect everything that was disconnected during this step.

NO →

Replace the
turbocharging
solenoid valve,
then proceed to
STEP 5

YES
↓



TEST 7 CONTINUED 1

A
YES
↓

STEP 4

Is the vacuum circuit correct?

- Disconnect the pipe at the solenoid valve inlet and connect the pressure gauge in its place.
- Measure the vacuum with the engine at idle speed. The vacuum value must be:
 $X \leq -850$ mbar.
- Is the vacuum value correct?
- Before proceeding to the next step, reconnect everything that was disconnected during this step.

NO →

Ensure the
conformity of the
vacuum circuit,
then proceed to
STEP 5

YES
↓

Replace the turbocharging solenoid valve,
then proceed to **STEP 5**.

TEST 7 CONTINUED 2

STEP 5

Is the pneumatic portion of the control circuit now correct?
Wait until the coolant temperature is greater than **80°C**
Measure the turbocharger control diaphragm vacuum:
– Disconnect the turbocharger control diaphragm pipe and connect a pressure gauge in place.
– Quickly depress the accelerator pedal fully for **1 second**.
During this second, the vacuum value must be: **$X \leq -630$ mbar**.
– Is the vacuum value correct?
– Before proceeding to the next step, reconnect everything that was disconnected during this step.

Return to **STEP 3** of the test

YES

STEP 6

Perform a road check to confirm that the customer complaint is corrected

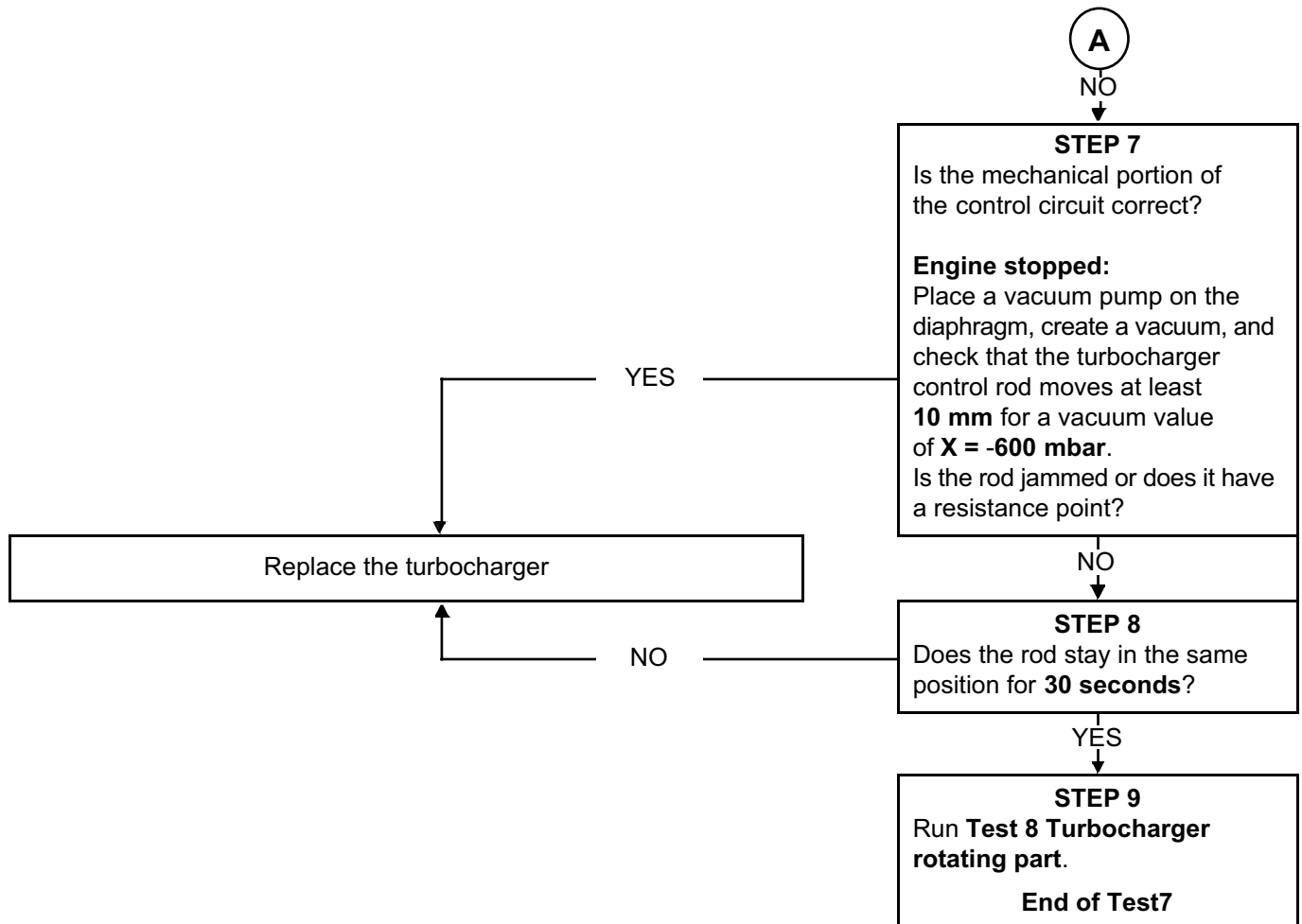
NO

A

YES

End of test7

**TEST 7
CONTINUED 3**



TEST 8

Rotating part of a turbocharger

With the engine cold and stopped, remove the air inlet duct from the turbocharger; check manually if the shaft of the turbine and compressor turns.

Does the shaft turn?

NO →

Replace the turbocharger.

YES ↓

Visually check the condition of the compressor wheel and then the turbine wheel (see diagrams **110737**, **110738**, **110880**).

Are the wheels in good condition?

NO →

The turbocharger could be sticking due to poor lubrication of the bearings. Check for possible clogging of the lubrication circuit and the engine oil pressure. Apply the method described in **Technical Note 3938A, Broken turbocharger: Replacement instructions** that is applicable to this engine.

– Replace the turbocharger.
