

## N.T. 3028A

JE0X

Special notes for vehicles equipped with the passenger compartment connection unit, known as (BII), the intelligent connection unit.

Vehicle identification: the red immobiliser warning light is on the instrument panel.

For the sections not described in this note, refer to M.R. 315.

77 11 200 466 JUNE 1998 Edition Anglaise

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

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

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## Passenger compartment connection unit (BII)

#### **GENERAL**

This technical development allows the vehicle wiring to be made simpler by the use of multiplexing.

This new feature for model year 1999 brings several improvements in terms of customer use, but will require no new knowledge in the area of fault finding and repair.

The special features are dealt with in this section and the wiring diagram NT8141A.

#### **DEVELOPMENTS**

- Instrument panel display.
- Radiofrequency PLIP for doors.
- Interior lighting programming.
- Wiper programming.
- Electric windows.
- Location of fuses.

#### INSTRUMENT PANEL

The red immobiliser warning light is on the left hand side.

Regrouping of handbrake and brake fluid level warning lights.

Display of outside temperature on all vehicles with radio equipment.

Generates the radiofrequency code (TRF) and sends the command for door locking or unlocking to the passenger compartment connection unit.

#### **PLIP**

Due to the increase in effective range of the radiofrequency plip response time may vary. Maintain the pressure on the plip until the door locks have been activated. Effective operational range approximately 2 metres.

#### INTERIOR LIGHTING PROGRAMMING

The middle row of lights operate in the same way as the front ones.

#### WIPING

Pulsed wiping.

Rear wiping operation when reverse gear is selected.

Operation of windscreen wipers vary with vehicle speed.

#### ELECTRIC WINDOWS

Operation authorised when the ignition switch is at + accessories feed or stop for 30 seconds.

#### TECHNICAL DEVELOPMENTS

New components:

- Passenger compartment structure wiring.
- Dashboard wiring.
- Fuse box and

Passenger Compartment Connection Unit (BII).

- Tailgate module.
- Instrument panel display.
- Radio control of the opening elements.

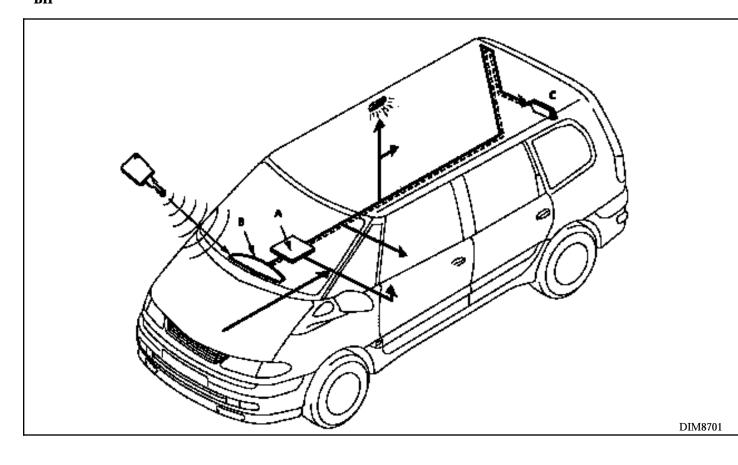
#### **OPERATING PRINCIPLE**

The passenger compartment connection unit (BII):

- receives driver's commands and engine alerts
- sends digital codes to the instrument panel and to the tailgate module, via two wires for the instrument panel and via one wire for the tailgate module which carries several commands at one time.

## Passenger compartment connection unit (BII)

LOCATION OF COMPONENTS CONNECTED TO THE PASSENGER COMPARTMENT CONNECTION UNIT BII



#### \_\_\_ multiplex connection

A: Passenger compartment connection unit (BII)

B : Instrument panel C : Tailgate module

## COMPOSITION OF MULTIPLEX NETWORK Multiplexing only affects «comfort» management

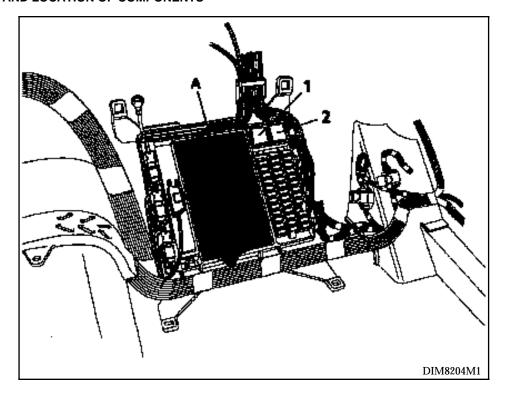
Passenger Compartment Connection Unit (BII) OBD diagnostic socket Instrument panel display Wiring looms Tailgate module

## COMPOSITION OF THE ADDITIONAL NON-MULTIPLEX NETWORK

OBD diagnostic socket Injection computer ABR 5.3 computer Radio COA computer Engine wiring loom

### Passenger compartment connection unit (BII)

#### **DESCRIPTION AND LOCATION OF COMPONENTS**



#### PASSENGER COMPARTMENT CONNECTION UNIT (A).

This unit deals with and controls the following functions:

- engine immobiliser,
- door locking,
- passenger compartment lighting,
- driver's electric window,
- front wiping,
- engine information,
- sending of information to the tailgate module, for the operation of: rear wiping, rear fog lights...

It exchanges information, principally with the instrument panel and the tailgate module and also manages all the warning lights for the other instrument panel functions.

It replaces the immobiliser unit, the central flasher unit, the air conditioning relay, the rear window blocking relay and the 0 volt after TRF relay.

It centralises fault finding information which it transmits to the XR25 Cassette n°18 fault finding tool.

The Passenger Compartment Connection Unit (BII) has 4 operating modes:

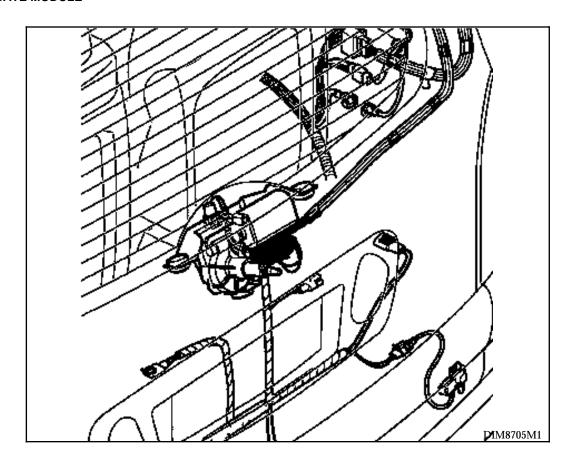
- standby mode (vehicle stopped),
- pre-ignition mode (+ accessories feed or + after ignition feed),
- starting mode (+DEM),
- engine running mode.

The passenger compartment connection unit (BII) is located in the passenger footwell with the fuse box.

- 1 Heated rear screen relay.
- 2 After ignition relay.

## Passenger compartment connection unit (BII)

#### **TAILGATE MODULE**

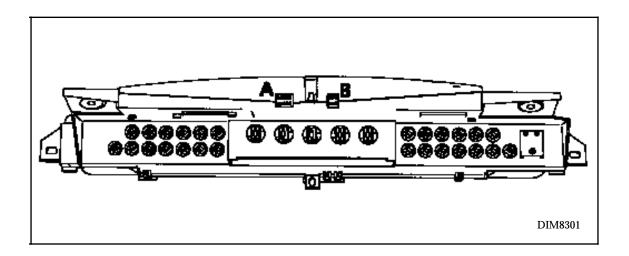


It receives the passenger compartment connection unit BII information concerning rear wiping, fog lights, closure of the tailgate and the rear screen position, rear passenger compartment and number plate lighting .

It is located on the mounting for the rear screen wiper motor.

## Passenger compartment connection unit (BII)

#### **INSTRUMENT PANEL DISPLAY**



#### **INSTRUMENT PANEL DISPLAY**

It can be identified by its connectors (A and B) of which it has two instead of four. It centralises three independent, but inseparable functions:

- It generates the radiofrequency code (TRF) and sends the door unlocking or locking command to the passenger compartment connection unit,
- radio and audio display,
- the display of warning lights and multifunction warning lights.

### Passenger compartment connection unit (BII)

#### **FAULT FINDING PRINCIPLE**

Fault finding is carried out using conventional RENAULT tools:

the XR25, NXR and a special bornier Elé. 1506 for checking the continuities of the wiring looms. This bornier is connected in series between the vehicle wiring loom and the passenger compartment connection unit whose function it interrupts.

Fault finding is still based on:

- the use of fault bargraphs.
- forced command modes.
- acknowledgement of driver commands.

#### **FAULT FINDING SECTION**

is comprised of the following sections:

#### 62 Air conditioning

This fault finding is identical to that for other JEOX models with the exception of the location of air conditioning relay 474 which is contained in the passenger compartment connection unit BII.

#### 82 Immobiliser

This fault finding and the parameters are identical to that for other JE0X models, with the exception of the location of the tracks.

#### 83 Instrument panel

This fault finding is entirely new.

it deals with the warning lights in the form of fault charts.

87 Passenger Compartment Connection Unit BII

This fault finding is entirely new.

#### **CONVENTIONAL FAULT FINDING**

The following fault finding sections do not change:

- Pneumatic self-levelling suspension.
- Injection.
- ABS.
- Automatic Transmission.
- Radio.

#### **IMPORTANT:**

When replacing an instrument panel or a BII passenger compartment connection unit, the mileage is retained in the BII passenger compartment connection unit and instrument panel memory.

When connecting the new component, the mileage in the memory will be displayed automatically on the instrument panel or in the BII passenger compartment connection unit.

Do not carry out fault finding using a substitute component from another vehicle as the higher mileage will be memorised and will be displayed on both vehicles.

# AIR CONDITIONING Fault finding - Customer complaints



NOTES	For additional fault finding see MR 315 Fault Finding, section 62

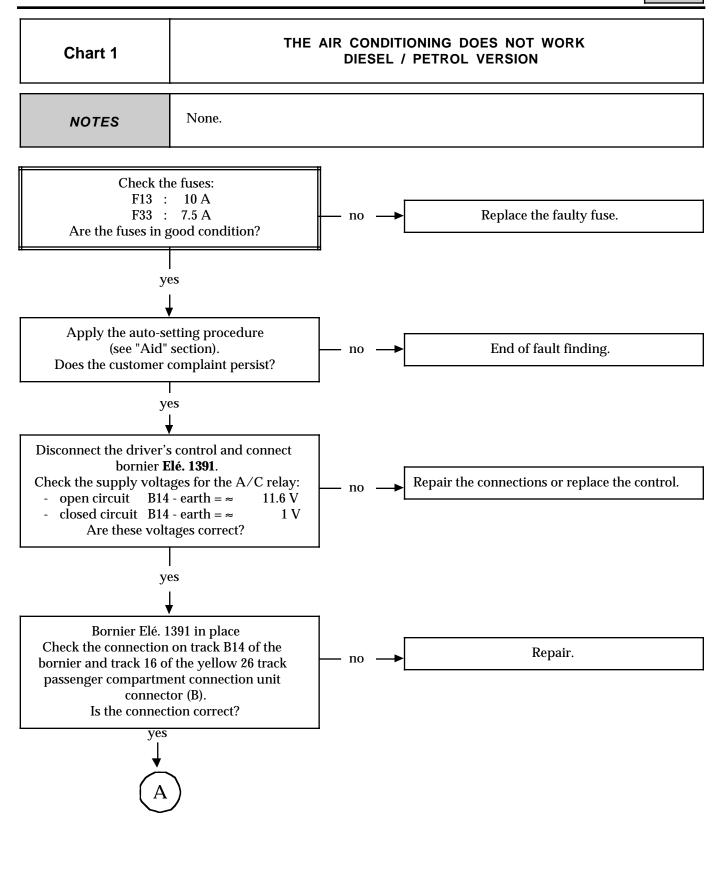
THE AIR CONDITIONING COMPRESSOR RELAY IS INTEGRATED IN THE PASSENGER COMPARTMENT CONNECTION UNIT

THE AIR CONDITIONING DOES NOT WORK (diesel /petrol version)

**Chart 1** 

## AIR CONDITIONING Fault finding - Fault charts

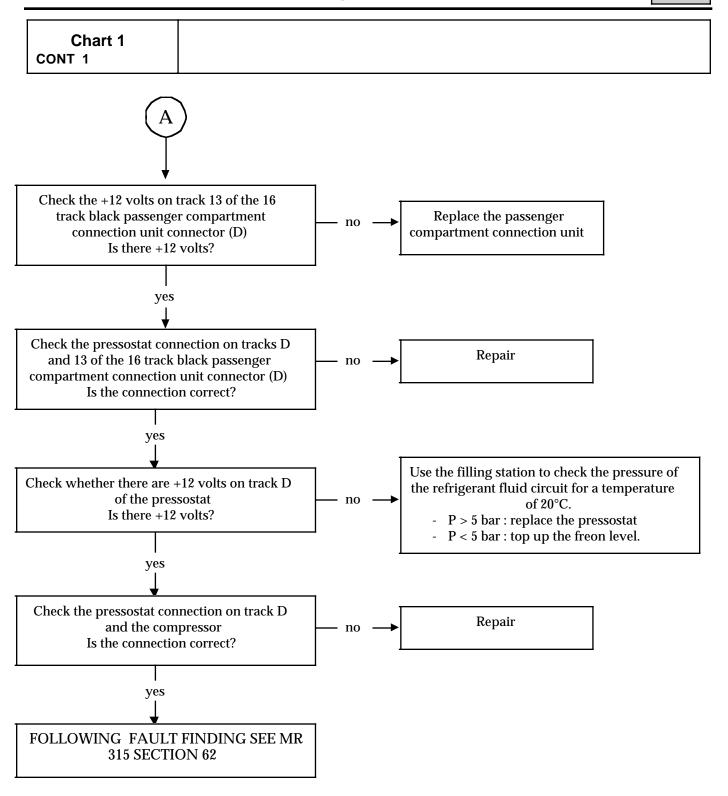




AFTER REPAIR

Carry out a road test.

## AIR CONDITIONING Fault finding - Fault charts



AFTER REPAIR

Carry out a road test.

#### **GENERAL**

**The ESPACE** is equipped with a passenger compartment connection unit (BII) allowing management of:

- the immobiliser by means of a key recognition system (known as the CODED KEY engine immobiliser system).
- door locking and unlocking by means of a radiofrequency PLIP (TRF).

#### The immobiliser

A coded electronic unit (operating without a battery) which is independent of the remote control function is integrated in the head of each key for the vehicle.

When the ignition is switched on, an antenna ring located around the ignition switch interrogates and captures the code emitted by the key and transmits it to the passenger compartment connection unit.

If it recognises the code, vehicle starting is authorised.

The immobiliser is activated a few seconds after the key is removed from the ignition switch and is indicated by flashing of the red warning light located on the instrument panel.

If there is a key recognition system fault, a security code can be entered either:

- using the door locking button (it doe not matter which side) the red immobiliser warning light, or
- using the XR25.

This code will be given to the technician (on request) by the local assistance network (depending on the country, for example **Delta Assistance** on **08 00 05 15 15** for France, NVSR for the UK by fax only).

#### NOTE:

This system is fitted to petrol and diesel vehicles.

**Petrol and direct injection diesel vehicles (example: F9Q)** the immobiliser function is performed by the injection computer.

**Diesel vehicle with coded solenoid valve:** the immobiliser function is performed by a coded solenoid valve (on the injection pump).

IMPORTANT: ESPACE vehicles equipped with F9Q, L7X engines have a special injection computer which will only function if coded.

#### Door locking / unlocking

The radiofrequency with which the vehicle is equipped is used for:

- locking or unlocking of the opening elements,
- management of the courtesy lights (time delay).

The radiofrequency code is a rolling code and will therefore be different each time the PLIP is pressed to prevent possible copying.

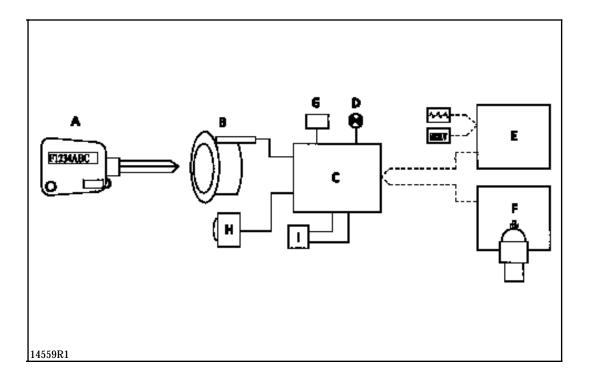
When replacing one of the PLIPs, a resynchronisation procedure will therefore have to be carried out.

- It is no longer possible to unlock the doors with the door locking button when the remote control has been used to lock the doors.
- Door locking using the PLIP is indicated by two flashes of the hazard warning lights whilst unlocking of the doors will be indicated by one flash of the hazard warning lights.

#### **IDENTIFICATION**

On these vehicles the identification number on the key heads consists of **eight characters** beginning with the letter **F** for the radiofrequency PLIPs.

