# MEGANE

## 8 Electrical equipment

### 88C AIRBAG - PRETENSIONERS

**AIRBAG ACU4**
**Vdiag: 04**

**V6**

**Edition Anglaise**

# 1. SCOPE OF THIS DOCUMENT

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

| | |
|---|---|
| *Vehicle*: **MEGANE II TYPE BMXX, CMXX AND SMXX**<br><br>*Function concerned*: **AIRBAG** | *Name of computer*: **AUTOLIV - ACU 4**<br><br>*Program no.*:<br><br>**Vdiag: 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<br>– Set of adapters and borniers for using the "Airbag and pretensioner wiring harness check" function of CLIP and XRBAG tools for updates including the borniers listed below.<br>– **Modifying the series of new airbag ignition module connectors entails modifying the dummy ignition module.** |
| <u>LOCAL MODIFICATION OF THE DUMMY IGNITION MODULE</u><br>– **Remove the ignition module from its red mounting and remove one of the brown locking positions.** |
| – 22-track computer bornier: **Elé. 1685**<br>– 64-track computer bornier: **Elé. 1717**<br>– 22-track seat bornier: **Elé. 1687**<br>– 10-track rotary switch bornier: **Elé. 1617** |

## 3. RECAP

**Faults**

**Procedure**

To run fault finding on the vehicle's computers, switch on the ignition in fault finding mode (forced + after ignition feed):
– vehicle card in card reader.
– press and hold start button (longer than 5 seconds) with start-up conditions not fulfilled,
– then connect the diagnostic tool and perform the required operations.

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**WARNING**

The left-hand and right-hand xenon bulb computers are powered when the dipped headlights are lit. Fault finding can only be carried out on them after the ignition has been switched on in fault finding mode (forced + after ignition feed) and the dipped headlights are on.

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The **+ After ignition feed cut-out** is carried out as follows:
– Disconnect the diagnostic tool,
– Press the start button twice briefly (less then 3 seconds),
– Ensure that the + after ignition feed has been cut off by checking that the computer warning lights on the instrument panel have gone out.

Faults are displayed as present or stored (they appeared in a certain context and have since disappeared, or they are still present but cannot be diagnosed in the current context).
The **present** or **stored** status of faults must be taken into account when using the diagnostic tool after switching on the + after ignition (without activating the system components).

Deal with present faults according to the procedure specified in the section on **Interpretation of faults**.

For **stored faults**, note the faults displayed and follow the instructions in the "Notes" section.

If the fault is **confirmed** when the notes are applied, the fault is present. In this case, deal with the fault.

If the fault is **not confirmed**, carry out some basic checks. Check:
– the electrical lines which correspond to the fault,
– the connectors for these lines (for oxidation, bent pins, etc.),
– the resistance of the component detected as faulty,
– the condition of the cables (melted or cut insulation, wear).
or use the fault finding procedure 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:
– carry out fault finding on faults that do not have a fault display, and which may correspond to a customer complaint.
– check that the system is operating correctly and that there is no risk of a fault recurring after repairs.

This section features 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 correct, but the customer complaint persists, it should be dealt with according to the customer complaint.

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**A summary of the overall procedure to follow is provided on the following page in the form of a flow chart.**

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## 4. FAULT FINDING PROCEDURE

```
┌─────────────────────────────┐
│ Check the battery charge and│
│ the condition of the fuses  │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│ Print the system fault      │
│ finding log (available in   │
│ CLIP and in the Workshop    │
│ Repair Manual or Technical  │
│ Note)                       │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐◄──────────────────────────┐
│ Connect CLIP                │                            │
└─────────────────────────────┘                            │
              │                                             │
              ▼                                             │
           Dialogue        no     ┌────────────────────────┐
           with      ──────────►  │ See ALP 1              │
           ECU?                   └────────────────────────┘
              │
            yes
              ▼
┌─────────────────────────────┐
│ Read the faults             │
└─────────────────────────────┘
              │
              ▼
           Faults          no
           present    ──────────►  ┌────────────────────────┐
              │                    │ Conformity check       │
            yes                    └────────────────────────┘
              ▼                                │
┌─────────────────────────────┐               ▼
│ Deal with present faults    │         The cause is    no    *Fault*
└─────────────────────────────┘         still present ──────► *solved*
              │                                │
              ▼                               
┌─────────────────────────────┐        ┌────────────────────────┐
│ Deal with stored faults     │        │ Use Fault finding      │
└─────────────────────────────┘        │ charts (ALPs)          │
              │                         └────────────────────────┘
              ▼                                │
        The cause is    no    *Fault*         ▼
        still present ──────► *solved*   The cause is    no    *Fault*
              │                          still present ──────► *solved*
            yes                                │
                                               ▼
                                    ┌────────────────────────┐
                                    │ Contact Techline with  │
                                    │ the completed fault    │
                                    │ finding log            │
                                    └────────────────────────┘
```

**IMPORTANT**

### 5. FAULT FINDING LOG

**IMPORTANT:**
*A properly documented fault finding log is required for all monitored part (computer-type) reimbursements or Techline calls.*

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**IT IS THEREFORE MANDATORY TO FILL OUT A FAULT FINDING LOG <u>EACH TIME</u> FAULT FINDING IS CARRIED OUT.**

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All faults requiring replacement of a computer for must be subject to a complete fault finding procedure with the appropriate tools. The **fault finding log** must be filled out during the process and indicate the findings for the warranty refund.

### 6. SAFETY ADVICE

Safety rules must be observed whenever work is carried out on a component to prevent physical damage or human injury:

– Check the battery voltage to avoid incorrect operation of computer functions.

**During operations 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 ignition lines will be inhibited). 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 fuse, and wait at least 2 seconds for the reserve power capacity to discharge.**

**Never measure the airbag or pretensioner trigger lines with any device other than XRBAG or CLIP's "Airbag and pretensioner wiring harness check".**
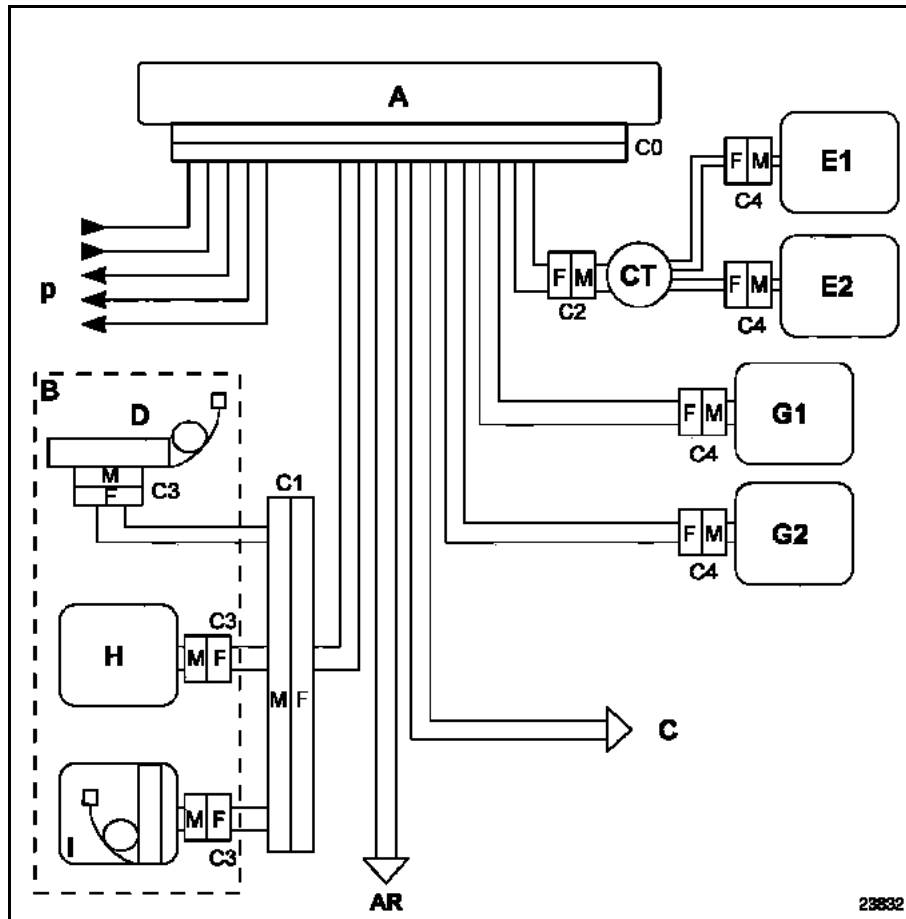
**Before using a dummy ignition module, check that its resistance is between 1.8 and 2.5 Ω.**

**While working, make sure the computer power supply does not drop below 10 V.**

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**IMPORTANT**
Airbag and pretensioner destruction and disposal is subject to national legislation.

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## SYSTEM CONFIGURATION DIAGRAM (FRONT section)



**AR To rear wiring**

## SYSTEM CONFIGURATION DIAGRAM (REAR section)



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| AR | To rear wiring | J/K | Curtain airbag ignition modules |
|----|----------------|-----|--------------------------------|
| A | Central unit | | |
| B | Driver's seat | L/M | Rear side airbag ignition modules |
| C | Front passenger seat | N/O | Rear inertia reels |
| D | Buckle pretensioner | CT | Rotary switch |
| E | Driver's frontal airbag ignition module | P | + 12 V / earth Warning light / diagnostic line Impact sensors / impact information Passenger airbag locking switch |
| G | Passenger's frontal airbag ignition module | | |
| H | Front chest level side airbag ignition module | | |
| I | Lap belt pretensioner or seat base airbag | | |

**FRONTAL AIRBAGS**

| | Measuring point | Correct value |
|---|-----------------|---------------|
| **Driver** | C0, C2 and C4 | 1.8 to 6.2 Ω |
| **Passenger** | C0 and C4 | 1.8 to 4 Ω |

**SIDE AIRBAGS AND PRETENSIONERS**

| Measuring point | Correct value |
|-----------------|---------------|
| C0, C1 and C3 | 1.8 to 4 Ω |

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

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## DEFINITION OF THE TRIGGER LINES

**L1:** Driver's seat lap belt/seat base airbag circuit (**cable B of 64-track bornier Elé. 1717**)

**L2:** Passenger's lap belt/seat base airbag circuit (**cable D of 64-track bornier Elé. 1717**)

**L3:** Passenger's frontal airbag circuit 1 (**cable B of 22-track bornier Elé. 1685**)

**L4:** Passenger's frontal airbag circuit 2 (**cable A of 22-track bornier Elé. 1685**)

**L5:** Driver's frontal airbag circuit 1 (**cable C of 22-track bornier Elé. 1685**)

**L6:** Driver's frontal airbag circuit 2 (**cable D of 22-track bornier Elé. 1685**)

**L7:** Driver's side curtain airbag circuit (**cable I of 64-track bornier Elé. 1717**)

**L8:** Passenger's side curtain airbag circuit (**cable G of 64-track bornier Elé. 1717**)

**L9:** Driver's front chest level side airbag circuit (**cable H of 64-track bornier Elé. 1717**)

**L10:** Passenger's front chest level side airbag circuit (**(cable F of 64-track bornier Elé. 1717**)

**L11:** Driver's rear chest level side airbag circuit (**cable N of 64-track bornier Elé. 1717**)

**L12:** Passenger's rear chest level side airbag circuit (**cable L of 64-track bornier Elé. 1717**)

**L13:** Front buckle pretensioners circuit (**cables A and C of 64-track bornier Elé. 1717**)

**L14:** Rear inertia reels (**cables E and J of 64-track bornier Elé. 1717**)

## PASSIVE SAFETY EQUIPMENT

The MEGANE II has equipment also found on the LAGUNA II and VEL SATIS, namely:

- Front seat chest side airbag.

