

TWINGO

8 Electrical equipment

88C AIRBAGS AND PRETENSIONERS

MRSZ AIRBAG

Vdiag: 04

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V3

Edition Anglaise

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

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

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1. SCOPE OF THIS DOCUMENT

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

Vehicle (s): **New TWINGO**
Function concerned: **AIRBAG**

Name of computer: **TEMIC MRSZ**
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
– Dummy module (Part no. Elé. 1835 yellow)
– Dummy module (Part no. Elé. 1837 - 2)
– Dummy module (Part no. Elé. 1837 - 5)
– Dummy module (Part no. Elé. 1837 - 6)

3. REMINDERS

To run fault finding on the vehicle computers, switch on the ignition. Proceed as follows:

- turn the ignition key to APC,
- connect the diagnostic tool and perform the required operations.

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

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

Faults

Consider the fault status, **present** or **stored** when the diagnostic tool is used after the + after ignition feed (without operating the system components).

Present faults must be dealt with according to the procedure specified in the **Interpretation of faults** section.

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

If the fault is **confirmed** when the notes 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).

Or use the fault finding to check the circuit of the faulty component.

Conformity check

The aim of the conformity check is to check statuses and parameters that do not produce a fault display on the diagnostic tool when they are inconsistent. Therefore, this stage is used to:

- Run fault finding on faults that do not have a fault display, and which may correspond to a customer complaint,
- To 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.

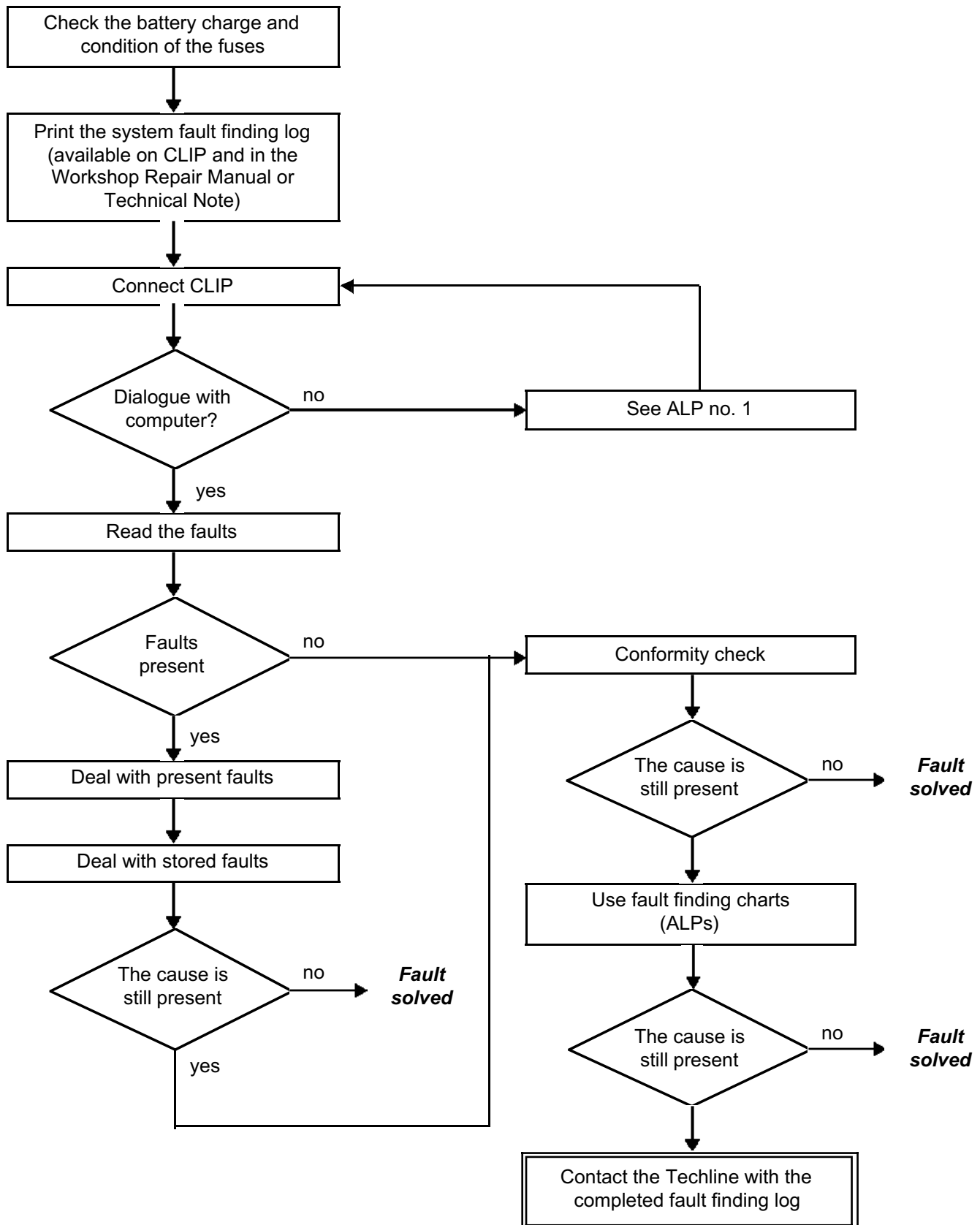
If a status is not behaving normally or a parameter is outside the permitted tolerance values, consult the corresponding fault finding page.

Customer complaints - Fault finding chart

If the diagnostic tool check is in order, but the customer complaint is still present, the fault should be dealt with as a **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

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:

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

Tactile inspection:

While manipulating the wiring harness, use the diagnostic tool to note any change in fault status from stored to present.

Make sure that the connectors are properly locked.

Apply light pressure to the connectors.

Twist the wiring harness.

If there is a change in status, try to locate the source of the fault.

Inspection of each component:

Disconnect the connectors and check the appearance of the clips and tabs, as well as their crimping (no crimping on the insulating section).

Make sure that the clips and tabs are properly locked in the sockets.

Make sure that no clips or tabs have been dislodged during connection.

Check the clip contact pressure using an appropriate model of tab.

Resistance check:

Check the continuity of entire lines, then section by section.

Look for a short circuit to earth, to + 12 V or to another wire.

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

5. FAULT FINDING LOG



IMPORTANT

IMPORTANT

Any fault on a complex system requires thorough fault finding with the appropriate tools. The FAULT FINDING LOG, which should be completed during the 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 ESSENTIAL THAT THE FAULT FINDING LOG
IS FILLED OUT EVERY TIME IT IS REQUESTED BY TECHLINE OR THE WARRANT RETURNS
DEPARTMENT.**

You will always be asked for this log:

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

6. SAFETY INSTRUCTIONS

Safety rules must be observed during any work on a component to prevent any damage or injury:
Check the battery voltage to avoid incorrect operation of computer functions.

During work on the airbag/seat belt pretensioner systems, **it is vital that you lock the computer using the diagnostic tool to prevent any risk of accidental triggering (all the trigger lines will be disabled).**
The locked mode is indicated when the instrument panel warning light comes on.

If it is impossible to connect the diagnostic tool, switch off the ignition, remove the system power supply fuse and wait at least 2 seconds for the discharge of the reserve power capacity.

Never measure the airbag or pretensioner trigger lines with any device other than XRBAG or CLIP's "Airbag and pretensioner wiring harness check".

Before using a dummy ignition module, ensure that its resistance is between 1.8 and 2.5 Ω .
During the procedure, check that the computer feed voltage does not drop below 10 V.

Disconnect the battery before removing and refitting any pyrotechnic component (airbag module, pretensioner or seat belt retractor).

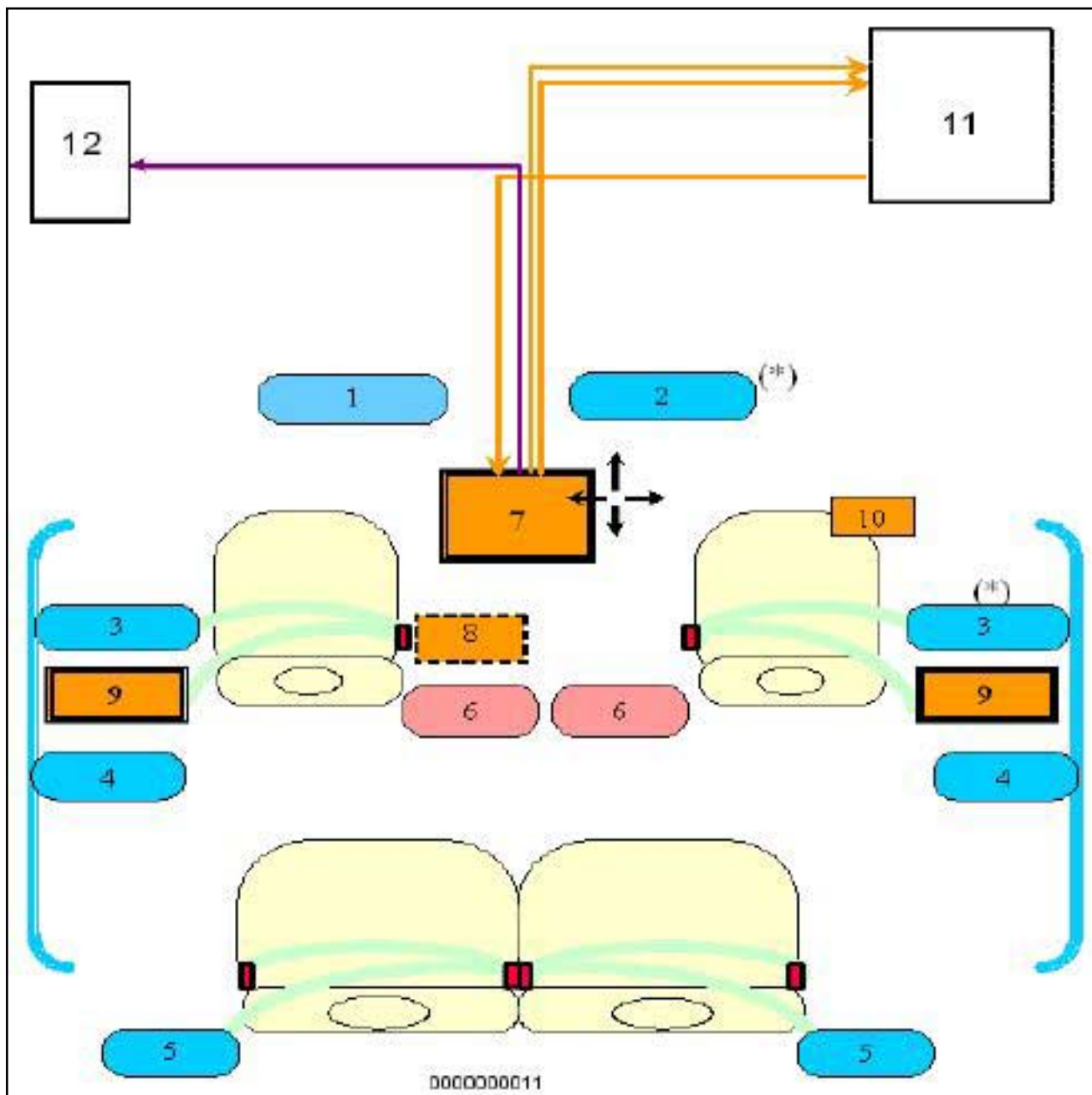
IMPORTANT

Airbag and pretensioner destruction and scrapping is subject to national legislation.

