

# MEGANE

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## 1 Engine and peripherals

### 13B

#### DIESEL INJECTION

Siemens Injection SID301 and 304

Vdiag No.: 44-45-48-49-4D-4C

Program No.: B1 and B2

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V14

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."

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### 1. SCOPE OF THIS DOCUMENT

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

*Vehicle(s):* **Clio III, Modus, Mégane II ph2, Scénic II ph2 and Kangoo II.**  
*Function concerned:* **High pressure direct diesel injection (Siemens SID 301 and SID 304)**

*Computer name:* **Injection SID301 and SID304**  
*Program No.:* **B1, B2**  
*Vdiag No.:* **44-45-48-49-4D-4C**

### 2. PREREQUISITES FOR FAULT FINDING

#### Documentation type

**Fault finding procedures** (this manual):

- 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
<b>Elé. 1681</b>	Universal bornier
	Multimeter.

### 3. REMINDERS

#### Procedure

To run fault finding on the vehicle computers, switch on the ignition.

Depending on the type of vehicle equipment, proceed as follows:

**For vehicles with key-operated/radio frequency remote control**, use the key to switch on the ignition.

#### For vehicles with a Renault card

- with the vehicle card in the card reader,
- press and hold the Start button (longer than **5 seconds**) with start-up conditions not fulfilled,
- connect the **diagnostic tool** and perform the required operations.

To cut off the + after ignition feed, proceed as follows:

**For vehicles with key/radio frequency remote control**, use the key to switch off the ignition.

#### For vehicles with a Renault card:

- press the Start button twice briefly (less than 3 seconds),
- ensure that the + after ignition feed has been cut off by checking that the computer warning lights on the instrument panel have gone out.

### 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 considered when using the **diagnostic tool** after the + after ignition feed is switched on (without any action on the system components).

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 instructions in 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 component detected as faulty,
- the condition of the wires (melted or split insulation, wear).

### Conformity check

The aim of the conformity check is to check data that does not produce a fault on the **diagnostic tool** when 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 repairs.

This section gives the fault finding procedures for statuses and parameters and the conditions for checking them.

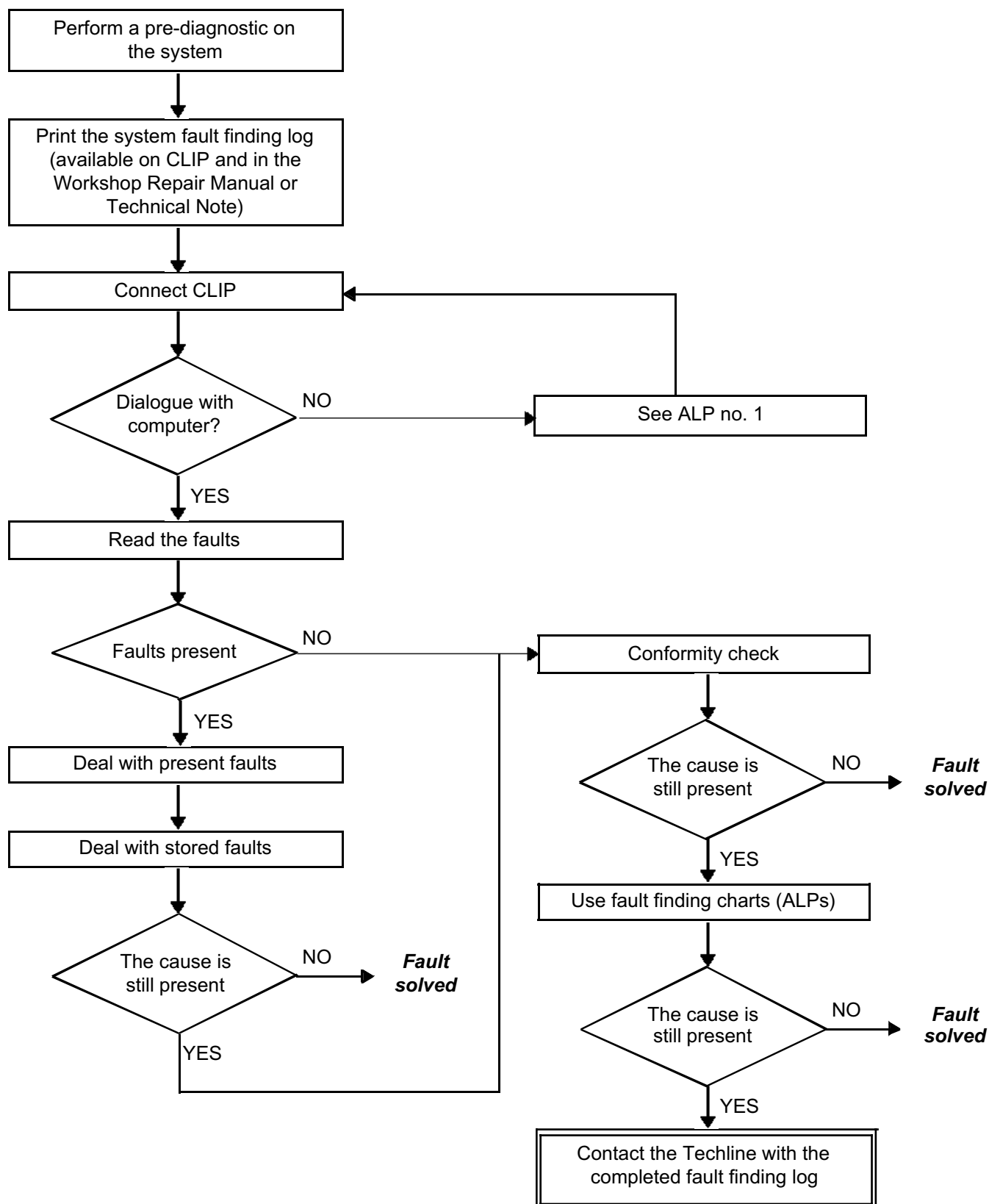
If a status is not behaving normally or a parameter is outside the permitted tolerance values, consult the corresponding fault finding page.

### Customer complaints - Fault finding chart

If the test with the **diagnostic tool** is OK but the customer complaint is still present, the fault should be processed 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)

##### Wiring check

##### Fault finding problems

Disconnecting the connectors and/or manipulating the wiring may temporarily remove 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

While manipulating the wiring, use the **diagnostic tool** to note any change in fault status from **stored** to **present**.  
Make sure that the connectors are properly locked.  
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 no clips or tabs have been dislodged 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 to another wire.

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

### 5. FAULT FINDING LOG



**IMPORTANT!**

#### **IMPORTANT**

Any fault on a complex system requires thorough fault finding 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 Techline,
- for approval requests when replacing parts for which approval is mandatory,
- 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

The safety instructions must be followed at all times when working on components, to avoid damage or 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 associated with contamination are:

- damage to or destruction of the high pressure injection system,
- components jamming,
- a component leaking.

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

The cleanliness principle must be applied from the filter 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,
- ambient air
- 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 electrical connection faults.

### II - INSTRUCTIONS TO BE FOLLOWED PRIOR TO ALL OPERATIONS

#### IMPORTANT

Before any work is carried out 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.

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 number **77 11 211 707**). Using normal cloth or paper is prohibited. They are not lint-free and could contaminate the fuel circuit. Each cloth should only be used once.

Use fresh cleaning agent for each operation (used cleaning agent is contaminated). Pour it into an uncontaminated container.

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.

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

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. Ambient air carries contamination.

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

Using a brush, cleaning agent, air gun, sponge 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.



**High pressure pump:**

The high pressure pump is located upstream of the common rail.

**Rail pressure sensor:**

The sensor is fitted to the common rail.

**Rail pressure regulator:**

The regulator is fitted on the high pressure pump.

**Fuel flow regulator:**

The regulator is fitted on the high pressure pump.

**Piezoelectric injectors:**

The injectors are fitted on the cylinder head after the common rail.

**Vacuum pump:**

The vacuum pump is fitted at the end of the camshaft.

**Control solenoid valve:**

The solenoid valve is located on the turbocharger.

**Turbocharger:**

The turbocharger is located after the exhaust manifold.

**Intake air pressure sensor:**

The sensor is integrated into the injection computer.

**Turbocharger pressure sensor:**

The turbocharger pressure sensor is located on the air circuit between the turbocharger and the damper valve.

**Air mass flow meter:**

The air mass flow meter is located at the air circuit inlet and integrates the air temperature sensor.

**EGR valve:**

The EGR valve is located between the inlet manifold and the exhaust manifold.

**EGR position sensor:**

The sensor is integrated into the EGR valve.

**Damper valve:**

The damper valve is located before the inlet manifold (Vdiag 44, 45, 48, 49 and 4D only).

**Particle filter:**

The filter is located on the exhaust pipe after the catalytic converter.

**TDC sensor:**

The sensor is located on the flywheel.

**Camshaft sensor:**

The sensor is located at the end of the camshaft.

**Electric coolant pump:**

The electric coolant pump is located between the heating elements and the turbocharger (only on vehicles equipped with a particle filter).

**Refrigerant pressure sensor:**

The sensor is located on the coolant circuit.

**Heating elements:**

The heating elements are located in the cooling circuit before the additional coolant pump which cools the turbocharger (Vdiag 45, 49 and 4D only).

**Coolant temperature sensor:**

The sensor is located on the cylinder head near the engine water chamber.

**Air temperature sensor:**

The air temperature sensor is located at the air circuit inlet, integrated into the air flowmeter.

**Turbocharging pressure sensor solenoid valve:**

The solenoid valve is located on the turbocharger.

**Catalytic converter:**

The catalytic converter is located upstream of the exhaust system and downstream of the turbocharger.

**Fuel temperature sensor:**

The sensor is located near the injection pump and injector return.

**Catalytic converter downstream temperature sensor:**

The sensor is located after the catalytic converter.

**Turbine upstream temperature sensor:**

This sensor is located between the exhaust pipe and the turbocharger.

**Cruise control/speed limiter on/off switch:**

This switch is located in the passenger compartment to the left of the steering wheel near the lighting dimmer.

**Water in diesel fuel sensor (optional):**

This sensor is located in the diesel filter.

**Fan unit relay:**

The relay is located on the cooling radiator.

**Accelerator potentiometer:**

The potentiometer is located on the accelerator pedal.

**Brake pedal switch:**

The switch is located on the brake pedal.

**Clutch pedal switch:**

The switch is located on the clutch pedal.

**Heater plugs:**

The heater plugs are located on the cylinder head.

**Particle filter injector:**

The injector is located between the particle filter injector fuel pump and the exhaust pipe. (Vdiag 45, 49 and 4D only)

**Electric fuel pump:**

The pump is located between the tank and the particle filter injector fuel filter. (Vdiag 45, 49 and 4D only)

## Fault finding – List and location of components

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### **Particle filter downstream temperature sensor:**

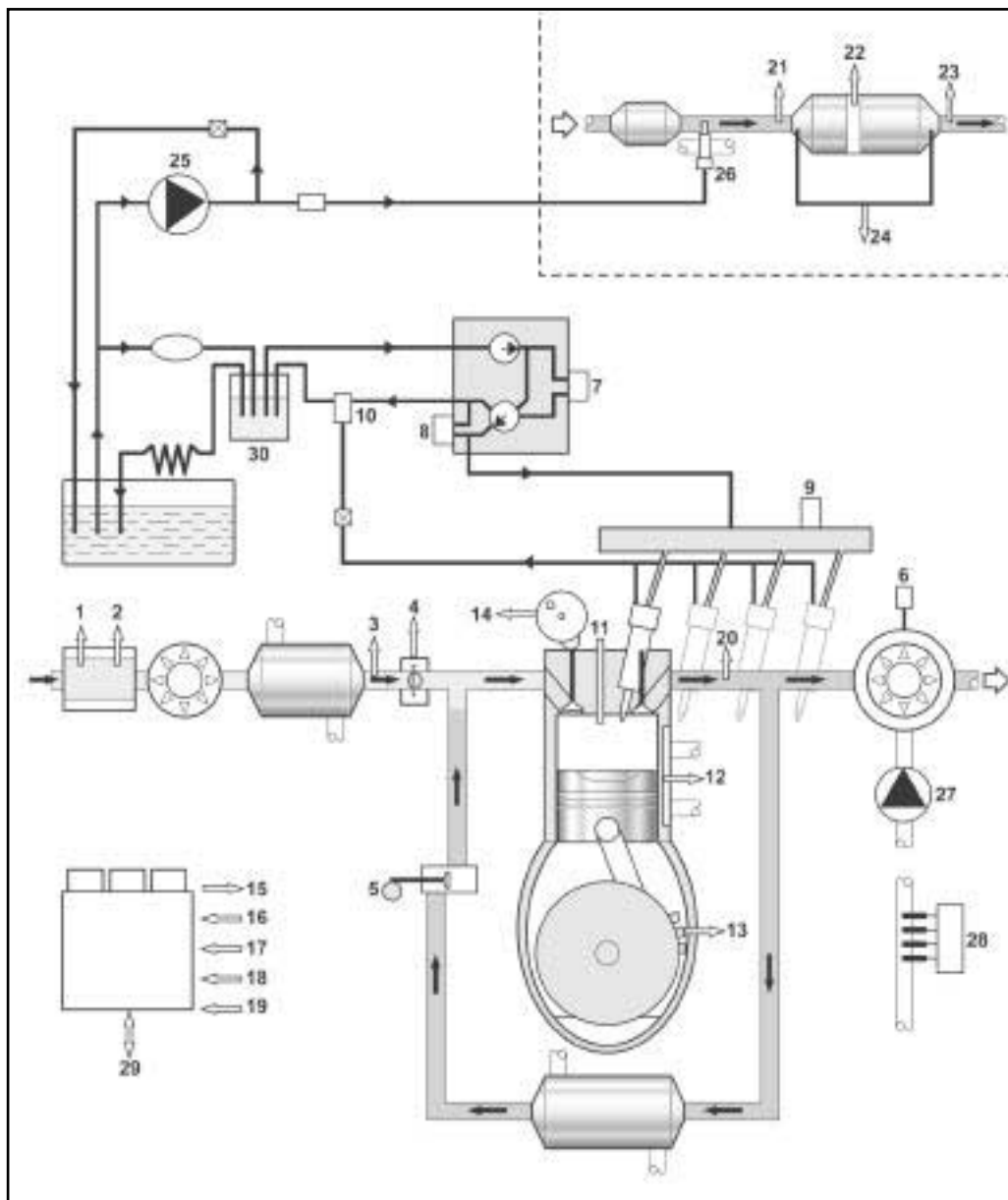
The sensor is located after the particle filter. (Vdiag 45, 49 and 4D only)

### **Particle filter upstream temperature sensor:**

The sensor is located before the particle filter. (Vdiag 45, 49 and 4D only)

### **Particle filter differential pressure sensor:**

The sensor is located on the particle filter. (Vdiag 45, 49 and 4D only)



- |  |  |
|--|--|
| 1 Flowmeter  | 16 Freon pressure sensor                                   |
| 2 Air temperature sensor (integrated into the flowmeter) | 17 Accelerator pedal                                       |
| 3 Turbocharging pressure sensor                          | 18 Clutch switch   |
| 4 Air flap   | 19 Brake switch  |
| 5 Direct current EGR valve                               | 20 Turbine upstream temperature sensor                     |
| 6 Variable geometry turbocharger solenoid valve (VGT)    | 21 Catalytic converter downstream temperature sensor       |
| 7 Flow regulator   | 22 Particle filter upstream temperature sensor (SID 304)   |
| 8 Pressure regulator                                     | 23 Particle filter downstream temperature sensor (SID 304) |
| 9 Rail pressure sensor                                   | 24 Particle filter differential pressure sensor (SID 304)  |
| 10 Fuel temperature sensor                               | 25 Particle filter injector fuel pump (SID 304)            |
| 11 Heater plugs  | 26 Particle filter injector (SID 304)                      |
| 12 Coolant temperature sensor                            | 27 Electric coolant pump (SID 304)                         |
| 13 TDC sensor  | 28 Heating elements (SID 304)                              |
| 14 Camshaft sensor                                       | 29 Multiplex line network (multiplexing)                   |
| 15 Atmospheric pressure sensor                           | 30 Water in diesel fuel sensor (optional)                  |

### SYSTEM FLOWCHART

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

The Siemens VDO piezo Common Rail system used on the K9K Step 2 engine is a second generation Common Rail injection system. Fuel pressure in the rail can reach a maximum of **1650 bar**.

The Siemens VDO piezo Common Rail system uses injectors which are controlled by piezoelectric actuators. The fuel is pressurised by means of a high pressure pump then sent to a rail which supplies the four injectors.

The system includes two subsystems, which have different fuel pressure levels:

- the low pressure system which includes the tank, diesel fuel filter, internal fuel transfer pump and injector return pipes,
- the high pressure system which includes the high pressure pump, rail, injectors and high pressure pipes.

There are a number of sensors and regulating actuators for controlling and monitoring the entire system.

It is fitted with a **112- track (or 128- track for Kangoo II) SIEMENS computer (SID 301 and SID 304)**.

The system comprises:

- a priming bulb,
- a diesel filter,
- a high pressure pump (HPP) with a fuel pressure solenoid valve (PCV), a fuel flow solenoid valve (VCV) and an internal fuel transfer pump (ITP, low pressure pump),
- an injector rail,
- a rail pressure sensor,
- four piezoelectric injectors,
- a fuel temperature sensor,
- a coolant temperature sensor,
- a camshaft sensor,
- a TDC sensor,
- a turbocharger pressure sensor,
- an exhaust gas recirculation solenoid valve with integrated position sensor (EGR),
- an accelerator pedal potentiometer,
- an atmospheric pressure sensor integrated into the injection computer,
- an air mass flowmeter with integrated air temperature sensor,
- an air damper valve (Vdiag 44, 45, 48, 49 and 4D only),
- a temperature sensor upstream of the turbine,
- an antipollution system:
  - a temperature sensor upstream of the particle filter (Vdiag 45, 49, 4D only),
  - a temperature sensor downstream of the particle filter (Vdiag 45, 49, 4D only),
  - a particle filter differential pressure sensor (Vdiag 45, 49, 4D only),
  - a particle filter injector (Vdiag 45, 49, 4D only),
  - a particle filter (Vdiag 45, 49, 4D only),
- a temperature sensor downstream of the catalytic converter,
- an electric fuel pump,
- an electric coolant pump (Vdiag 45, 49, 4D only),
- four heating elements and their control unit (Vdiag 45, 49, 4D only),
- four heater plugs,
- a water in the fuel detection sensor (optional).

## FUEL SUPPLY

### High pressure pump

The high pressure pump consists of the following components:

– Internal fuel transfer pump (ITP):

The pump is a rotary pump with vanes which sucks the fuel from the tank through the fuel filter and supplies the high pressure pump with fuel.

– Fuel flow solenoid valve (VCV):

The solenoid valve regulates the flow of fuel entering the high pressure pump and enables an optimum quantity of fuel to be pressurised according to the operating phase; this improves the efficiency of the high pressure pump and the engine.

– High-pressure pump (HPP):

The pump is a 3-piston radial pump which generates the required pressure in the rail.

– Fuel pressure solenoid valve (PCV):

The solenoid valve regulates the output pressure of the high pressure pump.

### Piezoelectric injectors

The piezoelectric injectors enable rapid, precise metering of the quantity of fuel injected, with excellent injection process repetitiveness.

The piezoelectric actuator operates like a condenser. To control the injector, the computer sends, at the correct time, a quantity of energy which is sufficient to enable the actuator to deform and the injector to open.

During the injection period, the piezoelectric actuator stores this energy.

At the end of the injection period, the computer recovers the energy sent at the start of the control operation. The piezoelectric actuator discharges and returns to its original shape. The injector closes.

To improve efficiency, the energy stored by the piezoelectric actuator is reused, reducing the energy required for the next injection.

#### **WARNING:**

The injector voltage is very high (much higher than that of conventional injectors).  
This voltage can be as much as **150 V**.

### Engine synchronisation

One of the determining factors for fuel injection control is knowing the position of each of the pistons in their respective cylinders at all times.

The angular position is measured using a TDC sensor triggered by machined teeth on the flywheel. The flywheel has 60 teeth, with 2 teeth missing which forms a notch which is used as a reference point for the 1<sup>st</sup> cylinder.

A second sensor (Hall-effect), excited by a machined tooth on the camshaft, and turning at half the engine speed, provides information on the progress of the injection cycle. When the piston of cylinder 1 is at top dead centre (TDC), either at the end of the compression stroke or at the end of the exhaust stroke, the camshaft sensor enables a distinction to be made between these two states.

By comparing the signals from these two sensors, the computer is able to provide all of its systems with synchronisation parameters, namely: the angular position of the flywheel, engine speed, the number of the active injector and the progress of the injection cycle.

The module supplies the system with the rotation speed signal.

The camshaft sensor is only used when starting the engine. As soon as the engine is running by itself (not being cranked by the starter), the signal provided by the TDC sensor is sufficient. A camshaft sensor fault, when the engine is running, does not prevent the engine from operating correctly.

### Quantity of fuel injected and control of start of injection

The parameters for controlling injection are, for each cylinder, the quantity to be injected and the start of injection. These parameters are calculated by the injection computer using the following information:

- Engine speed.
- Accelerator pedal position.
- Turbocharging air pressure.
- Coolant temperature.
- Air temperature.
- Fuel temperature.
- Air flow.
- Pressure of fuel in the rail.

### Step by step flow regulation

The aim of this regulation process is to facilitate smooth engine operation by compensating for system variations (injectors, compression value, etc.) which affect the torque generated by each cylinder during combustion.

The regulation process is only active at idle speed, with a warm engine and provided the engine speed is sufficiently stable.

Each cylinder has an injection time correction coefficient which sets the injection time when the regulation process is active, otherwise the correction coefficient remains at its last set value.

On each new cycle, the coefficients are set to 1.



## AIR SUPPLY

### Measurement of the fresh air flow

The flow of fresh air entering the engine is measured by a flow sensor (ratiometric hot-wire sensor).

A fresh air temperature sensor is integrated into the air flowmeter.

### EGR valve control

The EGR (exhaust gas recirculation) system consists of a direct current EGR valve fitted with a valve position sensor. The EGR valve is controlled in a closed-loop via the position sensor. Up to a certain rate, exhaust gas recirculation enables nitrogen oxide (NOx) emissions to be reduced significantly.

### Turbocharger control

The turbocharger system consists of a solenoid valve connected to the vacuum pump circuit, which controls the vanes via a diaphragm to create an overpressure or a vacuum in the fresh air inlet circuit (the overpressure can reach **2.6 bar**).

### Damper valve control (for Vdiag 44, 45, 48, 49 and 4D only)

By default the valve is open when in the rest position and is actuated only when the engine is switched off; this has a damping effect and helps to stop the engine.

It also controls the flow of fresh air during regeneration.

## IDLE SPEED MANAGEMENT

The injection computer regulates the idle speed according to the idle speed setpoint which it calculates.

The idle speed setpoint is dependent on:

- the coolant temperature,
- the emission control programs,
- air conditioning requirements,
- the gear ratio engaged (automatic or sequential gearbox),
- the electrical consumers,
- battery voltage.

## ENGINE TORQUE MANAGEMENT

The torque structure is the system which translates the driver's request into a torque supplied by the engine. Certain functions such as the electronic stability program (ESP), the automatic gearbox (BVA) or the sequential gearbox (BVR), if fitted to the vehicle, use this information.

Each inter-system (ESP, automatic gearbox, sequential gearbox) sends the injection computer a torque request via the multiplex network.

The injection computer arbitrates between the inter-system torque requests and the driver request (depressing the accelerator pedal or setting the cruise control/speed limiter function). The result of the arbitration gives the torque setpoint.

From this torque set point, the computer determines the quantity of fuel to be injected (injection duration and number of injection processes) and the amount of air required (turbocharging pressure and EGR valve rate) so that the engine is able to provide the torque required in the best possible conditions (in terms of smooth running performance, pollutant emissions, etc.).

### MANAGEMENT OF PRE/POSTHEATING

Pre-postheating management involves controlling the heater plugs and the heater plugs indicator light on the instrument panel (via the multiplex network). The heater plugs are activated by a preheating unit and the power is provided by the battery.

When the ignition is switched on, the preheating period is activated; the indicator light comes on for a period dependent on the battery voltage, atmospheric pressure and coolant temperature.

When the coolant temperature is below a certain threshold, a postheating function enables combustion stability, and thereby engine operation, to be improved (reduction in unburned fuel and pollutant emissions).

### MANAGEMENT OF ENGINE COOLANT TEMPERATURE

Engine cooling is guaranteed by a 2-speed fan assembly (GMV) (slow: GMV1 and fast: GMV2).

The injection computer requests the UPC to actuate them via the multiplex network.

To provide cooling:

– Engine running:

GMV1 is activated when the coolant temperature exceeds **96°C** and is deactivated when it drops below **94°C**.

GMV2 is activated when the coolant temperature exceeds **104°C** and is deactivated when it drops below **102°C**.

If the engine coolant temperature exceeds the warning threshold of **120°C**, the injection computer requests the instrument panel computer, via the multiplex network, to switch on the coolant temperature warning light. The warning stops if the coolant temperature drops below **117°C**.

If the engine coolant temperature exceeds the threshold of **115°C**, the injection computer requests the UPC computer, via the multiplex network, to switch off the air conditioning compressor so as to reduce the load on the engine and attempt to limit its rise in temperature. The cut-off request is cancelled if the coolant temperature drops below **110°C**.

If a fault in the coolant temperature sensor circuit is detected, the injection computer requests that the coolant temperature warning light is lit and that GMV2 is activated.

In addition to engine management, the injection computer centralises the cooling requirements for the air conditioning and automatic gearbox/sequential gearbox functions (if fitted to the vehicle).

### OTHER HOSTED FUNCTIONS

The other functions hosted by the computer are:

- Multiplex line.
- ADAC (Trip Computer).
- Trip Computer Display.
- Engine immobiliser.
- Airbag.
- Engine stop management.
- Starter management.
- Air conditioning.
- Cruise control/speed limiter.

## INTERSYSTEM EXCHANGES

The inter-system connections concerning the particular requirements of engine management are as follows:

- Request for **injection** computer to switch on the **OBD** warning light to warn of an OBD related pollution fault.
- Request to switch on the **Level 1** warning light to warn of an operational safety fault with the engine management system which may restrict performance.
- Request to switch on the **Level 2** warning light to warn of an operational safety fault with the engine management system which may result in the engine stopping.
- Request to switch on the **Particle Filter** and **Service** warning light to warn of an operational safety fault of the particle filter system which may result in reduced performance or engine stoppage.
- Request to switch on the **Engine overheating** warning light to warn of an engine overheating fault or a fault in the coolant temperature sensor.
- Request to switch on the Particle filter warning light to warn the driver that the particle filter is loaded with particles (weight of soot more than **30.8 g**). As soon as possible, the driver must drive at a speed of more than **25 mph** (40 km/h) for **2 minutes** to activate regeneration.  
The driver must maintain a speed of more than **25 mph** (40 km/h) until the particle filter warning light goes out (Vdiag 45 and 49 only).
- Request to start the fan assembly for engine cooling and also for air conditioning purposes,
- Request to switch off the air conditioning compressor for engine programming requirements such as pulling away, performance, anti-stalling, overspeed, etc.
- Request to switch off electrical consumers (passenger compartment heating resistor (if fitted), heated rear screen, etc.) for engine operation purposes such as: pulling away, performance, anti-stalling, overspeed, etc.
- Formulation of requests to engage electrical consumers and limit power as a function of rail conditions.  
This last function is made possible with the introduction of alternator control. Formulation of requests enables the smooth running of the engine to be improved in the critical operating phases, mainly at idle speed and when pulling away. These requests pass via the multiplex network to the Protection and Switching Unit where they are converted before being sent to the alternator.

**In comparison to the version without a particle filter (K9K Step 2), the K9K Step 2 particle filter technical specifications also include:**

- Four temperature sensors spread along the exhaust system.
- One differential pressure sensor.
- One fuel injector with a dedicated electric fuel pump.
- An electric water pump (in addition to the mechanical pump) controlled by a relay to cool the turbocharger when the engine is stopped (only for Clio III, Modus and Mégane II/Scénic II).
- Four heating elements and their control unit.

### **Oil Control System (OCS) (except Vdiag 44, 45 and 49)**

This program takes into account the driving style of the user to warn him of the need for an oil change. This program counts the number of miles since the last oil change, corrected by a factor which depends on the oil temperature. When the number of miles exceeds a threshold, the customer is warned by a message to the instrument panel that the drain must be performed.

After the oil change, the user must reset the oil change interval on the instrument panel.

The exhaust system is fitted with an exhaust gas treatment system consisting of (in order):

- A shell casing containing an oxidation catalytic converter to treat hydrocarbons and carbon monoxide, the volume and positioning of which is identical to K9K Step 2 without a particle filter.
- A fuel injector supplied by a second fuel circuit which is independent of the main fuel circuit.
- A second casing containing an oxidation catalytic converter and a particle filter positioned under the vehicle floor.

## EXHAUST GAS TREATMENT

### Operating principle

**Regeneration consists of burning the particles accumulated in the filter.** When oxygen is present, regeneration by particle combustion occurs naturally when the exhaust gas temperature reaches **570°C**.

This temperature is very different to the temperatures observed in the normal operating range of a common rail engine. In town, the engine does not produce much heat and the exhaust gas temperature varies between **250°C and 300°C**. Whatever the driving conditions may be, a particle filter regeneration program should be developed without an effect on driving pleasure.

A differential pressure sensor monitors the status of the particle filter (particle weight) and triggers regeneration. Regeneration is performed by specific injection regulation (phased injection and post-injection) which brings the temperature of the exhaust gas to between **550 °C and 650 °C** at the particle filter inlet. Regeneration lasts at least **30 minutes** and is carried out every **165 miles** (275 km) (minimum interval between 2 successful regenerations).

Certain types of customer driving (mainly urban driving) may cause the particle filter to accumulate a significant quantity of particles. This amount of soot may impair customer experience: poor vehicle performance due to excessive pressure in the exhaust system.

This driving type may cause the **speed request** (Vdiag 45 and 49 only) warning light to come on when the particle weight reaches **30.8 g** or after **10** regeneration failures or if the distance between each regeneration reaches **1110 miles** (1850 km). The customer is asked to drive in a certain way (see vehicle handbook).

However, this warning may be misinterpreted or taken to be a vehicle fault. The vehicle must not be returned to the garage after such a warning; if the vehicle is taken back to the garage and accepted for repair, the mechanic should carry out After-Sales regeneration.

## PARTICLE FILTER INJECTOR PROGRAM

The particle filter injector is clamped in place inside a cooling cylinder head, which itself is attached to the output cone of the first oxidation catalytic converter. The coolant flows into the cylinder head via a take-off pipe on the cooling system and leaves via a hose connected to the turbocharger. This injector is used to replace post injection in areas of low load and low flow.

This injector is supplied by an additional electric fuel pump. The electric fuel pump is:

- controlled by a relay during each regeneration phase or purge,
- integrated into the suction module submerged in the tank,
- connected to the second fuel circuit.

### Faults that activate the OBD warning light

Tool fault	Associated DTC	Diagnostic tool title
DF003	2226	Atmospheric pressure sensor circuit
DF004	0235	Turbocharging pressure sensor circuit
DF011	0641	Sensor feed no. 1 voltage
DF012	0651	Sensor feed voltage no. 2
DF016	0487	EGR control circuit
DF026	0201	Cylinder 1 injector control circuit
DF027	0202	Cylinder 2 injector control circuit
DF028	0203	Cylinder 3 injector control circuit
DF029	0204	Injector cylinder 4 control circuit
DF038	0606	Computer
DF039	0110	Inlet air temperature sensor circuit
DF056	0100	Air flow sensor circuit
DF129	0101	Air flow requested
DF202	2413	EGR valve
DF209	0409	EGR valve position sensor circuit
DF582	0069	Pressure consistency
DF953	2002	Particle filter absent
DF991	1205	Particle filter injector control circuit
DF1000	242A	Particle filter downstream temperature sensor circuit
DF1003	2452	Particle filter differential pressure sensor circuit

### PRECAUTIONS/RISKS

The main recommendation regarding the system is:

**Never electrically disconnect the injectors with the engine running.**

The piezoelectric technology used for the injector system means that the injectors receive a control pulse to open and another control pulse to close. If the injector is disconnected between these 2 pulses while the engine is running, i.e. during the actual injection process, the injector will remain open long enough to create very unfavourable thermodynamic conditions in the cylinder(s) or generate hydraulic pressure which may **result in engine damage**.

The injector voltage is very high (much higher than that of conventional injectors)  
This voltage can be as much as **150 V**.

**High pressure pump:**

The pump draws in fuel from the tank, which passes through a fuel filter and supplies the fuel injectors.

**Rail pressure sensor:**

This sensor is fitted to the rail and shows the pressure inside the rail.

**Rail pressure regulator:**

This component regulates the high pressure of the fuel in the injection system.

**Fuel flow regulator:**

This component regulates the fuel flow of the injection system.

**Fuel temperature sensor:**

This sensor measures the temperature of the fuel arising from the pump and injector return.

**Piezoelectric injectors:**

These injectors enable rapid, precise metering of the quantity of fuel injected, with excellent injection process repetitiveness.

**Vacuum pump:**

The vacuum pump is driven by the camshaft. The pump provides the vacuum required to operate the following components: control solenoid valve, brake servo.

**Control solenoid valve:**

The solenoid valve connects the vacuum pump and the control diaphragm of the turbocharger blades.

**Turbocharger:**

The turbocharger is used to supply the engine with more air.

**Intake air pressure sensor:**

This sensor measures the pressure at the turbocharging air cooler output before the damper valve.

**Turbocharger pressure sensor:**

This sensor measures the pressure at the turbocharging air cooler output before the damper valve.

**Air mass flow meter:**

The flowmeter measures the amount of fresh air which goes back into the engine.

**EGR valve:**

The exhaust gas recirculation enables nitrogen oxide (NOx) emissions to be reduced significantly.

**EGR position sensor:**

The sensor gives the position of the EGR solenoid valve.

**Damper valve (Vdiag 44, 45, 48, 49 and 4D only):**

The damper valve is used:

- During regeneration in order to control the flow of fresh air.
- When the engine is switched off, to dampen the engine which helps stop the engine.
- When inoperative, the damper valve is by default in the fully open position.

**Particle filter:**

The particle filter retains the particles for destruction during regeneration, avoiding propagation of these particles in the atmosphere (Vdiag 45, 49, 4D only).

**TDC sensor:**

The angular position is measured using a magneto-inductive sensor triggered by machined teeth on the flywheel. This sensor gives the engine speed and the position of the crankshaft for injection.

**Camshaft sensor:**

This sensor gives a signal to perform the injection cycle. When the piston of cylinder 1 is at top dead centre, either at the end of the compression stroke or at the end of the exhaust stroke, the camshaft sensor enables a distinction to be made between these two states.

**Electric coolant pump:**

The electric coolant pump is activated when the coolant temperature has reached a significant temperature threshold when the engine has stopped.

The role of the electric water pump is to cool the turbocharger when the engine stops (Vdiag 45, 49 only).

**Refrigerant pressure sensor:**

The role of the sensor is to measure the refrigerant fluid pressure in the air conditioning circuit.

**Electric fuel pump:**

The pump is controlled by a relay during each regeneration or purge phase; it is submerged in the tank and is connected to the secondary fuel circuit only.

**Coolant temperature sensor:**

The engine coolant temperature sensor informs the computer about the engine coolant temperature.

**Air temperature sensor:**

The air temperature sensor is fitted in the inlet manifold and informs the computer about the temperature of the air sucked up by the engine.

**Turbocharging pressure sensor solenoid valve:**

This solenoid valve operates the turbocharger wastegate pneumatic circuit to lower the turbocharging pressure.

**Catalytic converter:**

Its role is to convert pollutant gases into harmless gases.

**Catalytic converter downstream temperature sensor:**

This sensor gives the temperature of the exhaust gas at the catalytic converter output.

**Turbine upstream temperature sensor:**

This sensor gives the temperature of the exhaust gas at the turbine inlet.

**Particle filter downstream temperature sensor:**

This sensor gives the exhaust gas temperature at the particle filter outlet (Vdiag 45, 49, 4D only).

**Particle filter upstream temperature sensor:**

This sensor gives the exhaust gas temperature at the particle filter inlet (Vdiag 45, 49, 4D only).

**Particle filter differential pressure sensor:**

A differential pressure sensor monitors the status of the particle filter (particle weight) and triggers regeneration. The role of the sensor is to inform the computer of the pressure difference between particle filter inlet and outlet (Vdiag 45, 49, 4D only).

**Cruise control/speed limiter on/off switch:**

This switch turns the cruise control/speed limiter on or off.

**Water in diesel fuel sensor (optional):**

This sensor indicates if water is present in the diesel.

**Fan unit relay:**

This relay actuates the motor-driven fan assemblies when a temperature threshold has been exceeded.

**Accelerator potentiometer:**

The accelerator potentiometer informs the computer about the position of the accelerator pedal (engine load).

**Brake pedal switch:**

The brake pedal switch informs the computer about the pedal status.

**Clutch pedal switch:**

The clutch pedal switch informs the computer about the pedal status.

**Particle filter injector:**

The particle filter injector is a low pressure injector. This injector allows the temperature of the second catalytic converter to be raised to assist with regeneration of the particle filter (Vdiag 45, 49, 4D only).

Only on Kangoo 2: an evaporator plate is present at the particle filter injector outlet, at the level of the bracket between the exhaust pipe and the catalytic converter.

**Heating elements:**

The heating elements heat the engine coolant to enhance user comfort (Vdiag 45, 49, 4D only).

**Heater plugs:**

The heater plugs preheat the combustion chamber so that the explosion of the fuel mixture occurs under the best conditions to start the engine.



### DEFECT MODES:

#### Accelerator pedal defect mode (Limp-home):

This defect mode prevents an immobilising fault; the vehicle can be driven well enough for it to reach the nearest dealer.

This function provides a virtual driver demand which controls the engine speed at **1800 rpm** for each gear engaged, then limits the vehicle's speed to **48 mph (80 km/h)**.

**The idle speed is equal to the idle speed setpoint if the brake pedal is depressed**, otherwise the idle speed is set to **1800 rpm** to ensure the vehicle pulls away in all conditions.

### COMPUTER REPROGRAMMING OPERATIONS

The system can be reprogrammed via the diagnostic socket using the **RENAULT CLIP diagnostic tool** (see **Technical Note 3585A, Computer programming and reprogramming procedure**).

Note:

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.
- Main switch in rest position (the computer then detects the rest position).
- Switch in Cruise control position to activate the Cruise control function.
- Switch in Speed limiter position to activate the Speed limiter function.

While the computer is being reprogrammed the fan assemblies are triggered automatically.

#### IMPORTANT

Switch on the **diagnostic tool** (mains or cigarette lighter supply).  
Connect a battery charger.  
Switch off all the electrical consumers (lights, interior lighting, air conditioning, radio CD, etc.).  
Wait for the engine to cool (engine coolant temperature < **60 °C** and air temperature < **50 °C**).

Before reprogramming the computer:

- **Save the computer data to the diagnostic tool (engine adaptives) by performing command SC003 Save computer data.**

**After any computer reprogramming operation:**

- Switch the ignition off and then on again,
- Use the **diagnostic tool** to carry out the following steps:
  - run command **RZ019 "Reinitialise programming"**,
  - run command **SC001 "Write saved data"** to restore the engine adaptives,
  - run command **SC013 "Enter VIN code"**,
  - start the engine (warning: the start-up phase may last up to **30 seconds**),
  - after injection system reprogramming, **stored** faults may appear in other computers. Clear the fault memory of these computers,
  - carry out a road test followed by another check with the **diagnostic tool**.

**DO NOT PERFORM ANY INJECTOR CODE WRITE OPERATION ON THE SIEMENS SID304 and 301 INJECTION SYSTEMS.**

In the event that dialogue cannot be established with the injection computer during reprogramming or programming:

- Clear the programming using command **RZ019 "Reinitialise programming"**.
- Clear the faults using command **RZ001 "Fault memory"**.
- Enter the vehicle identification number using command **SC013 "Enter vehicle identification number code"**
- Carry out powerlatch
- Carry out an inspection of the cruise control/speed limiter function and the heating and air conditioning system:
  - Vehicle ignition on.
  - Main switch in rest position (the computer then detects the rest position).
  - Switch in Cruise control position to activate the Cruise control function.
  - Switch in Speed limiter position to activate the Speed limiter function.
  - Heating and air conditioning system ON position.
- For Kangoo II, program the fast idle speed (if fitted) and vehicle speed restriction values (if fitted) using command **SC041 "Commercial vehicle idle speed modification"** and **SC040 "Speed limiter"**.
- For Vdiag 45, 49 and 4D, carry out a regeneration of the particle filter using command **SC017 "Particle filter regeneration"**.
- For Clio III, Modus, Mégane II and Scénic II vehicles:
  - If the configuration reading **LC106 "O.C.S."** is **"WITH"** (check in the instrument panel computer), change the engine oil and initialise the value of the oil service interval via the instrument panel.
- For Kangoo II:
  - Change the engine oil and initialise the value of the oil service interval via the instrument panel.

### IMPORTANT

The injection computer retains the same immobiliser code for life.  
The system has no security code.  
It is forbidden to perform tests with computers borrowed from the Parts Department or from another vehicle which must then be returned.  
These computers are hard-coded.  
If the injection computer is faulty, contact the Techline (and refer to the fault finding log).

### COMPUTER REPLACEMENT AND PROGRAMMING OPERATIONS

The system can be reprogrammed via the diagnostic socket using the **RENAULT CLIP diagnostic tool** (see **Technical Note 3585A, Computer programming and reprogramming procedure**).

While the computer is being programmed the fan assemblies are triggered automatically.

#### IMPORTANT

- Switch on the **diagnostic tool** (mains or cigarette lighter supply).
- Connect a battery charger.
- Switch off all the electrical consumers (lights, interior lighting, air conditioning, radio CD, etc.).
- Wait for the engine to cool (engine coolant temperature < 60 °C and air temperature < 50 °C).

Before replacing and programming the computer:

- **Save the data from the old computer in the diagnostic tool (engine adaptives), where this procedure is possible, by running command SC003 Save computer data.**

Any time the computer has been programmed:

- Switch the ignition off and then on again.
- **Use the diagnostic tool to carry out the following steps:**
- Run command **RZ019 "Reinitialise programming"**.
- run command **SC001 "Write saved data"** to restore the engine adaptives,
- Start the engine. Important: The start-up phase may last up to **30 seconds**.
- Stop the engine (to initialise the computer) and wait **30 seconds**.
- Switch on the ignition again and use the **diagnostic tool** to carry out the following steps:
- run command **SC013 "Enter VIN code"**,
- After injection system programming, **stored** faults may appear on other computers.
- Clear the fault memory of these computers.
- Carry out a road test followed by a complete check with the **diagnostic tool**.

**Any time the computer has been programmed:**

- Switch the ignition off and then on again.
- **Use the diagnostic tool to carry out the following steps:**
- Use command **RZ019 Reinitialise programming**.
- Use command **SC001 Write saved data** to restore the engine adaptives.
- Select the **UCH** section,
- In repair mode, run command **SC017 "Program injection immobiliser code"** and follow the instructions given by the **diagnostic tool**, (command **SC017 "Program injection immobiliser code"** is accessible in the **"Secure programming"** menu).
- switch the ignition off and then on again.
- Select the **INJECTION** section and check **ET006 "Code programmed"**.

**If ET006 is YES:**

- Start the engine. Important: The start-up phase may last up to **30 seconds**.
  - Stop the engine (to initialise the computer) and wait **30 seconds**.
  - Switch on the ignition again and use the **diagnostic tool** to carry out the following steps:
  - Perform command **SC013 Enter the VIN**.
  - After injection system programming, **stored** faults may appear on other computers.
- Clear the fault memory of these computers.

**If ET006 is NO:**

- Run command **SC017 Injection immobiliser code programming** again and follow the instructions given by the **diagnostic tool**.
- Repeat the procedure described above.

### IMPORTANT

It is not possible to try an injection computer coming from the Parts Department because it will no longer be possible to use it on another vehicle.

### REPLACING THE EGR (EXHAUST GAS RECIRCULATION) VALVE

After replacing the exhaust gas recirculation valve, the computer must store the new valve offset (at **0 miles**) and the offset measured the last time the ignition was switched off (in power latch phase\*). The computer detects clogging or a blockage in the EGR valve using this data.

When the valve is replaced, clear the stored offsets so that the program uses the offset value of the new valve. The data associated with this program is pooled in the **EGR Programming** function:

#### Procedure to follow after replacing the EGR valve:

- select the **CLEAR** menu,
  - run the clear command **RZ002 EGR adaptives**,
  - switch off the ignition,
  - wait **30 seconds** (computer auto-feed phase),
  - start the vehicle to enable EGR valve programming,
  - Display the **PR400 New EGR valve offset** and **PR129 Last EGR valve offset** parameters,
- if reinitialisation has been carried out correctly then **0.6 V < PR400 = PR129 < 1.9 V**.

### REPLACING THE PUMP, INJECTORS, RAIL + RAIL PRESSURE SENSOR OR LOW PRESSURE CIRCUIT COMPONENT (DIESEL FILTER etc.).

After replacing one of these components, clear **RZ004 Pressure regulation adaptives**.

### REPLACEMENT OF THE PARTICLE FILTER (Vdiag 45, 49, 4D only)

After replacing the particle filter, clear fault **DF308 "Particle filter clogged"** if it is present or stored using command **RZ001 "Fault memory"**.

### SPECIAL COMMANDS

**SC001: Write saved data.**

Use this command after replacing or (re)programming the computer (if the data has been saved using command **SC003**).

**SC003: Save computer data.**

This command enables the computer operating data, the engine adaptives, to be recorded.

Use this command before replacing or (re)programming a computer.

**SC013: Enter VIN.**

This command permits manual entry of the vehicle's VIN into the computer.

Use this command each time the computer is replaced or (re)programmed.

**SC017: Particle filter regeneration.**

The regeneration command is used to burn particles which have accumulated in the filter.

Run this command when the particle filter is clogged.

**SC040: Speed limiter (Kangoo II only).**

This command enables the vehicle's speed to be restricted to a certain speed.

Use this command at the customer's request.

**SC041: Modification of the commercial vehicle idle speed (Kangoo II only).**

This command enables the idle speed for vehicles such as refrigerated vehicles, ambulances etc. to be increased or decreased.

### CONFIGURATION READING

**LC005: Gearbox type.**

Manual gearbox or automatic transmission/sequential gearbox

**LC009: Air conditioning.**

With or without.

**LC065: Water in diesel fuel sensor.**

With or without.

**LC120: Cruise control.**

With or without.

**LC121: Speed limiter.**

With or without.