- Front seat BMXX-type double pretensioner.

- Driver's seat position sensor for adaptive airbag.

- Three-point rear centre seat belt.

- Front and rear Isofix mountings.

**INNOVATIONS:**

- **Passenger airbag inhibition switch.**

- **Anti-submarining airbag in the seat base along with a buckle pretensioner on the front seat in CMXX-type MEGANE II vehicles.**

In the text, this airbag is referred to as the:

**DRIVER'S SEAT LAP BELT/SEAT BASE AIRBAG.**

Via the same trigger line, the ACU 4 Vdiag 04 computer controls either the seat base (anti-submarining) airbag or the driver's seat lap belt pretensioner:

**The configuration for type B is: Driver's seat lap belt pretensioner.**

**The configuration for type C is: Driver's seat base airbag.**

**Both features are never found on the same vehicle because they use the same ignition line.**

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## AIRBAG COMPUTER

**22-track connector:**

| Track | Description | Track | Description |
|-------|-------------|-------|-------------|
| 1 | **+** Passenger frontal airbag level 2 | 12 | **-** Passenger frontal airbag level 2 |
| 2 | **+** Passenger frontal airbag level 1 | 13 | **-** Passenger frontal airbag level 1 |
| 3 | **+** Driver's frontal airbag level 1 | 14 | **-** Driver's frontal airbag level 1 |
| 4 | **+** Driver's frontal airbag level 2 | 15 | **-** Driver's frontal airbag level 2 |
| 5 | Not used | 16 | Not used |
| 6 | Not used | 17 | Not used |
| 7 | **+** After ignition feed | 18 | Earth |
| 8 | Not used | 19 | Not used |
| 9 | Not used | 20 | Not used |
| 10 | CAN L | 21 | **-** Passenger airbag inhibition switch |
| 11 | CAN H | 22 | **+** Passenger airbag inhibition switch |

**64-track connector:**

| Track | Description | Track | Description |
|-------|-------------|-------|-------------|
| 1 | **+** Driver's buckle pretensioner | 33 | Not used |
| 2 | **-** Driver's buckle pretensioner | 34 | Not used |
| 3 | **+** Driver's lap belt pretensioner | 35 | Not used |
| 4 | **-** Driver's lap belt pretensioner | 36 | Not used |
| 5 | Not used | 37 | **+** Passenger buckle pretensioner |
| 6 | Not used | 38 | **-** Passenger buckle pretensioner |
| 7 | Not used | 39 | **+** Passenger lap belt pretensioner |
| 8 | Not used | 40 | **-** Passenger lap belt pretensioner |
| 9 | **-** Driver's seat position sensor | 41 | **+** Passenger rear seat belt inertia reel |
| 10 | **+** Driver's seat position sensor | 42 | **-** Passenger rear seat belt inertia reel |
| 11 | **+** Driver's seat belt buckle contact | 43 | **+** Passenger's front chest side airbag |
| 12 | **-** Driver's seat belt buckle contact | 44 | **-** Passenger's front chest side airbag |
| 13 | Not used | 45 | **+** Passenger's side curtain airbag |
| 14 | Not used | 46 | **-** Passenger's side curtain airbag |
| 15 | **+** Driver's front side chest airbag | 47 | Not used |
| 16 | **-** Driver's front side chest airbag | 48 | Not used |
| 17 | **+** Driver's side curtain airbag | 49 | Not used |
| 18 | **-** Driver's side curtain airbag | 50 | Not used |
| 19 | **+** Driver's rear seat belt inertia reel | 51 | Not used |
| 20 | **-** Driver's rear seat belt inertia reel | 52 | Not used |
| 21 | Not used | 53 | Not used |
| 22 | Not used | 54 | Not used |
| 23 | Not used | 55 | Not used |
| 24 | Not used | 56 | Not used |
| 25 | Not used | 57 | **+** Passenger's rear chest side airbag |
| 26 | Not used | 58 | **-** Passenger's rear chest side airbag |
| 27 | **+** Driver's side impact sensor | 59 | Not used |
| 28 | **-** Driver's side impact sensor | 60 | Not used |
| 29 | **+** Rear chest side airbag, driver's side | 61 | **+** Passenger's side impact sensor |
| 30 | **-** Rear chest side airbag, driver's side | 62 | **-** Passenger's side impact sensor |
| 31 | Not used | 63 | Not used |
| 32 | Not used | 64 | Not used |

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**SIDE IMPACT SENSORS CONNECTIONS**

**2-track connector**

| Track | Description | Track | Description |
|-------|-------------|-------|-------------|
| 1 | **+** Signal | 2 | **-** Signal |

Note:
The front belt pretensioners, front chest side airbags, lap belt pretensioners or seat base airbags and seat position sensor functions run through a black 22-track R341 or R342 intermediate connector located under each seat and attached to the vehicle floor.

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**REPLACING THE AIRBAG COMPUTER**

**BEFORE REPLACING ANY COMPUTER, YOU ARE REQUIRED TO CONTACT YOUR TECHLINE.**

**So that the failure of the returned computer can be analyzed, the use of command RZ001 "erase fault memory" when DF001 "Computer" is present or stored is officially prohibited.**

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

The locked mode is signalled when the airbag fault warning indicator lights up on the instrument panel.

Follow this procedure to replace an airbag computer:

– Ensure that the ignition is switched off.
– Replace the computer.
– Modify the computer configuration if necessary.
– Enter the VIN into the computer with diagnostic tool command **VP010 Write VIN**.
– Switch off the ignition.
– Carry out a check using the diagnostic tool.
– Enter the After Sales operation date with diagnostic tool command **VP008 Write last After Sales operation date**.
– Unlock the computer only if no faults are indicated by the diagnostic tool.

After an ACU4 computer has been replaced with a RC5 computer, it is also necessary to replace the impact sensors. The ACU4 sensors are incompatible with the RC5 computer.

**CLEARING**

> **RZ001:**  fault memory.
> This command is used to clear stored faults from the computer's memory.

**CONFIGURATION/CONFIGURATION READINGS**

> – To make it easier to configure airbag computer ACU4, the diagnostic tool has five automatic configuration commands for the trigger lines and sensors installed in the vehicles (BMXX, CMXX, SMXX).

> **The commands in the table on the next page, however, are used to configure each system component individually to adapt the computer configuration to the actual equipment in the vehicle.**

> – The read-configuration commands (**LCXXX**) are used to display the current computer configuration in relation to the trigger lines and sensors installed in the vehicle.

> – The configuration commands (**CFXXX**) are used to adjust computer configuration to the equipment actually installed in the vehicle.

> **– - STANDARD CONFIGURATION COMMANDS:**

> – **CF297:**  B/C NO SIDE AIRBAGS.
> Vehicle types B, C WITH NO FRONT AND REAR CHEST SIDE AIRBAGS AND NO SIDE CURTAIN AIRBAGS (SABLAT/SSABCS).

> – **CF298:**  B/C WITH FRONT CHEST + CURTAIN AIRBAGS.
> Vehicle types B, C with FRONT CHEST SIDE AIRBAGS + SIDE CURTAIN AIRBAGS (ABLAVI / SSABCS).

> – **CF299:**  B/C WITH FRONT/REAR CHEST + CURTAIN AIRBAGS.
> Vehicle types B, C with FRONT AND REAR CHEST SIDE AIRBAGS + SIDE CURTAIN AIRBAGS (ABLAT / SSABCS).

> – **CF300:**  VAN WITH CURTAIN AIRBAGS.
> Type S vehicles (vans) equipped with CURTAIN SIDE AIRBAGS (ABLAT/SSABCS).

> – **CF301:**  VAN WITH NO CURTAIN AIRBAGS.
> Type S vehicles (vans) WITHOUT CURTAIN SIDE AIRBAGS (ABLAVI/SSABCS).

> **Because of probable computer part number unification in the Parts Department, some sensors or trigger lines may have to be deconfigured after using standard configuration commands. For this, use the individual configuration commands for system components. After configuration, check the display configuration screen to make sure that the information entered is correct.**

## CONFIGURATION/READ CONFIGURATION:

### – CONFIGURABLE FEATURES:

**Trigger lines WITH or WITHOUT:**

The front buckle pretensioners are serially wired.
The rear seat belt retractors are serially wired.

| TITLE | CONFIGURATION READING | CONFIGURATION |
|---|---|---|
| SEAT BASE AIRBAG/DRIVER'S SEAT LAP BELT | **LC080** | **CF283** |
| SEAT BASE AIRBAG/PASSENGER'S SEAT LAP BELT | **LC079** | **CF282** |
| PASSENGER'S FRONTAL AIRBAG CIRCUIT 1 | **LC052** | **CF236** |
| PASSENGER'S FRONTAL AIRBAG CIRCUIT 2 | **LC047** | **CF229** |
| DRIVER FRONTAL AIRBAG CIRCUIT 1 | **LC048** | **CF230** |
| DRIVER'S FRONTAL AIRBAG CIRCUIT 2 | **LC049** | **CF231** |
| DRIVER'S SIDE CURTAIN AIRBAG | **LC040** | **CF221** |
| PASSENGER'S SIDE CURTAIN AIRBAG | **LC041** | **CF222** |
| DRIVER'S FRONT CHEST SIDE AIRBAG | **LC042** | **CF223** |
| PASSENGER'S FRONT CHEST SIDE AIRBAG | **LC043** | **CF224** |
| DRIVER'S REAR CHEST SIDE AIRBAG | **LC044** | **CF225** |
| PASSENGER'S REAR CHEST SIDE AIRBAG | **LC045** | **CF226** |
| FRONT BUCKLES PRETENSIONER | **LC081** | **CF284** |
| REAR SEAT BELT RETRACTORS | **LC078** | **CF278** |

**Sensors WITH or WITHOUT:**

| TITLE | CONFIGURATION READING | CONFIGURATION |
|---|---|---|
| DRIVER'S SEAT POSITION SENSOR | **LC086** | **CF289** |
| DRIVER'S SIDE SENSOR | **LC025** | **CF207** |
| PASSENGER'S SIDE SENSOR | **LC026** | **CF208** |
| DRIVER'S SEAT BELT BUCKLE SENSOR | **LC073** | **CF273** |

## CONFIGURATION/READ CONFIGURATION (continued):

**Passenger airbag lock mode WITH KEY or WITHOUT:**

| TITLE | CONFIGURATION READING | CONFIGURATION |
|---|---|---|
| PASSENGER AIRBAG LOCKING MODE | **LC060** | **CF248** |

**Read type of vehicle: LC034 MEGANE II**

**OTHER COMMANDS:**

- **VP006:** Lock computer.
  This command is used whenever servicing the system. It shuts down all trigger lines.