Apply the procedure described in **Technical Note 3938A** that is applicable to this engine.

YES ↓

End of test.

– Replace the turbocharger.
Apply the procedure described in **Technical Note 3938A** that is applicable to this engine.

If the rotating section is broken:
Apply the procedure described in **Technical Note 3938A** that is applicable to this engine.

IMPORTANT:

Risk of destroying the new turbocharger and the engine if the air circuit is not cleaned and the oil and its filter are not replaced.

This is the subject of **Technical Note 3938A**, which is applicable to this engine.

TEST 8
CONTINUED 1

Risks:

In the event of destruction of the turbocharger bearings, the steel and bronze swarf from this destruction are evacuated through the turbocharger oil to the engine's oil sump. The swarf can, consequently, be returned to the oil circuit via the oil pump, then cause widespread contamination of the engine oil circuit. This causes abnormal wear on the crankshaft bearing bushings, the con rod bearing shells and the camshafts, etc.

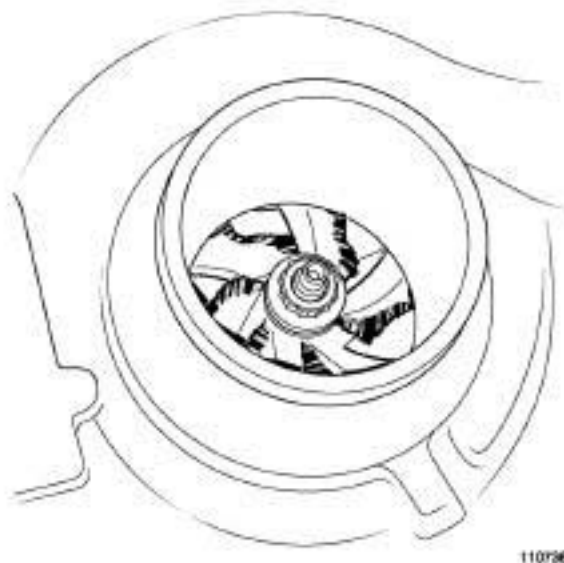
In the event of the compressor wheel breaking, parts of the blades may be found in the intercooler or in the air circuit ducts. The turbine wheel could easily be found in the catalytic converter.

TEST 8 CONTINUED 2

Deformed, twisted blade ("soft" foreign body)



Broken blades ("hard" foreign body)



TEST 10

Incorrect injector operation

Part A (for VDiag 18, 04 and 44):

Fuel regulation balance check for each injector (individual correction):

- In the **CLIP diagnostic tool**, choose the **Fuel circuit** subfunction.
- With the engine idling and the fuel temperature **> 50°C**, view the flow correction values of each injector (individual correction), i.e.:
 - **PR364 Cylinder no. 1 fuel flow correction;**
 - **PR405 Cylinder no. 2 fuel flow correction;**
 - **PR406 Cylinder no. 3 fuel flow correction;**
 - **PR365 Cylinder no. 4 fuel flow correction.**

The **normal value** for flow correction for an injector is approximately **X = ±1.5 mg/stroke**. This tolerance value may increase with time, but indicates an injector / cylinder fault if it exceeds **X = ±5 mg/stroke**.

