Clio

1 Engine and peripherals

17B PETROL INJECTION

V42 Injection
Program No.: 2A
Vdiag No.: 04, 05, 06, 14, 16, 18

V5 **Edition Anglaise**

1. SCOPE OF THIS DOCUMENT

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

Vehicle(s): LOGAN, SANDERO, DUSTER, THALIA 2/SYMBOL 2, CLIO II F 6, KANGOO VLL*

Engine:
Petrol: K7M714, K4M674, K4M694, K4M695, F4R404, F4R405, F4R408, D4D760, D4D754, K7M764, K4M896.
Flex Fuel: K4M606, K4M697, K4M744, F4R400, F4R402, F4R403, K4M764, K4M850.
E85: K4M696.
LPG injection: D4F734, K4M616

Function(s) concerned:
Petrol injection,
Flex Fuel Injection
E85
LPG injection

Name of computer: V42

Program No.: 2A

Vdiag No.: 04, 05, 06, 14, 16, 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.

Type of diagnostic tools

- **CLIP**

Special tooling required

Special tooling required	
Diagnostic tool	
Elé 1590	128-track computer bornier
Elé. 1681	universal bornier
Mot 1711	Injector flow measuring kit
Multimeter.	

*VLL — Very Long Life

3. SAFETY INSTRUCTIONS

Safety rules must be observed during any work on a component to prevent any material damage or personal injury:
– Make sure the battery is properly charged to avoid damaging the computers if there is a low charge.
– Use the appropriate tools.

4. REMINDER

To run diagnostics on the vehicle computers, switch on the ignition using the key

To switch off the + after ignition feed, switch off the ignition using the key.

Injection computer:
The injection computer is located in the engine compartment, behind the battery.

TDC sensor:
This sensor is located on the gearbox casing, behind the engine.

Pinking sensor:
This sensor is located between the four injectors.

Refrigerant pressure sensor:
This sensor is located on the air conditioning circuit.

Injection coolant temperature sensor:
This sensor is located on the engine water chamber.

Injection air temperature sensor:
The air temperature sensor is located at the air circuit inlet.

Downstream oxygen sensor:
The downstream oxygen sensor is located on the exhaust pipe downstream of the catalytic converter.

Upstream oxygen sensor:
The upstream oxygen sensor is located on the exhaust pipe after the manifold.

Accelerator potentiometer:
The potentiometer is located on the accelerator pedal.

Brake light switch:
The switch is located on the brake pedal.

Injectors 1, 2, 3, 4:
The injectors are mounted on the engine.

Motorised throttle valve:
The damper valve is located in front of the inlet manifold.

Quadruple ignition coil module (**D4D** and **K7M** engines):
The coil module is located in the engine compartment.

Cylinder 1, 2, 3, 4 pencil coils (**K4M** engine):
They are located on the cylinder head.

Catalytic converter:
The catalytic converter is located on the exhaust pipe downstream of the catalytic pre-converter.

Fan unit relay:
The relay is located on the cooling radiator.

Injection computer:
The injection computer receives information from various sensors and sends control signals to various actuators according to mappings that it has stored in the memory.

TDC sensor:
This sensor allows the computer to provide synchronisation as well as to know the position Top Dead Centre for injection phasing.

Pinking sensor:
This sensor allows the computer to correct the ignition advance under high engine load to avoid damaging the engine.

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

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

Injection air temperature sensor:
The air temperature sensor provides the computer with the temperature of air taken in by the engine.

Oxygen sensors:
The oxygen sensors allow the catalytic converter to correctly perform engine emission control tasks.

Accelerator potentiometer:
The potentiometer allows the computer to take into account driver requests expressed using the accelerator pedal.

Clutch pedal switch:
This switch allows the computer to convert to anti-jerking mode when the clutch pedal is depressed.

Brake light switch:
The brake light switch informs the computer of the brake pedal status.
Two gangs are used if the cruise control function exists.

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

Motorised throttle valve:
The throttle valve allows engine air flow to be managed according to driver requests.

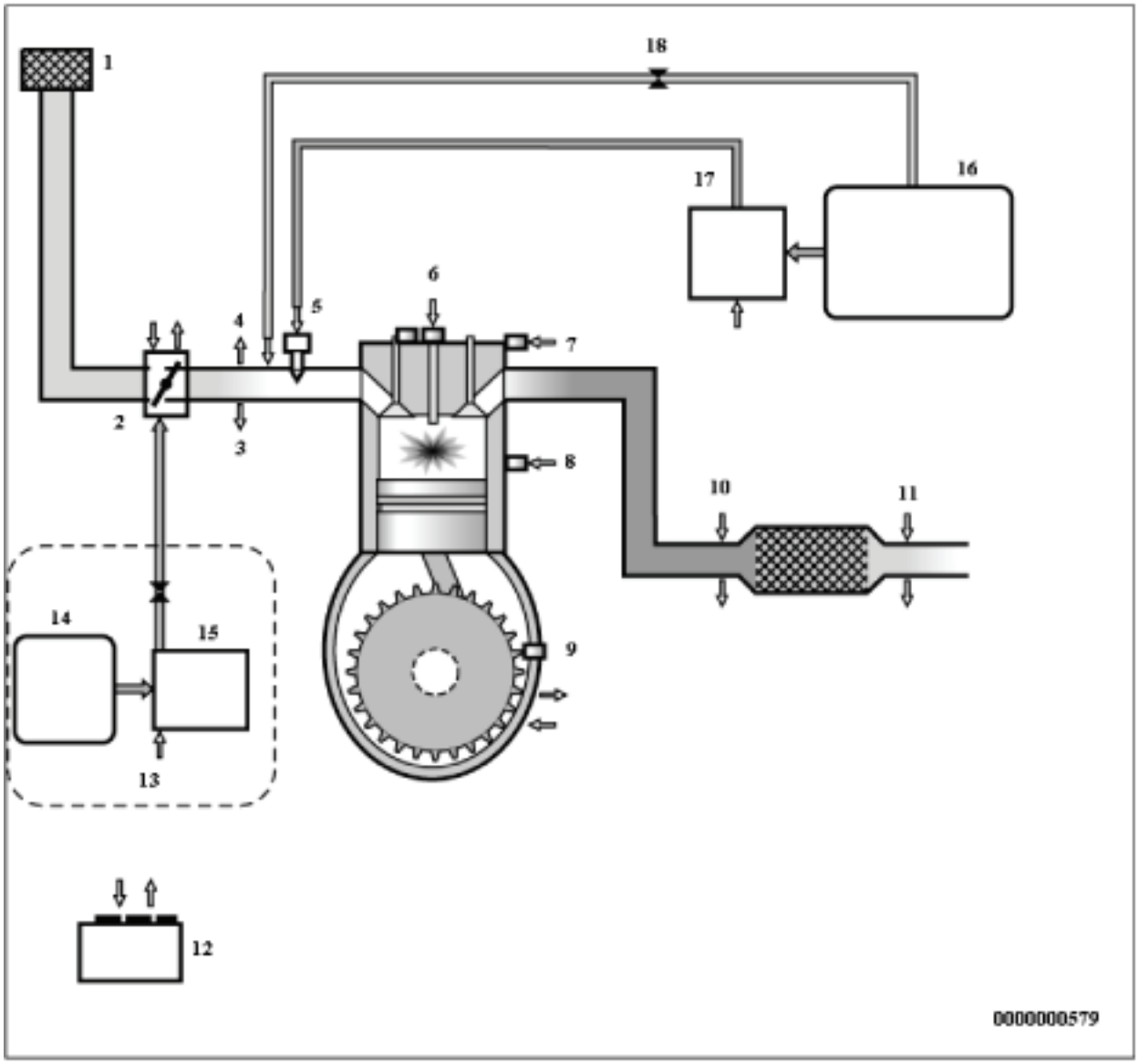
Quadruple ignition coil module (**D4D** and **K7M** engines):
The ignition unit enables ignition (explosion timing control).

Cylinder 1, 2, 3, 4 pencil coils (**K4M** engine):
The pencil coils enable ignition (explosion timing control).

Fan unit relay:
The engine cooling fan unit relay supplies power to the engine cooling fan.

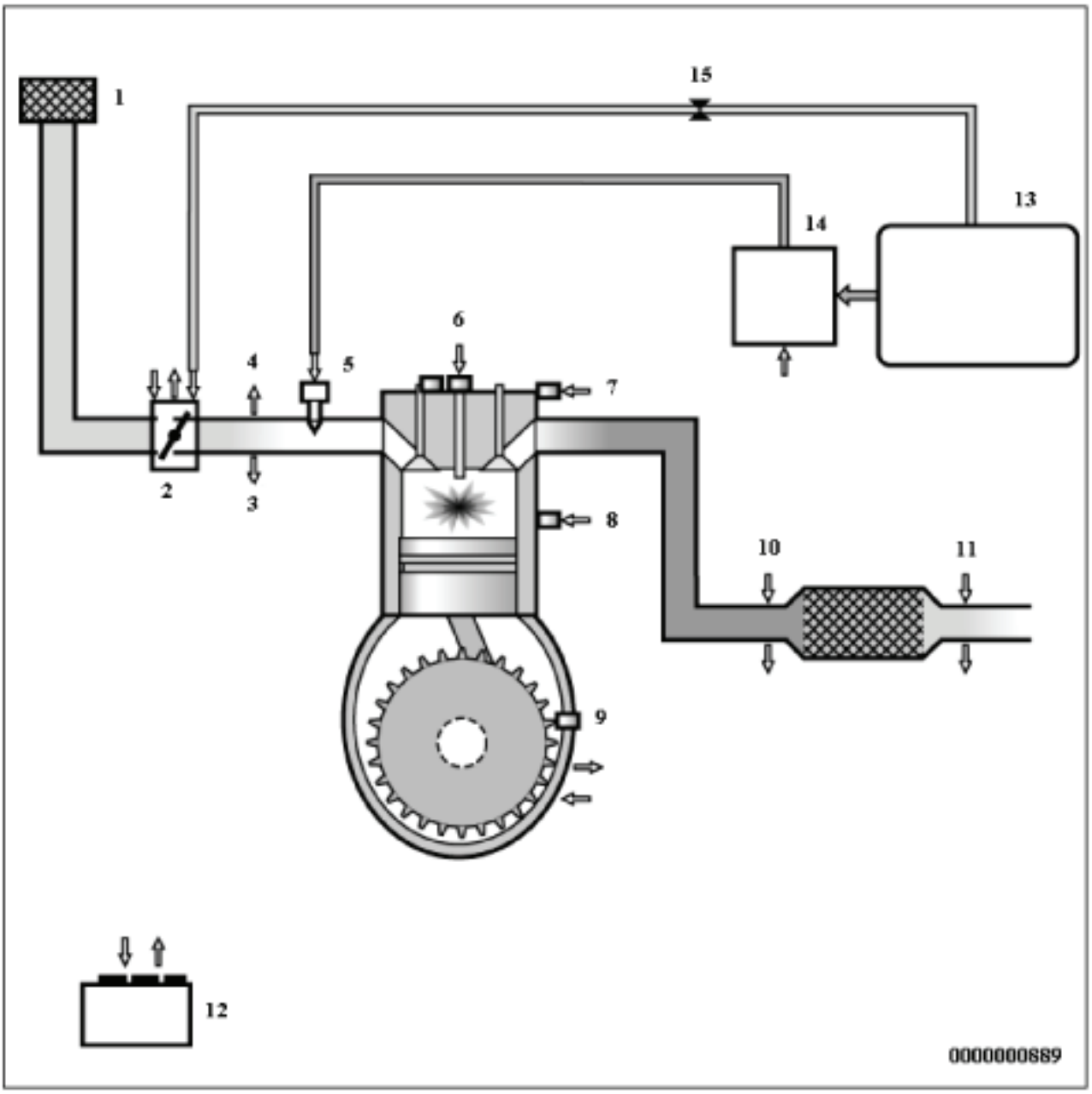
Camshaft dephaser (F4R engine):
The function of the camshaft dephaser (VVT) is to vary the camshaft adjustment.
The system consists of a dephaser (hydraulic part that modifies the camshaft adjustment) and a solenoid valve.

For flex-fuel engines



1. **Air filter**
2. **Motorised throttle valve**
3. **Injection air temperature sensor**
4. **Manifold pressure**
5. **Injectors**
6. **Ignition coils**
7. **Injection coolant temperature sensor**
8. **Pinking sensor**
9. **TDC sensor**
10. **Upstream oxygen sensors**
11. **Downstream oxygen sensors**
12. **Injection computer**
13. **Auxiliary cold starting system**
14. **Auxiliary fuel tank**
15. **Auxiliary fuel**
16. **Petrol/alcohol tank**
17. **Petrol pump**
18. **Bleed valve**

For petrol and bio-petrol engines



1. **Air filter**
2. **Motorised throttle valve**
3. **Injection air temperature sensor**
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11. **Downstream oxygen sensors**
12. **Injection computer**
13. **Petrol tank**
14. **Petrol pump**
15. **Bleed valve**

Engine immobiliser

This Verlog 2 type immobiliser function is managed by the UCH computer and the injection computer.
Before any starting request, the injection computer is protected.
When a starting request is made, the injection computer and the Passenger Compartment Control Unit (UCH) exchange authentication data via the multiplex network. This determines whether the engine start is authorised or denied.

After more than five consecutive failed authentication attempts, the injection computer goes into protection (anti-scanning) mode and no longer tries to authenticate the UCH computer. It only leaves this mode when the following sequence of operations is carried out:
– the ignition is left on for at least **20 seconds**,
– the message is switched off,
– the end of the injection computer self-feed is adhered to (the length of time varies depending on engine temperature).

After this, one and only one authentication attempt is allowed. If this fails again, repeat the sequence of operations described above.
If the injection computer still fails to unlock, contact the Techline.

Impact detected
If an impact has been **stored** by the injection computer, turn off the ignition for **10 seconds**, then switch it back on to start the engine. Clear the faults using the control **RZ001 Fault memory**.

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

ENGINE SPEED MANAGEMENT

Engine speed management is based on the following programs:

– Engine speed management when starting
– Engine speed management according to engine vibrations
– Idle speed management
– Engine speed restriction
– Engine speed management according to its status

Engine speed management when starting

This programming is used:
– To set the injection timing when starting, using the TDC (Top Dead Centre) sensor
– To calculate the amount of fuel to be injected into the cylinders to avoid flooding the engine.

Preventive correction of engine speed linked to vibrations

Programming that enables user comfort to be optimised during acceleration or deceleration which causes a harsh change in engine torque and therefore vibration in the driveshaft. Torque management is important during these situations.

Curative correction of engine speed linked to vibrations

This programming is used to absorb the oscillations in engine speed caused by vibration in the driveshaft.

Idle speed management

This programming is used to calculate the adapted idle speed according to the conditions of use (cold engine, air conditioning requests, electrical consumer use etc.).

Air supply

This is managed by a motorised throttle valve which is controlled by the injection computer.
The injection computer also performs the following tasks using the motorised throttle:
– management of valve oscillations which can produce undesirable torque,
– management of valve movement subject to mechanical faults when the valve reaches its mechanical boundaries,
– management of acoustic faults by limiting throttle opening at a certain engine speed and when stopping the engine.

Torque management

The torque structure is the system for managing engine torque. It is necessary for some functions such as the electronic stability program (ESP), automatic transmission (BVA) or sequential gearbox (BVR).

Each computer (ESP, sequential gearbox, automatic transmission) sends a request for torque via the multiplex network to the injection computer. This arbitrates between the various torque requests and the driver's request (made via the accelerator pedal or the cruise control/speed limiter).

The result of this arbitration gives the torque setpoint. The computer then calculates the throttle position setpoint, the ignition advance *and the wastegate setpoint* (if a turbocharged engine) in order to provide the necessary torque.

Ignition management

Management of ignition advance enables the combustion quality to be managed and therefore engine operation to be optimised. For a positive advance, the ignition point will be before TDC*, however the advance can have a negative value.
TDC*: Top Dead Centre.

Fuel supply management

The fuel pump ensures the supply of fuel. It is activated for one second each time the + after ignition feed is switched on. It ensures the correct level of pressure in the circuit and thereby achieves correct engine starting, particularly if the vehicle has not been used for a long time. When the engine is running, the pump relay is controlled and therefore the pump is always active.
The petrol vapour absorber enables petrol vapour to be collected in order to limit its release into the atmosphere.

Richness adjustment

Richness is managed using the upstream and downstream oxygen sensors located on the exhaust. For the sensors to be operational quickly, they need to be heated by the exhaust gas and by a resistor internal to the sensor. These sensors reflect the efficiency of combustion and, using information sent to the computer, they enable the quantity of fuel injected to be managed in order to meet the emission control standards and to ensure optimum engine operation.

Engine temperature management

The engine is cooled by a 2-speed fan assembly.
To cool the engine, the first speed of the fan assembly is activated if the coolant temperature exceeds **99°C** or **94°C** (**F4R400/402/403 engines**), then the second speed is activated if the temperature exceeds the **102°C** or **97°C** (**F4R400/402/403 engines**). A "very high temperature" warning light illuminates on the instrument panel if the temperature exceeds **118°C** or **113°C** (**F4R400/402/403 engines**).

OPERATIONS FOR REPLACING OR REPROGRAMMING THE COMPUTER

Procedure to be applied before replacement

This procedure must be applied before replacing or reprogramming the injection computer (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6)**, or **MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Petrol injection computer: Removal - Refitting**).

IMPORTANT:
- The computer permanently stores the immobilisation function code. It is forbidden to perform tests with computers borrowed from the Parts Department or from another vehicle.
- Connect a battery charger and switch on the vehicle + after ignition feed.
- Switch off all the electrical consumers (lights, interior lighting, air conditioning, radio, etc.).

– Connect the diagnostic tool (mains or cigarette lighter supply).

– Save the data by running command: **SC003 Save computer data**. In the event of a fault, contact the Techline.

– In the event of a **replacement**, note the vehicle **VIN code** using command **ID008 VIN code**.

– Switch on vehicle + after ignition feed and wait until **the coolant temperature** is less than **70°C** and **the air temperature** is less than **50°C**. Consult parameter **PR064 Coolant temperature** and **PR059 Air temperature**.

IMPORTANT:
It is necessary to respect these temperature values in order to carry out the computer programming or reprogramming operations.

– Apply the programming or reprogramming operations described in **Technical Note 3585A Computer (re)programming procedure**.

IMPORTANT:
After (re)programming the computer, switch off the + after ignition feed and wait for the loss of communication message to appear on the diagnostic tool, if the message does not appear, wait for **9 minutes**.
Failure to follow this procedure may cause the computer data to be corrupted.

Procedure to be applied after repair:

This procedure must be applied after replacing or reprogramming the computer.

Entering the saved data
– enter the saved data by running command **SC001 Write saved data**.

Programming the VIN code

– Display the identifier **ID008**
If the **VIN** is not entered, enter the **VIN.** using command **VP010 Enter VIN**.

Programming the alcohol level

– Put the vehicle under + after ignition and wait for the value of parameter **PR064 Coolant temperature** to be greater than or equal to **80°C**.
– There must be no present or stored faults.
– With the ignition on and engine stopped, note the value of **PR743 Estimated alcohol level in the tank**.
– Carry out resetting using command **RZ064 Programming the alcohol level**.
– Start the engine and allow the engine to idle for **5 minutes**.
– Check the correct programming using parameter **PR743**; its value must have changed.
– If programming was not performed correctly, repeat the operation from the start.
– If the fault is still present, contact the Techline.

Injection computer initialisation

Start and stop the engine to initialise the computer and wait for the loss of communication message to appear on the diagnostic tool. If the message does not appear, wait for **9 minutes**.
The computer is automatically configured according to the sensors and options present on the vehicle.

If the data were not saved before the operation, carry out the following operations:

– Programming the VIN code
– Enter the **V.I.N.** using command **VP010 Enter VIN**.

– Injector programming
Program the injectors by accessing the sub-section entitled **Injector replacement operations.**

– Programming the TDC sensor
Program the TDC sensor by accessing the sub-section entitled **TDC (Top Dead Centre) sensor replacement operations**.

– Programming the motorised throttle
Program the motorised throttle by accessing the sub-section entitled **Throttle valve replacement operations**.

– Injection computer initialisation
Start and stop the engine to initialise the computer and wait for the loss of communication message to appear on the diagnostic tool, if the message does not appear, wait for **9 minutes**.
The computer is automatically configured according to the sensors and options present on the vehicle.

THROTTLE VALVE REPLACEMENT OPERATIONS

– When replacing the inlet throttle valve, switch on the vehicle + after ignition feed, after replacing the part.
– Carry out resetting using command **RZ031 Throttle stop programming**.
– Switch off the ignition. The inlet valve will run a new programming procedure whilst maintaining the supply (power latch) due to the reinitialisation phase.
– Check that the programming is correct using status **ET051 Throttle stop programming**, it must be at **1**.

If programming was not performed correctly, repeat the operation from the start.
– If the fault is still present, contact the Techline.

OPERATIONS FOR REPLACING THE BRAKE PEDAL SWITCH

– When replacing the brake pedal switch, switch on the vehicle + after ignition feed, after replacing the part.

– Check that the switch statuses change as follows, when the brake pedal is activated:

– **ET039** Brake pedal = 1 and **ET799** Brake Wire Contact = 1 when the brake pedal is **released**
– **ET039** Brake pedal = 2 and **ET799** Brake Wire Contact = 2 when the brake pedal is **depressed**

OPERATIONS FOR REPLACING THE TDC (TOP DEAD CENTRE) SENSOR

– Switch on the vehicle + after ignition feed,
– Carry out resetting using command **RZ037 Flywheel target programming**.

Operation for Programming

– Decelerate a first time with injection cut-off (i.e. feet off the brake, accelerator and clutch pedals) between **3500** and **3000 rpm**, in 3rd gear for a BVM* for at least **3 seconds**.
– Decelerate a second time with injection cut-off (i.e. feet off the brake, accelerator and clutch pedals) between **2400** and **2000 rpm**, in 3rd gear for a BVM* for at least **14 seconds** (**K4M**, **K7M** engine) or **3 seconds** (**D4D**, **F4R**, **K4M** engine of **Duster**).

*BVM: Manual gearbox

The programming was successful when status **ET089 Flywheel target programming** has the value **1**.

OPERATIONS FOR REPLACING THE INJECTORS

– Switch on the vehicle + after ignition feed after replacing the part.
Carry out resetting using command **RZ033 Richness regulation programming**.
– Switch off the ignition.
A power latch is necessary to save the reset data.

– Switch on the vehicle + after ignition feed and check the values of the following parameters:
PR624 Richness regulation programming offset
PR625 Richness regulation programming gain

– Test the injectors using the following commands:
AC005 Cylinder 1 injector
AC006 Cylinder 2 injector
AC007 Cylinder 3 injector
AC008 Cylinder 4 injector.

OPERATIONS OF REPLACING THE CAMSHAFT DEPHASER SOLENOID VALVE

– Switch on the vehicle + after ignition feed.
– Reset to zero using command **RZ001 Fault memory**.
– Start the engine and allow the engine to idle for at least **60 seconds**.
– Switch off the engine.
– Wait for the end of the power-latch phase and switch on the vehicle + after ignition.
– Check that **ET845 Camshaft dephaser s.v.* programming** is **PERFORMED**.

*s.v.: solenoid valve

Tool fault	DTC code	Diagnostic tool title
DF001	0115	Coolant temperature sensor circuit
DF002	0095	Air temperature sensor circuit
DF011	0641	Sensor supply voltage no. 1
DF012	0651	Sensor supply voltage no. 2
DF015	0657	Main relay control circuit
DF018	0480	Low-speed fan unit control circuit
DF026	0201	Cylinder 1 injector control circuit
DF027	0202	Cylinder 2 injector control circuit
DF028	0203	Cylinder 3 injector control circuit
DF029	0204	Cylinder 4 injector control circuit
DF038	0606	Computer
DF046	1610	Battery voltage
DF047	0560	Computer feed voltage
DF050	0571	Brake switch circuit
DF059	0301	Misfiring on cylinder 1
DF060	0302	Misfiring on cylinder 2
DF061	0303	Misfiring on cylinder 3
DF062	0304	Misfiring on cylinder 4
DF065	0300	Combustion misfire
DF078	2100	Motorised throttle control circuit
DF079	2119	Motorised throttle valve automatic control
DF080	0010	Camshaft dephaser circuit

Tool fault	DTC code	Diagnostic tool title
DF081	0443	Canister bleed solenoid valve circuit
DF082	0135	Upstream oxygen sensor heating circuit
DF083	0141	Downstream oxygen sensor heating circuit
DF085	0627	Fuel pump relay control circuit
DF088	0325	Pinking sensor circuit
DF091	0500	Vehicle speed signal
DF092	0130	Upstream oxygen sensor circuit
DF093	0136	Downstream oxygen sensor circuit
DF095	0120	Throttle potentiometer circuit gang1
DF096	0220	Throttle potentiometer circuit gang 2
DF101	C121	ESP multiplex connection
DF102	2503	Available alternator power sig.*
DF108	C108	LPG/CNG computer multiplex connection
DF109	0313	Low fuel level misfire
DF120	0335	Engine speed sensor signal
DF195	0016	Camshaft sensor / engine speed consistency
DF319	0340	Camshaft sensor circuit
DF342	0650	Malfunction indicator light circuit
DF358	1608	Injector control computer
DF361	1351	Ignition coil circuit 1-4
DF362	1352	Ignition coil 2-3 circuit
DF363	0011	Camshaft dephaser
DF379	10A4	Cylinder injector 1 control

*Info: Information

Tool fault	DTC code	Diagnostic tool title
DF380	10A5	Cylinder 2 injector control
DF381	10A6	Cylinder 3 injector control
DF382	10A7	Cylinder injector 4 command
DF394	0420	Catalytic converter operating fault
DF398	0170	Fuel circuit operating fault
DF409	0461	Fuel level sensor circuit
DF436	1314	Detection of engine misfiring
DF457	0315	Flywheel target
DF504	C101	Automatic transmission
DF531	0618	LPG system
DF532	2502	Alternator charge signal
DF556	2135	Pedal/throttle position consistency
DF631	0703	Brake light switch signal
DF633	1170	LPG fuel circuit operating fault
DF635	1301	LPG cylinder 1 misfire
DF636	1302	LPG cylinder 2 misfire
DF637	1303	LPG cylinder 3 misfire
DF638	1304	LPG cylinder 4 misfire
DF639	1300	Combustion misfire in LPG mode
DF648	060A	Computer
DF721	0217	Engine overheating
DF773	2294	Pressure regulator circuit

Tool fault	DTC code	Diagnostic tool title
DF884	2632	Additional fuel circuit pump relay
DF887	0226	Brake - accelerator pedal position
DF894	1633	Additional fuel circuit solenoid valve
DF974	0225	Pedal potentiometer circuit gang 1
DF975	2120	Pedal potentiometer circuit gang 2
DF992	1644	Additional heater 1 relay circuit
DF993	1645	Additional heater 2 relay circuit
DF994	1646	Additional heater 3 relay circuit
DF1015	0504	Brake switch signal consistency
DF1016	0833	Clutch switch signal consistency
DF1017	061A	Computer
DF1034	0314	Combustion misfire
DF1058	0106	Inlet pressure consistency
DF1063	C415	ESP multiplex connection
DF1068	0530	Refriger* pressure sensor voltage
DF1072	0645	Air conditioning compressor relay control
DF1074	0638	Motorised throttle position inconsistent

*Refriger: Refrigerant

Tool fault	DTC code	Diagnostic tool title
DF1235	C402	Automatic transmission
DF1265	018A	LPG pressure sensor circuit
DF1267	0184	LPG temperature sensor circuit
DF1301	1570	Status of LPG switch
DF1355	1656	Multiplexed torque regulator connection
DF1361	0185	LPG temperature sensor circuit
DF1362	2666	Tank solenoid valve circuit
DF1363	2293	LPG pressure
DF1364	109A	Computer automatic supply relay
DF1365	2265	LPG tank sender signal voltage
DF1366	10A0	Cylinder 1 LPG injector circuit
DF1367	10A1	Cylinder 2 LPG injector circuit
DF1368	10A2	Cylinder 3 LPG injector circuit
DF1369	10A3	Cylinder 4 LPG injector circuit

*Refriger: Refrigerant

DF001 PRESENT OR STORED	COOLANT TEMPERATURE SENSOR CIRCUIT 4.DEF: Voltage too low 5.DEF: Voltage too high 6.DEF: Micro-cut

NOTES	**Special notes:** **– The OBD and Level 1 warning lights illuminate.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the connection and condition of the connector **of the coolant temperature sensor**, component code **244** and of the connections of the **injection computer**, component code **120**.
If the connector(s) are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Disconnect the connector of the injection computer, component code **120** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Petrol injection computer: Removal - Refitting**).
Measure the resistance of component **244** by connections **3JK** and **3C** of the injection computer connector, component code **120**.

