TWINGO

8 Electrical equipment

17B PETROL INJECTION

SIM 32 Injection
Program no.: D3
Vdiag No.: 44, 4C, 50 and 54

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V7 **Edition Anglaise**

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

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

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1. SCOPE OF THIS DOCUMENT

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

Vehicle(s): **NEW TWINGO, NEW TWINGO RS, E33, CLIO III, and MODUS**
Engine: **D7F 800, D4F 740, 742, 764, 770, 772 D4FT 780, 782, 784, 786 K4M 854, 862**
Function concerned: **SIEMENS SIM 32 petrol injection**

Computer Name: **SIEMENS SIM 32 injection**

Program No.: **D3**

Vdiag No.: **44, 4C, 50 and 54**

D4F 764: Vdiag 4C or 50
– Camshaft dephaser
– Camshaft position sensor
– Controlled coolant thermostat

D4F 742: Vdiag 50
– Ethanol
– O. C. S. - Customised oil service interval

D4FT 780, 782, 784, 786: Vdiag 54
– Turbocharging
– Oil vapour rebreathing circuit de-icing system
– OCS - Customised oil change interval
– Euro V (782, 786)

For applications with Vdiag 50 and 54:
If ET840 = ACTIVE:
– OCS - Customised oil change interval

2. PREREQUISITES FOR FAULT FINDING

Documentation type
Fault finding procedures (this document):
● Assisted fault finding (integrated into the **diagnostic tool**), Dialogys.
Wiring Diagrams:
● Visu-Schéma (CD-ROM), paper.

Type of diagnostic tools
● **CLIP + multiplex line sensor**

Special tooling required

Special tooling required	
	Multimeter
Elé. 1681	Universal bornier

3. REMINDERS

Procedure

For **MODUS** vehicles:
To run fault finding on the vehicle's computers, switch on the ignition in fault finding mode (+ after ignition feed).

For **CLIO III** vehicles:
To run fault finding on the vehicle computers, switch on the ignition.
Depending on the type of vehicle equipment, proceed as follows:

For vehicles with key/radiofrequency remote control unit, switch on the ignition with the key.
For vehicles with a Renault card, insert the vehicle card in the card reader. press and hold the start button (longer than **5 seconds**) with start-up conditions not fulfilled, connect the **diagnostic tool** and perform the required operations.

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

For vehicles with key/radiofrequency remote control unit, switch off the ignition with the key.
For vehicles with a Renault card, press the Start button twice briefly (less than **3 seconds**), ensure that the + after ignition feed has been cut off by checking that the computer indicator lights on the instrument panel have gone out.

For **NEW TWINGO** vehicles:
To run fault finding on the vehicle computers, switch on the ignition. Proceed as follows:
– turn the ignition key to APC,
– connect the **diagnostic tool** and perform the required operations.

To cut off the + after ignition feed, proceed as follows:
– disconnect the diagnostic tool,
– turn the ignition key to OFF,
– verify that the forced + after ignition feed has been switched off by checking that the computer warning lights on the control panel have gone out.

Faults

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

The **present** or **stored** status of faults should be considered when using the **diagnostic tool** after the + after ignition feed is switched on (without any action on the system components).

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

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

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

If the fault is **not confirmed**, check:
– the electrical lines which correspond to the fault,
– the connectors on these lines (corrosion, bent pins, etc.),
– the resistance of the faulty component,
– the condition of the wires (melted or split insulation, wear).

Conformity check

The aim of the conformity check is to check data that does not produce a fault on the **diagnostic tool** when the data is inconsistent. Therefore, this stage is used to:
– carry out fault finding on faults that do not have a fault display, and which may correspond to a customer complaint,
– check that the system is operating correctly and that there is no risk of a fault recurring after repairs.

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

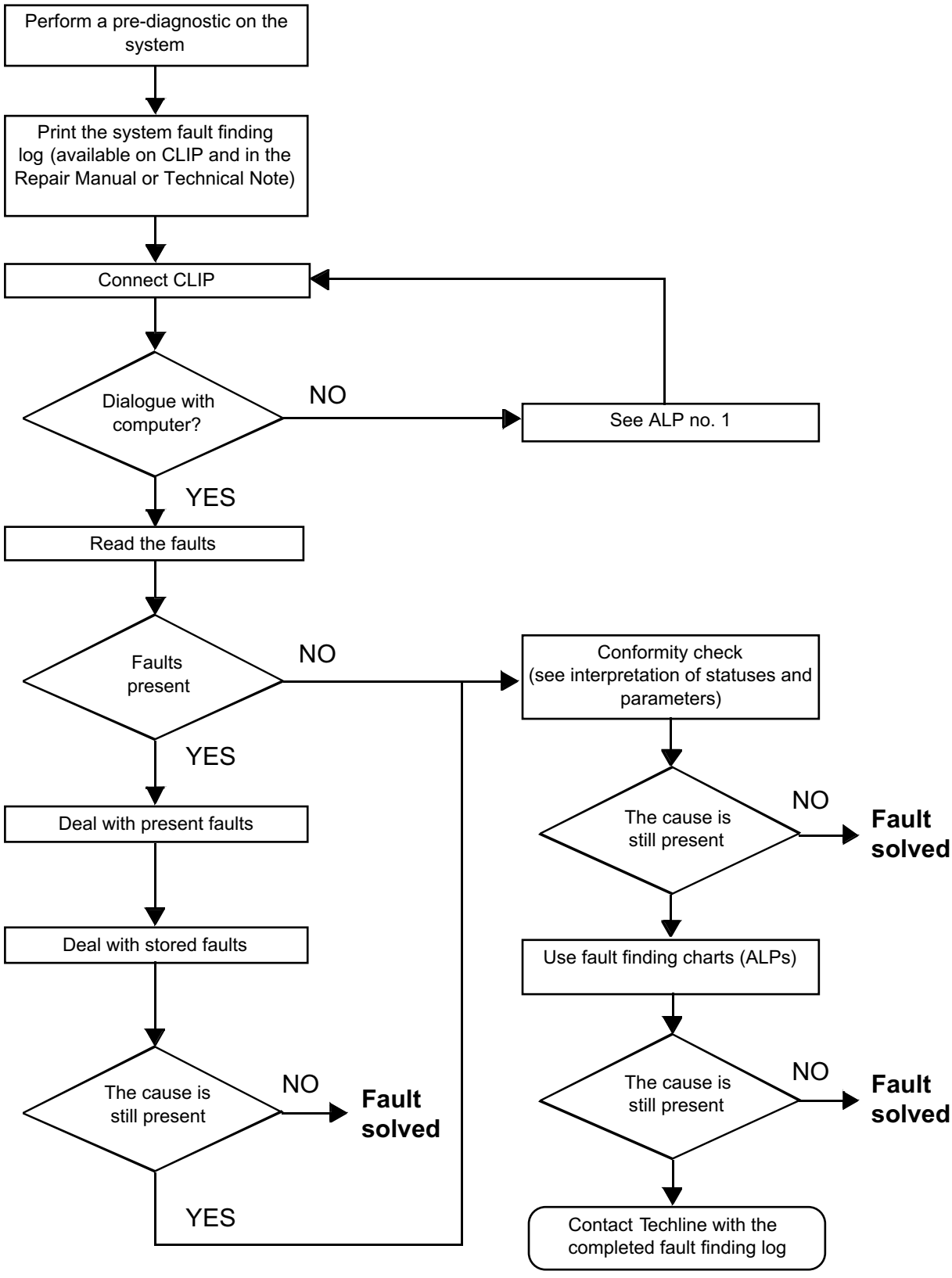
If a status does not function normally or a parameter is outside the permitted tolerance values, consult the corresponding fault finding pages (see interpretation of statuses and parameters).

Customer complaints - Fault finding chart

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

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

4. FAULT FINDING PROCEDURE



4. FAULT FINDING PROCEDURE (CONTINUED)

Wiring check

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

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

Physical inspection
While manipulating the wiring, use the **diagnostic tool** to note any change in fault status from **stored** to **present**.
Make sure that the connectors are properly locked.
Apply light pressure to the connectors.
Twist the wiring harness.
If there is a change in status, try to locate the source of the fault.

Inspection of each component
Disconnect the connectors and check the appearance of the clips and tabs, as well as the crimping (no crimping on the insulating section).
Make sure that the clips and tabs are properly locked in the sockets.
Check that no clips or tabs have been dislodged during connection.
Check the clip contact pressure using an appropriate model of tab.

Resistance check
Check the continuity of entire lines, then section by section.
Look for a short circuit to **earth**, to **+ 12 V** or with another wire.

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

5. FAULT FINDING LOG

IMPORTANT!

IMPORTANT
Any fault on a complex system requires thorough fault finding with the appropriate tools. The FAULT FINDING LOG, which should be completed during the fault finding procedure, ensures a record is kept of the procedure carried out. It is an essential document when consulting the manufacturer.

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

You will always be asked for this log:
- when requesting technical assistance from Techline,
- for approval requests when replacing parts for which approval is mandatory,
- to be attached to monitored parts for which reimbursement is requested. The log is needed for warranty reimbursement, and enables better analysis of the parts removed.

6. SAFETY INSTRUCTIONS

Safety rules must be observed during any work on a component to prevent any material damage or personal injury:
– check the battery voltage to avoid incorrect operation of computer functions,
– use the proper tools.

Precautions/Risks

The precaution related to using the injection system concerns the pedal/motorised throttle valve assembly.
In fact, if the throttle valve stops and the pedal no load limits have not been programmed in the injection computer, the vehicle must not be driven. Likewise, reprogramming must be carried out whenever one of these parts is replaced.

Risks relating to contamination

All After-Sales operations must be performed under very clean conditions. This means that no impurities should have entered the system during dismantling.

What are the sources of contamination?

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

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

Advice to be followed before any operation

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

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

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

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

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

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

Wash your hands before and during the operation if necessary.
When wearing leather protective gloves cover them with latex gloves to prevent contamination.

Instructions to be followed during the operation

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

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

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

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

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

1. SYSTEM OPERATION

Composition

The injection system consists of the:
– accelerator potentiometer,
– TDC sensor,
– atmospheric pressure sensor,
– air temperature sensor,
– coolant temperature sensor,
– refrigerant pressure sensor,
– upstream oxygen sensor,
– downstream oxygen sensor,
– cruise control switch (fitted according to the vehicle equipment level),
– cruise control on/off switch (fitted according to the vehicle equipment level),
– brake light switch,
– clutch pedal switch,
– fuel vapour absorber,
– injection computer,
– motorised throttle valve,
– four injectors,
– pinking sensor,
– 4 injectors,
– ignition coil,
– pinking sensor.

Additional components on **D4F 764**:

– camshaft dephaser,
– camshaft position sensor,
– electrically controlled coolant thermostat.

Additional components on **D4F 784**:
– Turbocharging system,
– turbocharger,
– Oil vapour rebreathing circuit,
– OCS - Configured oil service interval.

Computer

SIEMENS SIM32 type 112-track computer controlling the injection and ignition. Multipoint injection in sequential mode.
Connections with the other computers, known as "Intersystem connections":
– ESP (fitted according to the vehicle equipment level).
– Passenger Compartment Control Unit (UCH).
– Gearbox Computer: sequential gearbox or automatic gearbox (if fitted to the vehicle).
– Instrument panel.
– Radio navigation (if fitted to the vehicle).
– Airbag.
– ABS (if fitted to the vehicle).
– Protection and Switching Unit (UPC).
– Air conditioning.

Engine immobiliser

The SIM 32 computer manages an engine immobiliser program:
– The Verlog 4 type immobiliser function is managed by the UCH computer and the engine management computer.
Before any customer request, the engine management computer and UCH exchange authentication frames via the multiplex network to determine whether or not to start the engine.
After more than five consecutive failed authentication attempts, the engine management computer goes into protection (antiscanning) mode and no longer tries to authenticate the UCH. It only leaves this mode when the following sequence of operations is carried out:
– the ignition is left on for at least **60 seconds**,
– the signal is cut off,
– the injection computer self-supply cuts out when it should (the time varies according to engine temperature).
After this, only one authentication attempt is allowed. If this fails again, repeat the sequence of operations described above.
If the engine management computer still fails to unlock, contact the Techline.

Impact detected

If an impact has been stored by the injection computer (**ET077 Impact detected**), switch off the ignition for **10 seconds**, then switch it back on so that the engine can be started. Then clear the faults using command **RZ001 Fault memory**.

Fuel supply

Fuel is supplied by the fuel pump. It is controlled each time the ignition is switched on, for **1 second**, to provide a certain pressure level in the circuit, and thereby achieve correct engine starting, particularly if the vehicle has not been used for a long time. When the engine is running, the fuel pump relay is always controlled.

Injection

The injectors are controlled according to several modes. The engine is started in "semi-full group" mode (injectors 1 and 4, then injectors 2 and 3 simultaneously). This is to ensure correct engine starting whether or not it is correctly phased, then it enters sequential mode.
It can sometimes, though rarely, happen that the engine starts when incorrectly phased. Then, after it has changed to sequential injection mode and as long as the cylinder 1 recognition program has not taken place, the injectors are offset by two cylinders: injection occurs in 4-2-1-3 order instead of the expected 1-3-4-2.
Injection timing is continuously calculated. It can be zero in the event of cut-off whilst decelerating or overrevving for example.

Engine phasing

SIM 32 D4F 764 injection systems are equipped with a delayed continuous inlet camshaft dephaser.
The injection receives the position of the camshaft dephaser given by the camshaft sensor signal.
This position does not recognise whether the camshaft dephaser is in defect mode or not.
There are two types of defect mode associated with the various types of camshaft dephaser faults:

ET086: Camshaft dephaser control

FAULT: this defect mode covers all faults that affect the measurement of the dephaser position.
The dephaser is controlled at the lower stop and the camshaft angle measurement is forced to **0**.
Tooth signal fault.
Tooth/camshaft signal consistency fault finding procedure.

This type covers all faults affecting the camshaft dephaser (pulley and solenoid valve)
- Electrical fault finding on the solenoid valve.
- The camshaft dephaser is controlled at the lower stop.

FAULT: this defect mode covers all faults that affect the dephaser (pulley and solenoid valve).
The dephaser is set to the low stop.
Electrical fault finding on the solenoid valve.
Dephaser position fault finding procedure.

This type groups together all faults affecting the measuring of the camshaft dephaser position.
- tooth signal fault
- tooth/camshaft signal consistency fault finding procedure

The VVT is controlled at the lower stop and the camshaft angle measurement is forced to the requested setpoint.

A first program called Memo phasing is applied to phase the engine management on starting according to the data recorded at the last setting. It is therefore essential to wait until the end of the "powerlatch" phase (computer self-supply phase enabling data to be saved which lasts for approximately **30 seconds**) before starting any operations. Then, a second program confirms the first decision. It is based on torque analysis.

Air supply

The idle speed regulator performs all of the calculations required for physical control of the idle speed actuator: the motorised throttle. The functional component of the regulator is adaptive (variation programming and ageing).

If the idle speed regulation conditions are met, the status **ET054 Idle speed regulation** is "Active", and the idle speed regulator continually positions the motorised throttle to maintain the engine speed at its idle reference value. The motorised throttle opening ratio necessary to comply with the speed setpoint is then given by parameter **PR091 Idle speed regulation theoretical OCR**.

The **PR090 Idle speed regulation programming value** is a stored parameter designed to "program" engine variations and engine wear and tear for the idle speed regulator. The programming is carried out only when the engine is idle and warm, and no electrical consumer (air conditioning, fan assembly, power assisted steering) is operating. Therefore it adjusts slowly.

Idle speed

The idle speed setpoint is dependent on:
– the coolant temperature,
– the emission control programs,
– air conditioning requirements,
– the position of the gear lever,
– any power-assisted steering operation,
– the passenger compartment heating resistors,
– the oil temperature (engine protection),
– and lastly, the electric power balance (engine speed is increased by a maximum of **160 rpm** if the battery voltage remains below **12.7 V**).

Ignition

Advance is calculated for each cylinder, and is limited between **- 23**˚ to **+ 72**˚, and includes possible corrections due to pinking.
Anti-pinking correction is the maximum advance value taken from the advance of one of the cylinders. If none of the cylinders is pinking, this correction is zero.

Richness

For the catalytic converter to operate correctly, adjust around richness 1.

The richness regulation controlled by the upstream sensor which ensures a richness of around **1**.
The upstream sensor supplies a voltage according to the image of the average engine richness: the voltage supplied to the computer represents a Rich-Lean signal.

For the upstream sensor to be operational very rapidly, it is heated. The heating works only when the engine is running. It is deactivated at speeds above 84 mph (**140 km/h**) or when the engine is under load.

The downstream sensor is also heated. The command does not activate immediately after starting the engine. It is activated when the engine is running and has reached its operating temperature. The downstream heating sensor is deactivated at speeds above 84 mph (**140 km/h**) or when the engine is under load.

Torque management

The torque structure is the system for managing engine torque. It is required for certain 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 intervenes between the torque requests received and the driver's requests (made via the pedal or the cruise control/speed limiter function). The result of this intervention is the torque setpoint to be applied. Using the torque setpoint, the structure calculates the throttle position setpoint, the ignition advance and if the turbocharging function is present, the turbocharging solenoid valve setpoint.

Engine coolant temperature management

1. Conventional type thermostat

Engine cooling is performed by one or two fan assemblies (depending on the vehicle equipment). The injection computer requests the UPC to actuate them via the multiplex network.

To ensure cooling, **with the engine running**, fan unit 1 is activated when the coolant temperature exceeds **99˚C** and stops when it drops below **96˚C**.
Fan assembly 2 starts when the coolant temperature exceeds **102˚C** and stops when it drops below **99˚C**.

With the engine off, only fan assembly 1 may be activated to provide the anti-percolation function (if engine is stopped when very hot). The anti-percolation function is active with the ignition off for a determined period. During this time, fan assembly 1 is activated if the coolant temperature exceeds **100˚C** and is deactivated when the temperature drops below **95˚C**.

If ET672: Engine coolant temperature management has a fault, then the temperature is regulated at **90˚C**.
If a fault on the coolant temperature sensor circuit is detected, fan assembly 1 is activated and remains on all the time.

If the engine coolant temperature exceeds the warning threshold of **118˚C**, the injection computer directly commands the coolant temperature warning light to come on or requests this action from the instrument panel computer via the multiplex network, until the coolant temperature drops back below **115˚C**.

As well as managing the engine, the injection computer centralises cooling requests for the air conditioning, automatic transmission and sequential gearbox functions.

2. Controlled type thermostat

D4F 764 engines (with a camshaft dephaser solenoid valve) are fitted with a controlled coolant thermostat that manages the engine at much higher coolant temperatures in order to reduce fuel consumption.

Description of operation
A conventional thermostat fitted with a heating resistor inside the wax core is used. The resistor is controlled by the engine management computer by opening cycle ratio*.
In nominal operation, high coolant temperatures are managed in the engine in order to:
– reduce friction,
– reduce fuel consumption.

Nevertheless, defect operation mode is used to overcome faults linked to:
– reliability: at high engine speeds and high loads the engine temperature must be below **100˚C**,
– performance: a high temperature increases chattering and reduces torque.

OCR*: Opening Cyclic Ratio.

a. Nominal operation: two operating modes.
High temperature (low and medium load mode):
When the thermostat is not controlled, it opens at a temperature of around **108˚C** (compared to **89˚C** for a conventional thermostat). This allows fuel consumption to be reduced at low engine loads due to an increase in the engine operating temperature (as there is less friction).

Low temperature (high load mode):
When the engine is put under greater stress (high loads, high engine speeds), the computer supplies the resistor (the thermostat is controlled) to obtain operating temperatures below **108˚C** (typically between **75˚C** and **90˚C**).
When the thermostat is opening as expected, comfort and a suitable engine temperature are obtained.

Too avoid too many transitions, switching from one mode to another is subject to time delays (a few seconds to switch from high temperature → low temperature mode and several minutes to switch from low temperature → high temperature mode).

Note:
The engine management computer automatically controls the thermostat in certain conditions, with the aim of protecting the engine:
– External temperature greater than approximately 30˚C,
– Recognition of accelerator pedal being fully depressed.
If there is a short circuit to earth or an open circuit on the thermostat (for example: a connector disconnected, DF893 Controlled coolant thermostat circuit in CO: Open circuit), engine performance is limited to protect the engine.

IMPORTANT:
– It is essential to follow the new procedure for bleeding the cooling circuit (see MR 392 and 385, Mechanical systems, CLIO III and MODUS, 19A Cooling, Cooling circuit: Bleeding), to prevent major overheating of the catalytic converter. This new procedure is applicable to D4F engines with SIEMENS injection.
– Do not inverse the connections of the temperature sensor and the thermostat control when dismantling or carrying out electrical tests (foolproofing by colour of connections).

b. Defect operation: forcing of low temperature mode and/or limitation of engine torque.

Low temperature management is activated.
Low temperature defect mode is used when one of the following faults is present and stored. Defect mode is reset to **0** using the **On/Off** key.

– **DF089 Inlet manifold pressure sensor** fault 1.DEF: Signal inconsistency.
Or 2. DEF: Open circuit or short circuit.
Or 3. DEF: Non-compliance with emission control standards.

– **DF091 Vehicle speed signal** in 1.DEF: No multiplex signals or invalid values.
Or 2. DEF: Non-compliance with emission control standards.

– **DF001 Coolant temperature sensor circuit** in 1.DEF: Signal inconsistency.
Or 2. DEF: Open circuit or short circuit.
Or 3. DEF: Non-compliance with emission control standards.

– **DF002 Air temperature circuit** in 1. DEF: Open circuit or short circuit.
Or 2. DEF: Non-compliance with emission control standards.

– **DF330 Pinking sensor circuit** in 1.DEF: Open circuit or short circuit.
Or 2. DEF: Non-compliance with emission control standards.

– **DF893 Controlled coolant thermostat circuit** in CO: Open circuit.
Or CC.0: Short circuit to earth.
Or CC.1: Short circuit to + 12 volts.
Or 1. DEF: Non-compliance with emission control standards.

Note:
If a fault on the coolant temperature sensor is detected, fan assembly 1 is requested to operate permanently, regardless of the management mode of the engine coolant temperature.

Engine torque limitation is activated.
If the fault is directly linked to the controlled thermostat (**DF893 Controlled coolant thermostat circuit**), the thermostat is no longer controlled. It operates continuously, either in low temperature mode (instance of short circuit to earth) or in high temperature mode (instance of open circuit or short circuit to the battery). The engine torque is limited to limit heating and also to protect the engine by preventing overheating.

c. Functions affected by the presence of a controlled thermostat:

– **Coolant temperature: 108˚C** nominal, between **70˚C** and **90˚C** in defect mode or on loaded points.
– **Coolant temperature fault finding:** the fault finding setting for coolant temperature consistency has been adapted.
– **Consumption:** The function improves fuel consumption. Consequence: a fault with the function may lead to inefficient consumption.
– **Bleeding the circuit:** A new procedure adapted to this innovation is described in **MR 392 and 385**, **Mechanical systems, CLIO III and MODUS, 19A Cooling, Cooling circuit: Bleeding**.
– **Coolant temperature display and illumination of the warning light on the instrument panel**: During nominal operation there is no impact as the temperature reference value is taken into account as well as the warning light illumination thresholds. In the event of malfunction, see the summary table below.
– **Fan unit and air conditioning:** the fan unit activation threshold and the high temperature air conditioning deactivation threshold are adapted in accordance with the temperature setpoint.
– **Fault finding of controlled thermostat: Electrical fault finding is used. No operational fault finding: A mechanical fault (such as jamming) will not be detected by the system.**
– **Performance:** In the event of a fault, there is the option to switch the engine to reduced performance mode (see **Description of operation: Operation in defect mode**).

Summary table of malfunction modes:

		Types	Special	Effects on the engine	Customer complaints
Electrical faults on resistor or wiring	Thermostat faults	– Open short circuit – Short circuit to **+ 12 V**	0%	Coolant temperature ≈ **110˚C, limited performance, low temperature** reference value.	Overheating warning light comes on at each first opening, high temperature on instrument panel, fan assembly 1 activated.
		– Short circuit	100%	Coolant temperature ≈ **90˚C, limited performance, low temperature** reference value.	Normal operation for customer but performance limited by **10** to **20%**.
	Sensor faults	– All	Low temperature mode	Forced **low temperature** mode, with no limited performance.	No visible effect, impact on fuel consumption with **permanent low temperature operation**.
	Thermostat faults detected		Nominal	No change of mode when requested.	Overheating warning light lighting on first opening, display of an additional square if the mode is changed.
Non-electrical faults	Thermostat faults detected	– Thermostat stuck in **closed** position	All modes	No cooling, engine overheating, engine damage.	Instrument panel display, overheating warning, torque reduction.
		– Thermostat stuck in **open** position	All modes	Slow increase in temperature.	Overconsumption of petrol when cold, unsuitable passenger compartment temperature, possible performance reduction when cold.

d. Cooling:

Engine cooling is performed by one or two fan assemblies (depending on the vehicle layout). The injection computer sends a request to the UPC via the multiplex network to activate the cooling fans (Clio III and Modus).
For the new Twingo, the injection computer manages the fan assembly or assemblies.

Note:
In addition to the engine requirements, the injection computer centralises the cooling requirements for the Air conditioning and BVA/BVR functions.

The switching thresholds depend on whether high/low temperature mode is being used.

In high temperature management:

Engine running

	Fan assembly 1	Fan assembly 2	Air conditioning	Overheating
ON	**> 110˚C**	**> 115˚C**	With authorisation	**> 120˚C**
OFF	**< 105˚C**	**< 113˚C**	**> 118˚C**	**< 118˚C**

Injection computer:
This is located on the right-hand side of the engine compartment on the battery mounting.

Fuel vapour recirculation solenoid valve:
This is located on the left-hand side of the engine compartment, behind the engine mounting.

Upstream oxygen sensor:
This is located on the exhaust pipe, downstream of the turbocharger.

Downstream oxygen sensor:
This is located on the exhaust pipe, upstream of the catalytic converter.

Pinking sensor:
The sensor is located underneath the inlet manifold behind the oil dipstick.

Oil pressure sensor:
This is located under the exhaust manifold to the left of the engine compartment.

Turbocharger:
The turbocharger is located after the exhaust manifold.

Turbocharger pressure sensor:
The turbocharger pressure sensor is fitted to the air circuit between the turbocharger and the motorised throttle valve.

Ignition coil:
This is located on the right-hand side of the rocker cover.

Motorised throttle valve:
The damper valve is located to the right of the inlet manifold.

TDC sensor:
This sensor is located on the flywheel.

Refrigerant pressure sensor:
This sensor is located on the coolant circuit.

Engine coolant temperature sensor:
This sensor is located on the cylinder head near the engine thermostat housing.

Air temperature sensor:
The air temperature sensor is located between the air filter and the motorised throttle valve.

Catalytic converter:
The catalytic converter is located on the exhaust pipe at the exhaust manifold outlet.

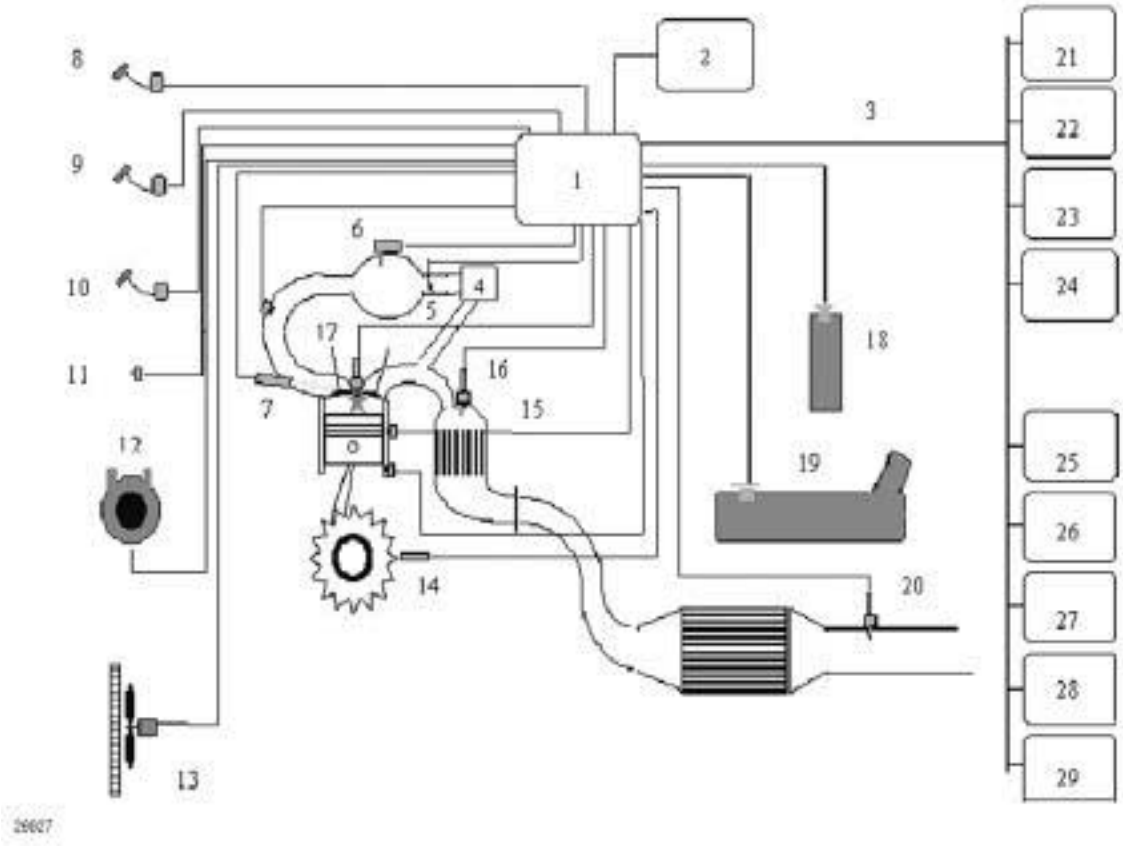
Cruise control/speed limiter on/off switch:
This switch is located inside the passenger compartment to the left of the steering wheel near the lighting rheostat.

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

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

Clutch pedal switch:
The switch is located on the clutch pedal.

Inlet air temperature sensor:
This sensor is located underneath the inlet manifold near the dipstick (except D4FT).



1 - Injection computer	16 - Upstream sensor signal
2 - RV* / LV* buttons	17 - Ignition command
3 - Multiplex network	18 - Bleed canister command
4 - Turbocharger	19 - Fuel pump command
5 - Motorised throttle	20 - Downstream sensor signal
6 - Manifold pressure	21 - ESP computer
7 - Injector command	22 - Rev counter computer
8 - Clutch Pedal	23 - ABS computer
9 - Brake pedal	24 - Instrument panel computer
10 - Accelerator pedal	25 - Sequential gearbox computer
11 - Refrigerant fluid pressure	26 - AIRBAG computer
12 - Air conditioning compressor command	27 - Vehicle speed sensor computer
13 - Engine cooling fan assembly command	28 - Air conditioning computer
14 - Flywheel signal	29 - UCH computer
15 - Pinking signal	30 – Turbocharging pressure

RV* / LV*: Cruise control/Speed Limiter

SYSTEM OPERATION

Composition

The injection system consists of the:
– accelerator potentiometer,
– TDC sensor,
– air temperature sensor,
– inlet manifold pressure sensor,
– + turbocharging pressure sensor,
– coolant temperature sensor,
– refrigerant pressure sensor,
– upstream oxygen sensor,
– downstream oxygen sensor,
– cruise control switch (fitted according to the vehicle equipment level),
– cruise control on/off switch (fitted according to the vehicle equipment level),
– brake light switch,
– clutch pedal switch,
– fuel vapour absorber,
– injection computer,
– motorised throttle valve,
– four injectors,
– ignition coil,
– pinking sensor.

Additional components on D4FT 780:
– Turbocharging
– Oil vapour rebreathing circuit de-icing system
– OCS - Customised oil change interval

Computer

SIEMENS type **"SIM32"** 112-track computer controlling the injection and the ignition. Multipoint injection in sequential mode.
Connections with the other computers, known as "Intersystem connections":
– **ESP** (fitted depending on vehicle equipment level).
– Passenger Compartment Control Unit (**UCH**).
– Gearbox Computer: **BVR** sequential gearbox (if fitted to the vehicle).
– Instrument panel.
– Airbag.
– **ABS** (if fitted to the vehicle).
– Rev counter instrument.
– Air conditioning.

Engine immobiliser

The **SIM 32** computer manages an engine immobiliser program:
– The Verlog 4 type immobiliser function is managed by the UCH computer and the engine management computer.
Before any customer request, the engine management computer and UCH exchange authentication frames via the multiplex network to determine whether or not to start the engine.
After more than five consecutive failed authentication attempts, the engine management computer goes into protection (antiscanning) mode and no longer tries to authenticate the UCH. The engine management computer only exits this mode if the following sequence of operations is respected:
– the ignition is left on for at least **60 seconds**,
– the signal is cut off,
– the injection computer self-feed deactivates when it should (the time varies according to engine coolant temperature.

Following this sequence of operations, a single authentication attempt is authorised. If this fails again, repeat the sequence of operations described above.
If the engine management computer still fails to unlock, contact the Techline.

Impact detected

If an impact has been stored by the injection computer (**ET077 Impact detected**), switch off the ignition for 10 seconds, then switch it back on so that the engine can be started. Then clear the faults using command **RZ001 Fault memory**.

Fuel supply

Fuel is supplied by the fuel pump. It is controlled each time the ignition is switched on, for 1 second, to provide a certain pressure level in the circuit, and thereby achieve correct engine starting, particularly if the vehicle has not been used for a long time. When the engine is running, the fuel pump relay is always controlled.

Injection

The injectors are controlled according to several modes. In particular, the engine is started in semi-full group mode (injectors 1 and 4, then injectors 2 and 3 simultaneously), to ensure a correct start whether or not it is correctly phased, then it enters sequential mode.

It can sometimes, though rarely, happen that the engine starts when incorrectly phased.
Then, after it has changed to sequential injection mode and as long as the cylinder 1 recognition program has not taken place, the injectors are offset by two cylinders: injection occurs in the order 4-2-1-3 instead of the expected order 1-3-4-2.

Injection timing is continuously calculated. It can be zero in the event of cut-off whilst decelerating or overrevving for example.

Air supply

The idle speed regulator performs all of the calculations that allow the idle speed actuator, the motorised throttle, to be controlled physically. The functional component of the regulator is adaptive (variation programming and ageing).

If the idle speed regulation conditions are met, the status **ET054 Idle speed regulation** is "Active", and the idle speed regulator continually positions the motorised throttle to maintain the engine speed at its idle reference value. The motorised throttle opening ratio necessary to comply with the speed setpoint is then given by parameter **PR091 Idle speed regulation theoretical OCR***.

The **PR090 Idle speed regulation programming value** is a stored parameter designed to program engine variations and engine wear and tear for the idle speed regulator. The programming is carried out only when the engine is idle and warm, and no electrical consumer (air conditioning, fan assembly, power assisted steering) is operating. Therefore it adjusts slowly.

Idle speed

The idle speed setpoint is dependent on:
– the coolant temperature,
– the emission control programs,
– air conditioning requirements,
– the position of the gear lever,
– any power-assisted steering operation,
– the passenger compartment heating resistors,
– the oil temperature (engine protection),
– the electric power balance (engine speed is increased by **160 rpm** maximum if the battery voltage remains below **12.7 V**).

Ignition

Advance is calculated for each cylinder, and is limited between **- 23**˚ to **+ 72**˚, and includes possible corrections due to pinking.
Anti-pinking correction is the maximum advance value taken from the advance of one of the cylinders. If none of the cylinders is pinking, this correction is zero.