There are 3 types of computers depending on the vehicle equipment level:

- ➔ Version 10 trigger lines (only computer available from the spare parts department).
- ➔ Version 6 trigger lines.
- ➔ Version 4 trigger lines.

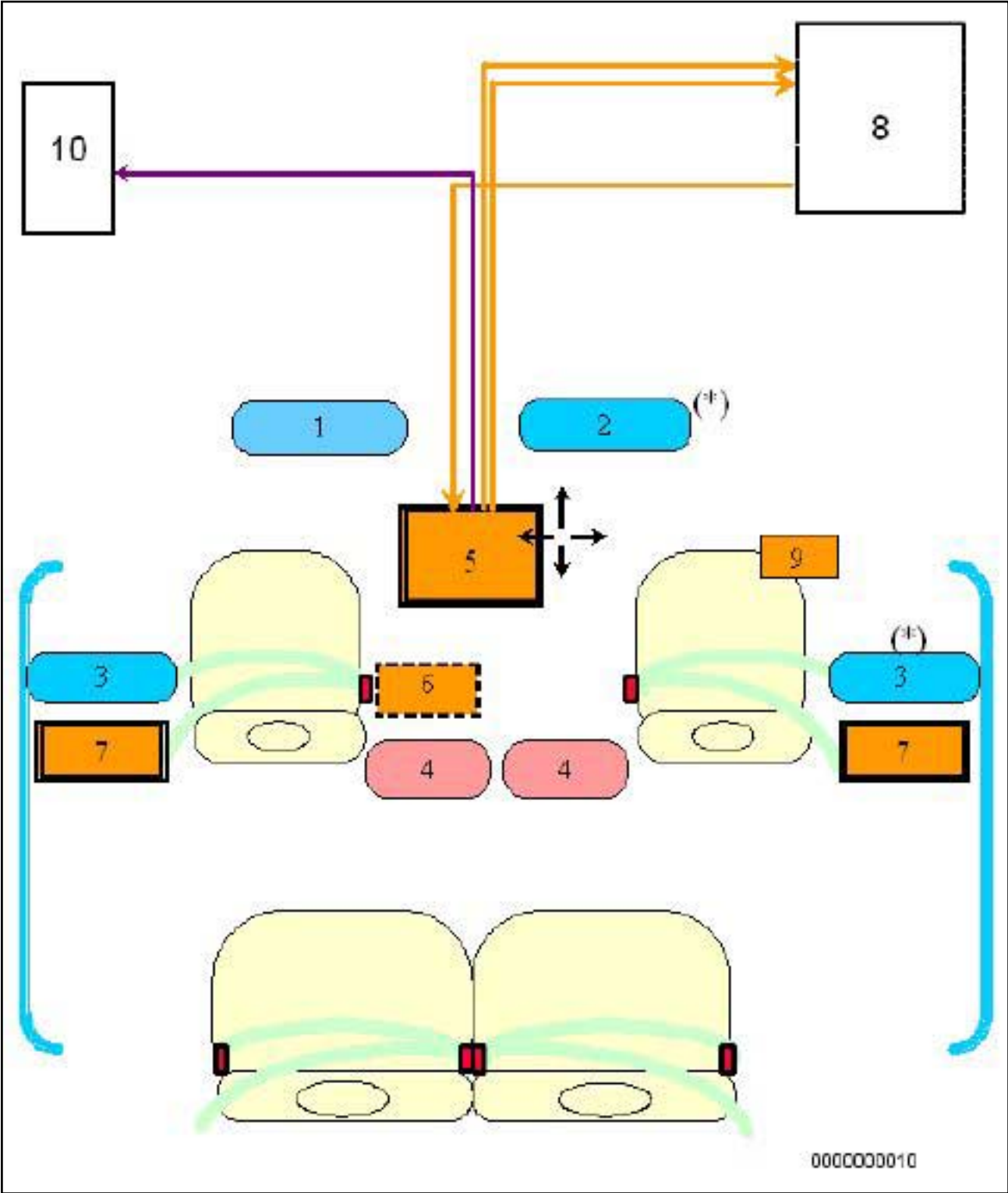
Version 10 trigger lines



Version 10 trigger lines (continued)

Number	Description
1	Driver's frontal airbag
2	Passenger frontal airbag
3	Side chest-level airbag (passenger or driver)
4	Rear curtain airbag (passenger or driver)
5	Rear seat belt pyrotechnic retractor
6	Lap belt pyrotechnic pretensioner (passenger and driver)
7	Airbag computer
8	Driver's seat belt buckle sensor
9	Side impact sensor (passenger or driver)
10	Sensor for front passenger airbag inhibition by key
11	Instrument panel
12	Information to other systems (transmission via CAN)
(*)	Component which can be deactivated by key

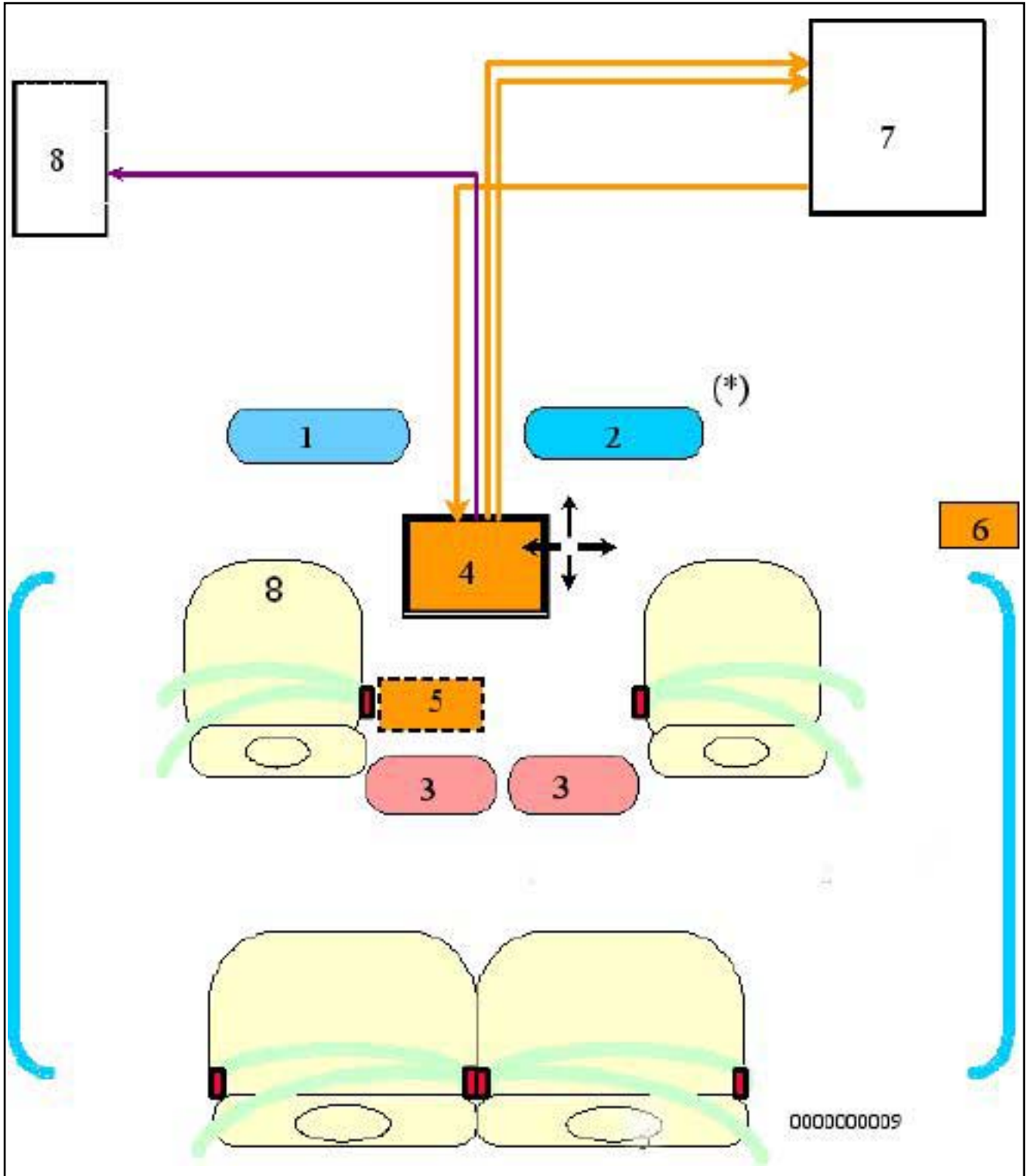
Version 6 trigger lines



Version: 6 trigger lines (continued)

Number	Description
1	Driver's frontal airbag
2	Passenger frontal airbag
3	Side chest-level airbag (passenger or driver)
4	Lap belt pyrotechnic pretensioner (passenger or driver)
5	Airbag computer
6	Driver's seat belt buckle sensor
7	Side impact sensor (passenger or driver)
8	Instrument panel
9	Sensor for front passenger airbag inhibition by key
10	Information to other systems (transmission via CAN)
(*)	Component which can be deactivated by key

Version: 4 trigger lines



Version: 4 trigger lines (continued)

Number	Description
1	Driver's frontal airbag
2	Passenger frontal airbag
3	Lap belt pyrotechnic pretensioner (passenger or driver)
4	Airbag computer
5	Driver's seat belt buckle sensor
6	Sensor for front passenger airbag inhibition by key
7	Instrument panel
8	Information to other systems (transmission via CAN)
(*)	Component which can be deactivated by key (according to fault finding configuration)

1 - "Airbag Off" warning light:

The "airbag off" warning light is representative of the passenger airbag and passenger chest airbag inhibition status if fitted.

