Espace

TECHNICAL NOTE 3385A

JE0X

FAULT FINDING

J66 Phase 1'

from September 2000

AIR CONDITIONING
VDIAG N°: 04
DISCHARGE LAMP
VDIAG N°: 09
IMMOBILISER
INSTRUMENT PANEL
PASSENGER COMPARTMENT CONNECTION UNIT

77 11 293 842 **JULY 2000** **EDITION ANGLAISE**

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This document introduces the generic fault finding strategy applicable to all "Air conditioning" computers (relevant section: 60 25 315 003, n° Vdiag: 04).

A Technical Note "Fault Finding Special Features" is available for each vehicle fitted with this computer / this function. It covers all the fault finding special features in this document for the vehicle concerned. This "Special Features" Note completes and cancels the information provided in the "Generic" fault finding Note.

To carry out the fault finding strategy on this system, it is essential to have the following items available:

- **The "Generic Fault Finding" Technical Note,**
- **The "Fault Finding Special Features" Technical Note for the vehicle,**
- **The wiring diagram for the operation of the vehicle concerned,**
- **The tools listed under the heading "Special tooling required".**

GENERAL APPROACH TO FAULT FINDING:

- **Use of one of the fault finding tools to identify the system equipping the vehicle (to read the computer family, the program number, the vdiag, etc.).**

- **Finding the "Fault finding" documents corresponding to the system identified.**

- **Inclusion of information contained in the introductory sections.**

- **Reading the faults stored in the computer memory and using the "Interpretation of faults" section of the documents.**
  Reminder: Each fault is interpreted for a particular type of storage (fault present, fault stored, fault present or stored). The checks defined for handling each fault are therefore only to be performed if the fault stated by the fault finding tool is interpreted in the document for its type of storage. The storage type should be considered when using fault finding tool following ignition switch-off and switch-on.
  If a fault is interpreted when it is stated to be "stored", the conditions for application of the fault finding appear in the "NOTES" box. When the conditions are not satisfied, use the fault finding to check the circuit of the faulty part since the fault is no longer present on the vehicle. Perform the same operation when a fault is stated as "stored" by the fault finding tool but is only interpreted in the documentation for a "present" fault.

- **Perform the conformity check (appearance of possible incorrect operations not yet stated by the system's self diagnosis procedure) and apply the associated fault finding strategy according to results.**

- **Validation of the repair (disappearance of the reason for the complaint by the customer).**

- **Use of the fault finding strategy for each "Customer complaint" if the problem persists.**

DF 003 PRESENT OR MEMORISED	Coolant temperature sensor circuit C0.1 : Short circuit to + 12 volts or to +5 volts or open circuit CC.0 : Short circuit to earth

NOTES	None

C0.1	***NOTES***	None

Ensure continuity and insulation against + 12 volts or against + 5 volts of the connection between:

computer connector **track C11**	→	**track 1**	coolant temperature sensor connector (L7X)
computer connector **track C11**	→	**track A**	coolant temperature sensor connector (F4R)
computer connector **track C11**	→	**track 4**	coolant temperature sensor connector (G9T, F9Q)

Check that the probe resistance is not zero or equal to infinity.
Check the connectors on the computer connector, the temperature sensor connector and the **R262 B** (black) connection **track 6**.

If the fault persists after these checks, replace the coolant temperature sensor.

CC.0	***NOTES***	None

Ensure insulation against earth of the connection between:

computer connector **track C11**	→	**track 1**	coolant temperature sensor connector (L7X)
computer connector **track C11**	→	**track A**	coolant temperature sensor connector (F4R)
computer connector **track C11**	→	**track 4**	coolant temperature sensor connector (G9T, F9Q)

Check that the probe resistance is not zero or equal to infinity.
Check the connectors on the computer connector, the temperature sensor connector and the **R262 B** (black) connection **track 6**.

If the fault persists after these checks, replace the coolant temperature sensor.

AFTER REPAIR	Erase fault memory.

DF 007 PRESENT OR MEMORISED	Internal temperature sensor circuit C0.1 : Short circuit to + 12 volts or to +5 volts or open circuit CC.0 : Short circuit to earth

NOTES	None

C0.1	***NOTES***	None

Ensure continuity and insulation against + 12 volts or against + 5 volts of the connection between:
computer connector **track A19** → **track 3** internal temperature sensor connector
Ensure insulation against + 12 volts of the connection between:
computer connector **track A5** → **track 4** internal temperature sensor connector

Test the connections on the computer connector.

If the fault persists after these checks, replace the coolant temperature sensor.

CC.0	***NOTES***	None

Ensure insulation against earth of the connection between:
computer connector **track A19** → **track 3** internal temperature sensor connector

Check that the sensor resistance is approximately 2.2 kΩ at 25˚C.
Test the connections on the computer connector and the internal temperature sensor.

If the fault persists after these checks, replace the coolant temperature sensor.

AFTER REPAIR	Erase fault memory.

DF 008 PRESENT OR MEMORISED	External temperature sensor circuit C0.1 : Short circuit to + 12 volts or to +5 volts or open circuit CC.0 : Short circuit to earth

NOTES	None

C0.1	***NOTES***	None

Ensure continuity and insulation against + 12 volts or against + 5 volts of the connection between:

computer connector **track C10** → **track 6** left external rear view mirror external temperature probe connector

Ensure insulation against + 12 volts of the connection between:

computer connector **track C14** → **track 5** left external rear view mirror external temperature probe connector

Test the connections on the computer connector.

If the fault persists after these checks, replace the external temperature probe.

CC.0	***NOTES***	None

Ensure insulation against earth of the connection between:

computer connector **track C10** → **track 6** left external rear view mirror external temperature probe connector

Check that the probe resistance is approximately 3.1 kohms at 20˚C.
Test the connections on the computer connector.

If the fault persists after these checks, replace the external temperature probe.

AFTER REPAIR	Erase fault memory.

DF 044 PRESENT OR MEMORISED	Driver control circuit CO.1 : Open circuit or short circuit

NOTES	If DF044 is CC deal also with DF045.

CO.1	***NOTES***	None

Ensure continuity and insulation against earth, or against + 12 volts, of the connection between: computer connector **track A10** → **track 5** driver control panel connector
Test the connectors on the computer and the driver control panel.
If the fault persists after these checks, replace the driver control panel.

AFTER REPAIR	Erase fault memory.

DF 045 PRESENT OR MEMORISED	Passenger control circuit CO.1 : Open circuit or short circuit

NOTES	If DF045 is CC deal also with DF044.

CO.1	***NOTES***	None

Ensure continuity and insulation against earth, or against + 12 volts, of the connection between: computer connector **track A20** → **track 5** passenger control panel connector
Test the connectors on the computer and the driver control panel.
If the fault persists after these checks, replace the driver control panel.

AFTER REPAIR	Erase fault memory.

DF 047 PRESENT OR MEMORISED	Passenger mixing motor CC : Short circuit

NOTES	The fault is declared present following operation of the passenger mixing motor.

CC	***NOTES***	None

Check that the mixing motor resistance is not zero or equal to infinity.
Test the connectors on the computer and the passenger mixing motor.

Ensure insulation against + 12 V of the following connections:

- computer connector **track B2** → **track 4** passenger mixing motor connector (track 6 in DD).
- computer connector **track B3** → **track 6** passenger mixing motor connector (track 4 in DD).

Repair if necessary.

Ensure the following connections are insulated to earth:

- computer connector **track B2** → **track 4** passenger mixing motor connector (track 6 in DD).
- computer connector **track B3** → **track 6** passenger mixing motor connector (track 4 in DD).

Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 048 PRESENT OR MEMORISED	Driver mixing motor CC : Short circuit

NOTES	The fault is declared present following operation of the driver mixing motor.

CC	***NOTES***	None

Check that the mixing motor resistance is not zero or equal to infinity.
Test the connectors on the computer and the driver mixing motor.

Ensure insulation against + 12 V of the following connections:

computer connector **track B4** → **track 6** driver mixing motor connector (track 4 in DD).

computer connector **track B5** → **track 4** driver mixing motor connector (track 6 in DD).

Repair if necessary.

Ensure the following connections are insulated to earth:

computer connector **track B4** → **track 6** driver mixing motor connector (track 4 in DD).

computer connector **track B5** → **track 4** driver mixing motor connector (track 6 in DD).

Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 052 PRESENT OR MEMORISED	Left recycling circuit CC : Short circuit

NOTES	The fault is declared present following operation of the air recycling.

CC	***NOTES***	None

Test the connectors on the computer and the left recycling motor.

Ensure insulation against + 12 volts of the connection between:

computer connector **track A9** → **track 1** left external air inlet motor connector

computer connector **track A8** → **track 3** left external air inlet motor connector

Repair if necessary.

Ensure insulation against earth of the connection between:

computer connector **track A9** → **track 1** left external air inlet motor connector

computer connector **track A8** → **track 3** left external air inlet motor connector

Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 053 PRESENT OR MEMORISED	Right recycling circuit CC : Short circuit

NOTES	The fault is declared present following operation of the air recycling.

CC	***NOTES***	None

Test the connectors on the computer and the right recycling motor.

Ensure insulation against + 12 volts of the connection between:

computer connector **track A6** → **track 3** right external air inlet motor connector

computer connector **track A7** → **track 1** right external air inlet motor connector

Repair if necessary.

Ensure insulation against earth of the connection between:

computer connector **track A6** → **track 3** right external air inlet motor connector

computer connector **track A7** → **track 1** right external air inlet motor connector

Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 055 PRESENT OR MEMORISED	Heated rear window relay CC.1 : Short circuit to + 12 volts

NOTES	The fault is declared present when the de-icing function is required.

CC.1	***NOTES***	None

Test the connections on the relay mounting and the computer connector.
Ensure insulation against + 12 volts of the connection between: computer connector **track C1** ⟶ **track 2** heated rear screen relay carrier Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 056 PRESENT OR MEMORISED	Air conditioning control relay CC.1 : Short circuit to + 12 volts

NOTES	The fault is declared present following operation of the air conditioning.

CC.1	***NOTES***	None

Test the connections on the relay mounting and the computer connector.

Ensure insulation against + 12 volts of the connection between:

computer connector **track B9** → **track 16** passenger compartment connection unit 26 track yellow B connector

Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 057 PRESENT OR MEMORISED	Injection circuit → AC CC.0 : Short circuit to earth

NOTES	The fault is declared present following operation of the air conditioning.

CC.0	***NOTES***	None

Ensure insulation against earth of the connection between:

computer connector **track C4**	→	**track 9**	R262 connection D connector
connection D connector **R262**	→	**track 46**	F4R motor injection computer connector
	→	**track 40**	L7X motor injection computer connector
	→	**track 37**	F9Q motor injection computer connector
	→	**track G4**	G9T motor injection computer connector

Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 060 PRESENT OR MEMORISED	Right timing motor potentiometer circuit C0.1 : Short circuit to + 12 volts or to + 5 volts or open circuit CC.0 : Short circuit to earth

NOTES	The fault is declared present following operation of the right timing motor.

C0.1	***NOTES***	None

Check that the potentiometer resistance is not zero or equal to infinity.
Test the connectors on the computer and the right timing motor.

Ensure continuity and insulation against + 12 volts or against + 5 volts of the connection between:

- computer connector **track B11** → **track 2** right timing motor connector
- computer connector **track A14** → **track 2** right timing motor connector

Repair if necessary.

CC.0	***NOTES***	None

Check that the potentiometer resistance is not zero or equal to infinity.
Test the connectors on the computer and the right timing motor.

Ensure insulation against earth of the connection between:

- computer connector **track B11** → **track 2** right timing motor connector
- computer connector **track B15** → **track 3** right timing motor connector

Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 061 PRESENT OR MEMORISED	Left timing motor potentiometer circuit C0.1 : Short circuit to + 12 volts or to + 5 volts or open circuit CC.0 : Short circuit to earth

NOTES	The fault is declared present following operation of the left timing motor.

C0.1	***NOTES***	None

Check that the potentiometer resistance is not zero or equal to infinity.
Test the connectors on the computer and the left timing motor.

Ensure continuity and insulation against + 12 volts or against + 5 volts of the connection between:

- computer connector **track B12** → **track 2** left timing motor connector
- computer connector **track A15** → **track 1** left timing motor connector

Repair if necessary.

CC.0	***NOTES***	None

Check that the potentiometer resistance is not zero or equal to infinity.
Test the connectors on the computer and the left timing motor.

Ensure insulation against earth of the connection between:

- computer connector **track B12** → **track 2** left timing motor connector
- computer connector **track B16** → **track 3** left timing motor connector

Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 062 PRESENT OR MEMORISED	Potentiometer or sensors + 5 volts supply CC.0 : Short circuit to earth

NOTES	If DF060 DF061 DF083 DF084 are also present deal with DF062 as a priority.