- **VP007:** Unlock computer.
  This command unlocks the computer after it was locked.

- **VP008:** Write last After Sales service date.
  This command is used to enter the date the system was serviced.

- **VP010:** Write VIN.
  This command is for entering the vehicle identification number (VIN) into the computer.

- **SC004:** Read impact context.
  This command is used during repair of the vehicle following an impact. It obtains, from the computer that is to be replaced, a list of the trigger lines controlled and the system's status at the moment of impact.

| Tool fault | Associated DTC | Diagnostic tool title |
|:---:|:---:|:---|
| DF001 | 9080 | Computer |
| DF002 | 9042 | Computer supply voltage |
| DF010 | 9040 | Fault warning light circuit |
| DF028 | 9041 | Passenger's airbag status warning light circuit |
| DF034 | 907E | Computer locked |
| DF039 | 9035 | Driver's side sensor circuit |
| DF040 | 9036 | Passenger's side sensor circuit |
| DF051 | 9035 | Driver's side sensor configuration |
| DF052 | 9036 | Passenger side sensor configuration |
| DF053 | 9031 | Driver's seat position sensor configuration |
| DF060 | 9050 | Multiplex network |
| DF065 | 9031 | Driver's front seat position sensor circuit |
| DF066 | 900E | Passenger's rear chest side airbag circuit |
| DF067 | 900D | Driver's rear chest side airbag circuit |
| DF068 | 900C | Passenger's front side airbag circuit |
| DF069 | 900A | Passenger's curtain side airbag circuit |
| DF070 | 9009 | Driver's curtain side airbag circuit |
| DF071 | 9008 | Driver's frontal airbag circuit 2 |
| DF072 | 9007 | Driver's frontal airbag circuit 1 |
| DF074 | 9006 | Passenger's frontal airbag circuit 2 |
| DF075 | 9005 | Passenger's frontal airbag circuit 1 |
| DF077 | 900B | Driver's chest front side airbag circuit |
| DF091 | 9034 | Airbag locking switch circuit |
| DF187 | 9044 | Trigger lines configuration |
| DF193 | 907C | Change of status of passenger airbag locking |
| DF194 | 907F | Computer to be replaced following impact |
| DF210 | 9014 | Front buckles pretensioner circuit |
| DF214 | 9034 | Airbag lock switch configuration |
| DF232 | 9051 | Driver's seat belt buckle sensor circuit |
| DF239 | 9017 | Rear seat belt retractors circuit |
| DF240 | 9001 | Driver's seat base/lap belt circuit |
| DF241 | 9002 | Passenger's seat base/lap belt circuit |

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| DF001 PRESENT OR STORED | <u>COMPUTER</u> |
| --- | --- |

| NOTES | **Special notes: So that the failure of the returned computer can be analysed, the use of command RZ001 "Erase fault memory" when DF001 "Computer" is present or stored is officially prohibited.** |
| --- | --- |

Replace the airbag computer (see the **Replacement of components** section for this procedure).

| AFTER REPAIR | Deal with any faults declared by the diagnostic tool. Clear the computer memory. |
| --- | --- |

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| | COMPUTER SUPPLY VOLTAGE |
|---|---|
| **DF002**<br>**PRESENT** | 1.DEF: Micro-cut<br>2.DEF: Values beyond tolerance |

| | |
|---|---|
| *NOTES* | **Special notes:** Use the **22-track adapter** (Elé. 1685) when working on the computer connector (**cable 1**). |

Carry out the operations necessary to obtain the correct voltage supply to the computer: **10.5 V ± 0.1 < correct voltage < 16 V ± 0.1**.

– Check the battery charge.
– Check the charging circuit.
– Check the tightness and the condition of the battery terminals.
– Check the computer earth.
– Check the condition of the computer + locking connections.

| | |
|---|---|
| *AFTER REPAIR* | Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. |

ABGACU4_V04_DF002P

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| **DF010 PRESENT** | **FAULT WARNING LIGHT CIRCUIT** 1.DEF: External diagnostics (instrument panel signal) 2.DEF: Consistency (dashboard indicator light state signal / airbag request) |

| *NOTES* | **Special notes:** none. |

Apply the fault finding procedure relevant to this fault in the instrument panel fault finding information section.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. |

| | PASSENGER AIRBAG STATUS INDICATOR LIGHT CIRCUIT |
|---|---|
| **DF028**<br>**PRESENT** | 1.DEF: External diagnostics (instrument panel signal)<br>2.DEF: Consistency (dashboard indicator light state signal / airbag request) |

| *NOTES* | **Special notes:** none. |
|---|---|

Apply the fault finding procedure relevant to this fault in the instrument panel fault finding information section.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. |
|---|---|

| | |
|---|---|
| **DF034 PRESENT** | <u>COMPUTER LOCKED</u> |

| | |
|---|---|
| *NOTES* | **Special notes:** none. |

Using the diagnostic tool, run command **VP007** to unlock the airbag computer.

| | |
|---|---|
| *AFTER REPAIR* | Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. |

| DF039 PRESENT | **DRIVER'S SIDE SENSOR CIRCUIT**<br>CO: Open circuit<br>CC.0: Short circuit to earth<br>1.DEF: Communication disrupted<br>2.DEF: Sensor internal electrical fault<br>3.DEF: External diagnostics |
|---|---|

| NOTES | **Special notes:** Use the **64-track adapter** (Elé. 1717) when working on the computer connector. |
|---|---|

| *CO - CC.0 - 1.DEF* | NOTES | None. |
|---|---|---|

Lock the computer using the command on the diagnostic tool.
Check that the driver's side sensor is connected correctly and check its connections.
Check the condition of the connections on the computer (**tracks 27 and 28**).
Check the condition of the **64-track** connector (locking system, connections, etc.).

Check the continuity and insulation of the connections between:
    Bornier (Elé. 1717) **terminal 27**  ⟶  **Track 1** sensor connector
    Bornier (Elé. 1717) **terminal 28**  ⟶  **Track 2** sensor connector

| *2.DEF - 3.DEF* | NOTES | If the fault is still present, check whether the sensor fitted is compatible with the airbag computer connected to the vehicle. If not, order the sensor which is specifically for the airbag fitted. |
|---|---|---|

Replace the driver's side sensor.

| AFTER REPAIR | Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. |
|---|---|

| DF040<br>PRESENT | PASSENGER SIDE SENSOR CIRCUIT<br>CO: Open circuit<br>CC.0: Short circuit to earth<br>1.DEF: Communication disrupted<br>2.DEF: Sensor internal electrical fault<br>3.DEF: External diagnostics |
|---|---|

| NOTES | **Special notes:** Use the **64-track adapter** (Elé. 1717) when working on the computer connector. |
|---|---|

| *CO - CC.0 - 1.DEF* | NOTES | None. |
|---|---|---|

Lock the computer using the command on the diagnostic tool.
Check that the driver's side sensor is connected correctly and check its connections.
Check the condition of the connections on the computer (**tracks 61 and 62**).
Check the condition of the **64-track** connector (locking system, connections, etc.).

Check the continuity and insulation of the connections between:
    Bornier (Elé. 1717) **terminal 61** ⟶ **Track 1** sensor connector
    Bornier (Elé. 1717) **terminal 62** ⟶ **Track 2** sensor connector

| *2.DEF - 3.DEF* | NOTES | If the fault is still present, check whether the sensor fitted is compatible with the airbag computer connected to the vehicle. If not, order the sensor which is specifically for the airbag fitted. |
|---|---|---|

Replace the passenger side sensor.

| AFTER REPAIR | Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. |
|---|---|

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| **DF051<br>PRESENT** | <u>DRIVER'S SIDE SENSOR CONFIGURATION</u> |
| --- | --- |

| *NOTES* | **Special notes:** none. |
| --- | --- |

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 **LC025** under the heading **Read configuration**.
Use command **CF207** to modify the computer configuration to the vehicle's equipment level.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. |
| --- | --- |

| DF052<br>PRESENT | PASSENGER SIDE SENSOR CONFIGURATION |
|---|---|

| *NOTES* | **Special notes:** none. |
|---|---|

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 **LC026** under the heading **Read configuration**.
Use command **CF208** to modify the computer configuration to the vehicle's equipment level.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. |
|---|---|

| | DRIVER'S SEAT POSITION SENSOR CONFIGURATION |
|---|---|
| **DF053**<br>**PRESENT** | 88C-26 |

| | |
|---|---|
| *NOTES* | **Special notes:** none. |

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 **LC086** under the heading **Read configuration**.

Use command **CF289** to modify the computer configuration to the vehicle's equipment level.

| | |
|---|---|
| *AFTER REPAIR* | Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. |

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| | |
|---|---|
| **DF060 PRESENT** | **MULTIPLEX NETWORK**<br>1.DEF: Carry out the multiplex network fault finding procedure |

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

Apply the fault finding procedure for the multiplex network.

| | |
|---|---|
| *AFTER REPAIR* | Clear the computer memory then switch off the ignition.<br>Check again using the diagnostic tool. |

| | |
|---|---|
| **DF065<br>PRESENT** | **DRIVER'S SEAT POSITION SENSOR CIRCUIT**<br>CO: Open circuit<br>CC.0: Short circuit to earth<br>CC.1: Short circuit to + 12 V<br>1.DEF: Below minimum threshold<br>2.DEF: Values outside the limits |

| | |
|---|---|
| **NOTES** | **Priorities when dealing with multiple faults:** If **DF065** is present with at least one of **DF077, DF210, DF232 or DF240**, begin the fault finding by checking the 22-track under-seat connector. |
| | **Special notes:** Use the **64-track adapter** (Elé. 1717) when working on the computer connector. |

Lock the computer using the command on the diagnostic tool.
Fit the **64-track** test adapter (Elé. 1717) and measure the resistance between **track 9** and **track 10**, with the seat in the forward position and in the back position.
    In the forward position, the resistance should be approximately **400 Ω (275 < Ξ < 545 Ω)**
    In the back position, the resistance should be approximately **100 Ω (65 < Ξ < 145 Ω)**
If the resistances are correct, check the connections of the **64-track** computer connector.