# DIESEL INJECTION

## Fault finding – Fault summary table

# 13B

Tool fault	Diagnostic tool title	Associated DTC	Level 1 fault warning light illuminated	Level 2 fault warning light illuminated	OBD warning light illuminated
DF001	Coolant temperature sensor circuit	0115	-	-	-
DF003	Atmospheric pressure sensor circuit	2226	-	-	CC.1/CO.0/ 1.DEF
DF004	Turbocharging pressure sensor circuit	0235	CC.1/CO.0/1.DEF/ 2.DEF/3.DEF	-	CC.1/CO.0/ 1.DEF/2.DEF/ 3.DEF
DF005	Engine speed sensor circuit	0335	-	1.DEF/2.DEF/3.DEF/ 4.DEF/5.DEF/6.DEF	-
DF007	Rail pressure sensor circuit	0190	CC.0/CO.1/ 1.DEF/ 2.DEF/ 3.DEF	-	-
DF008	Pedal potentiometer circuit gang 1	0225	CC.1/CO.0/1.DEF	2.DEF	-
DF009	Pedal potentiometer circuit gang 2	2120	CC.1/CO.0	-	-
DF011	Sensor feed voltage no. 1	0641	1.DEF/2.DEF	-	1.DEF/2.DEF
DF012	Sensor feed voltage no. 2	0651	1.DEF/2.DEF	-	1.DEF/2.DEF
DF015	Main relay control circuit	0685	-	CO/CC.1/CC.0	-
DF016	EGR control circuit	0487	-	-	CO/CC.1/CC.0/ 1.DEF/CC
DF017	Preheating unit control circuit	0380	-	-	-
DF025	Preheating unit diagnostic line	0381	-	-	-
DF026	Cylinder 1 injector control circuit	0201	CC/CO/1.DEF/2.DEF	-	CC/CO/ 1.DEF/2.DEF
DF027	Cylinder 2 injector control circuit	0202	CC/CO/1.DEF/2.DEF	-	CC/CO/ 1.DEF/2.DEF
DF028	Cylinder 3 injector control circuit	0203	CC/CO/1.DEF/2.DEF	-	CC/CO/ 1.DEF/2.DEF
DF029	Cylinder 4 injector control circuit	0204	CC/CO/1.DEF/2.DEF	-	CC/CO/ 1.DEF/2.DEF

# DIESEL INJECTION

## Fault finding – Fault summary table

# 13B

Tool fault	Diagnostic tool title	Associated DTC	Level 1 fault warning light illuminated	Level 2 fault warning light illuminated	OBD warning light illuminated
<b>DF038</b>	Computer	0606	1.DEF/2.DEF/4.DEF/ 5.DEF/6.DEF/7.DEF/ 8.DEF/9.DEF/ 10.DEF/11.DEF/ 12.DEF/13.DEF/ 14.DEF/15.DEF/ 16.DEF/21.DEF/ 22.DEF/23.DEF	3.DEF/17.DEF/ 18.DEF/19.DEF/ 20.DEF	15.DEF/ 16.DEF/ 17.DEF/ 18.DEF/ 19.DEF/ 20.DEF/22.DEF
<b>DF039</b>	Inlet air temperature sensor circuit	0110	-	-	CO.1/CC.0/ 1.DEF
<b>DF047</b>	Computer feed voltage	0560	-	-	-
<b>DF049</b>	Refrigerant sensor circuit	0530	-	-	-
<b>DF051</b>	Cruise control/speed limiter function	0575	-	-	-
<b>DF053</b>	Rail pressure regulation function	1089	1.DEF/2.DEF	3.DEF/4.DEF/5.DEF	-
<b>DF054</b>	Turbocharging solenoid valve control circuit	0045	CO/CC.0/CC.1	-	-
<b>DF056</b>	Air flowmeter circuit	0100	CO.0/CC.1	-	CO.0/CC.1
<b>DF067</b>	Damper valve control circuit	0120	CO/CC.0/CC.1	-	-
<b>DF070</b>	Clutch switch circuit	0830	-	-	-
<b>DF086</b>	Coolant pump relay control circuit	2600	CO/CC.0/CC.1	-	-
<b>DF091</b>	Vehicle speed signal	0500	-	-	-
<b>DF097</b>	Camshaft sensor circuit	0340	-	-	-
<b>DF098</b>	Fuel temperature sensor circuit	0180	-	-	-
<b>DF127</b>	Brake switch no. 1 circuit	0571	-	-	-
<b>DF129</b>	Requested air flow	0101	1.DEF/2.DEF	-	1.DEF/2.DEF
<b>DF173</b>	Reverse gear signal	0812	-	-	-



# DIESEL INJECTION

## Fault finding – Fault summary table

# 13B

Tool fault	Diagnostic tool title	Associated DTC	Level 1 fault warning light illuminated	Level 2 fault warning light illuminated	OBD warning light illuminated
<b>DF195</b>	Camshaft/engine speed sensor consistency	0016	-	-	-
<b>DF202</b>	EGR valve	2413	1.DEF	-	1.DEF
<b>DF209</b>	EGR valve position sensor circuit	0409	-	-	CC.1/CO.0
<b>DF238</b>	Heating element no. 3 relay circuit	1643	CO/CC.0/CC.1	-	-
<b>DF239</b>	Heating element no. 2 relay circuit	1642	CO/CC.0/CC.1	-	-
<b>DF240</b>	Heating element no. 1 relay circuit	1641	CO/CC.0/CC.1	-	-
<b>DF249</b>	Injector control	0200	-	1.DEF/2.DEF/3.DEF	-
<b>DF301</b>	Air inlet circuit	2263	1.DEF/2.DEF	-	-
<b>DF308</b>	Clogged particle filter	242F	-	-	-
<b>DF311</b>	Failed regenerations limit exceeded	2459	-	-	-
<b>DF532</b>	Alternator charge signal	2502	-	-	-
<b>DF582</b>	Pressure consistency	0069	1.DEF/2.DEF	-	1.DEF/2.DEF
<b>DF641</b>	Damper valve circuit	2101	1.DEF/2.DEF/3.DEF/4.DEF	-	-
<b>DF647</b>	EGR valve position regulation	0488	5.DEF	-	-
<b>DF648</b>	Computer	062F	1.DEF	-	-
<b>DF652</b>	Turbine upstream temperature sensor circuit	0544	CC.0/CO.1/1.DEF/2.DEF	-	-
<b>DF770</b>	Flow regulator circuit	0001	1.DEF	CO/CC.0/CC.1	-
<b>DF771</b>	Flow regulation adaptive	0002	-	-	-
<b>DF773</b>	Pressure regulator circuit	0090	1.DEF	CO/CC.0/CC.1	-
<b>DF885</b>	Rail pressure	0087	-	-	-

# DIESEL INJECTION

## Fault finding – Fault summary table

# 13B

Tool fault	Diagnostic tool title	Associated DTC	Level 1 fault warning light illuminated	Level 2 fault warning light illuminated	OBD warning light illuminated
<b>DF886</b>	Presence of water in the diesel fuel	2269	-	-	-
<b>DF887</b>	Brake/accelerator pedal positions	2299	-	1.DEF	-
<b>DF889</b>	Engine protection	2610	-	-	-
<b>DF953</b>	Particle filter absent	2002	-	-	1.DEF
<b>DF991</b>	Particle filter injector control circuit	1205	CO/CC.0/CC.1	-	CO/CC.0/CC.1
<b>DF999</b>	Particle filter downstream temp. sensor circuit	1544	CC.0/CO.1/ 1.DEF/ 2.DEF/ 3.DEF	-	-
<b>DF1000</b>	Particle filter upstream temp. sensor circuit	242A	CC.0/CO.1/ 1.DEF/ 2.DEF/ 3.DEF	-	CC.0/CO.1/ 1.DEF/2.DEF/ 3.DEF
<b>DF1001</b>	Particle filter upstream temperature regulation	242B	1.DEF/2.DEF	-	-
<b>DF1002</b>	Static regeneration	2458	1.DEF	-	-
<b>DF1003</b>	Particle filter differential pressure sensor circuit	2452	CO.0/CC.1/1.DEF	-	CO.0/CC.1/ 1.DEF
<b>DF1004</b>	Electric fuel pump relay control circuit	2632	CO/CC.0/CC.1	-	-
<b>DF1005</b>	Heating element control unit fault finding 1 connection	1644	1.DEF	-	-
<b>DF1007</b>	Catalytic converter 1 downstream temperature sensor circuit	2031	CC.0/CO.1/ 1.DEF/ 2.DEF/ 3.DEF	-	-
<b>DF1008</b>	Turbine upstream temperature regulation	2080	1.DEF	-	-
<b>DF1009</b>	Catalytic converter 1 downstream temperature regulation	2084	1.DEF/2.DEF	-	-
<b>DF1070</b>	Cold loop	0534	-	-	-

<b>DF001 PRESENT OR STORED</b>	<b><u>COOLANT TEMPERATURE SENSOR CIRCUIT</u></b> CC.0: Short circuit to earth CO.1: Open circuit or short circuit to +12 V. 1. DEF: Micro-breaks 2. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for application to a stored fault:</b> The fault is declared <b>present</b> after the ignition has been switched on for at least <b>10 seconds</b> .
	<b>If the fault is present:</b> <ul style="list-style-type: none"> <li>– the engine overheating warning light is lit on the instrument panel,</li> <li>– the fan assemblies are running,</li> <li>– the air conditioning compressor is switched off, the coolant temperature value switches to safe mode, <b>10°C &lt; PR064 Coolant Temperature &lt; 90°C</b>.</li> </ul>
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the **coolant temperature sensor** connector, component code **244** (see **MR 392, 385, 364, 370 and 417, Mechanical, 19A, Cooling system, Coolant temperature sensor: Removal - Refitting**) and the **injection computer**, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**).

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(s); otherwise, replace the wiring.

Measure the resistance of the **coolant temperature sensor**, component code **244**, between connections **3C** and **3JK**.

If the resistance is not:

$$\begin{aligned}
 &11332 \, \Omega < X < 13588 \, \Omega \text{ at } -10^{\circ}\text{C}, \\
 &2140 \, \Omega < X < 2364 \, \Omega \text{ at } 25^{\circ}\text{C}, \\
 &771 \, \Omega < X < 849 \, \Omega \text{ at } 50^{\circ}\text{C}, \\
 &275 \, \Omega < X < 291 \, \Omega \text{ at } 80^{\circ}\text{C},
 \end{aligned}$$

replace the **coolant temperature sensor** (see **MR 392, 385, 364, 370 and 417, Mechanical, 19A, Cooling system, Coolant temperature sensor: Removal - Refitting**).

Check the **insulation, continuity and the absence of interference resistance** on the following connections:

- **3C** between components **244** and **120**.
- **3JK** between components **244** and **120**.

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

If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF003 PRESENT OR STORED</b>	<b><u>ATMOSPHERIC PRESSURE SENSOR CIRCUIT</u></b> CC.1 : Short circuit to + 12 V CO.0 : Open circuit or short circuit to earth 1. DEF: Micro-breaks
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<b>NOTES</b>	<b>Conditions for application to a stored fault:</b> The fault is declared <b>present</b> after the ignition has been switched on for at least <b>10 seconds</b> .
	<b>If the fault is present:</b> – the <b>OBD</b> warning light is lit, – small amount of smoke may be present, – the atmospheric pressure value changes to safe mode, <b>PR035 Atmospheric pressure = 900 mbar</b> .
	<b>Special notes:</b> The <b>atmospheric pressure sensor</b> is integrated into the <b>injection computer</b> and cannot be separated.

Disconnect the **injection computer**, component code **120**, and check the condition of the contacts and the condition of its connector (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**).

If the connector 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.

If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF004 PRESENT OR STORED</b>	<b><u>TURBOCHARGING PRESSURE SENSOR CIRCUIT</u></b> CC.1 : Short circuit to <b>+ 12 V</b> CO.0 : Open circuit or short circuit to earth 1. DEF: Micro-breaks 2. DEF: Signal outside lower limit 3. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>If the fault is present:</b> – the <b>Level 1</b> warning light is lit, the <b>OBD</b> warning light is lit, loss of performance.
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<b>CC.1 CO.0 1.DEF</b>	<b>NOTES</b>	<b>Priority when dealing with a number of faults:</b> First apply the procedure for dealing with the fault <b>DF012 Sensor supply voltage no. 2.</b>
		<b>Conditions for application to a stored fault:</b> The fault is declared <b>present</b> after the ignition has been switched on.
		<b>If the fault is present:</b> – the EGR function is inhibited, – the turbocharging pressure value is in safe mode, <b>PR041 Turbocharging pressure sensor = 1000 mbar</b> , – turbocharging is cut off.
		<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>turbocharging pressure sensor</b> connector, component code <b>1071</b> and the <b>injection computer</b> , component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
With the ignition on, check for the presence of <b>+ 5 V</b> on connection <b>3LQ</b> and check for an <b>earth</b> on connection <b>3LN</b> on the <b>turbocharging pressure sensor</b> , component code <b>1071</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: – <b>3LQ</b> between components <b>1071</b> and <b>120</b> , – <b>3LP</b> between components <b>1071</b> and <b>120</b> , – <b>3LN</b> between components <b>1071</b> and <b>120</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If the fault is still present, replace the <b>turbocharging pressure sensor</b> .

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF004 CONTINUED</b>	
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<b>2. DEF</b> <b>3. DEF</b>	<b>NOTES</b>	<b>Priority when dealing with a number of faults:</b> First deal with fault <b>DF003 Atmospheric pressure sensor circuit</b> .
		<b>Conditions for application to a stored fault:</b> The fault is declared <b>present</b> after the ignition has been switched on for <b>1 second</b> , with a warm engine and when the vehicle is stationary.
		<b>If the fault is present:</b> <ul style="list-style-type: none"> <li>– the EGR function is inhibited,</li> <li>– the turbocharging pressure value is in safe mode, <b>PR041 Turbocharging pressure sensor = 1000 mbar</b>,</li> <li>– turbocharging is cut off.</li> <li>– the maximum torque supplied by the engine is restricted.</li> </ul>
		<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

<p>Check the connection and condition of the <b>turbocharging pressure sensor</b> connector, component code <b>1071</b> and the <b>injection computer</b>, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b>).</p> <p>If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>) repair the connector(s); otherwise, replace the wiring.</p>
<p>With the ignition on, check for the presence of <b>+ 5 V</b> on connection <b>3LQ</b> and check for an <b>earth</b> on connection <b>3LN</b> on the <b>turbocharging pressure sensor</b>, component code <b>1071</b>.</p> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>– <b>3LQ</b> between components <b>1071</b> and <b>120</b>,</li> <li>– <b>3LP</b> between components <b>1071</b> and <b>120</b>,</li> <li>– <b>3LN</b> between components <b>1071</b> and <b>120</b>.</li> </ul> <p>If the connection(s) are faulty and there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p> <p>If the connections are correct, replace the <b>turbocharging pressure sensor</b></p>
<p>If the fault is still present, contact the Techline.</p>

<b>AFTER REPAIR</b>	<p>Deal with any faults displayed by the <b>diagnostic tool</b>.</p> <p>Clear the computer fault memory.</p> <p>Carry out a road test followed by another check with the <b>diagnostic tool</b>.</p>
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<b>DF005 PRESENT OR STORED</b>	<b>ENGINE SPEED SENSOR CIRCUIT</b> 1. DEF: Signal inconsistency 2. DEF: No signal 3. DEF: Signal outside upper limit 4. DEF: Values outside limits 5. DEF: Configuration/Initialisation 6. DEF: Inconsistent data
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<b>NOTES</b>	<p><b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> with the engine under the starter or when idling.</p> <p><b>Special notes:</b>  <b>Level 2</b> warning light illuminated in instrument panel, engine stalls or cannot be (re)started.  The ESP function is inhibited. The ESP function is inhibited.</p> <p><b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b></p>
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<p>Check the connection and condition of the <b>TDC sensor</b> connector, component code <b>149</b>. If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the connector, otherwise replace the wiring. Ensure the <b>sensor</b> is correctly fitted to the engine.</p>
<p>Measure the resistance between connections <b>3BG</b> and <b>3BL</b> of the <b>TDC Sensor</b>, component code <b>149</b>. If the resistance is not between <b>510 Ω and 850 Ω</b>, replace the <b>TDC sensor</b>, component code <b>149</b>.</p>
<p>Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b>). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the connector, otherwise replace the wiring.</p>
<p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:  – <b>3BG</b> between components <b>149</b> and <b>120</b>,  – <b>3BL</b> between components <b>149</b> and <b>120</b>.  If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>Check that the flywheel target is not faulty (missing teeth).</p>

<b>AFTER REPAIR</b>	<p>Deal with any faults displayed by the <b>diagnostic tool</b>. Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b>.</p>
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<b>DF007 PRESENT OR STORED</b>	<b>RAIL PRESSURE SENSOR CIRCUIT</b> CC.0 : Short circuit to earth CO.1 : Open circuit or short circuit to <b>+12 V</b> . 1. DEF: Faulty sensor 2. DEF: Signal outside upper limit 3. DEF: Micro-breaks
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<b>NOTES</b>	<b>Priority when dealing with a number of faults:</b> Apply the procedure for dealing with fault <b>DF011 Sensor voltage supply no. 1</b> first.
	<b>Conditions for applying the fault finding procedure to stored faults:</b> – CO.1 or CC.0: the fault is declared present after the ignition is switched on. – 1.DEF, 2. DEF or 3.DEF: the fault is declared present after running the command <b>AC029 High pressure circuit sealing test</b> .
	<b>If the fault is present:</b> <b>Level 1 warning light</b> activated. Restriction of torque setpoint and engine speed loss of performance.
	<b>Use the Wiring Diagram Technical Notes for CLIO III, MODUS, MEGANE II ph2 and SCENIC II ph2 and KANGOO II.</b>

Check the connection and condition of the **rail pressure sensor** connector, component code **1032** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Rail pressure sensor: Removal - Refitting**) and the **injection computer** connector, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**).

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(s); otherwise, replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:

- **3LX** between components **1032** and **120**,
- **3LY** between components **1032** and **120**,
- **3LZ** between components **1032** and **120**.

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

If correct, disconnect the sensor and start the engine.

If the engine starts, replace the **rail** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Injector rail: Removal - Refitting**) and its sensor (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Rail pressure sensor: Removal - Refitting**) and the **high pressure pipes** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, High pressure pipe: Check**).

Apply **test 7 Incorrect injection quantity**.

If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Run command <b>AC029 High pressure circuit sealing test</b> again followed by a check using the diagnostic tool. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF008 PRESENT OR STORED</b>	<b>PEDAL POTENTIOMETER CIRCUIT GANG 1</b> CC.1: Short circuit to + 12 V CO.0: Open circuit or short circuit to earth 1. DEF: Signal inconsistency 2. DEF: No signal
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<b>NOTES</b>	<b>Priorities when dealing with a number of faults:</b> If fault <b>DF009 Pedal potentiometer circuit gang 2</b> is present at the same time, check that the pedal sensor connector is connected correctly. First deal with the fault <b>DF012 Sensor supply voltage no. 2</b> if the fault is <b>present</b> or <b>stored</b> .
	<b>Conditions for applying the fault finding procedure to stored faults:</b> The fault is declared <b>present</b> after a series of full-load/no-load actions on the accelerator pedal.
	<b>Special notes:</b> Restriction of idle speed setpoint, loss of performance and non-authorised speed regulation. <b>Level 1 or 2</b> warning light is lit. Possibility of engine speed regulation at <b>1800 rpm 42 mph (70 km/h)</b> when accelerating ( <b>39 mph (65 km/h)</b> when decelerating) and then speed regulated to <b>48 mph (80 km/h)</b> beyond that.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>accelerator pedal potentiometer</b> connector, component code <b>921</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting</b> ) and the <b>injection computer</b> , component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
Measure the resistance of the <b>pedal potentiometer</b> on <b>gang 1</b> between connections <b>3LT</b> and <b>3LR</b> . If the resistance is not between <b>0.8 kΩ and 2.6 kΩ</b> , replace the <b>pedal potentiometer</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting</b> ).
With the ignition on, check for the presence of <b>+ 5 V</b> on connection <b>3LR</b> and check for an <b>earth</b> on connection <b>3LT</b> of the <b>pedal potentiometer</b> , component code <b>921</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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**DF008  
CONTINUED**

Check the **insulation, continuity and the absence of interference resistance** on the following connections:

- **3LR** between components **921** and **120**,
- **3LS** between components **921** and **120**,
- **3LT** between components **921** and **120**.

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

If the fault is still present, replace the **pedal potentiometer** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting**).

If the fault is still present, contact the Techline.

**AFTER REPAIR**

Deal with any faults displayed by the **diagnostic tool**.

Clear the computer fault memory.

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

<b>DF009</b> <b>PRESENT</b> <b>OR</b> <b>STORED</b>	<b>PEDAL POTENTIOMETER CIRCUIT GANG 2</b> CC.1: Short circuit to + 12 V CO.0: Open circuit or short circuit to earth
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<b>NOTES</b>	<b>Processing priority in the event of a number of faults:</b> First deal with the fault <b>DF011 Sensor supply voltage no. 1</b> if the fault is <b>present</b> or <b>stored</b> .
	<b>Conditions for applying the fault finding procedure to stored faults:</b> The fault is declared <b>present</b> after a series of full-load/no-load actions on the accelerator pedal (engine stopped, ignition on).
	<b>Special notes:</b> <ul style="list-style-type: none"> <li>– Power restriction.</li> <li>– The cruise control/speed limiter cannot be used, loss of performance.</li> <li>– The <b>level 1</b> warning light is lit.</li> </ul>
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>pedal potentiometer</b> connector, component code <b>921</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Measure the resistance of the <b>pedal potentiometer</b> on <b>gang 2</b> between connections <b>3LU</b> and <b>3LV</b> . If the resistance is not between <b>0.8 kΩ and 4.9 kΩ</b> , replace the <b>pedal potentiometer</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting</b> ).
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: <ul style="list-style-type: none"> <li>– <b>3LU</b> between components <b>921</b> and <b>120</b>,</li> <li>– <b>3LW</b> between components <b>921</b> and <b>120</b>,</li> <li>– <b>3LV</b> between components <b>921</b> and <b>120</b>.</li> </ul> If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it. If the fault is still present, replace the <b>pedal potentiometer</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting</b> ).
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF011 PRESENT OR STORED</b>	<b>SENSOR SUPPLY VOLTAGE NO. 1</b> 1. DEF: Signal outside lower limit 2. DEF: Signal outside upper limit
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<b>NOTES</b>	<p><b>Priorities when dealing with a number of faults:</b>  If one or more of the following faults are present at the same time:</p> <ul style="list-style-type: none"> <li>– <b>DF009 Pedal potentiometer circuit gang 2</b>, check that the pedal sensor connector is connected correctly.</li> <li>– <b>DF007 Rail pressure sensor circuit</b>, check that the rail pressure sensor connector is connected correctly.</li> <li>– <b>DF056 Air flow sensor circuit</b>, check that the air flow sensor connector is connected correctly.</li> <li>– <b>DF209 EGR valve position sensor circuit</b>, check that the EGR valve position sensor connector is connected correctly.</li> <li>– <b>DF1003 Particle filter differential pressure sensor circuit</b>, check that the connector for the particle filter differential pressure sensor is connected correctly.</li> </ul>
	<p><b>Conditions for applying the fault finding procedure to stored faults:</b>  The fault is declared <b>present</b> after the ignition has been switched on.</p>
	<p><b>Special notes:</b>  If the fault is <b>present</b>:</p> <ul style="list-style-type: none"> <li>– The cruise control/speed limiter is deactivated.</li> <li>– Power is restricted.</li> <li>– The <b>level 1</b> warning light is lit.</li> <li>– The <b>OBD</b> warning light is lit.</li> </ul>
	<p><b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b></p>

<p>The sensors connected to <b>supply no. 1</b> are:</p> <ul style="list-style-type: none"> <li>– <b>rail pressure sensor</b>, component code <b>1032</b>,</li> <li>– <b>accelerator pedal potentiometers gang 2 sensor</b>, component code <b>921</b>,</li> <li>– <b>air flowmeter sensor</b>, component code <b>799</b>,</li> <li>– <b>EGR valve position sensor</b>, component code <b>1460</b>.</li> <li>– <b>particle filter differential pressure sensor</b>, component code <b>1290</b>.</li> </ul> <p>To locate the potentially defective sensor and/or connection, disconnect one of these sensors and then check whether the fault becomes <b>stored</b>.</p> <p>If the fault is still <b>present</b>, start the operation again with each sensor (one by one).  (Wait several seconds between each disconnection to allow the computer to detect the fault)</p> <p>If the fault is <b>stored</b> after a disconnection, replace the faulty <b>sensor</b> or repair its connection.  Clear the faults created by the multiple disconnections.</p>
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<b>AFTER REPAIR</b>	<p>Deal with any faults displayed by the <b>diagnostic tool</b>.  Clear the computer fault memory.  Carry out a road test followed by another check with the <b>diagnostic tool</b>.</p>
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### DF011 CONTINUED

Check the connection and condition of the connector for the **sensors** and the **injection computer** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**). 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(s); otherwise, replace the wiring.

If the fault is still **present** when the sensors have been disconnected:

Check the **insulation, continuity and the absence of interference resistance** on the following connections:

- **3LZ** between components **1032** and **120**,
- **3LX** between components **1032** and **120**,
- **3LU** between components **921** and **120**,
- **3LV** between components **921** and **120**,
- **3KJ** between components **799** and **120**,
- **3DW** between components **799** and **120**,
- **3GC** between components **1460** and **120**,
- **3GD** between components **1460** and **120**,
- **3YD** between components **1290** and **120**,
- **3AAM** between components **1290** and **120**.

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

If the fault is still present, contact the Techline.

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.

Clear the computer fault memory.

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

<b>DF012 PRESENT OR STORED</b>	<b>SENSOR SUPPLY VOLTAGE NO. 2</b> 1. DEF: Signal outside lower limit 2. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Priorities when dealing with a number of faults:</b> If one or more of the following faults are present at the same time: – <b>DF008 Pedal potentiometer circuit gang 1</b> , check that the pedal sensor connector is connected correctly. – <b>DF004 Turbocharging pressure sensor circuit</b> , check that the turbocharging pressure sensor connector is connected correctly. – <b>DF049 Refrigerant sensor circuit</b> , check that the refrigerant sensor connector is connected correctly.
	<b>Conditions for applying the fault finding procedure to stored faults:</b> The fault is declared <b>present</b> after the ignition has been switched on.
	<b>Special notes:</b> If the fault is <b>present</b> : – The cruise control/speed limiter is deactivated. – Power is restricted. – The <b>level 1</b> warning light is lit. – The <b>OBD</b> warning light is illuminated.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

The sensors connected to **supply no. 2** are:

- **Accelerator pedal potentiometer gang 1 sensor**, component code **921**,
- **Turbocharging pressure sensor**, component code **1071**,
- **Refrigerant pressure sensor**, component code **1202**.

To locate the potentially defective sensor and/or connection, disconnect one of these sensors and then check whether the fault becomes **stored**.

If the fault is still **present**, start the operation again with each sensor (one by one).

(Wait several seconds between each disconnection to allow the computer to detect the fault)

If the fault is **stored** after a disconnection, replace the faulty sensor or repair its connection.

Clear the faults created by the multiple disconnections.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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### DF012 CONTINUED

Check the connection and condition of the connector for the **sensors and for the injection computer**, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**).

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(s); otherwise, replace the wiring.

If the fault is still **present** when these sensors are disconnected:

Check the **insulation, continuity and the absence of interference resistance** on the following connections:

- **3LQ** between components **1071** and **120**,
- **3LN** between components **1071** and **120**,
- **3LR** between components **921** and **120**,
- **3LT** between components **921** and **120**,
- **38Y** between components **1202** and **120**,
- **38U** between components **1202** and **120**.

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

If the fault is still present, contact the Techline.

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.

Clear the computer fault memory.

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

<b>DF015 PRESENT OR STORED</b>	<b>MAIN RELAY CONTROL CIRCUIT</b> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit
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<b>NOTES</b>	<b>Special notes:</b> The "injection control unit supply relay" (50A) is located on the <b>relay plate</b> , inside the <b>engine compartment connection unit</b> . Engine stalls or is impossible to restart.
	<b>If the fault is present:</b> The <b>level 2</b> warning light is lit.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the condition of the <b>battery</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 80A, Battery, Battery: Removal - Refitting</b> ) and carry out fault finding on the charging circuit (see <b>Technical Note 6014A, Charging circuit check or 87G, Engine compartment connection unit</b> ).
Check the condition of the <b>injection supply relay and its support</b> , component code <b>983</b> . Check the injection system fuses (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 81C, Fuses, Fuses: List and location of components</b> ). Check the connection of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
With the ignition on, check for the presence of <b>+12 V</b> on the connections <b>BP</b> of the <b>main relay support plate</b> , component code <b>983</b> or the <b>Protection and Switching Unit computer</b> , component code <b>1337</b> . If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>continuity, insulation and the absence of interference resistance</b> on the following connections: – <b>3BP</b> battery + on component <b>983</b> , – <b>3FB</b> between components <b>983</b> and <b>120</b> . Or (for Kangoo II): – <b>3FB1</b> between components <b>1337</b> and <b>120</b> , – <b>3FB2</b> between components <b>1337</b> and <b>120</b> , If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it. If the fault is still present, replace the <b>main relay</b> or <b>test the Protection and Switching Unit computer</b> (see <b>87G, Engine compartment connection unit</b> ).
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF016 PRESENT OR STORED</b>	<b><u>EGR VALVE CONTROL CIRCUIT</u></b> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CC: Short circuit CO: Open circuit 1. DEF: Values outside limits
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> with the engine at idle speed.
	<b>Special notes:</b> EGR cut off.
	<b>If the fault is present:</b> <ul style="list-style-type: none"> <li>– engine instability, possibly even stalling,</li> <li>– engine starting is difficult or even impossible when cold,</li> <li>– the <b>OBD warning light</b> is on.</li> </ul>
	<b>Use the Wiring Diagram Technical Notes for CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II.</b>

Check the connection and condition of the <b>EGR valve</b> connector, component code <b>1460</b> and check the connector for the <b>injection computer</b> , component code <b>120</b> . If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check for the presence of the supply: <b>13 V &lt; X &lt; 14 V (engine running)</b> , <b>11.5 V &lt; X &lt; 12.5 V (ignition on, engine stopped)</b> on connection <b>3VP</b> of component <b>1460</b> . Check for earth on connection <b>3VQ</b> of component <b>1460</b> . Check the <b>continuity</b> , <b>insulation</b> and the <b>absence of interference resistance</b> on the following connections: <ul style="list-style-type: none"> <li>– <b>3VP</b> between components <b>1460</b> and <b>120</b>,</li> <li>– <b>3VQ</b> between components <b>1460</b> and <b>120</b>.</li> </ul> If the connection or connections are faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Measure the <b>resistance</b> of the <b>EGR valve</b> , component code <b>1460</b> : <ul style="list-style-type: none"> <li>– with the engine stopped, the EGR valve will be closed (unless there is a fault),</li> <li>– wait for the ambient temperature to stabilise (approximately <b>20 °C</b>) around the valve,</li> <li>– measure the resistance between connections <b>3VP</b> and <b>3VQ</b> of component <b>1460</b>.</li> </ul> If the resistance is not between <b>0.5 Ω &lt; X &lt; 50 Ω</b> , replace the <b>EGR valve</b> (see <b>MR 392 (CLIO III)</b> , <b>385 (MODUS)</b> , <b>364 (MEGANE II)</b> , <b>370 (SCENIC II)</b> , <b>417 (KANGOO II)</b> , <b>Mechanical, 14A, Emission control, Exhaust gas recirculation solenoid valve: Removal - Refitting</b> ). Use the command <b>RZ002 EGR Adaptive</b> to reinitialise the offsets of the <b>EGR valve</b> (see <b>Replacement of components</b> ).
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF017 PRESENT OR STORED</b>	<b><u>PRE-POSTHEATING UNIT CONTROL CIRCUIT</u></b> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> after attempts have been made to start the engine.
	<b>Special notes:</b> If the fault is <b>present</b> , it will be difficult or impossible to start the vehicle when cold, or preheating will be continuous with damage to the heater plugs.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

<p>Check the connection and condition of the connector for the <b>preheating unit</b>, component code <b>257 or 980</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13C, Preheating, Pre-post heating unit: Removal - Refitting</b>), the <b>supply cables for the heater plugs</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13C, Preheating, Heater plugs: Removal - Refitting</b>) and the <b>injection computer connector</b>, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b>).</p> <p>If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>) repair the connector(s); otherwise, replace the wiring.</p>
<p>Check the condition of the power supply fuse <b>F2 (70A)</b> on the <b>power supply fuse board</b> component code <b>777</b>.          Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>– <b>3FF</b> between components <b>257 or 980</b> and <b>120</b>,</li> <li>– <b>3FY</b> between components <b>257 or 980</b> and <b>120</b>,</li> <li>– <b>BP35</b> between components <b>257 or 980</b> and <b>777</b>.</li> </ul> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p> <p>If these connections are correct, replace the <b>preheating unit</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13C, Preheating, Pre-post heating unit: Removal - Refitting</b>).</p>
<p>If the fault is still present, contact the Techline.</p>

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF025 PRESENT OR STORED</b>	<b><u>PRE-POSTHEATING UNIT DIAGNOSTIC LINE</u></b> CC.0: Short circuit to earth C0.1: Open circuit or short circuit to <b>+ 12 V</b>
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> after several attempts have been made to start the engine.
	<b>Special notes:</b> If the fault is <b>present</b> , it will be difficult or impossible to start the vehicle when cold, or preheating will be continuous with damage to the heater plugs.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the connector for the **preheating unit**, component code **257 or 980** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13C, Preheating, Pre-post heating unit: Removal - Refitting**) and the **supply cables for the heater plugs**, component code **257** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13C, Pre-heating, Heater plugs: Removal - Refitting**).  
 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(s); otherwise, replace the wiring.

Check the connection and condition of the connectors for the **heater plugs**, component codes **680, 681, 682 and 683** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13C, Pre-heating, Heater plugs: Removal - Refitting**) and the **injection computer connector**, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**).  
 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(s); otherwise, replace the wiring.

Measure the **resistance of the heater plugs**, component codes **680, 681, 682 and 683**.  
 If the resistance is not **0.6 Ω at +20°C**, replace the **plug(s)** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13C, Pre-heating, Heater plugs: Removal - Refitting**).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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**DF025  
CONTINUED**

Check the condition of the power supply fuse **F2 (70A)** on the **power supply fuse board** component code **777**.  
Check the **insulation, continuity and the absence of interference resistance** on the following connections:

- **3FF** between components **257 or 980** and **120**,
- **3FY** between components **257 or 980** and **120**,
- **BP35** between components **257 or 980** and **777**,
- **37AC** between components **257 or 980** and **683**,
- **37Z** between components **257 or 980** and **680**,
- **37AA** between components **257 or 980** and **681**,
- **37AB** between components **257 or 980** and **682**.

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

If this connection is correct, replace the **preheating unit** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13C, Preheating, Pre-postheating unit: Removal - Refitting**).

If the fault is still present, contact the Techline.

**AFTER REPAIR**

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer fault memory.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>DF026 PRESENT OR STORED</b>	<b>CYLINDER 1 INJECTOR CONTROL CIRCUIT</b> CC: Short circuit CO: Open circuit 1. DEF: Line in open circuit 2. FAULT: Open circuit or internal electronic fault
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> after a road test.
	<b>If the fault is present:</b> – Engine speed and torque are restricted. – The <b>level 1</b> warning light is lit. – The <b>OBD</b> warning light is illuminated. – Loss of performance, operation on minimum of 2 cylinders.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the connector for <b>injector no. 1</b> , component code <b>193</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel fuel injector: Removal - Refitting</b> ) and the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: – <b>3KW</b> between components <b>193</b> and <b>120</b> , – <b>3CR</b> between components <b>193</b> and <b>120</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Measure at ambient temperature (approx. <b>20°C</b> ), allow the engine to cool down for at least <b>30 minutes</b> . Measure the resistance between connections <b>3KW</b> and <b>3CR</b> for injector 1, component code <b>193</b> . If the resistance is not between <b>150 kΩ</b> and <b>250 kΩ</b> , replace injector 1 (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injector: Removal - Refitting</b> ).
Apply <b>test 7 Incorrect injection quantity</b> .
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF027 PRESENT OR STORED</b>	<b>CYLINDER 2 INJECTOR CONTROL CIRCUIT</b> CC: Short circuit. CO: Open circuit. 1. DEF: Line in open circuit. 2. FAULT: Open circuit or internal electronic fault
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> after a road test.
	<b>If the fault is present:</b> <ul style="list-style-type: none"> <li>– Engine speed and torque are restricted,</li> <li>– The <b>level 1</b> warning light will be lit,</li> <li>– The <b>OBD</b> warning light is lit,</li> <li>– Loss of performance, operation on minimum of 2 cylinders.</li> </ul>
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the connector for <b>injector no. 2</b> , component code <b>194</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injector: Removal - Refitting</b> ) and the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: <ul style="list-style-type: none"> <li>– <b>3KX</b> between components <b>194</b> and <b>120</b>,</li> <li>– <b>3CS</b> between components <b>194</b> and <b>120</b>.</li> </ul> If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Measure at ambient temperature (approx. <b>20°C</b> ), allow the engine to cool down for at least <b>30 minutes</b> . Measure the resistance between connections <b>3KX</b> and <b>3CS</b> for injector 2, component code <b>194</b> . If the resistance is not between <b>150 kΩ</b> and <b>250 kΩ</b> , replace injector 2 (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injector: Removal - Refitting</b> ).
Apply <b>test 7 Incorrect injection quantity</b> .
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF028 PRESENT OR STORED</b>	<b>CYLINDER 3 INJECTOR CONTROL CIRCUIT</b> CC: Short circuit CO: Open circuit 1. DEF: Line in open circuit 2. FAULT: Open circuit or internal electronic fault
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is <b>present</b> with the engine idling.
	<b>If the fault is present:</b> – Engine speed and torque are restricted, – The <b>level 1</b> warning light will be lit, – The <b>OBD</b> warning light is lit, – Loss of performance, operation on minimum of 2 cylinders.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the connector for <b>injector no. 3</b> , component code <b>195</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injector: Removal - Refitting</b> ) and the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: – <b>3KY</b> between components <b>195</b> and <b>120</b> , – <b>3CT</b> between components <b>195</b> and <b>120</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Measure at ambient temperature (approx. <b>20°C</b> ), allow the engine to cool down for at least <b>30 minutes</b> . Measure the resistance between connections <b>3KY</b> and <b>3CT</b> for injector 3, component code <b>195</b> . If the resistance is not between <b>150 kΩ</b> and <b>250 kΩ</b> , replace injector 3 (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injector: Removal - Refitting</b> ).
Apply <b>test 7 Incorrect injection quantity</b> .
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF029</b> <b>PRESENT</b> <b>OR</b> <b>STORED</b>	<b>INJECTOR CYLINDER 4 CONTROL CIRCUIT</b> CC: Short circuit CO: Open circuit 1. DEF: Line in open circuit 2. FAULT: Open circuit or internal electronic fault
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> after a road test.
	<b>If the fault is present:</b> – Engine speed and torque are restricted, – The <b>level 1</b> warning light will be lit, – The <b>OBD</b> warning light is lit, – Loss of performance, operation on minimum of 2 cylinders.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the connector for <b>injector no. 4</b> , component code <b>196</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injector: Removal - Refitting</b> ) and the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: – <b>3KZ</b> between components <b>196</b> and <b>120</b> , – <b>3CU</b> between components <b>196</b> and <b>120</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Measure at ambient temperature (approx. <b>20°C</b> ), allow the engine to cool down for at least <b>30 minutes</b> . Measure the resistance between connections <b>3KZ</b> and <b>3CU</b> for injector 4, component code <b>196</b> . If the resistance is not between <b>150 kΩ</b> and <b>250 kΩ</b> , replace injector 4 (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injector: Removal - Refitting</b> ).
Apply <b>test 7 Incorrect injection quantity</b> .
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF038 PRESENT OR STORED</b>	<b>COMPUTER</b> 1. DEF to 23. DEF: Internal electronic fault
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<b>NOTES</b>	<b>Priorities when dealing with a number of faults:</b> If there are a number of faults, deal with the other system faults first.
	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> after one attempt to start the engine, or with the engine running.
	<b>If the fault is present:</b> The <b>Level 1 or Level 2 warning lights</b> or <b>OBD</b> warning light are lit.

Check the connection and condition of the **injection computer** connectors, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**). 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(s); otherwise, replace the wiring.

In the event of **9.DEF**, carry out the multiplex network test (see **88B, Multiplexing**) (possible fault on lines Can H and Can L between the injection system and the anti-lock braking system).  
Also check that there are no faults on the ABS computer (see **38C, Anti-lock braking system**).

If the fault is still present, do not erase the fault memory and then contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF039 PRESENT OR STORED</b>	<b><u>INLET AIR TEMPERATURE SENSOR CIRCUIT</u></b> CC.0: Short circuit to earth CO.1: Open circuit or short circuit to +12 V. 1. DEF: Micro-breaks
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<b>NOTES</b>	<b>Processing priority in the event of a number of faults:</b> Deal with fault <b>DF011 Sensor supply voltage no. 1</b> first if it is <b>present</b> or <b>stored</b> .
	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> after the ignition has been switched on for at least <b>10 seconds</b> .
	<b>If the fault is present:</b> The air temperature has a default value, which is <b>PR059 Inlet air temperature = 40°C</b> . Illumination of <b>OBD</b> fault warning light on the instrument panel.
	<b>Special notes:</b> The inlet air temperature sensor is integrated into the air flowmeter.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the connector for the <b>flowmeter</b> , component code <b>799</b> (see <b>MR 392, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Air flowmeter: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Measure the resistance of the <b>air temperature sensor</b> between connections <b>3ABQ</b> and <b>3DW</b> of the <b>air flowmeter</b> component code <b>799</b> . If the resistance measured is not: <div style="text-align: center;"> <math>3553 \, \Omega &lt; X &lt; 3875 \, \Omega</math> at 10°C,  <math>2353 \, \Omega &lt; X &lt; 2543 \, \Omega</math> at 20°C,  <math>1613 \, \Omega &lt; X &lt; 1729 \, \Omega</math> at 30°C,         </div> replace the <b>air flow meter</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Air flowmeter: Removal - Refitting</b> )
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: – <b>3ABQ</b> , between components <b>799</b> and <b>120</b> , – <b>3DW</b> between components <b>799</b> and <b>120</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF047 PRESENT OR STORED</b>	<b>COMPUTER SUPPLY VOLTAGE</b> 1. DEF: Signal outside lower limit 2. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Processing priority in the event of a number of faults:</b> Deal with fault <b>DF532 Alternator charge signal</b> first if the fault is <b>present</b> or <b>stored</b> .
	<b>Conditions for applying the fault finding procedure to a stored fault:</b> – The fault is declared <b>present</b> with the engine running.
	Use <b>CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II</b> Wiring diagrams <b>Technical Note</b> .

Check the battery and run fault finding on the charging circuit (see <b>Technical Note 6014A, Checking the charging circuit or 87G, Engine compartment connection unit</b> ).
Check the connection and condition of the <b>injection computer</b> connectors, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
Check the engine and chassis earths.
Check the condition of the relay support plate as well as the positioning and condition of the <b>injection supply relay</b> , component code <b>983</b> . Replace the relay if necessary (see <b>Replacement of components</b> ).
With the ignition on, check for the presence of <b>+12 V</b> on the connections <b>BP</b> of the <b>main relay support plate</b> , component code <b>983</b> or the <b>Protection and Switching Unit computer</b> , component code <b>1337</b> . If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: – <b>3FB</b> between components <b>983</b> and <b>120</b> , – <b>M</b> between components <b>120</b> and <b>ME (Bodywork electrical earth)</b> . Or (for Kangoo II): – <b>3FB1</b> between components <b>1337</b> and <b>120</b> , – <b>3FB2</b> between components <b>1337</b> and <b>120</b> , – <b>N</b> between component <b>120</b> and <b>the earth</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF049 PRESENT OR STORED</b>	<b>REFRIGERANT SENSOR CIRCUIT</b> CC.0: Short circuit to earth CO.1: Open circuit or short circuit to + 12 V
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<b>NOTES</b>	<b>Processing priority in the event of a number of faults:</b> First deal with the fault <b>DF012 Sensor supply voltage no. 2</b> if the fault is <b>present</b> or <b>stored</b> .
	<b>Conditions for applying the fault finding procedure to a stored fault:</b> Apply the fault finding procedure below, whether the fault is <b>present</b> or <b>stored</b> .
	Use <b>CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note</b> .

Check the connection and condition of the connector for the <b>refrigerant fluid pressure sensor</b> , component code <b>1202</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 62A, Air conditioning, Pressure sensor: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
With the ignition on, check for the presence of + 5 V on connection <b>38Y</b> and an <b>earth</b> on connection <b>38U</b> of the <b>refrigerant fluid pressure sensor</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: – <b>38Y</b> between components <b>1202</b> and <b>120</b> , – <b>38X</b> between components <b>1202</b> and <b>120</b> , – <b>38U</b> between components <b>1202</b> and <b>120</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If the fault is still present, replace the <b>refrigerant fluid sensor</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 62A, Air conditioning, Pressure sensor: Removal - Refitting</b> ).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF051 PRESENT OR STORED</b>	<b><u>CRUISE CONTROL/SPEED LIMITER FUNCTION</u></b> CC.1 : Short circuit to + 12 V 1. DEF: Values outside limits 2. DEF: Signal outside upper limit 3. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Special notes:</b> If a fault is present, the cruise control/speed limiter is inhibited.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

<p>Check the connection and condition of the connector for the ON/OFF <b>button</b> of the <b>cruise control/speed limiter</b> function, component code <b>1081</b> (or component code <b>1546 for Scénic II</b>) (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 83D, Cruise control, Cruise control - speed limiter: List and location of components</b>) and the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b>).</p> <p>If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>) repair the connector(s); otherwise, replace the wiring.</p>
<p>Check for the presence of <b>+ 12 V after ignition feed</b> on connection <b>AP10 (AP43 for Kangoo II)</b> of the ON/OFF button of the <b>cruise control/speed limiter function</b>, component code <b>1081</b> (or component code <b>1546 for Scénic II</b>).</p> <p>If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"><li>– <b>3PD</b> between components <b>120</b> and <b>1081 (or 1546 for Scénic II)</b>,</li><li>– <b>3FX</b> between components <b>120</b> and <b>1081 (or 1546 for Scénic II)</b>.</li></ul> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>Check the operation of the ON/OFF switch for the <b>cruise control/speed limiter</b> function and consult the interpretation of <b>ET042 cruise control/speed limiter</b> (see <b>Interpretation of statuses</b>).</p>
<p>If the fault is still present, contact the Techline.</p>

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF053 PRESENT OR STORED</b>	<b><u>RAIL PRESSURE REGULATION FUNCTION</u></b> 1. DEF: Regulator closed 2. DEF: Regulator open 3. DEF: Regulator open 4. DEF: Regulator closed 5. DEF: Faulty component: Pressure or flow regulator 6. DEF: Pressure regulation oscillation 7. DEF: Flow regulation oscillation
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<b>NOTES</b>	<b>Processing priority in the event of a number of faults:</b> Deal with fault <b>DF098 Fuel temperature sensor circuit</b> or <b>DF007 Rail pressure sensor circuit</b> first, if the fault is <b>present</b> or <b>stored</b> .
	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is considered <b>present</b> when the engine is running.
	<b>Special notes:</b> Possible engine stoppage with illumination of <b>Level 1</b> or <b>Level 2 warning light</b> or loss of performance with illumination of the <b>Level 1 warning light</b> .

Apply <b>test 1 Low pressure fuel supply system check</b> .
Apply <b>test 2 Internal fuel transfer pump check (ITP)</b> .
Apply <b>test 3 High pressure fuel pressure solenoid valve check</b> .
Apply <b>test 4 Check high-pressure pump (HPP) and fuel flow solenoid valve</b> .
Apply <b>test 5 Rail high pressure regulation circuit check</b> .
Apply <b>test 6 Major leak in open injectors/injectors</b> .
Apply <b>test 7 Incorrect injection quantity</b> .
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Clear <b>RZ004 Pressure regulation adaptives</b> Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF054 PRESENT OR STORED</b>	<b><u>TURBOCHARGING SOLENOID VALVE CONTROL CIRCUIT</u></b> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to stored faults:</b> The fault is declared <b>present</b> after: – the engine is started, – a road test, – an actuator control <b>AC214 Turbocharger control solenoid valve</b> .
	<b>If the fault is present:</b> Loss of performance with <b>Level 1 warning light</b> coming on.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>turbocharging solenoid valve</b> connector, component code <b>1475</b> . If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Measure the resistance of the <b>turbocharging solenoid valve</b> , component code <b>1475</b> between its connections <b>3FB (3FB3 for Kangoo II) and 3MG</b> : If the resistance measured is not <b>19 Ω &lt; X &lt; 23 Ω at 23°C</b> or <b>16.8 Ω &lt; X &lt; 20.4 Ω at - 30°C</b> , replace the <b>turbocharging solenoid valve</b> .
With the ignition on, check for the presence of <b>+ 12 V after ignition feed</b> on connection <b>3FB (3FB3 for Kangoo II)</b> of the <b>turbocharging solenoid valve</b> , component code <b>1475</b> . If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: – <b>3FB (except Kangoo II)</b> between components <b>1475</b> and <b>120</b> , – <b>3FB3 (Kangoo II only)</b> between components <b>1475</b> and <b>1337</b> , – <b>3MG</b> between components <b>1475</b> and <b>120</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF056 PRESENT OR STORED</b>	<b>AIR FLOWMETER CIRCUIT</b> CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V
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<b>NOTES</b>	<b>Processing priority in the event of a number of faults:</b> Deal with fault <b>DF011 Sensor supply voltage no. 1</b> first if it is <b>present</b> or <b>stored</b> .
	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault is declared <b>present</b> after the ignition has been switched on. The <b>level 1</b> and <b>OBD</b> warning lights are lit.
	<b>If the fault is present:</b> Loss of performance with smoke from the exhaust.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>flowmeter connector</b> , component code <b>799</b> (see <b>MR 392, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Air flowmeter: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer connector</b> , component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
With the ignition on, check for + 12 V on connection <b>3FB</b> (or <b>3FB3</b> for Kangoo II), + 5 V on connection <b>3KJ</b> and <b>earth</b> on connection <b>3DW</b> of the <b>air flowmeter</b> , component code <b>799</b> . Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: <ul style="list-style-type: none"> <li>– <b>3ABQ</b> between components <b>799</b> and <b>120</b>,</li> <li>– <b>3DV</b> between components <b>799</b> and <b>120</b>,</li> <li>– <b>3DW</b> between components <b>799</b> and <b>120</b>.</li> </ul> If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
With the flow sensor <b>connected, the vehicle ignition on and the engine stopped</b> : Measure the voltage between connections <b>3DV</b> and <b>3DW</b> of the <b>air flowmeter</b> , component code <b>799</b> . If the voltage is not between <b>0.3 V</b> and <b>0.7 V</b> , replace the <b>air flowmeter</b> (see <b>MR 392, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Air flowmeter: Removal - Refitting</b> ).
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF067 PRESENT OR STORED</b>	<b><u>DAMPER VALVE CONTROL CIRCUIT</u></b> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault is declared <b>present</b> after: <ul style="list-style-type: none"> <li>– the engine is started,</li> <li>– a road test,</li> <li>– an actuator control <b>AC012 Damper valve</b>.</li> </ul>
	<b>Special notes:</b> The damper function is no longer ensured when the engine is switched off or the valve is closed, then the engine stalls or starting is impossible. <b>There is no damper valve for Vdiag 4C.</b>
	<b>If the fault is present:</b> The <b>level 1</b> fault warning light is lit on the instrument panel.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>damper valve</b> connector, component code <b>1461</b> (see <b>MR 392, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Damper valve: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check for <b>+ 12 V after ignition</b> on <b>3FB (or 3FB3 for Kangoo II)</b> of the <b>damper valve</b> , component code <b>1461</b> . If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: <ul style="list-style-type: none"> <li>– <b>3FB (or 3FB3 for Kangoo II)</b> between components <b>1461</b> and <b>120</b>,</li> <li>– <b>3GM</b> between components <b>1461</b> and <b>120</b>,</li> <li>– <b>3VM</b> between components <b>1461</b> and <b>120</b>,</li> <li>– <b>3AAD (for Kangoo II)</b> between components <b>1461</b> and <b>120</b>.</li> </ul> If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it. If the fault is still present, replace the <b>damper valve</b> (see <b>MR 392, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Damper valve: Removal - Refitting</b> ).
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF070 PRESENT OR STORED</b>	<b>CLUTCH SWITCH CIRCUIT</b> 1. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault is declared <b>present</b> after a series of actions on the clutch pedal during a road test (speed greater than <b>54 mph (90 km/h)</b> ).
	<b>If the fault is present:</b> Engine bucking or high engine speed.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the **clutch switch** connector, component code **675** (see **MR 392, 385, 364, 370 and 417, Mechanical, 37A, Mechanical component controls, Clutch pedal position sensor: Removal - Refitting**) and the **injection computer** connector, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**).  
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(s); otherwise, replace the wiring.