#### PRESENTATION OF THE SYSTEM



- A Dual function key
- B Antenna ring
- C Passenger compartment connection unit BII
- D Red immobiliser warning light (on the instrument panel)
- E Injection computer (petrol or direct injection diesel)
- F Coded solenoid valve for diesel vehicles (except direct injection diesel)
- G Central door locking / unlocking button
- H Radiofrequency receiver unit (on the instrument panel)
- I Diagnostic socket

## IMMOBILISER

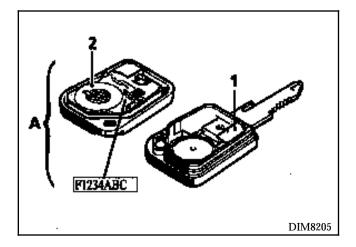
### Passenger compartment connection unit (BII)

#### **DESCRIPTION OF THE SYSTEM**

With this system, the immobiliser is activated approximately **10 seconds** after the ignition is switched off (shown by flashing of the red immobiliser warning light).

#### It is composed of:

- two special matched dual function key heads equipped with:
  - a coded electronic chip allowing control of the immobiliser (1),
  - a radiofrequency remote control electronic chip (2) allowing control of locking or unlocking of the opening elements and timing of the courtesy lights.

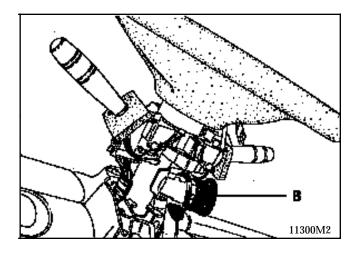


An antenna ring (B) located around the ignition switch, equipped with an electronic chip responsible for transmitting the code from the keys to the passenger compartment connection unit BII (C).

**NOTE**: This antenna ring is not coded.

**IMPORTANT:** Do not force the ring or its connector when removing or refitting the two half-cowlings so as not to damage the coil wires.

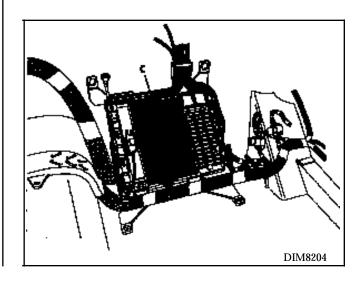
If these wires are damaged the key will not be recognised when the ignition is switched on.



• A passenger compartment connection unit BII (C) located in the fuse box.

It ensures the following functions:

- the decoding of the key signal from the antenna ring,
- management of the immobiliser system by sending a code to the injection computer (petrol or direct injection diesel) or to the coded solenoid valve for diesel vehicles (except direct injection) to authorise vehicle starting,
- control of the red immobiliser warning light,
- unlocking and locking of the opening elements,
- timed illumination of the courtesy light.



## Special notes for the passenger compartment connection unit BII

When it is replaced, check the configuration.

- The central door locking button is blocked in open position when the doors have been locked using the PLIP.
- Locking of the doors using the PLIP is indicated by two flashes of the hazard warning lights whilst unlocking of the doors will be indicated by one flash of the hazard warning lights.

IMPORTANT: If one of the opening elements is not closed, or a switch is faulty when the doors are locked using the PLIP, the hazard warning lights will not operate.

- A red immobiliser warning light is located on the instrument panel and is used to:
  - signal that the immobiliser system has been activated,
  - manually enter the security code,
  - signal a system fault for diesel vehicles equipped with a coded solenoid valve (except direct injection).
  - indicate that the key has not been recognised.
  - signal that the resynchronisation mode for the door locking PLIP has been entered.
- An injection warning light (on petrol or direct injection diesel vehicles) which allows a fault on the following systems to be signalled:
  - injection,
  - immobiliser system, engine running (flashes under deceleration and at idle speed).
- A coded solenoid valve for diesel vehicles (except direct injection).
- A door locking button, located on the roof console, which also allows the security code to be entered (it does not matter which side).

#### **IMPORTANT:**

When replacing a passenger compartment connection unit BII, the mileage is retained in the instrument panel memory.

When connecting the new component, the mileage in the memory will be displayed automatically on the instrument panel.

Do not carry out fault finding using a substitute component from another vehicle as the higher mileage will be memorised and will be displayed on both vehicles.

#### **OPERATION**

When the immobiliser system is operational (approximately 10 seconds after cutting + after ignition feed), the red immobiliser warning light flashes (slow flashing; 1 flash/second).

After switching on the ignition, the antenna ring analyses the code from the key and transmits it to the passenger compartment connection unit BII.

If the code is recognised by the passenger compartment connection unit BII, it sends a code to the injection computer (petrol or direct injection diesel) or to the coded solenoid valve for diesel vehicles (except injection direct) via the coded line and extinguishes the red immobiliser warning light (after approximately 3 seconds).

At this precise moment, one of several situations may arise:

- The injection computer or the coded solenoid valve has no reference code in its memory:
  - → the code sent to it is stored in its memory.

- The injection computer or the coded solenoid valve has a reference code in its memory:
  - → The code sent to it is compared with its reference code.
  - → If the two codes match, the computer unlocks the injection or the coded solenoid valve and authorises the engine to be started. When the ignition is switched on, the injection warning light (petrol or direct injection diesel) and the immobiliser warning light illuminate for a few seconds and extinguish, thereby indicating that the system is operating correctly.
  - → If the two codes do not match, the system remains locked to prevent the engine being started. When the ignition is switched on, the injection warning light (petrol or direct injection diesel) illuminates for a few seconds and extinguishes whilst the red immobiliser warning light flashes (rapid flashing). Vehicle starting is not authorised.

**NOTE**: To ensure that the system operates correctly, no object (example : keyrings) should be inserted between the key and the antenna ring.

IMPORTANT: When the battery has a low charge, the drop in voltage caused by operating the starter motor may reactivate the immobiliser. If the voltage is too low, the engine cannot be started, even by pushing the vehicle.

### **IMMOBILISER**

## Passenger compartment connection unit (BII)

#### **REPLACING A KEY HEAD**

The coded chip in the key head or PLIP is faulty:

- Order a replacement key head using the number in the faulty key head (eight alphanumeric characters starting with the letter F for radiofrequency PLIPs) and carry out the resynchronisation procedure for the PLIPs.
- If the customer requires the fault to be repaired immediately (2<sup>nd</sup> key unavailable), the instrument panel and the two key heads will have to be replaced (**see replacing a kit**).

#### The key has been lost:

→ Order a replacement key head using the number in the 2<sup>nd</sup> key head (eight alphanumeric characters beginning with the letter **F**) or on the label which is usually attached to the keys when the vehicle is delivered. In this case, remember to order the metal insert for the new key head.

**IMPORTANT:** Do not touch the key head electronic unit when taking note of the number in the key head. If the key head electronic unit has been touched, the key must be replaced.

**NOTE:** If the number of the key head cannot be found (both keys and the label have been lost), the complete kit will have to be replaced (passenger compartment connection unit BII, two PLIPs, the instrument panel and the injection computer or the coded solenoid valve electronic unit).

NOTE: the door locking system cannot operate with three PLIPs (the instrument panel can only generate two different rolling codes).

## PROCEDURE FOR RESYNCHRONISING THE REMOTE CONTROL UNIT

This procedure will be used when an instrument panel or PLIP is replaced, or when the PLIP code is no longer within the reception area of the instrument panel (more than 1000 consecutive presses on the PLIP out of range).

This allows the two PLIPs to be resynchronised with the instrument panel receiver unit (rolling code).

**SPECIAL NOTE**: With this new receiver unit in the instrument panel, it is not always necessary to resynchronise the  $2^{nd}$  PLIP.

If this is carried out with a single PLIP, check that the second is operating. If not, carry out the complete resynchronisation procedure for both PLIPs.

- 1. Switch on the ignition (to activate central door locking button feed).
- **2**. Switch off the ignition.
- Press the central door locking button for more than 5 seconds (the doors lock and unlock).

From this moment on, the operator has 15 seconds (indicated by illumination of the red immobiliser warning light) to carry out the following two operations.

- **4.** Press the **1**st PLIP once (the doors lock and unlock).
- Press the 2<sup>nd</sup> PLIP once (the doors lock and unlock).
- **6.** Once the procedure is completed, check that the doors lock / unlock correctly.

## REPLACING THE PASSENGER COMPARTMENT CONNECTION UNIT BII ONLY

A new passenger compartment connection unit BII is not coded. Once it has been fitted on the vehicle, it will have to be programmed with the code for the keys so that it will be operational (see passenger compartment connection unit BII programming procedure).

**IMPORTANT**: If the customer has not left you the 2nd key, it is possible to carry out programming with **a single key**, using the XR25.

Before carrying out the programming procedure:

- Connect the XR25 to the vehicle.
- Set the selector switch to S8 and enter the code D67 G02\* fiche N°68.

With the ignition switched off

 Enter G31\*1\* and proceed with programming with a single key, bargraph 3 LH side extinguishes.

**NOTE**: There is no operation to be carried out on the injection computer or the coded solenoid valve. It retains the same engine immobiliser code.

**IMPORTANT:** When a passenger compartment connection unit BII has been programmed with the code for the keys, it is impossible to remove it from the memory or to memorise another code in its place.

CONFIGURATIONS FOR THE PASSENGER COMPARTMENT CONNECTION UNIT BII.

When a passenger compartment connection unit BII is replaced, check the configuration.

With the XR25 connected, set the selector switch to **S8** and enter the code **D67 then fiche N°67.** 

See configuration in section 87.

## PROCEDURE FOR PROGRAMMING THE PASSENGER COMPARTMENT CONNECTION UNIT BII

This procedure may be carried out once only by the passenger compartment connection unit BII. As long as this procedure has not been carried out, it remains impossible to start the vehicle.

**NOTE:** Where programming is impossible, check the transponder ring/passenger compartment connection unit BII connection and visually check the antenna ring (see fault finding). If the coil wires are damaged, the ring will have to be replaced.

The procedure may be carried out:

• With **both keys** (which allows verification that the keys are matched).

**NOTE**: the procedure will not work if the same key is used twice or if the keys are not matched.

 With a single key, using the XR25 (where the customer has not left both keys at the workshop).

The XR25 may be used for this procedure but it is not vital (except for programming with a single key, see replacement of the passenger compartment connection unit BII only).

- Connect the XR25 to the vehicle, set the selector switch to S8 and enter the code D67 G02\* (fiche N°68), bargraphs 17 RH side and 19 LH side must be illuminated (programming not carried out).
- 2. Switch on the ignition (without activating the starter motor) with the 1<sup>st</sup> key (approximately 2 seconds). Bargraph 18 RH side and LH side illuminate. From this moment, the operator has 4 minutes to carry out the following operation.
- 3. Switch on the ignition (without activating the starter motor) with the 2nd key (approximately 2 seconds). Bargraphs 18 RH side, LH side and 19 LH side extinguish.
  The red immobiliser warning light flashes rapidly.

- **4. Switch off the ignition and** switch it on again for a few seconds (without activating the starter motor) to send the code to the injection computer or to the coded solenoid valve.
- **5.** Check that the immobiliser system is operating correctly:
  - → with the ignition switched off, the red immobiliser warning light should flash (slow flashing). Bargraph 10 LH side should be illuminated. The vehicle should not be able to be started using other keys.

**NOTE**: To simulate starting prevention, **with the ignition switched off**, wait for the red immobiliser warning light to start flashing slowly. Enter command **G04**\*, bargraph **9 LH side** illuminates.

Switch on the ignition, the red immobiliser warning light flashes more quickly and it should be impossible to start the vehicle

6. Once the procedure has been completed, check that the system is operating correctly. Switch the ignition off then on again and check that the red warning light illuminates for 3 seconds then extinguishes and that the vehicle can be started.

**NOTE**: If the programming procedure has failed, wait for bargraphs **18 LH side and RH side** to extinguish before trying again with both keys.

When a passenger compartment connection unit BII has been replaced, check the configuration.

### **IMMOBILISER**

## Passenger compartment connection unit (BII)

#### **Special notes on PLIPs**

If the key programming procedure (immobiliser function) has been carried out with the **original** keys, the PLIPs will then be immediately operational (unit correctly configured).

If the programming procedure (immobiliser function) has been carried out with a **single** original key (using the command **G31\*1\***) only the PLIP for that key will be operational.

For the 2nd PLIP to work, it will have to be resynchronised.

Check the operation of the PLIPs. After programming (bargraphs **17 LH side** and **RH side** should extinguish).

#### **IMPORTANT:**

When replacing the passenger compartment connection unit BII and the instrument panel, to retain the vehicle mileage:

It is necessary to:

- With the ignition switched off,
- Disconnect and remove the instrument panel.
- Replace and connect the new instrument panel.
- Switch on the ignition for approximately 5 seconds, the mileage in the passenger compartment connection unit BII memory will be inscribed in the new instrument panel.
- Switch off the ignition.
- Disconnect and remove the passenger compartment connection unit BII.
- Switch on the ignition for approximately 5 seconds, the mileage in the memory of the new instrument panel will be entered into the new passenger compartment connection unit BII.
- Programme the keys.
- After repair, the fault memorised in the passenger compartment connection unit BII will have to be erased by entering the command mode G0\*\* into the XR25.

#### **REPLACING A KIT**

(passenger compartment connection unit BII, two key heads and the instrument panel, when the old security code is known)

If a kit has to be replaced, it will be necessary to:

- Programme the codes for the two new PLIPs into the passenger compartment connection unit BII (supplied uncoded).
- Erase the old code memorised in the injection computer or in the coded solenoid valve electronic unit using the procedure for entering the security code (the code number for the old kit can be requested from the local assistance network, for example DELTA Assistance for France, NVSR for the UK by fax only).
- Synchronise the PLIPs.

**IMPORTANT**: To erase the old code (memorised in the injection computer or in the coded solenoid valve electronic unit), the procedure described below MUST be followed, in the order given.

In effect, the injection computer code or coded solenoid valve electronic unit code can only be erased using the security code (with the number for the old connection unit) if the new connection unit fitted to the vehicle has been programmed with a code (which is the case in the procedure which follows).

**NOTE**: If the security code introduced into the connection unit is the same as the injection computer or the coded solenoid valve, it will not be decoded.

#### **IMMOBILISER**

## Passenger compartment connection unit (BII)

- **1.** Fit the metal inserts from the old keys into the new key heads
- **2.** Note the number of one of the old key heads to obtain the security code.
- **3.** Remove the passenger compartment connection unit BII (with the ignition switched off).
- **4.** Fit the new passenger compartment connection unit BII in place (with the ignition switched off).
- 5. Connect the XR25, (fault finding fiche N°68) set the selector to S8 and enter the code D67 G02\*. Bargraphs 17 RH side and 19 LH side should be illuminated (programming not carried out).
- 6. Switch on the ignition (without activating the starter motor) using the 1<sup>st</sup> key (approximately 2 seconds). Bargraphs 18 RH side and LH side Illuminate. From this moment, the operator has 4 minutes to carry out the following operation.
- 7. Switch on the ignition (without activating the starter motor) using the 2nd key (approximately 2 seconds). Bargraphs 18 RH side and LH side and 19 LH side extinguish. The red warning light flashes rapidly.
- **8.** Switch the ignition off then on again for a few seconds and check that the warning light is illuminated.
- **9.** Switch the ignition off then on for more than 10 consecutive seconds.
- 10. Switch off the ignition and wait for the red warning light to start to flash slowly. With the ignition switched off enter G04\*, bargraph 9 LH side illuminates.
- **11.** Switch on the ignition, the red warning light flashes rapidly.

Then follow the procedure for entering the security code (operation 3, 4, 5 and 6 of the procedure for entering the security code using the door locking button or the XR25) using the code number corresponding to the old kit. This allows the old code memorised in the coded solenoid valve electronic unit or in the computer to be erased.

**IMPORTANT:** If the security code from the old kit is entered using the XR25, it is normal for the display to indicate "fin" when it is validated.

The passenger compartment connection unit BII in place does not correspond to this code. Ignore it and check whether the vehicle will start. If the vehicle does not start, check the code and restart the procedure.

IMPORTANT: ESPACE vehicles equipped with F9Q, L7X engines have a special injection computer which will only function if coded.

**NOTE**: On petrol or direct injection diesel vehicles, using the XR25, it is possible to check that the injection computer has been decoded correctly (as part of injection fault finding).

Connect the XR25 to the diagnostic socket. Set the ISO selector and enter the injection code.

#### Petrol vehicle:

Bargraph 2 RH side (immobiliser) should be illuminated and after entering \*22, the text "2 def" should appear on the XR25 display. Erasure has been successful.

Direct injection diesel vehicle: Bargraph 15 LH side (immobiliser) should be illuminated and after entering \*15, the term "2 def" should appear on the XR25 display. Erasure has been successful.

- If the display indicates "1 def" this indicates a fault on the coded line. In this case, repair and restart the procedure.
- If bargraph 2 RH side or 15 LH side depending on engine (immobiliser) is extinguished and the display indicates "bon" (\*22 or \*15 depending on engine), this indicates that the code in the injection computer has not been erased. In this case check the conformity of the emergency code number and repeat the procedure.

