

MEGANE

2 Transmission

23A AUTOMATIC TRANSMISSION

SIEMENS TA2005

Vdiag No.: 14-18

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V5

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): **MEGANE II and SCENIC II**
Function concerned: **Automatic transmission**

Name of computer: **Siemens TA 2005**
Vdiag No.: **14-18**

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 (CD-ROM), paper.

Type of diagnostic tools

- **CLIP**

Special tooling required

| Special tooling required | |
|--------------------------|-------------------|
| Multimeter | |
| Elé. 1681 | Universal bornier |

3. RECAP

Procedure

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

Proceed as follows:

- Connect the diagnostic tool and perform the required operations.

WARNING

Computer supply for the fault finding procedure:

To run fault finding on the vehicle computers, proceed as follows:

- Place the vehicle's card in the card reader (keyless vehicle scenario 1 (entry level, not hands-free) and scenario 2 (top of the range, hands-free),
- Press and hold the Start button (more than 5 seconds) outside start-up conditions,
- Then connect the diagnostic tool and perform the required operations.

Faults

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

The **present** or **stored** status of faults should be taken into consideration when the diagnostic tool is switched on after the + after ignition feed (without any system components being active).

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

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

If the fault is **confirmed** when the instructions in the Notes section 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 for these lines (for oxidation, 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 because 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.

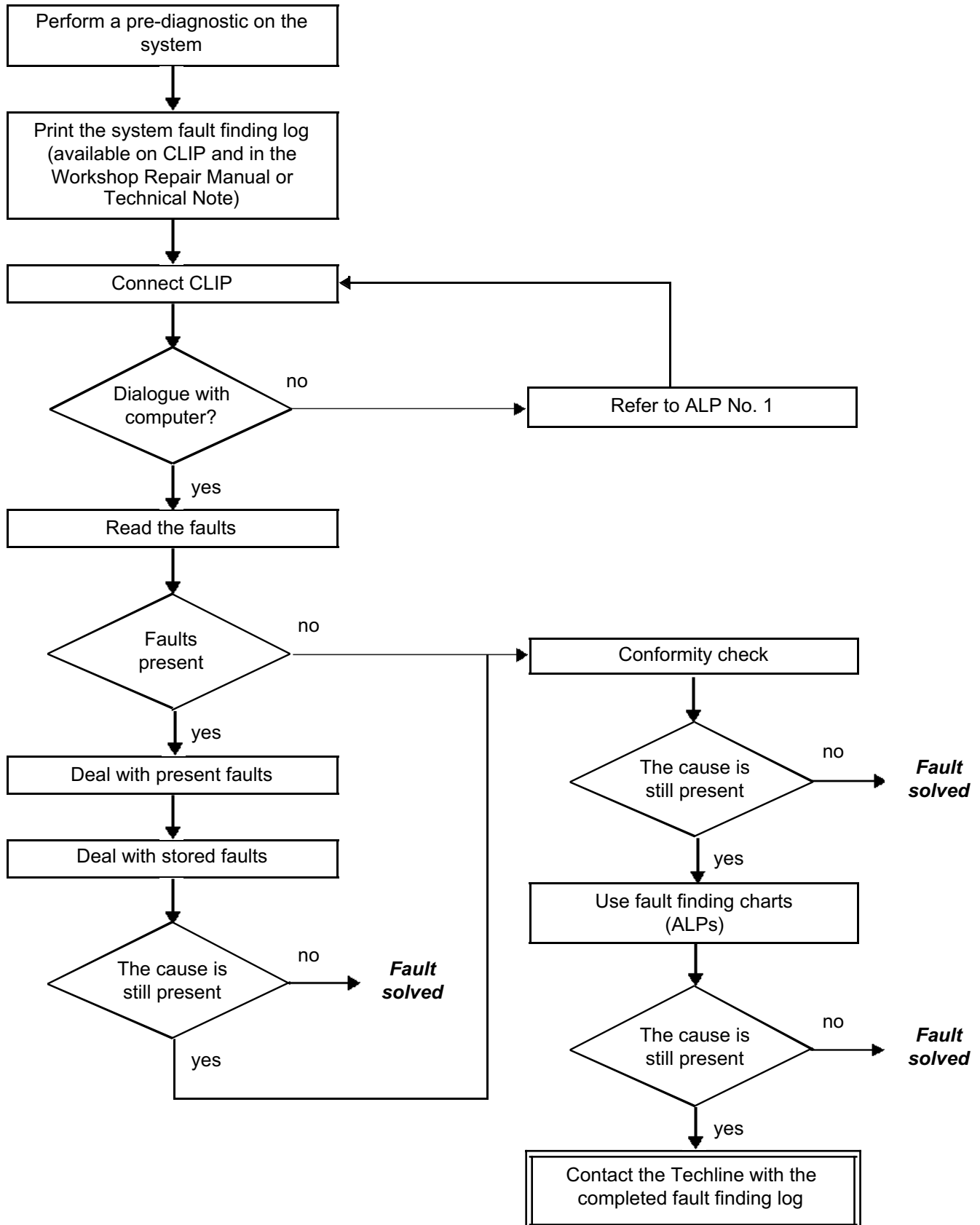
This section gives the fault finding procedures for statuses and parameters and the conditions for checking them.

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 complaint**.

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 harness may temporarily remove the cause of a fault. Electrical measurements of the voltage, resistance and insulation are generally correct, especially if the fault is not present when analysing (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.

Tactile inspection

While manipulating the wiring harness, use the diagnostic tool to note any change in fault status from stored or present.
Check that the connectors are correctly 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).
Check that the clips and tabs are correctly locked in the sockets.
Make sure that no clips or tabs have been dislodged during connection.
Check the clip contact pressure using an appropriate model of tab.

Check the continuity/insulation

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 procedure, enables you to keep track of the procedure which is carried out. It is an essential document when consulting the manufacturer.

IT IS THEREFORE MANDATORY TO FILL OUT A FAULT FINDING LOG EACH TIME FAULT FINDING IS CARRIED OUT.

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 ADVICE

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

- check the battery voltage to avoid incorrect operation of computer functions,
- use the appropriate tools,
- immobilise the vehicle for all tests in the workshop on the automatic transmission with the engine running.

GENERAL OPERATION

The automatic transmission on this model is a DP0, which is also found on other Renault vehicles including the Clio II, Kangoo or Mégane.

The automatic transmission computer controls gear-shifting based on several parameters, among them engine torque and the type of driving adopted by the driver.

All signals travel to the computer by wire, except for those from the injection computer, which use the multiplex network.

Fault finding on the computer is carried out via the multiplex network (multiplex line).

SYSTEM OPERATION**Multifunction switch (CMF) statuses:**

Note:

On this vehicle, contact S1 of the multifunction switch depends on **status ET128 Upper sequential lever switch**.

| Lever position | Multifunction switch contact | | | |
|----------------|------------------------------|---------------|---------------|---------------|
| | P/N | S2 | S3 | S4 |
| P | CLOSED | OPEN | CLOSED | CLOSED |
| R | CLOSED | OPEN | OPEN | OPEN |
| N | CLOSED | CLOSED | OPEN | CLOSED |
| D | CLOSED | CLOSED | CLOSED | OPEN |
| M | CLOSED | CLOSED | CLOSED | OPEN |
| + | CLOSED | CLOSED | CLOSED | OPEN |
| - | CLOSED | CLOSED | CLOSED | OPEN |

AUTOMATIC TRANSMISSION

Fault finding - System operation

Sequential lever switch statuses:

Note:
The vehicle does not have a 3rd gear hold (D3).

| Lever position | Upper sequential lever switch | Lower sequential lever switch |
|----------------|-------------------------------|-------------------------------|
| P | ACTIVE | ACTIVE |
| R | ACTIVE | ACTIVE |
| N | ACTIVE | ACTIVE |
| D | ACTIVE | ACTIVE |
| M | INACTIVE | INACTIVE |
| + | INACTIVE | ACTIVE |
| - | ACTIVE | INACTIVE |

AUTOMATIC TRANSMISSION

Fault finding - System operation

23A

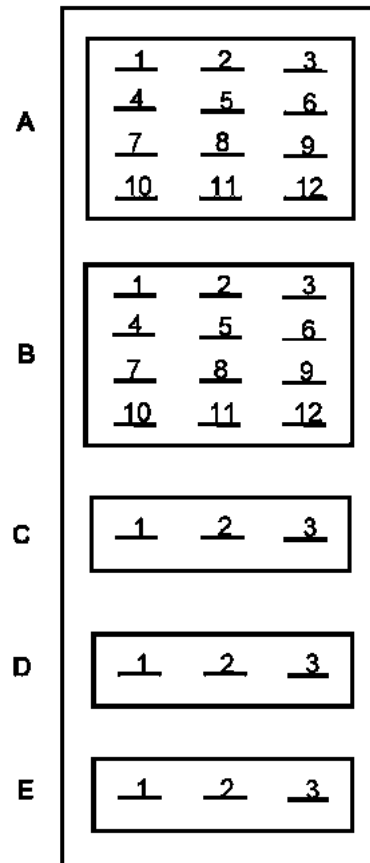
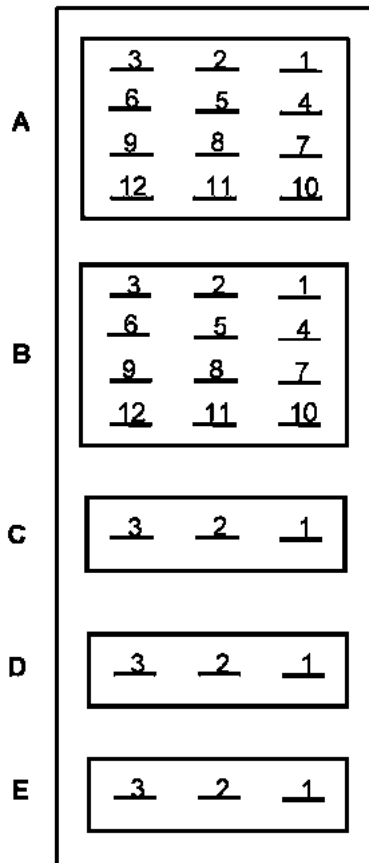
Sequence solenoid valve (EVS) statuses:

| Lever position | Gear engaged | Solenoid valve statuses | | | | | |
|---|----------------|-------------------------|---------------|---------------|---------------|----------|----------|
| | | 1 | 2 | 3 | 4 | 5 | 6 |
| P | Neutral | INACTIVE | INACTIVE | ACTIVE | INACTIVE | INACTIVE | INACTIVE |
| R | R | INACTIVE | INACTIVE | INACTIVE | INACTIVE | INACTIVE | INACTIVE |
| N | Neutral | INACTIVE | INACTIVE | ACTIVE | INACTIVE | INACTIVE | INACTIVE |
| P or N < 10 °C | Neutral | INACTIVE | ACTIVE | INACTIVE | INACTIVE | INACTIVE | INACTIVE |
| D or M stationary or driving | 1 | INACTIVE | INACTIVE | ACTIVE | ACTIVE | INACTIVE | INACTIVE |
| D or M stationary or driving | 2 | INACTIVE | ACTIVE | INACTIVE | ACTIVE | INACTIVE | INACTIVE |
| D or M While driving | 3 | INACTIVE | INACTIVE | INACTIVE | INACTIVE | INACTIVE | INACTIVE |
| D or M While driving | 4 | ACTIVE | ACTIVE | INACTIVE | INACTIVE | INACTIVE | INACTIVE |

MODULAR CONNECTOR

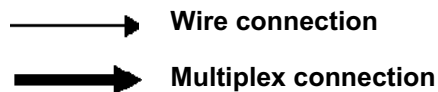
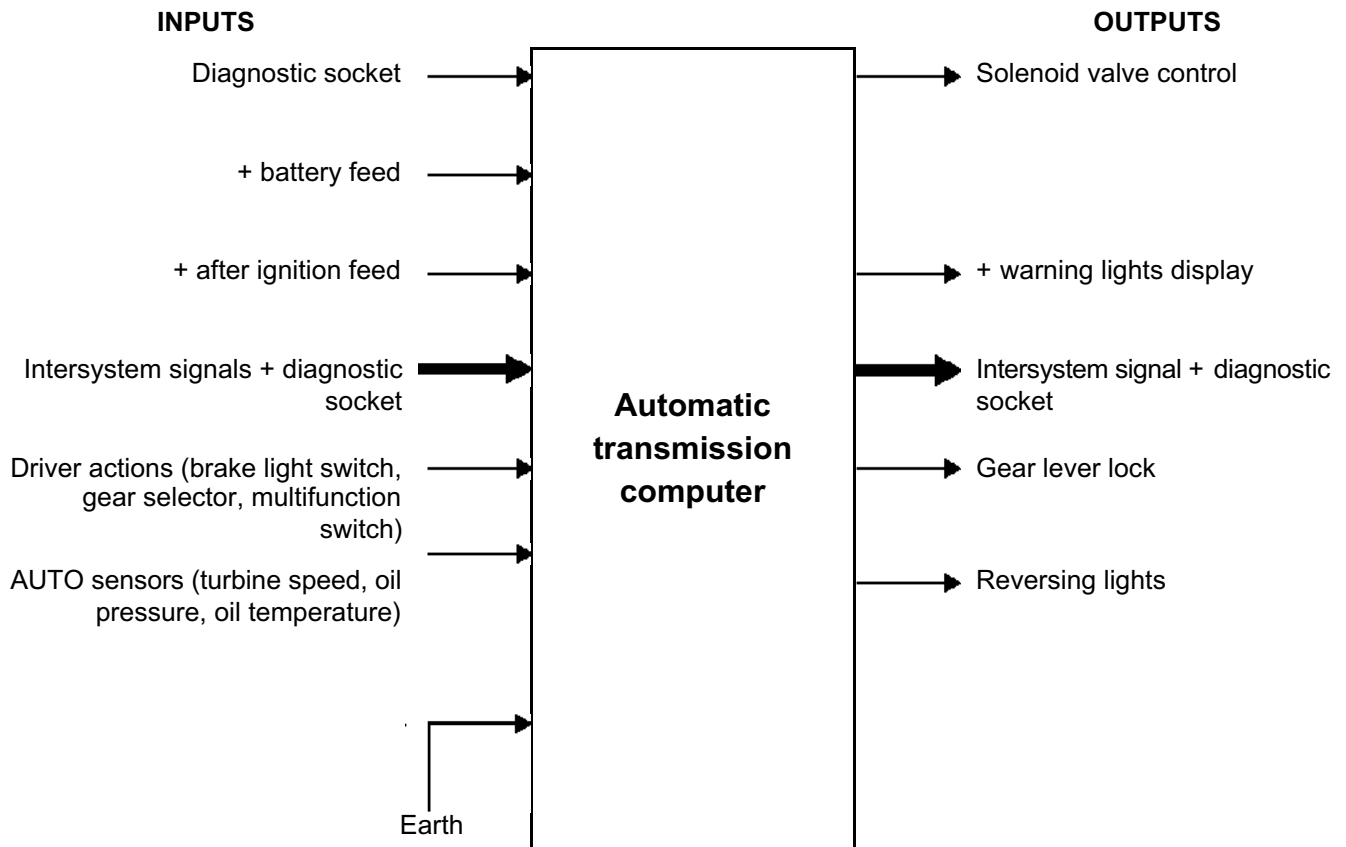
Female connection
(connector leading to switch, interface) sensors,
exchanger flow lock-up solenoid valve)

Male connection
(connector coming from computer)



- A Multifunction switch
- B Hydraulic electronic interface
- C Oil pressure sensor
- D Turbine speed sensor
- E Exchanger flow lock-up solenoid valve

COMPUTER INPUTS AND OUTPUTS



REPLACING THE COMPUTER

IT IS ESSENTIAL TO CONTACT YOUR TECHLINE BEFORE REPLACING AN AUTOMATIC TRANSMISSION COMPUTER.

If Techline approves the computer replacement, proceed as follows:

- Note the gearbox oil condition meter code in the Identification menu: **ID018 Oil condition meter** and the date of the last gearbox oil service **ID017 Gearbox oil service date**.
- Switch off the ignition.
- Replace the computer.
- If necessary, change the computer configuration in the Enter configuration menu.
- Enter the VIN into the computer with diagnostic tool command **VP001 Enter VIN**.
- Enter the oil condition meter code from the old automatic transmission computer (found in the Identification menu) using command **VP015 Transfer oil condition meter**.
- Enter the gearbox oil service date with command **VP016 Enter gearbox oil service date**.
- Enter the After-Sales service date with diagnostic tool command **VP009 Enter last After-Sales service date**.
- Carry out a check with the diagnostic tool, on the Identification screen.
- Switch off the ignition.