Check the connections of the **22-track** connector under the seat. Repair if necessary.
Fit the **22-track** test adapter (Elé. 1687) and measure the resistance between **tracks 3** and **4,** with the seat in the forward position and in the back position.
    In the forward position, the resistance should be approximately: **400 Ω (275 < X < 545)**
    In the back position, the resistance should be approximately: **100 Ω (65 < X < 145)**
**Are the values correct?**

| | |
|---|---|
| **NO** | Check the connection and the condition of the sensor connectors.<br>Check and ensure the continuity and insulation of the connections between:<br>    Bornier **Track 3** ⟶ **Track 2** sensor connector<br>    Bornier **Track 4** ⟶ **Track 1** sensor connector<br>If the checks are correct, replace the seat position sensor. |

| | |
|---|---|
| **YES** | Check the connections of the seat connector (**tracks 3 and 4**) again, as well as the connections of the **64-track** connector **(tracks 9 and 10)**. |
| | If the fault persists, the wiring is faulty between the computer and the driver's seat (**C0/C1**).<br>Replace the wiring if necessary. |

| | |
|---|---|
| **AFTER REPAIR** | Reconnect the computer, the seat position sensor, and the under-seat connector, then switch on the ignition again. Clear the computer memory then 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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| **DF066**<br>**PRESENT** | PASSENGER REAR CHEST LEVEL SIDE AIRBAG CIRCUIT<br>CC: Short circuit<br>CO: Open circuit<br>CC.1: Short circuit to + 12 V<br>CC.0: Short circuit to earth<br>1.DEF: Configuration |
|---|---|

| *NOTES* | If **1.DEF,** check and modify the computer configuration. |
|---|---|
| | **Special notes**: never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG.<br>Use the **64-track adapter** (Elé. 1717) when working on the computer connector. |

| *CO - CC* | *NOTES* | **Special notes:** correct the trigger line configuration if the vehicle is not fitted with rear side airbags. |
|---|---|---|

| Lock the computer.<br>Switch off the ignition and check that the ignition module of the passenger's rear side chest-level airbag is correctly connected. |
|---|
| Disconnect the ignition module from the passenger's rear side chest-level airbag and connect a dummy ignition module to the ignition module connector.<br>Switch on the ignition and carry out a check using the **diagnostic tool**.<br>Replace the passenger's rear side chest-level airbag if the fault becomes stored (fault no longer declared present). |
| Disconnect the **64-track** computer connector and check the connector connections (**tracks 57** and **58**). Repair if necessary.<br>Fit the **64-track** test adapter (Elé. 1717) to the airbag wiring (**point C0**).<br>The CLIP or XRBAG tool must be used to measure the resistance on **cable L**. If the value obtained is incorrect, the wiring between the computer connector and passenger rear chest-level side airbag (**C0/C3**) is faulty; replace the wiring if necessary. |

| *AFTER REPAIR* | Reconnect the computer and the ignition module of the passenger's rear chest-level side airbag module then switch on the ignition again. Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the passenger rear chest-level side airbag module if it has been replaced (tool Elé. 1287). |
|---|---|

| **DF066 CONTINUED** | |

| *CC.1 - CC.0* | *NOTES* | None. |

Lock the computer.

Disconnect the **64-track** computer connector and check the connector connections (**tracks 57 and 58**). Repair if necessary.

Fit the **64-track** test adapter (Elé. 1717) to the airbag wiring (**point C0**).
The CLIP or XRBAG tool must be used to measure the appropriate insulation for the type of fault on **cable L**.
If the value obtained is incorrect, the wiring between the computer connector and passenger rear chest-level side airbag (**C0/C3**) is faulty; replace the wiring if necessary.

| *AFTER REPAIR* | Reconnect the computer and the ignition module of the passenger's rear chest-level side airbag module then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one. Destroy the passenger rear chest-level side airbag module if it has been replaced (tool Elé. 1287). |

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| | DRIVER'S REAR CHEST LEVEL SIDE AIRBAG CIRCUIT |
|---|---|
| **DF067 PRESENT** | CC: Short circuit<br>CO: Open circuit<br>CC.1: Short circuit to + 12 V<br>CC.0: Short circuit to earth<br>1.DEF: Configuration |

| | |
|---|---|
| ***NOTES*** | If **1.DEF,** check and modify the computer configuration. |
| | **Special notes**: never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG.<br>Use the **64-track** adapter (Elé. 1717) when working on the computer connector. |

| ***CO - CC*** | ***NOTES*** | **Special notes:** correct the trigger line configuration if the vehicle is not fitted with rear side airbags. |
|---|---|---|

Lock the computer.
Switch off the ignition and check that the ignition module of the driver's rear side chest-level airbag is correctly connected.

Disconnect the ignition module from the driver's rear side chest-level airbag and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the **diagnostic tool**.
Replace the driver's rear side chest-level airbag if the fault becomes stored (fault no longer declared present).

Disconnect the **64-track** computer connector and check the connector connections (**tracks 29 and 30**). Repair if necessary.
Fit the **64-track** test adapter (Elé. 1717) to the airbag wiring (**point C0**).
The CLIP or XRBAG tool must be used to measure the resistance on **cable N**. If the value indicated is incorrect, the wiring between the computer connector and driver's rear chest-level side airbag (**C0/C3**) is faulty; replace the wiring if necessary.

| | |
|---|---|
| ***AFTER REPAIR*** | Reconnect the computer and the ignition module of the driver's rear chest-level side airbag module then switch on the ignition again. Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the driver's rear chest-level side airbag module if it has been replaced (tool Elé. 1287). |

| DF067 CONTINUED | |
|---|---|

| CC.1 - CC.0 | NOTES | None. |
|---|---|---|

Lock the computer.

Disconnect the **64-track** computer connector and check the connector connections (**tracks 29 and 30**). Repair if necessary.

Fit the **64-track** test adapter (Elé. 1717) to the airbag wiring (**point C0**).
The CLIP or XRBAG tool must be used to measure the appropriate insulation for the type of fault on **cable N**.
If the value indicated is incorrect, the wiring between the computer connector and driver's rear chest-level side airbag (**C0/C3**) is faulty; replace the wiring if necessary.

| *AFTER REPAIR* | Reconnect the computer and the ignition module of the driver's rear chest-level side airbag module then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one. Destroy the driver's rear chest-level side airbag module if it has been replaced (tool Elé. 1287). |
|---|---|

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| **DF068**<br>**PRESENT** | PASSENGER CHEST FRONT SIDE AIRBAG CIRCUIT<br>CC: Short circuit<br>CO: Open circuit<br>CC.1: Short circuit to + 12 V<br>CC.0: Short circuit to earth<br>1.DEF: Configuration |
|---|---|

| *NOTES* | If **1.DEF,** check and modify the computer configuration. |
|---|---|
| | **Priorities when dealing with multiple faults:** If **DF068** is present with at least one of **DF210 or DF241**, begin the fault finding by checking the 22-track under-seat connector. |
| | **Special notes**: never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG.<br>Use the **64-track** adapter (Elé. 1717) when working on the computer connector, and use the **22-track** adapter (Elé. 1687) when working on the seat connector. |

| *CO - CC* | *NOTES* | **Special notes:** correct the trigger line configuration if the vehicle is not fitted with passenger front chest-level side airbags. |
|---|---|---|

| Lock the computer, disconnect the computer connector and fit the **64-track adapter** (Elé. 1717). The CLIP or XRBAG tool must be used to measure resistance in the adapter **wire marked F** .<br>If the value obtained is correct, check the connections of the **64-track (tracks 43 and 44)** connector. |
|---|
| Check the connections of the **22-track** connector under the seat. Repair if necessary. Fit the **22-track** test adapter (Elé. 1687) underneath the seat (**point C1**).<br>The CLIP or XRBAG tool must be used to measure the resistance on **cable A**.<br>**Is the value obtained correct?** |

| **NO** | Check the seat connector connections (**tracks 11 and 12**).<br>Remove the trim from the front passenger seat and check that the side airbag ignition module is connected correctly. |
|---|---|
| | Disconnect the side airbag ignition module, connect a dummy ignition module to the ignition module connector and measure the resistance on **cable A** again.<br>– If the value obtained is correct, replace the passenger's front chest side airbag module.<br>– If the value obtained is still not correct, replace the wiring between points **C1 and C3** (seat wiring). |
| **YES** | Check the seat connector connections again (**tracks 11 and 12**) as well as those of the **64-track connector (tracks 43 and 44)**. |
| | If the fault persists, the wiring is faulty between the computer and the passenger's seat (**C0/C1**).<br>Replace the wiring if necessary. |

| *AFTER REPAIR* | Reconnect the computer and the ignition module of the passenger's front side airbag module then switch on the ignition again. Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the chest level side airbag module if it has been replaced (tool Elé. 1287). |
|---|---|

| DF068<br>CONTINUED | |
| --- | --- |

| *CC.1 - CC.0* | *NOTES* | None. |
| --- | --- | --- |

Lock the computer, disconnect the computer connector and fit the **64-track adapter** (Elé. 1717). The CLIP or XRBAG tool must be used to measure the appropriate insulation for the type of fault on the adapter **cable marked F**.
If the value obtained is correct, check the connections of the **64-track (tracks 43 and 44)** connector.

Check the connections of the **22-track** connector under the seat. Repair if necessary. Fit the **22-track** test adapter (Elé. 1687) underneath the seat (**point C1**).
Only use the CLIP or XRBAG tool to measure the appropriate insulation for the type of fault on **cable A**.
**Is the value obtained correct?**

| **NO** | Passenger's seat wiring fault (**C1/C3**).<br>Replace the wiring if necessary. |
| --- | --- |

| **YES** | Check the seat connector connections again (**tracks 11 and 12**) as well as those of the **64-track connector (tracks 43 and 44)**. |
| --- | --- |
| | If the fault persists, the wiring is faulty between the computer and the passenger's seat (**C0/C1**).<br>Replace the wiring if necessary. |

| *AFTER REPAIR* | Reconnect the computer and the ignition module of the passenger's front side airbag module then switch on the ignition again. Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the chest level side airbag module if it has been replaced (tool Elé. 1287). |
| --- | --- |

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| DF069 PRESENT | PASSENGER CURTAIN AIRBAG CIRCUIT CO: Open circuit CC: Short circuit CC.1: Short circuit to + 12 V CC.0: Short circuit to earth 1.DEF: Configuration |
|---|---|

| NOTES | If **1.DEF,** check and modify the computer configuration. |
|---|---|
| | **Special notes**: never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG. Use the **64-track** adapter (Elé. 1717) when working on the computer connector. |

| *CO - CC* | *NOTES* | **Special notes:** correct the trigger line configuration if the vehicle is not fitted with a passenger side curtain airbag. |
|---|---|---|

Lock the computer.
Switch off the ignition and check that the ignition module of the passenger side curtain airbag is properly connected.

Disconnect the ignition module from the passenger's curtain airbag and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the **diagnostic tool**.
Replace the passenger's curtain airbag if the fault becomes stored (fault no longer declared present).

