TWINGO

2 Transmission

21B SEQUENTIAL GEARBOX

Vdiag No: 04

V2 **Edition Anglaise**

1. SCOPE OF THIS DOCUMENT

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

Vehicle(s): **New Twingo** *Function concerned:* **Sequential gearbox**	*Name of computer:* **Sequential gearbox** *Vdiag No:* **04**

2. PREREQUISITES FOR FAULT FINDING

Documentation type

Fault finding procedures (this manual):
- Assisted fault finding (integrated into the diagnostic tool), Dialogys.

Wiring Diagrams:
- Visu-Schéma (CD-ROM), paper.

Type of diagnostic tools

– CLIP

Special tooling required

Special tooling required	
	Multimeter
Elé. 1589	**Sequential gearbox bornier**
Elé. 1590	**Injection bornier**
Elé. 1681	**Test probe kit**

3. REMINDERS

Procedure

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

Faults

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

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

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

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

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

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

Conformity check

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

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

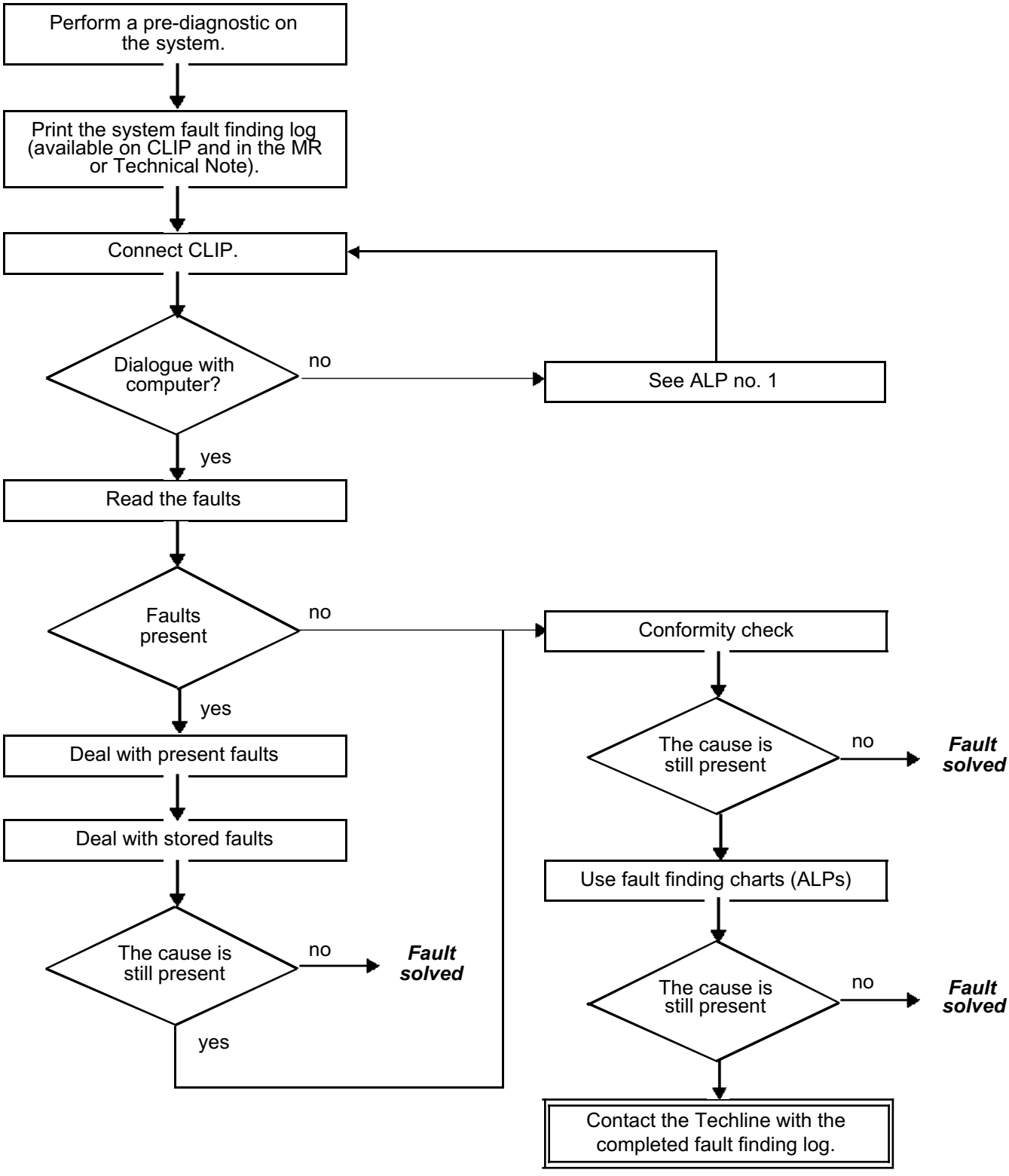
If a status is not behaving normally or a parameter is outside the permitted tolerance values, consult the corresponding fault finding page.

Customer complaints - Fault finding chart

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

A summary of the overall 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

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

Note:
Repeated connections and disconnections alter the functionality of the connectors and increase the risk of poor electrical contact. Limit the number of connections/disconnections as much as possible.

Note:
The check is carried out on the 2 parts of the connection. There may be two types of connections:
- Connector / Connector
- Connector / Device

Fault finding problems

Disconnecting the connectors and/or manipulating the wiring harness 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 of the connection

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

Visual inspection of the area around the connection

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

Disconnect the connector to continue the checks.

Visual inspection of the plastic casing

- Check that there is no mechanical damage (casing crushed, cracked, broken, etc.), in particular to the fragile components (lever, lock, openings, etc.).
- Check that there is no heat damage (casing melted, darker, deformed, etc.).
- Check that there are no stains (grease, mud, liquid, etc.).

Visual inspection of the metal contacts

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

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

Visual inspection of the sealing
(*Only for watertight connectors*)

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

If a fault is detected, repair or replace the wiring (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**).

5. FAULT FINDING LOG

IMPORTANT

IMPORTANT
Any fault on a complex system requires thorough fault finding with the appropriate tools. The FAULTFINDING LOG, which should be completed during the procedure, enables you to keep track of the procedure which is carried out. It is an essential document when consulting the manufacturer.

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

You will always be asked for this log:

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

6. SAFETY INSTRUCTIONS

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

Make sure the battery is properly charged to avoid damaging the computers if there is a low charge.
Use the appropriate tools.

1. Sequential gearbox functions

The electrohydraulic system attached to the gearbox comprises two actuators, one for gear selection and changing, the other for operating the clutch, and a hydraulic power unit which supplies power to the actuators.

The assembly is linked to the sequential gearbox computer, which itself is linked to the engine management computer by a multiplex line connection. The gear lever is used to select gears: in automatic mode, gear changes are controlled by the computer which uses auto-adaptive shift patterns; in manual mode, the driver moves a lever which, via the computer, change the gears.

When the gear is changed, the sequential gearbox computer controls the engine management computer and the torque in such a way as to reduce bucking, leaving the driver free to leave his foot on the accelerator pedal.

The automatic mode used by the sequential gearbox is based on the design of the DP0 automatic gearbox which uses
shift patterns that adapt automatically to the driving style and road conditions.

The gear change is determined by a set of gear change graphs as a function of the accelerator pedal position and the vehicle speed.

The sequential gearbox is a conventional manual gearbox with an electrohydraulic control.

Description of user operation:

The interface between the driver and the sequential gearbox system inside the passenger compartment comprises:
– a gear lever (mechanical section and internal electronic section),
– a display,
– a buzzer.

Using this interface, the driver can:
– request gear changes (up or down),
– request a specific gear change (into neutral or reverse),
– switch between manual and automatic mode,

Description of passenger compartment control:

Description of gear lever positions:
– **“S”**: **Standby**: this is the only stable gear lever position. Each time the driver presses the lever, it returns to the **S** position.

– **“R”**: **Reverse**: moving the lever to this position enables the driver to select reverse gear. Given the lever position of the reverse function, if the movement is too slow, the sequential gearbox computer can read the **N** signal and hence neutral is selected before reverse.

– **“N”**: **Neutral**: moving the lever to this position enables the driver to select neutral.

– **“A/M”**: **AUTO/MANUAL**: moving the lever to this position enables the driver to select either the manual mode (or semi-automatic) or automatic mode. If **AUTO** mode is selected, moving the lever will enable the driver to select manual mode, if manual mode is selected; moving the lever will enable the driver to select automatic mode.

Description of gear lever positions (continued):
– **"+"**: moving the gear lever towards this position enables the driver to shift up,
– **"-"**: moving the gear lever towards this position will enable the driver to shift down.

Description of the display:
This display is specifically for the sequential gearbox. It displays 4 types of information for the driver:
– displays the gear selected: **1, 2, 3, 4, 5, N** or **R**,
– the pictogram displaying **AUTO** mode: this pictogram lights up when **AUTO** mode is selected,
– the **"depress brake pedal"** symbol: this symbol lights up when a driver action requires the brake pedal to be depressed if the driver is not depressing the brake pedal. This symbol only lights up when there is an error (driver actions without depressing the brake pedal = symbol lighting up),
– the **sequential gearbox** fault warning light: this lights up when the sequential gearbox computer detects a fault on the sequential gearbox system.

General information about the operation:

Reminder:
Creep is only possible in first or reverse gears; it makes parking manoeuvres easier: if the brake pedal or the handbrake is released, the vehicle moves forward by itself, without the driver having to accelerate. Creeping is not possible in second gear.

Operation in MANUAL mode:
Manual mode allows the driver to select gears by moving the gear lever. However, in manual mode, the driver is not completely free to do what he/she likes. This is why this mode is also called semiautomatic mode because the driver is still assisted by the sequential gearbox computer in the following instances:
– when driving, shifting the lever towards the **"+"** position may result in underspeed. As a result, the sequential gearbox computer forbids the driver's request,
– when driving, shifting the lever towards the **"-"** position may result in engine overspeed. As a result, the sequential gearbox computer forbids the driver's request,
– when driving, as the overspeed threshold is approached, the computer automatically selects a higher gear,
– when driving, as the underspeed threshold is approached, the computer automatically selects a lower gear,
– when driving, if the vehicle speed reduces too quickly (brakes applied), the sequential gearbox computer can order a downshift.

Operation in MANUAL mode (continued):

- when driving, the selection of **"N"** is only accepted by the sequential gearbox computer if the driver's foot is on the brake pedal,
- when driving, selection of reverse gear is prohibited,
- when the vehicle is slowing down and the speed is approaching 0 mph, the sequential gearbox computer automatically selects **1st** gear.

In manual mode, the driver decides when to change gears by:

- moving the gear lever towards **"+"** which enables a higher gear to be selected,
- moving the gear lever towards **"-"** which enables a lower gear to be selected,
- moving the gear lever to **"N"** which enables neutral to be selected,
- moving the gear lever to **"R"** which enables reverse gear to be selected.

Operation in AUTO mode:

Automatic mode frees the driver from having to worry about changing gear: instead, the sequential gearbox computer determines when best to change gear in relation to the different vehicle parameters (speed, acceleration, position of accelerator pedal etc.,).

The main characteristics of automatic mode are as follows:

- **AUTO** mode only functions when the engine is running.
- **AUTO** mode is preselected when the engine is started.

The **AUTO** mode entry conditions are as follows:

- Moving the gear lever to the left (towards **A/M**) when manual mode is selected, when a forward gear is engaged and **AUTO** mode was selected.
- Engine started.

To exit AUTO mode when driving and under normal operating conditions (no faults), the following exit conditions must be met:

- Movement of the gear lever to the left (deselecting automatic mode using the lever).
- Movement of gear lever towards **"+"** (except when changing from **R** to **1 or N** to **"X"**).
- Movement of the gear lever towards **"-"** (except when changing from **N** to **"X"** or when reverse gear is engaged).

Buzzer operation:

The buzzer operates in the following cases:

- Safety risk: the buzzer sounds when one of the front doors is opened, if the following conditions are met:
  - the engine is running,
  - a gear is engaged,
  - the driver is not applying the brakes.

- The buzzer will cut out if one of the following conditions is confirmed:
  - the engine is not running,
  - the driver applies the brakes,
  - the driver closes the door(s).

- Driver warning when push-starting vehicle:
  - The buzzer will sound to inform the driver that moving the lever to select a gear will enable the engine to start. The buzzer will sound when the vehicle has reached the speed that will allow the engine to start.

- When the computer detects that the clutch is overheating.

Lever operation:
- Each time the lever is moved, it returns to the **"S"** position automatically.
- When the vehicle has stopped and the engine is switched off and the key is in **+ after ignition feed** position, lever movements will only be registered if the driver depresses the brake pedal. In this case, all gears are available. The number of gear changes possible is unlimited.
- When the vehicle has stopped and the engine is running, lever movements will only be registered if the driver depresses the brake pedal. In this configuration, only gears **N, 1, 2 and R** are available.
- Position **N** only allows neutral to be engaged if the driver depresses the brake pedal.
- Position **R** enables reverse gear to be engaged. Reverse gear will only be engaged if the vehicle has stopped and if the driver depresses the brake pedal. Engaging reverse when driving is prevented by the sequential gearbox computer.

Display operation:

AUTO repeater
- As the display has an **AUTO (A)** symbol, it is possible to display the gear engaged at the same time as **AUTO** mode.

Gear selection display
- Vehicle stopped or almost stopped: A new gear will only be displayed after confirmation that the gear has really been engaged in the gearbox.

- Vehicle being driven: the change in the status of the display will depend on the driving mode selected:
  In **AUTO** mode: simultaneous display of the **AUTO** mode and the gear engaged.
  In **MANUAL** mode: engaged gear is displayed.

Display programming when gears cannot be engaged
- When a request would lead to engine overspeed or underspeed: the requested gear flashes then initial gear reappears. Flashing ends after a delay.
- When there is a mechanical fault: application of the **"retry" (1)** program by the computer.
  During retry: the requested gear flashes; then, the engaged gear is displayed on the instrument panel at the end of the retry period. This program cannot be applied to neutral because the **"N"** position cannot flash on the instrument panel; it remains lit.

(1) "RETRY": If there is a mechanical fault engaging a gear (lower or higher), the computer will detect this and will attempt to re-engage twice more; if this does not work, the requested gear will flash on the instrument panel display and the gearbox will return to the gear used prior to this request.