With the ignition on, check the **+ 5 V clutch switch** signal on connection **86D** and **earth** on connection **M** (or **NAM** for Kangoo II).

If correct:

Check the conformity and adjustment of the **clutch switch** (position, connection).

- display status **ET121 Clutch contact signal**:
- when the clutch pedal is engaged, status **ET121** should be **INACTIVE**,
- when the clutch pedal is disengaged, status **ET121** should be **ACTIVE**.

If these checks are not correct, replace the **clutch switch** (see **MR 392, 385, 364, 370 and 417, Mechanical, 37A, Mechanical component controls, Clutch pedal position sensor: Removal - Refitting**).

If the supply to the switch is incorrect:

Check the **insulation, continuity and the absence of interference resistance** on the following connections:

- **86D** between components **675** and **120**,
- **M (or NAM for Kangoo II)** between components **675** and **120**.

If the connection(s) 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.

If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF086 PRESENT OR STORED</b>	<b><u>COOLANT PUMP RELAY CONTROL CIRCUIT</u></b> CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>Special notes:</b> <b>CO/CC.1:</b> the coolant pump is not actuated, <b>CC.O:</b> the coolant pump is permanently actuated.
	<b>Use the CLIO III, MODUS, MEGANE II ph2 and SCENIC II ph2 wiring diagram technical notes.</b>

<p>Check the connection and condition of the <b>coolant pump relay</b> connector, component code <b>573</b> (see <b>MR 392, 385, 364 and 370, Mechanical, 19A, Cooling, Coolant pump: Removal - Refitting</b>) and the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b>).</p> <p>If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>) repair the connector(s); otherwise, replace the wiring.</p>
<p>Check for <b>+ 12 V after ignition feed</b> on connection <b>3FB</b> of the <b>coolant pump relay</b>, component code <b>573</b>.</p> <p>If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connection:</p> <p>– <b>3VG</b> between components <b>573</b> and <b>120</b>.</p> <p>If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

<b>AFTER REPAIR</b>	<p>Deal with any faults displayed by the <b>diagnostic tool</b>.</p> <p>Clear the computer fault memory.</p> <p>Carry out a road test followed by another check with the <b>diagnostic tool</b>.</p>
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<b>DF091 PRESENT OR STORED</b>	<u>VEHICLE SPEED SIGNAL</u> 1. DEF: Values outside limits
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to stored faults:</b> The fault is considered <b>present</b> when the engine is running.
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**IMPORTANT**

The vehicle speed is transmitted on the CAN network by the ABS system or by an additional unit (if the vehicle is not equipped with ABS).

Test the multiplex network to be able to work on the CAN network (fault on CAN H and CAN L between the injection system and the ABS) (see **88B, Multiplexing**).

Check that there are no ABS computer faults (see **38C, Anti-lock braking system**) or in the system which supplies the vehicle speed (see **38G, Vehicle speed computer**).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF097 PRESENT OR STORED</b>	<b><u>CAMSHAFT SENSOR CIRCUIT</u></b> <ol style="list-style-type: none"> <li>1. DEF: Signal inconsistency</li> <li>2. DEF: No signal</li> <li>3. DEF: Values outside limits</li> <li>4. DEF: Configuration/Initialisation</li> </ol>
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault is declared <b>present</b> after the engine is started or following a road test.
	<b>Special notes:</b> Longer starting time, requires several attempts to start the vehicle.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check that the <b>camshaft sensor</b> is correctly positioned and mounted.
Check the connection and condition of the <b>camshaft sensor</b> connector, component code <b>746</b> (see <b>MR 417, Mechanical, 13B, Diesel injection, Camshaft position sensor: Removal - Refitting</b> ) and the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
With the ignition on, check the <b>+ 12 V after ignition</b> supply of the <b>camshaft sensor</b> on connection <b>3FB (or 3FB3 for Kangoo II)</b> and <b>earth</b> on connection <b>3FJ</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: <ul style="list-style-type: none"> <li>– <b>3FB (or 3FB3 for Kangoo II)</b> between components <b>746</b> and <b>983 (or 1337 for Kangoo II)</b>,</li> <li>– <b>3FJ</b> between components <b>746</b> and <b>120</b>,</li> <li>– <b>3CQ</b> between components <b>746</b> and <b>120</b>.</li> </ul>
If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If these checks are correct, replace the <b>camshaft sensor</b> (see <b>MR 417, Mechanical, 13B, Diesel injection, Camshaft position sensor: Removal - Refitting</b> ).
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF098 PRESENT OR STORED</b>	<b>FUEL TEMPERATURE SENSOR CIRCUIT</b> CC.0: Short circuit to earth CO.1: Open circuit or short circuit to +12 V 1. DEF: Micro-breaks 2. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to stored faults:</b> The fault is declared <b>present</b> after the ignition has been switched on for at least <b>10 seconds</b> .
	<b>If the fault is present:</b> The fuel temperature value is in safe mode, <b>PR063 Fuel temperature = 60°C</b> .
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>fuel temperature sensor</b> connector, component code <b>1066</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Fuel temperature sensor: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Measure the <b>resistance</b> at the terminals of the <b>fuel temperature sensor</b> , component code <b>1066</b> . If the resistance is not: <div style="text-align: center;"> <math>1877 \, \Omega &lt; X &lt; 2123 \, \Omega</math> at 25°C,  <math>767 \, \Omega &lt; X &lt; 861 \, \Omega</math> at 50°C,  <math>301 \, \Omega &lt; X &lt; 335 \, \Omega</math> at 80°C, </div> Replace the <b>fuel temperature sensor</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Fuel temperature sensor: Removal - Refitting</b> ).
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: <ul style="list-style-type: none"> <li>– <b>3FAB</b> between components <b>1066</b> and <b>120</b>,</li> <li>– <b>3LD</b> between components <b>1066</b> and <b>120</b>.</li> </ul> If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF127 PRESENT OR STORED</b>	<b><u>BRAKE SWITCH 1 CIRCUIT</u></b> 1. DEF: Values outside limits 2. DEF: Signal inconsistency 3. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault is declared <b>present</b> after a series of actions on the brake pedal.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>brake switch</b> connector, component code <b>160</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 37A, Mechanical component control, Brake light switch: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the <b>insulation, continuity and the absence of interference resistance</b> of the following connection:  – <b>5A</b> between components <b>160</b> and <b>120</b> .  If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Run a multiplex network test (see <b>88B, Multiplexing</b> ).
Carry out complete fault finding on the UCH (see <b>87B, Passenger Compartment Connection Unit</b> ).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF129 PRESENT OR STORED</b>	<u>REQUESTED AIR FLOW</u> 1. DEF: Signal outside lower limit 2. DEF: Signal outside upper limit 3. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> Apply the fault finding procedure as below.
	<b>If the fault is present:</b> EGR function cut off. The <b>level 1</b> and <b>OBD</b> warning lights are lit.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the condition of the air filter and replace it if necessary (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Air filter: Removal - Refitting</b> ).
Check the entire air supply system and that the pipes from the filter to the inlet manifold are correctly fitted.
Check the connection and condition of the <b>air flowmeter</b> connector, component code <b>799</b> (see <b>MR 392, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Air flowmeter: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
With the ignition on, check for <b>+ 5 V</b> on connection <b>3KJ</b> and <b>earth</b> on connection <b>3DW</b> of the <b>air flowmeter</b> , component code <b>799</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: <ul style="list-style-type: none"> <li>– <b>3DV</b> between components <b>799</b> and <b>120</b>,</li> <li>– <b>3DW</b> between components <b>799</b> and <b>120</b>,</li> <li>– <b>3KJ</b> between components <b>799</b> and <b>120</b>.</li> </ul> If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
With the flow sensor <b>connected, the vehicle ignition on and the engine stopped</b> : Measure the voltage between connections <b>3DV</b> and <b>3DW</b> of the <b>air flowmeter</b> , component code <b>799</b> . If the voltage is not between <b>0.3 V</b> and <b>0.7 V</b> , replace the <b>air flowmeter</b> (see <b>MR 392, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Air flowmeter: Removal - Refitting</b> ).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Interpretation of faults

# 13B

<b>DF173 PRESENT OR STORED</b>	<b><u>REVERSE GEAR SIGNAL</u></b> 1. DEF: Values outside limits
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> Apply this fault finding procedure.
	<b>Special note:</b> If the fault is <b>present</b> , the reversing lights will not work.

Check the connection and condition of the **injection computer** connectors, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**). 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(s); otherwise, replace the wiring.

Run a multiplex network test (see **88B, Multiplexing**).

Carry out complete fault finding on the UCH (see **87B, Passenger Compartment Connection Unit**).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF195 PRESENT OR STORED</b>	<b>ENGINE SPEED/CAMSHAFT SENSOR CONSISTENCY</b> 1. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault is declared <b>present</b> after the engine is started or following a road test.
	<b>If the fault is present:</b> Longer starting time, requires several attempts to start the vehicle.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check that the <b>camshaft sensor</b> , component code <b>746</b> , is correctly positioned and mounted.
Check the connection and condition of the <b>camshaft sensor</b> connector, component code <b>746</b> (see <b>MR 417, Mechanical, 13B, Diesel injection, Camshaft position sensor: Removal - Refitting</b> ) and the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
With the ignition on, check the supply of the <b>camshaft sensor</b> , component code <b>746</b> : – <b>+ 12 V after ignition</b> on connection <b>3FB (or 3FB3 for Kangoo II)</b> , – <b>earth</b> on connection <b>3FJ</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections: – <b>3FJ</b> between components <b>746</b> and <b>120</b> , – <b>3CQ</b> between components <b>746</b> and <b>120</b> , – <b>3FB (or 3FB3 for Kangoo II)</b> between components <b>746</b> and <b>983 (or 1337 for Kangoo II)</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the condition of the <b>camshaft target</b> .
If these checks are correct, replace the <b>camshaft sensor</b> (see <b>MR 417, Mechanical, 13B, Diesel injection, Camshaft position sensor: Removal - Refitting</b> ).
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF202 PRESENT OR STORED</b>	<u><b>EGR VALVE</b></u> 1. DEF: Jammed component
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>If the fault is present:</b> <ul style="list-style-type: none"> <li>– The <b>level 1</b> and <b>OBD</b> fault warning lights are lit on the instrument panel.</li> <li>– Engine instability, possibly even stalling.</li> <li>– Difficult to start engine or even impossible when cold.</li> <li>– Loss of performance.</li> <li>– Possible smoke emissions.</li> </ul>
	<b>Use the Wiring Diagram Technical Notes for CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II.</b>

Check the connection and condition of the **EGR valve** connector, component code **1460**, and the **injection computer** connector, component code **120**.  
If the connector 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.

With the ignition on, check for the presence of **+ 5 V** on the connection **3GC** and an **earth** on connection **3GD** of the **EGR valve**, component code **1460**.  
Check the **continuity, insulation and the absence of interference resistance** on the following connections:

- **3GD** between components **1460** and **120**,
- **3VQ** between components **1460** and **120**,
- **3VP** between components **1460** and **120**,
- **3GC** between components **1460** and **120**,
- **3EL** between components **1460** and **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.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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**DF202  
CONTINUED**

Measure the **resistance** of the **EGR valve**, component code **1460**:

- with the engine stopped, the **EGR valve** will be closed (unless there is a fault),
- wait for the ambient temperature to stabilise (approximately **20 °C**) around the valve,
- measure the resistance between connections **3VP** and **3VQ** of component **1460**.

If the resistance is not between  **$0.5 \Omega < X < 50 \Omega$** , replace the **EGR valve** (see **MR 392 (CLIO III)**, **385 (MODUS)**, **364 (MEGANE II)**, **370 (SCENIC II)**, **417 (KANGOO II)**, **Mechanical**, **14A**, **Emission control**, **Exhaust gas recirculation solenoid valve: Removal - Refitting**).

Use the command **RZ002 EGR Adaptive** to reinitialise the offsets of the **EGR valve** (see **Replacement of components**).

If the fault is still present, contact the Techline.

**AFTER REPAIR**

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer fault memory.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>DF209 PRESENT OR STORED</b>	<b><u>EGR VALVE POSITION SENSOR CIRCUIT</u></b> CC.1: Short circuit to + 12 V CO.0: Open circuit or short circuit to earth
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<b>NOTES</b>	<b>Priority when dealing with a number of faults:</b> – DF011 Sensor supply voltage no. 1.
	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>If the fault is present:</b> EGR valve cut-off
	<b>Use the Wiring Diagram Technical Notes for CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II.</b>

Check the connection and condition of the connector for the **EGR valve**, component code **1460**, and the connector for the **injection computer**, component code **120**.  
 If the 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.

With the ignition on, check for the presence of + 5 V on the connection **3GC** and an **earth** on connection **3GD** of the **EGR valve**, component code **1460**.

Check the **continuity, insulation and the absence of interference resistance** on the following connections:

- **3GD** between components **1460** and **120**,
- **3GC** between components **1460** and **120**,
- **3EL** between components **1460** and **120**.

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

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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**DF209  
CONTINUED**

If the fault is still present, replace the **EGR valve** (see **MR 392 (CLIO III)**, **385 (MODUS)**, **364 (MEGANE II)**, **370 (SCENIC II)** and **417 (KANGOO II)**, **Mechanical**, **14A**, **Emission control**, **Exhaust gas recirculation solenoid valve: Removal - Refitting**).

Use the command **RZ002 EGR Adaptive** to reinitialise the offsets of the **EGR valve** (see **Replacement of components**).

If the fault is still present, contact the Techline.

**AFTER REPAIR**

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer fault memory.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>DF238 PRESENT OR STORED</b>	<b><u>THERMOPLUNGER NO. 3 RELAY CIRCUIT</u></b> CC.0: Short circuit to earth CC.1: Short circuit to <b>+ 12 V</b> CO: Open circuit
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>If the fault is present:</b> CC.0: The water heater interface unit is permanently actuated. CC.1: The water heater interface unit is not actuated. The <b>level 1</b> fault warning light is lit on the instrument panel.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>thermoplunger unit</b> connector, component code <b>1550</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 61A, Heating system, Heating system: List and location of components</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
With the ignition on, check for <b>+ 12 V</b> on connections <b>BP35</b> and <b>BP36</b> of the <b>thermoplunger unit</b> , component code <b>1550</b> . Check <b>the continuity, insulation and the absence of interference resistance</b> on the following connection:  – <b>3JAB</b> between components <b>1550</b> and <b>120</b> .  If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF239 PRESENT OR STORED</b>	<b><u>THERMOPLUNGER RELAY NO. 2 CIRCUIT</u></b> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>If the fault is present:</b> CC.0: The water heater interface unit is permanently actuated. CC.1: The water heater interface unit is not actuated. The <b>level 1</b> fault warning light is lit on the instrument panel.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>thermoplunger unit</b> connector, component code <b>1550</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 61A, Heating system, Heating system: List and location of components</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
With the ignition on, check for + 12 V on connections <b>BP35</b> and <b>BP36</b> of the <b>thermoplunger unit</b> , component code <b>1550</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check <b>the continuity, insulation and the absence of interference resistance</b> on the following connection:  – <b>3JAA</b> between components <b>1550</b> and <b>120</b> .  If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF240 PRESENT OR STORED</b>	<b><u>THERMOPLUNGER NO. 1 RELAY CIRCUIT</u></b> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>If the fault is present:</b> CC.0: The water heater interface unit is permanently actuated. CC.1: The water heater interface unit is not actuated. The <b>level 1</b> fault warning light is lit on the instrument panel.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>thermoplunger unit</b> connector, component code <b>1550</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 61A, Heating system, Heating system: List and location of components</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
With the ignition on, check for <b>+ 12 V</b> on connections <b>BP35</b> and <b>BP36</b> of the <b>thermoplunger</b> , component code <b>1550</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check <b>the continuity, insulation and the absence of interference resistance</b> on the following connection:  – <b>3JA</b> between components <b>1550</b> and <b>120</b> .  If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF249 PRESENT OR STORED</b>	<b>INJECTOR CONTROL</b> 1. DEF: Voltage outside permitted range of values 2. DEF: Configuration/Initialisation 3. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>If the fault is present:</b> – Illumination of <b>Level 2</b> fault warning light on the instrument panel. – Loss of performance, or cannot be started.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the **injector** connectors, component codes **193, 194, 195 and 196** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injector: Removal - Refitting**) and the **injection computer** connector, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**).

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(s); otherwise, replace the wiring.

Disconnect the injectors.

Measure the **resistance** of the injectors.

If the resistance is not between **150 and 250 kΩ**, replace the **injector(s)** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injectors: Removal - Refitting**).

If OK **reconnect the injectors**.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:

- **3KW** between components **193** and **120**,
- **3CR** between components **193** and **120**,
- **3KX** between components **194** and **120**,
- **3CS** between components **194** and **120**,
- **3KY** between components **195** and **120**,
- **3CT** between components **195** and **120**,
- **3KZ** between components **196** and **120**,
- **3CU** between components **196** and **120**.

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

If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF301 PRESENT OR STORED</b>	<b>AIR INLET CIRCUIT</b> 1. DEF: Signal outside lower limit 2. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>If the fault is present:</b> – The <b>level 1</b> fault warning light is lit on the instrument panel. – Loss of performance. – EGR cut off. – Turbocharging cut-off.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Carry out <b>Test 10: Air Chain at the level of the turbocharger.</b>
Carry out <b>Test 11: Turbocharger control solenoid valve.</b>
Carry out <b>Test 12: Turbocharger.</b>
Check the connection and condition of the connector of the <b>turbocharging solenoid valve</b> , component code <b>1475</b> . If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Measure the resistance of the <b>turbocharging control solenoid valve</b> between connections <b>3FB2</b> (or <b>3FB3</b> for <b>Kangoo II</b> ) and <b>3MG</b> : The resistance must be between <b>19 Ω and 23 Ω at 23°C</b> . If the resistance is outside the permitted tolerance values, replace the <b>turbocharging solenoid valve</b> (see <b>Replacement of components</b> ).
With the ignition on, check for <b>+ 12 V after ignition feed</b> on connection <b>3MG</b> of the turbocharging solenoid valve, component code <b>1475</b> . Check for <b>+ after ignition supply</b> on connection <b>3FB1</b> (or <b>3FB3</b> for <b>Kangoo II</b> ) of the <b>turbocharging control solenoid valve</b> . If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>insulation, continuity and the absence of interference resistance</b> of the following connection: – <b>3MG</b> between components <b>1475</b> and <b>120</b> . If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF308 PRESENT OR STORED</b>	<b><u>CLOGGED PARTICLE FILTER</u></b> 1. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Priorities when dealing with a number of faults:</b> Deal with faults stored in the computer first.
	<b>Ask the customer about vehicle usage: driving style, type of journey, etc.</b>
	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault is declared <b>present</b> after the engine is started or following a road test.
	<b>Special notes:</b> If the fault is <b>present</b> : <ul style="list-style-type: none"> <li>– particle filter regeneration is inhibited,</li> <li>– the EGR function is inhibited,</li> <li>– the vehicle performance is reduced,</li> <li>– the <b>level 1</b> warning light is lit and a warning message (or light) is displayed on the instrument panel.</li> </ul>

Carry out an After-Sales regeneration (before and after each regeneration, check the oil and diesel fuel levels). Run command <b>SC017 Particle filter regeneration</b> (see <b>Interpretation of commands</b> ).
Use <b>ALP 21: Particle filter warning light lit</b> .
Deal with the interpretation of fault <b>DF1003 Particle filter differential pressure sensor circuit</b> . Check the exhaust system.
Deal with the interpretation of fault <b>DF1000 Particle filter upstream temperature sensor circuit</b> .
Deal with the interpretation of fault <b>DF1007 Catalytic converter 1 downstream temperature sensor circuit</b>
Deal with the interpretation of fault <b>DF999 Particle filter downstream temperature sensor circuit</b> .
Deal with the interpretation of fault <b>DF652 Turbine upstream temperature sensor circuit</b> .
Carry out <b>Test 10: Air Chain at the level of the turbocharger</b> .
Carry out <b>Test 11: Turbocharger control solenoid valve</b> .
Carry out <b>Test 12: Turbocharger</b> .
Carry out <b>Test 8: Particle filter injector supply circuit check</b> .
If the fault is still present, contact the Techline.

\*diff: differential

\*temp: temperature

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> . Explain to the customer how the particle filter system works.
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<b>DF311 PRESENT OR STORED</b>	<b><u>FAILED REGENERATIONS LIMIT EXCEEDED</u></b> 1. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Priorities when dealing with a number of faults:</b> Deal with faults stored in the computer first.
	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault is declared <b>present</b> after: – the engine is started, – a road test.
	<b>Special notes:</b> If the fault is <b>present</b> , – particle filter regenerations when driving are inhibited. Use bornier <b>Elé. 1681</b> bornier for all operations on the connector of the engine management computer.

Deal with the interpretation of fault <b>DF308 Clogged particle filter</b> .
If the fault is still present, contact the Techline.

\*diff: differential

\*temp: temperature

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF532 PRESENT OR STORED</b>	<b><u>ALTERNATOR CHARGE SIGNAL</u></b> 1. DEF: Values outside limits
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>Special notes:</b> Rough idle.

Check the connection and condition of the <b>injection computer</b> connectors, component code <b>120</b> . If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
Check the <b>battery</b> and run fault finding on the <b>charging circuit</b> (see <b>Technical Note 6014A, Checking the charging circuit or 87G, Engine compartment connection unit</b> ).
Run a multiplex network test (see <b>88B, Multiplexing</b> ).
Carry out fault finding on the <b>UPC</b> (see <b>87G, Engine compartment connection unit</b> ).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF582 PRESENT OR STORED</b>	<b><u>PRESSURE CONSISTENCY</u></b> 1. DEF: Signal outside lower limit 2. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>If the fault is present:</b> – The <b>level 1</b> and <b>OBD</b> fault warning lights are lit on the instrument panel. – The <b>cruise control/speed limiter</b> is inhibited. – Loss of performance, torque setpoint restricted.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the condition and connection of the <b>turbocharging pressure sensor</b> connector, component code <b>1071</b> . If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
With the ignition on, check for <b>+ 5 V</b> on connection <b>3LQ</b> and <b>earth</b> on connection <b>3LN</b> of the <b>turbocharging pressure sensor</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:  – <b>3LQ</b> between components <b>1071</b> and <b>120</b> , – <b>3LN</b> between components <b>1071</b> and <b>120</b> , – <b>3LP</b> between components <b>1071</b> and <b>120</b> .  If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.  Check the consistency between the <b>atmospheric pressure</b> and the <b>turbocharging pressure</b> ( <b>PR035 Atmospheric pressure = PR041 Turbocharging pressure</b> ). Engine stopped (cold), the pressure read by the two sensors must be nearly the same. If the values are very different, replace the <b>turbocharging pressure sensor</b> .
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF641 PRESENT OR STORED</b>	<b><u>DAMPER VALVE CIRCUIT</u></b> <ol style="list-style-type: none"> <li>1. DEF: No signal</li> <li>2. DEF: Deal with DF067</li> <li>3. DEF: Values outside limits</li> <li>4. DEF: Signal inconsistency</li> </ol>
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<b>NOTES</b>	<b>Special notes:</b> If fault <b>DF641 Damper valve circuit</b> , 2.DEF is present, apply the fault finding procedure for <b>DF067 Damper valve control circuit</b> . Damper valve cut-off. <b>There is no damper valve for Vdiag 4C.</b>
	<b>Conditions for applying fault finding procedures to stored faults:</b> <ul style="list-style-type: none"> <li>– The fault becomes <b>present</b> when the engine is started and then stopped,</li> <li>– a road test,</li> <li>– an actuator control <b>AC012 Damper valve</b>.</li> <li>– The <b>level 1</b> fault warning light is lit on the instrument panel.</li> </ul>
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

<p>Check the connection and condition of the <b>damper valve</b> connector, component code <b>1461</b> (see <b>MR 392, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Damper valve: Removal - Refitting</b>).</p> <p>and of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b>).</p> <p>If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>) repair the connector(s); otherwise, replace the wiring.</p>
<p>Check for <b>+ 12 V after ignition</b> on connection <b>3FB (or 3FB3 for Kangoo II)</b> of the <b>damper valve</b>, component code <b>1461</b>.</p> <p>If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>– <b>3VM</b> between components <b>1461</b> and <b>120</b>,</li> <li>– <b>3GM</b> between components <b>1461</b> and <b>120</b>,</li> <li>– <b>3AAD</b> between components <b>1461</b> and <b>120</b>.</li> </ul> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p> <p>If the fault is still present, replace the <b>damper valve</b> (see <b>MR 392, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Damper valve: Removal - Refitting</b>).</p>
<p>If the fault is still present, contact the Techline.</p>

<b>AFTER REPAIR</b>	<p>Deal with any faults displayed by the <b>diagnostic tool</b>.</p> <p>Clear the computer fault memory.</p> <p>Carry out a road test followed by another check with the <b>diagnostic tool</b>.</p>
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<b>DF647 PRESENT OR STORED</b>	<b><u>EGR VALVE POSITION REGULATION</u></b> 1. DEF: Signal inconsistency 2. DEF: Signal outside lower limit 3. DEF: Signal outside upper limit 4. DEF: Values outside limits 5. DEF: Faulty sensor
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> after starting the engine.
	<b>Priority when dealing with a number of faults:</b> – <b>DF011 Sensor supply voltage no. 1.</b>
	<b>Special notes:</b> – The <b>level 1</b> fault warning light is lit on the instrument panel. – Engine instability, possibly even stalling. – Difficult to start engine or even impossible when cold. – Loss of performance. – Possible smoke emissions.
	<b>Use the Wiring Diagram Technical Notes for CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II.</b>

Check the connection and condition of the connector for the **EGR valve**, component code **1460** and the connector for the injection computer, component code **120**.

If the connector 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.

With the ignition on, check for **+ 5 V** on connection **3GC** and **earth** on connection **3GD** of the **exhaust gas recirculation valve**, component code **1460**.

Check the **continuity, insulation and the absence of interference resistance** on the following connections:

- **3GD** between components **1460** and **120**,
- **3GC** between components **1460** and **120**,
- **3EL** between components **1460** and **120**.

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

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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**DF647  
CONTINUED**

Measure the resistance of the **EGR valve**, component code **1460**:

- with the engine stopped, the **EGR valve** will be closed (unless there is a fault),
- wait for the ambient temperature to stabilise (approximately **20 °C**) around the valve,
- measure the resistance between connections **3VP** and **3VQ** of component **1460**.

If the resistance is not between **0.5 Ω < X < 50 Ω**, replace the **EGR valve** (see **MR 392 (CLIO III)**, **385 (MODUS)**, **364 (MEGANE II)**, **370 (SCENIC II)**, **417 (KANGOO II)**, **Mechanical**, **14A**, **Emission control**, **Exhaust gas recirculation solenoid valve: Removal - Refitting**).

Use the command **RZ002 EGR Adaptive** to reinitialise the offsets of the **EGR valve** (see **Replacement of components**).

If the fault is still present, contact the Techline.

**AFTER REPAIR**

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer fault memory.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>DF648 PRESENT OR STORED</b>	<u>COMPUTER</u> 1. DEF: Configuration/Initialisation
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<b>NOTES</b>	<b>Special note:</b> – The <b>level 1</b> fault warning light is lit on the instrument panel.
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Clear the fault memory using command <b>RZ001 Fault memory</b> .
Change the engine oil and initialise the value of the oil service interval using the instrument panel.
Switch off the ignition, wait for the end of the power latch, then start the vehicle.
Switch off the ignition again, wait for the end of the power latch, then switch the ignition back on.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF652 PRESENT OR STORED</b>	<b><u>TURBINE UPSTREAM TEMPERATURE SENSOR CIRCUIT</u></b> CC.0: Short circuit to earth CO.1: Open circuit or short circuit to <b>+ 12 V</b> 1. DEF: Micro-break 2. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> The fault becomes <b>present</b> if: – ignition is on ( <b>CC.0</b> ), – following a road test, engine warm ( <b>CO.1</b> ).
	<b>Special notes:</b> If the fault is <b>present</b> : – the EGR function is inhibited, – particle filter regeneration is inhibited, – the vehicle performance is reduced, – the <b>level 1</b> warning light is lit.
	<b>IMPORTANT</b> <b>The turbine upstream temperature sensor only measures temperatures above 100°C.</b>
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Run command <b>AC029 High pressure circuit sealing check</b> and check <b>PR667 Turbine upstream temperature</b> . If the turbine upstream temperature is above <b>120°C</b> , then the sensor is correct, otherwise continue the fault finding procedure.
Check the connection and condition of the connector of the <b>turbine upstream temperature sensor</b> , component code <b>1589</b> and the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ) repair the connector(s); otherwise, replace the wiring.
Measure the <b>resistance</b> of the <b>turbine upstream temperature sensor</b> , component code <b>1589</b> between connections <b>3B</b> and <b>3JQ</b> . If the resistance is not between <b>313 KΩ</b> and <b>436 KΩ</b> at <b>100°C</b> , replace the <b>turbine upstream temperature sensor</b> .
With the ignition on, check for <b>+ 5 V</b> on connection <b>3B</b> and <b>earth</b> on connection <b>3JQ</b> of the <b>turbine upstream temperature sensor</b> , component code <b>1589</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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### DF652 CONTINUED

Check the **continuity, insulation and the absence of interference resistance** on the following connections:

- **3B** between components **1589** and **120**,
- **3JQ** between components **1589** and **120**.

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

If the fault is still present, contact the Techline.

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer fault memory.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>DF770 PRESENT OR STORED</b>	<b>FLOW REGULATOR CIRCUIT</b> CC.0 : Short circuit to earth CC.1 : Short circuit to + 12 V CO : Open circuit 1. DEF: Parameter at maximum limit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> after starting the engine.
	<b>Special notes:</b> <b>Level 1</b> fault warning light lit on the instrument panel and loss of performance, or <b>level 2</b> fault warning light lit on the instrument panel with loss of performance, engine stalling or impossible to start.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check the connection and condition of the <b>fuel flow solenoid valve</b> connector (orange connector), component code <b>1105</b> . If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Measure the resistance at the terminals of the <b>flow solenoid valve</b> between connections <b>3HI1 (or 3HI for Kangoo II)</b> and <b>3FB1 (or 3FB3 for Kangoo II)</b> (be careful of the connector of the injection main relay). If the resistance is not between <b>1.5 Ω</b> and <b>15 Ω</b> , replace the pump (see <b>Replacement of components</b> ).
With the ignition on, check for <b>+ 12 V after ignition</b> on connection <b>3FB1 (or 3FB3 for Kangoo II)</b> of the <b>fuel flow solenoid valve</b> , component code <b>1105</b> . If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the <b>continuity, insulation and the absence of interference resistance</b> on the following connections: – <b>3FB1 (or 3FB3 for Kangoo II)</b> between components <b>1105</b> and <b>983 (or 1337 for Kangoo II)</b> , – <b>3HI1 (or 3HI for Kangoo II)</b> between components <b>1105</b> and <b>120</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Apply <b>test 7 Incorrect injection quantity</b> .
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF771 PRESENT OR STORED</b>	<b><u>FLOW REGULATION ADAPTIVE</u></b> 1. DEF: Parameter at minimum limit 2. DEF: Parameter at maximum limit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> after the engine is started and following a road test.
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Apply <b>test 1</b> Low pressure fuel supply system check.
Apply <b>test 2</b> Internal fuel transfer pump check (ITP).
Apply <b>test 3</b> High pressure fuel pressure solenoid valve check.
Apply <b>test 4</b> Check high-pressure pump (HPP) and fuel flow solenoid valve.
Apply <b>test 5</b> Rail high pressure regulation circuit check.
Apply <b>test 6</b> Major leak in open injectors/injectors.
Apply <b>test 7</b> Incorrect injection quantity.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Clear <b>RZ004 Pressure regulation adaptives</b> . Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF773 PRESENT OR STORED</b>	<b>PRESSURE REGULATOR CIRCUIT</b> CC.0 : Short circuit to earth CC.1 : Short circuit to <b>+ 12 V</b> CO : Open circuit 1. DEF: Parameter at maximum limit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> after starting the engine.
	<b>Special notes:</b> – <b>Level 1</b> fault warning light lit on the instrument panel and loss of performance, or <b>level 2</b> fault warning light lit on the instrument panel with loss of performance, engine stalling or impossible to start.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

<p>Check the connection and condition of the connector of the <b>fuel pressure solenoid valve</b>, component code <b>1198</b> and the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b>).</p> <p>If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the connector, otherwise replace the wiring.</p>
<p>Measure the resistance at the terminals of the pressure solenoid valve between connections <b>3ZQ1</b> and <b>3FB1</b> (or <b>3FB3</b> for Kangoo II).</p> <p>(be careful of the injection main relay connector).</p> <p>If the resistance is not between <b>1.5 Ω</b> and <b>15 Ω</b>, replace the pump (see <b>Replacement of components</b>).</p>
<p>With the ignition on, check for <b>+ 12 V after ignition</b> on connection <b>3FB1</b> (or <b>3FB3</b> for Kangoo II) of the <b>fuel pressure solenoid valve</b>, component code <b>1198</b>.</p> <p>If the connection is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>Check the <b>continuity, insulation and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>– <b>3FB1</b> (or <b>3FB3</b> for Kangoo II) between components <b>1198</b> and <b>983</b> (or <b>1337</b> for Kangoo II),</li> <li>– <b>3ZQ1</b> (or <b>3ZQ</b> for Kangoo II) between components <b>1198</b> and <b>120</b>.</li> </ul> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>If the fault is still present, contact the Techline.</p>

<b>AFTER REPAIR</b>	<p>Deal with any faults displayed by the <b>diagnostic tool</b>.</p> <p>Clear the computer fault memory.</p> <p>Carry out a road test followed by another check with the <b>diagnostic tool</b>.</p>
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<b>DF885 PRESENT OR STORED</b>	<u><b>RAIL PRESSURE</b></u> 1. DEF: Rail pressure too low on starting
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> during the <b>first 30 seconds</b> after starting the engine.
	<b>Special note:</b> – Starting and engine operation difficult or impossible.

Apply <b>test 1</b> Low pressure fuel supply system check.
Apply <b>test 2</b> Internal fuel transfer pump check (ITP).
Apply <b>test 3</b> High pressure fuel pressure solenoid valve check.
Apply <b>test 4</b> Check high-pressure pump (HPP) and fuel flow solenoid valve.
Apply <b>test 5</b> Rail high pressure regulation circuit check.
Apply <b>test 6</b> Major leak in injectors/injectors open.
Apply <b>test 7</b> Incorrect injection quantity.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Clear <b>RZ004 Pressure regulation adaptives</b> . Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF886 PRESENT OR STORED</b>	<b><u>PRESENCE OF WATER IN THE DIESEL FUEL</u></b> 1. DEF: Water in diesel fuel
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes present after a road test above 24 mph (40 km/h) and the engine speed above 1000 rpm.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check whether there is any water in the diesel filter; replace the filter if necessary. Drain the fuel filter.
Check the connection and condition of the connector of the <b>water in diesel fuel sensor</b> , component code <b>414</b> . If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Measure the <b>resistance</b> of the <b>water in diesel fuel sensor</b> , component code <b>414</b> between connections <b>3FB</b> and <b>M</b> . If the resistance is not: <div style="text-align: center;"> <math>2140 \, \Omega &lt; X &lt; 2364 \, \Omega \text{ at } 25^{\circ}\text{C},</math>  <math>771 \, \Omega &lt; X &lt; 849 \, \Omega \text{ at } 50^{\circ}\text{C},</math>  <math>275 \, \Omega &lt; X &lt; 291 \, \Omega \text{ at } 80^{\circ}\text{C},</math> </div> replace the <b>water in diesel fuel sensor</b> .
With the ignition on, check for <b>+ 12 V after ignition</b> on connection <b>3FB (or AP15 for Kangoo II)</b> and <b>earth</b> on connection <b>M (MH or MW for Kangoo II)</b> of the <b>water in diesel fuel sensor</b> , component code <b>414</b> . If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Check the continuity, insulation and absence of interference resistance on the following connections: <ul style="list-style-type: none"> <li>– <b>3FB (or AP15 for Kangoo II)</b> between components <b>414</b> and <b>120</b>,</li> <li>– <b>M (MH or MW for Kangoo II)</b> between components <b>414</b> and <b>120</b>,</li> <li>– <b>3WT</b> between components <b>414</b> and <b>120</b>.</li> </ul> If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it. Replace the <b>water in diesel fuel sensor</b> .
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF887 PRESENT OR STORED</b>	<b><u>BRAKE/ACCELERATOR PEDAL POSITIONS</u></b> 1. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> Apply this fault finding procedure.
	<b>Special notes:</b> The brake and accelerator pedals were detected as <b>depressed</b> simultaneously for <b>30 seconds</b> . – Illumination of <b>Level 2</b> fault warning light on the instrument panel.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

Check that the accelerator pedal is not jammed and that there is nothing impeding its operation (floor carpet, etc.). Check that the <b>brake light switch</b> is adjusted and operating correctly.
Check the connection and condition of the <b>accelerator pedal potentiometer</b> connector, component code <b>921</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 17B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Measure the <b>resistance</b> of the <b>pedal potentiometer</b> , component code <b>921</b> on <b>gang 1</b> between connections <b>3LT</b> and <b>3LR</b> . If the resistance is not between <b>0.8 kΩ and 2.6 kΩ</b> , replace the <b>pedal potentiometer</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting</b> ).
Measure the <b>resistance</b> of the <b>pedal potentiometer</b> , component code <b>921</b> on <b>gang 2</b> between connections <b>3LU</b> and <b>3LV</b> . If the resistance is not between <b>0.8 kΩ and 4.9 kΩ</b> , replace the <b>pedal potentiometer</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 17B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting</b> ).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Clear <b>RZ001 Fault memory</b> . Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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### DF887 CONTINUED

Check the **insulation, continuity and the absence of interference resistance** on the following connections:

- **3LR** between components **921** and **120**,
- **3LS** between components **921** and **120**,
- **3LT** between components **921** and **120**,
- **3LU** between components **921** and **120**,
- **3LV** between components **921** and **120**,
- **3LW** between components **921** and **120**.

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

If the fault is still present, contact the Techline.

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer fault memory.  
Clear **RZ001 Fault memory**.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>DF889 PRESENT OR STORED</b>	<b><u>ENGINE PROTECTION</u></b> 1. DEF: Engine safety stop after an electric fault 2. DEF: Engine safety stop after a hydraulic fault
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<b>NOTES</b>	<b>Priorities when dealing with a number of faults:</b> If there are a number of faults, deal with the other system faults first.
	<b>Conditions for applying the fault finding procedure to a stored fault:</b> Apply this fault finding procedure.
	<b>Special notes:</b> The engine only stops after switching the ignition off.

Carry out <b>Test 12: Turbocharger</b>
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF953 PRESENT OR STORED</b>	<b><u>PARTICLE FILTER ABSENT</u></b> 1. DEF: Signal outside lower limit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> after the engine is started or following a road test.
	<b>Priorities when dealing with a number of faults:</b> Deal with fault <b>DF1003 Particle filter differential pressure sensor circuit</b> first.
	<b>If the fault is present:</b> <ul style="list-style-type: none"> <li>– smoke is emitted,</li> <li>– the <b>OBD</b> warning light is lit.</li> </ul>

Visually check the particle filter. Check that the particle filter is in good condition. Check that the exhaust is not broken or damaged.
Apply the interpretation of fault <b>DF1003 Particle filter differential pressure sensor circuit</b> .
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF991 PRESENT OR STORED</b>	<b><u>PARTICLE FILTER INJECTOR CONTROL CIRCUIT</u></b> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> – The fault is declared <b>present</b> after the engine is started or following a road test. – After actuator command <b>AC238 Particle filter injector</b> .
	<b>If the fault is present:</b> CO or CC.1: Injector not actuated, CC.0: Injector permanently actuated. – The <b>level 1</b> and <b>OBD</b> fault warning lights are lit on the instrument panel.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Check the connection and condition of the **exhaust injection solenoid valve** connector, component code **1750**.  
 If the connector 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 connection and condition of the **injection computer** connector, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**).  
 If the connector 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.

Measure the **resistance** of the **particle filter injector**, component code **1750** between connections **3FB2 (or 3FB3 for Kangoo II)** and **3AGR**.

If the resistance is not:

**5.2 Ω at - 40°C,**  
**7.5 Ω at 20°C,**  
**10.4 Ω at 120°C.**

Replace the injector.

With the ignition on, check for **+ 12 V after ignition** on connection **3FB2 (or 3FB3 for Kangoo II)** of the **exhaust injection solenoid valve**, component code **1750**.

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

Check the continuity, insulation and absence of interference resistance on the following connections:

- **3FB2 (or 3FB3 for Kangoo II)** between components **1750** and **120 (or 1337 for Kangoo II)**,
- **3AGR** between components **1750** and **120**.

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

If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF999 PRESENT OR STORED</b>	<b>PARTICLE FILTER DOWNSTREAM TEMPERATURE SENSOR CIRCUIT</b> CC.0 : Short circuit to earth CO.1 : Open circuit or short circuit to +12 V. 1. DEF: Micro-breaks 2. DEF: Signal outside lower limit 3. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> : – with the ignition on (for status <b>CC.0</b> ), – after a road test with a warm engine (for status <b>CO. 1</b> ).
	<b>Special notes:</b> If the fault is <b>present</b> : – The <b>level 1</b> fault warning light is lit on the instrument panel.
	<b>IMPORTANT</b> The particle filter downstream temperature sensor only measures temperatures above 50°C.
	Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.

Run command <b>AC029 High pressure circuit sealing test</b> and check <b>PR381 Particle filter downstream temperature</b> . If the particle filter downstream temperature is above 50°C, then the sensor is correct, otherwise continue the fault finding procedure.
Check the connection and condition of the connector of the <b>particle filter downstream temperature sensor</b> , component code <b>1288</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 19B, Exhaust, Particle filter temperature sensors: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Measure the <b>resistance</b> of the <b>particle filter downstream temperature sensor</b> , component code <b>1288</b> between connections <b>3TG</b> and <b>3XU</b> . If the resistance is not:
<div style="display: flex; justify-content: space-between;"> <div> 106170 Ω &lt; X &lt; 106190 Ω at 50°C,  33550 Ω &lt; X &lt; 33570 Ω at 100°C,  6886 Ω &lt; X &lt; 6906 Ω at 200°C,  2565 Ω &lt; X &lt; 2585 Ω at 300°C, </div> <div> 1192 Ω &lt; X &lt; 1212 Ω at 400°C,  663 Ω &lt; X &lt; 683 Ω at 500°C,  277 Ω &lt; X &lt; 297 Ω at 700°C, </div> </div>
Replace the sensor (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 19B, Exhaust, Particle filter temperature sensors: Removal - Refitting</b> ).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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**DF999  
CONTINUED**

With the ignition on, check the continuity, insulation and absence of interference resistance on the following connections:

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

If the connection(s) 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.

If the fault is still present, contact the Techline.

**AFTER REPAIR**

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer fault memory.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>DF1000 PRESENT OR STORED</b>	<b>PARTICLE FILTER UPSTREAM TEMPERATURE SENSOR CIRCUIT</b> CC.0: Short circuit to earth CO.1: Open circuit or short circuit to +12 V. 1. DEF: Micro-breaks 2. DEF: Signal outside lower limit 3. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> : – with the ignition on (for status <b>CC.0</b> ), – after a road test with a warm engine (for status <b>CO. 1</b> ).
	<b>Special notes:</b> If the fault is <b>present</b> : – particle filter regeneration is inhibited, – the <b>level 1</b> warning light is lit, – the <b>OBD</b> warning light illuminates after three consecutive driving cycles (starting + 5 seconds + switching off the ignition and waiting 1 minute).
	<b>IMPORTANT</b> The particle filter upstream temperature sensor only measures temperatures above 50°C.
	Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.

Run command <b>AC029 High pressure circuit sealing test</b> and check <b>PR382 Particle filter upstream temperature</b> . If the particle filter upstream temperature is above 50°C, then the sensor is correct, otherwise continue the fault finding procedure.
Check the connection and condition of the connection of the <b>particle filter upstream temperature sensor</b> , component code <b>1287</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 19B, Exhaust, Particle filter temperature sensors: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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### DF1000 CONTINUED

Measure the **resistance** of the **particle filter upstream temperature sensor**, component code **1287** between connections **3TD** and **3XT**.

If the resistance is not:

**106170 Ω < X < 106190 Ω at 50°C,**  
**33550 Ω < X < 33570 Ω at 100°C,**  
**6886 Ω < X < 6906 Ω at 200°C,**  
**2565 Ω < X < 2585 Ω at 300°C,**

**1192 Ω < X < 1212 Ω at 400°C,**  
**663 Ω < X < 683 Ω at 500°C,**  
**277 Ω < X < 297 Ω at 700°C,**

replace the **particle filter upstream temperature sensor** (see **MR 392, 385, 364, 370 and 417, Mechanical, 19B, Exhaust, Particle filter temperature sensors: Removal - Refitting**).

Check the continuity, insulation and absence of interference resistance on the following connections:

- **3TD** between components **1287** and **120**,
- **3XT** between components **1287** and **120**.

If the connection(s) 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.

If the fault is still present, contact the Techline.

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.

Clear the computer fault memory.

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

<b>DF1001 PRESENT OR STORED</b>	<b><u>PARTICLE FILTER UPSTREAM TEMPERATURE REGULATION</u></b> 1. DEF: Signal outside lower limit 2. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> : – after a road test with particle filter regeneration.
	<b>Special notes:</b> If the fault is <b>present</b> : – particle filter regeneration is inhibited, – the vehicle performance is reduced, – the <b>level 1</b> warning light is lit. Deal first with faults <b>DF1000 Particle filter upstream temperature sensor circuit</b> .
	<b>IMPORTANT</b> This fault can result in a rapid and significant fouling of the particle filter.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Check the condition of the fuel supply pipes between the **particle filter injector** and the **electric fuel pump**.  
Check that the pipes are not trapped, blocked or pierced and there that are no leaks.  
Check the condition of the **fuel filter** and ensure that it is not clogged.  
Check that the **particle filter injector** is not jammed closed or clogged.  
(See **test 8 Particle filter injector supply circuit check**).  
Replace any faulty components.

Check the connections and condition of the **particle filter upstream temperature sensor** connectors, component code **1287** (see **MR 392, 385, 364, 370 and 417, Mechanical, 19B, Exhaust, Particle filter temperature sensors: Removal - Refitting**) and the **injection computer** connector, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**).

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(s); otherwise, replace the wiring.

With the ignition on, check the continuity, insulation and absence of interference resistance on the following connections:

- **3TD** between components **1287** and **120**,
- **3XT** between components **1287** and **120**.

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

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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### DF1001 CONTINUED

Measure the **resistance** of the **particle filter upstream temperature sensor**, component code **1287** between connections **3TD** and **3XT**.

If the resistance is not:

**106170 Ω < X < 106190 Ω at 50°C,**  
**33550 Ω < X < 33570 Ω at 100°C,**  
**6886 Ω < X < 6906 Ω at 200°C,**  
**2565 Ω < X < 2585 Ω at 300°C,**

**1192 Ω < X < 1212 Ω at 400°C,**  
**663 Ω < X < 683 Ω at 500°C,**  
**277 Ω < X < 297 Ω at 700°C,**

replace the **particle filter upstream temperature sensor** (see **MR 392, 385, 364, 370 and 417, Mechanical, 19B, Exhaust, Particle filter temperature sensors: Removal - Refitting**).

Check the connection and condition of the connectors of the **fuel pump**, component code **218** and of the relay, component code **236**. With the ignition on, check the continuity, insulation and absence of interference resistance on the following connections:

- **M** on component **218**,
- **3AHB** between components **218** and **236**,
- **3AHA** between components **236** and **120**,
- **3FB** between components **236** and **983**,
- **BP1** between component **236** and **+ battery supply**.

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

Check that the exhaust pipe is not cracked or pierced.

Check the effectiveness and condition of the oxidation catalytic converter and the particle filter.

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.

Clear the computer fault memory.

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

<b>DF1002 PRESENT OR STORED</b>	<b><u>STATIC REGENERATION</u></b> 1. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> during regeneration.
	<b>Special notes:</b> <ul style="list-style-type: none"><li>– static particle filter regeneration fault (applied in After-Sales).</li><li>– The <b>level 1</b> fault warning light is lit on the instrument panel.</li></ul>

Before each regeneration, check the diesel fuel level.  
Before and after each regeneration, check the oil level.  
Before every regeneration, check the sealing on the 5<sup>th</sup> particle filter injector circuit using the actuator **AC237 Fuel pump relay**.