Disconnect the **64-track** computer connector and check the connector connections (**tracks 45 and 46**). Repair if necessary.
Fit the **64-track** test adapter (Elé. 1717) to the airbag wiring (**point C0**).
The CLIP or XRBAG tool must be used to measure the resistance on **cable G**. If the value indicated is incorrect, the wiring between the computer connector and the passenger side curtain airbag (**C0/C3**) is faulty; replace the wiring if necessary.

| *AFTER REPAIR* | Reconnect the computer and the ignition module of the passenger side curtain airbag module then switch the ignition back on. Clear the computer memory then switch off the ignition. Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. Destroy the curtain side airbag module on the passenger side if it has been replaced (tool Elé. 1287). |
|---|---|

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| | |
|---|---|
| **DF069 CONTINUED** | |

| | | |
|---|---|---|
| *CC.1 - CC.0* | **NOTES** | None. |

Lock the computer.

Disconnect the **64-track** computer connector and check the connector connections (**tracks 45 and 46**). Repair if necessary.

Fit the **64-track** test adapter (Elé. 1717) to the airbag wiring (**point C0**).
The CLIP or XRBAG tool must be used to measure the appropriate insulation for the type of fault on **cable G**.
If the value indicated is incorrect, the wiring between the computer connector and the passenger side curtain airbag (**C0/C3**) is faulty; replace the wiring if necessary.

| | |
|---|---|
| *AFTER REPAIR* | Reconnect the computer and the ignition module of the passenger side curtain airbag module then switch the ignition back on. Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer.<br>Destroy the curtain side airbag module on the passenger side if it has been replaced (tool Elé. 1287). |

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| | DRIVER SIDE CURTAIN AIRBAG CIRCUIT |
|---|---|
| **DF070**<br>**PRESENT** | CO: Open circuit<br>CC: Short circuit<br>CC.1: Short circuit to + 12 V<br>CC.0: Short circuit to earth<br>1.DEF: Configuration |

| | |
|---|---|
| ***NOTES*** | If **1.DEF,** check and modify the computer configuration. |
| | **Special notes**: never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG.<br>Use the **64-track** adapter (Elé. 1717) when working on the computer connector. |

| ***CO - CC*** | ***NOTES*** | **Special notes:** correct the trigger line configuration if the vehicle is not fitted with a driver's side curtain airbag. |
|---|---|---|

| |
|---|
| Lock the computer.<br>Switch off the ignition and make sure the ignition module of the driver's side curtain airbag is properly connected. |
| Disconnect the ignition module from the driver side curtain airbag and connect a dummy ignition module to the ignition module connector.<br>Switch on the ignition and carry out a check using the **diagnostic tool**.<br>Replace the driver's side curtain airbag if the fault becomes stored (fault no longer declared present). |
| Disconnect the **64-track** computer connector and check the connector connections (**tracks 17 and 18**). Repair if necessary.<br>Fit the **64-track** test adapter (Elé. 1717) to the airbag wiring (**point C0**).<br>The CLIP or XRBAG tool must be used to measure the resistance on **cable I**. If the value obtained is incorrect, the wiring between the computer connector and driver's side curtain airbag connector (**C0/C3**) is faulty; replace the wiring if necessary. |

| | |
|---|---|
| ***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 memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer.<br>Destroy the curtain side airbag module on the driver's side if it has been replaced (tool Elé. 1287). |

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| **DF070 CONTINUED** | |
| --- | --- |

| ***CC.1 - CC.0*** | ***NOTES*** | None. |

Lock the computer.

Disconnect the **64-track** computer connector and check the connector connections (**tracks 17 and 18**). Repair if necessary.

Fit the **64-track** test adapter (Elé. 1717) to the airbag wiring (**point C0**).
The CLIP or XRBAG tool must be used to measure the appropriate insulation for the type of fault on **cable I**.
If the value obtained is incorrect, the wiring between the computer connector and driver's side curtain airbag connector (**C0/C1**) is faulty; replace the wiring if necessary.

| ***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 memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.<br>Destroy the curtain side airbag module on the driver's side if it has been replaced (tool Elé. 1287). |
| --- | --- |

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| | DRIVER'S FRONT AIRBAG CIRCUIT 2 |
|---|---|
| **DF071 PRESENT** | CC: Short circuit<br>CO: Open circuit<br>CC.1: Short circuit to + 12 V<br>CC.0: Short circuit to earth<br>1.DEF: Configuration |

| | |
|---|---|
| **NOTES** | If **1.DEF,** check and modify the computer configuration. |
| | **Special notes**: never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG.<br>Use the **22-track** adapter (Elé. 1685) when working on the computer connector. |

| **CO - CC** | **NOTES** | None. |
|---|---|---|

Lock the computer using the command on the diagnostic tool.
Switch off the ignition and remove the driver's frontal airbag.
Check that it is correctly connected.

Disconnect the driver's frontal airbag and attach 2 dummy ignition modules to the ignition module connectors.
Switch on the ignition and carry out a check using the diagnostic tool.
Replace the driver's frontal airbag if the fault becomes stored (fault no longer declared present).

With the ignition switched off, disconnect and reconnect the connector of the rotary contact beneath the steering wheel.
Check the connections if the fault has become stored (fault no longer declared present).

Fit the **10-track** test adapter (Elé. 1617) to the rotary switch at **point C2 (tracks 9 and 10)**.
The CLIP or XRBAG tool must be used for checking resistance on **cable A**.
If the value obtained is incorrect, replace the rotary switch beneath the steering wheel.

Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connections of the **22-track (tracks 4 and 15)** connector.
Fit the **22-track** test adapter (Elé. 1685).
The CLIP or XRBAG tool must be used to measure the resistance on adapter **cable D**.
If the value obtained is incorrect, the wiring is faulty between the computer and the rotary switch connector (**C0/C2**). Replace the wiring if necessary.

| | |
|---|---|
| **AFTER REPAIR** | Reconnect the computer and driver's frontal airbag ignition modules, then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the driver's front airbag if it has been replaced (tool Elé. 1287). |

| **DF071**<br>**CONTINUED** | |
| --- | --- |

| **CC.1 - CC.0** | **NOTES** | None. |
| --- | --- | --- |

---

Lock the computer using the command on the diagnostic tool.

Switch off the ignition and unclip the driver's frontal airbag.

Check the condition and correct connection of the trigger lines.

---

Fit the **10-track** test adapter to the rotary switch at **point C2 (tracks 9 and 10)**.

The CLIP or XRBAG tools must be used to measure the appropriate insulation for the type of fault on **cable A** (driver's front airbag connected).

If the value obtained is incorrect, replace the rotary switch beneath the steering wheel.

---

Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector connections (**tracks 4 and 15**).

Fit the **22-track** test adapter (Elé. 1685).

The CLIP or XRBAG tool must be used to measure the appropriate insulation for the type of fault on adapter **cable D**.

If the value obtained is incorrect, the wiring is faulty between the computer and the rotary switch connector (**C0/C2**). Replace the wiring if necessary.

---

| **AFTER REPAIR** | Reconnect the computer and driver's frontal airbag ignition modules, then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the driver's front airbag if it has been replaced (tool Elé. 1287). |
| --- | --- |

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| | DRIVER'S FRONT AIRBAG CIRCUIT 1 |
|---|---|
| **DF072 PRESENT** | CC: Short circuit<br>CO: Open circuit<br>CC.1: Short circuit to + 12 V<br>CC.0: Short circuit to earth<br>1.DEF: Configuration |

| | |
|---|---|
| **NOTES** | If **1.DEF,** check and modify the computer configuration. |
| | **Special notes**: never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG.<br>Use the **22-track** adapter (Elé. 1685) when working on the computer connector. |

| **CO - CC** | **NOTES** | None. |
|---|---|---|

| |
|---|
| Lock the computer using the command on the diagnostic tool.<br>Switch off the ignition and remove the driver's frontal airbag.<br>Check that it is correctly connected. |
| Disconnect the driver's frontal airbag and connect 2 dummy ignition modules to the ignition module connectors.<br>Switch on the ignition and carry out a check using the diagnostic tool.<br>Replace the driver's frontal airbag if the fault becomes stored (fault no longer declared present). |
| With the ignition switched off, disconnect and reconnect the connector of the rotary contact beneath the steering wheel.<br>Check the connections if the fault has become stored (fault no longer declared present). |
| Fit the **10-track** test adapter (Elé. 1617) to the rotary switch at **point C2 (tracks 6 and 7)**.<br>The CLIP or XRBAG tool must be used to measure the resistance on **cable B**.<br>If the value obtained is incorrect, replace the rotary switch beneath the steering wheel. |
| Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector connections (**tracks 3 and 14**).<br>Fit the **22-track** test adapter (Elé. 1685).<br>The CLIP or XRBAG tool must be used to measure the resistance on adapter **cable C**.<br>If the value obtained is incorrect, the wiring is faulty between the computer and the rotary switch connector (**C0/C2**). Replace the wiring if necessary. |

| | |
|---|---|
| **AFTER REPAIR** | Reconnect the computer and driver's frontal airbag ignition modules, then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the driver's front airbag if it has been replaced (tool Elé. 1287). |

| **DF072**<br>**CONTINUED** | |
| --- | --- |

| *CC.1 - CC.0* | *NOTES* | None. |
| --- | --- | --- |

---

Lock the computer using the command on the diagnostic tool.

Switch off the ignition and unclip the driver's frontal airbag.

Check the condition and correct connection of the trigger lines.

---

Fit the **10-track** test adapter (Elé. 1617) to the rotary switch at **point C2 (tracks 6 and 7)**.

The CLIP or XRBAG tool must be used to measure the appropriate insulation for the type of fault on **cable B** (driver's front airbag connected).

If the value obtained is incorrect, replace the rotary switch beneath the steering wheel.

---

Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector connections (**tracks 3 and 14**).

Fit the **22-track** test adapter (Elé. 1685).

The CLIP or XRBAG tool must be used to measure the appropriate insulation for the type of fault on adapter **cable C**.

If the value obtained is incorrect, the wiring is faulty between the computer and the rotary switch connector (**C0/C2**). Replace the wiring if necessary.

---

| *AFTER REPAIR* | Reconnect the computer and driver's frontal airbag ignition modules, then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the driver's front airbag if it has been replaced (tool Elé. 1287). |
| --- | --- |

ACU4 Vdiag04 B,C, S84 1.0

| DF074 PRESENT | PASSENGER'S FRONT AIRBAG CIRCUIT 2 CC: Short circuit CO: Open circuit CC.1: Short circuit to + 12 V CC.0: Short circuit to earth 1.DEF: Configuration |
| --- | --- |

| NOTES | If **1.DEF,** check and modify the computer configuration. |
| --- | --- |
| | **Special notes**: never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG. Use the **22-track** adapter (Elé. 1685) when working on the computer connector. |

| ***CO - CC*** | *NOTES* | None. |
| --- | --- | --- |

Lock the computer using the command on the diagnostic tool.
Switch off the ignition and make sure the passenger's frontal airbag is properly connected (access to connectors through the glove compartment).

Disconnect the passenger's front airbag **ORANGE** connector and attach a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the diagnostic tool.
Replace the airbag if the fault becomes stored (fault no longer declared present).