REPLACING AN AUTOMATIC TRANSMISSION COMPONENT

To replace other components of the automatic transmission, (see **MR 364 Mechanical, 23A, Automatic transmission (for MEGANE II)** and see **MR 370 Mechanical, 23A, Automatic transmission (for SCENIC II)**).

After replacing one or more automatic transmission components, or after reprogramming, auto-program the solenoid valves using command RZ005 "Auto-adaptives" (see Dealing with command modes).

PROGRAMMING

● **VP001 Enter VIN:**

As it is necessary to enter the VIN each time dialogue is established with the diagnostic tool, it must be programmed into each vehicle computer whenever a computer is replaced.

Programming procedure:

- Connect the diagnostic tool.
- Consult the fault finding procedure for the automatic transmission.
- Select configuration **VP001 Enter VIN**.
- Enter the VIN.
- Exit fault finding mode.
- Switch off the ignition.
- Wait for the end of Power-latch: over 10 seconds.

● **VP009 Enter last After-Sales operation date:**

Every time work is carried out on the automatic transmission in the workshop, enter the date of the operation.

Select command **VP009 Enter last After-Sales operation date** on the diagnostic tool, then use the tool's keypad to enter the date of the operation.

● **VP015 Transfer oil condition meter:**

Transfer the oil wear counter code from the old computer.

Select command **VP015 Transfer oil wear counter** on the diagnostic tool, then use the keypad to enter the code found on the replaced computer.

● **VP016 Enter gearbox oil service date:**

Select command **VP016 Enter gearbox oil service date** on the diagnostic tool, then use the keypad to enter the date found on the replaced computer.

* The immobiliser warning light will flash a few seconds after the ignition is switched off.

AUTOMATIC TRANSMISSION

Fault finding - Fault summary table

23A

| Tool fault | Associated DTC | Diagnostic tool title |
|------------|----------------|--|
| DF003 | 0641 | Analogue sensor power supply |
| DF005 | 0840 | Oil pressure sensor circuit |
| DF009 | 0705 | Multifunction switch prohibited position |
| DF012 | 0657 | Solenoid valve supply |
| DF016 | 0795 | Lock-up solenoid valve circuit |
| DF017 | 2753 | Exchanger flow rate solenoid valve circuit |
| DF023 | 0710 | Gearbox oil temperature sensor circuit |
| DF029 | 0709 | Multifunction switch in unstable position |
| DF036 | 0775 | Pressure modulating solenoid valve circuit |
| *DF064 | 0814 | Display circuit |
| DF084 | C001 | Multiplex network |
| DF085 | 0753 | EVS1 sequence solenoid valve circuit |
| DF086 | 0758 | EVS2 sequence solenoid valve circuit |
| DF087 | 0763 | EVS3 sequence solenoid valve circuit |
| DF088 | 0773 | EVS5 sequence solenoid valve circuit |
| DF089 | 0768 | EVS4 sequence solenoid valve circuit |
| DF093 | 0819 | Manual sequential controls circuit |
| DF095 | 1928 | Gear lever lock electromagnet circuit |
| DF105 | 0741 | Declutching function when stopping |
| DF109 | D123 | Engine torque multiplex signal |
| DF112 | 2709 | EVS6 sequence solenoid valve circuit |
| DF113 | 0740 | Converter lockup servo control |
| DF131 | 0730 | Slippage |
| DF145 | D12F | Invalid pedal position multiplex signal |

* All Mégane vehicles except Scénic

Fault finding - Fault summary table

| Tool fault | Associated DTC | Diagnostic tool title |
|-------------------|-----------------------|---|
| DF147 | D122 | Invalid anticipated torque multiplex signal |
| DF177 | 0218 | Automatic transmission overheating |
| DF183 | C140 | No UCH multiplex signal |
| DF185 | C121 | No ABS/ESP multiplex signal |
| DF186 | C100 | No injection multiplex signal |
| DF226 | 0841 | Automatic transmission internal pressure |
| DF227 | D403 | Invalid UCH brake pedal multiplex signal |
| DF228 | D22B | Invalid ABS transverse acceleration multiplex signal |
| DF229 | D208 | Invalid ABS brake multiplex signal |
| DF230 | 0720 | Invalid vehicle speed multiplex signal |
| DF231 | D200 | Absent vehicle speed multiplex signal |
| DF232 | 0603 | Computer |
| DF233 | 0604 | Computer |
| DF234 | 0605 | Computer |
| DF235 | D121 | Invalid pedal position multiplex signal |
| DF236 | D11F | Invalid engine speed multiplex signal |
| DF237 | D100 | Invalid coolant temperature signal |
| DF238 | D12B | Invalid raw engine torque multiplex signal |
| DF239 | D120 | Invalid actual engine torque multiplex signal |
| DF240 | D220 | Invalid front right-hand wheel speed multiplex signal |
| DF241 | D221 | Invalid front left-hand wheel speed multiplex signal |
| DF242 | D225 | Invalid rear right-hand wheel speed multiplex signal |
| DF243 | D226 | Invalid rear left-hand wheel speed multiplex signal |
| DF244 | 0715 | Turbine speed sensor signal |
| DF263 | D12D | Instantaneous maximum torque multiplex signal |

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A**DF003
PRESENT
OR
STORED****ANALOGUE SENSOR SUPPLY**

1.DEF: Voltage outside permitted range of values

NOTES**Special notes:**

Use bornier **Elé. 1681** for all operations on the computer connectors.
Customer complaint: deterioration in gear shift strategies.

Deal first with faults: **DF005 Oil pressure sensor circuit and DF023 Gearbox oil temperature sensor circuit.**
Disconnect the battery.
Check the **condition and cleanliness** of the modular connector connections.
Disconnect the computer. Check the **cleanliness and condition** of the connections.
Repair if necessary.

Check **the insulation, continuity and the absence of interference resistance to earth, to + 12 V** of the following connections:

- connection code 5U, between components 119 and 781,
- connection code 5V, between components 119 and 781,
- connection code 5BC, between components 119 and 754,
- connection code 5BB, between components 119 and 754.

Check the supply of the analogue sensors = 5 V.

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 the wiring.

If the problem is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|--|---|
| DF005 PRESENT OR STORED | <u>OIL PRESSURE SENSOR CIRCUIT</u> CO.0: Open circuit or short circuit to earth |
|--|---|

| | |
|--------------|--|
| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault appears after a timed period of 10 seconds with the engine running at 2000 rpm . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.
Disconnect the modular connector, and check the **cleanliness and condition** of the connections.
Disconnect the computer. Check the **cleanliness and condition** of the connections.
Repair if necessary.

Check **the insulation, continuity and the absence of interference resistance to earth, to + 12 V** of the following connection:

- connection code 5U, between components 119 and 781.

With the ignition on, check for **+ 5 V** on connection 5U of the oil pressure sensor connector.

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 the wiring.

- connection code 5W, between components 119 and 781,
- connection code 5V, between components 119 and 781.

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 the wiring.

The voltage on connection 5U of the modular connector must be **+ 5 V**, otherwise check the computer supply.

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 the wiring.

Reconnect the modular connector.

Measure the resistance of component 781 between connections 5V and 5W on the computer connector (female connector).

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 the wiring.

Replace the sensor if the resistance is not approximately **20 kΩ**.

If the problem is still present, contact the Techline.

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|--|--|
| DF009 PRESENT OR STORED | <u>MULTIFUNCTION SWITCH IN PROHIBITED POSITION</u> |
|--|--|

| | |
|--------------|--|
| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault appears when the selector lever is moved from position P to position D with a stop at each lever position. |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |
| | Use the Mégane II or Scénic II wiring diagram Technical Note. |

- A Check the consistency between: **ET012 Gear lever position**, the instrument panel display and the gear lever position while shifting the lever into all the possible positions.
- B To check that there is no clearance between the gearbox output lever and the multifunction switch shaft, see **test 1 Checking the gearbox output lever clearance**
- If there is clearance, check the tightness of the retaining nut. If this has no effect, replace the lever.
 - If there is no clearance, move on to the next step.
- C Adjust the control (see **MR 370 Mechanical, 23A Automatic transmission, Automatic transmission control unit (for Mégane II and Scénic II)**).
- If the adjustment is correct, then the procedure is complete.
 - If the adjustment is incorrect, move on to the next step.
- D Check the cleanliness, condition and mounting of the multifunction switch.
Check the adjustment of the CMF* in neutral (see **MR 364 Mechanical, 23A Automatic transmission, Multifunction switch, Removal - Refitting (for Mégane II) and MR 370 Mechanical, 23A Automatic transmission, Multifunction switch, Adjustment (for Scénic II)**).
- If the adjustment is incorrect, adjust the multifunction switch.
 - If the adjustment is correct, move on to the next step.
- E Check the adjustment of the ball detent blade on the gearbox output lever at the unclipped external control (see **Technical Note 4194A: Automatic transmission indicator strip flashing**):
- If the adjustment is incorrect, adjust the ball detent blade.
 - If the check is correct, move on to the electrical check.

Repair if necessary.

Check the **condition and cleanliness** of the connector A connections.

* CMF: Multifunction switch

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

DF009
CONTINUED 1

Check for **continuity on component 485** between the following connections:

Lever in position **P**

- Connection codes **5DG and 5DK** between components **119 and 485**.

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.

Lever in position **R**

- Connection codes **5DG and 5DK** between components **119 and 485**.
- Connection codes **5DH and 5DK** between components **119 and 485**.
- Connection codes **5DJ and 5DK** between components **119 and 485**.

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.

Lever in position **N**

- Connection codes **5DH and 5DK** between components **119 and 485**.

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.

Lever in position **D**

- Connection codes **5DJ and 5DK** between components **119 and 485**.

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 continuity is faulty, change the multifunction switch.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

DF009
CONTINUED 2

Check the **insulation of component 485** on the following connections:

Lever in position **P**

- Connection codes **5DH and 5DK** between components **119 and 485**.
- Connection codes **5DJ and 5DK** between components **119 and 485**.

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.

Lever in position **N**

- Connection codes **5DG and 5DK** between components **119 and 485**.
- Connection codes **5DJ and 5DK** between components **119 and 485**.

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.

Lever in position **D**

- Connection codes **5DG and 5DK** between components **119 and 485**.
- Connection codes **5DH and 5DK** between components **119 and 485**.

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 insulation is faulty, replace the multifunction switch.

Check the cleanliness and condition of the connections.

Check the **insulation, continuity and the absence of interference resistance to earth, to + 12 V** of the following connections:

- Connection code **5DG** between components **119 and 485**.
- Connection code **5DH** between components **119 and 485**.
- Connection code **5DJ** between components **119 and 485**.
- Connection code **5DK** between components **119 and 485**.
- 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 problem is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|--|--|
| DF012 PRESENT OR STORED | <u>SOLENOID VALVE SUPPLY</u> CO.0 : Open circuit or short circuit to earth CC.1 : Short circuit to + 12 V |
|--|--|

| | |
|--------------|--|
| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.
Disconnect the modular connector, and check the **cleanliness and condition** of the connections.
Disconnect the computer. Check the **cleanliness and condition** of the connections.
Repair if necessary.

Check **the insulation, continuity and the absence of interference resistance to earth, to + 12 V** of the following connections:

(see **System operation and Allocation of computer tracks** on the modular connector)

- connection code 5AU, between components 119 and 754,
- connection code 5AV, between components 119 and 754,
- connection code 5AX, between components 119 and 754,
- connection code 5AW, between components 119 and 754,
- connection code 5AY, between components 119 and 754,
- connection code 5DL, between components 119 and 754,
- connection code 5DM, between components 119 and 754,
- connection code 5BA, between components 119 and 754,
- connection code 5AZ, between components 119 and 754,
- connection code 5BX, between components 119 and 754.

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 the wiring.

With the ignition on, check for + 12 V on connections 5BA and 5AU of component 754.

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 the wiring.

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|--|--|
| DF016 PRESENT OR STORED | <u>LOCKUP SOLENOID VALVE CIRCUIT</u> CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V |
|--|--|

| | |
|--------------|---|
| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control '. |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.
Disconnect the modular connector, and check the **cleanliness and condition** of the connections.
Disconnect the computer. Check the **cleanliness and condition** of the connections.
Repair if necessary.

Check **the insulation, continuity and the absence of interference resistance to earth, to + 12 V** and the following connections:

(see **System operation and Allocation of computer tracks** on the modular connector)

- connection code 5BX, between components 119 and 754.
- connection code 5BA, between components 119 and 754.

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 the wiring.

Reconnect the modular connector.

Measure the resistance of component 754 between the following connections:

- connection code 5BX,
- connection code 5BA.

If any of the 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 solenoid valve or the electric/hydraulic interface wiring harness if the resistance is not **1 $\Omega \pm 0.12$ at 23°C**.

If the problem is still present, contact the Techline.

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF017 PRESENT OR STORED | <u>EXCHANGER FLOW RATE SOLENOID VALVE CIRCUIT</u> CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V |
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| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.
Disconnect the computer. Check the **cleanliness and condition** of the connections.
Disconnect the modular connector, and check the **cleanliness and condition** of the connections.
Repair if necessary.

Check **the insulation, continuity and the absence of interference resistance to earth, to + 12 V** and the following connections:

- connection code 5DN, between components 119 and 1019,
- connection code 5DD, between components 119 and 1019.

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 the wiring.

Reconnect the modular connector.

Measure **the resistance** of component 1019 between the following connections:

- connection code 5DN,
- connection code 5DD.

If any of the 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 exchanger flow solenoid valve or the wiring harness if the resistance is not **40 Ω \pm 4 at 23°C**.

If the problem is still present, contact the Techline.

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF023 PRESENT OR STORED | <u>GEARBOX OIL TEMPERATURE SENSOR CIRCUIT</u> CO.0: Open circuit or short circuit to earth |
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| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault is declared present after a road test. |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.

Disconnect the modular connector, and check the **cleanliness and condition** of the connections.

Disconnect the computer. Check the **cleanliness and condition** of the connections.

Repair if necessary.

Check **the insulation, continuity and the absence of interference resistance to earth, to + 12 V** and the following connections:

- connection code 5BC, between components 119 and 754,
- connection code 5BB, between components 119 and 754.

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 the wiring.

Reconnect the modular connector.

Measure the **resistance** of component 754 between the following connections:

- connection code 5BC,
- connection code 5BB.

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 the wiring.

Replace the sensor or the wiring if the resistance is not between:

2360 Ω and 2660 Ω at 20° C

290 Ω and 327 Ω at 80° C

If the problem is still present, contact the Techline.

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF029 PRESENT OR STORED | <u>MULTIFUNCTION SWITCH IN UNSTABLE POSITION</u> |
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| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault is declared present when the gear lever is shifted from position P to D , with a stop at each lever position. |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |
| | Use the Mégane II or Scénic II wiring diagram Technical Note. |

- A Check the consistency between: **ET012 Gear lever position**, the instrument panel display and the gear lever position while shifting the lever into all the possible positions.
- B To check that there is no clearance between the gearbox output lever and the multifunction switch shaft, see **test 1 Checking the gearbox output lever clearance**
- If there is clearance, check the tightness of the retaining nut. If this has no effect, replace the lever.
 - If there is no clearance, move on to the next step.
- C Adjust the control (see **MR 364 Mechanical, 23A Automatic transmission, Automatic transmission control unit (for Mégane II)** and **MR 370 Mechanical, 23A Automatic transmission, Automatic transmission control unit (for Scénic II)**).
- If the adjustment is correct, then the procedure is complete.
 - If the adjustment is incorrect, move on to the next step.
- D Check the **cleanliness, condition and mounting** of the multifunction switch.
Check the adjustment of the CMF* in neutral (see **MR 364 Mechanical, 23A Automatic transmission, Multifunction switch, Removal - Refitting (for Mégane II)** and **MR 370 Mechanical, 23A Automatic transmission, Multifunction switch, Adjustment (for Scénic II)**).
- If the adjustment is incorrect, adjust the multifunction switch.
 - If the adjustment is correct, move on to the next step.
- E Check the adjustment of the ball detent blade on the gearbox output lever at the unclipped external control (see **Technical Note 4194A: Automatic transmission indicator strip flashing**):
- If the adjustment is incorrect, adjust the ball detent blade.
 - If the check is correct, move on to the electrical check.
- Repair if necessary.