CC.0	***NOTES***	None

Check insulation against earth of connections A11, A12, A13, B15 and B16.
Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 063 PRESENT OR MEMORISED	Potentiometer or sensor earth CC.1 : Short circuit to + 12 volts or + 5 volts

NOTES	If DF007 DF008 DF060 DF061 DF075 DF076 DF080 DF083 DF084 are present deal with DF063 as a priority.

CC.1	***NOTES***	None

Check insulation at + 12 volts of connections A5, A14, A15, A16 and C14.
Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 064 PRESENT OR MEMORISED	Head height air distribution key DEF : Key locked

NOTES	The fault is declared present when pressing on one of the driver control keys for more than 60 seconds.

Test the driver control keys.
If the fault persists after these checks, replace the driver control.

AFTER REPAIR	Erase fault memory.

DF 065 PRESENT OR MEMORISED	Foot height air distribution key DEF : Key locked

NOTES	The fault is declared present when pressing on one of the driver control keys for more than 60 seconds.

Test the driver control keys.
If the fault persists after these checks, replace the driver control.

AFTER REPAIR	Erase fault memory.

DF 066 PRESENT OR MEMORISED	Foot height / windscreen distribution key DEF : Key locked

NOTES	The fault is declared present when pressing on one of the driver control keys for more than 60 seconds.

Test the driver control keys.
If the fault persists after these checks, replace the driver control.

AFTER REPAIR	Erase fault memory.

DF 067 PRESENT OR MEMORISED	De-icing / demisting key DEF : Key locked

NOTES	The fault is declared present when pressing on one of the driver control keys for more than 60 seconds.

Test the driver control keys.
If the fault persists after these checks, replace the driver control.

AFTER REPAIR	Erase fault memory.

DF 068 PRESENT OR MEMORISED	Air conditioning key DEF : Key locked

NOTES	The fault is declared present when pressing on one of the driver control keys for more than 60 seconds.

Test the driver control keys.
If the fault persists after these checks, replace the driver control.

AFTER REPAIR	Erase fault memory.

DF 069 PRESENT OR MEMORISED	Recycling key DEF : Key locked

NOTES	The fault is declared present when pressing on one of the driver control keys for more than 60 seconds.

Test the driver control keys.
If the fault persists after these checks, replace the driver control.

AFTER REPAIR	Erase fault memory.

DF 070 PRESENT OR MEMORISED	Ventilation setting key 1.DEF : (-) key locked 2.DEF : (+) key locked

NOTES	The fault is declared present when pressing on one of the driver control keys for more than 60 seconds.

Test the driver control keys.
If the fault persists after these checks, replace the driver control.

AFTER REPAIR	Erase fault memory.

DF 071 PRESENT OR MEMORISED	Automatic air conditioning key DEF : Key locked

NOTES	The fault is declared present when pressing on one of the driver control keys for more than 60 seconds.

Test the driver control keys.
If the fault persists after these checks, replace the driver control.

AFTER REPAIR	Erase fault memory.

DF 072 PRESENT OR MEMORISED	Driver temperature setting key 1.DEF : (-) key locked 2.DEF : (+) key locked

NOTES	The fault is declared present when pressing on one of the driver control keys for more than 60 seconds.

Test the driver control keys.
If the fault persists after these checks, replace the driver control.

AFTER REPAIR	Erase fault memory.

DF 073 PRESENT OR MEMORISED	Passenger temperature setting key 1.DEF : (-) key locked 2.DEF : (+) key locked

NOTES	The fault is declared present when pressing on one of the driver control keys for more than 60 seconds.

Test the driver control keys.
If the fault persists after these checks, replace the driver control.

AFTER REPAIR	Erase fault memory.

DF 075 PRESENT OR MEMORISED	Right air distribution motor locked

NOTES	The fault is declared present following operation of the distribution motor.

Check that the air distribution motor is not locked mechanically by an external object.
Feed directly the air distribution motor.
Change the motor if it is not functioning.

AFTER REPAIR	Erase fault memory.

DF 076 PRESENT OR MEMORISED	Left air distribution motor locked

NOTES	The fault is declared present following operation of the distribution motor.

Check that the air distribution motor is not locked mechanically by an external object.
Feed directly the air distribution motor.
Change the motor if it is not functioning.

AFTER REPAIR	Erase fault memory.

DF 077 PRESENT OR MEMORISED	Internal temperature probe microturbine circuit CO : Open circuit CC.0 : Short circuit to earth

NOTES	None

CO	***NOTES***	None

Ensure the continuity of the following connection: computer connector **track B1** ⟶ **track 1** internal temperature sensor connector
Test the connections on the computer connector and the internal temperature sensor connector.
If the fault persists after these checks, replace the internal temperature sensor.

CC.0	***NOTES***	None

Ensure insulation against earth of the connection between: computer connector **track B1** ⟶ **track 1** internal temperature sensor connector
If the fault persists after these checks, replace the internal temperature sensor.

AFTER REPAIR	Erase fault memory.

DF 078 PRESENT OR MEMORISED	Driver insolation sensor circuit CC.1 : Short circuit to + 12 volts or + 5 volts

NOTES	If DF079 DF083 are also present, deal with DF078 as a priority.

CC.1	***NOTES***	None

Check insulation of the connection: computer connector **track A17 (A18 in DD)** ⟶ **track 2** insolation sensor
Repair if necessary.
If the fault persists, replace the insolation sensor.

AFTER REPAIR	Erase fault memory.

DF 079 PRESENT OR MEMORISED	Passenger insolation sensor circuit CC.1 : Short circuit to + 12 volts or + 5 volts

NOTES	If DF078 DF080 are also present, deal with DF079 as a priority.

CC.1	***NOTES***	None

Check insulation of the connection: computer connector **track A18 (A17 in DD)** → **track 3** insolation sensor
Repair if necessary.
If the fault persists, replace the insolation sensor.

AFTER REPAIR	Erase fault memory.

DF 080 PRESENT OR MEMORISED	Locked driver mixing motor

NOTES	The fault is declared present when mixing motor operation is required.

Check that the mixing motor is not locked mechanically by an external object.
Feed directly the mixing motor to test functioning.
Change the motor if it is not functioning.

AFTER REPAIR	Erase fault memory.

DF 081 PRESENT OR MEMORISED	Locked passenger mixing motor

NOTES	The fault is declared present when mixing motor operation is required.

Check that the mixing motor is not locked mechanically by an external object.
Feed directly the mixing motor to test functioning.
Change the motor if it is not functioning.

AFTER REPAIR	Erase fault memory.

DF 082 PRESENT OR MEMORISED	Passenger compartment ventilation motor circuit CO : Open circuit CC.0 : Short circuit to earth

NOTES	The fault is declared present following setting of + ACC.

CO	***NOTES***	None

Ensure continuity of the connection between: computer connector **track B6** ⟶ **track 2** air blower motor connector
Check the computer and air blower connections.
If the fault persists after these tests, replace the controlled heating and ventilation system central unit.

CC.0	***NOTES***	None

Ensure insulation against earth of the connection between: computer connector **track B6** ⟶ **track 2** air blower motor connector
Check the computer and air blower connections.
If the fault persists after these tests, replace the controlled heating and ventilation system central unit.

AFTER REPAIR	Erase fault memory.

DF 083 PRESENT OR MEMORISED	Driver mixing motor potentiometer circuit C0.1 : Short circuit to + 12 volts or + 5 volts or open circuit CC.0 : Short circuit to earth

NOTES	The fault is declared present following operation of the driver mixing motor.

C0.1	***NOTES***	None

Check the computer connections and the motor potentiometer connections.

Check that the potentiometer resistance is not zero or equal to infinity.

Ensure continuity and insulation against + 12 volts or against + 5 volts of the connection between:

computer connector **track B14** → **track 2** of the driver mixing motor

computer connector **track A4** → **track 1** of the driver mixing motor (track 3 in DD)

Repair if necessary.

CC.0	***NOTES***	None

Check the computer connections and the motor potentiometer connections.

Check that the potentiometer resistance is not zero or equal to infinity.

Ensure insulation against earth of the connection between:

computer connector **track B14** → **track 2** of the driver mixing motor

computer connector **track A12** → **track 3** of the driver mixing motor (track 1 in DD)

Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 084 PRESENT OR MEMORISED	Passenger mixing motor potentiometer circuit C0.1 : Short circuit to + 12 volts or + 5 volts or open circuit CC.0 : Short circuit to earth

NOTES	The fault is declared present following operation of the passenger mixing motor.

C0.1	***NOTES***	None

Check the computer connections and the motor potentiometer connections.

Check that the potentiometer resistance is not zero or equal to infinity.

Ensure continuity and insulation against + 12 volts or against + 5 volts of the connection between:

computer connector **track B13** → **track 2** of the passenger mixing motor

computer connector **track A16** → **track 1** of the passenger mixing motor (track 3 in DD)

Repair if necessary.

C0.1	***NOTES***	None

Check the computer connections and the motor potentiometer connections.

Check that the potentiometer resistance is not zero or equal to infinity.

Ensure insulation against earth of the connection between:

computer connector **track B13** → **track 2** of the passenger mixing motor

computer connector **track A11** → **track 3** of the passenger mixing motor

Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 085 PRESENT OR MEMORISED	Right timing motor CC : Short circuit

NOTES	The fault is declared present following operation of the right timing motor.

CC	***NOTES***	None

Check the computer connections and the motor connections.
Check that the potentiometer resistance is not zero or equal to infinity.
Ensure insulation against + 12 V of the following connections: computer connector **track B7** → **track 6** right timing motor connector computer connector **track B8** → **track 4** right timing motor connector Repair if necessary.
Ensure the following connections are insulated to earth: computer connector **track B7** → **track 6** right timing motor connector computer connector **track B8** → **track 4** right timing motor connector Repair if necessary.

AFTER REPAIR	Erase fault memory.

DF 086 PRESENT OR MEMORISED	Left timing motor CC : Short circuit

NOTES	The fault is declared present following operation of the left timing motor.

CC	***NOTES***	None

Check the computer connections and the motor connections.
Check that the potentiometer resistance is not zero or equal to infinity.
Ensure insulation against + 12 V of the following connections: computer connector **track A2** → **track 6** left timing motor connector computer connector **track A1** → **track 4** left timing motor connector Repair if necessary.
Ensure the following connections are insulated to earth: computer connector **track A2** → **track 5** left timing motor connector computer connector **track A1** → **track 4** left timing motor connector Repair if necessary.

AFTER REPAIR	Erase fault memory.

NOTES	Only check the conformity after a full check using the fault finding tool.

Order	Function	Parameter / Condition checked or action		Display and Notes	Fault finding
1	Timing flaps	**PR011**	Distribution flap position	0 % < X < 100% 0% = head 19% = foot 42% = foot/ windscreen 100% = demisting	**DF076** **DF086** **DF061** **DF075** **DF085** **DF060**
2	Mixing flaps	**PR098**	Driver mixing flap position	0 % < X < 100 % LO HI	**DF048** **DF083** **DF080**
		PR099	Passenger mixing flap position	0 % < X < 100 % LO HI	**DF047** **DF084** **DF081**
3	Recycling flap	**ET065**	Right recycling flap position	CLOSED/OPEN	**DF 053** **DF069**
		ET064	Left recycling flap position	CLOSED/OPEN	**DF052** **DF069**
4	Rear de-icing	**ET054**	Heated rear screen relay	ACTIVE	**DF055**
		ET032	Heated rear screen key	ACTIVE	
5	AC information	**ET055**	Air conditioning information	ACTIVE	**DF057**
6	Side lights	**ET002**	+ 12 volts side lights	ACTIVE if side lights illuminated	
7	Battery voltage	Computer supply voltage		10 V < X < 14.5 V	

NOTES	Only check the conformity after a full check using the fault finding tool.