If the resistance of the coolant temperature sensor, component code **244** is not between **100** $\Omega \leq$ **X** $\leq$ **10 k**Ω (**K7M**, **K4M**, **D4D engines), 85** $\Omega \leq$ **X** $\leq$ **82 k**Ω **(Duster F4R** and **K4M engine)** at ambient temperature: replace the coolant temperature sensor, component code **244** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19A, Cooling, Coolant temperature sensor: Removal - Refitting**).

Check the **insulation, continuity and absence of interference resistance** on the following connections:
– **3JK** between components **120** and **244**.
– **3C** between components **120** and **244**.
If the connection or connections are faulty and if there is a repair method (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

If the fault is still present, contact the Techline.

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

DF002 PRESENT OR STORED	AIR TEMPERATURE SENSOR CIRCUIT 2.DEF: Signal outside lower limit. 3.DEF: Signal outside upper limit.

NOTES	**Special notes:** **– The OBD and Level 1 warning lights illuminate.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the connection and condition of the connector of the **air temperature sensor**, component code **272** and of the connections of the **injection computer**, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** of the **air temperature sensor**, component code **272** between connections **3B** and **3JQ**.
If the **resistance** measured is not between **300** $\Omega \leq$ **X** $\leq$ **6 k**Ω or **100** $\Omega \leq$ **X** $\leq$ **50 k** Ω (**Duster F4R engine**) or **50** $\Omega \leq$ **X** $\leq$ **50 k**Ω (**Duster K4M** engine) at ambient temperature: replace the **air temperature sensor**, component code **272**.

Check the **insulation, continuity and absence of interference resistance** on the following connections:
– **3B** between components **272** and **120**.
– **3JQ** between components **272** and **120**.
If the connection or connections are faulty and if there is a repair method (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

If the fault is still present, contact the Techline.

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

V42_V04_DF002/ V42_V05_DF002/V42_V06_DF002/V42_V14_DF002/V42_V16_DF002/V42_V18_DF002

DF011 PRESENT OR STORED	SENSOR FEED VOLTAGE NO. 1 1.DEF: Above maximum threshold. 2.DEF: Below minimum threshold.

NOTES	**Special notes:** **– The OBD and Level 2 warning lights illuminate.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Disconnect the **accelerator pedal sensor gang 1**, component code **921** then switch on the ignition. Wait several seconds so that the computer can update the fault status.
If the fault changes from present to stored: Replace the **accelerator pedal sensor gang 1**, component code **921** (see **MR 388 (Logan and Sandero), MR 451 (Duster) MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Accelerator pedal: Removal - Refitting**).

Disconnect the motorised throttle valve, component code **1076** then switch on the ignition (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 12A, Fuel mixture, Throttle valve: Removal - Refitting**).
Wait several seconds so that the computer can update the fault status.

If the fault changes from present to stored: Replace the damper valve position sensor, component code **1076**, (see **MR 388 (Logan and Sandero), MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 12A, Fuel mixture, Throttle valve: Removal - Refitting**) referring to the **Replacement of components** section.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3LR** between components **921** and **120**,
– **3LT** between components **921** and **120**,
– **3MN** between components **1076** and **120**,
– **3MO** between components **1076** and **120**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

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

V42_V04_DF011/ V42_V05_DF011/V42_V06_DF011/V42_V14_DF011/V42_V16_DF011/V42_V18_DF011

DF012 PRESENT OR STORED	SENSOR SUPPLY VOLTAGE NO. 2 1.DEF: Above maximum threshold. 2.DEF: Below minimum threshold.

NOTES	**Special notes:** **– The OBD and Level 2 warning lights illuminate.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Disconnect the **accelerator pedal sensor gang 2**, component code **921** then switch on the ignition (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Accelerator pedal: Removal - Refitting**).
Wait several seconds so that the computer can update the fault status.
If the fault changes from present to stored: Replace the **accelerator pedal sensor gang 2**, component code **921** (see **MR 388 (Logan and Sandero), MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Accelerator pedal: Removal - Refitting**).

Disconnect the **manifold pressure sensor**, component code **147**, then switch on the ignition.
Wait several seconds so that the computer can update the fault status.
If the fault changes from **present** to **stored:** Replace the **inlet pressure sensor**, component code **147**.

Disconnect the Freon pressure sensor, component code **1202**, then switch on the ignition (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 62A, Air conditioning, Pressure sensor: Removal - Refitting**).
Wait several seconds so that the computer can update the fault status.

If the fault changes from present to stored: Replace the Freon pressure sensor, component code **1202** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 62A, Air conditioning, Pressure sensor: Removal - Refitting**).

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3LU** between components **921** and **120**,
– **3LV** between components **921** and **120**,
– **3AJP** between components **147** and **120**,
– **3AJR** between components **147** and **120**,
– **38Y** between components **1202** and **120**,
– **38U** between components **1202** and **120**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

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

V42_V04_DF012/ V42_V05_DF012/V42_V06_DF012/V42_V14_DF012/V42_V16_DF012/V42_V18_DF012

DF015 PRESENT OR STORED	MAIN RELAY CONTROL CIRCUIT CC.0: Short circuit to earth.

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is declared **present**: – switch on the powerlatch phase - **switch off + after ignition feed and switch on the + after ignition feed again**).
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the connection and condition of the connectors of the passenger compartment fuse box, component code **1016**, of the engine fuse box, component code **597**, of the injection computer, component code **120** and of the injection relay, component code **1047** (**for Logan, Sandero, Duster**) of the injection locking relay, component code **238** (for **Thalia 2/Symbol 2, Kangoo VLL**) or of the injection computer supply relay, component code **983** (for **Clio II F 6**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the condition and operation of the injection relay, component code **1047** (**for Logan, Sandero, Duster)**, of the injection locking relay, component code **238** (for **Thalia 2/Symbol 2, Kangoo VLL**) or of the injection computer supply relay, component code **983** (for **Clio II F 6**).
In the event of a fault, replace the injection relay or the injection locking relay (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 87G, Engine compartment connection unit, Engine compartment connection unit: List and location of components**).

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

V42_V04_DF015/ V42_V05_DF015/V42_V06_DF015/V42_V14_DF015/V42_V16_DF015/V42_V18_DF015

DF015 CONTINUED	

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

For Logan, Sandero, Duster:
– **3AA** between components **1047** and **120**,
– **3AC** between components **1047** and **120**,
– **AP29** between components **1016** and **120**,
– **BP37** between components **597** and **1047**,
– **BP17** between components **1047** and **597**.

For Thalia 2/Symbol 2:
– **3AA** between components **238** and **120**,
– **AP15** between components **1016** and **120**,
– **BP17** between components **238** and **597**.

For Clio II ph. 6:
– **3AA** between components **983** and **120**,
– **BP37** between components **1016** and **120**.

For Kangoo VLL:
– **3AA** between components **238** and **120**,
– **BP37** between components **238** and **597**.

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

If the fault is still present, contact the Techline.

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

DF018 PRESENT OR STORED	LOW SPEED FAN ASSEMBLY CONTROL CIRCUIT CC.0: Short circuit to earth. CC.1: Short circuit to +12 volts.

NOTES	**Conditions for application to a stored fault:** The fault is declared present after the ignition has been switched on or after running command **AC038 Low speed fan assembly relay**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Run command **AC038** and check the supply of the low speed fan assembly relay control circuit, component code **784**, using a test light on connection **3JN** of component **120**.
Check the connection and condition of the connector of the **injection computer**, component code **120** and of the **low speed fan assembly relay**, component code **784**. If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Check the **insulation, continuity and check for absence of interference resistanc**e on the following connection: – **3JN** between components **784** and **120**. If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
Run command **AC038** and check the supply of the low speed fan assembly relay power circuit using a test light on connection **BP7** of component **784**. If the check is not correct, replace the **fan assembly control relay**, component code **784**.
If the fault is still present, contact the Techline.

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

V42_V04_DF018/ V42_V05_DF018/V42_V06_DF018/V42_V14_DF018/V42_V16_DF018/V42_V18_DF018

DF026 PRESENT OR STORED	CYLINDER 1 INJECTOR CONTROL CIRCUIT CO: Open circuit. CC.1: Short-circuit on +12 volts. CC.0: Short circuit to earth

NOTES	**The fault changes from stored to present when the engine is running at idle speed.**
	Special notes: For **CC.1 and CO, the OBD and Level 1 warning lights illuminate**. For **CC.0, the Level 2 warning light illuminates**.
	Measure the resistance of the injector between 0°C and 40°C.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the connection and condition of the connector of the **injection computer**, component code **120** and of the **cylinder 1 injector**, component code **193**.
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.

Measure the **resistance** of the **cylinder 1 injector**, component code **193** between connections **3FB** and **3CR**.
If the **resistance** measured is not between **11** $\Omega \leq$ **X** $\leq$ **20** Ω (**K4M**, **D4D** engines), **11.5** $\Omega \leq$ **X** $\leq$ **12.5** Ω (**F4R** engine), **9.2** $\Omega \leq$ **X** $\leq$ **17** Ω (**K7M** engine) or **14** $\Omega \leq$ **X** $\leq$ **15** Ω (**K4M** engine on **Duster**): replace the **cylinder 1 injector**, component code **193** (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**).

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

V42_V04_DF026/ V42_V05_DF026/V42_V06_DF026/V42_V14_DF026/V42_V16_DF026/V42_V18_DF026

DF026 CONTINUED	

Run command **AC005 Cylinder 1 injector** and check the operation of the injector with a listening test.
Check the **insulation, continuity and the absence of interference resistance** on the following connections: – **3CR** between components **193** and **120**. 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.
With the ignition on, check for **+12 V** or **+9 V** (for **Duster**) on connection **3FB** of component **193**. If there is no **+12 V** or **+9 V** (for **Duster**), check the **continuity** of the following connection: – **3FB** between components **597** (**for Logan, Sandero, Duster**) or **238** (for **Thalia 2/Symbol 2, Kangoo VLL**) or **983** (for **Clio II F 6**) and **193**. If the connection is faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

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

DF027 PRESENT OR STORED	INJECTOR CYLINDER 2 CONTROL CIRCUIT CO: Open circuit. CC.1: Short-circuit on +12 volts. CC.0: Short circuit to earth

NOTES	**The fault changes from stored to present when the engine is running at idle speed.**
	Special notes: For **CC.1** and **CO, the OBD and Level 1 warning lights illuminate.** **For** CC.0, the Level 2 warning light illuminates**.**
	Measure the resistance of the injector between 0°C and 40°C.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the connection and condition of the connector of the **injection computer**, component code **120** and of the **cylinder 2 injector,** component code **194**.
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.

Measure the **resistance** of the **cylinder 2 injector**, component code **194** between connections **3FB** and **3CS**.
If the **resistance** measured is not between **11** $\Omega \leq$ **X** $\leq$ **20** Ω (**K4M**, **D4D** engines), **11.5** $\Omega \leq$ **X** $\leq$ **12.5** Ω (**F4R** engine), **9.2** $\Omega \leq$ **X** $\leq$ **17** Ω (**K7M** engine) or **14** $\Omega \leq$ **X** $\leq$ **15** Ω (**K4M** engine on **Duster**): replace the **cylinder 2 injector**, component code **194** (see **MR 388, (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**).

Run command **AC006 Cylinder 2 injector** and check the operation of the injector with a listening test.

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

V42_V04_DF027/ V42_V05_DF027/V42_V06_DF027/V42_V14_DF027/V42_V16_DF027/V42_V18_DF027

DF027 CONTINUED	

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3CS** between components **194** and **120**.
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.

With the ignition on, check for **+12 V** or **+9 V** (for **Duster**) on connection **3FB** of component **194**.
If there is no **+12 V** or **+9 V** (for **Duster**), check the continuity of the following connection:
– **3FB** between components **1047** (**for Logan, Sandero, Duster**) or **238** (for **Thalia 2/Symbol 2, Kangoo VLL**) or **983** (for **Clio II F 6**) and **194**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

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

DF028 PRESENT OR STORED	CYLINDER 3 INJECTOR CONTROL CIRCUIT CO: Open circuit. CC.1: Short-circuit on +12 volts. CC.0: Short circuit to earth

NOTES	**The fault changes from stored to present when the engine is running at idle speed.**
	Special notes: For **CC.1** and **CO, the OBD and Level 1 warning lights illuminate.** **For** CC.0, the Level 2 warning light illuminates**.**
	Measure the resistance of the injector between 0°C and 40°C.
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the connection and condition of the connector of the **injection computer**, component code **120** and of the **cylinder 3 injector,** component code **195**.
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.

Measure the **resistance** of the **cylinder 3 injector**, component code **195** between connections **3FB** and **3CT**.
If the **resistance** measured is not between **11** $\Omega \leq$ **X** $\leq$ **20** Ω (**K4M**, **D4D** engines), **11.5** $\Omega \leq$ **X** $\leq$ **12.5** Ω (**F4R** engine), **9.2** $\Omega \leq$ **X** $\leq$ **17** Ω (**K7M** engine) or **14** $\Omega \leq$ **X** $\leq$ **15** Ω (**K4M** engine on **Duster**): replace the **cylinder 3 injector**, component code **195** (see **MR 388, (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**).

Run command **AC007 Cylinder 3 injector** and check the operation of the injector with a listening test.

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

V42_V04_DF028/ V42_V05_DF028/V42_V06_DF028/V42_V14_DF028/V42_V16_DF028/V42_V18_DF028

DF028 CONTINUED	

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3CT** between components **195** and **120**.
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.

With the ignition on, check for **+12 V** or **+9 V** (for **Duster**) on connection **3FB** of component **195**.
If there is no **+12 V** or **+9 V** (for **Duster**), check the **continuity** of the following connection:
– **3FB** between components **1047** (**for Logan, Sandero, Duster**) or **238** (for **Thalia 2/Symbol 2, Kangoo VLL**) or **983** (for **Clio II F 6**) and **195**.
If the connection is faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

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

DF029 PRESENT OR STORED	CYLINDER 4 INJECTOR CONTROL CIRCUIT CO: Open circuit. CC.1: Short-circuit on +12 volts. CC.0: Short circuit to earth

NOTES	**The fault changes from stored to present when the engine is running at idle speed.**
	Special notes: For **CC.1** and **CO, the OBD and Level 1 warning lights illuminate.** **For** CC.0, the Level 2 warning light illuminates**.**
	Measure the resistance of the injector between 0°C and 40°C.
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the connection and condition of the connector of the **injection computer**, component code **120** and of the **cylinder 4 injector,** component code **196**.
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.

Measure the **resistance** of the **cylinder 4 injector**, component code **196** between connections **3FB** and **3CU**.
If the **resistance** measured is not between **11** $\Omega \leq$ **X** $\leq$ **20** Ω (**K4M**, **D4D** engines), **11.5** $\Omega \leq$ **X** $\leq$ **12.5** Ω (**F4R** engine), **9.2** $\Omega \leq$ **X** $\leq$ **17** Ω (**K7M** engine) or **14** $\Omega \leq$ **X** $\leq$ **15** Ω (**K4M** engine on **Duster**): replace the **cylinder 4 injector**, component code **196** (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**).

Run command **AC008 Cylinder 4 injector** and check the operation of the injector with a listening test.

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

V42_V04_DF029/ V42_V05_DF029/V42_V06_DF029/V42_V14_DF029/V42_V16_DF029/V42_V18_DF029

DF029 CONTINUED	

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3CU** between components **196** and **120**.
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.

With the ignition on, check for **+12 V** or **+9 V** (for **Duster**) on connection **3FB** of component **196**.
If there is no **+12 V** or **+9 V** (for **Duster**), check the **continuity** of the following connection:
– **3FB** between components **1047** (**for Logan, Sandero, Duster**) or **238** (for **Thalia 2/Symbol 2, Kangoo VLL**) or **983** (for **Clio II F 6**) and **196**.
If the connection is faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

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

DF038 PRESENT OR STORED	COMPUTER 1.DEF: Internal electronic fault.

NOTES	**Special notes:** **The OBD and Level 2 warning lights illuminate.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Contact the Techline.

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

V42_V04_DF038/ V42_V05_DF038/V42_V06_DF038/V42_V14_DF038/V42_V16_DF038/V42_V18_DF038

DF046 PRESENT OR STORED	BATTERY VOLTAGE 1.DEF: Battery voltage too low. 2.DEF: Battery voltage too high.

NOTES	None.

See **Technical Note 6520 "Landi Renzo Euro V LPG system fault finding"** (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF046

DF047 PRESENT OR STORED	COMPUTER SUPPLY VOLTAGE 1.DEF: Permanent high signal. 2.DEF: Permanent low level.

NOTES	**Special notes:** **The OBD and Level 1 warning lights illuminate.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Move the wiring harness between the **injection computer**, component code **120** and the **battery**, component code **107** to see if the status changes (**Present ←→ Stored**).
Look for any damage to the wiring harness and check the connection and condition of the **battery**, component code **107** and its connections.
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.

Start the engine and check the battery voltage using **PR071 Computer supply voltage** is **X** ≥ **9V**.

Stop the engine and check the **charging circuit** of the vehicle (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 16A, Starting – Charging, Charging circuit: Checking**).

If the fault is still present, contact the Techline.

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

V42_V04_DF047/ V42_V05_DF047/V42_V06_DF047/V42_V14_DF047/V42_V16_DF047/V42_V18_DF047

DF050 PRESENT OR STORED	BRAKE SWITCH CIRCUIT 1.DEF: Inconsistent signal.

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is **present** after the ignition has been switched on and the brake pedal has been depressed. The fault appears after a fault on one of the two brake switch contacts.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

With the brake pedal **released**, check **ET039 Brake pedal** and **ET799 Brake wire contact**.
ET039 must be **Released** and **ET799 Inactive**.

Check the fitting and mechanical operation of the brake pedal (the pedal returns properly).
If the check is incorrect, check the braking system.

Remove the brake pedal switch, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting**) and, without depressing the pedal, press sufficiently on the brake pedal switch to seat it completely in its position.
Lock it by turning it an eighth of a turn.

With the brake pedal depressed, measure the resistance of the brake pedal switch, component code **160** between connections **AP1** (for **Logan, Sandero, Duster**) or **AP10** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**) and **65A**. The value must be **X > 10 MΩ** (between **0°C** and **40°C**).
If the resistance is not correct, replace the brake pedal switch, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting**).
With the brake pedal released, measure the resistance of the brake pedal switch, component code **160** between connections **AP1** (for **Logan, Sandero, Duster**) or **AP10** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**) and **5A**, the value must be between **0 Ω < X ≤ 1 Ω** (between **0°C** and **40°C**).
If the resistance is not correct, replace the brake pedal switch, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting**).

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

V42_V04_DF050/ V42_V05_DF050/V42_V06_DF050/V42_V14_DF050/V42_V16_DF050/V42_V18_DF050

DF050 CONTINUED	

Check the brake pedal switch connector, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting**). If the connector is faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring
Check fuse **F03** (for **Logan, Sandero, Duster**), **F4** (for **Thalia 2/Symbol 2, Clio II F 6** or **F16** (for **Kangoo VLL**) and replace it if necessary.
Checking the brake pedal switch: After the repair, perform these two checks. With the brake pedal **released**, check **ET039** and **ET799**. **ET039** must be **Released** and **ET799** must be **Inactive**. While depressing the brake pedal, check **ET039** and **ET799**. **ET039** must be **Depressed** and **ET799** must be **Active**. The two checks must be correct.
If the fault is still present, contact the Techline.

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

DF059 PRESENT OR STORED	COMBUSTION MISFIRES ON CYLINDER 1 1.DEF: Polluting misfiring 2.DEF: Destructive misfiring

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire,** Check whether there are other cylinders with a **combustion misfire** fault reported **by the diagnostic tool** before starting the fault finding procedure below.
	Conditions for applying the fault finding procedure to a stored fault: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit,
Check the condition of the cylinder 1 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 1.

After repair, check that the catalytic converter was not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine,
do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

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

V42_V04_DF059/ V42_V05_DF059/V42_V06_DF059/V42_V14_DF059/V42_V16_DF059/V42_V18_DF059

DF059 CONTINUED	

2.DEF	*NOTES*	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit
Check the condition of the cylinder 1 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 1.

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

DF060 PRESENT OR STORED	MISFIRING ON CYLINDER 2 1.DEF: Polluting misfiring 2.DEF: Destructive misfiring

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire,** Check whether there are other cylinders with a **combustion misfire** fault reported **by the diagnostic tool** before starting the fault finding procedure below.
	Conditions for applying the fault finding procedure to a stored fault: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6)** or **MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6)** or **MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 2 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 2.

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

V42_V04_DF060/ V42_V05_DF060/V42_V06_DF060/V42_V14_DF060/V42_V16_DF060/V42_V18_DF060

DF060 CONTINUED	

After repair, check that the catalytic converter was not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine, do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

2.DEF	*NOTES*	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 2 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 2.

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

DF061 PRESENT OR STORED	MISFIRING ON CYLINDER 3 1.DEF: Polluting misfiring 2.DEF: Destructive misfiring

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire,** Check whether there are other cylinders with a **combustion misfire** fault reported **by the diagnostic tool** before starting the fault finding procedure below.
	Conditions for applying the fault finding procedure to a stored fault: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 3 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 3.

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

V42_V04_DF061/ V42_V05_DF061/V42_V06_DF061/V42_V14_DF061/V42_V16_DF061/V42_V18_DF061

DF061 CONTINUED	

After repair, check that the catalytic converter was not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine, do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

2.DEF	*NOTES*	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 3 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 3.

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

DF062 PRESENT OR STORED	MISFIRING ON CYLINDER 4 1.DEF: Polluting misfiring 2.DEF: Destructive misfiring

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire,** Check whether there are other cylinders with a **combustion misfire** fault reported **by the diagnostic tool** before starting the fault finding procedure below.
	Conditions for applying the fault finding procedure to a stored fault: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 4 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 4.

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

V42_V04_DF062/ V42_V05_DF062/V42_V06_DF062/V42_V14_DF062/V42_V16_DF062/V42_V18_DF062

DF062 CONTINUED	

After repair, check that the catalytic converter was not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine, do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

2.DEF	*NOTES*	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 4 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 4.

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

DF065 PRESENT OR STORED	COMBUSTION MISFIRES 1.DEF: Polluting misfiring 2.DEF: Destructive misfiring

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire,** **– DF059 Combustion misfire on cylinder 1,** **– DF060 Combustion misfire on cylinder 2,** **– DF061 Combustion misfire on cylinder 3,** **– DF062 Combustion misfire on cylinder 4.**
	Conditions for applying the fault finding procedure to a stored fault: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of the cylinder.

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

V42_V04_DF065/ V42_V05_DF065/V42_V06_DF065/V42_V14_DF065/V42_V16_DF065/V42_V18_DF065

DF065 CONTINUED	

After repair, check that the catalytic converter was not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine, do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

2.DEF	*NOTES*	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of the cylinder.

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

DF078 PRESENT OR STORED	MOTORISED THROTTLE CONTROL CIRCUIT 1.DEF: Motorised throttle general control fault

WARNING:
Never drive the vehicle without having confirmed that no faults involving the throttle valve are present.

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is considered **present** if: – the engine speed varies, – the AC027 Motorised throttle command is activated.
	Special notes: **OBD warning light and level 1 fault warning light illuminated.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the **cleanliness and condition** of the injection computer connector, component code **120** and the **throttle valve** connector, component code **1076**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3AJB** between components **120** and **1076**,
– **3AJC** between components **120** and **1076**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline

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

V42_V04_DF078/ V42_V05_DF078/V42_V06_DF078/V42_V14_DF078/V42_V16_DF078/V42_V18_DF078

DF079 PRESENT OR STORED	MOTORISED THROTTLE VALVE SERVO 1.DEF: Motorised throttle rest position programming error 2.DEF: Values outside permitted tolerance 3.DEF: Incorrect position of throttle valve in safe mode

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is declared **present**: – switch on the powerlatch phase - **switch off + after ignition feed and switch on the + after ignition feed again**
	Special notes: **OBD warning light and level 1 fault warning light illuminated.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the **cleanliness and condition** of the injection computer connector, component code **120** and the **throttle valve** connector, component code **1076**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

If the fault is still present, manually check that the throttle valve **rotates correctly**.
Repair if necessary (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 12A, Fuel mixture, Throttle valve: Cleaning**).