12. Switch the ignition off then on again for a few seconds without activating the starter motor to programme the immobiliser code of the new kit into the coded solenoid valve electronic unit or into the injection computer. The red warning light should illuminate for 3 seconds then extinguish.

#### NOTE:

 On petrol or direct injection diesel vehicles, using the XR25, check that the code has been programmed into the computer.

#### Petrol vehicle:

Bargraph **2 RH side** (immobiliser) should be extinguished and after entering \***22** the display indicates "**bon**". The injection computer coding is complete. If the display indicates "**2def**", the injection computer has not yet been coded.

Direct injection diesel vehicle:
Bargraph 15 LH side (immobiliser) should be extinguished and after entering \*15 the XR25 display should indicate "bon". The injection computer coding is complete. If the display indicates "2def", the injection computer has not yet been coded.

- On diesel vehicles with a coded solenoid valve, when the ignition is switched on, check that the immobiliser warning light extinguishes after 3 seconds.
- 13. Check that the system is operating correctly. Switch on the ignition and check that the red warning light illuminates for 3 seconds then extinguishes and that the vehicle starts.

**NOTE**: It is possible to check starting prevention using the XR25.

- Switch off the ignition, wait until the red warning light flashes (slow flashing) and enter G04\*.
- Switch on the ignition and check that it is impossible to start the vehicle and that the red warning light flashes (rapid flashing).

14. The procedure is complete. After switching the ignition off then on again (for more than 2 seconds), check that the vehicle can be started.

**NOTE:** if the programming procedure fails, wait for bargraphs **18 LH side and RH side** to extinguish before trying again with both keys.

15. When replacing a passenger compartment connection unit BII, check the configuration.

### **IMMOBILISER**

### Passenger compartment connection unit (BII)

SPECIAL NOTES FOR FITTING AN INJECTION COMPUTER

#### **IMPORTANT**

ESPACE vehicles equipped with F9Q, L7X engines have a special injection computer which only functions if it is coded.

Consequently, you are strongly advised not to carry out tests using a computer borrowed from the store or on another vehicle to prevent coding procedures which would make the computers unusable as a result.

#### **TEST**

In injection fault finding, it is possible to determine the condition of the computer.

Connect the XR25 to the vehicle and enter the code corresponding to the type of injection.

• If the injection computer is not coded.

Petrol vehicle

Bargraph **2 RH side** (immobiliser) should be illuminated and after entering \***22**, the term "**2def**" should appear on the XR25 display.

Direct injection diesel vehicle Bargraph **15 LH side** (immobiliser) should be illuminated and after entering \***15**, the term "**2def**" should appear on the XR25 display. • If the injection computer is coded and there is no fault on the coded line.

#### Petrol vehicle:

Bargraph **2 RH side** should be extinguished and after entering \***22**, the term "**bon**" should appear on the XR25 display (even if the computer coding does not correspond to the vehicle).

Direct injection diesel vehicle Bargraph **15 LH side** should be extinguished and after entering \***15**, the term "**bon**" should appear on the XR25 display (even if the computer coding does not correspond to the vehicle).

NOTE: If a fault has been noted on the coded line by the injection computer, the term "1def" will appear on the XR25 display after entering \*22 (Bargraph 2 RH side should illuminate). In this case, repair and erase the fault using command G0\*\* or by disconnecting the battery.

### IMMOBILISER

## Passenger compartment connection unit (BII)

## REPLACING THE INJECTION COMPUTER (petrol and direct injection diesel vehicles)

The injection computer is supplied uncoded. The engine immobiliser code must therefore be programmed in when the computer is fitted to enable the vehicle to be started.

IMPORTANT: ESPACE vehicles equipped with F9Q, L7X engines have a special injection computer which will only function if coded.

It is sufficient to carry out the following operations:

- Switch on the ignition for a few seconds using the coded key.
- Switch off the ignition, the immobiliser function will be ensured approximately 10 seconds afterwards (the red immobiliser warning light flashes).
- Check that the system is operating correctly.
   Switch on the ignition and check that the red warning light illuminates for 3 seconds then extinguishes and that the vehicle starts.

#### NOTE:

It is possible to check starting prevention using the XR25:

- Use fault finding fiche N° 68 and enter the code D67 then G02\* on the XR25.
- To simulate starting prevention, with the ignition switched off, wait until the red immobiliser warning light begins to flash slowly. Enter command G04\*, ignition still switched off (Bargraph 9 LH side illuminates).
- Switch on the ignition, the red immobiliser warning light flashes more rapidly and it should be impossible to start the vehicle.
- The procedure is complete. After switching the ignition off then on again (for more than 2 seconds), check that the vehicle can be started.

## REPLACING THE CODED SOLENOID VALVE ELECTRONIC UNIT (except direct injection diesel)

For the operation to remove and refit the screening which allows access to the coded solenoid valve and the electric stop, see the Technical Note (N.T. 2717A and page 82-17).

The electronic unit for the solenoid valve is supplied uncoded. The immobiliser system code must therefore be programmed in when it is fitted to enable the vehicle to be started.

It is sufficient to carry out the following operations:

- Switch on the ignition for a few seconds using the vehicle's coded key.
- Switch off the ignition, the immobiliser function will be ensured approximately 10 seconds afterwards (The red immobiliser warning light flashes).

#### NOTE:

It is possible to check starting prevention using the XR25:

- Use fault finding fiche N° 68 and enter the code D67 then G02\* on the XR25.
- To simulate starting prevention, with the ignition switched off, wait until the red immobiliser warning light begins to flash slowly. Enter command G04\*, ignition still switched off (Bargraph 9 LH side illuminates).
- Switch on the ignition, the red immobiliser warning light flashes more rapidly and it should be impossible to start the vehicle.
- The procedure is complete. After switching the ignition off then on again (for more than 2 seconds), check that the vehicle can be started.

#### **DECODING PROCEDURE**

This procedure will only work if the old security code is known.

#### IMPORTANT:

The decoding procedure involves replacing the passenger compartment connection unit (BII) of the vehicle with another passenger compartment connection unit (BII) with a different code and entering the vehicle security code (security code number to be requested from the local assistance network depending on the country, for example **Delta Assistance on 0800 05 15 15** for France, NVSR for the UK by fax only), using the number in the vehicle key head.

- 1. With the ignition switched off, fit a new passenger compartment connection unit (BII) coded with a different number in place of the passenger compartment connection unit (BII) originally fitted to the vehicle (the procedure will not work with an uncoded passenger compartment connection unit (BII) or one which is coded with the same number as the ignition).
- **2.** Switch on the ignition, the red immobiliser warning light flashes (rapid flashing).
- **3.** Enter the vehicle security code (number corresponding to that on the original key).
- 4. After entering the security code, the red warning light flashes again. On the XR25, "2def" should be read on the display (in injection fault finding \*22 or \*15 depending on engine). This indicates that the injection computer has been decoded.

#### **IMPORTANT:**

When replacing a passenger compartment connection unit BII, the mileage is retained in the instrument panel memory.

When connecting the new passenger compartment connection unit BII, the mileage in the instrument panel memory will be displayed automatically in the passenger compartment connection unit.

Do not carry out fault finding using a substitute component from another vehicle as the higher mileage will be memorised and will be displayed on both vehicles.

SPECIAL NOTES FOR TESTING A CODED SOLENOID VALVE

#### **IMPORTANT**

When testing an uncoded solenoid valve electronic unit borrowed from the store (test part), the unit **MUST NOT** be fed during the operation.

Switching the ignition on will send a coded signal from the decoder unit to the solenoid valve electronic unit (the code is programmed).

To avoid memorising a code which could disable the electronic unit of the coded solenoid valve after testing, the blue 26 track connection unit connector must be disconnected. The coded signal will therefore not be sent when the ignition is switched on (the solenoid valve electronic unit will remain uncoded).

#### SYSTEM FAULT, ENGINE RUNNING

#### Petrol or direct injection diesel vehicle

If a fault in the system is noted by the injection computer when the engine is running, the injection warning light on the instrument panel will flash during deceleration and at idle speed (speed less than **1 500 rpm**).

**IMPORTANT:** In this case, after repair, the fault memorised in the injection computer will have to be erased by entering command mode **G0\*\*** using the XR25 or by disconnecting the battery (**approximately 2 minutes**), to allow the engine immobiliser system to operate again.

**NOTE**: This fault may be shown by the XR25 (in injection fault finding).

Connect the XR25 and enter the injection code.

The fault is indicated by bargraph 2 RH side.

After entering \*22, the term "1def" on the XR25 display indicates a coded line fault.

#### **Direct injection diesel vehicles**

The fault is indicated by bargraph 15 LH side.

After entering \*15, the term "1def" on the XR25 display indicates a coded line fault.

#### Diesel vehicle with coded solenoid valve

If a system fault is detected by the passenger compartment connection unit BII when the engine is running, the red immobiliser warning light will illuminate until the ignition is switched off.

**IMPORTANT:** In this case, after repair, the fault memorised in the passenger compartment connection unit BII will have to be erased by entering command mode **G0\*\*** using the XR25 or by disconnecting the battery (**approximately 2 minutes**), to allow the engine immobiliser system to operate again.

**NOTE:** This fault is shown by the XR25 and by the fault finding for the passenger compartment connection unit BII (fiche **N°68**).

Connect the XR25.

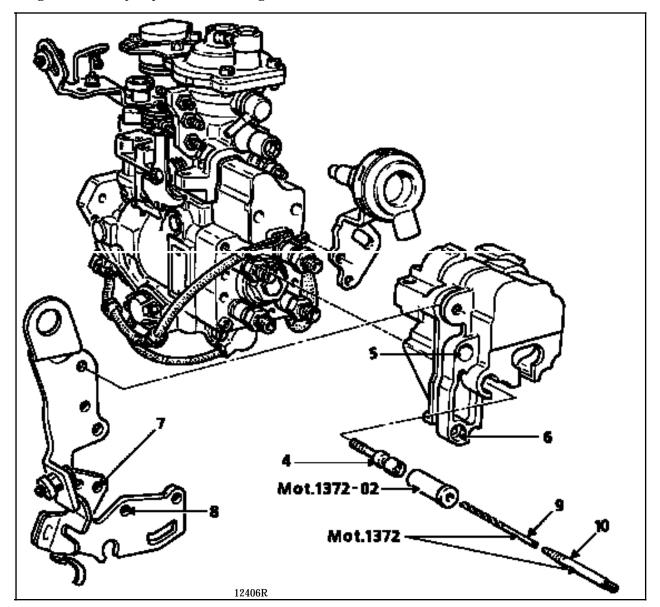
Set the selector switch to **S8** and enter the code **D67 then G02\***.

The fault is indicated by bargraphs **6 LH side or 6 RH side**.

REPLACING THE CODED SOLENOID VALVE ELECTRONIC UNIT see NT N° 2717A (diesel vehicle, BOSCH pump)

SPECIAL TOOLING REQUIRED		
Mot. 1372	Kit for removing the self-shearing bolts from the computers	
Mot. 1372-02 Mot. 1383	Drilling tube for self-shearing bolts  Tool for removing high pressure diesel pipes	

Drill the five self-shearing bolts (4), (5), (6), (7) and (8), to a length of **4 mm** using the drilling tube **Mot. 1372-02** and the **4 mm diameter** drill bit (9), supplied in kit **Mot.1372** (the quality of the bit used to drill the self-shearing bolt (4) is very important. Use a tungsten carbide bit).



#### When drilling:

- support the drilling tube,
- lightly oil the bit.

Use the extractor (10) and its handle to remove the bolts.

#### PROCEDURE FOR ENTERING THE SECURITY CODE

With this immobiliser system, the procedure for entering the security code is managed by the passenger compartment connection unit .

The code will be entered:

- using the door locking button and the red immobiliser system warning light.
- using the XR25.

The security code can only be entered if the immobiliser system is active. The red warning light should flash when the ignition is switched on (rapid flashing).

After determining the security code number, carry out the following operations:

#### Using the XR25

- 1. With the ignition switched off, the red immobiliser warning light should flash (slow flashing).
- 2. Switch on the ignition, the injection warning light (petrol or direct injection diesel vehicle) illuminates for approximately **3 seconds** then extinguishes whilst the red immobiliser warning light flashes more rapidly.
- Connect the XR25, use fault finding fiche N°68, set the selector to S8 and enter the code D67 then G02\*.
   Bargraph 10 LH side should be illuminated.
- 4. Enter command G40\* then the security code and validate with key \*.
  - If the code is correct," bon" is displayed on the XR25 and bargraph 10 LH side extinguishes.
  - If the code is not correct,"déf" is displayed on the XR25 and bargraph 10 LH side remains illuminated.

#### Using the central door locking button

After determining the security code number, carry out the following operations:

- 1. With the ignition switched off, the red immobiliser warning light should flash (slow flashing).
- 2. Switch on the ignition, the injection warning light (petrol or direct injection diesel vehicle) illuminates for approximately **3 seconds** then extinguishes whilst the red immobiliser warning light flashes more rapidly.
- 3. Press and hold the central door locking button (it does not matter which side), the red warning light extinguishes.
- 4. Without releasing the button, the warning light will flash very slowly (every 1.5 seconds) to generate a counting sequence. Count the number of times the red warning light illuminates and release the button when the value of the 1st figure of the security code is reached.
- 5. Press the door locking button again.

  Count the number of times the red warning light illuminates and release the key when the value of the 2nd figure of the security code is reached.
- **6.** Repeat operation "**5**" to enter the last two figures for the security code.

After entering the 4th figure of the security code:

• **If the code is correct**, it is possible to start the engine.

The red immobiliser warning light should illuminate for approximately **3 seconds**, extinguish for approximately **3 seconds** and re-illuminate for approximately **30 seconds**.

This warning light illumination cycle will repeat whenever the ignition is switched on and as long as the vehicle is unprotected (up to approximately 10 minutes after the ignition is switched off). This serves to remind the customer that his vehicle is no longer protected.

The vehicle will again be protected either:

- approximately **10 minutes** after the ignition is switched off (automatic starting),
- after the battery is disconnected.
- If the code is incorrect, the engine cannot be started.

The red immobiliser warning light flashes.

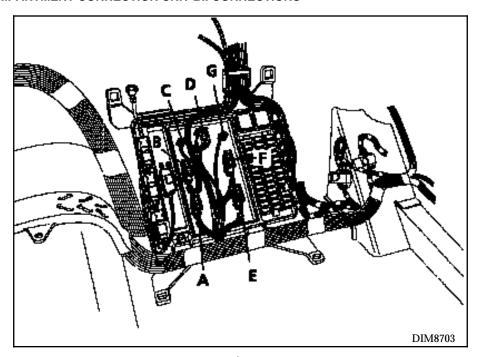
Switch off the ignition, then repeat the procedure for entering the code.

IMPORTANT: You may make three attempts to enter the code. If, after the third attempt, the code is invalid, you must wait for approximately 15 minutes before making another attempt. When this period has expired, switch the ignition off and on again and 3 more attempts may be made.

**NOTE:** This procedure does not decode the injection computer or the coded solenoid valve (depending on engine), it only authorises the starting of the vehicle.