Order	Function	Parameter / Condition checked or action	Display and Notes	Fault finding
8	Compressor control	**ET020** Compressor control	ACTIVE, if all inhibitions are raised	**DF 056**
9	Inhibition	**ET004** Heating and ventilation system inhibited by automatic transmission **ET003** AC inhibited by injection computer	ACTIVE (if heating and ventilation system inhibition by automatic transmission or injection computer is required)	**DF 057**
10	Configuration	**Evaporator sensor configuration**	**WITHOUT** (if G9T) **WITH**	
11	Configuration reading	**Vehicle type: ESPACE** **Computer managed heating and ventilation** **Evaporator sensor: WITH (WITHOUT** if G9T**)** **Electric windscreen: WITHOUT**	Configuration reading	
12	Sensor reading	**PR097** Passenger insolation **PR096** Driver insolation **PR004** Coolant temperature **PR002** External temperature **PR001** Internal temperature	0 w/m^2 < X < 1300 w/m^2 0 w/m^2 < X < 1300 w/m^2 0˚C < X < 90˚C -30˚C < X < +40˚C -13˚C < X <+ 53˚C	**DF078** **DF079** **DF003** **DF008** **DF007**
13	Driver and passenger control keys	**ET031** Recycling key **ET030** Air conditioning key **ET057** Foot height/windscreen key **ET058** Head height air key **ET019** Foot height air key **ET061** Demisting key **ET017** AUTO key	STATE 1 = released STATE 2 = pressed (>2 sec)	**DF064** **DF065** **DF066** **DF067** **DF068** **DF069** **DF071**
14	Driver and passenger control keys	**ET059** Driver temperature key **ET060** Passenger temperature key **ET012** Ventilation key	STATE 1 = - key STATE 2 = + key	**DF072** **DF073** **DF070**

NOTES	Only consult the customer complaints after a complete check using the diagnostic tool

ABSENCE OF DIALOGUE WITH THE COMPUTER **CHART 1**

AIR BLOWER MOTOR IS NOT FUNCTIONING **CHART 2**

HEATER PERFORMANCE POOR **CHART 3**

HEATING INADEQUATE IN THE REAR **CHART 4**

TOO HOT **CHART 5**

LACK OF EFFICIENCY IN REAR SCREEN DE-ICER **CHART 6**

LACK OF EFFICIENCY IN DE-ICING REAR VIEW MIRRORS **CHART 7**

AIR CONDITIONING NOT FUNCTIONING **CHART 8**

LACK OF EFFICIENCY IN AIR CONDITIONING **CHART 9**

AIR CONDITIONING PRODUCTION TOO COLD **CHART 10**

FAN ASSEMBLY NOT FUNCTIONING AT LOW SPEED **CHART 11**

CHART 1	ABSENCE OF DIALOGUE WITH THE COMPUTER

NOTES	None.

Ensure that the fault finding tool is not the cause of the fault by trying to communicate with a computer on another vehicle. If the tool is not the cause of the fault and dialogue cannot be established with any other computer on the same vehicle, it may be that a faulty computer is disrupting fault finding lines **K** and **L**. Disconnect the connections one at a time to locate the fault.
Check the battery voltage and carry out the operations necessary to obtain the correct voltage (10.5 volts < U battery < 16 volts).

Check **supply fuse F33**.
Check the connection and condition of the connections of the computer and the intermediary connections.
Check that the computer is correctly supplied:
– **Earth in tracks 3 and 7** of connector D of the computer.
– **+ After ignition feed in tracks 6 and 2** of connector D of the computer.

Ensure that the fault finding socket is correctly supplied:
– **Earth on track 5**.
– **+ AVC in track 16**.
Check and ensure the continuity and insulation of the lines of the diagnostic socket / computer connections
– between **track 16** of connector C of the computer and **track 7** of the diagnostic socket.

If dialogue is still not established and a fault finding tool is used at an updated level which permits dialogue with this type of computer, replace the computer.

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

CHART 2	AIR BLOWER MOTOR IS NOT FUNCTIONING

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check **supply fuse F48** in the engine compartment connection unit.
Check that the heater blower relay is properly fed:
– **Earth in track 2**
– **+ After ignition feed in track 1**
Check the presence of +12 volts in **track 3** and in **track 5** of the heater blower relay when + after ignition feed is switched on.
If the relay is functioning correctly, check the continuity between **terminal 5** of the relay mounting and **track 1** of the heater blower.
Check the presence of earth in **track 2** of the heater blower.

If the heater blower supply is ensured and the fault persists, replace the heater blower.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 3	HEATER PERFORMANCE POOR

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Bring the motor to operating temperature and check the coolant circuit (correct fill-up and bleed), the condition of the circuit (connections, conformity of the circuit, pipes, etc...).
Check that there is no unwanted intake of cold air in the passenger compartment (seals, grommets...).
Check the condition and good positioning of the air ducts.

Check the appropriate use of the function by the customer.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 4	INSUFFICIENT HEATING IN THE REAR SEATS

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check the efficiency of the heating in the front seats.
Check that the air outlets at the bottom of the car doors are not obstructed.
Check that the routing, and temperature, of the air in the doors is correct.

Check the correct use of the function by the customer.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 5	TOO HOT

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check the thermal control of the cooling circuit (triggering the fan assembly, engine coolant thermostat opening, ...).

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 6	LACK OF EFFICIENCY IN REAR SCREEN DE-ICER

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check **fuses F44, F13 and F1** (F2 on CAD).
Check that the control is operating properly.
Check that the de-icing relay is operating properly when the de-icing function is switched on:
– **Earth transfer in track 2**.
– **+12 volts in tracks 1, 3 and 5**.

Check the rear screen connections.
Check the presence of +12 volts and earth on the rear screen.
Check the rear screen R > 1Ω wire to wire resistance. Recondition if necessary (see MR 315, sect. 88).

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 7	LACK OF EFFICIENCY IN DE-ICING REAR VIEW MIRRORS

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check the same initial points as in CHART 6.
Check fuse F3.

Check the rear screen connections concerned.
Check that the de-icing rear view mirror circuit concerned is correctly supplied when the de-icing function is engaged.

Check the ice de-icing circuit resistance of the rear view mirror concerned: R > 8 Ω.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 8	AIR CONDITIONING NOT FUNCTIONING

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check the authorisations when air conditioning is required:

AC cycle **track C4**	→	**+ 12 V**
AC inhibition **track C1**	→	**0 V**
AC automatic transmission inhibition	→	**5 V** (F4R DP0, L7X)
Evaporator temperature thermostat	→	**+ 12 V** (except G9T) **in track 1**
pressure switch	→	**+ 12 V in track D** of the pressure switch

If these conditions are not fulfilled, proceed with the following authorisations:
Check the continuity of the connection between:

Track 13 black connector (16 tracks) of the passenger compartment connection unit	→	**track C** of the pressure switch
Track D of the pressure switch	→	**track 1** of the compressor

Check that the thermostat is well-supplied:
– **Earth in track 3**.
– **+ 12 Volts in track 1.**
Check the continuity of the connection between:

Computer connector **track A10**	→	**track 2** of the thermostat (except G9T).

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 9	LACK OF EFFICIENCY IN AIR CONDITIONING

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check that the compressor is switched on.
Check the condition of the compressor belt tension.
Check the temperature in the centre air vent:

- **Setting temperature** → **"LO"**
- **Blower speed** → **average power**
- **Recycling** → **activated**

The temperature should be between 2˚C and 8˚C.
The temperature should be 3˚C ± 0.5˚C (G9T).
The compressor should cut out when the temperature is less than +2˚C. The compressor should engage when the temperature is more than +8˚C.

If the fault persists, check the thermostat.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 10	AIR CONDITIONING PRODUCTION TOO COLD

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check that the compressor is operating properly.
Check the pressure switch values:
– **Low pressure = 2 bar**
– **High pressure = 27 bar**

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 11	FAN ASSEMBLY NOT FUNCTIONING AT LOW SPEED

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check **fuses F54** and/or **F55** in the engine compartment connection unit.
For F4R, F9Q, G9T engines, check the injection ECU low speed relay earthing:
– **Track 85** of the low speed relay located on the cooling unit.
For L7X engine, check that the low speed relay is operating properly by applying + 12 volts in D of the pressure switch or by using the fault finding tool (petrol injection).
For F4R, G9T, F9Q engines, check the resistance located in the cooling unit:
– **R = 0.26 Ω F9Q**
– **R = 0.23 Ω G9T**
– **R = 0.30 Ω F4R**

If the fault persists after checking the insulation and the continuity of the engine cooling groups supply wiring harness and the relay control wiring harness, change the fan assembly.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

DISCHARGE BULB
Fault finding - Introduction

80

This document introduces the generic fault finding strategy applicable to all "Discharge bulb" computers (relevant section: 60 25 315 178, n° Vdiag: 09).

A Technical Note "Fault Finding Special Features" is available for each vehicle fitted with this computer / this function. It covers all the fault finding special features in this document for the vehicle concerned. This "Special Features" Note completes and cancels the information provided in the "Generic" fault finding Note.

To carry out the fault finding strategy on this system, it is essential to have the following items available:

- **The "Generic Fault Finding" Technical Note,**
- **The "Fault Finding Special Features" Technical Note for the vehicle,**
- **The wiring diagram for the operation of the vehicle concerned,**
- **The tools listed under the heading "Special tooling required".**

GENERAL APPROACH TO FAULT FINDING:

- **Use of one of the fault finding tools to identify the system equipping the vehicle (to read the computer family, the program number, the vdiag, etc.).**

- **Finding the "Fault finding" documents corresponding to the system identified.**

- **Inclusion of information contained in the introductory sections.**

- **Reading the faults stored in the computer memory and using the "Interpretation of faults" section of the documents.**
  Reminder: Each fault is interpreted for a particular type of storage (fault present, fault stored, fault present or stored). The checks defined for handling each fault are therefore only to be performed if the fault stated by the fault finding tool is interpreted in the document for its type of storage. The storage type should be considered when using fault finding tool following ignition switch-off and switch-on.
  If a fault is interpreted when it is stated to be "stored", the conditions for application of the fault finding appear in the "NOTES" box. When the conditions are not satisfied, use the fault finding to check the circuit of the faulty part since the fault is no longer present on the vehicle. Perform the same operation when a fault is stated as "stored" by the fault finding tool but is only interpreted in the documentation for a "present" fault.

- **Perform the conformity check (appearance of possible incorrect operations not yet stated by the system's self diagnosis procedure) and apply the associated fault finding strategy according to results.**

- **Validation of the repair (disappearance of the reason for the complaint made by the customer).**

- **Use of the fault finding strategy for each "Customer complaint" if the problem persists.**

DF001 PRESENT	Computer

NOTES	None

Replace the computer.

AFTER REPAIR	Initialise the Adjustment function, in the headlights position, when replacing the computer.

DF 003 PRESENT OR MEMORISED	Sensor supply circuit CC.1 : Short circuit to + 12 volts CC.0 : Short circuit to earth

NOTES	None

CC.1	***NOTES***	None

Ensure insulation against + 12 volts of the connection between:
computer connector **track 1** → **track 3** of the front sensor
computer connector **track 10** → **track 3** of the rear sensor

Disconnect the front and rear sensors.
Check the sensor resistance between **tracks 1 and 3** : 100 ohms< R < 1500 ohms.
If the value is not correct, change the sensor.

If the fault persists, change the computer.

CC.0	***NOTES***	None

Ensure insulation against earth of the connection between:
computer connector **track 1** → **track 3** of the front sensor
computer connector **track 10** → **track 3** of the rear sensor

Disconnect the front and rear sensors.
Check the sensor resistance between **tracks 1 and 3** : 100 ohms < R < 1500 ohms.
If the value is not correct, change the sensor.

If the fault persists, change the computer.

AFTER REPAIR	Erase fault memory. Initialise the Adjustment function, in the headlights position, when replacing the computer

DF 005 PRESENT OR MEMORISED	Actuator control circuit CO : Open circuit CC.0 : Short circuit to earth CC.1 : Short circuit to + 12 volts

NOTES	None

CO	***NOTES***	None

Ensure continuity of the connection between:
computer connector **track 9** → **track B1** of the left actuator connector
→ **track B1** of the right actuator connector

Check the actuator supply:
– + 12 volts in **track C1**
– earth in **track A1**

Disconnect the actuator connector.
Check the resistance of the actuator between **tracks B1** and **A1**: R ≈ 2600 ohms.

If the fault persists, change the computer.

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

Ensure insulation against earth, or against + 12 volts, of the connection between:
computer connector **track 9** → **track B1** of the left actuator connector
→ **track B1** of the right actuator connector

Check the actuator supply:
– + 12 volts in **track C1**
– earth in **track A1**

Disconnect the actuator connector.
Check the resistance of the actuator between **tracks B1** and **A1**: R ≈ 2600 ohms.

If the fault persists, change the computer.

AFTER REPAIR	Erase the fault memory by switching the ignition off then on again. Initialise the Adjustment function, in the headlights position, when replacing the computer.

DF 008 PRESENT OR MEMORISED	Front height sensor circuit 1.CC.1 : Short circuit to + 12 volts 2.CC.1 : Short circuit to + 12 volts or + 5 volts CC.0 : Short circuit to earth or open circuit

NOTES	None

1.CC.1 2.CC.1	***NOTES***	None

Ensure insulation at + 12 volts or + 5 volts of the connection between:
computer connector **track 15** → **track 2** front sensor connector

Disconnect the front sensor.
Check the sensor resistance between **tracks 1 and 3**: 100 ohms < R < 1500 ohms.
If the value is incorrect, change the front sensor.

If the fault persists, change the computer.

CC.0	***NOTES***	None

Ensure the continuity or insulation against earth of the connection between:
computer connector **track 15** → **track 2** front sensor connector

Disconnect the front sensor.
Check the sensor resistance between **tracks 1 and 3**: 100 ohms < R < 1500 ohms.
If the value is incorrect, change the front sensor.

If the fault persists, change the computer.