If the fault is still present, replace the particle filter (see **MR 385, 364, 370 and 417, Mechanical, 19B, Exhaust, Particle filter: Removal - Refitting**).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF1003 PRESENT OR STORED</b>	<b>PARTICLE FILTER DIFFERENTIAL PRESSURE SENSOR CIRCUIT</b> CC.1: Short circuit to + 12 V CO.0: Open circuit or short circuit to earth 1. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault is declared <b>present</b> after the engine is started or following a road test.
	<b>Special notes:</b> <b>If the fault is present:</b> <ul style="list-style-type: none"> <li>– the <b>level 1</b> warning light is lit,</li> <li>– the <b>OBD</b> warning light illuminates after three consecutive driving cycles (starting + <b>5 seconds</b> + switching off the ignition and waiting <b>1 minute</b>).</li> <li>– the particle filter fault finding procedure is inhibited,</li> <li>– particle filter regeneration is inhibited.</li> </ul>
	<b>Priorities when dealing with a number of faults:</b> Deal with fault <b>DF011 Sensor supply voltage no. 1</b> first if it is <b>present</b> or <b>stored</b> .
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Visually inspect the condition of the pressure pipes of the <b>differential pressure sensor</b> . Check that they are sealed and in the correct position.
Check the connection and condition of the connector of the <b>particle filter differential pressure sensor</b> , component code <b>1290</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 19B, Exhaust, Particle filter pressure sensor: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the <b>continuity, insulation and the absence of interference resistance</b> on the following connections: <ul style="list-style-type: none"> <li>– <b>3YD</b> between components <b>1290</b> and <b>120</b>,</li> <li>– <b>3AAM</b> between components <b>1290</b> and <b>120</b>,</li> <li>– <b>3TL</b> between components <b>1290</b> and <b>120</b>.</li> </ul> If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.
Connect a pressure gauge (fitted with a manual pump) to the sensor. Vary the pressure between <b>0 and 1000 mbar</b> and check that the parameter value <b>PR414 Particle filter differential pressure</b> is nearly identical.
If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF1004 PRESENT OR STORED</b>	<b><u>ELECTRIC FUEL PUMP RELAY CONTROL CIRCUIT</u></b> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> – The fault is declared <b>present</b> after the engine is started or following a road test. – After running command <b>AC237 Fuel pump relay</b> .
	<b>Special notes:</b> <b>CO/CC.1:</b> the fuel pump is not actuated, <b>CC.O:</b> the fuel pump is permanently actuated. The <b>level 1</b> fault warning light is lit on the instrument panel.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Check the connection and condition of the connector of the **electric fuel pump relay**, component code **236**.  
 If the connector 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 connection and condition of the **injection computer** connector, component code **120** (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting**).  
 If the connector 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, insulation and absence of interference resistance on the following connections:

- **3AHB** between components **218** and **236**,
- **3AHA** between components **236** and **120**,
- **3FB** between components **236** and **983**,
- **BP1** between components **236** and + **battery supply**.

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

If the fault is still present, contact the Techline.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF1005 PRESENT OR STORED</b>	<b><u>THERMOPLUNGER CONTROL UNIT FAULT FINDING 1 CONNECTION</u></b> 1. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> after running command <b>AC260 Thermoplunger relay</b> .
	<b>Special notes:</b> <b>If the fault is present:</b> The <b>level 1</b> fault warning light is lit on the instrument panel.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Check the connection and condition of the thermoplunger unit connector, <b>component code 1550</b> . If the connector is faulty and there is a repair procedure ( <b>see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure ( <b>see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the continuity, insulation and absence of interference resistance on the following connections: <ul style="list-style-type: none"> <li>– <b>3AHK</b> between components <b>1550</b> and <b>120</b>,</li> <li>– <b>3AHL</b> between components <b>1550</b> and <b>120</b>,</li> <li>– <b>3JAB</b> between components <b>1550</b> and <b>120</b>,</li> <li>– <b>3JAA</b> between components <b>1550</b> and <b>120</b>,</li> <li>– <b>3JA</b> between components <b>1550</b> and <b>120</b>.</li> </ul> If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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### DF1005 CONTINUED

With the ignition on, check for **+ 12 V** on connections **BP36** (or **BP27**) and **BP35** of the thermoplunger unit, **component code 1550**.

If the check is not correct, check the condition of the **70A** fuses of component **777**.

If the fuse(s) is faulty, replace the fuse(s) concerned.

Check the continuity, insulation and absence of interference resistance on the following connections:

- **BP36** or **BP27** between components **777** and **1550**,
- **BP35** between components **777** and **1550**.

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

Check the resistance of the **thermoplunger unit**, component code **1550**.

If the resistance value is **greater than 2 Ω**, replace **the thermoplunger unit, component code 1550** (see **MR 385, 364, 370 and 417, Mechanical, 19A, Cooling, Thermoplunger unit: Removal - Refitting**).

If the fault is still present, contact the Techline.

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.

Clear the computer fault memory.

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

<b>DF1007 PRESENT OR STORED</b>	<b>CATALYTIC CONVERTER 1 DOWNSTREAM TEMPERATURE SENSOR CIRCUIT</b> CC.0: Short circuit to earth CO.1: Open circuit or short circuit to +12 V. 1. DEF: Micro-breaks 2. DEF: Signal outside lower limit 3. DEF: Signal inconsistency
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> : – with the ignition on (for status <b>CC.0</b> ), – after a road test with a warm engine (for status <b>CO. 1</b> ).
	<b>Special notes:</b> If the fault is <b>present</b> : – particle filter regeneration is inhibited, – the <b>level 1</b> warning light is lit, – the <b>OBD</b> warning light illuminates after three consecutive driving cycles (starting + 5 seconds + switching off the ignition and waiting 1 minute).
	<b>IMPORTANT</b> The catalytic converter 1 downstream temperature sensor only measures temperatures above 50°C.
	Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.

Run command <b>AC029 High pressure circuit sealing test</b> and check <b>PR810 Catalytic converter 1 downstream temperature</b> . If the catalytic converter 1 downstream temperature is above <b>80°C</b> , then the sensor is correct, otherwise continue the fault finding procedure.
Check the connection and condition of the connector of the <b>catalytic converter 1 downstream temperature sensor</b> , component code <b>1765</b> . If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Measure the <b>resistance</b> of the <b>catalytic converter 1 downstream temperature sensor</b> , component code <b>1765</b> between connections <b>3AGX</b> and <b>3AGY</b> .
<div style="display: flex; justify-content: space-between;"> <div> <b>6886 Ω &lt; X &lt; 6906 Ω at 200°C,</b>  <b>2565 Ω &lt; X &lt; 2585 Ω at 300°C,</b>  <b>1192 Ω &lt; X &lt; 1212 Ω at 400°C,</b> </div> <div> <b>663 Ω &lt; X &lt; 683 Ω at 500°C,</b>  <b>414 Ω &lt; X &lt; 434 Ω at 600°C,</b>  <b>277 Ω &lt; X &lt; 297 Ω at 700°C,</b> </div> </div>
If the resistance does not match these values, replace the <b>catalytic converter 1 downstream temperature sensor</b> .

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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**DF1007  
CONTINUED**

With the ignition on, check the **continuity, insulation and absence of interference resistance** on the following connections:

- **3AGX** between components **1765** and **120**,
- **3AGY** between components **1765** and **120**.

If the connection(s) 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.

If the fault is still present, contact the Techline.

**AFTER REPAIR**

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer fault memory.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>DF1008 PRESENT OR STORED</b>	<b><u>TURBINE UPSTREAM TEMPERATURE REGULATION</u></b> 1. DEF: Parameter at maximum limit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> after a road test with particle filter regeneration.
	<b>Special notes:</b> <b>If the fault is present:</b> The <b>level 1</b> fault warning light is lit on the instrument panel.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Check the condition of the air circuit upstream of the turbine. Check that circuit is not leaking and does not have cracks.	
Check the connection and condition of the connector of the <b>turbine upstream temperature sensor</b> , component code <b>1589</b> . If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.	
Check the connection and condition of the <b>injection computer</b> connector, component code 120 (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.	
Measure the <b>resistance</b> of the <b>turbine upstream temperature sensor</b> , component code <b>1589</b> between connections <b>3B</b> and <b>3JQ</b> . If the resistance is not:	
<b>5910 Ω &lt; X &lt; 5930 Ω at 300°C,</b> <b>1760 Ω &lt; X &lt; 1780 Ω at 400°C,</b> <b>714 Ω &lt; X &lt; 734 Ω at 500°C,</b>	<b>353 Ω &lt; X &lt; 373 Ω at 600°C,</b> <b>177 Ω &lt; X &lt; 227 Ω at 700°C,</b> <b>106 Ω &lt; X &lt; 156 Ω at 800°C,</b>
replace the turbine upstream temperature sensor.	
With the ignition on, check the <b>continuity, insulation and absence of interference resistance</b> on the following connections: – <b>3JQ</b> between components <b>1589</b> and <b>120</b> , – <b>3B</b> between components <b>1589</b> and <b>120</b> .  If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.	
If the fault is still present, replace the <b>turbine upstream temperature sensor</b> .	

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF1009 PRESENT OR STORED</b>	<b>CATALYTIC CONVERTER 1 DOWNSTREAM TEMPERATURE REGULATION</b> 1. DEF: Signal outside lower limit 2. DEF: Signal outside upper limit
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> after a road test with particle filter regeneration.
	<b>Special notes:</b> <b>If the fault is present:</b> The <b>level 1</b> fault warning light is lit on the instrument panel.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>

Check the connection and condition of the connector of the <b>catalytic converter 1 downstream temperature sensor</b> , component code <b>1765</b> . If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
Check the connection and condition of the <b>injection computer</b> connector, component code <b>120</b> (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Diesel injection computer: Removal - Refitting</b> ). If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b> ), repair the connector, otherwise replace the wiring.
With the ignition on, check the <b>continuity, insulation and absence of interference resistance</b> on the following connections:  – <b>3AGX</b> between components <b>1765</b> and <b>120</b> , – <b>3AGY</b> between components <b>1765</b> and <b>120</b> .  If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it. If the fault is still present, replace the <b>turbine upstream temperature sensor</b> .
While the engine is idling, check the return flow rate at the injectors. After <b>5 minutes</b> the return volume must be between <b>16 ml</b> and <b>24 ml</b> per injector. If this tolerance is incorrect, replace the faulty injector(s).
Check the temperature of the catalytic converter; check that it is not too low. Check that the exhaust system is not pierced. Replace any faulty components.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF1009</b> <b>CONTINUED</b>	
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Measure the **resistance** of the **catalytic converter 1 downstream temperature sensor**, component code **1765** between connections **3AGX** and **3AGY**.

<b>6886 Ω &lt; X &lt; 6906 Ω at 200°C</b>	<b>663 Ω &lt; X &lt; 683 Ω at 500°C</b>
<b>2565 Ω &lt; X &lt; 2585 Ω at 300°C</b>	<b>404 Ω &lt; X &lt; 444 Ω at 600°C</b>
<b>1192 Ω &lt; X &lt; 1212 Ω at 400°C</b>	<b>267 Ω &lt; X &lt; 307 Ω at 700°C</b>

If the resistance does not match these values, replace the **catalytic converter downstream temperature sensor**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>DF1070 PRESENT OR STORED</b>	<u>COLD LOOP</u>
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<b>NOTES</b>	<b>Conditions for applying the fault finding procedure to a stored fault:</b> The fault becomes <b>present</b> with the engine running and an air conditioning request.
	<b>Order of priority in the event of more than one fault:</b> Deal with fault <b>DF049 Refrigerant sensor circuit</b> first if it is present or stored.
	<b>Use the CLIO III, MODUS, MEGANE II ph2 and SCENIC II ph2 Wiring Diagrams Technical Note.</b>

When the fault is present or stored, the heating and air conditioning system is inhibited. There is no longer any air conditioning.

Check the air conditioning fuse and check the air conditioning compressor connector, component code **171**.  
If the connector 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 **insulation** of the following connections:

- **38R** between components **171** and **1337**,
- **M** between the earth and component **171**.

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.

Manually check if the compressor is jammed (turn the clutch plate manually to check that there is no point of resistance).

In the event of jamming, replace the air conditioning compressor (see **MR 364 (Mégane II), MR 370 (Scénic II), MR 385 (Modus), MR 392 (Clio III), Mechanical, 62A, Air conditioning, Compressor: Removal - Refitting**)

Charge the air conditioning circuit, check for any leaks and repair if necessary (see **MR 364 (Mégane II), MR 370 (Scénic II), MR 385 (Modus), MR 392 (Clio III), Mechanical, 62A, Air conditioning, Air conditioning: Check and air conditioning: Draining - Filling**).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Conformity check

13B

The global **conformity check** for the functions and sub-functions of this system is no longer interpreted in the conformity check. Instead, all information available in the functions and sub-functions can be found 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.

# DIESEL INJECTION

## Fault finding – Status summary table

13B

Tool status	Diagnostic tool title
ET001	Computer + after ignition feed
ET003	Engine immobiliser
ET004	Air conditioning authorisation
ET006	Code programmed
ET021	High speed fan assembly request
ET022	Low speed fan assembly request
ET023	Fast idle speed request
ET028	Level 1 fault warning light request
ET029	Level 2 fault warning light request
ET033	EGR solenoid valve
ET038	Engine
ET042	Cruise control/speed limiter
ET076	Starting
ET077	Impact detected
ET079	Air conditioning present
ET088	Compressor actuation request
ET121	Clutch switch signal
ET148	OBD warning light activation request
ET160	Preheating relay control
ET228	Cylinder 1 injector control
ET229	Cylinder 2 injector control
ET230	Cylinder 3 injector control
ET231	Cylinder 4 injector control
ET238	Synchronisation
ET405	Clutch pedal switch
ET415	Cruise control/speed limiter deactivation
ET613	Fuel pressure regulator
ET638	Fuel flow regulator
ET648	Engine cooling fan
ET649	Water in diesel fuel sensor
ET673	Jammed accelerator pedal detected

# DIESEL INJECTION

## Fault finding – Status summary table

13B

Tool status	Diagnostic tool title	
<b>ET701</b>	Electric fuel pump*. particle filter	Only for vehicles equipped with a particle filter.
<b>ET703</b>	Cruise control/speed limiter buttons	
<b>ET704</b>	Brake switch no. 1	
<b>ET705</b>	Brake contact no. 2	
<b>ET706</b>	Stored engine status no. 1	Only for vehicles equipped with a particle filter (except Vdiag 45)
<b>ET707</b>	Stored engine status no. 2	
<b>ET708</b>	Stored engine status no. 3	
<b>ET709</b>	Stored engine status no. 4	
<b>ET710</b>	Stored engine status no. 5	
<b>ET711</b>	Stored engine status no. 6	
<b>ET712</b>	Stored engine status no. 7	
<b>ET713</b>	Stored engine status no. 8	
<b>ET714</b>	Stored engine status no. 9	
<b>ET715</b>	Stored engine status no. 10	
<b>ET741</b>	Optional vehicle speed restriction	Kangoo II only
<b>ET800</b>	Fast idle speed function	Kangoo II only

\*elec: electric

<b>ET001</b>	<u>COMPUTER + AFTER IGNITION FEED</u>
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<b>STATUS DEFINITION</b>	<p><b>"PRESENT"</b>: This status indicates that the + after ignition feed is active.</p> <p><b>"ABSENT"</b>: This status indicates that the + after ignition feed is not active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.</p> <p>Use the <b>Mégane II ph2, Scénic II ph2, CLIO III, MODUS and Kangoo II</b> Wiring Diagram Technical Note.</p>
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<b>Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature &gt; 80 °C</b>
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<b>"PRESENT"</b>	<b>NOTES</b>	Ignition on.
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<p>Normal operating condition.</p> <p>Use a multimeter to check that there is no + 12 V with the ignition off on connection <b>AP15</b> or <b>AP29</b> of component <b>120</b>.</p> <p>If the connection or connections are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
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<b>"ABSENT"</b>	<b>NOTES</b>	Ignition on.
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<p>Check the supply fuse</p> <ul style="list-style-type: none"> <li>– <b>F18 (5A)</b> (Kangoo II),</li> <li>– <b>313 (10A)</b> (Modus and Clio),</li> <li>– <b>F5D (5A)</b> (Mégane II and Scénic II),</li> </ul> <p>of the main supply relay of the injection computer.</p> <p>Use a multimeter to check for a + 12 V feed on the fuse holder with the ignition on.</p> <p>If the connection or connections are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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**ET001  
CONTINUED**

Check the continuity and insulation to earth of the following connection:

– **AP15** between components **1337** and **120**

Check the continuity and the absence of interference resistance on the following connection:

– **N** between the earth and component **120** (for Kangoo II),

– **NH** between the earth and component **120** (for Modus, Clio),

– **M** between the earth and component **120** (for Mégane II and Scénic II).

If the connection or connections are faulty and 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**.

<b>ET003</b>	<u>ENGINE IMMOBILISER</u>
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<b>STATUS DEFINITION</b>	<p><b>"ACTIVE"</b>: This status indicates that the immobiliser is active.</p> <p><b>"INACTIVE"</b>: This status indicates that the immobiliser is not active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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<b>Conformity check: Engine switched off and ignition on or engine running, engine coolant temperature &gt; 80 °C</b>
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<b>ACTIVE</b>	<b>NOTES</b>	<p>If status <b>ET003</b> is permanently "ACTIVE", refer to the UCH fault finding note (see <b>87B, Passenger compartment connection unit</b>).</p>
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<b>INACTIVE</b>	<b>NOTES</b>	<p>With the ignition on and, when driving, status <b>ET003</b> should be "INACTIVE".</p> <p>If it is not, refer to the UCH diagnostic note (see <b>87B, Passenger compartment connection unit</b>).</p>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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<b>ET004</b>	<u>AC AUTHORISED</u>
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<b>STATUS DEFINITION</b>	<p><b>"YES"</b>: This status shows that the air conditioning is authorised.</p> <p><b>"NO"</b>: This status shows that the air conditioning is not authorised.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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<b>Conformity check: Engine switched off and ignition on or engine running, engine coolant temperature &gt; 80 °C</b>
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<b>YES</b>	<p>The air conditioning authorisation only changes to <b>"YES"</b> if:</p> <ul style="list-style-type: none"> <li>– the air conditioning request has been made by the driver (air conditioning switch in <b>AC</b> position with minimum ventilation),</li> <li>– the engine is not under full load,</li> <li>– the air conditioning system is not faulty.</li> </ul>
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<b>NO</b>	<p>Status <b>ET004</b> remains at <b>"NO"</b> under the following conditions:</p> <ul style="list-style-type: none"> <li>– Vehicle stopped with the ignition on,</li> <li>– faults present in the air conditioning circuit,</li> <li>– no air conditioning request made by the driver,</li> <li>– engine under full load.</li> </ul> <p>If status <b>ET004</b> remains <b>"NO"</b> then the air conditioning should be authorised, check:</p> <ul style="list-style-type: none"> <li>– that the air conditioning compressor is activated correctly,</li> <li>– the air conditioning system feed fuses,</li> <li>– the presence of refrigerant in the air conditioning circuit.</li> </ul>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET006</b>	<u>CODE PROGRAMMED</u>
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<b>STATUS DEFINITION</b>	<p><b>"YES"</b>: This status indicates that the immobiliser code has been programmed.</p> <p><b>"NO"</b>: This status indicates that the immobiliser code has not been programmed.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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**Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80 °C**

<b>"YES"</b>	<p>Status <b>ET006</b> is <b>YES</b> 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 recognised by the UCH computer and if status <b>ET003: Immobiliser</b> is <b>INACTIVE</b>.</p> <p>In the event of a fault, see <b>87B, passenger compartment connection unit, conformity check</b>.</p>
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<b>"NO"</b>	<p>Status <b>ET341</b> is <b>NO</b> if dialogue is not possible between the UCH computer and the injection computer (status <b>ET003 Immobiliser</b> remains <b>ACTIVE</b>).</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 <b>87B, Passenger compartment connection unit</b>) and follow the key programming procedure.</p> <p>If the key programming is not the cause, run a multiplex network test (see <b>88B, multiplex</b>) and check that dialogue between the UCH and the injection computer is possible.</p> <p>If dialogue is not established, contact the Techline.</p>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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<b>ET021</b>	<u>HIGH-SPEED FAN REQUEST</u>
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<b>STATUS DEFINITION</b>	<p><b>"ACTIVE"</b>: The status indicates that the high-speed fan request is active.</p> <p><b>"INACTIVE"</b>: The status indicates that the high-speed fan request is not active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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**NOTE:**  
Status **ET021 "High-speed fan request"** changes status simultaneously.

**Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80 °C**

<b>ACTIVE</b>	<p>The injection computer requests the activation of the high speed GMV when:</p> <ul style="list-style-type: none"> <li>– the engine coolant temperature is above <b>104 °C</b>.</li> <li>– the injection computer has system faults that could lead to the engine overheating.</li> </ul> <p>When the high speed fan is supplied: status <b>ET021 High speed fan request</b> becomes <b>ACTIVE</b>.</p>
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<b>INACTIVE</b>	<p>The high-speed engine fan assembly stops when:</p> <ul style="list-style-type: none"> <li>– the engine coolant temperature is below <b>102 °C</b>;</li> <li>– <b>no fault which could cause engine overheating is present in the injection system.</b></li> </ul>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET022</b>	<u>LOW SPEED GMV CONTROL</u>
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<b>STATUS DEFINITION</b>	<p><b>"ACTIVE"</b>: The status indicates that the low-speed fan request is active.</p> <p><b>"INACTIVE"</b>: The status indicates that the low-speed fan request is not active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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<p><b>NOTE:</b></p> <p>Status <b>ET022 Low-speed fan request</b> changes status.</p>
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<p><b>Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature &gt; 80 °C</b></p>
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<b>ACTIVE</b>	<p>The injection computer requests the activation of the low speed GMV when:</p> <ul style="list-style-type: none"> <li>– the engine coolant temperature is above <b>96 °C</b>.</li> <li>– the injection computer has system faults that could lead to the engine overheating,</li> <li>– the air conditioning is switched on by the driver.</li> </ul> <p>When the high speed fan is supplied: status <b>ET022 "Low speed fan request"</b> becomes <b>"ACTIVE"</b></p>
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<b>INACTIVE</b>	<p>The low-speed engine fan assembly stops when:</p> <ul style="list-style-type: none"> <li>– the engine coolant temperature is below <b>94 °C</b>,</li> <li>– <b>no fault which could cause engine overheating is present in the injection system.</b></li> <li>– <b>the air conditioning is not switched on by the driver.</b></li> </ul>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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<b>ET023</b>	<u><b>FAST IDLE SPEED REQUEST</b></u>
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<b>STATUS DEFINITION</b>	<p><b>"ACTIVE"</b>: This status indicates that the fast idle speed request is active.</p> <p><b>"INACTIVE"</b>: This status indicates that the fast idle speed request is inactive.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>The idle speed setpoint is dependent on:</p> <ul style="list-style-type: none"> <li>– the coolant temperature,</li> <li>– the emission control programs,</li> <li>– air conditioning requirements,</li> <li>– the electrical consumers,</li> <li>– battery voltage.</li> <li>– the gear engaged.</li> </ul>
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<b>Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature &gt; 80 °C</b>
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<b>ACTIVE</b>	<p>Status is "ACTIVE" when there is an engine load:</p> <ul style="list-style-type: none"> <li>● inconsistency between the positions of the brake and accelerator pedals,</li> <li>● coolant temperature &lt; <b>80 °C</b> or &gt; <b>89 °C</b>,</li> <li>● heating and air conditioning system activated,</li> <li>● with electrical consumers,</li> <li>● the battery voltage is incorrect.</li> </ul>
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<b>INACTIVE</b>	<p>Status is "INACTIVE" when there is no engine load:</p> <ul style="list-style-type: none"> <li>● coolant temperature = <b>80 °C</b>,</li> <li>● heating and air conditioning system deactivated,</li> <li>● without electrical consumers,</li> <li>● the battery voltage is correct.</li> </ul>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET028</b>	<u>LEVEL 1 FAULT WARNING LIGHT REQUEST</u>
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<b>STATUS DEFINITION</b>	<b>"ACTIVE"</b> : This status indicates that the Level 1 fault warning light request is active. <b>"INACTIVE"</b> : This status indicates that the Level 1 fault warning light request is not active.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.
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Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80 °C

<b>ACTIVE</b>	The injection computer has detected one or more faults. Deal with these faults (see <b>interpretation of faults</b> ).
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<b>INACTIVE</b>	The status is <b>"INACTIVE"</b> when the injection computer has not detected any fault which may cause the level 1 warning light to come on.
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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ET029	<u>LEVEL 2 FAULT WARNING LIGHT REQUEST</u>
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<b>STATUS DEFINITION</b>	<b>"ACTIVE"</b> : This status indicates that the Level 2 fault warning light request is active. <b>"INACTIVE"</b> : This status indicates that the Level 2 fault warning light request is not active.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.
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Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80 °C

<b>ACTIVE</b>	The injection computer has detected one or more faults. Deal with these faults (see <b>interpretation of faults</b> )
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<b>INACTIVE</b>	The status is <b>"INACTIVE"</b> when the injection computer has not detected any fault which may cause the level 2 warning light to come on.
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET033</b>	<u>EGR SOLENOID VALVE</u>
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<b>STATUS DEFINITION</b>	<p><b>"ACTIVE"</b>: This status indicates that the EGR solenoid valve is active.</p> <p><b>"INACTIVE"</b>: This status indicates that the EGR solenoid valve is not active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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<b>Conformity check: Engine switched off and ignition on</b>
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<b>ACTIVE</b>	<b>"ACTIVE"</b> refer to the interpretation of fault <b>DF202 "EGR VALVE"</b> .
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<b>INACTIVE</b>	The status is <b>"INACTIVE"</b> when the injection computer has not detected any present fault.
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<b>Engine running, engine coolant temperature &gt; 80 °C</b>
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<b>ACTIVE</b>	The status is <b>"ACTIVE"</b> when the injection computer has not detected any present fault.
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<b>INACTIVE</b>	<b>"INACTIVE"</b> refer to the interpretation of fault <b>DF202 "EGR VALVE"</b> .
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET038</b>	<u>ENGINE</u>
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<b>STATUS DEFINITION</b>	<p><b>"STOPPED"</b>: This status indicates that the engine is stopped.</p> <p><b>"STARTING"</b>: This status indicates that the engine is being started.</p> <p><b>"RUNNING"</b>: This status indicates that the engine is running.</p> <p><b>"STATUS 1"</b>: This status indicates the load and the driver's demands.</p>
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<b>NOTES</b>	<p><b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.</p>
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**Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80 °C**

<b>STOPPED</b>	Status <b>ET038</b> is STOPPED if the engine ignition is on but there has been no starter operation.
<b>STARTING</b>	Status <b>ET038</b> is "starting" when the engine is in starting phase.
<b>RUNNING</b>	Status <b>ET038</b> is RUNNING if the engine has started.
<b>STATUS1</b>	Status <b>ET038</b> is "status1" when the driver depresses the accelerator pedal.

<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET042</b>	<u><b>CRUISE CONTROL/SPEED LIMITER</b></u>
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<b>STATUS DEFINITION</b>	<p><b>"NOT DETECTED"</b>: This status indicates that the cruise control or speed limiter function is not present on the vehicle.</p> <p><b>"INACTIVE"</b>: This status indicates that the cruise control/speed limiter main On/Off switch is in the rest position.</p> <p><b>"LIMITER"</b>: This status indicates that the driver has used the main switch to select the speed limiter.</p> <p><b>"CRUISE CONTROL"</b>: This status indicates that the driver has used the main switch to select the cruise control.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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<b>NOT DETECTED</b>	<p>If the vehicle does not have buttons for the cruise control or speed limiter functions, status <b>ET042</b> is permanently <b>NOT DETECTED</b>. This confirms that the cruise control/speed limiter function is not present on the vehicle.</p> <p>If the vehicle is fitted with cruise control or speed limiter function buttons, the main switch is in rest (or neutral) position and the injection computer has just been programmed or reprogrammed, then status <b>ET042</b> is <b>NOT DETECTED</b>. 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 <b>ET042: "INACTIVE"</b>. If not, several steps must be checked:</p> <ol style="list-style-type: none"> <li>1. return to the page on testing the multiplex network with the CLIP program. Repeat the multiplex network test. Re-establish dialogue with the injection computer. Check status <b>ET042</b>. If <b>ET042</b> is <b>"INACTIVE"</b>, the injection computer has detected the various positions of the main switch. The cruise control/speed limiter is active.</li> <li>2. If status <b>ET042</b> is still <b>NOT DETECTED</b>, check that the owner of the vehicle has not, sometime in the past, asked for the cruise control/speed limiter function to be deactivated. Contact the Techline.</li> </ol>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET042 CONTINUED 1</b>	
<b>INACTIVE</b>	<p><b>Method to be applied for Clio III and Modus:</b></p> <p>When the main switch is in the rest (or neutral) position, status <b>ET042</b> is <b>INACTIVE</b>.</p> <p>If <b>CRUISE CONTROL</b> or <b>SPEED LIMITER</b> appears despite the main button 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 <b>+ 12 V APC</b> on the main switch connector.</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP10 of component 1081</b>.</li> </ul> <p>Disconnect the main switch and with it in the rest position, check the insulation between:</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP10 and 3FX of component 1081</b>.</li> <li>● Connection code <b>AP10 and 3PD of component 1081</b>.</li> </ul> <p>– Check the continuity between <b>connections AP10 and 3PD of component 1081</b> in the speed limiter position.</p> <p>– Check the continuity between <b>connections AP10 and 3FX of component 1081</b> in the cruise control position.</p> <p>If these checks are not in order, replace the switch.</p> <p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>● Connection code <b>3FX</b>,</li> <li>● Connection code <b>3PD</b>,</li> </ul> <p><b>between components 1081 and 120.</b></p> <p>Also check the engine management computer connectors.</p> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>

<b>ET042 CONTINUED 2</b>	
<b>INACTIVE CONTINUED 1</b>	<p><b>Method to be applied for Mégane II ph2 and Kangoo II:</b></p> <p>When the main switch is in the rest (or neutral) position, status <b>ET042</b> is <b>INACTIVE</b>.</p> <p>If <b>CRUISE CONTROL</b> or <b>SPEED LIMITER</b> appears despite the main button 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 <b>+ 12 V APC</b> on the main switch connector.</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 of component 1081</b>.</li> </ul> <p>Disconnect the main switch and with it in the rest position, check the insulation between:</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 and 3FX for component 1081</b>.</li> <li>● Connection code <b>AP43 and 3PD for component 1081</b>.</li> </ul> <p>– Check the continuity between <b>connections AP43 and 3PD of component 1081</b> in the speed limiter position.</p> <p>– Check the continuity between <b>connections AP43 and 3FX of component 1081</b> in the cruise control position.</p> <p>If these checks are not in order, replace the switch.</p> <p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>● Connection code <b>3FX</b>,</li> <li>● Connection code <b>3PD</b>,</li> </ul> <p><b>between components 1081 and 120.</b></p> <p>Also check the engine management computer connectors.</p> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>

<b>ET042 CONTINUED 3</b>	
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<b>INACTIVE CONTINUED 2</b>	<p><b>Method to be applied for Scenic II ph2:</b></p> <p>When the main switch is in the rest (or neutral) position, status <b>ET042</b> is <b>INACTIVE</b>.</p> <p>If <b>CRUISE CONTROL</b> or <b>SPEED LIMITER</b> appears despite the main button 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 <b>+ 12 V APC</b> on the main switch connector.</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 of component 1546</b>.</li> </ul> <p>Disconnect the main switch and with it in the rest position, check the insulation between:</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 and 3FX of component 1546</b>.</li> <li>● Connection code <b>AP43 and 3PD of component 1546</b>.</li> </ul> <p>– Check the continuity between <b>connections AP43 and 3PD of component 1546</b> in the speed limiter position.</p> <p>– Check the continuity between <b>connections AP43 and 3FX of component 1546</b> in the cruise control position.</p> <p>If these checks are not in order, replace the switch.</p> <p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>● Connection code <b>3FX</b>,</li> <li>● Connection code <b>3PD</b>,</li> </ul> <p><b>between components 1546 and 120.</b></p> <p>Also check the engine management computer connectors.</p> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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<b>ET042 CONTINUED 4</b>	
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<b>SPEED LIMITER</b>	<p><b>Method to be applied for Clio III, Modus:</b></p> <p>When the driver presses the main switch in the speed limiter position, status <b>ET042</b> becomes <b>SPEED LIMITER</b>.</p> <p>If <b>CRUISE CONTROL</b> or <b>INACTIVE</b> 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 <b>+ 12 V APC</b> on the main switch connector.</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP10 of component 1081</b>.</li> </ul> <p>Disconnect the main switch and with it in the rest position, check the insulation between:</p> <ul style="list-style-type: none"> <li>● Connection codes <b>AP10 and 3FX, of component 1081</b>.</li> <li>● Connection codes <b>AP10 and 3PD, of component 1081</b>.</li> </ul> <p>– Check the continuity between <b>connections AP10 and 3PD of component 1081</b> in the speed limiter position.</p> <p>– Check the continuity between <b>connections AP10 and 3FX of component 1081</b> in the cruise control position.</p> <p>If these checks show incorrect values, replace the main switch.</p> <p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>● Connection code <b>3FX</b>,</li> <li>● Connection code <b>3PD</b>,</li> </ul> <p><b>between components 1081 and 120.</b></p> <p>Also check the engine management computer connectors.</p> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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<b>ET042 CONTINUED 5</b>	
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<b>SPEED LIMITER CONTINUED 1</b>	<p><b>Method to be applied for Mégane II ph2 and Kangoo II:</b></p> <p>When the driver presses the main switch in the speed limiter position, status <b>ET042</b> becomes <b>SPEED LIMITER</b>.</p> <p>If <b>CRUISE CONTROL</b> or <b>INACTIVE</b> 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 <b>+ 12 V APC</b> on the main switch connector.</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 of component 1081</b>.</li> </ul> <p>Disconnect the main switch and with it in the rest position, check the insulation between:</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 and 3FX for component 1081</b>.</li> <li>● Connection code <b>AP43 and 3PD for component 1081</b>.</li> </ul> <p>– Check the continuity between <b>connections AP43 and 3PD of component 1081</b> in the speed limiter position.</p> <p>– Check the continuity between <b>connections AP43 and 3FX of component 1081</b> in the cruise control position.</p> <p>If these checks show incorrect values, replace the main switch.</p> <p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>● Connection code <b>3FX</b>,</li> <li>● Connection code <b>3PD</b>,</li> </ul> <p><b>between components 1081 and 120.</b></p> <p>Also check the engine management computer connectors.</p> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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<b>ET042 CONTINUED 6</b>	
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<b>SPEED LIMITER CONTINUED 2</b>	<p><b>Method to be applied for Scenic II ph2:</b></p> <p>When the driver presses the main switch in the speed limiter position, status <b>ET042</b> becomes <b>SPEED LIMITER</b>.</p> <p>If <b>CRUISE CONTROL</b> or <b>INACTIVE</b> 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 <b>+ 12 V APC</b> on the main switch connector.</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 of component 1546</b>.</li> </ul> <p>Disconnect the main switch and with it in the rest position, check the insulation between:</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 and 3FX of component 1546</b>.</li> <li>● Connection code <b>AP43 and 3PD of component 1546</b>.</li> </ul> <p>– Check the continuity between <b>connections AP43 and 3PD of component 1546</b> in the speed limiter position.</p> <p>– Check the continuity between <b>connections AP43 and 3FX of component 1546</b> in the cruise control position.</p> <p>If these checks show incorrect values, replace the main switch.</p> <p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>● Connection code <b>3FX</b>,</li> <li>● Connection code <b>3PD</b>,</li> </ul> <p><b>between components 1546 and 120.</b></p> <p>Also check the engine management computer connectors.</p> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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<b>ET042 CONTINUED 7</b>	
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<b>CRUISE CONTROL</b>	<p><b>Method to be applied for Clio III, Modus:</b></p> <p>When the driver presses the main cruise control button, status <b>ET042</b> becomes <b>CRUISE CONTROL</b>.</p> <p>If <b>SPEED LIMITER</b> or <b>INACTIVE</b> 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 <b>+ 12 V APC</b> on the main switch connector.</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP10 of component 1081</b>.</li> </ul> <p>Disconnect the switch and when it is in the rest position, check the insulation between:</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP10 and 3FX of component 1081</b>.</li> <li>● Connection code <b>AP10 and 3PD of component 1081</b>.</li> </ul> <p>– Check the continuity between <b>connections AP10 and 3PD of component 1081</b> in the speed limiter position.</p> <p>– Check the continuity between <b>connections AP10 and 3FX of component 1081</b> in the cruise control position.</p> <p>If these checks show incorrect values, replace the main switch.</p> <p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>● Connection code <b>3FX</b>,</li> <li>● Connection code <b>3PD</b>,</li> </ul> <p>between components <b>1081 and 120</b>.</p> <p>Also check: The engine management computer connections.</p> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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<b>ET042</b> <b>CONTINUED 8</b>	
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<b>CRUISE CONTROL</b> <b>CONTINUED 1</b>	<p><b>Method to be applied for Mégane II ph2 and Kangoo II:</b></p> <p>When the driver presses the main cruise control button, status <b>ET042</b> becomes <b>CRUISE CONTROL</b>.</p> <p>If <b>SPEED LIMITER</b> or <b>INACTIVE</b> 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 <b>+ 12 V APC</b> on the main switch connector.</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 of component 1081</b>.</li> </ul> <p>Disconnect the switch and when it is in the rest position, check the insulation between:</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 and 3FX for component 1081</b>.</li> <li>● Connection code <b>AP43 and 3PD for component 1081</b>.</li> </ul> <p>– Check the continuity between <b>connections AP43 and 3PD of component 1081</b> in the speed limiter position.</p> <p>– Check the continuity between <b>connections AP43 and 3FX of component 1081</b> in the cruise control position.</p> <p>If these checks show incorrect values, replace the main switch.</p> <p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>● Connection code <b>3FX</b>,</li> <li>● Connection code <b>3PD</b>,</li> </ul> <p><b>between components 1081 and 120.</b></p> <p>Also check: The engine management computer connections.</p> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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<b>ET042</b> <b>CONTINUED 9</b>	
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<b>CRUISE CONTROL</b> <b>CONTINUED 2</b>	<p><b>Method to be applied for Scenic II ph2:</b></p> <p>When the driver presses the main cruise control button, status <b>ET042</b> becomes <b>CRUISE CONTROL</b>.</p> <p>If <b>SPEED LIMITER</b> or <b>INACTIVE</b> 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 <b>+ 12 V APC</b> on the main switch connector.</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 of component 1546</b>.</li> </ul> <p>Disconnect the switch and when it is in the rest position, check the insulation between:</p> <ul style="list-style-type: none"> <li>● Connection code <b>AP43 and 3FX of component 1546</b>.</li> <li>● Connection code <b>AP43 and 3PD of component 1546</b>.</li> </ul> <p>– Check the continuity between <b>connections AP43 and 3PD of component 1546</b> in the speed limiter position.</p> <p>– Check the continuity between <b>connections AP43 and 3FX of component 1546</b> in the cruise control position.</p> <p>If these checks show incorrect values, replace the main switch.</p> <p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>● Connection code <b>3FX</b>,</li> <li>● Connection code <b>3PD</b>,</li> </ul> <p>between components <b>1546 and 120</b>.</p> <p>Also check: The engine management computer connections.</p> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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<b>ET076</b>	<u>STARTING</u>
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<b>STATUS DEFINITION</b>	<b>"PROHIBITED"</b> : This status indicates that starting is not possible. <b>"AUTHORISED"</b> : This status indicates that starting is possible.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.
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Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80 °C

<b>"PROHIBITED"</b>	Refer to the fault finding note for the UCH, (see <b>87B, passenger compartment connection unit</b> ).
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<b>"AUTHORISED"</b>	In the event of a fault, refer to the UCH fault finding note, (see <b>87B, passenger compartment connection unit</b> ).
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Interpretation of statuses

# 13B

ET077	<u>IMPACT DETECTED</u>
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<b>STATUS DEFINITION</b>	<b>"YES"</b> : This status indicates that the airbag computer has detected an impact. <b>"NO"</b> : This status indicates that the airbag computer has not detected an impact.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.
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Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80 °C

<b>YES</b>	If the vehicle has had an accident, the injection computer receives the impact signal via the multiplex network and may switch off the ignition. Switch off the ignition for <b>10 seconds</b> , then switch it back on, so the engine can be restarted. Test the multiplex network (see <b>88B, Multiplexing</b> ), and deal with any faults.
<b>NO</b>	In normal operating conditions, status <b>ET077</b> is <b>NO</b> if the injection computer has received no impact signal.

<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET079</b>	<u>AIR CONDITIONING PRESENT</u>
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<b>STATUS DEFINITION</b>	<b>"YES"</b> : This status indicates that air conditioning is present on the vehicle. <b>"NO"</b> : This status indicates that air conditioning is not present on the vehicle.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.
	Heating and air conditioning is present depending on the vehicle's equipment level.

**Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80 °C**

**YES** or **NO**, depending on the vehicle equipment.

<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET088</b>	<u>REQUEST TO START COMPRESSOR</u>
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<b>STATUS DEFINITION</b>	<p><b>"ACTIVE"</b>: This status indicates that the compressor activation request is active.</p> <p><b>"INACTIVE"</b>: This status indicates that the compressor activation request is not active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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<b>Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature &gt; 80 °C</b>
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<b>ACTIVE</b>	<p>Status <b>ET088</b> becomes <b>ACTIVE</b> if there has been a request for air conditioning (press on AC or AUTO button, with maximum cold request) and status <b>ET004</b> is YES.</p> <p>The selection is made on the air conditioning control panel, the request for air conditioning is transmitted to the UCH which in turn transmits the request to the injection computer which either authorises or does not authorise compressor activation. If the injection computer authorises compressor switch-on, the injection computer sends <b>the compressor switch-on request</b> to the UPC and status <b>ET088</b> becomes <b>"ACTIVE" (Climate control)</b>.</p> <p>If the vehicle is equipped with <b>manual air conditioning</b>, the air conditioning request is transmitted from the air conditioning control panel to the UCH which then accepts or does not accept the air conditioning compressor coming on depending on the operating status of the passenger compartment fan. When the request has been accepted, the request to switch on the compressor is transmitted to the injection computer which either authorises or does not authorise the compressor to start. If the injection computer authorises compressor switch-on, it sends the <b>request for compressor switch-on</b> to the UPC and status <b>ET088</b> becomes <b>"ACTIVE"</b>.</p> <p>If there has been no compressor switch-on request and status <b>ET088</b> remains <b>"ACTIVE"</b>, see <b>62A, Air conditioning</b>.</p> <p><b>Note: Compressor operation is only authorised when the engine is running. Compressor activation is commanded by the UPC.</b></p>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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**ET088  
CONTINUED**

**INACTIVE**

Status **ET088** is "**INACTIVE**" when no air conditioning request has been made. When compressor switch-on has not been authorised (**ET004 "AC authorised"** is "NO") or when the driver switches the heating and air conditioning system off.

If there is a compressor switch-on request and status **ET088** remains "**INACTIVE**", see **62A, Air conditioning**.

**Note: Compressor operation is only authorised when the engine is running.  
Compressor activation is commanded by the UPC.**

**AFTER REPAIR**

Carry out a road test, then check with the **diagnostic tool**.

<b>ET121</b>	<u>CLUTCH CONTACT SIGNAL</u>
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<b>STATUS DEFINITION</b>	<b>"ACTIVE"</b> : This status indicates that the clutch pedal is depressed. <b>"INACTIVE"</b> : This status indicates that the clutch pedal is released.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.
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Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80 °C

<b>ACTIVE</b>	<b>Clutch pedal depressed</b> 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, consult the interpretation of status <b>ET405 Clutch pedal switch</b> .
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<b>INACTIVE</b>	<b>Clutch pedal released</b> 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, consult the interpretation of status <b>ET405 Clutch pedal switch</b> .
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET148</b>	<u><b>OBD WARNING LIGHT ACTIVATION REQUEST</b></u>
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<b>STATUS DEFINITION</b>	<p><b>"OFF"</b>: This status indicates that the OBD warning light activation request is not active.</p> <p><b>"ON"</b>: This status indicates that the OBD warning light activation request is active.</p> <p><b>"FLASHING"</b>: This status indicates that OBD warning light activation request is alternating.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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**Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature > 80 °C**

<b>OFF</b>	The status is "OFF" when no fault associated with the antipollution system is present or stored.
<b>ON</b>	<p>The status is "ON" when one or more faults associated with the antipollution system is present or stored.</p> <p>Consult the fault summary table to determine the faults associated with activation of the OBD warning light.</p> <p>Interpret the present or stored faults.</p>
<b>FLASHING</b>	NONE

<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET160</b>	<u>PREHEATING RELAY CONTROL</u>
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<b>STATUS DEFINITION</b>	<p><b>"ACTIVE"</b>: This status indicates that the preheating relay control is active.</p> <p><b>"INACTIVE"</b>: This status indicates that the preheating relay control is not active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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<b>Conformity check with engine stopped and ignition on, or engine running, and engine coolant temperature &gt; 80 °C</b>	
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<b>ACTIVE</b>	<p>The status is <b>"ACTIVE"</b> from when the ignition is switched on until the end of pre-postheating.</p> <p>The preheating duration varies according to:</p> <ul style="list-style-type: none"> <li>● The engine coolant temperature,</li> <li>● The atmospheric pressure</li> <li>● The battery voltage.</li> </ul> <p>If the status is inconsistent, consult the interpretation of fault <b>DF017 "Preheating unit control circuit"</b>.</p>
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<b>INACTIVE</b>	<p>The status is <b>"INACTIVE"</b> when the engine is started and the engine coolant temperature is more than <b>80 °C</b>.</p> <p>If the status is inconsistent, consult the interpretation of fault <b>DF017 "Preheating unit control circuit"</b>.</p>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET228</b>	<u>CYLINDER 1 INJECTOR CONTROL</u>
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<b>STATUS DEFINITION</b>	<b>ACTIVE:</b> This status indicates that the cylinder 1 injector control is active. <b>INACTIVE:</b> This status indicates that the cylinder 1 injector control is not active.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.
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<b>Conformity check with engine stopped and ignition on</b>
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<b>ACTIVE</b>	If the status is <b>ACTIVE</b> , consult the interpretation of fault <b>DF026 Cylinder 1 injector control circuit</b> .
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<b>INACTIVE</b>	The status is <b>INACTIVE</b> when the cylinder injector is not being controlled.
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<b>Engine running, engine coolant temperature &gt; 80 °C</b>
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<b>ACTIVE</b>	The status is <b>ACTIVE</b> when the cylinder injector is being controlled.
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<b>INACTIVE</b>	If <b>INACTIVE</b> is displayed when the engine is running, consult the interpretation of fault <b>DF026 Cylinder 1 injector control circuit</b> .
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET229</b>	<u>CYLINDER 2 INJECTOR CONTROL</u>
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<b>STATUS DEFINITION</b>	<p><b>ACTIVE:</b> This status indicates that the cylinder 2 injector control is active.</p> <p><b>INACTIVE:</b> This status indicates that the cylinder 2 injector control is not active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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<b>Conformity check with engine stopped and ignition on</b>
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<b>ACTIVE</b>	If the status is <b>ACTIVE</b> , consult the interpretation of fault <b>DF027 Cylinder 2 injector control circuit</b> .
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<b>INACTIVE</b>	The status is <b>INACTIVE</b> when the cylinder injector is not being controlled.
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<b>Engine running, engine coolant temperature &gt; 80 °C</b>
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<b>ACTIVE</b>	The status is <b>ACTIVE</b> when the cylinder injector is being controlled.
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<b>INACTIVE</b>	If <b>INACTIVE</b> is displayed when the engine is running, consult the interpretation of fault <b>DF027 Cylinder 2 injector control circuit</b> .
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET230</b>	<u>CYLINDER 3 INJECTOR CONTROL</u>
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<b>STATUS DEFINITION</b>	<b>ACTIVE:</b> This status indicates that the cylinder 3 injector control is active. <b>INACTIVE:</b> This status indicates that the cylinder 3 injector control is not active.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.
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<b>Conformity check with engine stopped and ignition on</b>
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<b>ACTIVE</b>	If the status is <b>ACTIVE</b> , consult the interpretation of fault <b>DF028 Cylinder 3 injector control circuit</b> .
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<b>INACTIVE</b>	The status is <b>INACTIVE</b> when the cylinder injector is not being controlled.
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<b>Engine running, engine coolant temperature &gt; 80 °C</b>
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<b>ACTIVE</b>	The status is <b>ACTIVE</b> when the cylinder injector is being controlled.
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<b>INACTIVE</b>	If <b>INACTIVE</b> is displayed when the engine is running, consult the interpretation of fault <b>DF028 Cylinder 3 injector control circuit</b> .
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET231</b>	<u>CYLINDER 4 INJECTOR CONTROL</u>
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<b>STATUS DEFINITION</b>	<p><b>ACTIVE:</b> This status indicates that the cylinder 4 injector control is active.</p> <p><b>INACTIVE:</b> This status indicates that the cylinder 4 injector control is not active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.</p>
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<b>Conformity check with engine stopped and ignition on</b>
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<b>ACTIVE</b>	If the status is <b>ACTIVE</b> , consult the interpretation of fault <b>DF029 Cylinder 4 injector control circuit</b> .
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<b>INACTIVE</b>	The status is <b>INACTIVE</b> when the cylinder injector is not being controlled.
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<b>Engine running, engine coolant temperature &gt; 80 °C</b>
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<b>ACTIVE</b>	The status is <b>ACTIVE</b> when the cylinder injector is being controlled.
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<b>INACTIVE</b>	If <b>INACTIVE</b> is displayed when the engine is running, consult the interpretation of fault <b>DF029 Cylinder 4 injector control circuit</b> .
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET238</b>	<u>SYNCHRONISATION</u>
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<b>STATUS DEFINITION</b>	<p><b>NOT DONE:</b> This status indicates that synchronisation has not been carried out.</p> <p><b>DONE:</b> This status indicates that synchronisation has been carried out.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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### WARNING

Synchronisation is carried out during the engine starting phase. This is established between the camshaft position sensor and the TDC sensor.

Once this synchronisation has been carried out, it enables the computer to identify cylinder no. 1 and to calculate the precise position of the cylinder's Top Dead Centre.