**REMINDER:** The ignition must be turned off and on again between two code tests.

#### PASSENGER COMPARTMENT CONNECTION UNIT BII CONNECTIONS



### 26 TRACK YELLOW CONNECTOR (A)

Track	Allocation
1	Reverse
2	Diagnostic information (line L)
3	0 volt outside temperature sensor
4	Tailgate module / connection unit connec-
	tion
5	+ protected accessories feed
6	- EC5 air bag fault warning light
7	+ left hand side lights
8	+ rear screen washer pump
9	- rear left and right door switch
10	- driver's electric window one touch raise
	control
11	- driver's electric window normal raise
	control
12	- 1st line courtesy light
13	+ 12 V before ignition feed to passenger
	compartment connection unit
14	- SDM air bag fault warning light
15	Diagnostic information (line K)
16	Outside temperature sensor information.
17	+ after ignition feed windscreen wiper
18	- front left hand door switch
19	+ main beam headlights
20	+ windscreen washer pump
21	+ dipped headlights
22	- seat belt information
23	- front right hand door switch
24	driver's electric window normal lower
	control
25	- handbrake information
26	- rear electric window blocking control

#### 26 TRACK YELLOW CONNECTOR (B)

Track	Allocation
1	+ instrument panel rheostat
2	+ air conditioning rheostat
3	- right hand indicator control via stalk
4	- hazard warning lights timed / control
-	information
5	central door locking button opening control
6	- fast speed windscreen wiper control via
•	stalk information
7	- timed rear wiper start information
8	antenna ring / connection unit coded line
9	+ antenna ring feed
10	+ rheostat information (knob)
11	+ front fog lights relay
12	+ rear screen wiper timer
13	Diag link H instrument panel information
14	- interior lighting via switch
15	- passenger compartment lighting via relay
16	- control panel A/C relay
17	- left hand indicator control
18	central door locking button close control
19	- ADAC sequence
20	- slow speed windscreen wiper information
21	Antenna ring earth
22	Antenna ring interrogation
23	0 volt rheostat potentiometer
24	+ rear fog lights control
25	+ 12 V instrument panel protected before
	ignition feed via passenger compartment
	connection unit
26	Diag link L instrument panel information

#### 1 TRACK WHITE CONNECTOR (C)

Track	Allocation
1	Earth

#### 16 TRACK BLACK CONNECTOR (D)

Track	Allocation
1	Right hand indicator output
2	Left hand indicator output
3	Driver's electric window raise
4	Driver's electric window lower
5	Not used
6	+ central door locking button close
7	+ central door locking button open
8	+ fast speed windscreen wiper
9	+ windscreen wiper
10	+ front fog lights via relay
11	+ front fog lights
12	- passenger compartment lighting via
	relay
13	+ air conditioning authorisation via pres-
	sostat
14	- rear right hand side electric window
	authorisation
15	- rear left hand side electric window
	authorisation
16	+ slow speed windscreen wiper
	I

#### 12 TRACK BLUE CONNECTOR (E)

Track	Allocation
1	- automatic transmission fault warning
	light
2	Not used
3	- door open output
4	LPG level information
5	LPG fuel selection information
6	Not used
7	- self-levelling suspension fault warning
	light
8	Not used
9	Not used
10	Not used
11	Fuel flow information
12	- heated seat warning light

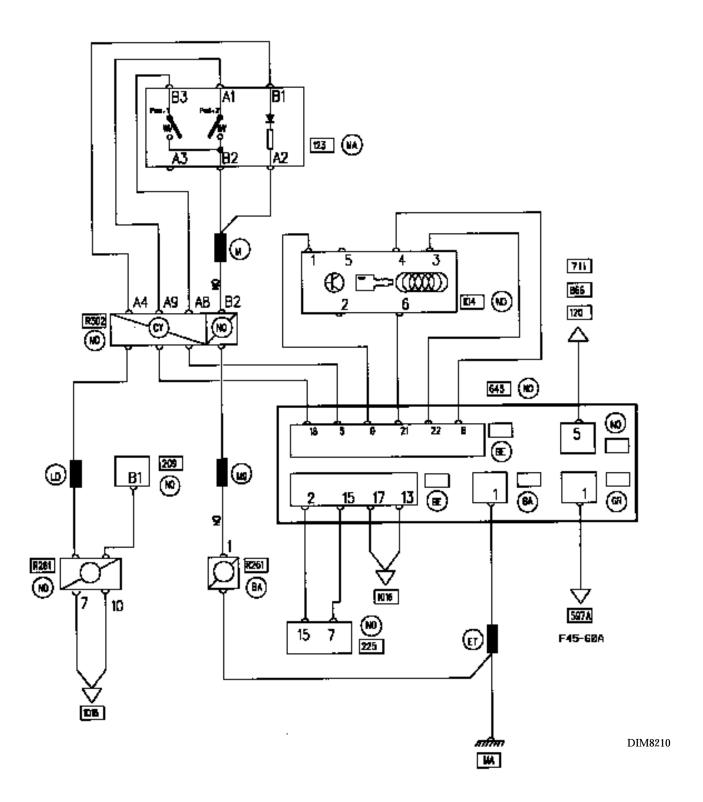
#### 26 TRACK BLUE CONNECTOR (F)

Coolant temperature information Fuel level information Oil level sensor information TDC information Headlight washer control + alarm close information + motor 1 fan assembly battery - brake fluid level information - brake pad wear warning light Not used Not used - charge warning light - ABS warning light Not used O volt fuel gauge O volt fuel gauge For volt oil level Secondary fan speed information Injection / diesel coded information Headmopen information - motor 2 fan assembly - injection fault warning light - oil pressure warning light - catalytic converter overheating warn	
Fuel level information Oil level sensor information TDC information Headlight washer control + alarm close information + motor 1 fan assembly battery brake fluid level information - brake pad wear warning light Not used Not used - charge warning light - ABS warning light Not used O volt fuel gauge O volt oil level Secondary fan speed information Injection / diesel coded information + alarm open information + motor 2 fan assembly - injection fault warning light - oil pressure warning light	
TDC information Headlight washer control + alarm close information + motor 1 fan assembly battery - brake fluid level information - brake pad wear warning light Not used Not used - charge warning light - ABS warning light Not used - volt fuel gauge - volt fuel gauge - volt oil level - Secondary fan speed information - lipection / diesel coded information - alarm open information - motor 2 fan assembly - injection fault warning light - oil pressure warning light	
<ul> <li>Headlight washer control</li> <li>+ alarm close information</li> <li>+ motor 1 fan assembly battery</li> <li>- brake fluid level information</li> <li>- brake pad wear warning light</li> <li>Not used</li> <li>Not used</li> <li>- charge warning light</li> <li>- ABS warning light</li> <li>Not used</li> <li>0 volt fuel gauge</li> <li>0 volt fuel gauge</li> <li>0 volt oil level</li> <li>Secondary fan speed information</li> <li>Injection / diesel coded information</li> <li>+ alarm open information</li> <li>+ motor 2 fan assembly</li> <li>- injection fault warning light</li> <li>- oil pressure warning light</li> </ul>	
+ alarm close information + motor 1 fan assembly battery - brake fluid level information - brake pad wear warning light Not used Not used - charge warning light - ABS warning light Not used - volt fuel gauge - volt fuel gauge - volt oil level - Secondary fan speed information - ligection / diesel coded information - alarm open information - motor 2 fan assembly - injection fault warning light - oil pressure warning light	
<ul> <li>+ alarm close information</li> <li>+ motor 1 fan assembly battery</li> <li>brake fluid level information</li> <li>- brake pad wear warning light</li> <li>Not used</li> <li>Not used</li> <li>- charge warning light</li> <li>- ABS warning light</li> <li>Not used</li> <li>0 volt fuel gauge</li> <li>0 volt oil level</li> <li>Secondary fan speed information</li> <li>Injection / diesel coded information</li> <li>+ alarm open information</li> <li>+ motor 2 fan assembly</li> <li>- injection fault warning light</li> <li>- oil pressure warning light</li> </ul>	
<ul> <li>brake fluid level information</li> <li>brake pad wear warning light</li> <li>Not used</li> <li>Not used</li> <li>charge warning light</li> <li>ABS warning light</li> <li>Not used</li> <li>0 volt fuel gauge</li> <li>0 volt oil level</li> <li>Secondary fan speed information</li> <li>Injection / diesel coded information</li> <li>+ alarm open information</li> <li>+ motor 2 fan assembly</li> <li>injection fault warning light</li> <li>oil pressure warning light</li> </ul>	
<ul> <li>9 - brake pad wear warning light</li> <li>10 Not used</li> <li>11 Not used</li> <li>12 - charge warning light</li> <li>13 - ABS warning light</li> <li>14 Not used</li> <li>15 0 volt fuel gauge</li> <li>16 0 volt oil level</li> <li>17 Secondary fan speed information</li> <li>18 Injection / diesel coded information</li> <li>19 + alarm open information</li> <li>20 + motor 2 fan assembly</li> <li>21 - injection fault warning light</li> <li>22 - oil pressure warning light</li> </ul>	
<ul> <li>Not used</li> <li>Not used</li> <li>- charge warning light</li> <li>- ABS warning light</li> <li>Not used</li> <li>0 volt fuel gauge</li> <li>0 volt oil level</li> <li>Secondary fan speed information</li> <li>Injection / diesel coded information</li> <li>+ alarm open information</li> <li>+ motor 2 fan assembly</li> <li>- injection fault warning light</li> <li>- oil pressure warning light</li> </ul>	
<ul> <li>Not used</li> <li>- charge warning light</li> <li>- ABS warning light</li> <li>Not used</li> <li>0 volt fuel gauge</li> <li>0 volt oil level</li> <li>Secondary fan speed information</li> <li>Injection / diesel coded information</li> <li>+ alarm open information</li> <li>+ motor 2 fan assembly</li> <li>- injection fault warning light</li> <li>- oil pressure warning light</li> </ul>	
- charge warning light - ABS warning light Not used - o volt fuel gauge - o volt oil level - Secondary fan speed information - Injection / diesel coded information - Haarm open information - Hotor 2 fan assembly - injection fault warning light - oil pressure warning light	
<ul> <li>13 - ABS warning light</li> <li>14 Not used</li> <li>15 0 volt fuel gauge</li> <li>16 0 volt oil level</li> <li>17 Secondary fan speed information</li> <li>18 Injection / diesel coded information</li> <li>19 + alarm open information</li> <li>20 + motor 2 fan assembly</li> <li>21 - injection fault warning light</li> <li>22 - oil pressure warning light</li> </ul>	
<ul> <li>Not used</li> <li>0 volt fuel gauge</li> <li>0 volt oil level</li> <li>Secondary fan speed information</li> <li>Injection / diesel coded information</li> <li>+ alarm open information</li> <li>+ motor 2 fan assembly</li> <li>- injection fault warning light</li> <li>- oil pressure warning light</li> </ul>	
<ul> <li>15 0 volt fuel gauge</li> <li>16 0 volt oil level</li> <li>17 Secondary fan speed information</li> <li>18 Injection / diesel coded information</li> <li>19 + alarm open information</li> <li>20 + motor 2 fan assembly</li> <li>21 - injection fault warning light</li> <li>22 - oil pressure warning light</li> </ul>	
<ul> <li>16 0 volt oil level</li> <li>17 Secondary fan speed information</li> <li>18 Injection / diesel coded information</li> <li>19 + alarm open information</li> <li>20 + motor 2 fan assembly</li> <li>21 - injection fault warning light</li> <li>22 - oil pressure warning light</li> </ul>	
<ul> <li>Secondary fan speed information</li> <li>Injection / diesel coded information</li> <li>+ alarm open information</li> <li>+ motor 2 fan assembly</li> <li>- injection fault warning light</li> <li>- oil pressure warning light</li> </ul>	
<ul> <li>Injection / diesel coded information</li> <li>+ alarm open information</li> <li>+ motor 2 fan assembly</li> <li>- injection fault warning light</li> <li>- oil pressure warning light</li> </ul>	
<ul> <li>+ alarm open information</li> <li>+ motor 2 fan assembly</li> <li>- injection fault warning light</li> <li>- oil pressure warning light</li> </ul>	
<ul> <li>20 + motor 2 fan assembly</li> <li>injection fault warning light</li> <li>oil pressure warning light</li> </ul>	
<ul><li>21 - injection fault warning light</li><li>22 - oil pressure warning light</li></ul>	
22 - oil pressure warning light	
- I	
23 - catalytic converter overheating warn	
1 3	ing
light	
<b>24</b> - preheating warning light	
25 - windscreen wiper park	
<b>26</b> - coolant temperature warning light	

#### 1 TRACK GREY CONNECTOR (G)

Track		Allocation
1	+ battery	

#### **WIRING DIAGRAM**



#### **COMPONENTS KEY**

104	Ignition switch (antenna ring)
120	Injection computer
123	Door locking button (for entering security code)
225	Diagnostic socket
597	Engine fuse box
711	Coded solenoid valve
866	Diesel injection computer
1016	Passenger compartment fuse box

#### **FAULT FINDING - INTRODUCTION**

#### SETTING UP XR25 / PASSENGER COMPARTMENT CONNECTION UNIT BII DIALOGUE

- Connect the XR25 to the diagnostic socket.
- Set the ISO selector to **S8**
- Enter **D67 then G02\***

2.n68

- Fiche N°68

#### **WARNING:**

When carrying out checks using a multimeter, avoid using a test pin on connectors where the size of the test pin could damage the terminals and lead to a poor contact.

#### IDENTIFICATION OF ENGINE IMMOBILISER FAULT BARGRAPH ON THE PETROL INJECTION FICHE

To check whether the "engine immobiliser fault" bargraph is illuminated on the injection fiche corresponding to the vehicle, use the fiches corresponding to the type of engine).

#### **ERASING THE MEMORY AND EXITING FAULT FINDING**

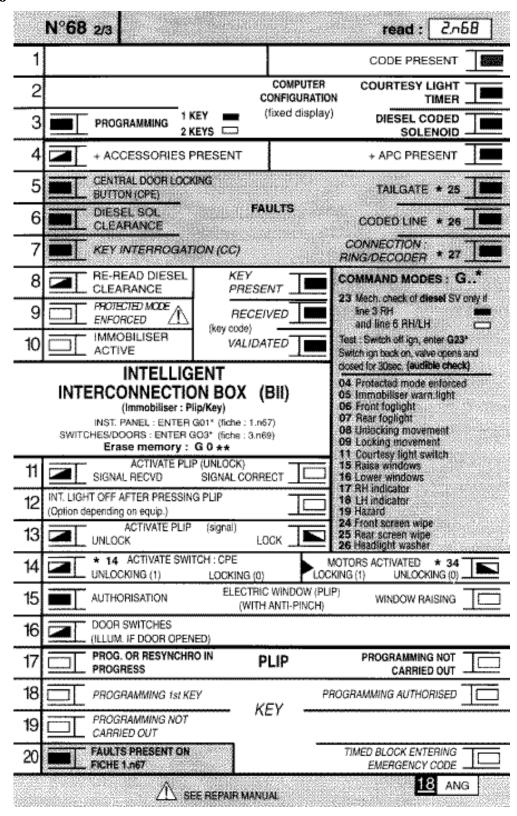
After repairing the engine immobiliser system, enter  $G0^{**}$  on the XR25 keyboard to erase the memorised fault and  $G13^*$  at the end of fault finding.

#### **IMMOBILISER**

82

Passenger compartment connection unit (BII)

## XR25 fault finding fiche fiche N°68



FI21868

## IMMOBILISER Passenger compartment connection unit (BII)

#### REPRESENTATION OF THE BARGRAPHS

	Illuminates when dialogue is established with the the code does not exist, there is a line, XR25 or computer fault.	e produc	ct computer, if it remains extinguished:
REPRESEN	TATION OF FAULTS (always on a coloured backg	ground)	
	If illuminated, indicates a fault on the product te	ested. Th	ne associated text defines the fault.
	If extinguished, indicates that no fault was detec	cted on t	he product tested.
REPRESEN	TATION OF STATUS (always on a white backgrou	und)	
Engine s	stopped, ignition on, no operator action		
	us bargraphs on the fiche are represented in the conignition on, with no operator action.	ndition t	they should be in when the engine is
-	If on the fiche, the bargraph is shown		extinguished
-	If on the fiche, the bargraph is shown		illuminated
-	If on the fiche, the bargraph is shown		illuminated when the function or condition on the fiche is met.
	either or		
Engine 1	unning		
	Extinguished when the function or condition	specifie	d on the fiche is no longer being met.
	Illuminated when the function or the condition	on specif	ied on the fiche is being met.

Fiche  $n^{\circ}$  27 is a generic fiche used for several engines.

The various engines do not use all the bargraphs. To know which bargraphs are dealt with by the injection computer, after entering into dialogue, press keys V and 9 simultaneously.

The bargraphs dealt with will:

- illuminate, if it is a bargraph for a fault which cannot be memorised or for status bargraphs,
- flash, if they are fault bargraphs which can be memorised.

To return to fault finding mode, press key D.

### **IMMOBILISER**

82

#### Passenger compartment connection unit (BII)

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

1	Bargraph 1 RH side extinguished <u>CODE PRESENT</u>	Fiche n° 68 side 2/3
NOTES	None.	

Check the condition of the + before ignition feed fuses.

Replace the fuse(s) if necessary.

Ensure that the XR25 is not the cause of the fault by trying to communicate with another computer on the vehicle (air bag computer, injection computer, ...).

Check that the ISO selector is in position S8, that you are using the latest version of the XR25 cassette and the correct access code (D67 G02\* to access fiche N° 68).

Check battery voltage (U > 10.5 volts). Recharge the battery if necessary.

Check that the yellow 26 track connector A for the connection unit is correctly connected.

Check that the passenger compartment connection unit is correctly fed:

- earth on track 1 of the white passenger compartment connection unit (BII) connector (C).
- + before ignition feed on track **13** of the yellow 26 track passenger compartment connection unit (BII) connector (A).

Ensure that the diagnostic socket is correctly fed.

Check and ensure the continuity and insulation of the wiring for tracks **2** and **15** of the yellow 26 track passenger compartment connection unit (BII) connector (A).

There is still no dialogue between the XR25 and the connection unit. Replace the passenger compartment connection unit (BII).

AFTER REPAIR

When communication has been established, deal with any illuminated fault bargraphs.

Carry out a conformity check.

#### DIESEL

## **IMMOBILISER**

Passenger compartment connection unit (BII)

82

FAULT FINDING	<ul> <li>INTERPRETATION OF</li> </ul>	XR25 BARGRAPHS
---------------	---------------------------------------	----------------

3	Bargraph 3 RH side illuminated  CODED DIESEL SOLENOID VALVE CONFIGURATION	Fiche n° 68 side 2/3
NOTES	None.	

Using the XR25, correctly reconfigure the decoder unit.