Richness

For the catalytic converter to operate correctly, adjust around richness 1.

The richness regulation controlled by the upstream sensor which ensures a richness of around 1.
The upstream sensor supplies a voltage according to the image of the average engine richness: the voltage supplied to the computer represents a Rich-Lean signal.

For the upstream sensor to be operational very rapidly, it is heated. The heating works only when the engine is running. It is deactivated at speeds above 84 mph (**140 km/h**) or when the engine is under load.

The downstream sensor is also heated. The command does not activate immediately after starting the engine. It is activated when the engine is running and has reached its operating temperature. The downstream heating sensor is deactivated at speeds above 84 mph (**140 km/h**) or when the engine is under load.

Torque management

The torque structure is the system for managing engine torque. The torque structure is required for certain functions such as the electronic stability program (ESP) or sequential gearbox (BVR).
Each computer (ESP, BVR) sends a request for torque via the multiplex network to the injection computer. This intervenes between the torque requests received and the driver's requests (made via the pedal or the cruise control/ speed limiter function). The result of this intervention is the torque setpoint to be applied. Using the torque reference value, the structure calculates the throttle position reference value and the ignition advance and if the turbocharging function is present, calculates the turbocharging solenoid valve reference value.

Engine coolant temperature management

Engine cooling is performed by one or two fan assemblies (depending on the vehicle equipment). The injection computer requests the UCH to actuate them via the multiplex network.

To provide cooling when the engine is running, activation of fan assembly 1 is requested if the coolant temperature exceeds **99˚C** and is deactivated when the temperature drops below **96˚C**.
Fan unit 2 starts when the coolant temperature exceeds **102˚C** and stops when it falls below **99˚C**.

With the engine off, only GMV1 may be activated to provide the anti-percolation function (if engine is stopped when very hot). The anti-percolation function is active with the ignition off for a determined period. During this time, fan assembly 1 is activated if the coolant temperature exceeds **100˚C** and is deactivated when the temperature drops below **95˚C**.

If the engine temperature exceeds the warning threshold of **118˚C**, the injection computer directly commands the coolant temperature warning light to illuminate or requests this action from the instrument panel computer via the multiplex network, until the coolant temperature drops back below **115˚C**.

As well as managing the engine, the injection computer handles cooling requirements for the air conditioning and sequential gearbox functions.

Air conditioning function

The **SIM32** computer manages a "Cold Loop" type air conditioning system:
– request for air conditioning by logical link,
– acquisition of pressure in the air conditioning circuit,
– vehicle speed
– air conditioning compressor control,
– fan unit control for the requirements of this function.

The injection computer reconstitutes the power absorbed by the air conditioning compressor and fast idle speed requests by using the pressure acquired in the air conditioning circuit.
These signals are necessary for adapting the engine management (idling speed regulation, air flow correction, etc.), for several reasons:
– air conditioning compressor efficiency,
– more engine ruggedness due to torque hesitation caused by the compressor clutching and declutching,
– helping the alternator.

Fan unit 1 and/or 2 requests are reconstituted according to the pressure in the air conditioning circuit and the vehicle speed. In summary, there are more fan unit requests when the speed is low and the pressure is high.

OCS - Customised Oil Change Interval (does not concern **Vdiag 44** and **4C**).

This program takes into account the driving style of the user to warn him of the need for an oil service. It counts the number of revs per minute since the last oil service, corrected by a factor dependent on the oil temperature. When this number of revs per minute exceeds a certain threshold, the customer is alerted by a message on the instrument panel informing him that an oil service is required.
After the oil service, the user must reset the oil service interval on the instrument panel.
To find out if the engine concerned uses this programming, consult **ET840 Customised Oil Change Interval**.

OBD

The **OBD** programs are as follows:
– catalytic converter fault finding,
– upstream sensor operational fault finding,
– misfire fault finding,
– fuel supply system fault finding.

The misfiring and fuel supply system fault finding is performed continuously. The operational fault finding for the upstream sensor and the catalytic converter can be only be carried out once per journey, and can never take place at the same time.

OBD fault manager:

The **European On Board Diagnostic (EOBD)** fault manager neither replaces nor modifies the conventional management of electrical faults. It is an additional feature to satisfy the **EOBD*** standard. The requirements are:
– to store **EOBD*** faults,
– to store the engine context when the **EOBD*** stored fault is detected,
– to illuminate the **OBD** warning light for all faults that cause the **EOBD*** emissions thresholds to be exceeded,
– to make the **OBD** warning light flash for all combustion misfire faults that damage the catalytic converter.

*EOBD:
* OCR:

1. OPERATING SAFETY

Activation of the warning lights

The **SIM32** injection system manages the illumination of three warning lights according to the severity of the faults detected, to inform the customer and to assist with fault finding.
The injection computer manages the activation of the warning lights on the instrument panel. These warning lights illuminate during the starting phase and in the event of an injection fault or engine overheating.
The warning light activation commands are sent to the instrument panel.

Warning light illumination principle

When the ignition is switched on, the **OBD** (**On Board Diagnostic**) warning light is illuminated for approximately **3 seconds** and is then extinguished.
If there is an injection fault (severity level 1), the **SERVICE** warning light is illuminated.
It indicates a reduced level of operation and a limited safety level.
The user must carry out repairs as soon as possible:
– motorised throttle valve,
– accelerator pedal potentiometer,
– inlet manifold pressure sensor,
– computer,
– actuator feed,
– the computer power supply,
– turbocharger pressure sensor (for D4FT 780).

For faults requiring the driver to stop the engine quickly, the **severity level 2** warning light is illuminated.

If a fault causing excessive exhaust gas pollution is detected, **the orange OBD warning light** engine symbol is illuminated:
– **the light flashes** if the fault could lead to a risk of destroying catalytic converter (destructive engine misfire). If this happens, the vehicle must be stopped immediately.
– **the light is permanently illuminated** if the emission control standards are not met (pollutant engine misfire, catalytic converter fault, oxygen sensor fault, inconsistency between the oxygen sensors and a fuel vapour absorber fault).

Mileage travelled with fault

The parameter **PR106 Mileage counter fault warning light illuminated** displays the mileage covered and illuminates one of the injection fault warning lights: fault severity level 1 (amber) and 2 (red). The parameter **PR105 Mileage counter OBD fault warning light illuminated** displays the mileage covered and illuminates the **OBD** warning light.
This counter is reset to **0** using the **diagnostic tool** via the command **RZ001 Fault memory**.

3. INTERSYSTEM ENGINE FUNCTIONS

The intersystem connections relating to the particular requirements of the injection are as follows:
– The instrument panel computer requests illumination of the **OBD** warning light to warn of an emissions control fault.
– Requests illumination of the **Severity level 1** warning light to warn of an operational safety fault related to the injection system.
– Requests illumination of the **Severity level 2** warning light to warn of an operational safety fault or engine overheating.
– Requests activation of the fan assemblies (**GMV**) for engine cooling, but also for the air conditioning system and sequential gearbox (**BVR**) functions.
– Request for air conditioning compressor switch-off for engine programming requirements such as starting, performance, anti-stall, overspeed, etc.
– Passenger Compartment Heating Resistor cut-off or setting request for engine programming requirements such as starting, performance, anti-stall, overspeed, etc.
– Request for gradual engagement of electrical consumers and to limit power: This last function is made possible by the alternator being operated. This is used to improve the engine handling in critical operating phases, mainly when idling and when starting. These requests are sent by the **UCH** via the **CAN** network where they are converted before being sent to the alternator.

Injection computer:
The injection computer manages the entire system.
Its role is to define the engine optimum operating mode and to inform the driver (via the instrument panel, information display, and buzzer) and to communicate with the other computers.

Fuel vapour recirculation solenoid valve:
The fuel vapour absorber works like a "sponge" for petrol vapours and enables gases coming from the tank to be collected.

Upstream oxygen sensor:
This sensor measures the amount of oxygen in the exhaust gas.
The voltage supplied to the computer by the sensor indicates the amount of oxygen in the exhaust gas - a rich mixture or a lean mixture - and a program is adopted accordingly.

Downstream oxygen sensor:
This sensor measures the amount of oxygen in the exhaust gas.
The voltage supplied to the computer by the sensor indicates the amount of oxygen in the exhaust gas - a rich mixture or a lean mixture - and a program is adopted accordingly.

Pinking sensor:
The sensor detects engine knocking and sends its electrical signal to the injection computer.

Oil pressure sensor:
This sensor measures the engine oil pressure.

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

Turbocharger pressure sensor:
This sensor indicates the pressure at the turbocharger air cooler outlet before the damper valve.

Ignition coil:
This acts both as an energy storage battery and a transformer. It generates high voltage ignition pulses and the energy required to ignite the mixture.

Motorised throttle valve:
The motorised throttle valve supplies the engine with varying mixtures of fuel and air according to the load required.
This electronic control detects the position of the accelerator using a sensor (potentiometer) to inject the mixture.

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

Refrigerant pressure sensor:
Its role is to measure the refrigerant pressure in the air conditioning circuit.

Engine coolant temperature sensor:
The engine coolant temperature sensor informs the computer of the engine coolant temperature.

Air temperature sensor:
The air temperature sensor is fitted inside the inlet manifold and informs the computer of the temperature of the air taken in by the engine.

Catalytic converter:
The role of the catalytic converter is to convert pollutant gases into harmless gases.

Cruise control/speed limiter on/off switch:
This switch is used to turn the cruise control/speed limiter on or off.

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

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

Clutch pedal switch:
The clutch pedal switch informs the computer of the clutch pedal status.

Inlet air temperature sensor:
Its role is to measure the air temperature in the inlet circuit.

Pinking sensor:
Its role is to check for pinking in the combustion chamber.

Oil level sensor:
This sensor measures the level of oil in the engine and sends this information to the computer.

Defect modes

Motorised throttle valve

In defect mode, the motorised throttle valve can assume six different statuses.

Note:
This defect mode is an effect which occurs due to a fault, but does not necessarily originate from the throttle valve itself.

ET564 Defect mode type 1
This type groups together the faults that prevent the throttle from being controlled.
It causes the throttle control to be stopped: the throttle is in its **safe** position. By depressing the pedal, it is possible to modulate the torque by cylinder cut-off and advance in order to keep the vehicle running.
The ESP, cruise control/speed limiter and automatic/sequential gearbox systems change to "defect mode". This defect mode is always accompanied by the **Type 2 defect mode**.

ET565 Defect mode type 2
This type groups together the faults preventing the system from controlling the air flow modulation.
The associated defect mode limits engine speed by cutting off the injection (limiting engine speed to **2400 rpm** at idle speed and to **3500 rpm** in other gears).

ET566 Defect mode type 3
This type groups together faults allowing you to deduce that the system has lost the accelerator pedal signal, but still controls the air flow modulation (motorised throttle servo operational). Defect mode is associated with a constant pedal setpoint for each gear ratio. The vehicle speed can vary by changing gear.
Suggested speeds on a flat road:
– **12 mph (20 km/h)** max **in 1 - st,**
– **21 mph (35 km/h)** max **in 2 - nd,**
– **27 mph (45 km/h)** max **in 3 - rd,**
– **39 mph (65 km/h)** max **in 4 - th,**
– below **54 mph (90 km/h)** in **5 - th** and **6 - th.**

ET567 Defect mode type 4
This type covers faults that affect the motorised throttle valve monitoring system, the pedal and the turbocharging circuit (for **D4FT 780**) or for faults for which there is a viable safety operating mode for the system.
The associated defect mode is a limitation of the throttle opening according to the engine speed. This results in the speed being limited to below **66 mph (110 km/h)** in **5 - th** and **6 - th gear** and giving the impression of a "soft" accelerator pedal.

ET568 Defect mode type 5
This type covers faults that affect the atmospheric pressure, the turbo pressure, monitoring of the torque structure and the turbocharging system (for **D4FT 780**).
Its effect is to go into pedal feedback mode instead of the permanent torque structure. The **ESP** and cruise control/ speed limiter systems are deactivated. The **sequential gearbox (BVR)** enters safe mode. The engine management no longer accepts requests from the gearbox, and sends torque values by default to the multiplex network.

ET569 Defect mode type 6
This type covers faults affecting control of the wastegate on turbocharged vehicles (for **D4FT 780**).
Defect mode enables the engine to operate as **a naturally aspirated engine**. The wastegate is no longer controlled and opens freely. The vehicle operates without turbocharging: with the loss of the turbocharger effects (brisk engine performance, acceleration, take-up, etc.); operation as a naturally aspirated engine.
Entry into defect modes type 1 to 5 always leads to compulsory application of type 6 defect mode on turbocharged versions*.

Defect modes (continued)

	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
DF004: Turbocharging pressure sensor circuit					**1.DEF** **2.DEF** **3.DEF**	**1.DEF** **2.DEF** **3.DEF**
DF011: Sensor supply voltage no.1				**CC.1** **CC.0**	**CC.1** **CC.0**	
DF012: Sensor supply voltage no.2	**CC.1** **CC.0**	**CC.1** **CC.0**				
DF038: Computer	**1.DEF**	**1.DEF**	**1.DEF**	**1.DEF**	**1.DEF**	
DF046: Battery voltage	**1.DEF** (undervoltage)	**1.DEF** (undervoltage)				
DF054: Turbocharging solenoid valve control circuit						**CO/ CC.0** **CC.1/1.DEF**
DF079: Motorised throttle valve servo system	**2.DEF** **6.DEF**	**2.DEF** **6.DEF**		**3.DEF** **4.DEF**		
DF089: Inlet manifold pressure sensor circuit					**CO** **CC.1** **CC.0**	
DF095: Throttle potentiometer circuit gang 1				**CO CC.1** **CC.0** **1.DEF** **2.DEF**		
DF096: Throttle potentiometer circuit gang 2				**CO** **CC.1** **CC.0**		
DF196: Pedal sensor circuit gang 1			**CC.1** **CC.0**	**CC.1** **CC.0** **1.DEF**		
DF198: Pedal sensor circuit gang 2			**CC.1** **CC.0**	**CC.1** **CC.0**		
DF508: Motorised throttle control	**CC.1** **CC.0**	**CC.1** **CC.0**				
DF569: Turbocharging circuit				**1.DEF** **2.DEF** **3.DEF**	**1.DEF** **2.DEF** **3.DEF**	**1.DEF** **2.DEF** **3.DEF**

1. COMPUTER REPLACEMENT OR REPROGRAMMING OPERATIONS

Computer replacement or reprogramming for engines with the OCS (customised oil change interval) function.

Only in **Vdiag 54 and certain engines in Vdiag 50**:
For **Vdiag 50**, the procedure below should be followed only if **ET840 Customised Oil Change Interval** is **ACTIVE**.

Certain variables linked to the O.C.S and the details of the last four oil services are saved by the computer. However, all data saved is cleared during a reprogramming operation. When replacing or reprogramming the computer, it is necessary to save the data from the old computer so it can be written to the new computer (or reprogrammed). To do this before changing (or reprogramming) the computer, it is necessary to run the request **SC003 Save computer data**, and after it has been changed (or reprogrammed), it is necessary to run the request **SC001 Write saved data**.

For Vdiag 50, if ET840 Customised Oil Change Interval is INACTIVE, commands SC001 and SC003 should not be used.

For **Vdiag 44** and **4C**, commands **SC001** and **SC003** are not accessible.

Operations to check before reprogramming the injection computer:
Before reprogramming the injection computer, move the main Cruise control/Speed limiter switch to the rest position. The information about the cruise control or the speed limiter displayed on the instrument panel disappears.
Otherwise, if the main switch remains in the cruise control or speed limiter position during and after reprogramming, the Cruise control/Speed limiter function will not be operational.
The procedure for resetting the function is as follows:
Ignition switched on and main switch in rest position (the computer detects rest position at that moment).
Switch in Cruise control position to activate the Cruise control function.
Switch in Speed limiter position to activate the Speed limiter function.

The system can be programmed via the diagnostic socket using the **RENAULT CLIP diagnostic tool** (refer to **Technical Note 3585A, COMPUTER PROGRAMMING AND REPROGRAMMING PROCEDURE or follow the instructions given by the diagnostic tool**).

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

PROCEDURE:

Before any computer programming, only **Vdiag 54 and 50 (see previous page):**

– Run the command **SC003 'Save computer data.**

Any time the computer has been programmed

– Switch the ignition off and then on again.
– Select the UCH domain using the diagnostic tool.
– In repair mode, run the command SC017 "Programming the injection immobiliser code" and follow the instructions given by the diagnostic tool.
– Switch the ignition off and then on again.
– Select the INJECTION subgroup and check status ET341 Immobiliser code programmed.
– Run the command SC001 "Write saved data" Vdiag 54 only.

IF ET341 = YES

– Start and then stop the engine (to initialise the computer) and wait 30 seconds.
– Switch the ignition back on and use the diagnostic tool to carry out the following steps:
– Run the command VP010 Write VIN.
– After injection system programming, stored faults may appear on other computers. Clear the memory of these computers.

IF ET341: NO

– Re-run command SC017 and follow the instructions given by the diagnostic tool.

IMPORTANT:
AFTER A PROGRAMMING OPERATION, DO NOT DISCONNECT THE BATTERY FOR AT LEAST 30 MINUTES (to carry out other work on the vehicle).

2. COMPUTER REPROGRAMMING OPERATIONS

When replacing or removing the TDC sensor, program the engine flywheel ring (see **Configurations and programming**).

3. REPLACING THE MOTORISED THROTTLE VALVE

When replacing the throttle valve, program the throttle stops (see **Configurations and programming**).

4. REPLACING THE MOTORISED THROTTLE VALVE

When replacing the throttle valve, program the throttle stops (see **Configurations and programming**).

IMPORTANT:
Never drive the vehicle without having programmed the throttle stops.

1. Configuration

Computer configuration by automatic detection.
The computer automatically configures itself according to the sensors present and vehicle options it detects.

Configuration reading	Description
LC009	**Air conditioning** With None
LC010	**Electronic stability program** With None
LC005	**Gearbox type** Sequential Manual Automatic
LC003	**Upstream oxygen sensor** With None
LC004	**Downstream oxygen sensor** With None
LC001	**Vehicle speed connection type** Multiplex Wire
LC024	**OBD warning light management** With None
LC120	**Cruise control** With None
LC121	**Speed limiter** With None
LC021	**Catalytic converter diag. OBD sequencer** With None
LC023	**Sensor diag. OBD sequencer** With None

Configuration reading	Description
LC158	**Air conditioning heating resistor management** With None
LC008 (for **CLIO III or MODUS** only)	**Camshaft dephaser** With None
LC162 (for **CLIO III or MODUS** only)	**Controlled coolant thermostat** With None

2. PROGRAMMING

Flywheel target programming
(To be carried out when replacing or removing the TDC sensor).
The coolant temperature must be over **35˚C**.
– Carry out an initial deceleration with injection cut-off (feet off the brake, accelerator and clutch pedals) between **3500** and **3000 rpm**, in 3rd gear for at least **5 seconds** for manual gearboxes.
– Decelerate a second time with injection cut-off (feet off the brake, accelerator and clutch pedals) between **2400** and **2000 rpm**, in 3rd gear for at least **5 seconds** for manual gearboxes.

Check the programming with **ET089 Programming flywheel target: Performed**.

Programming the throttle end stops

After replacement of the computer or the motorised throttle valve, with the ignition on, wait **30 seconds** so that the computer can program the Upper and Lower limits and then switch off the ignition and wait 30 seconds for the end of the "Power Latch", so that the computer can store the programmed limits. Check the programming with **ET051 Programming throttle stops: Performed**.

Note:
After replacement of the throttle valve run the command **RZ005 Programming** to erase any recorded programming.

Programming the alcohol level (only for **vehicles running on Ethanol or E85 fuel)**

Fuel recognition is carried out by observing the drift of the richness controller.
This can only be performed if the mixture regulation is looped **(ET300 Mixture regulation)**.
Programming procedure:
– start the engine,
– wait for the engine coolant temperature to reach 75˚C and then check using the parameter PR064 "Coolant temperature",
– run the engine at 1500 rpm for a period of at least 5 minutes,
– check that the programming has been carried out using status ET671 Alcohol level programming and parameter PR743 Estimated alcohol level in tank,
– the programming is saved when the ignition is switched off.

Note:
When the injection computer has not recognised the fuel composition, operation is **faulty**.

Tool fault	Associated DTC	Diagnostic tool title
DF001	**115**	Coolant temperature sensor circuit
DF002	**110**	Air temperature sensor circuit
DF004	**235**	Turbocharger pressure sensor circuit (**Vdiag 54** only)
DF011	**641**	Sensor supply voltage no. 1
DF012	**651**	Sensor feed voltage no. 2
DF026	**201**	Cylinder 1 injector control circuit
DF027	**202**	Cylinder 2 injector control circuit
DF028	**203**	Cylinder 3 injector control circuit
DF029	**204**	Cylinder 4 injector control circuit
DF038	**606**	Computer
DF046	**560**	Battery voltage
DF054	**243**	Turbocharger solenoid valve control circuit (**Vdiag 54** only)
DF059	**301**	Misfiring on cylinder 1
DF060	**302**	Misfiring on cylinder 2
DF061	**303**	Misfiring on cylinder 3
DF062	**304**	Misfiring on cylinder 4
DF079	**638**	Motorised throttle valve automatic control
DF080	**10**	Camshaft dephaser circuit (**Vdiag 4C/50** only)
DF081	**443**	Canister bleed solenoid valve circuit
DF082	**135**	Upstream oxygen sensor heating circuit
DF083	**141**	Downstream oxygen sensor heating circuit
DF084	**685**	Actuator relay control circuit
DF085	**627**	Fuel pump relay control circuit

Tool fault	Associated DTC	Diagnostic tool title
DF089	**105**	Inlet manifold pressure sensor circuit
DF091	**500**	Vehicle speed signal
DF092	**130**	Upstream oxygen sensor circuit
DF093	**136**	Downstream oxygen sensor circuit
DF095	**120**	Throttle potentiometer circuit gang1
DF096	**220**	Throttle potentiometer circuit gang 2
DF099	**C101**	Automatic gearbox (BVA) or sequential gearbox (BVR) connection via multiplex network
DF100	**C155**	TDB* multiplex connection
DF101	**C122**	ESP multiplex connection
DF102	**2502**	Signal: power sig.* available
DF106	**575**	Cruise control/Speed limiter selector switch on steering wheel
DF109	**313**	Low fuel level misfiring
DF119	**340**	Camshaft sensor signal (only **for CLIO III or MODUS**)
DF126	**1604**	Passenger compartment heating resistor (only **for CLIO III or MODUS**)
DF127	**703**	Brake switch no. 1 circuit
DF128	**571**	Brake switch 2 circuit
DF150	**830**	Clutch contact circuit
DF154	**335**	Flywheel signal sensor circuit
DF196	**225**	Pedal sensor circuit track 1
DF198	**2120**	Pedal sensor circuit track 2
DF228	**504**	Brake signal
DF232	**530**	Refrigerant pressure sensor circuit
DF234	**1335**	After-sales tooth signal sensor circuit

* TA: Automatic Transmission
* TDB: Instrument panel

Tool fault	Associated DTC	Diagnostic tool title
DF330	**325**	Pinking sensor circuit
DF361	**351**	Ignition coil circuit 1-4
DF362	**352**	Ignition coil 2-3 circuit
DF394	**420**	Catalytic converter operating fault
DF398	**170**	Fuel circuit operating fault
DF404	**C302**	ATX* or sequential gearbox multiplex connection
DF436	**300**	Detection of engine misfiring
DF455	**460**	Low fuel level signal
DF457	**315**	Flywheel target
DF508	**2101**	Motorised throttle valve control
DF559	**480**	Low speed fan assembly relay control
DF561	**481**	High-speed fan assembly relay control
DF569	**2263**	Turbocharger circuit (**Vdiag 54** only)
DF603	**C167**	UCH multiplex connection
DF612	**1605**	Oil vapour anti-icing resistor circuit
DF623	**C315**	Closing brake signal
DF624	**C111**	UPC multiplex connection
DF650	**2299**	Accelerator pedal position signal
DF893	**0597**	Controlled coolant thermostat circuit (only for **CLIO III or MODUS** except **Vdiag 44**)
DF1012	**585**	Multiplex signal consistency for RV/LV*
DF1058	**234**	Inlet pressure consistency (only for **CLIO III or MODUS**)
DF1072	**645**	Air conditioning compressor command relay (only for **CLIO III or MODUS**)

* TA: Automatic Transmission
* RV/LV: Cruise control/Speed limiter function

DF001 PRESENT OR STORED	COOLANT TEMPERATURE SENSOR CIRCUIT 1.DEF: signal incoherence 2.DEF: abnormal voltage 3.DEF: EOBD*

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present when the ignition is switched on.
	Special notes: If the fault is present, the EOBD* warning light is illuminated and the low speed engine cooling fan is permanently activated. **1.DEF**: Consult the parameter **PR064 Coolant temperature**: If the tool displays **120˚C**, this indicates a short circuit to **12V** or an open circuit. If the tool displays **- 40˚C**, this indicates a short circuit to earth.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the connector of the coolant temperature sensor (component code **244**) and of the engine management 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, otherwise replace the wiring.

Measure the **resistance** of the coolant temperature sensor, component code **244** between the connections **3C** and **3JK**:
- at **10˚C: 12030 Ω < X < 12890 Ω**,
- at **25˚C: 2195 Ω < X < 2309 Ω**,
- at **50˚C: 795.5 Ω < X < 826.5 Ω**,
- at **80˚C: 279.3 Ω < X < 286.7 Ω**.

If the coolant temperature sensor resistances are not correct, replace the coolant temperature sensor.

Check the **insulation** and **continuity** of the following connections:
- **3C** between components **120** and **244**,
- **3JK** between the components **120** and **244**.

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

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

* EOBD: European On Board Diagnostics

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

SIM32_V44_DF001/SIM32_V4C_DF001/SIM32_V50_DF001/SIM32_V54_DF001

DF002 PRESENT OR STORED	AIR TEMPERATURE SENSOR CIRCUIT 1.DEF: Abnormal voltage 2.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared **present**, with the ignition on.
	Special notes: The OBD warning light is lit. Consult the parameters **PR059 Air inlet temperature:** If the tool displays **120˚C**, this indicates a short circuit to 12V or an open circuit. If the tool displays **- 40˚C**, this indicates a short circuit to earth.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

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

Measure the **resistance** of the air temperature sensor, component code **272** between connections **3B** and **3JQ**:
- at **25˚C: 1928 Ω < X < 2174 Ω**,
- at **50˚C: 763 Ω < X < 857 Ω**.

If the air temperature sensor resistances are not correct, replace the air temperature sensor.

Check the **insulation** and **continuity** of the following connections:
- **3B** between components **120** and **272**,
- **3JQ** between the components **120** and **272**.

If the connection or connections are 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 other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

SIM32_V44_DF002/SIM32_V4C_DF002/SIM32_V50_DF002/SIM32_V54_DF002

Only Vdiag 54.

DF004 PRESENT OR STORED	TURBOCHARGING PRESSURE SENSOR CIRCUIT 1.DEF: Voltage outside permitted range of values 2.DEF: Data inconsistency 3.DEF: EOBD

NOTES	**Priority when dealing with a number of faults:** Deal with fault **DF012 Sensor supply voltage no. 2 as a priority if it is present or stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared **present** after the ignition is switched on or after the engine has been running at an engine speed above **600 rpm**.
	Special notes: – illumination of the **OBD** warning light, – Throttle valve defect mode types **5** and **6**.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the cleanliness, condition, and fitting of the turbocharging pressure sensor (component code **1071**).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, manipulate the wiring harness in order to note a change in fault status (**present → stored**).
Look for possible damage to the wiring harness.
Check the condition of the engine management 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.

Check for **+ 5V** on connection **3LQ** and for an **earth** on connection **3LN** of the turbocharger pressure sensor, component code **1071**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
Contact the Techline if it is not correct.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

SIM32_V54_DF004

DF004 CONTINUED	

If the fault is still present, disconnect the battery and the injection computer.
Check the **insulation, continuity** and the **absence of interference resistance** of the following connections:
- **3LQ** between the components **120** and **1071**,
- **3LN** between the components **120** and **1071**,
- **3LP** between the components **120** and **1071**.

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

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

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF011 PRESENT OR STORED	SENSOR SUPPLY VOLTAGE NO. 1 1.DEF: Abnormal voltage 2.DEF: Fault on potentiometer supply 1 3.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Deal with the fault **DF084 Actuator relay control circuit** or **DF046 Battery voltage** as a priority if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present when the ignition is switched on.
	Special notes: In the event of a short circuit to earth or to **+ 12V**, the **severity level 1** warning light is illuminated. The injection changes over to defect modes **4** and **5**, which causes: – the speed to be limited to **66 mph (110 km/h)**, – a loss of power when accelerating (impression that the accelerator pedal is spongy), – loss of signals from other computers and switch to safe mode on automatic and sequential gearboxes, if required. The **OBD** warning light may illuminate, depending on the sensors affected.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check **the cleanliness** and **condition** of the sensor connections for supply voltage assembly No.1:
– manifold pressure sensor, component code **147**,
– pedal potentiometer (gang 2), component code **921**,
– rotary switch, component code **689**,
– refrigerant fluid pressure sensor, component code **1202**.
Check the condition of the engine management computer connector, component code **120**.
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

SIM32_V44_DF011/SIM32_V4C_DF011/SIM32_V50_DF011/SIM32_V54_DF011

DF011 CONTINUED	

Check the **insulation** and the **continuity** of the following connections:
- **3LU** between the components **120** and **921**,
- **3PD** between the components **120** and **1081**,
- **86M** between the components **120** and **689**,
- **3LG** between the 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.

– Disconnect the connector for the accelerator pedal potentiometer, component code **921** and check, with the ignition on, that there is a voltage of **5 V** on connection **3LR**.
– Disconnect the connector for the motorised throttle unit, component code **1076** and check, with the ignition on, that there is a voltage of **5V** on the connection **3MN**.

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

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF012 PRESENT OR STORED	SENSOR SUPPLY VOLTAGE No. 2 1.DEF: Abnormal voltage 2.DEF: Fault on potentiometer supply 2 3.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared **present**, with the ignition on.
	Special notes: In the event of a short circuit to **earth** or to **+ 12V**, the **severity level 1** warning light illuminates. The injection enters defect mode **1** and **2**, causing the vehicle and engine speed to be limited. The ESP and the cruise control/speed limiter are deactivated.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check **the cleanliness** and **condition** of the sensor connections for supply voltage assembly No. 2:
– pedal potentiometer (gang 1), component code **921**.
Check the **condition** of the engine management 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.

Check the **insulation** and **continuity** of the following connections:
- **3LR** between the components **120** and **921**,
- **3MN** between the 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.

AFTER REPAIR	Follow the instructions to confirm repair: If the fault is **present**, continue to deal with the fault. If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF012/SIM32_V4C_DF012/SIM32_V50_DF012/SIM32_V54_DF012

DF012 CONTINUED	

– Disconnect the connector for the accelerator pedal potentiometer, component code **921** and check, with the ignition on, that there is a voltage of **5 V** on connection **3LR**.

– Disconnect the connector for the motorised throttle unit, component code **1076** and check, with the ignition on, that there is a voltage of **5V** on the connection **3MN**.

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

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF026 PRESENT OR STORED	CYLINDER No. 1 INJECTOR CONTROL CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Deal with the fault **DF084 Actuator relay control circuit** or **DF046 Battery voltage** as a priority if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** when the engine is running.
	Special notes: **CO/CC.1**: No injection on cylinder 1. Greatly reduced performance. **OBD** warning light illuminated. **CC.0**: The injector is still open: there is a risk of the engine stalling or being damaged when starting. Greatly reduced performance. **OBD** warning light illuminated.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the injector no. 1 connector (component code **193**).
If the connector is faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

SIM32_V44_DF026/SIM32_V4C_DF026/SIM32_V50_DF026/SIM32_V54_DF026

DF026 CONTINUED 1	

Check, with the ignition switched on, that there is **+ 12V** on the connection **3FB** of the connector for the cylinder 1 injector.
If there is no **+ 12V**:

– Disconnect the battery.

For NEW TWINGO or E33:
– Disconnect the injection locking relay connector, component code **238**.
– Check the condition of the injection locking relay connector, component code **238**.

For Clio III and MODUS:
– Disconnect the white connector, reference **MN**, from the Protection and Switching Unit (UPC).
– Check the condition of the Protection and Switching Unit connector (component code **1337**).

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

Use the "Universal bornier" to check **the continuity** of the following connections:
● **3FB** between components **193** and **238** (for **NEW TWINGO or E33**),
● **3FB** between the components **193** and **1337** (for **CLIO III or MODUS**).
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF026 CONTINUED 2	

For NEW TWINGO or E33:
Reconnect the injection locking relay connector and reconnect the battery.
If there is still no **+ 12V** present on the connector for injector cylinder 1 with the ignition on, then there is a fault on the engine fuse and relay box.
Carry out a fault finding procedure on the engine fuse and relay box to check **the continuity** of the following connection:
- **BP17** between components **120** and **597**,
- **BP17** between components **1033** and **597**.

If the connection or connections are 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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

For Clio III and MODUS:
Reconnect the Protection and Switching Unit connector and reconnect the battery.
With the ignition on, if the **+ 12V** is still not present on the cylinder 1 injector connector, there is a fault in the Protection and Switching Unit (UPC).
Run fault finding on the UPC**,** component code **1337** (see **87G, Engine Compartment Connection Unit**).

Check the condition of the connector for the engine management computer (see **Wiring Diagram Technical Note for NEW TWINGO, E33, CLIO III or MODUS, 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.

Use the universal bornier to check the **insulation** and **continuity** of the following connection:
- **3CR** between the components **193** 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 it.

Measure the **resistance** of the cylinder 1 injector:
If the resistance of the cylinder 1 injector is not between:
11.4 Ω < X < 12.6 Ω at **20 °C**, replace the injector.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF027 PRESENT OR STORED	CYLINDER No. 2 INJECTOR CONTROL CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: EOBD

NOTES	Priorities when dealing with a number of faults: Deal with the fault **DF084 Actuator relay control circuit** or **DF046 Battery voltage** as a priority if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present with the engine running.
	Special notes: **CO/CC.1**: No injection on cylinder 2. Greatly reduced performance. **OBD** warning light illuminated. **CC.0**: The injector is still open: there is a risk of the engine stalling or being damaged when starting. Greatly reduced performance. **OBD** warning light illuminated.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the injector no. 2 connector (component code **194**).
If the connector is faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

SIM32_V44_DF027/SIM32_V4C_DF027/SIM32_V50_DF027/SIM32_V54_DF027

DF027 CONTINUED 1	

Check, with the ignition switched on, that there is **+ 12V** on the connection **3FB** of the connector for the cylinder 2 injector.
If there is no **+ 12 V**:

– Disconnect the battery.

For NEW TWINGO or E33:
– Disconnect the injection locking relay connector, component code **238**.
– Check the condition of the injection locking relay connector, component code **238**.

For Clio III and MODUS:
Disconnect the white connector, reference **MN**, from the Protection and Switching Unit (UPC).
Check the condition of the Protection and Switching Unit connector (component code **1337**).

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

Use the "Universal bornier" to check **the continuity** of the following connections:
● **3FB** between components **194** and **238** (for **NEW TWINGO or E33**),
● **3FB** between the components **194** and **1337** (for **CLIO III or MODUS**).
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF027 CONTINUED 2	

For NEW TWINGO:
Reconnect the injection locking relay connector and reconnect the battery.
If there is still no **+ 12V** present on the cylinder 2 injector connector with the ignition on, then there is a fault on the engine fuse and relay box.
Carry out a fault finding procedure on the engine fuse and relay box to check **the continuity** of the following connection:
- **BP17** between components **120** and **597**,
- **BP17** between components **1033** and **597**.