**Conformity check with the engine stopped and the ignition on, or engine running, and engine coolant temperature > 80°C**

<b>NOT PERFORMED</b>	<p>When the engine is switched off but the ignition switched on, cylinder no.1 is no longer indicated.</p> <p>Status <b>ET238</b> is <b>NOT DONE</b>: synchronisation between the crankshaft and the camshaft has not been carried out.</p>
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<b>COMPLETED</b>	<p>Synchronisation is carried out during the engine starting phase. Cylinder No. 1 is indicated and synchronisation will be performed once the engine is started.</p> <p>If, after several attempts to start the engine, status <b>ET238</b> remains <b>NOT DONE</b>, refer to the interpretation of the following faults:</p> <ul style="list-style-type: none"> <li>– <b>DF005 Engine speed sensor circuit.</b></li> <li>– <b>DF097 Camshaft sensor circuit.</b></li> </ul> <p>If the engine still does not start, consult <b>ALP2 The engine does not start or starts with difficulty.</b></p>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET405</b>	<u><b>CLUTCH PEDAL SWITCH</b></u>
<b>STATUS DEFINITION</b>	<p><b>ACTIVE:</b> This status indicates that the clutch pedal is depressed.</p> <p><b>INACTIVE:</b> This status indicates that the clutch pedal is released.</p>
<b>NOTES</b>	<p><b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.</p> <p><b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b></p>
<b>"INACTIVE"</b>	<p>Check the condition and the fitting of the clutch pedal switch (see <b>MR 392, 385, 364, 370 and 417 Mechanical, 37A, Mechanical component controls, Clutch pedal position sensor: Removal - Refitting</b>).</p> <p>Remove the clutch pedal switch and check the <b>insulation</b> between connections <b>MAM</b> and <b>86D (for Mégane II ph 2, Scénic II ph2 and Kangoo II)</b> and between connections <b>MAS</b> and <b>86D (for Clio III and Modus)</b> of component <b>675</b> with the switch in the rest position.</p> <ul style="list-style-type: none"> <li>– Repeat this operation with the switch engaged, and check the <b>continuity</b> between the two connections.</li> </ul> <p>If these two checks are not correct, replace the clutch pedal switch (see <b>MR 392, 385, 364, 370 and 417 Mechanical, 37A, Mechanical component controls, Clutch pedal position sensor: Removal - Refitting</b>).</p> <p>Then check the <b>continuity</b> and absence of interference <b>resistance</b> of the following connection:</p> <ul style="list-style-type: none"> <li>– connection code <b>86D</b> between components <b>120</b> and <b>675</b>.</li> <li>– Check that the earth is correct on connection <b>MAM (for Mégane II ph 2, Scénic II ph2 and Kangoo II)</b> or on connection <b>MAS (for Clio III and Modus)</b> of component <b>675</b>.</li> </ul> <p>If the connection or connections are faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<b>"ACTIVE"</b>	<p>Check the condition and fitting of the clutch pedal switch.</p> <p>Remove the clutch pedal switch and check the <b>insulation</b> between connections <b>MAM</b> and <b>86D (for Mégane II ph 2, Scénic II ph2 and Kangoo II)</b> and between connections <b>MAS</b> and <b>86D (for Clio III and Modus)</b> of component <b>675</b> with the switch in the rest position.</p> <ul style="list-style-type: none"> <li>– Repeat this operation with the switch engaged, and check the <b>continuity</b> between the two connections.</li> </ul> <p>If these two checks are not correct, replace the clutch pedal switch (see <b>MR 392, 385, 364, 370 and 417 Mechanical, 37A, Mechanical component controls, Clutch pedal position sensor: Removal - Refitting</b>).</p>
<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .

<b>ET415</b>	<u><b>CRUISE CONTROL/SPEED LIMITER DEACTIVATION</b></u>
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<b>STATUS DEFINITION</b>	This status varies according to engine specifications.
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<b>NOTES</b>	<p><b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.</p> <p><b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b></p>
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**Note:**

Cruise control can be activated when the vehicle speed exceeds **18 mph (30 km/h)**.

Status **ET415** shows various reasons that cause deactivation of the cruise control/speed limiter function, which are due to driver action or external factors (for example, STATUS 1).

**IMPORTANT:**

Erase the fault memory by running the command **RZ001 Fault memory to reset this status to WITHOUT**.

<b>WITHOUT</b>	<p>This status is <b>WITHOUT</b> when:</p> <ul style="list-style-type: none"> <li>– the computer has been reinitialised,</li> <li>– the computer has been reprogrammed.</li> </ul>
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<b>STATUS 1</b>	<p><b>Traction control request</b></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 <b>ET415</b> becomes <b>STATUS 1</b> when driving with the cruise control active (<b>ET042 Cruise control/Speed limiter: CRUISE CONTROL</b>) and when traction control is requested. This deactivates cruise control.</p> <p><b>Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".</b> If status <b>ET415</b> becomes <b>STATUS 1</b> with no traction control request (see <b>38C, Anti-lock Braking System</b>).</p>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET415 CONTINUED 1</b>	
<b>STATUS 2</b>	<p><b>Brake pedal depressed</b></p> <p>The cruise control function is deactivated when the brake pedal is depressed.</p> <p>Status <b>ET415</b> becomes <b>STATUS 2</b>, when driving with the cruise control active (<b>ET042 Cruise control/Speed limiter: CRUISE CONTROL</b>) and the brake pedal is pressed. This deactivates cruise control.</p> <p><b>Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".</b></p> <p>If status <b>ET415</b> becomes <b>STATUS 2</b> with no application of the brake pedal, consult the interpretation of statuses <b>ET704</b> and <b>ET705 Brake contact no. 1 and no. 2</b>.</p>
<b>STATUS 3</b>	<p><b>Clutch pedal depressed</b></p> <p><b>Manual gearbox ONLY</b></p> <p>The cruise control function is deactivated when the gearbox is not coupled to the engine (clutch pedal depressed).</p> <p>Status <b>ET415</b> becomes <b>STATUS 3</b> when driving with cruise control active (<b>ET042 Cruise control/Speed limiter: CRUISE CONTROL</b>) and the clutch pedal is pressed. This deactivates cruise control.</p> <p><b>Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".</b></p> <p>If status <b>ET415</b> becomes <b>STATUS 3</b> without the clutch pedal being pressed, consult the interpretation of status <b>ET405 Clutch pedal switch</b>.</p> <p>If the vehicle is fitted with 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 <b>88B, Multiplexing</b>).</p>
<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>

<b>ET415 CONTINUED 2</b>	
<b>STATUS 4</b>	<p><b>Cancel button pressed</b></p> <p>The cruise control/speed limiter function is deactivated whenever the suspend button is pressed. Status <b>ET415</b> becomes <b>STATUS 4</b> when driving with:</p> <ul style="list-style-type: none"> <li>– either the cruise control is active, or</li> <li>– the speed limiter is active</li> <li>– and when the "<b>0</b>" button is pressed by the driver.</li> </ul> <p>This action deactivates the Cruise control/Speed limiter.</p> <p><b>Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".</b></p> <p>If status <b>ET415</b> becomes <b>STATUS 4</b> without pressing the <b>0</b> button, consult the interpretation of status <b>ET703 Cruise control/speed limiter buttons</b> and run fault finding on the <b>R/0</b> control button located on the right-hand side of the steering wheel.</p>
<b>STATUS 5</b>	<p><b>Cruise control or speed limiter monitoring</b></p> <p>This status appears when the vehicle brakes or decelerates sharply without the injection computer receiving a signal indicating that the brake pedal switch has been pressed.</p> <p>If status <b>ET415</b> is <b>STATUS 5</b>, refer to the interpretation:</p> <ul style="list-style-type: none"> <li>– of status <b>ET042 Cruise control/Speed limiter</b>,</li> <li>– of status <b>ET703 Cruise control - speed limiter buttons</b>,</li> <li>– of status <b>ET704 Brake switch no. 1</b>,</li> <li>– of status <b>ET705 Brake contact no. 2</b>,</li> </ul> <p>to test the cruise control/speed limiter system components and find the defective component.</p> <p>Also check the operation of the accelerator pedal, and check for any faults shown on the <b>diagnostic tool</b> relating to this component. Deal with them if necessary.</p> <p><b>Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".</b></p> <p>If status <b>ET415</b> becomes <b>STATUS 5</b>, deal with any faults that are present or stored in the injection computer. If the fault is still present, <b>contact the Techline</b>.</p>
<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>

<b>ET415 CONTINUED 3</b>	
<b>STATUS 6</b>	<p><b>Gear lever in neutral (manual gearbox) or the neutral position (automatic gearbox)</b></p> <p>Status <b>ET415</b> becomes <b>STATUS 6</b> when driving with the cruise control active (<b>ET042 Cruise control/speed limiter: CRUISE CONTROL</b>) and:</p> <ul style="list-style-type: none"> <li>– if the driver puts the gear lever in neutral position on a manual gearbox without declutching or,</li> <li>– if the gear lever is in neutral on an automatic gearbox.</li> </ul> <p>This deactivates cruise control.</p> <p><b>Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".</b></p> <p>If status <b>ET415</b> becomes <b>STATUS 6</b> without putting the gear lever in neutral on a manual gearbox without declutching or in neutral on an automatic gearbox, run fault finding on the ABS computer and check the configuration of the tyre sizes entered in the computer. If the configuration is correct, <b>contact the Techline</b>.</p>
<b>STATUS 7</b>	<p><b>Lack of correlation between the request and the vehicle speed</b></p> <p>Status <b>ET415</b> becomes <b>STATUS 7</b> if the computer detects too great a difference between the speed requested by the driver and the vehicle speed.</p> <p>This inconsistency could occur when driving on a very uneven surface with cruise control active (<b>ET042 Cruise control/ speed limiter: CRUISE CONTROL</b>).</p> <p>This inconsistency deactivates cruise control.</p> <p><b>Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".</b></p> <p>If status <b>ET415</b> becomes <b>STATUS 7</b> where the surface is not uneven, <b>contact the Techline</b>.</p>
<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>

<b>ET415 CONTINUED 4</b>	
<b>STATUS 8</b>	<p><b>Automatic gearbox in defect mode.</b></p> <p>Status <b>ET415</b> becomes <b>STATUS 8</b> when driving with the cruise control active (<b>ET042 Cruise control/speed limiter: CRUISE CONTROL</b>) and if the automatic gearbox 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 <b>23A, Automatic transmission</b>).</p> <p>Clear the automatic transmission computer memory by running command <b>RZ001 Fault memory</b>.</p> <p><b>Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".</b></p> <p>If <b>STATUS 8</b> is still present, <b>contact the Techline</b>.</p>
<b>STATUS 9</b>	<p><b>Vehicle speed monitoring</b></p> <p>Status <b>ET415</b> becomes <b>STATUS 9</b> 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.</p> <p>Carry out a multiplex network test, then run fault finding on the <b>ABS</b> computer.</p> <p>Deal with the present or stored faults (see <b>38C, ABS</b>).</p> <p><b>Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".</b></p> <p>If <b>STATUS 9</b> is still present, <b>contact the Techline</b>.</p>
<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>

### ET415 CONTINUED 5

### STATUS 10

#### Monitoring by injection computer

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 speed that is too high or too low.

This signal is conveyed on the multiplex line and deactivates the cruise control.

Carry out a multiplex network test, then Perform fault finding on the injection computer. Deal with present or stored faults.

**Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".**

If **STATUS 10** is still present, **contact the Techline**.

### AFTER REPAIR

Carry out a road test, then check with the **diagnostic tool**.

<b>ET613</b>	<u>FUEL PRESSURE REGULATOR</u>
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<b>STATUS DEFINITION</b>	<p><b>INACTIVE:</b> This status indicates that the fuel pressure regulator is not active.</p> <p><b>ACTIVE:</b> This status indicates that the fuel pressure regulator is active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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Note:  
This solenoid valve regulates the output pressure of the high pressure pump.

### Conformity check with engine stopped and ignition on

<b>INACTIVE</b>	– Engine stopped.
<b>ACTIVE</b>	If the status is <b>ACTIVE</b> , consult the interpretation of fault <b>DF773 Pressure regulator circuit</b> .

### Conformity check with engine running, engine coolant temperature > 80 °C

<b>INACTIVE</b>	<p>– Engine stopped.</p> <p>– Engine under load.</p>
<b>ACTIVE</b>	<p>The status is <b>ACTIVE</b> under low engine loads or when the engine is running at idle speed.</p> <p>If the status is <b>INACTIVE</b> with the engine at idle speed, consult the interpretation of fault <b>DF773 Pressure regulator circuit</b>.</p>

<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET638</b>	<u>FUEL FLOW REGULATOR</u>
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<b>STATUS DEFINITION</b>	<p><b>INACTIVE:</b> This status indicates that the fuel pressure regulator is <b>INACTIVE</b>.</p> <p><b>ACTIVE:</b> This status indicates that the fuel pressure regulator is <b>ACTIVE</b>.</p>
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<b>NOTES</b>	<p><b>Special notes:</b></p> <p>Only perform these tests if the status does not correspond with the system programming functions.</p>
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This solenoid valve regulates the flow of fuel entering the high pressure pump and enables an optimum quantity of fuel to be pressurised according to operating phase; this improves the output of the Common Rail pump and thereby the output of the engine as well.

<b>Conformity check with engine stopped and ignition on</b>
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<b>ACTIVE</b>	If the status is <b>ACTIVE</b> , consult the interpretation of fault <b>DF770 Flow regulator circuit</b> .
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<b>INACTIVE</b>	<ul style="list-style-type: none"> <li>– Engine stopped.</li> <li>– Engine running at idle speed.</li> </ul>
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<b>Conformity check with engine running, engine coolant temperature &gt; 80 °C</b>
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<b>ACTIVE</b>	<p>The status is <b>ACTIVE</b> when there is a high engine load.</p> <p>If the status is <b>INACTIVE</b> with the engine at idle speed, consult the interpretation of fault <b>DF770 Flow regulator circuit</b>.</p>
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<b>INACTIVE</b>	– Engine running at idle speed.
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET648</b>	<u>FAN UNIT</u>
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<b>STATUS DEFINITION</b>	<p><b>INACTIVE:</b> This status indicates that the cooling fan assembly is <b>INACTIVE</b>.</p> <p><b>LOW SPEED:</b> This status indicates that the cooling fan assembly is at <b>LOW SPEED</b>.</p> <p><b>HIGH SPEED:</b> This status indicates that the cooling fan assembly is at <b>HIGH SPEED</b>.</p>
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<b>NOTES</b>	<p><b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.</p>
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<b>Conformity check with the engine stopped and the ignition on, or engine running, and engine coolant temperature &gt; 80°C</b>
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<b>INACTIVE</b>	The fan assembly is inactive when the coolant temperature does not exceed <b>96°C</b> .
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<b>LOW SPEED</b>	<p>The injection computer requests the activation of the low speed GMV when:</p> <ul style="list-style-type: none"> <li>– the engine coolant temperature is above <b>96°C</b>,</li> <li>– the injection computer has system faults that could lead to the engine overheating,</li> <li>– the air conditioning is switched on by the driver.</li> </ul> <p>When the high speed fan is supplied:</p> <ul style="list-style-type: none"> <li>– status <b>ET022 Low speed fan request</b> becomes activated.</li> </ul> <p>The low-speed fan assembly stops when:</p> <ul style="list-style-type: none"> <li>– the engine coolant temperature is below <b>94°C</b>,</li> <li>– <b>no fault which could cause engine overheating is present in the injection system.</b></li> <li>– <b>the air conditioning is not switched on by the driver.</b></li> </ul>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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ET648 CONTINUED	
HIGH SPEED	<p>The injection computer requests the activation of the high speed GMV when:</p> <ul style="list-style-type: none"><li>– the engine coolant temperature is above <b>104°C</b>,</li><li>– the injection computer has system faults that could lead to the engine overheating.</li></ul> <p>When the high speed fan is supplied:</p> <ul style="list-style-type: none"><li>– status <b>ET021 High speed fan request</b> becomes activated.</li></ul> <p>The high-speed fan assembly stops when:</p> <ul style="list-style-type: none"><li>– the engine coolant temperature is below <b>102°C</b>,</li><li>– <b>no fault which could cause engine overheating is present in the injection system.</b></li></ul>
AFTER REPAIR	Carry out a road test, then check with the <b>diagnostic tool</b> .

<b>ET649</b>	<u>WATER IN DIESEL FUEL DETECTOR</u>
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<b>STATUS DEFINITION</b>	<p><b>WITH:</b> This status indicates that the water in diesel fuel detector has detected water in the diesel fuel.</p> <p><b>WITHOUT:</b> This status indicates that the water in diesel fuel detector has not detected water in the diesel fuel.</p>
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<b>NOTES</b>	<p><b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.</p>
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<b>Conformity check with the engine stopped and the ignition on, or engine running, and engine coolant temperature &gt; 80°C</b>
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<b>WITH</b>	In the event of a fault, consult the interpretation of fault <b>DF886 Water present in diesel fuel</b> .
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<b>WITHOUT</b>	The status is <b>WITHOUT</b> if no water is detected.
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET673</b>	<u><b>JAMMED ACCELERATOR PEDAL</b></u>
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<b>STATUS DEFINITION</b>	<p><b>YES:</b> This status indicates that the accelerator pedal is detected to be jammed.</p> <p><b>NO:</b> This status indicates that the accelerator pedal is not detected to be jammed.</p>
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<b>Conformity check with the engine stopped and the ignition on, or engine running, and engine coolant temperature &gt; 80°C</b>
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<b>YES or NO</b>	This status varies when the ignition is on or the engine is running depending on the status of the accelerator pedal.
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<b>NOTES</b>	<p><b>Special notes:</b> Apply this procedure only if the status is <b>YES</b>.</p> <p>Use the Wiring Diagram Technical Note for <b>Mégane II ph2, Scénic II ph2, CLIO III, MODUS and Kangoo II</b>.</p>
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<p>Check the condition of the connector for the brake switch, component code <b>160</b>.</p> <p>Check the condition of the connector for the accelerator potentiometer, component code <b>921</b>.</p> <p>Check the condition of the connector for the engine management computer, component code <b>120</b>.</p> <p>If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>) repair the connector(s); otherwise, replace the wiring.</p>
<p>Measure the <b>resistance</b> of the pedal potentiometer <b>gang 1</b> between <b>connections 3LR and 3LT</b>.</p> <p>If the resistance of the pedal potentiometer is not between <b>0.8 kΩ and 2.6 kΩ</b>, replace the pedal potentiometer (see <b>MR 392, 385, 364, 370 and 417 Mechanical, 13B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting</b>).</p>
<p>Measure the <b>resistance</b> of the pedal potentiometer on <b>gang 2</b> between <b>connections 3LU and 3LV</b>.</p> <p>If the resistance of the pedal potentiometer is not between <b>0.8 kΩ and 4.9 kΩ</b>, replace the pedal potentiometer (see <b>MR 392, 385, 364, 370 and 417 Mechanical, 13B, Diesel injection, Accelerator pedal potentiometer: Removal - Refitting</b>).</p>

<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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**ET673  
CONTINUED**

Use the universal bornier to check the **insulation** and **continuity** of the following connections:

- Connection code **3LT** between components **120 and 921**,
- Connection code **3LR** between components **120 and 921**,
- Connection code **3LS** between components **120 and 921**,
- Connection code **3LU** between components **120 and 921**,
- Connection code **3LV** between components **120 and 921**,
- Connection code **3LW** between components **120 and 921**,
- Connection code **5A** between components **120 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.

Carry out a multiplex network test.

Carry out complete fault finding on the UCH (see **87B, Passenger Compartment Connection Unit**).

Erase the fault memory using the command **RZ001 Fault memory**.

If the fault is still present, contact the Techline.

**AFTER REPAIR**

Carry out a road test, then check with the **diagnostic tool**.

<b>ET701</b>	<u>PARTICLE FILTER PRESSURE SENSOR</u>
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<b>STATUS DEFINITION</b>	<p><b>ACTIVE:</b> This status indicates that the particle filter electric fuel pump is active.</p> <p><b>INACTIVE:</b> This status indicates that the particle filter electric fuel pump is not active.</p>
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<b>NOTES</b>	<p><b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.</p>
	Only for vehicles equipped with a particle filter.

<b>Conformity check with the engine stopped and the ignition on, or engine running, and engine coolant temperature &gt; 80°C</b>
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<b>ACTIVE</b>	The status is <b>ACTIVE</b> during the particle filter regeneration phase.
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<b>INACTIVE</b>	If there is a fault, consult the interpretation of fault <b>DF1004 Electric fuel pump control relay circ**</b> .
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\*elec: electric

\*\*circ: circuit

<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET703</b>	<u><b>CRUISE CONTROL/SPEED LIMITER BUTTONS</b></u>
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<b>STATUS DEFINITION</b>	<p><b>INACTIVE:</b> This status indicates that no button has been pressed.</p> <p><b>INCREASE:</b> This status indicates that the increase button is pressed.</p> <p><b>DECREASE:</b> This status indicates that the decrease button is pressed.</p> <p><b>SUSPEND:</b> This status indicates that the 0 button is pressed.</p> <p><b>RESUME:</b> This status indicates that the R button is pressed.</p>
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<b>NOTES</b>	<p><b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions.</p> <p>Use the Wiring Diagram Technical Note for <b>Mégane II ph2, Scénic II ph2, CLIO III, MODUS and Kangoo II</b>.</p>
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<b>INACTIVE</b>	<p>Status <b>ET703</b> becomes <b>INACTIVE</b> when the cruise control/speed limiter button is not pressed. These buttons are located on the steering wheel.</p> <p>Refer to the airbag technical note for the vehicle <b>for details on removal of the driver's airbag and carrying out the checks in complete safety (see 88C, Airbag and pretensioners)</b>.</p> <p>If status <b>ET703</b> does not display <b>INACTIVE</b>,</p> <ul style="list-style-type: none"> <li>● check the condition of the cruise control/speed limiter +/- button and the condition of its connector.</li> <li>● check the condition of the cruise control/speed limiter "R/0" button and the condition of its connector,</li> </ul> <p>If the connectors are faulty and if there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the connector(s), otherwise replace the wiring.</p>
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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### ET703 CONTINUED 1

### INCREASE

Status **ET703** becomes **INCREASE** when the cruise control/speed limiter **+** button is pressed. This button is on the steering wheel, on the left-hand side.  
Refer to the airbag technical note for the vehicle **for details on removal of the driver's airbag and carrying out the checks in complete safety (see 88C, Airbag and pretensioners)**.  
If status **ET703** does not display **INCREASE**, check the status of the cruise control/speed limiter **+/-** button, and the condition of its connector.  
If the connector is faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, wiring: Precautions for repair**), repair the connector(s); otherwise replace the wiring.  
Measure **the resistance on the following connections while pressing the + button (on the button tracks)**:

- Connection code **86G** of component **331**.
- Connection code **86M** of component **331**.

If the resistance is not approximately **300 Ω**, check the continuity of the connection for the button when the button is in the rest position.  
If there is continuity, replace the **+/-** control button (see **MR 392, 385, 364, 370 and 417 Mechanical, 83D, Cruise control, Switch on the steering wheel: Removal - Refitting**).  
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**.

### ET703 CONTINUED 2

#### DECREASE

Status **ET703** becomes **DECREASE** when the cruise control/speed limiter button is pressed. This button is on the steering wheel, on the left-hand side.  
Refer to the airbag technical note for the vehicle **for details on removal of the driver's airbag and carrying out the checks in complete safety (see 88C, Airbag and pretensioners)**.  
If status **ET703** does not change to **DECREASE**, check the status of the cruise control/speed limiter **+/-** button and check the condition of its connector.  
If the connector is faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, wiring: Precautions for repair**), repair the connector(s); otherwise replace the wiring.  
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 of the following connections while pressing the "-" button (on the button tracks)**:

- Connection code **86G** of component **331**.
- Connection code **86M** of component **331**.

If the resistance is not approximately **100 Ω**, check the continuity of the button when the button is in the rest position.  
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.

#### 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.  
Refer to the airbag technical note for the vehicle **for details on removal of the driver's airbag and carrying out the checks in complete safety (see 88C, Airbag and pretensioners)**.  
If status **ET703** does not become **SUSPEND**, check the status of the cruise control/speed limiter **R/0** button and the condition of its connector.  
If the connector is faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.  
Measure **the resistance of the following connections while pressing the 0 button (on the button tracks)**:

- Connection code **86G** of component **331**.
- Connection code **86M** of component **331**.

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 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**.



<b>ET703 CONTINUED 3</b>	
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<b>RESUME</b>	<p>Status <b>ET703</b> becomes <b>RESUME</b> when the cruise control/speed limiter "R" button is pressed. This button is located on the steering wheel, to the right.</p> <p>Refer to the airbag technical note for the vehicle <b>for details on removal of the driver's airbag and carrying out the checks in complete safety (see 88C, Airbag and pretensioners)</b>.</p> <p>If status <b>ET703</b> does not change to <b>RESUME</b>, check the status of the cruise control/speed limiter <b>R/0</b> button and the condition of its connector.</p> <p>If the connector is faulty and if there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, wiring: Precautions for repair</b>), repair the connector(s); otherwise replace the wiring.</p> <p>If the connector is faulty and if there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace the wiring. Measure <b>the resistance of the following connections while pressing the R button (on the button tracks)</b>:</p> <ul style="list-style-type: none"> <li>● Connection code <b>86G</b> of component <b>331</b>.</li> <li>● Connection code <b>86M</b> of component <b>331</b>.</li> </ul> <p>If the resistance is not approximately <b>900 Ω</b>, check the continuity of the connection when the button is in the rest position.</p> <p>If there is continuity, replace the <b>R/0</b> control button.</p> <p>If the connection or connections are faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace the wiring.</p>
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<b>AFTER REPAIR</b>	<p>Carry out a road test, then check with the <b>diagnostic tool</b>.</p>
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ET704 ET705	<u>BRAKE SWITCH NO. 1</u> <u>BRAKE SWITCH NO. 2</u>
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<b>STATUS DEFINITION</b>	<b>ACTIVE:</b> This status indicates that the brake pedal is depressed. <b>INACTIVE</b> This status indicates that the brake pedal is released.
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<b>NOTES</b>	<b>Special note:</b> Only perform these tests if the status does not correspond with the system programming functions.
	Use the Wiring Diagram Technical Note for <b>Mégane II ph2, Scénic II ph2, CLIO III, MODUS and Kangoo II</b> .

**Note:**

Statuses **ET704** and **ET705** should change status at the same time. If they do not, consult the interpretation of faults **DF008 Pedal potentiometer circuit gang 1** and **DF009 Pedal potentiometer circuit gang 2**.

ACTIVE

or

INACTIVE

If the brake lights are working:

- check the continuity and make sure there is no interference resistance on the following connection:

Connection code **5A between components 160 and 120, 645 and 119.**

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 brake lights are not operational, check:

- the condition and fitting of the brake switch,
- the condition and conformity of the brake light fuse,
- the conformity of the values in the following table:

	Continuity between connections	Insulation between connections
Switch pressed (Brake pedal released)	5A and BPT	65G and SP17
Switch released (Brake pedal depressed)	65G and SP17	5A and BPT

<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding - Interpretation of statuses

13B

ET704  
ET705  
CONTINUED

INACTIVE  
CONTINUED

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 obtained are not correct, replace the brake switch (see **MR 392, 385, 364, 370 and 417 Mechanical, 37A, Mechanical component controls, Brake light switch: Removal - Refitting**).

**AFTER REPAIR**

Carry out a road test, then check with the **diagnostic tool**.

# DIESEL INJECTION

## Fault finding - Interpretation of statuses

# 13B

<b>ET706</b> <b>ET707</b> <b>ET708</b> <b>ET709</b> <b>ET710</b> <b>ET711</b> <b>ET712</b> <b>ET713</b> <b>ET714</b> <b>ET715</b>	<u>STORED ENGINE STATUS NO. 1</u> <u>STORED ENGINE STATUS NO. 2</u> <u>STORED ENGINE STATUS NO. 3</u> <u>STORED ENGINE STATUS NO. 4</u> <u>STORED ENGINE STATUS NO. 5</u> <u>STORED ENGINE STATUS NO. 6</u> <u>STORED ENGINE STATUS NO. 7</u> <u>STORED ENGINE STATUS NO. 8</u> <u>STORED ENGINE STATUS NO. 9</u> <u>STORED ENGINE STATUS NO. 10</u>
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<b>STATUS DEFINITION</b>	<b>RUNNING:</b> This status indicates that the stored engine status is engine running. <b>STOPPED:</b> This status indicates that the stored engine status is engine stopped.
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<b>NOTES</b>	<b>Special note:</b> Check the interpretation of these parameters only on <b>ALP21 Particle filter warning light illuminated</b> .
	Vdiag 4D and 49 only.

Each **STATUS** between **ET706** and **ET715** corresponds to regeneration failures for which the mileage is recorded by the parameters **PR794 Regeneration failure record No. 1** to **PR803 Regeneration failure record No. 10** (for example: **PR797 Regeneration failure record No. 4** is linked to **ET709 Stored engine status no. 4**).

<b>"RUNNING"</b>	The status is <b>ACTIVE</b> as soon as the ignition is switched on.
<b>"STOPPED"</b>	If the status is <b>STOPPED</b> , regeneration failure due to the engine being switched off.
<b>+ APC</b>	Do not interpret this engine status.
<b>"NONE"</b>	Do not interpret this engine status.

<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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SID304\_V4D\_ET706/SID304\_V4D\_ET707/SID304\_V4D\_ET708/SID304\_V4D\_ET709/SID304\_V4D\_ET710/SID304\_V4D\_ET711/  
 SID304\_V4D\_ET712/SID304\_V4D\_ET713/SID304\_V4D\_ET714/SID304\_V4D\_ET715/SID304\_V49\_ET706/SID304\_V49\_ET707/  
 SID304\_V49\_ET708/SID304\_V49\_ET709/SID304\_V49\_ET710/SID304\_V49\_ET711/SID304\_V49\_ET712/SID304\_V49\_ET713/  
 SID304\_V49\_ET714/SID304\_V49\_ET715/SID301\_V4C\_ET707/SID301\_V4C\_ET708/SID301\_V4C\_ET709/SID301\_V4C\_ET710/  
 SID301\_V4C\_ET711/SID301\_V4C\_ET712/SID301\_V4C\_ET713/SID301\_V4C\_ET714/SID301\_V4C\_ET715

# DIESEL INJECTION

## Fault finding - Interpretation of statuses

13B

ET741	<u>OPTIONAL VEHICLE SPEED RESTRICTION</u>
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<b>STATUS DEFINITION</b>	<b>ACTIVE:</b> This status indicates that the speed restriction is activated. <b>INACTIVE:</b> This status indicates that the speed restriction is deactivated.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions. This status indicates whether the vehicle speed restriction is a customer option, using the command <b>SC040 Speed limiter</b> .
	Kangoo II only.

Conformity check with the engine stopped and the ignition on, or engine running, and engine coolant temperature > 80°C
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<b>ACTIVE</b>	Vehicle speed restricted using command <b>SC040 Speed limiter</b> . See the interpretation of parameter <b>PR879 Maximum speed authorized</b> to find the configured speed restriction.
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<b>INACTIVE</b>	Optional speed restriction function deactivated.
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<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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<b>ET800</b>	<u><b>FAST IDLE SPEED FUNCTION</b></u>
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<b>STATUS DEFINITION</b>	<p><b>ACTIVE:</b> This status indicates that the fast idle speed function is activated.</p> <p><b>INACTIVE:</b> This status indicates that the fast idle speed function is deactivated.</p>
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<b>NOTES</b>	<p><b>Special notes:</b> Only perform these tests if the status does not correspond with the system programming functions. This status indicates whether the fast idle speed function is activated after use of the command <b>SC041 Changing VU* engine idle speed</b>.</p>
	<b>Kangoo II only.</b>

<b>Conformity check with the engine stopped and the ignition on, or engine running, and engine coolant temperature &gt; 80°C</b>
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<b>ACTIVE</b>	<p>Is the fast idle speed function active? Consult the interpretation of parameter <b>PR878 Fast idle speed</b> to find out the configured idle speed.</p>
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<b>INACTIVE</b>	Fast idle speed function deactivated.
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\*VU: Commercial vehicle

<b>AFTER REPAIR</b>	Carry out a road test, then check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Parameter summary table

13B

Tool parameter	Diagnostic tool title
PR005	EGR valve opening setpoint
PR008	Rail reference pressure
PR009	Turbocharging pressure setpoint
PR015	Engine torque
PR017	Fuel flow
PR028	Pedal position (gang 1)
PR029	Pedal position (gang 2)
PR030	Accelerator pedal position
PR035	Atmospheric pressure
PR037	Refrigerant pressure
PR038	Rail pressure
PR040	Linearised rail pressure
PR041	Turbocharging pressure
PR051	EGR valve position feedback
PR055	Engine speed
PR059	Inlet air temperature
PR063	Fuel temperature
PR064	Coolant temperature
PR071	Computer feed voltage
PR076	Refrigerant sensor voltage
PR077	EGR valve position sensor voltage
PR078	Inlet pressure sensor voltage
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 gang 1 voltage
PR088	Pedal potentiometer gang 2 voltage
PR089	Vehicle speed

# DIESEL INJECTION

## Fault finding – Parameter summary table

# 13B

Tool parameter	Diagnostic tool title	
PR125	Power absorbed by the AC* compressor	Vdiag 44 and 48 only
PR128	First EGR valve offset	
PR129	Last EGR valve offset	
PR130	Cruise control setpoint	
PR132	Air flow	
PR171	Air flow setpoint for EGR	Vdiag 44 and 48 only
PR190	Engine idle speed setpoint.	
PR224	Turbocharging pressure sensor voltage	Vdiag 44 and 48 only
PR228	Injector control capacitor voltage	
PR364	Cylinder no. 1 fuel flow correction	
PR365	Cylinder no. 4 fuel flow correction	
PR381	Particle filter downstream temperature	Vdiag 4D, 45 and 49 only
PR382	Particle filter upstream temperature	
PR383	Weight of soot in the particle filter	
PR391	Mileage since particle filter replacement	
PR400	New EGR valve offset	
PR405	Cylinder no. 2 fuel flow correction	
PR406	Cylinder no. 3 fuel flow correction	
PR412	Mileage at last successful regeneration	Vdiag 4D, 45 and 49 only
PR414	Particle filter diff* pressure	
PR415	Time since last regeneration	
PR513	Mileage counter for level 1 warning light	
PR514	Mileage counter for level 2 warning light	
PR634	Air flow request	
PR667	Turbine upstream temperature	Vdiag 4D, 45 and 49 only
PR668	Turbine upstream temperature sensor voltage	
PR669	Particle filter diff* press* sens* voltage	
PR670	Particle filter upstream temp* sens* voltage	
PR671	Particle filter downstream temp* sens* voltage	
PR672	Damper valve position setpoint	Vdiag 44 and 48 only

\*AC: air conditioning system  
\*diff: differential

\*sens: sensor  
\*temp: temperature

\*press: pressure



# DIESEL INJECTION

## Fault finding – Parameter summary table

13B

Tool Parameter	Diagnostic tool title	
<b>PR739</b>	Fuel flow solenoid valve current	
<b>PR794</b>	Stored regeneration failure no. 1	Vdiag 4D, 45 and 49 only
<b>PR795</b>	Stored regeneration failure no. 2	
<b>PR796</b>	Stored regeneration failure no. 3	
<b>PR797</b>	Stored regeneration failure no. 4	
<b>PR798</b>	Stored regeneration failure no. 5	
<b>PR799</b>	Stored regeneration failure no. 6	
<b>PR800</b>	Stored regeneration failure no. 7	
<b>PR801</b>	Stored regeneration failure no. 8	
<b>PR802</b>	Stored regeneration failure no. 9	
<b>PR803</b>	Stored regeneration failure no.10	
<b>PR810</b>	Catalytic converter 1 downstream temperature	Vdiag 4D, 45 and 49 only
<b>PR812</b>	Catalytic converter 1 temperature sensor voltage	
<b>PR836</b>	St* particle filter warning light no. 1	Vdiag 45 and 49 only
<b>PR837</b>	St* particle filter warning light no. 2	
<b>PR838</b>	St* particle filter warning light no. 3	
<b>PR839</b>	St* particle filter warning light no. 4	
<b>PR840</b>	St* particle filter warning light no. 5	
<b>PR841</b>	St* particle filter warning light no. 6	
<b>PR842</b>	St* particle filter warning light no. 7	
<b>PR843</b>	St* particle filter warning light no. 8	
<b>PR844</b>	St* particle filter warning light no. 9	
<b>PR845</b>	St* particle filter warning light no. 10	
<b>PR873</b>	Oil oxidation signal	Vdiag 44, 45, 48 and 49 only
<b>PR874</b>	Last service	
<b>PR875</b>	Oil dilution signal	Vdiag 44, 45, 48 and 49 only
<b>PR878</b>	Increased idle speed	Kangoo II only
<b>PR879</b>	Maximum authorised speed	Kangoo II only

\*St.: stored

<b>PR005</b>	<u>EGR VALVE OPENING VALUE REQUIRED</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates a theoretical opening value for the EGR valve in % for optimal engine performance.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with engine stopped and ignition on.</b>
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The theoretical opening value for the EGR valve is:  <b>- 10% &lt; PR005 &lt; 0%</b>
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<b>Conformity check with the engine running and engine coolant temperature &gt; 80°C</b>
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The theoretical opening value for the EGR valve is:  <b>10% &lt; PR005 &lt; 40%</b>
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR008</b>	<u>RAIL REFERENCE PRESSURES</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the theoretical rail pressure value for optimum engine operation in <b>bar</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with the engine running and engine coolant temperature &gt; 80°C</b>
--

The theoretical rail pressure value is a setpoint of:  <b>200 bar &lt; PR008 &lt; 300 bar</b>
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR009</b>	<u>TURBOCHARGING PRESSURE SETPOINT</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the theoretical turbocharging pressure setpoint value for optimal engine performance in <b>mbar</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine running at idle speed and engine coolant temperature > 80°C**

The theoretical turbocharging pressure value is a setpoint of:

**PR009 Turbocharging pressure setpoint = PR041 Turbocharging pressure.**  
**This parameter is only valid when the engine is running.**

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR015</b>	<u>ENGINE TORQUE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the engine torque in <b>Nm</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with the engine running and engine coolant temperature &gt; 80°C</b>
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This value should be between: <b>20 N.m. &lt; PR015 &lt; 40 N.m.</b> <b>This parameter is only valid when the engine is running.</b>
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR017</b>	<u>FUEL FLOW</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the fuel flow in <b>mg/st</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with the engine running and engine coolant temperature &gt; 80°C</b>
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<b>With the engine running: 2.5 mg/st &lt; PR017 &lt; 8 mg/st.</b> In the event of a fault, refer to the interpretation of fault <b>DF770 Flow regulator circuit</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR028</b>	<u>PEDAL POSITION (GANG 1)</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the pedal position (gang 1) as a %.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

The value should be between:  
**8% < PR028 < 93%** nearly **0%** at no load and nearly **100%** at full load.  
In the event of a fault, apply the interpretation of faults **DF008 Pedal sensor circuit gang 1**, **DF009 Pedal sensor circuit gang 2** and **DF012 Sensor supply voltage no.2**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR029</b>	<u>PEDAL POSITION (GANG 2)</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the pedal position (gang 2) as a %.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

The value should be between:  
**5% < PR029 < 75%** nearly **0%** at no load and nearly **100%** at full load.  
In the event of a fault, apply the interpretation of faults **DF008 Pedal sensor circuit gang 1**, **DF009 Pedal sensor circuit gang 2** and **DF011 Sensor supply voltage no.1**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR030</b>	<u>ACCELERATOR PEDAL POSITION</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the accelerator pedal position in %.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
	<b>There must be no present or stored faults.</b> Perform this fault finding procedure: – after finding an inconsistency in the parameter, – after a customer complaint (e.g. lack of power).
	Use <b>CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II</b> Wiring Diagrams Technical Notes.

<b>Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C</b>
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<b>If no pressure is exerted on the pedal PR030 = 0%.</b> In the event of a fault, refer to the interpretation of fault <b>DF008 Pedal potentiometer circuit gang 1</b> or <b>DF009 Pedal potentiometer circuit gang 2</b> .
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<b>Sensor electrical conformity</b>
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<p>Check <b>the continuity and absence of interference resistance</b> of the following connections:</p> <ul style="list-style-type: none"> <li>– connection code <b>3LR</b>,</li> <li>– connection code <b>3LS</b>,</li> <li>– connection code <b>3LT</b>,</li> <li>– connection code <b>3LU</b>,</li> <li>– connection code <b>3LW</b>,</li> <li>– connection code <b>3LV</b>,</li> </ul> <p>between components <b>120</b> and <b>921</b>.</p> <p>If the connection or connections are faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
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<b>AFTER REPAIR</b>	<p>Deal with any faults displayed by the <b>diagnostic tool</b>.</p> <p>Clear the computer memory.</p> <p>Carry out a road test followed by another check with the <b>diagnostic tool</b>.</p>
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## Fault finding – Interpretation of parameters

### PR030 CONTINUED

Pedal sensor **connected**, vehicle **ignition on** and **engine stopped**:

- check that the value of **PR030 Accelerator pedal position**:  
**0%** no load,  
**100%** full load,  
**138%** full load after pedal kickdown point.
- If the value is not correct, replace the accelerator pedal sensor (see **MR 392, 385, 364, 370 and 417 Mechanical, 37A, Mechanical component controls, Accelerator pedal: Removal - Refitting**).

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer memory.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>PR035</b>	<u>ATMOSPHERIC PRESSURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the atmospheric pressure in <b>bar</b> . The sensor is integrated in the computer.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

The atmospheric pressure value must be between:

**0.8 bar < PR035 < 1.2 bar.**

In the event of a fault, consult the interpretation of **DF003 Atmospheric pressure sensor circuit**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR037</b>	<u>REFRIGERANT PRESSURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the refrigerant fluid pressure in bar; it varies according to the operating mode.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with the engine running and engine coolant temperature &gt; 80°C</b>
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The value should be between: <b>1 bar &lt; PR037 &lt; 40 bar</b> In the event of a fault, consult the interpretation of fault <b>DF049 Refrigerant sensor circuit</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR038</b>	<u>RAIL PRESSURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the fuel pressure in the rail in <b>bars</b> .
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<b>NOTES</b>	<p><b>There must be no present or stored faults.</b></p> <p>Perform this fault finding procedure:</p> <ul style="list-style-type: none"> <li>– after an inconsistency appears on the <b>Parameter</b> screen,</li> <li>– following the activation of command <b>AC003 Fuel pressure solenoid valve</b>,</li> <li>– following a customer complaint (starting problems, poor performance, stalling, etc.).</li> </ul>
	<p>Use <b>CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring Diagrams Technical Notes</b>.</p>

<p><b>Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C</b></p>
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<p>Check the <b>insulation, continuity and the absence of interference resistance</b> on the following connections:</p> <ul style="list-style-type: none"> <li>– <b>3LX</b> between components <b>1032</b> and <b>120</b>,</li> <li>– <b>3LY</b> between components <b>1032</b> and <b>120</b>,</li> <li>– <b>3LZ</b> between components <b>1032</b> and <b>120</b>.</li> </ul> <p>If the connection(s) are faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>If all these connections are correct, check for the fuel pressure sensor <b>supply</b>:</p> <p><b>+ 5 V</b> on connection code <b>3LX</b> between components <b>1032</b> and <b>120</b>, <b>Earth</b> on connection code <b>3LZ</b> between components <b>1032</b> and <b>120</b>.</p> <p>If the connection(s) are faulty and there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace it.</p>
<p>Check the low and high pressure diesel circuit sealing (visual checks, odours): on pump body, pressure release valve, pipes, rail and injector unions, injector wells, etc.</p> <p>If all the above checks are correct:</p> <p>With the vehicle ignition on, and engine stopped for over <b>1 minute</b>:</p> <p>Display <b>PR038</b>; if the value is <b>lower</b> than <b>30 bar</b>, the sensor is correct.</p> <p>Otherwise replace the rail pressure sensor (see <b>MR 392, 385, 364, 370 and 417 Mechanical, 13B, Diesel injection, Rail pressure sensor: Removal - Refitting</b>).</p>

<b>AFTER REPAIR</b>	<p>Deal with any faults displayed by the <b>diagnostic tool</b>.</p> <p>Clear the computer memory.</p> <p>Carry out a road test followed by another check with the <b>diagnostic tool</b>.</p>
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<b>PR040</b>	<u>LINEARISED RAIL PRESSURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the linearised rail pressure in <b>bar</b> . The sensor is integrated in the computer.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with engine stopped and ignition on.</b>
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<b>PR040 = 7 bar</b>  In the event of a fault, consult the interpretation of fault <b>DF007 Rail pressure sensor circuit</b> .
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<b>Conformity check with the engine running and engine coolant temperature &gt; 80°C</b>
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<b>PR040 = 230 bar</b>  In the event of a fault, consult the interpretation of fault <b>DF007 Rail pressure sensor circuit</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR041</b>	<u>TURBOCHARGING PRESSURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the turbocharging pressure in <b>mbar</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only apply the checks if the parameter is <b>inconsistent</b> .
	Use <b>CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note</b> .

<b>Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C</b>
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### With the vehicle ignition on and engine stopped:

- Remove the turbocharger pressure sensor.
- With the sensor connected to the harness, read the value of **PR041** from the **Parameter** screen:
- If the value is not very close to **PR035 Atmospheric pressure**, maximum pressure difference between **PR035** and **PR041** with the engine stopped =  $\pm 50$  mbar:

Check **the insulation and absence of interference resistance** on the signal line and the turbocharging pressure sensor power supply lines.

If the lines are correct, replace the turbocharging pressure sensor.

- Connect a **vacuum pump** or **pressure pump** to the turbocharger pressure sensor.
- Apply a pressure of between **0.1** and **1.3 bar** (maximum pressure to be applied: **1.3 bar**).
- Compare the pressure value displayed in the **Parameter** screen with that given by the vacuum pump:

**If the difference\* =  $\pm 0.1$  bar**, replace the turbocharging pressure sensor.

**If there is no discrepancy**, the turbocharging pressure sensor is correct.

\*Note:

The **diagnostic tool** displays the **absolute pressure**, the pressure gauge for the vacuum pump displays the **relative pressure**: the normal difference between these two values is equal to the atmospheric pressure, which is the **value of PR035**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR051</b>	<u>EGR VALVE POSITION FEEDBACK</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the EGR valve opening ratio.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
	<b>There must be no present or stored faults.</b> Perform this fault finding procedure: – after finding an inconsistency in the parameter, – after a customer complaint (loss of power, smoke etc.).
	Use <b>CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II</b> Wiring Diagrams Technical Notes.

**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

This parameter indicates the EGR valve opening ratio.  
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 for **continuity** and absence of **interference resistance** of the following connections:

- connection code **3JM** (or **3GD** for Kangoo II),
  - connection code **3EL**,
  - connection code **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.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR055</b>	<u>ENGINE SPEED</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the engine's rotational speed in <b>rpm</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with engine stopped and ignition on.</b>
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With the ignition on the value is <b>0 rpm</b> . In the event of a fault, refer to the interpretation of faults <b>DF195 Camshaft sensor/engine speed consistency</b> , <b>DF097 Camshaft sensor circuit</b> and <b>DF005 Engine speed sensor circuit</b> .
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<b>Conformity check with the engine running and engine coolant temperature &gt; 80°C</b>
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With the engine idling, the value is approximately <b>800 rpm</b> . In the event of a fault, refer to the interpretation of faults <b>DF195 Camshaft sensor/engine speed consistency</b> , <b>DF097 Camshaft sensor circuit</b> and <b>DF005 Engine speed sensor circuit</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR059</b>	<u>INLET AIR TEMPERATURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the air inlet temperature in °C.
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<b>NOTES</b>	<b>Special notes:</b> Only apply the checks if the parameter is <b>inconsistent</b> .
	Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.

Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C
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<p>Check the condition of the air flowmeter connections, component code <b>799</b>.  If the connector is faulty and there is a repair procedure (see <b>Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair</b>), repair the connector, otherwise replace the wiring.</p> <p>Measure the <b>resistance</b> between connections <b>3ABQ</b> and <b>3DW</b> of component <b>799</b>.  If the resistance is not:  <b>(theoretical values)</b></p> <p style="text-align: center;"> <b>3553 Ω &lt; X &lt; 3875 Ω at 10°C,</b>  <b>2353 Ω &lt; R &lt; 2543 Ω at 20°C,</b>  <b>1613 Ω &lt; R &lt; 1729 Ω at 30°C,</b> </p> <p>replace the air flowmeter (see <b>MR 392, 385, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Air flowmeter: Removal - Refitting</b>).</p>
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR063</b>	<u>FUEL TEMPERATURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the fuel temperature in °C.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
	<b>There must be no present or stored faults.</b> Perform this fault finding procedure: – after finding an inconsistency in the parameter, – after a customer complaint (e.g. lack of power).
	Use <b>CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II</b> Wiring Diagrams Technical Notes.

**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

This parameter indicates the fuel temperature: **- 30°C < PR063 < 90°C.**

**Default value: 100°C**

In the event of a fault, consult the interpretation of fault **DF098 Fuel temperature sensor circuit.**

### Sensor electrical conformity

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

- connection code **3FAB**,
  - connection code **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 connections **3FAB** and **3LD** of component **1066**.

If its resistance is not:

**1877 Ω < X < 2123 Ω at 25°C,**

**767 Ω < X < 861 Ω at 50°C,**

**301 Ω < X < 335 Ω at 80°C,**

replace the fuel temperature sensor (see **MR 392, 385, 364, 370 and 417, Mechanical, 13B, Diesel injection, Fuel temperature sensor: Removal - Refitting**).

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.

Clear the computer memory.

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

<b>PR064</b>	<u>COOLANT TEMPERATURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the engine coolant temperature in °C.
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<b>NOTES</b>	<b>Special notes:</b> Only apply the checks if the parameter is <b>inconsistent</b> .
	Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.

**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

Check the condition of the coolant temperature sensor connections.  
If the connector 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.