On the XR25 keyboard, enter:

- **G22\*1\*** for a petrol or direct injection diesel vehicle (F9Q),
- **G22\*2\*** for a diesel vehicle with coded solenoid valve.

**NOTE**: With the diesel version, incorrect configuration of the passenger compartment connection unit BII will not prevent immobiliser operation. However, if there is a fault, the immobiliser warning light will not illuminate.

AFTER REPAIR

Erase the memorised fault by entering  $G0^{**}$  on the XR25.

Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

## **IMMOBILISER**

Passenger compartment connection unit (BII)

# 82

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

4	Bargraph 4 LH side incorrect illumination + ACCESSORIES FEED PRESENT	Fiche n° 68 side 2/3
NOTES	Reminder: Under normal operating conditions  - BG <b>4 LH side</b> illuminated when the ignition switch is in -  - BG <b>4 LH side</b> extinguished with the ignition switched off	
Check the condition of Replace the fuse if nec	The + accessories feed fuse. essary.	
	cessories position, check for the presence of a voltage of + 12 Vossenger compartment connection unit BII connector (B).	olts on track <b>5</b> of
!		
YES	Replace the passenger compartment connection unit (BII).	
NO	Repair the wiring between track <b>5</b> of the 26 track yellow pas connection unit BII connector (B) and the passenger compar	

AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.

## **IMMOBILISER**

Passenger compartment connection unit (BII)

82

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

4	Bargraph 4 RH side incorrect illumination + AFTER IGNITION FEED PRESENT  Fiche n° 68 side 2/3
NOTES	Reminder: Under normal operating conditions  - BG <b>4 RH side</b> illuminated when the ignition switch is in + after ignition feed position  - BG <b>4 RH side</b> extinguished when the ignition switch is in a position other than + after ignition feed position
Check the condition of Replace the fuse if nec	f the + after ignition feed fuse. essary.
	ched on, check for a voltage of + 12 Volts on track <b>17</b> of the yellow 26 track nt connection unit (BII) connector (A).
YES	Replace the passenger compartment connection unit (BII).
NO	Repair the wiring between track <b>17</b> of the yellow <b>26</b> track passenger compartment connection unit (BII) connector (A) and the passenger compartment fuse board.

AFTER REPAIR

Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

## **IMMOBILISER**

Passenger compartment connection unit (BII)

82

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

5	Bargraph 5 LH side  ELECTRIC DOOR LOCKING BUTTON	Fiche n° 68 side 2/3°
NOTES	Bargraph not active	

AFTER REPAIR

Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

## **IMMOBILISER**



5	TAILGATE	Bargraph 5 LH side illuminated Fiche no $\frac{TAILGATE}{XR25 \text{ aid}}$ : * 25 = cc.1 short circuit + 12 volts co.O short circuit to earth or open circuit		
NOTES	None			
CC.1	NOTES	None		
Repair the line (BUS		a) and track 3 of the 4 track tailga		
CO.0	NOTES	None		
		between track 4 of the 26 track y A) and track 3 of the 4 track tailga		
YES	Replace the tailgate	Replace the tailgate module.		
NO		Repair the line (BUS) between track <b>4</b> of the 26 track yellow passenger compartment connection unit (BII) connector (A) and track 3 of the 4 track tailgate module connector.		

AFTER REPAIR

Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

DIESEL

## **IMMOBILISER**

Passenger compartment connection unit (BII)

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

6	Bargraph 6 LH side illuminated <u>DIESEL SOLENOID VALVE CLEARANCE</u>	Fiche n° 68 side 2/3°
NOTES	Except for F9Q engines see injection fault finding	

Set the XR25 to pulse detection mode (button "G", input using terminal "Vin").

Ignition on, check for pulses on track 18 of the 26 track blue passenger compartment connection unit (BII) connector (F) (test with the connection unit and solenoid valve coded electronic unit connectors connected).

Ignition on, if there are no pulses, replace the passenger compartment connection unit (BII).

Switch on the ignition for more than 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 bargraph **8 LH side** is permanently illuminated.

Is bargraph **8 LH side** permanently illuminated?

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

AFTER REPAIR

Erase the memorised fault by entering G0\*\* on the XR25. Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

DIESEL

## **IMMOBILISER**

Passenger compartment connection unit (BII)

# 82

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

6	Bargraphs 6 LH side and 6 RH side illuminated Fiche n° 68 side 2/3° <u>DIESEL SOLENOID VALVE AND CODED LINE CLEARANCE</u>
NOTES	Before beginning fault finding, switch on the ignition for more than 30 consecutive seconds, then switch off the ignition.  For F9Q engines see injection fault finding

Ensure that the 3 track connector for the solenoid valve coded electronic unit is correctly connected.

Check the condition of the wiring between:

3 track connector for

o track confector for

the solenoid valve coded electronic unit

- $1 \;$  and  $\; 18$  of the 26 track blue passenger compartment connection unit connector F
- 2 and the after ignition feed fuse (see inertia switch)
- 3 and the vehicle earth

Repair the faulty wiring if necessary.

Set the XR25 to pulse detection mode (button "G", input using terminal "Vin").

With the ignition switched on, check for pulses on track **18** of the 26 track blue passenger compartment connection unit (BII) connector (F) (test with the connectors for the connection unit and the solenoid valve coded electronic unit connected).

Do you note any pulses?

YES Replace the electronic unit on the solenoid valve side.

NO Replace the passenger compartment connection unit (BII).

AFTER REPAIR

Erase the memorised fault by entering G0\*\* on the XR25.

Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

## **IMMOBILISER**



## 82

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

6	Bargraph 6 RH side illuminated  CODED LINE  XR25 aid: *26 = CO.0 short circuit to earth CC.1 short circuit to + 12 volts	Fiche n° 68 side 2/3
NOTES	None.	

Check the continuity and insulation from earth and 12 Volts of the wiring between track **18** of the 26 track passenger compartment connection unit (BII) connector (F) blue and track (\*) of the injection computer.

Repair the wiring if necessary.

Set the XR25 to pulse detection mode (button "G", input using terminal "Vin"). Ignition on, check for pulses on track 18 of the 26 track blue passenger compartment connection unit connector (F) (test with the connectors for the passenger compartment connection unit and the injection computer connected).

Do you note any pulses?

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

(\*) On track 35 for F3R engines, On track 58 for F4R engines. On track 50 for L7X engines. On track 59 for F9Q engines.

AFTER REPAIR

Erase the memorised fault by entering GO\*\* on the XR25. Carry out a conformity check.
Check that the engine immobiliser system operates correctly.

## **IMMOBILISER**

Passenger compartment connection unit (BII)

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

7	Bargraph 7 LH side illuminated Fiche n° 68 sid  Key interrogation	le 2/3°
NOTES	None.	

Check the insulation of the line on track 22 of the 26 track yellow passenger compartment connection connector (B) unit and earth or + 12 volts .

Repair the wiring if necessary.

AFTER REPAIR

Erase the memorised fault by entering GO\*\* on the XR25. Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

## **IMMOBILISER**

Passenger compartment connection unit (BII)

# 82

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

~	Bargraph 7 RH side illuminated Fiche n° 68 side 2/3°			
	ANTENNA RING/PASSENGER COMPARTMENT CONNECTION UNIT CONNECTION			
	XR25 aid: *27 = 1.dEF short circuit to earth 2.dEF open circuit or short circuit to +5 volts/+12 volts			
NOTES	None.			

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

Check the continuity of the wiring between tracks:

26 track connection unit connector (B) yellow

8 and 4
22 and 3
21 and 6 (earth)
9 and 1

antenna
ring

Repair if necessary.

Disconnect the 6 track antenna ring connector.

With the ignition switched off, check for a voltage of 12 Volts on track **8** of the 26 track yellow passenger compartment connection unit (BII) connector (B).

If you do not note 12 volts + before ignition feed, replace the passenger compartment connection unit BII.

Reconnect the 6 track antenna ring connector.

With the ignition switched off, check for a voltage of 12 Volts on track **8** of the 26 track yellow passenger compartment connection unit connector (B).

If you do not note 12 volts + before ignition feed, replace the antenna ring.

Switch off the ignition and wait until the immobiliser warning light flashes (immobiliser active).

Disconnect the 6 track antenna ring connector.

Set the XR25 to pulse mode (button"G", input using terminal "Vin").

Switch the ignition on again, check for a pulse on track **9** of the 26 track yellow passenger compartment connection unit connector (B) (test with the connection unit connected).

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

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

AFTER REPAIR

Erase the memorised fault by entering GO\*\* on the XR25.

Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

## **IMMOBILISER**

Passenger compartment connection unit (BII)

# 82

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

11	Fiche n° 68 side 2/3°  Bargraph 11 LH side remains extinguished after pressing the radiofrequency PLIP  RADIOFREQUENCY SIGNAL RECEIVED
NOTES	If BG <b>17 RH side</b> is illuminated, do not apply the fault finding which follows as the BII unit is blank. Carry out the key programming procedure. Only consult the fault finding which follows if BG <b>11 LH side</b> remains extinguished after attempting to lock or unlock the vehicle doors using the radiofrequency PLIP.
Check if the vehicle do	pors can be locked or unlocked by testing with the second key. If the vehicle doors

Check if the vehicle doors can be locked or unlocked by testing with the second key. If the vehicle doors can be locked or unlocked, replace the battery in the first key.

If the vehicle doors cannot be locked or unlocked, replace the instrument panel (the radiofrequency receiver is integrated in the instrument panel).

AFTER REPAIR

Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

## **IMMOBILISER**

Passenger compartment connection unit (BII)

# 82

#### **FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS**

11	Fiche n° 68 side 2/3°  Bargraph 11 RH side remains extinguished after pressing the radiofrequency PLIP  RADIOFREQUENCY SIGNAL CORRECT
NOTES	Only consult the fault finding which follows if BG <b>11 LH side</b> illuminates for 3 seconds and BG <b>11 RH side</b> remains extinguished when the radiofrequency PLIP is pressed.  Check that they are the correct keys for the vehicle.

There is desynchronisation between the radiofrequency PLIP code and the passenger compartment connection unit code if bargraph **11 RH side** remains extinguished when the radiofrequency PLIP is pressed (while bargraph **11 LH side** illuminates for approximately 2 seconds before extinguishing) and the vehicle doors cannot be locked or unlocked using the radiofrequency PLIP.

Apply the procedure for resynchronising the keys.

AFTER REPAIR

Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

## Passenger compartment connection unit (BII)

#### **FAULT FINDING - CHECKING CONFORMITY**

**NOTES** 

Order of operations	Function to be checked	Action	Bargraph	Display and notes
1	Dialogue with XR25	D67 then G02* (selector on S8)		2 n.68
2			1	Code present
3	Conformity of decoder unit	G70*		X X X  Part Number displayed in 2 sequences
4	Interpretation of normally illuminated bargraphs		3 	With XR25 cassette n° 18: Illuminated if equipped with a timed courtesy light. Extinguished if not equipped with a timed courtesy light. Illuminated for programming with 2 keys. Extinguished if programming with a single key.

## **IMMOBILISER**

Passenger compartment connection unit (BII)

# 82

#### **FAULT FINDING - CHECKING CONFORMITY**

A I	1	T	_	C

Order of operations	Function to be checked	Action	Bargraph	Display and notes
5	Configuration of computer for Petrol/Diesel		3	Illuminated if configured for a diesel or petrol vehicle.  Command: - G22*1* petrol and diesel configuration
6	Forced protection mode		9	Illuminated only after command <b>G04*</b> is entered on the XR25.  Vehicle cannot be started as long as BG <b>9 LH side</b> is illuminated
7	Immobiliser status		10	Illuminated if immobiliser is active: switch off the ignition and wait for approximately 10 seconds for BG <b>10 LH side</b> to illuminate.  Extinguished if immobiliser is inactive
8	Presence of the key		8	Illuminated when the ignition is switched on (on condition that the vehicle was protected before the ignition was switched on, immobiliser warning light flashing).  NOTE: In normal operation, bargraphs 8 RH side, 9 RH side and 10 RH side should be illuminated together.

## Passenger compartment connection unit (BII)

#### **FAULT FINDING - CHECKING CONFORMITY**

A	0	T	ᆮ	C
/٧	u		_	

Order of operations	Function to be checked	Action	Bargraph	Display and notes
9	Reception of the key code		9	Illuminated when the ignition is switched on if the key is coded and has the correct format (on condition that the vehicle was protected before the ignition was switched on, immobiliser warning light flashing).  NOTE: In normal operation, bargraphs 8 RH, 9 RH and 10 RH should be illuminated together.
10	Valid key code		10	Illuminated when the ignition is switched on if the key is coded and has the correct format and code (on condition that the vehicle was protected before the ignition was switched on, immobiliser warning light flashing).  NOTE: In normal operation, bargraphs 8 RH, 9 RH and 10 RH should be illuminated together.
11	Reception of the ra- diofrequency signal sent by the remote control		11 11	Illuminated for approximately 3 seconds if the signal is received by the passenger compartment connection unit (BII).  Illuminated for approximately 3 seconds if the signal received by the passenger compartment connection unit (BII) is correct.
12	Presence of interior lighting cutout		12	Should extinguish after 30 minutes with the ignition switched off. Should extinguish after the doors are locked using the PLIP.

## Passenger compartment connection unit (BII)

#### **FAULT FINDING - CHECKING CONFORMITY**

**NOTES** 

Order of operations	Function to be checked	Action	Bargraph	Display and notes
13	Reception of door lock/unlock information from the central door locking button.		14	Illuminated when door lock / unlock information is sent by the central door locking button and received.  Enter * 14 on the XR25 to determine the information received by the passenger compartment connection unit (BII):  - if * 14 = 0 door lock information  - if * 14 = 1 door unlock information
14	Sending of door lock / unlock information by the passenger compartment connec- tion unit to the locking micromotors.		14	Illuminated when door lock / unlock information is sent by the decoder unit to the locking micromotors .  Enter * 34 on the XR25 to determine the information sent by the passenger compartment connection unit (BII):  - if * 34 = 0 door unlock information,  - if * 34 = 1 door lock information.

## Passenger compartment connection unit (BII)

#### **FAULT FINDING - CHECKING CONFORMITY**

**NOTES** 

Order of operations	Function to be checked	Action	Bargraph	Display and notes
15	Reception of door switch information		16	Illuminated if doors are open
16	Reception of programming in progress or resynchronisation of decoder not carried out information.		17	17 LH side illuminated if programming or resynchronisation in progress. 17 RH side illuminated if programming not carried out.
17	Reception of programming of 1st key information.		18	Illuminated if programming of 1st key in progress.

PETROL/DIRECT INJECTION DIESEL

## **IMMOBILISER**

## Passenger compartment connection unit (BII)



#### **FAULT FINDING - CUSTOMER COMPLAINTS**

NOTES Only consult these customer complaints after a complete check using the XR25.	
-------------------------------------------------------------------------------------	--

NO COMMUNICATION BETWEEN THE XR25 AND THE PASSENGER COMPARTMENT CONNECTION UNIT	Chart 1
IGNITION ON, THE IMMOBILISER WARNING LIGHT FLASHES PERMANENTLY (IMPOSSIBLE TO START THE VEHICLE)	Chart 2
THE IMMOBILISER WARNING LIGHT REMAINS ILLUMINATED (EVEN WHEN THE IGNITION IS SWITCHED OFF) OR REMAINS PERMANENTLY EXTINGUISHED	Chart 3
IGNITION ON, THE INJECTION WARNING LIGHT FLASHES PERMANENTLY (IMPOSSIBLE TO START THE VEHICLE)	Chart 4
WHEN DRIVING (DECELERATION) AND AT IDLE SPEED, THE INJECTION WARNING LIGHT FLASHES PERMANENTLY	Chart 5
THE VEHICLE DOES NOT START	Chart 6

## Passenger compartment connection unit (BII)

82

#### **FAULT FINDING - FAULT CHARTS**

Chart 1	NO COMMUNICATION BETWEEN THE XR25 AND THE PASSENGER COMPARTMENT CONNECTION UNIT
NOTES	Use bornier ELE 1506 for the measurements.

Check the condition of the + before ignition feed fuses.

Replace the fuse if necessary.

Ensure that the XR25 is not the cause of the fault by trying to communicate with another computer on the vehicle (air bag computer, injection computer, ...).

Check that the ISO selector is in position **S8**, that you are using the most recent version of the XR25 cassette and the correct access code (**D67**).

Check battery voltage (U > 10.5 volts).

Recharge the battery if necessary.

Check that the 26 track yellow passenger compartment connection unit BII connector (A) is correctly connected.

Check that the passenger compartment connection unit BII is correctly fed:

- earth on track 1 of the white passenger compartment connection unit BII connector (C).
- + before ignition feed on track 13 of the 26 track yellow passenger compartment connection unit BII connector (A).

Ensure that the diagnostic socket is correctly fed.

Check and ensure the continuity and insulation of the wiring for tracks **2** and **15** of the 26 track yellow passenger compartment connection unit BII connector (A).

There is still no dialogue between the XR25 and the passenger compartment connection unit BII. Replace the passenger compartment connection unit BII

See passenger compartment connection unit BII configuration.