Accelerate a couple of times and check that the values of **PR538 Measured voltage gang 2** and **PR539 Measured voltage gang 1** vary according to acceleration.

If the fault is still present, disconnect the battery and the injection computer.
Check the **insulation, continuity and absence of interference resistance** of the following connections:
– **3AJB** between components **120** and **1076**,
– **3AJC** between components **120** and **1076**,
– **3MO** between components **120** and **1076**,
– **3MP** between components **120** and **1076**,
– **3MN** between components **120** and **1076**,
– **3MQ**between components **120** and **1076**.
If the connections are faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring

If the throttle valve has been replaced, reinitialise the programming by running command **RZ031 Throttle stop programming**.

If the fault is still present, **contact Techline**.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF079/ V42_V05_DF079/V42_V06_DF079/V42_V14_DF079/V42_V16_DF079/V42_V18_DF079

DF080 PRESENT OR STORED	CAMSHAFT DEPHASER CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to +12 V

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is considered present when the engine is running.
	See the **Wiring Diagrams Technical Note for Duster.**

See **Technical Note 6506A, Injection fault finding, Camshaft dephaser, ALP4 Electrical fault (status CO, CC.1, CC.O) on the camshaft dephaser detected using Clip: DF080 "Camshaft dephaser circuit" or DF063 "Camshaft dephaser" (K4M and F4R 830 Clio III RS**).
If the fault is still present, **contact Techline**.

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

V42_V04_DF080/V42_V05_DF080/V42_V06_DF080/V42_V14_DF080/V42_V16_DF080/V42_V18_DF080

DF081 PRESENT OR STORED	CANISTER BLEED SOLENOID VALVE CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V

NOTES	**See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**
	Special notes: **For CO and CC.1, the OBD warning light and level 1 fault warning light illuminate.**

Check the **cleanliness and condition of** the connector of the injection computer, component code **120** and of the connector of the fuel vapour absorber bleed solenoid valve, component code **371**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3FB** between components **371** and **1047** (for **Logan, Sandero, Duster**) or **238** (for **Thalia 2/Symbol 2, Kangoo VLL**) or **983** (for **Clio II F 6**),
– **3BB** between components **371** and **120**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

With the ignition on, check for **+ 12 V** on connection **3FB** of component **371**.
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 operation of the canister bleed solenoid valve using command **AC017 Canister bleed solenoid valve**.

Measure the **resistance** of the fuel vapour absorber bleed solenoid valve, component code **371**.
If the resistance of the fuel vapour absorber bleed solenoid valve is not between: **24 Ω < X < 30 Ω** or **22 Ω < X < 30 Ω** (**Duster F4R** and **K4M** engine) between **0°C** and **40°C**, replace the fuel vapour absorber bleed solenoid valve, component code **371** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 14A, Emission control, Fuel vapour absorber: Removal - Refitting**).

If the fault is still present, **contact Techline**.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF081/ V42_V05_DF081/V42_V06_DF081/V42_V14_DF081/V42_V16_DF081/V42_V18_DF081

DF082 PRESENT OR STORED	UPSTREAM OXYGEN SENSOR HEATING CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V

NOTES	**See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**
	Special notes: **For CO and CC.1, the OBD warning light illuminates.**

Check the **condition** of the supply circuit **fuse** for the upstream oxygen sensor, component code **887**.
If the fuse is faulty, replace the fuse (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 81C, Fuses, Fuses: List and location of components**).

Check the **cleanliness** and **condition** of the injection computer connector, component code **120** and of the upstream oxygen sensor connector, component code **887**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

With the ignition on, check for **+ 12 V** on connection **3FB** of component **887**.
Check the **insulation, continuity and the absence of interference resistance** on the following connection:
– **3FB** between components **1047** (for **Logan, Sandero, Duster**) or **238** (for **Thalia 2/Symbol 2, Kangoo VLL**) or **983** (for **Clio II F 6**) and **887**,
– **3GF** between components **120** and **887**.
If the connection or connections 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 all the checks are correct, replace the upstream oxygen sensor, component code **887** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF082/ V42_V05_DF082/V42_V06_DF082/V42_V14_DF082/V42_V16_DF082/V42_V18_DF082

DF083 PRESENT OR STORED	DOWNSTREAM OXYGEN SENSOR HEATING CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V

NOTES	**See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**
	Special notes: **For CO and CC.1, the OBD warning light and level 1 fault warning light illuminate.**

Check the **condition of the fuse** of the supply circuit for the downstream oxygen sensor, component code **242**. If the fuse is faulty, replace the fuse (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 81C, Fuses, Fuses: List and location of components**).

Check the **cleanliness** and **condition** of the injection computer connector, component code **120** and of the connector of the downstream oxygen sensor, component code **242**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

With the ignition on, check for **+ 12 V** on connection **3FB** of component **242**.
Check the **insulation, continuity and the absence of interference resistance** of the following connection:
– **3FB** between components **1047** (for **Logan, Sandero, Duster**) or **238** (for **Thalia 2/Symbol 2, Kangoo VLL**) or **983** (for **Clio II F 6**) and **242**,
– **3GG** between components **120** and **242**.
If the connection or connections 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 all the checks are correct, replace the downstream oxygen sensor, component code **242** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF083/ V42_V05_DF083/V42_V06_DF083/V42_V14_DF083/V42_V16_DF083/V42_V18_DF083

DF085 PRESENT OR STORED	FUEL PUMP RELAY CONTROL CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is declared **present** after the ignition is switched on or when running command **AC015 Petrol pump relay**.
	Special notes: The **OBD** and **level 2** warning lights illuminate (**CC.1**) The **level 2** warning light illuminates (**CC.0 or CO**)
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the supply of the control circuit of the fuel supply pump relay with a test light by running command **AC015**.

Check the **cleanliness** and **condition** of the connector of the petrol pump relay, component code **236 (1047)** and of the injection computer connector, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF085/ V42_V05_DF085/V42_V06_DF085/V42_V14_DF085/V42_V16_DF085/V42_V18_DF085

DF085 CONTINUED	

Check the **insulation, continuity and absence of interference resistance** on the following connection:
For Logan, Sandero, Duster, Clio II F 6:
– **3AC** between components **236 (1047)** and **120**,
– **3NA** between components **236 (1047)** and **833**.

For Thalia 2/Symbol 2, Kangoo VLL:
– **3AC** between components **236** and **120**,
– **3N** between components **236** and **218**,

If the connection or connections 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 power circuit supply at the fuel supply pump relay output with a test light by running command **AC015 Fuel pump relay**.
If the supply at the relay output is not correct, replace the petrol pump relay, component code **236** (**1047**) (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 87G, Engine compartment connection unit, Engine compartment connection unit: List and location of components**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

DF088 PRESENT OR STORED	PINKING SENSOR CIRCUIT

NOTES	**Conditions for application to a stored fault:** The fault is declared **present** during a warm engine road test at an engine speed of more than **3500 rpm**.
	Special notes: – **The Level 1 warning light is illuminated.** – The wiring harness connecting the injection computer to the pinking sensor is shielded, therefore a short circuit at **+ 12V** is unlikely.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check **the cleanliness and condition** of the pinking sensor, component code **146** and its connector.
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Check the tightening of the pinking sensor (see **MR 388 (Logan and Sandero). MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Petrol injection: List and location of components**).

Check the **cleanliness and condition** of the injection computer connections, component code **120**.
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector(s), otherwise, replace the wiring.

Check the internal resistance of the pinking sensor, component code **146**. The resistance value of the sensor must be: **X > 10MΩ**. If the value is not correct, replace the pinking sensor, component code **146** (see **MR 388 (Logan and Sandero), Mechanical, 17B, Petrol injection, Petrol injection: List and location of components, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Pinking sensor: Removal - Refitting**).

Check the **continuity and insulation** of the following connections:
– **3S** between components **120** and **146**,
– **3DQ** between components **120** and **146**,
– **TB1** of component **120**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, **contact Techline**.

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

V42_V04_DF088/ V42_V05_DF088/ V42_V06_DF088/V42_V14_DF088/V42_V16_DF088/V42_V18_DF088

DF091 PRESENT OR STORED	VEHICLE SPEED SIGNAL 1.DEF: Signal outside upper limit 2.DEF: Signal outside lower limit

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is considered **present** when the engine is running.
	2.DEF Impossible to change the fault to **present** status; deal with the **stored** fault.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the **cleanliness** and **condition** of the connector of the vehicle speed sensor, component code **250** and of the injection computer connector, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check for **+ after ignition feed** using a multimeter on connection **3FB** (for **Logan, Sandero, Duster**) or **AP15** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**) of the vehicle speed sensor, component code **250**.

Check the **continuity and insulation** of the following connections:
For Logan, Sandero, Duster:
– **3FB** between components **250** and **1047**,
– **47F** between components **120** and **250**.

For Thalia 2/Symbol 2, Clio II F 6:
– **AP15** between components **250** and **1016**,
– **47F** between components **120** and **250**.

For Kangoo VLL:
– **AP15** between components **250** and **260**,
– **47F** between components **120** and **250**.

If the connection or connections 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 correct operation of the injection relay, component code **1047** (see **MR 388 or 451, Mechanical, 87G, Engine compartment connection unit, Engine compartment connection unit: List and location of components**) and passenger compartment fuse box, component code **1016** (for **Thalia 2/Symbol 2 and Clio II F 6**) or component code **260** (for **Kangoo VLL**) (see **MR 388 Mechanical, 81C, Fuses, Fuses: List and location of components**).
If the checks are correct and the fault is still present, replace the vehicle speed sensor, component code **250**.

If the fault is still present, **contact Techline**.

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

V42_V04_DF091/ V42_V05_DF091/ V42_V06_DF091/V42_V14_DF091/V42_V16_DF091/V42_V18_DF091

DF092 PRESENT OR STORED	UPSTREAM OXYGEN SENSOR CIRCUIT CC.1: Short circuit to + 12 V CO: Open circuit CC.0: Short circuit to earth (---)

NOTES	**Deal with the following faults first**: Only for **CC.1 - DF082 Upstream oxygen sensor heating circuit**.
	Conditions for applying the fault finding procedure to a stored fault: The fault is declared present: – **CC.0** - engine idling – **CC.1** - engine idling for **> 180 seconds** – **CO** - engine idling – in the fourth case (---), it is impossible to change the fault to present status, deal with the stored fault
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

CO **CC.1** **CC.0**	***NOTES***	**Special notes:** **level 1 fault warning light illuminated.**

Check the **cleanliness** and **condition** of the connector of the upstream oxygen sensor, component code **887** and of the injection computer connector, component code **120**.
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair)** repair the connector(s); otherwise, replace the wiring.

Check the **insulation**, **continuity and the absence of interference resistance** on the following connections:
– **3GH** between components **120** and **887**,
– **3GK** between components **120** and **887**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF092/V42_V05_DF092/V42_V06_DF092/V42_V14_DF092/V42_V16_DF092/V42_V18_DF092

DF092 CONTINUED	

(---)	***NOTES***	**Special notes:** **Level 1 fault warning light illuminated.** **Deal with the stored fault**

Check the resistance of the upstream oxygen sensor, component code **887**. The value must be between **7 Ω < X < 11** Ω or **3 Ω < X < 5** Ω (**F4R** engine of **Duster**) and the sensor temperature must be **X < 40°C**. If the value is not correct, replace the upstream oxygen sensor (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).
Check that the programming of the TDC* sensor is correct. (see **Replacement of components** section).
Run test **SC007 Run OBD test: O2 sensor** and start the engine (Only depress the brake pedal to authorise the starting of the engine). At the end, check the test results: **STATUS1**: Run the test again with the engine coolant temperature **X > 90°C**. **STATUS2** or **STATUS3**: Sensor OK. **STATUS4**: Replace the upstream oxygen sensor, component code **887** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).
If the fault is still present, contact the Techline.

*TDC: Top Dead Centre

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

DF093 PRESENT OR STORED	DOWNSTREAM OXYGEN SENSOR CIRCUIT **CC.1**: Short circuit to + 12 V **CO**: Open circuit **CC.0**: Short circuit to earth

NOTES	**Deal with the following faults first**: Only for **CC.1** and **CO** - **DF083 Downstream oxygen sensor heating circuit**.
	Conditions for applying the fault finding procedure to a stored fault: The fault is declared **present**: – with the engine idling for **> 300 seconds**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

CC.1 **CC.0**	***NOTES***	**Special notes:** **Level 1 fault warning light illuminated.**

Check the **condition of the fuse** of the supply circuit for the downstream oxygen sensor, component code **242**.
If the fuse is faulty, check all the following steps and replace the fuse (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 81C, Fuses, Fuses: List and location of components**).

Check the **cleanliness** and **condition** of the injection computer connector, component code **120** and of the connector of the downstream oxygen sensor, component code **242**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation**, **continuity and the absence of interference resistance** on the following connections:
– **3GJ** between components **120** and **242**,
– **3GL** between components **120** and **242**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the downstream oxygen sensor, component code **242** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF093/V42_V05_DF093/V42_V06_DF093/V42_V14_DF093/V42_V16_DF093/V42_V18_DF093

DF093 CONTINUED	

CO	*NOTES*	None.

Check the **condition of the fuse** of the supply circuit for the downstream oxygen sensor, component code **242**. If the fuse is faulty, check all the following steps and replace the fuse (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 81C, Fuses, Fuses: List and location of components**).
Read the stored speed within the context of the fault using **PR089 Vehicle speed**. If the value is **0**, drive the vehicle to reach a speed of **6 mph (10 km/h)** and check **PR089** again. If the value of this parameter is **0** whilst driving, apply the fault finding procedure for **DF091 Vehicle speed signal**, abandoning the steps described below. If **PR089** operates normally, follow the fault finding procedure for this fault.
Check the **cleanliness** and **condition** of the injection computer connector, component code **120** and of the connector of the downstream oxygen sensor, component code **242**. If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.
Check the **insulation**, **continuity and the absence of interference resistance** on the following connections: – **3GJ** between components **120** and **242**, – **3GL** between components **120** and **242**. If the connection or connections 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, replace the downstream oxygen sensor, component code **242** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).
If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

DF095 PRESENT OR STORED	THROTTLE POTENTIOMETER CIRCUIT GANG 1 1.DEF: Signal incoherent

WARNING
Never drive the vehicle without having confirmed that no faults involving the throttle valve are present.

NOTES	**Special notes:** **OBD warning light and level 1 fault warning light illuminate,** The throttle no longer operates.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the **cleanliness** of the throttle valve, component code **1076** and that the throttle **rotates properly** (no resistance point)
Check the **cleanliness** and **condition** of the throttle valve connector.
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **cleanliness and condition** of the injection computer connector, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation**, **continuity and the absence of interference resistance** on the following connections:
– **3MO** between components **120** and **1076**,
– **3MP** between components **120** and **1076**,
– **3MN** between components **120** and **1076**.
If the connection or connections 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 throttle valve has been replaced, reinitialise the programming by running command **RZ031 Throttle stop programming**.

If the fault is still present, **contact Techline**.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF095/V42_V05_DF095/V42_V06_DF095/V42_V14_DF095/V42_V16_DF095/V42_V18_DF095

DF096 PRESENT OR STORED	THROTTLE POSITION POTENTIOMETER CIRCUIT GANG 2 1.DEF: Signal incoherent

WARNING
Never drive the vehicle without having confirmed that no faults involving the throttle valve are present.

NOTES	**Deal with the following faults first:** **DF011 Sensor supply voltage no. 1.**
	Special notes: **OBD warning light and level 1 fault warning light illuminate,** The throttle no longer operates
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the **cleanliness** of the throttle valve, component code **1076** and that the throttle **rotates properly** (no resistance point).

Check the **cleanliness** and **condition** of the injection computer connector, component code **120** and of the throttle valve connector, component code **1076**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3MQ** between components **120** and **1076**,
– **3MN** between components **120** and **1076**,
– **3MO** between components **120** and **1076**.
If the connection or connections 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 throttle valve has been replaced, reinitialise the programming by running command **RZ031 Throttle stop programming**.

If the fault is still present, **contact Techline**.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF096/V42_V05_DF096/V42_V06_DF096/V42_V14_DF096/V42_V16_DF096/V42_V18_DF096

DF101 PRESENT OR STORED	MULTIPLEX ELECTRONIC STABILITY PROGRAM LINK 1.DEF: Invalid multiplex signals generated by computer

NOTES	None

Test the ABS computer (see **38C, Anti-lock braking system**).

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF101/V42_V05_DF0101/V42_V06_DF101/V42_V14_DF101/V42_V16_DF101/V42_V18_DF101

DF102 PRESENT OR STORED	ALTERNATOR POWER SIGNAL AVAILABLE 1.DEF: Below minimum threshold.

NOTES	**Special notes:** **OBD warning light comes on.**
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the **cleanliness** and **condition** of the alternator connector, component code **103** and of the injection computer connector, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connection.
– **2K** between components **103** and **120**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF102/V42_V05_DF102/V42_V06_DF102/V42_V14_DF102/V42_V16_DF102/V42_V18_DF102

DF108 PRESENT OR STORED	LPG/CNG* COMPUTER MULTIPLEX CONNECTION DEF: Invalid multiplex signals generated by computer

NOTES	None.

Check the GCU** computer.

*CNG: Compressed natural gas
**GCU: Gas Control Unit.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V18_DF108

DF109 PRESENT OR STORED	LOW FUEL LEVEL MISFIRING 1.DEF: Polluting misfiring 2.DEF: Destructive misfiring

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is **present** after starting the engine and under the following conditions: – engine running at idling speed
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the presence and conformity of the fuel in the tank (see **Test 19 Checking the conformity of the fuel**).
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the injectors (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the cylinder compressions.

After repair, check that the catalytic converter was not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine,
do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

AFTER REPAIR	Check that all faults have been dealt with. Do not clear the programming. To check that the system has been repaired correctly: – there must be no further electrical faults, – programming has been carried out, – warm engine (minimum **75°C**), – running at idle speed with all electrical consumers drawing power for 15 minutes. If the fault reappears, continue the fault finding procedure.

V42_V04_DF109/V42_V05_DF109/V42_V06_DF109/V42_V14_DF109/V42_V16_DF109/V42_V18_DF109

DF109 CONTINUED	

2.DEF	*NOTES*	None.

Check the presence and conformity of the fuel in the tank (see **Test 19 Checking the conformity of the fuel**).
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the injectors (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the cylinder compressions.

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

DF120 PRESENT OR STORED	ENGINE SPEED SENSOR SIGNAL 1.DEF: Inconsistent signal. 3.DEF: Interference. 4.DEF: Incorrect number of teeth.

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is **present** after starting the engine and under the following conditions: – engine running at idling speed
	Special note: **OBD warning light and level 1 fault warning light illuminated.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the connection and condition of the connector of the **crankshaft position sensor**, component code **149** and of the **injection computer** connector, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **resistance** of the **crankshaft position sensor** component code **149** between connections **3BL** and **3BG** on the **injection computer** connector, component code **120**.
If the **resistance** of the **crankshaft position sensor** is not between **175** $\Omega \leq$ **X** $\leq$ **295** Ω or 200 $\Omega \leq$ **X** $\leq$ 270 Ω (**F4R** engine of **Duster**) (**between 0°C** and **40°C**), replace the **crankshaft position sensor**, component code **149** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Crankshaft position sensor: Removal - Refitting**).

Check the **insulation** and **continuity** of the following connections:
– **3BG** between components **149** and **120**,
– **3BL** between components **149** and **120**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check that the **58** teeth of the **flywheel** target are not damaged or broken.

Check that the target is securely mounted on the flywheel (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 10A, Engine and cylinder block assembly, Flywheel: Removal - Refitting**): check the tightening torque and that there is no angular play or movement in relation to the target shaft.

If the fault is still present, contact the Techline.

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

V42_V04_DF120/V42_V05_DF120/V42_V06_DF120/V42_V14_DF120/V42_V16_DF120/V42_V18_DF120

DF195 PRESENT OR STORED	ENGINE SPEED/CAMSHAFT SENSOR CONSISTENCY 1.DEF: Inconsistent signal

NOTES	**Priority when dealing with a number of faults:** Deal with the following faults first: **– DF080 Camshaft dephaser circuit** **– DF363 Camshaft dephaser** **– DF457 Flywheel target** **– DF120 Engine speed sensor signal**
	Conditions for application to a stored fault: – The fault is declared **present** after the ignition has been **switched on**.
	See the **Wiring Diagrams Technical Note for Duster.**

Run **TEST 10 TDC sensor check**.
Run **TEST 20 Camshaft sensor check**.
If the fault is still present, contact the Techline.

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

V42_V04_DF195/V42_V05_DF195/V42_V06_DF195/V42_V14_DF195/V42_V16_DF195/V42_V18_DF195

DF319 PRESENT OR STORED	CAMSHAFT SENSOR CIRCUIT 1.DEF: Plausibility 2.DEF: No signal.

NOTES	**Priority when dealing with a number of faults:** Deal with the following faults first: **– DF047 Computer supply voltage** **– DF015 Main relay control circuit** **– DF120 Engine speed sensor signal** **– DF195 Camshaft sensor / engine speed consistency** **– DF457 Flywheel target** **– DF080 Camshaft dephaser circuit** **– DF363 Camshaft dephaser**
	Conditions for application to a stored fault: – The fault is declared **present** after the ignition has been **switched on**.
	See the **Wiring Diagrams Technical Note for Duster.**

Check the condition and connection of the camshaft sensor connectors, component code **1265**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the internal resistance of the camshaft sensor. It must be greater than **100 kΩ**.

Check for **+12 V** on the camshaft sensor, component code **1265** on the following connection:
• **3FB** of component **1265**.

Check the continuity, insulation and the absence of interference resistance on the following connection:
• **3FB** between components **1265** and **1047**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

V42_V04_DF319/V42_V05_DF319/V42_V06_DF319/V42_V14_DF319/V42_V16_DF319/V42_V18_DF319

DF319 CONTINUED	

Check the **continuity**, **insulation** and the **absence of interference resistance** on the following connections:
- **3SX** between components **1265** and **120**,
- **3SV** between components **1265** and **120**.

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

If the fault is still present, contact the Techline.

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

DF342 PRESENT OR STORED	MALFUNCTION INDICATOR LIGHT CIRCUIT 1.DEF: Voltage too low. 2.DEF: Voltage too high.

NOTES	**Conditions for application to a stored fault:** – The fault is declared **present** after the ignition has been **switched on**.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Part 1:
Check that there are no other present or stored faults.
– If the **OBD** warning light is still **lit**, move on to **Part 3**.
– Switch the ignition on, then switch it off. If the **OBD** warning light does not illuminate for a few seconds (permanently off), move on to **Part 2**.

Part 2:
Fit a test light. Switch the ignition on, then switch it off.
– If the test light does not illuminate for a few seconds (permanently off), move on to **Part 3**.
– If the test light illuminates only for several seconds and then goes out, replace the instrument panel, component code **247** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 83A, Instrument panel, Instrument panel: Removal - Refitting**).

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

V42_V04_DF342/V42_V05_DF342/V42_V06_DF342/V42_V14_DF342/V42_V16_DF342/V42_V18_DF342

DF342 CONTINUED	

Part 3:
Check the connection and condition of the connector of the **injection computer**, component code **120** and the instrument panel, component code **247**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

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

For Logan, Sandero, Duster, Clio II F 6 and Kangoo VLL:
- **137C** between components **247** and **120**.

For Thalia 2/Symbol 2:
- **3FH** between components **247** and **120**.

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

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

DF358 PRESENT OR STORED	INJECTOR CONTROL COMPUTER DEF: Internal electronic fault.

NOTES	None.

See **Technical Note 6520 "LANDI RENZO EURO V LPG SYSTEM FAULT FINDING"** (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF358

DF361 PRESENT OR STORED	IGNITION COIL 1 - 4 CIRCUIT CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is **present** after starting the engine and under the following conditions: – engine running at idling speed
	Special note: **For CC.1 and CO, the OBD warning light and level 1 fault warning light illuminate.** **For CC.0, the OBD warning light and level 2 fault warning light illuminate.**
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.
	The D4D and K7M engines are equipped with a quadruple ignition coil module. The **K4M** engine is equipped with 4 "pencil" type coils.

D4D and K7M engines

Check the cleanliness and condition of the injection computer connector, component code **120** and of the coil connector, component code **778**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3CV** or **3CZ** (for **Clio II F 6**) between components **120** and **778**,
– **3CW** or **3CV** (for **Clio II F 6**) between components **120** and **778**.
If the connection or connections 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 ignition on, check the supply of the ignition coil, component code **778** using a test light on connection **3NA**.

Check the **insulation, continuity and the absence of interference resistance** on the following connection:
– **3NA** between components **1047** or **1016** (for **Clio II F 6**) and **778**.
If the connection is faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF361/V42_V05_DF361/V42_V06_DF361/V42_V14_DF361/V42_V16_DF361/V42_V18_DF361

DF361 CONTINUED	

K4M engine

Check the cleanliness and condition of the pencil coil no.1 connector, component code **1077**, of the pencil coil no.4 connector, component code **1080** and of the injection computer connector, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3CZ** or **3CE** (for **Kangoo VLL**) between components **120** and **1077**,
– **3CV** between components **1077** and **1080**.

If the connection or connections 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 the supply of the pencil ignition coils, component code **1077** and **1080** using a test light on connection **3NA** of the injection relay, component code **1047** (for **Logan, Sandero, Duster**), on connection **3NA** of the fuel pump relay, component code **236** (for **Kangoo VLL**) or on connection **3N** of the fuel pump relay, component code **236** (for **Thalia 2/Symbol 2**).

Check the **insulation, continuity and the absence of interference resistance** on the following connection:
– **3NA** between components **1080** and **1047** (for **Logan, Sandero, Duster**) or **236** for **Kangoo VLL**),
– **3N** between components **1080 and 236** (for **Thalia 2/Symbol 2**).
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

DF362 PRESENT OR STORED	IGNITION COIL 2-3 CIRCUIT CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is **present** after starting the engine and under the following conditions: – engine running at idling speed
	Special note: For **CC.1** and **CO**, the **OBD warning light and level 1 fault warning light illuminate**. For **CC.0, the OBD warning light and level 2 fault warning light illuminate**.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**
	The **D4D** and **K7M** engines are equipped with a quadruple ignition coil module. The **K4M** engine is equipped with 4 "pencil" type coils.