* CMF: Multifunction switch

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A**DF029**
CONTINUED 1

Disconnect the battery.

Disconnect the modular connector and check the **cleanliness and condition** of the connector A connections.

Check the **continuity** of the following connections on the female modular connector:

Lever in position P

- Connection codes **5DG and 5DK** between components **119 and 485**.

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.

Lever in position R

- Connection codes **5DG and 5DK** between components **119 and 485**.
- Connection codes **5DH and 5DK** between components **119 and 485**.
- Connection codes **5DJ and 5DK** between components **119 and 485**.

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.

Lever in position N

- Connection codes **5DH and 5DK** between components **119 and 485**.

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.

Lever in position D

- Connection codes **5DJ and 5DK** between components **119 and 485**.

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 continuity is faulty, change the multifunction switch.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A**DF029**
CONTINUED 2

Check **the insulation** of the following connections on the female modular connector:

Lever in position **P**

- Connection codes **5DH and 5DK** between components **119 and 485**.
- Connection codes **5DJ and 5DK** between components **119 and 485**.

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.

Lever in position **N**

- Connection codes **5DG and 5DK** between components **119 and 485**.
- Connection codes **5DJ and 5DK** between components **119 and 485**.

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.

Lever in position **D**

- Connection codes **5DG and 5DK** between components **119 and 485**.

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 insulation is not correct, replace the multifunction switch

Disconnect the computer. Check the **cleanliness and condition** of the connections.

Check **the insulation, continuity and absence of interference resistance to earth at the + 12 V** and of the following connections:

- Connection code **5DG** between components **119 and 485**.
- Connection code **5DH** between components **119 and 485**.
- Connection code **5DJ** between components **119 and 485**.
- Connection code **5DK** between components **119 and 485**.

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

If the values are not correct, move the wiring harness about while taking the measurements again.

If the values are still incorrect, replace the modular connector.

If the problem is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF036 PRESENT OR STORED | <u>PRESSURE MODULATING SOLENOID VALVE CIRCUIT</u> CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V |
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| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

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| CO.0 | NOTES | None. |
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Disconnect the battery.
 Disconnect the modular connector, and check the **cleanliness and condition** of the connections.
 Disconnect the computer. Check the **cleanliness and condition** of the connections.
 Repair if necessary.

Check the **insulation, continuity and the absence of interference resistance to earth, to + 12 V** and the following connections:

- connection code 5AZ, between components 119 and 754,
- connection code 5BA, between components 119 and 754.

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 the wiring.

Measure the **resistance** of component 754 between the following connections:

- connection code 5AZ,
- connection code 5BA.

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 the wiring.

Replace the solenoid valve or the electric/hydraulic interface wiring harness if the resistance is not **1 Ω \pm 0.2 at 23°C**.

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A**DF036**
CONTINUED**CC.1****NOTES****None.**

Check for the 5 Volt supply, on connection 5AZ of component 754.
Check for the 12 Volt supply, on connection 5BA of component 754.
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 the wiring.

If the problem is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF064 PRESENT OR STORED | <u>DISPLAY CIRCUIT</u> CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V |
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| NOTES | None. |
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Disconnect the battery.
Check **the cleanness and condition** of the gear lever display connections.

Disconnect the computer.
Check **the cleanliness and condition** of the connectors.
Use the universal bornier **Elé. 1681** to check the **insulation, continuity and the absence of interference resistance** on the following connection:
● connection code 5CQ, between components 119 and 1129.
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 the wiring.

If the problem is still present, contact the Techline.

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| <p>DF084 PRESENT OR STORED</p> | <p><u>MULTIPLEX NETWORK</u> 1.DEF: Carry out the multiplex network fault finding procedure</p> |
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| <p>NOTES</p> | <p>None.</p> |
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| <p>Run a multiplex network test (see 88B, Multiplex).</p> |
| <p>If the problem is still present, contact the Techline.</p> |

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| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF085 PRESENT OR STORED | <u>EVS1 SEQUENCE SOLENOID VALVE CIRCUIT</u> CC.0: Short circuit to earth CO: Open circuit CC.1: Short circuit to + 12 V |
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| NOTES | Deal with fault DF012 Solenoid valves supply first if it is present or stored. |
| | Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

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| Disconnect the battery. Disconnect the modular connector, and check the cleanliness and condition of the connections. Disconnect the computer. Check the cleanliness and condition of the connectors. Repair if necessary. |
| Check the insulation, continuity and the absence of interference resistance to earth, to + 12 V and the following connections: <ul style="list-style-type: none">●connection code 5AV, between components 119 and 754,●connection code 5AU, between components 119 and 754. 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 the wiring. |
| Reconnect the modular connector. Measure the resistance of component 754 between the following connections: <ul style="list-style-type: none">● connection code 5AV,● connection code 5AU. 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 the wiring. Replace the solenoid valve or the electric/hydraulic interface wiring harness if the resistance is not 40 Ω ± 2 at 23°C . |
| If the problem is still present, contact the Techline. |

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF086 PRESENT OR STORED | <u>EVS2 SEQUENCE SOLENOID VALVE CIRCUIT</u> CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V |
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| NOTES | Deal with fault DF012 Solenoid valves supply first if it is present or stored. Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.
Disconnect the modular connector, and check the **cleanliness and condition** of the connections.
Disconnect the computer. Check **the cleanliness and condition** of the connectors.
Repair if necessary.

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

- connection code 5AW, between components 119 and 754,
- connection code 5AU, between components 119 and 754.

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 the wiring.

Reconnect the modular connector.

Measure the **resistance** of component 754 between the following connections:

- connection code 5AW,
- connection code 5AU.

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 the wiring.

Replace the solenoid valve or the electric/hydraulic interface wiring harness if the resistance is not **40 Ω \pm 2 at 23°C**.

If the problem is still present, contact the Techline.

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF087 PRESENT OR STORED | <u>EVS3 SEQUENCE SOLENOID VALVE CIRCUIT</u> CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V |
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| NOTES | Deal with fault DF012 Solenoid valves supply first if it is present or stored. Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.
Disconnect the modular connector, and check the **cleanliness and condition** of the connections.
Disconnect the computer. Check **the cleanliness and condition** of the connectors.
Repair if necessary.

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

- connection code 5AU, between components 119 and 754,
- connection code 5AX, between components 119 and 754.

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 the wiring.

Reconnect the modular connector.

Measure the **resistance** of component 754 between the following connections:

- connection code 5AU,
- connection code 5AX.

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 the wiring.

Replace the solenoid valve or the electric/hydraulic interface wiring harness if the resistance is not **40 Ω \pm 2 at 23°C**.

If the problem is still present, contact the Techline.

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF088 PRESENT OR STORED | <u>EVS5 SEQUENCE SOLENOID VALVE CIRCUIT</u> CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V |
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| NOTES | Deal with fault DF012 Solenoid valves supply first if it is present or stored. Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.
Disconnect the modular connector, and check the **cleanliness and condition** of the connections.
Disconnect the computer. Check **the cleanliness and condition** of the connectors.
Repair if necessary.

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

- connection code 5AU, between components 119 and 754,
- connection code 5DL, between components 119 and 754.

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 the wiring.

Reconnect the modular connector.

Measure the **resistance** of component 754 between the following connections:

- connection code 5AU,
- connection code 5DL.

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 the wiring.

Replace the solenoid valve or the electric/hydraulic interface wiring harness if the resistance is not **40 Ω \pm 2 at 23°C**.

If the problem is still present, contact the Techline.

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF089 PRESENT OR STORED | <u>EVS4 SEQUENCE SOLENOID VALVE CIRCUIT</u> CC.0: Short circuit to earth CO: Open circuit CC.1: Short circuit to + 12 V |
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| NOTES | Deal with fault DF012 Solenoid valves supply first if it is present or stored. Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

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| Disconnect the battery. Disconnect the modular connector, and check the cleanliness and condition of the connections. Disconnect the computer. Check the cleanliness and condition of the connectors. Repair if necessary. |
| Check the insulation, continuity and absence of interference resistance on the following connections: <ul style="list-style-type: none">● connection code 5AU, between components 119 and 754,● connection code 5AY, between components 119 and 754. 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 the wiring. |
| Reconnect the modular connector. Measure the resistance of component 754 between the following connections: <ul style="list-style-type: none">● connection code 5AY,● connection code 5AU. 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 the wiring. Replace the solenoid valve or the electric/hydraulic interface wiring harness if the resistance is not 40 Ω ± 2 at 23°C . |
| If the problem is still present, contact the Techline. |

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF093 PRESENT OR STORED | <u>MANUAL SEQUENTIAL CONTROLS CIRCUIT</u> 1.DEF: Inconsistency of the signal CC.0: Short circuit to earth |
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| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault appears during a road test when selecting position M with the lever (one-touch control). |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.
Disconnect the modular connector, and check the **cleanliness and condition** of the connections.
Disconnect the computer. Check **the cleanliness and condition** of the connectors.
Repair if necessary.

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

- connection code 5FM, between components 119 and 129,
- connection code 5H, between components 119 and 129,
- connection code 5DU, between components 119 and 129,
- connection code N, between components 107 and 129.

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 the wiring.

If the problem is still present, contact the Techline.

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF095 PRESENT OR STORED | <u>SELECTOR LEVER LOCK ELECTROMAGNET CIRCUIT</u> CO: Open circuit CC.1: Short circuit to + 12 V |
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| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault appears when the gear lever is in position P . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Check the **cleanliness and condition** of the gear lever lock electromagnet connections.

With the ignition on, check for **+ 12 V**, on connection AP43 of component 129.

- Disconnect the battery.
- Check fuse **5F** in the Protection and Switching Unit, as well as the cleanliness and condition of the connections.
- Disconnect connector **PPH2** in the Protection and Switching Unit.
- Check **the cleanliness and condition** of the connectors.

Use the Universal bornier **Elé. 1681**. To check **the insulation to earth and the continuity** of the following connection:

- connection code AP43, between components 129 and 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 the wiring.

If, with the ignition on, **+ 12 V** is not present on connection AP43 of component 129, run fault finding on the Protection and Switching Unit.

Disconnect the battery.

Disconnect the computer. Check the cleanliness and condition of the connections.

Use the universal bornier **Elé. 1681**. Check the **insulation and continuity** of the following connection:

- connection code 5DU, between components 119 and 129.

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 the wiring.

Measure the resistance of component 129 between the following connections:

- connection code 5DU,
- connection code AP43.

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 the wiring.

The resistance should be **40 Ω \pm 4 Ω** at a temperature of approximately **23°C**.

Otherwise replace the gear lever lock electromagnet.

If the problem is still present, contact the Techline.

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF105 PRESENT OR STORED | <u>DECLUTCHING WHEN STATIONARY FUNCTION</u> DEF: Signal outside upper limit |
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| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault is declared present following a delay of 5 seconds , with the engine running, the vehicle stationary with a gear engaged and a difference of more than 384 rpm between the engine speed and the turbine speed. |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |
| | Use the Mégane II or Scénic II wiring diagram Technical Note. |

Check the oil level in the engine and gearbox.

Top up if necessary (see **MR 364 Mechanical, 23A, Automatic transmission, Filling-levels (for Mégane II) and MR 370 Mechanical, 23A, Automatic transmission, Draining-Filling (for Scénic II)**).

Check the engine speed:

- Possible engine speed instability
- Deal with the faults displayed on the **diagnostic tool** for the injection computer.

Deal with the other faults first.

Check the turbine speed:

- Possible inconsistency with the turbine speed,
- Possible turbine sensor fault,
- Possible solenoid valve oil pressure fault.

Check the oil pressure with the engine switched off using **PR003 Oil pressure**: if the pressure is greater than **0.2 bars**, replace the pressure sensor.

- Warm engine with gearbox oil temperature between **65 and 90°C**.
- Measure the line pressure under the 3 following conditions:

IMPORTANT

The vehicle must be stationary: handbrake on and brake pedal depressed, no accessories operating (e.g.: air conditioning)

1 Engine speed idling:

Shift the gear lever to **R, N** and **D**, the pressure reading must be greater than **2.5 bar**.

2 Engine speed at 1200 rpm:

- gear lever in **R** position, the pressure reading must be greater than **4 bar**.
- gear lever in **D** position, the pressure reading in first gear must be greater than **5.5 bar**.

3 Engine speed at 2200 rpm:

- gear lever in **R** position, the pressure reading must be greater than **11 bar**.
- gear lever in **D** position, the pressure reading in first gear must be greater than **11 bar**.

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

DF105 CONTINUED

If the line pressure recorded under one of these 3 conditions is incorrect, replace the line pressure sensor
If the line pressures recorded under these 3 conditions are good, then the pressure sensor is operating correctly.
Replace the pressure regulating solenoid valve.
If the fault is still present after the pressure regulating solenoid valve has been replaced, replace the hydraulic distributor and during refitting, take into account **Technical Note 4194A Automatic transmission indicator strip flashing** for the adjustment of the ball detent blade
If the problem is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF109 PRESENT OR STORED | <u>ENGINE TORQUE MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault) |
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| NOTES | None. |
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|---|
| Run a multiplex network test (see 88B, Multiplex). |
| If the fault is still present, carry out fault finding on the injection system (see 17B, Petrol injection or 13B, Diesel injection). |
| If the problem is still present, contact the Techline. |

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|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF112 PRESENT OR STORED | <u>EVS6 SEQUENCE SOLENOID VALVE CIRCUIT</u> CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V |
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| NOTES | Deal with fault DF012 Solenoid valves supply first if it is present or stored. Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control . |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.
Disconnect the modular connector, and check the **cleanliness and condition** of the connections.
Disconnect the computer. Check **the cleanliness and condition** of the connectors.
Repair if necessary.

Check **the insulation, continuity and the absence of interference resistance to earth, to + 12 V** and the following connections:

- connection code 5AU, between components 119 and 754,
- connection code 5DM, between components 119 and 754.

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 the wiring.

Reconnect the modular connector.

Measure the **resistance** of component 754 between the following connections:

- connection code 5DM,
- connection code 5AU.

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 the wiring.

Replace the solenoid valve or the electric/hydraulic interface wiring harness if the resistance is not **40 $\Omega \pm 2$ at 23°C**.

If the problem is still present, contact the Techline.

| | |
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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF113 PRESENT OR STORED | <u>CONVERTER LOCK-UP SERVO CONTROL</u> |
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| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault appears after running command AC024 Sequential actuator control . |
| | If the following faults are present or stored, deal with them first: <ul style="list-style-type: none">– DF003 Analogue sensor supply.– DF005 Oil pressure sensor circuit.– DF016 Lock-up solenoid valve circuit.– DF177 Automatic transmission overheating.– DF226 Automatic transmission internal pressure.– DF244 Turbine speed sensor signal |
| | Use the Mégane II or Scénic II wiring diagram Technical Note. |

Check the quality and level of the gearbox oil (see MR 364 Mechanical, 23A, Automatic transmission, Filling - levels (for Mégane II) and MR 370 Mechanical, 23A, Automatic transmission, Oil change (for Scenic II)).
Check that the gearbox is not leaking oil.

Carry out the converter setting point test.

To locate the cap position, consult **MR 364, Mechanical, 23A, Automatic transmission, Line pressure measurement (for Mégane II)** and **MR 370, Mechanical, 23A, Automatic transmission, Line pressure measurement (for Scénic II)**.

Check the oil pressure with the engine switched off using **PR003 Oil pressure**: if the pressure is greater than **0.2 bars**, replace the pressure sensor.

Warm engine with gearbox oil temperature between **65 and 90°C**.

Measure the line pressure under the 3 following conditions:

IMPORTANT

The vehicle must be stationary: handbrake on and brake pedal depressed, no accessories operating (e.g.: air conditioning)

1 engine speed idling:

Shift the gear lever to **R, N** and **D**, the pressure reading must be greater than **2.5 bar**.

2 engine speed at 1200 rpm:

- gear lever in **R** position, the pressure reading must be greater than **4 bar**.
- gear lever in **D** position, the pressure reading in first gear must be greater than **5.5 bar**.