- "off" = passenger airbag (switch on "ON") and passenger chest airbag (if fitted) active,
- "on" = passenger airbag (switch on "OFF" or fault detected on the switch line) and passenger chest airbag (if fitted) inactive.

The "Airbag Fault" warning light comes on under the following conditions:

- detection and registering of an airbag system fault,
- a crash has been detected and registered,
- the computer is "crash locked" by the **diagnostic tool**,
- the computer must be programmed or reprogrammed.

2 - Passenger airbag inhibitor:

The passenger airbag inhibitor (by key) informs the airbag computer of a request to inhibit the passenger front airbag and passenger chest airbag, if fitted.

3 - Driver's seat belt buckle sensor:

The seat belt buckle sensor gives the airbag computer the signal of whether the driver's belt is fastened or not.

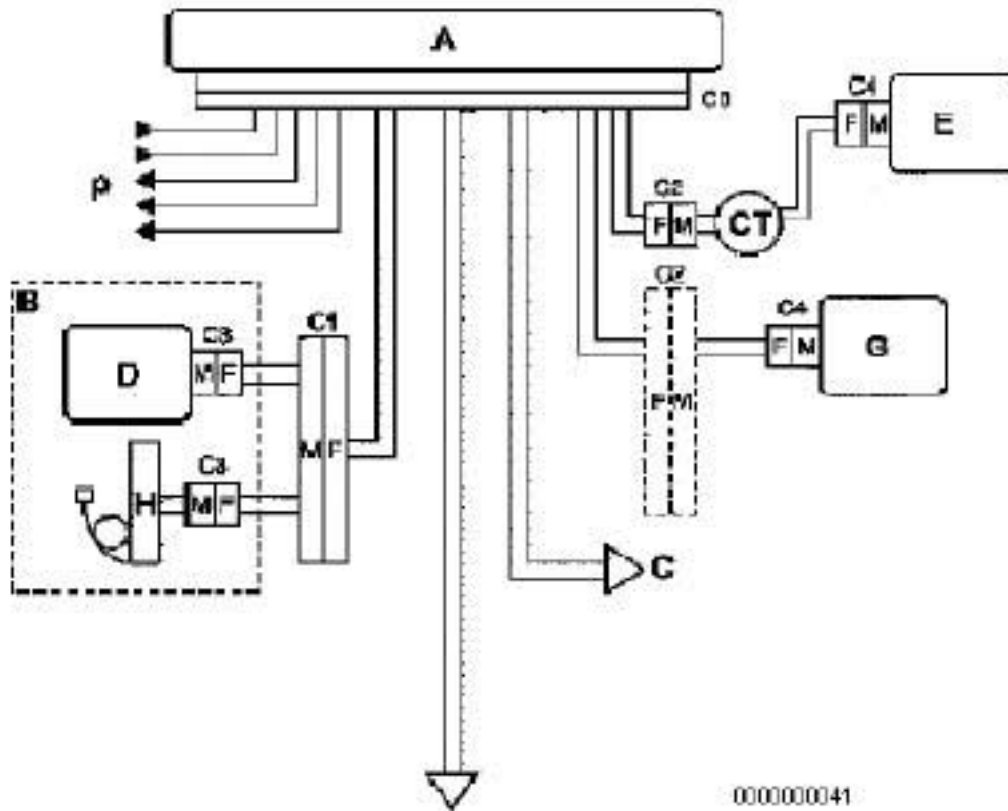
4 - The driver and passenger buckle pyrotechnic pretensioners:

The buckle pyrotechnic pretensioner is integrated into the front seat belt buckle.
The pretensioner holds the occupant in the seat in the event of a crash.

5 - The driver and passenger rear seat belt pyrotechnic retractors:

The rear seat belt pyrotechnic retractor is integrated into the rear seat belt inertia reel.
The pyrotechnic seat belt retractor holds the occupant in the seat in the event of a crash.

SYSTEM CONFIGURATION SHEET (FRONT section of the vehicle)



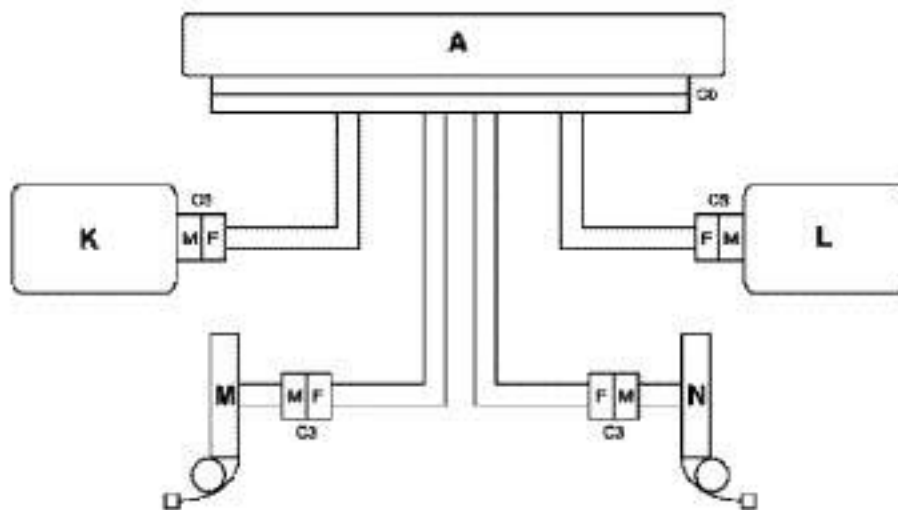
To rear wiring

- A** Central unit
- B** Driver's seat
- C** Front passenger seat (identical to the driver's seat)
- D** Front chest level side airbag ignition module
- E** Driver's frontal airbag ignition module
- G** Passenger's frontal airbag ignition module
- H** Front buckle pretensioner
- CT** Rotary switch + 12 V/Earth
- P** Warning light / Diagnostic lines
Impact sensors/Impact signal
Passenger airbag locking switch/...

FRONT AIRBAGS		
	Measuring point	Correct value
Driver	C0, C2 and C4	1.2 to 5.8 Ω
Passenger	C0 and C4	1.2 to 5.8 Ω
SIDE AIRBAGS AND PRETENSIONERS		
	Measuring point	Correct value
	C0, C1 and C3	1.2 to 5.8 Ω

Correct insulation value: display ≥ 100 h or 9999 flashing.

SYSTEM CONFIGURATION SHEET (REAR section of the vehicle)



24/08

- A** Central unit
- K/L** Curtain airbag ignition modules
- M/N** Rear pyrotechnic seat belt retractors

SIDE AIRBAGS AND SEAT BELT RETRACTORS- PRETENSIONERS	
Measuring point	Correct value
C0, C1 and C3	1.2 to 5.8 Ω

Correct insulation value: display ≥ 100 h or 9999 flashing.

The **MRSZ** airbag computer takes control of all of the vehicle's restraint devices intended to ensure the protection of the occupants (driver, front and rear passengers).

The **MRSZ** computer is designed to carry out the following functions:

- detection and confirmation of longitudinal impacts (front or rear) and/or side impacts,
- corresponding activation of the pyrotechnic restraint devices (e.g.: pretensioner, airbag),
- management of the different signals relating to the characteristics of the occupants (e.g.: presence detection),
- management of the function inhibiting the trigger lines and the passenger sensor,
- management and surveillance of the instrument panel "**Airbag Fault**" and "**Airbag Off**" warning lights via the CAN network,
- activation of the "**Crash output**" signal via the CAN in the event of a crash,
- management of the fault finding signals (signals provided by the fault manager in response to fault finding requests, whether this consists of internal faults or input/output fault finding).

Special notes:

– Frontal impacts:

This function is carried out using the **MRSZ** accelerometer. Accelerometers measure the violence of the impact. The vehicle speed, the position of the passenger airbag locking switch and the accelerometer measurements determine the strategy that the computer adopts to trigger the ignition modules. The front seat belt buckle pretensioners and the front airbag may also be triggered or not depending on the input parameters.

– Side impacts:

This function is carried out by the **MRSZ** computer and the side impact sensors, if fitted.

The position of the passenger airbag locking switch and the accelerometer measurements determine the strategy that the computer adopts to trigger the ignition modules. The front buckle pretensioners and the front chest-level airbags and curtain airbags may also be triggered or not.

– Inhibition of passenger trigger lines:

This function is managed by the airbag computer, according to the position of the passenger airbag inhibition switch and depending on the vehicle context.

The change in status of the inhibition switch must be done outside of **after ignition feed**. A change in status of the switch is, however, authorised for **10 seconds** after the **after ignition feed** for the vehicle is switched on.

If a change in status occurs outside of this **10 seconds**, the computer will register a fault.

Inhibition programming:

- Trigger lines inhibited and "**Airbag Off**" warning light lit if switch is on "**OFF**" 100 Ω.
- Trigger lines authorised if the switch is on "**ON**" 400 Ω.
- Trigger lines inhibited, "**Airbag Fault**" and "**Airbag Off**" warning lights lit if a fault is detected, if the switch is not configured and detected as present, or if there is a change of position outside of the conditions

By default, when the key is in the inhibition position, the following protections and signals are inhibited in the event of a crash:

- Passenger front air bag.
- Passenger chest-level airbag, if fitted.

The passenger front airbag and passenger chest-level airbag are inhibited when the locking switch is positioned on OFF or when DF028 "PASSENGER AIRBAG STATUS INDICATOR LIGHT CIRCUIT" or DF193 "PASSENGER AIRBAG LOCKING STATUS CHANGE" is present in the computer memory.

– Seat belt locking monitoring:

This function is carried out by the instrument panel (**seat belt reminder indicator light** and **buzzer**). The MRSZ computer only sends the driver's seat belt buckle sensor status.

An instrument panel warning light indicates that the seat belt is not being worn by the driver and a beep sounds as a reminder when the vehicle speed exceeds **12 mph (20 km/h)**.

– Monitoring the information displayed on the instrument panel:

The instrument panel controls the correct operation of the "**Airbag fault**" and "**Airbag OFF**" warning lights and informs the airbag computer, via the multiplex network, of any possible malfunctions in the warning light circuits.

REPLACING A SYSTEM COMPONENT

Disconnect the battery before removing and refitting any pyrotechnic component (airbag module, pretensioner or seat belt retractor).

The computer must always be locked before any operation on a system component.

REPLACING THE AIRBAG COMPUTER

BEFORE REPLACING THE COMPUTER IT IS ESSENTIAL THAT YOU CONTACT THE TECHLINE.

To ensure that the returned computer's fault can be analysed, do not use command RZ001 "FAULT MEMORY" when DF001 "COMPUTER" is present or stored.