If the connection or connections are 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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

For Clio III and MODUS:
Reconnect the Protection and Switching Unit connector and reconnect the battery.
With the ignition on, if the **+ 12V** is still not present on the cylinder 2 injector connector, there is a fault with the Protection and Switching Unit (UPC).
Run fault finding on the UPC**,** component code **1337** (see **87G, Engine Compartment Connection Unit**).

Check the condition of the connector for the engine management computer (see **Wiring Diagram Technical Note for NEW TWINGO, E33, CLIO III or MODUS, 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.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF027 CONTINUED 3	

Use the universal bornier to check the **insulation** and **continuity** of the following connection:
- **3CS** between the components **194** 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 it.

Measure the **resistance** of the cylinder 2 injector:
If the resistance of the cylinder 2 injector is not between:
11.4 Ω < X < 12.6 Ω at **20 °C**, replace the injector.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF028 PRESENT OR STORED	CYLINDER No. 3 INJECTOR CONTROL CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Deal with the fault **DF084 Actuator relay control circuit** or **DF046 Battery voltage** as a priority if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared **present** with the engine running
	Special notes: **CO/CC.1**: No injection on cylinder 3. Greatly reduced performance. **OBD** warning light illuminated. **CC.0**: The injector is still open: there is a risk of the engine stalling or being damaged when starting. Greatly reduced performance. **OBD** warning light illuminated.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the injector no. 3 connector (component code **195**).
If the connector is faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

SIM32_V44_DF028/SIM32_V4C_DF028/SIM32_V50_DF028/SIM32_V54_DF028

DF028 CONTINUED 1	

Check, with the ignition switched on, that there is **+ 12V** on the connection **3FB** of the connector for the cylinder 3 injector.
If there is no **+ 12V**:

– Disconnect the battery.

For NEW TWINGO or E33:
Disconnect the injection locking relay connector, component code **238**.
Check the condition of the injection locking relay connector, component code **238**.

For Clio III and MODUS:
– Disconnect the white connector, reference **MN**, from the Protection and Switching Unit (UPC).
– Check the condition of the Protection and Switching Unit connector (component code **1337**).

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

Use the "Universal bornier" to check **the continuity** of the following connections:
● **3FB** between components **195** and **238** (for **NEW TWINGO or E33**),
● **3FB** between the components **195** and **1337** (for **CLIO III or MODUS**).
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF028 CONTINUED 2	

For NEW TWINGO or E33:
Reconnect the injection locking relay connector and reconnect the battery.
If there is still no **+ 12V** present on the connector for injector cylinder 3 with the ignition on, then there is a fault on the engine fuse and relay box.
Carry out a fault finding procedure on the engine fuse and relay box to check **the continuity** of the following connection:
- **BP17** between components **120** and **597**,
- **BP17** between components **1033** and **597**.

If the connection or connections are 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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

For Clio III and MODUS:
Reconnect the Protection and Switching Unit connector and reconnect the battery.
With the ignition on, if **+ 12V** is still not present on the cylinder 3 injector connector, there is a fault in the Protection and Switching Unit (UPC).
Run fault finding on the UPC**,** component code **1337** (see **87G, Engine Compartment Connection Unit**).

Check the condition of the connector for the engine management computer (see **Wiring Diagram Technical Note for NEW TWINGO, E33, CLIO III or MODUS, 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.

Use the "Universal bornier" to check the **insulation** and **continuity** of the following connection:
- **3CT** between the components **195** 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 it.

Measure the **resistance** of the cylinder 3 injector:
If the resistance of the cylinder 3 injector is not between:
11.4 Ω < X < 12.6 Ω at **20 °C**, replace the injector.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF029 PRESENT OR STORED	CYLINDER 4 INJECTOR CONTROL CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Deal with the fault **DF084 Actuator relay control circuit** or **DF046 Battery voltage** as a priority if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present with the engine running.
	Special notes: **CO/CC.1**: No injection on cylinder 4. Greatly reduced performance. **OBD** warning light illuminated. **CC.0**: The injector is still open: there is a risk of the engine stalling or being damaged when starting. Greatly reduced performance. **OBD** warning light illuminated.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the injector no. 4 connector (component code **196**).
If the connector is faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

SIM32_V44_DF029/SIM32_V4C_DF029/SIM32_V50_DF029/SIM32_V54_DF029

DF029 CONTINUED 1	

Check, with the ignition switched on, that there is **+ 12V** on the connection **3FB** of the connector for the cylinder 4 injector.
If there is no **+ 12 V**:

– Disconnect the battery.

For NEW TWINGO or E33:
– Disconnect the injection locking relay connector, component code **238**.
– Check the condition of the injection locking relay connector, component code **238**.

For Clio III and MODUS:
– Disconnect the white connector, reference **MN**, from the Protection and Switching Unit (UPC).
– Check the condition of the Protection and Switching Unit connector (component code **1337**).

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

Use the "Universal bornier" to check **the continuity** of the following connections:
● **3FB** between components **196** and **238** (for **NEW TWINGO or E33**),
● **3FB** between the components **196** and **1337** (for **CLIO III or MODUS**).
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF029 CONTINUED 2	

For NEW TWINGO or E33:
Reconnect the injection locking relay connector and reconnect the battery.
If there is still no **+ 12V** present on the connector for injector cylinder 4 with the ignition on, then there is a fault on the engine fuse and relay box**.**
Carry out a fault finding procedure on the engine fuse and relay box to check **the continuity** of the following connection:
- **BP17** between components **120** and **597**,
- **BP17** between components **1033** and **597**.

If the connection or connections are 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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

For Clio III and MODUS:
Reconnect the Protection and Switching Unit connector and reconnect the battery.
With the ignition on, if the **+ 12V** is still not present on the cylinder 4 injector connector, there is a fault in the Protection and Switching Unit (UPC).
Run fault finding on the UPC**,** component code **1337** (see **87G, Engine Compartment Connection Unit**).

Check the condition of the connector for the engine management computer (see **Wiring Diagram Technical Note for NEW TWINGO, E33, CLIO III or MODUS, 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.

Use the universal bornier to check the **insulation** and **continuity** of the following connection:
- **3CU** between the components **196** 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 it.

Measure the **resistance** of the injector, cylinder 4.
If the resistance of the cylinder 4 injector is not between:
11.4 Ω < X < 12.6 Ω at **20 °C**, replace the injector.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF038 PRESENT OR STORED	COMPUTER 1.DEF: Internal electronic fault 2.DEF: Pedal potentiometer fault 3.DEF: Torque error 4.DEF: EOBD 5. DEF: Downstream sensor current surge 6. DEF: Upstream sensor current surge

NOTES	**Special notes:** The injection goes into defect mode 1, 2, 3, 4, 5 or 6.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the engine management 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.
Make sure there is a supply to the injection computer:
Use the "Universal bornier" to check for a **12V** feed on the following connections:
- **AP, BP,** and **3FB** 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.

Check for the injection computer **earths**:
Use the Universal bornier to check for **earths** on the following connection:
- **N** of component **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 it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the stored faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**). Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

SIM32_V44_DF038/SIM32_V4C_DF038/SIM32_V50_DF038/SIM32_V54_DF038

DF046 PRESENT OR STORED	BATTERY VOLTAGE 1.DEF: Abnormal voltage

NOTES	**Priorities when dealing with a number of faults:** Deal with the fault **DF084 Actuator relay control circuit** as a priority if it is **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared **present**, if the engine is running and if: Battery voltage **< 7V** with an engine speed > **2000 rpm**, Battery voltage **> 16V** with an engine speed **< 480 rpm**.
	Special notes: The injection enters into defect mode **1** and **2** if the voltage is too low, causing the vehicle and engine speed to be limited. The ESP and the cruise control/speed limiter systems are deactivated.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the engine management computer connector (see 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.

For NEW TWINGO or E33:
Check the condition of the injection locking relay connector (component code **238**).
If the connector is faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

Use the "Universal bornier" to check the **insulation** and **continuity** of the following connections:
- **3AA** between the components **120** and **238**,
- **3FB** between the components **120** and **238**.

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

Carry out a fault finding procedure on the engine fuse and relay box to check **the continuity** of the following connection:
- **BP17** between the components **120** and **397**,
- **BP17** between the components **238** and **397**.

If the fault is still present, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

SIM32_V44_DF046/SIM32_V4C_DF046/SIM32_V50_DF046/SIM32_V54_DF046

DF046 CONTINUED	

For Clio III and MODUS:
Check the condition of the Protection and Switching Unit connector (see **Wiring Diagram Technical Note, CLIO III or MODUS, component code 1337**).
If the connector is faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

Use the "Universal bornier" to check the **insulation** and **continuity** of the following connections:
- **3AA** between the components **120** and **1337**,
- **3FB** between the components **120** and **1337**.

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

Run fault finding on the UPC**,** component code **1337** (the Protection and Switching Unit supplies the injection system).

– Clean the battery terminals and all connections connected to **+** and to **Earth.**
– Check the battery voltage.
– Check the charging circuit.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

Vdiag 54 only

DF054 PRESENT OR STORED	TURBOCHARGING SOLENOID VALVE CONTROL CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared **present** after the ignition is switched on or after the engine has been running at an engine speed above **600 rpm**.
	Special notes: – OBD warning light illuminated. – Throttle valve defect mode type 6.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the cleanliness, condition, and fitting of the turbocharging solenoid valve (component code **436**).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, manipulate the wiring harness in order to note a change in fault status (**present → stored**).
Check the condition of the engine management computer connector (component code **120**).
Look for possible damage to the wiring harness.
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 for **+12 V** on connection **3AHN** of the turbocharger solenoid valve, component code **436**.
If **+12 V** is not present, check the **insulation, continuity**, and the **absence of interference resistance** on connection:
● **3AHN** between components **120** and **436**.
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.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

SIM32_V54_DF054

DF054 CONTINUED	

If the fault is still present, disconnect the battery and the injection computer.
Check the **insulation, continuity**, and the **absence of interference resistance** on connection:
- **3AT** between components **120** and **436**.

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, measure the **resistance** of the turbocharging solenoid valve between connections **3AHN** and **3AT**.
If the **resistance** of the turbocharger solenoid valve is not between:
- **21.8 Ω < X < 24.2 Ω** at **23°C**, replace the solenoid valve.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the fault memory. Switch off the ignition, wait **1 minute** and carry out a road test followed by a check with **the diagnostic tool**.

DF059 PRESENT OR STORED	COMBUSTION MISFIRES ON CYLINDER 1 1.DEF: Destructive misfiring 2.DEF: Polluting misfiring 3.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Firstly, deal with the following faults: – ignition: – **DF361 Ignition coil circuit 1-4,** – **DF362 Ignition coil circuit 2-3** – fuel supply circuit: – **DF026 Cylinder 1 injector circuit** – **DF027 Cylinder 2 injector circuit,** – **DF028 Cylinder 3 injector circuit** – **DF029 Cylinder 4 injector circuit,** – **DF085 Fuel pump relay control circuit,** – engine flywheel signal faults: – **DF154 Flywheel signal sensor circuit,** – **DF457 Engine flywheel target.**
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** when the engine is running.
	Special notes: **1.DEF**: As soon as the fault is detected, the injection is cut for the faulty cylinder(s) to limit the rise in temperature inside the catalytic converter. The **OBD warning light** flashes for as long as the fault is present. **2.DEF and 3.DEF**: The **OBD warning light** is permanently illuminated.

Misfiring on cylinder 1 only	The fault is probably due to a component that can only affect this cylinder: – check the valve clearance, – check the cylinder 1 injector, – check the condition and the conformity of the spark plug for cylinder 1, – measure the compression of cylinder 1.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

SIM32_V44_DF059/SIM32_V4C_DF059/SIM32_V50_DF059/SIM32_V54_DF059

DF059 CONTINUED 1	
Combustion misfire on cylinders 1 and 4 (see DF059 Combustion misfire on cylinder 1 and DF062 Combustion misfire on cylinder 4)	The fault is probably due to a component that affects the torque of cylinders 1 and 4: – check the ignition coil circuit concerned (apply the interpretation of DF361 Ignition coil circuit 1-4), – check the condition and conformity of the spark plugs.
Combustion misfire on all four cylinders (see DF060 Combustion misfire on cylinder 2, DF061 Combustion misfire on cylinder 3, and DF062 Combustion misfire on cylinder 4).	The fault is probably due to a component affecting all the cylinders: – check that the correct fuel is being used, – check the condition and conformity of the spark plugs.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

DF059 CONTINUED 2	

If the fault is still **present**, carry out the following checks:
– check the flywheel sensor,
– check the condition and cleanliness of the flywheel target,
– check the flywheel signal sensor mounting,
– check the flywheel target/sensor gap,
– check the cylinder compressions,
– check the whole petrol supply circuit,
– check the whole ignition system.

If the fault is still present, contact the Techline.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

DF060 PRESENT OR STORED	MISFIRING ON CYLINDER 2 1.DEF: Destructive misfiring 2.DEF: Polluting misfiring 3.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Firstly, deal with the following faults: – ignition: – **DF361 Ignition coil circuit 1-4,** – **DF362 Ignition coil circuit 2-3** – fuel supply circuit: – **DF026 Cylinder 1 injector circuit** – **DF027 Cylinder 2 injector circuit,** – **DF028 Cylinder 3 injector circuit** – **DF029 Cylinder 4 injector circuit,** – **DF085 Fuel pump relay control circuit,** – engine flywheel signal faults: – **DF154 Flywheel signal sensor circuit,** – **DF457 Engine flywheel target.**
	Conditions for applying the fault finding procedure to stored faults. The fault is declared present with the engine running.
	Special notes: **1.DEF**: As soon as the fault is detected, the injection is cut for the faulty cylinder(s) to limit the rise in temperature inside the catalytic converter. The **OBD warning light** flashes for as long as the fault is present. **2.DEF and 3.DEF**: The **OBD warning light** is permanently illuminated.

Misfiring on cylinder 1 only	The fault is probably due to a component that can only affect this cylinder: – check the valve clearance, – check the cylinder 1 injector, – check the condition and the conformity of the spark plug for cylinder 1, – measure the compression of cylinder 1.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

SIM32_V44_DF060/SIM32_V4C_DF060/SIM32_V50_DF060/SIM32_V54_DF060

DF060 CONTINUED 1	

Combustion misfire on cylinders 2 and 3 (see DF060 Combustion misfire on cylinder 2 and DF061 Combustion misfire on cylinder 3)	The fault is probably due to a component that affects the torque of cylinders 2 and 3: – check the relevant ignition coil circuit (apply the interpretation of fault **DF362 Ignition coil circuit 2-3**), – check the condition and conformity of the spark plugs.
Misfiring on all four cylinders (see DF059 Misfiring on cylinder 1, DF061 Misfiring on cylinder 3, and DF062 Misfiring on cylinder 4).	The fault is probably due to a component affecting all the cylinders: – check that the correct fuel is being used, – check the condition and conformity of the spark plugs.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

DF060 CONTINUED 2	

If the fault is still **present**, carry out the following checks:
– check the flywheel sensor,
– check the condition and cleanliness of the flywheel target,
– check the flywheel signal sensor mounting,
– check the flywheel target/sensor gap,
– check the cylinder compressions,
– check the whole petrol supply circuit,
– check the whole ignition system.

If the fault is still present, contact the Techline.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

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

NOTES	**Priorities when dealing with a number of faults:** Firstly, deal with the following faults: – ignition: **– DF361 Ignition coil circuit 1-4,** **– DF362 Ignition coil circuit 2-3** – fuel supply circuit: **– DF026 Cylinder 1 injector circuit** **– DF027 Cylinder 2 injector circuit,** **– DF028 Cylinder 3 injector circuit** **– DF029 Cylinder 4 injector circuit,** **– DF085 Fuel pump relay control circuit,** – engine flywheel signal faults: **– DF154 Flywheel signal sensor circuit,** **– DF457 Engine flywheel target.**
	Conditions for applying the fault finding procedure to stored faults. The fault is declared present with the engine running.
	Special notes **1.DEF**: As soon as the fault is detected, the injection is cut for the faulty cylinder(s) to limit the rise in temperature inside the catalytic converter. The OBD warning light flashes for as long as the fault is present. **2.DEF and 3.DEF**: The **OBD warning light** is permanently illuminated.

Misfiring on cylinder 3 only	The fault is probably due to a component that can only affect this cylinder: – check the valve clearance, – check the cylinder 3 injector, – check the condition and the conformity of the spark plug for cylinder 3, – measure the compression of cylinder 3.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

SIM32_V44_DF061/SIM32_V4C_DF061/SIM32_V50_DF061/SIM32_V54_DF061

DF061 CONTINUED 1	

Misfires in cylinders 2 and 3 (see DF060 Misfires in cylinder 2 and DF061 Misfires in cylinder 3)	The fault is probably due to a component that affects the torque of cylinders 2 and 3: – check the relevant ignition coil circuit (apply the interpretation of fault **DF362 Ignition coil circuit 2-3**), – check the condition and conformity of the spark plugs.
Combustion misfire on all four cylinders (see DF059 Combustion misfire on cylinder 1, DF060 Combustion misfire on cylinder 2 and DF062 Combustion misfire on cylinder 4).	The fault is probably due to a component affecting all the cylinders: – check that the correct fuel is being used, – check the condition and conformity of the spark plugs.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

DF061 CONTINUED 2	

If the fault is still **present**, carry out the following checks:
– check the flywheel sensor,
– check the condition and cleanliness of the flywheel target,
– check the flywheel signal sensor mounting,
– check the flywheel target/sensor gap,
– check the cylinder compressions,
– check the whole petrol supply circuit,
– check the whole ignition system.

If the fault is still present, contact the Techline.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

DF062 PRESENT OR STORED	MISFIRING ON CYLINDER 4 1.DEF: Destructive misfiring 2.DEF: Polluting misfiring 3.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Firstly, deal with the following faults: – ignition: – **DF361 Ignition coil circuit 1-4,** – **DF362 Ignition coil circuit 2-3** – fuel supply circuit: – **DF026 Cylinder 1 injector circuit** – **DF027 Cylinder 2 injector circuit,** – **DF028 Cylinder 3 injector circuit** – **DF029 Cylinder 4 injector circuit,** – **DF085 Fuel pump relay control circuit,** – engine flywheel signal faults: – **DF154 Flywheel signal sensor circuit,** – **DF457 Engine flywheel target.**
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present with the engine running.
	Special notes: **1.DEF**: As soon as the fault is detected, the injection is cut for the faulty cylinder(s) to limit the rise in temperature inside the catalytic converter. The **OBD warning light** flashes for as long as the fault is present. **2.DEF and 3.DEF**: The **OBD warning light** is permanently illuminated.

Misfiring on cylinder 4 only	The fault is probably due to a component that can only affect this cylinder: – check the valve clearance, – check the cylinder 4 injector, – check the condition and conformity of the cylinder 4 spark plug, – measure the compression of cylinder 4.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

SIM32_V44_DF062/SIM32_V4C_DF062/SIM32_V50_DF062/SIM32_V54_DF062

DF062 CONTINUED 1	

Combustion misfires in cylinders 1 and 4 (see DF059 Combustion misfires in cylinder 1 and DF062 Combustion misfires in cylinder 4)	The fault is probably due to a component that affects a pair of cylinders: – check the ignition coil circuit concerned (apply the interpretation of **DF361 Ignition coil circuit 1-4**), – check the condition and conformity of the spark plugs.
Combustion misfire on all four cylinders (see DF059 Combustion misfire on cylinder 1, DF060 Combustion misfire on cylinder 2 and DF061 Combustion misfire on cylinder 3).	The fault is probably due to a component affecting all the cylinders: – check that the correct fuel is being used, – check the condition and conformity of the spark plugs.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

DF062 CONTINUED 2	

If the fault is still **present**, carry out the following checks:
- check the flywheel sensor,
- check the condition and cleanliness of the flywheel target,
- check the flywheel signal sensor mounting,
- check the flywheel target/sensor gap,
- check the cylinder compressions,
- check the whole petrol supply circuit,
- check the whole ignition system.

If the fault is still present, contact the Techline.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: - there must be no further electrical faults, - programming has been carried out, - the engine should be warm (minimum temperature **75˚C**) Run the engine at idle speed with all electrical consumers drawing power for **15 minutes**.

DF079 PRESENT OR STORED	MOTORISED THROTTLE VALVE SERVO 1.DEF: Detection of micro-cuts 2.DEF: Values outside of limits 3.DEF: Faulty flap return spring 4.DEF: Incorrect position of throttle valve in safe mode 5.DEF: Motorised throttle body flap vibrating 6.DEF: Motorised throttle control fault 7.DEF: EOBD 8.DEF: Air line CO: Open circuit

NOTES	**Priorities when dealing with a number of faults:** Deal with the faults **DF095 Throttle potentiometer circuit gang 1** and **DF096 Throttle potentiometer circuit gang 2** as a priority if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: **1, 3, 4, 5, 6, 7, 8.DEF**: The fault is declared **present** with the ignition on or the engine running, or during activation of the command **AC027 Motorised throttle valve**. **2.DEF**: The fault is declared **present** during the programming of the throttle valve stops.
	Special notes: **2, 6** and **8.DEF**: If this fault is present, the **severity level 1 warning light** illuminates. The injection enters defect mode 1 and 2, causing the vehicle and engine speed to be limited. The ESP and the cruise control/speed limiter are deactivated. **3, 4** and **8DEF**: If this fault is present, the **severity level 1 warning light** illuminates. The injection enters defect mode 4, causing a maximum speed limitation of **66 mph** (110 km/h) and a loss of power during acceleration (giving the impression of a "soft" pedal).
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

AFTER REPAIR	If the throttle valve has been replaced, program the throttle stops (see **Configurations and programming**). Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF079/SIM32_V4C_DF079/SIM32_V50_DF079/SIM32_V54_DF079

DF079 CONTINUED 1	

Check the cleanliness, condition, and fitting of the throttle valve (component code **1076**).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
If the fault is still present, manually check that the throttle valve rotates correctly.

Check the condition of the accelerator potentiometer connector (component code **921**).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
If the fault is still present, manipulate the harness so that the fault status changes.

AFTER REPAIR	If the throttle valve has been replaced, program the throttle stops (see **Configurations and programming**). Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF079 CONTINUED 2	

Look for possible damage to the wiring harness.
Check the condition of the engine management computer connector (component code **120**).
If the connector is faulty and there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, disconnect the battery and the injection computer.

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

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

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

If the fault is still present, contact the Techline.

AFTER REPAIR	If the throttle valve has been replaced, program the throttle stops (see **Configurations and programming**). Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF080 PRESENT OR STORED	CAMSHAFT DEPHASER CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Values outside the limits 2.DEF: Programming not carried out or incorrect 3.DEF: dephaser mechanically jammed. 4.DEF: Servo-control dynamics 5.DEF: Dephaser operation outside the permitted range of values 6.DEF: Non-compliance with emission control standards

NOTES	**Priorities when dealing with a number of faults:** **– DF119 Camshaft sensor signal,** **– DF084 Actuator relay control circuit,** **– DF046 Battery voltage if they are present or stored.**
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present with the engine running.
	Special notes: Engine operation without camshaft dephaser: increase in fuel consumption.

See **Technical Note 6506A**, Injection fault finding, Camshaft dephaser.
For electrical faults, see **ALP4**.
For operating faults, see **ALP5**.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V4C_DF080/SIM32_V50_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 1.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Deal with the faults **DF084 Actuator relay control circuit** and **DF046 Battery voltage** if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared **present** with the engine running or when running the command **AC017 Bleed canister solenoid**.
	Special notes: **CO/CC.1**: The valve remains stuck shut and there is a smell of fuel. The **OBD** warning light is illuminated. **CC.0**: The valve remains stuck open: hesitation when driving, risk of engine stalling and difficult to restart the engine.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the fuel vapour absorber bleed solenoid valve connector (component code **371**).
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 fuel vapour absorber bleed solenoid between the connections **3FB** and **3BB**:
If the resistance of the fuel vapour absorber bleed solenoid valve is not between:
- **22 Ω < X < 30 Ω** at **23˚C**, replace the solenoid valve.

Check, with the ignition on, that there is **+ 12V** on the connection **3FB** for the fuel vapour absorber bleed solenoid, component code **371**.
If there is no **+ 12 V**:
– Disconnect the battery

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF081/SIM32_V4C_DF081/SIM32_V50_DF081/SIM32_V54_DF081

DF081 CONTINUED 1	

For **NEW TWINGO or E33**:

– Disconnect the injection locking relay connector, component code **238**,
– Check the condition of the injection locking relay connector, component code **238**.
If the connector or connectors are faulty and if there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

Reconnect the injection locking relay connector and reconnect the battery.
With the ignition on, if there is still not **+ 12V** on the connector for the fuel vapour absorber bleed solenoid, there is a fault in the engine fuse and relay box.
Perform fault finding for the engine fuse and relay box while checking **the continuity** of the following connection:
● **BP17** between components **120** and **597**,
● **BP17** between components **1033** and **597**.
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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).
Use the universal bornier to check the **insulation** and **continuity** of the following connection:
● **3FB** between the components **371** and **238**.
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.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF081 CONTINUED 2	

For **CLIO III or MODUS**:

Check the condition of the Protection and Switching Unit (component code **1337**).
If the connector or connectors are faulty and if there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.
Use the universal bornier to check the **insulation** and **continuity** of the following connection:
- **3FB** between the components **371** and **1337**.

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.

Reconnect the Protection and Switching Unit connector and reconnect the battery.

With the ignition on, if there is still no **+12 V** on the connector for the fuel vapour absorber canister bleed solenoid valve, there is a fault in the Protection and Switching Unit (UPC).
Run fault finding on the UPC**,** component code **1337** (see **87G, Engine Compartment Connection Unit**).

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF081 CONTINUED 3	

Disconnect the battery.
Check the condition of the connector for the engine management computer (see **Wiring Diagram Technical Note for NEW TWINGO, E33, CLIO III, or MODUS, 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.

Use the "Universal bornier" to check the insulation and continuity of the following connection:

- **3BB** between components **120** and **371**.

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.

Check for earth on connection **3BB** of the fuel vapour absorber bleed solenoid valve when running command **AC017 Canister bleed solenoid valve**.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

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 1.DEF: EOBD 2.DEF: Abnormal voltage

NOTES	**Priorities when dealing with a number of faults:** Deal with the faults **DF084 Actuator relay control circuit** and **DF046 Battery voltage** if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present with the engine running or when using command **AC117 Upstream O2 sensor heating**.
	Special notes: **CO/CC.1**: No upstream sensor heating: the vehicle is polluting and the **OBD warning light** is lit. **CC.0**: Upstream sensor heating on continuously from switching on the ignition: risk of sensor being irreparably damaged.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the upstream oxygen sensor connector (component code **887**).
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 **+ 12 V** on connection **3FB** of the upstream oxygen sensor, component code **887**.
If there is no **+ 12 V**:
– Disconnect the battery

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF082/SIM32_V4C_DF082/SIM32_V50_DF082/SIM32_V54_DF082

DF082 CONTINUED 1	

For **NEW TWINGO or E33**:

– Disconnect the injection locking relay connector, component code **238**,
– Check the condition of the injection locking relay connector, component code **238**.
If the connector(s) is(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.

Use the "universal bornier" to check the **insulation** and **continuity** of the following connection:
● **3FB** between components **887** and **238**,
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.

Reconnect the injection locking relay connector and reconnect the battery.
With the ignition on, if the **+ 12 V** is still not present on the upstream oxygen sensor connector, there is a fault in the engine fuse and relay box.
Run fault finding on the engine fuse and relay box to check **the continuity** of the following connection:
● **BP17** between components **120** and **597**,
● **BP17** between components **1033** and **597**.
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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

For **CLIO III or MODUS**:

– Check the condition of the Protection and Switching Unit (component code **1337**).
If the connector(s) is(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.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF082 CONTINUED 2	

Use the "universal bornier" to check the **insulation** and **continuity** of the following connection:
● **3FB** between components **887** and **1337**.
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.

Reconnect the Protection and Switching Unit connector and reconnect the battery.

If the **+ 12 V** is still not present on the upstream oxygen sensor connector with the ignition on, there is a fault with the Protection and Switching Unit.
Run fault finding on the UPC, component code **1337** (see **87G, Engine compartment connection unit**).

Check the condition of the connector for the engine management computer (see **Wiring Diagram Technical Note for NEW TWINGO, E33, CLIO III, or MODUS, 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.

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

● **3GF** between components **887** 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 it.

Check for an earth on connection **3GH** of the upstream oxygen sensor during activation of command **AC117 Upstream O2 sensor heating**.
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.

Measure the heating **resistance** of the upstream oxygen sensor:

If the resistance of the upstream oxygen sensor is not between:
● **8 Ω < X < 10 Ω** at **20 °C**, replace the upstream oxygen sensor.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

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 1.DEF: EOBD 2.DEF: Abnormal voltage

NOTES	**Priorities when dealing with a number of faults:** **– DF084 Actuator relay control circuit,** **– DF046 Battery voltage if they are present or stored.**
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present with the engine running or when using command **AC118 Downstream O2 sensor heating**.
	Special notes: **CO/CC.1**: No downstream sensor heating: the vehicle is polluting and the **OBD warning light** is lit. **CC.0**: Downstream sensor heating on continuously from switching on the ignition: risk of sensor being irreparably damaged.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

For **NEW TWINGO or E33**:

Check the condition of the downstream oxygen sensor connector (component code **242**).
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	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF083/SIM32_V4C_DF083/SIM32_V50_DF083/SIM32_V54_DF083

DF083 CONTINUED 1	

With the ignition on, check for **+ 12 V** on connection **3FB** of the downstream oxygen sensor, component code **242**.
If there is no **+ 12 V**:

– Disconnect the battery.
– Disconnect the injection locking relay connector, component code **238**.
– Check the condition of the injection locking relay connector (see **Wiring Diagram Technical Note, component code 238**).

If the connector(s) is(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.

Use the universal bornier to check the **insulation and continuity** of the following connection:
● **3FB** between components **242** and **238**.
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.

Reconnect the injection locking relay connector and reconnect the battery.
With the ignition on, if the **+ 12 V** is still not present on the downstream oxygen sensor connector, there is a fault in the engine fuse and relay box.
Run fault finding on the engine fuse and relay box to check **the continuity** of the following connection:
● **BP17** between components **120** and **597**,
● **BP17** between components **1033** and **597**.
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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

Check the condition of the engine management 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.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF083 CONTINUED 2	

Use the universal bornier to check the **insulation and continuity** of the following connection:
- **3GG** between components **242** 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 it.

Check for an **earth** on connection **3GJ** of the downstream oxygen sensor whilst running command **AC118 Downstream O2 sensor heating**.
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.

Measure the heating **resistance** of the downstream oxygen sensor:

If the resistance of the downstream oxygen sensor is not between:
- **8 Ω < X < 10 Ω at 20˚C**, replace the sensor.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF083 CONTINUED 3	

For **CLIO III** and **MODUS**

Check the condition of the downstream oxygen sensor connector (see **Technical Note Wiring Diagram, CLIO III or MODUS, component code 242**).
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 **+ 12 V** on connection **3FB** of the downstream oxygen sensor, component code **242**.
If there is no **+ 12 V**:

– Disconnect the battery.
– Check the condition of the Protection and Switching Unit connectors (see **Wiring Diagram Technical Note, CLIO III or MODUS, component code 1337**).

If the connector(s) is(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.

Use the universal bornier to check the **insulation and continuity** of the following connection:
● **3FB** between components **242** and **1337**.
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.

Reconnect the Protection and Switching Unit connector and reconnect the battery.

With the ignition on, if the **+ 12 V** is still not present on the downstream oxygen sensor connector, there is a fault with the Protection and Switching Unit.
Run fault finding on the UPC, component code **1337** (see **87G, Engine compartment connection unit**).

Check the condition of the engine management computer connector (see **Technical Note Wiring Diagram, CLIO III or MODUS, 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.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF083 CONTINUED 4	

Use the universal bornier to check the **insulation and continuity** of the following connection:
- **3GG** between components **242** 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 it.

Check for an **earth** on connection **3GJ** of the downstream oxygen sensor whilst running command **AC118 Downstream O2 sensor heating**.
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.

Measure the heating **resistance** of the downstream oxygen sensor:

If the resistance of the downstream oxygen sensor is not between:
- **8 Ω < X < 10 Ω at 20˚C**, replace the sensor.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF084 PRESENT OR STORED	ACTUATOR RELAY CONTROL CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Abnormal voltage 2.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present with the engine running.
	Special notes: This relay supplies the following actuators: the injectors, the throttle valve control, the oxygen sensor heaters, the fuel vapour absorber bleed solenoid valve and connection **3FB** of the injection computer. **CO/CC.1:** No actuator supply: same effect as running out of fuel. The vehicle stalls and will not start again. **CC.0:** The actuators are supplied constantly: high electrical consumption when stationary. **Intermittent CO:** Intermittent relay cut-off: bucking when driving.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the engine management 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.

For NEW TWINGO or E33:
Check the condition of the injection locking relay connector (component code **238**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair),** repair the connector, otherwise replace the wiring.
Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3AA** between components **238** and **120**,
- **3FB** between components **238** and **193, 194, 195, 196, 1076, 242, 887, 371**.

If the connection or connections are 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	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF084 CONTINUED	

With the ignition on, if the **+ 12 V** is still not present on the downstream oxygen sensor connector, there is a fault in the engine fuse and relay box.

Run fault finding on the engine fuse and relay box to check the continuity of the following connections:
- **BP17** between components **120** and **597**,
- **BP17** between components **1033** and **597**.

If the connection or connections are 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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

For **CLIO III or MODUS**:

Check the condition of the Protection and Switching Unit (see **Wiring Diagram Technical Note, CLIO III or MODUS, component code 1337**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair),** repair the connector, otherwise replace the wiring.

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

- **3AA** between components **1337** 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 it.

If the fault is still present, there is a fault in the Protection and Switching Unit (the actuator relay is in the Protection and Switching Unit and cannot be dismantled).
Run fault finding on the UPC, component code **1337** (see **87G, Engine compartment connection unit**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

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 1.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present with the ignition on or the engine running, or during command **AC015 Fuel pump relay**.
	Special notes: **CO/CC.1:** The effect of the fault is the same as running out of fuel. The vehicle stalls and cannot be restarted. **CC.0:** There is danger of fire in the event of petrol leaking during an accident. **Intermittent CO:** Risk of intermittent ignition cut-off and draining the battery.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the engine management 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.

For NEW TWINGO or E33:
Check the condition of the fuel pump relay (component code **236**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Use the "universal bornier" to check the **insulation** and **continuity** of the following connection:
- **3AC** between components **236** 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 for an earth during activation of command **AC015 Fuel pump relay**.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF085 CONTINUED	

With the ignition on, if the **+ 12 V** is still not present on the fuel pump relay connector, there is a fault in the engine fuse and relay box.
Run fault finding on the engine fuse and relay box to check **the continuity** of the following connection:

- **BP17** between components **120** and **597**,
- **BP17** between components **1033** and **597**.

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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

For **CLIO III or MODUS**:
Check the condition of the Protection and Switching Unit (see **Wiring Diagram Technical Note, CLIO III or MODUS, component code 1337**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

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

- **3AC** between components **1337** 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 for an earth during activation of command **AC015 Fuel pump relay**.