3 engine speed at 2200 rpm:

- gear lever in **R** position, the pressure reading must be greater than **11 bar**.
- gear lever in **D** position, the pressure reading in first gear must be greater than **11 bar**.

| | |
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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

DF113
CONTINUED

If the line pressure recorded under one of these 3 conditions is incorrect, replace the line pressure sensor.
If the line pressures recorded under these 3 conditions are good, then the pressure sensor is operating correctly.
Replace the pressure regulating solenoid valve.
If the fault is still present after the pressure regulating solenoid valve has been replaced, replace the hydraulic distributor and during refitting, take into account **Technical Note 4194A Automatic transmission indicator strip flashing** for the adjustment of the ball detent blade
If the fault is still present, contact the Techline

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| <p>DF131 PRESENT OR STORED</p> | <p><u>SLIPPAGE</u> 1.DEF: Permanent low level</p> |
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| <p>NOTES</p> | <p>Deal with all other faults first. Conditions for applying the fault finding procedure to stored faults: Safe mode is triggered after a fault, not by the driver.</p> |
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| <p>In particular, check that there are no faults on: – the turbine speed sensor, DF244 Turbine speed sensor signal. – the vehicle speed signal, DF230 Invalid vehicle speed multiplex signal. Check that PR003 “Oil pressure” equals 21 bar. (forced setpoint) Possible defective components: Slave cylinder (brakes, clutch) or computer. Then check cleanliness and condition of the gearbox oil.</p> <p>If the fault is still present, contact Techline.</p> |
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| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A**DF145
PRESENT
OR
STORED****INVALID PEDAL POSITION MULTIPLEX SIGNAL**

1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)

NOTES**Conditions for applying the fault finding procedure to stored faults:**

If the fault appears following a road test during which the quality of the gear changes deteriorates.

Disconnect the battery.

Disconnect the gearbox computer. Check **the cleanliness and condition** of the connectors.

Disconnect the engine management computer. Check **the cleanliness and condition** of the connectors.

If the fault is still present, run fault finding on the **injection system** (see **17B, Petrol injection** or **13B, Diesel injection**).

Repair if necessary.

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

If the problem is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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|---|---|
| <p>DF147 PRESENT OR STORED</p> | <p><u>INVALID ANTICIPATED TORQUE MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)</p> |
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| <p>NOTES</p> | <p>None.</p> |
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| <p>Run a multiplex network test (see 88B, Multiplex).</p> | |
| <p>If the problem is still present, contact the Techline.</p> | |

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| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A**DF177
PRESENT
OR
STORED****AUTOMATIC TRANSMISSION OVERHEATING****NOTES**

If the following faults are present or stored, deal with them first:

- **DF003 Analogue sensor supply.**
- **DF005 Oil pressure sensor circuit.**
- **DF016 Lock-up solenoid valve circuit.**
- **DF017 Exchanger flow solenoid valve circuit.**
- **DF023 Gearbox oil temperature sensor circuit.**
- **DF036 Pressure modulating solenoid valve circuit.**
- **DF131 Slipping.**
- **DF226 Automatic transmission internal pressure.**
- **DF237 Invalid coolant temperature signal.**

Conditions for applying the fault finding procedure to stored faults:

The fault is declared present after a road test.

Check gearbox oil grade and level.

If an operation is necessary (see **MR 364 Mechanical, 23A, Automatic transmission, Filling - levels (for Mégane II) and MR 370 Mechanical, 23A, Automatic transmission, Oil change (for Scenic II)**).

Check that the water-oil exchanger is not blocked.

Measure the resistance of component 754 between the following connections:

- connection code 5BC,
- connection code 5BB.

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 the wiring.

The resistance should be between:

$2660\ \Omega < R < 2360\ \Omega$ at 20°C and $327\ \Omega < R < 290\ \Omega$ at 80°C.

If the fault is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.

Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF183 PRESENT OR STORED | <u>NO UCH MULTIPLEX SIGNAL</u> 1.DEF: Carry out the multiplex network fault finding procedure |
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| NOTES | None. |
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Run a **multiplex network test** (see **88B, Multiplex**).

If the fault is still present, run fault finding on the **UCH** system (see **87B, Passenger compartment connection unit**).

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| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| <p>DF185 PRESENT OR STORED</p> | <p><u>NO ABS/ESP MULTIPLEX SIGNAL</u> 1.DEF: Carry out the multiplex network fault finding procedure</p> |
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| <p>NOTES</p> | <p>None.</p> |
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| <p>Run a multiplex network test (see 88B, Multiplex).</p> | |
| <p>If the fault is still present, carry out fault finding on the system (see 38C, ABS).</p> | |
| <p>If the problem is still present, contact the Techline.</p> | |

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| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF186 PRESENT OR STORED | <u>INJECTION MULTIPLEX SIGNAL ABSENT</u> 1.DEF: Carry out the multiplex network fault finding procedure |
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| NOTES | None. |
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| Run a multiplex network test (see 88B, Multiplex). |
| If the fault is still present, carry out fault finding on the injection system (see 17B, Petrol injection or 13B, Diesel injection). |
| If the problem is still present, contact the Techline. |

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF226 PRESENT OR STORED | <u>AUTOMATIC TRANSMISSION INTERNAL PRESSURE</u> |
|--|---|

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| NOTES | <p>If the following faults are present or stored, deal with them first:</p> <ul style="list-style-type: none">– DF003 Sensor feeds.– DF005 Oil pressure sensor circuit.– DF023 Gearbox oil temperature sensor circuit.– DF036 Pressure modulating solenoid valve circuit.– DF244 Turbine speed sensor signal <p>Conditions for applying the fault finding procedure to stored faults: The fault is declared present after a road test.</p> |
|--------------|--|

Check the gearbox oil grade and level (see **MR 364 Mechanical, 23A, Automatic transmission, Filling - levels (for Mégane II) and MR 370 Mechanical, 23A, Automatic transmission, Oil change (for Scénic II)**).

Check that the gearbox is not leaking oil

To locate the cap position, consult **MR 364, Mechanical, 23A, Automatic transmission, Line pressure measurement (for Mégane II) and MR 370, Mechanical, 23A, Automatic transmission, Line pressure measurement (for Scénic II)**).

Check the oil pressure with the engine switched off using **PR003 Oil pressure**: if the pressure is greater than **0.2 bars**, replace the pressure sensor.

- Warm engine with gearbox oil temperature between **65 and 90 °C**.
- Measure the line pressure under the 3 following conditions:

IMPORTANT

The vehicle must be stationary: handbrake on and brake pedal depressed, no accessories operating (e.g.: air conditioning)

1 engine speed idling:

Shift the gear lever to **R, N** and **D**, the pressure reading must be greater than **2.5 bar**.

2 engine speed at 1200 rpm:

- gear lever in **R** position, the pressure reading must be greater than **4 bar**.
- gear lever in **D** position, the pressure reading in first gear must be greater than **5.5 bar**.

3 engine speed at 2200 rpm:

- gear lever in **R** position, the pressure reading must be greater than **11 bar**.
- gear lever in **D** position, the pressure reading in first gear must be greater than **11 bar**.

| | |
|---------------------|---|
| AFTER REPAIR | <p>Deal with any other faults. Clear the fault memory.</p> <p>Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

DF226
CONTINUED

If the line pressure recorded under one of these 3 conditions is incorrect, replace the line pressure sensor.
If the line pressures recorded under these 3 conditions are good, then the pressure sensor is operating correctly.
Replace the pressure regulating solenoid valve.
If the fault is still present after the pressure regulating solenoid valve has been replaced, replace the hydraulic distributor and during refitting, take into account **Technical Note 4194A Automatic transmission indicator strip flashing** for the adjustment of the ball detent blade
If the fault is still present, contact the Techline

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF227 PRESENT OR STORED | <u>INVALID UCH BRAKE PEDAL MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault) |
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|--------------|-------|
| NOTES | None. |
|--------------|-------|

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|---|
| Run a multiplex network test (see 88B, Multiplex). |
| If the fault is still present, run fault finding on the UCH system (see 87B, Passenger compartment connection unit). |
| If the problem is still present, contact the Techline. |

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

**DF228
PRESENT
OR
STORED**

INVALID ABS TRANSVERSE ACCELERATION MULTIPLEX SIGNAL

1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)

NOTES

– invalid ABS lateral acceleration multiplex signal:
Signal sent as multiplex frames by the ABS computer to the automatic transmission computer to tell it whether the vehicle is tending to drift out (understeer).

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

If the fault is still present, carry out fault finding on the system (see **38C, ABS**).

If the problem is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A**DF229
PRESENT
OR
STORED****INVALID ABS BRAKE MULTIPLEX SIGNALS**

1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)

NOTES

None.

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

If the fault is still present, carry out fault finding on the system (see **38C, ABS**).

If the problem is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| <p>DF230 PRESENT OR STORED</p> | <p><u>INVALID VEHICLE SPEED MULTIPLEX SIGNAL</u> 1.DEF: Inconsistency of the signal</p> |
|---|---|

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| <p>NOTES</p> | <p>If the following faults are present or stored, deal with them first:</p> <ul style="list-style-type: none"> – DF240 Invalid front right-hand wheel speed multiplex signal. – DF241 Invalid front left-hand wheel speed multiplex signal. – DF242 Invalid rear right-hand wheel speed multiplex signal. – DF243 Invalid rear left-hand wheel speed multiplex signal. |
|---------------------|--|

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| <p>Run a multiplex network test (see 88B, Multiplex).</p> |
| <p>If the fault is still present, carry out fault finding on the system (see 38C, ABS).</p> |
| <p>If the problem is still present, contact the Techline.</p> |

| | |
|----------------------------|--|
| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
|----------------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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|---|--|
| <p>DF231 PRESENT OR STORED</p> | <p><u>ABSENT VEHICLE SPEED MULTIPLEX SIGNAL</u> 1.DEF: Carry out the multiplex network fault finding procedure</p> |
|---|--|

| | |
|---------------------|--|
| <p>NOTES</p> | <p>If the following faults are present or stored, deal with them first:</p> <ul style="list-style-type: none"> – DF240 Invalid front right-hand wheel speed multiplex signal. – DF241 Invalid front left-hand wheel speed multiplex signal. – DF242 Invalid rear right-hand wheel speed multiplex signal. – DF243 Invalid rear left-hand wheel speed multiplex signal. |
|---------------------|--|

| | |
|--|--|
| Run a multiplex network test (see 88B, Multiplex). | |
| If the fault is still present, carry out fault finding on the system (see 38C, ABS). | |
| If the problem is still present, contact the Techline. | |

| | |
|----------------------------|--|
| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
|----------------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF232 PRESENT OR STORED | <u>COMPUTER</u> 1.DEF: Internal electronic fault |
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|--------------|--|
| NOTES | Special note: The fault relates to an internal computer fault. |
|--------------|--|

If the fault is **stored**, clear the fault from the computer memory.
Switch off the ignition, wait until the end of power latch* then switch the ignition back on and re-establish dialogue:
Check for + 12 V on connection AP4 of component 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 the wiring.
Check for earth on connection N of component 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 the wiring.

If the problem is still present, contact the Techline.

* The immobiliser warning light will flash for a few seconds after the ignition is switched off.

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|--|---|
| DF233 PRESENT OR STORED | <u>COMPUTER</u> 1.DEF: Internal electronic fault |
|--|---|

| | |
|--------------|--|
| NOTES | Special note: The fault relates to an internal computer fault. |
|--------------|--|

If the fault is **stored**, clear the fault from the computer memory.
Switch off the ignition, wait until the end of power latch* then switch the ignition back on and re-establish dialogue:
Check for + 12 V on connection AP4 of component 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 the wiring.
Check for earth on connection N of component 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 the wiring.

If the problem is still present, contact the Techline.

* The immobiliser warning light will flash for a few seconds after the ignition is switched off.

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
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| DF234 PRESENT OR STORED | <u>COMPUTER</u> 1.DEF: Internal electronic fault |
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| | |
|--------------|--|
| NOTES | Special note: The fault relates to an internal computer fault. |
|--------------|--|

If the fault is **stored**, clear the fault from the computer memory.
Switch off the ignition, wait until the end of power latch* then switch the ignition back on and re-establish dialogue:
Check for + 12 V on connection AP4 of component 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 the wiring.
Check for earth on connection N of component 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 the wiring.

If the problem is still present, contact the Techline.

* The immobiliser warning light will flash a few seconds after the ignition is switched off.

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
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AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

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| DF235 PRESENT OR STORED | <u>INVALID PEDAL POSITION MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault) |
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| NOTES | Conditions for applying the fault finding procedure to stored faults: If the fault appears following a road test during which the kickdown function is inactive. |
|--------------|--|

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| Run a multiplex network test (see 88B, Multiplex). |
| If the fault is still present, carry out fault finding on the injection system (see 17B, Petrol injection or 13B, Diesel injection). |
| If the problem is still present, contact the Techline. |

Kickdown: instant power request by suddenly pressing the accelerator pedal down hard.

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|--|---|
| DF236 PRESENT OR STORED | <u>INVALID ENGINE SPEED MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault) |
|--|---|

| | |
|--------------|-------|
| NOTES | None. |
|--------------|-------|

| |
|--|
| Run a multiplex network test (see 88B, Multiplex). |
| If the fault is still present, carry out fault finding on the injection system (see 17B, Petrol injection or 13B, Diesel injection). |
| If the problem is still present, contact the Techline. |

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A**DF237
PRESENT
OR
STORED****INVALID COOLANT TEMPERATURE SIGNAL**

1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)

NOTES

None.

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

If the fault is still present, carry out fault finding on **injection** system (see **17B, Petrol injection** or **13B, Diesel injection**).

If the problem is still present, contact the Techline.

AFTER REPAIR

Deal with any other faults. Clear the fault memory.
Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|---|--|
| <p>DF238 PRESENT OR STORED</p> | <p><u>INVALID RAW ENGINE TORQUE MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)</p> |
|---|--|

| | |
|---------------------|--------------|
| <p>NOTES</p> | <p>None.</p> |
|---------------------|--------------|

| | |
|---|--|
| <p>Run a multiplex network test (see 88B, Multiplex).</p> | |
| <p>If the fault is still present, carry out fault finding on the injection system (see 17B, Petrol injection or 13B, Diesel injection).</p> | |
| <p>If the problem is still present, contact the Techline.</p> | |

| | |
|----------------------------|--|
| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
|----------------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|--|---|
| DF239 PRESENT OR STORED | <u>INVALID ACTUAL ENGINE TORQUE MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault) |
|--|---|

| | |
|--------------|-------|
| NOTES | None. |
|--------------|-------|

| |
|---|
| Run a multiplex network test (see 88B, Multiplex). |
| If the fault is still present, carry out fault finding on the injection system (see 17B, Petrol injection or 13B, Diesel injection). |
| If the problem is still present, contact the Techline. |

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|--|--|
| DF240 PRESENT OR STORED | <u>INVALID FRONT RIGHT-HAND WHEEL SPEED MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault) |
|--|--|

| | |
|--------------|--|
| NOTES | Front right-hand front wheel speed signal for the automatic transmission computer. |
|--------------|--|

| |
|--|
| Run a multiplex network test (see 88B, Multiplex). |
| If the fault is still present, carry out fault finding on the system (see 38C, ABS). |
| If the problem is still present, contact the Techline. |

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|---|---|
| <p>DF241 PRESENT OR STORED</p> | <p><u>INVALID FRONT LEFT-HAND WHEEL SPEED MULTIPLEX SIGNAL</u> 1.DEF: Multiplex signals absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)</p> |
|---|---|

| | |
|---------------------|--|
| <p>NOTES</p> | <p>Front left-hand wheel speed signal for the automatic transmission computer.</p> |
|---------------------|--|

| | |
|--|--|
| <p>Run a multiplex network test (see 88B, Multiplex).</p> | |
| <p>If the fault is still present, carry out fault finding on the system (see 38C, ABS).</p> | |
| <p>If the problem is still present, contact the Techline.</p> | |

| | |
|----------------------------|--|
| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
|----------------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|---------------------------------|--|
| <p>DF242 PRESENT</p> | <p><u>INVALID REAR RIGHT-HAND WHEEL SPEED MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)</p> |
|---------------------------------|--|

| | |
|---------------------|--|
| <p>NOTES</p> | <p>Rear right-hand wheel speed signal for the automatic transmission computer.</p> |
|---------------------|--|

| | |
|--|--|
| <p>Run a multiplex network test (see 88B, Multiplex).</p> | |
| <p>If the fault is still present, carry out fault finding on the system (see 38C, ABS).</p> | |
| <p>If the problem is still present, contact the Techline.</p> | |

| | |
|----------------------------|--|
| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
|----------------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|---------------------------------|---|
| <p>DF243 PRESENT</p> | <p><u>INVALID REAR LEFT-HAND WHEEL SPEED MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)</p> |
|---------------------------------|---|

| | |
|---------------------|---|
| <p>NOTES</p> | <p>Rear left-hand wheel speed signal for the automatic transmission computer.</p> |
|---------------------|---|

| | |
|--|--|
| <p>Run a multiplex network test (see 88B, Multiplex).</p> | |
| <p>If the fault is still present, carry out fault finding on the system (see 38C, ABS).</p> | |
| <p>If the problem is still present, contact the Techline.</p> | |

| | |
|----------------------------|--|
| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
|----------------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|--|---|
| DF244 PRESENT OR STORED | <u>TURBINE SPEED SENSOR SIGNAL</u> 1.DEF: Communication disrupted 2.DEF: No signal |
|--|---|

| | |
|--------------|--|
| NOTES | Conditions for applying the fault finding procedure to stored faults: The fault appears when the engine is running and the gear lever is at P. |
| | Special notes: Use bornier Elé. 1681 for all operations on the computer connectors. |

Disconnect the battery.
Disconnect the modular connector and check the **cleanliness and condition** of the connections.
Disconnect the computer. Check the **cleanliness and condition** of the connections.
Repair if necessary.