The airbag computers are sold in locked mode to avoid all risk of accidental triggering (all trigger lines are inhibited).

The "locked" mode is indicated when the airbag fault warning light on the instrument panel lights up.

Follow this procedure to replace an airbag computer:

- check that the ignition is switched off,
- replace the computer,
- modify the computer configuration if necessary,
- enter the VIN into the computer with the **diagnostic tool** using command **VP010 "WRITE VIN"**,
- switch off the ignition,
- carry out a check using the **diagnostic tool**,
- unlock the computer with command **VP007 "UNLOCK COMPUTER"**, only if there are no faults indicated by the **diagnostic tool** and check that the indicator light has gone out.

CONFIGURATIONS/CONFIGURATION READING

The commands allow each component of the system to be configured separately to adapt the computer configuration to the vehicle's actual equipment.

- Configuration reading commands (**LCxxx**), are used to check the status of the computer configuration in relation to the trigger lines and vehicle sensors.
- Configuration commands (**CFxxx**), are used to adapt the computer configuration to the actual vehicle fittings.

CONFIGURABLE FEATURES:**Trigger lines "WITH" or "WITHOUT"**

Diagnostic tool title	Configuration reading	Configuration
Passenger frontal airbag	LC028	CF210
Driver's frontal airbag	LC027	CF209
Driver's side curtain air bag	LC040	CF221
Passenger's side curtain air bag	LC041	CF222
Driver's front chest side air bag	LC042	CF223
Passenger front chest side air bag	LC043	CF224
Driver's front buckle pretensioner	LC064	CF265
Passenger front buckle pretensioner	LC065	CF266

Sensors "WITH or "WITHOUT"

Diagnostic tool title	Configuration reading	Configuration
Driver's front side impact sensor	LC082	CF285
Passenger front side impact sensor	LC083	CF286
Driver's seat belt buckle sensor	LC073	CF273

CONFIGURATIONS/CONFIGURATION READINGS (continued)**Passenger airbag locking mode "BY KEY" or "WITHOUT"**

Diagnostic tool title	Configuration reading	Configuration
Passenger airbag locking mode	LC060	CF248

Vehicle type reading: LC034 "VEHICLE TYPE" (New Twingo)**OTHER COMMANDS****- VP006: LOCK COMPUTER**

This command should be used for any operation on the system. It permits inhibition of all trigger lines.

- VP007: UNLOCK COMPUTER

This command is used to unlock the computer when it is new or has been inhibited by command **VP006**.

- VP010: WRITE VIN

This command is used to enter the VIN number into the computer.

- SC004: READ IMPACT CONTEXTS

Use this command during repair of the vehicle following an impact. The command enables the list of trigger lines active and the system status upon impact to be accessed in the computer which is being replaced.

CLEARING**- RZ001: FAULT MEMORY**

This command is used for clearing the stored faults from the computer.

Tool fault	Associated DTC	Diagnostic tool title
DF001	9080	Computer
DF002	9042	Computer feed voltage
DF003	9007	Driver's frontal airbag circuit
DF004	9005	Passenger's front airbag circuit
DF028	9041	Passenger airbag status warning light circuit
DF034	907E	Computer locked
DF039	9035	Driver's side sensor circuit
DF040	9036	Passenger's side sensor circuit
DF060	9050	Multiplex network
DF068	900C	Passenger's chest front side airbag circuit
DF069	900A	Passenger side curtain airbag circuit
DF070	9009	Driver's side curtain airbag circuit.
DF077	900B	Driver's front side chest airbag circuit
DF091	9034	Airbag locking switch circuit
DF165	9040	Airbag fault warning light circuit
DF183	9012	Driver's side front buckle pretensioner circuit
DF184	9013	Passenger side front buckle pretensioner circuit
DF193	907C	Passenger airbag locking status change.
DF194	907F	Computer to be replaced following impact
DF232	9051	Driver's seat belt buckle sensor circuit
DF242	907B	Left-hand/right-hand drive configuration
DF262	9050	Vehicle speed multiplex signal
DF263	9050	No ABS/ESP multiplex signal
DF264	9050	No instrument panel multiplex signal

DF001 PRESENT	<u>COMPUTER</u>
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NOTES	Special note: To ensure that the returned computer's fault can be analysed, do not use command RZ001 FAULT MEMORY when DF001 COMPUTER is present or stored.
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Replace the airbag computer (see **replacement of components**).

AFTER REPAIR	Clear the computer fault memory. Switch off the ignition. Carry out the check again using the diagnostic tool and, if there is no fault, unlock the computer.
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DF002 PRESENT	COMPUTER SUPPLY VOLTAGE 1.DEF: Supply voltage too high 2.DEF: Supply voltage too low
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NOTES	Use the Wiring Diagrams Technical Note, New TWINGO.
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Check the condition of the airbag computer connector **component code 756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756 and Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**).

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

Check fuse **F7 15 A** on the passenger compartment fuse box, **component code 1016**.

With the ignition on, check for **+ 12 V** on connection **AP25** of the airbag computer, component code 756:
10.5 V ± 0.1 < voltage OK < 16 V ± 0.1.

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

- Check the battery charge.
- Check the charge circuit (see **80A, Battery**).
- Check the tightness and the condition of the battery terminals.
- Check the computer earth connection **NAP**.

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

- Connection code **AP25** between components **756 and 1016**,
- Connection code **NAP** on component **756**.

If 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	Clear the computer fault memory. Switch off the ignition. Carry out the check again using the diagnostic tool and, if there is no fault, unlock the computer.
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DF003 PRESENT	<p><u>DRIVER'S FRONT AIRBAG CIRCUIT</u></p> <p>CO : Open circuit CC : Short circuit CC.0 : Short circuit to earth CC.1 : Short circuit to 12 volts 1.DEF : Configuration 2.DEF : Short circuit between trigger lines</p>
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NOTES	<p>If 1.DEF, check the computer configuration using configuration reading LC028 Driver's front airbag, then modify it if it is inconsistent using the configuration CF209 Driver's front airbag.</p>
	<p>IMPORTANT Before disconnecting the airbag connector to fit a dummy module, always lock the trigger lines using the diagnostic tool and command VP006 "Lock computer".</p>
	<p>Special note: Use dummy module (part no. Elé. 1837- 5) and dummy module (part no. Elé. 1835 yellow).</p>
	<p>Use the Wiring Diagrams Technical Note, New TWINGO.</p>

<p>Lock the trigger lines using command VP006 Lock computer.</p>
<p>Switch off the ignition. Remove the driver's airbag, component code 899 (see MR 411, Mechanical, 88C, Airbag and pretensioners, Driver's front airbag: Removal - Refitting). Check the condition of the driver's front airbag connector (see Wiring Diagram Technical Note, New Twingo, Component code 899 and Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair). If the connector is faulty and there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring. Fit the dummy module (part no. Elé. 1835 yellow) on the driver's front airbag connector, component code 899. Switch on the ignition again. Read the fault in the AIRBAG / PRETENSIONER field.</p>
<p>If the fault has become "Stored": Replace the driver's front airbag component code 899.</p>
<p>If the fault remains "Present": Switch off the ignition. Check the condition of the rotary switch connector, component code 689 (see Wiring Diagram Technical Note, New Twingo, Component code 689, Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair and MR 411, Mechanical, 84A, Controls-Signals, Steering column switch assembly: Removal-Refitting). If the connector is faulty and there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring. Position the dummy module (part no. Elé. 1837 - 5) on the rotary switch connector component code 689. Switch on the ignition again. Read the fault in the AIRBAG / PRETENSIONER field.</p>

AFTER REPAIR	<p>Clear the computer fault memory using command RZ001 "Fault memory". Switch the ignition off and then on again. Repeat the check using the diagnostic tool and, if there are no faults (ignore DF034 Computer locked), unlock the computer using command VP007 Unlock computer.</p>
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DF003
CONTINUED

If the fault remains "**Present**":

Check the condition of the airbag computer connector, component code 756 (see **Wiring Diagram Technical Note, New Twingo, Component code 756**, see **MR 411, Mechanical, 88C, Airbag and pretensioners, Airbag computer: Removal - Refitting and Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**).

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

Faulty wiring between the airbag computer **component code 756** and the rotary switch **component code 689**. **Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:**

- **Connection code 60AM** between components **756 and 689**,
- **Connection code 60AN** between components **756 and 689**.

If 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 has become "**Stored**":

Replace the rotary switch **component code 689** (see **MR 411, Mechanical, 84A, Controls - Signals, Steering column switch assembly: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR

Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again.
Repeat the check using the **diagnostic tool** and, if there are no faults (ignore **DF034 Computer locked**), unlock the computer using command **VP007 Unlock computer**.

DF004 PRESENT	<p>PASSENGER FRONT AIRBAG CIRCUIT</p> <p>CO : Open circuit CC : Short circuit CC.0 : Short circuit to earth CC.1 : Short circuit to 12 volts 1.DEF : Configuration 2.DEF : Short circuit between trigger lines</p>
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NOTES	<p>If 1.DEF, check the computer configuration using the configuration reading LC027 Passenger's front airbag, then modify it if it is inconsistent using the configuration CF210 Driver's front airbag.</p> <p>IMPORTANT Before disconnecting the airbag connector to fit a dummy module, always lock the trigger lines using the diagnostic tool and command VP006 "Lock computer".</p> <p>Special note: Use dummy module (Part no. Elé.1835 yellow).</p> <p>Use the Wiring Diagrams Technical Note, New TWINGO.</p>
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AFTER REPAIR	<p>Lock the trigger lines using the command VP006 Lock computer.</p> <p>Switch off the ignition. Remove the passenger's airbag, component code 861 (see MR 411, Mechanical, 88C, Airbag and pretensioners, Passenger's front airbag: Removal - Refitting).</p> <p>Check the condition of the passenger's front airbag connector, component code 861 (see Wiring Diagram Technical Note, New Twingo, Component code 861 and Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair).</p> <p>If the connector is faulty and there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Position the dummy module (part no. Elé. 1835 yellow) on the passenger's front airbag connector component code 861. Switch on the ignition again. Read the fault in the AIRBAG / PRETENSIONER field.</p>
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AFTER REPAIR	<p>Clear the computer fault memory using command RZ001 Fault memory. Switch the ignition off and then on again. Repeat the check using the diagnostic tool and, if there are no faults (ignore DF034 Computer locked), unlock the computer using command VP007 Unlock computer.</p>
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DF004
CONTINUED

If the fault remains "**Present**":

Check the condition of the airbag computer connector, component code **756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756, Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair and MR 411, Mechanical, 88C, Airbag and pretensioners, Airbag computer: Removal - Refitting**).