Depress brake pedal symbol:

– The “depress brake” symbol lights up when there is:
  – a request to change gear when stopped without the brake pedal applied,
  – a request to start the engine with gear engaged without brake pedal applied,
  – a request to select **N** when driving without brake pedal applied,
  – a request to select **AUTO**, with the vehicle stationary, the engine running and 2nd gear engaged.

– Depress brake pedal symbol goes out:
  The symbol goes out if the driver depresses the brake pedal or after a delay.

Note:
If, while the symbol is lit, the driver depresses the brake pedal, the symbol will go out and the display will return to its previous status (the lever request is not registered).

In the event that the driver makes a request causing the gear requested to flash and the symbol to be displayed at the same time, they will be synchronised and last for the same period of time.

Fault warning light:

This warning light comes on when a fault is detected by the sequential gearbox computer.

COMPUTER - (RE)PROGRAMMING

No setpoint following sequential gearbox computer reprogramming.

COMPUTER: REPLACEMENT

1. DIALOGUE POSSIBLE WITH THE SEQUENTIAL GEARBOX COMPUTER BEFORE REPLACEMENT

A) Before replacement:

Switch on the ignition.
Note the replacement date of the clutch **ID024 "Read date new clutch fitted"**.
Note the value of the clutch released position **PR148 "Clutch released position"**.

B) Replacement / Reprogramming:

C) After reprogramming:

a. Switch on the ignition (important, during the entire procedure, the ignition must not be switched off except when indicated in the procedure).

b. Rehabilitate the hydraulic unit using command **AC007 Hydraulic unit pump rehabilitation**.

c. Programming the grille.
Check that **PR145 Engine coolant temperature** is below 50 ˚C.
Gearbox in neutral position, handbrake engaged, engine speed zero and no fault with the solenoid valves and the master slave sensors.
Program the gears with command **VP008 Program selection/engagement ranges**.
Wait for the procedure to end.
Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.
Check that programming has been successful by referring to the following status:
– **ET061 "Gear programming"** displays **"DONE"**.
Brake and select all the gears in the gearbox, while checking that they are recognised on the display.
Restart procedure **c** from the beginning if **ET061** does not display **"DONE"**.

d. Biting point programming:
Put the gearbox in neutral.
Start the engine.
Wait **10 seconds** without changing gear (to program the clutch biting point).
Check that the programming has been successful by referring to the following statuses:
– **ET062 "Biting point programming"** displays **"DONE"**,
– **ET063 "Solenoid valve zero point programming"** displays **"DONE"**.
– If **"NOT DONE"**, repeat procedure **F**.

e. Programming clutch progressivity:
Check that the **PR145 "Engine coolant temperature"** is above **80 ˚C** and that the **PR095 "Clutch temperature"** is below **180 ˚C**.
Repeat starting the vehicle briskly at half-load 4 or 5 times to program the clutch progressivity.
Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.
Check that programming has been successfully completed by referring to the following status:
– **ET065 "Progressivity programming"** displays **"DONE"**.
Repeat procedure **e** if status **ET065 "Progressivity programming"** displays **"NOT DONE"**.

f. Program the vehicle identification number code with command **VP001 Enter VIN**.

g. Enter the clutch replacement date using command **VP013 Enter new clutch fitting date**.
Check the entry with **ID024 "Read date new clutch fitted"**.
Repeat the procedure if unsuccessful.

h. Write the value of the initial released position with command **VP014 "Write initial clutch released position"**.
Check that programming has been successful by referring to the following status:
– **ET064 "Clutch position programming"** displays **"DONE"**.
Repeat procedure h if not done.

i. Enter the last After-Sales operation date using command **VP009 Enter last After-Sales operation date**.
Check the entry with **ID022 "Read date of last After-Sales operation"**.
Repeat the procedure if unsuccessful.

j. Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.

k. Check the faults and clear the computer fault memory (some faults are stored when the command modes are used) or deal with the present faults.

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

2. DIALOGUE IMPOSSIBLE WITH THE SEQUENTIAL GEARBOX COMPUTER BEFORE REPLACEMENT

A. Replacement / Reprogramming

B. After reprogramming:

a. Switch on the ignition (important, during the entire procedure, the ignition must not be switched off except when indicated in the procedure).
b. Rehabilitate the hydraulic unit using command **AC007 Hydraulic unit pump rehabilitation**.
c. Programming the grille.
Check that **PR145 Engine coolant temperature** is below 50 ˚C.
Gearbox in neutral position, handbrake engaged, engine speed zero and no fault with the solenoid valves and the master slave sensors.
Program the gears with command **VP008 Program selection/engagement ranges**.
Wait for the procedure to end.
Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.
Check that programming has been successful by referring to the following status:
– **ET061 “Gear programming”** displays **“DONE”**.
Brake and select all the gears in the gearbox, while checking that they are recognised on the display.
Restart procedure **c** from the beginning if **ET061** does not display **"DONE"**.
d. Biting point programming:
Put the gearbox in neutral.
Start the engine.
Wait **10 seconds** without changing gear (to program the clutch biting point).
Check that the programming has been successful by referring to the following statuses:
– **ET062 “Biting point programming”** displays **“DONE”**,
– **ET063 “Solenoid valve zero point programming”** displays **“DONE”**.
If **“NOT DONE”**, repeat procedure **F**.
e. Programming clutch progressivity:
Check that the **PR145 “Engine coolant temperature”** is above **80 ˚C** and that the **PR095 “Clutch temperature”** is below **180 ˚C**.
Repeat starting the vehicle briskly at half-load 4 or 5 times to program the clutch progressivity.
Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.
Check that programming has been successfully completed by referring to the following status:
– **ET065 “Progressivity programming”** displays **“DONE”**.
Repeat procedure **e** if status **ET065 “Progressivity programming”** displays **“NOT DONE”.**
f. Program the vehicle identification number code with command **VP001 Enter VIN**.
g. Enter the last After-Sales operation date using command **VP009 Enter last After-Sales operation date**.
Check the entry with **ID022 "Read date of last After-Sales operation"**.
Repeat the procedure if unsuccessful.
h. Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.
i. Check the faults and clear the computer fault memory (some faults are stored when the command modes are used) or deal with the present faults.
j. Carry out a road test followed by another check with the diagnostic tool.
Repeat the procedure if unsuccessful.

GEARBOX - HYDRAULIC UNIT KIT (without clutch)

WARNING
For all operations on the hydraulic circuit, activate commands AC006 "Hydraulic unit pump inhibition" and AC081 "Discharge pressure accumulator" until the hydraulic pressure PR018 "Hydraulic pressure" is close to zero.

A) Switch on the ignition.
Clear the computer fault memory using command **RZ001 Stored fault(s)**.

B) Rehabilitate the hydraulic unit using command **AC007 "Hydraulic unit pump rehabilitation"**.
Bleed the hydraulic circuit.
Gearbox in neutral, engine speed zero, handbrake engaged and no fault with the solenoid valves and the master slave sensors.
Bleed the hydraulic pressure unit using command **AC011 Bleed hydraulic pressure unit**.
Wait for the procedure to end.
Repeat the procedure if unsuccessful.

C) Bleed the clutch hydraulic circuit using command **AC008 "Clutch circuit phase 1 bleed"**.
Wait for the procedure to end (this should take **6 minutes**).

D) Bleed the clutch hydraulic circuit using command **AC009 "Clutch circuit phase 2 bleed"**.
Wait for the procedure to end (this should take **8 minutes**).

E) In order for the following steps to run smoothly, check that parameter **PR145 "Engine coolant temperature"** is below **50 °C**.
Clear all programming using commands:
- **RZ002 Programming,**
- **RZ003 Program biting point,**
- **RZ008 Initial closed position of clutch.**

Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.

F) Program the gears using command **VP008 "Programming selection/engagement zones"**.
Wait for the procedure to end.

Exit fault finding mode and switch off the ignition.

Wait **1 minute** and then re-establish dialogue with the computer.
Check that programming has been successful by referring to the following status:
ET061 "Gear programming" displays **"DONE"**.
Brake and select all the gears in the gearbox, while checking that they are recognised on the display. Repeat procedure **G** if not done.

G) Shift the selector lever to neutral.
Start the engine.

Wait **10 seconds** without changing gear (to program the clutch biting point).
Check that the programming has been successful by referring to the following statuses:
– **ET062 "Biting point programming"** displays **"DONE"**,
– **ET063 "Solenoid valve zero point programming"** displays **"DONE"**.
If **"NOT DONE",** repeat procedure **E**.

H) Check that **PR145 "Engine coolant temperature"** is above **80 ˚C** and that **PR095 "Clutch temperature"** is less than **180 ˚C**.
Repeat starting at half-load 4 or 5 times to program the clutch progressivity.
Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.
Check that programming has been successfully completed by referring to the following status:
– **ET065 "Progressivity programming"** displays **"DONE"**.
Repeat procedure **F** if status **ET065 "Progressivity programming"** displays **"NOT DONE"**.

I) Exit fault finding mode and switch off ignition.

HIGH PRESSURE PIPE

WARNING
For all operations carried out on the hydraulic unit, run commands AC006 Disable hydraulic unit pump and AC081 Discharge pressure accumulator.
Use command AC081 until hydraulic pressure is close to zero.

A) Switch on the ignition.

B) Apply the following command:
– **RZ001 Stored faults.**
Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.

C) Rehabilitate the hydraulic unit using command **AC007 "Hydraulic unit pump rehabilitation"**.
Open the bleed screw,
Gearbox in neutral position, handbrake engaged, engine speed zero and no fault with the solenoid valves and the master slave sensors.
Bleed the clutch hydraulic circuit using command **AC008 "Clutch circuit phase 1 bleed"**.
Close the bleed screw as soon as the fluid begins to run clear of air bubbles.
Wait for the procedure to end (this should take **6 minutes**).

D) Bleed the clutch hydraulic circuit using command **AC009 "Clutch circuit phase 2 bleed"**.
Wait for the procedure to end (this should take **8 minutes**).

E) Exit fault finding mode and switch off the ignition.

CLUTCH OR GEARBOX + CLUTCH

WARNING
For all operations on the hydraulic circuit, activate commands AC006 "Hydraulic unit pump inhibition" and AC081 "Discharge pressure accumulator" until the hydraulic pressure PR018 "Hydraulic pressure" is close to zero.

A) Switch on the ignition.

B) Clear all programming using commands
- **RZ002 Programming,**
- **RZ003 Program biting point,**
- **RZ008 Initial closed position of clutch.**

Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.

C) Rehabilitate the hydraulic unit using command **AC007 "Hydraulic unit pump rehabilitation"**.
Bleed the hydraulic circuit.
Open the bleed screw,
Start the engine with the handbrake applied.
Gearbox in neutral and no faults in the solenoid valves or master slave sensors.
Bleed the hydraulic circuit using command **AC025 Bleed slave cylinder hydraulic circuit**.
Repeat procedure **C** if not done.

D) Check that **PR145 "Engine coolant temperature"** is below 50 °C.
Program the gears with command **VP008 Program selection/engagement ranges**.
Wait for the procedure to end.
Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.
Check that programming has been successful by referring to the following status:
- **ET061 "Gear programming"** displays **"DONE"**.

Brake and select all the gears in the gearbox, while checking that they are recognised on the display.
Repeat procedure **D** if not done.

E) Shift the selector lever to neutral.
Start the engine.

Wait **10 seconds** without changing gear (to program the clutch biting point).
Repeat the clutch biting point programming 4 or 5 times.
Check that programming has been successful by referring to the following status:
- **ET062 "Biting point programming"** displays **"DONE"**.

If **"NOT DONE", repeat procedure E**.

I) Check that **PR145 "Engine coolant temperature"** is above **80 ˚C** and that **PR095 "Clutch temperature"** is less than **180 ˚C**.
Repeat starting at half-load 4 or 5 times to program the clutch progressivity.
Exit fault finding mode and switch off the ignition.
Wait **1 minute** and then re-establish dialogue with the computer.
Check that programming has been successfully completed by referring to the following status:
– **ET065 "Progressivity programming"** displays **"DONE"**.
Repeat procedure **J** if not done.

G) Exit fault finding mode and switch off ignition.

SETTINGS

VP001: "Write VIN"

This command permits manual entry of the vehicle's VIN into the computer.
Use this command each time the computer is replaced or (re)programmed.

Note:
When replacing or reprogramming a computer, use command **AC007 Hydraulic unit pump rehabilitation before carrying out parameter VP008 Program selection/engagement ranges**.

VP008: "Selection/engagement zones programming"

This command enables the gears to be programmed.
Use this command when:
- replacing the electrohydraulic unit, the clutch or the gearbox,
- replacing or reprogramming the computer,
- replacing the engagement position sensor and the selecting position sensor,
- replacing the engagement, selection or clutch solenoid valves.
- replacing the reservoir, accumulator or pump only.

VP009: "Enter last After-Sales operation date"

Use this command for each workshop operation on the sequential gearbox.
Select command VP009 on the diagnostic tool.
Enter the operation date with the tool keyboard.

VP013: "Enter new clutch fitting date"

This command should be used when the clutch is replaced.
Select command VP013 on the diagnostic tool.
Enter the operation date with the tool keyboard.

VP014: "Enter clutch initial closed position"

This command enables the value of the initial closed position of the clutch to be re-entered into a new or reprogrammed computer in order to keep a consistent record of the clutch wear,.

Use this command each time the computer is replaced or reprogrammed.