D4D and K7M engines

Check the cleanliness and condition of the injection computer connector, component code **120** and of the coil connector, component code **778**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3CV** or **3CZ** (for **Clio II F 6**) between components **120** and **778**,
– **3CW** or **3CV** (for **Clio II F 6**) between components **120** and **778**.
If the connection or connections 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 ignition on, check the supply of the ignition coil, component code **778** using a test light on connection **3NA**.

Check the **insulation, continuity and the absence of interference resistance** on the following connection:
– **3NA** between components **1047** or **1016** (for **Clio II F 6**) and **778**.
If the connection is faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF362/V42_V05_DF362/V42_V06_DF362/V42_V14_DF362/V42_V16_DF362/V42_V18_DF362

DF362 CONTINUED	

K4M engine

Check the cleanliness and condition of the injection computer connector, component code **120**, the pencil coil no. 2 connector, component code **1078** and the pencil coil no. 3 connector, component code **1079**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3CP** between components **120** and **1078** (for **Logan, Sandero, Duster**),
– **3CH** between components **120** and **1078** (for **Thalia 2/Symbol 2**),
– **3CF** between components **120** and **1078** (for **Kangoo VLL**),
– **3CW** between components **1078** and **1079**.

If the connection or connections 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 the supply of the ignition coils, component code **1078** and **1079** using a test light on connection **3NA** of the injection relay, component code **1047** (for **Logan, Sandero, Duster**), on connection **3NA** of the fuel pump relay, component code **236** (for **Kangoo VLL**) or on connection **3N** of the fuel pump relay, component code **236** (for **Thalia 2/Symbol 2**).

Check the **insulation, continuity and the absence of interference resistance** on the following connection:
– **3NA** between components **1079** and **1047** (for **Logan, Sandero, Duster**) or **236** for **Kangoo VLL**),
– **3N** between components **1079 and 236** (for **Thalia 2/Symbol 2**).
If the connection is faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

DF363 PRESENT OR STORED	CAMSHAFT DEPHASER 1.DEF: Mechanical fault 2.DEF: Automatic control fault 3.DEF: Dephaser automatic control outside the limits

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared **present** with the engine running at an engine speed of **2500 rpm** for **10 seconds**. – For **1.DEF**, if impossible to see the fault **present**, deal with it as **stored**.
	See the **Wiring Diagrams Technical Note for Duster.**

See **Technical Note 6506A, Injection fault finding, Camshaft dephaser, ALP5 Operational fault (except status CO, CC.1, CC.O) on the camshaft dephaser detected using Clip: DF080 "Camshaft dephaser circuit" or DF063 "Camshaft dephaser" or DTC10 "Camshaft dephaser circuit" (K4M and F4R 830 Clio III RS**).

If the fault is still present, contact the Techline.

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

V42_V04_DF363/V42_V05_DF363/V42_V06_DF363/V42_V14_DF363/V42_V16_DF363/V42_V18_DF363

DF379 PRESENT OR STORED	CYLINDER 1 INJECTOR CONTROL CO.1: Open circuit or short circuit to +12 V. 1.DEF: Inconsistent signal.

NOTES	None.

See **Technical Note 6520 "Landi Renzo Euro V LPG system fault finding"** (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF379

DF380 PRESENT OR STORED	CYLINDER 2 INJECTOR CONTROL CO.1: Open circuit or short circuit to +12 V. 1.DEF: Inconsistent signal.

NOTES	None.

See **Technical Note 6520 "Landi Renzo Euro V LPG system fault finding"** (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF380

DF381 PRESENT OR STORED	CYLINDER 3 INJECTOR CONTROL CO.1: Open circuit or short circuit to +12 V. 1.DEF: Inconsistent signal.

NOTES	None.

See **Technical Note 6520 "Landi Renzo Euro V LPG system fault finding"** (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF381

DF382 PRESENT OR STORED	CYLINDER 4 INJECTOR CONTROL CO.1: Open circuit or short circuit to +12 V. 1.DEF: Inconsistent signal.

NOTES	None.

See **Technical Note 6520 "Landi Renzo Euro V LPG system fault finding"** (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF382

DF394 PRESENT OR STORED	CATALYTIC CONVERTER OPERATING FAULT 1.DEF: Component in bad condition

NOTES	**Priority when dealing with a number of faults:** Deal with the other faults first. There must be no other injection system faults, either **present or stored**. **– DF081 - Canister bleed solenoid valve circuit** **– DF120 - Engine speed sensor signal** **– DF361 - Ignition coil 1-4 circuit** **– DF362 - Ignition coil 2-3 circuit** **– DF026 - Cylinder 1 injector control circuit** **– DF027 - Cylinder 2 injector control circuit** **– DF028 - Cylinder 3 injector control circuit** **– DF029 - Cylinder 4 injector control circuit** **– DF092 - Upstream oxygen sensor circuit** **– DF082 - Upstream oxygen sensor heating circuit** **– DF093 - Downstream oxygen sensor circuit** **– DF002 - Air temperature sensor circuit** **– DF001 - Coolant temperature sensor circuit**
	Conditions for applying the fault finding procedure to a stored fault: The fault is not declared **present**, deal with the **stored** fault.
	Special note: **OBD warning light comes on.**

Check the downstream oxygen sensor (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).
Check the programming of the **TDC* sensor** (see **Section: Replacement of components**).

Run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine,
do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

If the fault is still present, contact the Techline.

*TDC: Top Dead Centre

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF394/V42_V05_DF394/V42_V06_DF394/V42_V14_DF384/V42_V16_DF384/V42_V18_DF384

DF398 PRESENT OR STORED	FUEL CIRCUIT OPERATING FAULT 1.DEF: Component in poor condition.

NOTES	**Priority when dealing with a number of faults:** Deal with the other faults first. **– DF085 - Fuel pump relay control circuit**
	Conditions for applying the fault finding procedure to a stored fault: The fault is declared **present** with the engine running at an engine speed of **2500 rpm** for **10 seconds**.
	Special note: **OBD warning light comes on.**

Check the value of parameter **PR139 Operating richness adaptive**.

If the value of **PR139 < 1** then:
Check the sealing of the fuel supply system from the fuel pump to the injector rail:
– The fuel tank (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19C, Tank, Fuel tank: Removal - Refitting**),
– The connection between the fuel pump and the fuel filter (see **MR 388 (Logan and Sandero) Mechanical, 19C, Tank, Fuel supply pipe: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 19C, Tank, Fuel tank: Removal - Refitting**),
– The connection between the fuel filter and the regulator (see **MR 388 (Logan and Sandero), MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel filter: Removal - Refitting**),
– The pressure regulator ducts (see **MR 388 (Logan and Sandero), Mechanical, 19C, Tank, Fuel supply pipe: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 19C, Tank, Fuel tank: Removal - Refitting**),
– The connection between the regulator and the injector rail (see **MR 388 (Logan and Sandero), Mechanical, 19C, Tank, Fuel supply pipe: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 19C, Tank, Fuel tank: Removal - Refitting**),

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF398/V42_V05_DF398/V42_V06_DF398/V42_V14_DF398/V42_V16_DF398/V42_V18_DF398

DF398 CONTINUED 1	

– The fuel ducts between the injector rail and the injectors (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
– Check the fuel filter (to detect possible clogging) (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel filter: Removal - Refitting**),
– Check the pressure regulator,
– Check the fuel pump flow (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Fuel flow: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel flow: Check**),
– Check the injector flow (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**).

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

DF398 CONTINUED 2	

If the value of **PR139 > 1** then:
- Check the pressure regulator,
- Check the connections on the inlet manifold (see **MR 388 or 451, Mechanical, 12A, Fuel mixture, Air inlet: Description**),
- Check for possible petrol leaks (see **ALP4 Fuel leak**),
- Check for possible air leaks,
- Check the sealing of the injectors (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
- Check the seal between the inlet manifold and the solenoid valve unit.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

DF409 PRESENT OR STORED	FUEL LEVEL SENSOR CIRCUIT 1.DEF: Voltage too low 2.DEF: Voltage too high

NOTES	**Special notes:** **OBD warning light comes on.**
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the cleanliness and condition of the injection computer connector, component code **120** and of the instrument panel connector, component code **247**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **47H** between components **120** and **247**,
– **3NX** between components **120** and **247**,
– **137C** between components **120** and **247**,
– **31A** between components **120** and **247**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

DF436 PRESENT OR STORED	DETECTION OF ENGINE MISFIRING 1.DEF: Polluting misfiring. 2.DEF: Destructive misfiring.

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire,** **– DF635 LPG cylinder 1 combustion misfire,** **– DF636 LPG cylinder 2 combustion misfire,** **– DF637 LPG cylinder 3 combustion misfire** **– DF638 LPG cylinder 4 combustion misfire.**
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuits (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder injectors (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the cylinder compressions.

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V18_DF436

DF436 CONTINUED 1	

After repair, check that the catalytic converter is not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine, do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

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

DF436 CONTINUED 2	

2.DEF	***NOTES***	None.

Check the ignition coil circuits (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder injectors (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the cylinder compressions.

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

DF457 PRESENT OR STORED	FLYWHEEL TARGET 1.DEF: Component in bad condition

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is declared **present** with the engine running, **engine speed > 3500 rpm**.
	Special notes: **OBD warning light comes on.**
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the cleanliness and condition of the injection computer connector, component code **120** and of the TDC* sensor connector, component code **149**. If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Measure the **resistance** of the **TDC* sensor** component code **149** between connections **3BL** and **3BG** on the **injection computer** connector, component code **120**. If the **resistance** of the **crankshaft position sensor** is not between **175** $\Omega \leq$ **X** $\leq$ **295** Ω or **200** $\Omega \leq$ **X** $\leq$ **270** Ω (**F4R** engine of **Duster**) (**between 0°C** and **40°C**), replace the **crankshaft position sensor** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Crankshaft position sensor: Removal - Refitting**).
Check the **insulation, continuity and the absence of interference resistance** on the following connections: – **3BG** between components **120** and **149**, – **3BL** between components **120** and **149**. If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
Check the **cleanliness** and **condition** of the flywheel (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 10A, Engine and cylinder block assembly, Flywheel: Removal - Refitting)**.
If the fault is still present, contact the Techline.

*TDC: Top Dead Centre

AFTER REPAIR	Follow the instructions to confirm repair. Deal with any other faults. Clear the **stored** faults.

V42_V04_DF457/V42_V05_DF457/V42_V06_DF457/V42_V14_DF457/V42_V16_DF457/V42_V18_DF457

DF504 PRESENT OR STORED	AUTOMATIC TRANSMISSION 1.DEF: Invalid multiplex signals generated by computer

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is **present** with the engine idling.
	Special notes: **OBD warning light comes on.**

Carry out fault finding on the automatic transmission (see **23A, Automatic transmission**).

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

V42_V04_DF504/V42_V05_DF504/V42_V06_DF504/V42_V14_DF504/V42_V16_DF504/V42_V18_DF504

DF531 PRESENT OR STORED	LPG SYSTEM DEF: EEPROM* fault.

NOTES	None.

See **Technical Note 6520 "Landi Renzo Euro V LPG system fault finding"** (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

*EEPROM: ELECTRICALLY ERASABLE PROGRAMMABLE READ ONLY MEMORY

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

V42_V18_DF531

DF532 PRESENT OR STORED	ALTERNATOR CHARGE SIGNAL 1.DEF: Voltage too low 2.DEF: Voltage too high

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** **The fault is** present with the **engine idling**.
	Special notes: **the OBD warning light is on.**
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the **cleanliness** and **condition** of the alternator connector, component code **103** and of the injection computer connector, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connection.
– **2K** between components **103** and **120**.
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 check is correct, replace the alternator, component code **103 (see MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 16A, Starting - Charging, Alternator: Removal - Refitting)**.

If the fault is still present, contact the Techline.

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

V42_V04_DF532/V42_V05_DF532/V42_V06_DF532/V42_V14_DF532/V42_V16_DF532/V42_V18_DF532

DF556 PRESENT OR STORED	PEDAL/THROTTLE POSITION CONSISTENCY 1.DEF: Signal incoherent 2.DEF: Detection of micro-cut

NOTES	The inlet throttle valve no longer operates.
	Special notes: **For 1.DEF, the OBD and level 1 fault warning lights are illuminated.**
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the **cleanliness** and **condition** of the injection computer connector, component code **120** and the damper valve connector, component code **1076** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Petrol injection computer: Removal - Refitting**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3AJB** between components **1076** and **120**,
– **3AJC** between components **1076** and **120**.
If the connection or connections are faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

If the fault is still present, contact the Techline.

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

V42_V04_DF556/V42_V05_DF556/V42_V06_DF556/V42_V14_DF556/V42_V16_DF556/V42_V18_DF556

DF631 PRESENT OR STORED	BRAKE LIGHT SWITCH SIGNAL 1.DEF: Inconsistent signal.

NOTES	**Conditions for application to a stored fault:** The fault is declared **present** when the engine is **idling**. The fault is declared **present**: – After depressing the pedal at least **10 times**.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

With the brake pedal released, check **ET039 Brake pedal** and **ET799 Brake wire contact**.
Check that **ET039** is **Released** and **ET799** is **Inactive**.

Check the fitting and mechanical operation of the brake pedal (the pedal returns properly).
If the check is incorrect, check the braking system.

Remove the **brake pedal switch**, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting)** and, without depressing the pedal, press sufficiently on the **brake pedal switch** to seat it completely in its position.
Lock it by turning it a quarter of a turn anti-clockwise.
The fault should change from **present** to **stored**.

While depressing the brake pedal to the end of travel, check **ET039** and **ET799**.
ET039 must be **Depressed** and **ET799** must be **Active**.
If the statuses are correct, contact the Techline.

With the brake pedal **depressed**, measure the **resistance** of the **brake pedal switch**, component code **160** between connections **AP1** (for **Logan, Sandero, Duster**) or **AP10** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL)** and **65A**. The value must be **X > 10 MΩ** (between **0°C** and **40°C**).
If the **resistance** is not correct, replace the **brake pedal switch**, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting**).
With the brake pedal **released**, measure the **resistance** of the **brake pedal switch**, component code **160** between connections **AP1** (for **Logan, Sandero, Duster**) or **AP10** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**) and **5A**, the value must be between **0 Ω < X ≤ 1Ω** (between **0°C** and **40°C**).
If the **resistance** is not correct, replace the **brake pedal switch**, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting**).

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

V42_V04_DF631/V42_V05_DF631/V42_V06_DF631/V42_V14_DF631/V42_V16_DF631/V42_V18_DF631

DF631 CONTINUED	

Check the brake pedal switch connector, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting**). If the connector is faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring
Check fuse **F03** (for **Logan, Sandero, Duster**), **F4** (for **Thalia 2/Symbol 2, Clio II F 6** or **F16** (for **Kangoo VLL**) and replace it if necessary.
Check the **insulation, continuity and the absence of interference resistance** on the following connections: – **AP1** between components **160** and **1016** (for **Logan, Sandero, Duster**), – **AP10** between components **160** and **1016** (for **Thalia 2/Symbol 2, Clio II F 6**) – **AP10** between components **160** and **260** (for **Kangoo VLL**), – **5A** between components **160** and **120**, – **65A** between components **160** and **120**. If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

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

DF633 PRESENT OR STORED	LPG FUEL CIRCUIT OPERATING FAULT DEF: Component in poor condition

NOTES	**Priorities when dealing with a combination of faults:** First deal with: – **DF398** – **"Fuel system functional failure"**
	Conditions for application to a stored fault: The fault is declared **present** with the engine running at an engine speed of **2500 rpm** for **10 seconds**.
	Special note: OBD warning light comes on.

Check the value of parameter **PR139 Operating richness adaptive**.

If the value of **PR139 < 1** then:
Check the sealing of the fuel supply system from the fuel pump to the injector rail:
- The fuel tank (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 19C, Tank, Fuel tank: Removal - Refitting**)
- The connection between the fuel pump and the fuel filter (see **MR 388 (Logan and Sandero) Mechanical, 19C, Tank, Fuel supply pipe: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 19C, Tank, Fuel tank: Removal - Refitting**)
- The connection between the fuel filter and the regulator (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 13A, Fuel supply, Fuel filter: Removal - Refitting**)
- The pressure regulator ducts (see **MR 388 (Logan and Sandero), Mechanical, 19C, Tank, Fuel supply pipe: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 19C, Tank, Fuel tank: Removal - Refitting**)
- The connection between the regulator and the injector rail (see **MR 388 (Logan and Sandero), Mechanical, 19C, Tank, Fuel supply pipe: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 19C, Tank, Fuel tank: Removal - Refitting**)

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

DF633 CONTINUED	

– The fuel ducts between the injector rail and the injectors (see **MR 388 (Logan and Sandero)**
– Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 **(Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**)
– Check the fuel filter (to detect possible clogging) (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 13A, Fuel supply, Fuel filter: Removal - Refitting**)
– Check the pressure regulator,
– Check the fuel pump flow (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Fuel flow: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 13A, Fuel supply, Fuel flow: Check**)
– Check the injector flow (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**).

If the value of **PR139 > 1** then:
– Check the pressure regulator,
– Check the inlet manifold connections (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 430 (Clio II F 6), Mechanical, 12A, Fuel mixture, Air inlet: Description**)
– Check for possible petrol leaks (see **ALP4 Fuel leak**),
– Check for possible air leaks,
– Check the sealing of the injectors (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**)
– Check the seal between the inlet manifold and the solenoid valve unit.

If the fault is still present, contact the Techline.

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

DF635 PRESENT OR STORED	LPG CYLINDER 1 COMBUSTION MISFIRE 1.DEF: Polluting misfiring. 2.DEF: Destructive misfiring.

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire.**
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster) or MR 423 (Thalia 2/ Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 1 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 1.

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

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DF635 CONTINUED 1	

After repair, check that the catalytic converter was not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine, do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

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

DF635 CONTINUED 2	

2.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster) or MR 423 (Thalia 2/ Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 1 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 1.

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

DF636 PRESENT OR STORED	LPG CYLINDER 2 COMBUSTION MISFIRE 1.DEF: Polluting misfiring. 2.DEF: Destructive misfiring.

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire.**
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/ Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 2 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 2.

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

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DF636 CONTINUED 1	

After repair, check that the catalytic converter is not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine, do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

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

DF636 CONTINUED 2	

2.DEF	*NOTES*	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/ Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 2 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 2.

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

DF637 PRESENT OR STORED	LPG CYLINDER 3 COMBUSTION MISFIRE 1.DEF: Polluting misfiring. 2.DEF: Destructive misfiring.

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire.**
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/ Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 3 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 3.

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

V42_V18_DF637

DF637 CONTINUED 1	

After repair, check that the catalytic converter is not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine, do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

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

DF637 CONTINUED 2	

2.DEF	*NOTES*	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 3 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 3.

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

DF638 PRESENT OR STORED	LPG CYLINDER 4 COMBUSTION MISFIRE 1.DEF: Polluting misfiring. 2.DEF: Destructive misfiring.

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire.**
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/ Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 4 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 4.

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

V42_V18_DF638

DF638 CONTINUED 1	

After repair, check that the catalytic converter is not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine, do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

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

DF638 CONTINUED 2	

1.DEF	***NOTES***	None.

Check the ignition coil circuit (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/ Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder 4 injector (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 4.

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

DF639 PRESENT OR STORED	COMBUSTION MISFIRE IN LPG MODE 1.DEF: Polluting misfiring. 2.DEF: Destructive misfiring.

NOTES	**Priority when dealing with a number of faults:** **– DF109 Low fuel level misfire,** **– DF635 LPG cylinder 1 combustion misfire,** **– DF636 LPG cylinder 2 combustion misfire,** **– DF637 LPG cylinder 3 combustion misfire** **– DF638 LPG cylinder 4 combustion misfire.**
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** under the following conditions: – engine running at idling speed.
	Special note: **OBD warning light comes on.**

1.DEF	***NOTES***	None.

Check the ignition coil circuits (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/ Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder injectors (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the cylinder compressions.

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

V42_V18_DF639

DF639 CONTINUED 1	

After repair, check that the catalytic converter is not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine, do not touch the accelerator pedal or clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

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

DF639 CONTINUED 2	

2.DEF	*NOTES*	None.

Check the ignition coil circuits (see **MR 388, Mechanical, 17A, Ignition, Ignition: Specifications**),
Check the fuel supply circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the condition of the cylinder injectors (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster)** or **MR 423 (Thalia 2/Symbol 2), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the cylinder compressions.

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

DF648 PRESENT OR STORED	COMPUTER

NOTES	**Special notes:** **the OBD warning light is on.**

Contact the Techline.

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

V42_V04_DF648/V42_V05_DF648/V42_V06_DF648/V42_V14_DF648/V42_V16_DF648/V42_V18_DF648

DF721PRESENT OR STORED	ENGINE OVERHEATING 1.DEF: Operating temperature too high.

NOTES	**Deal with the stored fault.**
	Special notes: After this fault appears: **The Level 1 warning light is illuminated.** **The overheating warning light is illuminated.**

Check the **engine cooling system** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19A, Cooling, Engine cooling system: Check**).
Check the coolant temperature sensor by applying **TEST 15 Checking the coolant temperature sensor**.
Check the correct operation of the engine cooling fans (see **Test 16 Checking the fan relay**).
If the fault is still present, contact the Techline.

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

V42_V04_DF721/V42_V05_DF721/V42_V06_DF721/V42_V14_DF721/V42_V16_DF721/V42_V18_DF721

DF773 PRESENT OR STORED	PRESSURE REGULATOR CIRCUIT CO.1: open circuit or short circuit to +12 V CC.0: short circuit to earth

NOTES	None.

See **Technical Note 6520 "Landi Renzo Euro V LPG system fault finding"** (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF773

DF884 PRESENT OR STORED	ADDITIONAL FUEL CIRCUIT PUMP RELAY CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit

NOTES	**Conditions for application to a stored fault:** The fault is declared **present** after running command **AC224 Additional fuel circuit pump relay.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Kangoo VLL.**

Check the supply of the control circuit of the additional fuel supply pump relay with a test light by running command **AC224**.
Check the **cleanliness** and **condition** of the connector of the additional petrol pump relay, component code **1639** and of the injection computer connector, component code **120**. If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.
Check the **insulation, continuity and absence of interference resistance** on the following connection: – **3ACK** between components **1639** and **120**, – **3FB** between components **1639** and **1047**. If the connection or connections 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 the supply of the power circuit of the additional fuel supply pump relay with a test light by running command **AC224**. If the check is correct, replace the pump, component code **1639** (see **MR 388 (Logan and Sandero) or MR 374 (Kangoo VLL), Mechanical, 19C, Tank, Fuel pump of the additional fuel tank: Removal - Refitting**).
If the fault is still present, contact the Techline.

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

V42_V04_DF884/V42_V05_DF884/V42_V06_DF884/V42_V14_DF884/V42_V16_DF884/V42_V18_DF884

DF887 PRESENT OR STORED	BRAKE - ACCELERATOR PEDAL POSITION 1.DEF: Jammed accelerator pedal detected. 2.DEF: Jammed accelerator pedal detected. 3.DEF: Inconsistency between pedal gang 1 and gang 2. 4. DEF: Fault on pedal potentiometer gangs 1 and 2.

NOTES	**Conditions for application to a stored fault:** The fault is declared **present** after the ignition is switched on or with the engine running. Deal with the stored faults (**1.DEF, 2.DEF** only).
	Special notes: After this fault appears: **For 3.DEF, the OBD and level 1 warning lights are illuminated.** **For 2.DEF and 4.DEF, the OBD and level 2 warning lights are illuminated.**

1.DEF **2.DEF**	***NOTES***	**None.**

Check that the accelerator pedal is not jammed and that there is nothing impeding its operation (floor carpet, etc.).
Run **TEST 9 Brake pedal switch check**.
Run **TEST 8 Accelerator pedal potentiometer check.**
If the fault is still present, contact the Techline.

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

V42_V04_DF887/V42_V05_DF887/V42_V06_DF887/V42_V14_DF887/V42_V16_DF887/V42_V18_DF887

DF887 CONTINUED	

3.DEF	*NOTES*	None.

If only status **3.DEF: Inconsistency between pedal gang 1 and gang 2** is **present**, replace the **accelerator pedal** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Accelerator pedal: Removal - Refitting**).

If the fault is still present, contact the Techline.

4.DEF	*NOTES*	None.

Run **TEST 8**.

If the fault is still present, contact the Techline.

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

DF894 PRESENT OR STORED	ADDITIONAL FUEL CIRCUIT SOLENOID VALVE CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit

For engines: K4M, K7M, D4D

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Kangoo VLL.**

Check the connection and condition of the connector of the additional fuel circuit solenoid valve, component code **1640** and the **injection computer** connector, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity, insulation, and absence of interference resistance** on the following connections:
– **3ACM** between components **1640** and **120**,
– **3FB** between components **1640** and **1047**.
If the connection or connections 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 the supply of the solenoid valve using a test light, by running command **AC217 Additional fuel circuit solenoid valve**.

Check the internal resistance of the solenoid valve, component code **1640** on the computer connector; its value must be between: **12 Ω < X ≤ 16 Ω** (**Duster F4R** engine) or **22 Ω < X ≤ 30 Ω** (**Duster K4M** engine). If the resistance is incorrect, replace the solenoid valve.

If the fault is still present, contact the Techline.

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

V42_V04_DF894/V42_V05_DF894/V42_V06_DF894/V42_V14_DF894/V42_V16_DF894/V42_V18_DF894

DF894 CONTINUED 1	

For engines: F4R 404, 405, 408

NOTES	This fault corresponds to an electrical fault of the additional fuel circuit injector, which is fitted directly on the throttle valve. It is not a solenoid valve fault.
	See the **Wiring Diagrams Technical Note for Duster**.

Check the fitting and sealing of the additional fuel circuit injector
If there is leakage, replace the defective component (the injector inlet hose, the injector seal, the additional fuel circuit injector).

Check the connection and condition of the connector of the additional fuel circuit injector, component code **1640** and the **injection computer** connector, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity**, **insulation** and the **absence of interference resistance** on the following connections:
– **3ACM** between components **1640** and **120**,
– **3FB** between components **1640** and **1047**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

DF894 CONTINUED 2	

Check the supply of the additional fuel circuit injector using a multimeter in the voltmeter position (direct current mode). Run command **AC217 Additional fuel circuit solenoid valve** and check that the average voltage reading is different from **0 V**.
Check the internal resistance of the additional fuel circuit injector, component code **1640** on the computer connector. Its value must be between: **13.775** Ω ≤ **X** ≤ **15.225** Ω **or 24** Ω ≤ **X** ≤ **30** Ω (**F4R** engine on **Duster**) at **20ºC**. If the resistance is incorrect, replace the injector.
If the fault is still present, contact the Techline.