Check **the insulation, continuity and the absence of interference resistance to earth, to + 12 V** of the following connections:

- connection code 5DA, between components 119 and 1017,
- connection code 5DB, between components 119 and 1017.

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 the wiring.

Reconnect the modular connector.

Measure the **resistance** of component 1017 between the following connections:

- connection code 5DA,
- connection code 5DB.

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 the wiring.

Replace the sensor or the wiring harness if the resistance is not: **300 Ω \pm 40**.

If the problem is still present, contact the Techline.

| | |
|---------------------|---|
| AFTER REPAIR | Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool . |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of faults

23A

| | |
|---|---|
| <p>DF263 PRESENT OR STORED</p> | <p><u>INSTANTANEOUS MAXIMUM TORQUE MULTIPLEX SIGNAL</u> 1.DEF: Multiplex frames absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)</p> |
|---|---|

| | |
|---------------------|---|
| <p>NOTES</p> | <p>Instant maximum torque signal for the automatic transmission computer.</p> |
|---------------------|---|

| | |
|---|--|
| <p>Carry out a test on the multiplex network (see 88B Multiplex).</p> | |
| <p>If the fault is still present, run fault finding on the injection system (see 17B, Petrol injection or 13B, Diesel injection).</p> | |
| <p>If the problem is still present, contact the Techline.</p> | |

| | |
|----------------------------|--|
| <p>AFTER REPAIR</p> | <p>Deal with any other faults. Clear the fault memory. Switch off the ignition and carry out a road test followed by a test with the diagnostic tool.</p> |
|----------------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A

NOTES

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

MAIN SCREEN

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|-------------------------|---------------------------------------|----------------------|--|
| 1 | Engine speed | PR006: Engine speed | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |
| 2 | Turbine speed | PR007: Turbine speed | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |
| 3 | Power supply | PR008: Computer feed voltage | 10 V < X < 13 V | In the event of a fault, consult the interpretation of this parameter. |
| 4 | Gearbox oil temperature | PR004: Gearbox oil temperature | - 40 °C < X < 140 °C | In the event of a fault, consult the interpretation of this parameter. |
| 5 | Coolant temperature | PR001: Coolant temperature | - 40 °C < X < 120 °C | In the event of a fault, consult the interpretation of this parameter. |
| 6 | Oil pressure | PR003: Oil pressure | X < 0.2 bar | In the event of a fault, consult the interpretation of this parameter. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A

NOTES

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

MAIN SCREEN (CONTINUED)

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|---------------------|---------------------------------------|---|--|
| 7 | Gear lever position | ET012: Gear lever position | P if selector is in position P. N if selector is in position N. R if selector is in position R. D if selector is in position D. M if selector is in position M. M+ if selector is in position M+. M- if selector is in position M-. | In the event of a fault, refer to the interpretation of this status. |
| 8 | Manual mode | ET097: Manual mode | INACTIVE ACTIVE, if lever is in position M | In the event of a fault, refer to the interpretation of this status. |
| 9 | Old oil | ET083: Old oil | YES NO | No fault finding procedure for this status. |
| 10 | Raw pedal position | PR136: Raw pedal position | % | In the event of a fault, consult the interpretation of this parameter. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A

NOTES

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: CHANGING GEAR

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|-------------------------|---------------------------------------|--|--|
| 1 | Gear lever position | ET012: Gear lever position | P if selector is in position P . N if selector is in position N . R if selector is in position R . D if selector is in position D . M if selector is in position M . M+ if selector is in position M+ . M- if selector is in position M- . | In the event of a fault, refer to the interpretation of this status. |
| 2 | Sequential lever switch | ET128: Upper sequential lever switch | INACTIVE ACTIVE , if selector lever at M+ | In the event of a fault, refer to the interpretation of this status. |
| | | ET127: Lower sequential lever switch | INACTIVE ACTIVE , if selector lever at M | In the event of a fault, refer to the interpretation of this status. |
| 3 | Selection mode | ET097: Manual mode | INACTIVE ACTIVE , if lever is in position M | In the event of a fault, refer to the interpretation of this status. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A

NOTES

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: GEAR CHANGE (CONTINUED 1)

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|-------------------------|---------------------------------------|--|--|
| 4 | Gear engaged | ET013: Gear engaged | R for reverse. 1P for 1 st locked. 2P for 2 nd locked. 3P for 3 rd locked. 4P for 4 th locked. 1G for 1 st slipping. 2G for 2 nd slipping. 3G for 3 rd slipping. 4G for 4 th slipping. 1 for 1 st unlocked. 2 for 2 nd unlocked. 3 for 3 rd unlocked. 4 for 4 th unlocked. | In the event of a fault, refer to the interpretation of this status. |
| 5 | Oil pressure | PR003: Oil pressure | X < 0.2 bar | In the event of a fault, consult the interpretation of this parameter. |
| 6 | Engine speed | PR006: Engine speed | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |
| 7 | Standard pedal position | PR135: Standard pedal position | % | In the event of a fault, consult the interpretation of this parameter. |
| 8 | Raw pedal position | PR136: Raw pedal position | % | In the event of a fault, consult the interpretation of this parameter. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A

NOTES

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: GEAR CHANGE (CONTINUED 2)

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|--|--|----------------------------|--|
| 9 | Accel. pedal position for downshifting | PR124: Accel. pedal position for downshifting | % | In the event of a fault, consult the interpretation of this parameter. |
| 10 | Solenoid valve control | ET021: Sequence solenoid valve 1 control | ACTIVE INACTIVE | In the event of a fault, refer to the interpretation of this status. |
| | | ET022: Sequence solenoid valve 2 control | ACTIVE INACTIVE | In the event of a fault, refer to the interpretation of this status. |
| | | ET023: Sequence solenoid valve 3 control | ACTIVE INACTIVE | In the event of a fault, refer to the interpretation of this status. |
| | | ET024: Sequence solenoid valve 4 control | ACTIVE INACTIVE | In the event of a fault, refer to the interpretation of this status. |
| | | ET025: Sequence solenoid valve 5 control | ACTIVE INACTIVE | In the event of a fault, refer to the interpretation of this status. |
| | | ET026: Sequence solenoid valve 6 control | ACTIVE INACTIVE | In the event of a fault, refer to the interpretation of this status. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A**NOTES**

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: GEAR CHANGE (CONTINUED 3)

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|-----------------------------|---------------------------------------|--|---|
| 11 | Multifunction switch | ET123: Multifunction switch S2 | Lever in position P OPEN | In the event of a fault, refer to the interpretation of this status. |
| | | ET124: Multifunction switch S3 | | In the event of a fault, refer to the interpretation of this status. |
| | | ET125: Multifunction switch S4 | | In the event of a fault, refer to the interpretation of this status. |
| | | ET126: Multifunction switch P/N | | In the event of a fault, refer to the interpretation of this status. |
| 12 | Sequential actuator control | AC024: Sequential actuator control | Means of controlling all the solenoid valves | In the event of a fault, refer to the interpretation of this command. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A

NOTES

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: PRESSURE CONTROL

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|-------------------------------------|--|--|--|
| 1 | Gear engaged | ET013: Gear engaged | R for reverse. 1P for 1 st locked. 2P for 2 nd locked. 3P for 3 rd locked. 4P for 4 th locked. 1G for 1 st slipping. 2G for 2 nd slipping. 3G for 3 rd slipping. 4G for 4 th slipping. 1 for 1 st unlocked. 2 for 2 nd unlocked. 3 for 3 rd unlocked. 4 for 4 th unlocked. | In the event of a fault, refer to the interpretation of this status. |
| 2 | Engine speed | PR006: Engine speed | 0 rpm | In the event of a fault, refer to the interpretation of fault DF236 "Invalid engine speed multiplex signal". |
| 3 | Oil pressure | PR003: Oil pressure | X < 0.2 bar | In the event of a fault, consult the interpretation of this parameter. |
| 4 | Gearbox oil pressure sensor voltage | PR118: Gearbox oil pressure sensor voltage | X = 5 V | In the event of a fault, consult the interpretation of this parameter. |
| 5 | Reference pressure | PR138: Reference pressure | 21 bar | None. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A**NOTES**

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: PRESSURE REGULATION (CONTINUED)

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|--|---|--|--|
| 6 | Difference between reference pressure and oil pressure | PR146: Difference between reference and oil pressure | X = PR138 - PR003 | None. |
| 7 | Gearbox oil temperature | PR004: Gearbox oil temperature | - 40 °C < X < 140 °C | If there is a fault, refer to the interpretation of this parameter. |
| 8 | Sequential actuator control | AC024: Sequential actuator control | Command used to actuate all the solenoid valves. | In the event of a fault, refer to the interpretation of this command. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A**NOTES**

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: LEVER LOCK

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|-----------------------------|---------------------------------------|---|---|
| 1 | Gear lever position | ET012: Gear lever position | P if selector is in position P. N if selector is in position N. R if selector is in position R. D if selector is in position D. M if selector is in position M. M+ if selector is in position M+. M- if selector is in position M-. | In the event of a fault, refer to the interpretation of this status. |
| 2 | Brake pedal | ET003: Brake light switch (opening) | OPEN, if brake pedal is not depressed. CLOSED, if brake pedal is depressed. | In the event of a fault, refer to the interpretation of this status. |
| 3 | Brake pedal | ET004: Brake light switch (closure) | OPEN, if brake pedal is depressed. CLOSED, if brake pedal is not depressed. | In the event of a fault, refer to the interpretation of this status. |
| 4 | Sequential actuator control | AC024: Sequential actuator control | Command used to actuate all the solenoid valves. | In the event of a fault, refer to the interpretation of this command. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A

NOTES

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: LOCKUP/UNLOCKING

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|---------------------------------|--|-------------------|--|
| 1 | Engine speed | PR006: Engine speed | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |
| 2 | Calculated engine torque | PR123: Calculated engine torque | 0 Nm | In the event of a fault, consult the interpretation of this parameter. |
| 3 | Engine speed | PR007: Turbine speed | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |
| 4 | Engine/turbine speed difference | PR128: Engine/turbine speed difference | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |
| 5 | Current turbine speed | PR126: Current turbine speed | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |
| 6 | Reference pressure | PR138: Reference pressure | 21 bar | In the event of a fault, consult the interpretation of this parameter. |
| 7 | Oil pressure | PR003: Oil pressure | X < 0.2 bar | In the event of a fault, consult the interpretation of this parameter. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A

NOTES

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: LOCKUP/UNLOCKING (CONTINUED)

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|--|---|--|--|
| 8 | Gearbox oil pressure sensor voltage | PR118: Gearbox oil pressure sensor voltage | X = 5 V | In the event of a fault, consult the interpretation of this parameter. |
| 9 | Exchanger actuator solenoid valve control | ET020: Exchanger actuator solenoid valve control | ACTIVE INACTIVE | In the event of a fault, refer to the interpretation of this status. |
| 10 | Oil temperature | PR004: Gearbox oil temperature | - 40 °C < X < 140 °C | In the event of a fault, consult the interpretation of this parameter. |
| 11 | Difference between reference pressure and oil pressure | PR146: Difference between reference and oil pressure | X = PR138 - PR003 | None. |
| 12 | Oil too hot signal | ET010: Oil too hot signal | YES , if oil temperature: X > 140 °C | In the event of a fault, refer to the interpretation of this status. |
| 13 | Sequential actuator control | AC024: Sequential actuator control | Command used to actuate all the solenoid valves. | In the event of a fault, refer to the interpretation of this command. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A**NOTES**

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: STATIONARYDECLUTCHING

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|---------------------|---------------------------------------|--|--|
| 1 | Engine speed | PR006: Engine speed | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |
| 2 | Gear lever position | ET012: Gear lever position | P if selector is in position P. N if selector is in position N. R if selector is in position R. D if selector is in position D. M if selector is in position M. M+ if selector is in position M+. M- if selector is in position M-. | In the event of a fault, refer to the interpretation of this status. |
| 3 | Gear engaged | ET013: Gear engaged | R for reverse. 1P for 1 st locked. 2P for 2 nd locked. 3P for 3 rd locked. 4P for 4 th locked. 1G for 1 st slipping. 2G for 2 nd slipping. 3G for 3 rd slipping. 4G for 4 th slipping. 1 for 1 st unlocked. 2 for 2 nd unlocked. 3 for 3 rd unlocked. 4 for 4 th unlocked. | In the event of a fault, refer to the interpretation of this status. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A**NOTES**

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: STATIONARY DECLUTCHING (CONTINUED)

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|-----------------------------|--|---|---|
| 4 | Brake pedal | ET003: Brake light switch (opening) | OPEN , brake pedal released. CLOSED , brake pedal depressed. | In the event of a fault, refer to the interpretation of this status. |
| 5 | Brake pedal | ET004: Brake light switch (closure) | CLOSED , brake pedal released. OPEN , brake pedal depressed. | In the event of a fault, refer to the interpretation of this status. |
| 6 | Sequential actuator control | AC024: Sequential actuator control | Command used to actuate all the solenoid valves. | In the event of a fault, refer to the interpretation of this command. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A**NOTES**

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: CREEPING AT IDLE SPEED

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|---------------------------------|--|----------------------|--|
| 1 | Oil pressure | PR003: Oil pressure | X < 0.2 bar | In the event of a fault, consult the interpretation of this parameter. |
| 2 | Oil temperature | PR004: Gearbox oil temperature | - 40 °C < X < 140 °C | In the event of a fault, consult the interpretation of this parameter. |
| 3 | Vehicle speed | PR105: Vehicle speed | 0 mph | In the event of a fault, consult the interpretation of this parameter. |
| 4 | Engine speed | PR006: Engine speed | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |
| 5 | Engine speed | PR007: Turbine speed | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |
| 6 | Engine/turbine speed difference | PR128: Engine/turbine speed difference | 0 rpm | In the event of a fault, consult the interpretation of this parameter. |

AUTOMATIC TRANSMISSION

Fault finding - Conformity check

23A

NOTES

Only carry out this conformity check after a **complete check** with the diagnostic tool (no present or stored faults).

Application conditions: engine stopped, ignition on.

The values indicated in this conformity check are given as examples.