Tool fault	Associated DTC	Diagnostic tool title
DF002	0613	Computer
DF039	0725	Engine speed signal
DF043	0785	Gear change consistency
DF046	5002	Idling setpoint multiplex signal
DF048	0720	Vehicle speed signal
DF059	C100	Injection connection → Automatic transmission (multiplex line signal)
DF062	C073	Multiplex line fault
DF065	0945	Pump relay circuit
DF067	0820	Lever position switch circuit
DF068	0805	Clutch position sensor circuit
DF069	0904	Selection position sensor circuit
DF070	0914	Engagement position sensor circuit
DF071	0750	Clutch solenoid valve circuit
DF072	0755	Engagement solenoid valve 1 circuit
DF073	0760	Engagement solenoid valve 2 circuit
DF074	0765	Selection solenoid valve 1 circuit
DF075	0770	Selection solenoid valve 2 circuit
DF076	0900	Clutch control
DF077	0928	Gearbox servo control
DF078	0944	Hydraulic servo control
DF080	0560	Battery voltage
DF082	0571	Brake lights switch circuit
DF107	5000	Engine speed multiplex signal
DF108	4073	Effective average torque multiplex signal
DF114	5007	Pedal position multiplex signal
DF115	5005	Torque multiplex signal
DF117	4037	RR* wheel speed multiplex signal left
DF118	403A	RR* right-hand wheel speed multiplex signal
DF122	C140	Passenger compartment computer connection

*RR: rear

Tool fault	Associated DTC	Diagnostic tool title
DF144	5001	Coolant temperature multiplex signal
DF145	5003	Invalid pedal position multiplex signal*
DF146	4074	Torque no reduction multiplex signal
DF147	5004	Invalid anticipated torque multiplex signal*
DF148	4040	Invalid switch 2 multiplex signal
DF150	C155	Instrument panel multiplex connection
DF166	0932	Pressure sensor circuit
DF175	4031	FR* wheel speed multiplex signal left
DF176	4034	FR* wheel speed multiplex signal right
DF180	0942	Hydraulic pump
DF181	0919	Gear selection impossible
DF185	C121	No ABS/ESP multiplex signal
DF187	0949	Programming
DF188	0701	System operation
DF232	0604	Computer
DF233	0605	Computer
DF234	0603	Computer
DF251	0715	Gearbox input speed
DF252	0946	Pump relay
DF254	0218	Clutch temperature
DF256	2711	Erratic gear jumping
DF257	0934	Slow loss of hydraulic pressure
DF258	0935	Rapid loss of hydraulic pressure
DF259	0867	Pressure accumulator
DF262	0780	Auto-adaptive pattern
DF263	5006	Instantaneous maximum torque multiplex signal
DF265	0885	Computer

*signal: signal
* FR: front

DF002 PRESENT OR STORED	COMPUTER 1.DEF: Internal electronic fault

NOTES	**Special note:** – fault warning light comes on.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **condition and positioning** of the following fuses:
- Fuse **F1 (30A)** located in the engine fuse and relay box.
- Fuses **F16 (20A)** and **F4 (7.5A)** located in the passenger compartment fuse box.

Check the connection and condition of the **52-track** connector of component **119**.
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 **+ before ignition** on connection **BP39** and for **+ after ignition** feed on connection **AP4** on the connector of component **119**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the **insulation, continuity and the absence of interference resistance** on the following connections:
- Connection code **N** between component **119** and the chassis earth **MC - 12A**.
- Connection code **N** between component **119** and the chassis earth **MC - 12B**.

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

Clear the computer fault memory and exit fault finding.
Switch off the ignition.
Switch on the ignition again and carry out a new check using the **diagnostic tool**.
If the fault is still present, contact the Techline.

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

DF039 PRESENT OR STORED	ENGINE SPEED SIGNAL 1.DEF: Signal incoherent 2.DEF: No signal

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the engine starts.
	Special note: Fault warning light comes on.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

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

Engine running at idle speed and vehicle stopped, check the gearbox input engine speed sensor and the engine speed sensor are operating correctly using the following parameters:

- **PR006 Engine speed,**
- **PR014 "Gearbox input speed".**

Check the mechanical **condition** of the clutch.

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

Check the **connection and condition** of the connectors of components **119** and **120**.
If the connector(s) are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

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

- Connection code **H7** between components **119** and **120**.

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

Check the injection system (see **17B, Petrol injection**) and deal with any faults.

If the fault is still present, contact the Techline.

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

DF043 PRESENT OR STORED	GEAR CHANGE CONSISTENCY DEF: Inconsistency between gear read and gear engaged

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the engine starts.
	Special note: If the fault is present: ● Fault warning light comes on. ● Impossible to start the engine. ● Impossible to change gear.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check **the condition and connection** of the connectors of the gearbox computer, component code **119**, of the engagement position sensor, component code **1055** and of the selection position sensor, component code **1056** as well as the intermediate connector.

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

The connector check must be accurately carried out before moving on to the next step.

Start the engine.
– Engage first gear and wait for the solenoid valves to be deactivated.
– Engage neutral, display the value of the parameters **PR017 Engagement position** and **PR016 Selection position** and wait **10 seconds**, checking that the values do not change.
– Switch off the engine and wait **15 seconds**.

If, after waiting **15 seconds**, it is impossible to push the vehicle, replace the engagement position sensor (see **MR 411 Mechanical, 21B, Sequential gearbox, Engagement sensor: Removal - Refitting**).

– Start the engine.
– Engage second gear and wait for the solenoid valves to be deactivated.
– Engage neutral, display the value of the parameters **PR017** and **PR016** and wait **10 seconds**, checking that the values do not change.
– Switch off the engine and wait **15 seconds**.

If, after waiting **15 seconds**, it is impossible to push the vehicle, replace the engagement position sensor (see **MR 411 Mechanical, 21B, Sequential gearbox, Engagement sensor: Removal - Refitting**).

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

DF046 PRESENT OR STORED	IDLING SETPOINT MULTIPLEX SIGNAL 1.DEF: Communication disrupted

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started. If one of the gears engaged, accelerator pedal position or engine speed signals are not available, a default value is used: **– Engine idle speed = 816 rpm.**
	Use the Wiring Diagrams Technical Note, New TWINGO.

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

Check the **connection** and **condition** of the connectors of components **120** and **119**.
If the connector(s) are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **insulation to + 12 V and to earth and check the continuity** of the following connections:
- Connection code **3MT**,
- Connection code **3MS**,

between components **120** and **119**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, check the injection system (see **17B, Petrol injection**).

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

DF048 PRESENT OR STORED	VEHICLE SPEED SIGNAL 1.DEF: Signal incoherent 2.DEF: No signal

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying fault finding procedures to stored faults: The fault is declared present after a road test.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Carry out a road test. Check the concordance between the speed indicated on the speedometer and parameter **PR105 Vehicle speed**.
Check the **connection** and **condition** of the connectors of components **119**, **120** and **1094**. If the connector(s) are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.
Run a multiplex network test (see **88B, Multiplexing, Introduction**).
If the fault is still present, run fault finding on the ABS/ESP system (see **38C, Anti-lock braking system**).

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

DF059 PRESENT OR STORED	INJECTION → AUTOMATIC TRANSMISSION CONNECTION (CAN SIGNALS) 1.DEF: No signal

NOTES	**Priorities when dealing with a number of faults:** In the event of a number of faults, deal with **DF062 Multiplex line fault** first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after a road test.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **120** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Run fault finding on the injection system (see **17B, Petrol Injection**).

Check the **insulation to + 12 V and to earth and check the continuity** of the following connections:
- Connection code **3MT**,
- Connection code **3MS**,

between components **120** and **119**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

DF062 PRESENT OR STORED	MULTIPLEX LINE FAULT 1.DEF: Multiplex line connection fault

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after: The computer fault memory is cleared, the ignition is switched off and on again and the engine is started.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Perform a multiplex network test (see **88B, Multiplex**).
Run fault finding on the injection system (see **17B, Petrol Injection**).

Check the **connection** and **condition** of the connectors of components **120** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **insulation to + 12 V and to earth and check the continuity of the following connections**:
- Connection code **3MT**,
- Connection code **3MS**,

between components **120** and **119**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

DF065 PRESENT OR STORED	PUMP RELAY CIRCUIT CC.0: Short circuit to earth CO.1: Open circuit or short circuit to + 12 V

NOTES	**Priorities when dealing with a number of faults:** Deal with fault **DF166 Pressure sensor circuit** first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after: – switching on the ignition again and starting the engine.
	Special note: – Fault warning light comes on. – Any gear changes and automatic mode are inhibited.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the presence and conformity of component **762** in the engine fuse box.
Check for the earth on connection **MAS** of component **792**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the **connection** and **condition** of the connectors of components **762** and **120**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check for **+ before ignition** on connection **BP36** of component **762**.
If there is **no + before ignition**, check fuse **F1 (30A)** on component **597**.
If the fuse is correct, check the **continuity** of connection **BP36** between components **762** and **597**.
If the fuse is not correct, **check the insulation to earth** of connection **BP36** between components **762** and **597**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the **continuity** and **insulation to earth and to + 12 V** of the following connections:
- Connection code **5AF** between components **762** and **119**.
- Connection code **5AE** between components **762** and **724**.

If the connections are faulty, check the connection and condition of intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

DF065 CONTINUED	

Check the **insulation** between the following connections:
- Connection code **MAS** of component **762**,
- Connection code **BP36** between components **762** and **597**,
- Connection code **5AF** between components **762** and **119**,
- Connection code **5AE** between components **762** and **724**,
- Connection code **M** of component **724**.

If the connections are faulty, check the connection and condition of intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the pump supply relay (component code **762**).

If the fault is still present, contact the Techline.

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

DF067 PRESENT OR STORED	LEVER POSITION SWITCH CIRCUIT CC.0: Short circuit to earth CO.1: Open circuit or short circuit to + 12 V 1.DEF: Values outside the limits

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the ignition is switched on or the engine is started.
	Use the Wiring Diagrams Technical Note **for New TWINGO**.

Check the **connection** and **condition** of the connectors of components **1058** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and + 12 V** on the following connections:
- Connection code **5FJ**,
- Connection code **5FK**,
- Connection code **5FM**,
- Connection code **5FL**,
- Connection code **5FI**,

between components **1058** and **119**.
If the connections are faulty, check the connection and condition of intermediate connector **R107** located under the dashboard and intermediate connector **R67** located near the engine fuse and relay box.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the wiring harness is correct, apply the fault finding procedure associated with the statuses: **ET043 Lever switch No. 0, ET044 Lever switch No. 1, ET045 Lever switch No. 2 and ET046 Lever switch No. 3** (see **Interpretation of statuses**).

If the fault is still present, contact the Techline.

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

DF068 PRESENT OR STORED	CLUTCH POSITION SENSOR CIRCUIT CC.0: Short circuit to earth CO.1: Open circuit or short circuit to + 12 V 1.DEF: Signal incoherent

NOTES	**Special notes:** If the fault is present: Fault warning light comes on.
	Use the Wiring Diagrams Technical Note **for New TWINGO**.

Check the **connection** and **condition** of the connectors of components **1057** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and to + 12 V** on the following connections:
- Connection code **5HN**,
- Connection code **5HX**,
- Connection code **5AN**,

between components **1057** and **119**.
If the connections are faulty, check the connection and condition of the intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the condition of the clutch solenoid valve (no leaks etc.) as well as the condition of the fork.

Use command **AC014 Clutch solenoid valve** and check that the fork is operating correctly.
If the fork does not move correctly, replace the clutch solenoid valve (see **MR 411 Mechanical, 21B, Sequential gearbox, Solenoid valves: Removal - Refitting**).

Replace the clutch position sensor (see **MR 411 Mechanical, 21B, Sequential gearbox, Clutch position sensor: Removal - Refitting**).

If the fault is still present, contact the Techline.

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

DF069 PRESENT OR STORED	SELECTION POSITION SENSOR CIRCUIT CC.0: Short circuit to earth CO.1: Open circuit or short circuit to + 12 V

NOTES	**Special note:** Fault warning light comes on. With the engine stopped, starting is not authorised until a request for neutral to be engaged has been made.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **1056** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and to + 12 V** on the following connections:
- Connection code **5HN**,
- Connection code **5HX**,
- Connection code **5FB**,

between components **1056** and **119**.
If the connections are faulty, check the connection and condition of the intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Remove the selection position sensor and check the wear of the cylinder-potentiometer mechanical connection (see **MR 411 Mechanical, 21B, Sequential gearbox, Selection position sensor**).
Repair if necessary.
If the checks are correct, replace the selection position sensor (see **MR 411 Mechanical, 21B, Sequential gearbox, Gear selection sensor: Removal - Refitting**).

If the fault is still present, contact the Techline.

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

DF070 PRESENT OR STORED	ENGAGEMENT POSITION SENSOR CIRCUIT CC.0: Short circuit to earth CO.1: Open circuit or short circuit to + 12 V

NOTES	**Special note:** Fault warning light comes on. Starting is not permitted until the driver has depressed the brake pedal (enabling neutral to be engaged).
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **1055** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and to + 12 V** on the following connections:
- Connection code **5HN**,
- Connection code **5HX**,
- Connection code **5FA**,

between components **1055** and **119**.
If the connections are faulty, check the connection and condition of the intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Remove the engagement position sensor and check the wear of the cylinder-potentiometer mechanical connection.
(see **MR 411 Mechanical, 21B, Sequential gearbox, Engagement position sensor**).
Repair if necessary.
If the checks are correct, replace the engagement position sensor (see **MR 411 Mechanical, 21B, Sequential gearbox, Engagement sensor: Removal - refitting**).

If the fault is still present, contact the Techline.

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

DF071 PRESENT OR STORED	CLUTCH SOLENOID VALVE CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V

NOTES	**Special notes:** – fault warning light comes on, – following programming not possible: biting point, clutch closed position, selection/ engagement ranges**,** – automatic mode deactivated, – all gear changes unauthorised.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **1050** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and to + 12 V** on the following connections:
- Connection code **5FG** between components **119** and **1050**.
- Connection code **N** between component **1050** and chassis earth **N**.

If the connections are faulty, check the connection and condition of the intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the clutch solenoid valve is operating correctly with a listening test using command **AC014 Clutch solenoid valve**.
If the checks are correct, replace the clutch solenoid valve (see **MR 411 Mechanical, 21B, Sequential gearbox, Solenoid valves: Removal - Refitting**).

If the fault is still present, contact the Techline.

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

DF072 PRESENT OR STORED	ENGAGEMENT SOLENOID VALVE 1 CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 volts

NOTES	**Conditions for applying the fault finding procedure to stored faults:** A fault is declared present after engaging all gears, with the brake pedal depressed and the engine stopped.
	Special note: – warning light comes on, – automatic mode deactivated, – certain gear changes are inhibited.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **1051** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and to + 12 V** on the following connections:
- Connection code **5FE**,

between components **119** and **1051**.
- Connection code **N**,

between component **1051** and chassis earth **N**.
If the connections are faulty, check the connection and condition of the intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check that engagement solenoid valve 1 is operating correctly by carrying out a listening test using command **AC015 Engagement solenoid valves**.
If the checks are correct, replace engagement solenoid valve 1 (see **MR 411 Mechanical, 21B, Sequential gearbox, Solenoid valves: Removal - Refitting**).