If the value is incorrect:
Disconnect the computer and check the connector connections (**tracks 1 and 12**).
Fit the **22-track** test adapter (Elé. 1685).
The CLIP or XRBAG tool must be used to measure the resistance on adapter **cable A**.
If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (**C0/C4**). Replace the wiring if necessary.
If the value obtained is correct, check the computer connections again.

| *AFTER REPAIR* | Reconnect the computer, then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one. Destroy the passenger's front airbag if it has been replaced (tool Elé. 1287). |
| --- | --- |

| | |
|---|---|
| **DF074<br>CONTINUED** | 88C-44 |

| | | |
|---|---|---|
| ***CC.1 - CC.0*** | ***NOTES*** | None. |

Lock the computer using the command on the diagnostic tool.
Disconnect the computer and check the connector connections (**tracks 1 and 12**).

Fit the **22-track adapter** Elé. 1685).
The CLIP or XRBAG tool must be used to measure the appropriate insulation for the type of fault on adapter **cable A**.

If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (**C0/C4**).
Replace the wiring if necessary.

| | |
|---|---|
| ***AFTER REPAIR*** | Reconnect the computer, then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the passenger's front airbag if it has been replaced (tool Elé. 1287). |

ACU4 Vdiag04 B,C, S84 1.0

| **DF075<br>PRESENT** | PASSENGER'S FRONTAL AIRBAG CIRCUIT 1<br>CC   : Short circuit<br>CO   : Open circuit<br>CC.1 : Short circuit to + 12 V<br>CC.0 : Short circuit to earth<br>1.DEF: Configuration |
|---|---|

| **NOTES** | If **1.DEF**, check and adjust the computer configuration. |
|---|---|
| | **Special notes:** never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG.<br>Use the **22-track** (Elé. 1685) adapter for working on the computer connector. |

| **CO - CC** | **NOTES** | None |
|---|---|---|

Lock the computer using the command on the diagnostic tool.
Switch off the ignition and make sure the passenger's frontal airbag is properly connected (access to connectors through the glove compartment).

Disconnect the passenger's frontal airbag **BLUE** connector and attach a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the diagnostic tool.
Replace the airbag if the fault becomes stored (fault no longer declared present).

If the value is incorrect:
Disconnect the computer and check the connector connections (**tracks 2 and 13**).
Attach **22-track adapter** (Elé. 1685).
The CLIP or XRBAG tool must be used to measure the resistance on **cable B** of the adapter.
If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (**C0/C4**). Replace the wiring if necessary.
If the value obtained is correct, check the computer connections again.

| **AFTER REPAIR** | Reconnect the computer, then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the passenger's frontal airbag if it has been replaced (tool Elé. 1287). |
|---|---|

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ACU4 Vdiag04 B,C, S84 1.0

| **DF075** **CONTINUED** | |

| *CC.1 - CC.0* | **NOTES** | None |

Lock the computer using the command on the diagnostic tool.

Disconnect the computer and check the connector connections (**tracks 2 and 13**).

Attach **22-track adapter** (Elé. 1685).
The CLIP or XRBAG tool must be used to measure the insulation appropriate to the type of fault on **cable B** of the adapter.

If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (**C0/C4**).
Replace the wiring if necessary.

| *AFTER REPAIR* | Reconnect the computer, then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one. Destroy the passenger's frontal airbag if it has been replaced (tool Elé. 1287). |

ACU4 Vdiag04 B,C, S84 1.0

| **DF077**<br>**PRESENT** | DRIVER'S CHEST FRONT SIDE AIRBAG CIRCUIT<br>CC   : Short circuit<br>CO   : Open circuit<br>CC.1 : Short circuit to + 12 V<br>CC.0 : Short circuit to earth<br>1.DEF: Configuration |
| --- | --- |

| **NOTES** | If **1.DEF**, check and adjust the computer configuration. |
| --- | --- |
| | **Priorities when dealing with a number of faults:** If **DF077** is present with at least one of DF065, DF210, DF232, or DF240, begin the fault finding by checking the **22-track** under-seat connector. |
| | **Special notes:** never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG.<br>Use the **64-track** (Elé. 1717) adapter for working on the computer connector and the **22-track** (Elé. 1687) adapter for working on the seat. |

| **CO - CC** | **NOTES** | **Special notes:** correct the trigger line configuration if the vehicle is not fitted with a driver's front chest side airbag. |
| --- | --- | --- |

Lock the computer, disconnect the computer connector and attach the **64-track adapter** (Elé. 1717). The CLIP or XRBAG tool must be used to measure the resistance in the adapter **cable marked H**.
If the value indicated is correct, check the connections of the **64-track (tracks 15 and 16)** connector.

Check the connections of the **22-track** connector under the seat. Repair if necessary. Attach the **22-track** (Elé. 1687) test adapter under the seat (**point C1**).
Only use the CLIP or XRBAG tools to measure the resistance of **cable A**.
**Is the value obtained correct?**

| **NO** | Check the seat connector connections (**tracks 11 and 12**).<br>Strip the driver's seat and check that the chest side airbag ignition module is connected correctly. |
| --- | --- |
| | Disconnect the chest side airbag ignition module, connect a dummy ignition module to the ignition module connector and again measure the resistance in **cable A**.<br>– If the value obtained is correct, replace the driver's front chest side airbag module.<br>– If the value obtained is still not correct, replace the wiring between **points C1 and C3** (seat wiring). |

| **YES** | Check the seat connector connections (**tracks 11 and 12**) again, as well as those of the **64-track (tracks 15 and 16)** connector. |
| --- | --- |
| | If the fault is still present, the wiring is faulty between the computer and the driver's seat (**C0/C1**).<br>Replace the wiring if necessary. |

| **AFTER REPAIR** | Reconnect the computer and the ignition module of the driver's front side chest-level airbag module then switch on the ignition again. Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the chest level side airbag module if it has been replaced (tool Elé. 1287). |
| --- | --- |

| DF077<br><br>CONTINUED | |

| *CC.1 - CC.0* | *NOTES* | None |

Lock the computer, disconnect the computer connector and attach the **64-track adapter** (Elé. 1717). The CLIP or XRBAG tool must be used to measure the insulation appropriately for the type of fault in the adapter **wire marked H**.
If the value indicated is correct, check the connections of the **64-track (tracks 15 and 16)** connector.

Check the connections of the **22-track** connector under the seat. Repair if necessary. Attach the **22-track** (Elé. 1687) test adapter under the seat (**point C1**).
Only use the CLIP or XRBAG tools to measure the insulation appropriately for the type of fault on **cable A**.
**Is the value obtained correct?**

| **NO** | – Driver's seat wiring fault (**C1/C3**).<br>– Replace the wiring harness between points **C1 and C3** (seat wiring) if necessary. |

| **YES** | Check the seat connector connections (**tracks 11 and 12**) again, as well as those of the **64-track (tracks 15 and 16)** connector. |

If the fault is still present, the wiring is faulty between the computer and the driver's seat (**C0/C1**).
Replace the wiring if necessary.

| *AFTER REPAIR* | Reconnect the computer and the ignition module of the driver's front side chest-level airbag module then switch on the ignition again. Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the chest level side airbag module if it has been replaced (tool Elé. 1287). |

ACU4 Vdiag04 B,C, S84 1.0

| | |
|---|---|
| **DF091<br>PRESENT** | <u>AIRBAG LOCKING SWITCH CIRCUIT</u><br>CO   : Open circuit<br>CC.0 : Short circuit to earth<br>CC.1 : Short circuit to + 12 V<br>1.DEF: Below minimum threshold<br>2.DEF: Values outside limits |

| | |
|---|---|
| *NOTES* | **Special notes:** Use the **22-track** (Elé. 1685) adapter for working on the computer connector.<br>Lock the computer using the command on the diagnostic tool. |

---

Check that the lock switch is properly connected and check its connections.

Check the condition and connections of the **22-track** computer connector (lock system, wiring etc.).

Check the continuity and insulation of the connections between:

    Bornier **Elé. 1685 terminal 21**  ⟶  **Track 6** locking switch connector
    Bornier **Elé. 1685 terminal 22**  ⟶  **Track 3** locking switch connector

---

Replace the locking switch if the fault is still present.

| | |
|---|---|
| *AFTER REPAIR* | Reconnect the computer prend the locking switch, then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. |

| | |
|---|---|
| **DF187**<br>**PRESENT** | TRIGGER LINES CONFIGURATION |

| | |
|---|---|
| *NOTES* | None |

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.
Carry out a reading of the configuration under the heading READING THE CONFIGURATION.
Modify the computer configuration, adapting it to the equipment level of the vehicle.

| | |
|---|---|
| *AFTER REPAIR* | Clear the computer memory then switch off the ignition.<br>Check again using the diagnostic tool. |

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| | PASSENGER AIRBAG LOCKING CHANGE OF STATUS |
|---|---|
| **DF193**<br>**STORED** | |

| | |
|---|---|
| *NOTES* | **Special notes:** the vehicle user has **10 seconds** after switching on + after ignition feed to inhibit the passenger airbag with the switch. After this time, the computer will store this fault and light up the instrument panel warning light. |

Clear the computer 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.

| | |
|---|---|
| *AFTER REPAIR* | Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there is no fault, unlock the computer. |

| | COMPUTER TO BE REPLACED FOLLOWING IMPACT |
|---|---|
| **DF194 PRESENT** | 88C - 52 |

| *NOTES* | None |
|---|---|

Contact your Techline (see the **Replacing components** section for this procedure).

| *AFTER REPAIR* | None |
|---|---|

| | FRONT BUCKLE PRETENSIONERS CIRCUIT |
|---|---|
| **DF210<br>PRESENT** | CC     : Short circuit<br>CO     : Open circuit<br>CC.1 : Short circuit to + 12 V<br>CC.0 : Short circuit to earth<br>1.DEF: Configuration |

| | |
|---|---|
| **NOTES** | If **1.DEF** Check and adjust the computer configuration. |
| | **Special notes:** the front buckle pretensioners are serially wired.<br>Never carry out measuring on the trigger lines with any tool other than CLIP or XRBAG.<br>Use the **64-track** (Elé. 1717) adapter to work on the computer connector. |

| **CO - CC** | **NOTES** | None |
|---|---|---|

Lock the computer.
Switch off the ignition and check that the ignition module of the driver's seat buckle pretensioner is correctly connected.
Disconnect the ignition module of the pretensioner and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the diagnostic tool.
Replace the driver's seat buckle pretensioner if the fault becomes stored (fault no longer declared present).

Switch off the ignition and check that the ignition module of the passenger seat buckle pretensioner is correctly connected.
Disconnect the ignition module of the pretensioner and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the diagnostic tool.
Replace the passenger seat buckle pretensioner ignition module if the fault becomes stored (fault no longer declared present).'

Disconnect the computer and check the connector connections (**tracks 1, 2, 37 and 38**).
Attach the **64-track adapter** (Elé. 1717).
The CLIP or XRBAG tool must be used for checking resistance in adapter **cable A**.
If the value obtained is incorrect, the wiring is faulty between the computer and the driver's seat buckle pretensioner ignition module (**C0/C3**).
See next page.