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

Faulty wiring between the airbag computer **component code 756** and the passenger front airbag **component code 861**.

Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60H** between components **756** and **861**,
- **Connection code 60K** between components **756** and **861**.

If 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 has become "**Stored**":

Replace the passenger's front airbag **component code 861** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Passenger's front airbag: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR

Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again.

Repeat a check using the **diagnostic tool** and, if there are no faults (do not take the **DF034 "Computer locked"** into account), unlock the computer using the command **VP007 "Unlock computer"**.

DF028 PRESENT	<u>PASSENGER AIRBAG STATUS WARNING LIGHT CIRCUIT</u>
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NOTES	Special notes: This fault may be "present" after command AC009 Instrument panel warning lights is activated on the instrument panel.
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Apply the fault finding procedure relevant to this fault in the instrument panel fault finding information section. Carry out a fault finding procedure on the instrument panel (see **83A, Instrument panel**).

AFTER REPAIR	Clear the computer fault memory using command RZ001 "Fault memory" . Switch the ignition off and then on again. Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer" .
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DF034 PRESENT	<u>COMPUTER LOCKED</u>
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NOTES	The computer is supplied locked when it is new (see Replacement of components).
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Using the **diagnostic tool**, run command **VP007 Unlock computer** to unlock the airbag computer (only unlock the computer if no faults are indicated by the diagnostic tool and check that the warning light goes out).

AFTER REPAIR	Clear the computer fault memory using command RZ001 "Fault memory" . Switch the ignition off and then on again. Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer" .
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DF039 PRESENT	<p>DRIVER'S SIDE SENSOR CIRCUIT</p> <p>CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth</p> <ol style="list-style-type: none"> 1. DEF : Configuration 2. DEF : Sensor internal electronic fault 3. DEF : No communication 4. DEF : Consistent
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CC.1, CC.0, 3.DEF	NOTES	Use the Wiring Diagrams Technical Note, New TWINGO.
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<p>Lock the computer using command VP006 Lock computer.</p> <p>Check the condition of the driver's side sensor connector, component code 1028 (see Wiring Diagrams Technical Note, New Twingo, Component code 1028 and MR 411, Mechanical, 88C, Airbag and pretensioners, Side impact sensor: Removal - Refitting).</p> <p>Check the condition of the airbag computer connector, component code 756 (see Wiring Diagram Technical Note, New Twingo, Component code 756 and MR 411, Mechanical 88C, Airbag and pretensioners, Airbag computer: Removal - Refitting).</p> <p>If the connector is faulty and there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Use the "Universal bornier" to check the insulation to + 12 V, to earth and between the 2 lines of the following connections:</p> <ul style="list-style-type: none"> – Connection code 60AH between components 756 and 1028, – Connection code 60AG between components 756 and 1028. <p>If there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>Use the "universal bornier" to check the continuity of the following connections:</p> <ul style="list-style-type: none"> – Connection code 60AH between components 756 and 1028, – Connection code 60AG between components 756 and 1028. <p>If there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>If the fault is still present, replace the driver's side sensor component code 1028 (see MR 411, Mechanical, 88C, Airbag and pretensioners, Side impact sensor: Removal - Refitting).</p>

AFTER REPAIR	<p>Clear the computer fault memory using command RZ001 "Fault memory". Switch the ignition off and then on again.</p> <p>Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer".</p>
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DF039 CONTINUED	
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2.DEF	NOTES	None.
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Replace the driver's side sensor **component code 1028** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Side impact sensor: Removal - Refitting**).

1.DEF 4.DEF	NOTES	None.
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This fault corresponds to an inconsistency between the computer configuration and the vehicle equipment detected by the computer. The computer has detected the presence of a component additional to its configuration.
Read configuration **LC082 Driver's front side impact sensor** under the heading **Configuration reading**.
Modify the computer configuration using command **CF285 Driver's front side impact sensor** to adjust it to the vehicle's equipment level.

AFTER REPAIR	Clear the computer fault memory using command RZ001 "Fault memory" . Switch the ignition off and then on again. Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer" .
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DF040 PRESENT	<p>PASSENGER SIDE SENSOR CIRCUIT</p> <p>CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth</p> <ol style="list-style-type: none"> 1. DEF : Configuration 2. DEF : Sensor internal electronic fault 3. DEF : No communication 4. DEF : Consistent
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CC.1, CC.0, 3.DEF	NOTES	Use the Wiring Diagrams Technical Note, New TWINGO.
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Lock the computer using command **VP006 Lock computer**.

Check the condition of the passenger's side sensor connector, **component code 1029** (see **Wiring Diagrams Technical Note, New Twingo, Component code 1029 and MR 411, Mechanical, 88C, Airbag and pretensioners, Side impact sensor: Removal - Refitting**).

Check the condition of the airbag computer connector, **component code 756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756 and MR 411, Mechanical, 88C, Airbag and pretensioners, Airbag computer: Removal - Refitting**).

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

Use the "Universal bornier" to check the **insulation to + 12 V, to earth and between the 2 lines** of the following connections:

- Connection code **60AJ** between components **756 and 1029**,
- Connection code **60AF** between components **756 and 1029**.

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

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

- Connection code **60AJ** between components **756 and 1029**,
- Connection code **60AF** between components **756 and 1029**.

If 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 passenger's side sensor **component code 1029** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Side impact sensor: Removal - Refitting**).

AFTER REPAIR	<p>Clear the computer fault memory using command RZ001 "Fault memory". Switch the ignition off and then on again.</p> <p>Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer".</p>
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DF040 CONTINUED	
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2.DEF	NOTES	None.
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Replace the passenger's side sensor **component code 1029** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Side impact sensor: Removal - Refitting**).

1.DEF 4.DEF	NOTES	None.
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This fault corresponds to an inconsistency between the computer configuration and the vehicle equipment detected by the computer. The computer has detected the presence of a component additional to its configuration.
Read configuration **LC083 Passenger's front side impact sensor** under the heading **Configuration reading**.
Modify the computer configuration using command **CF286 Passenger's front side impact sensor** to adjust it to the vehicle's equipment level.

AFTER REPAIR	<p>Clear the computer fault memory using command RZ001 "Fault memory". Switch the ignition off and then on again.</p> <p>Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer".</p>
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DF060 PRESENT	<u>MULTIPLEX NETWORK</u> 1.DEF: Multiplex network 2.DEF: Initialisation of instrument panel too long
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NOTES	None.
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Carry out the fault finding procedure for the multiplex network.
Run a multiplex network test (see **88B, Multiplexing**).

AFTER REPAIR	Clear the computer fault memory using command RZ001 "Fault memory" . Switch the ignition off and then on again. Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer" .
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DF068 PRESENT	<p><u>PASSENGER FRONT CHEST-LEVEL SIDE AIRBAG CIRCUIT</u></p> <p>CO : Open circuit CC : Short circuit CC.0 : Short circuit to earth CC.1 : Short circuit to 12 volts 1.DEF : Configuration 2.DEF : Short circuit between trigger lines</p>
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NOTES	<p>If 1.DEF, check and modify the computer configuration using the configuration reading LC043 Passenger's front chest-level side airbag, then adjust it if it is inconsistent using the configuration CF224 Passenger's front chest-level side airbag.</p>
	<p>Priorities when dealing with a number of faults: If DF068 is present with fault DF184 Passenger's front buckle pretensioner circuit, start fault finding by checking the under seat 8-track R334 connector.</p>
	<p>Special notes: Never carry out any measurements on the trigger lines using any tool other than the XR BAG or CLIP diagnostic tool. Use dummy module (part no. Elé. 1835 yellow) and the dummy module (part no. Elé. 1837- 6).</p>
	<p>IMPORTANT Before disconnecting the airbag connector to fit a dummy module, always lock the trigger lines using the diagnostic tool and command VP006 "Lock computer".</p>

<p>Lock the trigger lines using the command VP006 Lock computer.</p>
<p>Switch off the ignition. Check the condition of the R334 connector under the passenger's front seat (see Wiring Diagram Technical Note, New Twingo).</p> <p>If the connector is faulty and there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Position the dummy module (part no. Elé. 1837- 6) on the 8-track R334 connector under the passenger's front seat. Switch on the ignition again. Read the fault in the AIRBAG / PRETENSIONER field.</p>

AFTER REPAIR	<p>Clear the computer fault memory using command RZ001 "Fault memory". Switch the ignition off and then on again. Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer".</p>
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DF068
CONTINUED 1

If the fault remains **"Present"**:

Check the condition of the airbag computer connector **component code 756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756 and MR 411, Mechanical, 88C, Airbag and pretensioners, Airbag computer: Removal-Refitting**).

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

Faulty wiring between the airbag computer **component code 756** and the **8-track R334** connector under the passenger's front seat.

Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60BB** between component **756** and **connector R334**,
- **Connection code 60BC** between component **756** and **connector R334**.

If 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 has become **"Stored"**:

Switch off the ignition.

Remove the passenger's front side chest-level airbag **component code 1104** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Front side chest-level airbag: Removal - Refitting**).

Check the condition of the passenger's front side chest-level airbag connector, **component code 1104** (see **Wiring Diagram Technical Note, New Twingo, Component code 1104**).

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

Position the dummy module (**part no. Elé. 1835 yellow**) on the passenger's front side chest-level airbag connector **component code 1104**.

Switch on the ignition again.

Read the fault in the **AIRBAG / PRETENSIONER** field.

AFTER REPAIR

Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again.

Repeat a check using the **diagnostic tool** and, if there are no faults (do not take the **DF034 "Computer locked"** into account), unlock the computer using the command **VP007 "Unlock computer"**.

DF068
CONTINUED 2

If the fault remains **"Present"**:

Faulty wiring between the airbag computer **component code 1104** and the **8-track R334** connector under the passenger's front seat.

Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60H** between component **1104** and connector **R334**,
- **Connection code 60K** between component **1104** and connector **R334**.

If 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 has become **"Stored"**:

Replace the passenger's front side chest-level airbag **component code 1104** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Front side chest-level airbag: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR

Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again.

Repeat a check using the **diagnostic tool** and, if there are no faults (do not take the **DF034 "Computer locked"** into account), unlock the computer using the command **VP007 "Unlock computer"**.