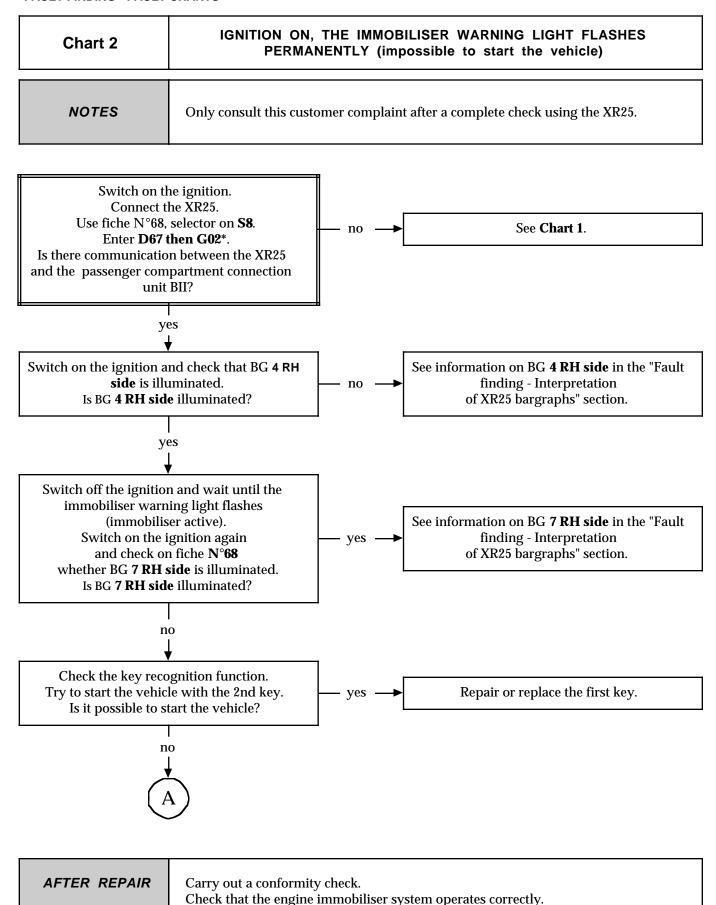
AFTER REPAIR

When communication has been established, deal with any illuminated fault bargraphs.

Carry out a conformity check.

## Passenger compartment connection unit (BII)

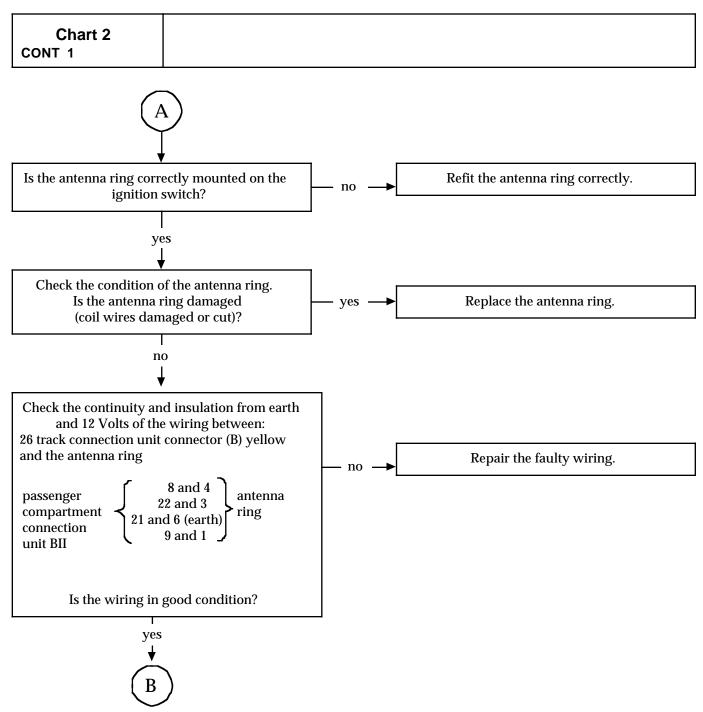
#### **FAULT FINDING - FAULT CHARTS**



## Passenger compartment connection unit (BII)

82

#### **FAULT FINDING - FAULT CHARTS**



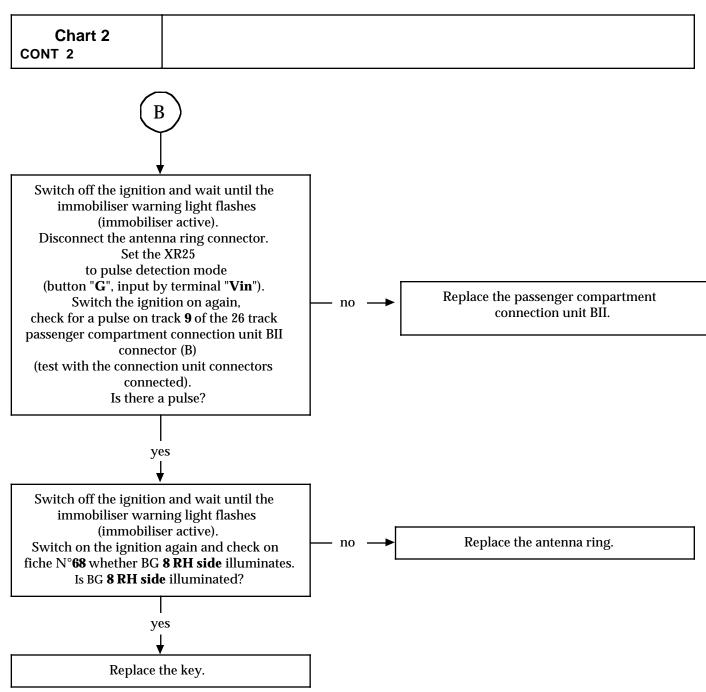
AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.

## Passenger compartment connection unit (bii)

82





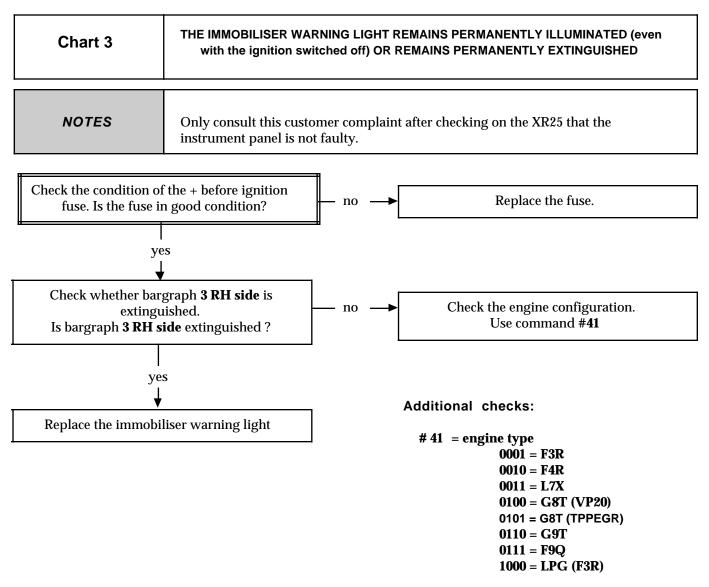
AFTER REPAIR

Carry out a conformity check.
Check that the engine immobiliser system operates correctly.

## Passenger compartment connection unit (BII)



#### **FAULT FINDING - FAULT CHARTS**



AFTER REPAIR

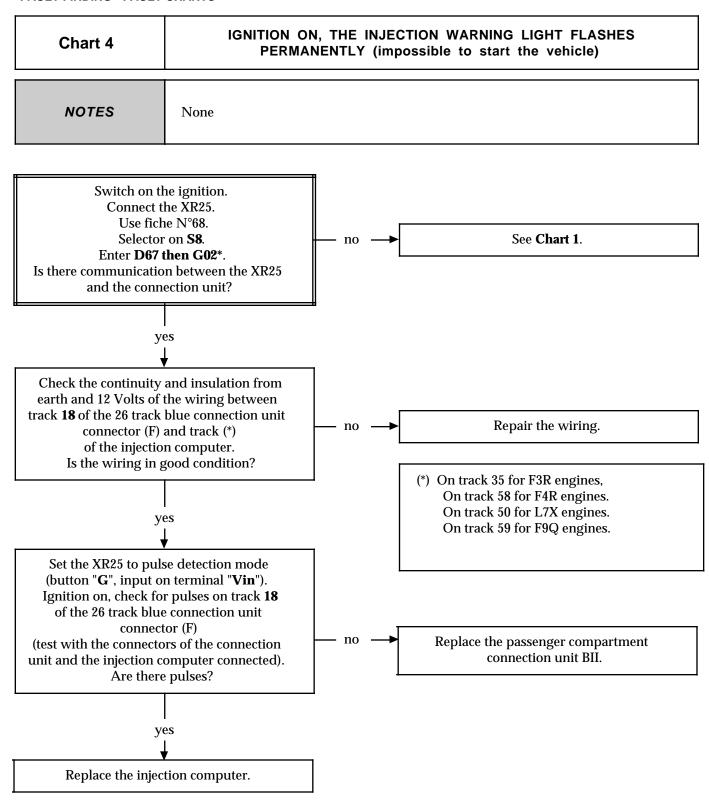
Check that the angine immebiliser sys

Check that the engine immobiliser system operates correctly.

### Passenger compartment connection unit (BII)



#### **FAULT FINDING - FAULT CHARTS**



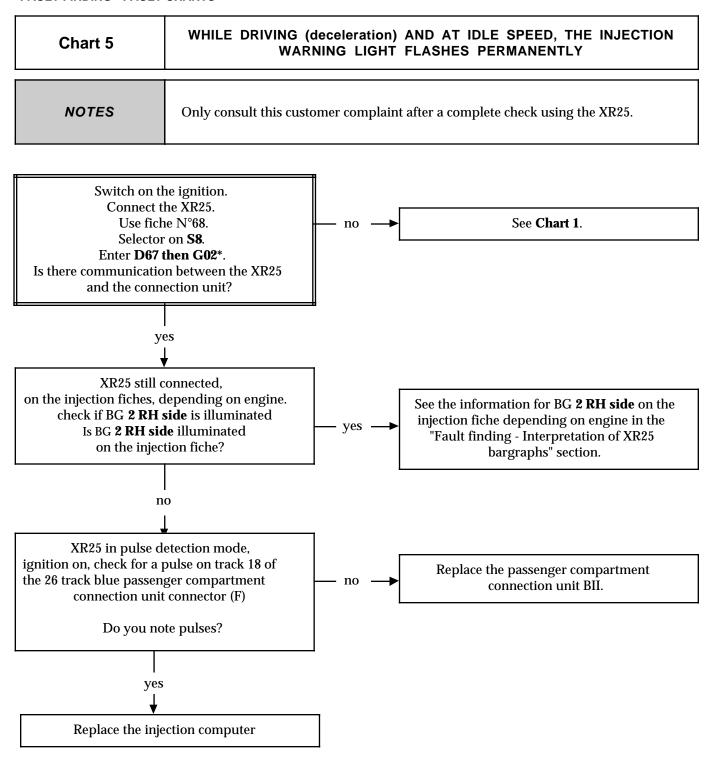
AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.

Passenger compartment connection unit (BII)



#### **FAULT FINDING - FAULT CHARTS**



AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.

#### PETROL/DIRECT INJECTION DIESEL

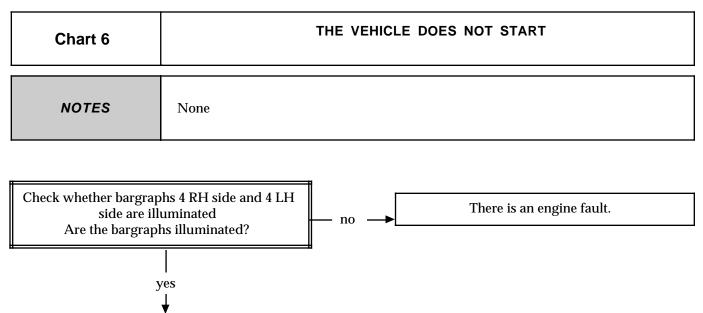
## **IMMOBILISER**

82

#### Passenger compartment connection unit (BII)

#### **FAULT FINDING - FAULT CHARTS**

There is an impact switch fault.



AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.

DIESEL

## **IMMOBILISER**

82

## Passenger compartment connection unit (BII)

#### **FAULT FINDING - CUSTOMER COMPLAINTS**

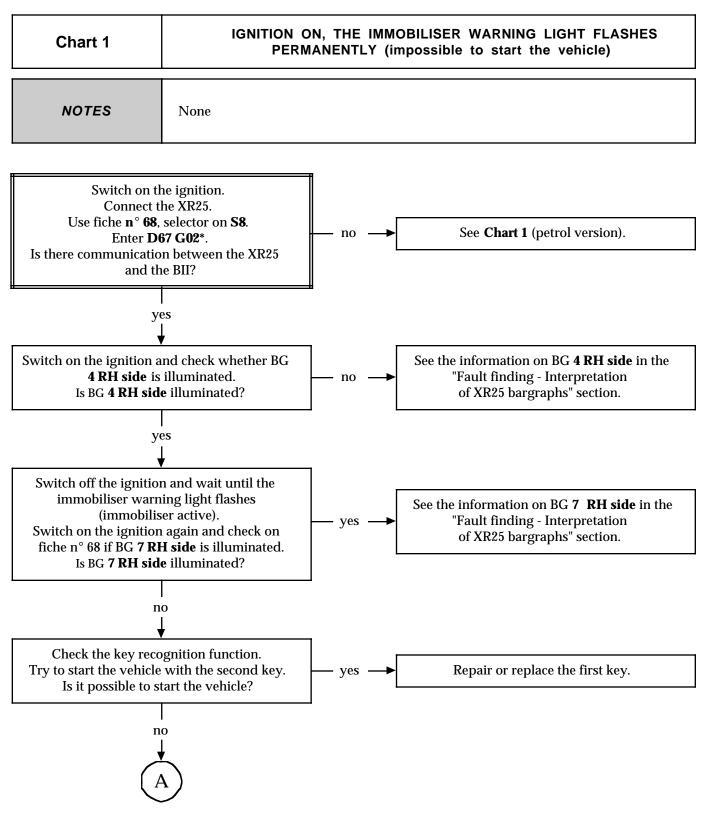
NOTES	Only consult these customer complaints after a complete check using the XR25.
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IGNITION ON, THE IMMOBILISER WARNING LIGHT FLASHES PERMANENTLY (IMPOSSIBLE TO START THE VEHICLE)	Chart 1
THE IMMOBILISER WARNING LIGHT REMAINS ILLUMINATED FOR MORE THAN 30 CONSECUTIVE SECONDS, IGNITION ON (THE IMMOBILISER WARNING LIGHT ILLUMINATES AS SOON AS THE IGNITION IS SWITCHED ON, IN THE 16 SECONDS FOLLOWING THE IGNITION BEING SWITCHED ON, OR THE IMMOBILISER WARNING LIGHT ILLUMINATES FOR MORE THAN 30 CONSECUTIVE SECONDS)	Chart 2
WHEN THE IGNITION IS SWITCHED ON, THE IMMOBILISER WARNING LIGHT ILLUMINATES FOR 3 SECONDS THEN EXTINGUISHES, BUT THE VEHICLE DOES NOT START	Chart 3
THE IMMOBILISER WARNING LIGHT REMAINS PERMANENTLY ILLUMINATED (EVEN WHEN THE IGNITION IS SWITCHED OFF) OR REMAINS PERMANENTLY EXTINGUISHED	Chart 4
THE VEHICLE DOES NOT START	Chart 5

82

#### Passenger compartment connection unit (BII)

#### **FAULT FINDING - FAULT CHARTS**

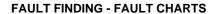


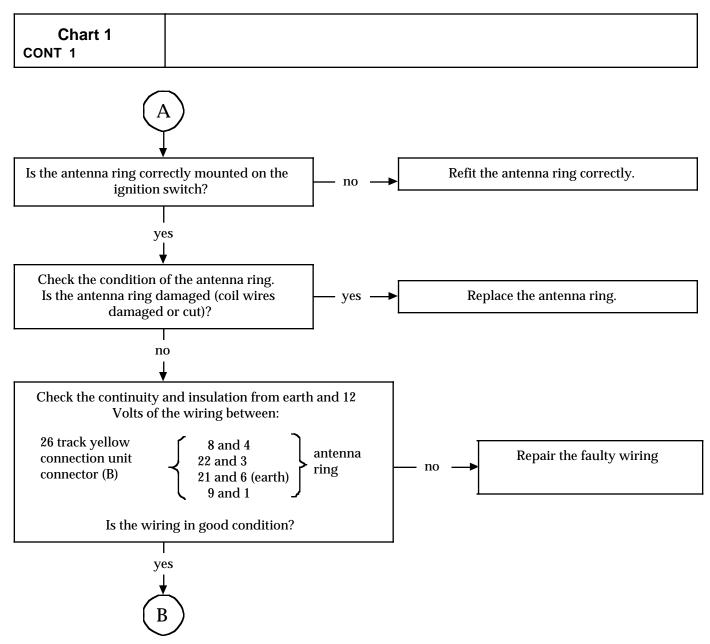
AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.