Check the **IMA*** injector codes, by comparing the **IMA** codes engraved on the injectors (the **IMA** codes are read from left to right) and the **IMA** codes read with the **diagnostic tool**. If the **IMA** codes are correct, continue the fault finding procedure, if not, enter the incorrect **IMA** codes using command **SC002 Enter injector codes** (see **Interpretation of commands**).

1- If at least one of these values is **X > + 5 mg/stroke**

- Check the valve clearance.
- Check the condition of the engine and test the compressions. Use a compression gauge, the **M9R** hose end piece, part number **Mot.1772** and apply command **VP036 Fuel supply inhibition** (see **Interpretation of commands**).
- If the compression test reveals a cylinder fault, carry out the necessary repairs.
- If the compression is correct, check the injector fitting conforms according to the procedure (see **MR 402 (Vel Satis ph2)**, **MR 395 (Laguna II ph2)**, **MR 364 (Mégane II ph2)**, **MR 370 (Scénic II ph2)** or **MR 405 (Espace IV ph2) Mechanical, 13B, Diesel injection, Diesel injectors: Removal - Refitting**).
- Check the fuel regulation again for each injector (individual correction).
- If the customer complaint is still present, replace the injector* concerned.
- See paragraph **Part C: Confirmation of flow correction fault finding for each injector**, for confirmation of the fault finding.

IMA*: Individual injector correction

TEST 10 CONTINUED 1

2. If at least one of these values is $X < -5$ mg/stroke

- Check the valve clearance.
- Check the level and condition of the engine oil.
- Remove the injector with the largest adjustment.
- If there is contamination via the diesel, check the condition of the cylinder concerned (cylinder, piston, valves).
- Replace the injector* concerned.
- See paragraph **Part C**, for confirmation of the fault finding.

3. If at least one of these values does not stabilise (20 seconds after starting):

- Check the low pressure circuit using **Test 3 Low pressure circuit test**.
- Check the fuel is correct by carrying out **Test 12 Diesel fuel conformity check**.

See paragraph **Part C of Test 10**, for confirmation of the fault finding.

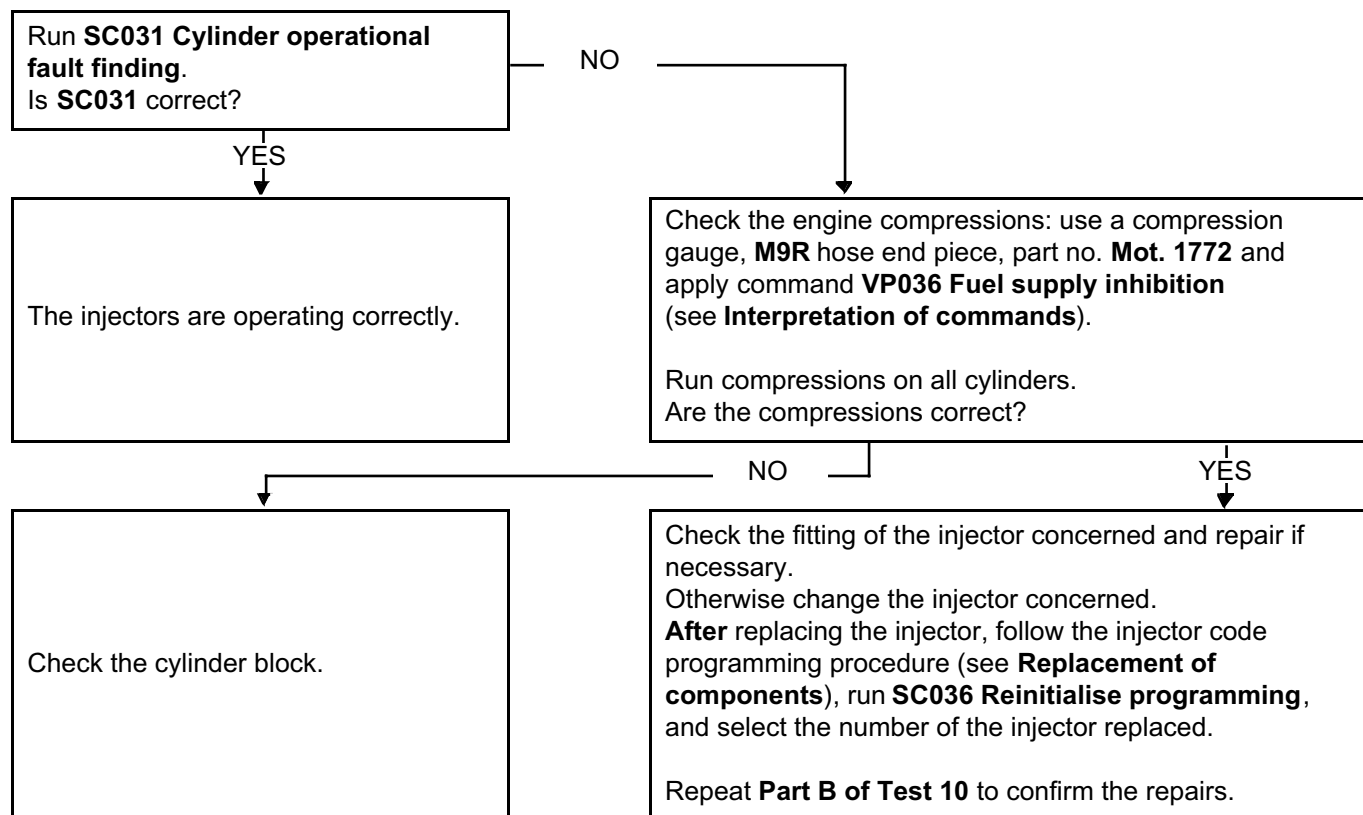
After replacing an injector, follow the injector code programming procedure (see **Replacement of components**), run **SC036 Reinitialise programming** and select the number of the injector replaced.