If the fault is still present, there is a fault in the Protection and Switching Unit (the fuel pump relay is in the Protection and Switching Unit and cannot be dismantled).
Run fault finding on the UPC, component code **1337** (see **87G, Engine compartment connection unit**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF089 PRESENT OR STORED	INLET MANIFOLD PRESSURE SENSOR CIRCUIT 1.DEF: Signal incoherent 2.DEF: Abnormal voltage 3.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** **1.DEF**: The fault is declared **present** with the engine running after a few seconds. **2.DEF**: The fault is declared **present** with the engine running.
	Special notes: Minimum idle speed of **900 rpm**. The injection goes into **defect mode 5**: the ESP and the cruise control - speed limiter are deactivated. The vehicle stalls under idle speed. The **level 1** and **OBD** fault warning lights are lit.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the manifold pressure sensor and its connections (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.

Measure the voltage of the manifold pressure sensor between connections **3FG** and **3F**.
If the voltage of the manifold pressure sensor is not between:
- **4.75 V < X < 5.25 V** with the engine stopped, replace the sensor.

Check the condition of the engine management 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.

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3LG** between components **147** and **120**,
- **3F** between components **147** and **120**,
- **3CK** between components **147** 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	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF089 CONTINUED	

If the fault is still present, carry out the following checks:
The inlet line must be perfectly sealed, from the throttle valve to the cylinder head.
Check:
– the condition of the air filter,
– that the air inlet circuit is not blocked,
– the sealing between the throttle valve and inlet manifold,
– the manifold pressure sensor sealing,
– the fuel vapour absorber bleed, which must not be jammed open,
– the fuel vapour absorber bleed system sealing,
– the brake servo system sealing,
– the cylinder head oil vapour recovery system sealing,
– the sealing between the inlet manifold and cylinder head,
– the exhaust pipe sealing between the cylinder head and catalytic converter.
Repair if necessary.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF091 PRESENT OR STORED	VEHICLE SPEED SIGNAL 1.DEF: Missing or invalid multiplex signals (fault with computer issuing the signal or with multiplex line connection) 2.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present when the ignition is switched on or with the engine running.

Run a multiplex network test (see **88B, Multiplex**).
If the fault is still present, carry out fault finding on the ABS computer (see **38C, Anti-lock braking system**).
Check the condition of the engine management 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.
If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF092 PRESENT OR STORED	UPSTREAM OXYGEN SENSOR CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to +12 V 1.DEF: Component in bad condition 2.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Deal with the faults **DF084 Actuator relay control circuit** and **DF046 Battery voltage** if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared **present** when the ignition is switched on or with the engine running.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the connector of the upstream oxygen sensor computer (component code **887**) and the engine management computer (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.

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3GH** between components **887** and **120**,
- **3GK** between components **887** 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	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF092 CONTINUED	

Run command **SC007 Run OBD Test: O2 sensors**.
The aim of this scenario is to detect a fault causing the EOBD* threshold for pollutant emissions to be exceeded.

There are two kinds of oxygen sensor damage:
– mechanical damage to the component (breakage, cut in wire) which leads to an electrical fault,
– chemical or thermal damage to the component leading to a slower response time of the sensor and to the increase in the average reaction time.

Before carrying out this test, repair all the electrical faults and clear the fault memory.
Deal first with the **DF436 Misfiring detection** fault and program the flywheel target **ET089 Flywheel target programming**.

Perform this test when the engine is warm, which reduces the time it takes for the catalytic converter to heat up.
Fault finding is entirely autonomous. When completed, the throttle control ceases and the engine returns to idling speed regulation operation.

At the end of this test, four different results are possible:
– status 1: Fault finding not carried out/impossible to establish the necessary conditions.
– status 2: Component in an average condition.
– status 3: Component in good condition.
– status 4: Component in poor condition.

When fault finding is completed and the result read, stop the engine and start it again to establish normal operating conditions.

If the result is status 1: check for any faults, and the engine flywheel target programming using **ET089 Programming engine flywheel target**.

If the result is status 2 or status 4, replace the sensor.
If the result is status 3, the sensor is in good condition.

If the fault is still present, contact the Techline.

AFTER REPAIR	If the throttle valve has been replaced, program the throttle stops, **RZ005 Programming**. Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

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

NOTES	**NOTES** **Priorities when dealing with a number of faults:** Deal with the faults **DF084 Actuator relay control circuit** and **DF046 Battery voltage** if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present when the ignition is switched on or with the engine running.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the connector of the downstream oxygen sensor computer (component code **242**) and of the engine management computer (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.

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

- **3GJ** between components **242** and **120**,
- **3GL** between components **242** 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	If the throttle valve has been replaced, program the throttle stops, **RZ005 Programming**. Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF095 PRESENT OR STORED	THROTTLE POTENTIOMETER CIRCUIT GANG 1 CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Inconsistency between throttle gang 1 and gang 2 2.DEF: EOBD

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

NOTES	**Priorities when dealing with a number of faults:** Deal first with fault **DF012 Sensor supply voltage no. 2** whether it is **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present when the ignition is switched on.
	Special notes: The **level 1** fault warning light is lit, the injection goes into **defect mode 4**, causing a maximum speed limitation of **66 mph** (**110 km/h**) and a loss of power when accelerating (impression of having a "soft" pedal). **2.DEF**: The throttle valve goes into **defect mode 1** and **2**, causing a limitation of vehicle and engine speed. The ESP and the cruise control - speed limiter are deactivated.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the engine management computer connector (component code **120**) and of the throttle valve connector (component code **1076**).
Check that the throttle valve rotates correctly (no resistance).
Check the condition.
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	If the throttle valve has been replaced, program the throttle stops, **RZ005 Programming**. Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF095 CONTINUED	

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

- **3MN** between components **1076** and **120**,
- **3MO** between components **1076** and **120**,
- **3MP** 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	If the throttle valve has been replaced, program the throttle stops, **RZ005 Programming**. Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF096 PRESENT OR STORED	THROTTLE POSITION POTENTIOMETER CIRCUIT GANG 2 CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: EOBD

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

NOTES	**Priorities when dealing with a number of faults:** Deal first with fault **DF012 Sensor supply voltage no. 2** whether it is **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared **present**, with the ignition on.
	Special notes: The **level 1** fault warning light is lit, the injection goes into **defect mode 4**, causing a maximum speed limitation of **66 mph** (**110 km/h**) and a loss of power when accelerating (impression of having a "soft" pedal).
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the connector of the engine management computer (component code **120**) and of the throttle valve (component code **1076**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Check that the throttle valve rotates correctly (no resistance).

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF096 CONTINUED	

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

- **3MN** between components **1076** and **120**,
- **3MO** between components **1076** and **120**,
- **3MQ** 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	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF099 PRESENT OR STORED	AUTOMATIC OR SEQUENTIAL GEARBOX CONNECTION VIA THE MULTIPLEX NETWORK 1.DEF: Signal incoherent 2.DEF: Multiplex line connection fault 3.DEF: Gear ratio 4.DEF: EOBD 5.DEF: Converter status

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present when the ignition is switched on or with the engine running.

Run a multiplex network test (see **88B, Multiplex**).
If the fault is still present, run fault finding on the **Sequential gearbox** (see **21B, Sequential gearbox**).

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF100 PRESENT OR STORED	INSTRUMENT PANEL MULTIPLEX CONNECTION 1.DEF: Multiplex line connection fault

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present when the ignition is switched on or with the engine running.

Run a multiplex network test (see **88B, Multiplex**).
If the fault is still present, run fault finding on the **Instrument panel** system (see **83A, Instrument panel**).

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF101 PRESENT OR STORED	ELECTRONIC STABILITY PROGRAM MULTIPLEX CONNECTION 1.DEF: Multiplex line connection fault

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is declared present when the ignition is switched on.

Run a multiplex network test (see **88B, Multiplex**).
If the fault is still present, run fault finding on the **ESP*** system (see **38C, Anti-lock braking system**).

* ESP: Electronic Stability Program

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF102 PRESENT OR STORED	ALTERNATOR POWER SIGNAL AVAILABLE 1.DEF: Multiplex line connection fault

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is declared present when the ignition is switched on or with the engine running.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

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

If the fault is still present, check the **insulation** and **continuity** of the following connections:

For **NEW TWINGO or E33**:
- **AP29** between components **120** and **1016**,
- **2N** between components **645** and **103**,

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

For Clio III and MODUS:
- **AP** between components **120** and **1337**,
- **2N** between components **1337** and **103**.

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

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF106 PRESENT OR STORED	CRUISE CONTROL - SPEED LIMITER SELECTOR SWITCH ON STEERING WHEEL 1. DEF: No signal

IMPORTANT:
To remove or check the **cruise control - speed limiter control switches, the airbag must be removed** (see **MR 392 (Clio III), MR 385 (MODUS), or MR 411 (New Twingo), or MR 442 (E33), Mechanical, 88C, Airbag and pretensioners, Driver's frontal airbag, Removal - Refitting**).

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is present after a road test using the cruise control then the speed limiter function.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the cleanliness and condition of the incrementing switches on the steering wheel and their connections.
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair),** repair the connector, otherwise replace the wiring.

Disconnect the battery.
Disconnect the injection computer.
Check the cleanliness and condition of the injection computer connections, 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.

Using the Universal bornier, check for **insulation** and **continuity** on the following connections:
- **86G** between components **120** and **331**,
- **86M** between components **120** and **331**.

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

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

*RV/LV: Cruise control/speed limiter function

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF106/SIM32_V4C_DF106/SIM32_V50_DF106/SIM32_V54_DF106

DF109 PRESENT OR STORED	LOW FUEL LEVEL MISFIRING 1.DEF: Destructive misfiring 2.DEF: Polluting misfiring 3.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Firstly, deal with the following faults: **– DF085 Fuel pump relay control circuit,** **– DF026 Cylinder 1 injector circuit** **– DF027 Cylinder 2 injector circuit, DF028 Cylinder 3 injector circuit,** **– DF029 Cylinder 4 injector circuit,** **– DF059 Misfiring on cylinder 1,** **– DF060 Misfiring on cylinder 2,** **– DF061 Misfiring on cylinder 3,** **– DF062 Misfiring on cylinder 4,** **– DF436 Combustion misfiring detection,** if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** when the engine is running.
	Special notes: **1.DEF**: As soon as the fault is detected, the injection is cut for the faulty cylinder(s) to limit the rise in temperature inside the catalytic converter. The **OBD warning light** flashes for as long as the fault is present. **2.DEF**: The **OBD** warning light is continuously lit.

Check:
– the level of fuel in the tank,
– the conformity and the grade of the fuel, apply **test 1 Petrol conformity check**,
– the fuel filter,
– the fuel pump,
– the fuel lines,
– the fuel pressure.

If there is no **present** or **stored** misfiring fault, the misfiring was caused by the low fuel level.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF109/SIM32_V4C_DF109/SIM32_V50_DF109/SIM32_V54_DF109

DF119 PRESENT OR STORED	CAMSHAFT SENSOR SIGNAL 1.DEF: Camshaft tooth event 2.DEF: Tooth lost 3.DEF: Measurement of the offset outside permitted range of values 4.DEF: EOBD 5.DEF: Programming the stops 6.DEF: Programming the initial stops

NOTES	**Priorities when dealing with a number of faults:** Deal first with fault **DF084 Actuator relay control circuit** or **DF046 Battery voltage** if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** when the engine is running.
	Special notes: Engine operation without camshaft dephaser: deterioration in fuel consumption performance.
	Use **Wiring Diagram Technical Note for CLIO III or MODUS**.

Check the condition of the camshaft position sensor connector and its wiring (component code **1265**).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

If the fault is still present, check, with the ignition on, for **+12 V** on connection **3FB** of the camshaft sensor, component code **1265**.
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	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF119/SIM32_V4C_DF119/SIM32_V54_DF119

DF119 CONTINUED	

Check the condition of the engine management 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.
Check the **insulation** and the **continuity** of the following connections:
- **3QK** between components **120** and **1265**,
- **3YL** between components **120** and **1265**.

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

Measure the **resistance** of the camshaft sensor between connections **3YL** and **3FB**:
If the resistance of the camshaft sensor is not between:
9.75 kΩ < X < 10.75 kΩ, replace the camshaft sensor.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF126 PRESENT OR STORED	PASSENGER COMPARTMENT HEATING RESISTOR 1.DEF: Missing or invalid multiplex signals (fault with computer issuing the signal or CAN connection fault)

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is considered **present** when the engine is running.
	Special notes: If the fault is detected, the fast idle speed request and power consumption are cancelled.
	Use **Wiring Diagram Technical Note for CLIO III or MODUS**.

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

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF126/SIM32_V4C_DF126/SIM32_V54_DF126

DF127 PRESENT OR STORED	BRAKE SWITCH 1 CIRCUIT 1.DEF: No signal

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is **present** after the ignition has been switched on and the brake pedal has been depressed.
	Special notes: The fault appears after a fault on one of the two brake switch contacts.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check:
– the consistency of statuses **ET704 Brake switch no. 1** and **ET705 Brake switch no. 2** becoming **ACTIVE - INACTIVE** when the brake pedal is depressed,
– the condition and cleanliness of the brake lights switch, component code **160**.
Disconnect the battery and the injection computer, check the condition and cleanliness of the injection computer connections, component code **120**.
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the insulation and **continuity** of the following connection:
● **5A** between components **120** and **160**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, carry out a fault finding procedure on the **Anti-lock Braking System** (see **38C, Anti-lock Braking System**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF128 PRESENT OR STORED	BRAKE SWITCH 2 CIRCUIT 1.DEF: No signal

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is **present** after the ignition has been switched on and the brake pedal has been depressed.
	Special notes: The fault appears after a fault on one of the two brake switch contacts.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check:
– the consistency of statuses **ET704 Brake switch no. 1** and **ET705 Brake switch no. 2** becoming **ACTIVE - INACTIVE** when the brake pedal is depressed,
– the condition and cleanliness of the brake lights switch, component code **160**.
Disconnect the battery and the injection computer, check the condition and cleanliness of the injection computer connections, component code **120**.
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check **the insulation** and **continuity** of the following connection:
● **5A** between components **120** and **160**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, carry out a fault finding procedure on the **Anti-lock Braking System** (see **38C, Anti-lock Braking System**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF128/SIM32_V4C_DF128/SIM32_V54_DF128

DF150 PRESENT OR STORED	CLUTCH SWITCH CIRCUIT 1.DEF: Open circuit or short circuit

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared **present** at a driving speed of over **36 mph** (**60 km/h**) and after more than twenty gear changes without the clutch pedal being detected as having been depressed.
	Special notes: In the event of open circuit or short circuit to **+ 12 V**: the clutch pedal is seen by the system as being permanently depressed. This makes it impossible to select a cruising speed in cruise control mode. The speed limiter remains operational in defect mode (imprecise speed limiting). Engine speed surges when changing gear. In the event of a short circuit to earth: the clutch pedal is still viewed as not being depressed by the system, this causes bursts of engine speed when changing gear.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check that the pedal assembly is in good condition.
Check the condition of the clutch pedal switch connector and its connections (component code **675**) and the engine management 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.

Check for an earth on connection **M** of the clutch pedal switch connector, component code **675**.
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.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF150 CONTINUED	

Check the consistency of status **ET405 Clutch pedal switch** and apply **Sensor electrical conformity**.
If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF154 PRESENT OR STORED	FLYWHEEL SIGNAL SENSOR CIRCUIT 1. DEF: Abnormal voltage 2.DEF: Tooth lost 3.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is considered **present** when the engine is running.
	Special notes: In the event of flywheel signal loss, the injection and ignition are cut off: the vehicle stalls and cannot be restarted.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the **mounting** and **positioning** of the flywheel signal sensor.
Repair if necessary.

Manipulate the wiring harness between the injection computer and the flywheel signal sensor in order to produce a change in fault status (from **present** to **stored**).
Look for possible damage to the wiring harness.
Check the condition of the connector of the flywheel signal sensor (component code **149**) and of the engine management computer (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair),** repair the connector, otherwise replace the wiring.

Use the universal bornier to check the **insulation** and **continuity** of 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.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF154/SIM32_V4C_DF154/SIM32_V50_DF154/SIM32_V54_DF154

DF154 CONTINUED	

Measure the **resistance** of the flywheel signal sensor between connections **3BL** and **3BG**: If the resistance of the flywheel signal sensor is not between: **200 Ω < X < 270 Ω** at **23 °C**, replace the sensor.
Disconnect the computer, use the universal bornier to check the signal from the flywheel signal sensor. If it is fitted, use the Clip oscilloscope and make sure the square pulse signal of the sensor is not faulty (interference, tooth missing, etc.). If there is interference in the signal, check the **air gap** of the TDC sensor.
If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: - If the fault is **present**, continue to deal with the fault. - If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF196 PRESENT OR STORED	PEDAL SENSOR CIRCUIT GANG 1 CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: Inconsistency between pedal gang 1 and gang 2 2.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Deal first with fault **DF012 Sensor feed voltage no. 2** if it is **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared **present** after the accelerator pedal is depressed several times.
	Special notes: The **level 1 fault warning light** is lit, the throttle valve goes into **defect mode 4**, causing a maximum speed limitation of **66 mph (110 km/h)** and a loss of power when accelerating (impression of having a "soft" pedal). **CO.0:** The vehicle has a tendency to decelerate. **CC.1:** The vehicle has a tendency to accelerate. **2.DEF:** The throttle valve goes into **defect mode 3**, causing a driver's request loss (no response from the accelerator pedal).
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check that the pedal mechanism has not seized. Repair if necessary.
Check the condition of the pedal potentiometer connector (component code **921**) and the engine management computer connector (component code **120**). If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF196/SIM32_V4C_DF196/SIM32_V50_DF196/SIM32_V54_DF196

DF196 CONTINUED	

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**.

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

Measure the **resistance** of the pedal potentiometer gang 1 between connections **3LR** and **3LT**:
If the resistance of the pedal potentiometer gang 1 is not between:
- **0.8 kΩ < X < 2.6 kΩ** with no load, replace the accelerator pedal.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF198 PRESENT OR STORED	PEDAL SENSOR CIRCUIT GANG 2 CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Deal first with fault **DF096 Sensor feed voltage no. 1** whether it is **present or stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the accelerator pedal is depressed several times.
	Special notes: The vehicle is liable to hesitate. The **level 1 fault warning light** is lit, the throttle valve goes into **defect mode 4**, causing a maximum speed limitation of **66 mph** (**110 km/h**) and a loss of power when accelerating (impression of having a "soft" pedal).
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check that the pedal mechanism has not seized.
Repair if necessary.

Check the condition of the pedal potentiometer connector (component code **921**) and the engine management computer connector (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF198/SIM32_V4C_DF198/SIM32_V50_DF198/SIM32_V54_DF198

DF198 CONTINUED	

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

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

Measure the **resistance** of the pedal potentiometer gang 2 between connections **3LU** and **3LV**:
If the resistance of the pedal potentiometer gang 2 is not between:
- **0.8 kΩ < X < 4.9 kΩ** with no load, replace the accelerator pedal.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF228 PRESENT OR STORED	BRAKE SIGNALS 1 DEF: Component in poor condition 2.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the brake pedal has been depressed several times.
	Special notes: **1.DEF:** If this fault is present, the cruise control - speed limiter is deactivated.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Carry out a consistency check on the brake contacts using **ET704 Brake contact no. 1 and ET705 Brake contact no. 2** when the pedal is depressed, the status should be "Depressed" and with no load on the pedal it should be "Released".

– If there is inconsistency, check the condition of the brake light switch connector (component code **160**) and the engine management computer connector (component code **120**).
– Check the condition of the connector. If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Use the universal bornier to check the **insulation** and **continuity** of the following connection:
● **5A** between components **120** and **160**.

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

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

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF228/SIM32_V4C_DF228/SIM32_V50_DF228/SIM32_V54_DF228

DF232 PRESENT OR STORED	REFRIGERANT PRESSURE SENSOR CIRCUIT 1.DEF: Abnormal voltage

NOTES	**Priorities when dealing with a number of faults:** Deal first with fault **DF011 Sensor feed voltage no. 1** if it is **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present when the ignition is switched on.
	Special notes: If the fault is present or stored, parameter **PR037 Refrigerant pressure** displays a safe value of **0 bar**, and the air conditioning no longer operates.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

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

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **38U** between components **120** and **1202**,
- **38X** between components **120** and **1202**,
- **38Y** 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 sensor.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF232/SIM32_V4C_DF232/SIM32_V50_DF232/SIM32_V54_DF232

DF234 PRESENT OR STORED	AFTER-SALES TOOTH SIGNAL SENSOR CIRCUIT 1.DEF: Tooth lost

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present with the engine running.
	Special notes: This fault enables a possible cause for engine bucking to be detected. **DF154/2.DEF** enables the defect modes related to this fault to be managed. **DF234** and **DF154/2.DEF** relate to the same fault but have a different function.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the **mounting** and **positioning** of the flywheel signal sensor.
Repair if necessary.

Manipulate the wiring harness between the injection computer and the flywheel signal sensor in order to produce a change in fault status (from **present** to **stored**).
Look for possible damage to the wiring harness.
Check the condition of the flywheel signal sensor connector (component code **149**) and the engine management computer connector (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair),** repair the connector, otherwise replace the wiring.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF234/SIM32_V4C_DF234/SIM32_V50_DF234/SIM32_V54_DF234

DF234 CONTINUED	

Use the universal bornier to check the **insulation** and **continuity** of 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.

Measure the **resistance** of the flywheel signal sensor between connections **3BL** and **3BG**:
If the resistance of the flywheel signal sensor is not between:
- **200 Ω < X < 270 Ω** at **23˚C**, replace the sensor.

Disconnect the computer, use the universal bornier to check the **signal** from the flywheel signal sensor.
If it is fitted, use the Clip oscilloscope and make sure the square pulse signal of the sensor is not faulty (interference, tooth missing, etc.).
If there is interference in the signal, check the **air gap** of the neutral sensor.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF330 PRESENT OR STORED	PINKING SENSOR CIRCUIT 1.DEF: Abnormal voltage 2.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present with the engine running with an engine coolant temperature above **75°C** and the engine speed above **1500 rpm**.
	Special notes: **1.DEF:** The wiring harness connecting the injection computer to the sensor is shielded. Because of this, a short circuit to **+ 12 V** is unlikely.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the pinking sensor connector (component code **146**) and the engine management computer connector (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Check the **tightening** of the pinking sensor (tightening must be: **X = 20 Nm**).
Repair if necessary.

Measure the **resistance** of the pinking sensor between connections **3S** and **3DQ**:
The resistance should be greater than **20 MΩ**.
If the pinking sensor resistance is not correct, replace the sensor.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF330/SIM32_V4C_DF330/SIM32_V50_DF330/SIM32_V54_DF330

DF330 CONTINUED	PINKING SENSOR CIRCUIT 1.DEF: Abnormal voltage 2.DEF: EOBD

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3S** between components **120** and **146**,
- **3DQ** 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.

Check the **conformity** of the fuel in the tank, apply **test 1 Petrol conformity check**.
Check that the spark plugs are **correct**.
Repair if necessary.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

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

NOTES	**Priorities when dealing with a number of faults:** Firstly, deal with the following faults: – **DF046 Battery voltage,** – **DF084 Actuator relay control circuit,** – **DF085 Fuel pump relay control circuit,** if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the starter has been in operation for **10 seconds** or after the engine has been running for **10 seconds**.
	Special notes: If a fault is **present**, injectors 1 and 4 are switched off after **60 seconds** at **600 rpm** or **6 seconds** at **6000 rpm**, until the ignition is switched off.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Disconnect the quadruple ignition coil module connector and check the cleanliness and condition of its connections (component code **108**) and of the engine management computer connector (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Use the universal bornier to check the **insulation** and **continuity** of the following connection:
● **3CV** between components **120** and **108**.

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.

With the ignition on, check for **+ 12 V** on connection **3N** of the ignition quadruple coil module.
If there is no **+ 12 V**:
Disconnect the battery and apply the following steps, depending on the vehicle.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF361/SIM32_V4C_DF361/SIM32_V50_DF361/SIM32_V54_DF361

DF361 CONTINUED 1	

For **NEW TWINGO or E33**:
– Check the condition of the fuel pump relay connector (component code **236**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair),** repair the connector, otherwise replace the wiring.
Use the "universal bornier" to check the **insulation** and **continuity** of the following connection:
● **3N** between components **236** and **108**,
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Carry out a fault finding procedure on the engine fuse and relay box to check the continuity of the following connection:
● **BP17** between components **120** and **597**,
● **BP17** between components **238** and **597**.
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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).
– Clean the battery terminals and all connections to **+** and to **Earth**.
– Check the battery voltage.
– Check the charging circuit.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF361 CONTINUED 2	

For **CLIO III or MODUS**:
– In the Protection and Switching Unit, disconnect the connector marked **MN**.
– Check the condition of the Protection and Switching Unit connector (component code **1337**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Use the "Universal bornier" to check the insulation and continuity of the following connection:
● **3N** between components **1337** and **108**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Reconnect the Protection and Switching Unit connector and reconnect the battery.
With the ignition on, if there is no **+ 12 V** on the connector of the quadruple ignition coil module, there is a fault in the Protection and Switching Unit (see **87G, Engine Compartment Connection Unit**).

If the fault is still present, replace the ignition quadruple coil module.
If not, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

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

NOTES	**Priorities when dealing with a number of faults:** Firstly, deal with the following faults: – **DF046 Battery voltage,** – **DF084 Actuator relay control circuit,** – **DF085 Fuel pump relay control circuit,** if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared **present** after the starter has been in operation for **10 seconds** or after the engine has been running for **10 seconds**.
	Special notes: If a fault is present, injectors 2 and 3 are switched off after **60 seconds** at **600 rpm** or **6 seconds** at **6000 rpm**, until the ignition is switched off.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Disconnect the quadruple ignition coil module connector and check the cleanliness and condition of its connections (component code **108**) and of the engine management computer connector (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF362/SIM32_V4C_DF362/SIM32_V50_DF362/SIM32_V54_DF362

DF362 CONTINUED 1	

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

- **3CW** between components **120** and **108**.

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.

With the ignition on, check for **+ 12 V** on connection **3N** of the ignition quadruple coil module.
If there is no **+ 12 V**:
Disconnect the battery and apply the following steps, depending on the vehicle.

For **NEW TWINGO or E33**:
– Check the condition of the fuel pump relay connector (component code **236**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Use the "universal bornier" to check the **insulation** and **continuity** of the following connection:
- **3N** between components **236** and **108**,

If the connection or connections are 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 fault finding on the engine fuse and relay box to check **the continuity** of the following connection:
- **BP17** between components **120** and **597**,
- **BP17** between components **236** and **597**.

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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).
– Clean the battery terminals and all connections to **+** and to **Earth**.
– Check the battery voltage.
– Check the charging circuit.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF362 CONTINUED 2	

For **CLIO III or MODUS**:
– Disconnect the MN reference connector from the Protection and Switching Unit.
– Check the condition of the Protection and Switching Unit connector (component code **1337**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Use the "Universal bornier" to check the insulation and continuity of the following connection:
● **3N** between components **1337** and **108**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Reconnect the Protection and Switching Unit connector and reconnect the battery.
With the ignition on, if there is no **+ 12 V** on the connector of the quadruple ignition coil module, there is a fault in the Protection and Switching Unit (see **87G, Engine Compartment Connection Unit**).

If the fault is still present, replace the ignition quadruple coil module.
If not, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF394 PRESENT OR STORED	CATALYTIC CONVERTER OPERATING FAULT 1.DEF: Component in bad condition 2.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Deal with any other fault first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared **present** after the engine starts.
	Special notes: The OBD warning light is lit.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Only for Vdiag 4C, 50 and 54

Check the appearance and condition of the catalytic converter. Check there are no air leaks, thermal shock, misfiring, coolant or oil consumption.
Run command **SC006 Running OBD Test: catalytic converter**. Before carrying out this test, repair all the electrical faults and clear the fault memory. Check that fault **DF436 Misfiring detection** is not present and program the engine flywheel target **ET089 Flywheel target programming**. Carry out this test when the engine is warm, which reduces the time it takes for the catalytic converter to heat up. At the end of this test, four different results are possible: – Status 1: Fault finding not carried out/impossible to obtain the necessary conditions. – Status 2: Component in an average condition. – Status 3: Component in good condition. – Status 4: Component in poor condition.
When fault finding is completed and the result read, stop the engine and start it again to establish normal operating conditions.
If the result is status 1: check that there are no faults, and check the engine flywheel target programming using **ET089 Programming engine flywheel target**. If the result is status 2 or 4: replace the catalytic converter. If the result is status 3: the catalytic converter is in good condition.
If the fault is still present, contact the Techline.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: – there must be no further electrical faults, – programming has been carried out, the engine must be warm (minimum **75˚C**), and idling, with all electrical consumers running for **15 minutes**.

SIM32_V44_DF394/SIM32_V4C_DF394/SIM32_V50_DF394/SIM32_V54_DF394

DF394 CONTINUED	

Only for Vdiag 44

Check that the oxygen sensors are **tightened**.
Check the appearance and condition of the catalytic converter. Check there are no **air leaks**, thermal shock, misfiring, coolant or oil consumption.
Remove the catalytic converter and check the **condition of the cake** inside (clogging). If the cake looks ok, shake the catalytic converter to ensure that there are no broken elements inside (metallic noises). Replace the catalytic converter if necessary.
If the fault is still present, contact the Techline.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: – there must be no further electrical faults, – programming has been carried out, the engine must be warm (minimum **75˚C**), and idling, with all electrical consumers running for **15 minutes**.

DF398 PRESENT OR STORED	FUEL CIRCUIT OPERATING FAULT 1.DEF: Operational fault finding on the fuel circuit should detect a fault on the petrol system causing the EOBD pollutant emission thresholds to be exceeded. The on-board diagnostic can detect: – clogging of the injectors or an injector flow fault, – a fault in the supply system (pressure regulator, fuel pump, filter, etc.), – a poor connection in the petrol or injection circuits. 2.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present with the engine running (**wait for approximately 2 minutes**).

Check:
– the fuel pressure,
– the fuel filter,
– the fuel pipes,
– clogging of the injectors or an injector flow fault (see **MR 392 (Clio III), MR 385 (Modus), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 13A, Fuel supply**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: – there must be no further electrical faults, – programming has been carried out, the engine must be warm (minimum **75˚C**), and idling, with all electrical consumers running for **15 minutes**.

SIM32_V44_DF398/SIM32_V4C_DF398/SIM32_V50_DF398/SIM32_V54_DF398

DF404 PRESENT OR STORED	AUTOMATIC TRANSMISSION OR SEQUENTIAL GEARBOX CAN CONNECTION 1.DEF: Incorrect gear 2.DEF: Incorrect torque signal from automatic gearbox computer 3.DEF: Multiplex signals absent or values invalid (fault with the computer generating the signal or multiplex line connection fault)

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present when the ignition is switched on or with the engine running.

Run a multiplex network test (see **88B, Multiplex**).
If the fault is still present, run fault finding on the **Sequential gearbox** (see **21B, Sequential gearbox**).
If the fault is still present, contact the Techline.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: – there must be no further electrical faults, – programming has been carried out, the engine must be warm (minimum **75˚C**), and idling, with all electrical consumers running for **15 minutes**.

DF436 PRESENT OR STORED	DETECTION OF ENGINE MISFIRING 1.DEF: Destructive misfiring 2.DEF: Polluting misfiring 3.DEF: EOBD 4.DEF: Component in poor condition

NOTES	**Priorities when dealing with a number of faults:** Firstly, deal with the following faults: – ignition **DF351 Ignition coil circuit 1-4,** **DF352 Ignition coil circuit 2-3,** – fuel supply circuit **DF026 Cylinder 1 injector circuit** **DF027 Cylinder 2 injector circuit,** **DF028 Cylinder 3 injector circuit** **DF029 Cylinder 4 injector circuit,** **DF085 Fuel pump relay control circuit,** – engine flywheel signal **DF154 Flywheel signal sensor circuit,** **DF457 Engine flywheel target.**
	Conditions for applying the fault finding procedure to stored faults: The fault is declared **present** after the engine has been running for at least **15 minutes**.
	Special notes: **1.DEF**: As soon as the fault is detected, the injection is cut off on the faulty cylinder(s) to limit the temperature increase in the catalytic converter. The **OBD warning light** flashes for as long as the fault is present. **2.DEF**: The **OBD warning light** is continuously lit.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: – there must be no further electrical faults, – programming has been carried out, the engine must be warm (minimum **75˚C**), and idling, with all electrical consumers running for **15 minutes**.

SIM32_V44_DF436/SIM32_V4C_DF436/SIM32_V50_DF436/SIM32_V54_DF436

DF436 CONTINUED	

If the fault is still present, carry out the following checks:
- check the flywheel signal sensor,
- check the condition and cleanliness of the flywheel,
- check the flywheel signal sensor mounting,
- check the flywheel/sensor air gap
- check the cylinder compressions,
- check the entire petrol supply system (see **MR 411 (NEW TWINGO), MR 442 (E33), MR 392 (CLIO III), or MR 385 (MODUS), Mechanical, Engine and peripherals,13A, Fuel supply**),
- check the entire ignition system (see **MR 411 (NEW TWINGO), MR 442 (E33), MR 392 (CLIO III), or MR 385 (MODUS), Mechanical, Engine and peripherals, 17A, Ignition, Coil and spark plugs**),
- check that the correct fuel is being used,
- check that the spark plugs are correct.

If the fault is still present, contact the Techline.

AFTER REPAIR	Ensure that all the faults have been dealt with. Clear the **stored** faults. Do not clear the programming. To check that the system has been properly repaired: – there must be no further electrical faults, – programming has been carried out, the engine must be warm (minimum **75˚C**), and idling, with all electrical consumers running for **15 minutes**.

DF455 PRESENT OR STORED	LOW FUEL LEVEL SIGNAL 1.DEF: Multiplex signals absent or values invalid (fault with the computer generating the signal or multiplex line connection fault). 2.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is declared **present** when the ignition is switched on.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Disconnect the battery and the fuel sender.
Check the condition of the fuel pump and sender unit connector (component code **199**, for **NEW TWINGO** or **component code 833** (for **E33**, **CLIO III or MODUS**).
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.

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **AP41** between components **199** and **247** (for **NEW TWINGO**),
- **41B** between components **199** and **247** (for **NEW TWINGO**),
- **41A** between components **833** and **247** (for **E33**, **CLIO III or MODUS**),
- **41B** between components **833** and **247** (for **E33**, **CLIO III or MODUS**).

If the connection or connections are 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, test the multiplex network (see **88B, Multiplex**).

If the fault is not resolved, run fault finding on the **Instrument panel** (see **83A, Instrument panel**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF455/SIM32_V4C_DF455/SIM32_V50_DF455/SIM32_V54_DF455

DF457 PRESENT OR STORED	FLYWHEEL TARGET 1.DEF: Flywheel target fault: – Missing tooth – Tooth length outside tolerances – Eccentricity on the target – Air gap outside tolerances 2.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is considered **present** when the engine is running.
	Special note: **1.DEF**: The **OBD warning light** is lit.

Check the cleanliness and condition of the engine flywheel.
Check the mounting and condition of the engine speed sensor.
Check the condition and count the number of target teeth, if possible.
Repair or replace the engine flywheel if necessary.

If the flywheel has been replaced or removed, reinitialise the flywheel target, then program it.
Reinitialise programming:
Run command **RZ005 Programming**.