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

DF974 PRESENT OR STORED	PEDAL POTENTIOMETER CIRCUIT GANG 1 1.DEF: Battery voltage too high. 2.DEF: Battery voltage too low.

NOTES	**Fault priorities:** Deal with the following fault as a priority: **DF011 Sensor voltage supply no. 1**
	Special notes: After this fault appears: **The OBD and level 1 warning lights are illuminated.**
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the connection and condition of the connector of the **accelerator pedal sensor, gang 1**, component code **921** and of the **injection computer** connector, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Run **TEST 8 Accelerator pedal potentiometer check.**

If the fault is still present, contact the Techline.

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

V42_V04_DF974/V42_V05_DF974/V42_V06_DF974/V42_V14_DF974/V42_V16_DF974/V42_V18_DF974

DF975 PRESENT OR STORED	PEDAL POTENTIOMETER CIRCUIT GANG 2 1.DEF: Battery voltage too high. 2.DEF: Battery voltage too low.

NOTES	**Special notes:** After this fault appears: **The OBD and level 1 warning lights are illuminated.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the connection and condition of the connector of the **accelerator pedal sensor, gang 2**, component code **921** and of the **injection computer** connector, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Run **TEST 8 Accelerator pedal potentiometer check.**

If the fault is still present, contact the Techline.

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

V42_V04_DF975/V42_V05_DF975/V42_V06_DF975/V42_V14_DF975/V42_V16_DF975/V42_V18_DF975

DF992 PRESENT OR STORED	ADDITIONAL HEATER 1 RELAY CIRCUIT CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster**.

Check the **cleanliness and condition** of the additional heater 1 relay, component code **1067** and the connections of the injection computer, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation, continuity and absence of interference resistance** on the following connection:
– **38JU** between components **1067** and **120**,
– **3FB** between components **1067** and **1047**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check that the additional heater relay operates correctly by running command **AC250 Heating resistor 1 relay** and check that there are no more faults on the relay. If the check is not correct, replace the additional heater relay, component code **1067** (see **MR 388 or 451, Mechanical, 61A, Heating system, Heating resistor relay: Removal - Refitting**).

If the fault is still present, contact the Techline.

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

V42_V04_DF992/V42_V05_DF992/V42_V06_DF992/V42_V14_DF992/V42_V16_DF992/V42_V18_DF992

DF993 PRESENT OR STORED	ADDITIONAL HEATER 2 RELAY CIRCUIT CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster**.

Check the **cleanliness and condition** of the additional heater 2 relay, component code **1068** and the connections of the injection computer, component code **120**. If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.
Check the **insulation, continuity and absence of interference resistance** on the following connection: – **38JV** between components **1068** and **120**, – **3FB** between components **1068** and **1047**. If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
Check that the additional heater relay operates correctly by running command **AC251 Heating resistor 2 relay** and check that there are no more faults on the relay. If the check is not correct, replace the additional heater relay, component code **1068** (see **MR 388 or 451, Mechanical, 61A, Heating system, Heating resistor relay: Removal - Refitting**).
If the fault is still present, contact the Techline.

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

V42_V04_DF993/V42_V05_DF993/V42_V06_DF993/V42_V14_DF993/V42_V16_DF993/V42_V18_DF993

DF994 PRESENT OR STORED	ADDITIONAL HEATER 3 RELAY CIRCUIT CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster**.

Check the **cleanliness and condition** of the additional heater 3 relay, component code **1069** and the connections of the injection computer, component code **120**. If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.
Check the **insulation, continuity and absence of interference resistance** on the following connection: – **38JW** between components **1069** and **120**, – **3FB** between components **1069** and **1047**. If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
Check that the additional heater relay operates correctly by running command **AC252 Heating resistor 3 relay** and check that there are no more faults on the relay. If the check is not correct, replace the additional heater relay, component code **1069** (see **MR 388 or 451, Mechanical, 61A, Heating system, Heating resistor relay: Removal - Refitting**).
If the fault is still present, contact the Techline.

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

V42_V04_DF994/V42_V05_DF994/V42_V06_DF994/V42_V14_DF994/V42_V16_DF994/V42_V18_DF994

DF1015 PRESENT OR STORED	BRAKE SWITCH SIGNAL CONSISTENCY 1.DEF: Value outside permitted tolerance values 2.DEF: Inconsistent signal.

NOTES	**Fault priorities** Deal with the following faults first: **DF050 Brake switch circuit** **DF631 Brake light switch signal**
	Conditions for application to a stored fault: The fault is declared **present**: – For **1.DEF engine at idle speed**. – For **2.DEF**, if impossible to see the fault **present**, deal with it as **stored**.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

With the brake pedal **released**, check **ET039 Brake pedal** and **ET799 Brake wire contact**.
If **ET039** is **Released** and **ET799** is **Inactive**.

Check the fitting and mechanical operation of the brake pedal (the pedal returns properly).
If the check is incorrect, check the braking system.

Remove the **brake pedal switch**, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting**) and, without depressing the pedal, press sufficiently on the brake pedal switch to seat it completely in its position.
Lock it by turning it an eighth of a turn.
The fault should change from **present** to **stored**.

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

V42_V04_DF1015/V42_V05_DF1015/V42_V06_DF1015/V42_V14_DF1015/V42_V16_DF1015/V42_V18_DF1015

DF1015 CONTINUED	

– With the brake pedal **depressed**, measure the **resistance** of the **brake pedal switch**, component code **160** between connections **AP1** (for **Logan, Sandero, Duster**) or **AP10** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL)** and **65A**. The value must be **X > 10 MΩ** (between **0°C** and **40°C**).

If the **resistance** is not correct, replace the **brake pedal switch**, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting**).

– With the brake pedal **released**, measure the **resistance** of the **brake pedal switch**, component code **160** between connections **AP1** (for **Logan, Sandero, Duster**) or **AP10** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**) and **5A**, the value must be between **0 Ω < X ≤ 1Ω** (between **0°C** and **40°C**).

If the **resistance** is not correct, replace the **brake pedal switch**, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting**).

Check the **brake pedal switch connector**, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting** or **MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal: Removal - Refitting**).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check fuse **F03** (for **Logan, Sandero, Duster**), **F4** (for **Thalia 2/Symbol 2, Clio II F 6** or **F16** (for **Kangoo VLL**) and replace it if necessary.

If the fault is still present, contact the Techline.

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

DF1016 PRESENT OR STORED	CLUTCH SWITCH SIGNAL CONSISTENCY 1.DEF: Inconsistent signal.

NOTES	**Conditions for application to a stored fault:** The fault is **present** with the engine idling.
	Special notes: **After this fault appears:** – The cruise control and speed limiter functions are unavailable.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Clio II F 6.**

Without action on the pedal, check that status **ET803 Clutch start of travel switch** is **RELEASED**.
If status **ET803** is correct, move on to the **Part 1** check.

If status **ET803** is not correct: remove the **clutch pedal position sensor**, component code **675** and, without action on the pedal, press sufficiently on the clutch pedal switch to seat it completely in its position.
Lock it by turning it an eighth of a turn.
Check that the fault has become stored.
If the fault does not change from **present** to **stored**, replace the **clutch pedal position sensor**, component code **675** (see **MR 451 (Duster), MR 388 (Logan and Sandero), MR 430 (Clio II F 6), Mechanical, 37A, Mechanical component controls, Clutch pedal: Removal - Refitting**), otherwise move on to **Part 1**.

Part 1:
With the pedal fully depressed, check that status **ET803** is **DEPRESSED**.
If status **ET803** is correct, move on to **Part 2**.

If status **ET803** is not correct: with the clutch pedal depressed, measure the **resistance** of the switch, component code **675** between connections **86D** and **MAM** or **M**.
The value must be between **0** Ω **< X** $\leq$ **1** Ω.
If the **resistance** is not correct, replace the **clutch pedal position sensor**, component code **675** (see **MR 451 (Duster), MR 388 (Logan and Sandero), MR 430 (Clio II F 6), Mechanical, 37A, Mechanical component controls, Clutch pedal: Removal - Refitting**).
If the resistance is correct, move on to **Part 2**.

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

V42_V04_DF1016/V42_V05_DF1016/V42_V06_DF1016/V42_V14_DF1016/V42_V16_DF1016/V42_V18_DF1016

DF1016 CONTINUED	

Part 2:
Check the connector of the **clutch pedal position sensor**, component code **675**.
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check **the insulation, continuity and absence of interference resistance** on the following connections:
– **86D** between components **675** and **120**,
– **MAM** or **M** between **earth** and component **675**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

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

DF1017 PRESENT OR STORED	COMPUTER 1.DEF: Internal electronic fault. 2.DEF: Internal electronic fault.

NOTES	**Conditions for application to a stored fault:** The fault is declared **present**: – For an engine speed **> 1500 rpm** and coolant temperature **> 70°C**

1.DEF	***NOTES***	**Do not replace the injection computer if the fault is stored.**

In case of customer complaint concerning engine stalling or engine jerking, contact the Techline.

2.DEF	***NOTES***	None.

If the fault is still present, contact the Techline.

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

V42_V04_DF1017/V42_V05_DF1017/V42_V06_DF1017/V42_V14_DF1017/V42_V16_DF1017/V42_V18_DF1017

DF1034 PRESENT OR STORED	COMBUSTION MISFIRES 1.DEF: Polluting misfiring 2.DEF: Destructive misfiring

NOTES	**Fault priorities:** **Deal with the following faults first:** – **DF109 Low fuel level misfiring** – **DF059 Misfiring on cylinder 1** – **DF060 Misfiring on cylinder 2** – **DF061 Misfiring on cylinder 3** – **DF062 Misfiring on cylinder 4**
	Special notes: After this fault appears: **the OBD warning light is on.**
	Conditions for application to a stored fault: The fault is declared present: **Engine idling.**

1.DEF	***NOTES***	None.

Check the ignition coil circuit of cylinder 3,
Check the fuel supply circuit (see **MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit,
Check the condition of the cylinder 3 injector (see **MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 3.

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

V42_V04_DF1034/V42_V05_DF1034/V42_V06_DF1034/V42_V14_DF1034/V42_V16_DF1034/V42_V18_DF1034

DF1034 CONTINUED	

After repair, check that the catalytic converter was not damaged by the misfire.
To do this, switch on the ignition, run the catalytic converter test **SC006 Run OBD test: Catalytic converter** and start the engine (only depress the brake pedal to authorise the starting of the engine,
Do not depress the accelerator pedal or the clutch pedal).
At the end, check the test results:
STATUS1: Fault finding was not performed/impossible to obtain the necessary conditions
STATUS2: The component is in an average condition - sensor OK
STATUS3: The component is in a good condition - sensor OK
STATUS4: The component is in poor condition - replace the catalytic converter (see **MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19B, Exhaust, Catalytic converter: Removal - Refitting**).

Note: The catalytic converter procedure is not carried out if a fault is present.
Important: Do not run the procedure if a new catalytic converter is fitted.

2.DEF	*NOTES*	None.

Check the ignition coil circuit of cylinder 3,
Check the fuel supply circuit (see **MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 13A, Fuel supply, Fuel circuit: Operating diagram**),
Check the fuel supply pump circuit,
Check the condition of the cylinder 3 injector (see **MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**),
Check the compression of cylinder 3.

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

DF1058 PRESENT OR STORED	INLET PRESSURE CONSISTENCY 1.DEF: Abnormal voltage 2.DEF: Abnormal pressure

NOTES	**Priority when dealing with a number of faults:** **DF079 Motorised throttle valve servo**
	Conditions for applying the fault finding procedure to a stored fault: The fault is considered **present** under the following conditions: – For **2.DEF** engine running at idle speed.
	Special note: **For 2.DEF, the OBD warning light and level 1 fault warning light illuminate,** **For 1.DEF, the OBD warning light illuminates.**
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the fitting and sealing of the inlet air pressure sensor, component code **147** (condition of the seals) and look for possible leaks on the inlet air pipe.
Check the connector of the inlet air pressure sensor, component code **147**. If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Check the supply voltage of the sensor on connections **3AJR** and **3AJP**.
Check the **insulation, continuity and the absence of interference resistance** on the following connections: – **3AJP** between components **120** and **147**, – **3AJR** between components **120** and **147**, – **3AJQ** between components **120** and **147**. If the connection or connections 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 inlet air pressure sensor, component code **147** and check that the fault is no longer **present** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6)** or **MR 374 (Kangoo VLL), Mechanical, 12A, Fuel mixture, Air inlet: Description**).
If the fault is still present, contact the Techline.

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

V42_V04_DF1058/V42_V05_DF1058/V42_V06_DF1058/V42_V14_DF1058/V42_V16_DF1058/V42_V18_DF1058

DF1063 PRESENT OR STORED	MULTIPLEX ELECTRONIC STABILITY PROGRAM LINK 1.DEF: Invalid multiplex signals generated by computer

NOTES	None.

Test the ABS computer (see **38C, Anti-lock braking system**).

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

V42_V04_DF1063/V42_V05_DF1063/V42_V06_DF1063/V42_V14_DF1063/V42_V16_DF1063/V42_V18_DF1063

DF1068 PRESENT OR STORED	REFRIGER.* PRESSURE SENSOR VOLTAGE 1.DEF: Voltage too low. 2.DEF: Voltage too high.

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the connection and condition of the **refrigerant pressure sensor** connector, component code **1202** and of the **injection computer** connector, component code **120**. If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
With the ignition on, check for the presence of **+ 5 V** on connection **38Y** and an **earth** on connection **38U** of the **refrigerant fluid pressure sensor**. If the connection or connections are faulty and if there is a repair method (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace the wiring.
Check the **insulation, continuity and the absence of interference resistance** on the following connections: – **38Y** between components **1202** and **120**, – **38X** between components **1202** and **120**, – **38U** between components **1202** and **120**. If the connection or connections are faulty and if there is a repair method (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace the wiring.
If the fault is still present, replace the refrigerant pressure sensor, component code **1202** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 62A, Air conditioning, Pressure sensor: Removal - Refitting, MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), or MR 374 (Kangoo VLL), Mechanical, 62A, Air conditioning: Precautions for repair, MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), Mechanical, 62A, Air conditioning: Parts and consumables for the repair**).
If the fault is still present, contact the Techline.

REFRIGER.*: REFRIGERANT.

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

V42_V04_DF1068/V42_V05_DF1068/V42_V06_DF1068/V42_V14_DF1068/V42_V16_DF1068/V42_V18_DF1068

DF1072 PRESENT OR STORED	AIR CONDITIONING COMPRESSOR RELAY CONTROL CC.0: Short circuit to earth CC.1: Short circuit to + 12 V CO: Open circuit

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL**.

Check the connection and the condition of the connector of the **air conditioning compressor control relay**, component code **474** (for **Logan, Sandero, Duster, Kangoo VLL**) or the **low speed fan assembly relay**, component code **784** (for **Thalia 2/Symbol 2, Clio II F 6**) and the connector of the **injection computer**, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
For **Logan, Sandero, Duster**:
– **38K** between components **474** and **120**,
– **3FB** between components **1047** and **474**,

For **Clio II F 6**:
– **38K** between components **784** and **120**,
– **3FB** between components **983** and **784**,

For **Thalia 2/Symbol 2**:
– **38K** between components **784** and **120**,
– **3FB** between components **238** and **784**,

For **Kangoo VLL**:
– **38K** between components **474** and **120**,
– **3FB** between components **238** and **474**.

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

Run command **AC180 Air conditioning compressor relay control** in order to check the correct operation of the relay.

If the fault is still present, contact the Techline.

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

V42_V04_DF1072/V42_V05_DF1072/V42_V06_DF1072/V42_V14_DF1072/V42_V16_DF1072/V42_V18_DF1072

DF1074 PRESENT OR STORED	MOTORISED THROTTLE POSITION INCONSISTENT 1.DEF: Inconsistency between throttle valve position and control. 2.DEF: Inconsistent signal.

NOTES	**Conditions for applying the fault finding procedure to a stored fault:** The fault is considered **present** under the following conditions: – For **1.DEF** engine running at idle speed.
	Special note: **For 1.DEF, the OBD warning light illuminates,** **For 2.DEF, the OBD warning light and level 2 fault warning light illuminate.**
	See the Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.

Check the connection and condition of the **motorised throttle valve** connector, component code **1076** and the **injection computer** connector, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3AJB** between components **1076** and **120**,
– **3AJC** between components **1076** and **120**,
– **3MP** between components **1076** and **120**,
– **3MQ** between components **1076** and **120**,
– **3MO** between components **1076** and **120**.

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

If the fault is still present, contact the Techline.

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

V42_V04_DF1074/V42_V05_DF1074/V42_V06_DF1074/V42_V14_DF1074/V42_V16_DF1074/V42_V18_DF1074

DF1235 PRESENT OR STORED	AUTOMATIC TRANSMISSION 1.DEF: Invalid multiplex signals generated by computer

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is **present** with the engine idling.
	Special note: **OBD warning light comes on.**

Run fault finding on the ETC (see **26A, 4X4 Driveshaft**).

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

V42_V04_DF1235/V42_V05_DF1235/V42_V06_DF1235/V42_V14_DF1235/V42_V16_DF1235/V42_V18_DF1235

DF1265 PRESENT OR STORED	LPG PRESSURE SENSOR CIRCUIT CO: Open circuit CC.0: short circuit to earth CC.1: short circuit to +12 V

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1265

DF1267 PRESENT OR STORED	LPG TEMPERATURE SENSOR CIRCUIT 1.DEF: Temperature measured too low 2.DEF: Temperature measured too high

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1267

DF1301 PRESENT OR STORED	STATUS OF LPG SWITCH CO: Open circuit

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1301

DF1355 PRESENT OR STORED	MULTIPLEX TORQUE REGULATOR CONNECTION 1.DEF: Inconsistent signal. 2.DEF: Invalid multiplex signals generated by computer.

NOTES	None.

Perform fault finding on the electromagnetic torque management computer.

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

V42_V04_DF1355/V42_V05_DF1355/V42_V06_DF1355/V42_V14_DF1355/V42_V16_DF1355/V42_V18_DF1355

DF1361 PRESENT OR STORED	LPG TEMPERATURE SENSOR CIRCUIT CO.1: open circuit or short circuit to +12 V CC.0: short circuit to earth

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1361

DF1362 PRESENT OR STORED	TANK SOLENOID VALVE CIRCUIT CO.1: open circuit or short circuit to +12 V CC.0: short circuit to earth

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1362

DF1363 PRESENT OR STORED	LPG PRESSURE 1.DEF: Low LPG pressure 2.DEF: High LPG pressure 3.DEF: Inconsistency

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1363

DF1364 PRESENT OR STORED	COMPUTER AUTOMATIC SUPPLY RELAY DEF: Inconsistent signal

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1364

DF1365 PRESENT OR STORED	LPG TANK SENDER SIGNAL VOLTAGE CO.1: open circuit or short circuit to +12 V CC.0: short circuit to earth

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1365

DF1366 PRESENT OR STORED	CYLINDER 1 LPG INJECTOR CIRCUIT CO.0: open circuit or short circuit to earth CC.1: short circuit to +12 V

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1366

DF1367 PRESENT OR STORED	CYLINDER 2 LPG INJECTOR CIRCUIT CO.0: open circuit or short circuit to earth CC.1: short circuit to +12 V

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1367

DF1368 PRESENT OR STORED	CYLINDER 3 LPG INJECTOR CIRCUIT CO.0: open circuit or short circuit to earth CC.1: short circuit to +12 V

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1368

DF1369 PRESENT OR STORED	CYLINDER 4 LPG INJECTOR CIRCUIT CO.0: open circuit or short circuit to earth CC.1: short circuit to +12 V

NOTES	None.

See **Technical Note 6520 Fault finding of the Euro V Landi Renzo LPG system**. (**D4F734** engine on **Logan** and **Sandero**) or **Technical Note 6524 "Landi Renzo Euro V LPG system fault finding"** (**K4M616** engine on **Duster**).

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

V42_V18_DF1369

The global **conformity check** for the functions and sub-functions of this system is no longer interpreted in the conformity check. Instead, all information available in the functions and sub-functions can be found in the following chapters:
For **STATUSES**, refer to **INTERPRETATION OF STATUSES**.
For **PARAMETERS**, refer to **INTERPRETATION OF PARAMETERS**.
For **COMMANDS**, refer to **INTERPRETATION OF COMMANDS**.

Tool status	Diagnostic tool title
ET001	Computer + After ignition
ET038	Engine
ET039	Brake pedal
ET041	Gearbox ratio
ET047	Fuel pump control circuit
ET051	Throttle stop programming
ET089	Flywheel target programming
ET148	OBD warning light activation request
ET321	Air conditioning compressor
ET405	Clutch pedal switch
ET434	Low fuel level
ET571	LPG minimum signal
ET673	Jammed accelerator pedal detected
ET717	Target gearbox ratio
ET734	Heating resistor 1 relay control
ET735	Heating resistor 2 relay control
ET736	Heating resistor 3 relay control
ET759	Braking multiplex signal detected
ET760	First starting
ET775	Camshaft TDC* synchronisation
ET798	Clutch wire contact connection
ET799	Brake wire contact

Tool status	Diagnostic tool title
ET803	Clutch switch start of travel
ET813	Low speed fan assembly request by injection
ET814	High speed fan assembly request by injection
ET819	Low speed fan assembly final request
ET820	High speed fan assembly final request
ET836	TDC sensor signal
ET837	Crankshaft synchronisation
ET842	LPG switch
ET845	Camshaft dephaser s.v.*** programming
ET846	Injection protection
ET847	LPG mode

TDC*: Top Dead Centre
GMV**: Fan assembly
s.v.***: solenoid valve

ET001	COMPUTER + AFTER IGNITION FEED

STATUS DEFINITION	PRESENT**: This status indicates that the + after ignition feed is active.** "ABSENT"**: This status indicates that the + after ignition is not active.**

"PRESENT"	***NOTES***	None.

With the ignition on and engine running warm at idle speed, + after ignition feed is activated.
In the event of a fault, apply the interpretation of **DF047 Computer supply voltage**.

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

V42_V04_ET001/V42_V05_ET001/V42_V06_ET001/V42_V14_ET001/V42_V16_ET001/V42_V18_ET001

ET038	ENGINE

STATUS DEFINITION	STOPPED**: This status indicates that the engine ignition is on without the starter engaged.** STALLED**: This status indicates that the engine has stalled.** RUNNING**: This status indicates that the engine has started.** STARTING**: This status indicates that the engine is in starting phase.**

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET038/V42_V05_ET038/V42_V06_ET038/V42_V14_ET038/V42_V16_ET038/V42_V18_ET038

ET041	GEAR

STATUS DEFINITION	**REVERSE:** This status indicates the gear engaged. **DECLUTCHED:** This status indicates the gear engaged. **1:** This status indicates the gear engaged. **2:** This status indicates the gear engaged. **3:** This status indicates the gear engaged. **4:** This status indicates the gear engaged **5:** This status indicates the gear engaged.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET041/V42_V05_ET041/V42_V06_ET041/V42_V14_ET041/V42_V16_ET041/V42_V18_ET041

ET047	FUEL PUMP CONTROL CIRCUIT

STATUS DEFINITION	**ACTIVE**: This status indicates that the fuel pump is active. **INACTIVE**: This status indicates that the fuel pump is inactive.

Conformity check: Engine stopped, ignition on or engine running.

ACTIVE	Status **ET047** is **ACTIVE** when starting the engine. In the event of a fault apply the interpretation of **DF085 Fuel pump relay circuit**.
INACTIVE	Status **ET047** is **INACTIVE** when the engine is stopped and the ignition off.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET047/V42_V05_ET047/V42_V06_ET047/V42_V14_ET047/V42_V16_ET047/V42_V18_ET047

ET051	THROTTLE STOP PROGRAMMING

STATUS DEFINITION	**COMPLETED:** This status indicates that the throttle stops have been programmed **NOT COMPLETED:** This status indicates that the throttle stops have not been programmed.

Conformity check: Engine stopped, ignition on or engine running.

COMPLETED	This means that the throttle stops have been programmed. Even though this programming is automatic, take particular care when performing the first motorised throttle stop programming operation. This can be carried out on several occasions: – when a computer is switched on for the first time, – at the end of computer programming (see **Replacement of components**) The air temperature must be above **0°C** during programming, then, at the end of programming, switch off the ignition and wait **30 seconds** for the end of Power Latch so that the computer can store the programmed stops.
NOT COMPLETED	This means that the throttle stops have not been programmed.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET051/V42_V05_ET051/V42_V06_ET051/V42_V14_ET051/V42_V16_ET051/V42_V18_ET051

ET089	PROGRAMMING THE ENGINE FLYWHEEL TARGET

STATUS DEFINITION	**COMPLETED:** This status indicates that the throttle stops have been programmed **NOT COMPLETED:** This status indicates that the throttle stops have not been programmed.

Conformity check: Engine stopped, ignition on or engine running.

COMPLETED	This means that the engine flywheel target programming has been completed. In the event of a fault, program the engine flywheel target (see **Replacement of components**). In the event of a fault, apply the interpretation of **DF457 Flywheel target**.
NOT COMPLETED	This means that the engine flywheel target programming has not been completed.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET089/V42_V05_ET089/V42_V06_ET089/V42_V14_ET089/V42_V16_ET089/V42_V18_ET089

ET148	OBD WARNING LIGHT ACTIVATION REQUEST

STATUS DEFINITION	**YES:** This status indicates that the warning light is lit continuously. **NO:** This status indicates that the warning light is off. **FLASHING:** This status indicates that the warning light flashes. **SELF TEST:** This status indicates that the warning light is performing a self test.

NOTES	**Special notes:** In the event of normal operation, this warning light must remain off (**NO**).

Conformity check: Engine stopped, ignition on or engine running.

"YES"	If the status is inconsistent, consult the interpretation of fault **DF342 Malfunction indicator light circuit**.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET148/V42_V05_ET148/V42_V06_ET148/V42_V14_ET148/V42_V16_ET148/V42_V18_ET148

ET321	AIR CONDITIONING COMPRESSOR

STATUS DEFINITION	**ACTIVE**: This status indicates that the air conditioning compressor is active. **INACTIVE:** This status indicates that the air conditioning compressor is inactive

NOTES	**Special notes:** Only perform these tests if the status does not correspond with the system programming functions.

Conformity check: Engine stopped, ignition on or engine running.