AFTER REPAIR	Erase the fault memory by switching the ignition off then on again. Initialise the Adjustment function, in the headlights position, when replacing the computer.

DF009 PRESENT OR MEMORISED	Rear height sensor circuit 1.CC.1 : Short circuit to + 12 volts 2.CC.1 : Short circuit to + 12 volts or + 5 volts CC.0 : Short circuit to earth or open circuit

NOTES	None

1.CC.1 2.CC.1	***NOTES***	None

Ensure insulation at + 12 volts or + 5 volts of the connection between:
computer connector **track 12** → **track 2** rear sensor connector

Disconnect the rear sensor.
Check the sensor resistance between **tracks 1 and 3**: 100 ohms < R < 1500 ohms.
If the value is incorrect, change the rear sensor.

If the fault persists, change the computer.

CC.0	***NOTES***	None

Ensure the continuity or insulation against earth of the connection between:
computer connector **track 12** → **track 2** rear sensor connector

Disconnect the rear sensor.
Check the sensor resistance between **tracks 1 and 3**: 100 ohms < R < 1500 ohms.
If the value is incorrect, change the rear sensor.

If the fault persists, change the computer.

AFTER REPAIR	Erase the fault memory by switching the ignition off then on again. Initialise the Adjustment function, in the headlights position, when replacing the computer.

NOTES	Only check the conformity after a full check using the fault finding tool.

Order	Function	Parameter / Condition checked or action	Display and Notes	Fault finding
1	Adjustment motors	**AC011** Headlamp motor control	Illuminate the dipped headlights. The position of the headlights must move.	**DF 005**
2	Fault warning light	**AC006** Fault warning light	The fault warning light must illuminate on command	
3	Sensor signal	**PR002** Front sensor signal **PR003** Right sensor signal **PR014** Real time attitude	Move the front and/ or rear axle attitude and display the two parameters	**DF008** **DF009** **DF003**
4	Initial value reading	**PR004** Initial front height **PR005** Initial rear height **PR015** Reference attitude	Initial value reading after computer calibration	**DF008** **DF009**
5	Actuator control values	**PR016 Actuator control** **Value displayed / Actuator position** 11.30% 0 14.60% 1 18% 2 21.4% 3 24.8% 4 28.2% 5 31.6% 6 35% 7 38.4% 8 41.7% 9 45.1% 10 48.5% 11 51.9% 12 55.3% 13 58.7% 14 62.1% 15 65.5% 16 68.9% 17 72.2% 18 75.6% 19 79% 20	Refuge position = 18 Position after calibration = 2	

NOTES	Only consult the customer complaints after a complete check using the diagnostic tool

ABSENCE OF DIALOGUE WITH THE COMPUTER **CHART 1**

FAULT WARNING LIGHT REMAINS PERMANENTLY ILLUMINATED OR REMAINS EXTINGUISHED **CHART 2**

THE DIPPED HEADLIGHT BEAMS SHINE TOO HIGH **CHART 3**

INCORRECT FOLDING DOWN OF ONE OR BOTH HEADLIGHTS **CHART 4**

THE HEIGHT OF ONE OR BOTH HEADLIGHTS IS NOT CORRECTED WHATEVER THE LOAD OF THE VEHICLE **CHART 5**

THE LEFT AND RIGHT HAND DIPPED HEADLIGHTS DO NOT SHINE AT THE SAME HEIGHT **CHART 6**

THE LEFT AND RIGHT HAND DIPPED HEADLIGHTS DO NOT ILLUMINATE **CHART 7**

ONE OF THE DIPPED HEADLIGHTS DOES NOT ILLUMINATE **CHART 8**

CHART 1	ABSENCE OF DIALOGUE WITH THE COMPUTER

NOTES	None.

Ensure that the fault finding tool is not the cause of the fault by trying to communicate with a computer on another vehicle. If the tool is not the cause of the fault and dialogue cannot be established with any other computer on the same vehicle, it may be that a faulty computer is disrupting fault finding lines **K** and **L**. Disconnect the connections one at a time to locate the fault.
Check the battery voltage and carry out the operations necessary to obtain the correct voltage (10.5 volts < U battery < 16 volts).

Check supply fuse F20.
Check the connection and condition of the connections of the computer and the intermediary connections.
Check that the computer is correctly supplied:
– **Earth in track 14** of the computer connector.
– **+after ignition feed in track 17** of the computer connector.

Ensure that the fault finding socket is correctly supplied:
– **Earth on track 5**.
– **+ AVC in track 16**.
Check and ensure the continuity and insulation of the lines of the diagnostic socket / computer connections
Computer connector **track 11** ⟶ **track 7** of the diagnostic socket.

If dialogue is still not established and a fault finding tool is used at an updated level which permits dialogue with this type of computer, replace the computer.

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

CHART 2	FAULT WARNING LIGHT REMAINS PERMANENTLY ILLUMINATED OR REMAINS EXTINGUISHED

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check supply fuse F20.
Check the continuity and insulation against earth and against + 12 volts of the connection:
Computer connector **track 16** ⟶ **track 8** of the instrument panel black connector

The warning light remains extinguished:
Check that the fault warning light is operating properly by connecting **track 8** of the instrument panel black connector to earth.
Repair if necessary.

The warning light remains illuminated:
Check that the warning light extinguishes when the computer connector is disconnected.
Repair if necessary.

If the fault persists, change the computer.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 3	THE DIPPED HEADLIGHT BEAMS SHINE TOO HIGH

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check that the right and left front headlights shine at the same height.
Check that the headlights are correctly fitted.
Check the condition of the system mechanical components (sensor mounting, straps).

Initialise the system and adjust the headlights.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 4	INCORRECT FOLDING DOWN OF ONE OR BOTH HEADLIGHTS

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Change the beam height using a fault finding tool.

If the height of one or both of the headlights does not change, check the continuity and the insulation against earth and against + 12 volts of the connection between:

computer connector **track 9** ⟶ **track B** of the remote adjustment motor connector

Check the remote adjustment motor resistance in **tracks A** and **B** .

R ≈ 2600 ohms

If the value is different, replace the remote adjustment motor concerned.

If the fault persists, change the computer.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 5	THE HEIGHT OF ONE OR BOTH HEADLIGHTS IS NOT CORRECTED WHATEVER THE LOAD OF THE VEHICLE

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check fuses F20, F58, F59, F50.

Check the computer supply:
– **+ After ignition feed in track 17**
– **Earth in track 14**.
Repair if necessary.

Check the remote adjustment motor supply:
– **+ After ignition feed in track C1** (dipped headlights illuminated).
– **Earth in track A1**.
Repair if necessary.

Check the continuity and insulation against earth or against +12 volts of the connection between:
Computer connector in **track 9** ⟶ **track B** of the remote adjustment motor connector
Repair if necessary.

Check the remote adjustment motor mechanism:

Program the position using a fault finding tool.
If the fault persists, change the remote adjustment motor(s).

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 6	THE LEFT AND RIGHT HAND DIPPED HEADLIGHTS DO NOT SHINE AT THE SAME HEIGHT

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check fuses F20, F58, F59, F50.

Check the computer supply:
– **+ After ignition feed in track 17**
– **Earth in track 14**.
Repair if necessary.

Check the remote adjustment motor supply:
– **+ After ignition feed in track C11** (dipped headlights illuminated).
– **Earth in track A1**.
Repair if necessary.

Check the continuity and insulation against earth or against +12 volts of the connection between:
Computer connector in **track 9** ⟶ **track B** of the remote adjustment motor connector
Repair if necessary.

Check the remote adjustment motor mechanism:

Program the position using a fault finding tool.

If the fault persists, change the remote adjustment motor(s).

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 7	THE LEFT AND/OR RIGHT DIPPED HEADLIGHTS DO NOT ILLUMINATE

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check fuses F58, F59.
Check that the single lever is operating properly.

Check the insulation against earth and the continuity of the connection between:
Single lever B Connector **track B4** ⟶ **track B1** of the main beam headlight code relay mounting
Repair if necessary.

Check the supply and operation of the main beam headlight code relay.

Check the dipped headlights connection.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 8	ONE OF THE DIPPED HEADLIGHTS DOES NOT ILLUMINATE

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check the condition of fuses F58, F59.
Check the supply and operation of the main beam headlight code relay.

Check the continuity of the connection between:
Headlight connector **track B2** → **track B4** of the main beam headlight code relay mounting

Repair if necessary.

Check that + 12 volts is present between **tracks B2** and **B1** of the headlight connector when the dipped headlights are activated.
Repair if necessary.

If the fault persists, replace the lamp.

If the fault persists, replace the ballast.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

This document introduces the generic fault finding strategy applicable to all "Immobiliser" (relevant section: Bii-J66, software version 0370; 0380; 0390; 0400).

A Technical Note "Fault Finding Special Features" is available for each vehicle fitted with this computer / this function. It covers all the fault finding special features in this document for the vehicle concerned. This "Special Features" Note completes and cancels the information provided in the "Generic" fault finding Note.

The following are thus required to carry out fault finding on this system:

- **The "Generic Fault Finding" Technical Note,**
- **The "Fault Finding Special Features" Technical Note for the vehicle,**
- **The wiring diagram for operation of the vehicle concerned,**
- **The tools listed in the "special tooling required" list.**

GENERAL APPROACH TO FAULT FINDING:

- **Use of one of the fault finding tools to identify the system equipping the vehicle (to read the computer family, the program number, the vdiag, etc.).**

- **Finding the "Fault finding" documents corresponding to the system identified.**

- **Inclusion of information contained in the introductory sections.**

- **Reading the faults stored in the computer memory and using the "Interpretation of faults" section of the documents.**
  Reminder: Each fault is interpreted for a particular type of storage (fault present, fault stored, fault present or stored). The checks defined for handling each fault are therefore only to be performed if the fault stated by the fault finding tool is interpreted in the document for its type of storage. The storage type should be considered when using fault finding tool following ignition switch-off and switch-on.
  If a fault is interpreted when it is said to be "stored", the conditions for application of the fault finding appear in the "NOTES" box. When the conditions are not satisfied, use the fault finding to check the circuit of the faulty part since the fault is no longer present on the vehicle. Perform the same operation when a fault is stated as "stored" by the fault finding tool but is only interpreted in the documentation for a "present" fault.

- **Perform the conformity check (appearance of possible incorrect operations not yet stated by the system's self diagnosis procedure) and apply the associated fault finding strategy according to results.**

- **Validation of the repair (disappearance of the phenomenon reported by the customer).**

- **Use of the fault finding strategy for each "Customer complaint" if the problem persists.**

DF030	Coded line circuit CO.0 : Short circuit to earth CC.1 : Short circuit to + 12 volts

NOTES	None

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

Check the continuity and insulation against earth and against 12 volts of the wiring between **track 18** of the 26 (F) BE connector of the passenger compartment connection unit (BII) and the track (*) of the injection computer. Repair the wiring if necessary.

Place the fault finding tool in pulse sensor.
With the ignition on, check that impulses are present on **track 18** of the blue 26 track (F) connector of the passenger compartment connection unit (test with the passenger compartment connection unit connectors and the injection computer connected).

Are there any pulses?

YES	Replace the injection computer.
NO	Change the passenger compartment connection unit (BII).

(*) In track 35 for F3R engines
In track 58 for F4R engines
In track 50 for L7X engines In track 59 for F9Q engines
In track 1-G2 for G9T engines

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF031	Diagnostic Line CC.0 : Short circuit to earth CO : Open circuit or short circuit to +5 volts /+12 volts

NOTES	None

CC.0	***NOTES***	None

Check the insulation against earth of the connection between tracks:

26 track JA (B) connector of the connection unit { **8** ⟶ **4** } antenna ring

Repair if necessary.

Disconnect the 6 track antenna ring connector.
With the ignition off, check that a voltage of 12 volts is present on **track 9** of the yellow 26 track (B) connector passenger compartment connection unit (BII).
If it does not measure 12 volts + before ignition, change the passenger compartment connection unit BII.

Reconnect the antenna ring 6 track connector.
With the ignition off, check that a voltage of 12 volts is present on **track 9** of the yellow 26 track (B) connector passenger compartment connection unit.
If it does not measure 12 volts + before ignition, change the antenna ring.

Switch the ignition off and wait for the immobiliser warning light to flash (immobiliser active).
Disconnect the 6 track antenna ring connector.
Place the fault finding tool in pulse sensor.
When switching the ignition on again, check for an impulse on **track 8** of the passenger compartment connection unit yellow 26 track (B) connector (test with the connection unit connectors connected).

When the ignition is switched on, is there a pulse?

YES	Replace the antenna ring.
NO	Change the passenger compartment connection unit BII.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF031 (Continued)	

NOTES	None

CO	***NOTES***	None

Check continuity of the connection between tracks:

connection unit 26 track JA (B) connector { **8** ⟶ **4** } antenna ring

Repair if necessary.