Measure the **resistance** between connections **3C** and **3JK** of component **244**.  
If the resistance of the coolant temperature sensor is not:  
(theoretical values)

**2140 Ω < X < 2364 Ω at 25°C,**  
**771 Ω < X < 849 Ω at 50°C,**  
**275 Ω < X < 291 Ω at 80°C,**

replace the coolant temperature sensor (see **MR 392, 385, 364, 370 and 417, Mechanical, 19A, Cooling, Coolant temperature sensor: Removal - Refitting**).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR071</b>	<u>COMPUTER SUPPLY VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the computer supply voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

The voltage should be between:

**9 V < PR071 < 16 V**

In the event of a fault, run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit** or **87G, Engine compartment connection unit**) and consult the interpretation of fault **DF047 Computer supply voltage**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR076</b>	<u>REFRIGERANT SENSOR VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the refrigerant fluid sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

**0 V ≤ PR076 ≤ 5 V**

Carry out fault finding on the climate control computer (see **62B, Climate control**).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR077</b>	<u>EGR VALVE POSITION SENSOR VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the EGR valve position sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with engine stopped and ignition on.</b>
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<b>0 &lt; PR077 &lt; 1.5 V</b> Default value: <b>0 V</b> . In the event of a fault, refer to the interpretation of fault <b>DF011 Sensor supply voltage no. 1</b> .
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<b>Conformity check with the engine running and engine coolant temperature &gt; 80°C</b>
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<b>0 &lt; PR077 &lt; 5 V</b> Default value: <b>0 V</b> . In the event of a fault, refer to the interpretation of fault <b>DF011 Sensor supply voltage no. 1</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR078</b>	<u>INLET PRESSURE SENSOR VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the inlet pressure sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with engine stopped and ignition on.</b>
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<b>0.2 V &lt; PR078 &lt; 4.9 V</b> In the event of a fault, consult the interpretation of <b>DF004 Turbocharging pressure sensor circuit</b>
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<b>Conformity check with the engine running and engine coolant temperature &gt; 80°C</b>
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<b>0.2 V &lt; PR078 &lt; 4.9 V</b> In the event of a fault, consult the interpretation of <b>DF004 Turbocharging pressure sensor circuit</b>
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR079</b>	<u>ATMOSPHERIC PRESSURE SENSOR VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the atmospheric pressure sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with engine stopped and ignition on.</b>
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<b>1.6 V &lt; PR079 &lt; 4.9 V</b> In the event of a fault, consult the interpretation of <b>DF003 Atmospheric pressure sensor circuit</b> .
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<b>Conformity check with the engine running and engine coolant temperature &gt; 80°C</b>
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<b>1.6 V &lt; PR079 &lt; 4.9 V</b> In the event of a fault, consult the interpretation of <b>DF003 Atmospheric pressure sensor circuit</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR080</b>	<u>RAIL PRESSURE SENSOR VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the rail pressure sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C

### 0 V < PR080 <5 V

In the event of a fault, consult the interpretation of fault **DF007 Rail pressure sensor circuit**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR082</b>	<u>FUEL TEMPERATURE SENSOR VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the fuel temperature sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C

**0 V < PR082 < 5 V**

In the event of a fault, consult the interpretation of fault **DF098 Fuel temperature sensor circuit**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR083</b>	<u>AIR TEMPERATURE SENSOR VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the air temperature sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C

**0 V < PR083 < 5 V**

In the event of a fault, consult the interpretation of faults **DF011 Sensor supply voltage no.1** and **DF012 Sensor supply voltage no.2**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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## Fault finding – Interpretation of parameters

<b>PR084</b>	<u>COOLANT TEMPERATURE SENSOR VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the coolant temperature sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C

**0 V < PR084 < 5 V**

In the event of a fault, refer to the interpretation of **DF001 Coolant temperature sensor circuit**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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**PR086**

### PEDAL POTENTIOMETER GANG 1 VOLTAGE

#### **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 with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

Accelerator pedal released: **0.70 V < PR086 < 0.80 V**

#### **IMPORTANT**

This voltage difference corresponds to normal operation.

#### **AFTER REPAIR**

Deal with any faults displayed by the **diagnostic tool**.

Clear the computer memory.

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

<b>PR088</b>	<u>PEDAL POTENTIOMETER GANG 2 VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the pedal potentiometer gang 2 voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

Accelerator pedal released: **0.30 V < PR088 < 0.40 V**

**IMPORTANT**

This corresponds to normal operation.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Interpretation of parameters

13B

<b>PR089</b>	<u>VEHICLE SPEED</u>
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<b>PARAMETER DEFINITION</b>	Gives the vehicle speed in <b>km/h</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
	This parameter is transmitted by the ABS computer. This signal is transmitted to the injection on the multiplex network.

<b>Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C</b>
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In the event of a fault, run a multiplex network test (see <b>88B, Multiplex</b> ). And then complete fault finding on the ABS computer (see <b>38C, Anti-lock braking system</b> ).
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR125</b>	<u>POWER ABSORBED BY THE AIR CONDITIONING COMPRESSOR*</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the power absorbed by the air conditioning compressor in <b>W</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
	<b>For Kangoo II only</b>

Conformity check with the engine stopped and the ignition on, or with the engine running without electrical consumers, and engine coolant temperature > 80°C

**PR125 = 0 W**

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR128</b>	<u>FIRST EGR VALVE OFFSET</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the closing ratio of the EGR valve for the first offset of the EGR valve.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C

Indicates the percentage  $\approx 20\%$ .

**PR128  $\approx$  PR129 Last EGR valve offset**, 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**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR129</b>	<u>LAST EGR VALVE OFFSET</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the closing ratio of the EGR valve for the first EGR valve offset.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C

Indicates the percentage  $\approx 20\%$ .

**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**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR130</b>	<u>CRUISE CONTROL SETPOINT</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the cruise control speed setpoint in <b>km/h</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
	<b>There must be no faults present.</b> Perform this fault finding procedure: <ul style="list-style-type: none"><li>– after finding an inconsistency in the parameter,</li><li>– or after a customer complaint (lack of power, smoke etc.).</li></ul>

<b>Conformity check with the engine stopped and the ignition on, or engine running, and engine coolant temperature &gt; 80°C</b>
--

Indicates the cruise control cruising speed. Cruise control can only be activated for a speed. <b>V &gt; 18 mph (30 km/h)</b>
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR132</b>	<u>AIR FLOW</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the inlet air flow in <b>kg/h</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
	<b>There must be no faults present.</b> Perform this fault finding procedure: – after finding an inconsistency in the parameter, – or after a customer complaint (lack of power, smoke etc.).
	Use <b>CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II</b> Wiring Diagrams Technical Notes.

<b>Conformity check with engine stopped and ignition on.</b>
--

Indicates the inlet air flow in <b>kg/h: 0 kg/h</b>
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<b>Conformity check with engine running, engine coolant temperature &gt; 80°C</b>
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Indicates the inlet air flow in <b>kg/h: ≈ 60 kg/h</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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### PR132 CONTINUED

#### Sensor electrical conformity

**Check the air inlet circuit** (from the air filter inlet to the inlet manifold, run **test 10 Air line at the turbocharger**):

- air filter unit inlet not blocked and filter not clogged,
- **visual inspection only, use ALP2 The engine does not start or starts with difficulty**,
- oil vapour recirculation circuit connected correctly,
- **absence of leaks or blockages** in the **low** and **high pressure** air circuits: ducts, presence and tightness of the mounting clips, mounting of the turbocharging pressure sensor, exchanger, etc.
- check that the damper valve is not jammed shut (except Vdiag 4C).

Carry out the necessary repairs.

Check **the electrical conformity of the air flow sensor**:

Check the **+ 5 V supply** to the air flowmeter.

- connection **3KJ** of component **799**.

Check the **+ 12 V after relay supply** to the air flowmeter.

- connection **3FB (3FB3 for Kangoo II)** of component **799**.

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

- connection code **3DV**,
  - connection code **3DW**,
- between components **120** and **799**.

With the flow sensor **connected**, the vehicle **ignition on** and **engine stopped**:

Measure the voltage between connections **3DW** and **3DV** 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 voltage is not between **0.3 V** and **0.7 V**, replace the air flowmeter (see **MR 392, 385, 364, 370 and 417, Mechanical, 12A, Fuel mixture, Air flowmeter: Removal - Refitting**).

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.

Clear the computer memory.

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

PR171	<u>AIR FLOW SETPOINT FOR EGR</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the flow of air required by the EGR valve in <b>mg/st.</b>
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

Indicates the air flow required by the EGR valve

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR190</b>	<u>IDLE SPEED SETPOINT</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the engine's rotational speed in <b>rpm</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with engine stopped and ignition on.</b>
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With the ignition on, the value is <b>0 rpm</b> . In the event of a fault, consult the interpretation of faults <b>DF195 Engine speed/camshaft sensor consistency</b> , <b>DF097 Camshaft sensor circuit</b> and <b>DF005 Engine speed sensor circuit</b> .
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<b>Conformity check with engine running, engine coolant temperature &gt; 80 °C</b>
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With the engine idling, the value is approximately <b>800 rpm</b> . In the event of a fault, consult the interpretation of faults <b>DF195 Engine speed/camshaft sensor consistency</b> , <b>DF097 Camshaft sensor circuit</b> and <b>DF005 Engine speed sensor circuit</b> . The difference between the engine idle speed and its setpoint must be less than <b>50 rpm</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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## Fault finding – Interpretation of parameters

**PR224**

### TURBOCHARGING PRESSURE SENSOR VOLTAGE

#### **STATUS 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 with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

**0 V < PR224 < 5 V**

In the event of a fault, refer to the interpretation of fault **DF012 Sensor supply voltage no. 2**.

#### **AFTER REPAIR**

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer memory.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>PR228</b>	<u>INJECTION CONTROL CAPACITOR VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the injector control capacitor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C

**49 V < PR228 < 96 V**

In the event of a fault, refer to the interpretation of faults **DF026, DF027, DF028, DF029 Cylinder 1, 2, 3, 4 injector control circuit**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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## Fault finding – Interpretation of parameters

<b>PR364</b> <b>PR405</b> <b>PR406</b> <b>PR365</b>	<u>CYLINDER NO. 1 FUEL FLOW CORRECTION</u> <u>CYLINDER NO. 2 FUEL FLOW CORRECTION</u> <u>CYLINDER NO. 3 FUEL FLOW CORRECTION</u> <u>CYLINDER NO. 4 FUEL FLOW CORRECTION</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the cylinder fuel flow correction.
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<b>NOTES</b>	<b>Special notes:</b> Only apply the checks if the parameter is <b>inconsistent</b> .
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

If the value of these parameters is not equal to **1 (tolerance - 0.7 /+ 0.9)** when the engine is running, apply **test 7 Incorrect injection quantity**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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SID301\_V44\_PR364/SID304\_V45\_PR364/SID301\_V48\_PR364/SID304\_V49\_PR364/SID304\_V4D\_PR364/SID301\_V4C\_PR364  
SID301\_V44\_PR405/SID304\_V45\_PR405/SID301\_V48\_PR405/SID304\_V49\_PR405/SID304\_V4D\_PR405/SID301\_V4C\_PR405  
SID301\_V44\_PR406/SID304\_V45\_PR406/SID301\_V48\_PR406/SID304\_V49\_PR406/SID304\_V4D\_PR406/SID301\_V4C\_PR406  
SID301\_V44\_PR365/SID304\_V45\_PR365/SID301\_V48\_PR365/SID304\_V49\_PR365/SID304\_V4D\_PR365/SID301\_V4C\_PR365

<b>PR381</b>	<u>PARTICLE FILTER DOWNSTREAM TEMPERATURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the particle filter downstream temperature in °C.
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<b>NOTES</b>	<b>Special notes:</b> Only apply the checks if the parameter is <b>inconsistent</b> .
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

The particle filter downstream temperature sensor only measures temperatures above **50°C**.  
The measurement ranges are between **150°C and 1000°C**.

Measure the **resistance** of the particle filter downstream temperature sensor, **component code 1288**, between **connections 3TG and 3XU**.

If the resistance of the particle filter downstream temperature sensor is not:

**6886 Ω < X < 6906 Ω at 200°C,**

**2565 Ω < X < 2585 Ω at 300°C,**

**1192 Ω < X < 1212 Ω at 400°C,**

replace the particle filter downstream temperature sensor (see **MR 385, 364, 370 and 417 Mechanical, 19B, Exhaust, Particle filter temperature sensors: Removal - Refitting**).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR382</b>	<u>PARTICLE FILTER UPSTREAM TEMPERATURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the particle filter upstream temperature in °C.
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<b>NOTES</b>	<b>Special notes:</b> Only apply the checks if the parameter is <b>inconsistent</b> .
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

The particle filter upstream temperature sensor only measures temperatures above **50°C**.  
The measurement ranges are between **150°C and 1000°C**.

Measure the **resistance** of the particle filter upstream temperature sensor, **component code 1287**, between **connections 3TD and 3XT**.

If the resistance of the particle filter upstream temperature sensor is not:

**6886 Ω < X < 6906 Ω at 200°C,**

**2565 Ω < X < 2585 Ω at 300°C,**

**1192 Ω < X < 1212 Ω at 400°C,**

replace the particle filter downstream temperature sensor (see **MR 385, 364, 370 and 417 Mechanical, 19B, Exhaust, Particle filter temperature sensors: Removal - Refitting**).

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR383</b>	<u>WEIGHT OF SOOT IN PARTICLE FILTER</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the weight of soot in the particle filter in <b>grams</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only apply the checks if the parameter is <b>inconsistent</b> .
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<b>Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C</b>
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<b>The weight of the soot contained in the filter must not be greater than 31 g.</b> If the particle filter warning light is illuminated or if the message <b>Regenerate catalytic converter</b> is displayed, carry out a special type of driving (see <b>Technical Note 6507, Particle filter fault finding</b> ).
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR391</b>	<u>MILEAGE SINCE PARTICLE FILTER REPLACEMENT</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the number of <b>miles (km)</b> since replacement of the particle filter.
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<b>NOTES</b>	<b>Special notes:</b> Only apply the checks if the parameter is <b>inconsistent</b> .
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<b>Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C</b>
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This parameter determines the distance since the particle filter was last changed.
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR400</b>	<u>NEW EGR VALVE OFFSET</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the new EGR valve offset.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

Approximately **850 mV**

In the event of a fault, run commands **RZ019** and **RZ002** Reinitialise programming and EGR Adaptive.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR412</b>	<u>DISTANCE VALUE AT LAST SUCCESSFUL REGENERATION</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the last successful regeneration in <b>miles (km)</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

Mileage counter since last dynamic regeneration (when driving).  
After all procedures have been carried out on the particle filter, use **RZ030 Particle filter adaptive**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR414</b>	<u>PARTICLE FILTER PRESSURE SENSOR</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the particle filter differential pressure in <b>mbar</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with the engine stopped and the ignition on, or engine running, and engine coolant temperature &gt; 80°C</b>
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The differential pressure monitors the status of the particle weight in the filter. The differential pressure of the particle filter is given in <b>mbar</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Interpretation of parameters

13B

PR415	<u>TIME SINCE LAST REGENERATION</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the time since the last regeneration in <b>days</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

Time counter since last active regeneration (when driving) in days.  
After all procedures have been carried out on the particle filter, use **RZ030 Particle filter adaptive**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR513</b>	<u>LEVEL 1 WARNING LIGHT DISTANCE COUNTER</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the number of <b>miles (km)</b> travelled since the Level 1 warning light was last activated.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

**PR513 = X km**

Check the consistency of this parameter with the first appearance of possible faults associated with the Level 1 warning light.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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PR514	<u>LEVEL 2 WARNING LIGHT DISTANCE COUNTER</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the number of <b>miles (km)</b> travelled since the Level 2 warning light was last activated.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C

**PR514 = X miles (km)**

Check the consistency of this parameter with the first appearance of any faults related to the Level 2 warning light.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR634</b>	<u>AIR FLOW REQUEST</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the air flow request in <b>mg/st</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with engine stopped and ignition on.</b>
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<b>0 mg/st</b> Air flow estimated by the injection computer. In the event of a fault, consult the interpretation of <b>fault DF056 Air flow sensor circuit</b> .
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<b>Conformity check with engine running, engine coolant temperature &gt; 80°C</b>
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<b>220 mg/st &lt;PR634 &lt;600 mg/st</b> Air flow estimated by the injection computer. In the event of a fault, consult the interpretation of <b>fault DF056 Air flow sensor circuit</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR667</b>	<u>TURBINE UPSTREAM TEMPERATURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the turbine upstream temperature in °C.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

The turbine upstream temperature sensor only measures temperatures above **100°C**.

Measure the **resistance** of the turbine upstream temperature sensor, **component code 1589** between **connections 3B** and **3JQ**.

Replace the sensor if the resistance is not:

**303 kΩ at 200°C**  
**5910 Ω ± 5930 Ω at 300°C**  
**1760 Ω ± 1780 Ω at 400°C**

**353 Ω ± 373 Ω at 600°C**  
**187 Ω ± 227 Ω at 700°C**  
**106 Ω ± 156 Ω at 800°C**

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR668</b>	<u>TURBINE UPSTREAM TEMPERATURE SENSOR VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the turbine upstream temperature sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

**0.3 V ≤ PR668 ≤ 5 V**

In the event of a fault, refer to the interpretation of fault **DF652 Turbine upstream temperature sensor circuit**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR669</b>	<u>PARTICLE FILTER DIFF* PRESS* SENS* VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the voltage of the particle filter differential pressure sensor in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

**PR669 ≈ 5 V**

In the event of a fault, consult the interpretation of **DF1003 Particle filter differential pressure sensor circuit**.

\*sens: sensor

\*Circ: circuit

\*diff: differential

\*Press: Pressure

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR670</b>	<u>VOLTAGE OF PARTICLE FILTER UPSTREAM OF TEMP* SENS*</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the particle filter upstream temperature sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

**0.7 V ≤ PR670 ≤ 5 V**

In the event of a fault, refer to the interpretation of fault **DF1000 Particle filter upstream temperature sensor circuit**.

\*temp: temperature

\*sens: sensor

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR671</b>	<u>PARTICLE FILTER DOWNSTREAM TEMPERATURE SENS*</u> <u>VOLTAGE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the particle filter downstream temperature sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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**Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C**

**0.7 V ≤ PR671 ≤ 5 V**

In the event of a fault, refer to the interpretation of fault **DF999 Particle filter downstream temperature sensor circuit**.

\*temp: temperature

\*sens: sensor

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR672</b>	<u>DAMPER VALVE POSITION SETPOINT</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the damper valve position setpoint as a %.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
	<b>Vdiag 44 and 48 only.</b>

<b>Conformity check: engine stopped and ignition on.</b>
--

<b>PR672 ≤ 94%</b> In the event of a fault, consult the interpretation of fault <b>DF641 Damper valve circuit</b> .
--

<b>Conformity check with engine running, engine coolant temperature &gt; 80 °C</b>
--

<b>PR672 = 94%</b> In the event of a fault, consult the interpretation of fault <b>DF641 Damper valve circuit</b> . <b>This parameter is only valid when the engine is running.</b>
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
---------------------	---

<b>PR739</b>	<u>FUEL FLOW SOLENOID VALVE CURRENT</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the current absorbed by the fuel flow solenoid valve in <b>mA</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with engine stopped and ignition on.</b>
--

This parameter indicates the current absorbed by the fuel flow solenoid valve $\approx$ <b>200 mA</b> . In the event of a fault, refer to the interpretation of fault <b>DF770 Flow regulator circuit</b> .
--

<b>Conformity check with engine running, engine coolant temperature <math>&gt; 80^{\circ}\text{C}</math></b>
--

Indicates the current absorbed by the fuel flow solenoid valve $\approx$ <b>300 mA</b> . In the event of a fault, refer to the interpretation of fault <b>DF770 Flow regulator circuit</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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## Fault finding – Interpretation of parameters

PR794	REGENERATION FAILURE RECORD NO. 1
PR795	REGENERATION FAILURE RECORD NO. 2
PR796	REGENERATION FAILURE RECORD NO. 3
PR797	REGENERATION FAILURE RECORD NO. 4
PR798	REGENERATION FAILURE RECORD NO. 5
PR799	REGENERATION FAILURE RECORD NO. 6
PR800	REGENERATION FAILURE RECORD NO. 7
PR801	REGENERATION FAILURE RECORD NO. 8
PR802	REGENERATION FAILURE RECORD NO. 9
PR803	REGENERATION FAILURE RECORD NO. 10

<b>SPECIFICATION OF THE PARAMETERS</b>	These parameters indicate the regeneration failure record in <b>miles (km)</b> .
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<b>NOTES</b>	<p><b>Special note:</b> Check the interpretation of these parameters only on <b>ALP21 Particle filter warning light illuminated</b>.</p>
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<p><b>Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C</b></p>
--

these parameters are used so that the history of the last ten regeneration failures when driving are known.
Each parameter from <b>PR794 to PR803</b> records the distance when regeneration fails and the engine status is recorded by <b>ET706 Stored engine status no. 1 to ET715 Stored engine status no. 10</b> (for example: <b>PR797 Stored regeneration failure no. 4 is associated with ET709 Stored engine status no. 4</b> ). The value is saved in the next parameter (PR+1) each time a new save is performed.
<p>The distance of the last regeneration failures when driving are recorded in the other available parameters (distance information in <b>PR794</b> is recopied in <b>PR795</b> and distance information in <b>PR795</b> is recopied in <b>PR796</b> and so on).</p> <p>When all ten parameters have a value other than zero, and a failed regeneration occurs when driving, the distance information for <b>PR794 Regeneration failure record No.1</b> is erased and replaced by the new value.</p>

<b>AFTER REPAIR</b>	<p>Deal with any faults displayed by the <b>diagnostic tool</b>.</p> <p>Clear the computer memory.</p> <p>Carry out a road test followed by another check with the <b>diagnostic tool</b>.</p>
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SID304\_V4D\_PR794/SID304\_V4D\_PR795/SID304\_V4D\_PR796/SID304\_V4D\_PR797/SID304\_V4D\_PR798/SID304\_V4D\_PR799/SID304\_V4D\_PR800/SID304\_V4D\_PR801/SID304\_V4D\_PR802/SID304\_V4D\_PR803/SID304\_V49\_PR794/SID304\_V49\_PR795/SID304\_V49\_PR796/SID304\_V49\_PR797/SID304\_V49\_PR798/SID304\_V49\_PR799/SID304\_V49\_PR800/SID304\_V49\_PR801/SID304\_V49\_PR802/SID304\_V49\_PR803/SID301\_V4C\_PR794/SID301\_V4C\_PR795/SID301\_V4C\_PR796/SID301\_V4C\_PR797/SID301\_V4C\_PR798/SID301\_V4C\_PR799/SID301\_V4C\_PR800/SID301\_V4C\_PR801/SID301\_V4C\_PR802/SID301\_V4C\_PR803

<b>PR810</b>	<u>CATALYTIC CONVERTER 1 DOWNSTREAM TEMPERATURE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the catalytic converter 1 downstream temperature in °C.
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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<b>Conformity check with the engine stopped and the ignition on, or engine running, and engine coolant temperature &gt; 80°C</b>
--

<p>This parameter indicates the temperature downstream of catalytic converter 1 using the temperature sensor located before the oxidation catalytic converter. This temperature changes depending on the status of the vehicle (hot or cold). The temperature is given in °C.</p>
---

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR812</b>	<u>CATALYTIC CONVERTER 1 TEMPERATURE SENSOR VOLTAGE</u>
--------------	---

<b>PARAMETER DEFINITION</b>	This parameter indicates the catalytic converter 1 temperature sensor voltage in <b>volts</b> .
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<b>NOTES</b>	<b>Special notes:</b> Only perform these tests if the parameters do not correspond with the system operation programming.
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Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature > 80°C

**0.7 V ≤ PR812 ≤ 5 V**

In the event of a fault, consult the interpretation of fault **DF1007 Catalytic converter 1 downstream temperature sensor circuit** or **DF1009 Catalytic converter 1 downstream temperature regulation**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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## Fault finding – Interpretation of parameters

PR836	PARTICLE FILTER WARNING LIGHT RECORD NO. 1
PR837	PARTICLE FILTER WARNING LIGHT RECORD NO. 2
PR838	PARTICLE FILTER WARNING LIGHT RECORD NO. 3
PR839	PARTICLE FILTER WARNING LIGHT RECORD NO. 4
PR840	PARTICLE FILTER WARNING LIGHT RECORD NO. 5
PR841	PARTICLE FILTER WARNING LIGHT RECORD NO. 6
PR842	PARTICLE FILTER WARNING LIGHT RECORD NO. 7
PR843	PARTICLE FILTER WARNING LIGHT RECORD NO. 8
PR844	PARTICLE FILTER WARNING LIGHT RECORD NO. 9
PR845	PARTICLE FILTER WARNING LIGHT RECORD NO. 10

<b>PARAMETER DEFINITION</b>	These parameters indicate the particle filter warning light record in <b>miles (km)</b> .
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<b>NOTES</b>	<b>Special note:</b> Check the interpretation of these parameters only on <b>ALP21 Particle filter warning light illuminated</b> .
	Vdiag 45 and 49 only.

<b>Conformity check with the engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C</b>
---

these parameters are used so that the history of the last ten illuminations of the particle filter warning light are known.
Each parameter from <b>PR836 to PR845</b> records the distance at which the particle filter warning light illuminated and this is associated with the appearance of <b>DF311 Number of regeneration failures exceeded</b> . The value is saved in the next parameter (PR+1) each time a new save is performed.
The distances of the last illumination of the particle filter warning light are saved in the other available parameters (the distance information in <b>PR836</b> is recopied to <b>PR837</b> and the distance information in <b>PR837</b> is recopied to <b>PR838</b> and so on). When all ten parameters are not zero and the particle filter warning light illuminates again, the distance information of <b>PR836 Particle filter warning light record no. 1</b> is erased and replaced by the new value.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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SID304\_V4D\_PR836/SID304\_V4D\_PR837/SID304\_V4D\_PR838/SID304\_V4D\_PR839/SID304\_V4D\_PR840/SID304\_V4D\_PR841/SID304\_V4D\_PR842/SID304\_V4D\_PR843/SID304\_V4D\_PR844/SID304\_V4D\_PR845/SID304\_V49\_PR836/SID304\_V49\_PR837/SID304\_V49\_PR838/SID304\_V49\_PR839/SID304\_V49\_PR840/SID304\_V49\_PR841/SID304\_V49\_PR842/SID304\_V49\_PR843/SID304\_V49\_PR844/SID304\_V49\_PR845/SID301\_V4C\_PR836/SID301\_V4C\_PR837/SID301\_V4C\_PR838/SID301\_V4C\_PR839/SID301\_V4C\_PR840/SID301\_V4C\_PR841/SID301\_V4C\_PR842/SID301\_V4C\_PR843/SID301\_V4C\_PR844/SID301\_V4C\_PR845

<b>PR873</b>	<u>OIL OXIDATION SIGNAL</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the vehicle mileage when the oil oxidation threshold is reached.
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<b>NOTES</b>	Only apply the interpretation of this parameter if the <b>OCS (oil control system)</b> program is activated on the instrument panel. Check on the instrument panel computer that the configuration reading <b>LC106 O.C.S.</b> is set to <b>WITH</b> .
	<b>Except Vdiag 44, 45 and 49.</b>

<b>Conformity check: Engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C, without electrical consumers</b>
---

<p>The oil status is calculated by the oxidation program in the injection computer, depending on the engine revs.</p> <p>When this count reaches a certain threshold before the end of the oil change period, the injection computer sends a signal to the instrument panel, which will display "<b>service required soon</b>". <b>PR873</b> corresponds to the vehicle distance at the time this signal is sent.</p> <p>The instrument panel computer counts down <b>900 miles (1500 km)</b> before displaying the message "<b>service required</b>".</p>
--

<b>IMPORTANT</b> When the message " <b>service required</b> " appears on the instrument panel, the customer must arrange an oil service within the remaining <b>900 miles (1500 km)</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR874</b>	<u>LAST SERVICE</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the vehicle mileage at the last service carried out and is updated when the oil service parameters are reset on the instrument panel or by pedal sequence.
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<b>NOTES</b>	None.
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This parameter indicates the vehicle mileage at the last service carried out and is updated when the oil service parameters are reset on the instrument panel or by pedal sequence.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR875</b>	<u>OIL DILUTION SIGNAL</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the vehicle mileage when the oil dilution threshold is reached.
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<b>NOTES</b>	This parameter should be interpreted only if the <b>OCS (Oil Control System)</b> program is activated on the instrument panel. On the instrument panel computer, check the configuration reading <b>LC106 O.C.S: WITH</b> .
	<b>Except Vdiag 44, 45 and 49.</b>

<b>Conformity check: Engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C, without electrical consumers</b>
---

<p>The injection computer assesses the dilution rate of the engine oil according to the customer's driving style.</p> <p>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 <b>Service required</b>. Parameter <b>PR875</b> corresponds to the vehicle mileage at the time this signal is sent.</p>
--

<b>IMPORTANT</b> When the message <b>Service required</b> appears on the instrument panel, the customer must arrange an immediate oil change to prevent damage to the engine.
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>PR878</b>	<u>FAST IDLE SPEED</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the value of the fast idle speed to use for the vehicle electrical network in <b>rpm</b> .
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<b>NOTES</b>	There must be no faults present. Perform fault finding after obtaining a parameter inconsistency. It is possible to modify the value of the <b>PR878</b> using the command <b>SC041 Modification of the commercial vehicle idle speed</b> .
	<b>For Kangoo II only.</b>

<b>Conformity check: Engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C, without electrical consumers</b>
---

If the function has been activated <b>ET800</b> = ACTIVE and the fast idle speed value is <b>1000</b> or <b>1100 rpm</b> .  It is possible to modify the value of the <b>PR878</b> using the command <b>SC041 Modification of the commercial vehicle idle speed</b> .
---

\*CV: Commercial vehicle

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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## Fault finding – Interpretation of parameters

<b>PR879</b>	<u>MAXIMUM AUTHORISED SPEED</u>
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<b>PARAMETER DEFINITION</b>	This parameter indicates the maximum permitted speed of the optional restriction in <b>mph (km/h)</b> .
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<b>NOTES</b>	There must be no faults present. Perform fault finding after obtaining a parameter inconsistency. It is possible to modify the value of <b>PR879</b> using command <b>SC040 Speed limiter</b> .
	<b>For Kangoo II only.</b>

<b>Conformity check: Engine stopped and the ignition on, or the engine running and the engine coolant temperature &gt; 80°C, without electrical consumers</b>
---

If the function has been activated, <b>ET741</b> = ACTIVE and the restricted speed of <b>PR879</b> is between the range <b>18 mph (30 km/h) &lt; PR879 &lt; 150 mph (250 km/h)</b> .  It is possible to modify the value of <b>PR879</b> using command <b>SC040 Speed limiter</b> .
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<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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## **SPECIAL COMMAND**

**SC001: Enter saved data.**

**SC003: Save computer data.**

**SC013: Enter VIN.**

**SC017: Particle filter regeneration (Only for vehicles equipped with a particle filter).**

**SC040: Speed limiter (Kangoo II only).**

**SC041: Modification of the commercial vehicle idle speed (Kangoo II only).**

## **CLEARING**

**RZ001: Fault memory.**

Enables the faults to be cleared from the computer memory.

**RZ002: EGR adaptives.**

Use this command at the time of replacement or when cleaning the EGR valve.

**RZ004: Pressure regulation adaptives.**

This mode initialises the variables related to the regulation function.

**RZ005: Programming (except Kangoo II).**

This command enables you to reinitialise all the computer data (engine adaptives, EGR, rail, etc.).

**RZ019: Reinitialise programming.**

This mode initialises all of the programming contained in EEPROM.

**RZ030: Particle filter adaptives (Vdiag 45, 49 and 4D only).**

This mode initialises the variables related to the particle filter function.

## **ACTUATION**

**AC003: Fuel pressure solenoid valve.**

**AC005 to AC008: Injectors for cylinders 1 to 4.**

Running this lets you listen to the operation of the injector on the cylinder in question.

**AC012: Damper valve (except Vdiag 4C).**

Activating this lets you listen to the operation of the damper valve.

**AC029: High-pressure circuit seal check.**

Running this lets you check the high pressure circuit sealing after an operation has been carried out.  
Run this command with the engine running and the engine coolant temperature above **60°C**.

**AC037: Preheating relay.**

Activating this lets you listen to the operation of the preheating relay and enables the warning light in the instrument panel to be illuminated.

**AC079: Static actuator test.**

Activating this allows you to activate the injection system actuators (simultaneously runs commands **AC003, AC005 to AC008, AC012, AC037, AC213, and AC214**).

Run this command with the engine stopped and the engine coolant temperature below **40°C**.

**AC099: Inhibition of electrical consumers.****AC100: Cancel inhibition of electrical consumers.****AC213: Fuel flow solenoid valve.****AC214: Turbocharger control solenoid valve.**

Activating this allows you to listen to the operation of the turbocharger control solenoid valve.

**AC233: Thermoplungers no. 1 and no. 2 (Vdiag 45, 49 and 4D only).****AC234: Thermoplunger no. 3 (Vdiag 45, 49 and 4D only).****AC235: Thermoplunger no. 4 (Vdiag 45, 49 and 4D only).****AC236: Coolant pump relay (only for vehicles equipped with a particle filter, except KANGOO II).****AC237: Fuel pump relay (only for vehicles equipped with a particle filter).**

Activating this allows you to check the sealing on the 5<sup>th</sup> particle filter injector circuit.

**AC238: Particle filter injector (Only for vehicles equipped with a particle filter).****AC239: Particle filter temperature sensor fault finding (only for vehicles equipped with a particle filter).**

Run this command with the engine stopped and the engine coolant temperature below **40°C**.

**AC260: Thermoplunger relay.**

Activating this allows you to check the three thermoplunger relays.



<b>SC001</b>	<u>WRITE SAVED DATA</u>
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<b>NOTES</b>	<p>To be able to run this command, it is essential to save the data using command <b>SC003 Save computer data</b>. Writing is carried out after the computer has been reprogrammed or replaced.</p>
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Validating this command writes the data saved using command **SC003 Save computer data**.

The data is as follows:

- vehicle idle speed,
- programming of exhaust gas recirculation valve data,
- options available on the vehicle and managed by the computer (Example: Air conditioning),
- data specific to injection and particle filter operation.

The data configures the computer and prevents:

- engine malfunction after reprogramming or replacing the computer,
- incorrect interpretation of the information provided by the **CLIP diagnostic tool**.

<b>AFTER REPAIR</b>	<p>Deal with any faults displayed by the <b>diagnostic tool</b>. Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b>.</p>
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<b>SC003</b>	<u>SAVE COMPUTER DATA</u>
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<b>NOTES</b>	This save is carried out before computer reprogramming or replacement.
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On the CLIP tool, select the **SC003 Save computer data**.

If the following message appears:

**"a saved file exists, do you want to overwrite this data?":**

(this file corresponds to the last save made on the **CLIP diagnostic tool**)

select **"YES"**.

Confirming this command saves the following vehicle-specific data:

- the egr valve data programming;
- options available on the vehicle and managed by the computer (e.g. air conditioning);
- data specific to injection and particle filter operation.

This information will be saved in the **CLIP diagnostic tool**.

When saving is finished, run command **SC001 Write saved data** in order to configure the new computer after programming or reprogramming.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>SC017</b>	<u>PARTICLE FILTER REGENERATION</u>
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<b>NOTES</b>	Carry out this command only under the following conditions: – <b>DF308 Clogged particle filter present.</b> Ignition on and engine stopped.
	<b>Vdiag 45, 49 and 4D only.</b>

### WARNING:

- It is essential to carry out the next procedure in accordance with the safety and cleanliness guidelines, (see **MR 364 (Mégane II)**, **370 (Scénic II)**, **417 (Kangoo II)**, **385 (Modus)**, **392 (Clio III)**, **Mechanical**, **19B**, **Exhaust**, **Particle filter: Cleaning**).
- do not run command **AC029 High pressure circuit seal test** until regeneration has finished.
- before each regeneration, check the fuel level,
- before and after each regeneration, check the oil level.

With the engine running and the vehicle stopped, this function allows the particle filter to be regenerated.

### Safety instructions to be followed:

The regeneration causes exhaust fumes and high temperatures.

The vehicle must be outside during regeneration.

If it is not possible to carry out regeneration outside, check that the extractor fan can withstand the very high regeneration temperatures.

Perform regeneration on a surface free from fire risks (oil, dry leaves, etc.).

Nothing should be left in the vicinity of the exhaust pipe.

### Before regeneration:

- Respect After-Sales recommendations for particle filter regeneration.
- Check the oil level to prevent the engine from racing.
- Check the fuel level.
- Check the sealing on the 5th particle filter injector circuit using actuator **AC237 Fuel pump relay**.

### To perform regeneration:

- Vehicle stopped and in neutral.
- Engine running and warm.
- No pedal depressed (accelerator and clutch).
- No faults present preventing regeneration from being carried out on the system.
- No leak in the 5th particle filter injector circuit.

### After-Sales regeneration comprises 4 important stages:

- Heating of the engine and checking for a small quantity of soot in the particle filter by measuring the differential pressure.
- The system changes from combustion mode and starts to regenerate the particle filter. Gradual cooling of the particle filter.
- End of After-Sales regeneration.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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### SC017 CONTINUED

#### Stopping conditions:

- Dialogue with the **diagnostic tool** has been lost.
- Vehicle movement detected by speed sensor.
- Brake or clutch pedal depressed.
- Stop regeneration requested by the **diagnostic tool**.
- End of test.

#### The procedure lasts 30 minutes.

- At the end of regeneration, a message announces whether the regeneration has been successful or which operations to carry out.

#### CONFIRMING THE REGENERATION PROCESS:

At the end of regeneration, a message appears to announce whether the regeneration was successful:

- **particle filter regeneration successful:** regeneration completed correctly.
- **weight of soot too high - run command SC017 again:** regeneration failed because the weight of soot at the end of regeneration was too high and the temperature upstream of the particle filter was too low. Check the oil level before starting another regeneration.
- **weight of soot too high:** regeneration failed because the weight of soot at the end of regeneration was too high in spite of the correct temperature upstream of the particle filter. The particle filter is full of residue (regeneration impossible), refer to the fault finding chart **ALP21 Particle filter warning light lit**.
- **present or stored fault:** regeneration failed because faults were declared.  
Refer to the interpretation of faults, after resolving the faults, run command **SC017** again.

### AFTER REPAIR

Deal with any faults displayed by the **diagnostic tool**.  
Clear the computer fault memory.  
Carry out a road test followed by another check with the **diagnostic tool**.

<b>SC040</b>	<u>SPEED LIMITER</u>
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<b>NOTES</b>	This command enables the vehicle speed restriction to be modified.
	<b>KANGOO II only.</b>

To run this command, select scenario **SC040 Speed limiter** in the **CLIP diagnostic tool**.

This command allows you to:

- read the vehicle's restricted speed,
- activate the speed restriction at a predefined speed,
- deactivate or change the current restricted speed set on the vehicle.

### IMPORTANT

If the vehicle is restricted, the driver of the vehicle must be informed. Consequently, in accordance with the regulations, the vehicle speed restriction should be shown on a label on the instrument panel. The label should be changed when any changes to the speed restriction are introduced.

Use statuses **ET741 Optional speed restriction** and **PR879 Maximum authorised speed** to check if the command has been recognised.

The speed restrictions are between **18 mph (30 km/h) < X < 150 mph (250 km/h)**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>SC041</b>	<u>CHANGING COMMERCIAL VEHICLE IDLE SPEED</u>
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<b>NOTES</b>	This command is used to modify the commercial vehicle idle speed.
	<b>Kangoo II only.</b>

To run this command, select scenario **SC041 Modification of the commercial vehicle idle speed** in the **CLIP diagnostic tool**.

This command allows you to:

- read the commercial vehicle idle speed,
- activate the commercial vehicle idle speed at a predefined speed,
- deactivate or change the current commercial vehicle idle speed for the vehicle.

Predefined commercial vehicle idle speeds are:

- **1000 rpm**,
- **1100 rpm**.

<b>AFTER REPAIR</b>	Deal with any faults displayed by the <b>diagnostic tool</b> . Clear the computer fault memory. Carry out a road test followed by another check with the <b>diagnostic tool</b> .
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<b>RZ005</b>	<u>PROGRAMMING</u>
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<b>NOTES</b>	This command enables you to reinitialise all the computer parameters.
	<b>Except for Kangoo II.</b>

Command **RZ005** reconfigures the computer.  
When command **RZ005** is run, all of the parameter information is cleared in the computer.

<b>RZ019</b>	<u>REINITIALISE PROGRAMMING</u>
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<b>NOTES</b>	<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"><li>– the EGR valve,</li><li>– the damper valve;</li><li>– particle filter.</li></ul> <p><b>Ignition on and engine stopped.</b></p>
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To run this command, select command **RZ019 Reinitialise programming** on the **CLIP diagnostic tool**.

Procedure to be followed:

- on the main screen, select the component to reinitialise after an operation (removal/refitting or replacement of component),
- select **YES** then **OK** to begin reinitialisation,
- select **Finish** on the **Configuration completed** screen to return to the main screen,
- end of operation.



<b>RZ030</b>	<u>PARTICLE FILTER ADAPTIVES</u>
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<b>NOTES</b>	Run the command only after replacing the <b>particle filter</b> .
	Vdiag 45, 49 and 4D only.

Run command <b>RZ030 Particle filter adaptives</b> after replacing the particle filter.
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<b>AC236</b>	<u>COOLANT PUMP RELAY</u>
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<b>NOTES</b>	This command is used to check the operation of the electric coolant pump relay.
	Use the CLIO III, MODUS, MEGANE II ph2 and SCENIC II ph2 Wiring Diagrams Technical Note.
	Vdiag 45, 49 and 4D only. (except Kangoo II).

Check the connection and condition of the **coolant pump relay connector, component code 573** and **injection computer connector B, component code 120**.

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

Check the **insulation, continuity and the absence of interference resistance** on the following connections:

- **3VG** between components **573** and **120**,
- **3V** between components **573** and **369**,
- **3FB** between components **573** and **983**,
- **3FB1** between components **573** and **983**.

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

If the fault is still present, contact the Techline.

<b>AC239</b>	<u>PARTICLE FILTER TEMPERATURE SENSOR FAULT FINDING</u>
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<b>NOTES</b>	<p>Carry out this command only under the following conditions:</p> <ul style="list-style-type: none"> <li>– <b>DF999 Stored particle filter downstream temperature sensor circuit,</b></li> <li>– <b>DF1000 Stored particle filter upstream temperature sensor circuit,</b></li> </ul> <p>With the ignition on and engine switched off and the engine coolant temperature below <b>40°C</b>.</p>
	This command is used to check the operation of the particle filter temperature sensors.
	Use <b>CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.</b>

If one of the faults such as **DF999 Particle filter downstream temperature sensor circuit** or **DF1000 Particle filter upstream temperature sensor circuit** is stored, use this command to check whether it is in short circuit to **+12 V** or in open circuit.

**Procedure:**

- Run command **AC239 Particle filter temperature sensor fault finding** if either of the following faults is present **DF999 Particle filter downstream temp. sensor circuit** and/or **DF1000 Particle filter upstream temp. sensor circuit**.
- If one or both of these faults becomes present, then the sensor(s) is in **short circuit to + 12 V** or in **open circuit**.  
Refer to the interpretation of faults **DF999 Particle filter downstream temp. sensor circuit** and **DF1000 Particle filter upstream temp. sensor circuit**.
- If they do not become present, clear the faults on the **CLIP diagnostic tool**.

\*temp.: temperature

NOTES	Only consult this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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COMPUTER FAULT

	NO DIALOGUE WITH THE COMPUTER	ALP 1
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STARTING FAULT

	THE ENGINE DOES NOT START OR STARTS WITH DIFFICULTY	ALP 2
	STARTING DIFFICULT WITH COLD ENGINE	ALP 3
	IMPOSSIBLE TO SHUT OFF ENGINE	ALP 4

IDLING FAULTS

	ENGINE IDLE SPEED TOO HIGH	ALP 5
	ENGINE IDLE SPEED TOO LOW OR UNSTABLE	ALP 6

**DRIVING BEHAVIOUR**

ENGINE CUT-OUT (STALLING)	ALP 7
NO OR VERY LITTLE ACCELERATION, INCREASE IN ENGINE SPEED	ALP 8
ENGINE BUCKING	ALP 9
ERRATIC ACCELERATION	ALP 10
NO ENGINE BRAKING	ALP 11
LOSS OF POWER	ALP 12
TOO MUCH POWER	ALP 13
OVERSPEED AT IDLE SPEED OR ON RELEASING BRAKE	ALP 14
EXCESSIVE CONSUMPTION	ALP 15
ENGINE OVERHEATING	ALP 16

**NOISE, ODOURS OR SMOKE**

EMISSION CONTROL NOT SATISFACTORY	ALP 17
ENGINE NOISE	ALP 18
OIL LEAK FROM THE TURBOCHARGER	ALP 19
SMOKE FROM THE EXHAUST	ALP 20

**REGENERATION**

PARTICLE FILTER WARNING LIGHT ON	ALP 21
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# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

### ALP 1

No dialogue with the computer

### NOTES

Only address this customer complaint after a **complete check** with the **diagnostic tool**.

Try to establish dialogue with a computer on another vehicle to check that the **diagnostic tool** is not faulty. If the tool is not at fault, and dialogue cannot be established with any other computer on the same vehicle, the cause could be a faulty computer interfering on the multiplex network.

Check the battery voltage.

If the battery voltage is not between:

**9.5 V < Battery voltage < 17.5 V**

Carry out fault finding on the charge circuit ( **See Technical Note 6014A, Checking the charging circuit or 87G, Engine compartment connection unit**).

Carry out a fault finding procedure on the multiplex network using the **diagnostic tool**.

- Check the presence and condition of the injection fuses on the UPC and in the engine fuse box.
- Check the connection of the computer connectors and the condition of its connections.
- Check the injection computer earths (quality, oxidation, earth bolts secure on the battery terminal).
- Check that the supply to the computer is correct:

**Earth on code connection N\* 2** of the computer **connector**.

**+After ignition feed on connection code AP** of the computer **connector**.

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

Check that the power supply to the diagnostic socket is correct:

**+ before ignition feed on track 16**

**+ after ignition feed on track 1**

**Earth on tracks 4 and 5**

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

If dialogue has still not been established after these checks, contact Techline.

### AFTER REPAIR

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

# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

<b>ALP 2</b>	<b>The engine does not start or starts with difficulty</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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Check the presence and conformity of the fuel by running <b>Test 13 Diesel fuel conformity check</b> .
Carry out fault finding on the charge circuit ( <b>See Technical Note 6014A, Checking the charging circuit or 87G, Engine compartment connection unit</b> ). Check the starter and the starter relay (see <b>Technical Note 3632A, Starter fault finding</b> ). Check the injection computer main relay (refer to the interpretation of fault <b>DF015 Main relay control circuit</b> ).
Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.  If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace the wiring.
Check the camshaft sensor and TDC sensor, as well as their wiring (refer to the interpretation of faults <b>DF005 Engine speed sensor circuit and DF097 Camshaft sensor circuit</b> ).  If there is a repair procedure (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, if not replace it.
Check the air inlet circuit (refer to the interpretation of fault <b>DF301 Air inlet circuit</b> ).
Check that the damper valve operates correctly (refer to the interpretation of fault <b>DF641 Damper valve circuit</b> ).
Check the low pressure fuel supply system by performing <b>test 1 Low pressure supply check and test 2 Internal fuel transfer pump (ITP) check</b> .
Check the high pressure fuel supply system by performing <b>test 3 High pressure fuel pressure solenoid valve check, test 4 High pressure pump (HPP) and fuel flow solenoid valve check and test 5 Rail high pressure regulation circuit check</b> .
Check the injectors by performing <b>test 6 Major leak in injectors/injectors open and test 7 Incorrect injection amount</b> .

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Fault Finding Chart

13B

<b>ALP 3</b>	<b>Starting difficult with cold engine</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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Check the grade of the engine oil and that the engine oil level is correct.
Perform fault finding on the charging circuit (see <b>Technical Note 6014A, Checking the charging circuit</b> ). Check the starter (see <b>Technical Note 3632A, Starter fault finding</b> ).
Check the coolant temperature sensor, fuel sensor and air inlet sensor (refer to the interpretation of faults <b>DF001 Coolant temperature sensor circuit</b> , <b>DF098 Fuel temperature sensor circuit</b> and <b>DF301 Air inlet circuit</b> ).
If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace the wiring.
Check the preheating system (refer to the interpretation of fault <b>DF025 Preheating unit diagnostic line</b> ).
Check the low pressure fuel supply system by performing <b>test 1 Low pressure supply check</b> and <b>test 2 Internal fuel transfer pump (ITP) check</b> .
Check compression values.

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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## DIESEL INJECTION

### Fault finding – Fault Finding Chart

13B

**ALP 4**

**Impossible to stop engine**

**NOTES**

Only address this customer complaint after a **complete check** with the **diagnostic tool**.

Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.

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

**AFTER REPAIR**

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

## DIESEL INJECTION

### Fault finding – Fault Finding Chart

13B

**ALP 5**

**Engine idle speed too high**

**NOTES**

Only address this customer complaint after a **complete check** with the **diagnostic tool**.

Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.

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

Check that the accelerator pedal operates correctly (sensor and wiring) (refer to the interpretation of fault **DF887 Brake/accelerator pedal position**).

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

**AFTER REPAIR**

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

# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

<b>ALP 6</b>	<b>Engine idle speed too low or unstable</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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Check the presence and conformity of the fuel by running <b>Test 13 Diesel fuel conformity check</b> .
Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.  If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace the wiring.
Check the air inlet circuit (refer to the interpretation of fault <b>DF301 Air inlet circuit</b> ).  Check that the damper valve operates correctly (refer to the interpretation of fault <b>DF641 Damper valve circuit</b> ).  Check the air flowmeter (refer to the interpretation of faults <b>DF039 Inlet air temperature sensor circuit, DF129 Air flow requested and DF056 Air flow sensor circuit</b> ).
Check the air conditioning pressure sensor (refer to the interpretation of fault <b>DF049 Refrigerant sensor circuit</b> ).  If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace the wiring.
If fault <b>DF308 Particle filter clogged</b> is present, replace the particle filter. Run command <b>RZ030 Particle filter adaptives</b> after replacing the particle filter.
Check the low pressure fuel supply system by performing <b>test 1 Low pressure supply check and test 2 Internal fuel transfer pump (ITP) check</b> .
Check the high pressure fuel supply system by performing <b>test 3 High pressure fuel pressure solenoid valve check, test 4 High pressure pump (HPP) and fuel flow solenoid valve check and test 5 Rail high pressure regulation circuit check</b> .
Check the injectors by performing <b>test 6 Major injector leak/injectors open and test 7 Incorrect injection amount</b> .