IMPORTANT:

When removing / refitting injectors, follow the cleanliness and safety instructions (see **MR 395 (Laguna II ph2)**, **402 (Vel Satis)**, **405 (Espace IV Ph2)**, **364 (Megane II ph2)**, **370 (Scenic II ph2) Mechanical**, **13B, Diesel injection, Diesel injectors: Removal - Refitting**).

TEST 10 CONTINUED 2

Part B (except VDiag 18, 04 and 44):



IMPORTANT:

When removing / refitting injectors, follow the cleanliness and safety instructions (see **MR 395 (Laguna II ph2), 402 (Vel Satis), 405 (Espace IV Ph2), 364 (Megane II ph2), 370 (Scenic II ph2) Mechanical, 13B, Diesel injection, Diesel injectors: Removal - Refitting**).

TEST 10 CONTINUED 3

Part C:

Confirmation of flow correction fault finding for each injector (individual correction):

Clear the faults and carry out a test with the **engine at idle speed** and the fuel temperature **> 50°C**, check that no faults appear on the **diagnostic tool** and that the correction values do not reach **$X = \pm 5$ mg/stroke** to confirm the repair.

- If one or more cylinders have flow correction values for an injector which exceed **$X = \pm 5$ mg/stroke**, follow the fault finding procedure described in **Part A: Fuel regulation balance check for each injector (individual) of Test 10**.
- Otherwise, follow the fault finding procedure described in **Part D of Test 10**.

Part D:

Injector nozzle sealing check:

Check the level and condition of the engine oil:

- If there is contamination from the diesel fuel, the leaking injector nozzle will be "greasy".
- Disconnect the preheating relay.
- Ensure that this is not caused by rising engine oil by checking the engine compression values.
- Check the condition of the heater plug: this must not be wet. If it is, change the defective injector.
- If the engine compression values are correct: locate the faulty injector by looking at the condition of the cylinders and the pistons through the heater plug wells (greasy cylinder, overheating, signs of damage, etc.).
- If the cylinder - piston examination is not conclusive, remove the injectors and change the one with the greasy nozzle.
- If the fault finding checks do not enable the engine to be repaired, contact the Techline.

After replacing the injector, follow the injector code programming procedure (see **Replacement of components**), run **SC036 Reinitialise programming**, and select the number of the injector replaced.

Note:

Before replacing an injector, check for the sealing washer and its conformity (see **Fault finding chart ALP 4 Poor performance**).

IMPORTANT:

When removing / refitting injectors, follow the cleanliness and safety instructions (see **MR 395 (Laguna II ph2), 402 (Vel Satis), 405 (Espace IV Ph2), 364 (Megane II ph2), 370 (Scenic II ph2) Mechanical, 13B, Diesel injection, Diesel injectors: Removal - Refitting**).