Programming the flywheel signal:
The engine must be warm. Decelerate a first time with injection cut-off (feet off the brake, accelerator, and clutch pedals) between **3500** and **3000 rpm**, in a gear above 3rd for at least **5 seconds** for manual gearboxes.
Decelerate a second time with injection cut-off (feet off the brake, accelerator, and clutch pedals) between **2400** and **2000 rpm**, in a gear above 3rd for at least **5 seconds** for manual gearboxes.

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF457/SIM32_V4C_DF457/SIM32_V50_DF457/SIM32_V54_DF457

DF508 PRESENT OR STORED	MOTORISED THROTTLE VALVE CONTROL 1.DEF: Component in bad condition 2.DEF: EOBD CC.1: Short circuit to 12 V

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

NOTES	**Priorities when dealing with a number of faults:** If faults **DF095 Throttle potentiometer circuit gang 1** and **DF096 Throttle potentiometer circuit gang 2** are **present**, deal with these first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared as present with the ignition on or the engine running, or during command **AC027 Motorised throttle**.
	Special notes: In the event of faults, the **level 1 warning light** comes on, the injection goes into **defect mode 1** and **2**, causing a limitation of vehicle and engine speed. The ESP and the cruise control - speed limiter are deactivated.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the connector of the engine throttle valve (component code **120**) and of the throttle valve (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, otherwise replace the wiring.

AFTER REPAIR	**If the throttle valve has been replaced, program the throttle stops (see Configurations and programming).** Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF508/SIM32_V4C_DF508/SIM32_V50_DF508/SIM32_V54_DF508

DF508 CONTINUED	

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3AJB** between components **1076** and **120**,
- **3AJC** 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.

Manually check that the throttle **rotates properly**.

Measure the **resistance** of the throttle valve motor between connections **3AJB** and **3AJC**:
If the resistance of the throttle valve motor is not between:
- **1.13 Ω < X < 1.27 Ω**, replace the throttle valve.

If the fault is still present, contact the Techline.

AFTER REPAIR	**If the throttle valve has been replaced, program the throttle stops (see Configurations and programming).** Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF559 PRESENT OR STORED	LOW-SPEED FAN ASSEMBLY RELAY CONTROL CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is considered **present** when the engine is running.
	Special note: **CO** or **CC.1**: Not possible to control the air conditioning and the customer is complaining that driving comfort is reduced. **CO**: No impact on the system. **CC.0**: The compressor is still active, risk of irreversible damage to the compressor (loss of capacity). The customer is complaining that the air conditioning is operating continuously.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the low-speed fan assembly relay connector (component code **700**) and the engine management computer connector (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Run command **AC154 Low speed fan assembly**.
If the command does not work, with the ignition on, check for **+ 12 V** on connection **3FB** of the low-speed fan assembly relay and the earthing of connection 3JN on the injection computer connector.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3FB** between components **700** and **238**,
- **3JN** between components **700** 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	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF559/SIM32_V4C_DF559/SIM32_V50_DF559/SIM32_V54_DF559

DF561 PRESENT OR STORED	HIGH-SPEED FAN ASSEMBLY RELAY CONTROL CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is declared present with the engine running.
	Special note: **CO** or **CC.1**: High speed fan assembly not activated, risk of engine overheating (the coolant warning light should warn of overheating), risk of loss of air conditioning. **CC.0**: High-speed fan assembly permanently activated. The customer complains of slight overconsumption and noise in **CC.0**.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the high-speed fan assembly relay connector (component code **234**) and the engine management computer connector (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair),** repair the connector, otherwise replace the wiring.

Run command **AC153 High speed fan assembly**.
If the command does not work, with the ignition on, check for **+ 12 V** on connection **3FB** of the high-speed fan assembly relay and the earthing of connection **3JP** on the injection computer connector.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3FB** between components **234** and **238**,
- **3JP** between components **234** 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**.

Only **Vdiag 54**

DF569 PRESENT OR STORED	TURBOCHARGING CIRCUIT 1.DEF: Signal outside lower limit 2.DEF: Signal outside upper limit 3.DEF: OBD

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is declared present with the engine running.
	Special note: **Defect mode 4**: speed limited to less than **66 mph (110 km/h)** in 5th and 6th and the accelerator pedal feels spongy. **Defect mode 5**: the ESP and Cruise control - Speed limiter are deactivated. **Defect mode 6**: the wastegate is not controlled and opens freely. The engine runs without turbocharging, like a naturally aspirated engine.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the connection of the turbocharging ducts.

Check the condition of the connector of the turbocharger pressure sensor (component code **1071**), of the wastegate solenoid valve (component code **436**), and of the engine management computer (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3AHN** between components **436** and **120**,
- **3AT** between components **436** and **120**,
- **3LN** between components **1071** and **120**,
- **3LP** between components **1071** and **120**,
- **3LQ** between components **1071** 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	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V54_DF569

DF603 PRESENT OR STORED	UCH MULTIPLEX CONNECTION 1.DEF: Multiplex line connection fault

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present when the ignition is switched on.
	Special notes: When this fault is **present**, the air conditioning request is not recognised.

Run a multiplex network test (see **88B, Multiplex**).
If the fault is not resolved, run fault finding on the **UCH** system (see **87B, Passenger compartment connection unit**)

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF603 / SIM32_V4C_DF603 / SIM32_V50_DF603 / SIM32_V54_DF603

DF612 PRESENT OR STORED	OIL VAPOUR DEFREEZE RESISTOR CIRCUIT CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V

NOTES	**Special notes:** Oil leaks and odours are possible.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check the condition of the connector of the oil vapour rebreathing hose heater (component code **979**) and of the engine management computer (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

With the ignition on, check for **+ 12 V** on connection **3FB** of the oil vapour re-breathing pipe heater and the earthing of connection **3YC** on the injection computer connector.

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3FB** between components **979** and **238**,
- **3YC** between components **979** and **120** (for **NEW TWINGO or E33**),
- **3JP** between components **979** and **120** (for **CLIO III or MODUS**).

If the connection or connections are 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: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF612 / SIM32_V4C_DF612 / SIM32_V50_DF612 / SIM32_V54_DF612

DF623 PRESENT OR STORED	CLOSING BRAKE SIGNAL 1.DEF: Multiplex line connection fault

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is declared **present** when the ignition is switched on or with the engine running.
	Special notes: The cruise control/speed limiter is deactivated.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Check that the pedal assembly is in good condition.
Check the **cleanliness** and **condition** of the dual-contact brake switch and its connections (component code **160**) and the engine management computer connector (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

With the ignition on, check for **+ 12 V** on connections **65A** and **5A** of the brake pedal switch, component code **160**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF623 / SIM32_V4C_DF623 / SIM32_V50_DF623 / SIM32_V54_DF623

DF623 CONTINUED	

Use the "universal bornier" to check the **insulation** and **continuity** of the following connection: ● **5A** between components **160** 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 it.
If the fault is still present, test the multiplex network (see **88B, Multiplex**).
If the fault is not resolved, run fault finding on the **UCH** system (see **87B, Passenger compartment connection unit**)
If the fault is still present, replace the switch.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

DF624 PRESENT OR STORED	UPC MULTIPLEX CONNECTION 1.DEF: Multiplex line connection fault 2.DEF: EOBD

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is declared **present** when the ignition is switched on.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

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

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

For **NEW TWINGO or E33**:
Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **133B** between components **120** and **645**,
- **133C** between components **120** and **645**,

If the connection or connections are 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, run fault finding on the **UCH** system (see **87B, Passenger compartment connection unit**).

For **CLIO III or MODUS**:
Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **133B** between components **120** and **1337**,
- **133C** between components **120** and **1337**.

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

If the fault is still present, carry out fault finding on the **UPC** system (see **87G, Engine compartment connection unit**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF624 / SIM32_V4C_DF624 / SIM32_V50_DF624 / SIM32_V54_DF624

DF650 PRESENT OR STORED	ACCELERATOR PEDAL POSITION SIGNAL 1.DEF: Signal incoherent

NOTES	**Conditions for applying the fault finding procedure to stored faults:** If the customer complains of intermittent faults typical of defect mode type 3 (no accelerator pedal, cruise control or speed limiter), and that the ESP indicator light comes on but the injection system displays no present faults, apply this fault finding procedure.
	Special notes: This fault finding procedure enables an accelerator pedal mechanical seizure type fault to be displayed whilst the pedal is depressed (when the driver's foot is lifted, the pedal position remains the same). In this case, the driver will brake. This program enables an inconsistency in the driver's behaviour, such as the brake pedal and accelerator being depressed simultaneously to be detected (but enables heel/toe points and left foot braking to be performed without displaying a fault). There are two possible cases: 1. The fault finding procedure detects constant acceleration then braking with the acceleration still maintained => change to reversible type 3 defect mode (see **System operation**) which no longer recognises the accelerator pedal => warning light does not come on, fault is not stored. If the accelerator pedal changes position before the end of a time delay (approximately **31 seconds**), it exits defect mode and returns to normal mode. 2. If the accelerator pedal does not change position for the entire time delay (approximately **31 seconds**), it goes irreversibly into defect mode (requires the ignition to be switched off to exit it). The warning light comes on and the fault is stored. This fault finding procedure has **no** relation with the throttle position. An accelerator fault (locking, for example) is needed to show the stored fault.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF650 / SIM32_V4C_DF650 / SIM32_V50_DF650 / SIM32_V54_DF650

DF650 CONTINUED	

Check that **PR030 Accelerator pedal position** is correct and carry out checks only if **PR030 > 15%** with no load or if **PR030 < 90%**. "Full load"

Check that the pedal mechanism has not seized.
Repair if necessary.

Check the condition of the pedal potentiometer connector (component code **921**) and the engine management computer connector (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair),** repair the connector, otherwise replace the wiring.

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

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

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

Measure the **resistance** of the pedal potentiometer gang 1 between connections **3LR** and **3LT**:

If the resistance is not between:

- **0.8 kΩ < X < 2.6 kΩ** with no load, replace the accelerator pedal.

Measure the **resistance** of the pedal potentiometer gang 2 between connections **3LR** and **3LV**:

If the resistance is not between:

- **0.8 kΩ < X < 4.9 kΩ** with no load, replace the accelerator pedal.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

Vdiag 4C only

DF893 PRESENT OR STORED	CONTROLLED COOLANT THERMOSTAT CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V 1.DEF: EOBD

NOTES	**Priorities when dealing with a number of faults:** Deal first with fault **DF084 Actuator relay control circuit** or **DF046 Battery voltage** if they are **present** or **stored**.
	Conditions for applying the fault finding procedure to stored faults: The fault is considered **present** when the engine is running.
	Special note: **Controlled coolant thermostat:** – For **CO** and **CC.1**: Thermostat not controlled; temperature regulation performed at **110˚C**. – For **CC 0**: Thermostat continuously controlled; temperature regulation performed at **90˚C**.
	Use **Wiring Diagram Technical Note for CLIO III or MODUS**.

Check the condition of the controlled coolant thermostat connector (see **Technical Note Wiring Diagram, CLIO III or MODUS, component code 1458**).
Check the condition of the engine management computer connector (see **Technical Note Wiring Diagram, CLIO III or MODUS, component code 120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair),** repair the connector, otherwise replace the wiring.

If the fault is still present, check (with the ignition on) for **+ 12 V** on connection **3FB** of the controlled coolant thermostat.
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.

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

- **3VL** between components **1458** 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 it.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V4C_DF893

DF1012 PRESENT OR STORED	MULTIPLEX SIGNALS CONSISTENCY FOR RV/LV* 1.DEF: Inconsistency

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is **present** after a road test using the cruise control then the speed limiter function.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

Disconnect the battery.
Disconnect the injection computer.
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, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Using the Universal bornier, check for **insulation** and **continuity** on the following connections:

- **86G** between components **120** and **331**,
- **86M** between components **120** and **331**.

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

If the fault is still present, contact the Techline.

*RV/LV: Cruise control/speed limiter function

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF1012 / SIM32_V4C_DF1012 / SIM32_V50_DF1012 / SIM32_V54_DF1012

DF1058 PRESENT OR STORED	INLET PRESSURE CONSISTENCY 1.DEF: Signal outside upper limit

NOTES	**Conditions for applying the fault finding procedure to stored faults:** **1.DEF**: The fault is declared present with the engine running after a few seconds.
	Use the **Wiring Diagram Technical Note for E33, CLIO III or MODUS**.

Check the condition of the manifold pressure sensor and its connections (component code **147**) and of the engine management computer (component code **120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Measure the **voltage** of the manifold pressure sensor between connections **3LG** and **3CK**.
If the voltage is not between:
- **4.75 V < X < 5.25 V** with the engine stopped, replace the manifold pressure sensor, component code **147**.

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

- **3LG** between components **147** and **120**,
- **3F** between components **147** and **120**,
- **3CK** between components **147** 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	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF1058 / SIM32_V4C_DF1058 / SIM32_V50_DF1058 / SIM32_V54_DF1058

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

NOTES	**Conditions for applying the fault finding procedure to stored faults** The fault is declared **present** when the engine is running.
	Special notes: **CO** or **CC.1**: Not possible to control the air conditioning and the customer is complaining that driving comfort is reduced. **CO**: No impact on the system. **CC.0**: The compressor is still active, risk of irreversible damage to the compressor (loss of capacity). The customer is complaining that the air conditioning is operating continuously.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS**.

For Clio III and Modus:

Check the condition of the UPC connectors, component code **1337.** Check the condition of the engine management computer connector, component code **120**. If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Run a test on the UPC computer (see **87G, Engine compartment connection unit**).
Run command **AC180 Air conditioning compressor relay control** and check for **+ 12 V** on connection **38R** of the air conditioning compressor clutch, component code **171**.
If the fault is still present, contact the Techline.

AFTER REPAIR	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

SIM32_V44_DF1072 / SIM32_V4C_DF1072 / SIM32_V50_DF1072 / SIM32_V54_DF1072

DF1072 CONTINUED	

For New Twingo and E33

Check the condition of the air conditioning compressor clutch relay connector, component code **584**. Check the condition of the engine management computer connector, component code **120**. If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Run command **AC180 Air conditioning compressor relay control** If the command does not work, with the ignition on, check for **+ 12 V** on connection **3FB** of the air conditioning compressor clutch relay, component code **584** and for the earthing of connection **38K** of the injection computer connector, component code **120**.
Use the universal bornier to check the **insulation** and **continuity** of the following connections: ● **3FB** between components **584** and **238**, ● **38K** between components **584** 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	Follow the instructions to confirm repair: – If the fault is **present**, continue to deal with the fault. – If the fault is **stored**, ignore it. Deal with any other faults. Clear the **stored** faults.

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 the **INTERPRETATION OF STATUSES** section.
For **PARAMETERS**, refer to the **INTERPRETATION OF PARAMETERS** section.
For **COMMANDS,** refer to the **INTERPRETATION OF COMMANDS** section.

Tool status	Diagnostic tool title
ET001	+ After ignition computer feed
ET003	Engine immobiliser
ET004	Air conditioning authorisation
ET018	Air conditioning request
ET021	High speed fan assembly request
ET022	Low speed fan assembly request
ET023	Fast idle speed request
ET038	Engine
ET039	Brake pedal
ET042	Cruise control/speed limiter
ET045	CC/SL selector switch on steering wheel
ET048	Actuator relay control
ET050	Canister bleed control
ET051	Throttle stop programming
ET052	Upstream O2 sensor heating
ET053	Downstream O2 sensor heating
ET054	Idle speed regulation
ET056	Richness double loop
ET057	Misfiring on cylinder 1
ET058	Misfiring on cylinder 2
ET059	Misfiring on cylinder 3
ET060	Misfiring on cylinder 4
ET061	Cylinder 1 detection
ET062	Flywheel signal

Tool status	Diagnostic tool title
ET075	Pedal released and throttle closed
ET076	Starting
ET077	Impact detected
ET079	Air conditioning present
ET081	Accelerator pedal position
ET082	Motorised throttle position
ET086	Camshaft dephaser (Only for **Vdiag 4C**)
ET088	Compressor actuation request
ET089	Flywheel target programming
ET093	Catalytic converter fault finding
ET094	Upstream sensor fault finding
ET095	Misfire fault finding
ET111	RCH* number set
ET112	RCH* cut-off
ET143	Low-speed fan assembly relay control
ET144	High-speed fan assembly relay control
ET233	Clutch pedal
ET289	Injection -> instrument panel connection
ET290	Petrol pump relay control
ET300	Richness regulation
ET340	Request by Automatic Transmission for OBD warning light to come on (Only **for CLIO III or MODUS)**
ET341	Immobiliser code programmed
ET351	Injection -> electronic stability program connection
ET357	Low-speed fan unit relay connection

* RCH: passenger compartment heating resistor

Tool status	Diagnostic tool title
ET358	High-speed fan unit relay connection
ET405	Clutch pedal switch
ET415	Deactivation of cruise control/speed limiter
ET556	Driver deactivation of the cruise control/speed limiter
ET557	Cruise control/speed limiter deactivation by function
ET561	Operating mode (Only for **Ethanol or E85 vehicle**)
ET562	Fan assembly request from automatic transmission (except **D7F800**)
ET564	Type 1 defect mode
ET565	Type 2 defect mode
ET566	Type 3 defect mode
ET567	Type 4 defect mode
ET568	Type 5 defect mode
ET569	Defect mode type 6
ET578	Petrol fuel circuit fault finding
ET603	Air conditioning compressor relay control circuit
ET671	Alcohol level programming (Only for **Ethanol or E85 vehicle**)
ET672	Engine coolant temperature management (Only for **Vdiag 4C**)
ET673	Jammed accelerator pedal detected
ET674	Refrigerant pressure
ET703	Cruise control/speed limiter buttons
ET704	Brakecontact No 1
ET705	Brakecontact No 2
ET840	**Customised Oil Change Interval** (except **Vdiag 44 and 4C**)

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 feed is not active.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

"PRESENT"	Ignition on and engine running warm at idle speed with the + after ignition feed activated. In the event of a fault, apply the interpretation of **DF046 Battery voltage**.

"ABSENT"	If the + after ignition is not activated, **ET001** is "Absent". In the event of a fault, apply the interpretation of **DF046 Battery voltage**.

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

SIM32_V44_ET001/SIM32_V4C_ET001/SIM32_V50_ET001/SIM32_V54_ET001

ET003	ENGINE IMMOBILISER

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

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

"ACTIVE"	Refer to the fault finding note for the UCH (see **87B, Passenger compartment connection unit**).

"INACTIVE"	Refer to the fault finding note for the UCH (see **87B, Passenger compartment connection unit**).

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

SIM32_V44_ET003/SIM32_V4C_ET003/SIM32_V50_ET003/SIM32_V54_ET003

ET004	AC AUTHORISED

STATUS DEFINITION	**YES**: This status indicates that the air conditioning is active. **NO**: This status indicates that the air conditioning is inactive.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

YES or NO	If air conditioning is authorised or if the compressor is actuated, (see **62A, Heating system, 62B, Climate control** or **62C, Manual air conditioning**).

Sensor electrical conformity

"YES"	The air conditioning authorisation only changes to **YES** if: – the air conditioning request has been made by the driver (air conditioning switch in **AC** or **AUTO** position with minimum ventilation), – the engine is not under full load, – the air conditioning system is not faulty.

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

SIM32_V44_ET004/SIM32_V4C_ET004/SIM32_V50_ET004/SIM32_V54_ET004

ET004 CONTINUED	

"NO"	Status **ET004** remains at **NO** under the following conditions: – Vehicle stopped with the ignition on, – faults present in the air conditioning circuit, – no air conditioning request made by the driver, – engine under full load.
	If status **ET004** remains **NO** then the air conditioning should be authorised, check: – that the air conditioning compressor is activated correctly, – the air conditioning system feed fuses, – the presence of refrigerant in the air conditioning circuit, If the fault is still present, check the air conditioning computer faults (see 62A, Heating, 62B, Climate control or 62C, Manual air conditioning).

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

ET021	HIGH-SPEED FAN REQUEST – Active – Inactive

STATUS DEFINITION	**ACTIVE**: This status indicates that the high-speed fan assembly is active. **INACTIVE**: This status indicates that the high-speed fan assembly is inactive.

NOTES	**Special notes:** Apply the checks only if statuses **ACTIVE** and **INACTIVE** are inconsistent.
	Refer to the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

"ACTIVE" or "INACTIVE"	Fan unit 2 starts when the coolant temperature exceeds **102˚C** and stops when it falls below **99˚C**.

Sensor electrical conformity

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

SIM32_V44_ET021/SIM32_V4C_ET021/SIM32_V50_ET021/SIM32_V54_ET021

ET021 CONTINUED 1	

Deal with **DF001 Coolant temperature sensor circuit** first.
Check the consistency of **PR064 Coolant temperature**.

If this status is inconsistent:

Disconnect the battery.
Check the condition of the engine management computer connector (component code **120**).

For **NEW TWINGO or E33**:

Check the condition of the air conditioning control unit connector (component code **419**).
If the connector(s) is(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.
Use the universal bornier to check the insulation and continuity of the following connections:
- **133B** between components **120** and **419**,
- **133C** between components **120** and **419**.

If the connection or connections are 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, carry out fault finding on the **UCH** system (see **87B, Passenger compartment connection unit**).

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

ET021 CONTINUED 2	

For **CLIO III or MODUS**:

Check the condition of the Protection and Switching Unit connector (see **Technical Note wiring Diagram, CLIO III or MODUS, component code 1337**).
If the connector or connectors are faulty and if there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

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

- **133B** between components **120** and **1337**,
- **133C** between components **120** and **1337**.

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

If the fault is still present, carry out fault finding on the **Protection and Switching Unit system** (see **87G, Engine compartment connection unit**).

If the fault is still present, contact the Techline.

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

ET022	LOW-SPEED FAN REQUEST – Active – Inactive

STATUS DEFINITION	**ACTIVE:** This status indicates that the low-speed fan assembly is active. **INACTIVE**: This status indicates that the low-speed fan assembly is inactive.

NOTES	**Special notes:** Apply the checks only if statuses **ACTIVE** and **INACTIVE** are inconsistent.
	Refer to the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

"ACTIVE" or "INACTIVE"	To ensure cooling, when the **engine is running**, fan assembly 1 is activated when the coolant temperature exceeds **99˚C** and stops when it falls below **96˚C**.

Sensor electrical conformity

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

SIM32_V44_ET022/SIM32_V4C_ET022/SIM32_V50_ET022/SIM32_V54_ET022

ET022 CONTINUED 1	

Deal with **DF001 Coolant temperature sensor circuit** first.
Check the consistency of **PR064 Coolant temperature**.

If this status is inconsistent:

Disconnect the battery.
Check the condition of the engine management computer connector (component code **120**).

For **NEW TWINGO and E33**:

Check the condition of the air conditioning control unit connector (component code **419**).
If the connector or connectors are faulty and if there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **133B** between components **120** and **419**,
- **133C** between components **120** and **419**.

If the connection or connections are 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, carry out fault finding on the **UCH** system (see **87B, Passenger compartment connection unit**).

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

ET022 CONTINUED 2	

For **Clio III and MODUS**:

Check the condition of the Protection and Switching Unit connector (see **Technical Note wiring Diagram, CLIO III or MODUS, component code 1337**).
If the connector or connectors are faulty and if there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

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

- **133B** between components **120** and **1337**,
- **133C** between components **120** and **1337**.

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

If the fault is still present, carry out fault finding on the **Protection and Switching Unit system** (see **87G, Engine compartment connection unit**).

If the fault is still present, contact the Techline.

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

ET023	FAST IDLE SPEED REQUEST – Present – Absent

STATUS DEFINITION	**PRESENT**: The status indicates that the fast idle speed request is active. **ABSENT**: The status indicates that the fast idle speed request is inactive.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	Refer to the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

PRESENT OR ABSENT	**UCH requests the injection system to increase the idling speed.** **ABSENT:** The UCH has not formulated a request. **PRESENT**: The UCH has formulated a request. If **ET023** is inconsistent, test the multiplex network using the **diagnostic tool** (see **88B, Multiplexing**). If the test is correct, refer to the UCH fault finding procedure (see **87B, Passenger compartment connection unit**) and for Clio III or Modus, run fault finding on the Protection and Switching Unit (see **87G, Engine compartment connection unit**).

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

SIM32_V44_ET023/SIM32_V4C_ET023/SIM32_V50_ET023/SIM32_V54_ET023

ET038	ENGINE

STATUS DEFINITION	**STALLED**: This status indicates that the engine has stalled. **RUNNING**: This status indicates that the engine is running. **STOPPED**: This status indicates that the engine is stopped. **STARTING**: This status indicates that the engine is being started.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check with engine stopped and ignition on.

STOPPED	Status ET038 is STOPPED if the engine ignition is on but there has been no starter operation.

Conformity check with engine running at idle speed, engine coolant temperature > 80˚C

RUNNING	This status indicates that the engine is running. In the event of a fault, switch off the ignition and wait **1 minute**. If the fault is still present, contact the Techline.

Status ET038 may also be in the STARTING or STALLED phase

STARTING	Status ET038 is "starting" when the engine is in starting phase.

STALLED	Status ET038 is STALLED when the engine has stalled. The vehicle is still under + after ignition feed.

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

SIM32_V44_ET038/SIM32_V4C_ET038/SIM32_V50_ET038/SIM32_V54_ET038

ET039	BRAKE PEDAL

STATUS DEFINITION	**DEPRESSED**: This status indicates that the brake pedal is in the depressed position. **RELEASED**: This status indicates that the brake pedal is in the released position.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

DEPRESSED	Status **ET039** is DEPRESSED when there is pressure on the brake pedal. In the event of a fault,apply the interpretation of statuses **ET704 Brake contact no. 1 and ET705 Brake contact no. 2**.
RELEASED	Status **ET039** is RELEASED when there is no action on the brake pedal. In the event of a fault,apply the interpretation of statuses **ET704 Brake contact no. 1 and ET705 Brake contact no. 2**.

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

SIM32_V44_ET039/SIM32_V4C_ET039/SIM32_V50_ET039/SIM32_V54_ET039

ET042	CRUISE CONTROL/SPEED LIMITER

STATUS DEFINITION	**NOT DETECTED**: This status indicates that the cruise control or speed limiter function is not present on the vehicle. **INACTIVE**: This status indicates that the cruise control/speed limiter main On/Off switch is in the rest (or neutral) position. **LIMITER**: This status indicates that the driver has used the main switch to select the speed limiter. **CRUISE CONTROL**: This status indicates that the driver has used the main switch to select the cruise control.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	Use the **Wiring Diagram Technical Note for NEW TWINGO, E33, CLIO III or MODUS.**

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

NOT DETECTED	The cruise control or speed limiter function is not present on the vehicle.
"INACTIVE"	No button has been pressed.
LIMITER	The speed limiter **ON/OFF** button has been pressed. Lights the orange warning light on the instrument panel.
CRUISE CONTROL	The cruise control **ON/OFF** button has been pressed. Lights the green warning light on the instrument panel.

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

SIM32_V44_ET042/SIM32_V4C_ET042/SIM32_V50_ET042/SIM32_V54_ET042

ET042 CONTINUED 1	

Sensor electrical conformity

NOT DETECTED

If the vehicle is not fitted with cruise control/speed limiter function buttons, status **ET042** is permanently **NOT DETECTED**. This confirms that the cruise control/speed limiter function is not present on the vehicle.

If the vehicle is fitted with cruise control or speed limiter function buttons, the main switch is in rest (or neutral) position and the injection computer has just been programmed or reprogrammed, then status **ET042** is **NOT DETECTED**.
To activate the cruise control or speed limiter function, press the main switch in the cruise control position and then in the speed limiter position.
Return to rest position
For status **ET042**: the tool displays **INACTIVE**.
If not, several steps must be checked:

1. return to the multiplex network test page on the Clip application. Repeat the multiplex network test. Re-establish dialogue with the injection computer. Check status **ET042**. If **ET042** is **INACTIVE**, the injection computer has detected the various positions of the main switch. The cruise control/speed limiter is active.

2. If status **ET042** is still **NOT DETECTED**, check that the vehicle's owner has not had the cruise control/speed limiter function disabled in the past. Contact the Techline.

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

ET042 CONTINUED 2	

"INACTIVE"	When the main button is in rest position (or Neutral), status **ET042 Cruise control/ speed limiter** is **INACTIVE**. If **CRUISE CONTROL** or **SPEED LIMITER** appears despite the main switch being in the rest (or neutral) position, carry out the following operations: Check the connections of the cruise control/speed limiter main switch. If the connector is faulty and there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring. Check for **+12 V** after ignition on the switch connector on the following connection: ● **AP10** of component **1081**. Disconnect the switch and with it in the rest position, check the insulation between the following connections: ● **AP10** and **3FX** of component **1081**. ● **AP10** and **3PD** of component **1081**. – Check the **continuity** between connections **AP10** and **3PD** of component **1081** in the speed limiter position. – Check the **continuity** between connections **AP10** and **3PD** of component **1081** in the cruise control position. If these checks are not in order, replace the switch. Check the **insulation, continuity,** and the **absence of interference** resistance on the following connections: ● **3FX** between components **1081** and **120**, ● **3PD** between components **1081** and **120**. Also check: The engine management computer connections. If the connector is faulty and there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

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

ET042 CONTINUED 3	

LIMITER	When the driver presses the speed limiter switch, status **ET042 Cruise control/ speed limiter** becomes **SPEED LIMITER**. If **CRUISE CONTROL** or **INACTIVE** appears although the driver pressed the switch in the speed limiter position, carry out the following operations: Check the connections of the cruise control/speed limiter main switch. If the connector is faulty and there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring. Check for **+12 V** after ignition feed on the switch connector. ● **AP10** of component **1081**. Disconnect the switch and when it is in the rest position, check the insulation between: ● **AP10** and **3FX** of component **1081**, ● **AP10** and **3PD** of component **1081**. – Check the **continuity** between connections **AP10** and **3PD** of component **1081** in the speed limiter position. – Check the **continuity** between connections **AP10** and **3PD** of component **1081** in the cruise control position. If these checks are not in order, replace the switch. Check the **insulation, continuity**, and the **absence of interference resistance** on the following connections: ● **3FX** between components **1081** and **120**, ● **3PD** between components **1081** and **120**. Also check: The engine management computer connections. If the connector is faulty and there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

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

ET042 CONTINUED 4	

CRUISE CONTROL	When the driver presses the cruise control switch, status **ET042 Cruise control/ speed limiter** becomes **CRUISE CONTROL**. If **SPEED LIMITER** or **INACTIVE** appears even though the cruise control button is pressed, carry out the following operations: Check the connections of the cruise control/speed limiter main switch. If the connector is faulty and there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring. Check for **+12 V** after ignition feed on the switch connector. ● **AP10** of component **1081**. Disconnect the switch and when it is in the rest position, check the insulation between: ● **AP10** and **3FX** of component **1081**, ● **AP10** and **3PD** of component **1081**. – Check the **continuity** between connections **AP10** and **3PD** of component **1081** in the speed limiter position. – Check the **continuity** between connections **AP10** and **3FX** of component **1081** in the cruise control position. If the results of the checks are not correct, replace the switch. Check the **insulation, continuity**, and the **absence of interference resistance** on the following connections: ● **3FX** between components **1081** and **120**, ● **3PD** between components **1081** and **120**. Also check: The engine management computer connections. If the connector is faulty and there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

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

ET045	CRUISE CONTROL/SPEED LIMITER SELECTOR SWITCH ON STEERING WHEEL

STATUS DEFINITION	**RESUME**: This status indicates that the **R** button is pressed. **SUSPEND**: This status indicates that the **0** is pressed. **INCREASE**: This status indicates that the increase button is pressed. **DECREASE**: This status indicates that the decrease button is pressed.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

INCREASE	Status **ET413** becomes **INCREASE** when the cruise control + button is pressed. This button is situated to the left of the steering wheel.
DECREASE	Status **ET413** becomes **INCREASE** when the cruise control + button is pressed. This button is situated to the left of the steering wheel.
SUSPEND	Status **ET413** becomes **SUSPEND** when the **0** cruise control button is pressed. This button is situated to the right of the steering wheel.
RESUME	Status **ET413** becomes **RESUME** when the **R** cruise control button is pressed. This button is situated to the right of the steering wheel.

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

SIM32_V44_ET045/SIM32_V4C_ET045/SIM32_V50_ET045/SIM32_V54_ET045

ET048	ACTUATOR RELAY CONTROL

STATUS DEFINITION	**ACTIVE**: The status indicates that the control is active. **INACTIVE**: The status indicates that the control is inactive.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

"INACTIVE" or ACTIVE	This relay supplies the following actuators: the injectors, the throttle valve control, the oxygen sensor heating, the bleed solenoid valve, the fuel vapour absorber and connection **3FB** of the injection computer. In the event of a fault, see the interpretation of fault **DF084 Actuator relay control circuit**.

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

SIM32_V44_ET048/SIM32_V4C_ET048/SIM32_V50_ET048/SIM32_V54_ET048

ET050	ACTUATOR RELAY CONTROL

STATUS DEFINITION	**ACTIVE**: The status indicates that the canister bleed control is active. **INACTIVE**: The status indicates that the canister bleed control is inactive.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

"INACTIVE"	The petrol vapour rebreather bleed does not operate at idle speed. Use command **AC017 Canister bleed solenoid valve** to check its operation. In the event of a fault, see interpretation of fault **DF081 Canister bleed solenoid valve circuit**.

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

SIM32_V44_ET050/SIM32_V4C_ET050/SIM32_V50_ET050/SIM32_V54_ET050

ET051	THROTTLE STOP PROGRAMMING – Completed – Not completed

STATUS DEFINITION	**DONE**: This status indicates that the throttle stop programming has been completed. **NOT DONE**: This status indicates that the throttle stop programming has not been completed.

NOTES	There must be no **present** or **stored** faults.
	Special notes: When programming is in progress, the injection system prevents the engine from starting, until the operation is completed.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

COMPLETED or NOT COMPLETED	This status does not change according to the ignition or engine status but according to the programming of the component. In the event of a fault, program the throttle stops (see **Configurations and programming**).

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 **Configurations and programming**).

The air temperature should be greater than **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.

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

ET052	UPSTREAM O2 SENSOR HEATING

STATUS DEFINITION	**ACTIVE:** This status indicates that the upstream oxygen sensor heater is active. **INACTIVE:** This status indicates that the upstream oxygen sensor heater is inactive.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: engine stopped and ignition on.

"INACTIVE"	The status is inactive when the engine is off. In the event of a fault, apply interpretation of **DF082 Upstream oxygen sensor heating circuit**.

Conformity check: engine running at idle speed, engine coolant temperature > 80˚C.

"ACTIVE"	The status becomes active when the engine is started and its operation increases according to the heating temperature. In the event of a fault, apply the interpretation of **DF082**.

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

SIM32_V44_ET052/SIM32_V4C_ET052/SIM32_V50_ET052/SIM32_V54_ET052

ET053	DOWNSTREAM O2 SENSOR HEATING

STATUS DEFINITION	**ACTIVE:** This status indicates that the downstream oxygen sensor heater is active. **INACTIVE:** This status indicates that the downstream oxygen sensor heater is inactive.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: engine stopped and ignition on.

"INACTIVE"	The status is inactive when the engine is off. In the event of a fault, apply interpretation of **DF083 Downstream oxygen sensor heating circuit**.

Conformity check: engine running at idle speed, engine coolant temperature > 80˚C.

"ACTIVE"	The status becomes active when the engine is started and its operation increases according to the heating temperature. In the event of a fault, apply the interpretation of **DF083**.

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

SIM32_V44_ET053/SIM32_V4C_ET053/SIM32_V50_ET053/SIM32_V54_ET053

ET054	IDLING SPEED REGULATION – Active – Inactive

STATUS DEFINITION	**ACTIVE**: This status indicates that idle speed regulation is active. **INACTIVE**: This status indicates that idle speed regulation is inactive.