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

<b>ALP 7</b>	<b>Engine stop</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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Check the presence and conformity of the fuel by running <b>Test 13 Diesel fuel conformity check</b> .
Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.  If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace the wiring.
Check the air inlet circuit (refer to the interpretation of fault <b>DF301 Air inlet circuit</b> ).  Check that the damper valve operates correctly (refer to the interpretation of fault <b>DF641 Damper valve circuit</b> ).  Check the air flowmeter (refer to the interpretation of faults <b>DF039 Inlet air temperature sensor circuit, DF129 Air flow requested and DF056 Air flow sensor circuit</b> ).
Using the <b>CLIP diagnostic tool</b> , carry out a multiplex network test (see <b>88B, Multiplexing</b> ).
Check the low pressure fuel supply system by performing <b>test 1 Low pressure supply check and test 2 Internal fuel transfer pump (ITP) check</b> .
Check the high pressure fuel supply system by performing <b>test 3 High pressure fuel pressure solenoid valve check, test 4 High pressure pump (HPP) and fuel flow solenoid valve check and test 5 Rail high pressure regulation circuit check</b> .
Check the injectors by performing <b>test 6 Major leak in injectors/injectors open and test 7 Incorrect injection amount</b> .

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

<b>ALP 8</b>	<b>Acceleration, increase in engine speed (when absent)</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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Check the presence and conformity of the fuel by running <b>Test 13 Diesel fuel conformity check</b> .
Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.  If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace the wiring.
Check the air inlet circuit (refer to the interpretation of fault <b>DF301 Air inlet circuit</b> ).  Check that the damper valve operates correctly (refer to the interpretation of fault <b>DF641 Damper valve circuit</b> ).  Check the air flowmeter (refer to the interpretation of faults <b>DF039 Inlet air temperature sensor circuit, DF129 Air flow requested and DF056 Air flow sensor circuit</b> ).
Check the turbocharging pressure (consult the interpretation of fault <b>DF004 Turbocharging pressure sensor circuit</b> ).
Check that the accelerator pedal operates correctly (sensor and wiring) (refer to the interpretation of fault <b>DF887 Brake/accelerator pedal position</b> ).  If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace the wiring.
Check the low pressure fuel supply system by performing <b>test 1 Low pressure supply check and test 2 Internal fuel transfer pump (ITP) check</b> .
Check the high pressure fuel supply system by performing <b>test 3 High pressure fuel pressure solenoid valve check, test 4 High pressure pump (HPP) and fuel flow solenoid valve check and test 5 Rail high pressure regulation circuit check</b> .
Check the injectors by performing <b>test 6 Major leak in injectors/injectors open and test 7 Incorrect injection amount</b> .

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

<b>ALP 9</b>	<b>Engine bucking</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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<p>Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.</p> <p>If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace the wiring.</p>
<p>Check that the accelerator pedal operates correctly (sensor and wiring) (refer to the interpretation of fault <b>DF887 Brake/accelerator pedal position</b>).</p> <p>If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace the wiring.</p>
<p>Check the clutch pedal (connector and wiring) (refer to the interpretation of fault <b>DF070 Clutch switch circuit</b>). Check the vehicle speed signal (refer to the interpretation of fault <b>DF091 Vehicle speed signal</b>).</p> <p>If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace the wiring.</p>
Carry out a multiplex network test using the <b>CLIP diagnostic tool</b> .
<p>Check the air inlet circuit (refer to the interpretation of fault <b>DF301 Air inlet circuit</b>). Check that the damper valve operates correctly (refer to the interpretation of fault <b>DF641 Damper valve circuit</b>). Check the air flowmeter (refer to the interpretation of faults <b>DF039 Inlet air temperature sensor circuit, DF129 Air flow requested and DF056 Air flow sensor circuit</b>).</p>
Check the low pressure fuel supply system by performing <b>test 1 Low pressure supply check and test 2 Internal fuel transfer pump (ITP) check</b> .
Check the high pressure fuel supply system by performing <b>test 3 High pressure fuel pressure solenoid valve check, test 4 High pressure pump (HPP) and fuel flow solenoid valve check and test 5 Rail high pressure regulation circuit check</b> .
Check the injectors by performing <b>test 6 Major leak in injectors/injectors open and test 7 Incorrect injection amount</b> .

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

<b>ALP 10</b>	<b>Erratic acceleration</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.

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

Check that the accelerator pedal operates correctly (sensor and wiring) (refer to the interpretation of fault **DF887 Brake/accelerator pedal position**).

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

Check the clutch pedal (connector and wiring) (refer to the interpretation of fault **DF070 Clutch switch circuit**).

Check the vehicle speed signal (refer to the interpretation of fault **DF091 Vehicle speed signal**).

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

Using the **CLIP diagnostic tool**, carry out a multiplex network test (see **88B, Multiplexing**).

Check the high pressure fuel supply system by performing **test 3 High pressure fuel pressure solenoid valve check, test 4 High pressure pump (HPP) and fuel flow solenoid valve check** and **test 5 Rail high pressure regulation circuit check**.

Check the injectors by performing **test 6 Major injector leak/injectors open** and **test 7 Incorrect injection amount**.

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Fault Finding Chart

13B

ALP 11

No engine braking

### NOTES

Only address this customer complaint after a **complete check** with the **diagnostic tool**.

Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.

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

Check that the accelerator pedal operates correctly (sensor and wiring) (refer to the interpretation of fault **DF887 Brake/accelerator pedal position**).

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

Check the conformity of the engine at idle speed (refer to the interpretation of fault **DF005 Engine speed sensor circuit**).

Check the injectors by performing **test 6 Major injector leak/injectors open** and **test 7 Incorrect injection amount**.

### AFTER REPAIR

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



# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

<b>ALP 12</b>	<b>Loss of power</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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<p>Check the presence and conformity of the fuel by running <b>Test 13 Diesel fuel conformity check</b>. Check that the fuel filter is in good condition and clean.</p>
<p>Check the engine oil grade and level. Check the cooling system (fluid level) (see <b>MR 385 392 364, 370 or 417, Mechanical, 19A, Cooling</b>).</p>
<p>Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present. If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace the wiring.</p>
<p>Check the air inlet circuit (refer to the interpretation of fault <b>DF301 Air inlet circuit</b>).</p> <p>Check that the damper valve operates correctly (refer to the interpretation of fault <b>DF641 Damper valve circuit</b>).</p> <p>Check the air flowmeter (refer to the interpretation of faults <b>DF039 Inlet air temperature sensor circuit, DF129 Air flow requested and DF056 Air flow sensor circuit</b>).</p>
<p>Check that the accelerator pedal operates correctly (sensor and wiring) (refer to the interpretation of fault <b>DF887 Brake/accelerator pedal position</b>).</p> <p>Check the clutch pedal (connector and wiring) (refer to the interpretation of fault <b>DF070 Clutch switch circuit</b>).</p> <p>Check the vehicle speed signal (refer to the interpretation of fault <b>DF091 Vehicle speed signal</b>).</p> <p>Check the turbocharging pressure (refer to the interpretation of fault <b>DF004 Turbocharging pressure sensor circuit</b>).</p> <p>If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b>), repair the wiring, otherwise replace the wiring.</p>
<p>Deal with the following faults:</p> <ul style="list-style-type: none"> <li>– <b>DF1003 Particle filter differential pressure sensor circuit.</b></li> <li>– <b>DF1000 Particle filter upstream temperature sensor circuit.</b></li> </ul>

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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### ALP 12 CONTINUED

Using the **CLIP diagnostic tool**, carry out a multiplex network test (see **88B, Multiplexing**).

Check the low pressure fuel supply system by performing **test 1 Low pressure supply check** and **test 2 Internal fuel transfer pump (ITP) check**.

Check the high pressure fuel supply system by performing **test 3 High pressure fuel pressure solenoid valve check**, **test 4 High pressure pump (HPP) and fuel flow solenoid valve check** and **test 5 Rail high pressure regulation circuit check**.

Check the injectors by performing **test 6 Major injector leak/injectors open** and **test 7 Incorrect injection amount**.

### AFTER REPAIR

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

# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

<b>ALP 13</b>	<b>Too much power</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.

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

Check the coolant temperature sensor. (refer to the interpretation of faults **DF001 Coolant temperature sensor circuit**).

Check the turbocharging pressure (consult the interpretation of fault **DF004 Turbocharging pressure sensor circuit**).

Check the clutch pedal (connector and wiring) (refer to the interpretation of fault **DF070 Clutch switch circuit**).

Check the vehicle speed signal (refer to the interpretation of fault **DF091 Vehicle speed signal**).

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

Using the **CLIP diagnostic tool**, carry out a multiplex network test (see **88B, Multiplexing**).

Check the high pressure fuel supply system by performing **test 3 High pressure fuel pressure solenoid valve check, test 4 High pressure pump (HPP) and fuel flow solenoid valve check** and **test 5 Rail high pressure regulation circuit check**.

Check the injectors by performing **test 6 Major injector leak/injectors open** and **test 7 Incorrect injection amount**.

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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## DIESEL INJECTION

### Fault finding – Fault Finding Chart

13B

**ALP 14**

**Overspeed at idle speed or on releasing brake**

**NOTES**

Only address this customer complaint after a **complete check** with the **diagnostic tool**.

Check the engine oil grade and level.

Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.

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

Using the **CLIP diagnostic tool**, carry out a multiplex network test (see **88B, Multiplexing**).

Using the **CLIP diagnostic tool**, check the **ABS** computer (see **38C, Anti-lock braking system**).

**AFTER REPAIR**

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

# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

<b>ALP 15</b>	<b>Excessive consumption</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.

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

Check the air inlet circuit (refer to the interpretation of fault **DF301 Air inlet circuit**).

Check that the damper valve operates correctly (refer to the interpretation of fault **DF641 Damper valve circuit**).

Check the air flowmeter (refer to the interpretation of faults **DF039 Inlet air temperature sensor circuit, DF129 Air flow requested and DF056 Air flow sensor circuit**).

Check the coolant temperature sensor (refer to the interpretation of faults **DF001 Coolant temperature sensor circuit**).

Check the turbocharging pressure (consult the interpretation of fault **DF004 Turbocharging pressure sensor circuit**).

Check the low pressure fuel supply system by performing **test 1 Low pressure supply check and test 2 Internal fuel transfer pump (ITP) check**.

Check the high pressure fuel supply system by performing **test 3 High pressure fuel pressure solenoid valve check, test 4 High pressure pump (HPP) and fuel flow solenoid valve check and test 5 Rail high pressure regulation circuit check**.

Check the injectors by performing **test 6 Major injector leak/injectors open and test 7 Incorrect injection amount**.

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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## DIESEL INJECTION

### Fault finding – Fault Finding Chart

13B

ALP 16	Engine overheating
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NOTES	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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Check the cooling system (refer to <b>MR 385 392 364 370 or 417, Mechanical, 19A, Cooling</b> ).
Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.  If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace the wiring.
Check the coolant temperature sensor (refer to the interpretation of faults <b>DF001 Coolant temperature sensor circuit</b> ).
Check the condition and connection of the relay/fuse box.  If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace the wiring.
Check that the fan assemblies operate correctly (refer to <b>MR 385 392 364, 370 or 417, Mechanical, 19A, Cooling</b> ).

AFTER REPAIR	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

**ALP 17**

**Emission control not satisfactory**

### NOTES

Only address this customer complaint after a **complete check** with the **diagnostic tool**.

Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present.

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

Check the air inlet circuit (refer to the interpretation of fault **DF301 Air inlet circuit**).

Check that the damper valve operates correctly (refer to the interpretation of fault **DF641 Damper valve circuit**).

Check the air flowmeter (refer to the interpretation of faults **DF039 Inlet air temperature sensor circuit, DF129 Air flow requested and DF056 Air flow sensor circuit**).

Check the turbocharging pressure (consult the interpretation of fault **DF004 Turbocharging pressure sensor circuit**).

Check the high pressure fuel supply system by performing **test 3 High pressure fuel pressure solenoid valve check, test 4 High pressure pump (HPP) and fuel flow solenoid valve check and test 5 Rail high pressure regulation circuit check**.

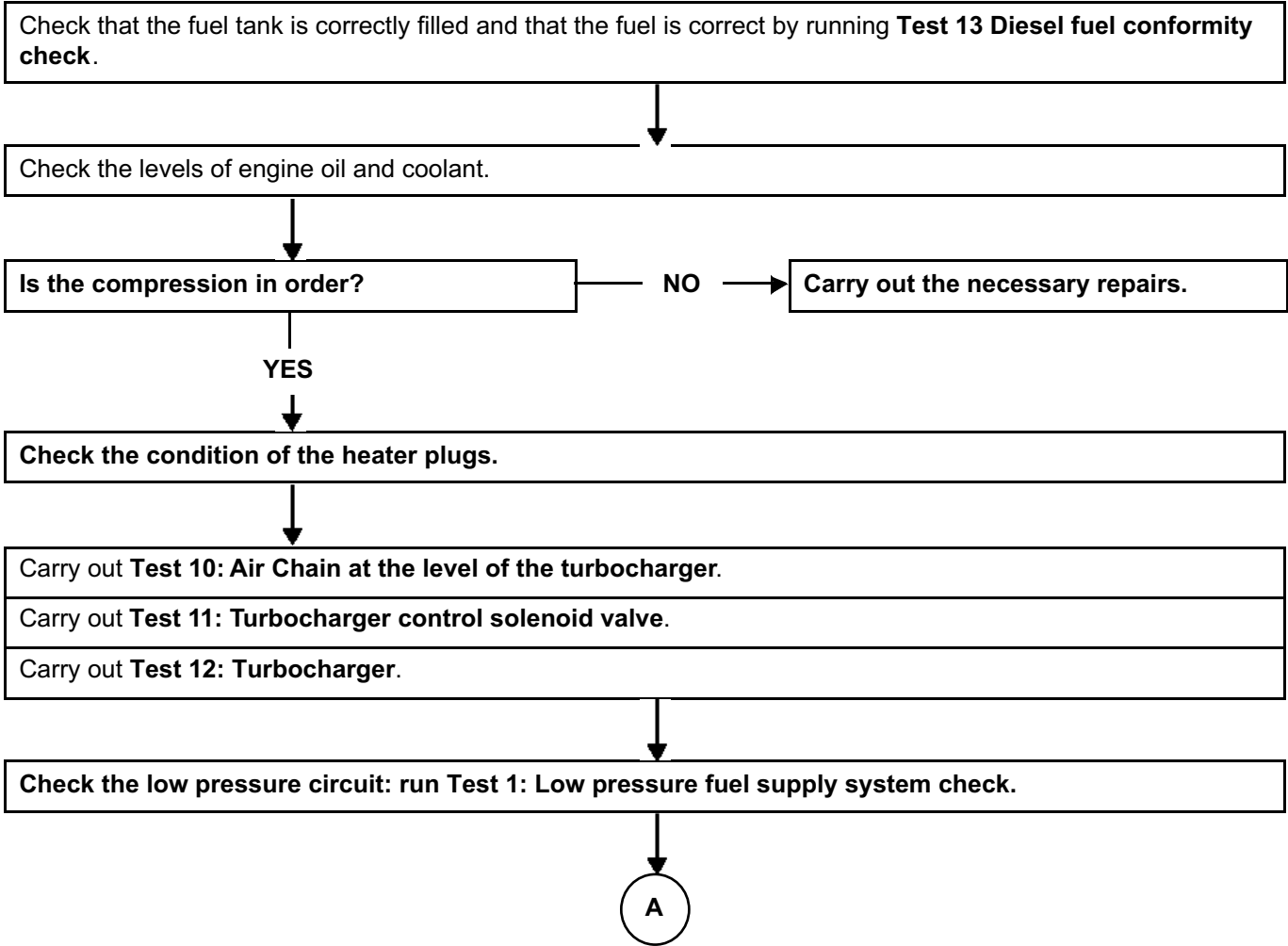
Check the injectors by performing **test 6 Major injector leak/injectors open and test 7 Incorrect injection amount**.

### AFTER REPAIR

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

<b>ALP 18</b>	<b>Engine noises</b>
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<b>NOTES</b>	<p><b>This ALP (Fault finding chart) concerns the following customer complaints:</b></p> <ul style="list-style-type: none"> <li>– Air noise, whistling, whining.</li> <li>– Humming, purring, juddering, rubbing, groaning.</li> <li>– Chattering, crackling, grating, clicking.</li> <li>– Knocking, banging, creaking, lapping.</li> <li>– Growling, beating.</li> </ul>
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<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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<b>ALP 18 CONTINUED</b>	
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**Check the injectors while applying Test 6 Major leak in injectors/injectors open.**



**Apply Technical Note 5164A, Noise fault finding.**

Note:  
Pay close attention to faulty components that might result in unjustified replacement of the turbocharger. For example, whistling does not necessarily indicate damage to the turbocharger (this could be coming from the exhaust, the timing, the gearbox, etc.).



**Contact the Techline if the customer complaint is still present.**

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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### ALP 19

### Oil leak from the turbocharger

#### NOTES

**This ALP concerns the following customer complaint:**  
– Oil leaks from the turbocharger.

#### Check the area around the turbocharger

Note:

An oil leak does not correspond always to a turbocharger fault, the oil leak can arise from the area around the turbocharger.

Depending on the vehicle type, the best visual access will be either from above or from below.

**1-** Do not start the engine.

Check the area around the turbocharger and identify the origin of the leaks.

Clean the oil traces on the turbocharger.

**2-** Start the engine and let it warm up for several minutes.

#### IMPORTANT

If the air filter was removed previously, refit it before starting the engine (risks foreign matter entering the air inlet circuit).

Accelerate with no load several times, progressively increasing the duration before releasing the accelerator pedal.

Visually inspect the exterior condition of the fuel supply pipes and the turbocharger oil return and the area around it.

Identify the origin of the leaks.

**Is an oil leak present at the air compressor inlet or outlet?**

**YES**

**NO**

#### Check the air compressor inlet or outlet

Check for a loose interface (inlet or outlet) that is the cause of the air leak.

Note:

It is normal to find oil traces inside the pipes at the turbocharger inlet or outlet, because the air entering the compressor is laden with oil from the engine rebreathing circuit.

**Is the suspected interface properly tightened?**

**NO**

Tighten the interface  
or the concerned pipe.  
**End of procedure.**

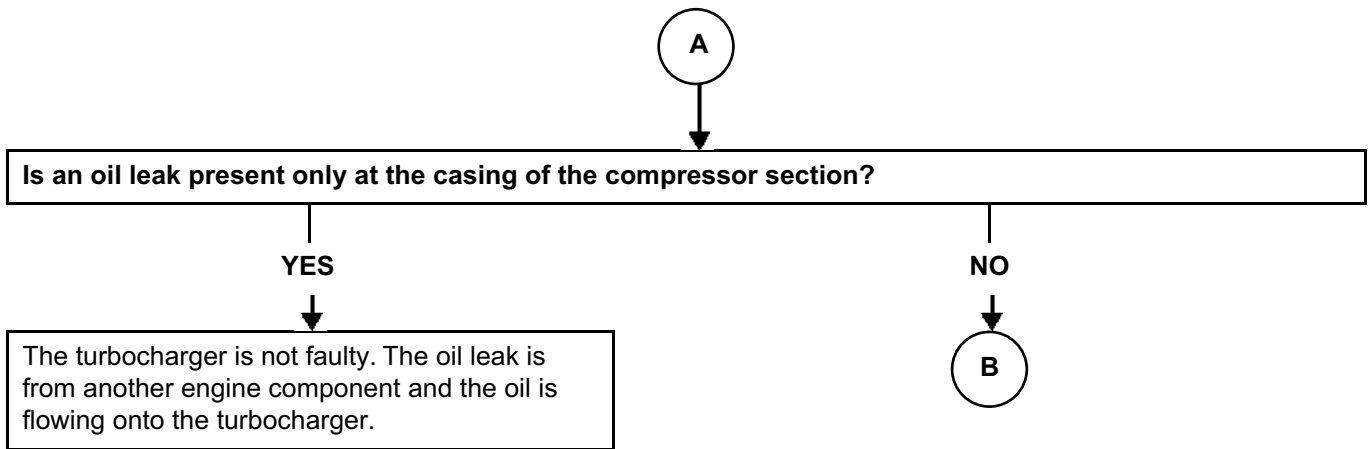
**YES**

Replace the pipe concerned (see **MR 364 (Mégane II)**, **370 (Scénic II)**, **417 (Kangoo II)**, **385 (Modus)**, **392 (Clio III)**, **Mechanical**, **12B**, turbocharging).

#### AFTER REPAIR

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

<b>ALP 19 CONTINUED 1</b>	
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<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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### ALP 19 CONTINUED 2

B

Is an oil leak present at the turbocharger oil supply inlet or outlet?

YES

**Check the turbocharger oil supply inlet and outlet**

Check for a loose interface (inlet or outlet) that is the cause of the oil leak.

**Is the suspected interface properly tightened?**

NO

**Tighten the pipe concerned.  
End of procedure.**

YES

Only replace the seal or pipe of the part concerned (see **MR 364 (Mégane II)**, **370 (Scénic II)**, **417 (Kangoo II)**, **385 (Modus)**, **392 (Clio III)**, **Mechanical, 12B**, turbocharging).

NO

Is an oil leak present at the interfaces of the turbine casing and the exhaust pipes?

YES

NO

**End of procedure.**

The turbocharger is not faulty. Another engine fault is probably present.  
Mark the component from which arises the leak and refer to the repair manual (see **MR 364 (Mégane II)**, **370 (Scénic II)**, **417 (Kangoo II)**, **385 (Modus)**, **392 (Clio III)**, **10A Engine and Peripherals**).

### AFTER REPAIR

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

<b>ALP 20</b>	<b>Exhaust fumes</b>
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<b>NOTES</b>	Only address this customer complaint after a <b>complete check</b> with the <b>diagnostic tool</b> .
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<p><b>Is the vehicle equipped with a particle filter? (Vdiag 45, 49 and 4D only)</b></p> <p style="text-align: center;">NO</p>	<p>— YES —&gt;</p>	<p>Deal with the following faults first:  <b>DF238 Thermoplunger no. 3 relay circuit,</b>  <b>DF239 Thermoplunger no. 2 relay circuit,</b>  <b>DF240 Thermoplunger no. 1 relay circuit and</b>  <b>DF1005 Thermoplunger control unit fault finding</b>  <b>1 connection.</b> Check the particle filter injector supply circuit, by running <b>Test 8 Checking the particle filter injector supply circuit</b>.</p>
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Check the engine oil grade and level.
Check the presence and conformity of the fuel by running <b>Test 13 Diesel fuel conformity check</b> as well as its circuit (see <b>MR 385, 392, 364, 370 or 417, Mechanical, 13A, Fuel supply</b> ).
Check the cooling system (see <b>MR 385 392 364, 370 or 417 Mechanics, 19A, Cooling, Engine cooling system: Specifications</b> ).
Check the fuel temperature sensor (refer to the interpretation of <b>Fuel temperature sensor circuit</b> faults <b>DF098</b> ). Check the coolant temperature sensor (refer to the interpretation of faults <b>DF001 Coolant temperature sensor circuit</b> ).
Check the air inlet circuit (refer to the interpretation of fault <b>DF301 Air inlet circuit</b> ). Check that the damper valve operates correctly (refer to the interpretation of fault <b>DF641 Damper valve circuit</b> ). Check the air flowmeter (refer to the interpretation of faults <b>DF039 Inlet air temperature sensor circuit, DF129 Air flow requested and DF056 Air flow sensor circuit</b> ). Check the turbocharging pressure (consult the interpretation of fault <b>DF004 Turbocharging pressure sensor circuit</b> ).
Check the preheating system (refer to the interpretation of fault <b>DF025 Preheating unit diagnostic line</b> ).
Check the injection computer: that the connections and wiring are in good condition, that earths and feeds are present. If the wiring is faulty and there is a repair method (see <b>Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair</b> ), repair the wiring, otherwise replace it.



<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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<b>ALP 20 CONTINUED</b>	
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Check the high pressure fuel supply system by performing **test 3 High pressure fuel pressure solenoid valve check**, **test 4 High pressure pump (HPP)** and **fuel flow solenoid valve check** and **test 5 Rail high pressure regulation circuit check**.

Check the injectors by performing **test 6 Major injector leak/injectors open** and **test 7 Incorrect injection amount**.

Start the engine and warm it up at idle speed for **10 minutes**.

**IMPORTANT**  
If the air filter was removed previously, refit it before starting the engine (risks foreign matter entering the air inlet circuit).

Perform several rapid and brief accelerations under no load.

Note:  
The presence of smoke is often normal.  
The quantity, density, colour and persistence of the smoke are the important factors.

**Is the exhaust outlet producing abnormal smoke?**



Consult **Test 12 Turbocharger**.

The turbocharger is not faulty.  
Check the other engine components by referring to the repair manual (see **MR 364 (Mégane II)**, **370 (Scénic II)**, **417 (Kangoo II)**, **385 (Modus)**, **392 (Clio III)**, **10A Engine and peripherals** and **13B Diesel injection**).

<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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# DIESEL INJECTION

## Fault finding – Fault Finding Chart

# 13B

**ALP 21**

**Particle filter warning light on**

### NOTES

Only address this customer complaint after a **complete check** with the **diagnostic tool**.

Check that the particle filter operates by running **Test 9 Particle filter history**.

Check that there is fuel in the tank.  
Put fuel in if necessary.

Carry out a visual inspection of the air filter/filter box.

- Check the condition of the air filter (fouling, clogging, etc.).

If necessary, replace the air filter (see **MR 392, 385, 364, 370 and 417 Mechanics, 12A, Fuel mixture, Air filter: Remove - Refitting**).

- Check that the air filter box inlet and outlet are not obstructed.

Repair if necessary.

Check the catalytic converter no. 1 downstream temperature sensor:

- Check there is no corrosion inside the connector and repair if necessary.
- With the **+ after ignition feed** switched on, check for the **+ 5 V** feed on the following connection:
  - Connection code **3AGY** between component **1765** and **the vehicle earth**.
- Check **the continuity, insulation and absence of interference resistance** on the following connections:
  - Connection code **3AGX** between components **1765** and **120**.
  - Connection code **3AGY** between components **1765** and **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.

Check the particle filter upstream temperature sensor.

- Check there is no corrosion inside the connector and repair if necessary.
- Check for the **earth** on the following connection:
  - Connection code **3XT** between components **1287** and **120**.
- Check **the continuity, insulation and absence of interference resistance** on the following connections:
  - Connection code **3TD** between components **1287** and **120**.
  - Connection code **3XT** between components **1287** and **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 followed by a complete check with the **diagnostic tool**.

### ALP 21 CONTINUED 1

Check the particle filter downstream temperature sensor.

- Check there is no corrosion inside the connector and repair if necessary.
- Check for the **earth** on the following connection:
  - Connection code **3XU** between components **1288** and **120**.
- Check **the continuity, insulation and absence of interference resistance** on the following connections:
  - Connection code **3TG** between components **1288** and **120**.
  - Connection code **3XU** between components **1288** and **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.

Use a mirror to check the turbine upstream temperature sensor (on the Modus, remove the scuttle panel).

- Check there is no corrosion inside the connector and repair if necessary.
- With the **+ after ignition feed** switched on, check for the **+ 5 V** feed on the following connection:
  - Connection code **3JQ** between components **1589** and **the vehicle earth**.
- If there is no **+ 5 V** feed to the sensor, check **the continuity, insulation and absence of interference resistance** on the following connections:
  - Connection code **3JQ** between components **1589** and **120**.
  - Connection code **3B** between components **1589** and **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.

Check the differential pressure sensor of the particle filter.

- Check there is no corrosion inside the connector and repair if necessary.
- Check **the continuity, insulation and absence of interference resistance** on the following connections:
  - Connection code **3YD** between components **1290** and **120**.
  - Connection code **3TL** between components **1290** and **120**.
  - Connection code **3AAM** between components **1290** and **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.

Replace the faulty sensors if necessary.

### AFTER REPAIR

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



### ALP 21 CONTINUED 2

Check the air flow:

- The air flow should be approximately **250 mg/st** (see **Interpretation of parameters, PR132 Air flow**).

Check the air flowmeter connector, **component code 799** (corrosion, fouling, etc.).

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(s), otherwise replace the wiring.

Check **the continuity, insulation and absence of interference resistance** on the following connections:

- Code connection **3FB ( 3FB3 for Kangoo II)** between components **799** and **1768**.
- Connection code **3ABQ** between components **799** and **120**.
- Connection code **3DV** between components **799** and **120**.
- Connection code **3KJ** between components **799** and **120**.
- connection code **3DW** between components **799** and **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.

Check the particle filter injector supply system by running **Test 8 Particle filter injector supply circuit check**.

### AFTER REPAIR

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

### NOTES

Only consult these tests when dealing with a fault finding chart (ALP) or when interpreting faults.

Some special checks are grouped under the heading Tests and are used as required in different fault finding charts (ALP) or interpretation of faults.

**TEST 1: Low pressure fuel supply system check.**

**TEST 2: Check the internal fuel transfer pump (ITP).**

**TEST 3: High pressure fuel pressure solenoid valve check.**

**TEST 4: Check high-pressure pump (HPP) and fuel flow solenoid valve.**

**TEST 5: Rail high pressure regulation circuit check.**

**TEST 6: Major leak in injectors/injectors open.**

**TEST 7: Incorrect injection quantity.**

**TEST 8: Particle filter injector supply circuit check.**  
Vdiag 45, 49 and 4D only.

**TEST 9: Particle filter history.**  
Vdiag 45, 49 and 4D only.

**TEST 10: Air chain at the level of the turbocharger.**

**TEST 11: Turbocharger control solenoid valve.**

**TEST 12: Turbocharger.**

**TEST 13: Diesel fuel conformity check.**

### TEST 1

### Low pressure fuel supply system check

#### NOTES

#### Causes:

Fuel is present in the transparent supply pipe leading to the pump, or large air bubbles can be seen (small bubbles are permitted).

The engine does not start.

Check the conformity and presence of fuel by running **Test 13: Diesel fuel conformity check**.

Bleed the fuel supply system with the manual priming pump.

Does the fuel flow correctly when pumped manually?

YES

Low pressure fuel supply system correct.

NO

Check that there are no leaks in the supply and return pipes and check that they are in good condition and installed correctly.

Check the cleanliness of the fuel filter.

Remove the fuel sender and check for leaks.  
Check that the fuel sender strainer is not blocked.

#### AFTER REPAIR

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

### TEST 2

### Internal fuel transfer pump (ITP) check

#### NOTES

Conditions prior to test:

**Test 1 Low-pressure supply system check has been carried out previously and results are satisfactory.**

#### Cause:

Fuel is present in the transparent supply pipe leading to the pump.  
However, fuel does not move during starting.

- Remove the connector of the fuel flow solenoid valve (orange)
- Disconnect the fuel return pipe from the pump and seal it with a plug. Connect a pipe to the pump to measure the flow of diesel.
- To authorise a **15 second** starter action and carry out this test it is **essential** to carry out the following procedure:
- Connect a battery charger.
- Run command **SC003 Save computer data**.
- Run command **RZ019 Programming reinitialisation**.
- Perform a starter action for at least **15 seconds** (starting speed **250 rpm**).
- Measure the flow rate of the fuel being collected in a graduated measuring cylinder (**500 ml** minimum).  
The minimum flow rate must be **25 ml** every **15 sec**.
- Run command **SC001 Enter computer data**.

Is the flow measured less than **25 ml**?

YES

Replace the pump.

NO

Low pressure system correct.

#### AFTER REPAIR

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

### TEST 3

### High pressure fuel pressure solenoid valve check

#### NOTES

#### Conditions prior to test:

The entire low pressure system must be in good condition.  
Check the sealing of the high pressure pipes and unions.

#### Cause:

Rail pressure approximately **50 bar** during starting.

Use **CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II** Wiring diagrams **Technical Note**.

Disconnect the fuel pressure solenoid valve connector and measure the resistance at the terminals of the fuel-pressure solenoid valve between connection **3ZQ** of connector B computer and connection **3FB** (or **3FB3** for Kangoo II) of the Protection and Communication Unit or the main injection relay.

Is the resistance between **1.5 Ω** and **15 Ω**?

NO

Replace the pump (see Replacement of components).

YES

Check the wiring between the injection computer and the fuel pressure solenoid valve.  
Measure the voltage at **connection 3FB** on the connector of the fuel pressure solenoid valve with the ignition on.  
Is the voltage the same as the battery voltage?

NO

Check the connection and condition of the connectors for the fuel pressure solenoid valve and the main injection relay.  
– **connection code 3FB1 (or 3FB3 for Kangoo II) between components 1105 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 main injection relay.

YES

Apply the conformity check for **ET613 Fuel pressure regulator**

#### AFTER REPAIR

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

### TEST 4

**Check high-pressure pump (HPP) and fuel flow solenoid valve.**

### NOTES

#### Conditions prior to test:

The entire low pressure system must be in good condition.

Check the sealing of the high pressure pipes and unions.

**Test 3 High pressure fuel pressure solenoid valve check** is OK.

#### Cause:

Not enough or no rail pressure during starting.

Rail reference pressure during starting, minimum **150 bar**.

**Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.**

Remove the fuel flow solenoid valve connector (orange).  
Measure the resistance of the fuel flow solenoid valve  
**connection code 3FB1** between the computer connector  
and the injection main relay connector.  
**Is the resistance between 1.5  $\Omega$  and 15  $\Omega$ ?**

NO

Replace the pump.

YES

Measure the voltage at the flow solenoid valve connector  
**connection code 3FB1 (or 3FB3 for Kangoo II)** with  
the ignition on.  
**Is the voltage the same as the battery voltage?**

NO

Check the connection and condition  
of the connectors for the fuel pressure  
solenoid valve and the main  
injection relay.

– **connection code 3FB1 (or 3FB3  
for Kangoo II) between  
components 1105 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 main injection relay.

YES

Use parameter **PR739 Fuel flow solenoid valve current**  
to check the excitation current when the starter is  
activated.  
**Is the excitation current between 0.6A and 1A?**

NO

A

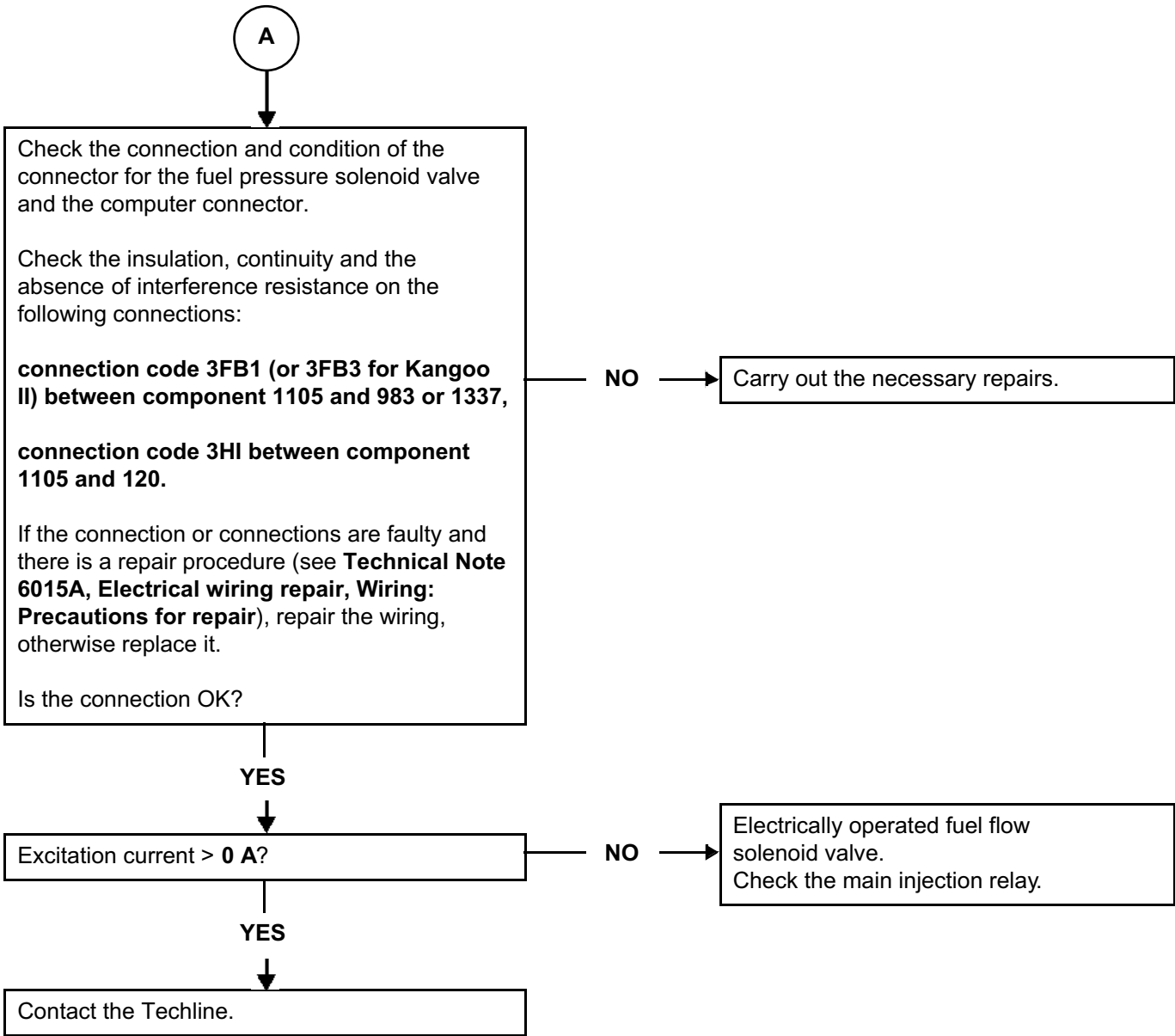
YES

B

### AFTER REPAIR

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

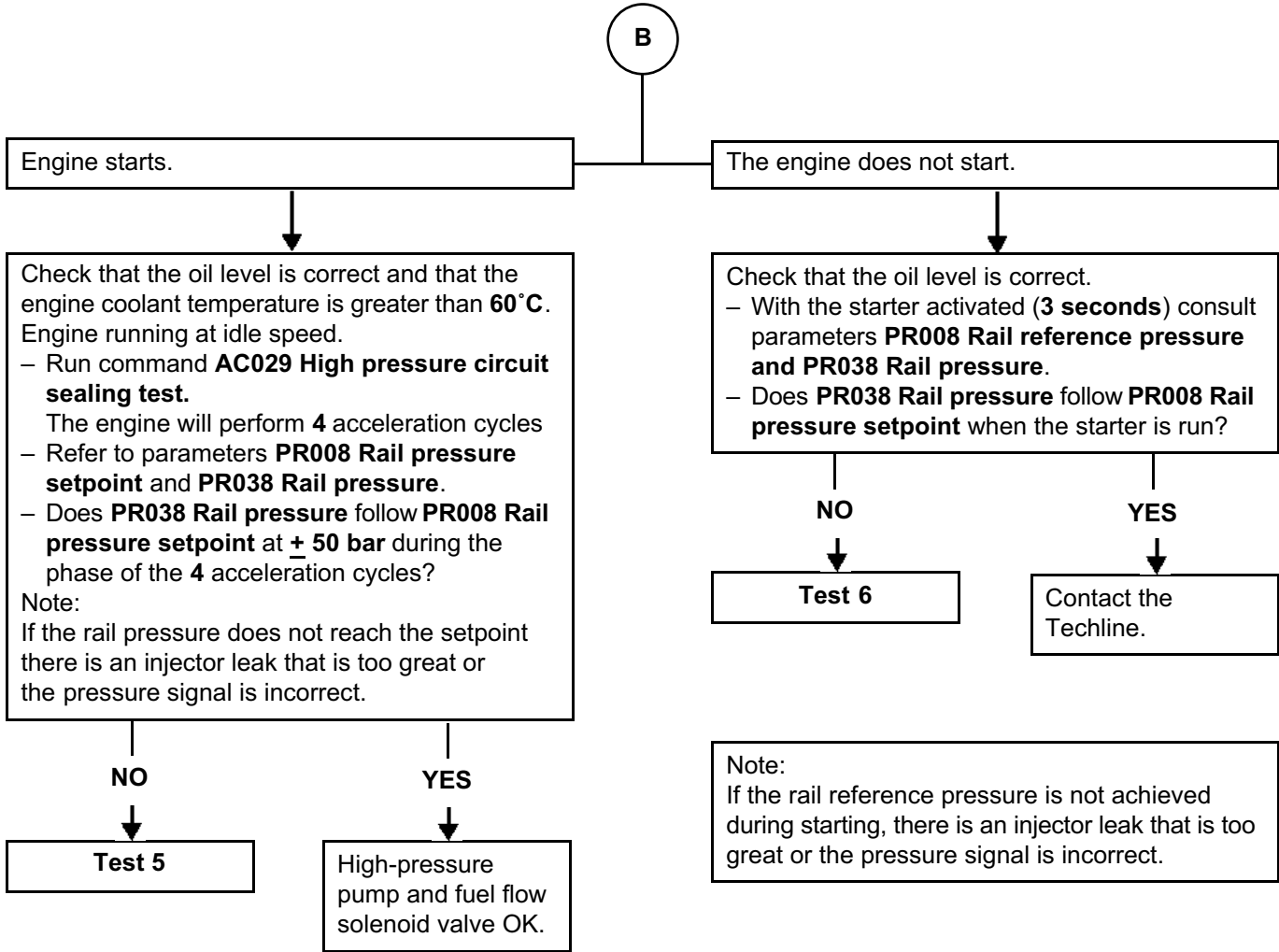
TEST 4  
CONTINUED 1



AFTER REPAIR

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

TEST 4  
CONTINUED 2



AFTER REPAIR

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



### TEST 5

### Rail high pressure control circuit check

#### NOTES

#### Conditions prior to test:

Engine temperature between **80°C** and **90°C**.  
All the electrical consumers are switched off.  
Air conditioning is switched off.  
The tank is at least half-full.  
The pipe connections and unions have been checked.  
Check the sealing of the high pressure pipes and unions.

#### Note:

Routine **SC017 Regenerate particle filter** cannot be performed while command **AC029 High pressure circuit sealing test** is active.

#### Causes:

Rail pressure variations around the reference value.  
The rail reference pressure is not reached.  
Rough idle.  
Possibly noisy combustion.

Use **CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note**.

Start the engine and let it idle.

Are there large air bubbles in the transparent supply pipe leading to the pump?

YES

Check the low pressure system.

NO

Remove the fuel flow solenoid valve connector (orange), does the engine stop?

NO

Replace the pump (the fuel flow solenoid valve remains open mechanically).

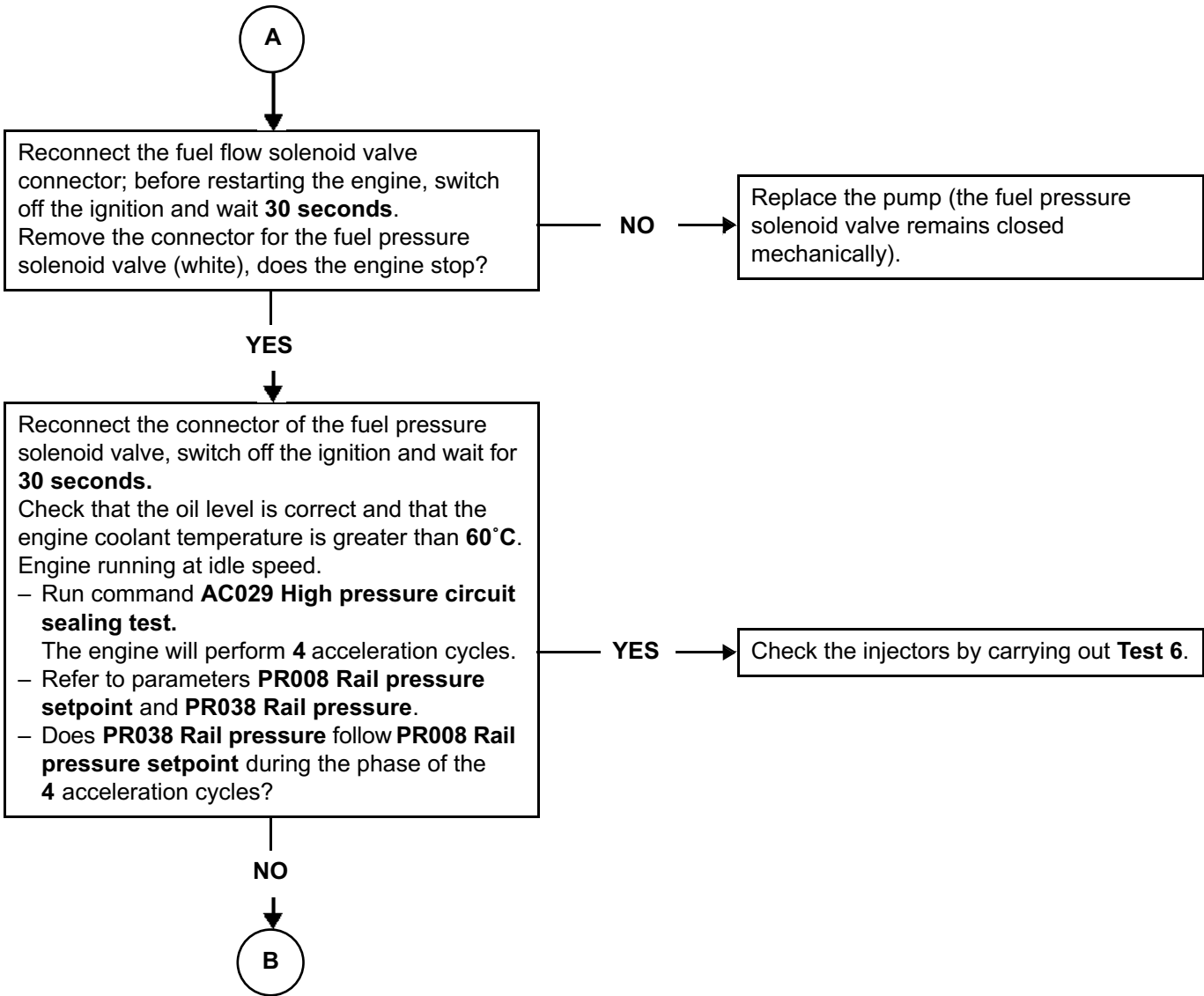
YES

A

#### AFTER REPAIR

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

<b>TEST 5 CONTINUED 1</b>	
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<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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TEST 5  
CONTINUED 2

B

Restore parameters **PR063 Fuel temperature** and **PR064 Coolant temperature**.  
Fuel temperature reference value when operating at idle speed is between **60 °C** and **80 °C**.  
The coolant temperature reference value is between **80 °C** and **90 °C**.

Note:

- when the fuel temperature is above **120 °C**, the maximum rail pressure is reduced to protect the plastic pipes,
- when the coolant temperature is above **100 °C**, the maximum rail pressure is reduced to protect the engine.

Are the fuel and coolant temperatures within  
the reference value range?

NO

Check the coolant temperature  
(see the interpretation of **DF001 Coolant  
temperature sensor circuit**) and fuel  
temperature sensors (see the  
interpretation of **DF098 Fuel temperature  
sensor circuit**).