If the fault is still present, contact the Techline.

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

DF073 PRESENT OR STORED	ENGAGEMENT SOLENOID VALVE 2 CIRCUIT CO: Open circuit CC.0: Short circuit to earth CC.1: Short circuit to + 12 V

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after: – engagement of any of the gears, with the brake pedal depressed and the engine stopped.
	Special note: – warning light comes on, – automatic mode deactivated, – certain gear changes are inhibited.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **1052** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and to + 12 V** on the following connections:
- Connection code **5FF**,

between components **119** and **1052**.
- Connection code **N**,

between component **1052** and chassis earth **N**.
If the connections are faulty, check the connection and condition of the intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check that engagement solenoid valve 2 is operating correctly by carrying out a listening test using command **AC015 Engagement solenoid valves**.
If the checks are correct, replace engagement solenoid valve 2 (see **MR 411 Mechanical, 21B, Sequential gearbox, Solenoid valves: Removal - Refitting**).

If the fault is still present, contact the Techline.

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

DF074 PRESENT OR STORED	SELECTION SOLENOID VALVE 1 CIRCUIT CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after: – engagement of any of the gears, – the brake pedal is depressed, – the engine is stopped.
	Special notes: – warning light comes on and automatic mode deactivated, – if C0.0: only gear changes between **3-4** and **reverse gear** are authorised, – if CC.1: only gear changes between **1 and 2** are authorised.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **1053** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and to + 12 V** on the following connections:
- Connection code **5FC**,

between components **119** and **1053**.
- Connection code **N**,

between component **1053** and chassis earth **N**.
If the connections are faulty, check the connection and condition of the intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Using the **diagnostic tool**, run command **AC016 Selection solenoid valves** and check that the selection is made correctly by carrying out a listening test.
If the selection is not made correctly, replace selection solenoid valve 1 (see **MR 411 Mechanical, 21B, Sequential gearbox, Solenoid valves: Removal - Refitting**).

If the fault is still present, contact the Techline.

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

DF075 PRESENT OR STORED	SELECTION SOLENOID VALVE 2 CIRCUIT CO.0: Open circuit or short circuit to earth CC.1: Short circuit to + 12 V

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after: – engagement of any of the gears, – the brake pedal is depressed, – the engine is stopped.
	Special notes: – warning light comes on and automatic mode deactivated, – if C0.0: only gear changes **1, 2, 3, 4 and reverse** are authorised, – if CC.1: only selection of **reverse gear** is authorised.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **1054** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and to + 12 V** on the following connections:
- Connection code **5FD**,

between components **119** and **1054**.
- Connection code **N**,

between component **1054** and chassis earth **N**.
If the connections are faulty, check the connection and condition of the intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Using the diagnostic tool, run command **AC016 Selection solenoid valves** and check that the selection is made correctly by carrying out a listening test.
If the selection is not made correctly, replace selection solenoid valve 2 (see **MR 411 Mechanical, 21B, Sequential gearbox, Solenoid valves: Removal - Refitting**).

If the fault is still present, contact the Techline.

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

DF076 PRESENT OR STORED	CLUTCH CONTROL 1.DEF: Clutch inconsistency upon gear change

NOTES	**Priorities when dealing with a number of faults:** In the event of a number of faults, deal with faults **DF068 Clutch position sensor circuit, DF071 Clutch solenoid valve circuit and DF254 Clutch temperature**.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present following harsh use of the clutch (prolonged hold on a hill, **PR095 Clutch temperature ≥ 248˚C**).
	Special notes: Fault warning light comes on, When **PR095 Clutch temperature ≥ 248˚C**, the buzzer is activated.

Check that the clutch is not slipping by performing a road test, driving with a low load and then up or down an incline.
If the clutch slips, pull away several times with a low load and check if **PR096 Clutch progressivity** changes.
If the fault is still present, replace the clutch (see **MR 411 Mechanical, 21B, Sequential gearbox**).

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

DF077 PRESENT OR STORED	GEARBOX CONTROL 1.DEF: Impossible to engage or disengage a gear

NOTES	**Priorities when dealing with a number of faults:** If **DF069 Selection position sensor circuit** and/or **DF070 Engagement position sensor circuit** is stored, deal with them first.
	Special notes: Fault warning light comes on. Improper use of lever when the vehicle is stationary may lead to this fault.

Check that the selector lever is correctly clipped onto the hydraulic unit by looking through the inspection flap (see **MR 411 Mechanical, 21B, Sequential gearbox**).
Check if the water in the gearbox oil is due to condensation. Replace the oil if necessary (see **MR 411 Mechanical, 21B, Sequential gearbox, Electric pump assembly oil: Specifications**).
If it is difficult to select gears, especially reverse gear, apply the interpretation of **PR018 Hydraulic pressure**.
Clear the computer fault memory. Carry out the programming procedure for the **Hydraulic unit - gearbox kit (without clutch) or Clutch or gearbox + Clutch** (see **Replacement of components**). If the fault is still present, this means there is an internal mechanical fault with the gearbox, contact Techline.

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

DF078 PRESENT OR STORED	HYDRAULIC CONTROL 1.DEF: Signal outside lower limit

NOTES	**Priorities when dealing with a number of faults:** Apply the interpretation of other faults first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present during a road test.
	Special note: Improper use of the gear lever when stationary may lead to this fault.

Using the diagnostic tool, via parameter **PR018 Hydraulic pressure**, check that the pump is activated at **40 bar** and stops at **50 bar**.
Pressure level below a pressure threshold.
Fault linked to a lack of oil (internal or external leak) or to a pump failure.
Repair or replace if necessary (see **MR 411 Mechanical, 21B, Sequential gearbox, Electric pump assembly oil: Specifications**).

Case of excessive pump operation:
– Internal or external leak in the circuit. For an external leak, locate the leak and repair if necessary. If there is an internal leak, replace the hydraulic unit (see **MR 411 Mechanical, 21B, Sequential gearbox, Electrohydraulic unit: Removal - Refitting**).

If the fault is still present, replace the accumulator (see **MR 411 Mechanical, 21B, Sequential gearbox, Pressure accumulator: Removal - Refitting**).

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

DF080 PRESENT OR STORED	BATTERY VOLTAGE 1.DEF: Battery undervoltage

NOTES	**Special notes:** – Fault warning light comes on.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check that the sequential gearbox supply fuse is **correctly positioned** and in good condition in the passenger compartment fuse box.
Measure the battery **voltage** and check the **charging circuit** (see **Technical Note 6014A, Charging circuit check**). Repair if necessary.
Ensure that the battery and its connections are in **good condition** (condition and tightness of the terminals). Check the engine **earths** on the vehicle. Repair if necessary.
Check the **connection** and **condition** of the connectors of components **1016** and **119**. If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.
Check the **continuity and insulation** of the connections between: ● Connection code **BP39**, ● Connection code **AP4,** between components **119** and **1016**. ● The two connections **N** between component **119** and the chassis earths **MC-12A and MC-12B**. If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

DF082 PRESENT OR STORED	BRAKE LIGHTS SWITCH CIRCUIT 1.DEF: Signal incoherent

NOTES	**Special note:** Indicator light comes on if the fault is present when driving twice in succession.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check for the **presence**, **condition** and **correct positioning** of the **15A** fuse for the brake lights in the passenger compartment fuse box.

Check the **connection** and **condition** of the connectors of components **160** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **fitting** and **adjustment** of component **160** on the pedal assembly.

Pedal depressed:
Check the **continuity** between **connections AP10 (track 2) and 65A** of component **160**.
Check the **insulation** between **connections AP10 (track 4) and 5A** of component **160**.
If the checks are incorrect, replace the switch (see **MR 411 Mechanical, 83D Cruise control, Brake light switch: Removal - Refitting**).

Pedal released:
Check the **insulation** between **connections AP10 (track 2) and 65A** of component **160**.
Check the **insulation** between **connections AP10 (track 4) and 5A** of component **160**.
If the checks are incorrect, replace the switch (see **MR 411 Mechanical, 83D Cruise control, Brake light switch: Removal - Refitting**).

Check **the continuity and insulation from earth** of the following connection:
- Connection code **65A** between components **160** and **119**.

If the connection is faulty, check the connection and condition of intermediate connector **R67** located near the engine fuse and relay box.
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, perform fault finding of the following computers:
- The UCH (see **87B, Passenger compartment connection unit**).
- The injection computer (see **17B, Petrol injection**).
- The ABS computer (see **38C, Anti-lock braking system**).

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

DF107 PRESENT OR STORED	ENGINE SPEED MULTIPLEX SIGNAL 1.DEF: Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.
	Special note: Fault warning light comes on.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **120** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and to + 12 V** on the following connections**:**

- Connection code **3MT**,
- Connection code **3MS**,

between components **120** and **119**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the injection system (see **17B, Petrol injection**) and deal with any faults.

If the fault is still present, contact the Techline.

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

DF108 PRESENT OR STORED	AVERAGE EFFECTIVE TORQUE MULTIPLEX SIGNAL 1.DEF: Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.

Check the injection system (see **17B, Petrol injection**) and deal with any faults.
If no fault appears, contact Techline.

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

DF114 PRESENT OR STORED	MULTIPLEX PEDAL POSITION 1.DEF: Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.

Check the injection system (see **17B, Petrol injection**) and deal with any faults.
If no fault appears, contact Techline.

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

DF115 PRESENT OR STORED	TORQUE MULTIPLEX SIGNAL 1.DEF: Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.

Check the injection system (see **17B, Petrol injection**) and deal with any faults.
If no fault appears, contact Techline.

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

DF117 **DF118** **PRESENT** **OR** **STORED**	REAR LEFT-HAND WHEEL SPEED MULTIPLEX SIGNAL LEFT REAR LEFT-HAND WHEEL SPEED MULTIPLEX SIGNAL RIGHT 1.DEF: Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after a road test.
	Special note: – **RR left-hand wheel speed multiplex signal** = Rear left-hand wheel speed multiplex signal. – **RR right-hand wheel speed multiplex signal** = Rear right-hand wheel speed multiplex signal.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **120**, **1094** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

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

Check the injection system (see **17B, Petrol injection**) and deal with any faults.

If the fault is still present, run fault finding on the ABS/ESP system (see **38C, Anti-lock braking system**).

* RR: rear

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

DF122 PRESENT OR STORED	UCH CONNECTION 1.DEF: No signal

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer memory is cleared, the ignition is switched off and on again and the engine is started.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

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

Check the **connection** and **condition** of the connectors of components **120**, **645** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and to + 12 V on the following connections**:
- Connection code **3MT**,
- Connection code **3MS**,

between components **120** and **119**.
- connection code **133B**,
- Connection code **133C**,

between components **120** and **645**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

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

DF144 PRESENT OR STORED	COOLANT TEMPERATURE MULTIPLEX SIGNAL 1.DEF : Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.
	Special note: Default value **PR145 Engine coolant temperature = 20 ˚C**
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

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

Run a check of the injection system (see **17B, Petrol injection**).

Check the **connection** and **condition** of the connectors of components **120** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **connection** and **condition** of the coolant temperature sensor connector (component code **244**) **integrated with the injection system**.
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	Deal with any faults detected by the diagnostic tool. Clear the computer memory. Carry out a road test followed by another check with the diagnostic tool.

DF145 PRESENT OR STORED	INVALID PEDAL POSITION MULTIPLEX SIGNAL 1.DEF : Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.
	Special note: Fault warning light comes on.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Run a multiplex network test (see **88B, Multiplex**).
Check the **connection** and **condition** of the connectors of components **119**, **120** and **921**. If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.
Check component **921** is correctly positioned on the accelerator pedal.
Run fault finding on the injection system (see **17B, Petrol injection**).
If no fault appears, contact Techline.

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

DF146 PRESENT OR STORED	TORQUE NO REDUCTION MULTIPLEX SIGNAL 1.DEF : Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.

Run fault finding on the injection system (see **17B, Petrol injection**).
Run a multiplex network test (see **88B, Multiplex**).
If no faults are present or stored, contact Techline.

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

DF147 PRESENT OR STORED	INVALID ANTICIPATED TORQUE MULTIPLEX SIGNAL 1.DEF : Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.

Run fault finding on the injection system (see **17B, Petrol injection**).
Run a multiplex network test (see **88B, Multiplex**).
If no faults are present or stored, contact Techline.

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

DF148 PRESENT OR STORED	SECONDARY BRAKE CONTACT MULTIPLEX SIGNAL 1.DEF : Communication disrupted 2.DEF : Inconsistent signal

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Run a multiplex network test (see **88B, Multiplex**).
Run fault finding on the injection system (see **17B, Petrol injection**).
Check for the presence, **condition and correct positioning of the 15A** fuse for the brake lights in the passenger compartment fuse box.
Check that the indicator light switches off quickly as soon as the brake pedal moves.
Check the **connection** and **condition** of the connectors of components **120** and **160**. If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.
Check the adjustment of the brake light switch on the pedals.
Check for continuity with the pedal depressed, between connections **AP10 (track 2)** and **65A** of component **160**. Replace the switch if necessary (see **MR 411 Mechanical systems, 83D Cruise control, Brake light switch: Removal - Refitting**).
Check there is no continuity with the pedal released, between connections **AP10 (track 2)** and **65A** of component **160**. Replace the switch if necessary (see **MR 411 Mechanical systems, 83D Cruise control, Brake light switch: Removal - Refitting**).
Ensure the **insulation to + 12 V, to earth and the continuity** of the following connections: ● Connection code **3MT**, ● Connection code **3MS**, between components **120** and **119**. If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

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

DF150 PRESENT OR STORED	INSTRUMENT PANEL MULTIPLEX CONNECTION 1.DEF : No signal

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **connection** and **condition** of the connectors of components **120, 119** and **247**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

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

If the multiplex network is correct, perform a fault finding of the instrument panel (see **83A, Instrument panel**).

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

DF166 PRESENT OR STORED	PRESSURE SENSOR CIRCUIT CO.0 : Open circuit or short circuit to earth CC.1 : Short circuit to + 12 V 1.DEF : Signal incoherence

NOTES	**Special note:** – Fault warning light comes on.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

CO.0/ CC.1	***NOTES***	None

Check the **condition** and **position** of the **30 A** fuse for the pump in the engine compartment.
Repair if necessary.