Switch the ignition off and wait for the immobiliser warning light to flash (immobiliser active).
Disconnect the 6 track antenna ring connector.
Place the fault finding tool in pulse sensor.
When switching the ignition on again, check for an impulse on **track 9** of the passenger compartment connection unit yellow 26 track (B) connector (test with the connection unit connectors connected).

When the ignition is switched on, is there a pulse?

YES	Replace the antenna ring.
NO	Change the passenger compartment connection unit BII.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF032	Clock line CC : Short circuit

NOTES	None

CC	***NOTES***	None

Check the insulation against earth or againstt + 12 volts of the connection between: passenger compartment connection unit ECH connector **track 22** ⟶ **track 3** antenna ring connector
Repair if necessary.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF053	Solenoid valve discharge

NOTES	G8T engine.

Place the fault finding tool in pulse sensor.
With the ignition on, check that impulses are present on **track 18** of the passenger compartment connection unit (BII) blue 26 track (F) connector (test with the connection unit and the solenoid valve coded electronic unit connectors connected).
If there are no impulses with the ignition on, change the passenger compartment connection unit (BII).

Switch on the ignition for 30 consecutive seconds, then switch off the ignition and wait until the immobiliser warning light flashes (immobiliser active).
Switch on the ignition again and check that ET167 is permanently illuminated.

Is ET167 permanently illuminated?

YES	Change the passenger compartment connection unit (BII).
NO	Replace the solenoid valve coded electronic unit.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

NOTES	Only check the conformity after a full check using the fault finding tool.

Order	Function	Parameter / Condition checked or action		Viewing and Notes	Fault finding
1	Instrument panel warning light	**ET001** **ET060** **ET167**	+ 12 V accessories Immobiliser Immobiliser warning light	ACTIVE ACTIVE ACTIVE	
2	Instrument panel warning light	**ET002** **ET060** **ET167**	+ 12 V after ignition Immobiliser Immobiliser warning light	ACTIVE Inactive Inactive	
3	Different states	**ET103** **ET104**	Key code received Key code valid	YES YES	**DF032** **DF030** **DF031**
4	Forced protection mode	**ET127**	Forced protection mode	ACTIVE following command	
5	Diesel EV discharge	Only on G8T engine		Solenoid valve knocking	**DF053**

NOTES	Only consult the customer complaints after a complete check using the diagnostic tool

ABSENCE OF DIALOGUE WITH THE PASSENGER COMPARTMENT CONNECTION UNIT **CHART 1**

IGNITION ON, IMMOBILISER WARNING LIGHT FLASHES PERMANENTLY (impossible to start) **CHART 2**

IMMOBILISER WARNING LIGHT REMAINS PERMANENTLY ILLUMINATED (even when ignition turned off) OR REMAINS PERMANENTLY EXTINGUISHED **CHART 3**

IGNITION ON, INJECTION WARNING LIGHT FLASHES PERMANENTLY (impossible to start) **CHART 4**

WHEN DRIVING (deceleration) OR IDLING, THE INJECTION WARNING LIGHT FLASHES PERMANENTLY **CHART 5**

THE VEHICLE WILL NOT START **CHART 6**

IGNITION ON, IMMOBILISER WARNING LIGHT FLASHES PERMANENTLY (impossible to start) **CHART 7**

IMMOBILISER WARNING LIGHT REMAINS ILLUMINATED FOR LONGER THAN 30 CONSECUTIVE SECONDS, IGNITION ON (the immobiliser warning light illuminates when ignition turned on, in the 16 seconds following turning on the ignition or the immobiliser warning light illuminates for longer than 30 consecutive seconds) **CHART 8**

WHEN THE IGNITION IS TURNED ON, THE IMMOBILISER ILLUMINATES FOR 3 SECONDS, THEN EXTINGUISHES, BUT THE VEHICLE WILL NOT START **CHART 9**

IMMOBILISER WARNING LIGHT REMAINS PERMANENTLY ILLUMINATED (even when ignition turned off) OR REMAINS PERMANENTLY EXTINGUISHED **CHART 10**

THE VEHICLE WILL NOT START **CHART 11**

CHART 1	ABSENCE OF DIALOGUE WITH THE PASSENGER COMPARTMENT CONNECTION UNIT

NOTES	Bornier **ELE. 1506**

Check the condition of + before igntion fuses.
Change the fuse if necessary.

Ensure that the fault finding tool is not the cause of the fault by trying to communicate with another computer on the vehicle (airbag computer, injection computer...).
Check the battery voltage (**U > 10.5 volts**).
Recharge the battery if necessary.

Check that the passenger compartment connection unit BII yellow 26 track connector (A) is properly locked.
Check that the passenger compartment connection unit BII is supplied correctly:
– earth in **track 1** of the passenger compartment connection unit BII white connector (C).
– + before ignition in **track 13** of the passenger compartment connection unit BII yellow 26 track connector (A).

Ensure that the diagnostic socket is correctly fed.
Check and ensure the continuity and insulation of the electrical wiring of **tracks 2 and 15** of the passenger compartment connection unit BII yellow 26 track connector (A).

If there is still no dialogue between the fault finding tool and the passenger compartment connection unit BII, change the passenger compartment connection unit BII.
See passenger compartment connection unit BII configuration.

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

CHART 2	IGNITION ON, IMMOBILISER WARNING LIGHT FLASHES PERMANENTLY (impossible to start)

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Switch on and check the presence of + after ignition feed and + ACC.
Switch the ignition off and wait for the immobiliser warning light to flash (immobiliser active).
Switch on again and check **DF031**.

Check the key recognition function.
Try to start the vehicle with the second key.

Check the condition of the antenna ring.
Check the continuity and insulation against earth and against 12 volts of the electrical wiring between:
connector (B)
JA 26 tracks connection unit and the antenna ring

passenger compartment connection unit BII	**8** → **4**		antenna ring
	22 → **3**		
	21 → **6 (earth)**		
	9 → **1**		

Switch the ignition off and wait for the immobiliser warning light to flash (immobiliser active).
Disconnect the antenna ring connector.
Place the fault finding tool in pulse sensor.
When switching the ignition on again, check for an impulse on **track 9** of the passenger compartment connection unit 26 track (B) connector (test with the connection unit connectors connected).
If there are no impulses, change the passenger compartment connection unit (BII).

Switch the ignition off and wait for the immobiliser warning light to flash (immobiliser active).
Switch on again and check ET060. If ET060 is active, change the antenna ring.

If the fault persists, change the key.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 3	**IMMOBILISER WARNING LIGHT REMAINS PERMANENTLY ILLUMINATED (even when ignition turned off) OR REMAINS PERMANENTLY EXTINGUISHED**

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check the condition of +before ignition feed fuse.
Check the engine configuration.

Replace the immobiliser warning light.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 4	IGNITION ON, INJECTION WARNING LIGHT FLASHES PERMANENTLY (impossible to start)

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check the continuity and insulation against earth and against 12 volts of the wiring between **track 18** of the connection unit 26 track blue connector (F) and the injection computer track.

With the ignition on, check that impulses are present on **track 18** of the connection unit blue 26 track (F) connector of the (test with the connection unit connectors and the injection computer connected).

If there are no impulses, change the passenger compartment connection unit (BII).
If there are impulses, change the injection computer.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 5	WHEN DRIVING (deceleration) OR IDLING, THE INJECTION WARNING LIGHT FLASHES PERMANENTLY

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

With the ignition on, check the presence of impulses on **track 18** of the passenger compartment connection unit blue 26 track connector (F).

If there is no impulse, change the passenger compartment connection unit BII.
If there are impulses, change the injection computer.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 6	THE VEHICLE WILL NOT START

NOTES	Only consult this customer complaint after a complete check using the fault finding tool

Check that **ET001** and **ET002** are active.

Check the airbag casing configuration (TECHNICAL NOTE 3149A).
– If the impact sensor is present when "fuel pump unauthorised".
– If the impact sensor is not present when "fuel pump authorised".

If the fault persists, there is an engine fault.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 7	IGNITION ON, IMMOBILISER WARNING LIGHT FLASHES PERMANENTLY (impossible to start)

NOTES	G8T engine.

Switch the ignition on and check that **ET002** is illuminated.
Switch the ignition off and wait for the immobiliser warning light to flash (immobiliser active).
Switch the ignition on and check that **DF031** is activated.

Check the key recognition function. Try to start the vehicle with the second key.
If the vehicle starts, change the first key.

Check the condition of the antenna ring.

Check the continuity and insulation against earth and against 12 volts of the electrical wiring between:

connection unit 26 track yellow connector (B)

8	→	**4**
22	→	**3**
21	→	**6 (earth)**
9	→	**1**

antenna ring

Switch the ignition off and wait for the immobiliser warning light to flash (immobiliser active). Disconnect the antenna ring connector.
When switching the ignition on again, check for an impulse on **track 9** of the passenger compartment connection unit yellow 26 track (B) connector (test with the connection unit connectors connected).
If there are no impulses, change the passenger compartment connection unit (BII).

Switch the ignition off and wait for the immobiliser warning light to flash (immobiliser active).
Switch the ignition on again and check that ET060 is active.
If it is active, change the antenna ring.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 8	**IMMOBILISER WARNING LIGHT REMAINS ILLUMINATED FOR LONGER THAN 30 CONSECUTIVE SECONDS, IGNITION ON (the immobiliser warning light illuminates when ignition turned on, in the 16 seconds following turning on the ignition or the immobiliser warning light illuminates for longer than 30 consecutive seconds)**

NOTES	G8T engine

Check the condition of the electric wiring between:

Solenoid valve coded electronic unit connector
- **1** → **18** of the connection unit 26 track connector (F)
- **2** → **+ after ignition fuse** (see impact switch)
- **3** → **vehicle earth**

With the ignition on, check that impulses are present on **track 18** of the connection unit 26 track (F) connector (test with the connection unit and the solenoid valve coded electronic unit connectors connected).
If there are no impulses, change the passenger compartment connection unit (BII).

Carry out a mechanical check of the solenoid valve:
– Ignition off, control "AC060".
– Switch on the ignition again. The valve should open and close several times in 30 seconds (listen).
Replace the solenoid valve coded electronic unit.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 9	WHEN THE IGNITION IS TURNED ON, THE IMMOBILISER ILLUMINATES FOR 3 SECONDS, THEN EXTINGUISHES, BUT THE VEHICLE WILL NOT START

NOTES	G8T engine

Carry out a mechanical check of the solenoid valve:
– Ignition off, control "AC060".
– Switch on the ignition again. The valve should open and close several times in 30 seconds (listen).
Solenoid valve coded electronic unit is not faulty. Refer to fault finding for the diesel engine.
Remove the solenoid valve coded electronic unit.
Check the condition of the solenoid valve.

If the fault persists, change the solenoid valve coded electronic unit.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 10	IMMOBILISER WARNING LIGHT REMAINS PERMANENTLY ILLUMINATED (even when ignition turned off) OR REMAINS PERMANENTLY EXTINGUISHED

NOTES	G8T engine

Check the engine configuration.

Replace the immobiliser warning light.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

CHART 11	THE VEHICLE WILL NOT START

NOTES	G8T engine

Check **ET001** and **ET002**.

Check the airbag casing configuration (TECHNICAL NOTE 3149A). See page 84-26

If the problem persists, there is a problem with the engine or with the coded solenoid valve.

AFTER REPAIR	Carry out a check using the fault finding tool. Deal with any faults found.

This document introduces the generic fault finding strategy applicable to all "Instrument panel" (relevant section: Bii-J66, software version 0370; 0380; 0390; 0400).

A Technical Note "Fault Finding Special Features" is available for each vehicle fitted with this computer / this function. It covers all the fault finding special features in this document for the vehicle concerned. This "Special Features" Note completes and cancels the information provided in the "Generic" fault finding Note.

The following are thus required to carry out fault finding on this system:

- **The "Generic Fault Finding" Technical Note,**
- **The "Fault Finding Special Features" Technical Note for the vehicle,**
- **The wiring diagram for operation of the vehicle concerned,**
- **The tools listed in the "special tooling required" list.**

GENERAL APPROACH TO FAULT FINDING:

- **Use of one of the fault finding tools to identify the system equipping the vehicle (to read the computer family, the program number, the vdiag, etc.).**

- **Finding the "Fault finding" documents corresponding to the system identified.**

- **Inclusion of information contained in the introductory sections.**

- **Reading the faults stored in the computer memory and using the "Interpretation of faults" section of the documents.**
  Reminder: Each fault is interpreted for a particular type of storage (fault present, fault stored, fault present or stored). The checks defined for handling each fault are therefore only to be performed if the fault stated by the fault finding tool is interpreted in the document for its type of storage. The storage type should be considered when using fault finding tool following ignition switch-off and switch-on.
  If a fault is interpreted when it is stated to be "stored", the conditions for application of the fault finding appear in the "NOTES" box. When the conditions are not satisfied, use the fault finding to check the circuit of the faulty part since the fault is no longer present on the vehicle. Perform the same operation when a fault is stated as "stored" by the fault finding tool but is only interpreted in the documentation for a "present" fault.