82

#### Passenger compartment connection unit (BII)





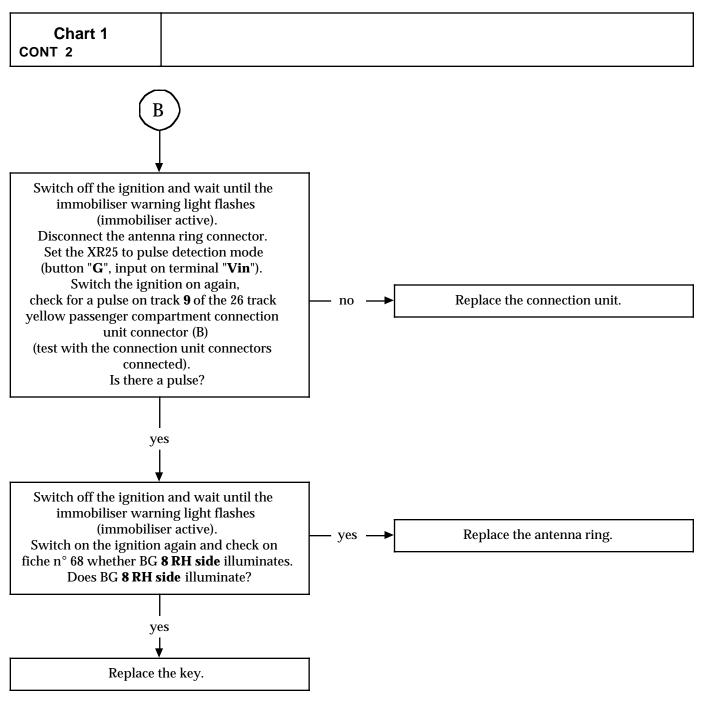
AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.

82

#### Passenger compartment connection unit (BII)





AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.

82

#### Passenger compartment connection unit (BII)

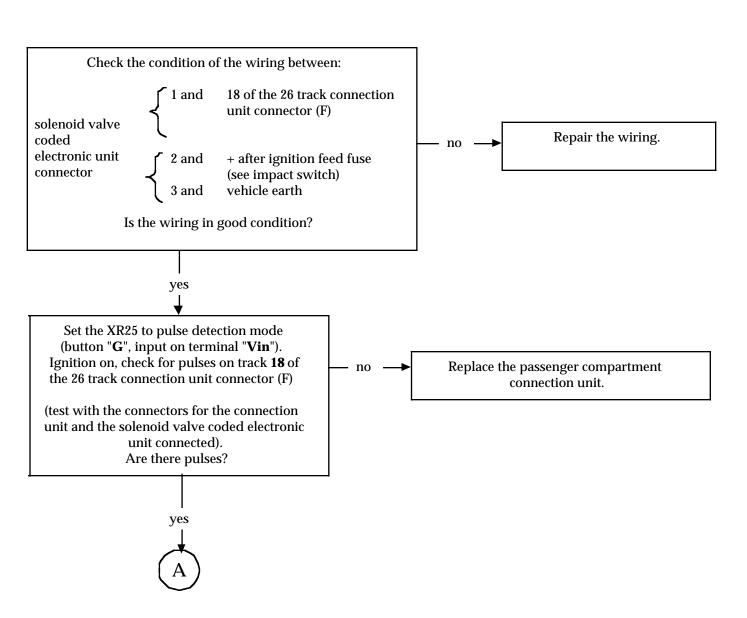
#### **FAULT FINDING - FAULT CHARTS**

#### Chart 2

THE IMMOBILISER WARNING LIGHT REMAINS PERMANENTLY ILLUMINATED FOR MORE THAN 30 CONSECUTIVE SECONDS, IGNITION ON (THE IMMOBILISER WARNING LIGHT ILLUMINATES AS SOON AS THE IGNITION IS SWITCHED ON, IN THE 16 SECONDS FOLLOWING SWITCHING ON THE IGNITION OR THE IMMOBILISER WARNING LIGHT ILLUMINATES FOR MORE THAN 30 CONSECUTIVE SECONDS)

#### **NOTES**

None



AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.



#### Passenger compartment connection unit (BII)

#### **FAULT FINDING - FAULT CHARTS**

Chart 2
CONT



With the XR25 connected, use fiche n° 68. Mechanically test the solenoid valve.

- With the ignition switched off, enter **G23**\*.
- Switch on the ignition again. The valve should open and close several times in 30 seconds (listen).

Does the valve open and close for approximately 30 seconds and is clearance sent (BG 8 LH side illuminated)?

no Replace the solenoid valve coded electronic unit.

Replace the passenger compartment connection unit.

yes

AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.



#### Passenger compartment connection unit (BII)

#### **FAULT FINDING - FAULT CHARTS**

#### WHEN THE IGNITION IS SWITCHED ON, THE IMMOBILISER WARNING Chart 3 LIGHT ILLUMINATES FOR 3 SECONDS THEN EXTINGUISHES, BUT THE VEHICLE DOES NOT START **NOTES** None Connect the XR25. Use fiche n° 68. Remove the solenoid valve coded electronic Mechanically test the solenoid valve. With the ignition switched off, enter **G23**\*. unit. Switch on the ignition again. The valve Check the condition of the solenoid valve. should open and close several times in 30 With the ignition switched off, connect + 12 no seconds (listen). Volts Does the valve open and close for to the solenoid valve. approximately 30 seconds and is clearance Then try to start the vehicle. sent (BG 8 LH side illuminated)? Does the vehicle start? yes no yes Replace the solenoid valve. The solenoid valve coded electronic unit is faulty. Replace the solenoid valve coded electronic Consult the fault finding corresponding to unit. diesel engines.

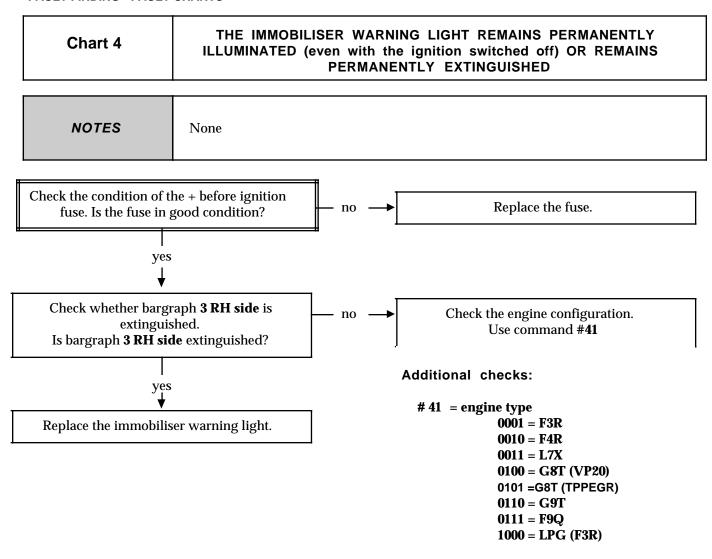
AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.

82

#### Passenger compartment connection unit (BII)

#### **FAULT FINDING - FAULT CHARTS**



AFTER REPAIR

Carry out a conformity check.

Check that the engine immobiliser system operates correctly.

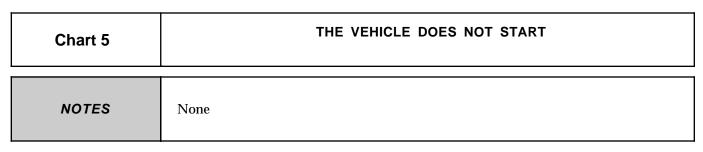
## DIESEL

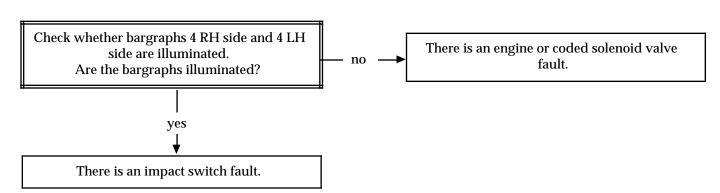
# **IMMOBILISER**

82

### Passenger compartment connection unit (BII)

#### **FAULT FINDING - FAULT CHARTS**





AFTER REPAIR

Carry out a conformity check. Check that the engine immobiliser system operates correctly.

q54561.0

## **IMMOBILISER**

### Passenger compartment connection unit (BII)

#### **ADDITIONAL CHECKS**

COMMAND MODES G --\*

To use this function, enter **G** on the XR25, then the number of the command, followed by a star.

- 04 Forced protection mode: activates the immobiliser function even if the key is correct, which allows starting prevention to be checked. Bargraph 9 LH side should illuminate.
  - This command must be entered when the ignition is off and the immobiliser function is active.

**IMPORTANT**: turning the ignition off cancels this command.

- 05 Immobiliser warning light command (illuminates the immobiliser warning light for 3 seconds).
- 08 Door unlock command (activates the micromotors for 3 seconds on unlock side).
- 09 Door lock command (activates the micromotors for 3 seconds on lock side).
- Configuration:
  - 41\*2\* **F3R engine** = petrol configuration (Bargraph **3 RH side** should be extinguished). 41\*3\* **F4R engine** = petrol configuration (Bargraph **3 RH side** should be extinguished).
  - 41\*4\* **L7X engine** = petrol configuration (Bargraph **3 RH side** should be extinguished).
  - **LPG F3R engine** = petrol configuration (Bargraph **3 RH side** should be extinguished). 41\*9\*
  - 41\*8\* **F9Q engine** = petrol configuration (Bargraph **3 RH side** should be extinguished).
  - 41\*5\* **G8T engine** = diesel configuration (Bargraph **3 RH side** should be illuminated).
  - 41\*6\* **G8T TPP EGR engine** = diesel configuration (Bargraph **3 RH side** should be illuminated).
- 23 Forced solenoid valve test mode (used on diesel vehicles only).
  - Activates the coded solenoid valve (open / close) for approximately 30 seconds (listen).
  - the passenger compartment connection unit should be configured for diesel, Bargraph 8 LH side should be illuminated during the test.
- 31 Configuration:

NOTE:

- G31 \* 1 \* programming with a single key. This command allows programming to be carried out with a single key when the passenger compartment connection unit alone is being replaced (if the customer does not necessarily have both keys with him). This command should be entered on the XR25 before beginning the programming procedure.
- allows programming with both keys. G31 \* 2 \*
- 40 Entering the security code (Bargraph **10 LH side** should be illuminated and the ignition switched on). This command mode can be used to enter the security code, but will not allow decoding of the injection computer or the coded solenoid valve.

Enter the vehicle security code number on the XR25 and validate with key "\*".

If the code is correct, "bon" is displayed on the XR25 and bargraph 10 LH side extinguishes.

If the code is not correct, "deF" is displayed on the XR25 and bargraph 10 LH side remains illuminated.

**IMPORTANT:** 3 attempts may be made to enter the code. If, after the third attempt, the code remains invalid, you must wait for 15 minutes with + after ignition feed before trying again (the ignition must be turned off and on again between each attempt).

70 Reading the part number (connection unit part number).

# **IMMOBILISER**

# 82

## Passenger compartment connection unit (BII)

#### **ADDITIONAL CHECKS**

#### LIST OF THE VARIOUS #

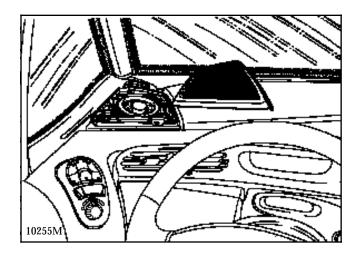
- **11** Type of instrument panel:
  - E1, E2, E3, PE2
- 12 Type of passenger compartment connection unit b1, b2, b3,
- **26** Source of the last command for the opening elements:
  - 3 → Radiofrequency remote control
  - 2 → Central door locking button
- 27 Operation of the last command for the opening elements:
  - $1 \rightarrow Unlock$
  - $2 \rightarrow Lock$
- **41** engine type:
  - $0001 \rightarrow F3R$
  - $0010 \rightarrow F4R$
  - $0011 \rightarrow L7X$
  - $0100 \rightarrow G8T \text{ (VP20)}$
  - $0101 \rightarrow G8T \text{ (TPPEGR)}$
  - $0110 \rightarrow G9T$
  - $0111 \rightarrow F9Q$
  - $1000 \rightarrow LPG (F3R)$

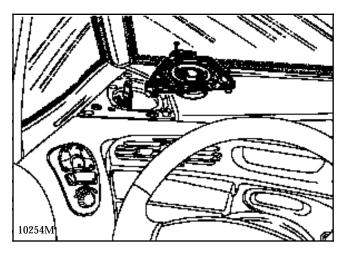
## **IMPORTANT:**

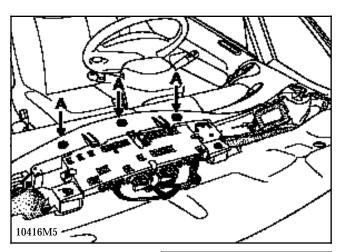
When replacing an instrument panel, the mileage is retained in the memory of the passenger compartment connection unit BII.

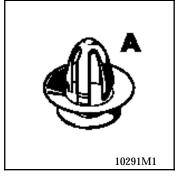
When connecting the new instrument panel the mileage in the memory will be displayed automatically on the instrument panel.

Do not carry out fault finding using a substitute component from another vehicle as the higher mileage will be memorised and will be displayed on both vehicles.









**REMOVAL**: instrument panel

**IMPORTANT:** Instrument panels with integrated red immobiliser warning light; before any operation see the fault finding for the passenger compartment connection unit BII. Connect the XR25 cassette 18. Fiche 1.n67 and enter the code D67.

#### **OPERATION**

Unclip the speaker grilles by hand, without using a tool, starting with the edge on the deflector side.

Unscrew the three mountings of each speaker support.

Disconnect the speakers and remove them.

On V6 automatic transmission vehicles, place the automatic transmission lever in position "2".

Lift the dashboard cover starting in the corner and pull vertically to unclip the three mountings (A).

Remove the upper section of the dashboard by pulling it to the rear.

Slacken the five mountings and disconnect the instrument panel.

#### **REFITTING**

Check for the presence of the three clips (A).

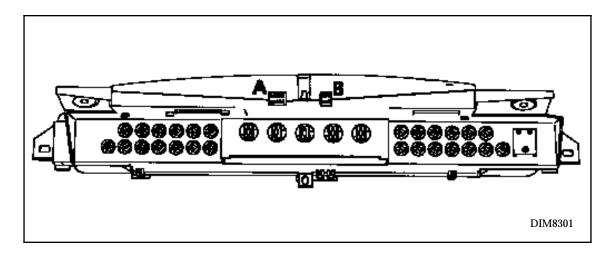
Refitting is the opposite of removal.

#### Check:

- radio operation,
- radiofrequency PLIP operation.

#### **EQUIPMENT LEVEL E1, E2 and E3**

#### **CONNECTIONS**



#### 12 track blue connector (A)

- 1 Rheostated lights control
- 2 +Battery
- 3 Earth
- 4 Electronic earth.
- 5 Diag link line (H)
- 6 Diag link line (L)
- 7 Not used.

#### 6 track black connector (B)

- 1 BIN H radio control
- 2 BSET radio control
- 3 BRXEN radio control
- 4 BDATA radio control
- 5 BSCK radio control
- 6 GND radio control
- 7 Not used
- 8 Not used

### **EQUIPMENT LEVEL E1.**

Ī	1	2	3	4	5	6	. diamla	13	14	15	16	17	18
Ī	7	8	9	10	11	12	display	19	20	21	22	23	•

Front fog lights  Rear fog lights  Side lights  Dipped headlights  Main beam headlights  Left hand indicator  Catalytic converter overheating  Battery charge	green green green blue green red
Side lights  Dipped headlights  Main beam headlights  Left hand indicator  Catalytic converter overheating	green green blue green
Dipped headlights  Main beam headlights  Left hand indicator  Catalytic converter overheating	green blue green
Main beam headlights  Left hand indicator  Catalytic converter overheating	blue green
Left hand indicator  Catalytic converter overheating	green
Catalytic converter overheating	
	red
Battery charge	
	red
Minimum fuel level	red
Minimum oil level	red
Minimum oil pressure	red
Immobiliser warning light	red
Right hand indicator	green
Nivocode and parking brake	red
A.B.S.	red
Heated seats	amber
Front seat belt warning light	red
Self-levelling suspension (C.O.A.)	amber
Brake pad wear	amber
Electronic fault (injection or AT)	amber
Maximum coolant temperature	red
T	amber
Diesel preheating	I
	Right hand indicator  Nivocode and parking brake  A.B.S.  Heated seats  Front seat belt warning light  Self-levelling suspension (C.O.A.)  Brake pad wear  Electronic fault (injection or AT)

#### **EQUIPMENT LEVEL E1.**

#### DISPLAY:

- Digital display of speed in km/h or MPH
- Digital display of total distance on provision of + after ignition feed
- Display of fuel level in the form of a bargraph
- Display of the stopped engine oil level or coolant temperature. (20 seconds after switching on the + after ignition with the engine running) in the form of a bargraph.
- Permanent clock display.