Check the **connection** and **condition** of the connectors of components **119** and **1059** and the 24 track intermediate connector located on the hydraulic unit.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation to earth and + 12 V** on the following connections:
- Connection code **5HN**,
- Connection code **5HX**,
- Connection code **5AD**,

between components **119** and **1059**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, replace the oil pressure sensor on the Sequential gearbox (see **MR 411, Sequential gearbox, solenoid valve unit pressure sensor, Removal refitting**).

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

DF166 CONTINUED	

1.DEF	***NOTES***	None

Check the level of oil in the discharged accumulator, refer to the interpretation of command **AC081 Discharge pressure accumulator**. Check the **condition** and **position** of the **30 A** fuse for the pump in the engine compartment. Use command **AC012 "Hydraulic pump relay"** with the **diagnostic tool** and check that the pump assembly is working. If the pump is not working, perform the necessary repairs. If the fault is still present, replace the oil pressure sensor (see **MR 411, Sequential gearbox, solenoid valve unit pressure sensor, Removal refitting**).
Switch off the ignition. Switch on the ignition again and carry out a new check using the diagnostic tool. Replace the pump assembly if the fault reappears (see **MR 411, Sequential gearbox, pump assembly, Removal refitting**).

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

DF175 **DF176** **PRESENT** **OR** **STORED**	FRONT LEFT-HAND WHEEL SPEED MULTIPLEX SIGNAL FRONT RIGHT-HAND WHEEL SPEED MULTIPLEX SIGNAL 1.DEF : Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after a road test.
	Special note: – **"FR left-hand wheel speed multiplex signal"** = Front left-hand wheel speed multiplex signal. – **"FR right-hand wheel speed multiplex signal"** = Front right-hand wheel speed multiplex signal.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Run a multiplex network test (see **88B, Multiplex**).
Check the **connection** and **condition** of the connectors of components **120**, **1094** and **119**. If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.
Run fault finding on the ABS computer (see **38C, Anti-lock braking system**).

* FR: front

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

DF180 PRESENT OR STORED	HYDRAULIC PUMP

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared as present if: – The pump is switched off for **10 seconds**. – If the oil pressure is less than the starting value.
	Special note: – Fault warning light comes on.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check for **+ AVC** on connection **BP36** of component **762**.
If there is **no + AVC**, check fuse **F1 30A** on component **597**.
If the fuse is correct, check the **continuity** of connection **BP36** between components **762** and **597**.
If the fuse is not correct, check the **insulation to earth** of connection **BP36** between components **762** and **597**.
If the connection is faulty and there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, wiring: precautions for repair**), repair the wiring, otherwise replace it.

Check the **connection** and **condition** of the connectors of components **724, 119 and 762**.
Also check the **connection** and **condition** of the 24-track intermediate connector located on the hydraulic unit.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check **the continuity and insulation** of the following connections:
- Connection code **M** between component **724** and earth **MS-99E**,
- Connection code **5AE** between components **762 and 724**,
- Connection code **5AF** between components **119** and **762**.

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

Case of excessive pump operation:
– Internal or external leak in the circuit. For an external leak, locate the leak and repair if necessary. If there is an internal leak, replace the hydraulic unit (see **MR 411, Sequential gearbox, Electro-hydraulic unit: Removal - Refitting**).

If the fault is still present, replace the accumulator (see **MR 411, Sequential gearbox, Pressure accumulator: Removal - Refitting**).

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

DF181 PRESENT OR STORED	GEAR SELECTION IMPOSSIBLE 1.DEF : Impossible to select gear

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after an engine start attempt and an attempt to engage a gear.
	Special note: – Fault warning light comes on. – Neutral engaged immediately.

Check that there are no engagement or selection sensor faults. If faults associated with these components are present, deal with these first.
Check that the selection control lever is correctly clipped to the hydraulic unit (see **MR 411, 21B, Sequential gearbox**). Carry out the necessary repairs.
Check that there is no water in the sequential gearbox oil. Repair if necessary.
Clear the computer fault memory using command **RZ001 "Stored fault(s)"**. Carry out the programming procedure for the **"Hydraulic unit - gearbox kit (without clutch) or Clutch or gearbox + Clutch"** (see **"Replacement of components"**). If the fault is still present, contact the Techline.

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

DF185 PRESENT OR STORED	NO ABS/ESP MULTIPLEX SIGNAL 1.DEF : No signal

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after the computer fault memory has been cleared, the ignition has been switched off and on again and the engine has been started.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Perform a multiplex network test (see **88B, Multiplex**).
Check the **connection** and **condition** of the connectors of components **120**, **119 and 1094**. If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.
If the fault is still present, run fault finding on the ABS/ESP system (see **38C, Anti-lock braking system**).

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

DF187 PRESENT OR STORED	PROGRAMMING 1.DEF : Programming not carried out or inconsistent 2.DEF : Values outside the limits 3.DEF : Configuration/Initialisation

NOTES	**Special note:** – Fault warning light comes on. – Impossible to start the engine.

Program the gears with command **VP008 Program selection/engagement ranges**.
Check that the solenoid valves are operating correctly using commands **AC015 Engagement solenoid valves** and **AC016 Selection solenoid valves**.
Check the correct positioning of the actuators. Repair if necessary (see **MR 411, 21B, Sequential gearbox, Actuator module: Removal - Refitting**).
If the fault is still present, apply the interpretation of faults **DF072 Engagement solenoid valve 1 circuit, DF073 Engagement solenoid valve 2 circuit, DF074 Selection solenoid valve 1 circuit and DF075 Selection solenoid valve 2 circuit**.

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

DF188 PRESENT OR STORED	SYSTEM OPERATION

NOTES	**Priorities when dealing with a number of faults:** Apply the interpretation of other faults first.
	Special note: – warning light comes on, – neutral engaged immediately, – engine stops immediately.

This fault appears following an electronic and mechanical inconsistency on the sequential system.
If the fault is still present, contact the Techline.

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

DF232 **DF233** **DF234** **PRESENT** **OR** **STORED**	COMPUTER 1.DEF : Internal electronic fault

NOTES	**Special note:** – fault warning light comes on.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **condition** and **position** of the sequential gearbox fuses in the engine compartment and in the passenger compartment.

Check the **connection and condition** of the **52-track** connector of component **119**.
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 **+ AVC** on connection **BP39** and for **+ after ignition feed** on connection **AP4** on the **52-track** connector of component **119**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the **insulation, continuity and the absence of interference resistance** on the following connection:
- Connection code **N** of earths **MC - 12B and MC - 12A**.

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

Clear the computer fault memory using command **RZ001 "Stored fault(s)"**.
Switch off the ignition.
Switch on the ignition again and carry out a new check using the **diagnostic tool**.
If the fault is still present, contact the Techline.

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

DF251 PRESENT OR STORED	GEARBOX INPUT SPEED 1.DEF : Signal incoherence 2.DEF : Signal Absent

NOTES	**Priorities when dealing with a number of faults:** If fault **DF254 Clutch temperature** is present or stored, deal with it first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after a road test.
	Special note: **The fault can only be cleared from the memory using the diagnostic tool after a road test where the vehicle speed signal is detected by the computer.** If fault **DF254 Clutch temperature** is present, the buzzer may sound.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check **the connection and condition** of the connectors of components **119** and **1060**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.
Check that the sensor is correctly fitted on the sequential gearbox.

Engine running at idle speed and vehicle stopped, check the gearbox input engine speed sensor and the engine speed sensor are operating correctly:
- **PR006 Engine speed,**
- **PR014 "Gearbox input speed".**

Check **the continuity and insulation** of the following connections:
- Connection code **5DA**,
- Connection code **5DB**,

between components **1060** and **119**.
If the connections are faulty, check the connection and condition of intermediate connector **R235** located on the hydraulic unit.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check that the gearbox input speed sensor resistance between connections **5DA** and **5DB** of the sensor are equal to 470 Ω ± 94 Ω.

If the fault is still present, replace the sensor (see **MR 411, 21B, Sequential gearbox, sequential gearbox engine speed sensor: Removal - Refitting**).

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

DF252 PRESENT OR STORED	PUMP RELAY 1.DEF : Relay jammed

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after a road test.
	Special note: – all gear changes are inhibited, – fault warning light comes on, – automatic mode is inhibited.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

After switching on the ignition, check that the **PR018 "Hydraulic pressure"** is between **40 bar** and **50 bar.**If this is not the case, apply the interpretation for fault **DF166 "Pressure sensor circuit"**.
If the checks described in **DF166 "Pressure sensor circuit"** are correct and that **PR018 "Hydraulic pressure"** indicates a lower pressure than that measured previously following activation of the pump motor, replace the pressure sensor (see **MR 411, 21B, Sequential gearbox, Solenoid valve unit: Removal - Refitting**).

Disconnect the relay and check that there is **no continuity** between connections **BP36** and **5AE** of component **762**.
Replace the relay if it is not correct.

Check **the continuity and insulation** of the following connection:
- Connection code **5AE**,

Between components **724** and **762**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check for the absence of **+ 12 V** on connection **5AE** of component **762**.

Check **the continuity and insulation** of the following connection:
- Connection code **5AF**,

Between components **119** and **762**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

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

DF254 PRESENT OR STORED	CLUTCH TEMPERATURE 1.DEF : Clutch overheating

NOTES	**Priorities when dealing with a number of faults:** Deal with other faults declared present first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present when the clutch is used under severe conditions (prolonged holding on a hill).
	Special note: – Instrument panel displays: **"Sequential gearbox overheating"** – Fault warning light comes on. – An engine speed wire fault or incorrect multiplex line value (speed equals 0) may increase the occurrence of this fault.

Clear the stored fault and check that the clutch is not slipping by performing a road test, pulling away with a low load then up or down an incline.

If the clutch slips, proceed in the following way:
– Pull away several times with low load and check parameter **PR096 Clutch progressivity**.
– If the fault is still present, replace the clutch.

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

DF256 PRESENT OR STORED	ERRATIC GEAR JUMPING 1.DEF : Erratic gear jumping

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the previous gear has been engaged.
	Special note: Fault warning light comes on following erratic gear disengagement and after the previous gear has been engaged.

Check that there are no engagement or selection sensor faults. Repair if necessary.
Check that the selection control lever is correctly clipped onto the hydraulic unit. Carry out the necessary repairs (see **MR 411 Mechanical, 21B, Sequential gearbox, Electro-hydraulic unit, Removal - Refitting**).
Check that there is no water in the gearbox oil. Repair if necessary.
Clear the faults using command **RZ001 "Stored fault(s)"**. Reprogram **VP008 Program selection/engagement ranges**.
Check there are no other faults by carrying out a road test.
If the fault is still present, contact the Techline.

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

DF257 PRESENT OR STORED	SLOW LOSS OF HYDRAULIC PRESSURE 1.DEF : Slow loss of pressure

NOTES	**Special note:** Fault warning light comes on.

Small internal leak: replace the hydraulic unit or clutch solenoid valve (see **MR 411 Mechanical, 21B, Sequential gearbox, Electro-hydraulic unit: Removal - Refitting**).
Slow external leak: repair or replace the component concerned (see **Replacement of components**).

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

DF258 PRESENT OR STORED	RAPID LOSS OF HYDRAULIC PRESSURE 1.DEF : Rapid loss of pressure

NOTES	**Special note:** Warning light comes on.

Small internal leak: replace the hydraulic unit or clutch solenoid valve (see **MR 411 Mechanical, 21B, Sequential gearbox, Electro-hydraulic unit: Removal - Refitting**).
Slow external leak: repair or replace the component concerned (see **Replacement of components**).

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

DF259 PRESENT OR STORED	PRESSURE ACCUMULATOR 1.DEF : Pressure accumulator fault

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after low nitrogen pressure has been recorded at least 40 times.
	Special note: – Fault warning light comes on when low nitrogen pressure has been recorded at least 40 times. – Engine stalls when the vehicle is slowing down. – Gear change impossible when driving.

Replace the accumulator (see **MR 411 Mechanical, 21B, Sequential gearbox, Pressure accumulator: Removal - Refitting**).

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

DF262 PRESENT OR STORED	AUTO-ADAPTIVE PATTERN 1.DEF : Configuration/Initialisation

NOTES	**Special note:** – Fault warning light comes on. – Automatic mode deactivated.

Carry out fault finding on the injection (see **17B, Petrol injection**).
If there are no injection faults, this fault is only due to pulling away with significant skidding on a slippery road followed by recovery of tyre grip.
Clear this fault using command **RZ001 "Stored fault(s)"**.

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

DF263 PRESENT OR STORED	INSTANTANEOUS MAXIMUM TORQUE MULTIPLEX SIGNAL 1.DEF : Communication disrupted

NOTES	**Priorities when dealing with a number of faults:** If fault **DF062 Multiplex line fault** is present or stored, deal with it first.

Run a check of the injection system (see **17B, Petrol injection**).
Check **the condition and connection** of the connectors of components **119** and **120**. If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.
Check **the continuity and insulation of the following connections**: ● Connection code **3MS**, ● Connection code **3MT**, between components **119** and **120**. If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.
If the fault is still present, contact the Techline.

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

DF265 PRESENT OR STORED	COMPUTER 1.DEF : Main relay fault (integrated in the computer)

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after a road test.
	Special note: – all gear changes are inhibited, – automatic mode is inhibited.

Check the **condition** and **connection** of the earths on both connections **N** of component **119**.
Check the **condition and position** of the sequential gearbox fuses in the engine compartment and in the passenger compartment.
Check the **condition and connection** of the connectors for component **119**. 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 **+ AVC** on connection **BP39** of component **119**. If the **+ AVC** is absent, check **the insulation to earth and the continuity** of the following connection: ● Connection code **BP39**, between components **119** and **1016**. If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, wiring: precautions for repair**), repair the wiring, otherwise replace it.
Check for **+ after ignition feed** on connection **AP4** of component **119**. If the **+ after ignition feed** is absent, check **the insulation to earth and the continuity** of the following connection: ● Connection code **AP4**, between components **119** and **1016**. 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.
Clear the computer fault memory using command **RZ001 "Stored fault(s)"**, exit the fault finding and switch off the ignition. Carry out another check using the diagnostic tool. If the fault is still present, contact the Techline.