- **Perform the conformity check (appearance of possible incorrect operations not yet stated by the system's self diagnosis procedure) and apply the associated fault finding strategy according to results.**

- **Validation of the repair (disappearance of the phenomenon reported by the customer).**

- **Use of the fault finding strategy for each "Customer complaint" if the problem persists.**

NOTES	Only check the conformity after a full check using the fault finding tool.

Order	Function	Parameter / Condition checked or action	Viewing and Notes	Fault finding
		Status Window		
1	Battery voltage	**ET002** + 12 V after ignition	ACTIVE	
2	Configuration	**LC037** Engine type: L7X, F3R, Z7X, F3R GPL, G8T VP20, G8T, G9T, F9Q, F4R **LC043** Type of driving style: right, left **LC036** BII type: B1, B2, B3 **LC035** Cluster type: E1, E2, E3. **LC046** Airbag type: EC5, SDM **LC040** Controlled heating and ventilation system: yes, no **LC038** Pressure switch: old, new	Configuration reading	See p 87-04 for the configuration
3	Instrument panel BII link	**DF080** Instrument panel BII link	Fault not present	In the event of a problem, consult the relevant fault finding
4	Radio frequency remote control reception	**ET113** IR/RF network received	YES (if radio frequency remote control is correct size)	
		ET010 RF key valid	YES (if correct code)	

PASSENGER COMPARTMENT CONNECTION UNIT
Fault finding - Introduction

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This document introduces the generic fault finding strategy applicable to all "Passenger compartment connection unit" (relevant section: Bii-J66, software version 0370; 0380; 0390; 0400).

A Technical Note "Fault Finding Special Features" is available for each vehicle fitted with this computer / this function. It covers all the fault finding special features in this document for the vehicle concerned. This "Special Features" Note completes and cancels the information provided in the "Generic" fault finding Note.

The following are thus required to carry out fault finding on this system:

- **The "Generic Fault Finding" Technical Note,**
- **The "Fault Finding Special Features" Technical Note for the vehicle,**
- **The wiring diagram for operation of the vehicle concerned,**
- **The tools listed in the "special tooling required" list.**

GENERAL APPROACH TO FAULT FINDING:

- **Use of one of the fault finding tools to identify the system equipping the vehicle (to read the computer family, the program number, the vdiag, etc.).**

- **Finding the "Fault finding" documents corresponding to the system identified.**

- **Inclusion of information contained in the introductory sections.**

- **Reading the faults stored in the computer memory and using the "Interpretation of faults" section of the documents.**
  Reminder: Each fault is interpreted for a particular type of storage (fault present, fault stored, fault present or stored). The checks defined for handling each fault are therefore only to be performed if the fault stated by the fault finding tool is interpreted in the document for its type of storage. The storage type should be considered when using fault finding tool following ignition switch-off and switch-on.
  If a fault is interpreted when it is stated to be "stored", the conditions for application of the fault finding appear in the "NOTES" box. When the conditions are not satisfied, use the fault finding to check the circuit of the faulty part since the fault is no longer present on the vehicle. Perform the same operation when a fault is stated as "stored" by the fault finding tool but is only interpreted in the documentation for a "present" fault.

- **Perform the conformity check (appearance of possible incorrect operations not yet stated by the system's self diagnosis procedure) and apply the associated fault finding strategy according to results.**

- **Validation of the repair (disappearance of the phenomenon reported by the customer).**

- **Use of the fault finding strategy for each "Customer complaint" if the problem persists.**

DF033	Tailgate circuit CC.1 : Short circuit to + 12 volts CC.0 : Short circuit to earth or open circuit

NOTES	None

CC.1	***NOTES***	None

Check the insulation at + 12 volts of the (BUS) line between **track 4** of the passenger compartment connection unit (BII) yellow 26 track connector (A) and **track 3** of the tailgate module of the 4 track connector.
Rectify the (BUS) line, if necessary.

CC.0	***NOTES***	None

Check the continuity and insulation against earth between **track 4** of the passenger compartment connection unit (BII) yellow 26 track connector (A) and **track 3** of the tailgate module of the 4 track connector.

Is there continuity?

YES	Change the tailgate module.
NO	Replace the (BUS) line between **track 4** of the passenger compartment connection unit (BII) yellow 26 track connector (A) and **track 3** of the tailgate module of the 4 track connector.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF 046 PRESENT OR MEMORISED	Battery charge

NOTES	If **DF050 DF055 DF060 DF091** are also stored in memory, deal too with **CAS 1**. Use bornier **Elé 1506** for the measures.

Check the insulation of the line in **track 12** and the blue 26 track connector (F) earth.
Repair if necessary.

CAS1	***NOTES***	None

Check the continuity between the connections:

track 13 → **track 5**
track 26 → **track 6**

If the fault persists and the instrument panel warning lights are not active, change the instrument panel.

Check the illumination of the warning lights using a fault finding tool.

If the fault persists and only some warning lights are inactive or there is an incorrect display, change the passenger compartment connection unit.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF 047 PRESENT OR MEMORISED	Minimum oil level

NOTES	Use bornier **Elé 1506** for the measures.

Check the level using a dipstick.
Measure the probe resistance value between **tracks 3 and 16** of the passenger compartment connection unit 26 track blue connector F: 7 Ω < R < 15 Ω. Replace the probe if the value is not correct.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF048 PRESENT OR MEMORISED	LPG gauge CO : Open circuit

NOTES	None

CO	***NOTES***	None

Check the continuity between: LPG gauge **track B** →	**Track 15** of the passenger compartment connection unit 26 track Mot. blue connector
Check the continuity between: LPG gauge **track A** →	**Track 4** of the passenger compartment connection unit 12 track SS2 blue connector
If the fault persists, replace the LPG gauge.	

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF 050 PRESENT OR MEMORISED	Fuel gauge CO : Open circuit

NOTES	If **DF050 DF055 DF060 DF091** are also stored in memory, deal too with **CAS 1**. Use bornier **Elé 1506** for the measures.

CO	***NOTES***	None

Check the continuity of the line by measuring between **tracks 15 and 2** of the passenger compartment connection unit (BII) blue 26 track connector (F). Repair if necessary.
If the fault persists, replace the fuel gauge.

CAS1	***NOTES***	None

Check the continuity between the connections: **track 13** → **track 5** **track 26** → **track 6**
If the fault persists and the instrument panel warning lights are not active, change the instrument panel.
Check the illumination of the warning lights using a fault finding tool.
If the fault persists and only some warning lights are inactive or there is an incorrect display, change the passenger compartment connection unit.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF052 PRESENT OR MEMORISED	External temperature sensor circuit CC : Short circuit

NOTES	Use bornier **Elé 1506** for the measures.

CC	***NOTES***	None

Check the insulation between **tracks 16 and 3** on the passenger compartment connection unit (BII) yellow 26 track connector (A). Repair if necessary.
If the fault persists, replace the external temperature sensor.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF054 PRESENT OR MEMORISED	Minimum oil pressure CC.0 : Short circuit to earth

NOTES	If illuminated, check the rating circuit.

CC.0	***NOTES***	Use bornier **Elé 1506** for the measures.

Check the insulation against earth of the line in **track 22** of the passenger compartment connection unit blue 26 track connector (F). Repair if necessary.
If the fault persists, replace the oil pressure sensor.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF055 PRESENT OR MEMORISED	Oil level sensor CO : Open circuit CC : Short circuit

NOTES	Important timed control. On request instrument panel display (if parametered). If **DF050 DF055 DF060 DF091** are also stored in memory, then deal with **CAS 1**.

CO	***NOTES***	Use bornier **Elé 1506** for the measures.

Disconnect the passenger compartment connection unit blue 26 track connector (F). Check the probe resistance value between **tracks 3 and 16**, it should be between 10 and 15 ohms.
Replace the probe if the resistance value is not correct.

CC	***NOTES***	Use bornier **Elé 1506** for the measures.

Check the insulation against earth and against + 12 volts between **tracks 3 and 16** of the passenger compartment connection unit blue 26 track connector (F).
Repair if necessary.

CAS1	***NOTES***	Use bornier **Elé 1506** for the measures.

Check the continuity between the connections:

track 13 ⟶ **track 5**
track 26 ⟶ **track 6**

If the fault persists and the instrument panel warning lights are not active, change the instrument panel.

Check the illumination of the warning lights using a fault finding tool.

If the fault persists and only some warning lights are inactive or there is an incorrect display, change the passenger compartment connection unit.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF058 PRESENT OR MEMORISED	Controlled heating and ventilation system line CC.1 : Open circuit or short circuit to + 12 volts CC.0 : Short circuit to earth

NOTES	Use bornier **Elé 1506** for the measures. Vehicle fitted with controlled heating and ventilation system.

CC.1	***NOTES***	None

Check the continuity or insulation at + 12 volts of the connection between:
26 track ECH yellow passenger compartment connection unit { **track 16** → **track B9** of the air conditioning computer

Repair if necessary.

If the fault persists, replace the passenger compartment connection unit.

CC.0	***NOTES***	None

Check the insulation against earth of the connection between:
26 track ECH yellow passenger compartment connection unit { **track 16** → **track B9** of the air conditioning computer

Repair if necessary.

If the fault persists, replace the passenger compartment connection unit.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF060 PRESENT OR MEMORISED	Fuel guage locking

NOTES	If **DF050 DF055 DF060 DF091** are also stored in memory, deal too with **CAS 1**. Use bornier **Elé 1506** for the measures.

Remove the fuel gauge and check that it is operating.
Repair if necessary.

CAS1	***NOTES***	Use bornier **Elé 1506** for the measures.

Check the continuity between the connections: **track 13** → **track 5** **track 26** → **track 6**
If the fault persists and the instrument panel warning lights are not active, change the instrument panel.
Check the illumination of the warning lights using a fault finding tool.
If the fault persists and only some warning lights are inactive or there is an incorrect display, change the passenger compartment connection unit.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF080 PRESENT OR MEMORISED	BII connection ⟶ instrument panel

NOTES	Use bornier **Elé 1506** for the measures.

Check the continuity between the connections:

ECH 26 track yellow passenger compartment connection unit { **track 13** ⟶ **track 5**; **track 26** ⟶ **track 6** } Instrument panel 12 track connector

If the fault persists and the instrument panel warning lights are not active, change the instrument panel.

Check the illumination of the warning lights using a fault finding tool.

If the fault persists and only some warning lights are inactive or there is an incorrect display, change the passenger compartment connection unit.

AFTER REPAIR	Proceed with the configuration of a new component.

DF085 PRESENT OR MEMORISED	Coolant temperature sensor circuit CC : Short circuit 1.DEF : Fan assembly or coolant temperature sensor failure

NOTES	Use bornier **Elé 1506** for the measures.

CC	***NOTES***	None

Check the insulation against earth and against + 12 volts between **track 26** and **track 1** of the passenger compartment connection unit blue 26 track connector (F). Repair if necessary.
If the fault persists, replace the coolant temperature sensor.

1.DEF	***NOTES***	None

Check the fan assembly fuses in the engine compartment connection unit.
Check the fan assembly triggering temperature. Repair if necessary.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF088 PRESENT OR MEMORISED	Tailgate

NOTES	Use bornier **Elé 1506** for the measures.

Replace the tailgate module.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF091 PRESENT OR MEMORISED	Worn front brake pads

NOTES	If **DF050 DF055 DF060 DF091** are also stored in memory, deal too with **CAS 1**. Use bornier **Elé 1506** for the measures.

Check the insulation against earth of **track 9** of the passenger compartment connection unit 26 track blue MOT connector.
Check the brake pad wear.

CAS1	***NOTES***	Use bornier **Elé 1506** for the measures.

Check the continuity between the connections:

track 13 → **track 5**
track 26 → **track 6**

If the fault persists and the instrument panel warning lights are not active, change the instrument panel.

Check the illumination of the warning lights using a fault finding tool.

If the fault persists and only some warning lights are inactive or there is an incorrect display, change the passenger compartment connection unit.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF092 PRESENT OR MEMORISED	Bii connection ⟶ Automatic transmission CC.0 : Short circuit to earth

NOTES	Use bornier **Elé 1506** for the measures. Vehicle fitted with automatic transmission.

CC.0	***NOTES***	None

Check the insulation against earth of the connection between:

Passenger compartment connection unit SS2 12 track blue connector { **track 1** ⟶ **track 3** selector cluster automatic transmission

Repair if necessary.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF093 PRESENT OR MEMORISED	Bii connection ⟶ ABS CC.0 : Short circuit to earth

NOTES	Use bornier **Elé 1506** for the measures.