The CLIP or XRBAG tool must be used to measure the resistance in adapter **cable C**.
If the value obtained is incorrect, the wiring is faulty between the computer and the passenger seat buckle pretensioner (**C0/C3**).
See next page.

| | |
|---|---|
| **AFTER REPAIR** | Reconnect the computer and the buckle pretensioners then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer.<br>Destroy any pretensioners that have been replaced (tool Elé. 1287). |

| DF210 <br><br> CONTINUED 1 | |

Check the connections of the **22-track** connector under the seat (**tracks 7 and 8**). Repair if necessary.
Attach the **22-track** (Elé. 1687) test adapter under the seat (point C1).
The CLIP or XRBAG tool absolutely must be used to measure the resistance in **cable C**.
**Is the value obtained correct?**

| **NO** | Check the seat-side seat connector connections again (**tracks 7 and 8**). <br> If the fault persists, the wiring is faulty between the **22-track** seat connector and the buckle pretensioner of the faulty seat (**C1/C3**). |

| **YES** | Again check the connections of the seat connector (**tracks 7 and 8**) on the passenger compartment wiring side and of the **64-track (driver's seat tracks 1 and 2 or passenger seat tracks 37 and 38)** connector. |
| | If the fault persists, the wiring is faulty between the computer and the seat displaying the fault (**C0/C1**). Replace the wiring if necessary. |

| *AFTER REPAIR* | Reconnect the computer and the buckle pretensioners then switch on the ignition again. <br> Clear the computer memory then switch off the ignition. <br> Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. <br> Destroy any pretensioners that have been replaced (tool Elé. 1287). |

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| DF210<br><br>CONTINUED 2 | |
|---|---|

| ***CC.0 - CC.1*** | ***NOTES*** | None |
|---|---|---|

Lock the computer.

Disconnect the computer and check the connector connections (**tracks 1, 2, 37 and 38**).

Attach the **64-track adapter** (Elé. 1717).
The CLIP or XRBAG tool must be used to measure the insulation appropriately for the type of fault in adapter **cable A**.
If the value obtained is incorrect, the wiring is faulty between the computer and the driver's seat buckle pretensioner ignition module (**C0/C3**).' See interpretation **A**.

---

The CLIP or XRBAG tool must be used to measure the insulation appropriate to the type of fault on **cable C** of the adapter.
If the value obtained is incorrect, the wiring is faulty between the computer and the passenger seat buckle pretensioner (**C0/C3**). See interpretation **A**.

**(A)**

↓

Check the connections of the **22-track** connector under the seat (**tracks 7 and 8**). Repair if necessary.
Attach the **22-track** (Elé. 1687) test adapter under the seat (**point C1**).
Only use the CLIP or XRBAG tools to measure the insulation appropriately for the type of fault on **cable C**.
**Is the value obtained correct?**

| **NO** | If the fault persists, the wiring is faulty between the **22-track** seat connector and the buckle pretensioner of the faulty seat (**C1/C3**).<br>Replace the wiring if necessary. |
|---|---|

| **YES** | Faulty wiring between the computer and the seat displaying the fault (**C0/C1**).<br>Replace the wiring if necessary. |
|---|---|

| ***AFTER REPAIR*** | Reconnect the computer and the buckle pretensioners then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer.<br>Destroy any pretensioners that have been replaced (tool Elé. 1287). |
|---|---|

ACU4 Vdiag04 B,C, S84 1.0

| | AIRBAG LOCKING SWITCH CONFIGURATION |
|---|---|
| **DF214**<br>**PRESENT** | 88C - 56 |

| *NOTES* | **Special notes:** None. |
|---|---|

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 **LC060** under the heading **Read configuration**.

Use command **CF248** to adjust the computer configuration to the vehicle's equipment level.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition.<br>Check again using the diagnostic tool. |
|---|---|

| DF232<br>PRESENT | **DRIVER'S SEAT BELT BUCKLE SENSOR CIRCUIT**<br>CO   : Open circuit<br>CC.0 : Short circuit to earth<br>CC.1 : Short circuit to + 12 V<br>1.DEF: Configuration<br>2.DEF: Below minimum threshold<br>3.DEF: Values outside limits |
| --- | --- |

| NOTES | If **1.DEF** Check and adjust the computer configuration. |
| --- | --- |
|  | **Special notes:** never carry out measuring operations on trigger lines using any tool other than CLIP or XRBAG.<br>Use the **64-track** (Elé. 1717) adapter for working on the computer connector and the **22-track** (Elé. 1687) adapter for working on the seat. |

| *CO - CC.0 - CC.1 -<br>2.DEF - 3.DEF* | *NOTES* | none. |
| --- | --- | --- |

Check the condition and connections of the **64-track** computer connector (locking system, connections, etc.).
Make sure the driver's seat belt buckle sensor is properly connected and test its connections.
Check the continuity and insulation of the connections between:
    Bornier **Elé. 1717 terminal 11** ⟶ **Track 2** buckle sensor connector
    Bornier **Elé. 1717 terminal 12** ⟶ **Track 1** buckle sensor connector
If the connection is OK, replace the driver's seat belt buckle sensor.

If the connection is faulty:

Check the connections of the **22-track** connector under the seat, on the seat side (**tracks 5 and 6**). Repair if necessary. Attach the **22-track** (Elé. 1687) test adapter under the seat (point C1).
Check the continuity and insulation of the connections between:
    Bornier **Elé. 1687 terminal 5** ⟶ **Track 2** buckle sensor connector
    Bornier **Elé. 1687 terminal 6** ⟶ **Track 1** buckle sensor connector
Repair if necessary.

Check the connections of the **22-track** connector under the seat, computer side (**tracks 5 and 6**).
Repair if necessary. Attach the **64-track** (Elé. 1717) test adapter to the computer (point C0).
Check the continuity and insulation of the connections between:
    Bornier **Elé. 1717 terminal 11** ⟶ **Track 5** 22-track connector
    Bornier **Elé. 1717 terminal 12** ⟶ **Track 6** 22-track connector
If the connection is faulty, repair or replace the harness.

| AFTER REPAIR | Clear the computer memory then switch off the ignition.<br>Carry out another check using the **diagnostic tool**. |
| --- | --- |

| **DF239**<br>**PRESENT** | <u>REAR INERTIA REELS CIRCUIT</u><br>CC　　: Short circuit<br>CO　　: Open circuit<br>CC.1 : Short circuit to + 12 V<br>CC.0 : Short circuit to earth<br>1.DEF: Configuration |
| --- | --- |

| *NOTES* | If **1.DEF**, check and adjust the computer configuration. |
| --- | --- |
|  | **Special notes:** the rear inertia reels are serially wired.<br>Never carry out measuring on the trigger lines with any tool other than CLIP or XRBAG.<br>Use the **64-track** (Elé. 1717) adapter to work on the computer connector. |

| *CO - CC* | *NOTES* | **Special notes:** Correct the trigger line configuration if the vehicle is not fitted with rear seatbelt retractors. |
| --- | --- | --- |

Lock the computer.
Switch off the ignition and check that the ignition module of the rear inertia reel, driver's side is correctly connected.
Disconnect the ignition module of the inertia reel and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the **diagnostic tool**.
Replace the rear inertia reel, driver's side, if the fault becomes stored (fault no longer declared present).

Switch off the ignition and check that the ignition module of the rear inertia reel, passenger side, is correctly connected.
Disconnect the ignition module of the inertia reel and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the **diagnostic tool**.
Replace the passenger side rear inertia reel if the fault becomes stored (fault no longer declared present).

Disconnect the computer and check the connections of the connector (**tracks 19, 20, 41 and 42**).
Attach the **64-track adapter** (Elé. 1717).
The CLIP or XRBAG tool must be used to measure the resistance in adapter **cable J**.
If the value indicated is incorrect, the wiring between the computer and the driver's side rear inertia reel ignition module (**C0/C3**) is faulty.
Repair or replace the wiring harness if necessary.

The CLIP or XRBAG must be used to measure the resistance in adapter **cable E**.
If the value indicated is incorrect, the wiring between the computer and the rear passenger side inertia reel ignition module
is faulty (**C0/C3**).
Repair or replace the wiring harness if necessary.

| *AFTER REPAIR* | Reconnect the computer and rear inertia reels, then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer.<br>Destroy any inertia reels that have been replaced (tool Elé. 1287). |
| --- | --- |

| DF239<br><br>CONTINUED | |
| --- | --- |

| *CC.0 - CC.1* | *NOTES* | None |
| --- | --- | --- |

Lock the computer.
Disconnect the computer and check the connections of the connector (**tracks 19, 20, 41 and 42**).

Attach the **64-track adapter** (Elé. 1717).
The CLIP or XRBAG must be used to measure the proper insulation for the type of fault in adapter **cable J**.
If the value indicated is incorrect, the wiring between the computer and the driver's side rear inertia reel ignition module (**C0/C3**) is faulty.

Repair or replace the wiring harness if necessary.

---

The CLIP or XRBAG tool must be used to correctly measure the insulation for the type of fault in adapter **cable E**.
If the value indicated is incorrect, the wiring between the computer and the passenger side rear inertia reel ignition module (**C0/C3**) is faulty.

Repair or replace the wiring harness if necessary.

| *AFTER REPAIR* | Reconnect the computer and rear inertia reels, then switch on the ignition again.<br>Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer.<br>Destroy any inertia reels that have been replaced (tool Elé. 1287). |
| --- | --- |

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| **DF240**<br>**PRESENT** | DRIVER'S SEAT LAP BELT/SEAT BASE AIRBAG CIRCUIT<br>CC   :  Short circuit<br>CO   :  Open circuit<br>CC.1 :  Short circuit to + 12 V<br>CC.0 :  Short circuit to earth<br>1.DEF:  Configuration |
|---|---|

| **NOTES** | If **1.DEF**, check and adjust the computer configuration. |
|---|---|
| | **Priorities when dealing with a number of faults:** If **DF240** is present with at least one of faults **DF077, DF065, DF210 or DF232**, begin the fault finding by checking the **22-track** under-seat connector. |
| | **Special notes:** depending on the type of vehicle body, this is either a lap belt pretensioner circuit fault or seat base airbag (anti-submarining airbag) fault.<br>Never carry out measuring on the trigger lines with any tool other than CLIP or XRBAG.<br>Use the **64-track** (Elé. 1717) adapter for working on the computer connector and the **22-track** (Elé. 1687) adapter for working on the seat. |

| ***CO - CC*** | ***NOTES*** | **Special notes:** correct the trigger line configuration if the vehicle is not fitted with a driver's seat lap belt/seat base airbag. |
|---|---|---|

Lock the computer, disconnect the computer connector and attach the **64-track adapter** (Elé. 1717). The CLIP or XRBAG tool absolutely must be used to measure the resistance in the adapter **cable marked B**.
If the value indicated is correct, check the connections of the **64-track** connector (tracks 3 and 4).