SUB-FUNCTION: CREEPING AT IDLE SPEED (CONTINUED)

| Order | Function | Parameter or Status checked or Action | Display and Notes | Fault finding |
|-------|-------------------------|--|--|--|
| 7 | Standard pedal position | PR135: Standard pedal position | % | In the event of a fault, consult the interpretation of this parameter. |
| 8 | Brake pedal | ET003: Brake light switch (opening) | OPEN , brake pedal released. CLOSED , brake pedal depressed. | In the event of a fault, refer to the interpretation of this status. |
| 9 | Brake pedal | ET004: Brake light switch (closure) | CLOSED , brake pedal released. OPEN , brake pedal depressed. | In the event of a fault, refer to the interpretation of this status. |
| 10 | Gear engaged | ET013: Gear engaged | R for reverse. 1P for 1 st locked. 2P for 2 nd locked. 3P for 3 rd locked. 4P for 4 th locked. 1G for 1 st slipping. 2G for 2 nd slipping. 3G for 3 rd slipping. 4G for 4 th slipping. 1 for 1 st unlocked. 2 for 2 nd unlocked. 3 for 3 rd unlocked. 4 for 4 th unlocked. | In the event of a fault, refer to the interpretation of this status. |

AUTOMATIC TRANSMISSION

Fault finding - Status summary table

23A

| Tool status | Diagnostic tool title |
|-------------|---|
| ET001 | Solenoid valve supply |
| ET003 | Brake light switch (opening) |
| ET004 | Brake light switch (closure) |
| ET010 | Oil too hot signal |
| ET011 | Engine speed signal |
| ET012 | Gear lever position |
| ET013 | Gear engaged |
| ET020 | Exchanger flow control solenoid valve control |
| ET021 | Sequence solenoid valve 1 control |
| ET022 | Sequence solenoid valve 2 control |
| ET023 | Sequence solenoid valve 3 control |
| ET024 | Sequence solenoid valve 4 control |
| ET025 | Sequence solenoid valve 5 control |
| ET026 | Sequence solenoid valve 6 control |
| ET081 | Snow mode |
| ET083 | Old oil |
| ET097 | Manual mode |
| ET108 | Torque reduction |
| ET123 | Multifunction switch S2 |
| ET124 | Multifunction switch S3 |
| ET125 | Multifunction switch S4 |
| ET126 | Multifunction switch P/N |
| ET127 | Lower sequential lever switch |
| ET128 | Upper sequential lever switch |
| ET157 | Gear lever unlocking |

AFTER REPAIR

Repeat the conformity check from the start.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|------------------------------|
| ET001 | <u>SOLENOID VALVE SUPPLY</u> |
|-------|------------------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

Force the solenoid valves supply by running command **AC024 Sequential actuator control**; see **Interpretation of commands**.

Disconnect the electric/hydraulic interface connector and check:

- Check for earth on connection 5AU of component 757.
- Check for earth on connection 5DN of component 1019.
- Check for earth on connection 5AZ of component 754.

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.

The solenoid valves feed status is **"PRESENT"** at a voltage of **+ 12 V**.

If the status is not correct, apply the interpretation of fault **DF012 Solenoid valves supply**.

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|-------------------------------------|
| ET003 | <u>BRAKE LIGHT SWITCH (OPENING)</u> |
|-------|-------------------------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

| |
|---|
| The status displays "OPEN" with the pedal released and changes to "CLOSED" with the brake pedal depressed. |
| Check the cleanliness and the condition of the brake light switch connections. |
| Check the position, setting and correct operation of the brake light switch. (Watch out for the floor carpet which can jam the switch.) |
| Disconnect the battery. Disconnect the computer. Check the cleanliness and condition of the connections. Use the Universal bornier Elé. 1681 to check the insulation, continuity and the absence of interference resistance on the following connection: <ul style="list-style-type: none">● connection code 5A, between components 119 and 160. If the connection is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it. |
| If the correct status is not displayed, replace the switch. |

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|------------------------------------|
| ET004 | <u>STOP LIGHT SWITCH (CLOSURE)</u> |
|-------|------------------------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

| |
|--|
| The status displays "CLOSED" with the pedal released and changes to "OPEN" with the brake pedal depressed. |
| Check the cleanliness and the condition of the brake light switch connections. |
| Check the position, setting and correct operation of the brake light switch. (Watch out for the floor carpet which can jam the switch.) |
| Disconnect the battery. Disconnect the computer. Check the cleanliness and condition of the connections. Use the Universal bornier Elé. 1681 to check the insulation, continuity and the absence of interference resistance on the following connection: <ul style="list-style-type: none">● connection code 5A, between components 119 and 160. If the connection is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it. If the correct status is not displayed, replace the switch. |

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|---------------------------|
| ET010 | <u>OIL TOO HOT SIGNAL</u> |
|-------|---------------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

This status means the oil temperature is above the normal operation temperature.
The status displays **"NO"** if the gearbox oil temperature is below **140 °C**.
The status displays **"YES"** when the gearbox oil temperature rises above **140 °C**.

If the correct status is not displayed, use the interpretation of fault **DF177 "Automatic transmission overheating"**.

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-----------------------------------|---|
| ET012 | <u>GEAR LEVER POSITION</u> |
| NOTES | There must be no present or stored faults. |
| LEVER POSITION "P"-"R"-"N"-"D" | <p>Check the cleanliness, condition and mounting of the automatic transmission multifunction switch.</p> <p>Check the control setting (see MR 370 Mechanical, 23A Automatic transmission, Multifunction switch, Adjustment (for Mégane II and Scénic II)).</p> <p>Disconnect the battery.</p> <p>Disconnect the modular connector and check the cleanliness and condition of the connector A connections.</p> <p>If the connector is faulty and there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Check the continuity of the following connections:</p> <p>Lever in position "P"</p> <ul style="list-style-type: none">● connection codes 5DG and 5DK between components 119 and 485. <p>Lever in position "R"</p> <ul style="list-style-type: none">● connection codes 5DG, 5DH, DJ and 5DK, between components 119 and 485. <p>Lever in position "N"</p> <ul style="list-style-type: none">● connection code 5DH between components 119 and 485. <p>Lever in position "D"</p> <ul style="list-style-type: none">● connection code 5DJ between components 119 and 485. <p>Check the insulation against + 12 V of the following connections:</p> <p>Lever in position "P"</p> <ul style="list-style-type: none">● connection codes 5DH, 5DJ and 5DK, between components 119 and 485. <p>Lever in position "N"</p> <ul style="list-style-type: none">● connection codes 5DG, 5DJ and 5DK, between components 119 and 485. <p>Lever in position "D"</p> <ul style="list-style-type: none">● connection codes 5DG, 5DH and 5DK, between components 119 and 485. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> |
| AFTER REPAIR | Repeat the conformity check from the start. |

Fault finding - Interpretation of statuses

| | |
|--|---|
| <p>ET012 CONTINUED</p> | |
| <p>LEVER POSITION "P"-"R"-"N"-"D" (CONTINUED)</p> | <p>Disconnect the multifunction switch. Use the universal bornier Elé. 1681 to check the insulation, continuity and the absence of interference resistance on the following connections:</p> <ul style="list-style-type: none"> ● connection code 5DG, between components 119 and 485, ● connection code 5DH, between components 119 and 485, ● connection code 5DJ, between components 119 and 485, ● connection code 5DK, between components 119 and 485. <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> |
| <p>LEVER POSITION "M" incrementation "M+" AND "M" decrementation</p> | <p>Check the cleanliness and the condition of the sequential lever module connections.</p> <p>Disconnect the battery. Disconnect the computer. Check the cleanliness and condition of the connections. Use the Universal bornier Elé. 1681. Check the insulation, continuity and absence of interference resistance on the following connections:</p> <ul style="list-style-type: none"> ● connection code 5FM, between components 119 and 129. <p>If the connection is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <ul style="list-style-type: none"> ● connection code 5H, between components 119 and 129. <p>If the connection is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <ul style="list-style-type: none"> ● connection code N between components 129 and 107. <p>If the connection is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> |
| <p>AFTER REPAIR</p> | <p>Repeat the conformity check from the start.</p> |

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|--------------|---------------------|
| ET013 | <u>GEAR ENGAGED</u> |
|--------------|---------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

| | |
|--|---|
| 1 for 1 st unlocked 2 for 2 nd unlocked 3 for 3 rd unlocked 4 for 4 th unlocked 1G for 1 st slipping 2G for 2 nd slipping 3G for 3 rd slipping 4G for 4 th slipping | 1P for 1 st locked 2P for 2 nd locked 3P for 3 rd locked 4P for 4 th locked R for reverse D for the default position N for neutral position |
| If the fault found is caused by the converter lockup, use the interpretation of fault DF016 "Lock-up solenoid valve circuit" . | |
| If the fault comes from the engaged gear, carry out fault finding on the multifunction switch. Check that statuses ET123 , ET124 and ET125 operate correctly. <ul style="list-style-type: none">– ET123 "Multifunction switch S2".– ET124 "Multifunction switch S3".– ET125 "Multifunction switch S4". Check the multifunction switch settings. | |

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|--------------|---|
| ET020 | <u>EXCHANGER FLOW CONTROL SOLENOID VALVE*</u> |
|--------------|---|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

The exchanger flow control solenoid valve command status displays **"ACTIVE"** in the following conditions:

- gearbox oil temperature is above **100°C**,
- engine speed is greater than **2000 rpm**.

With other conditions, the solenoid valve status displays **"INACTIVE"**.

Disconnect the computer. Check **the cleanliness and condition** of the connectors.

Check the continuity of the following connections:

- connection code 5DD, between components 119 and 1019,
- connection code 5DN, between components 119 and 1019.

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 component 1019 between the following connections:

- connection code 5DD,
- connection code 5DN.

The value should be **40 Ω ± 2** at approximately **23 °C**.

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

If the **resistance** is greater than **50 Ω**, check the wiring harness, computer connector and modular connector.

If the status of the command fails to change, use the interpretation of fault **DF017 "Exchanger flow solenoid valve circuit"**.

* EV: Solenoid valve.

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|--|
| ET021 | <u>SEQUENCE SOLENOID VALVE 1 CONTROL</u> |
|-------|--|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

This status displays **"ACTIVE"** when the gear engaged is **"3"** or **"4"** and **"INACTIVE"** when other gears are engaged.

Disconnect the computer. Check **the cleanliness and condition** of the connectors.

Check the **continuity** between **track 10** of the computer connector and **track B8** of the modular connector.

Check the continuity of the following connections:

- connection code 5AV, between components 119 and 754.

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.

Measure the resistance of component 754 between the following connections:

- connection code 5AV,
- connection code 5AU.

The value should be **40 Ω \pm 2** at approximately **23 °C**.

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

If the **resistance** is greater than **50 Ω** , check the wiring harness, computer connector and modular connector.

If the status does not function as specified, use the interpretation of fault **DF085 "EVS1 Sequence solenoid valve circuit"**.

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|--------------|--|
| ET022 | <u>SEQUENCE SOLENOID VALVE 2 CONTROL</u> |
|--------------|--|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

This status displays **"ACTIVE"** when the gear engaged is **"N"** or **"2"** or **"3"** or **"4"** and **"INACTIVE"** when other gears are engaged.

Disconnect the computer. Check **the cleanliness and condition** of the connectors.

Check the continuity of the following connections:

- connection code 5AW, between components 119 and 754.

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.

Measure the resistance of component 754 between the following connections:

- connection code 5AW,
- connection code 5AU.

The value should be **40 Ω \pm 2** at approximately **23 °C**.

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

If the **resistance** is greater than **50 Ω** , check the wiring harness, computer connector and modular connector.

If the status does not function as specified, use the interpretation of fault **DF086 "EVS2 Sequence solenoid valve circuit"**.

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|--|
| ET023 | <u>SEQUENCE SOLENOID VALVE 3 CONTROL</u> |
|-------|--|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

This status displays **"ACTIVE"** when the gear engaged is **"P"** or **"N"** or **"1"** and **"INACTIVE"** when other gears are engaged.

Disconnect the computer. Check **the cleanliness and condition** of the connectors.

Check the continuity of the following connections:

- connection code 5AX, between components 119 and 754.

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.

Measure the resistance of component 754 between the following connections:

- connection code 5AX,
- connection code 5AU.

The value should be $40\ \Omega \pm 2$ at approximately **23 °C**.

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

If the **resistance** is greater than **50 Ω** , check the wiring harness, the computer connector and the modular connector.

If the status does not function as specified, use the interpretation of fault **DF087 "EVS3 Sequence solenoid valve circuit"**.

| | |
|---------------------|--|
| AFTER REPAIR | Repeat the conformity check from the start. Make sure that shifting up and down through each gear works properly. |
|---------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|--------------|--|
| ET024 | <u>SEQUENCE SOLENOID VALVE 4 CONTROL</u> |
|--------------|--|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

This status displays **"ACTIVE"** when the gear engaged is **"1"** or **"2"** and **"INACTIVE"** when other gears are engaged.

Disconnect the computer. Check **the cleanliness and condition** of the connectors.

Check the continuity of the following connections:

- connection code 5AY, between components 119 and 754.

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.

Measure the resistance of component 754 between the following connections:

- connection code 5AU,
- connection code 5AY.

The value should be **40 Ω ± 2** at approximately **23 °C**.

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

If the **resistance** is greater than **50 Ω**, check the wiring harness, computer connector and modular connector.

If the status does not function as specified, use the interpretation of fault **DF089 "EVS4 Sequence solenoid valve circuit"**.

| | |
|---------------------|--|
| AFTER REPAIR | Repeat the conformity check from the start. Make sure that shifting up and down through each gear works properly. |
|---------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|--|
| ET025 | <u>SEQUENCE SOLENOID VALVE 5 CONTROL</u> |
|-------|--|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

| |
|---|
| <p>This status displays "ACTIVE" when the gear engaged is "1" and "INACTIVE" when other gears are engaged.</p> <p>Disconnect the computer. Check the cleanliness and condition of the connectors. Check the continuity of the following connections:</p> <ul style="list-style-type: none">● connection code 5DL, between components 119 and 754. <p>If the connection is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>Measure the resistance of component 754 between the following connections:</p> <ul style="list-style-type: none">● connection code 5AU,● connection code 5DL. <p>The value should be 40 Ω ± 2 at approximately 23 °C.</p> <p>If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>If the resistance is greater than 50 Ω, check the wiring harness, computer connector and modular connector.</p> <p>If the status is still not correct, use the interpretation of fault DF088 "EVS5 Sequence solenoid valve circuit".</p> |
|---|

| | |
|---------------------|--|
| AFTER REPAIR | Repeat the conformity check from the start. Make sure that shifting up and down through each gear works properly. |
|---------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|--|
| ET026 | <u>SEQUENCE SOLENOID VALVE 6 CONTROL</u> |
|-------|--|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

| |
|---|
| This status displays "INACTIVE" with any gear engaged. |
| Disconnect the computer. Check the cleanliness and condition of the connectors. Check the continuity of the following connections: <ul style="list-style-type: none">● connection code 5DM, between components 119 and 754. 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. Measure the resistance of component 754 between the following connections: The value should be 40 Ω ± 2 at approximately 23 °C . If the connection or connections are faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it. |
| If the resistance is greater than 50 Ω , check the wiring harness, computer connector and modular connector. |
| If the status is still not correct, use the interpretation of fault DF112 "EVS6 Sequence solenoid valve circuit" . |

| | |
|---------------------|--|
| AFTER REPAIR | Repeat the conformity check from the start. Make sure that shifting up and down through each gear works properly. |
|---------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|--------------------|
| ET097 | <u>MANUAL MODE</u> |
|-------|--------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

This status indicates the gear lever position.

This status displays **"ACTIVE"** when the gear lever is in position **"M"**, **"M+"** or **"M-"**.

This status displays **"INACTIVE"** when the gear lever is in positions **"P"**, **"R"**, **"N"** or **"D"**.

If the correct status is not displayed, use the interpretation of fault **DF093 "Manual sequential controls circuits"**.

| | |
|---------------------|--|
| AFTER REPAIR | Repeat the conformity check from the start. Make sure that shifting up and down through each gear works properly. |
|---------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A**ET123
ET124
ET125**MULTIFUNCTION SWITCH S2
MULTIFUNCTION SWITCH S3
MULTIFUNCTION SWITCH S4**NOTES**

There must be no present or stored faults.
Multifunction switch contact S1 is not connected on this vehicle.

These statuses show the position of the multifunction switch for each gear lever position.
The switch status can be **"OPEN"** or **"CLOSED"** (see table below).

| | S2 | S3 | S4 |
|----|--------|--------|--------|
| P | OPEN | CLOSED | CLOSED |
| R | OPEN | OPEN | OPEN |
| N | CLOSED | OPEN | CLOSED |
| D | CLOSED | CLOSED | OPEN |
| M | CLOSED | CLOSED | OPEN |
| M+ | CLOSED | CLOSED | OPEN |
| M- | CLOSED | CLOSED | OPEN |

If a status fails to function as specified, use the interpretation of fault **DF009 "Multifunction switch in prohibited position"**.

AFTER REPAIR

Repeat the conformity check from the start.
Make sure that shifting up and down through each gear works properly.