ACTIVE	To check the operation of the air conditioning, run command **AC180 Air conditioning compressor relay control**. In the event of a fault, apply the interpretation of **DF1072 Air conditioning compressor control**.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET321/V42_V05_ET321/V42_V06_ET321/V42_V14_ET321/V42_V16_ET321/V42_V18_ET321

ET405	CLUTCH PEDAL SWITCH

STATUS DEFINITION	**ACTIVE**: This status indicates that the clutch pedal is depressed. **INACTIVE**: This status indicates that the clutch pedal is released.

NOTES	**Special notes:** Apply the checks only if statuses **ACTIVE** and **INACTIVE** are inconsistent with the pedal position.
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6**.

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C.

INACTIVE	Check the condition and fitting of the **clutch pedal position sensor**, component code **675** (see **MR 388 (Logan and Sandero), Mechanical, 37A, Mechanical component controls, Clutch pedal position sensor: Removal - Refitting or MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 37A, Mechanical component controls, Clutch pedal: Removal - Refitting**). Remove the **clutch pedal position sensor**, component code **675** (see **MR 388 (Logan and Sandero), Mechanical, 37A, Mechanical component controls, Clutch pedal position sensor: Removal - Refitting or MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 37A, Mechanical component controls, Clutch pedal: Removal - Refitting**). Check the **insulation** between connections **MAM** (for **Logan, Sandero, Duster**) or **M** (for **Thalia 2/Symbol 2, Clio II F 6**) and **86D** of component **675** with the switch in the rest position. – Repeat this operation with the switch pressed, and check **the continuity and the absence of interference resistance** between the two connections. If these 2 checks are not correct, replace the **clutch pedal position sensor**, component code **675** (see **MR 388 (Logan and Sandero), Mechanical, 37A, Mechanical component controls, Clutch pedal position sensor: Removal - Refitting or MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6), Mechanical, 37A, Mechanical component controls, Clutch pedal: Removal - Refitting**).

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET405/V42_V05_ET405/V42_V06_ET405/V42_V14_ET405/V42_V16_ET405/V42_V18_ET405

ET405 CONTINUED	

INACTIVE (CONTINUED)	Then check the **continuity** and **absence of interference resistance** of the following connection: – **86D** between components **120** and **675**. Check that the **earth** is correct on connection **MAM** (for **Logan, Sandero, Duster**) or **M** (for **Thalia 2/Symbol 2, Clio II F 6)** of component **675**. If the connection(s) 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.**
ACTIVE	Check the condition and fitting of the clutch pedal position sensor. Remove the clutch pedal position sensor, component code **675** (see **MR 388 (Logan and Sandero), Mechanical, 37A, Mechanical component controls, Clutch pedal position sensor: Removal - Refitting or MR 451 (Duster) or MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6), Mechanical, 37A, Mechanical component controls, Clutch pedal: Removal - Refitting**) and check the insulation between connections **MAM** and **86D** of component **675** with the switch in the rest position. – Repeat this operation with the switch pressed, and check the continuity and the absence of interference resistance between the two connections. If these 2 checks are not correct, replace the clutch pedal position sensor, component code **675** (see **MR 388 (Logan and Sandero) or 451 (Duster) and MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Clutch pedal position sensor: Removal - Refitting or MR 451 (Duster) or MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6), Mechanical, 37A, Mechanical component controls, Clutch pedal: Removal - Refitting**).

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

ET673	JAMMED ACCELERATOR PEDAL

STATUS DEFINITION	**YES**: This status indicates that the accelerator pedal is jammed. **NO**: This status indicates that the accelerator pedal is not jammed.

NOTES	To reinitialise this status, clear the fault memory by running command **RZ001 Fault memory**.

Conformity check: Engine stopped, ignition on or engine running.

YES	Check that the accelerator pedal is not jammed or that there is nothing impeding its operation (floor carpet, etc.). Check the brake switch (see the interpretation of fault **DF050 Brake switch circuit**.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET673/V42_V05_ET673/V42_V06_ET673/V42_V14_ET673/V42_V16_ET673/V42_V18_ET673

ET717	TARGET GEARBOX RATIO

STATUS DEFINITION	**REVERSE:** This status indicates the gear engaged. **DECLUTCHED:** This status indicates the gear engaged. **1:** This status indicates the gear engaged. **2:** This status indicates the gear engaged. **3:** This status indicates the gear engaged. **4:** This status indicates the gear engaged **5:** This status indicates the gear engaged.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET717/V42_V05_ET717/V42_V06_ET717/V42_V14_ET717/V42_V16_ET717/V42_V18_ET717

ET734 **ET735** **ET736**	HEATING RESISTOR NO.1 RELAY CONTROL HEATING RESISTOR NO.2 RELAY CONTROL HEATING RESISTOR NO.3 RELAY CONTROL

STATUS DEFINITION	**ACTIVE**: This status indicates that the relay is supplied. **INACTIVE**: This status indicates that the relay is not supplied.

Conformity check: Engine stopped, ignition on or engine running.

INACTIVE	Statuses **ET734, ET735** and **ET736** are **INACTIVE** with the ignition on and the engine stopped, or when the engine is warm.
ACTIVE	Statuses **ET734**, **ET735** and **ET736** are **ACTIVE** when the engine is started, the engine coolant temperature is low (**< 15°C**) and the air temperature is low (**< 5°**). This program allows the engine coolant to be heated to enable the passenger compartment to be heated. To control the operation of the relays, run the following commands: **AC250 Heating resistor no.1 relay.** **AC251 Heating resistor no.2 relay.** **AC252 Heating resistor no.3 relay.** In the event of a fault, refer to the interpretation of faults: **DF992 Additional heater relay 1 circuit.** **DF993 Additional heater relay 2 circuit.** **DF994 Additional heater relay 3 circuit.**

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

ET759	BRAKING MULTIPLEX SIGNAL DETECTED

STATUS DEFINITION	**ABSENT:** This status indicates that the braking multiplex signal detected is **absent**. **PRESENT:** This status indicates that the braking multiplex signal detected is **present**. **INTERMEDIATE:** This status indicates that the braking multiplex signal detected is intermediate.

Conformity check: Engine stopped, ignition on or engine running.

Vehicle under + after ignition feed.
– Parking brake released,
– Gear lever in 1st.
Neither the brake pedal nor the clutch pedal depressed.

Check status **ET759.**

PRESENT - INTERMEDIATE	Check the correct position and the conformity of the brake pedal sensor. Run fault finding on the UCH domain (see **87B, UCH**).
"ABSENT"	The brake pedal sensor is correct.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET759/V42_V05_ET759/V42_V06_ET759/V42_V14_ET759/V42_V16_ET759/V42_V18_ET759

ET836	TDC SENSOR SIGNAL

STATUS DEFINITION	**DETECTED:** This status indicates that the TDC sensor signal is detected. **NOT DETECTED:** This status indicates that the TDC sensor signal is not detected.

Conformity check: Engine stopped, ignition on or engine running.

NOT DETECTED	In the event of a fault, refer to the interpretation of fault **DF120 Engine speed sensor signal**.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET836/V42_V05_ET836/V42_V06_ET836/V42_V14_ET836/V42_V16_ET836/V42_V18_ET836

ET846	INJECTION PROTECTION

STATUS DEFINITION	**NOT PROTECTED** **BLANK:** No signal **PROTECTED STATUS 1: Fault on coded line circuit** **PROTECTED STATUS 2: Fault on immobiliser memory area** **PROTECTED STATUS 3: Injection computer self-protection**

BLANK:
– The injection computer does not receive a signal from the UCH computer.
– Run fault finding on the multiplex network.

PROTECTED STATUS 1:
The UCH computer does not respond to the authentication requests from the injection computer.
Several possibilities:
– either the UCH computer was not programmed with the vehicle's card/key,
– or the vehicle's card/key is not recognised by the UCH computer.
– Run fault finding on the UCH computer.

PROTECTED STATUS 2:
Several possibilities:
– either the injection computer is blank and was not programmed with the immobiliser code, and the UCH computer is not authorised to send the immobiliser code,
– Connect a diagnostic tool to the UCH computer to authorise it to send the immobiliser code.
– or the UCH computer has detected a fault,
– Run fault finding on the UCH computer.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

V42_V04_ET846/V42_V05_ET846/V42_V06_ET846/V42_V14_ET846/V42_V16_ET846/V42_V18_ET846

ET846 CONTINUED	

PROTECTED STATUS 3:
There are several possible causes, in the following order:
– check that the UCH computer has not detected a fault,
– Run fault finding on the UCH computer.
– check that the injection computer has not already been programmed with the immobiliser code for another vehicle using the status.
– Check that the injection computer corresponds correctly to the vehicle on which fault finding is being run.

– if none of the 2 previous points is the cause, check that the injection computer is not in anti-scanning mode after undergoing several failed authentication attempts,
– It only leaves this mode when the following sequence of operations is carried out:
1- switch off the ignition,
2- switch on the ignition again and wait for at least **20 seconds** under + after ignition feed,
3- switch off the ignition and ensure that the end of the self-feed phase of the injection computer is observed (the length of time varies depending on the engine coolant temperature and can be **10 minutes** maximum),
4- switch on the ignition again and start the vehicle,
5- if the vehicle does not start, repeat this procedure **3 times**,
6- if the vehicle still does not start, contact the Techline.

AFTER REPAIR	Deal with any faults. Clear the faults from the computer memory. Switch off the ignition and carry out a road test followed by a test with the **diagnostic tool**.

Tool Parameter	Diagnostic tool title
PR002	Alternator charge
PR015	Engine torque
PR030	Accelerator pedal position
PR037	Refrigerant pressure
PR041	Turbocharging pressure
PR055	Engine speed
PR059	Inlet air temperature
PR064	Coolant temperature
PR071	Computer feed voltage
PR084	Coolant temperature sensor voltage
PR089	Vehicle speed
PR097	Motorised throttle lower stop programmed value
PR098	Upstream oxygen sensor voltage
PR099	Downstream oxygen sensor voltage
PR102	Canister bleed solenoid valve OCR*
PR118	Measured throttle position gang 1
PR119	Measured throttle position gang 2
PR138	Richness correction
PR139	Operating adaptive richness
PR147	Pedal potentiometer voltage gang 1
PR148	Pedal potentiometer voltage gang 2
PR215	Sensor supply voltage no. 1
PR216	Sensor supply voltage no. 2
PR312	Inlet manifold vacuum
PR313	Linearised manifold pressure

OCR*: Opening cyclic ratio

Tool Parameter	Diagnostic tool title
PR344	Pressure sensor voltage
PR427	Average pinking signal
PR429	Measured throttle position
PR444	Integral idling speed regulation correction
PR446	Upstream O2 sensor heating resistance
PR447	Downstream O2 sensor heating resistor
PR448	Ignition advance
PR469	Cylinder 1 pinking value
PR471	Cylinder 2 pinking value
PR473	Cylinder 3 pinking value
PR475	Cylinder 4 pinking value
PR492	Motorised throttle position setpoint
PR538	Measured throttle voltage, gang 2
PR539	Measured throttle voltage gang 1
PR606	Adaptive idling speed correction
PR624	Richness regulation programming offset
PR625	Richness regulation programming gain
PR743	Alcohol level estimated in the tank
PR770	Camshaft offset
PR814	Number of active heating resistors
PR831	Combustion misfiring counter

Tool Parameter	Diagnostic tool title
PR832	Combustion misfiring counter
PR833	Combustion misfiring counter
PR834	Combustion misfiring counter
PR847	Inlet air temperature sensor voltage
PR872	Refriger.* pressure sensor voltage
PR876	CS* dephaser solenoid valve control OCR*
PR877	Estimated engine oil temperature
PR887	Motorised throttle safe mode programmed value
PR931	Raw turbocharging pressure
PR1026	Crankshaft synchro.* loss counter
PR1029	Alternator power
PR1116	LPG pressure
PR1129	Brake contact no.1 duration
PR1153	Brake contact no.2 duration
PR1198	LPG temperature
PR1232	Number of engine rotations

Refriger.*: refrigerant
Syncro*: Synchronisation
OCR*: Opening cyclic ratio
CS*: Camshaft

PR015	ENGINE TORQUE

PARAMETER DEFINITION	This parameter indicates the engine torque in **N.m.**

Conformity check with the engine running and engine coolant temperature > 80°C

The value must be between **20 Nm < PR015 < 40 Nm**
This parameter is only valid when the engine is running.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR015/V42_V05_PR015/V42_V06_PR015/V42_V14_PR015/V42_V16_PR015/V42_V18_PR015

PR030	ACCELERATOR PEDAL POSITION

PARAMETER DEFINITION	This parameter indicates the accelerator pedal position as a **%**.

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL**.

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C.

No load = **16%**
Full load ≥ **85%**
Check that the pedal mechanism has not seized.
Check the **cleanliness** and **condition** of the pedal potentiometer connections, component code **921** and the injection computer connections, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Disconnect the battery and the injection computer.
Use the "Universal bornier" to check the **insulation** and **continuity** of the following connections:
– **3LT** between components **120** and **921**,
– **3LR** between components **120** and **921**,
– **3LS** between components **120** and **921**,
– **3LV** between components **120** and **921**,
– **3LU** between components **120** and **921**,
– **3LW** between components **120** and **921**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

In the event of a fault, apply the interpretation of **DF974 Pedal potentiometer circuit gang 1** and **DF975 Pedal potentiometer circuit gang 2**.

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

PR037	REFRIGERANT PRESSURE

PARAMETER DEFINITION	This parameter indicates the refrigerant pressure in **bar**.

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL**.

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C.

The refrigerant pressure must be between **2 bar < PR037 < 27 bar**.

Check the **cleanliness** and **condition** of the refrigerant pressure sensor and its connections, component code **1202** and the injection computer connections, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Disconnect the battery and the injection computer.
Using the universal bornier in place of the computer, check for **insulation** and **continuity** on the following connections:

– **38Y** between components **120** and **1202**,
– **38X** between components **120** and **1202**,
– **38U** between components **120** and **1202**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the refrigerant pressure sensor, component code **1202** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 62A, Air conditioning, Pressure sensor: Removal - Refitting**).
(See **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), Mechanical, 62A, Air conditioning: Precautions for repair) and (see MR 388 (Logan and Sandero), MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), Mechanical, Air conditioning: Parts and consumables for the repair**).
If the fault is present, check the air conditioning circuit (see **MR 388 (Logan and Sandero), MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), Mechanical, 62A, Air conditioning: Check**).

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR037/V42_V05_PR037/V42_V06_PR037/V42_V14_PR037/V42_V16_PR037/V42_V18_PR037

PR055	ENGINE SPEED

PARAMETER DEFINITION	This parameter indicates the engine's rotational speed in **rpm**.

Conformity check with engine stopped and ignition on.

With the ignition on the value must be **0 rpm**.
In the event of a fault, apply interpretation of **DF120 Engine speed sensor signal**.

Conformity check with the engine running and engine coolant temperature > 80°C

With the engine running at idle speed, the value must be ≈ **750 rpm**.
In the event of a fault, apply the interpretation of **DF120**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR055/V42_V05_PR055/V42_V06_PR055/V42_V14_PR055/V42_V16_PR055/V42_V18_PR055

PR059	INLET AIR TEMPERATURE

PARAMETER DEFINITION	This parameter indicates the air temperature in **°C**.

Conformity check with engine stopped and ignition on.

With the ignition on the inlet air temperature varies according to the exterior temperature.
In the event of a fault, consult the interpretation of fault **DF002 Air temperature sensor circuit**.
Parameter **PR059** ≈ **PR064 Coolant temperature** engine cold.

Conformity check with the engine running and engine coolant temperature > 80°C

With the engine running at idle speed the inlet air temperature varies according to the engine coolant temperature.
In the event of a fault, refer to the interpretation of fault **DF002**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR059/V42_V05_PR059/V42_V06_PR059/V42_V14_PR059/V42_V16_PR059/V42_V18_PR059

PR064	COOLANT TEMPERATURE

PARAMETER DEFINITION	This parameter indicates the engine coolant temperature in °**C**.

NOTES	**There must be no present or stored faults.** Perform this fault finding procedure: – after finding an inconsistency in the parameter, – after a customer complaint (e.g. lack of power).

Conformity check with engine stopped and ignition on.

With the ignition on the coolant temperature varies according to the exterior temperature.
In the event of a fault, consult the interpretation of fault **DF001 Coolant temperature sensor circuit**.

Conformity check with the engine running and engine coolant temperature > 80°C

With the engine running at idle speed the coolant temperature varies according to the engine temperature.
If there is a fault, refer to the interpretation of fault **DF001**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR064/V42_V05_PR064/V42_V06_PR064/V42_V14_PR064/V42_V16_PR064/V42_V18_PR064

PR071	COMPUTER SUPPLY VOLTAGE

PARAMETER DEFINITION	This parameter indicates the computer supply voltage in **volts**.

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C.

The voltage should be between:
9 V < PR071 < 16 V
In the event of a fault, run fault finding on the charging circuit (see **16A, Checking the charging circuit**) and refer to the interpretation of **DF047 Computer supply voltage.**

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR071/V42_V05_PR071/V42_V06_PR071/V42_V14_PR071/V42_V16_PR071/V42_V18_PR071

PR089	VEHICLE SPEED

PARAMETER DEFINITION	Gives the vehicle speed in **km/h**.

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C.

Carry out a road test, observing the vehicle speed on the instrument panel and the information given by the diagnostic tool.
If there is an inconsistency between the two values, run complete fault finding on the ABS computer (see **38C, ABS**).

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR089/V42_V05_PR089/V42_V06_PR089/V42_V14_PR089/V42_V16_PR089/V42_V18_PR089

PR097	MOTORISED THROTTLE VALVE LOWER STOP PROGRAMMED VALUE

PARAMETER DEFINITION	This parameter indicates the programmed throttle valve upper stop value as a **%**.

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

The value must be ≈ **9%.**
In the event of a fault, apply the interpretation of **ET051 Throttle stop programming**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR097/V42_V05_PR097/V42_V06_PR097/V42_V14_PR097/V42_V16_PR097/V42_V18_PR097

PR098	UPSTREAM OXYGEN SENSOR VOLTAGE

PARAMETER DEFINITION	This parameter indicates the upstream oxygen sensor voltage in **millivolts**.

Conformity check with the engine running and engine coolant temperature > 80°C

The upstream oxygen sensor voltage must be between:
20 mV < PR098 < 1395 mV.
In the event of a fault, apply interpretation of **DF092 Upstream oxygen sensor circuit**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR098/V42_V05_PR098/V42_V06_PR098/V42_V14_PR098/V42_V16_PR098/V42_V18_PR098

PR099	DOWNSTREAM OXYGEN SENSOR VOLTAGE

PARAMETER DEFINITION	This parameter indicates the downstream oxygen sensor voltage in **millivolts**

Conformity check with the engine running and engine coolant temperature > 80°C

The downstream oxygen sensor voltage must be between:
0 mV < PR099 < 1000 mV**.**
In the event of a fault, apply interpretation of **DF093 Downstream oxygen sensor circuit**.

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

V42_V04_PR099/V42_V05_PR099/V42_V06_PR099/V42_V14_PR099/V42_V16_PR099/V42_V18_PR099

PR102	CANISTER BLEED SOLENOID VALVE OCR*

PARAMETER DEFINITION	This parameter indicates the canister bleed solenoid valve opening cyclic ratio in **%**.

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

The value must be **between 0% and 100%**.

*ocr = opening cyclic ratio

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

V42_V04_PR102/V42_V05_PR102/V42_V06_PR102/V42_V14_PR102/V42_V16_PR102/V42_V18_PR102

PR118	MEASURED THROTTLE POSITION GANG 1

PARAMETER DEFINITION	This parameter indicates the motorised throttle valve 1 position setpoint as a **%**.

Conformity check with the engine running and engine coolant temperature > 80°C

With the engine idling, the value must be a **13%**.
If there is a fault, use the interpretation of **DF095 Throttle potentiometer circuit gang 1**.

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

PR119	MEASURED THROTTLE POSITION GANG 2

PARAMETER DEFINITION	This parameter indicates the motorised throttle valve 2 position setpoint as a **%**.

Conformity check with the engine running and engine coolant temperature > 80°C

With the engine idling, the value must be a **13%**.
If there is a fault, use the interpretation of **DF096 Throttle potentiometer circuit gang 2**.

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

PR138	RICHNESS CORRECTION

PARAMETER DEFINITION	This parameter indicates the richness correction as a **%**.

Conformity check with the engine running and engine coolant temperature > 80°C

This value changes according to the richness signals from the computer.
The richness correction value must be ≈ **50%**.

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

PR139	RICHNESS ADAPTIVE OPERATION

PARAMETER DEFINITION	No faults must be present.

Conformity check with the engine running and engine coolant temperature > 80°C

Check the sealing of the fuel vapour absorber bleed.
Repair if necessary.
With the engine warm in the idle speed regulation phase, look at parameter **PR139**.
– If the parameter goes to **MAXIMUM stop**, there is not enough fuel or too much air in the mixture.
– If the parameter goes to **MINIMUM stop**, there is too much fuel or not enough air in the mixture.
Check the cleanliness and correct operation of:
– petrol filter,
– petrol pump,
– fuel circuit,
– tank,
– air supply pipe,
– air filter,
– plugs.
Repair if necessary.
Check:
– the compressions,
– the valve clearance,
– the ignition.
Repair if necessary.

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

PR147	PEDAL POTENTIOMETER GANG 1 VOLTAGE

PARAMETER DEFINITION	This parameter indicates the pedal potentiometer gang 1 voltage in **volts**.

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C.

The value must be ≈ **0.72 V** and varies according to the status of the pedal.
In the event of a fault, apply the interpretation of fault **DF974 Pedal potentiometer circuit gang 1**.

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

PR148	PEDAL POTENTIOMETER GANG 2 VOLTAGE

PARAMETER DEFINITION	This parameter indicates the pedal potentiometer gang 2 voltage in **volts**.

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature > 80°C.

The value must be ≈ **0.52 V** and varies according to the status of the pedal.
In the event of a fault, apply the interpretation of fault **DF975 Pedal potentiometer circuit gang 2**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR148/V42_V05_PR148/V42_V06_PR148/V42_V14_PR148/V42_V16_PR148/V42_V18_PR148

PR215	SENSOR SUPPLY VOLTAGE NO. 1

PARAMETER DEFINITION	This parameter indicates the supply voltage no. 1 of the sensors in **Volts**.

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

The voltage of **PR215** is approximately **5000 mV**.

In the event of a fault, run fault finding on the charging circuit and consult the interpretation of **DF011 Sensor supply voltage no. 1**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR215/V42_V05_PR215/V42_V06_PR215/V42_V14_PR215/V42_V16_PR215/V42_V18_PR215

PR216	SENSOR SUPPLY VOLTAGE NO. 2

PARAMETER DEFINITION	This parameter indicates the supply voltage no. 2 of the sensors in **Volts**.

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

The voltage of **PR216** is approximately **5000 mV**.

In the event of a fault, run fault finding on the charging circuit and consult the interpretation of **DF012 Sensor supply voltage no. 2**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR216/V42_V05_PR216/V42_V06_PR216/V42_V14_PR216/V42_V16_PR216/V42_V18_PR216

PR312	MANIFOLD PRESSURE

PARAMETER DEFINITION	This parameter indicates the manifold pressure in **mbar**.

Conformity check with the engine running and engine coolant temperature > 80°C

With the engine idling, the value must be ≈ **500 mbar**.
With the engine running and throttle open, the value must be ≈ **1000 mbar**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR312/V42_V05_PR312/V42_V06_PR312/V42_V14_PR312/V42_V16_PR312/V42_V18_PR312

PR427	AVERAGE PINKING SIGNAL

PARAMETER DEFINITION	This parameter indicates the average pinking signal.

Conformity check with the engine running and engine coolant temperature > 80°C

This parameter varies according to the pinking status in the combustion chamber.
In the event of a fault, apply the interpretation of fault **DF088 Pinking sensor circuit**.

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

PR429	MEASURED THROTTLE POSITION

PARAMETER DEFINITION	This parameter indicates the throttle valve position measured as a **%**.

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

Without action on the accelerator pedal, the value must be ≈ **10%**.
When the accelerator pedal is fully depressed, the value must be ≈ **85%**.
In the event of a fault, apply the interpretation of faults **DF095 Throttle potentiometer circuit gang 1** and **DF096 Throttle potentiometer circuit gang 2**.

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

PR444	BUILT-IN CORRECTION FOR IDLE SPEED REGULATION

PARAMETER DEFINITION	This parameter indicates the built-in correction for idle speed regulation in N.m.

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

The built-in idle speed regulation correction is continuously calculated to take into account consumer air demand.

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

PR446	UPSTREAM O2 SENSOR HEATING RESISTOR

PARAMETER DEFINITION	This parameter indicates the heating resistance of the downstream oxygen sensor in **Ohms**.

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

The value must be ≈ **9 Ω at 20°C.**

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

PR447	DOWNSTREAM O2 SENSOR HEATING RESISTOR

PARAMETER DEFINITION	This parameter indicates the heating resistance of the downstream oxygen sensor in **Ohms**.

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

The value must be ≈ **9 Ω at 20°C.**

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

V42_V04_PR447/V42_V05_PR447/V42_V06_PR447/V42_V14_PR447/V42_V16_PR447/V42_V18_PR447

PR448	IGNITION ADVANCE

PARAMETER DEFINITION	This parameter indicates the ignition advance in **volts.**

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

The value must be ≈ **0° V** with the ignition on and **4 V** at idle speed.
In the event of a fault, apply the interpretation of fault **DF120 Engine speed sensor signal**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR448/V42_V05_PR448/V42_V06_PR448/V42_V14_PR448/V42_V16_PR448/V42_V18_PR448

PR538	MEASURED THROTTLE VOLTAGE, GANG 2

PARAMETER DEFINITION	This parameter indicates the throttle valve gang 2 voltage measured in **volts**.

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

The value must be ≈ **0.60 V**.
In the event of a fault, apply the interpretation of fault **DF096 Throttle potentiometer circuit gang 2**.

AFTER REPAIR	Deal with any faults displayed by the **diagnostic tool**. Clear the computer memory. Carry out a road test, then check with the **diagnostic tool**.

V42_V04_PR538/V42_V05_PR538/V42_V06_PR538/V42_V14_PR538/V42_V16_PR538/V42_V18_PR538

PR539	THROTTLE VALVE GANG 1 MEASURE VOLTAGE

PARAMETER DEFINITION	This parameter indicates the throttle valve voltage, gang 1 measured in **volts**.

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

The value must be ≈ **0.35 V**.
In the event of a fault, apply the interpretation of fault **DF095 Throttle potentiometer circuit gang 1**.