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

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

Tool status	Diagnostic tool title
ET003	Brake light switch (opening)
ET004	Brake light switch (closure)
ET012	Gear lever position
ET013	Gear engaged
ET027	Driver's door open
ET028	Handbrake
ET030	Accelerator pedal position
ET043	Lever switch no. 0
ET044	Lever switch no. 1
ET045	Lever switch no. 2
ET046	Lever switch no. 3
ET048	Driver's door statuses detection
ET049	Handbrake position recognition
ET053	Vehicle speed signal* detection
ET054	Pump relay control
ET055	Starter relay control
ET056	Clutch solenoid valve control
ET057	Engagement solenoid valve 1 control
ET058	Engagement solenoid valve 2 control
ET059	Selection solenoid valve 1 control
ET060	Selection solenoid valve 2 control
ET061	Gear programming
ET062	Biting point programming
ET063	Solenoid valve zero point programming
ET064	Clutch position programming
ET065	Progressivity programming
ET086	Downshift request

*signal: signal

ET003 **ET004**	BRAKE LIGHT SWITCH (OPENING) STOP LIGHT SWITCH (CLOSURE)

STATUS DEFINITION	These statuses indicate the position of the brake pedal.

NOTES	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Engine stopped, ignition on

– Brake pedal released: **ET003: "Closed" and ET004: "Open"**.
– Brake pedal depressed: **ET003: "Open" and ET004: "Closed"**.

If the statuses do not correspond with the position of the brake pedal, perform the following fault finding procedure.

Electrical check of the sensor

Check the condition of the **15 A** fuse of the brake light switch located on component **1016**.
Check the brake light switch is correctly positioned on the brake pedal.

Check the condition and correct connection of component **160**.
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 **the + after ignition feed** on both connections **AP10** of component **160**.
If **there is no + after ignition feed**, check the **continuity and insulation to earth** of the two connections **AP10** between components **160** and **1016**.
If the connection(s) are faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Pedal released:
Check the continuity between connections **AP10 (track 4)** and **5A** of component **160**.
Check the insulation between connections **AP10 (track 2)** and **65A** of component **160**.
Pedal depressed:
Check the continuity between connections **AP10 (track 2)** and **65A** of component **160**.
Check the insulation between connections **AP10 (track 4)** and **5A** of component **160**.
If one of these checks is incorrect, replace the brake light switch (see **MR 411 Mechanical, 83D Cruise control, Brake light switch: Removal - Refitting**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET003 **ET004** **CONTINUED**	

Check the condition and correct connection of component **119**.
If the connector is faulty and there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the continuity of connection **65A** between components **119** and **160**.
If the connection is faulty and there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, wiring: precautions for repair**), repair the wiring, otherwise replace it.

Check the insulation to **+ 12 V** of the following connections:
- Connection code **65A** between components **160** and **119**.
- Connection code **65A** between components **160 and 645**.
- Connection code **65A** between components **160 and 172**.
- Connection code **65A** between components **160 and 173**.
- Connection code **65A** between components **160 and 639**.
- Connection code **65A** between components **160 and 1094**.

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

If the fault is still present, perform fault finding of the following computers:
- The UCH (see **87B, Passenger compartment connection unit**).
- The injection computer (see **17B, Petrol injection**).
- The ABS computer (see **38C, Anti-lock braking system**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET012	GEAR LEVER POSITION

STATUS DEFINITION	This status **ET012** indicates one of the six positions of the gear lever: **UP, DW, N, R, STB or A**.

NOTES	None

Engine stopped, ignition on

Check the specification of status **ET012** for each position of the gear lever:
- movement towards the front of the vehicle: **"UP"**.
- movement towards the rear of the vehicle: **"DW"**.
- Movement to the right: **"N"**.
- Movement to the left: **"A"**.
- Brake pedal depressed, movement to the right followed by a movement to the rear: **"R"**.
- Lever in rest position: **"STB"**.

If status **ET012** is not consistent with the position of the gear lever each time it is moved, refer to the interpretation of fault **DF067 "Lever position switch circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET013	GEAR ENGAGED

STATUS DEFINITION	This status **ET013** indicates the gear engaged and corresponds to the gear displayed on the instrument panel: ● **1: 1st** ● **2: 2nd** ● **3: 3rd** ● **4: 4th** ● **5: 5th** ● **N: Neutral** ● **R: Reverse**

NOTES	None

Engine stopped, ignition on

Check the specification of status **ET013** each time the gear lever is moved:

- **Gears 1st to 5th**: push the lever forwards for the next gear up and backwards for the next gear down and check how status **ET013** changes each time the gear lever moves.
- **Position N (neutral)**: when status **ET013** is **"1"**, push the lever to the right and check that status **ET013** is **"N"**.
- **Gear R** (reverse): check status **ET013** changes to **"R"** after depressing the brake pedal, pushing the lever to the right and then to the rear.

If status **ET013** is not correct, refer to the interpretation of faults **DF069 "Selection position circuit" and DF070 "Engaging position sensor circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET027	DRIVER'S DOOR OPEN

STATUS DEFINITION	Status **ET027** indicates the position of the opening elements by the specifications **"CLOSED"** and **"OPEN"**.

NOTES	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Engine stopped, ignition on

CLOSED: Driver's door closed
OPEN: Driver's door open
In the event of a fault, refer to the fault finding procedure below.

Electrical check of the sensor

Check the **connection** and **condition** of the connectors of components **140, 1016** and **119** as well as the driver's door intermediate connector.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **continuity and insulation** of connection **H24** between components **119**, **1016** and **140**.
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 fault finding on the UCH (see **87B, Passenger compartment connection unit**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET028	HANDBRAKE

STATUS DEFINITION	**"Engaged"**: the handbrake lever is raised. **"Released"**: the handbrake lever is in rest position.

NOTES	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Engine stopped, ignition on

Status **ET028** indicates the position of the handbrake lever:
- **"Engaged"**: the handbrake lever is raised.
- **"Released"**: the handbrake lever is in rest position.

If status **ET028** is incorrect, apply the procedure below.

Electrical check of the sensor

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

Check the condition of the connections of component **156** and check that they are correctly connected.
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.

Remove the handbrake switch.
Press the handbrake switch and check the insulation between connection **27A** and **earth**.
If there is resistance, replace the handbrake switch.
Release the handbrake switch and check the continuity between the same connections.
If there is no continuity, replace the handbrake switch.

Check the condition of the connections of component **247** and check that they are correctly connected.
If the connector is faulty and there is a repair procedure (**see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity and the earth insulation** on connection **27A** between components **247** and **156**.
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, perform a fault finding of the instrument panel (see **83A, Instrument panel**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET030	ACCELERATOR PEDAL POSITION

STATUS DEFINITION	**"PL"**: the accelerator pedal is in the **"no load"** position. **"Intermediate"**: the accelerator pedal is in the **intermediate** position. **"PF"**: the accelerator pedal is in the **"full load"** position.

NOTES	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Engine stopped, ignition on

Status **ET030** is a multiplexed signal supplied by the injection computer.
This status **ET030** indicates the position of the accelerator pedal, check the conformity of the status by depressing the accelerator pedal:

- **PL:** pedal in rest position
- **Intermediate:** pedal in an intermediate position
- **PF:** pedal in full load position

If status **ET030** is incorrect, apply the procedure below.

Electrical check of the sensor

Check the positioning of the accelerator pedal potentiometer on the accelerator pedal.

Check that nothing inhibits the movement of the pedal (floor carpet etc.).

Check the condition of the connections of component **921** and check that they are correctly connected.
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.

Run fault finding on the injection system (see **17B, Petrol injection**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET043 **ET044** **ET045** **ET046**	LEVER SWITCH NO. 0 LEVER SWITCH NO. 1 LEVER SWITCH NO. 2 LEVER SWITCH NO. 3

STATUS DEFINITION	Statuses **ET043, ET044, ET045 and ET046** have the specification **"OPEN"** and **"CLOSED"**. They change according to the position of the gear lever.

NOTES	Use the Wiring Diagrams Technical Note for **New TWINGO**.

LEVER POSITION	SWITCH STATUSES		MEASURE RESISTANCE ON THE CONNECTOR ON THE GEAR LEVER SIDE
Lever in rest position **ET012 "Gear lever position":** **Stb** confirmed	**ET043:**	**OPEN**	Between **connections 5FI and 5FL** = **1090** Ω
	ET044:	**OPEN**	Between **connections 5FI and 5FM** = **1090** Ω
	ET045:	**OPEN**	Between **connections 5FI and 5FK** = **1090** Ω
	ET046:	**OPEN**	Between **connections 5FI and 5FJ** = **1090** Ω
Neutral position maintained: **ET012 "Gear lever position":** **N** confirmed	**ET043:**	**OPEN**	Between **connections 5FI and 5FL** = **1090** Ω
	ET044:	**CLOSED**	Between **connections 5FI and 5FM** = **270** Ω
	ET045:	**CLOSED**	Between **connections 5FI and 5FK** = **270** Ω
	ET046:	**OPEN**	Between **connections 5FI and 5FJ** = **1090** Ω
R position maintained **ET012 "Gear lever position":** **R** confirmed	**ET043:**	**OPEN**	Between **connections 5FI and 5FL** = **1090** Ω
	ET044:	**OPEN**	Between **connections 5FI and 5FM** = **1090** Ω
	ET045:	**CLOSED**	Between **connections 5FI and 5FK** = **270** Ω
	ET046:	**CLOSED**	Between **connections 5FI and 5FJ** = **270** Ω

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET043 **ET044** **ET045** **ET046** **CONTINUED**	

LEVER POSITION	SWITCH STATUSES		MEASURE RESISTANCE ON THE CONNECTOR ON THE GEAR LEVER SIDE
"+" position maintained **ET012 "Gear lever position":** **UP** confirmed	**ET043:** **ET044:** **ET045:** **ET046:**	**CLOSED** **CLOSED** **OPEN** **OPEN**	Between **connections 5FI and 5FL** = **270** Ω Between **connections 5FI and 5FM** = **270** Ω Between **connections 5FI and 5FK** = **1090** Ω Between **connections 5FI and 5FJ** = **1090** Ω
"-" position maintained **ET012 "Gear lever position":** **DW** confirmed	**ET043:** **ET044:** **ET045:** **ET046:**	**OPEN** **CLOSED** **OPEN** **CLOSED**	Between **connections 5FI and 5FL** = **1090** Ω Between **connections 5FI and 5FM** = **270** Ω Between **connections 5FI and 5FK** = **1090** Ω Between **connections 5FI and 5FJ** = **270** Ω
"AUTO" position maintained **ET012 "Gear lever position":** **A** confirmed	**ET043:** **ET044:** **ET045:** **ET046:**	**CLOSED** **OPEN** **OPEN** **CLOSED**	Between **connections 5FI and 5FL** = **270** Ω Between **connections 5FI and 5FM** = **1090** Ω Between **connections 5FI and 5FK** = **1090** Ω Between **connections 5FI and 5FJ** = **270** Ω

Replace the gear lever unit if one of the switches are defective (see **MR 411 Mechanical, 21B, Sequential gearbox, Sequential gearbox gear lever: Removal - Refitting**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET048	DRIVER'S DOOR STATUSES DETECTION

STATUS DEFINITION	This status indicates detection by the sequential gearbox computer of the driver's door and has the specification **"DONE"** or **"NOT DONE"**.

NOTES	None

Engine stopped, ignition on

ET048: "DONE"

In the event of a fault, refer to the interpretation of status **ET027 "Driver's door open"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET049	HANDBRAKE POSITION RECOGNITION

STATUS DEFINITION	This status indicates detection by the sequential gearbox computer of the handbrake position and has the specification **"DONE"** or **"NOT DONE"**.

NOTES	None

Engine stopped, ignition on

ET049: "DONE"

In the event of a fault, refer to the interpretation of status **ET028 "Handbrake"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET053	VEHICLE SPEED SIGNAL DETECTION

STATUS DEFINITION	This status indicates detection by the sequential gearbox computer of the vehicle speed and has the specification **"DONE"** or **"NOT DONE"**.

NOTES	None

Engine stopped, ignition on

ET053: "DONE"

In the event of a fault, refer to the interpretation of the following faults:
- **DF176 "Front right-hand wheel speed multiplex signal",**
- **DF175 "Front left-hand wheel speed multiplex signal",**
- **DF117 "Rear left-hand wheel speed multiplex signal",**
- **DF118 "Rear right-hand wheel speed multiplex signal".**

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET054	PUMP RELAY CONTROL

STATUS DEFINITION	**ACTIVE:** indicates that the pump is supplied to increase the pressure in the hydraulic circuit. **INACTIVE:** indicates that the pump is not being actuated.

NOTES	None

Engine running at idle speed

If parameter **PR018 "Hydraulic pressure"** is below **40 bar, ET054** is **"ACTIVE"** until **PR018 = 50 bar** is reached.
If parameter **PR018 "Hydraulic pressure"** is above **40 bar, ET054** is **"INACTIVE"**.
In the event of a fault, refer to the interpretation of fault **DF252 "Pump relay"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET055	STARTER RELAY CONTROL

STATUS DEFINITION	This signal indicates the status of the starter control circuit and has the specification **"ACTIVE"** or **"INACTIVE"**.

NOTES	None

Engine stopped, ignition on

INACTIVE
"ACTIVE" when the starter is operating.
In the event of a fault, perform fault finding on the UCH (see **87B, Passenger compartment connection unit**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET056	CLUTCH SOLENOID VALVE CONTROL

STATUS DEFINITION	This signal indicates the status of the clutch solenoid valve and has the specification **"ACTIVE"** or **"INACTIVE"**.

NOTES	None

Engine stopped, ignition on

INACTIVE: engine stopped
In the event of a fault, consult the interpretation of fault **DF071 "Clutch solenoid valve circuit"**.

Engine warm at idle speed

INACTIVE: engine running
ACTIVE: when a gear is being selected
In the event of a fault, consult the interpretation of fault **DF071 "Clutch solenoid valve circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET057	ENGAGEMENT SOLENOID VALVE 1 CONTROL

STATUS DEFINITION	This signal indicates the status of the control circuit of engagement solenoid valve 1 and has the specification **"ACTIVE"** or **"INACTIVE"**.