DF069 PRESENT	<p><u>PASSENGER'S SIDE CURTAIN AIRBAG CIRCUIT</u></p> <p>CO : Open circuit CC : Short circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth 1.DEF : Configuration 2.DEF : Short circuit between trigger lines</p>
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NOTES	<p>If 1.DEF, check and modify the computer configuration using the configuration reading LC041 Passenger's side curtain airbag then modify it if it is inconsistent using the configuration CF222 Passenger's side curtain airbag.</p>
	<p>Special notes: Never carry out any measurements on the trigger lines using any tool other than the XR BAG or CLIP diagnostic tool. Use the dummy module (part no. Elé. 1835 yellow) and the dummy module (part no. Elé. 1837- 2) with command VP006 Lock computer.</p>
	<p>IMPORTANT Before disconnecting the airbag connector to fit a dummy module, always lock the trigger lines using the diagnostic tool and command VP006 "Lock computer".</p>
	<p>Use the Wiring Diagrams Technical Note, New TWINGO.</p>

<p>Lock the trigger lines using command VP006 "Lock computer".</p>
<p>Switch off the ignition. Check the condition of the passenger's side curtain airbag intermediate connector R15 component code 1102 (see Wiring Diagram Technical Note, New Twingo and Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair).</p> <p>If the connector is faulty and there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Position the dummy module (part no. Elé. 1837- 2) on intermediate connector R15 of the passenger's side curtain airbag.</p> <p>Switch on the ignition again. Read the fault in the AIRBAG / PRETENSIONER field.</p>

AFTER REPAIR	<p>Clear the computer fault memory using command RZ001 "Fault memory". Switch the ignition off and then on again. Repeat the check using the diagnostic tool and, if there are no faults (ignore DF034 Computer locked), unlock the computer using command VP007 Unlock computer.</p>
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DF069
CONTINUED 1

If the fault remains "**Present**":

Check the condition of the airbag computer connector **component code 756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756 and MR 411, Mechanical, 88C, Airbag and pretensioners, Airbag computer: Removal-Refitting**).

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

Faulty wiring between the airbag computer **component code 756** and the intermediate connector **R15** of the passenger's side curtain airbag **component code 1102**.

Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60CA** between component **756** and connector **R15**,
- **Connection code 60CB** between component **756** and connector **R15**.

If 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 has become "**Stored**":

Switch off the ignition.

Remove the passenger's side curtain airbag **component code 1102** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Curtain side airbag: Removal - Refitting**).

Check the condition of the passenger's side curtain airbag connector **component code 1102** (see **Wiring Diagram Technical Note, New Twingo, Component code 1102 and Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**).

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

Position the dummy module (**part no. Elé. 1835 yellow**) on the connector of the passenger's side curtain airbag **component code 1102**.

Switch on the ignition again.

Read the fault in the **AIRBAG / PRETENSIONER** field.

AFTER REPAIR

Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again.
Repeat the check using the **diagnostic tool** and, if there are no faults (ignore **DF034 Computer locked**), unlock the computer using command **VP007 Unlock computer**.

DF069
CONTINUED 2

If the fault remains "**Present**":

Faulty wiring between the passenger's side curtain airbag **component code 1102** and the intermediate connector **R15**.

Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60CA** between **component 1102** and **connector R15**,
- **Connection code 60CB** between **component 1102** and **connector R15**.

If 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 has become "**Stored**":

Replace the passenger's side curtain airbag **component code 1102** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Curtain side airbag: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR

Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again.
Repeat the check using the **diagnostic tool** and, if there are no faults (ignore **DF034 Computer locked**), unlock the computer using command **VP007 Unlock computer**.

DF070 PRESENT	<p><u>DRIVER SIDE CURTAIN AIRBAG CIRCUIT</u></p> <p>CO : Open circuit CC : Short circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth 1.DEF: Configuration 2.DEF: Short circuit between trigger lines</p>
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NOTES	<p>If 1.DEF, check and modify the computer configuration using the configuration reading LC040 Driver's side curtain airbag, then modify it if it is inconsistent using configuration CF221 Driver's side curtain airbag.</p>
	<p>Special notes: Never carry out any measurements on the trigger lines using any tool other than the XR BAG or CLIP diagnostic tool. Use dummy module (part no. Elé. 1835 yellow) and the dummy module (part no. Elé. 1837- 2).</p>
	<p>IMPORTANT Before disconnecting the airbag connector to fit a dummy module, always lock the trigger lines using the diagnostic tool and command VP006 "Lock computer".</p>
	<p>Use the Wiring Diagrams Technical Note, New TWINGO.</p>

<p>Lock the trigger lines using command VP006 Lock computer.</p>
<p>Switch off the ignition. Check the condition of the intermediate connector R15 of the driver's side curtain airbag component code 1101 (see Wiring Diagram Technical Note, New Twingo and MR 411, Mechanical, 88C, Airbag and pretensioners, Curtain side airbag: Removal - Refitting).</p> <p>If the connector is faulty and there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Position the dummy module (part no. Elé. 1837- 2) on the intermediate connector R15 of the driver's side curtain airbag component code 1101.</p> <p>Switch on the ignition again. Read the fault in the AIRBAG / PRETENSIONER field.</p>

AFTER REPAIR	<p>Reconnect the computer and the ignition module of the driver's side curtain airbag module then switch the ignition back on. Clear the computer fault memory using command RZ001 Fault memory. Switch the ignition off and then on again. Repeat the check using the diagnostic tool and, if there are no faults (ignore DF034 Computer locked), unlock the computer using command VP007 Unlock computer.</p>
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DF070
CONTINUED

If the fault remains "**Present**":

Check the condition of the airbag computer connector, **component code 756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756 and MR 411, Mechanical, 88C, Airbag and pretensioners, Airbag computer: Removal - Refitting**).

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

Faulty wiring between the airbag computer **component code 756** and the intermediate connector **R15** of the driver's side curtain airbag **component code 1101**.

Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60BY** between component **756** and connector **R15**,
- **Connection code 60BZ** between component **756** and connector **R15**.

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

AFTER REPAIR

Reconnect the computer and the ignition module of the driver's side curtain airbag module then switch the ignition back on. Clear the computer fault memory using command **RZ001 Fault memory**. Switch the ignition off and then on again. Repeat the check using the **diagnostic tool** and, if there are no faults (ignore **DF034 Computer locked**), unlock the computer using command **VP007 Unlock computer**.

DF077 PRESENT	<p><u>DRIVER'S CHEST-LEVEL FRONT SIDE AIRBAG CIRCUIT</u></p> <p>CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth 1.DEF: Configuration 2.DEF: Short circuit between trigger lines</p>
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NOTES	<p>If 1.DEF, check and modify the computer configuration using the configuration reading LC042 Driver's front side chest-level airbag, then adjust it if it is inconsistent using the configuration CF223 Driver's front side chest-level airbag.</p> <p>Priorities when dealing with a number of faults: If DF077 is present with fault DF232 Driver's seat belt buckle sensor circuit and DF183 Driver's front buckle pretensioner circuit, start fault finding by checking the 8-track R335 connector under the driver's seat.</p> <p>Special notes: Never carry out any measurements on the trigger lines using any tool other than the XR BAG or CLIP diagnostic tool. Use dummy module (part no. Elé. 1835 yellow) and the dummy module (part no. Elé. 1837- 6).</p> <p>IMPORTANT Before disconnecting the airbag connector to fit a dummy module, always lock the trigger lines using the diagnostic tool and command VP006 "Lock computer".</p> <p>Use the Wiring Diagrams Technical Note, New TWINGO.</p>
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<p>Lock the trigger lines using command VP006 Lock computer.</p> <p>Switch off the ignition. Check the condition of the 8-track R335 connector under the driver's seat (see Wiring Diagram Technical Note, New Twingo). If the connector is faulty and there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Position the dummy module (part no. Elé. 1837- 6) on the 8-track R335 connector under the driver's seat. Switch on the ignition again. Read the fault in the AIRBAG / PRETENSIONER field.</p>

AFTER REPAIR	<p>Reconnect the computer and the ignition module for the driver's front side chest-level airbag module then switch on the ignition again. Clear the computer fault memory using command RZ001 "Fault memory". Switch the ignition off and then on again. Repeat the check using the diagnostic tool and, if there are no faults (ignore DF034 Computer locked), unlock the computer using command VP007 Unlock computer. When replacing the airbag module, do not forget to reconnect the earth on the new module.</p>
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DF077
CONTINUED

If the fault remains "**Present**":

Check the condition of the airbag computer connector, **component code 756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756** and **MR 411, Mechanical, 88C, Airbag and pretensioners, Airbag computer: Removal - Refitting**).

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

Faulty wiring between the airbag computer **component code 756** and the **8-track R335** connector under the driver's seat.

Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60AR** between component **756** and connector **R335**,
- **Connection code 60AS** between component **756** and connector **R335**.

If 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 has become "**Stored**":

Switch off the ignition.

Remove the driver's front side chest-level airbag **component code 1103** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Front side chest-level airbag: Removal - Refitting**).

Check the condition of the driver's front side chest-level airbag connector **component code 1103** (see **Wiring Diagram Technical Note, New Twingo, Component code 1103**)

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

Position the dummy module (**part no. Elé. 1835 yellow**) on the driver's front side chest-level airbag connector **component code 1103**.

Switch on the ignition again.

Read the fault in the **AIRBAG / PRETENSIONER** field.

AFTER REPAIR

Reconnect the computer and the ignition module for the driver's front side chest-level airbag module

then switch on the ignition again. Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again.

Repeat the check using the **diagnostic tool** and, if there are no faults (ignore **DF034 Computer locked**), unlock the computer using command **VP007 Unlock computer**.

When replacing the airbag module, do not forget to reconnect the earth on the new module.

**DF077
CONTINUED**

If the fault remains "**Present**":

Faulty wiring between the driver's front side chest-level airbag **component code 1103** and the **8-track R335** connector under the driver's seat.*

Check the insulation (+ 12 V to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60AR** between component **1103** and connector **R335**,
- **Connection code 60AS** between component **1103** and connector **R335**.

If 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 has become "**Stored**":

Replace the driver's front side chest-level airbag **component code 1103** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Front side chest-level airbag: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR

Reconnect the computer and the ignition module for the driver's front side chest-level airbag module

then switch on the ignition again. Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again.

Repeat the check using the **diagnostic tool** and, if there are no faults (ignore **DF034 Computer locked**), unlock the computer using command **VP007 Unlock computer**.

When replacing the airbag module, do not forget to reconnect the earth on the new module.

DF091 PRESENT	AIRBAG LOCKING SWITCH CIRCUIT CC.0 : Short circuit to earth CC.1 : Short circuit to 12 volts 1.DEF : Configuration 2.DEF : Short circuit between lines
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NOTES	Use the Wiring Diagrams Technical Note for NEW TWINGO.
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Lock the computer using command **VP006 Lock computer**.