TEST 11

Temperature upstream of turbine too low

Perform a complete fault finding of the injection computer using the diagnostic tool.
Are there any present or stored faults?

— YES →

Apply the procedure for dealing with the associated faults.

NO
↓

Run Test 1 Exhaust system check
Is the exhaust pipe correct?

— NO —

YES
↓

Apply Test 4 Turbocharged air inlet circuit check.
Is the inlet circuit in order?

— NO —

YES
↓

Run Test 4 Air flowmeter
Is the air flow sensor correct?

— NO —

YES
↓

Run Test 10 Poor injector operation
Are the injectors correct?

— NO —

YES
↓

Contact the Techline.

Repair then carry out another particle filter regeneration.
Run command **SC017 "Particle filter regeneration"** (see **Interpretation of commands**).

If the second regeneration is successful, it is **essential** to change the engine oil and replace the oil filter.

If the second regeneration fails, contact the Techline.

TEST 12

Diesel fuel conformity check

WARNING

During this operation, it is essential to:

- refrain from smoking or bringing incandescent objects close to the work area,
- guard against petrol splashes caused by the residual pressure in the pipes,
- wear safety goggles with side guards,
- wear leaktight gloves (Nitrile type).

IMPORTANT

- To avoid any corrosion or damage, protect the areas on which fuel is likely to run.
- To prevent impurities from entering the circuit, place protective plugs on all fuel circuit components exposed to the open air.

Preparations:

Weigh an empty **1300 ml plastic cup** (part no. **77 11 171 413**) with its cover (part no. **77 11 171 416**) using electronic scales such as those used in body paint workshops (example: **PANDA** part no. **77 11 224 995**).

Record the weight of the empty plastic cup.

This type of plastic cup is used to prepare paint.

Remove **1 litre** of fuel from the **diesel fuel filter outlet** (see **MR395 (Laguna II ph2)** or **MR402 (Vel Satis ph2)** or **MR405 (Espace IV ph2)** or **MR364 (Mégane II ph2)** or **MR370 (Scénic II ph2)**, **Mechanical, 19C, Tank, Fuel tank: Draining**), using a pneumatic transfer pump (part no. **634-200**) and place it in the **1300 ml** plastic cup. Cover the plastic cup with its cover and let it settle for approximately **2 minutes**.

Is the fuel cloudy or does it separate into two parts?

YES →

Presence of water in diesel fuel, the fuel is not compliant.
Drain the fuel circuit, including the tank (see **MR395 (Laguna II ph2)** or **MR402 (Vel Satis ph2)** or **MR405 (Espace IV ph2)** or **MR364 (Mégane II ph2)** or **MR370 (Scénic II ph2)**, **Mechanical, 19C, Tank, Fuel tank: Draining**).

NO

A

DIESEL INJECTION

Fault finding – Test

13B

TEST 12 CONTINUED 1

A
NO
↓

Weigh the diesel fuel and note the fuel weight after subtracting the weight of the empty plastic cup and its cover. Does the fuel weight fall between the minimum and maximum weights given in the table below?

Calculated weight (g.)		Fuel temperature (°C)
Min. weight	Max. weight	
821	846	13
821	846	14
820	845	15
819	844	16
819	844	17
818	843	18
817	842	19
816	841	20
816	841	21
815	840	22
814	839	23
814	839	24
813	838	25

Check the fuel temperature by immersing a thermometer in the plastic cup.

YES
↓

End of test.

NO
↓

The fuel is not correct.

If the fuel weight is less than the minimum value then there is petrol in the diesel fuel.

If the fuel weight is greater than the minimum value then there is oil in the diesel fuel.

Drain the fuel circuit, including the tank (see **MR395 (Laguna II ph2)** or **MR402 (Vel Satis ph2)** or **MR405 (Espace IV ph2)** or **MR364 (Mégane II ph2)** or **MR370 (Scénic II ph2)**, Mechanical, 19C, Tank, Fuel tank: Draining).

TEST 12 CONTINUED 2

Note:

If the weight measured reaches the limit values, the measurement can be performed with a **2230 ml plastic cup (part no. 77 11 171 414)** and its cover (**part no. 77 11 171 417**):

- Carry out a quick test drive in order to mix the fuel, then remove **2 l** of fuel.
- Perform the test again and check the results by multiplying the limit values by 2.

Contact the Techline if you have doubts or problems with the customer.