NOTES	There must be no **present** or **stored** faults. **Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: engine stopped and ignition on.

"INACTIVE"	The status becomes active when the engine is started.

Conformity check: engine running at idle speed, engine coolant temperature > 80˚C.

ACTIVE	The status becomes active when the engine is started.

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

SIM32_V44_ET054/SIM32_V4C_ET054/SIM32_V50_ET054/SIM32_V54_ET054

ET054 CONTINUED	

IDLING SPEED TOO LOW

Check:
– engine oil level (too high, splashing),
– that the exhaust pipe is not blocked (catalytic converter damaged),
– the cleanliness and conformity of the air filter,
– that the air inlet circuit is not blocked,
– that the throttle valve assembly is not clogged,
– the condition and conformity of the spark plugs,
– the fuel circuit sealing,
– the fuel pressure and the flow (see **MR 392 (Clio III), MR 385 (Modus), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 13A, Fuel supply**),
– the condition and cleanliness of the injectors,
– the cylinder compression's,
– the timing setting.

Repair or replace the faulty components, if necessary.

IDLING SPEED TOO HIGH

Check:
– engine oil level (too high, splashing),
– for the fittings in the oil vapour rebreathing system,
– the sealing between the throttle valve and inlet manifold,
– the manifold pressure sensor sealing,
– the fuel vapour absorber bleed, which must not be jammed open,
– the fuel vapour absorber bleed system sealing,
– the brake servo system sealing,
– the sealing between the inlet manifold and cylinder head,
– the oil vapour recovery circuit sealing between the inlet manifold and cylinder head,
– the fuel pressure and the flow (see **MR 392 (Clio III), MR 385 (Modus), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 13A, Fuel supply**),
– the condition and cleanliness of the injectors,
– the cylinder compression's,
– the timing adjustment,

Repair or replace the faulty components, if necessary.

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

ET056	DOUBLE RICHNESS LOOP

STATUS DEFINITION	**ACTIVE**: The status indicates that the double richness loop is active. **INACTIVE**: The status indicates that the double richness loop is inactive.

NOTES	There must be no **present** or **stored** faults. **Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

"INACTIVE" or ACTIVE	This status is only inactive if one of the two oxygen sensors is in poor condition. In the event of a fault, apply the interpretation of faults **DF082 Upstream oxygen sensor heating circuit, DF083 Downstream oxygen sensor heating circuit, DF092 Upstream oxygen sensor circuit**, **DF093 Downstream oxygen sensor circuit**.

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

SIM32_V44_ET056/SIM32_V4C_ET056/SIM32_V50_ET056/SIM32_V54_ET056

ET057	MISFIRING ON CYLINDER 1
ET058	MISFIRING ON CYLINDER 2
ET059	MISFIRING ON CYLINDER 3
ET060	MISFIRING ON CYLINDER 4

STATUS DEFINITION	**YES**: This status indicates that a combustion misfire has been detected on the cylinder. **NO**: This status indicates that a combustion misfire has not been detected on the cylinder.

NOTES	**Special note:** Only perform the tests if the statuses do not correspond with the system programming functions.

Conformity check: engine running at idle speed, engine coolant temperature > 80˚C.

"YES" or "NO"	For normal engine operation, the status must be **NO**. 'In the event of a fault, apply the interpretation of faults **DF059 Combustion misfire in cylinder 1, DF060 Combustion misfire in cylinder 2, DF061 Combustion misfire in cylinder 3** and **DF062 Combustion misfire in cylinder 4** according to the cylinder in question.

AFTER REPAIR	Repeat the conformity check from the start.

ET061	CYLINDER 1 RECOGNITION – Completed – Not completed

STATUS DEFINITION	**COMPLETED**: This status indicates that the cylinder 1 injector command recognition is active. **NOT COMPLETED**: This status indicates that the cylinder 1 injector command recognition is inactive.

NOTES	There must be no **present** or **stored** faults.
	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

COMPLETED or NOT PERFORMED	The status is completed when the engine is started if the engine phasing is correct. Run command **RZ005 Programming** and program the engine flywheel target (see **Configurations and Programming**). Check the programming using **ET089 Flywheel target programming**.

Engine phasing:
On engines without a camshaft sensor, the engine phasing is performed by software. A "Memo-phasing" program is run first to phase the engine management on starting according to the data saved from the previous setting. Wait 30 seconds (for the data to be saved) before disconnecting the computer.

Then, a second program confirms the first decision. It is based on torque analysis. The torque calculation is based on the analysis of the time taken for the engine flywheel teeth to pass by. The engine speed should be between 320 rpm and 5,000 rpm.

Run command **RZ005 Programming** and program the engine flywheel target (see **Configurations and Programming**). Check the programming using **ET089 Flywheel target programming**.

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

SIM32_V44_ET061/SIM32_V4C_ET061/SIM32_V50_ET061/SIM32_V54_ET061

ET062	FLYWHEEL SIGNAL – detected – not detected

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

NOTES	There must be no **present** or **stored** faults.
	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: engine stopped and ignition on.

NOT DETECTED	The engine flywheel signal is detected after the engine is started. In the event of a fault apply the interpretation for **DF154 Flywheel signal sensor circuit**.

Conformity check with engine running at idle speed, engine coolant temperature > 80˚C

DETECTED	The engine flywheel signal is detected after the engine is started. In the event of a fault apply the interpretation for **DF154 Flywheel signal sensor circuit**.

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

SIM32_V44_ET062/SIM32_V4C_ET062/SIM32_V50_ET062/SIM32_V54_ET062

ET075	PEDAL NO LOAD AND THROTTLE VALVE CLOSED

STATUS DEFINITION	**YES**: This status indicates that the motorised throttle is closed and that there is no load on the accelerator pedal. **NO:** This status indicates that the motorised throttle is definitely not closed and/or that there is some load on the accelerator pedal.

NOTES	There must be no **present** or **stored** faults.
	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

"YES"	Without action on the pedal, the status **ET075** is **YES**.

"NO"	Apply the interpretation of **PR030 Accelerator pedal position**.

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

SIM32_V44_ET075/SIM32_V4C_ET075/SIM32_V50_ET075/SIM32_V54_ET075

ET076	STARTING

STATUS DEFINITION	**PROHIBITED**: This status indicates that starting is not possible. **AUTHORISED**: This status indicates that starting is possible.

NOTES	**Special note:** Only perform the tests if the statuses do not correspond with the system programming functions.

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

"PROHIBITED"	Refer to the UCH fault finding note, (see **87B, Passenger compartment connection unit**) or to the Protection and Switching Unit fault finding note, (see **87G, Engine compartment connection unit**).
"AUTHORISED"	Refer to the UCH fault finding note, (see **87B, Passenger compartment connection unit**) or to the Protection and Switching Unit fault finding note, (see **87G, Engine compartment connection unit**).

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

SIM32_V44_ET076/SIM32_V4C_ET076/SIM32_V50_ET076/SIM32_V54_ET076

ET077	IMPACT DETECTED – No – Yes

STATUS DEFINITION	**NO**: This status indicates that the airbag computer has not detected an impact. **YES**: This status indicates that the airbag computer has detected an impact.

NOTES	There must be no **present** or **stored** faults.
	Special notes: The fault appears when the UCH receives a frontal impact signal from the **Airbag** computer via the multiplex network. As soon as the UCH receives this signal, engine operation is prohibited.

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

"NO"	The status is usually **NO** as no impact has been detected. Otherwise, check the airbag computer (see **88C, Airbags and pretensioners**).
"YES"	If **YES** an impact must be present. Otherwise, check the airbag computer (see **88C, Airbags and pretensioners**).

If the vehicle has been involved in an accident:
Carry out any necessary repairs:
– switch off the ignition for **10 seconds**,
– switch on the ignition again.
If status **ET077** is **YES**, run fault finding on the airbag computer (see **88C, Airbags and pretensioners**).

If the vehicle has not suffered an accident, run fault finding on the airbag computer (see **88C, Airbag and pretensioners**).

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

SIM32_V44_ET077/SIM32_V4C_ET077/SIM32_V50_ET077/SIM32_V54_ET077

ET079	AIR CONDITIONING PRESENT

STATUS DEFINITION	**YES**: This status indicates that air conditioning is present on the vehicle. **NO**: This status indicates that air conditioning is not present on the vehicle.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	The heating and air conditioning system is present depending on the vehicle's equipment level.

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

"YES" or "NO"	Depending on the vehicle equipment.

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

SIM32_V44_ET079/SIM32_V4C_ET079/SIM32_V50_ET079/SIM32_V54_ET079

ET081	ACCELERATOR PEDAL POSITION

STATUS DEFINITION	**NO LOAD**: This status indicates that there is no load on the accelerator pedal. **FULL LOAD**: This status indicates that the accelerator pedal is fully depressed.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

"YES" or "NO"	**YES** or **NO**, depending on the pedal status. In the event of a fault, apply the interpretation of **DF196 Pedal sensor circuit gang 1** and **DF198 Pedal sensor circuit gang 2**.

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

SIM32_V44_ET081/SIM32_V4C_ET081/SIM32_V50_ET081/SIM32_V54_ET081

ET082	MOTORISED THROTTLE POSITION

STATUS DEFINITION	**LOWER END STOP**: This status indicates that the motorised throttle is at the lower end stop. **UPPER END STOP**: This status indicates that the motorised throttle is at the upper end stop.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

"LOWER END STOP" or "UPPER END STOP"	Depending on the load on the accelerator pedal, the throttle stop must be at the **lower** or **upper** or intermediate end stop. In the event of a fault, apply the interpretation of **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**.

SIM32_V44_ET082/SIM32_V4C_ET082/SIM32_V50_ET082/SIM32_V54_ET082

ET086	CAMSHAFT DEPHASER CONTROL

STATUS DEFINITION	**WITHOUT**: This status indicates that there is no camshaft dephaser. **ACTIVE**: This status indicates that the camshaft dephaser control is active. **INACTIVE**: This status indicates that the camshaft dephaser control is inactive. **FAULTY**: This status indicates that the camshaft dephaser control is faulty.

NOTES	There must be no **present** or **stored** faults.

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

WITHOUT	For engines **D4F 740** and **D4F 784**, **ET086** is **WITHOUT**. In the event of a fault, apply the interpretation of faults **DF080 Camshaft dephaser circuit** and **DF119 Camshaft sensor signal**.
D4F 764: INACTIVE at idle speed ACTIVE engine under load	In the event of a fault, apply the interpretation of faults **DF080 Camshaft dephaser circuit** and **DF119 Camshaft sensor signal**.
"FAULTY"	Indicates **FAULT** when there is a pulley, solenoid valve, tooth signal consistency or tooth signal fault. In the event of a fault, apply the interpretation of faults **DF080 Camshaft dephaser circuit** and **DF119 Camshaft sensor signal**.

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

SIM32_V4C_ET086

ET088	REQUEST TO START COMPRESSOR

STATUS DEFINITION	**ACTIVE**: This status indicates that the compressor is engaged. **INACTIVE:** This status indicates that the compressor is not engaged.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Engine running, engine coolant temperature > 80˚C

"ACTIVE"	The air conditioning request has been made by the driver when pressing one of the air conditioning controls (Auto or AC). Status **ET088** becomes **ACTIVE** and the computer authorises or does not authorise air conditioning depending on the operating conditions. If status **ET088** does not become **ACTIVE** when the control button is pressed, refer to the air conditioning fault finding note (see **62A, Heating system**, 62B, Climate control or **62C, Manual air conditioning**). Note: Compressor operation is only authorised when the engine is running.

Conformity check with engine stopped and ignition on.

"INACTIVE"	When the driver deactivates the air conditioning, status **ET088** must become **INACTIVE**. If it does not, refer to the air conditioning fault finding note (see **62A, Heating system, 62B, Climate control** or **62C, Manual air conditioning**). Note: Compressor operation is only authorised when the engine is running.

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

SIM32_V44_ET088/SIM32_V4C_ET088/SIM32_V50_ET088/SIM32_V54_ET088

ET089	PROGRAMMING THE ENGINE FLYWHEEL TARGET – Not completed. – Completed. – Faulty (engine flywheel target fault).

STATUS DEFINITION	**COMPLETED:** This status indicates that the engine flywheel target programming has been completed. **NOT COMPLETED:** This status indicates that the engine flywheel target programming has not been completed. **FAULTY**: This status indicates that there has been an engine flywheel target fault.

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
	There must be no **present** or **stored** faults.

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

COMPLETED or NOT COMPLETED or "FAULTY"	This status may be **COMPLETED** or **NOT COMPLETED** or **FAULTY** with the ignition on or the engine running. It varies according to the engine flywheel target status. In the event of a fault, program the engine flywheel target (see **Configurations and programming**). If this status is **FAULTY**, refer to the interpretation of fault **DF457 Engine flywheel target**.

Correct the present faults caused by the engine target and program the target by:

– Decelerate with the injection cut-off (no pressure on brake, accelerator and clutch pedals) between **3500** and **3000 rpm**, for a minimum of **5 seconds** in a gear above 2nd for an automatic transmission or above 3rd for a manual gearbox.

– Decelerate a second time the injection cut-off (no pressure on brake, accelerator and clutch pedals) between **2400** and **2000 rpm**, for a minimum of **5 seconds** in a gear above 2nd for an automatic transmission or above 3rd for a manual gearbox.

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

ET093	CATALYTIC CONVERTER FAULT FINDING

STATUS DEFINITION	**IN PROGRESS:** This status indicates that the computer fault finding program is being run on the catalytic converter. **INACTIVE:** This status indicates that the computer program is not running fault finding on the catalytic converter. **COMPLETED**: This status indicates that the computer program has completed fault finding on the catalytic converter.

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.
	There must be no **present** or **stored** faults.

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

IN PROGRESS or "INACTIVE" or COMPLETED	This status varies when the ignition is on or the engine is running, depending on the fault finding program run on the catalytic converter by the computer. In the event of a fault, apply the interpretation of **DF394 Catalytic converter operational fault**.

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

ET094	UPSTREAM SENSOR FAULT FINDING

STATUS DEFINITION	**IN PROGRESS:** This status indicates that the computer fault finding program is being run on the upstream sensor. **INACTIVE:** This status indicates that the computer fault finding program is not running on the upstream sensor. **COMPLETED**: This status indicates that the computer program has completed fault finding on the upstream sensor.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	There must be no **present** or **stored** faults.

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

IN PROGRESS or "INACTIVE" or COMPLETED	This status varies when the ignition is on or the engine is running, depending on the fault finding program run on the upstream sensor by the computer. In the event of a fault, apply the interpretation of **DF092 Upstream oxygen sensor circuit**.

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

ET095	COMBUSTION MISFIRE FAULT FINDING

STATUS DEFINITION	**IN PROGRESS**: This status indicates that combustion misfire fault finding is in progress via a computer program. **INACTIVE**: This status indicates that the computer program is not running misfiring fault finding. **COMPLETED**: This status indicates that the computer program has completed combustion misfire fault finding.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	There must be no **present** or **stored** faults.

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

IN PROGRESS or "INACTIVE" or COMPLETED	This status varies when the ignition is on or the engine is running, depending on the combustion misfire fault finding program run by the computer.

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

ET111	SET NUMBER OF PASSENGER COMPARTMENT HEATING RESISTORS

STATUS DEFINITION	**YES:** This status indicates that the number of activated passenger compartment heating resistors is set by the injection computer. **NO:** This status indicates that the number of passenger compartment heating resistors can be freely controlled by the UCH.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

"YES"	Depending on the requirements of the injection system (e.g. torque reduction, power requirements), the injection computer sets the number of activated passenger compartment heating resistors (no more or no fewer than required) Status **ET111** becomes **YES** when the number of activated passenger compartment heating resistors is set by the injection computer.

"NO"	Depending on the requirements of the injection system (e.g. torque reduction, power requirements), the injection computer sets the number of activated passenger compartment heating resistors (no more or no fewer than required) Status **ET111** becomes **NO** if the number of passenger compartment heating resistors engaged can be freely controlled by the UCH.

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

ET112	PASSENGER COMPARTMENT HEATING RESISTORS CUT OFF

STATUS DEFINITION	**YES**: This status indicates that the passenger compartment heating resistors are switched off at the request of the injection computer. **NO**: This status indicates that the passenger compartment heating resistors can be freely controlled by the UCH.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

"YES"	Depending on the requirements of the injection system (e.g. torque reduction, power requirements), the injection computer cuts off the passenger compartment heating resistors. Status **ET112** becomes **YES** if the number of passenger compartment heating resistors are cut-off by request of the injection computer.

"NO"	Depending on the requirements of the injection system (e.g. torque reduction, power requirements), the injection computer cuts off the passenger compartment heating resistors. Status **ET112** becomes **NO** when the passenger compartment heating resistors can be freely controlled by the UCH.

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

SIM32_V44_ET112/SIM32_V4C_ET112/SIM32_V50_ET112/SIM32_V54_ET112

ET143	LOW-SPEED FAN ASSEMBLY RELAY CONTROL

STATUS DEFINITION	This status indicates that the low-speed fan assembly relay is being actuated (**ACTIVE**) or not (**INACTIVE**).

NOTES	**Special notes:** – Perform these checks if the parameters correspond with the system operation programming. – If the vehicle is equipped with air conditioning, the engine cooling fan will run at 1st speed as soon as the air conditioning compressor is activated.
	There should be no fault **detected** on the coolant temperature sensor circuit when this fault finding procedure is being carried out.

Conformity check with engine stopped and ignition on.	
INACTIVE	Engine cold and air conditioning switched off In the event of a fault, consult the interpretation of fault **DF559 Low-speed fan assembly control**.

Conformity check with the engine running and engine coolant temperature > 80˚C	
ACTIVE **INACTIVE**	**INACTIVE or ACTIVE**, according to the engine temperature and the air conditioning switched off If there is a fault, refer to the interpretation of fault **DF559**.

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

ET143 CONTINUED	

Sensor electrical conformity

Check:
– the condition of the low-speed fan unit,
– that the low-speed fan resistance is correct,
– the cleanliness of the low-speed fan earth,
– the low-speed fan feed,
– the feed line between the low-speed fan and the low-speed fan relay.

Check the **connection** and **condition** of the connector of the low-speed fan assembly relay (component code **700**) and of the engine management computer (component code **120**).
If the connector or connectors are faulty and if there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

Disconnect the low-speed fan relay. Check, with the ignition on, for **12 V** on the connection **3FB of the relay**.
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.

Check **the continuity** of the relay coil.
Replace the low-speed fan relay if necessary.

Use the universal bornier to check the **insulation** and **continuity** of the following connection:
● **3JN** between components **120** and **700**.
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.

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

ET144	HIGH-SPEED FAN ASSEMBLY RELAY CONTROL

STATUS DEFINITION	This status indicates that the high-speed fan assembly relay is being actuated (**ACTIVE**) or not (**INACTIVE**).

NOTES	**Special notes:** Perform these checks if the parameters correspond with the system operation programming. There should be no fault **detected** on the coolant temperature sensor circuit when this fault finding procedure is being carried out.

Conformity check with engine stopped and ignition on.

INACTIVE	Engine cold and air conditioning switched off In the event of a fault, consult the interpretation of fault **DF561 High-speed fan assembly relay control**.

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

ACTIVE **INACTIVE**	**INACTIVE or ACTIVE**, according to the engine temperature and the air conditioning switched off. If there is a fault, refer to the interpretation of fault **DF561**.

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

ET144 CONTINUED	

Check:
– the condition of the high-speed fan unit,
– that the high-speed fan resistance is correct,
– the cleanliness of the high-speed fan earth,
– the high-speed fan feed,
– the feed line between the high-speed fan and the high-speed fan relay.

Check the **connection** and **condition** of the high-speed fan assembly relay connector (component code **234**) and the engine management computer connector (component code **120**).
If the connector or connectors are faulty and if there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.

Disconnect the high-speed fan relay. Check, with the ignition on, for **12 V** on the connection **3FB** of the relay.
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.

Check **the continuity** of the relay coil.
Replace the high-speed fan relay if necessary.

Use the universal bornier to check the **insulation** and **continuity** of the following connection:
3JP between components **120** and **234**.
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.

Repair if necessary.

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

ET223	CLUTCH PEDAL

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

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

DEPRESSED	**Clutch pedal depressed.** Non-conformity of the brake signals and/or the clutch switch signals can cause the engine to race during gear changes. In the event of a fault, apply the interpretation of **DF150 Clutch switch circuit**.
RELEASED	**Clutch pedal released.** Non-conformity of the brake signals and/or the clutch switch signals can cause the engine to race during gear changes. In the event of a fault, apply the interpretation of **DF150 Clutch switch circuit**.

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

ET289	INSTRUMENT PANEL INJECTION CONNECTION

STATUS DEFINITION	**CONNECTED:** This status indicates that the connection between the injection computer and the instrument panel is not defective. **DISCONNECTED:** This status indicates that the connection between the injection computer and the instrument panel is defective.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

NOT CONNECTED	The connection between the injection computer and the instrument panel is defective, test the instrument panel (see **83A, Instrument panel**) and the multiplex network (see **88B, Multiplexing**).

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

ET290	FUEL PUMP RELAY CONTROL

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

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	There must be no **present** or **stored** faults.

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

"ACTIVE" or "INACTIVE"	This status becomes active when the engine is started. In the event of a fault, apply the interpretation of **DF085 Fuel pump relay control circuit**

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

ET300	RICHNESS REGULATION

STATUS DEFINITION	**ACTIVE**: This indicates that the richness is regulated. **INACTIVE**: This status indicates that the richness is not regulated.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check with engine stopped and ignition on.

"ACTIVE"	The status is **ACTIVE** when the engine is running.
"INACTIVE"	The status is **INACTIVE** when the engine is not running.

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

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

ET340	AUTOMATIC TRANSMISSION REQUEST TO ACTIVATE OBD WARNING LIGHT

STATUS DEFINITION	**ACTIVE:** This status indicates that the automatic transmission computer request to activate the OBD warning light is active. **INACTIVE:** This status indicates that the automatic transmission computer request to activate the OBD warning light is inactive.

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.

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

"ACTIVE" or "INACTIVE"	For normal engine operation, the status must be **INACTIVE**. If activation of the OBD warning light on the instrument panel is not consistent with the status, test the instrument panel (see **83A, Instrument panel**).

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

ET341	IMMOBILISER CODE PROGRAMMED

STATUS DEFINITION	**YES**: This status indicates that the immobiliser code has been programmed. **NO:** This status indicates that the immobiliser code has not been programmed.

NOTES	**Special notes:** Perform these checks if the parameters correspond with the system operation programming.
	There must be no **present** or **stored** faults.

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

"YES"	Status **ET341** is **YES** if dialogue is possible between the UCH computer and the injection computer and the key code is recognised. The engine is only authorised to start if the code is recognised by the UCH computer and if status **ET003 Immobiliser** is **INACTIVE**. In the event of a fault, (see **87B, Passenger compartment connection unit, conformity check**).

"NO"	Status **ET341** is **NO** if dialogue is not possible between the UCH computer and the injection computer (status **ET003** remains **ACTIVE**). This fault may be caused by incorrect key programming or a lack of key programming. In this case, refer to the UCH fault finding note (see **87B, Passenger compartment connection unit**) and follow the key programming procedure. If the key programming is not the cause, run a multiplex network test (see **88B, Multiplexing**) and check that dialogue between the UCH and the injection computer is possible. If dialogue is not established, contact the Techline.

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

ET351	INJECTION ELECTRONIC STABILITY PROGRAM CONNECTION

STATUS DEFINITION	**CONNECTED:** This status indicates that the connection between the injection computer and the ESP is not defective. **DISCONNECTED:** This status indicates that the connection between the injection computer and the ESP is defective.

NOTES	**Special notes:** Perform these checks if the parameters correspond with the system operation programming.

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

NOT CONNECTED	The connection between the injection computer and the ESP is defective, test the **ABS/ESP** computer (see **38C, Anti-lock braking system**) and the multiplex network (see **88B, Multiplexing**).

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

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:** Only perform these tests if the parameters do not correspond with the system operation programming.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

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

"ACTIVE"	**Clutch pedal depressed.** Non-conformity of the brake signals and or the clutch switch signals can cause the engine to race during gear changes.
"INACTIVE"	**Clutch pedal released.** Non-conformity of the brake signals and or the clutch switch signals can cause the engine to race during gear changes.

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

ET405 CONTINUED	

Sensor electrical conformity

"INACTIVE"	Check the condition and fitting of the clutch pedal switch. Remove the clutch pedal switch, check the **insulation** between connections **M** and **86D** of component **675**, with the switch in the rest position. – Repeat this operation with the switch engaged, and check the **continuity** between the two connections. If these 2 checks are faulty, replace the switch. Then check the **continuity** and **absence of interference resistance** of the following connection: – **86D** between components **120** and **675**. – Make sure that the **earth** is in order on connection **M** of component **675**. If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
"ACTIVE"	Check the condition and fitting of the clutch pedal switch. Remove the clutch pedal switch, check the **insulation** between connections **M** and **86D** of component **675**, with the switch in the rest position. – Repeat this operation with the switch engaged, and check the **continuity** between the two connections. If these 2 checks are faulty, replace the switch.

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

ET415	CRUISE CONTROL/SPEED LIMITER DEACTIVATION

STATUS DEFINITION	This status varies according to engine specifications.

NOTES	**Special notes:** Perform these checks if the parameters correspond with the system operation programming.

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

STATUS 1:	Traction control request.
STATUS 2:	Brake pedal depressed.
STATUS 3:	Clutch pedal depressed.
STATUS 4:	Suspend button pressed.
STATUS 5:	Cruise control or speed limiter monitoring.
STATUS 6:	Inconsistency between the request and the vehicle speed. Gear lever in neutral (manual gearbox) or the N position (automatic gearbox).

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

ET415 CONTINUED 1	
STATUS 7:	Inconsistency between the request and the vehicle speed.
STATUS 8:	Automatic transmission in defect mode.
STATUS 9:	Vehicle speed monitoring.
STATUS 10:	Monitoring by injection computer.

Sensor electrical conformity

Note:
Cruise control can be activated when the vehicle speed exceeds **18 mph (30 km/h)**.
Status **ET415** shows various reasons for deactivation of the cruise control/speed limiter function, due to a driver request or the external environment (e.g. **STATUS 1**).
IMPORTANT:
Clear the fault memory by running command **RZ001 Fault memory to reset this status to NONE**.

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

ET415 CONTINUED 2	

WITHOUT	This status is present on the **diagnostic tool** when: The computer has been reinitialised, The computer has been reprogrammed.

STATUS 1	**Traction control request**
	If the vehicle is fitted with a traction control system, the cruise control function is deactivated every time the ABS computer calls for traction control. Status **ET415** becomes **STATUS 1** when driving with the cruise control active (**ET042 Cruise control/Speed limiter: CRUISE CONTROL**) and when traction control is requested. This deactivates cruise control. **Reinitialise status ET415 of the injection computer by applying command RZ001 Fault memory**. If status **ET415** becomes **STATUS 1** with no traction control request (see **38C, Anti-lock braking system**).

STATUS 2	**Brake pedal depressed**
	The cruise control function is deactivated when the brake pedal is depressed. Status **ET415** becomes **STATUS 2**, when the vehicle is being driven, with cruise control active (**ET042**) and the brake pedal depressed. This deactivates cruise control. **Reinitialise status ET415 on the injection computer by running command RZ001**. If status **ET415** becomes **STATUS 2** without pressing the brake pedal, consult the interpretation of statuses **ET704** and **ET705 Brake contact No. 1 and No. 2**.

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

ET415 CONTINUED 3	

STATUS 3	**Clutch pedal depressed**
	Manual gearbox only: The cruise control function is deactivated when the gearbox is not coupled to the engine (clutch pedal depressed). Status **ET415** becomes **STATUS 3** when driving with cruise control active (**ET042 Cruise control/Speed limiter: CRUISE CONTROL**) and the clutch pedal is depressed. This deactivates cruise control. **Reinitialise status ET415 of the injection computer by applying command RZ001 Fault memory**. If status **ET415** becomes **STATUS 3** without the clutch pedal being depressed, consult the interpretation of status **ET405 Clutch pedal switch**. If the vehicle is fitted with automatic transmission: Carry out a multiplex network test, check the configuration of the multiplex network according to the vehicle's technical specifications and, in particular, the automatic gearbox computer configuration (see **88B, multiplex**).

STATUS 4	**Cancel button pressed**
	The cruise control/speed limiter function is deactivated each time the suspend button is pressed. Status **ET415** becomes **STATUS 4**, when driving when: – Either the cruise control is active, or – the speed limiter is active – and when the **"0"** button is pressed by the driver. This action deactivates the Cruise control/Speed limiter. **Reinitialise status ET415 on the injection computer by running command RZ001**. If status **ET415** becomes **STATUS 4** without pressing the **0** button, consult the interpretation of status **ET703: Cruise control/speed limiter buttons** and run fault finding on the **R/0** control button located on the right-hand side of the steering wheel.

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

ET415 CONTINUED 4	

STATUS 5	**Cruise control or speed limiter monitoring**
	This status appears when the vehicle brakes or decelerates sharply without the injection computer receiving a signal indicating that the brake pedal switch has been pressed. If status **ET415** is **STATUS 5**, consult the interpretation: – of status **ET042 Cruise control/Speed limiter,** – of status **ET703 Cruise control/Speed limiter buttons**, – of status **ET704 Brake switch no. 1**, – and status **ET705 Brake switch no. 2**, to test the cruise control/speed limiter system components and find the defective component. Also check the operation of the accelerator pedal, and check for any faults shown on the **diagnostic tool** relating to this component. Deal with them if necessary. **Reinitialise status ET415 of the injection computer by applying command RZ001 Fault memory**. If status **ET415** becomes **STATUS 5**, deal with any faults that are **present** or **stored** in the injection computer. If the fault is still present, contact the Techline.

STATUS 6	**Gear lever in neutral (manual gearbox) or neutral (automatic transmission).**
	Status **ET415** changes to **STATUS 6**, when driving, with cruise control active (**ET042**) and: if the driver puts the gear lever in neutral position on a manual gearbox without declutching or, if the gear lever is in neutral on an automatic transmission. This deactivates cruise control. **Reinitialise status ET415 on the injection computer by running command RZ001**. If status **ET415** becomes **STATUS 6** without shifting the gear lever into neutral on a manual gearbox without declutching, or into neutral on an automatic transmission, test the ABS computer and check the configuration of the tyre size stored in the computer. If the configuration is correct, contact the Techline.

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

ET415 CONTINUED 5	

STATUS 7	**Lack of correlation between the request and the vehicle speed**
	Status **ET415** becomes **STATUS 7** if the computer detects too great a difference between the speed requested by the driver and the vehicle speed. This could occur when driving with cruise control active (**ET042 Cruise control/ speed limiter: CRUISE CONTROL**) and when there is a significant difference in speed. This inconsistency deactivates cruise control. **Reinitialise status ET415 on the injection computer by running command RZ001 "Fault memory".** If status **ET415** becomes **STATUS 7** where the surface is not uneven, contact the Techline.

STATUS 8	**Automatic gearbox in defect mode.**
	Status **ET415** becomes **STATUS 8**, when driving with cruise control active (**ET042**) and if the automatic transmission is in defect mode. This signal is conveyed on the multiplex line and deactivates the cruise control. Carry out a multiplex network test, then run fault finding on the automatic transmission computer. Deal with any **present** or **stored** faults (see **23A, Automatic transmission, Interpretation of faults**). Clear the automatic transmission computer memory by running command **RZ001**. **Reinitialise status ET415 on the injection computer by running command RZ001**. If the specification **STATUS 8** is still present, contact Techline.

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

ET415 CONTINUED 6	

STATUS 9	Vehicle speed monitoring
	Status **ET415** becomes **STATUS 9** if the vehicle speed received by the computer is invalid or absent. This signal is conveyed on the multiplex line and deactivates the cruise control. Carry out a multiplex network test, then run fault finding on the **ABS** computer. Deal with any **present** or **stored** faults (see **38C, ABS, interpretation of faults**). **Reinitialise status ET415 of the injection computer by applying command RZ001 Fault memory**. If the specification **STATUS 9** is still present, contact Techline.

STATUS 10	Monitoring by injection computer
	Status **ET415** becomes **STATUS 10** when driving with cruise control active (**ET042 Cruise control/speed limiter: CRUISE CONTROL**) and if the injection computer detects a fault anywhere in the engine management system, or an engine speed that is too high or too low. This signal is conveyed on the multiplex line and deactivates the cruise control. Test the multiplex network (see **88B, Multiplex**), then run fault finding on the injection computer. Deal with any **present** or **stored** faults (see **17B, Petrol injection**). **Reinitialise status ET415 on the injection computer by running command RZ001**. If the specification **STATUS 10** is still present, contact Techline.

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

ET556	DRIVER'S DEACTIVATION OF THE CRUISE CONTROL/SPEED LIMITER

STATUS DEFINITION	**STATUS 1:** This status indicates that the cruise control/speed limiter function is deactivated each time the brake pedal is depressed. **STATUS 2:** This status indicates that the cruise control/speed limiter function is deactivated after the suspend button is pressed. **STATUS 3:** This status indicates that the cruise control/speed limiter function is deactivated after the clutch pedal is depressed. **STATUS 4:** This status indicates that the deactivation of the cruise control/speed limiter function is deactivated after the gear lever is put into neutral.

NOTES	Cruise control remains deactivated as long as the vehicle speed does not exceed a speed **V >18 mph** (**30 km/h**). **IMPORTANT** Certain deactivations are stored by the computer. To reinitialise this status, run **RZ001 Fault memory**.

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

STATUS 1	**Brake pedal depressed**
	If status **ET556 becomes STATUS 1** if the cruise control function is deactivated when the brake pedal is depressed. Run fault finding on the **ABS circuit** (**see 38C, Anti-lock braking system**).

STATUS 2	**Cancel button pressed**
	Status **ET556** changes to **STATUS 3** when driving, with cruise control active, if the driver presses the cruise control/speed limiter **0** button. If status **ET556** becomes **STATUS 3** without pressing cruise control/speed limiter button **0**, run fault finding on the cruise control/speed limiter control button **R/0**.

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

ET556 CONTINUED	

STATUS 3	**Clutch pedal depressed**
	The cruise control function is deactivated if the gearbox is no longer coupled to the engine (clutch pedal depressed). Status **ET556** becomes **STATUS 3** when driving, with cruise control active and the clutch pedal depressed. Status **ET556** becomes **STATUS 3** without depressing the clutch pedal; see the interpretation of status **ET405 Clutch pedal switch**.

STATUS 4	**Gear lever in neutral position**
	Status **ET556** changes to **STATUS 4**, when the vehicle is being driven, with cruise control active. If the driver puts the gear lever in neutral without declutching, this deactivates cruise control. If status **ET556** becomes **STATUS 5** without putting the gear lever in neutral without declutching, contact the Techline.

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

ET557	CRUISE CONTROL/SPEED LIMITER DEACTIVATION BY FUNCTION

STATUS DEFINITION	**STATUS 1:** This status indicates that deactivation occurs when vehicle speed is considered invalid. **STATUS 2**: This status indicates that deactivation occurs when the injection computer detects a fault. **STATUS 3**: This status indicates that deactivation occurs due to a cruise control/speed limiter fault. **STATUS 4:** This status indicates that deactivation is executed when there is an inconsistency between the request and the vehicle speed. **STATUS 5:** This status indicates that deactivation occurs after a traction control request.

NOTES	Cruise control remains deactivated as long as the vehicle speed does not exceed a speed **V >18 mph (30 km/h)**. **IMPORTANT** Certain deactivations are stored by the computer. To reinitialise this status, run **RZ001 Fault memory**.