Check the condition of the airbag locking switch connector, **component code 1441** (see **Wiring Diagram Technical Note, New Twingo, Component code 1441 and Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**).

Check the condition of the airbag computer connector **component code 756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756**).

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

Use the "Universal bornier" to check the **insulation to + 12 V, to earth and between the 2 lines** of the following connections:

- Connection code **60BX** between components **756 and 1441**,
- Connection code **60BW** between components **756 and 1441**.

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

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

- Connection code **60BX** between components **756 and 1441**,
- Connection code **60BW** between components **756 and 1441**.

If 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 airbag locking switch **component code 1441** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Inhibitor switch: Removal - Refitting**).

AFTER REPAIR	Reconnect the computer and the locking switch, then switch on the ignition again. Clear the computer fault memory using command RZ001 Fault memory . Switch the ignition off and then on again. Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer" .
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DF165 PRESENT	<u>AIRBAG FAULT WARNING LIGHT CIRCUIT</u>
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NOTES	None.
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Apply the fault finding procedure relevant to this fault in the instrument panel fault finding information section. Carry out a fault finding procedure on the instrument panel (see **83A, Instrument panel**).

AFTER REPAIR	Reconnect the computer and the locking switch, then switch on the ignition again. Clear the computer fault memory. Switch off the ignition. Carry out the check again using the diagnostic tool and, if there is no fault, unlock the computer.
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DF183 PRESENT	DRIVER'S FRONT BUCKLE PRETENSIONER CIRCUIT CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth 1.DEF: Configuration 2.DEF: Short circuit between trigger lines
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NOTES	If 1.DEF , check and modify the computer configuration using configuration reading LC064 Driver's front buckle pretensioner , then modify it if it is inconsistent using the configuration CF265 Driver's front buckle pretensioner .
	Priorities when dealing with a number of faults: If DF0183 is present with the fault DF232 Driver's seatbelt buckle sensor circuit and DF077 Driver's front side chest-level airbag circuit , start fault finding by checking the 8-track R335 connector under the driver's seat.
	Special notes: Never carry out any measurements on the trigger lines using any tool other than the XR BAG or CLIP diagnostic tool . Use dummy module (part no. Elé. 1835 yellow) and the dummy module (part no. Elé. 1837- 6).
	IMPORTANT Before disconnecting the airbag connector to fit a dummy module, always lock the trigger lines using the diagnostic tool and command VP006 Lock computer. Use the Wiring Diagrams Technical Note, New TWINGO.

Lock the trigger lines using command **VP006 Lock computer**.

Switch off the ignition.

Check the condition of the **8-track R335** connector under the driver's seat (see **Wiring Diagram Technical Note, New Twingo**).

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

Position the dummy module (part no. **Elé. 1837- 6**) on the **8-track R335** connector under the driver's seat.

Switch on the ignition again.

Read the fault in the **AIRBAG / PRETENSIONER** field.

AFTER REPAIR	Reconnect the computer and the locking switch, then switch on the ignition again. Clear the computer fault memory using command RZ001 "Fault memory" . Switch the ignition off and then on again. Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer" .
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DF183
CONTINUED 1

If the fault remains "**Present**":

Check the condition of the airbag computer connector **component code 756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756**).

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

Faulty wiring between the airbag computer **component code 756** and the **8-track R335** connector under the driver's seat.

Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60D** between component **756** and connector **R335**,
- **Connection code 60E** between component **756** and connector **R335**.

If 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 has become "**Stored**":

Switch off the ignition.

Remove the driver's buckle front pretensioner **component code 757** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Front buckle pretensioner: Removal - Refitting**).

Check the condition of the driver's buckle front pretensioner connector **component code 757** (see **Wiring Diagram Technical Note, New Twingo, Component code 757**).

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

Position the dummy module (**part no. Elé. 1835 yellow**) on the driver's buckle front pretensioner connector **component code 757**.

Switch on the ignition again.

Read the fault in the **AIRBAG / PRETENSIONER** field.

AFTER REPAIR

Reconnect the computer and the locking switch, then switch on the ignition again.
Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again.

Repeat a check using the **diagnostic tool** and, if there are no faults (do not take the **DF034 "Computer locked"** into account), unlock the computer using the command **VP007 "Unlock computer"**.

DF183
CONTINUED 2

If the fault remains **"Present"**:

Faulty wiring between the driver's buckle front pretensioner **component code 757** and the **8-track R335** connector under the driver's seat.

Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60D** between component **757** and connector **R335**,
- **Connection code 60E** between component **757** and connector **R335**.

If 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 has become **"Stored"**:

Replace the driver's buckle front pretensioner **component code 757** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Front buckle pretensioner: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR

Reconnect the computer and the locking switch, then switch on the ignition again. Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again. Repeat a check using the **diagnostic tool** and, if there are no faults (do not take the **DF034 "Computer locked"** into account), unlock the computer using the command **VP007 "Unlock computer"**.

DF184 PRESENT	PASSENGER FRONT BUCKLE PRETENSIONER CIRCUIT CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth 1.DEF: Configuration 2.DEF: Short circuit between trigger lines
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NOTES	If 1.DEF , check and modify the computer configuration using configuration reading LC065 Driver's front buckle pretensioner , then modify it if it is inconsistent using the configuration CF266 Driver's front buckle pretensioner .
	Special notes: Never carry out any measurements on the trigger lines using any tool other than the XR BAG or CLIP diagnostic tool . Use dummy module (part no. Elé. 1835 yellow) and the dummy module (part no. Elé. 1837 - 6).
	IMPORTANT Before disconnecting the airbag connector to fit a dummy module, always lock the trigger lines using the diagnostic tool and command VP006 "Lock computer".
	Use the Wiring Diagrams Technical Note, New TWINGO.

Lock the trigger lines using command VP006 Lock computer .
Switch off the ignition. Check the condition of the 8-track R334 connector under the passenger's front seat (see Wiring Diagram Technical Note, New Twingo). If the connector is faulty and there is a repair method (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring . Position the dummy module (part no. Elé. 1837 - 6) on the 8-track R334 connector under the passenger's front seat. Switch on the ignition again. Read the fault in the AIRBAG / PRETENSIONER field.

AFTER REPAIR	Reconnect the computer and the locking switch, then switch on the ignition again. Clear the computer fault memory using command RZ001 "Fault memory" . Switch the ignition off and then on again. Repeat the check using the diagnostic tool and, if there are no faults (ignore DF034 Computer locked), unlock the computer using command VP007 Unlock computer .
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DF184
CONTINUED 1

If the fault remains **"Present"**:

Check the condition of the airbag computer connector **component code 756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756**).

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

Faulty wiring between the airbag computer **component code 756** and the **8-track R334** connector under the passenger's front seat.

Check the insulation (+ 12 V, to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60B** between component **756** and connector **R334**,
- **Connection code 60C** between component **756** and connector **R334**.

If 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 has become **"Stored"**:

Switch off the ignition.

Remove the passenger's buckle front pretensioner **component code 758** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Front buckle pretensioner: Removal - Refitting**).

Check the condition of the passenger's front buckle pretensioner connector (see **Wiring Diagram Technical Note, New Twingo, Component code 758**).

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

Position the dummy module (**part no. Elé. 1835 yellow**) on the passenger's front buckle pretensioner connector **component code 758**.

Switch on the ignition again.

Read the fault in the **AIRBAG / PRETENSIONER** field.

AFTER REPAIR

Reconnect the computer and the locking switch, then switch on the ignition again.
Clear the computer fault memory using command **RZ001 "Fault memory"**. Switch the ignition off and then on again.

Repeat the check using the **diagnostic tool** and, if there are no faults (ignore **DF034 Computer locked**), unlock the computer using command **VP007 Unlock computer**.

DF184
CONTINUED 2

If the fault remains "**Present**":

Faulty wiring between the passenger's front buckle pretensioner **component code 758** and the **8-track R334** connector under the passenger's front seat.

Check the insulation (+ 12 V to earth and between the 2 lines) and the continuity of the following connections:

- **Connection code 60B** between component **758** and connector **R334**,
- **Connection code 60C** between component **758** and connector **R334**.

If 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 has become "**Stored**":

Replace the passenger's front buckle pretensioner **component code 758** (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Front buckle pretensioner: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR

Reconnect the computer and the locking switch, then switch on the ignition again.
Clear the computer fault memory. Switch off the ignition.

Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer.

<p>DF193 PRESENT OR STORED</p>	<p><u>PASSENGER AIRBAG LOCKING CHANGE OF STATUS</u></p>
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<p>NOTES</p>	<p>Special notes: The vehicle user is able to inhibit or reactivate the passenger airbag using the switch, + after ignition feed off, or 10 seconds after the + after ignition feed is switched on.</p>
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Clear the computer fault memory using the command **RZ001 "Fault memory"**.
Switch off the ignition, and wait a few seconds.
Set the locking switch to the desired setting.
Switch the ignition back on and check that the fault is gone.

<p>AFTER REPAIR</p>	<p>Clear the computer fault memory using command RZ001 "Fault memory". Switch the ignition off and then on again. Repeat the check using the diagnostic tool and, if there are no faults (ignore DF034 Computer locked), unlock the computer using command VP007 Unlock computer</p>
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<p>DF194 PRESENT</p>	<p><u>COMPUTER TO BE REPLACED FOLLOWING IMPACT</u></p>
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<p>NOTES</p>	<p>None.</p>
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Contact Techline (see **replacement of components**).

<p>AFTER REPAIR</p>	<p>None.</p>
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DF232 PRESENT	DRIVER'S SEAT BELT BUCKLE SENSOR CIRCUIT CC.1 : Short circuit to + 12 V 1.DEF: Short circuit
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NOTES	If 1.DEF , check and modify the computer configuration using the configuration reading LC073 Driver's seat belt buckle sensor , then adjust it if it is inconsistent using configuration CF273 Driver's seat belt buckle sensor .
	Priorities when dealing with a number of faults: If DF232 is present with faults DF077 Driver's front side chest-level airbag circuit and DF183 Driver's front buckle pretensioner circuit , start fault finding by checking the 8-track R335 connector under the driver's seat.
	Use the Wiring Diagrams Technical Note, New TWINGO.

Check the condition of the driver's seat belt buckle sensor connector **component code 333** (see **Wiring Diagram Technical Note, New Twingo, Component code 333**).

Check the condition of the airbag computer connector **component code 756** (see **Wiring Diagram Technical Note, New Twingo, Component code 756**).

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

Use the "Universal bornier" to check the **insulation** to **+ 12 V, to earth** and **between the 2 lines** of the following connections:

- Connection code **60DU** between components **756 and 333**,
- Connection code **60DV** between components **756 and 333**.