NOTES	None

Engine stopped, ignition on

INACTIVE, engine stopped
In the event of a fault, consult the interpretation of fault **DF072 "Engagement solenoid valve 1 circuit"**.

Engine warm at idle speed

INACTIVE, engine running, vehicle stopped
ACTIVE when each gear is selected
In the event of a fault, consult the interpretation of fault **DF072 "Engagement solenoid valve 1 circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET058	ENGAGEMENT SOLENOID VALVE 2 CONTROL

STATUS DEFINITION	This signal indicates the status of the control circuit of engagement solenoid valve 2 and has the specification **"ACTIVE"** or **"INACTIVE"**.

NOTES	None

Engine stopped, ignition on

INACTIVE, engine stopped
In the event of a fault, consult the interpretation of fault **DF073 "Engagement solenoid valve 2 circuit"**.

Engine warm at idle speed

INACTIVE, engine running, vehicle stopped
ACTIVE when each gear is selected
In the event of a fault, consult the interpretation of fault **DF073 "Engagement solenoid valve 2 circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET059	SELECTION SOLENOID VALVE 1 CONTROL

STATUS DEFINITION	This signal indicates the status of the control circuit of selection solenoid valve 1 and has the specification **"ACTIVE"** or **"INACTIVE"**.

NOTES	None

Engine stopped, ignition on

INACTIVE, engine stopped
In the event of a fault, consult the interpretation of fault **DF074 "Selection solenoid valve 1 circuit"**.

Engine warm at idle speed

INACTIVE, engine running, vehicle stopped
ACTIVE during selection of first and second gears
In the event of a fault, consult the interpretation of fault **DF074 "Selection solenoid valve 1 circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET060	SELECTION SOLENOID VALVE 2 CONTROL

STATUS DEFINITION	This signal indicates the status of the control circuit of selection solenoid valve 2 and has the specification **"ACTIVE"** or **"INACTIVE"**.

NOTES	None

Engine stopped, ignition on

INACTIVE, engine stopped
In the event of a fault, consult the interpretation of fault **DF075 "Selection solenoid valve 2 circuit"**.

Engine warm at idle speed

INACTIVE, engine running, vehicle stopped
ACTIVE during selection of fifth and reverse gears
In the event of a fault, consult the interpretation of fault **DF075 "Selection solenoid valve 2 circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET061	GEAR PROGRAMMING

STATUS DEFINITION	This signal indicates the status of the programming of all the gears and has the specification **"NOT DONE", "DONE"** or **"OK"**.

NOTES	None

Engine stopped, ignition on

ET061: "DONE" or "OK"

If **"NOT DONE"**, consult the interpretation of faults **DF069 "Selecting position sensor circuit", DF070 "Engaging position sensor circuit" and DF067 "Lever position sensor circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET062	BITING POINT PROGRAMMING

STATUS DEFINITION	This signal indicates the status of the programming of the clutch biting point and has the specification **"NOT DONE"** or **"DONE"**.

NOTES	None

Engine stopped, ignition on

ET062: DONE

If **"NOT DONE"**, put the gearbox in neutral.
Start the engine.
Wait **10 seconds** without changing gear (to program the clutch biting point).
Check the programming was applied correctly:

ET062 displays **"DONE"**.

If **"NOT DONE"**, refer to the interpretation of fault **DF068 "Clutch position sensor circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET063	SOLENOID VALVE ZERO POINT PROGRAMMING

STATUS DEFINITION	This signal indicates the status of the programming of the clutch solenoid valve position and has the specification **"NOT DONE"** or **"DONE"**.

NOTES	None

Engine stopped, ignition on

ET063: DONE

If **"NOT DONE"**, put the gearbox in neutral.
Start the engine.
Wait **10 seconds** without changing gear (to program the clutch biting point).
Check the programming was applied correctly:

ET063 displays **"DONE"**.

If **"NOT DONE"**, consult the interpretation of faults **DF068 "Clutch position sensor circuit", DF069 "Selecting position sensor circuit" and DF070 "Engaging position sensor circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET064	CLUTCH POSITION PROGRAMMING

STATUS DEFINITION	This signal indicates the status of the programming of the clutch position and has the specification **"NOT DONE"** or **"DONE"**.

NOTES	None

Engine stopped, ignition on

ET064: DONE

If **"NOT DONE"**, refer to the section **"replacement of components"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET065	PROGRESSIVITY PROGRAMMING

STATUS DEFINITION	This signal indicates the status of the programming of the progressivity of the transmission of engine torque and has the specification **"NOT DONE"** or **"DONE"**.

NOTES	None

Engine stopped, ignition on

ET065: DONE

If **"NOT DONE"**, refer to the section **"replacement of components"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

ET086	DOWNSHIFT REQUEST

STATUS DEFINITION	This status indicates the request, by the injection computer or by the driver, to change down a gear and has the specification **"ACTIVE" or "INACTIVE"**.

NOTES	None

Engine stopped, ignition on

ET086: INACTIVE

In the event of a fault, consult the interpretation of faults **DF062 "CAN fault" and DF067 "Lever position sensor circuit"**.

Road test

ET086: ACTIVE following low engine speed or a request to change down from the driver.

In the event of a fault, consult the interpretation of faults **DF062 "CAN fault" and DF067 "Lever position sensor circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

Tool parameter	Diagnostic tool title
PR006	Engine speed
PR008	Computer feed voltage
PR010	Clutch wear
PR014	Gearbox input speed
PR015	Clutch position
PR016	Selection position
PR017	Engagement position
PR018	Hydraulic pressure
PR095	Clutch temperature
PR096	Clutch progressivity
PR105	Vehicle speed
PR106	Effective engine torque
PR107	No reduction engine torque
PR145	Engine coolant temperature
PR148	Closed position of clutch
PR152	Anticipated engine torque
PR153	Slow torque setpoint
PR154	Rapid torque setpoint

PR006	ENGINE SPEED

PARAMETER DEFINITION	This parameter indicates the engine's speed of rotation expressed in **rpm**.

NOTES	None

Engine stopped, ignition on

PR006 = 0 rpm

In the event of a fault, consult the interpretation of fault **DF039 "Engine speed signal"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR008	COMPUTER SUPPLY VOLTAGE

PARAMETER DEFINITION	This parameter indicates the sequential gearbox computer supply voltage value expressed in **V**.

NOTES	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Engine stopped, ignition on

PR008 ≈ 12 V

The computer supply voltage value must be close to the battery voltage.

Electrical check of the component

Check that the sequential gearbox supply fuse is **correctly positioned** and in good condition in the engine compartment connection unit.

Check the engine **earths** on the vehicle are in good condition.
Repair if necessary.

Measure the battery **voltage** and check the **charge circuit** (see **Technical Note 6014A, Charge circuit check**).

Check the **connection** and **condition** of the connections of component 119.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check **the continuity and insulation** of the following connections:
- Connection code **BP39**,
- Connection code **AP4**,

between components **1016** and **119**.
- Connection code **N** (2 connections) between earths **MC-12A** and **MC-12B** and component **119**.

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

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR010	CLUTCH WEAR

PARAMETER DEFINITION	Parameter **PR010** indicates clutch wear as a percentage **(%)**.

NOTES	None

Engine stopped, ignition on

PR010 = 0% if the clutch is new.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR014	GEARBOX INPUT SPEED

PARAMETER DEFINITION	This parameter indicates the rotation speed at the sequential gearbox input expressed in **rpm**.

NOTES	None

Engine stopped, ignition on

PR014 = 0 rpm

In the event of a fault, consult the interpretation of fault **DF251 "Gearbox input speed"**.

Engine warm at idle speed and gearbox in neutral

PR014 ≈ PR006 "Engine speed"

In the event of a fault, consult the interpretation of fault **DF251 "Gearbox input speed"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR015	CLUTCH POSITION

PARAMETER DEFINITION	This parameter indicates the position of the clutch cylinder expressed in **mm**.

NOTES	None

Engine stopped, ignition on

PR015 = 36 mm (new clutch)

In the event of a fault, consult the interpretation of fault **DF068 "Clutch position sensor circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR016	SELECTION POSITION

PARAMETER DEFINITION	This parameter indicates the position of the selection cylinder expressed in **mm**.

NOTES	None

Engine stopped, ignition on

The value of parameter **PR016** will change depending on the gear engaged:

1: PR016 = 6 mm
2: PR016 = 6 mm
3: PR016 = 12 mm
4: PR016 = 12 mm
5: PR016 = 19 mm
R: PR016 = 19 mm
N: PR016 = 12 mm

In the event of a fault, consult the interpretation of fault **DF069 "Selection position sensor circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR017	ENGAGEMENT POSITION

PARAMETER DEFINITION	This parameter indicates the position of the engagement cylinder expressed in **mm**.

NOTES	None

Engine stopped, ignition on

The value of parameter **PR017** will change depending on the gear engaged:

1: PR017 = 6 mm
2: PR017 = 18 mm
3: PR017 = 6 mm
4: PR017 = 18 mm
5: PR017 = 6 mm
R: PR017 = 18 mm
N: PR017 = 12 mm

In the event of a fault, consult the interpretation of fault **DF070 "Engagement position sensor circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR018	HYDRAULIC PRESSURE

PARAMETER DEFINITION	This parameter indicates the value of the pressure in the hydraulic circuit expressed in **bar**.

NOTES	None

Engine stopped, ignition on

The pressure value is measured by the pressure sensor.
Using this information, the computer will activate or deactivate the pump to regulate the pressure.

40 < PR018 < 50 bar

In the event of a fault, consult the interpretation of faults **DF065 “Pump relay circuit”, DF166 “Pressure sensor circuit”, DF252 “Pump relay”, DF180 “Hydraulic pump” and DF259 “Pressure accumulator”**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR095	CLUTCH TEMPERATURE

PARAMETER DEFINITION	This parameter indicates the temperature of the clutch system expressed in ˚**C**.

NOTES	None

Engine stopped, ignition on

The clutch temperature will change depending on the driving style of the vehicle (sporty driving, holding the vehicle on an incline, etc.).
When **PR095** ≥ **248** ˚**C**, the buzzer is activated.
Check the clutch is correctly programmed (see **replacement of components**).
In the event of a fault, consult the interpretation of fault **DF254 "Clutch temperature"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR096	CLUTCH PROGRESSIVITY

PARAMETER DEFINITION	This parameter indicates the progressivity of the clutch.

NOTES	None

Engine stopped, ignition on

3000 < PR096 < 9000

Default value: PR096 = 7500, in this case, program the clutch progressivity (see **Replacement of components**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR105	VEHICLE SPEED

PARAMETER DEFINITION	This parameter indicates the vehicle speed expressed in **mph (km/h)**.

NOTES	None

Engine stopped, ignition on

PR105 = 0 km/h

If not correct, run fault finding on the ABS/ESP system (see **38C, Anti-lock braking system**).
If the fault is still present, contact Techline.

Road test

Carry out a road test.
Check the consistency between the parameter value **PR038 "Vehicle speed"** in the domain of the **ABS computer** and the speed displayed on the instrument panel.
If not correct, run fault finding on the ABS/ESP system (see **38C, Anti-lock braking system**).
If the fault is still present, contact Techline.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR106 **PR107** **PR152** **PR153** **PR154**	EFFECTIVE ENGINE TORQUE NO REDUCTION ENGINE TORQUE ANTICIPATED ENGINE TORQUE SLOW TORQUE SETPOINT FAST TORQUE SETPOINT

PARAMETER DEFINITION	This parameters indicate the value of the torque supplied by the engine in **Nm**.

NOTES	None

Engine stopped, ignition on

PR106 = 0 Nm
PR107 = 0 Nm
PR152 = 0 Nm
PR153 = 0 Nm
PR154 = 0 Nm

In the event of a fault, carry out a multiplex network test (see **88B, Multiplexing**).
Run fault finding on the injection system (see **17B, Petrol injection**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR145	ENGINE COOLANT TEMPERATURE

PARAMETER DEFINITION	This parameter indicates the coolant temperature in ˚**C**.

NOTES	None

Engine stopped, ignition on

PR145 = 20 ˚C in default mode

Compare the value of parameter **PR145** with the value measured by the coolant temperature sensor in the domain of the injection computer (see **17B, Petrol injection**).
If not correct, run a multiplex network test (see **88B, Multiplex**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

PR148	CLUTCH CLOSED POSITION

PARAMETER DEFINITION	This parameter indicates the position of the clutch in **mm**.

NOTES	None

Engine stopped, ignition on

PR148 = 576 mm (new clutch)

In the event of a fault, consult the interpretation of fault **DF068 "Clutch position sensor circuit"**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

Tool command	Diagnostic tool title
RZ001	Stored fault(s)
RZ002	Programming
RZ003	Biting point programming
RZ008	Initial closed position of clutch
AC006	Disable hydraulic unit pump
AC007	Hydraulic unit pump rehabilitation
AC008	Clutch circuit phase 1 bleed
AC009	Clutch circuit phase 2 bleed.
AC011	Hydraulic pressure unit bleed
AC012	Hydraulic pump relay
AC014	Clutch solenoid valve
AC015	Engagement solenoid valves
AC016	Selection solenoid valves
AC017	Display
AC019	Return gearbox to neutral
AC024	Sequential actuator control
AC028	Engage reverse gear
AC081	Discharge pressure accumulator
VP001	Write VIN
VP008	Program selection/engagement ranges
VP009	Enter last APV* operation date
VP013	Enter new clutch fitting date
VP014	Enter initial closed position of clutch

*APV: After-Sales

CLEARING

RZ001 Stored fault(s)
This command is used for clearing the stored faults from the computer.

RZ002 "Programming"
This command enables the gear programming to be cleared.
Use this command each time parts are replaced (see **Replacement of components**).

RZ003 "Biting point programming"
This command enables the clutch biting point programming to be cleared.
Use this command each time parts are replaced (see **Replacement of components**).

RZ008 "Initial closed position of clutch"
This command enables the initial closed position of clutch programming to be cleared.
Use this command each time parts are replaced (see **Replacement of components**).

ACTUATORS

AC006 "Disable hydraulic unit pump"
This command enables inhibition of the hydraulic pump.

AC007 "Hydraulic unit pump rehabilitation"
This command enables rehabilitation of the hydraulic pump after the computer has been replaced or after the inhibition of the pump using command **AC006 Hydraulic unit pump inhibition**.