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

PR814	NUMBER OF ACTIVE HEATING RESISTORS

PARAMETER DEFINITION	This parameter indicates the number of active heating resistors and can be between **0** to **5** depending on the relays activated. **0** if no relay is active **1** if relay 1 is active **2** if relay 2 is active **3** if relays 1 and 2 are active **4** if relays 2 and 3 are active **5** if all of the relays are active

Conformity check: Engine stopped and ignition on, or engine running, and engine coolant temperature < 80°C

In the event of a fault, consult the interpretation of faults:
DF992 Additional heater relay 1 circuit,
DF993 Additional heater relay 2 circuit,
DF994 Additional heater relay 3 circuit.

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

Tool command	Diagnostic tool title	Comments
RZ001	**Fault memory**	This command is used to clear the faults stored in the computer.
RZ003	**Engine adaptives**	This command enables a long engine start time.
RZ031	**Throttle stop programming**	This command is used to reset the necessary system adaptives if replacing the throttle valve.
RZ033	**Richness regulation programming**	This command is used to reset the necessary system adaptives if replacing the injectors.
RZ037	**Flywheel target programming**	This command is used to reset the necessary system adaptives if replacing the TDC* sensor.
RZ064	**Programming the level of alcohol**	This command is used to count the richness adaptive programming necessary when replacing the injection computer.
AC005	**Cylinder 1 injector**	This command is used to perform an audible check on injector 1.
AC006	**Cylinder 2 injector**	This command is used to perform an audible check on injector 2.
AC007	**Cylinder 3 injector**	This command is used to perform an audible check on injector 3.
AC008	**Cylinder 4 injector**	This command is used to perform an audible check on injector 4.
AC015	**Fuel pump relay**	This command is used to check the fuel pump.
AC017	**Canister bleed solenoid valve**	This command is used to check the canister bleed solenoid valve.
AC027	**Motorised throttle**	This command is used to check the motorised throttle.
AC038	**Low speed GMV** relay**	This command is used to check the low speed GMV** relay.
AC039	**High speed GMV** relay**	This command is used to check the high speed GMV** relay.
AC180	**Air conditioning compressor relay control**	This command is used to check the air conditioning compressor relay.

*TDC: Top Dead Centre
**GMV: fan assembly

AC217	**Additional fuel circuit solenoid valve**	This command is used to check the additional fuel circuit solenoid valve. Only on Flexfuel injection
AC224	**Additional fuel circuit pump relay**	This command is used to check the relay of the additional circuit pump. Only on Flexfuel injection
AC250	**Heating resistor 1 relay**	This command is used to activate the heating resistor no.1 relay.
AC251	**Heating resistor 2 relay**	This command is used to activate the heating resistor no.2 relay.
AC252	**Heating resistor 3 relay**	This command is used to activate the heating resistor no.3 relay.
SC001	**Write saved data**	Use this command after replacing or (re)programming the computer (if the data has been saved using command **SC003**).
SC003	**Save computer data**	This command enables the computer operating data, the engine adaptives, to be recorded.
SC006	**Start OBD test: Catalytic converter**	This command is used to test the catalytic converter.
SC007	**Run OBD test: O2 sensor**	This command is used to test the O2 sensors.
SC061	**Oil change interval (OCS) Oxidation**	This command is used to perform a test on the oil oxidation (see Technical Note 6523A, Oil change interval (OCS) fault finding for petrol and diesel engines)
VP010	**Enter VIN.**	This command is used to enter the **VIN**.
VP036	**Fuel supply inhibited**	This command is used to inhibit fuel supply to the engine.

NOTES	**Special note:** Only address this customer complaint after a **complete check** with **the diagnostic tool**.

NO COMMUNICATION WITH THE COMPUTER	**ALP1**
GENERAL APPEARANCE OF ENGINE COMPARTMENT	**ALP2**
APPEARANCE AND MOUNTING OF THE EXHAUST	**ALP3**
LEAK FROM THE ENGINE	
FUEL LEAK	**ALP4**
ENGINE OIL LEAK	**ALP5**
COOLANT LEAK	**ALP6**
ODOURS UNDER BONNET	
UNUSUAL ODOUR	**ALP7**
FUEL ODOUR	**ALP8**

SMOKE UNDER BONNET	
ABNORMAL SMOKE IN THE ENGINE COMPARTMENT	**ALP9**
EXHAUST SMOKE	
WHITE SMOKE FROM THE EXHAUST	**ALP10**
BLACK SMOKE FROM THE EXHAUST	**ALP11**
BLUE SMOKE FROM THE EXHAUST	**ALP12**

EXCESSIVE CONSUMPTION	
EXCESSIVE FUEL CONSUMPTION	**ALP 13**
EXCESSIVE COOLANT CONSUMPTION	**ALP14**
EXCESSIVE OIL CONSUMPTION	**ALP15**
ENGINE STARTING	
IMPOSSIBLE TO START THE ENGINE	**ALP16**
ENGINE STALLS WHEN COLD	**ALP17**
THE ENGINE STARTS WITH DIFFICULTY	**ALP18**
PERFORMANCE	
LACK OF POWER OR TORQUE	**ALP19**
ACCELERATION GAP	**ALP20**

DRIVING PLEASURE	
ROUGH IDLE	→ ALP21
IDLE SPEED TOO HIGH OR TOO LOW	→ ALP22
JERKING OR HESITATION	→ ALP23
ENGINE STALLS	→ ALP24
ERRATIC ACCELERATION	→ ALP25
ERRATIC DECELERATION	→ ALP26
ENGINE RACING (WITHOUT ACTION ON THE PEDAL)	→ ALP27
SUSPECTED NOISE WITH NO FAULT ON THE DEPHASER SYSTEM	→ Technical Note 6506A ALP 2
OIL LEAK FROM THE CAMSHAFT DEPHASER	→ Technical Note 6506A ALP 7
OIL LEAK FROM THE CAMSHAFT DEPHASER SOLENOID VALVE	→ Technical Note 6506A ALP 8

LPG (only for D4F734 and K4M616 engines)	
INJECTION WARNING LIGHT: LIT	**Technical Note 6520 (D4F734 engine on Logan and Sandero) or Technical Note 6524 (K4M616 engine on Duster)**
SWITCHING FROM PETROL - CARBURISING GAS: IMPOSSIBLE	**Technical Note 6520 (D4F734 engine on Logan and Sandero) or Technical Note 6524 (K4M616 engine on Duster)**
JERKING WHEN SWITCHING FROM THE FUEL - CARBURISING GAS	**Technical Note 6520 (D4F734 engine on Logan and Sandero) or Technical Note 6524 (K4M616 engine on Duster)**
FUEL ODOUR	**Technical Note 6520 (D4F734 engine on Logan and Sandero) or Technical Note 6524 (K4M616 engine on Duster)**
CARBURISING MODE CHANGE BUTTON AND WARNING LIGHT: MALFUNCTION	**Technical Note 6520 (D4F734 engine on Logan and Sandero) or Technical Note 6524 (K4M616 engine on Duster)**
CARBURISING MODE CHANGE: UNEXPECTED	**Technical Note 6520 (D4F734 engine on Logan and Sandero) or Technical Note 6524 (K4M616 engine on Duster)**

ALP 1	No dialogue with the computer

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL**.

Try to establish dialogue with a computer on another vehicle to make sure that the **diagnostic tool** is not faulty. If the tool is not the cause and communication cannot be established with any other computer on the same vehicle, it is possible that another computer is disrupting the multiplex network.

Check the voltage of the battery.
If the battery voltage is between **9.5 V** and **17.5 V**, run fault finding on the charging circuit.

– Check the presence and condition of the injection fuses on the UPC and in the engine fuse box.
– Check the connection of the computer connectors, component code **120**.
– Check the **injection computer** earths (quality, oxidation, tightness of the earth bolts on the battery terminal).
– Check that the supply to the computer is correct:
– **Earth** on connection **NH** of component **120** (for **Logan, Sandero, Duster, Kangoo VLL**),
– **Earth** on connection **N** of component **120** (for **Thalia 2/Symbol 2**),
– **Earth** on connection **NF** of component **120** (for **Clio II F 6**)
– **+ 12V** on connection **3FB** of component **120**.

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

Check that the **diagnostic socket**, component code **225** is correctly supplied:
– **+ before ignition feed** on connection **BP56** of component **225** (for **Logan, Sandero, Duster)**,
– **+ before ignition feed** on connection **BP10** of component **225** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**),
– **+ after ignition feed** on connection **AP10** of component **225**,
– Earth on connections **MAM** and **NC** of component **225** (for **Logan, Sandero, Duster**),
– Earth on connections **N** and **M** of component **225** (for **Thalia 2/Symbol 2, Clio II F 6**),
– Earth on connections **NA** and **MK** of component **225** (for **Kangoo VLL**).

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

If dialogue has still not been established after these checks, contact the techline.

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

ALP 2	General appearance of engine compartment

Check the fan assembly
Check the air filter unit.
Check the inlet manifold air pressure sensor by running **TEST 7 Air inlet pressure sensor check**.
Check the air pipes.
Check the coolant temperature sensor by running **TEST 15 Coolant temperature sensor check**.
Check the injector rail.
Check the inlet manifold.
Check the oil filter.
Check the catalytic converter.
Check the exhaust manifold.
Check the accessories belt.
Check the dipstick.
If the fault is still present, contact the techline.

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

ALP 3	Appearance and mounting of the exhaust

Check the catalytic converter.
Check the exhaust manifold.
Check the cylinder head.
If the fault is still present, contact the techline.

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

ALP 4	Fuel leak

Check the fuel pump relay by running **TEST 1 Fuel supply pump relay check**.
Check the air pipes.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the spark plugs.
Check the injector rail.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
If the fault is still present, contact the techline.

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

ALP 5	Engine oil leak

Check the air filter unit.
Check the oil filler cap.
Check the air pipes.
Check the inlet manifold.
Check the oil filter.
Check the oil circuit.
Check the oil pump.
Check the cylinder head.
Check the camshaft.
Check the rotating parts.
Check the dipstick.
If the fault is still present, contact the techline.

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

ALP 6	Coolant leak

Check the coolant pump.
Check the cylinder head.
Check the cooling system.
If the fault is still present, contact the techline.

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

ALP 7	Unusual odour

Check the air pipes.
Check the catalytic converter.
Check the coolant pump.
Check the exhaust manifold.
Check the cylinder head.
Check the timing.
Check the cooling system.
If the fault is still present, contact the techline.

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

ALP 8	Fuel odours

Check the air pipes.
Check the injector rail.
Check the inlet manifold.
If the fault is still present, contact the techline.

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

ALP 9	Abnormal smoke in the engine compartment

Check the air pipes.
Check the injector rail.
Check the inlet manifold.
Check the oil circuit.
Check the catalytic converter.
Check the coolant pump.
Check the exhaust manifold.
Check the cylinder head.
Check the timing.
Check the cooling system.
If the fault is still present, contact the techline.

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

ALP 10	White smoke from the exhaust

Check the air filter unit.
Check the air pipes.
Check the inlet manifold.
Check the exhaust manifold.
If the fault is still present, contact the techline.

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

ALP 11	Black smoke from the exhaust

Check the air filter unit.
Check the air pipes.
Check the air inlet temperature sensor by running **TEST 6 Checking the air temperature sensor**.
Check the coolant temperature sensor by running **TEST 15 Coolant temperature sensor check**.
Check the injector rail.
Check the injectors by running **TEST 13 Checking the injectors**.
Check the upstream oxygen sensor by running **TEST 17 Checking the upstream O2 sensor**.
Check the downstream oxygen sensor by running **TEST 18 Checking the downstream O2 sensor**.
If the fault is still present, contact the techline.

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

ALP 12	Blue smoke from the exhaust

Check the oil.
Check the coolant temperature sensor by running **TEST 15 Coolant temperature sensor check**.
Check the spark plugs.
Check the ignition coil by running **TEST 14 Checking the ignition coil**.
Check the injectors by running **TEST 13 Checking the injectors**.
Check the oil filter.
Check the oil circuit.
Check the exhaust manifold.
Check the oil pump.
Check the pistons and piston rings.
Check the cylinder head.
Check the inlet and exhaust valves.
Check the rotating parts.
If the fault is still present, contact the techline.

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

ALP 13	Excessive fuel consumption

Check the air filter unit.
Check the air pipes.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the injector rail.
Check the injectors by running **TEST 13 Checking the injectors**.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
Check the pinking sensor by running **TEST 11 Pinking sensor check**.
Check the upstream oxygen sensor by running **TEST 17 Checking the upstream O2 sensor**.
Check the downstream oxygen sensor by running **TEST 18 Checking the downstream O2 sensor**.
Check the catalytic converter.
Check the camshaft.
If the fault is still present, contact the techline.

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

ALP 14	Excessive coolant consumption

Check the engine cooling fan assembly.
Check the coolant pump.
Check the cylinder head.
Check the cooling system.
If the fault is still present, contact the techline.

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

V42_V04_ALP14/V42_V05_ALP14/V42_V06_ALP14/V42_V14_ALP14/V42_V16_ALP14/V42_V18_ALP14

ALP 15	Excessive oil consumption

Check the engine cooling fan assembly.
Check the oil circuit.
Check the oil filter.
Check the pistons and piston rings.
Check the cylinder head.
Check the valves.
Check the rotating parts.
Check the dipstick.
If the fault is still present, contact the techline.

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

V42_V04_ALP15/V42_V05_ALP15/V42_V06_ALP15/V42_V14_ALP15/V42_V16_ALP15/V42_V18_ALP15

ALP 16	Impossible to start the engine

Check the fuel pump relay by running **TEST 1 Petrol supply pump relay check**.
Check the air filter unit.
Check the oil.
Check the air pipes.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the spark plugs.
Check the injector rail.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
Check the TDC sensor by running **TEST 10 TDC sensor check**.
Check the coolant pump.
Check the cylinder head.
Check the camshaft.
Check the valves.
Check the timing.
Check the rotating parts.
Check the accessories belt.
Check the supply relay and the injection computer.
If the fault is still present, contact the techline.

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

ALP 17	Engine stalls when cold

Check the air filter unit.
Check the oil.
Check the inlet manifold air pressure sensor by running **TEST 7 Air inlet pressure sensor check**.
Check the air pipes.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the coolant temperature sensor by running **TEST 15 Coolant temperature sensor check**.
Check the injector rail.
Check the injectors by running **TEST 13 Injector check**.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
Check the TDC sensor by running **TEST 10 TDC sensor check**.
Check the upstream oxygen sensor by running **TEST 17 Upstream O2 sensor check**.
Check the camshaft.
Check the valves.
Check the timing.
Check the injection computer.
If the fault is still present, contact the techline.

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

ALP 18	The engine starts with difficulty.

Check the air filter unit.
Check the oil.
Check the inlet manifold air pressure sensor by running **TEST 7 Air inlet pressure sensor check**.
Check the air pipes.
Check the throttle valve by running **TEST 3 Throttle valve check**.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the coolant temperature sensor by running **TEST 15 Coolant temperature sensor check**.
Check the spark plugs.
Check the injector rail.
Check the ignition coil by running **TEST 14 Checking the ignition coil**.
Check the injectors by running **TEST 13 Checking the injectors**.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
Check the TDC sensor by running **TEST 10 TDC sensor check**.
Check the coolant pump.
Check the oil pump.
Check the cylinder head.
Check the camshaft.
Check the valves.
Check the timing.
Check the cooling system.
Check the rotating parts.
Check the accessories belt.
Check the supply relay and the injection computer.
If the fault is still present, contact the techline.

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

ALP 19	Lack of power or torque

Check the air filter unit.
Check that the floor carpet is correctly positioned.
Check the engine cooling fan assembly.
Check the accelerator pedal potentiometer by running **TEST 8 Accelerator pedal potentiometer check**.
Check the air filter unit.
Check the air pressure sensor of the inlet manifold by running **TEST 7 Inlet air pressure sensor check**.
Check the air pipes.
Check the air inlet temperature sensor by running **TEST 6 Checking the air temperature sensor**.
Check the throttle valve by running **TEST 3 Throttle valve check**.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the spark plugs.
Check the injector rail.
Check the inlet manifold.
Check the ignition coil by running **TEST 14 Checking the ignition coil**.
Check the injectors by running **TEST 13 Checking the injectors**.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
Check the TDC sensor by running **TEST 10 TDC sensor check**.
Check the pinking sensor by running **TEST 11 Pinking sensor check**.
Check the oil circuit.
Check the oil filter.
Check the upstream oxygen sensor by running **TEST 17 Checking the upstream O2 sensor**.

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

ALP 19 CONTINUED	

Check the downstream oxygen sensor by running **TEST 18 Checking the downstream O2 sensor**.
Check the catalytic converter.
Check the exhaust manifold.
Check the pistons and piston rings.
Check the cylinder head.
Check the camshaft.
Check the valves.
Check the timing.
Check the rotating parts.
Check the injection computer.
If the fault is still present, contact the techline.

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

ALP 20	Flat spots when accelerating

Check the accelerator pedal potentiometer by running **TEST 8 Accelerator pedal potentiometer check.**
Check the brake pedal switch by running **TEST 9 Brake pedal switch** check.
Check the air filter unit.
Check the inlet manifold air pressure sensor by running **TEST 7 Air inlet pressure sensor check**.
Check the air pipes.
Check the air inlet temperature sensor by running **TEST 6 Checking the air temperature sensor**.
Check the throttle valve by running **TEST 3 Throttle valve check**.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the spark plugs.
Check the injector rail.
Check the inlet manifold.
Check the ignition coil by running **TEST 14 Checking the ignition coil**.
Check the injectors by running **TEST 13 Checking the injectors**.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
Check the TDC sensor by running **TEST 10 TDC sensor check**.
Check the pinking sensor by running **TEST 11 Pinking sensor check**.
Check the upstream oxygen sensor by running **TEST 17 Checking the upstream O2 sensor**.
Check the downstream oxygen sensor by running **TEST 18 Checking the downstream O2 sensor**.
Check the catalytic converter.
Check the camshaft.
Check the valves.
Check the timing.
Check the injection computer.
If the fault is still present, contact the techline.

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

ALP 21	Rough idle

Check the alternator charge signal module by running **TEST 2 Alternator signal module check**.
Check the accelerator pedal potentiometer by running **TEST 8 Accelerator pedal potentiometer check.**
Check the air filter unit.
Check the inlet manifold air pressure sensor by running **TEST 7 Air inlet pressure sensor check**.
Check the throttle valve by running **TEST 3 Throttle valve check**.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the spark plugs.
Check the injector rail.
Check the inlet manifold.
Check the ignition coil by running **TEST 14 Checking the ignition coil**.
Check the injectors by running **TEST 13 Checking the injectors**.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
Check the upstream oxygen sensor by running **TEST 17 Checking the upstream O2 sensor**.
Check the downstream oxygen sensor by running **TEST 18 Checking the downstream O2 sensor**.
Check the cylinder head.
Check the camshaft.
Check the valves.
Check the timing.
Check the rotating parts.
Check the injection computer.
Check the injection pump.
If the fault is still present, contact the techline.

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

ALP 22	Idling speed too high or too low

Check the alternator charge signal module by running **TEST 2 Alternator signal module check**.
Check the accelerator pedal potentiometer by running **TEST 8 Accelerator pedal potentiometer check.**
Check the air filter unit.
Check the air inlet temperature sensor by running **TEST 6 Checking the air temperature sensor**.
Check the throttle valve by running **TEST 3 Throttle valve check**.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the coolant temperature sensor by running **TEST 15 Coolant temperature sensor check**.
Check the spark plugs.
Check the injector rail.
Check the inlet manifold.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
Check the upstream oxygen sensor by running **TEST 17 Checking the upstream O2 sensor**.
Check the downstream oxygen sensor by running **TEST 18 Checking the downstream O2 sensor**.
Check the cylinder head.
Check the camshaft.
Check the valves.
Check the timing.
Check the injection computer.
If the fault is still present, contact the techline.

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

ALP 23	Jerking or hesitation

Check the alternator charge signal module by running **TEST 2 Alternator signal module check**.
Check the fuel pump relay by running **TEST 1 Petrol supply pump relay check**.
Check the accelerator pedal potentiometer by running **TEST 8 Accelerator pedal potentiometer check.**
Check the brake pedal switch by running **TEST 9 Brake pedal switch** check.
Check the air filter unit.
Check the inlet manifold air pressure sensor by running **TEST 7 Air inlet pressure sensor check**.
Check the air pipes.
Check the air inlet temperature sensor by running **TEST 6 Checking the air temperature sensor**.
Check the throttle valve by running **TEST 3 Throttle valve check**.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the spark plugs.
Check the injector rail.
Check the inlet manifold.
Check the ignition coil by running **TEST 14 Checking the ignition coil**.
Check the injectors by running **TEST 13 Checking the injectors**.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
Check the TDC sensor by running **TEST 10 TDC sensor check**.
Check the upstream oxygen sensor by running **TEST 17 Checking the upstream O2 sensor**.
Check the downstream oxygen sensor by running **TEST 18 Checking the downstream O2 sensor**.
Check the camshaft.
Check the valves.
Check the timing.
Check the supply relay and the injection computer.
If the fault is still present, contact the techline.

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

ALP 24	Engine stalls

Check the fuel pump relay by running **TEST 1 Petrol supply pump relay check**.
Check the air filter unit.
Check the inlet manifold air pressure sensor by running **TEST 7 Air inlet pressure sensor check**.
Check the air pipes.
Check the additional fuel circuit solenoid valve by running **TEST 5 Checking the additional fuel tank**.
Check the injector rail.
Check the injectors by running **TEST 13 Checking the injectors**.
Check the additional petrol circuit pump by running **TEST 12 Additional fuel tank pump check**.
Check the TDC sensor by running **TEST 10 TDC sensor check**.
Check the upstream oxygen sensor by running **TEST 17 Checking the upstream O2 sensor**.
Check the downstream oxygen sensor by running **TEST 18 Checking the downstream O2 sensor**.
Check the camshaft.
Check the valves.
Check the timing.
Check the injection computer.
Check the injection computer supply relay.
If the fault is still present, contact the techline.

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

V42_V04_ALP24/V42_V05_ALP24/V42_V06_ALP24/V42_V14_ALP24/V42_V16_ALP24/V42_V18_ALP24

ALP 25	Erratic acceleration

Check that the floor carpet is correctly positioned.
Check the accelerator pedal potentiometer by running **TEST 8 Accelerator pedal potentiometer check.**
If the fault is still present, contact the techline.

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

ALP 26	Erratic deceleration

Check the inlet manifold air pressure sensor by running **TEST 7 Air inlet pressure sensor check**.
Check the throttle valve by running **TEST 3 Throttle valve check**.
If the fault is still present, contact the techline.

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

ALP 27	Engine racing (without action on the accelerator pedal)

Check the accelerator pedal potentiometer by running **TEST 8 Accelerator pedal potentiometer check.**
Check the throttle valve by running **TEST 3 Throttle valve check**.
Check the injection computer.
If the fault is still present, contact the techline.

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

Fuel supply pump relay check	TEST 1
Alternator signal module check	TEST 2
Throttle valve check	TEST 3
Fuel vapour absorber solenoid valve check	TEST 4
Additional fuel tank check	TEST 5
Air temperature sensor check	TEST 6
Air inlet pressure sensor check	TEST 7
Accelerator pedal potentiometer check	TEST 8
Brake pedal switch check	TEST 9
TDC sensor check	TEST 10
Pinking sensor check	TEST 11
Additional fuel tank pump check	TEST 12
Injector check	TEST 13
Ignition coil check	TEST 14
Coolant temperature sensor check	TEST 15

Fan relay check	TEST 16
Upstream O2 sensor check	TEST 17
Downstream O2 sensor check	TEST 18
Fuel conformity check	TEST 19
Camshaft sensor check	TEST 20

TEST 1	Fuel supply pump relay check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL**.

Listen for the operation of the fuel supply pump and the fuel pump relay while running command **AC015 Petrol pump relay**.

Check the supply of the fuel pump on connection **3NA** (for **Logan, Sandero, Duster**) or **3N** (for **Thalia 2/Symbol 2**) by running command **AC015**.

Check the **continuity, insulation, and absence of interference resistance** on the following connections:
For Logan, Sandero, Duster:
– **3NA** between components **1047** and **833**,
– **MG** between component **833** and **earth**.

For Thalia 2/Symbol 2, Clio II F 6:
– **3N** between components **236** and **218**,
– **M** between component **218** and **earth**.

For Kangoo VLL:
– **3NA** between components **236** and **218**,
– **MK** between component **218** and **earth**.

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

If the fault is still present, contact the techline.

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

TEST 2	Alternator signal module check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

With the engine running, check the alternator charge without any electrical consumers switched on using **PR002 Alternator charge**, then switch on the consumers and check the increase in **PR002**.

Check the **cleanliness** and **condition** of the alternator connector, component code **103** and of the injection computer connector, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connection.
– **2K** between components **103** and **120**.
If the connection is faulty and if 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 check is correct, replace the alternator signal module, component code **103** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6)** or **MR 374 (Kangoo VLL), Mechanical, 16A, Starting - Charging, Alternator: Removal - Refitting**).

If the fault is still present, contact the techline.

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

TEST 3	Throttle valve check

NOTES	None.

Check that parameter **PR444 Idle speed regulation integral correction** is between: **5 N.m < PR444 < 10 N.m** (**K4M**, **K7M** engine) or **-5 N.m < PR444 < 5 N.m** (**D4D**, **F4R** and **K4M** engine of **Duster**). The attempt is made with the engine idling and warm **(75°C),** without any electrical consumers switched on. The value of **PR444** must be read at least **20 minutes** after the engine coolant temperature has reached **75°C**.
If the value of **PR444** is greater than **10 N.m** (**K4M**, **K7M** engine) or **5 N.m** (**D4D**, **F4R** and **K4M** engine of **Duster**), reprogram the throttle valve using command **RZ031 Throttle stop programming**.
If the value of **PR444** is less than **-5 N.m**, check the fitting of the throttle and check for possible air leaks (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 12A, Fuel mixture, Throttle valve: Removal - Refitting**).
If the fault is still present, contact the techline.

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

V42_V04_TEST3/V42_V05_TEST3/V42_V06_TEST3/V42_V14_TEST3/V42_V16_TEST3/V42_V18_TEST3

TEST 4	Fuel vapour absorber solenoid valve check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the cleanliness, mounting, possible leaks and the hoses of the fuel vapour absorber solenoid valve, component code **371** (see **MR 388, Mechanical, 14A, Emission control, Fuel vapour recirculation circuit: Check** or **MR 451 (Duster) or MR 423 (Thalia 2/Symbol 2), Mechanical, 14A, Emission control, Fuel vapour absorber: Removal - Refitting**).