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

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

- Connection code **60DU** between components **756 and 333**,
- Connection code **60DV** between components **756 and 333**.

If 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 driver's seat belt buckle sensor (see **MR 411, Mechanical, 88C, Airbag and pretensioners, Front buckle pretensioner: Removal - Refitting**).

AFTER REPAIR	Reconnect the computer and front seat belt inertia reels, then switch on the ignition again. Clear the computer fault memory using command RZ001 "Fault memory" . Switch the ignition off and then on again. Repeat a check using the diagnostic tool and, if there are no faults (do not take the DF034 "Computer locked" into account), unlock the computer using the command VP007 "Unlock computer" .
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<p>DF242 PRESENT</p>	<p><u>LEFT-HAND DRIVE/RIGHT-HAND DRIVE CONFIGURATION</u> 1. DEF: Configuration</p>
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<p>NOTES</p>	<p>This fault indicates that the configuration of the driving side (left or right) has not been carried out.</p>
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Configure the vehicle's driving side (left or right) using command **CF291 "LEFT-HAND DRIVE/RIGHT-HAND DRIVE"**.

<p>AFTER REPAIR</p>	<p>None.</p>
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DF262 PRESENT	<u>VEHICLE SPEED MULTIPLEX SIGNAL</u> 1. DEF: Invalid vehicle speed 2. DEF: Vehicle speed too high
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NOTES	None.
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Carry out the fault finding procedure for the multiplex network.
Test the multiplex network. (see **38C, Anti-lock braking system**).

AFTER REPAIR	None.
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DF263 PRESENT	<u>NO ABS/ESP MULTIPLEX SIGNAL</u> 1. DEF: No ABS multiplex signal
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NOTES	None.
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Carry out the fault finding procedure for the multiplex network.
Test the multiplex network and the ABS (see **88B, Multiplexing** and **38C, Anti-lock braking system**).

AFTER REPAIR	None.
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DF264 PRESENT	<u>NO INSTRUMENT PANEL MULTIPLEX SIGNAL</u> 1. DEF: No instrument panel multiplex signal
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NOTES	None.
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Carry out the fault finding procedure for the multiplex network.
Carry out a test on the multiplex network and the instrument panel (see **88B, Multiplexing** and **83A, Instrument panel**).

AFTER REPAIR	None.
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NOTES

Only check the conformity after a **complete check** with the **diagnostic tool**. The values shown in this conformity check are given as a guide.
Application conditions: Engine stopped, ignition on.

MAIN COMPUTER STATUSES AND PARAMETERS

Function	Parameter or Status checked or Action	Display and notes	Fault finding
Main computer Statuses and Parameters	ET073: Computer locked by tool	YES or NO This status indicates whether or not the computer is locked.	In the event of a fault, apply the interpretation for DF034 "Computer locked" .
	ET143: Passenger airbag(s) locked	YES or NO This status indicates the locking of the passenger trigger lines (passenger front airbag, passenger chest-level airbag).	In the event of a fault, apply the interpretation of DF193 "Passenger airbag locking status change" .
	ET076: Computer to be replaced	YES or NO This status indicates whether the computer should be replaced or not.	In the event of a fault, apply the interpretation of DF001 "Computer" and DF194 "Computer to be replaced following impact" .
	ET010: Impact detected	YES or NO This status indicates whether an impact has been detected by the computer.	In the event of a fault, apply the interpretation of DF194 "Computer to be replaced following impact" .
	ET074: Fault warning light activated	YES or NO This status permits a check on the request by the computer for the "airbag fault" indicator light to be lit or not.	In the event of a fault, apply the interpretation of DF165 "Airbag fault warning light circuit" .
	ET072: Passenger airbag status indicator light commanded	YES or NO This status permits a check on the request by the computer for the "passenger airbag" indicator light to be lit.	In the event of a fault, apply the interpretation of DF028 "Passenger airbag status indicator light circuit" .
	PR001: Computer feed voltage	This parameter indicates the computer voltage. The voltage should be between: 9 V < X < 14 V	In the event of a fault, apply the interpretation for DF038 "Computer" .
	ET169: Driver's seat belt contact	OPEN - CLOSED - FAULTY This status is used to check whether the driver buckle switch is working properly.	In the event of a fault, apply the interpretation of DF232 "Driver's seat belt buckle sensor circuit" .

NOTES

Only check the conformity after a **complete check** with the **diagnostic tool**. The values shown in this conformity check are given as a guide.
Application conditions: Engine stopped, ignition on.

FUNCTION: AIRBAG
SUB-FUNCTION: TRIGGERING

Function	Parameter or Status checked or Action	Display and Notes	Fault finding
Triggering	PR013: Driver's front airbag resistance	<p>The resistance should be between: $1.2 \Omega < X < 5.8 \Omega$ This value may be 99.9 Ω if the vehicle is not fitted with the airbag in question (see vehicle equipment). These parameters indicate the impedance in ohms on trigger lines.</p>	In the event of a fault, apply the interpretation of DF003 "Driver's front airbag circuit" .
	PR014: Passenger front airbag resistance		In the event of a fault, apply the interpretation of DF004 "Passenger front airbag circuit" .
	PR011: Driver's side airbag resistance		In the event of a fault, apply the interpretation of DF077 "Driver's front chest-level side airbag circuit" .
	PR012: Passenger side airbag resistance		In the event of a fault, apply the interpretation of DF068 "Passenger front chest-level side airbag circuit" .
	PR017: Driver's side curtain airbag resistance		In the event of a fault, apply the interpretation of DF070 "Driver's side curtain airbag circuit" .
	PR018: Passenger side curtain airbag resistance		In the event of a fault, apply the interpretation of DF069 "Passenger side curtain airbag circuit" .
	PR015: Driver's pretensioner resistance		In the event of a fault, apply the interpretation of DF183 "Driver's buckle pretensioner circuit" .
	PR016: Passenger pretensioner resistance		In the event of a fault, apply the interpretation of DF184 "Passenger buckle pretensioner circuit" .

NOTES

Only check the conformity after a **complete check** with the **diagnostic tool**. The values shown in this conformity check are given as a guide.
Application conditions: Engine stopped, ignition on.

FUNCTION: AIRBAG
SUB-FUNCTION: LOCK AIRBAGS

Function	Parameter or Status checked or Action	Display and notes	Fault finding
Lock Airbags	ET073: Computer locked by tool	YES or NO This status indicates whether or not the computer is locked.	In the event of a fault, apply the interpretation of DF034 "Computer locked" .
	ET143: Passenger airbag(s) locked	YES or NO This status indicates the locking of the passenger trigger lines (passenger front airbag, passenger chest-level airbag, if fitted).	In the event of a fault, apply the interpretation of DF193 "Change of passenger airbag locking status" and DF091 "Airbag locking switch circuit" .
	ET103: Type of passenger airbag locking	YES or NO This status indicates the inhibited trigger lines when the passenger airbag is inhibited (passenger front airbag, passenger front chest-level airbag, if fitted).	In the event of a fault, apply the interpretation of DF091 "Airbag locking switch circuit " then DF193 "Change of passenger airbag locking status" .
	ET169: Driver's seat belt contact	OPEN - CLOSED - FAULTY This status is used to check whether the driver buckle switch is working properly.	In the event of a fault, apply the interpretation of DF232 "Driver's seat belt buckle sensor circuit" .
	PR147: Airbag locking circuit impedance	380 Ω +/- 40 Ω , this resistance indicates that the passenger airbag locking switch is "ON" . or 90 Ω +/- 10 Ω , this resistance indicates that the passenger airbag locking switch is "OFF"	In the event of a fault, apply the interpretation of DF091 "Airbag locking switch circuit " then DF193 "Change of passenger airbag locking status" .

Tool status	Diagnostic tool title
ET010	Impact detected
ET072	Passenger airbag status indicator light commanded
ET073	Computer locked by tool
ET074	Fault warning light activated
ET076	Computer to be replaced
ET103	Type of passenger airbag locking
ET143	Passenger airbag(s) locked
ET169	Driver's seat belt contact

Tool parameter	Diagnostic tool title
PR001	Computer feed voltage
PR011	Driver's side airbag resistance
PR012	Passenger side airbag resistance
PR013	Driver's front airbag resistance
PR014	Passenger front airbag resistance
PR015	Driver's pretensioner resistance
PR016	Passenger pretensioner resistance
PR017	Driver's side curtain airbag resistance
PR018	Passenger side curtain airbag resistance
PR147	Airbag locking circuit impedance

Trigger line or sensor resistance is equal to **99.9 Ω** when the component is disconnected or not controlled by the computer.

NOTES

Only refer to the customer complaints after performing a complete check using the diagnostic tool.

ABSENCE OF DIALOGUE WITH THE AIR BAG COMPUTER

ALP 1



ALP 1	No communication with the airbag computer
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NOTES	Special note: See "Introduction" for the + after ignition feed to perform fault finding on a computer.
	Use the Wiring Diagrams Technical Note, 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 the cause and communication cannot be established with any other computer on the same vehicle, it is possible that another computer is disrupting the multiplex network.
Proceed by successive disconnections to locate the defective computer. Check the battery voltage and perform the necessary operations to reach the correct voltage.
(10.5 V < battery voltage < 16 V).

Check for the presence and condition of the supply fuse (**F7 15A**) of the airbag computer **component code 756** on the passenger compartment fuse box **component code 1016**.
Check the connection of the airbag computer connector, **component code 756** and the condition of its connections.
If the connector is faulty and there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.
Check that the airbag computer, **component code 756**, is correctly supplied:
– Check and ensure the presence of **+ after ignition feed** between the terminals marked **earth connection code NAP** and **+ after ignition feed connection code AP25**.
If the + after ignition feed is absent:
Check the insulation against earth and the continuity of the following connection:
– **Connection code AP25** between components **1016** and **756**.
Check the continuity of the following connection:
– **Connection code NAP** between component **756** and the earth **NAP**.
If the connection or connections are faulty and there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR	When communication is established, deal with any faults indicated.
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**ALP 1
CONTINUED**

Check that the power supply to the diagnostic socket is correct:

– **+ before ignition feed** on **connection code BP19**,

If the + before ignition feed is absent:

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

– **Connection code BP19** between components **225** and **1016**.

– **Earth** on **connections NAM** and **MAM**.

If the earth is absent:

Check the continuity of the following connection(s):

– **Connection code NAM** between component **225** and earth **NAM**.

– **Connection code MAM** between component **225** and earth **MAM**.

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

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

AFTER REPAIR

When communication is established, deal with any faults indicated.