AC008 "Clutch circuit phase 1 bleed"
This command is used to perform the first clutch circuit bleeding phase after an operation with parts replacement (see **"Replacement of components"**).
This command takes 6 minutes.

AC009 "Clutch circuit phase 2 bleed"
This command is used to perform the second clutch circuit bleeding phase after an operation with parts replacement (see **Replacement of components**).
This command takes 8 minutes.

AC011 "Hydraulic pressure unit bleed"
This command is used to bleed the hydraulic pressure unit after an operation with parts replacement (see **Replacement of components**).

AC012 "Hydraulic pump relay"
This command enables the hydraulic pump relay to be operated to perform a listening check or to test its supply.

ACTUATORS (Continued)

AC014 "Clutch solenoid valve"
This command enables the clutch solenoid valves to be operated to perform a listening check or to test their supply.

AC015 "Engagement solenoid valves"
This command enables the engagement solenoid valves to be operated to perform a listening check or to test their supply.

AC016 "Selection solenoid valves"
This command enables the selection solenoid valves to be operated to perform a listening check or to test their supply.

AC017 "Display"
This command enables the display integrity to be checked by searching through all the data available relating to the sequential gearbox.

AC019 "Return gearbox to neutral"
This command returns the gearbox to neutral.

AC024 Sequential actuator control
This command enables all sequential gearbox switches to be operated in order to check that they are working.

AC028 "Engage reverse gear"
This command enables reverse gear to be engaged.

AC081 "Discharge pressure accumulator"
This command enables pressure in the hydraulic circuit to be discharged. The handbrake must be applied when using this command.

SETTINGS

VP001 "Write VIN"
This command permits manual entry of the vehicle's VIN into the computer.
Use this command each time the computer is replaced or (re)programmed.

Note:
When replacing or reprogramming a computer, use command **AC007 Hydraulic unit pump rehabilitation before carrying out parameter VP008 Program selection/engagement ranges**.

VP008 "Program selection/engagement ranges"
This command enables the gears to be programmed.
Use this command when:
– replacing the electrohydraulic unit, the clutch or the gearbox,
– replacing or reprogramming the computer,
– replacing the engagement position sensor and the selecting position sensor,
– replacing the engagement, selection or clutch solenoid valves.
– replacing the reservoir, accumulator or pump only.

SETTINGS (continued)

VP009 "Enter last APV operation* date"
Use this command for each workshop operation on the sequential gearbox.
Select command VP009 on the diagnostic tool.
Enter the operation date with the tool keyboard.

VP013 "Enter new clutch fitting date"
This command should be used when the clutch is replaced.
Select command VP013 on the diagnostic tool.
Enter the service date with the diagnostic tool keypad.

VP014 "Enter initial closed position of clutch"
This command enables the value of the initial closed position of the clutch to be re-entered into a new or reprogrammed computer in order to keep a consistent record of the clutch wear,.
Use this command each time the computer is replaced or reprogrammed.

*APV: After-Sales

NOTES	**Only refer to the customer complaints after performing a complete check using the diagnostic tool.** **Carry out a fault finding procedure on the multiplex network.** **Run fault finding on the sequential gearbox.**

NO DIALOGUE WITH THE DIAGNOSTIC TOOL

NO DIALOGUE WITH THE SEQUENTIAL GEARBOX COMPUTER	**ALP 1**

SEQUENTIAL GEARBOX OPERATING FAULTS IMMOBILISING THE VEHICLE

CANNOT SELECT A FORWARD OR REVERSE GEAR WHEN STATIONARY	**ALP 2**
IMPOSSIBLE TO SELECT NEUTRAL	**ALP 2**
IMPOSSIBLE TO START WITH GEAR ENGAGED, EVEN WITH BRAKE PEDAL DEPRESSED	**ALP 2**
IMPOSSIBLE TO ENGAGE OR DISENGAGE A GEAR	**ALP 3**
ENGINE CAN ONLY BE STARTED IF BRAKE PEDAL DEPRESSED	**ALP 3**
SEMIAUTOMATIC MODE IMPOSSIBLE	**ALP 3**
ENGINE STALLS WHEN BRAKE PEDAL IS DEPRESSED	**ALP 3**

SEQUENTIAL GEARBOX FAULTS NOT IMMOBILISING THE VEHICLE

ALP 1	No dialogue with the sequential gearbox computer

NOTES	**Special notes:** Only consult this customer complaint after a **complete check** with the **diagnostic tool**.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Try to establish dialogue with a computer on another vehicle to make sure that the **diagnostic tool** is not faulty. If the tool is not causing the fault and dialogue cannot be established with any other computer on the same vehicle, it may be that a faulty computer is disrupting the **CAN** diagnostic line.
Use a process of successive disconnections to locate this computer.
Check the voltage of the battery and carry out the operations necessary to obtain a voltage which is to specification (**9.5 V < battery voltage < 17.5 V)**.

Check the presence of and condition of the **Sequential Gearbox** fuses on the passenger compartment fuse box **(7.5 A and 20 A)**.
Check that the computer connector is properly connected and check the condition of its connections.
Check the **sequential gearbox** earths (good condition, not corroded, tightness of the earth bolt above the hydraulic unit).
Check that the supply to the computer is correct:
– **Earth on the N** connections of the **52-track** connector.
– **+ AVC on connection BP39** of the **52-track** connector.
– **+ after ignition feed on connection AP4** of the **52-track** connector.

Check that the power supply to the diagnostic socket is correct:
– **+ AVC on connection BP19.**
– **Earth on connections MAM and NAM.**

If dialogue has still not been established after these checks, contact the Techline.

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 2	**Cannot select a forward or reverse gear when stationary Impossible to select N Impossible to start engine with gear engaged, even with brake pedal depressed**

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the **+ after ignition feeds** and **the earths** of the sequential gearbox computer.
Check the condition of the gear lever contacts and that it is operating correctly **(consult the interpretation of statuses ET043 "Lever contact No. 0", ET044 "Lever contact No. 1", ET045 "Lever contact No. 2" and ET046 Lever contact No. 3")**.
Repair if necessary.
Check for the presence and condition of the brake light switch supply fuse on the passenger compartment fuse board.
Repair if necessary.
Check that the brake light switch connector is correctly connected, check the condition of the connections as well as those of the computer.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.
Check that the brake light switch on the pedal is correctly fitted and adjusted.
Check for continuity, with the pedal depressed, between **connections AP10 (track 2) and 65A** of component **160**.
Replace the switch if necessary (see **MR 411 Mechanical, 83D Cruise control, Brake light switch: Removal - Refitting**).
Check there is no continuity with the pedal released, between **connections AP10 (track 2) and 65A** of component **160**.
Replace the switch if necessary (see **MR 411 Mechanical, 83D Cruise control, Brake light switch: Removal - Refitting**).
If the fault is still present, check the continuity of the following connection:

- Connection code **65A** between components **160** and **119**.

Also ensure the insulation to earth.

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 3	**Impossible to engage or disengage a gear** **Engine can only be started if brake pedal depressed** **Semiautomatic mode not possible** **Engine stalls when brake pedal is depressed**

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool.

Check the **+ after ignition feeds** and **the earths** of the sequential gearbox computer.
Check that the gear lever is not jammed or damaged or even broken. Replace the lever if necessary (see **MR 411 Mechanical, 21B, Sequential gearbox, Sequential gearbox selector lever: Removal - Refitting**).
Apply the fault finding procedure for **ET043 "Lever switch No. 0", ET044 "Lever switch No. 1", ET045 "Lever switch No. 2" and ET046 Lever switch No. 3"**.
If the fault is still present, run a multiplex network test using the **diagnostic tool** (see **88B, Multiplex**).

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 4	**Cannot access automatic mode if semi-automatic mode was previously selected Cannot access semiautomatic mode if automatic mode was previously selected Switching to automatic mode possible if restarting engine**

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the connection and condition of the connectors of components **1058 and 119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.
Apply the interpretation of statuses **ET043 "Lever switch no. 0", ET044 "Lever switch no. 1", ET045 "Lever switch no. 2" and ET046 "Lever switch no. 3"**.

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 5	No reversing lights

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check the condition of the bulbs for the reversing lights.
Replace if not correct.

Check the conformity of the supply fuse of the reversing light switch **(15 A)** located on the passenger compartment fuse box.
Replace the fuse if not correct.

If, following replacement of the fuse and switching on the ignition, the fuse is not correct, check **the insulation to earth** of connection **AP3** between components **1016** and **155**.
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.
Replace the faulty fuse.
If the fuse is correct, check the presence of **+ 12 V** on connection **AP3** of component **155**.
If **there is no + 12 V**, check **the continuity** of connection **AP3** between components **1016** and **155**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, wiring: precautions for repair**), repair the wiring, otherwise replace it.

Check the conformity of the reversing lights switch:
- **Switch in rest position: insulation** between connections **AP3** and **H66P** of component **155**.
- **Switch depressed: continuity** between connections **AP3** and **H66P** of component **155**.

Replace the reversing lights switch if not correct.

Check for the earth of the reversing light on the following connection(s):
- Left-hand drive: connection **MF** of component **172**.
- Right-hand drive: connection **MG** of component **173**.

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

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 5 CONTINUED	

Engage reverse gear.
Check for **+ 12 V** on connection **H66P** of component **172 (left-hand drive)** or **173 (right-hand drive)**.
If **there is no + 12 V**, check **the insulation and continuity** of connection **H66P** between components **155** and **172 (left-hand drive)** or **173 (right-hand drive)**.
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 fault finding on the UCH (see **87B, Passenger Compartment Connection Unit**).
If the vehicle is fitted with the parking distance control system, perform fault finding on the parking distance control computer (see **87F, Parking distance control**).

If the supply and earth of the reversing light are correct, replace the reversing light.

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 6	**No creeping Brake lights permanently lit Forward or reverse gear can be selected without depressing the brake pedal**

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool. In a case where there is no creeping, if the customer has heard the buzzer whilst driving, it is normal for creeping to be prohibited (clutch overheating). Leave the clutch to cool down and then check if there is any creep. Apply the following procedure if the fault persists.
	Use the Wiring Diagrams Technical Note for **New TWINGO**.

Check for the **presence**, **condition** and **correct positioning** of the brake light fuse in the passenger compartment fuse box.

Check the **connection** and **condition** of the connectors of components **160, 156** and **119**.
If the connectors are faulty and if there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connectors; otherwise, replace the wiring.

Check the **fitting** and **adjustment** of component **160** on the pedals.

Pedal depressed:
Check **the continuity** between **connections AP10 (track 2) and 65A** of component **160**.
Check **the insulation** between **connections AP10 (track 4) and 5A** of component **160**.
If the checks are incorrect, replace the switch (see **MR 411 Mechanical systems, 83D Cruise control, Brake light switch: Removal - Refitting**).

Pedal released:
Check **the insulation** between **connections AP10 (track 2) and 65A** of component **160**.
Check **the continuity** between **connections AP10 (track 4) and 5A** of component **160**.
If the checks are incorrect, replace the switch (see **MR 411 Mechanical systems, 83D Cruise control, Brake light switch: Removal - Refitting**).

Check **the continuity and insulation from earth** of the following connection:
- Connection code **65A**,

between components **160** and **119**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 7	Loss of automatic mode

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool.

Level 1 severity injection fault sent by the engine management via the multiplex line connection.
Using the diagnostic tool, check the injection system (see **17B, Petrol injection**).

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 8	Vehicle does not move forward with gear engaged and engine running

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool.

Apply the fault finding procedure associated with the multiplex network test (see **88B, Multiplexing**).
Check the mechanical condition of the clutch (no grease or leaks on the flywheel, clutch driven plate not cracked or disintegrated, no broken parts, etc.). Check the condition of the driveshaft (broken joint, internal gearbox mechanical fault etc.). Repair or replace the faulty components.
If the engine speed remains at idle speed, check the positioning of the accelerator pedal sensor. Run fault finding on the injection system (see **17B, Petrol Injection**). If the fault is still present, contact Techline.

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 9	Inadequate reaction to full load request

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool.

Carry out a road test and check for a hard point on the accelerator pedal under full load and on consecutive downshifting.
If the hard point is noticeable on the pedal but not when downshifting, perform another road test with the selector in automatic mode.
If downshifting is still not active, use the diagnostic tool to check that status **ET030 Accelerator pedal position** varies depending on the pedal position.
Check the operation of the pedals (pedal travel fault or pedal potentiometer damaged).
If the fault is still present, check the injection system (see **17B, petrol injection**).

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 10	Loss of display when driving

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool.

Check the sequential gearbox supply fuses.
Check all the earths and that the wiring is not damaged.
Check that the connectors have been correctly clipped into the right position.

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 11	Display and warning buzzer operation erratically

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool.

– The buzzer is active:
  – when the front doors are opened,
  – if the clutch overheats while the vehicle is being driven,
  – if the sequential gearbox programming has not been carried out.
– The depress brake pedal symbol is active:
  – when the engine is stopped by a gear lever request or if the lever is accidentally shifted to the neutral position while the vehicle is being driven.

Carry out a road test to recreate the customer complaint.
Carry out the following programming:
  – **VP008 "Program selection/engagement ranges"**.
  – Program the biting point using command:
    RZ003 Clutch biting point programming
    Exit fault finding mode and switch off the ignition.
    Wait **1 minute** and then re-establish dialogue with the computer.
    Shift the gear lever to rest position (Stb).
    Start the engine.
    Wait 10 seconds without changing gear (for programming the clutch biting point).
    Check that programming has been successfully completed by referring to the following status:

ET062 "Biting point programming" displays **"Done"**.
Repeat the procedure if unsuccessful.

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.

ALP 12	Vehicle jumps when engine is started

NOTES	**Special notes:** Only consult this customer complaint after a complete check with the diagnostic tool.

If a gear was engaged when there is a request to start the engine check the oil level in the sequential gearbox circuit.
Check the operation of the brake pedal switch as well as the condition of the gear lever switches **(consult the interpretation of statuses: ET043 “Lever switch no. 0”, ET044 “Lever switch no. 1”, ET045 “Lever switch no. 2” and ET046 “Lever switch no. 3”)**.
Ensure that the cylinder and the clutch fork are operating correctly (damage, seizing, part breakage, etc.).

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition and wait **20 seconds**. Carry out a road test followed by another check with the **diagnostic tool**.