Check the connections of the **22-track** connector under the seat. Repair if necessary. Attach the **22-track** (Elé. 1687) test adapter under the seat (**point C1**).
The CLIP or XRBAG tool must be used to measure the resistance in **cable B**.
**Is the value obtained correct?**

| **NO** | Check the seat connector connections (**tracks 9 and 10**).<br>Check that the driver's seat lap belt/seat base airbag ignition module is correctly connected. |
|---|---|
| | Disconnect the driver's seat lap belt/seat base airbag ignition module, connect a dummy ignition module to the ignition module connector, then again measure the resistance in **cable B**.<br>– If the value indicated is correct, replace the driver's seat lap belt/seat base airbag module.<br>– If the value obtained is still not correct, replace the wiring between **points C1 and C3** (seat wiring). |
| **YES** | Again check the connections of the seat connector (**tracks 9 and 10**) and of the **64-track (tracks 3 and 4)** connector. |
| | If the fault is still present, the wiring is faulty between the computer and the driver's seat (**C0/C1**).<br>Replace the wiring if necessary. |

| ***AFTER REPAIR*** | Reconnect the computer and the driver's seat lap belt/seat base airbag ignition module, then switch the ignition back on. Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one. Destroy the seat base airbag module or driver's seat lap belt pretensioner if it has been replaced (tool Elé. 1287). |
|---|---|

| DF240 CONTINUED | |

| **CC.1 - CC.0** | **NOTES** | None |

Lock the computer.

Check the connections of the **22-track** connector under the seat. Repair if necessary. Attach the **22-track** (Elé. 1687) test adapter under the seat (**point C1**).
The CLIP or XRBAG tool must be used to measure the proper insulation for the type of fault in **cable B**.

**Is the value obtained correct?**

| **NO** | Seat wiring fault. Replace the wiring between points **C1 and C3**. |

| **YES** | Wiring fault between the computer and driver's seat (**C0/C1**). Replace the wiring if necessary. |

| **AFTER REPAIR** | Reconnect the computer and the driver's seat lap belt/seat base airbag ignition module, then switch the ignition back on. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one. Destroy the seat base airbag module or driver's seat lap belt pretensioner if it has been replaced (tool Elé. 1287). |

ACU4 Vdiag04 B,C, S84 1.0

| **DF241 PRESENT** | PASSENGER SEAT LAP BELT/SEAT BASE AIRBAG CIRCUIT<br>CC    : Short circuit<br>CO    : Open circuit<br>CC.1 : Short circuit to + 12 V<br>CC.0 : Short circuit to earth<br>1.DEF : Configuration |
|---|---|

| **NOTES** | If **1.DEF**, check and adjust the computer configuration. |
|---|---|
| | **Priorities when dealing with a number of faults:** If **DF241** is present with at least one of DF068, DF210 or DF232, begin the fault finding by checking the **22-track** under-seat connector. |
| | **Special notes:** depending on the type of vehicle body, this is either a lap belt pretensioner circuit fault or seat base airbag (anti-submarining airbag) fault.<br>Never carry out measuring on the trigger lines with any tool other than CLIP or XRBAG.<br>Use the **64-track** (Elé. 1717) adapter for working on the computer connector and the **22-track** (Elé. 1687) adapter for working on the seat. |

| **CO - CC** | **NOTES** | **Special notes:** correct the trigger line configuration if the vehicle is not fitted with a passenger seat lap belt/seat base airbag. |
|---|---|---|

Lock the computer, disconnect the computer connector and attach the **64-track adapter** (Elé. 1717). The CLIP or XRBAG tool absolutely must be used to measure the resistance in the adapter **cable marked D**.
If the value obtained is correct, check the connections of the **64-track connector (tracks 39 and 40)**.

Check the connections of the **22-track** connector under the seat. Repair if necessary. Attach the **22-track** (Elé. 1687) test adapter under the seat (**point C1**).
The CLIP or XRBAG tool must be used to measure the resistance in **cable B**.
**Is the value obtained correct?**

| **NO** | Check the seat connector connections (**tracks 9 and 10**).<br>Check that the passenger's seat lap belt/seat base airbag ignition module is correctly connected. |
|---|---|
| | Disconnect the passenger seat lap belt/seat base airbag ignition module, connect a dummy ignition module to the ignition module connector, then again measure the resistance in **cable B**.<br>– If the value indicated is correct, replace the passenger seat lap belt/seat base airbag module.<br>– If the value obtained is still not correct, replace the wiring between **points C1 and C3** (seat wiring). |

| **YES** | Again check the connections of the seat connector (**tracks 9 and 10**) and of the **64-track (tracks 39 and 40)** connector. |
|---|---|
| | If the fault is still present, the wiring is faulty between the computer and the front passenger seat (**C0/C1**).<br>Replace the wiring if necessary. |

| **AFTER REPAIR** | Reconnect the computer and the passenger lap belt/seat base airbag ignition module, then switch the ignition back on. Clear the computer memory then switch off the ignition.<br>Carry out the check again using the **diagnostic tool** and, if there is no fault, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the seat base airbag module or driver's seat lap belt pretensioner if it has been replaced (tool Elé. 1287). |
|---|---|

| DF241<br><br>CONTINUED | |
|---|---|

| *CC.1 - CC.0* | *NOTES* | None |
|---|---|---|

Lock the computer.

Check the connections of the **22-track** connector under the seat. Repair if necessary. Attach the **22-track** (Elé. 1687) test adapter under the seat (**point C1**).

The CLIP or XRBAG tool absolutely must be used to measure the proper insulation for the type of fault in **cable B**.

**Is the value obtained correct?**

| NO | Seat wiring fault.<br><br>Replace the wiring between points **C1 and C3**. |
|---|---|

| YES | Wiring fault between the computer and passenger seat (**C0/C1**).<br>Replace the wiring if necessary. |
|---|---|

| *AFTER REPAIR* | Reconnect the computer and the passenger lap belt/seat base airbag ignition module, then switch the ignition back on. Clear the computer memory then switch off the ignition.<br>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. When replacing the airbag module, do not forget to reconnect the earth on the new one.<br>Destroy the seat base airbag module or driver's seat lap belt pretensioner if it has been replaced (tool Elé. 1287). |
|---|---|

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**AIRBAG ACU4 STATUSES SUMMARY TABLE:**

| TOOL STATUSES | DIAGNOSTIC TOOL HEADINGS |
|---|---|
| **ET010** | Impact detected |
| **ET072** | Passenger airbag status indicator light commanded |
| **ET073** | Computer locked by tool |
| **ET074** | Fault warning light commanded |
| **ET076** | Computer to be replaced |
| **ET103** | Type of passenger airbag locking |
| **ET105** | Locked diagnostics power supply out of limits |
| **ET108** | Passenger airbag locking mode |
| **ET143** | Passenger airbag(s) locked |
| **ET144** | Fault present or stored |

**AIRBAG ACU4 PARAMETERS SUMMARY TABLE:**

| TOOL PARAMETERS | DIAGNOSTIC TOOL HEADINGS |
|---|---|
| **PR001** | Computer supply voltage |
| **PR002** | Vehicle type |
| **PR104** | Driver's seat sensor impedance |
| **PR105** | Line 1 impedance (**Driver's seat lap belt/seat base airbag circuit**). |
| **PR106** | Line 2 impedance (**Passenger's lap belt/seat base airbag circuit**). |
| **PR107** | Line 3 impedance (**Passenger's frontal airbag circuit 1**). |
| **PR108** | Line 4 impedance (**Passenger's frontal airbag circuit 2**). |
| **PR109** | Line 5 impedance (**Driver's frontal airbag circuit 1**). |
| **PR110** | Line 6 impedance (**Driver's frontal airbag circuit 2**). |
| **PR111** | Line 7 impedance (**Driver's side curtain airbag circuit**). |
| **PR112** | Line 8 impedance (**Passenger's side curtain airbag circuit**). |
| **PR113** | Line 9 impedance (**Driver's chest front side airbag circuit**). |
| **PR114** | Line 10 impedance (**Passenger's chest front side airbag circuit**). |
| **PR115** | Line 11 impedance (**Driver's rear frontal side airbag circuit**). |
| **PR116** | Line 12 impedance (**Passenger's rear chest level side airbag circuit**). |
| **PR117** | Line 13 impedance (**Front belt pretensioners circuit**). |
| **PR118** | Line 14 impedance (**Rear seat belt retractors**). |
| **PR140** | Number of memory zone deletions |
| **PR147** | Airbag locking circuit impedance |

The trigger line or sensor impedance is 99.9 Ω when the component is disconnected or not controlled by the computer.

| | NOTES | Only carry out conformity check after a full check using the diagnostic tool. |
| --- | --- | --- |

| Order | Function | Parameter or Status checked or Action | Display and notes | Fault finding |
| --- | --- | --- | --- | --- |
| 1 | Diagnostic tool dialogue | - | **Airbag      ACU 4** | ALP 1 |
| 2 | Computer conformity | Parameter **PR002 Vehicle type** | MEGANE II:      **48** | DF001 |
| 3 | Computer configuration | Using READ CONFIGURATION commands | Ensure that the computer configuration defined in the "Current" column corresponds to the vehicle equipment. | None |
| 4 | Warning light operation

Computer initialisation check | Ignition on | Warning light comes on for 3 seconds when the ignition is switched on | None |

| ALP 1 | No communication with the airbag computer |
|---|---|

| **NOTES** | **Special note: To perform fault finding on the vehicle computers, switch on the ignition in fault finding mode (forced + after ignition feed), i.e. proceed as follows:**<br>– **Vehicle card in card reader, press and hold the Start button for more than 5 seconds outside of starting conditions.** |
|---|---|

Check that the diagnostic tool is not causing the fault by trying to establish dialogue with a computer on another vehicle. If the tool is not the problem and communication cannot be established with any other computer in the same vehicle, check the battery voltage and do the work required to obtain the proper reading (**10.5 V < battery voltage < 16 V**).

Check the presence and condition of the airbag computer supply fuse.
Check that the computer connector is properly connected and check the condition of its connections.
Check that the supply to the computer is correct:
– Disconnect the airbag computer and attach **22-track adapter** (Elé. 1685).
– Check and ensure the presence of **+ after ignition feed** between the terminals marked **earth** and **+ after ignition feed**.

Check that the supply to the diagnostic socket is correct:
– **+ before ignition feed** on **track 16**
– **+ after ignition feed** on **track 1**
– **Earth** on **tracks 4 and 5**.
With **22-track adapter** (Elé. 1685), check the continuity and insulation of the airbag computer/diagnostic socket connection between:
  Bornier track **CAN H** ⟶ **Track 6** of the diagnostic socket
  Bornier track **CAN L** ⟶ **Track 14** of the diagnostic socket

If communication is still not established after these various tests, contact your Techline (see the **Help** section for details).

| **AFTER REPAIR** | When communication is established, deal with any faults indicated. |
|---|---|

ABGACU4_V04_ALP1