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

ET557 CONTINUED 1	

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

STATUS 1	**Invalid vehicle speed**
	If status **ET557** changes to **STATUS 1** if the vehicle speed received by the computer is invalid. In the event of any faults, run fault finding on the **ABS** computer (see **38C, Anti-lock braking system**).
	If the fault is still present, contact the Techline.

STATUS 2	**Fault detected by the injection computer**
	If status **ET557** changes to **STATUS 2** if the injection computer detects a fault on the injection system: – **Faults on the accelerator pedal**. – **Engine speed sensor or camshaft faults**. – **Engine speed greater than 4700 rpm**. – **Engine speed less than 1000 rpm**. Carry out a multiplex network test, then an injection system test, and carry out fault finding on any faults.
	If the fault is still present, contact the Techline.

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

ET557 CONTINUED 2	

STATUS 3	**Cruise control or speed limiter fault**
	If status **ET557** is **STATUS 3**, consult the interpretation of status **ET042 Cruise control/speed limiter**, to test the cruise control system components and find the faulty component. If status **ET557** changes to **STATUS 3**, deal with the faults present or stored in the computer.
	If the fault is still present, contact the Techline.

STATUS 4	**Invalid vehicle speed**
	If status **ET557** changes to **STATUS 4** if the vehicle speed received by the computer is not consistent with the request. In the event of any faults, run fault finding on the **ABS** computer (see **38C, Anti-lock braking system**).
	If the fault is still present, contact the Techline.

STATUS 5	**Traction control request**
	If the vehicle being diagnosed is fitted with traction control, the cruise control function is deactivated each time traction control is selected. Status **ET557** changes to **STATUS 5**, when driving, with cruise control active and traction control requested. Status **ET557** changes to **STATUS 5** without a traction control request (see **38C, Anti-lock braking system**).
	If the fault is still present, contact the Techline.

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

ET561	Operating mode

STATUS DEFINITION	**ALCOHOL:** This status indicates that the engine runs on ETHANOL (**E85**). **PETROL:** This status indicates that the engine runs on petrol.

NOTES	There must be no **present** or **stored** faults.

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

ALCOHOL or PETROL	The status **ET561 is ALCOHOL** if the vehicle runs on ETHANOL (**E85).** The status **ET561 is PETROL** if the vehicle runs on petrol.
	– Reprogram the alcohol level (see **Configurations and programming, Alcohol level programming**): – start the engine, – allow the engine coolant temperature to reach **75˚C**, check using parameter **PR064 Coolant temperature**, – run the engine at **1500 rpm** for at least **5 mins**, – check that the programming has been carried out using status **ET671 Alcohol level programming** and parameter **PR743 Estimated alcohol level in tank**, the programming is saved when the ignition is switched off.
	If the fault is still present, contact the Techline.

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

ET562	FAN ASSEMBLY REQUEST BY AUTOMATIC TRANSMISSION (applies only for the sequential gearbox on engine D4F 772)

STATUS DEFINITION	**PRESENT:** This status indicates that there has been a fan assembly request from the transmission. **ABSENT:** This status indicates that there has not been a fan assembly request from the transmission.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	There must be no **present** or **stored** faults.

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

PRESENT or ABSENT	The status is **PRESENT** or **ABSENT** depending on the computer program (engine oil temperature).

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

ET564	DEFECT MODE TYPE 1

STATUS DEFINITION	**ACTIVE:** This status indicates that defect mode type 1 is active. **INACTIVE:** This status indicates that defect mode type 1 is inactive.

NOTES	There must be no **present** or **stored** faults.

This type groups together the faults that prevent the throttle from being controlled.
It causes the throttle control to be stopped: the throttle is in its safe position. By depressing the pedal, it is possible to modulate the torque by cylinder cut-off and advance in order to keep the vehicle running.
The ESP, cruise control/speed limiter and automatic/sequential gearbox systems change to "defect mode".
This defect mode is always accompanied by the Type 2 defect mode.

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

ET565	DEFECT MODE TYPE 2

STATUS DEFINITION	**ACTIVE:** This status indicates that defect mode type 2 is active. **INACTIVE:** This status indicates that defect mode type 2 is inactive.

NOTES	There must be no **present** or **stored** faults.

This type groups together the faults preventing the system from controlling the air flow modulation.
The associated defect mode limits the engine speed by injection cut-off (limitation of engine speed to **2400 rpm** at idle speed and **3500 rpm** in other gears.

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

ET566	DEFECT MODE TYPE 3

STATUS DEFINITION	**ACTIVE:** This status indicates that defect mode type 3 is active. **INACTIVE:** This status indicates that defect mode type 3 is inactive.

NOTES	There must be no **present** or **stored** faults.

This type groups together faults allowing you to deduce that the system has lost the accelerator pedal signal, but still controls the air flow modulation (motorised throttle servo operational). Defect mode is associated with a constant pedal setpoint for each gear ratio. The vehicle speed can vary by changing gear.
Suggested speeds on a flat road:
– **12 mph** (20 km/h) max in 1st,
– **21 mph** (35 km/h) max in 2nd,
– **27 mph** (45 km/h) max in 3rd,
– **39 mph** (65 km/h) max in 4th,
less than **54 mph** (90 km/h) in 5th and 6th.

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

ET567	DEFECT MODE TYPE 4

STATUS DEFINITION	**ACTIVE**: This status indicates that defect mode type 4 is active. **INACTIVE**: This status indicates that defect mode type 4 is inactive.

NOTES	There must be no **present** or **stored** faults.

This type groups together faults affecting the motorised throttle valve monitoring system, the pedal and the turbocharging circuit for which there is a backup operating mode that is viable for the system.
The associated defect mode is a limitation of the throttle opening according to the engine speed. This is expressed by limiting the speed to less than **66 mph** (110 km/h) in 5^{th} and 6^{th} and the accelerator pedal feels "soft".

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

ET568	TYPE 5 DEFECT MODE

STATUS DEFINITION	**ACTIVE**: This status indicates that defect mode type 5 is active. **INACTIVE**: This status indicates that defect mode type 5 is inactive.

NOTES	There must be no **present** or **stored** faults.

This type groups together faults affecting the pressure, the throttle valve control by the torque structure and the turbocharging pressure.
Its effect is to go into pedal feedback mode instead of the permanent torque structure. The ESP and cruise control/ speed limiter systems are deactivated. The automatic or sequential gearbox goes into safe mode. The engine management no longer accepts requests from the gearbox, and sends torque values by default to the multiplex network.

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

ET569	DEFECT MODE TYPE 6

STATUS DEFINITION	**ACTIVE**: This status indicates that defect mode type 6 is active. **INACTIVE**: This status indicates that defect mode type 6 is inactive.

NOTES	There must be no **present** or **stored** faults.

This type groups the faults affecting the wastegate control in turbocharged vehicles.
Defect mode enables the engine to operate as **a naturally aspirated engine**.
The wastegate is no longer controlled and opens freely. The vehicle operates without turbocharging: loss of turbocharger effectiveness (brisk engine performance, acceleration, recovery, etc.); operation as a naturally aspirated engine.
Entry into type 1 to 5 defect mode always leads to the application of type 6 in turbocharged versions.

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

ET578	PETROL FUEL CIRCUIT FAULT FINDING

STATUS DEFINITION	**IN PROGRESS:** This status indicates that fuel circuit fault finding is in progress. **INACTIVE:** This status indicates that fuel circuit fault finding has not been completed. **COMPLETED:** This status indicates that fuel circuit fault finding has been completed.

NOTES	There must be no **present** or **stored** faults.

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

IN PROGRESS or "INACTIVE" or COMPLETED	This status varies when the ignition is on or the engine is running, depending on the fuel circuit fault finding program run by the computer. In the event of a fault, apply the interpretation of **DF398 Fuel circuit operating fault**.

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

ET603	AIR CONDITIONING COMPRESSOR RELAY CONTROL CIRCUIT

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

NOTES	There must be no **present** or **stored** faults.

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

"ACTIVE" or "INACTIVE"	This status becomes **ACTIVE** when the air conditioning compressor is activated by the driver. In the event of a fault, apply the interpretation of **DF1072 Air conditioning compressor control**.

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

SIM32_V44_ET603/SIM32_V4C_ET603/SIM32_V50_ET603/SIM32_V54_ET603

ET671	PROGRAMMING THE ALCOHOL LEVEL

STATUS DEFINITION	**COMPLETED**: This status indicates that the alcohol level has been programmed. **NOT COMPLETED**: This status indicates that the alcohol level has not been programmed.

NOTES	**Special notes:** Perform these checks if the statuses correspond with the system operation programming.
	There must be no **present** or **stored** faults.

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

COMPLETED	Status **ET671** must be **COMPLETED** if the vehicle runs on alcohol.

NOT COMPLETED	Reprogram the alcohol level (see **Configurations and programming, Alcohol level programming**): – start the engine, – allow the engine coolant temperature to reach **75˚C**, check using parameter **PR064** Coolant temperature, – run the engine at **1500 rpm** for at least **5 mins**, – check that the programming has been carried out using status **ET671** and parameter **PR743 Estimated alcohol level in tank**, the programming is saved when the ignition is switched off.
	If the fault is still present, contact the Techline.

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

ET672	ENGINE COOLANT TEMPERATURE MANAGEMENT

STATUS DEFINITION	**WITHOUT**: This status indicates that the engine coolant temperature control is not managed. **ACTIVE**: This status indicates that the engine temperature coolant temperature control is active. **DEFECT MODE**: This status indicates that the engine coolant temperature control is in defect mode.

NOTES	**Special notes:** Perform these checks if the statuses correspond with the system operation programming.

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

WITHOUT	For the **D4F 740** engine, **ET086** is **WITHOUT**.

D4F 764 and D4F 784: "ACTIVE"	In the event of a fault, apply fault interpretation – **DF089 Inlet manifold pressure sensor circuit,** – **DF154 Flywheel signal sensor circuit,** – **DF001 Coolant temperature sensor circuit,** – **DF002 Air temperature sensor circuit,** – **DF893 Controlled coolant thermostat circuit.**

"FAULTY"	Indicates **DEFECT MODE** when a fault is detected: – **DF089 Inlet manifold pressure sensor circuit: 1.DEF: Signal inconsistency,** – **DF154 Flywheel signal sensor circuit,** – **DF001 Coolant temperature sensor circuit: 2.DEF: Inconsistency,** – **DF002 Air temperature sensor circuit,** – **DF893 Controlled coolant thermostat circuit.**

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

SIM32_V4C_ET672

ET673	JAMMED ACCELERATOR PEDAL – YES – NO

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

NOTES	**Special notes:** Apply this procedure only if the status is **YES**.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

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

YES OR NO	This status varies when the ignition is on or the engine is running depending on the status of the accelerator pedal.

Check the condition of the connectors of the brake switch (component code **160**), of the accelerator potentiometer (component code **921**), and of the engine management 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.

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

SIM32_V44_ET673 / SIM32_V4C_ET673 / SIM32_V50_ET673 / SIM32_V54_ET673

ET673 CONTINUED	

Measure **the resistance** of pedal potentiometer **gang 1** between connections **3LR** and **3LT**. If the resistance is not between: **0.8 kΩ < X < 2.6 kΩ,** replace the pedal potentiometer.
Measure **the resistance** of the pedal potentiometer **gang 2** between connections **3LU** and **3LV**. If the resistance is not between: **0.8 kΩ < X < 4.9 kΩ,** replace the pedal potentiometer.
Check the brake switch (see **interpretation of faults, DF228 Brake signal** or **DF623 Closing brake signal**).
Use the universal bornier to check the **insulation** and **continuity** of the following connections: ● **3LT** between the components **120** and **921**, ● **3LR** between the components **120** and **921**, ● **3LS** between the components **120** and **921**, ● **3LU** between the components **120** and **921**, ● **3LV** between components **120** and **921**, ● **3LW** between the components **120** and **921**, ● **5A** between components **120** and **160**. If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
Carry out a multiplex network test.
Carry out complete fault finding on the UCH (see **87B, Passenger Compartment Connection Unit**).
Clear **RZ001 Fault memory**.
If the fault is still present, contact the Techline.

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

ET674	REFRIGERANT PRESSURE – Too low – Correct – Unavailable

STATUS DEFINITION	**TOO LOW**: this status indicates that the refrigerant pressure is too low. **CORRECT**: this status indicates that the refrigerant pressure is correct. **UNAVAILABLE**: this status indicates that the refrigerant pressure is unavailable.

NOTES	Deal with **DF232 Refrigerant pressure sensor circuit** first. There must be no **present** or **stored** faults.

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

TOO LOW or CORRECT or "UNAVAILABLE"	The purpose of this status is to check that the circuit is correctly charged with gas. It becomes active when the air conditioning is detected as being connected and there are no faults **present**.
	The result of this status is: – Too low: Pressure below **2 bar**. – Correct: Pressure above **2 bar**. – Unavailable: Cannot perform test.

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

SIM32_V44_ET674 / SIM32_V4C_ET674 / SIM32_V50_ET674 / SIM32_V54_ET674

ET703	CRUISE CONTROL/SPEED LIMITER BUTTONS

STATUS DEFINITION	**RESUME: R** button pressed. **SUSPEND**: **0** button pressed. **INCREASE**: Increase button pressed. **MINUS**: Decrease button pressed. **INACTIVE**: This status indicates that no button has been pressed.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

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

"INACTIVE"	When no button has been pressed. In the event of a fault, refer to the interpretation of status **ET703**.
"SUSPEND"	**'0'** button pressed. In the event of a fault, refer to the interpretation of status **ET703**.
"REACTIVATE"	**'R'** button pressed. In the event of a fault, refer to the interpretation of status **ET703**.

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

SIM32_V44_ET703 / SIM32_V4C_ET703 / SIM32_V50_ET703 / SIM32_V54_ET703

ET703 CONTINUED 1	
"MINUS"	Decrease button pressed. In the event of a fault, refer to the interpretation of status **ET703**.
"PLUS"	Increase button pressed. In the event of a fault, refer to the interpretation of status **ET703**.

Sensor electrical conformity

INACTIVE	Status **ET703** becomes **INACTIVE** when none of the cruise control / speed limiter buttons is pressed. These buttons are located on the steering wheel. To carry out the checks and measurements in complete safety, observe the driver's frontal airbag removal recommendations (see **MR 392 (Clio III), MR 385 (Modus), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 88C, Airbag and pretensioners, Driver's frontal airbag: Removal - Refitting**). If status **ET703** does not display **INACTIVE**, – check the condition of the cruise control/speed limiter **+/-** button and the condition of its connector. – check the condition of the cruise control/speed limiter **"R/0"** button and the condition of its connector, If the connector(s) is faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

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

ET703 CONTINUED 2	

INCREASE	Status **ET703** becomes **INCREASE** when the cruise control/speed limiter **+** button is pressed. This button is on the steering wheel, on the left-hand side. To carry out the checks and measurements in complete safety, observe the driver's frontal airbag removal recommendations (see **MR 392 (Clio III), MR 385 (Modus), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 88C, Airbag and pretensioners, Driver's frontal airbag: Removal - Refitting**). If status **ET703** does not display **INCREASE**, check the condition of the cruise control/speed limiter **+/-** button, and the condition of 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. Measure **the resistance** of the following connections while pressing the **+** button (on the button connections): ● **86G** of component **331**. ● **86M** of component **331**. If the resistance is not **X** ≈ **300** Ω, check **the continuity** of the connection when the button is in the rest position. If there is continuity, replace the **+/-** control button.

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

ET703 CONTINUED 3	

DECREASE	Status **ET703** becomes **MINUS** when the cruise control/speed limiter **"-"** button is pressed. This button is on the steering wheel, on the left-hand side. To carry out the checks and measurements in complete safety, observe the driver's frontal airbag removal recommendations (see **MR 392 (Clio III), MR 385 (Modus), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 88C, Airbag and pretensioners, Driver's frontal airbag: Removal - Refitting**). If status **ET703** does not change to **DECREASE**, check the condition of the cruise control/speed limiter **+/-** button and check the condition of 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. Measure **the resistance** of the following connection while pressing the **"-"** button (on the button connections): ● **86G** of component **331**. ● **86M** of component **331**. If the resistance is not **X** ≈ **100** Ω, check **the continuity** of the connection when the button is in the rest position. If there is continuity, replace the **+/-** control button.

SUSPEND	Status **ET703** becomes **SUSPEND** when the cruise control/speed limiter **"0"** button is pressed. This button is located on the steering wheel, to the right. To carry out the checks and measurements in complete safety, observe the driver's frontal airbag removal recommendations (see **MR 392 (Clio III), MR 385 (Modus), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 88C, Airbag and pretensioners, Driver's frontal airbag: Removal - Refitting**). If status **ET703** does not become **SUSPEND**, check the condition of the cruise control/speed limiter **"R/0"** button and the condition of 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. Measure **the resistance** of the following connection while pressing the **"0"** button (on the button connections): ● **86G** of component **331**. ● **86M** of component **331**. If the resistance is not **X** ≈ **0** Ω, replace the **R/0** control button. If there is continuity, replace the **R/0** control button.

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

ET703 CONTINUED 4	

RESUME	Status **ET703** becomes **RESUME** when the cruise control/speed limiter **"R"** button is pressed. This button is located on the steering wheel, to the right. To carry out the checks and measurements in complete safety, observe the driver's frontal airbag removal recommendations (see **MR 392 (Clio III), MR 385 (Modus), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 88C, Airbag and pretensioners, Driver's frontal airbag: Removal - Refitting).** If status **ET703** does not change to **RESUME**, check the status of the cruise control/ speed limiter **R/0** button and the condition of 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. Measure **the resistance** of the following connection while pressing the **R** button (on the button connections): ● **86G** of component **331**. ● **86M** of component **331**. If the resistance is not X ≈ **900** Ω, check **the continuity** of the connection when the button is in the rest position. If there is continuity, replace the **R/0** control button.

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

ET704 **ET705**	BRAKE SWITCH NO. 1 BRAKE SWITCH NO. 2

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

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	Note: Statuses **ET704** and **ET705** should change status at the same time. If there is inconsistency, refer to the interpretation of faults **DF228 Brake signals** and **DF623 Closing brake signal**.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS.**

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

"ACTIVE"	**Brake pedal depressed.** Brake signal non-conformity may cause the engine to race during gear changes.
"INACTIVE"	**Brake pedal released.** Brake signal non-conformity may cause the engine to race during gear changes.

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

ET704
ET705
CONTINUED

Sensor electrical conformity

ACTIVE
or
INACTIVE

If the brake lights are working:
– Check the **continuity** and the **absence of interference resistance** of the following connections:
  ● **5A** between components **160** and **120/645/119** (for **NEW TWINGO or E33**)
  ● **65A** between the components **160** and **120/645/119** (for **CLIO III or MODUS).**

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 brake lights are not operational, check:
– the condition and fitting of the brake switch,
– the condition and conformity of the brake lights fuse.
– the conformity of the values in the following tables:

		Continuity between connections	**Insulation between connections**
Switch pressed (Brake pedal released)	For **CLIO III or MODUS**	**5A** and **SP13**	**65G** and **AP10**
	For **NEW TWINGO or E33**	**5A** and **AP10**	**65A** and **AP10**
Switch released (Brake pedal depressed)	For **CLIO III or MODUS**	**65G** and **AP10**	**5A** and **SP13**
	For **NEW TWINGO or E33**	**65A** and **AP10**	**5A** and **AP10**

Replace the switch if the values obtained are not correct.

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

ET840	CUSTOMISED OIL CHANGE INTERVAL

STATUS DEFINITION	**ACTIVE**: This status indicates that the OCS function is active. **INACTIVE**: This status indicates that the OCS function is inactive.

NOTES	**None.**

Conformity check: Engine stopped and ignition on, or engine running at idle speed, and engine coolant temperature > 80˚C.

ACTIVE or **INACTIVE**	This status indicates if the vehicle offers the OCS (Oil Control System) function, i.e. the customised oil change interval.

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

SIM32_V50_ET840 / SIM32_V54_ET840

Tool Parameter	Diagnostic tool title
PR014	Idling speed correction
PR015	Engine torque
PR018	Estimated air flow
PR030	Accelerator pedal position
PR035	Atmospheric pressure
PR037	Refrigerant pressure
PR041	Turbocharger pressure (**Vdiag 54 only**)
PR055	Engine speed
PR059	Inlet air temperature
PR064	Coolant temperature
PR071	Computer feed voltage
PR089	Vehicle speed
PR090	Idle speed regulation programming value
PR091	OCR* Theoretical idle speed regulation
PR094	AAC* dephaser OCR* setpoint (**Vdiag 4C** only)
PR095	Anti-pinking correction
PR096	Mot.* throttle upper stop programmed value.
PR097	Mot.* throttle lower stop programmed value.
PR098	Upstream oxygen sensor voltage
PR099	Downstream oxygen sensor voltage
PR101	Duration of injection
PR102	Canister bleed solenoid valve OCR*
PR103	Instantaneous fuel consumption
PR104	Turbocharging EV* OCR* (**Vdiag 54** only)
PR105	Mileometer OBD fault warning light lit
PR106	Mileometer fault warning light lit
PR111	Motorised throttle position corrected value.
PR113	Lower throttle stop after app.* offset
PR116	Motorised throttle corrected position setpoint
PR118	Measured throttle position gang 1
PR119	Measured throttle position gang 2

* OCR: Opening cyclic ratio
* EV: Solenoid valve
* mot: motorised
* app.: applying
* AAC: Camshaft

Tool Parameter	Diagnostic tool title
PR125	Power consumed by the air conditioning compressor
PR126	Advance after anti-pinking correction
PR127	Heat.* resistor maximum authorised power
PR130	Cruise control setpoint
PR138	Richness correction
PR143	Self-adapting richness gain
PR144	Self-adapting richness offset
PR147	Pedal potentiometer voltage gang 1
PR148	Pedal potentiometer voltage gang 2
PR190	Engine idle speed setpoint.
PR312	Inlet manifold vacuum
PR424	Programming the no-load position value
PR427	Average pinking signal
PR429	Measured throttle position
PR448	Ignition advance
PR538	Measured throttle voltage, gang 2
PR539	Measured throttle voltage gang 1
PR568	Pedal position gang 1
PR569	Pedal position gang 2
PR587	Motorised throttle lower stop gang 1
PR588	Motorised throttle lower stop gang 2
PR589	Motorised throttle upper stop gang 1
PR590	Motorised throttle upper stop gang 2
PR632	Controlled coolant thermostat OCR* (**Vdiag 4C** only)
PR743	Estimated alcohol level in the tank (**CLIO III or MODUS** only)
PR744	Engine temperature setpoint (**Vdiag 4C** only)
PR745	Camshaft dephaser position setpoint (**Vdiag 4C** only)
PR746	Camshaft dephaser position (**Vdiag 4C** only)
PR873	Oil oxidation signal (except **D7F800** and **D4F772**)
PR874	Last overhaul (except **D7F800** and **D4F772**)
PR926	Alcohol fuel adaptive correction (**CLIO III or MODUS** only)

OCR*: Opening cyclic ratio
Heat.*: Heating

PR014	IDLE SPEED CORRECTION

PARAMETER DEFINITION	This parameter indicates the engine's rotational speed in **rpm**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

This status indicates the engine idle speed correction value.
The value should be between:
0 rpm < PR014 < 224 rpm.
The idle speed regulator performs all of the calculations that allow the idle speed actuator to be controlled physically: the motorised throttle. The functional component of the regulator is adaptive (variation programming and ageing).

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

PR015	ENGINE TORQUE

PARAMETER DEFINITION	This parameter indicates the engine torque in **Nm**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

This value should be between:
20 < X < 40 N.m
This parameter is only valid when the engine is running.

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

PR018	ESTIMATED AIR FLOW

PARAMETER DEFINITION	This parameter indicates the inlet air flow in **kg/h**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	There must be no faults **present**. Perform this fault finding procedure: – after finding an inconsistency in the parameter, – or after a customer complaint (lack of power, smoke etc.).

Conformity check with engine stopped and ignition on.

Indicates the inlet air flow in **kg/h**.
The value should be:
X = 0 kg/h

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

Indicates the inlet air flow in **kg/h**.
The value should be:
X ≈ 7 kg/h

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

PR030	ACCELERATOR PEDAL POSITION

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

NOTES	**Special notes:** Only carry out these checks if **PR030 > 15%** with No load or if **PR030 < 90%** with Full load.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

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

If there is no pressure on the pedal X = 0%
In the event of a fault, consult the interpretation of fault **DF196 Pedal sensor circuit gang 1** or **DF198 Pedal sensor circuit gang 2**.

Sensor electrical conformity

Check that the pedal mechanism has not seized.
Check the condition of the accelerator potentiometer connector (component code **921**) and the engine management computer connector (component code **120**).
If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

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

PR030 CONTINUED	

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3LT** between the components **120** and **921**,
- **3LR** between the components **120** and **921**,
- **3LS** between the components **120** and **921**,
- **3LU** between the components **120** and **921**,
- **3LV** between components **120** and **921**,
- **3LW** between components **120** and **921**.

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

If the fault is still present, replace the pedal potentiometer.

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

PR035	ATMOSPHERIC PRESSURE

PARAMETER DEFINITION	This parameter indicates the atmospheric pressure in **bar**. The sensor is integrated in the computer.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

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

The atmospheric pressure value is:
PR035 ≈ 1 bar +/- 0.20 bar
In the event of a fault, consult the interpretation of **DF004 Turbocharging pressure sensor circuit**.

Check the **cleanliness** and **condition** of the atmospheric pressure sensor and its connections (component code **147**) and the engine management 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, otherwise replace the wiring.

On the atmospheric pressure sensor, component code **147**, check the **resistance** between connections **3LG** and **3CK**.
If the resistance is not **X 50 kΩ**, replace the sensor.

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

PR035 CONTINUED	

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3LG** between components **120** and **147**,
- **3F** between components **120** and **147**,
- **3CK** 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.

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

If the fault is still present, contact the Techline.

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

PR037	REFRIGERANT PRESSURE

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be between:
1 bar < PR037 < 40 bar.
In the event of a fault, test the multiplex network (see **88B, Multiplex**).

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

Vdiag 54 only

PR041	TURBOCHARGING PRESSURE

PARAMETER DEFINITION	This parameter indicates the turbocharging pressure in **mbar**.

NOTES	There must be no **present** or **stored** faults.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

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

The turbocharging pressure value is:
121.5 mb < PR041 < 2200 mb, Default value: 1016 mb.
In the event of a fault, consult the interpretation of **DF004 Turbocharging pressure sensor circuit**.

Sensor electrical conformity

Check the **cleanliness** and **condition** of the turbocharging pressure sensor and its connections (component code **1071**) and of the engine management computer (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.

Use the universal bornier to check the **insulation** and **continuity** of the following connections:
- **3LQ** between components **120** and **1071**,
- **3LP** between components **120** and **1071**,
- **3LN** between components **120** and **1071**.

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

If the fault is still **present**, replace the sensor.

If the fault is still present, carry out the following checks:

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

SIM32_V54_PR041

PR041 CONTINUED	

– Check the cleanliness of the air filter. – Replace the filter if necessary. – Check that the air inlet circuit is not blocked.
The turbocharging system must be perfectly sealed, from the exhaust manifold to the turbocharger, from the turbocharger to the heat exchanger and from the heat exchanger to the throttle valve. Check that there are no air leaks: – around the turbocharger pressure sensor, – around the air temperature sensor.
Check absence of leaks in the wastegate capsule pressure circuit connected to the turbocharger system.
Check that the air-air heat exchanger is not clogged (presence of oil). If there is oil in the heat exchanger, the turbocharger is certainly damaged.
Using a pressure/vacuum pump, check that the turbocharger protection and turbocharging valve capsule diaphragms do not leak. Check the condition the motorised throttle valve in terms of clogging.

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

PR055	ENGINE SPEED

PARAMETER DEFINITION	This parameter indicates the engine's rotational speed in **rpm**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check with engine stopped and ignition on.

The value should be:
PR055 = 0 rpm, ignition on.

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

The value should be:
PR055 ≈ 800 rpm, with the engine running at idle speed.

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

PR059	INLET AIR TEMPERATURE

PARAMETER DEFINITION	This parameter indicates the air inlet temperature in ˚**C**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	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 inlet air temperature varies according to the exterior temperature.
Parameter **PR059 ≈ PR064 Coolant temperature** engine cold.
In the event of a fault, apply the interpretation of **DF089 Inlet manifold pressure sensor circuit**.

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, apply the interpretation of **DF089**.

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

SIM32_V44_PR059/SIM32_V4C_PR059/SIM32_V50_PR059/SIM32_V54_PR059

PR064	COOLANT TEMPERATURE

PARAMETER DEFINITION	This parameter indicates the engine coolant temperature in ˚**C**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	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, refer to the interpretation of **DF001 Coolant temperature sensor circuit**.
Parameter **PR059: Inlet air temperature ≈ PR064** engine cold.

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

PR071	COMPUTER SUPPLY VOLTAGE

PARAMETER DEFINITION	This parameter indicates the computer supply voltage in **volts**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The voltage should be between:
9 V < PR071 < 16 V
In the event of a fault, run fault finding on the charging circuit and consult the interpretation of **DF038 Computer**.

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

SIM32_V44_PR071/SIM32_V4C_PR071/SIM32_V50_PR071/SIM32_V54_PR071

PR089	VEHICLE SPEED

PARAMETER DEFINITION	Gives the vehicle speed in **km/h**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.
	This parameter is transmitted by the ABS computer. This signal is transmitted to the injection on the multiplex network.

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

In the event of a fault, test the multiplex network (see **88B, Multiplex**).
Then complete fault finding on the ABS computer (see **38C, Anti-lock braking system**).

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

PR090	IDLE SPEED REGULATION PROGRAMMING VALUE

PARAMETER DEFINITION	This parameter indicates the idle speed regulation programming value as a **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

PR090 is a stored parameter designed to "program" dispersion and engine ageing for the idle speed regulator. The programming is carried out only when the engine is idle and warm, and no electrical consumer (air conditioning, fan assembly, power assisted steering) is operating. Therefore it adjusts slowly.

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

PR091	OCR* THEORETICAL IDLE REGULATION

PARAMETER DEFINITION	This parameter indicates the theoretical opening cycle ratio for idle speed regulation as a **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check with engine stopped and ignition on.

The value should be:
PR091 ≈ 36%

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

The value should be:
PR091 ≈ 16%

* ocr = opening cyclic ratio

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

SIM32_V44_PR091/SIM32_V4C_PR091/SIM32_V50_PR091/SIM32_V54_PR091

Vdiag 4C only

PR094	CAMSHAFT DEPHASER OCR* SETPOINT

PARAMETER DEFINITION	This parameter indicates the opening cyclic ratio setpoint of the camshaft dephaser in **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
X ≈ 0%
In the event of a fault, apply the interpretation of **ET086 Camshaft dephaser control**.

* ocr = opening cyclic ratio
* AAC: Camshaft

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

SIM32_V4C_PR094

PR095	ANTI-PINKING CORRECTION

PARAMETER DEFINITION	This parameter indicates the anti-pinking correction in **volts**.

NOTES	There must be no **present** or **stored** faults.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

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

The pinking sensor must not supply a zero signal, proving that it is recording the mechanical vibrations of the engine. Carry out these checks if **PR095** is not between **0 V** and **8 V**.
Check the **conformity** of the fuel in the tank, apply **test 1 Petrol conformity check**. Repair if necessary.
Check the **condition** and **conformity** of the spark plugs. Repair if necessary.
Check the **tightness** of the pinking sensor (**20 Nm**). Repair if necessary.
Check the condition of the pinking sensor connector (component code **146**) and the engine management computer connector (component code **120**). If the connector or connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Use the universal bornier to check the **insulation** and **continuity** of the following connections: ● **3S** between components **120** and **pinking sensor shielding**, ● **3S** between components **120** and **146**, ● **3DQ** 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, replace the pinking sensor.

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

PR096	MOT.* THROTTLE VALVE UPPER STOP PROGRAMMED VALUE

PARAMETER DEFINITION	This parameter indicates the programmed throttle valve upper stop value as a **%**.

NOTES	There must be no **present** or **stored** faults.

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

The value should be:
PR096 ≈ 19%.
If there is a fault, apply interpretation for **ET051 Throttle stop programming**.

* MOT.: motorised

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

SIM32_V44_PR096/SIM32_V4C_PR096/SIM32_V50_PR096/SIM32_V54_PR096

PR097	MOT.* THROTTLE VALVE LOWER STOP PROGRAMMED VALUE

PARAMETER DEFINITION	This parameter indicates the programmed throttle valve lower stop value in **%**.

NOTES	There must be no **present** or **stored** faults.

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

The value should be:
PR097 ≈ 9%.
If there is a fault, apply interpretation for **ET051 Throttle stop programming**.

* MOT.: motorised

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

SIM32_V44_PR097/SIM32_V4C_PR097/SIM32_V50_PR097/SIM32_V54_PR097

PR098	UPSTREAM OXYGEN SENSOR VOLTAGE

PARAMETER DEFINITION	This parameter indicates the upstream oxygen sensor voltage in **volts**.

NOTES	There must be no **present** or **stored** faults.

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

The value should be between:
0.1 mV < PR098 < 0.8 mV.
In the event of a fault, apply the interpretation of **DF092 Upstream oxygen sensor circuit**.

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

SIM32_V44_PR098/SIM32_V4C_PR098/SIM32_V50_PR098/SIM32_V54_PR098

PR099	DOWNSTREAM OXYGEN SENSOR VOLTAGE

PARAMETER DEFINITION	This parameter indicates the downstream oxygen sensor voltage in **volts**.

NOTES	There must be no **present** or **stored** faults.

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

The value should be between:
0.1 V < PR099 < 0.8 V.
In the event of a fault, apply interpretation of **DF093 Downstream oxygen sensor circuit**.

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

SIM32_V44_PR099/SIM32_V4C_PR099/SIM32_V50_PR099/SIM32_V54_PR099

PR101	INJECTION DURATION

PARAMETER DEFINITION	This parameter indicates the injection duration in **mV**.

NOTES	There must be no **present** or **stored** faults.

Conformity check with engine stopped and ignition on.

Indicates the injection duration in **mV**.
The value should be:
PR101 = 0 mV

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

Indicates the injection duration in **mV**.
The value should be:
PR101 = 5 mV

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

PR102	CANISTER BLEED SOLENOID VALVE OCR*

PARAMETER DEFINITION	This parameter indicates the canister bleed solenoid valve opening cyclic ratio in **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR102 ≈ 0%

* ocr = opening cyclic ratio

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

SIM32_V44_PR102/SIM32_V4C_PR102/SIM32_V50_PR102/SIM32_V54_PR102

PR103	CURRENT FUEL CONSUMPTION

PARAMETER DEFINITION	This parameter indicates the current fuel consumption in **l/h**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

This value changes according to the engine load.

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

SIM32_V44_PR103/SIM32_V4C_PR103/SIM32_V50_PR103/SIM32_V54_PR103

(**Vdiag 54** only)

PR104	Turbocharging EV* OCR* setpoint

PARAMETER DEFINITION	This parameter indicates the turbocharging solenoid valve opening cyclic ratio in **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

This percentage is **0%** and increases according to the engine load.

* OCR: opening cycle ratio
* EV: Solenoid valve

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

SIM32_V54_PR104

PR105	MILEAGE COUNTER OBD FAULT WARNING LIGHT LIT

PARAMETER DEFINITION	This parameter indicates the mileage travelled with the On Board Diagnostics warning light lit in **miles (km)**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The mileage varies according to the time the On Board Diagnostics warning light has been lit.