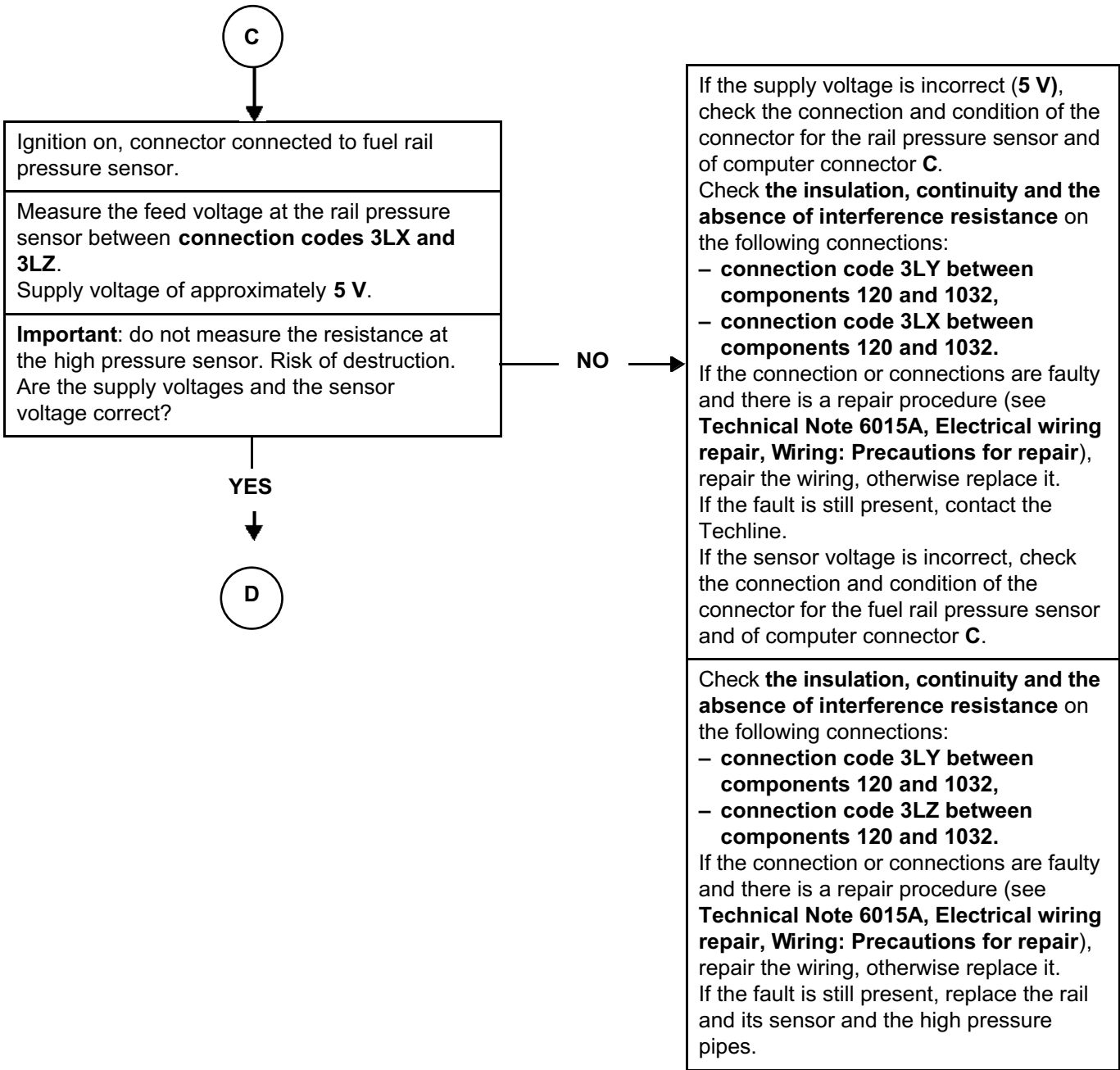
YES

C

AFTER REPAIR

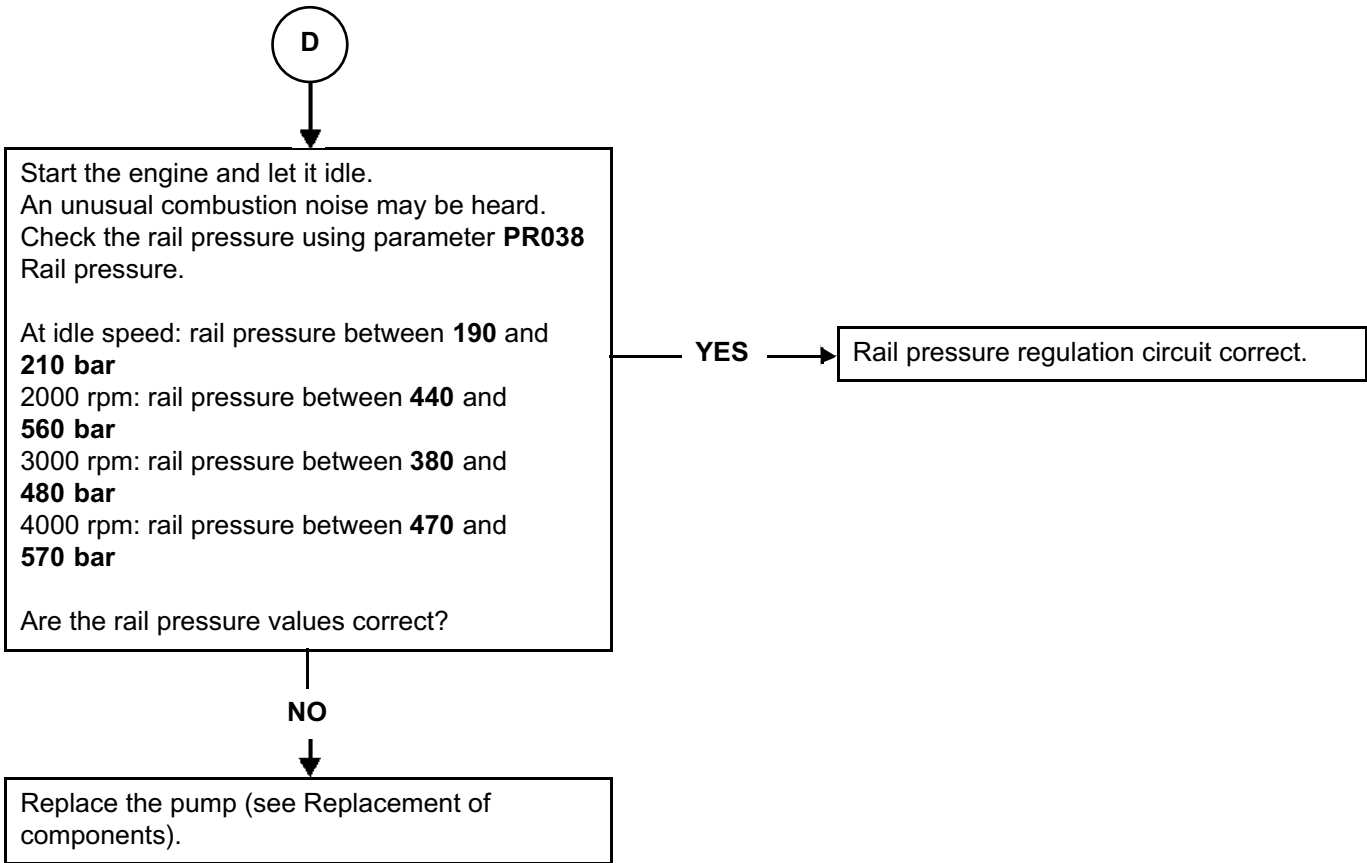
Carry out a road test followed by a complete check with the **diagnostic tool**.

TEST 5 CONTINUED 3	
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AFTER REPAIR	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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TEST 5  
CONTINUED 4



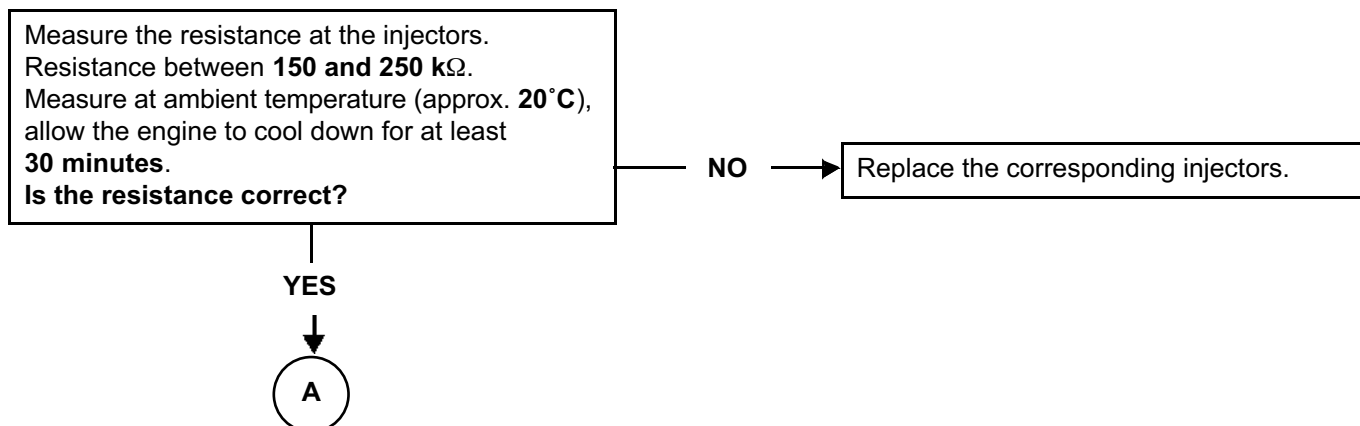
Note:  
Deviations from the reference values may occur in the rail pressure regulation circuit because of wear, clogging or faulty sensors or actuators.  
These deviations can only be compensated for by the pressure regulator within certain limits.  
One consequence of this is that the rail pressure may be regulated so that it is too low or too high or it fluctuates.

AFTER REPAIR

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

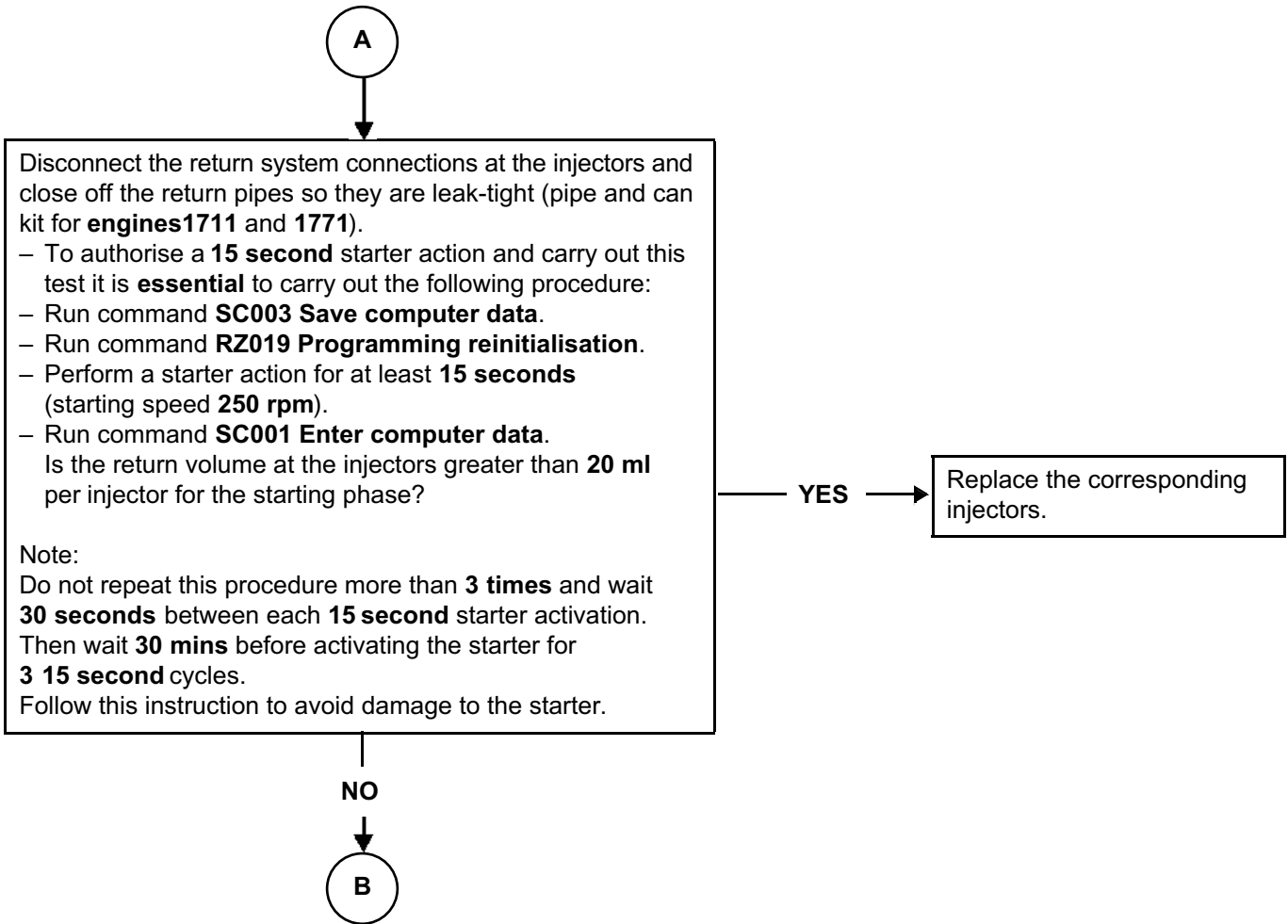
<b>TEST 6</b>	<b>Major leak in injectors/injectors open</b>
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<b>NOTES</b>	<b>Conditions prior to test:</b> The entire low pressure system must be in good condition. Check the sealing of the high pressure pipes and unions. <b>Test 3 High pressure fuel pressure solenoid valve check</b> is OK. <b>Test 4 High pressure pump (HPP) and fuel flow solenoid valve check</b> is OK. <b>Test 5 Rail high pressure regulation circuit check</b> is OK.
	<b>Causes:</b> Not enough or no rail pressure during starting. The engine does not start.
	<b>Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and Kangoo II Wiring diagrams Technical Note.</b>



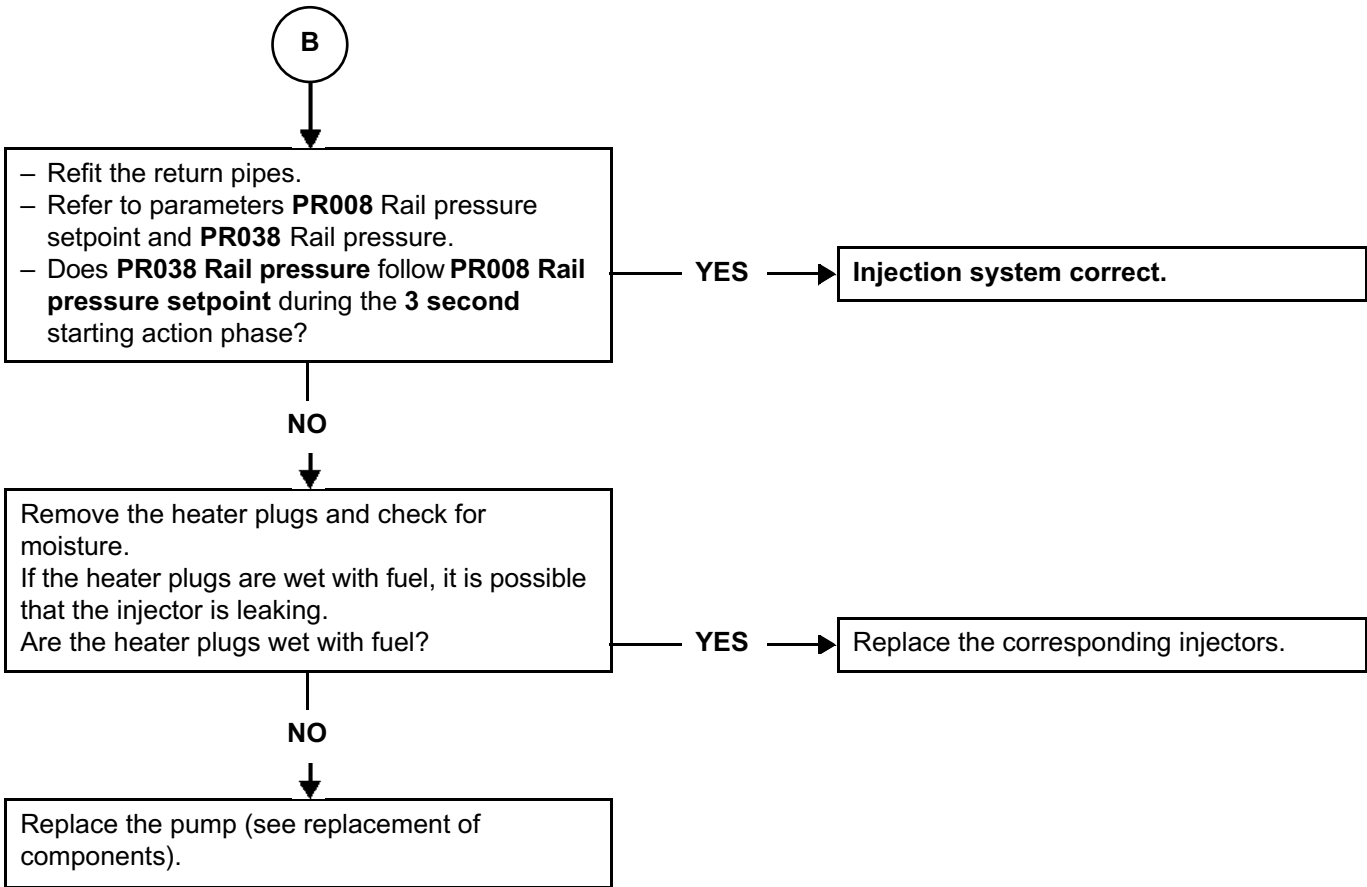
<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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<div>                     TEST 6                      CONTINUED 1                 </div>	
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<div>                     AFTER REPAIR                 </div>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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TEST 6  
CONTINUED 2



AFTER REPAIR

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



### TEST 7

### Incorrect injection quantity

#### NOTES

#### Conditions prior to test:

The entire low pressure system must be in good condition.

Check the sealing of the high pressure pipes and unions.

**Test 3 High pressure fuel pressure solenoid valve check** is OK.

**Test 4 High pressure pump (HPP) and fuel flow solenoid valve check** is OK.

**Test 5 Rail high pressure regulation circuit check** is OK.

All the electrical consumers are switched off.

Air conditioning is switched off.

#### Cause:

The engine runs poorly at idle speed, possibly emits white smoke.

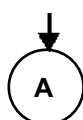
Use CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2 and KANGOO II Wiring diagrams Technical Note.

Ignition off.  
Measure the resistance at the injectors.  
The reference resistance is between **150 and 250 kΩ**.  
Measure at ambient temperature (approx. **20°C**),  
allow the engine to cool down for at least **30 minutes**.  
Are the resistances correct?

NO

Replace the corresponding injectors.

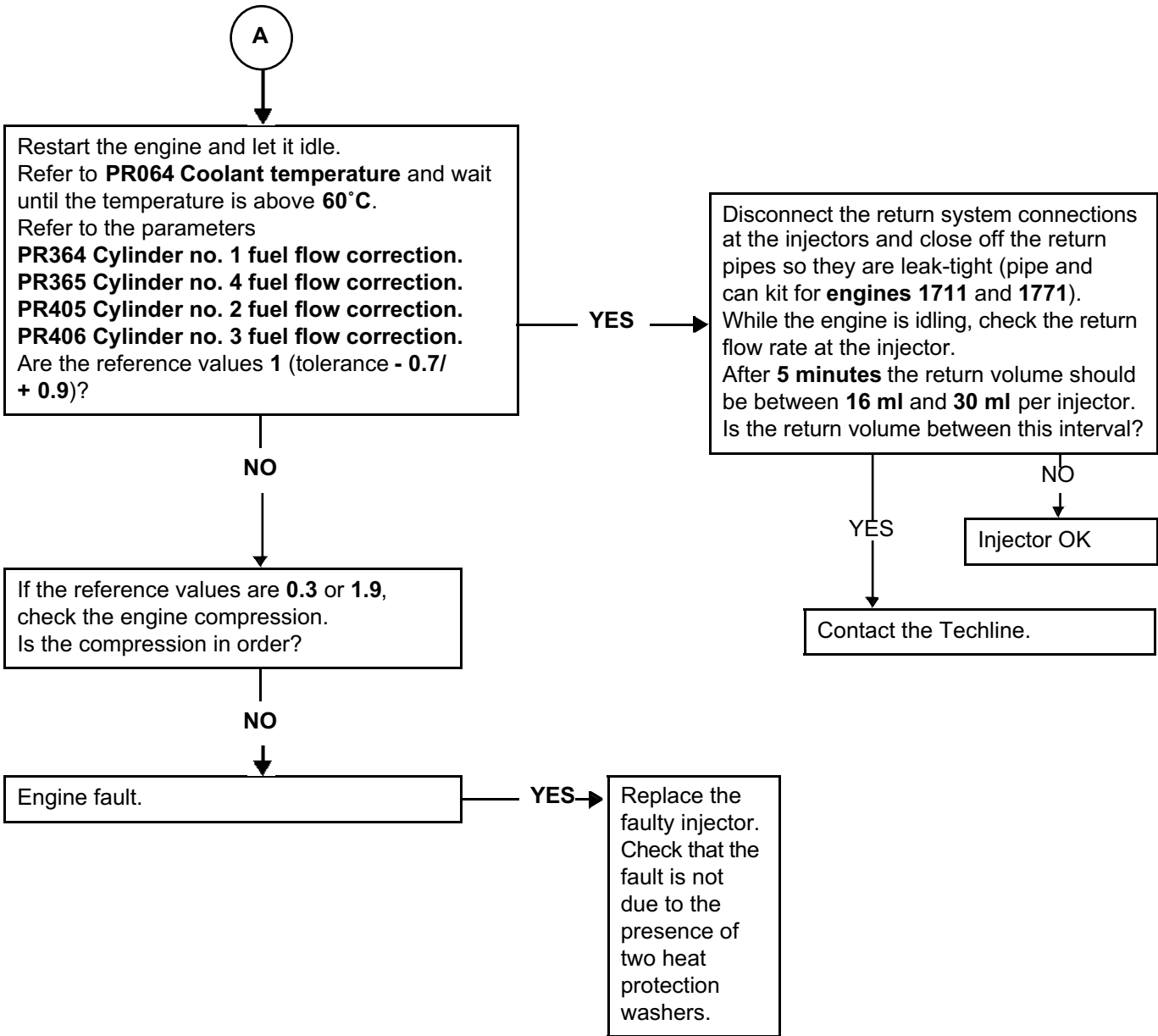
YES



#### AFTER REPAIR

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

TEST 7  
CONTINUED



AFTER REPAIR

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

### TEST 8

### Particle filter injector supply circuit check

#### NOTES

Deal first with faults **DF991 Particle filter injector control circuit** and **DF1004 Electric fuel pump relay control circuit**.

Use **CLIO III, MODUS, MEGANE II ph2, SCENIC II ph2** and **Kangoo II Wiring diagrams Technical Note**.

**Vdiag 45, 49 and 4D only.**

Check the condition of the fuel supply pipes between the particle filter injector and the electric fuel pump.  
Check that the pipes are not trapped, blocked or pierced and there that are no leaks.

**Are the components in good condition?**

NO

Replace any faulty components.

YES

Check the particle filter injector, **component code 1750**.  
Check the condition, power feed and connections of the particle filter injector.  
(Consult the interpretation of fault **DF991 Particle filter injector control circuit**).  
Check it works by running command **AC238 Particle filter injector**.  
**Does the particle filter injector operate correctly?**

NO

Replace the particle filter injector if necessary.

YES

A

#### AFTER REPAIR

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

**TEST 8**  
**CONTINUED 1**

A

**Particle filter injector fuel system pressurisation check (pressure test):**

To check the pressure in the particle filter injector fuel system:

- Connect the T-union **Mot 1311-08** to the particle filter injector fuel filter outlet (adapter visible without dismantling).
- Connect the pressure gauge **Mot 1311-01** to the T-union.

Pressurise the fuel system using the **diagnostic tool**, and run command **AC237 Fuel pump relay**.

If the pressure in the system is about 1 bar, perform the command a second time.  
The pressure must be at least 3 bar.

If the fuel pressure is less than 3 bar, proceed as follows:

- Carry out a visual inspection of the flexible supply hose to the particle filter injector, before and after the T-union (leaks, pinching, fuel filter condition, etc.).

Pressurise the fuel system again with **the diagnostic tool**, and run command **AC237 Fuel pump relay**.

If the pressure is not equal to or above 3 bar, replace the pump/sender unit (see **Technical Note 5117A, Special features of vehicles fitted with the K9K 772 engine**).

Checking the pressure regulator:

- Run command **AC237 Fuel pump relay**, until the fuel pressure reaches 5 bar.
- Reactivate command **AC237 Fuel pump relay** again to check that the pressure is controlled between 5.5 bar and 5 bar.

If the regulator is not working, replace the pump/sender unit (see **Technical Note 5117A, Special features of vehicles fitted with the K9K 772 engine**).

Note:

To reduce the pressure in the system, run command **AC238 Particle filter injector**, until it drops to 3 bar, then carefully disconnect the union.

**AFTER REPAIR**

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

### TEST 8 CONTINUED 2

With **+ after ignition feed** on, check for **+ 12 V** feed between connection codes **3AHB** and **M** at the electric pump connector of the particle filter injector, **component code 1767**.

If there is no **+ 12 V** feed to the sensor, check **the continuity, insulation and absence of interference resistance** on the following connections:

- connection code **3AHB** between components **1767** and **1768**,
- Connection code **M** between component **1767** and the vehicle earth.

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.

(Refer to the interpretation of faults **DF1004 Electric fuel pump relay control** and **DF1001 Particle filter upstream temperature regulation**).

- Reconnect or replace the pipe.  
Repeat the pressure test.

- Replace the fuel filter (see **MR 392, 385, 364, 370 and 417 Mechanics, 13A, Fuel supply, Fuel filter: Removal - Refitting**).  
Repeat the pressure test.

- Replace the particle filter injector electric pump.  
Repeat the pressure test.

- Check that the particle filter injector is fitted correctly.  
Check that the particle filter injector is correctly held in place. Repair or replace the particle filter injector mounting.

- "Only on Kangoo 2:  
Check the integrity and correct fitting of the evaporator plate located under the particle filter injector, at the level of the bracket.  
If the blade of the evaporator plate has become detached, it may be located downstream from the line between its original position and the oxidation catalytic converter inlet.

### AFTER REPAIR

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

**TEST 9**

**Particle filter history**

**NOTES**

Only address this customer complaint after a **complete check** with the **diagnostic tool**.

Note:  
The flow chart below enables the driving profile and the reasons why the warning light illuminates to be analysed:

**Vdiag 49 and 4D only.**

Using the **diagnostic tool**, read parameters **PR836 to PR845 Saved particle filter warning light no. 1 to no. 10** of the subfunction **Differential. filter history**.

Among these parameters **PR836 to PR845**:

- Select the record with the highest mileage. This is the "**Last saved particle filter warning light**".
- Write the parameter code on the Repair Order with the corresponding last mileage value.  
Example: **PR836 = 2794 miles** (4657 km)

Use the **diagnostic tool** to read parameters **PR794 to PR803 Failed regeneration records No 1 to No 10** in the sub-function: **Particle filter history**.

Select from parameters **PR794 to PR803 Failed regeneration records No 1 to No 10**, any parameters that occurred between the **Last particle filter warning light record** and the **Last particle filter warning light record** less 120 miles (200 km).

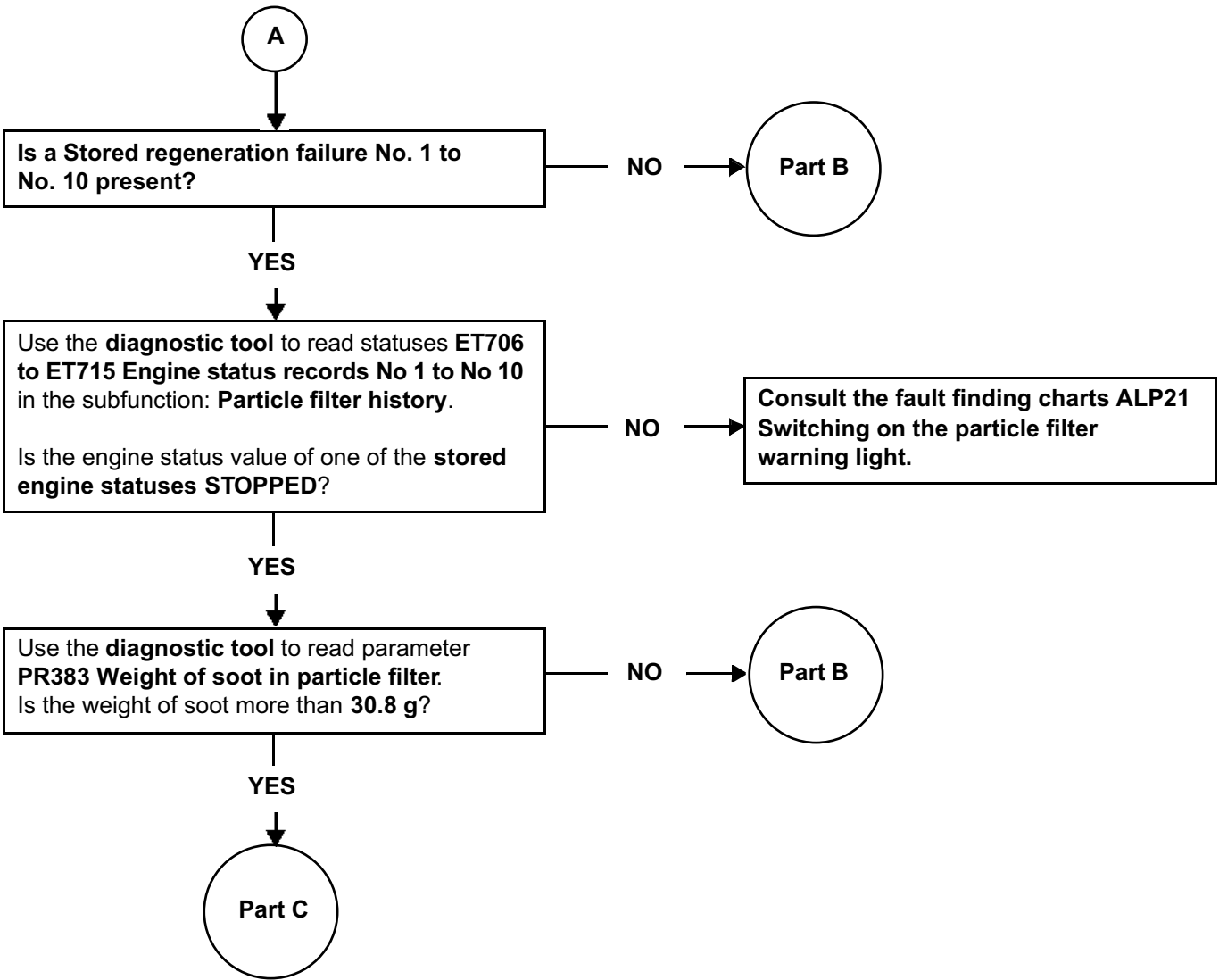
Example: **2674 miles (4457 km) < PR801 = 2760 miles (4600 km) < 2794 miles (4657 km)**

**A**

**AFTER REPAIR**

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

TEST 9 CONTINUED 1	
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AFTER REPAIR	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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**TEST 9  
CONTINUED 2**

**PART B**

**1 - NO particle filter regeneration.**

**2 -** Write on the repair order: the parameter and status relating to the last failure:

- **Mileage of last Particle filter warning light record**
- **Mileage of last Failed regeneration records**
- **Engine statuses for last Engine status records**

Example: **PR837 = 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 **warning light or Particle Filter message** came on (appeared at the mileage of the last **Stored particle filter warning light**) the customer did not follow the driving instructions: the failure which occurred at the **Mileage of the last failure** was due to the engine being switched off.

**4 -** Service advisor explains to the customer the procedure to turn off the warning light, backed up by the parameters written in the repair order: see **PART D**.

**PART C**

**1 -** Carry out a regeneration in the Renault dealership with the **approval of the Techline**.

Follow the procedure for command **SC017 Particle filter regeneration**.

**Note: Do not carry out an engine oil change following an After-Sales regeneration.**

**2 -** Explain the procedure for regeneration while driving to the customer to reduce returns to the garage:  
see **SECTION D**:

**AFTER REPAIR**

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



**TEST 9**  
**CONTINUED 3**

**SECTION D** - Procedure for switching off the particle filter message or warning light on the instrument panel

Certain types of driving can trigger the activation of the particle filter warning light or message. This fault occurs when the weight of soot is more than 30.8 g.

The customer must carry out a specific driving operation (cf. vehicle user manual) that consists of:

1. Making sure the engine is warm
2. Drive at a speed greater than **24 mph** (40 km/h) for **2 minutes** to initiate the regeneration process.

Initiating regeneration	Minimum speed	Minimum time
All vehicle types	24 mph (40 km/h)	2 minutes

3. Then drive at a speed of more than **24 mph** (40 km/h) until the Particle Filter message or warning light on the instrument panel goes out. In order for the procedure to succeed, it is necessary to drive without stopping (without stopping the engine) or to leave the engine running at idle speed for an extended period of time. The regeneration time depends on the vehicle and driving conditions but normally lasts about **20 minutes**.

Regeneration duration	Minimum speed	Average time
All vehicle types	24 mph (40 km/h)	20 minutes

4. If regeneration when driving fails (the warning light has not switched off or the service warning light has come on), carry out a particle filter regeneration in the Renault dealership. To carry out After-Sales regeneration: check the oil level and remove some oil if the maximum level has been reached, then apply the procedure for command **SC017 Particle filter regeneration** (see **Interpretation of commands**).

**AFTER REPAIR**

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

### TEST 10

### Turbocharger air chain

#### Check for the presence of the air filter

Check the replacement frequency for the air filter in the Maintenance Booklet.

Compare the part numbers of the air filter fitted to the vehicle and that of the air filter recommended by the manufacturer.

Check the air filter direction of fitting.

**Is the air filter fitted to the vehicle correct?**

YES

NO

#### Check the condition of the air filter

Visually inspect the condition of the filter section of the air filter.

**Is either the air filter or its seal damaged?  
Is the air filter clogged (does it contain a lot of impurities)?**

YES

Replace the air filter (see **MR 364**  
(Mégane II), 370 (Scénic II), 417  
(Kangoo II), 385 (Modus), 392 (Clio III),  
12A Fuel mixture, Air filter, removal -  
refitting).

NO

#### Low pressure circuit check

Note:

According to the vehicle type, maximum visual access will either be from above or from below.

Visually inspect the condition of the following components:

- fresh air inlet scoop on the front end panel of the vehicle,
- air filter air inlet pipe,
- filter air pipe up to the compressor inlet,
- air flowmeter mountings.

**Is one of these components incorrect (disconnected, cut, bent, pierced or kinked pipes)?**

YES

Replace any faulty parts ( **MR 364**  
(Mégane II), 370 (Scénic II), 417  
(Kangoo II), 385 (Modus), 392 (Clio III),  
12B Turbocharging).

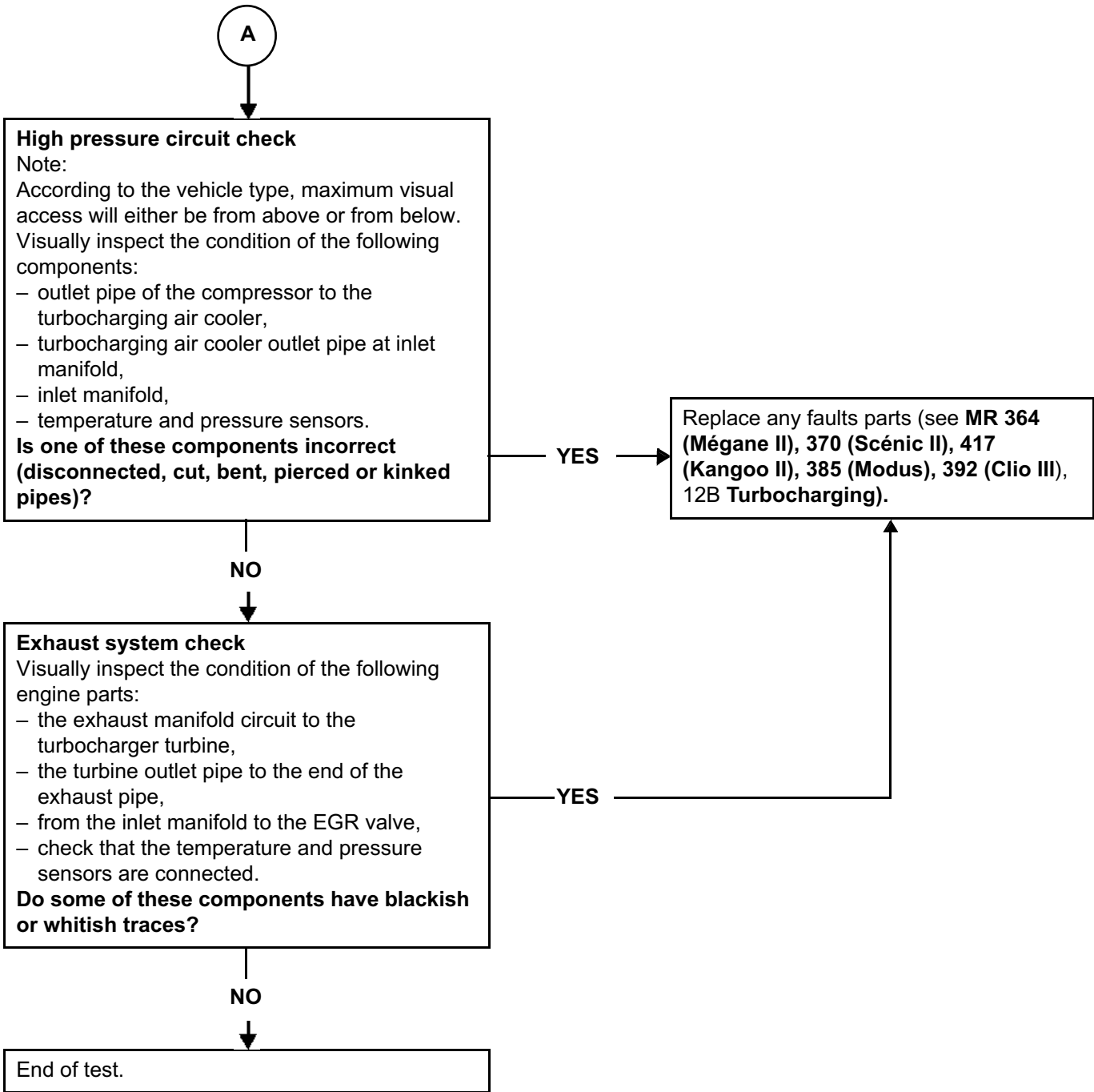
NO

A

### AFTER REPAIR

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

<b>TEST 10 CONTINUED</b>	
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<b>AFTER REPAIR</b>	Carry out a road test followed by a complete check with the <b>diagnostic tool</b> .
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**TEST 11**

**Turbocharger control solenoid valve**

**Checking the vacuum at the pressure regulator inlet**

Run the engine at idle speed.

Check the engine temperature using the CLIP parameter **PR064 Coolant temperature**.

Let the engine warm up until the temperature reaches **80°C**.

Disconnect the vacuum pipe from the end piece of the pressure regulator.

Connect a vacuum pressure gauge **to the end of the disconnected pipe** and put it in the **vacuum measurement** position.

Perform a quick acceleration by depressing the accelerator pedal completely and then releasing it immediately.

The total duration of pressing and holding in the full load position must not exceed **1 second**.

During this acceleration, the engine speed must reach a value between **3000 and 4000 rpm**.

Repeat the operation 3 times.

Read the maximum vacuum posted by the pressure gauge during the increase and decrease in the speed and after the return to idle speed.

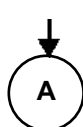
Tolerance intervals for the vacuum are:

**-1 bar < CORRECT vacuum value < - 0.6 bar**

**-0.6 bar < INCORRECT vacuum value < 0 bar**

**Is the vacuum at the turbocharging pressure regulator inlet displayed on the vacuum gauge within the tolerance interval?**

**NO**



**YES**



The solenoid valve is in order.

**AFTER REPAIR**

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

**TEST 11**  
**CONTINUED 1**

A

Reconnect the vacuum pipe on the turbocharging pressure regulator

**Checking the vacuum at the solenoid valve outlet**

Leave the engine running at idle speed.

Disconnect the vacuum pipe from the end piece of the solenoid valve outlet.  
This pipe connects the solenoid valve to the turbocharging pressure regulator.

Connect a vacuum pressure gauge **to the solenoid valve outlet** and put it in the **vacuum measurement** position.

Perform a quick acceleration by depressing the accelerator pedal completely and then releasing it immediately.  
The total duration of pressing and holding in the full load position must not exceed **1 second**.  
During this acceleration, the engine speed must reach a value between **3000 and 4000 rpm**.

Repeat the operation 3 times.

Read the maximum vacuum posted by the pressure gauge during the increase and decrease in the speed and after the return to idle speed.

Tolerance intervals for the vacuum are:

**-1 bar < CORRECT vacuum value < -0.6 bar**

**-0.6 bar < INCORRECT vacuum value < 0 bar**

**Is the vacuum displayed by the pressure gauge at the solenoid valve outlet within the tolerance interval?**

**NO**

Reconnect the vacuum pipe on the turbocharging pressure regulator

B

**YES**

Replace the vacuum pipe between the solenoid valve and the turbocharging pressure regulator (see **MR 364 (Mégane II)**, **370 (Scénic II)** **392 (Clio III)**, **385 (Modus)**, **411 (New Twingo)** or **417 (Kangoo II)**, **12B Turbocharging**).

**AFTER REPAIR**

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

### TEST 11 CONTINUED 2

B

#### Visual inspection of the electrical connector of the solenoid valve

Switch off the engine.

Note:

The requested checks are only visual.

- 1- Check that the connector is correctly connected and locked.
  - 2- Check that the electric wires are not damaged where they leave the insulation.
- Disconnect the connector to continue the checks.
- 3- Check that there is no heat damage to the unit and mechanical damage to the lock.
  - 4- Check that the contacts (clips and tabs) are not deformed.
  - 5- Check the sealing of the connector.

**Do the visual inspections show any damage?**

NO

YES

Refer to **Technical Note 6015A, Repairing electrical wiring.**

End of test.

#### Checking the vacuum at the solenoid valve inlet

Run the engine at idle speed.

Disconnect the vacuum pipe from the end piece of the solenoid valve inlet.

This pipe connects the vacuum pump to the turbocharger solenoid valve.

Connect a vacuum pressure gauge **to the end of the disconnected pipe** and put it in the **vacuum measurement** position.

Read the vacuum posted by the pressure gauge.

Tolerance intervals for the vacuum are:

**-1 bar < CORRECT vacuum value < -0.85 bar**

**-0.85 bar < INCORRECT vacuum value < 0 bar**

**Is the vacuum displayed by the pressure gauge at the solenoid valve inlet within the tolerance interval?**

NO

YES

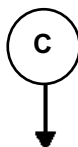
C

Replace the solenoid valve (see **MR 364 (Mégane II)**, **370 (Scénic II)**, **392 (Clio III)**, **385 (Modus)**, **411 (New Twingo)**, or **417 (Kangoo II)**, **12B, Turbocharging**).

#### AFTER REPAIR

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

**TEST 11**  
**CONTINUED 3**



Carry out the following operations.

- reconnect the vacuum pipe to the turbocharger solenoid valve.
- Check the conformity of the vacuum pipe connections.
- visually check the condition of the vacuum pipes leaving the vacuum pump to the different supplied components.

Refer to the repair manual (see **MR 364 (Mégane II)**, **370 (Scénic II)**, **392 (Clio III)**, **385 (Modus)**, **411 (New Twingo)**, or **417 (Kangoo II)**, **12B, Turbocharging**).

**AFTER REPAIR**

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

**TEST 12**

**Turbocharger**

**NOTES**

**IMPORTANT**

Perform these checks without removing the turbocharger and with the vehicle ignition switched off.

**Checking the turbocharger shaft**

**WARNING**

Observe the following safety precautions:

- wear high temperature protective gloves when the engine is hot,
- do not wear oversize or baggy clothing or hanging jewellery,
- watch out for possible triggering of the motor-driven cooling fan unit and the operation of the accessories belt or belts.

Note:

The turbocharger shaft is the shaft that connects the compressor wheel and the turbine wheel.

Depending on the vehicle type, the best visual access will be either from above or from below.

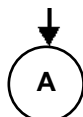
Disconnect the air pipe located between the turbocharger and the air filter.

Wearing gloves, check the operation of the turbocharger shaft by turning the vanes manually without forcing.

**Does the shaft have a kickdown point in rotation?**

**Does the compressor wheel touch the casing of the turbocharger?**

If the response for these 2 questions is **NO**



If **YES** for one of these 2 questions

Replace the turbocharger (see **MR 364** (Mégane II), **370** (Scénic II), **392** (Clio III), **385** (Modus), **411** (New Twingo) or **417** (Kangoo II), **Mechanical, 12B, Turbocharging, Turbocharger: Removal - Refitting** and **Technical Note 3938A, Broken turbocharger: Replacement instructions**).

**AFTER REPAIR**

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



**TEST 12**  
**CONTINUED 1**

A

**Checking the condition of the turbocharger vanes.**

Note:

This check is facilitated by using a mirror and a bulb.

Depending on the vehicle type, the best visual access will be either from above or from below.

Visually check that the compressor vanes are in good condition.

**Are the vanes damaged or twisted?**

NO

B

YES

Replace the turbocharger (see **MR 364**  
**(Mégane II), 370 (Scénic II) 392 (Clio III), 385**  
**(Modus), 411 (New Twingo) or 417 (Kangoo II),**  
**Mechanical, 12B turbocharging,**  
**Turbocharger: Removal - Refitting**  
**and Technical Note 3938A, Broken**  
**turbocharger: Replacement instructions).**

**AFTER REPAIR**

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

**TEST 12**  
**CONTINUED 2**

B

**Checking the turbocharging pressure regulator to determine if it is a variable geometry turbocharger**

**Note:**

The pressure regulator rod of a variable geometry turbocharger is orthogonal to the turbocharger shaft.  
Variable geometry turbochargers are controlled by a solenoid valve.  
Depending on the vehicle type, the best visual access will be either from above or from below.

**Note:**

If necessary, according to the vehicle type and the accessibility of the pressure regulator, connect the vacuum pump to the end of the pressure regulator pipe at the solenoid valve outlet.

Using a **manual vacuum pump**, apply a vacuum to the turbocharging pressure regulator of approximately **650 mbar**.

- 1- Check that the fitting is completely sealed.
- 2- Check that the control rod **is resting against its stop**.
- 3- Lock the **vacuum** device and check that the pressure variation is not greater than **100 mbar over 10 seconds**.
- 4- Release the pressure and check that the control rod returns to its initial position without jerking.

Repeat the complete sequence 3 times.

**Is the pressure regulator leaktight and is the rod movement correct?**

**YES**

The turbocharger is correct.  
**End of procedure.**

**NO**

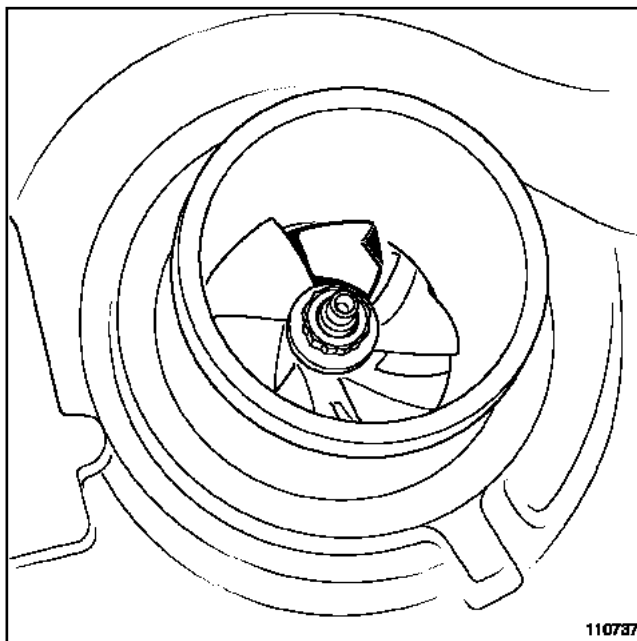
Replace the turbocharger (see **MR 364 (Mégane II)**, **370 (Scénic II)** **392 (Clio III)**, **385 (Modus)**, **411 (New Twingo)** or **417 (Kangoo II)**, **Mechanical, 12B turbocharging, Turbocharger: Removal - Refitting** and **Technical Note 3938A, Broken turbocharger: Replacement instructions**).

**AFTER REPAIR**

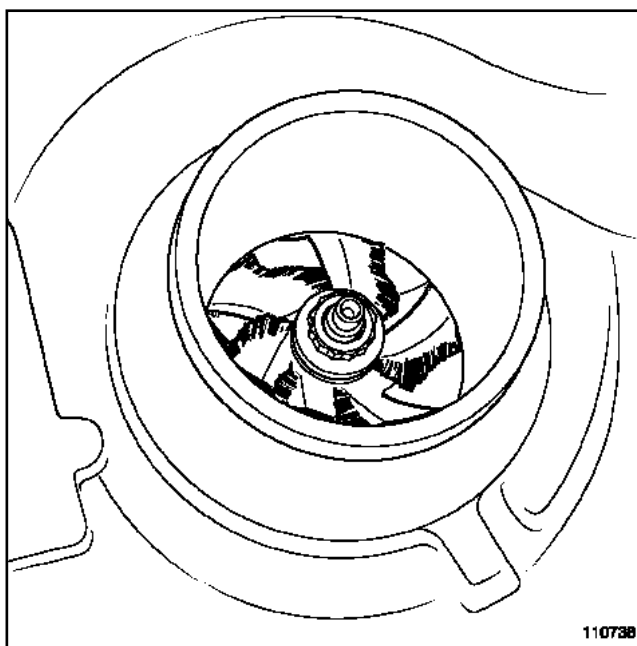
Carry out a road test followed by a complete check with the **diagnostic tool**.

### TEST 12 CONTINUED 3

Deformed, twisted blade ("soft" foreign body)



Broken blades ("hard" foreign body)



End of test 12.

### AFTER REPAIR

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

### TEST 13

### Diesel fuel conformity check

#### WARNING

During this operation, it is essential to:

- refrain from smoking or bringing incandescent objects close to the work area,
- protect yourself against fuel splashes due to 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 an electronic scale similar to those used in body paint workshops (for 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 l of fuel at the **diesel filter outlet** (see **MR 392 (Clio III)**, **364 (Mégane II ph2)**, and **417 (Kangoo II)**, **Mechanical, 19C, Tank, Fuel tank: Draining or MR 385 (Modus)** and **370 (Scénic II ph2)**, **Mechanical, 19C, Tank, Draining the fuel tank**), 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 the fuel settle for approximately **2 minutes**.

Is the fuel cloudy or does it separate into two parts?

YES →

The diesel fuel contains water and is not compliant.  
Drain the fuel circuit, including the tank (see **MR 392 (Clio III)**, **364 (Mégane II ph2)**, and **417 (Kangoo II)**, **Mechanical, 19C, Tank, Fuel tank: Draining or MR 385 (Modus)** and **370 (Scénic II ph2)**, **Mechanical, 19C, Tank, Draining the fuel tank**).

NO

A

#### AFTER REPAIR

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

TEST 13  
CONTINUED 1



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 maximum value then there is oil in the diesel fuel.

Drain the fuel circuit, including the tank (see **MR 392 (Clio III), 364 (Mégane II ph2), and 417 (Kangoo II), Mechanical, 19C, Tank, Fuel tank: Draining** or **MR 385 (Modus) and 370 (Scénic II ph2), Mechanical, 19C, Tank, Draining the fuel tank**).

AFTER REPAIR

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

### TEST 13 CONTINUED 2

**Note:**

If the weight measured reaches the upper and lower limits, the measurement can be performed with a **2230 ml (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.**

### **AFTER REPAIR**

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