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|--------------------------------------|
| ET127 | <u>LOWER SEQUENTIAL LEVER SWITCH</u> |
|-------|--------------------------------------|

| | |
|-------|--|
| NOTES | There must be no present or stored faults. |
|-------|--|

This indicates the status of the lower sequential lever switch.

This status displays **"ACTIVE"** with the gear lever in position **"M-"**.

This status displays **"INACTIVE"** with the gear lever in a position other than **"M-"**.

Check the sequential lever supply on the following connections:

- check for + 12 V on connection AP43 of component 129,
- check for the vehicle earth on connection N of component 129.

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

With the gear lever in position **"M"**, measure the voltage of the following connections:

- check for the vehicle earth on connection 5H of component 129,
- check for the vehicle earth on connection 5FM of component 129.

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 any of the measured values is **+ 12 V**, replace the sequential lever.

If the values are **0 V**, check that the gear lever positions match the instrument panel display.

If the correct status is not displayed, use the interpretation of fault **DF093 "Manual sequential controls circuits"**.

| | |
|--------------|--|
| AFTER REPAIR | Repeat the conformity check from the start. Make sure that shifting up and down through each gear works properly. |
|--------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|--------------------------------------|
| ET128 | <u>UPPER SEQUENTIAL LEVER SWITCH</u> |
|-------|--------------------------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

This indicates the status of the lower sequential lever switch.

This status displays **"ACTIVE"** with the gear lever in position **"M+"**.

This status displays **"INACTIVE"** with the gear lever in a position other than **"M+"**.

Check the sequential lever supply on the following connections:

- check for + 12 V on connection AP43 of component 129,
- check for the vehicle earth on connection N of component 129.

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

With the gear lever in position **"M"**, measure the voltage of the following connections:

- check for the vehicle earth on connection 5H of component 129,
- check for the vehicle earth on connection 5FM of component 129.

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 any of the measured values is **+ 12 V**, replace the sequential lever.

If the values are **0 V**, check that the gear lever positions match the instrument panel display.

If the correct status is not displayed, use the interpretation of fault **DF093 Manual sequential controls circuits**.

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Interpretation of statuses

23A

| | |
|-------|-----------------------------|
| ET157 | <u>GEAR LEVER UNLOCKING</u> |
|-------|-----------------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

| |
|---|
| <p>This status displays "ACTIVE" when the gear lever is locked and "INACTIVE" when the gear lever is unlocked.</p> <p>Check the status with:</p> <ul style="list-style-type: none"> – Gear lever in position "P". – Instrument panel displaying "P" for the gear lever position. <p>Depress the brake pedal; the message on the instrument panel: Depress the brake pedal disappears.</p> <p>The status displays "INACTIVE" with the brake pedal depressed and gear lever unlocking permitted.</p> <p>The status displays "ACTIVE" with the brake pedal released and the gear lever locked in position "P".</p> <p>This status can only be checked with the gear lever in position "P".</p> <p>If the correct status is not displayed, use the interpretation of fault DF095 "Selector lever lock electromagnet circuit".</p> |
|---|

| | |
|---------------------|---|
| AFTER REPAIR | <p>Repeat the conformity check from the start.</p> <p>Make sure that shifting up and down through each gear works properly.</p> |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Parameter summary table

23A

| Tool parameter | Diagnostic tool title |
|----------------|---|
| PR001 | Coolant temperature |
| PR003 | Oil pressure |
| PR004 | Gearbox oil temperature |
| PR006 | Engine speed |
| PR007 | Turbine speed |
| PR008 | Computer feed voltage |
| PR105 | Vehicle speed |
| PR118 | Gearbox oil pressure sensor voltage |
| PR123 | Calculated engine torque |
| PR124 | Accel. pedal position for downshifting |
| PR126 | Current turbine speed |
| PR128 | Engine/turbine speed difference |
| PR135 | Standard pedal position |
| PR136 | Raw pedal position |
| PR138 | Reference pressure |
| PR146 | Difference between reference and oil pressure |

Fault finding - Interpretation of parameters

| | |
|-------|----------------------------|
| PR001 | <u>COOLANT TEMPERATURE</u> |
|-------|----------------------------|

| | |
|--------------|--|
| NOTES | Special notes: Only apply the checks if the parameter is inconsistent. |
|--------------|--|

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

If parameter **PR001 Coolant temperature** is absent, refer to the interpretation of the parameter (see **MR 366 Megane, 17B, Petrol injection** or **13B, Diesel injection**).

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|---------------------|
| PR003 | <u>OIL PRESSURE</u> |
|-------|---------------------|

| | |
|-------|--|
| NOTES | There must be no present or stored faults. |
|-------|--|

Immobilise the vehicle: handbrake on and brake pedal depressed.

Check the oil pressure values on the diagnostic tool:

- engine not running: pressure reading **less than 0.2 bar**.
- engine at idle speed (~ **820 rpm**) and gear lever at **D** or **R**: pressure reading ~ **2.6 bar**.
- engine speed ~ **1400 rpm** and gear lever at **D** or **R**: pressure reading ~ **8.7 bar**.

| | |
|--------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|--------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|--------------------------------|
| PR004 | <u>GEARBOX OIL TEMPERATURE</u> |
|-------|--------------------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

Gearbox oil temperature values vary according to how the vehicle is used.

Check the oil temperature values on the diagnostic tool:

Minimum temperature: **- 40 °C.**

Maximum temperature: **+ 140 °C.**

These values relate to normal operation of the vehicle.

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|---------------------|
| PR006 | <u>ENGINE SPEED</u> |
|-------|---------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

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

After these checks, if parameter **PR006 Engine speed** is absent, refer to the interpretation of the parameter (see 17B, Petrol injection or 13B, Diesel injection).

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|----------------------|
| PR007 | <u>TURBINE SPEED</u> |
|-------|----------------------|

| | |
|-------|--|
| NOTES | There must be no present or stored faults. |
|-------|--|

Turbine speed varies according to oil temperature and pressure.
Turbine speed depends on engine speed.

Check the turbine speed on the diagnostic tool:
Gear lever in position **N**.

Oil temperature **43 °C**: engine speed ~ **762 rpm** —————▶ turbine speed ~ **681 rpm**.

Oil temperature **45 °C**: engine speed ~ **743 rpm** —————▶ turbine speed ~ **654 rpm**.

| | |
|--------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|--------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|--------------------------------|
| PR008 | <u>COMPUTER SUPPLY VOLTAGE</u> |
|-------|--------------------------------|

| | |
|-------|--|
| NOTES | There must be no present or stored faults. All electrical consumers switched off. |
|-------|--|

| |
|--|
| Carry out a full battery and charging circuit check (see Technical Note 6014A, Charging circuit fault finding). |
| Disconnect the computer. Check the cleanliness and condition of the connector. |
| Check for earth on connection N of component 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. |
| Check the computer's 30A fuse. Check the computer's 5A after ignition feed fuse. |
| With the ignition on, check for + 12 V on the following connections: <ul style="list-style-type: none">● connection code BP42, between components 119 and 1337,● connection code AP4, between components 119 and 1337. If any of the 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 for earth on the following connections: <ul style="list-style-type: none">● connection code N of component 119,● connection code M of component 119. Check the Protection and Switching Unit if necessary. |

| | |
|--------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|--------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|----------------------|
| PR105 | <u>VEHICLE SPEED</u> |
|-------|----------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

Run a multiplex network test (88B, Multiplex).

If parameter **PR105 Vehicle speed** is absent, carry out fault finding on the system (see **38C, ABS**).

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|--|
| PR118 | <u>GEARBOX OIL PRESSURE SENSOR VOLTAGE</u> |
|-------|--|

| | |
|-------|--|
| NOTES | No faults should be present or stored. |
|-------|--|

ELECTRICAL CONFORMITY OF THE SENSOR:

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

- connection code 5U, between components 119 and 781,
- connection code 5W, between components 119 and 781,
- connection code 5V, between components 119 and 781.

If any of the 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 all the connections are correct, check for + 5 V on connection 5U of component 781.

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 all the connections are correct, check for earth on connection 5V of component 781.

If any of the 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 | Repeat the conformity check from the start. |
|--------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|---------------------------------|
| PR123 | <u>CALCULATED ENGINE TORQUE</u> |
|-------|---------------------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

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

If parameter **PR123 Calculated engine torque** is absent, refer to the interpretation of the parameter (see **17B, Petrol injection** or **13B, Diesel injection**).

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|--|
| PR124 | <u>ACCELERATOR PEDAL POSITION FOR DOWNSHIFTING</u> |
|-------|--|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

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

If parameter **PR124 Accel. pedal position for downshifting** is absent, consult the interpretation of the parameter (see 17B, Petrol injection or 13B, Diesel injection).

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|------------------------------|
| PR126 | <u>CURRENT TURBINE SPEED</u> |
|-------|------------------------------|

| | |
|-------|--|
| NOTES | There must be no present or stored faults. |
|-------|--|

Check the cleanliness and condition of the turbine speed sensor and its connections.

Check **the insulation, continuity and the absence of interference resistance to earth, to + 12 V** and the following connections:

- connection code 5DA, between components 119 and 1017,
- connection code 5DB, between components 119 and 1017.

If any of the 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 turbine speed on the diagnostic tool:

Gear lever position at **N or P**.

Oil temperature **43 °C**: turbine speed ~ **681 rpm** and engine speed: ~ **743 rpm**.

Oil temperature **45 °C**: turbine speed ~ **654 rpm** and engine speed: ~ **743 rpm**.

| | |
|--------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|--------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|--|
| PR128 | <u>ENGINE/TURBINE SPEED DIFFERENCE</u> |
|-------|--|

| | |
|-------|--|
| NOTES | There must be no present or stored faults. |
|-------|--|

Check the **cleanliness and condition** of the engine speed sensor and its connections.
Run a multiplex network test (see **88B, Multiplex**).

After these checks, if parameter **PR006 Engine speed** is absent, refer to the interpretation of the parameter (see **17B, Petrol injection** or **13B, Diesel injection**).

Check the **cleanliness and condition** of the turbine speed sensor and its connections.

This parameter is the difference between parameter **PR006 Engine speed** and parameter **PR007 Turbine speed**.
Check the engine/turbine speed difference with the diagnostic tool:

Engine idling:

Engine speed: ~ **743 rpm** and turbine speed: ~ **654 rpm** —————> difference = ~ **89 rpm**.

| | |
|--------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|--------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|--------------------------------|
| PR135 | <u>STANDARD PEDAL POSITION</u> |
|-------|--------------------------------|

| | |
|-------|--|
| NOTES | There must be no present or stored faults. |
|-------|--|

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

If parameter **PR135 Standard pedal position** is absent, refer to the interpretation of the parameter (see 17B, **Petrol injection** or 13B, **Diesel injection**).

| | |
|--------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|--------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|---------------------------|
| PR136 | <u>RAW PEDAL POSITION</u> |
|-------|---------------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

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

If parameter **PR136 Raw pedal position** is absent, refer to the interpretation of the parameter (see **17B, Petrol injection** or **13B, Diesel injection**).

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

Fault finding - Interpretation of parameters

| | |
|--------------|---------------------------|
| PR138 | <u>REFERENCE PRESSURE</u> |
|--------------|---------------------------|

| | |
|--------------|--|
| NOTES | There must be no present or stored faults. |
|--------------|--|

The reference pressure is determined by the automatic transmission computer.

Check the reference pressure on the diagnostic tool:

- engine not running: pressure reading **21 bar**.
- engine at idle speed (~ **700 rpm**) and selector lever at **D** or **R**: pressure reading ~ **2.7 bar**.
- engine speed ~ **1400 rpm** and gear lever at **D** or **R**: pressure reading ~ **8.9 bar**.

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

Fault finding - Interpretation of parameters

| | |
|-------|---|
| PR146 | <u>DIFFERENCE BETWEEN REFERENCE PRESSURE AND OIL PRESSURE</u> |
|-------|---|

| | |
|-------|--|
| NOTES | There must be no present or stored faults. |
|-------|--|

The reference pressure values are stored in the transmission computer memory and depend on how the vehicle is used.

The oil pressure is regulated according to the reference pressure. The oil pressure values must always be close to the reference pressure.

This parameter is the difference between parameter **PR138 Reference pressure** and parameter **PR003 Oil pressure**.

- engine not running: reference pressure reading **21 bar**.
oil pressure reading = **0 bar**.
- engine at idle speed (~ **700 rpm**) and selector lever at **D** or **R**: reference pressure reading ~ **2.7 bar**.
oil pressure reading = ~ **2.6 bar**.
- engine speed ~ **1400 rpm** and selector lever at **D** or **R**: reference pressure reading ~ **8.9 bar**.
oil pressure reading = ~ **8.7 bar**.

| | |
|--------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|--------------|---|

COMMANDS AND CLEARING:

Before using these clearing commands, engine and vehicle speeds must be zero and the selector lever must be in position **P** or **N**.

AC024 Sequential actuator control

This command activates sequence solenoids EVS1 to EVS6 simultaneously to check that they operate correctly.

RZ004 Fault memory

This command clears present and stored faults from the automatic transmission computer.

RZ005 Self-adapting programs

This command is used to clear the automatic transmission computer auto-adaptives following reprogramming, or after transmission components have been replaced.

After running this command, carry out a road test with the vehicle before returning it to the customer. This is because the automatic transmission may malfunction during the time taken for the self-adapting programs to re-install.

AFTER REPAIR

Repeat the conformity check from the start.

Fault finding - Interpretation of commands

| | |
|--------------|------------------------------------|
| AC024 | <u>ACTUATOR SEQUENTIAL CONTROL</u> |
|--------------|------------------------------------|

| | |
|--------------|--|
| NOTES | Check the 30 A permanent computer supply fuse in the Protection and Switching Unit. Check the 5 A computer after ignition feed fuse in the Protection and Switching Unit. Replace the fuses if necessary. Check the cleanliness and condition of the connections. |
| | Engine speed zero and gear lever in position P or N . |

This command enables all the automatic transmission solenoid valve actuators to be operated.

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

- connection code 5DN, between components 119 and 1019,
- connection code 5BA, between components 119 and 754,
- connection code 5AU, between components 119 and 754.

If any of the 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.

Control of solenoid valve **EVS1**:

- connection code 5AV, between components 119 and 754.

Control of solenoid valve **EVS2**:

- connection code 5AW, between components 119 and 754.

Control of solenoid valve **EVS3**:

- connection code 5AX, between components 119 and 754.

Control of solenoid valve **EVS4**:

- connection code 5AY, between components 119 and 754.

Control of solenoid valve **EVS5**:

- connection code 5DL, between components 119 and 754.

Control of solenoid valve **EVS6**:

- connection code 5DM, between components 119 and 754.

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

Test the solenoid valves then check for faults on the computer.

| | |
|---------------------|---|
| AFTER REPAIR | Repeat the conformity check from the start. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Customer complaints

23A

NOTES

Only refer to Customer complaints after carrying out a complete fault finding procedure with the diagnostic tool and the conformity check.

NO DIALOGUE WITH THE COMPUTER

ALP1

ENGINE STARTING FAULTS

ALP2

AUTOMATIC TRANSMISSION OPERATING FAULTS

ALP3

AUTOMATIC TRANSMISSION MALFUNCTIONING ON GEAR CHANGING

ALP4

ERRATIC GEAR CHANGES

ALP5

REVERSING LIGHTS DO NOT WORK

ALP6

OIL UNDER THE VEHICLE

ALP7

AUTOMATIC TRANSMISSION

Fault finding - Fault Finding Chart

23A

| | |
|-------------|--------------------------------------|
| ALP1 | No dialogue with the computer |
|-------------|--------------------------------------|

| | |
|--------------|-------|
| NOTES | None. |
|--------------|-------|

Try the diagnostic tool on another vehicle.

Check:

- the connection between the diagnostic tool and the diagnostic socket (connection and cable in good condition),
- the power supply to the computer,
- the engine and passenger compartment fuses.

Check that the **CLIP** sensor is supplied by connections BP32, MAN and NAM of component 225, displayed when both red indicator lights on the sensor illuminate.

Make sure that the **CLIP** sensor is connected to the computer's USB port.

Make sure the **CLIP** sensor is communicating properly with the vehicle's computers; this can be seen by the two green diodes on the sensor lighting up.