Listen for the operation of the solenoid valve while running command **AC017 Canister bleed solenoid valve**.

With the engine idling, disconnect the pipe at the solenoid valve inlet and check that there is no suction on your finger. (These steps allow the sealing of the solenoid valve to be checked for air tightness.)

Check the **cleanliness** and **condition** of the canister bleed solenoid valve connector, component code **371** and of the injection computer connector, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3FB** between components **371** and **1047** (for **Logan, Sandero, Duster**) or **238** (for **Thalia 2/Symbol 2, Kangoo VLL**) or **983** (for **Clio II F 6**),
– **3BB** between components **371** and **120**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

V42_V04_TEST4/V42_V05_TEST4/V42_V06_TEST4/V42_V14_TEST4/V42_V16_TEST4/V42_V18_TEST4

TEST 4 CONTINUED	

With the ignition on, check for **+ 12 V** on connection **3FB** of component **371**.
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 **resistance of the fuel vapour absorber bleed solenoid valve**.
If the resistance of the fuel vapour absorber bleed solenoid valve is not between: **24 Ω < X < 30 Ω** or **22 Ω < X < 30 Ω** (**F4R** engine on **Duster**) between **0°C** and **40°C**, replace the fuel vapour absorber bleed solenoid valve (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 14A, Emission control, Fuel vapour absorber: Removal - Refitting**).

If the fault is still present, contact the techline.

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

TEST 5	Additional fuel tank check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the cleanliness, the mounting and for possible leaks of the hoses of the solenoid valve (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6)** or **MR 374 (Kangoo VLL), Mechanical, 19C, Tank, Fuel pump of the additional fuel tank: Removal - Refitting**).

Listen to the operation of the solenoid valve by running command **AC217 Additional petrol circuit solenoid valve**.

Check the **cleanliness** and **condition** of the connector of the additional petrol circuit solenoid valve, component code **1640** and the connector of the injection computer, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

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

V42_V04_TEST5/V42_V05_TEST5/V42_V06_TEST5/V42_V14_TEST5/V42_V16_TEST5/V42_V18_TEST5

TEST 5 CONTINUED	

Check the **continuity, insulation, and absence of interference resistance** on the following connections:
For **Logan, Sandero, Duster**:
– **3ACM** between components **1640** and **120**,
– **3FB** between components **1640** and **1047**,

For **Thalia 2/Symbol 2, Kangoo VLL**:
– **3ACM** between components **1640** and **120**,
– **3FB** between components **1640** and **238**,

For **Clio II F 6**:
– **3ACM** between components **1640** and **120**,
– **3FB** between components **1640** and **983**.

If the connection or connections 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 supply of the solenoid valve using a test light, by running command **AC224 Additional petrol circuit pump relay**.

Check the internal resistance of the solenoid valve, component code **1640** on the connector of the computer, component code **120**. Its value must be between: **24** Ω **< X** ≤ **30** Ω, **12** Ω **£ X £ 16** Ω (**Duster F4R** engine) or **22** Ω ≤ **X** ≤ **30** Ω (**Duster K4M** engine) (between **0°C** and **40°C**)**.** If the resistance is not correct, replace the solenoid valve (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6)** or **MR 374 (Kangoo VLL), Mechanical, 19C, Tank, Fuel pump of the additional fuel tank: Removal - Refitting**).

If the fault is still present, contact the techline.

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

TEST 6	Air temperature sensor check

NOTES	None.

Perform a visual inspection and look for possible sealing faults in the system.
Ensure the conformity of the system (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6)** or **MR 374 (Kangoo VLL), Mechanical, 12A, Fuel mixture, Air inlet: Description**).

If the fault is still present, contact the techline.

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

V42_V04_TEST6/V42_V05_TEST6/V42_V06_TEST6/V42_V14_TEST6/V42_V16_TEST6/V42_V18_TEST6

TEST 7	Air inlet pressure sensor check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL**.

Check the fitting and sealing of the inlet air pressure sensor, component code **147** (condition of the seals) and look for possible leaks on the inlet air pipe. Ensure the conformity of the system (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 12A, Fuel mixture, Air inlet: Description)**.
With the ignition on, compare the value of **PR312 Manifold pressure** for the vehicle concerned with that given by another vehicle (**absolute difference < 130 mbars)**.
Check the **connection** and **condition** of the connector of the inlet air pressure sensor, component code **147** and of the injection computer connector, component code **120**. If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.
Check the supply voltage of the sensor on connections **3AJR** and **3AJP**.
Check the **insulation, continuity and the absence of interference resistance** on the following connections: – **3AJP** between components **120** and **147**, – **3AJR** between components **120** and **147**, – **3AJQ** between components **120** and **147**. If the connection or connections 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 ignition on, use a vacuum pump in order to create a variation in negative pressure. Then use the diagnostic tool to check that **PR312 ≤ 500 mbar**.
Replace the inlet air pressure sensor, component code **147** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 12A, Fuel mixture, Air inlet: Description**) and repeat the vacuum test.
If the fault is still present, contact the Techline.

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

TEST 8	Accelerator pedal potentiometer check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the variation in **PR055 Engine speed** when depressing the accelerator pedal (with the engine running).

Stop the engine and switch on the ignition. Without action on the pedal, check that the voltage correction of circuit 1:
– **PR147 Pedal potentiometer voltage gang 1** is less than **817 mV** and
– **PR148 Pedal potentiometer voltage gang 2** is less than **440 mV**.
Next, in the "full load" position, check the circuit 1 voltage **PR147**, which must be greater than **4185 mV**, and **PR148**, which must be greater than **2013 mV**.

Also check the pedal position in the following cases:
– "position zero" (**PR030 Accelerator pedal position = 0**)
– "Full load" (**PR030 = 1**).

Stop the engine and then switch on the ignition.
With the vehicle under **+ after ignition feed**, measure the voltage between the following connections:
– **3LR** and **3LT** of component **921**,
– **3LU** and **3LV** of component **921**.

If the value is not between **4.75 V** $\leq$ **X** $\leq$ **5.25 V**, check **the insulation, the continuity and the absence of interference resistance** of the following connections:
– **3LR** between components **120** and **921**,
– **3LT** between components **120** and **921**,
– **3LU** between components **120** and **921**,
– **3LV** between components **120** and **921**.

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

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3LS** between components **120** and **921**,
– **3LW** between components 120 and **921**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

TEST 8 CONTINUED 1	

Remove the **accelerator pedal**, component code **921** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Accelerator pedal potentiometer: Removal - Refitting or MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Accelerator pedal: Removal - Refitting**).
Without action on the accelerator pedal, check **the resistance** between the following connections (between **0°C** and **40ºC**):

Gang 1:
– **3LT** and **3LS** of component **921**, the **resistance** must be between **718** $\Omega \leq$ **X** $\leq$ **5263** Ω,
– **3LT** and **3LR** of component **921**, the **resistance** must be between **838** $\Omega \leq$ **X** $\leq$ **1742** Ω,
– **3LR** and **3LS** of component **921**, the **resistance** must be between **1312** $\Omega \leq$ **X** $\leq$ **6495** Ω.

Gang 2:
– **3LV** and **3LW** of component **921**, the **resistance** must be between **701** $\Omega \leq$ **X** $\leq$ **5242** Ω,
– **3LV** and **3LU** of component **921**, the **resistance** must be between **1495** $\Omega \leq$ **X** $\leq$ **3105** Ω,
– **3LU** and **3LW** of component **921**, the **resistance** must be between **1978** $\Omega \leq$ **X** $\leq$ **7894** Ω.

If these checks are incorrect, replace the **accelerator pedal sensor**, component code **921** (see **MR 388 (Logan and Sandero), MR 388 (Logan and Sandero), MR 451 (Duster), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Accelerator pedal potentiometer: Removal - Refitting or MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Accelerator pedal: Removal - Refitting**).

If the fault is still present, contact the Techline.

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

TEST 8 CONTINUED 2	

With the accelerator pedal depressed as far as possible, check **the resistance** between the following connections (between **0°C** and **40ºC**):

Gang 1:
– **3LT** and **3LS** of component **921**, the **resistance** must be between **1361** Ω ≤ **X** ≤ **6600** Ω,
– **3LT** and **3LR** of component **921**, the **resistance** must be between **838** Ω ≤ **X** ≤ **1742** Ω,
– **3LR** and **3LS** of component **921**, the **resistance** must be between **668** Ω ≤ **X** ≤ **5160** Ω.

Gang 2:
– **3LV** and **3LW** of component **921**, the **resistance** must be between **1276** Ω ≤ **X** ≤ **6436** Ω,
– **3LV** and **3LU** of component **921**, the **resistance** must be between **1495** Ω ≤ **X** ≤ **3105** Ω,
– **3LU** and **3LW** of component **921**, the **resistance** must be between **1403** Ω ≤ **X** ≤ **6700** Ω.

If these checks are incorrect, replace the **accelerator pedal sensor**, component code **921** (see **MR 388 (Logan and Sandero), MR 388 (Logan and Sandero), MR 451 (Duster), MR 430 (Clio II F 6), MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Accelerator pedal potentiometer: Removal - Refitting or MR 423 (Thalia 2/Symbol 2), Mechanical, 37A, Mechanical component controls, Accelerator pedal: Removal - Refitting**).

If the fault is still present, contact the Techline.

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

TEST 9	Brake pedal switch check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

With the brake pedal **released**, check **ET039 Brake pedal** and **ET799 Brake wire contact**.
ET039 must be **01** and **ET799** must be **01**.
While depressing the brake pedal, check **ET039** and **ET799**.
ET039 must be **02** and **ET799** must be **02**.
If these two checks are correct, the switch is not faulty.

Check the fitting and mechanical operation of the brake pedal (the pedal returns properly).
If the check is incorrect, check the braking system.

With the brake pedal **depressed**, measure the **resistance** of the **brake pedal switch**, component code **160** between connections **AP1** (for **Logan, Sandero, Duster**) or **AP10** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL)** and **65A**. The value must be **X > 10 MΩ** (between **0°C** and **40°C**).
If the **resistance** is not correct, replace the **brake pedal switch**, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting**).

With the brake pedal **released**, measure **the resistance** of the **brake pedal switch**, component code **160** between connections **AP1** (for **Logan, Sandero, Duster**) or **AP10** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**) and **5A**. The value must be between **0 Ω < X < 1Ω** (between **0°C** and **40°C**).
If the **resistance** is not correct, replace the **brake pedal switch**, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting**) and move on to the **Section: Checking the brake pedal switch**.

Check the condition of the **brake pedal switch connector**, component code **160** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 37A, Mechanical component controls, Brake pedal switch: Removal - Refitting**).
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.

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

TEST 9 CONTINUED	

Check the presence and condition of brake pedal fuse **F03** (for **Logan, Sandero, Duster**), **F4** (for **Thalia 2/Symbol 2, Clio II F 6**) or **F16** (for **Kangoo VLL**).
Check the **insulation, continuity and the absence of interference resistance** on the following connections: – **AP1** between components **160** and **1016** (for **Logan, Sandero, Duster**), – **AP10** between components **160** and **1016** (for **Thalia 2/Symbol 2, Clio II F 6**) – **AP10** between components **160** and **260** (for **Kangoo VLL**), – **5A** between components **160** and **120**, – **65A** between components **160** and**120**, If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

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

TEST 10	TDC sensor check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the sensor fitting (connectors, mountings, etc.) (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol Injection, Crankshaft position sensor: Removal - Refitting**).
Switch on the ignition, check the change of the engine rotation speed using parameter **PR055 Engine speed.** The value must be between **0 rpm** and more than **120 rpm** when the starter is operating.
With the engine running, accelerate to obtain different engine rotation speeds and check that the engine speed correctly changes in relation to the accelerations. If **PR055** varies, the sensor is sound.
Check the **cleanliness** and **condition** of the **TDC sensor**, component code **149** and of the injection computer connector, component code **120**. If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

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

V42_V04_TEST10/V42_V05_TEST10/V42_V06_TEST10/V42_V14_TEST10/V42_V16_TEST10/V42_V18_TEST10

TEST 10 CONTINUED	

Check the **resistance** of the **TDC sensor** between connections **3BL** and **3BG** on the **injection computer** connector side, component code **120** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/ Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Petrol injection computer: Removal - Refitting**).

The **resistance** must be between **175** Ω ≤ **X** ≤ **295** Ω or **200** Ω **< X < 270** Ω (**F4R** engine of **Duster**) (between **0°C** and **40°C**). If the value is not correct, replace the sensor (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol Injection, Crankshaft position sensor: Removal - Refitting**).

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
– **3BL** between components **120** and **149**,
– **3BG** between components **120** and **149**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

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

TEST 11	Pinking sensor check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Start the engine and let it idle. Next, check that **PR427 Average pinking signal** is equal to **0**.

With the engine idling, check that parameters **PR469 Cylinder 1 pinking value**, **PR471 Cylinder 2 pinking value**, **PR473 Cylinder 3 pinking value**, **PR475 Cylinder 4 pinking value** are all **0**.

Check the **cleanliness** and **condition** of the **pinking sensor** connector, component code **146** and of the injection computer connector, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Check the **resistance** of the **pinking sensor**, component code **146** between connections **3DQ** and **3S** on the **injection computer** connector side, component code **120 (**see **MR 388 (Logan and Sandero). MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Petrol injection computer: Removal - Refitting**).

The **resistance** must be greater than **10 MΩ** or between **559 kΩ < X < 561 kΩ** (**F4R** engine of **Duster**).
If the resistance value is not correct, replace the pinking sensor, component code **146 (**see **MR 388 (Logan and Sandero). MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Petrol injection: List and location of components**).

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

– **3DQ** between components **120** and **146**,
– **3S** between components **120** and **146**.

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

If the fault is still present, contact the Techline.

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

TEST 12	Additional fuel tank pump check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero.**

Listen to the operation of the additional fuel pump and of the petrol pump relay of the additional circuit by running command **AC224 Additional petrol circuit pump relay**.
Check the supply of the solenoid valve using a test light, by running command **AC224**. If the supply is correct, replace the additional fuel pump (see **MR 388** or **MR 374 Mechanical, 19C, Tank, Additional fuel tank: Removal – Refitting**).
Check the **continuity, insulation, and absence of interference resistance** on the following connections: – **3ACL** between components **1639** and **283**, – **NH** (for **Logan, Sandero, Duster**) or **M** (for **Thalia 2/Symbol 2**) or **MHA** (for **Clio II F 6)** or **MH** (for **Kangoo VLL**) between the **earth** and **283**. If the connection or connections 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 checks are correct, run fault finding on the Protection and Switching Unit.
If the fault is still present, contact the techline.

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

TEST 13	Injector check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Perform a visual inspection of the condition and possible leaks in the system.
Repair if necessary (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**).

Listen to the operation of the injectors by running the commands:
– **AC005 Cylinder 1 injector**,
– **AC006 Cylinder 2 injector**,
– **AC007 Cylinder 3 injector**,
– **AC008 Cylinder 4 injector**.
Replace the injectors if necessary (see **MR 388 (Logan and Sandero), Mechanical, 13A, Fuel supply, Injector rail - Injectors: Removal - Refitting, MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Injector rail - Injectors: Removal - Refitting**).

If the fault is still present, contact the techline.

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

V42_V04_TEST13/V42_V05_TEST13/V42_V06_TEST13/V42_V14_TEST13/V42_V16_TEST13/V42_V18_TEST13

TEST 14	Ignition coil check

NOTES	**Special note:** **To apply this procedure, use the special tool Elé. 1808: "ignition coil tester" available in the Parts Department catalogue.** **part number: 77 11 381 808.**
	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

K4M engine

Visually inspect the condition of the connectors of pencil ignition coil no.1, component code **1077**, pencil ignition coil no.2, component code **1078**, pencil ignition coil no.3, component code **1079**, and pencil ignition coil no.4, component code **1080** (see **MR 388 (Logan et Sandero). MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17A, Ignition, Coils: Removal - Refitting**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Insert tool **Elé. 1808** (**1**) in the coil.
Place the tool/coil assembly in the spark plug well.
Start the engine and let it idle.
Apply light pressure to the assembly to hold the coil in contact with the tool.
Observe the glow from the electric arc on the spark plug well wall.
If an electric arc is not produced, replace the coil concerned (see **MR 388 (Logan and Sandero). MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17A, Ignition, Coils: Removal - Refitting**).

If the fault is still present, contact the techline.

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

TEST 14 CONTINUED	Ignition coil check

K7M engine

Visually inspect the condition of the connectors of the ignition coil, component code **778 (**see **MR 388 Mechanical, 17A, Ignition, Coils: Removal - Refitting**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector(s), otherwise replace the wiring.

Insert tool **Elé. 1808** (**1**) in the cap of the wire of the plug concerned.
Fit the assembly in the plug well.
Start the engine and let it idle.
Apply light pressure to the assembly to hold the coil in contact with the tool.
Observe the glow from the electric arc on the spark plug well wall.
If the electric arc is not produced, replace the ignition coil (see **MR 388 Mechanical, 17A, Ignition, Coils: Removal – Refitting**).

If the fault is still present, contact the techline.

D4D engine

– Switch on the vehicle **+ after ignition feed**.
– Run command **VP036 FUEL SUPPLY INHIBITION**.
Put the vehicle under starting conditions:
– position of gear lever in neutral for a manual gearbox* or position "P" (Parking) for an automatic gearbox*.
– brake pedal depressed.
– Run command **RZ003 ENGINE ADAPTIVES**.
Remove the plugs from each cylinder and check, one after another, that sparks are present by bringing the plug close to a chassis earth, with the starter engaged. If no spark is produced, replace the ignition coil, component code **778** (see **MR 388 Mechanical, 17A, Ignition, Coils: Removal – Refitting**).

If the fault is still present, contact the techline.

*BVM: Manual gearbox.
*BVA: Automatic gearbox.

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

TEST 15	Coolant temperature sensor check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

With the engine idling: visually check that there are no leaks from the fitting of the **coolant temperature sensor**, component code **244** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19A, Cooling, Coolant temperature sensor: Removal - Refitting**).
Switch off the engine. Wait for **15 minutes**, restart the engine and, for **10 minutes**, check that the temperature value given by the sensor increases, using parameter **PR064 Coolant temperature**.
If the value increases, the sensor is sound.

Check the condition of the **coolant temperature sensor** connector, component code **244** and the **injection computer** connector, component code **120**.
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the supply between connections **3JK** and **3C** of component **244**.
Check the **insulation, continuity and absence of interference resistance** on the following connections:
– **3JK** between components **244** and **120**,
– **3C** between components **244** and **120**.
If the connections are faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

If the fault is still present, replace the **coolant temperature sensor**, component code **244** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19A, Cooling, Coolant temperature sensor: Removal - Refitting**).

If the fault is still present, contact the techline.

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

TEST 16	Fan relay check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Check the operation of the low speed fan assembly by running command **AC038 Low speed fan assembly relay**.
Check the operation of the high speed fan assembly by running command **AC039 High speed fan assembly relay**.
If these two checks are correct, the fan assembly relay is not faulty

Run command **AC038** and use the test light to check for the control signal of component **120** on connection **3JN** of component **700** (for **Logan, Sandero, Duster**) or **784** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**).

Check the connection and condition of the **fan assembly** connector, component code **188** (for **Logan, Sandero, Duster**) or **262** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**) and the **injection computer** connector, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check **the insulation, continuity and absence of interference resistance** on the following connections:
For Logan, Sandero, Duster:
– **3JN** between components **700** and **120**,
– **49C** between components **321** and **700**,
– **49B** between components **188** and **321**.

For Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL:
– **3JN** between components **784** and **120**,
– **49C** between components **784** and **321**,
– **49C** between components **262** and **321**.

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

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

TEST 16 CONTINUED	

Run command **AC038** and use the test light to check for the presence of supply at the relay output. If the supply is absent, replace the **low speed fan assembly relay**, component code **700** (for **Logan, Sandero, Duster**) or **784** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**).
Run command **AC039** and use the test light to check for the control signal of component **120** on connection **3JP** of component **336**.
Check the **insulation, continuity and absence of interference resistance** on the following connection: – **49B** between components **336** and **188** (for **Logan, Sandero, Duster**) or **262** (for **Thalia 2/Symbol 2, Clio II F 6, Kangoo VLL**), – **3JP** between components **336** and **120**. If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
Run command **AC039** and use the test light to check for the presence of supply at the relay output. If the supply is absent, replace the **high speed fan assembly relay**, component code **336**.
If the fault is still present, contact the techline.

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

TEST 17	Upstream O2 sensor check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Visually check the position and mounting of the upstream oxygen sensor (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).

With the engine warm, **PR064 Coolant temperature >70°C**, depress the accelerator pedal and check that **PR098 Upstream oxygen sensor voltage** varies correctly between: **20 mV < PR098 < 1395 mV**. The variation must be greater than **50 mV**.

Check the connection and condition of the upstream oxygen sensor connector, component code **887** and of the **injection computer** connector, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation, continuity and absence of interference resistance** on the following connection:
– **3GH** between components **887** and **120**,
– **3GK** between components **887** and **120**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

V42_V04_TEST17/V42_V05_TEST17/V42_V06_TEST17/V42_V14_TEST17/V42_V16_TEST17/V42_V18_TEST17

TEST 17 CONTINUED	

Check the resistance value of the upstream oxygen sensor, component code **887** on the computer connector side, component code **120**. With the engine stopped for **10 minutes**, the resistance value must be between **7 Ω < X < 11 Ω** or **3 Ω < X < 5 Ω** (**F4R** engine of **Duster**) (between **0°C** and **40ºC**). If the resistance is not correct, replace the upstream oxygen sensor, component code **887** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).
Check that the TDC* sensor programming is correct (see section: **Replacement of components**).
Run test **SC007 Run OBD test: O2 sensor** and start the engine (Only depress the brake pedal to authorise the starting of the engine). At the end, check the test results: **STATUS1**: Run the test again with the engine coolant temperature **X > 90°C**. **STATUS2** or **STATUS3**: Sensor OK. **STATUS4**: Replace the upstream oxygen sensor (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).
If the fault is still present, contact the techline.

TDC*: TOP DEAD CENTRE

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

TEST 18	Downstream O2 sensor check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster, Thalia 2/ Symbol 2, Clio II F 6, Kangoo VLL.**

Visually check the position and mounting of the downstream oxygen sensor (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).

With the engine warm, **PR064 Coolant temperature >70°C**, depress the accelerator pedal for **3 minutes**, perform several accelerations and check that **PR099 Downstream oxygen sensor voltage** varies correctly between: **0 mV < PR099 < 1000 mV**.

Check the connection and condition of the downstream oxygen sensor connector, component code **242** and of the **injection computer** connector, component code **120**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **insulation, continuity and absence of interference resistance** on the following connection:
– **3GL** between components **242** and **120**,
– **3GJ** between components **242** and **120**.
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 resistance value of the downstream oxygen sensor, component code **242** on the computer connector side, component code **120**. With the engine stopped for **10 minutes**, the resistance value must be between **7 Ω < X < 11** Ω (between **0°C** and **40°C**).
If the resistance is not correct, replace the downstream oxygen sensor, component code **242** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 17B, Petrol injection, Oxygen sensors: Removal - Refitting**).

If the fault is still present, contact the techline.

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

V42_V04_TEST18/V42_V05_TEST18/V42_V06_TEST18/V42_V14_TEST18/V42_V16_TEST18/V42_V18_TEST18

TEST 19	Fuel conformity check

WARNING:
During this operation, it is essential to:
refrain from smoking or bringing incandescent objects close to the work area,
protect yourself against fuel splashes due to residual pressure in the pipes, wear safety goggles with side guards and waterproof gloves (Nitrile type).

IMPORTANT:
To avoid any corrosion or damage, protect the areas on which fuel is likely to run.
To prevent impurities from entering the circuit, place protective plugs on all fuel circuit components exposed to the open air.

Remove **1 L** of fuel at the **fuel filter outlet** (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19C, Tank, Fuel tank: Draining**) using a pneumatic transfer pump (**part no. 634-200**) and place it in the **1300 ml** plastic cup.
Cover the plastic cup with its cover and allow it to settle for approximately **2 minutes**.

Check if the fuel is cloudy or if it separates into two parts.
If the fuel is cloudy or if it separates into two parts, there is water in the fuel, the fuel is not correct.
Drain the fuel circuit, including the tank (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19C, Tank, Fuel tank: Draining**).

Visually compare the fuel removed with the correct petrol.
Are the samples identical?
If the samples are identical, this means that the fuel is correct.
If not, drain the fuel circuit, including the tank (see **MR 388 (Logan and Sandero), MR 451 (Duster), MR 423 (Thalia 2/Symbol 2), MR 430 (Clio II F 6) or MR 374 (Kangoo VLL), Mechanical, 19C, Tank, Fuel tank: Draining**).

Note:
Contact the Techline if you have doubts or problems with the customer.

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

TEST 20	Camshaft sensor check

NOTES	See the **Wiring Diagrams Technical Note for Logan, Sandero, Duster**.

Visually inspect the condition of the camshaft sensor.

↓

Check the status of synchronisation of the camshaft sensor with the TDC sensor using **ET775 Camshaft TDC* synchronisation**.

Is ET775 "NOT PERFORMED"?

NO → (A)

YES ↓

Start the engine. Does the engine start?

NO ↓

With the starter operating, check the status of synchronisation of the camshaft sensor with the TDC sensor using **ET775**.

Is **ET775 "PERFORMED"**?

YES ↓ The camshaft sensor is correct.

NO → (A)

YES ↓

At idle speed and after a few accelerations between **1000** and **2000 rpm**, check the status of synchronisation of the camshaft sensor with the TDC sensor using **ET775**.

Is **ET775 "PERFORMED"**?

YES ↓ The camshaft sensor is correct.

NO → (A)

TDC*: Top Dead Centre

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

V42_V04_TEST20/V42_V05_TEST20/V42_V06_TEST20/V42_V14_TEST20/V42_V16_TEST20/V42_V18_TEST20

TEST 20 CONTINUED	

A

Check the **condition** and **connection** of the camshaft sensor connectors, component code **1265**.
If the connector or connectors are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the internal resistance of the camshaft sensor. It must be greater than **100 kΩ**.

Check for **+12 V** on the camshaft sensor, component code **1265** on the following connection:
- **3FB** of component **1265**.

Check **the continuity, insulation** and **the absence of interference resistance** of the following connection:
- **3FB** between components **1265** and **1047**.

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

Check the **continuity, insulation** and **absence of interference resistance** on the following connections:
- **3SX** between components **1265** and **120**,
- **3SV** between components **1265** and **120**.

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

If the fault is still present, contact the Techline.

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