CC.0	***NOTES***	None

Check the insulation against earth of the connection between:

Passenger compartment connection unit MOT 26 track blue connector { **track 13** ⟶ **track 21** ABS computer connector

Repair if necessary.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF094 PRESENT OR MEMORISED	Bii connection ⟶ Attitude corrector CC.0 : Short circuit to earth

NOTES	Use bornier **Elé 1506** for the measures. Vehicle fitted with attitude corrector.

CC.0	***NOTES***	None

Check the insulation against earth of the connection between:

Passenger compartment connection unit SS2 12 track blue connector { **track 7** ⟶ **track 2** attitude corrector compressor unit white connector

Repair if necessary.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF095 PRESENT OR MEMORISED	Bii connection ⟶ Injection CC.0 : Short circuit to earth

NOTES	Use bornier **Elé 1506** for the measures.

CC.0	***NOTES***	None

Check the insulation against earth of the connection between:

passenger compartment connection unit MOT 26 track blue connector { **track 21**

- ⟶ **track 27** G8T VP20 injection computer connector
- ⟶ **track 26** F9Q, F3R injection computer connector
- ⟶ **track 1-G3** G9T injection computer connector
- ⟶ **track 15** L7X injection computer connector
- ⟶ **track 34** F4R injection computer connector

Repair if necessary.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

DF097 PRESENT OR MEMORISED	Bii connection ⟶ Airbag / Pretentioners CC.0 : Short circuit to earth

NOTES	Use bornier **Elé 1506** for the measures.

CC.0	***NOTES***	None

Check the insulation against earth of the connection between:

passenger compartment connection unit SS1 26 track yellow connector	**track 6**	⟶	**track 8**	EC5 airbag computer
	track 14	⟶	**track 23**	SDM airbag computer

Repair if necessary.

AFTER REPAIR	Clear the computer memory. Carry out a check using the fault finding tool. Deal with any faults found.

NOTES	Only check the conformity after a full check using the fault finding tool.

Order	Function	Parameter / Condition checked or action	Viewing and Notes	Fault finding
		Status Window Configuration reading		
1	Battery voltage	**ET001** + 12 V accessories **ET002** + 12 V after ignition	Status Status	In the event of a problem, consult the fault finding tool **ET001** **ET002**
2	Configuration	**LC037** Engine type: **L7X**, **F3R**, **Z7X**, **F3R GPL**, **G8T VP20**, **G8T**, **G9T**, **F9Q**, **F4R** **LC043** Type of driving style: **right-hand**, **left-hand** **LC036** BII type: **B1**, **B2**, **B3** **LC035** Cluster type: **E1**, **E2**, **E3** **LC046** Airbag type: **EC5** (until 12/1998), **SDM** (from 01/1999) **LC040** Controlled heating and ventilation system: **YES**, **NO** **LC038** Pressure switch: **old** **LC041** Rear screen: **fixed**, opening **20 s oil level display**: until September 2000, **20 s oil level display on ADAC support**: from September 2000.	Configuration reading	
3	instrument panel Bii connection Tailgate module Bii connection	Instrument panel Bii connection Tailgate module Bii connection	Fault not present	In the event of a problem, consult diagnostic **DF080** **DF033**

NOTES	Only check the conformity after a full check using the fault finding tool.

Order	Function	Parameter / Condition checked or action		Viewing and Notes	Fault finding
Parameter Window					
4	Coolant temperature	**PR059** **ET087**	Coolant temperature	X = 0 to 9 (number of barcharts displayed on the instrument panel)	In the event of a problem, consult diagnostic **DF085**
5	Fuel level	**PR057** **ET118**	Fuel level	X = 0 to 9 (number of barcharts displayed on the instrument panel)	In the event of a problem, consult diagnostic **DF050**
6	Oil level	**PR058** **ET166**	Oil level	X = 0 to 9 (number of barcharts displayed on the instrument panel)	In the event of a problem, consult diagnostic **DF055** **DF054**
Command Window					
7	LED Software	**AC066**	Immobiliser warning light illumination	Instrument panel LED activated	
8	Indicators	**AC015** **AC016**	Right Left	Illumination of the indicators concerned	
9	Courtesy lights	**AC053** **AC054**	Front courtesy lights Rear courtesy lights	The 1st rail of lights illuminates or the 2nd and 3rd rails	

NOTES	Only check the conformity after a full check using the fault finding tool.

Order	Function	Parameter / Condition checked or action		Viewing and Notes	Fault finding
Command Window (continued)					
10	Windscreen wiper	**AC064** **AC029**	low speed Rear screen wiper	Operation of windscreen wiper concerned	
11	Fog light	**AC044** **AC045**	Front Rear	Operation of fog light concerned	
12	Hazard warning light	**AC014**	Hazard warning light	Illumination of all the indicators	
13	Headlight washers	**AC070**	Headlight washers	The headlight washers must operate	
14	Driver's window	**AC024** **AC025**	Lowered Raised	The driver's window mustv operate	
15	Opening elements	**AC063** **AC072**	Locking Unlocking	All the opening elements must lock	
16	Stop	**AC075**	Actuator command end	Required command for stopping any activated functions	

ET001	+ 12 V Accessories

NOTES	Use bornier **Elé 1506** for the measures.

Check the condition of + ACC fuse.
Change the fuse if necessary.

With the ignition on, check that a voltage of + 12 volts is present on **track 5** of the passenger compartment connection unit (Bii) yellow 26 track connector (A).

Are there 12 volts ?

YES	Change the passenger compartment connection unit (BII).
NO	Repair the electrical wiring between **track 5** of the passenger compartment connection unit BII yellow 26 track connector (A) and the passenger compartment fuse board.

AFTER REPAIR	Restart the conformity check from the beginning.

ET002	+ 12 V after ignition

NOTES	Use bornier **Elé 1506** for the measures.

Check the condition of the + after ignition fuse.
Change the fuse if necessary.

With the ignition on, check that a voltage of + 12 volts is present on **track 17** of the passenger compartment connection unit (Bii) yellow 26 track connector (A).

Are there 12 volts ?

YES	Change the passenger compartment connection unit (BII).
NO	Repair the electrical wiring between **track 17** of the passenger compartment connection unit BII yellow 26 track connector (A) and the passenger compartment fuse board.

AFTER REPAIR	Restart the conformity check.

ET005	Windscreen wiper park position

NOTES	Illuminated when the switch is in park position.

Check the connection between **track 25** of the passenger compartment connection unit connector (D) and **track A2** of the wiper motor. Repair if necessary.
Place an earth in **track 25** of the passenger compartment connection unit connector (D). ET005 must illuminate. If ET005 does not illuminate, replace the passenger compartment connection unit.
If the fault persists, replace the wiper motor.

AFTER REPAIR	Check the passenger compartment connection unit configuration.

ET020	Side light control

NOTES	Illuminated when the lighting stalk is in lights position. Use bornier **Elé 1506** for the passenger compartment connection unit measures.

With the lighting stalk in side light position, check fuse F42. Replace fuse F42 if necessary.
Check the connection of fuse F42 to **track B2** of the switch. Check the + 12 volts in **track B1** of the switch in lights position. Check fuses F1, F2 and **track B1** of the switch. Repair if necessary.
Check fuses F1 and F2: – For the left side lights check fuse F10 line to **tracks** : ● **A2** for the left headlight, ● **5** for the left rear light, ● **7** of the passenger compartment connection unit yellow 26 track connector (A) for the warning light. – For the right side light check fuse F2 line to **tracks**: ● **A2** for the headlight, ● **3** for the right rear light.

AFTER REPAIR	Check the passenger compartment connection unit configuration.

ET022	Hazard warning lights switch

NOTES	Use bornier **Elé 1506** for the measures.

With the hazard warning light button operating, start the "hazard warning light" command using the tool. Replace the passenger compartment connection unit Bii, if necessary.
Check the earth in **track 4** of the button. Check the connection in **track 4** of the yellow 26 track connector (B) and **track 6** of the hazard warning light button. Repair the wiring if necessary.
Check that the button is operating properly.

AFTER REPAIR	Check the passenger compartment connection unit configuration.

ET023	Dipped headlights control

NOTES	Illuminated when the lighting stalk is in dipped headlights position. Use bornier **Elé 1506** for the measures.

With the lighting stalk in dipped headlight position, check the fuse. Replace the fuse if necessary.
Check the connection of the fuse to **track B3** of the switch. Check the + 12 volts in **track B4** of the switch in dipped headlight position. Check the + 12 volts in **track 1** of the relay and in **track 21** of the passenger compartment connection unit yellow connector (A). Check the earth in **track 2** of the relay. Repair if necessary.
Check the + 12 volts in **track 3** of the relay. Check fuse F50 in the engine compartment casing. Replace the fuse if necessary.
Check the connection between fuse F50 and **track 3** of the relay. Repair if necessary.
Check the + 12 volts in **track 5** of the relay. Replace the relay if necessary.
Check fuses F58 and F59 in the engine compartment casing. Replace the fuse if necessary.
Check the connection(s) between fuse F58 or F59 and **track 5** of the relay. Check the connection between **track 5** of the relay and **track B1** of the headlights connector. Check the earth in **track B1** of the headlights. Repair if necessary.
If the fault persists, check the bulbs.

AFTER REPAIR	Check the passenger compartment connection unit configuration.

ET024	Main beam headlight control

NOTES	Use bornier **Elé 1506** for the measures.

With the lighting stalk in main beam headlight position, check the fuse. Replace the fuse if necessary.
Check the connection of fuse F42 to **track B6** of the switch. Check the + 12 volts in **track B7** of the switch in main beam headlight position. Check the + 12 volts in **track 1** of the relay and in **track 19** of the passenger compartment connection unit yellow 26 track connector (A). Check the earth in **track 2** of the relay. Repair if necessary.
Check the + 12 volts in **track 3** of the relay. Check fuse F50 in the engine compartment casing. Replace the fuse if necessary.
Check the connection between fuse F50 and **track 3** of the relay. Repair if necessary.
Check the + 12 volts in **track 5** of the relay. Replace the relay if necessary.
Check fuse F66 in the engine compartment casing. Replace the fuse if necessary.
Check the connection between fuse F66 and **track 5** of the relay. Check the connection between **track 5** of the relay and **track C2** of the headlights connector. Check th eearth in **track B1** of the headlights. Repair if necessary.
If the fault persists, check the bulbs.

AFTER REPAIR	Check the passenger compartment connection unit configuration.

ET028 **ET029**	Left and right indicator controls

NOTES	Use bornier **Elé 1506** for the measures.

On the fault finding tool, start the right and left indicator control. The indicators must illuminate permanently. Check the switch in **track 6**. Repair if necessary.
Check the switch connection: – in **track A7** and **track 17** of the left indicator passenger compartment connection unit yellow 26 track connector (B), – in **track A5** and **track 3** of the right indicator passenger compartment connection unit yellow 26 track connector (B), Repair the wiring if necessary.
If the fault persists, replace the switch.
Check the supply in **track 2** for the right indicator in **track 1** for the left indicator of the passenger compartment connection unit black 16 track connector (D). Replace the passenger compartment connection unit Bii, if necesary.

AFTER REPAIR	Check the passenger compartment connection unit configuration.

ET032	Front windscreen washer control

NOTES	Illuminated when the switch is in front windscreen washer position.

Check fuse F15. Replace the fuse if necessary.
Check the + 12 volts in **track B4** of the switch. Repair if necessary.
While pressing on the windscreen washer switch, check the + 12 volts in **track A4**. Replace the switch if necessary.
Check the connection in **track A4** of the switch and **track B1** of the pump. Check the earth in **track B5** of the switch. Repair if necessary.
Check the earth in **track B1** of the switch. Replace the switch if necessary.
Check the connection in **track B1** of the switch and **track A1** of the pump. Repair if necessary.
If the fault persists, replace the pump.

AFTER REPAIR	Check that the wipers operate correctly.

ET035	Windscreen wiper intermittent facility

NOTES	Use bornier **Elé 1506** for the measures.

Check fuse F12. Replace the fuse if necessary.
Check the earth in **track 7** of the switch. Repair if necessary.
With the switch in intermittent position, check the resistance between **tracks A7 and A1** which must be between 30 ohms/10 kohms. If the value is incorrect, replace the switch.
Check the connection in **track A1** of the switch and in **track 7** of the passenger compartment connection unit yellow 26 track connector (B). Repair if necessary.
Check the supply in **track 16** of the passenger compartment connection unit black 16 track connector (D). Replace the passenger compartment connection, if necessary.
Check the connection **track 16** of the black 16 track connector (D) and **track A1** of the wiper motor. Repair if necessary.
If the fault persists, replace the wiper motor.

AFTER REPAIR	Check the passenger compartment connection unit configuration.

ET050	Rear screen wiper control

NOTES	For vehicle with opening rear screen. For vehicles fitted with an opening rear screen, check that the screen is shut properly.