Check the following connections on component 225:

- connection code AP43 (+ after ignition feed),
- connection code BP32 (+ battery feed),
- connection code MAN (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 the wiring.

Disconnect the automatic transmission computer connector to check **the insulation, continuity and the absence of interference resistance** of the following connections:

- connection code AP4, between components 119 and 1337,
- connection code BP42, between components 119 and 1337,
- connection code N, between components 119 and 107,
- connection code 3MT, between components 119 and 120,
- connection code 3MS, between components 119 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 the wiring.

If the fault is still present, contact the Techline.

| | |
|---------------------|--|
| AFTER REPAIR | Carry out a road test followed by a complete check with the diagnostic tool . |
|---------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Fault Finding Chart

23A

| | |
|-------------|-------------------------------|
| ALP2 | Engine starting faults |
|-------------|-------------------------------|

| | |
|--------------|---|
| NOTES | Only refer to Customer complaints after carrying out a complete fault finding procedure with the diagnostic tool and the conformity check. |
|--------------|---|

Make sure that the diagnostic tool report, gear lever positions and instrument panel all indicate the same gear engaged.

Adjust the gear lever cable if it is faulty.

The engine will only start when the gear lever is at **P** or **N**.

Check the battery charge and the condition of the terminals (oxidation).

Check the multifunction switch mounting and that it is working.

Check the gear lever control cable and adjust if necessary (see **MR 364 Mechanical, 23A, Automatic transmission, Multifunction switch, Removal - Refitting (for Mégane II)** and **MR 370 Mechanical, 23A, Automatic transmission, Multifunction switch, Adjustment (for Scénic II)**).

Ensure that the ignition switch is working properly.

Check the power circuit of the starter relay and the starter.

Carry out fault finding on the injection system.

If the engine still doesn't start, contact the Techline.

| | |
|---------------------|--|
| AFTER REPAIR | Carry out a road test followed by a complete check with the diagnostic tool . |
|---------------------|--|

ALP3

Automatic transmission operating faults

NOTES

Only refer to Customer complaints after carrying out a complete fault finding procedure with the diagnostic tool and the conformity check.
If the engine races when shifting from 1/2 when cold (automatic transmission oil temperature less than 15°C), replace the pressure modulating solenoid valve (EVM).

Start with the ALP1 cycle

Use the **diagnostic tool** to check the consistency between the display and the gear lever positions (ignition on and engine stopped).

Are they consistent?

— NO →

Adjust the control settings following the instructions provided (see **MR 370, Mechanical, 23 A, Automatic Transmission, Automatic transmission control unit (for Mégane II and Scénic II)**).

↓
YES
↓

Check the oil level and the condition of the oil (colour, odour, etc.).

Does the condition of the oil suggest there is an internal fault in the automatic transmission?

— YES →

Replace the automatic transmission (see **MR 364, Mechanical, 23A, Automatic transmission, Removal-Refitting (for Mégane II) and MR 370, Mechanical, 23A, Automatic transmission, Removal-Refitting (for Scénic II)**).

↓
NO
↓

With the engine stopped, check the line pressure information provided by the pressure sensor (**PR003 Oil pressure**).

Is the value higher than 0.2 bar?

— YES →

Replace the pressure sensor (see **MR 364, Mechanical, 23A, Automatic transmission, Pressure sensor (for Mégane II) and MR 370, Mechanical, 23A, Automatic transmission, Pressure sensor (for Scénic II)**).

↓
NO
↓
A

AFTER REPAIR

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

ALP3
CONTINUED 1

A

Check the oil level.

Check the oil pressure using **PR003 Oil pressure**:

Warm engine with gearbox oil temperature between 65 and 90°C.

Measure the line pressure under the 3 following conditions:

IMPORTANT**The vehicle must be stationary: handbrake on and brake pedal depressed, no accessories operating (e.g.: air conditioning)****1 engine speed idling:**Shift the gear lever to **R**, **N** and **D**, the pressure reading must be greater than **2.5 bars**.**2 engine speed at 1200 rpm:**– gear lever in **R** position, the pressure reading must be greater than **4 bars**.– gear lever in **D** position, the pressure reading in first gear must be greater than **5.5 bars**.**3 engine speed at 2200 rpm:**– gear lever in **R** position, the pressure reading must be greater than **11 bars**.– gear lever in **D** position, the pressure reading in first gear must be greater than **11 bars**.**Do the recorded values correspond to the specified values?**

YES

NO

Shift the gear lever into position **D** and monitor **PR007 Turbine speed** when accelerating.**Does the turbine speed change?**

NO

B

YES

Replace the pressure modulating solenoid valve and the oil. Repeat the check after replacement. If the fault is still present, replace the hydraulic distributor and all the solenoid valves (see **MR 364 Mechanical, 23A, Automatic transmission, Hydraulic distributor (for Mégane II)** and **MR 370 Mechanical, 23A, Automatic transmission, Hydraulic distributor (for Scénic II)**).

Replace the automatic transmission (see **MR 364, Mechanical, 23A, Automatic transmission, Removal-Refitting (for Mégane II)** and **MR 370, Mechanical, 23A, Automatic transmission, Removal-Refitting (for Scénic II)**).

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

ALP3
CONTINUED 2

B

NO
↓

Refer to the procedure and the safety instructions for carrying out a setting point check on the torque converter.
Theoretical engine speed at setting point: **2300 ± 150 rpm**

Is the value of the setting point wrong or is there an internal noise in the converter?

NO
↓

Carry out a road test, observing the engine speed on the instrument panel and the information displayed on the diagnostic tool (**PR006 Engine speed**)

Does the engine speed change each time there is a gear change?

YES
↓

The checks carried out have not provided any evidence of a fault and the automatic transmission appears to be working correctly. If the vehicle does show the customer complaint selected, continue with the entire fault finding procedure.

NO
↓

Replace the torque converter, the lock-up solenoid valve and the oil. If the oil is burnt, also replace the hydraulic distributor and all the solenoid valves (see **MR 364 Mechanical, 23A, Automatic transmission, Hydraulic distributor (for Mégane II)** and **MR 370 Mechanical, 23A, Automatic transmission, Hydraulic distributor (for Scénic II)**).

When replacing the torque converter, ensure that the reaction shaft is securely attached to the hub of the oil pump (flanged shaft).

Note:

A setting point which is too low may be due to a lack of engine power.

Replace the hydraulic distributor and all the solenoid valves. (see **MR 364 Mechanical, 23A, Automatic transmission, Hydraulic distributor (for Mégane II)** and **MR 370 Mechanical, 23A, Automatic transmission, Hydraulic distributor (for Scénic II)**).

AFTER REPAIR

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

AUTOMATIC TRANSMISSION

Fault finding - Fault Finding Chart

23A

| | |
|-------------|---|
| ALP4 | Automatic transmission malfunctioning on gear changing |
|-------------|---|

| | |
|--------------|---|
| NOTES | Only refer to Customer complaints after carrying out a complete fault finding procedure with the diagnostic tool and the conformity check. |
|--------------|---|

Automatic transmission malfunctions may be noted during gear changing without any fault being stored in the computer.

These malfunctions may be linked to:

- connection faults (**insulation**: creates a fault, **resistance**) in the sequence solenoid valve control wiring harnesses (**EVS1 to EVS6**).

Check the tightness and condition of the clips on all the solenoid valve control wiring connections from the computer to each solenoid valve.

Use command **AC024 Sequential actuators control** to find any faults.

- Hydraulic distributor faults (hydraulic slide valve seizing, strainer/distributor seal) preventing the sequence solenoid valves from working properly.

Check the oil's condition (colour, burnt or not) its level and pressure: increasing with engine/turbine speed.

- Loss of pressure when changing gear (clutch brakes/cylinder leaks)

Read the values of the following parameters (gear lever in position **D** or **R**: vehicle stationary and handbrake applied) on the CLIP tool:

- **PR003 Oil pressure,**
- **PR006 Engine speed,**
- **PR007 Turbine speed,**
- **PR138 Reference pressure,**
- **PR008 Computer feed voltage.**

These parameters are associated with automatic transmission operation.

If one of the values is incorrect, note the fault it causes.

Replace the faulty part if necessary and carry out a check.

If the fault is still present, contact Techline.

| | |
|---------------------|---|
| AFTER REPAIR | Carry out a road test followed by a complete check with the diagnostic tool. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Fault Finding Chart

23A

| | |
|-------------|-----------------------------|
| ALP5 | Erratic gear changes |
|-------------|-----------------------------|

| | |
|--------------|--|
| NOTES | Only refer to Customer complaints after carrying out a complete fault finding procedure with the diagnostic tool and the conformity check. |
|--------------|--|

| |
|--|
| Run a multiplex network test (see 88B, Multiplex). Check for the following parameters: <ul style="list-style-type: none">– PR135 Standard pedal position,– PR136 Raw pedal position. |
| Carry out a road test using the diagnostic tool, making sure that status ET013 Gear engaged operates normally. |
| If the customer complaint occurs with the brake pedal released, check that status ET004 Brake light switch (Closed) is NO . If not, adjust the brake light switch and the brake pedal. |
| Make sure that the instrument panel display of the gear engaged matches the gear lever position. |
| Check the automatic transmission wiring harness (sequence solenoid valve control). Replace it if necessary. |
| Check that the gear lever cable is working properly and adjust it if necessary. Check that the multifunction switch is working correctly. |
| If the fault is still present, contact Techline. |

| | |
|---------------------|--|
| AFTER REPAIR | Carry out a road test followed by a complete check with the diagnostic tool . |
|---------------------|--|

AUTOMATIC TRANSMISSION

Fault finding - Fault Finding Chart

23A

| | |
|-------------|-------------------------------------|
| ALP6 | Reversing lights do not work |
|-------------|-------------------------------------|

| | |
|--------------|---|
| NOTES | Only refer to Customer complaints after carrying out a complete fault finding procedure with the diagnostic tool and the conformity check. |
|--------------|---|

Check:

- the condition of the fuses in the UPC.
- the condition of the bulbs.
- the condition of the bulb contacts. Repair if necessary.
- Check that the earth is present for the following connections:

- **connection code MAQ of component 172,**
- **connection code MZ of component 173.**

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 the wiring.

Switch off the ignition and disconnect the modular connector.

Switch on the ignition again and check for **+ 12 V after ignition feed on connection AP11 of component 485.**

Switch off the ignition and check the continuity on the following connections, with the gear lever in position **R**:

- connection code H66P, between components 485 and 1337,
- connection code AP11, between components 485 and 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 the wiring.

Check that the gear lever cable is correctly adjusted and check the instrument panel display.

If the continuity is faulty, replace the multifunction switch.

Switch on the ignition.

With the gear lever in position **"R"**, check for **+ 12 V after ignition feed** on the following connections:

- **connection code H66P between components 172 and 1337,**
- **connection code H66P, between components 173 and 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 the wiring.

| | |
|---------------------|---|
| AFTER REPAIR | Carry out a road test followed by a complete check with the diagnostic tool. |
|---------------------|---|

AUTOMATIC TRANSMISSION

Fault finding - Fault Finding Chart

23A

| | |
|-------------|----------------------------------|
| ALP7 | Oil present under vehicle |
|-------------|----------------------------------|

| | |
|--------------|---|
| NOTES | Only refer to Customer complaints after carrying out a complete fault finding procedure with the diagnostic tool and the conformity check. |
|--------------|---|

| |
|---|
| <p>Check the colour of the oil under the vehicle to determine the source of the leak (automatic transmission fluid is red). Clean the engine and gearbox.</p> |
| <p>Check the oil levels in the engine and gearbox. Top up if necessary (see MR 364 Mechanical, 23A, Automatic transmission, Filling - levels (for Mégane II) and MR 370 Mechanical, 23A, Automatic transmission, Oil change (for Scénic II)).</p> |
| <p>If there is no gearbox leak, look for a leak in the engine compartment. If the leak is from the gearbox:</p> <ul style="list-style-type: none"> – Locate the source of the leak and carry out the necessary repairs. – Replace any faulty parts. – Check the oil level. |

| | |
|---------------------|---|
| AFTER REPAIR | Carry out a road test followed by a complete check with the diagnostic tool. |
|---------------------|---|

AUTOMATIC TRANSMISSION
Fault finding - Tests

23A

Checking the gearbox output lever clearance

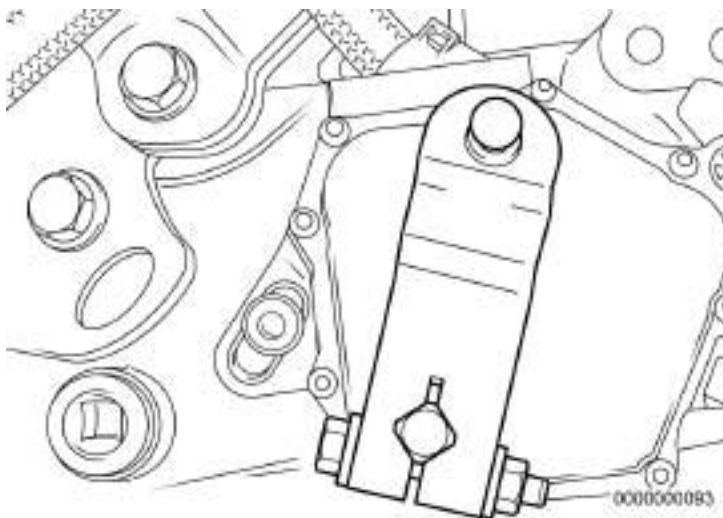
TEST 1

TEST 1

Checking the gearbox output lever clearance

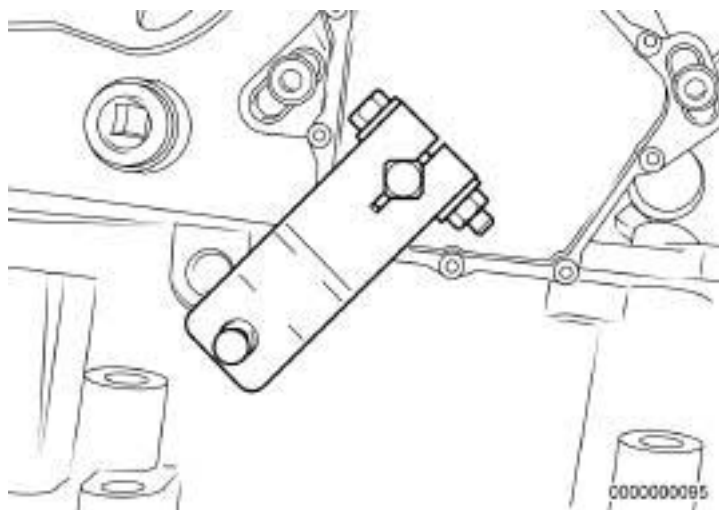
Normal lever:

Check the clearance in the ball detent of fixed 1st gear. There must be little or no lever clearance in this position.



Inverted lever:

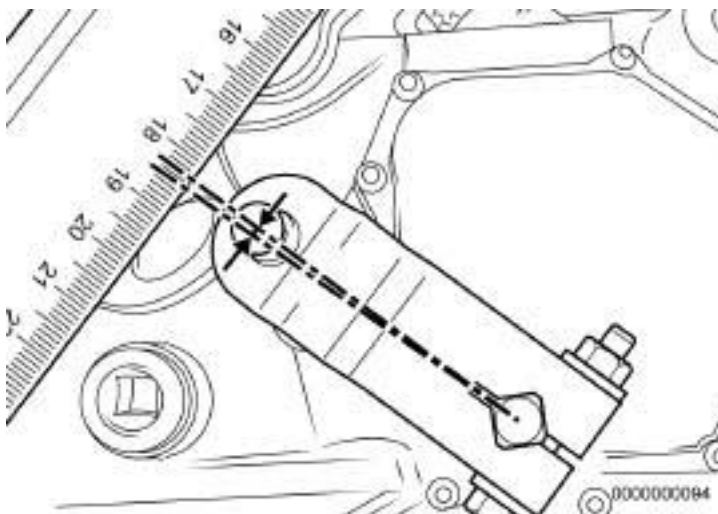
Check the clearance in the ball detent of fixed 1st gear. There must be little or no lever clearance in this position.



TEST 1 CONTINUED

Normal lever:

Check the clearance in the Park position. Clearance must be approximately **1.5 mm** (measured at the ball joint).



Inverted lever:

Check the clearance in the Park position. Clearance must be approximately **1.5 mm** (measured at the ball joint).