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

SIM32_V44_PR105/SIM32_V4C_PR105/SIM32_V50_PR105/SIM32_V54_PR105

PR106	MILEAGE COUNTER FAULT WARNING LIGHT LIT

PARAMETER DEFINITION	This parameter is for viewing the mileage travelled with one of the injection fault warning lights lit: fault **level 1** (amber) and **level 2** (red) warning lights.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The mileage varies according to the time a warning light is lit: **fault level 1** (amber) and **2** (red) warning lights.

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

PR111	MOT.* THROTTLE POSITION CORRECTED VALUE

PARAMETER DEFINITION	This parameter shows the motorised throttle position corrected value in **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
– No load **< 15%**
– Full load **> 30%**

Run command **RZ005 Programming**.
If the parameters or statuses are still not correct, contact the Techline.

* MOT.: motorised

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

PR113	THROTTLE LOWER STOP AFTER OFFSET APP.*

PARAMETER DEFINITION	This parameter is for viewing the throttle valve lower stop after offset application as a **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR113 ≈ 10%.
In the event of a fault, apply the interpretation of **DF095 Throttle potentiometer circuit gang 1** and **DF096 Throttle potentiometer circuit gang 2**.

* App.: application

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

SIM32_V44_PR113/SIM32_V4C_PR113/SIM32_V50_PR113/SIM32_V54_PR113

PR116	MOT. THROTTLE POSITION CORRECTED SETPOINT

PARAMETER DEFINITION	This parameter indicates the motorised throttle valve position setpoint as a **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR116 ≈ 4%.
In the event of a fault, apply the interpretation of **DF095 Throttle potentiometer circuit gang 1** and **DF096 Throttle potentiometer circuit gang 2**.

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

SIM32_V44_PR116/SIM32_V4C_PR116/SIM32_V50_PR116/SIM32_V54_PR116

PR118	MEASURED THROTTLE POSITION GANG 1

PARAMETER DEFINITION	This parameter indicates the motorised throttle valve gang 1 position in **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR118 ≈ 13%.
In the event of a fault, apply the interpretation of **DF095 Throttle potentiometer circuit gang 1** and **DF096 Throttle potentiometer circuit gang 2**.

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

SIM32_V44_PR118/SIM32_V4C_PR118/SIM32_V50_PR118/SIM32_V54_PR118

PR119	MEASURED THROTTLE POSITION GANG 2

PARAMETER DEFINITION	This parameter indicates the motorised throttle valve gang 2 position in **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR119 ≈ 13%.
In the event of a fault, apply the interpretation of **DF095 Throttle potentiometer circuit gang 1** and **DF096 Throttle potentiometer circuit gang 2**.

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

SIM32_V44_PR119/SIM32_V4C_PR119/SIM32_V50_PR119/SIM32_V54_PR119

PR125	POWER ABSORBED BY THE AC* COMPRESSOR

PARAMETER DEFINITION	This parameter indicates the power consumed by the air conditioning compressor in **W**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR125 > 300 W
Heating and air conditioning system engaged only with the engine running.

* AC: Air conditioning

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

PR126	ADVANCE AFTER ANTI-PINKING CORRECTION

PARAMETER DEFINITION	This parameter indicates the ignition advance after anti-pinking correction in volts.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value must be **- 23 V < PR126 < 72 V**.

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

SIM32_V44_PR126/SIM32_V4C_PR126/SIM32_V50_PR126/SIM32_V54_PR126

PR127	HEATING RESISTOR MAXIMUM AUTHORISED POWER

PARAMETER DEFINITION	This parameter indicates the maximum authorised power for heating resistors in **W**.

NOTES	Special notes: Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value must be **0 V < PR127 < 1000 W**.

Heat*: heating

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

SIM32_V44_PR127/SIM32_V4C_PR127/SIM32_V50_PR127/SIM32_V54_PR127

PR130	CRUISE CONTROL SETPOINT

PARAMETER DEFINITION	Indicates the reference value requested by the driver (in **mph (km/h)**).

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

Indicates the cruise control cruising speed.
Cruise control can only be activated for a speed **V > 18 mph (30 km/h)**.

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

SIM32_V44_PR130 / SIM32_V4C_PR130 / SIM32_V50_PR130 / SIM32_V54_PR130

PR138	RICHNESS CORRECTION

PARAMETER DEFINITION	This parameter indicates the richness correction as a **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: Engine running and engine coolant temperature > 80˚C.

This value changes according to the richness signals from the computer.
The value should be:
PR138 ≈ 50%

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

SIM32_V44_PR138 / SIM32_V4C_PR138 / SIM32_V50_PR138 / SIM32_V54_PR138

PR143	SELF-ADAPTING RICHNESS GAIN

PARAMETER DEFINITION	This parameter brings the richness regulation back to an average nominal value.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The programming carried out and the corrections made by the adaptive control program enable the computer to detect any tendency of the injection system to increase or decrease the richness. This enables the richness to be optimised across all engine operating phases.

The value should be between:
0 < PR143 < 255
PR13 ≈ 128

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

SIM32_V44_PR143 / SIM32_V4C_PR143 / SIM32_V50_PR143 / SIM32_V54_PR143

PR144	SELF-ADAPTING RICHNESS OFFSET

PARAMETER DEFINITION	This parameter brings the richness regulation back to an average nominal value.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The programming carried out and the corrections made by the adaptive control program enable the computer to detect any tendency of the injection system to increase or decrease the richness. This enables the richness to be optimised across all engine operating phases.

The value should be between:
0 < PR144 < 255
PR144 ≈ 128

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**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR147 ≈ 0.72 V, and varies depending on the pedal status.
In the event of a fault, apply the interpretation of **DF196 Pedal sensor circuit gang 1**.

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

SIM32_V44_PR147 / SIM32_V4C_PR147 / SIM32_V50_PR147 / SIM32_V54_PR147

PR148	PEDAL POTENTIOMETER GANG 2 VOLTAGE

PARAMETER DEFINITION	This parameter indicates the pedal potentiometer gang 2 voltage in **volts**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR148 ≈ 0.72 V, and varies depending on the pedal status.
In the event of a fault, apply the interpretation of **DF198 Pedal sensor circuit gang 2**.

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

PR190	IDLE SPEED SETPOINT

PARAMETER DEFINITION	This parameter indicates the idle speed setpoint in **rpm**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The idle speed regulation setting depends on coolant and oil temperature, the position of the gearbox selector, and what electrical consumers are running.
The value should be:
PR190 ≈ 1000 rpm.
If there is a fault, apply interpretation of **ET054 Idle speed regulation**.

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

SIM32_V44_PR190 / SIM32_V4C_PR190 / SIM32_V50_PR190 / SIM32_V54_PR190

PR312	MANIFOLD PRESSURE

PARAMETER DEFINITION	This parameter indicates the manifold pressure in **mbar**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

Manifold pressure = Atmospheric pressure
The value should be:
PR312 ≈ 1000 mbar.

In the event of a fault apply the interpretation for **DF089 Inlet pressure sensor circuit**.

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

PR424	PROGRAMMING THE NO-LOAD POSITION VALUE

PARAMETER DEFINITION	This parameter indicates the accelerator pedal no load position value as a **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR424 ≈ 15%.

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

SIM32_V44_PR424 / SIM32_V4C_PR424 / SIM32_V50_PR424 / SIM32_V54_PR424

PR427	AVERAGE PINKING SIGNAL

PARAMETER DEFINITION	This parameter indicates the average pinking signal.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

This parameter varies according to the pinking status in the combustion chamber.
In the event of a fault, apply interpretation of **DF330 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 **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR429 ≈15%
In the event of a fault, apply the interpretation of **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**.

SIM32_V44_PR429 / SIM32_V4C_PR429 / SIM32_V50_PR429 / SIM32_V54_PR429

PR448	IGNITION ADVANCE

PARAMETER DEFINITION	This parameter indicates the ignition advance in degrees of crankshaft rotation ˚**V**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
– **PR448 ≈ 0˚V**, ignition on,
– **PR448 ≈ 4˚V**, at idle speed.
In the event of a fault apply the interpretation for **DF154 Flywheel signal sensor circuit**.

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

PR538	MEASURED THROTTLE VOLTAGE, GANG 2

PARAMETER DEFINITION	This parameter indicates the throttle valve gang 2 voltage measured in **volts**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR538 ≈ 0.70 V.
In the event of a fault, apply the interpretation of **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**.

SIM32_V44_PR538 / SIM32_V4C_PR538 / SIM32_V50_PR538 / SIM32_V54_PR538

PR539	THROTTLE VALVE GANG 1 MEASURE VOLTAGE

PARAMETER DEFINITION	This parameter indicates the throttle valve voltage, gang 1 measured in **volts**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR539 ≈ 0.70 V.
In the event of a fault, apply the interpretation of **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**.

PR568	PEDAL POSITION (GANG 1)

PARAMETER DEFINITION	This parameter indicates the accelerator pedal position gang 1 as a **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR568 ≈ 16%.
In the event of a fault, apply the interpretation of **DF196 Pedal sensor circuit gang 1**.

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

SIM32_V44_PR568 / SIM32_V4C_PR568 / SIM32_V50_PR568 / SIM32_V54_PR568

PR569	PEDAL POSITION GANG 2

PARAMETER DEFINITION	This parameter indicates the accelerator pedal position gang 2 as a **%**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR569 ≈ 16%.
In the event of a fault, apply the interpretation of **DF198 Pedal sensor circuit gang 2**.

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

SIM32_V44_PR569 / SIM32_V4C_PR569 / SIM32_V50_PR569 / SIM32_V54_PR569

PR571	PINKING SIGNAL

PARAMETER DEFINITION	This parameter indicates the pinking signal.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

Conformity check: 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 **DF330 Pinking sensor circuit**.

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

PR587	MOTORISED THROTTLE VALVE LOWER STOP, GANG 1

PARAMETER DEFINITION	This parameter indicates the motorised throttle lower stop position for gang 1 in **volts**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR587 ≈ 0.5 V.
In the event of a fault, apply the interpretation of **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**.

PR588	MOTORISED THROTTLE VALVE LOWER STOP GANG 2

PARAMETER DEFINITION	This parameter indicates the motorised throttle lower stop position for gang 2 in **volts**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR588 ≈ 4.5 V.
In the event of a fault, apply the interpretation of **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**.

SIM32_V44_PR588 / SIM32_V4C_PR588 / SIM32_V50_PR588 / SIM32_V54_PR588

PR589	MOTORISED THROTTLE VALVE UPPER STOP, GANG 1

PARAMETER DEFINITION	This parameter indicates the motorised throttle upper stop position for gang 1 in **volts**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR589 ≈ 0.9 V.
In the event of a fault, apply the interpretation of **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**.

PR590	MOTORISED THROTTLE VALVE UPPER STOP GANG 2

PARAMETER DEFINITION	This parameter indicates the motorised throttle upper stop position for gang 2 in **volts**.

NOTES	**Special notes:** Only perform these tests if the parameters do not correspond with the system operation programming.

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

The value should be:
PR590 ≈ 4 V.
In the event of a fault, apply the interpretation of **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**.

For **CLIO III or MODUS** only

PR743	ALCOHOL LEVEL ESTIMATED IN THE TANK

PARAMETER DEFINITION	This parameter is used to estimate the percentage of alcohol contained in the petrol in the main tank.

NOTES	There must be no **present** or **stored** faults.
	Refer to **CLIO III or MODUS Wiring Diagram Technical Note**.

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

This percentage must be between:
0 < PR743 < 100%

This parameter allows the computer to estimate the alcohol level contained in the petrol.
Status **ET671 Alcohol level programming** should be **COMPLETED**. This indicates that the percentage of alcohol in the tank has been detected.

If status **ET671 Alcohol level programming** is **NOT COMPLETED**, repeat the programming procedure (see **Configurations and programming, Alcohol level programming**).

Disconnect the battery and the injection computer.
Check the **cleanliness** and **condition** of the connections
Using the universal bornier, check the insulation and continuity on the following connections:
- **3GH** between components **887** and **120**.
- **3GK** between components **887** 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, replace the upstream oxygen sensor.
If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start.

PR873	OIL OXIDATION SIGNAL (except **D7F800** and **D4F772**)

PARAMETER DEFINITION	This parameter indicates the distance of the vehicle when the oil dilution threshold is reached.

NOTES	Only apply the interpretation of this parameter if the OCS* strategy is activated on the instrument panel. Check the configuration reading **LC106 OCS** on the instrument panel computer is **WITH**.

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

The oil condition is calculated by the oxidation program in the injection computer, according to the number of engine revolutions.
When this count reaches a certain threshold before the end of the oil service period, the injection computer sends a signal to the instrument panel, which will display service due. Parameter PR873 corresponds to the vehicle mileage at the time this signal is sent.

Then the instrument panel computer deducts **900 miles (1500 km)** before displaying the message **Service required**.

IMPORTANT:
When the message **Service due** appears on the instrument panel, the customer must have the oil changed within the remaining **900 miles (1500 km)**.

* OCS: Oil Control System.

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

SIM32_V44_PR873 / SIM32_V4C_PR873 / SIM32_V50_PR873 / SIM32_V54_PR873

PR874	LAST SERVICE (except **D7F800** and **D4F772**)

PARAMETER DEFINITION	This parameter indicates the vehicle mileage the last time a service was carried out.

NOTES	It is updated when the oil service parameters are reinitialised in the instrument panel.

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

SIM32_V44_PR874 / SIM32_V4C_PR874 / SIM32_V50_PR874 / SIM32_V54_PR874

For **CLIO III or MODUS** only

PR926	ALCOHOL FUEL ADAPTIVE CORRECTION

PARAMETER DEFINITION	This parameter indicates the alcohol adaptive correction.

NOTES	There must be no **present** or **stored** faults.
	Refer to **CLIO III or MODUS Wiring Diagram Technical Note**.

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

The correction of the injection duration depends on the estimated alcohol level in the main tank, and the **cold starting** procedure for the engine with the Hi-Flex system is carried out accordingly.
Status **ET671 Alcohol level programming** should be **COMPLETED**. This indicates that the percentage of alcohol in the tank has been detected. This percentage must be between: **0 < PR926 < 100%**.
If status **ET671** is **Not completed**, repeat the programming procedure (see **Configurations and programming, Alcohol level programming**).
Disconnect the battery and the injection computer. Check the **cleanliness** and **condition** of the connections. Use the "Universal bornier" to check the insulation and the continuityof the following connections: ● **3GH** between components **887** and **120**. ● **3GK** between components **887** 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, replace the upstream oxygen sensor. If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start.

CLEAR:

Tool command	Diagnostic tool title	Comments
RZ001	**Fault memory**	This command is used for clearing the **stored** faults from the computer.
RZ005	**programming**	This command enables you to reinitialise the entire vehicle configuration.

ACTIVATION:

Tool command	Diagnostic tool title	Comments
AC015	**Fuel pump relay**	This commands enables the fuel pump to be listened to.
AC017	**Canister bleed solenoid valve**	This command enables the canister bleed solenoid valve to be opened.
AC027	**Motorised throttle**	This command enables the motorised throttle to be opened.
AC038	**Low speed fan assembly relay**	This command enables the fan unit relay to be controlled.
AC039	**High speed fan assembly relay**	This command enables the fan unit relay to be controlled.
AC079	**Actuator static test**	This activation enables several actuators to be controlled.
AC117	**Upstream O2 sensor heating**	This command enables the upstream sensor heating to be controlled.
AC118	**Downstream O2 sensor heating**	This command enables the downstream sensor heating to be controlled.
AC156	**Camshaft dephaser 1** (only for **CLIO III or MODUS**)	This activation enables the camshaft dephaser to be controlled.
AC180	**Air conditioning compressor relay control**	This command enables the air conditioning compressor relay to be controlled.
AC199	**Controlled coolant thermostat** (only for **Vdiag 4C**)	The activation of this command enables the controlled coolant thermostat to be opened.
AC253	**Camshaft dephaser: Normal control**	This activation enables the camshaft dephaser solenoid valve to be fully controlled in a repetitive manner with the ignition on.
AC254	**Camshaft dephaser: On/off control**	This activation enables the camshaft to be completely shifted in relation to the pulley with the engine idling.

SPECIFIC COMMAND:

Tool command	Diagnostic tool title	Comments
SC001	**Write saved data**	This command is used to rewrite saved data when the computer is reprogrammed or replaced.
SC003	**Save computer data**	This command is used to save data to be rewritten when the computer is reprogrammed or replaced.
SC006	**Start OBD test: Catalytic converter**	This command is used to test the condition of the catalytic converter. (Not valid for Vdiag 44).
SC007	**Start OBD test: O2 sensors**	This command is used to test the condition of the oxygen sensor.
VP008	**Injector control unlocking**	This command is used to unlock the injectors.
VP010	**Write VIN**	This command is used to rewrite the VIN.
VP013	**Injector control locking**	This command is used to lock the injector control.

AC015	FUEL PUMP RELAY

NOTES	There must be no **present** or **stored** faults.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

IF THE RELAY DOES NOT CLICK 10 TIMES

Check the condition of the fuel pump relay connector (see **NEW TWINGO or E33, component code 236**).
Check the condition of the engine management computer connector (component code **120**).
Check the condition of the Protection and Switching Unit connector (**CLIO III or MODUS**, component code **1337**).
If the connector or connectors are faulty and if there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise change the wiring.
Use the universal bornier to check the **insulation** and **continuity** of the following connections:

- **3AC** between components **120** and **236** (for **NEW TWINGO or E33**),
- **3AC** between components **120** and **1337** (for **CLIO III or MODUS**).

If the connection or connections are 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**, there is a fault in the Protection and Switching Unit (the fuel pump relay is in the Protection and Switching Unit and is not removable) (for **CLIO III or MODUS**).
Perform fault finding on the UCH (see **87B, Passenger compartment connection unit**) (for **NEW TWINGO or E33**) or the **Protection and Switching Unit** (see **87G, Engine compartment connection unit**) (for **CLIO III or MODUS**).
If the fault is still present, contact the Techline.

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

SIM32_V44_AC015 / SIM32_V4C_AC015 / SIM32_V50_AC015 / SIM32_V54_AC015

AC015 CONTINUED 1	

IF THE PUMP DOES NOT OPERATE

Check the condition of the fuel pump connector (component code **833**).
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 + 12 V** on connection **3N** on the fuel pump, component code **833**.
Run command **AC015**:
If there is no **+ 12 V**:
– disconnect the battery,
– disconnect the connector in the Protection and Switching Unit (for **CLIO III or MODUS**),
– Check the condition of the Protection and Switching Unit (see **Wiring Diagrams Technical Note, CLIO III or MODUS**, component code **1337**).
– Check the condition and connections of the UCH (see **87B, Passenger compartment connection unit**) (for **NEW TWINGO or E33**).
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.
Use the universal bornier to check the insulation and continuity of the following connections:
● **3N** between components **833** and **236** (for **NEW TWINGO or E33**),
● **3N** between components **833** and **1337** (for **CLIO III or MODUS**).
If the connection or connections are 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**. Repeat the conformity check from the start.

AC015 CONTINUED 2	

For **CLIO III or MODUS**:

Reconnect the Protection and Switching Unit connector and reconnect the battery.
If there is still no **+ 12 V** on the fuel pump relay connector, there is a fault in the Protection and Switching Unit.
Carry out fault finding on the **Protection and Switching Unit** (see **87G, Engine compartment connection unit**).
If the fault is still present, contact the Techline.

For **NEW TWINGO or E33**:

Reconnect the battery.
With the ignition on, if the **+ 12 V** is still not present on the fuel pump relay connector, there is a fault in the engine fuse and relay box.
Carry out fault finding on the engine fuse and relay box to check the **30A fuse** and the **continuity** of the following connection:
- **BP17** between components **120** and **397, 238** and **397**.

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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

IF THE PUMP DOES NOT OPERATE

Check that there is an earth on connection **MF** on the fuel pump, component code **833**.
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, replace the fuel pump.

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

AC017	CANISTER BLEED SOLENOID VALVE

NOTES	
	There must be no **present** or **stored** faults.
	During activation of this command, the fuel vapour absorber bleed solenoid valve should be operated **10 times**.
	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

Check the condition of the fuel vapour absorber bleed solenoid valve connector (component code **371**).
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 fuel vapour absorber bleed solenoid valve between connections **3FB** and **3BB**.
If the resistance is not between:
22 Ω < X < 30 Ω, at **23°C**, replace the canister bleed solenoid valve.

With the ignition on, check for **+ 12 V** on connection **3FB** of the fuel vapour absorber bleed solenoid valve connector, component code **371**.
If there is no **+ 12 V**:
– Disconnect the battery.
– Disconnect the injection locking relay connector, component code **238** (for **NEW TWINGO or E33**).
– Check the condition of the injection locking relay connector (see **Wiring Diagrams Technical Note for NEW TWINGO or E33, component code 238**).
– Check the condition of the Protection and Switching Unit (see **Wiring Diagram Technical Note, CLIO III or MODUS, component code 1337**).
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.
Use the "universal bornier" to check the continuity of the following connections:
● **3FB** between components **371** and **238** (for **NEW TWINGO or E33**),
● **3FB** between components **371** and **1337** (for **CLIO III or MODUS**).
If the connection or connections are 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**. Repeat the conformity check from the start.

SIM32_V44_AC017 / SIM32_V4C_AC017 / SIM32_V50_AC017 / SIM32_V54_AC017

AC017 CONTINUED	

For **CLIO III or MODUS**:
Reconnect the Protection and Switching Unit connector and reconnect the battery.
If, with the ignition on, there is still no + **12 V** on the fuel vapour absorber
canister bleed solenoid valve connector, there is a fault in the Protection and Switching Unit.
Carry out fault finding on the **UPC** (see **87G, Engine compartment connection unit**).
If the fault is still present, contact the Techline.

For **NEW TWINGO or E33**:
Reconnect the injection locking relay connector and reconnect the battery.
With the ignition on, if there is still not **+ 12V** on the connector for the fuel vapour absorber bleed solenoid, there is a fault in the engine fuse and relay box.
Carry out fault finding on the engine fuse and relay box, by checking the **continuity** of the following connection:
- **BP17** between components **120** and **397**, **238** and **397**.

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, check the battery and run fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

Disconnect the battery.
Check the condition of the engine management computer connector (see **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III, or MODUS, component code 120**).
If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair),** repair the connector, otherwise replace the wiring.
Use the universal bornier to check the **insulation and continuity** of the following connection:
- **3BB** between components **120** and **371**.

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.
Check for earth on connection **3BB** of the fuel vapour absorber bleed solenoid valve when running command **AC017 Canister bleed solenoid valve**.

Replace the fuel vapour absorber bleed solenoid valve.
If the fault is still present, contact the Techline.

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

AC027	MOTORISED THROTTLE

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

NOTES	There must be no **present** or **stored** faults.

Run command **AC027**.
The throttle must open and close **7 times**.
If the motorised throttle does not work, apply the interpretation for **DF079 Motorised throttle valve automatic control**.

AFTER REPAIR	**If the throttle valve has been replaced, reinitialise the RZ005 programming.** Carry out a road test, then check with the **diagnostic tool**. Repeat the conformity check from the start.

SIM32_V44_AC027 / SIM32_V4C_AC027 / SIM32_V50_AC027 / SIM32_V54_AC027

AC117	UPSTREAM O2 SENSOR HEATING

NOTES	There must be no **present** or **stored** faults.

Run command **AC117**.
Using a multimeter, check for **10 earthings** on connection **3GH** of the upstream O2 sensor.

AFTER REPAIR	**If the throttle valve has been replaced, reinitialise the RZ005 programming.** Carry out a road test, then check with the **diagnostic tool**. Repeat the conformity check from the start.

SIM32_V44_AC117 / SIM32_V4C_AC117 / SIM32_V50_AC117 / SIM32_V54_AC117

AC118	DOWNSTREAM O2 SENSOR HEATING

NOTES	There must be no **present** or **stored** faults.

Run command **AC118**.
Using a multimeter, check for **10 earthings** on connection **3GJ** of the downstream O2 sensor.

AFTER REPAIR	**If the throttle valve has been replaced, reinitialise the RZ005 programming.** Carry out a road test, then check with the **diagnostic tool**. Repeat the conformity check from the start.

SIM32_V44_AC118 / SIM32_V4C_AC118 / SIM32_V50_AC118 / SIM32_V54_AC118

AC180	AIR CONDITIONING COMPRESSOR RELAY CONTROL

NOTES	**Special notes:** There must be no **present** or **stored** faults. Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

Check the condition of the connectors of the air conditioning compressor clutch relay (component code **584**) and of the engine management 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.

With the ignition, check for **+ 12 V** on connection **3FB** of the air conditioning compressor clutch relay and the **earthing** of connection **38K** on the injection computer connector.

Use the universal bornier to check the insulation and continuity of the following connections:
- **3FB** between components **584** and **238**,
- **38K** between components **584** 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 control still does not operate, run a diagnostic check on the Heating system.
(see **62A, Heating, 62B, Climate control or 62C, Manual air conditioning**).

AFTER REPAIR	**If the throttle valve has been replaced, reinitialise the RZ005 programming.** Carry out a road test, then check with the **diagnostic tool**.

Only **Vdiag 4C**

AC199	CONTROLLED COOLANT THERMOSTAT

NOTES	There must be no **present** or **stored** faults.

Run command **AC199**.
Using a multimeter, check for **10 earthings** on connection **3VL** of the controlled coolant thermostat.

AFTER REPAIR	**If the throttle valve has been replaced, reinitialise the RZ005 programming.** Carry out a road test, then check with the **diagnostic tool**.

SIM32_V4C_AC199

NOTES	Only refer to the customer complaints after performing a **complete check** using the **diagnostic tool**. **WARNING:** **Never drive the vehicle without checking first that there are no throttle valve faults.**

NO DIALOGUE WITH THE COMPUTER	**ALP1**
THE ENGINE WILL NOT START	**ALP2**
IDLING SPEED FAULTS	**ALP3**
FAULTS WHILE DRIVING	**ALP4**
Noise when cold (K4M)	**Technical Note 6506A ALP 1**
Oil leak from the camshaft dephaser	**Technical Note 6506A ALP 7**
Oil leak from the camshaft dephaser solenoid valve	**Technical Note 6506A ALP 8**

ALP1	No dialogue with the computer

NOTES	Use the **Wiring Diagrams Technical Note for NEW TWINGO, E33, CLIO III or MODUS**.

Test the **diagnostic tool** on another vehicle which is in perfect working order.
Check that the sensor's green indicator light comes on.
If communication with the second vehicle is impossible, follow the instructions in the **CLIP diagnostic tool test** section.
If communication with the second vehicle is impossible, follow the instructions in the **Vehicle check** section.

DIAGNOSTIC TOOL CHECK	Check **the cleanliness** and **condition** of the diagnostic socket contacts on the vehicle. Check the condition of the cable from the diagnostic socket to the sensor and the cleanliness and condition of the connections. Check the sensor connections. Check the condition of the cable from the sensor to the **CLIP** tool, and the cleanliness and condition of the connections. Check the cleanliness and condition of the **CLIP** socket. If the fault is still present, contact the Techline.

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

SIM32_V44_ALP01 / SIM32_V4C_ALP01 / SIM32_V50_ALP01 / SIM32_V54_ALP01

ALP1 CONTINUED 1	

CHECK ON VEHICLE	Check the **electrical voltage** of the battery. Check the cleanliness and **condition** of the battery terminals. Check the **condition** of the battery earth cable and ensure that there is a **good electrical connection** with the bodywork. Check the condition of the engine management 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.
	Check the injection computer earth terminal for **cleanliness** and make sure it is **correctly connected** to the bodywork.
	Check the **30 A supply fuse** of the injection locking relay, and the condition and cleanliness of the contacts.
	Check the **40 A supply fuse** of the Protection and Switching Unit and the **condition** and **cleanliness** of the contacts.
	Check the injection computer after ignition feed **20 A fuse**, and the **condition** and **cleanliness** of the contacts.

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

ALP1 CONTINUED 2	

CHECK ON VEHICLE (CONTINUED)	Use the Universal bornier to check the following connections on the vehicle diagnostic socket: ● **AP10** between components **225** and **1016 (+ after ignition feed)** (for **NEW TWINGO or E33**), ● **AP10** between components **225** and **1337 (+ after ignition feed)** (for **CLIO III or MODUS**), ● **BP32** between components **225** and **260 (+ Battery feed)**, ● **3BB** on component **225** (Earth). 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.
	Check the condition of the engine management 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. Use the universal bornier to check the **continuity** of the **multiplex** communication lines: ● **133B** between components **120** and **645** (for **NEW TWINGO or E33**), ● **133C** between components **120** and **645** (for **NEW TWINGO or E33**), ● **133B** between components **120** and **1337** (for **CLIO III or MODUS**), ● **133C** between components **120** and **1337** (for **CLIO III or MODUS**). 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, perform fault finding on the multiplex network (see **88B, Multiplexing**).
	Disconnect the **earth** terminal of the computer from the negative battery terminal. Check for an **earth** on connection **N** of the injection computer.
	Check the **continuity** and insulation of the following connection: ● **BP** between components **120** and **107**. 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.

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

ALP2	The engine will not start

NOTES	**Apply ALP2 after a complete check using the diagnostic tool.**

If the starter motor does not operate, there may be a fault with the engine immobiliser. Check status **ET341 Immobiliser code programmed**, if **YES** apply the following procedure, if **NO**, run command **SC017 Programming injection immobiliser code**, in the **UCH** in **repair** mode (see **17B**, **Petrol injection**, **Replacement of components**).
In the event of a fault, perform fault finding on the UCH (see **87B, Passenger compartment connection unit**).

Check the condition of the battery.
Check the cleanliness, condition and tightness of the battery terminals.
Check that the battery is correctly earthed to the vehicle bodywork.
Check that the + battery leads are correctly connected.
Carry out fault finding on the charging circuit (see **Technical Note 6014A, Checking the charging circuit**).

Check that the starter motor is properly connected.
Check that the starter operates correctly.

Check the condition and conformity of the spark plugs.
Check the mounting, cleanliness and condition of the flywheel signal sensor.
Check the flywheel signal sensor air gap.
Check the condition of the flywheel.

Check that the air filter is not clogged.
Check that the air inlet circuit is not blocked.

Check that there is fuel in the tank (fuel sender fault).
Check that the tank vent is not blocked.
Check the conformity of the fuel in the tank, apply **test 1 Petrol conformity check**.
Check that there are no leaks in the fuel system, from the tank to the injectors.
Check that there are no kinked hoses (especially after a removal operation).
Check the fuel flow rate and pressure.
Check the sealing of the injectors, and that they are working properly.

Check that the exhaust system is not blocked and the catalytic converter not clogged.

Check the timing setting.

Check the cylinder compressions.

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

SIM32_V44_ALP02 / SIM32_V4C_ALP02 / SIM32_V50_ALP02 / SIM32_V54_ALP02

ALP3	Idle speed faults

NOTES	**Apply ALP3 after a complete check using the diagnostic tool.**
	WARNING: **Never drive the vehicle without checking first that there are no throttle valve faults.**

Check that the oil level is not too high.
Check the inlet system sealing, from the throttle to the cylinder head. Check that the fuel vapour absorber bleed is not disconnected or jammed open. Check that there are no leaks in the fuel vapour absorber bleed system. Check that there are no leaks in the braking assistance system. Check that there are no leaks in the oil vapour recovery circuit (manifold - cylinder head). Check that there are no leaks around the manifold pressure sensor. Check that there are no leaks around the air temperature sensor.
Check that the air filter is not clogged. Check that the air inlet circuit is not blocked. Check that throttle valve is not clogged.
Measure the electrical resistance of the quadruple ignition module. Check the condition and conformity of the spark plugs. Check the mounting, cleanliness and condition of the flywheel signal sensor. Check the flywheel signal sensor air gap. Check the condition and cleanliness of the flywheel.
Check that the tank vent is not blocked. Check the conformity of the fuel in the tank, apply **test 1 Petrol conformity check**. Check that there are no leaks in the fuel system, from the tank to the injectors. Check that there are no kinked hoses (especially after a removal operation). Check the fuel flow rate and pressure. Check that the injectors are working properly.
Check that the exhaust system is not blocked and the catalytic converter not clogged.
Check the timing setting.
Check the cylinder compressions.

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

SIM32_V44_ALP03 / SIM32_V4C_ALP03 / SIM32_V50_ALP03 / SIM32_V54_ALP03

ALP4	Faults occurring while driving

NOTES	**Apply ALP4 after a complete check using the diagnostic tool.**
	WARNING: **Never drive the vehicle without checking first that there are no throttle valve faults.**

Check that the oil level is not too high.
Check the condition and conformity of the spark plugs. Check the mounting, cleanliness and condition of the flywheel signal sensor. Check the flywheel signal sensor air gap. Check the condition and cleanliness of the flywheel.
Check that the air filter is not clogged. Check that the air inlet circuit is not blocked. Check that throttle valve is not clogged. Check inlet line sealing, from the throttle to the cylinder head.
Check that the fuel vapour absorber bleed is not disconnected or jammed open. Check that there are no leaks in the fuel vapour absorber bleed system. Check that there are no leaks in the braking assistance system. Check that there are no leaks in the oil vapour recovery system (manifold/cylinder head). Check that there are no leaks around the manifold pressure sensor. Check that there are no leaks around the air temperature sensor.
Check that the tank vent is not blocked. Check the conformity of the fuel in the tank, apply **test 1 Petrol conformity check**. Check that there are no leaks in the fuel system, from the tank to the injectors. Check that there are no kinked hoses (especially after a removal operation). Check the fuel flow rate and pressure. Check that the injectors are working properly.
Check that the exhaust system is not blocked and the catalytic converter not clogged.
Check the timing setting.
Check the cylinder compressions.

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

SIM32_V44_ALP04 / SIM32_V4C_ALP04 / SIM32_V50_ALP04 / SIM32_V54_ALP04

Petrol conformity check	→	TEST 1

TEST 1	Petrol conformity check

WARNING
During this operation, it is essential to:
- **refrain from smoking or bringing incandescent objects close to the work area,**
- **protect yourself against fuel splashes due to residual pressure in the pipes,**
- **wear safety goggles with side guards,**
- **wear leaktight gloves (Nitrile type).**

IMPORTANT
- **To avoid any corrosion or damage, protect the areas on which fuel is likely to run.**
- **To prevent impurities from entering the circuit, place protective plugs on all fuel circuit components exposed to the open air.**

Remove **1 l** of fuel **at the fuel filter outlet, in the engine compartment** (see **MR 385 (Modus), MR 392 (Clio III), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 19C, Tank, Fuel tank: Draining**), using a pneumatic transfer pump (**part no. 634-200**) and place it in **1300 ml** plastic cup (**part no. 77 11 171 413**).
Close the plastic cup with its cover (**part no. 77 11 171 416**) and let the fuel rest for approximately **2 minutes**.
This type of plastic cup is used to prepare paint.

Is the fuel cloudy or does it separate into two parts?

YES → Water is present in the petrol; the fuel is not correct.
Drain the fuel circuit, including the tank (see **MR 385 (Modus), MR 392 (Clio III), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 19C Tank, Fuel tank: Draining**).

NO

Visually compare the fuel removed with the correct petrol.
Are the samples identical?

YES → A

NO → B

TEST 1 CONTINUED	

A
YES
↓

End of test.

B
NO
↓

Fuel incorrect.
Drain the fuel circuit, including the tank (see **MR 385 (Modus), MR 392 (Clio III), MR 411 (New Twingo), or MR 442 (E33), Mechanical, 19C Tank, Fuel tank: Draining**).

Note:
Contact the Techline if you have doubts or problems with the customer.