Check fuse F15. Replace the fuse if necessary.
Check the BUS connection in **track 4** of the passenger compartment connection unit Bii 26 track connector (A) and **track 3** of the tailgate module 18 track connector. Repair if necessary.
Check the tailgate and rear screen switches. Check the earth of the tailgate module in **track 1**. Replace the tailgate module if the earth is correct. Check the + 12 volts in **track B4** of the wiper stalk. Repair if necessary.
Check the + 12 volts in **track B2** of the switch in rear screen wiper position. Replace the switch if the + 12 volts is not present.
Check the + 12 volts in **track 12** of the passenger compartment connection unit yellow 26 track connector (B). Repair if necessary.
If the fault persists, replace the passenger compartment connection unit.

AFTER REPAIR	Check that the wipers operate correctly.

ET051	Low speed windscreen wiper control

NOTES	Illuminated when the switch is in low speed position.

Check fuse F12. Replace the fuse if necessary.
Check the earth in **track 7** of the switch. With the switch in low speed position, check the earth in **track A3**. Replace the switch if necessary.
Check the connection in **track A3** of the switch and in **track 20** of the passenger compartment connection unit yellow 26 track connector (B). Repair if necessary.
Check the supply in **track 16** of the passenger compartment connection unit black 16 track connector (D). Replace the passenger compartment connection.
Check the connection **track 16** of the black 16 track connector (D) and **track A1** of the wiper motor. Repair if necessary.
If the fault persists, replace the wiper motor.

AFTER REPAIR	Check that the wipers operate correctly.

ET052	High speed windscreen wiper control

NOTES	Illuminated when the switch is at high speed.

With the switch in high speed position, check the earth in **track A2** of the switch. Repair if necessary.
Check the connection in **track A2** of the switch and in **track 6** of the passenger compartment connection unit yellow 26 track connector (B). If no continuity, replace the passenger compartment connection unit Bii.
Check the presence of + 12 volts in **track 8** on the passenger compartment connection unit black 16 track connector (D). Repair if necessary.
Check the continuity between **track 8** on the passenger compartment connection unit black 16 track connector (D) and the wiper motor in **track B1**. If there is continuity, replace the wiper motor.

AFTER REPAIR	Check that the wipers operate correctly.

ET082	Heated seat key

NOTES	Illuminated when the control is activated.

Check the earth in **track A1** of the seat button. Repair if necessary.
Operate the button and check the earth **track B1** (warning, there is a diode). Replace the button if necessary.
Check the earth in **track 12** of the blue 12 track connector (F). Repair if necessary.
If the fault persists, check the bulbs.

AFTER REPAIR	Check that the wipers operate correctly.

ET096	Seat belt warning device

NOTES	Driver's belt engaged.

Check the earth in **track 22** of the passenger compartment connection unit Bii yellow 26 track connector (A). Repair if necessary.
If the fault persists, replace the passenger compartment connection unit Bii.

AFTER REPAIR	Check that the wipers operate correctly.

ET098	Unlocking control

NOTES	Illuminated when pressing on the button in unlocking position. Use bornier **Elé 1506** for the measures.

Check the earth in **track B2** of the button. Repair if necessary.
With the button kept in locking position, check the earth in **track B3**. Replace the button if necessary.
With the button kept in locking position, check the earth in **track 5** of the passenger compartment connection unit yellow 26 track connector (B). Repair if necessary.
Check the presence of + 12 volts in **track 7** of the black 16 track connector (D) button kept in locking position. If the + 12 volts is not present, replace the passenger compartment connection unit.
Check **track 7** connection of the black 16 track connector (D) and **track 3** of the door motors, **track 1** for the fuel tank flap. Repair if necessary.
If the fault persists, replace the motor.

AFTER REPAIR	Check that the wipers operate correctly.

ET099	Locking control

NOTES	Illuminated when pressing on the button in locking position. Use bornier **Elé 1506** for the measures.

Check the earth in **track B2** of the button. Repair if necessary.
With the button kept in locking position, check the earth in **track A1**. Replace the button if necessary.
With the button kept in locking position, check the earth in **track 18** of the passenger compartment connection unit yellow 26 track connector (B). Repair if necessary.
Check the presence of 12 volts in **track 6** of the black 16 track connector (D) button kept in locking position. If the + 12 volts is not present, replace the passenger compartment connection unit.
Check **track 6** connection of the black 16 track connector (D) and **track 1** of the door motors, **track 3** for the fuel tank flap. Repair if necessary.
If the fault persists, replace the motor.

AFTER REPAIR	Check that the wipers operate correctly.

ET114	Electric window automatic rewinding

NOTES	Illuminated when the control is in operation. Use bornier **Elé 1506** for the measures.

On the fault finding tool, start the window raising and lowering controls.
Check that the window operates correctly.

With the bornier in place, check the continuity of the line:
– in **track 24** of the yellow 26 track connector (A) and **track A2** of the window lift button,
– in **track 11** of the yellow 26 track connector (A) and **track B2** of the window lift button,
Repair if necessary.

Check the driver's window lift button earth in **track 3**.
Repair if necessary.

If the fault persists, replace the driver's window lift.

Position the bornier, start the window raising and lowering controls.
Check the voltage between **tracks 3 and 4** of the black 16 track connector (D):
– through the raise control = + 12 volts.
– through the lower control = - 12 volts.
Replace the passenger compartment connection unit BII if the voltage levels are not correct.

Check the continuity in **track 3** of the passenger compartment connection unit black 16 track connector (D) and the **track 2** of the window lift motor.
Check the continuity in **track 4** of the black 16 track connector (D) **track 1** of the window lift motor.
Repair if necessary.

If the fault persists, replace the window lift motor.

AFTER REPAIR	Check that the wipers operate correctly. Check the passenger compartment connection unit configuration.

ET120	Right front door open

NOTES	Illuminated if door open.

NOTE:

Interior lights normal operation:

– With the radio frequency plip remote control

Illumination of interior lights:
– Front and central console
– Second line

Timed period when doors closed.

– On opening the front door:

Illumination of interior lights:
– Front and central console
– Second line.

Timed period when doors closed.

– On opening the rear door:

Illumination of interior lights:	– Front and central console	extinguish after timed period
	– Second line.	
	– Third line	extinguish immediately
	– Luggage compartment.	

AFTER REPAIR	Check that the wipers operate correctly.

ET120 (Continued)	

NOTES	Check fuse F28 and check that 12 volts is present in track 2 of the interior lights. Put the interior lights in "door" position.

Check the lines between the passenger compartment connection unit and the door switches. In **track A** of the switch:
– In **track 18** of the connection unit yellow 26 track connector (A) for the left front switch.
– In **track 23** of the connection unit yellow 26 track connector (A) for the right front switch.
– In **track 9** of the connection unit yellow 26 track connector (A) for the rear doors' switch.
Repair if necessary.

Check the earth in **track B** of the door switch.
Repair if necessary.

If the fault persists, replace the switch.

Check the earth in **track 12** of the passenger compartment connection unit yellow 26 track connector (A).
Replace the passenger compartment connection unit BII if the earth is not present.

Check the lines between **track 12** of the passenger compartment connection unit yellow 26 track connector (A).
In **track 3**, for the right front interior lights and the 2nd right line and front console lights.
Repair if necessary.

If the fault persists, replace the bulb.

AFTER REPAIR	Check that the wipers operate correctly.

ET121	Left front door open

NOTES	Illuminated if door open.

NOTE:

Interior lights normal operation:

– With the radio frequency plip remote control

Illumination of interior lights:
– Front and central console
– Second line

Timed period when doors closed.

– On opening the front door:

Illumination of interior lights:
– Front and central console
– Second line.

Timed period when doors closed.

– On opening the rear door:

Illumination of interior lights:	– Front and central console	extinguish after timed period
	– Second line.	
	– Third line	extinguish immediately
	– Luggage compartment.	

AFTER REPAIR	Check that the wipers operate correctly.

ET121 (Continued)	

NOTES	Check fuse F28 and check that 12 volts is present in track 2 of the interior lights. Put the interior lights in "door" position.

Check the lines between the passenger compartment connection unit and the door switches. In **track A** of the switch:
– In **track 18** of the connection unit yellow 26 track connector (A) for the left front switch.
– In **track 23** of the connection unit yellow 26 track connector (A) for the right front switch.
– In **track 9** of the connection unit yellow 26 track connector (A) for the rear doors' switch.
Repair if necessary.

Check the earth in **track B** of the door switch.
Repair if necessary.

If the fault persists, replace the switch.

Check the earth in **track 12**of the passenger compartment connection unit yellow 26 track connector (A).
Replace the passenger compartment connection unit BII if the earth is not present.

Check the lines between **track 12** of the passenger compartment connection unit yellow 26 track connector (A).
In **track 1**, for the left front interior lights and 2nd left line light.
Repair if necessary.

If the fault persists, replace the bulb.

AFTER REPAIR	Check that the wipers operate correctly.

ET122	Rear door open

NOTES	Illuminated if door open.

NOTE:

Interior lights normal operation:

– With the radio frequency plip remote control

Illumination of interior lights:
– Front and central console
– Second line

Timed period when doors closed.

– On opening the front door:

Illumination of interior lights:
– Front and central console
– Second line.

Timed period when doors closed.

– On opening the rear door:

Illumination of interior lights:	– Front and central console	extinguish after timed period
	– Second line.	
	– Third line	extinguish immediately
	– Luggage compartment.	

AFTER REPAIR	Check that the wipers operate correctly.

ET122 (Continued)	

NOTES	Check fuse F28 and check that 12 volts is present in track 2 of the interior lights. Put the interior lights in "door" position.

Check the lines between the passenger compartment connection unit and the door switches. In **track A** of the switch:
– In **track 18** of the connection unit yellow 26 track connector (A) for the left front switch.
– In **track 23** of the connection unit yellow 26 track connector (A) for the right front switch.
– In **track 9** of the connection unit yellow 26 track connector (A) for the rear doors' switch.
Repair if necessary.

Check the earth in **track B** of the door switch.
Repair if necessary.

If the fault persists, replace the switch.

Check the earth in **track 12**of the passenger compartment connection unit yellow 26 track connector (A).
Replace the passenger compartment connection unit BII if the earth is not present.

Check the lines between **track 12** of the passenger compartment connection unit yellow 26 track connector (A).
– In **track 1**, for the 2nd left line light.
– In **track 9**, for the 2nd right line light.
Repair if necessary.

If the fault persists, replace the bulb.

AFTER REPAIR	Check that the wipers operate correctly.

ET123	Tailgate open

NOTES	Check fuse F28 and check that 12 volts is present in track 2 of the interior lights. Put the interior lights in "door" position.

Check the lines between the passenger compartment connection unit and the tailgate module:
– In **track 4** of the connection unit yellow 26 track connector (A) for the left front switch.
– In **track 3** of the tailgate module connector.
Repair if necessary.

Check the earth in **track 1** of the door switch (tailgate open).
Repair if necessary.

If the fault persists, replace the switch.

Check the earth in **track 4** of the tailgate module (tailgate open).
Replace the tailgate module if the earth is not present.

AFTER REPAIR	Check that the wipers operate correctly.

ET138	ADAC button pushed in

NOTES	None

Check the earth in **track B5** of the switch. Repair if necessary.
Check the earth in **track B7** of the switch by pushing the ADAC control. Replace the switch if necessary.
Check the earth in **track 19** of the passenger compartment connection unit Bii yellow 26 track connector (B). Repair if necessary.
If the fault persists, replace the passenger compartment connection unit Bii.

AFTER REPAIR	Check that the wipers operate correctly.

ET141	Reversing engaged

NOTES	Use bornier **Elé 1506** for the measures.

Manual gearbox

With the reversing control engaged, check fuses F18 and F13. Replace the fuse(s) if necessary.
Check the 12 volts on the reversing switch. Replace the switch if necessary.
Check the 12 volts on the reversing lights in **track 2**. Repair if necessary.
If the fault persists, check the bulbs.

Automatic transmission

With the reversing control engaged, check fuses F18 and F13. Replace the fuse(s) if necessary.
Check the 12 volts on the multifunction switch. Replace the switch if necessary.
Check the 12 volts on the reversing lights in **track 2** for the left and in **track 5** for the right. Repair if necessary.
If the fault persists, check the bulbs.

AFTER REPAIR	Check that the wipers operate correctly.

ET171	Preheating phase

NOTES	For diesel vehicles only. Two cases are dealth with: – ET133 remains extinguished when switching on : case 1 – ET133 remains illuminated without the preheating function : case 2 Use bornier **Elé 1506** for the measures.

Case 1	The status does not illuminate, check: – The continuity between **track 24** of the passenger compartment connection unit (BII) blue 26 track connector (F) and **track XX** of the diesel injection computer.
Case 2	If the status remains illuminated without the preheating function, check: – The insulation between **track 24** of the passenger compartment connection unit (Bii) blue 26 track connector (F) and the earth.

AFTER REPAIR	Restart the conformity check from the beginning.