**EQUIPMENT LEVEL E2 and E3**.

_		1	2	3	N1	VALE	8	9	10
Ī	4	5	6	7	display	VMF	11	12	13

Reference		colour	V.N	1.F
		•	STOP	SERVICE
1	Dipped headlights (codes)	green		
2	Main beam headlights (headlights)	blue		
3	Left hand indicator	green		
4	Side lights	green		
5	Rear fog lights	amber		
6	Front fog lights	green		
7	Immobiliser warning light	red		
8	Right hand indicator	green		
9	Nivocode and parking brake	red	X	
10	A.B.S.	red	X	
11	Self-levelling suspension (C.O.A.)	amber		X
12	Front seat belt warning light	red		
13	Heated seats	amber		
13	Heated seats	amber		

V.M.F.: Multifunction warning light

#### **EQUIPMENT LEVEL E2 and E3.**

Reference		colour	V.M,F.	
			STOP	SERVICE
V.M.F.	Maximum coolant temperature	red	X	
V.M.F.	Catalytic converter overheating (petrol)	red	X	
V.M.F.	Battery charge	red	X	
V.M.F.	Minimum oil pressure	red	X	
V.M.F.	Brake pad wear	amber		X
V.M.F.	Electronic fault (AT+injection)	amber		X
V.M.F.	Fuel low	amber		
V.M.F.	Diesel preheating	amber		
V.M.F.	Minimum oil level	amber		X
V.M.F.	Air bag/pretensioner	amber		X
V.M.F.	Outside temperature and clock (permanent display except message in V.M.F)	amber		
V.M.F.	Radio information	amber		
V.M.F.	When engine stalled	red		
V.M.F.	ABS fault	red	X	
V.M.F.	COA fault	amber		х
V.M.F.	Oil pressure sensor fault	amber		X
V.M.F.	Battery charge fault	amber		x
V.M.F.	Nivocode fault	red	X	

#### DISPLAY:

- Digital display of speed in Km/h or MPH (depending on country)
- Display of fuel level in the form of a bargraph
- Display of the stopped engine oil level or coolant temperature. (20 seconds after providing the + after ignition feed and with engine running) in the form of a bargraph.
- ADAC zone display:
  - Trip total in kilometres
  - Average speed
  - Average consumption
  - Instantaneous consumption
  - Predicted fuel range
- Radio display
- General constant total display in kilometres.

### V.M.F. = Multi-function warning light.

# Description of on and standby function for the instrument panel.

When the doors are unlocked using the radiofrequency PLIP, when a door is opened or with + after ignition feed, the passenger compartment connection unit BII becomes active, it then measures the oil level and transmits it to the instrument panel. This takes one minute.

The instrument panel generates the radiofrequency code (TRF) and sends the order to unlock or lock the doors to the passenger compartment connection unit BII.

#### **REMOVAL**

Overhauling of the instrument panel is strictly forbidden.

If there is a fault, it must be replaced.

**NOTE**: When an instrument panel is replaced, it must be configured. Otherwise, speed information will flash as this will not be configured.

Resynchronise the PLIPs (see section 82)

# Configuration of the instrument panel is managed by the passenger compartment connection unit BII

Ignition on and engine not running:

- Connect the XR25 to the diagnostic socket equipped with cassette n° 18 and set the selector to S8.
- Enter the code

D 6 7

• The following will appear on the central display:

1.n67

• Configuration depending on drive side and engine

Left hand drive: G42\*1\* Right hand drive: G42\*0\*

#### **ENGINE:**

F3R	enter G41*2*
F4R	enter G41*3*
L7X	enter G41*4*
G8T	enter G41*5*
<b>G8T TPP EGR</b>	enter G41*6*
F9Q	enter G41*8*
LPG F3R	enter G41*9*

#### **COOLANT TEMPERATURE:**

Indicated on the instrument panel: enter **G52\*1\***Not indicated on the instrument panel: enter **G52\*0\*** 

Check that the doors lock and unlock correctly (if not, see the resynchronisation procedure in section 82)

#### **IMPORTANT:**

When replacing the instrument panel, the mileage is retained in the memory of the passenger compartment connection unit.

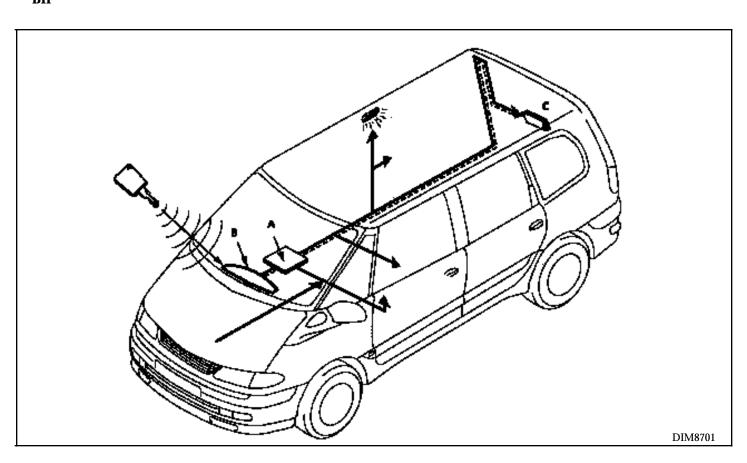
When connecting the instrument panel, the mileage in the memory will be displayed automatically on the instrument panel.

Do not carry out fault finding using a substitute component from another vehicle, as the higher mileage will be memorised and will be displayed on both vehicles.

# Passenger compartment connection unit BII



LOCATION OF COMPONENTS CONNECTED TO THE PASSENGER COMPARTMENT CONNECTION UNIT BII



## \_\_\_ multiplexed connection

A: Passenger compartment connection unit (BII)

B: Instrument panel C: Tailgate module

# Passenger compartment connection unit (BII)



#### **GENERAL**

# The ESPACE is equipped with a passenger compartment connection unit (BII) allowing management of:

- The immobiliser by means of a key recognition system (known as the **CODED KEY** immobiliser system).
- Door locking and unlocking by means of a radiofrequency PLIP (TRF).
- Interior lighting.
- Warning light signals on the instrument panel
- Information from the engine sensors.
- Driver's electric window.
- Windscreen wipers.
- Indicators and hazard warning lights.

### A tailgate module unit which manages:

- Illumination of the rear fog lights.
- Rear wipers.
- Number plate lights.
- Rear screen switch (if the screen can be opened).
- 3rd line and luggage compartment lighting.

#### **OPERATING PRINCIPLE**

The passenger compartment connection unit BII communicates with the instrument panel via 2 wires, diag link line L and diag link line H. The instrument panel receives this information and illuminates the warning lights concerned.

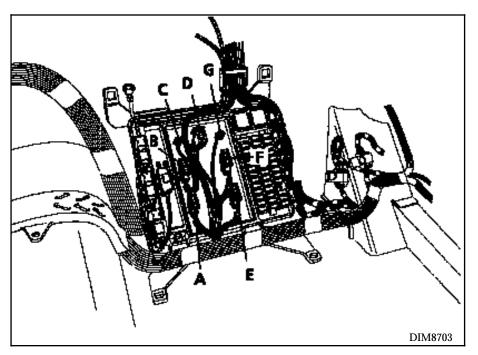
The passenger compartment connection unit BII communicates with the tailgate module unit via a line which transmits the information.

# Description of standby and on functions of the passenger compartment connection unit.

When the doors are unlocked using the radiofrequency PLIP, a door is opened or with + after ignition feed the passenger compartment connection unit BII becomes active, it measures the oil level and sends it to the instrument panel. This takes one minute.

# Passenger compartment connection unit BII

#### PASSENGER COMPARTMENT CONNECTION UNIT BII CONNECTIONS



## 26 TRACK YELLOW CONNECTOR (A)

Track	Allocation
1	Reverse
2	Diagnostic information (line L)
3	0 volt outside temperature sensor
4	Tailgate module / connection unit connec-
	tion
5	+ protected accessories feed
6	- EC5 air bag fault warning light
7	+ left hand side lights
8	+ rear screen washer pump
9	- rear left and right door switch
10	- driver's electric window one touch raise
	control
11	- driver's electric window normal raise
	control
12	- 1st line courtesy light
13	+ 12 V before ignition feed to passenger
	compartment connection unit
14	- SDM air bag fault warning light
15	Diagnostic information (line K)
16	Outside temperature sensor information.
17	+ after ignition feed windscreen wiper
18	- front left hand door switch
19	+ main beam headlights
20	+ windscreen washer pump
21	+ dipped headlights
22	- seat belt information
23	- front right hand door switch
24	driver's electric window normal lowering
	control
25	- handbrake information
26	- rear electric window blocking control

## 26 TRACK YELLOW CONNECTOR (B)

Track	Allocation
1	+ instrument panel rheostat
2	+ air conditioning rheostat
3	- right hand indicator control via stalk
4	- hazard warning lights timed / control
	information
5	central door locking button opening control
6	- fast speed windscreen wiper control via stalk
	information
7	- timed rear wiper start information
8	antenna ring / connection unit coded line
9	+ antenna ring feed
10	+ rheostat information (knob)
11	+ front fog lights relay
12	+ rear screen wiper timer
13	Diag link line H instrument panel information
14	- interior lighting via switch
15	- passenger compartment lighting via relay
16	- control panel A/C relay
17	- left hand indicator control
18	central door locking button close control
19	- ADAC sequence
20	- slow speed windscreen wiper information
21	Antenna ring earth
22	Antenna ring interrogation
23	0 volt rheostat potentiometer
24	+ rear fog lights control
	+ 12 V instrument panel protected before
25	ignition feed via passenger compartment
	connection unit
26	Diag link line L instrument panel information
	*

# Passenger compartment connection unit BII

#### 1 TRACK WHITE CONNECTOR (C)

Track		Allocation	
1	Earth		

### 16 TRACK BLACK CONNECTOR (D)

Track	Allocation	
1	Right hand indicator output	
2	Left hand indicator output	
3 Driver's electric window raise		
4	Driver's electric window lower	
5	Not used	
6	+ central door locking button close	
7	+ central door locking button open	
8	+ fast speed windscreen wiper	
9	+ windscreen wiper	
10	+ front fog lights via relay	
11	+ front fog lights	
12	- passenger compartment lighting via	
	relay	
13	+ air conditioning authorisation via pres-	
	sostat	
14	- rear right hand side electric window	
	authorisation	
15	- rear left hand side electric window	
	authorisation	
16	+ slow speed windscreen wiper	

### 12 TRACK BLUE CONNECTOR (E)

Track	Allocation
1	- automatic transmission fault warning
	light
2	Not used
3	- door open output
4	LPG level information
5	LPG fuel selection information
6	Not used
7	- self-levelling suspension fault warning
	light
8	Not used
9	Not used
10	Not used
11	Fuel flow information
12	- heated seat warning light

### 26 TRACK BLUE CONNECTOR (F)

Track	Allocation
1	Coolant temperature information
2	Fuel level information
3	Oil level sensor information
4	TDC information
5	Headlight washer control
6	+ alarm close information
7	+ motor 1 fan assembly battery
8	- brake fluid level information
9	- brake pad wear warning light
10	Not used
11	Not used
12	- charge warning light
13	- ABS warning light
14	Not used
15	0 volt fuel gauge
16	0 volt oil level
17	Secondary fan speed information
18	Injection / diesel coded information
19	+ alarm open information
20	+ motor 2 fan assembly
21	- injection fault warning light
22	- oil pressure warning light
23	- catalytic converter overheating warning
	light
24	- preheating warning light
25	- windscreen wiper park
26	- coolant temperature warning light

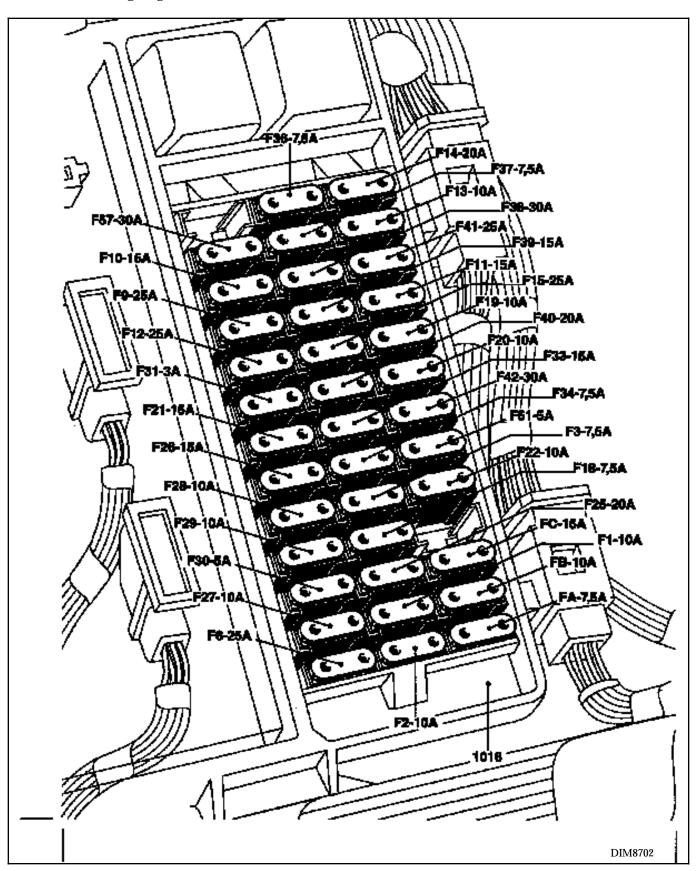
### 1 TRACK GREY CONNECTOR (G)

Allocation
+ battery

# 87

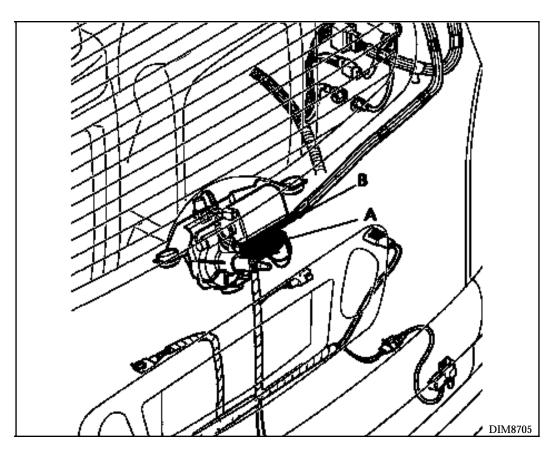
# **ELECTRICAL ASSISTANCE EQUIPMENT**Passenger compartment connection unit BII

**FUSE BOX** (See wiring diagrams NT 8141A)



# Passenger compartment connection unit BII

#### **TAILGATE MODULE**



### 4 track black connector (A)

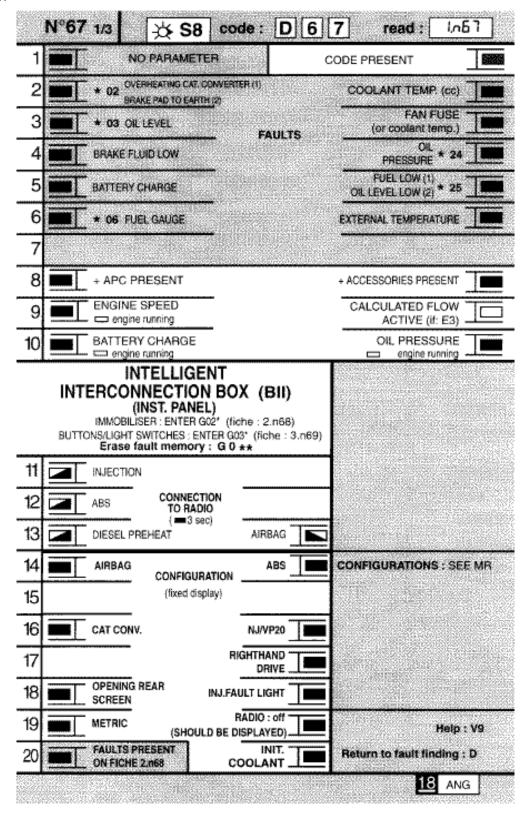
Track	Allocation
1	Earth
2	+ 12 volts protected before ignition feed
3	Line connection to the passenger
	compartment connection unit BII
4	- 3rd line courtesy light/tailgate and
	luggage compartment lighting via
	tailgate module

#### 18 track black connector (B)

16 track diack connector (D)		
Track	Allocation	
1	Not used	
2	Tailgate motor open	
3	Opening rear screen switch	
4	Rear screen switch earth via tailgate	
	module	
5	+ right hand number plate feed	
6	tailgate motor close	
7	+ rear right hand fog lights control	
8	+ rear left hand fog lights control	
9	- rear right hand fog lights control	
10	Not used	
11	Screen motor opening	
12	Right and left hand tailgate switches	
13	Right and left hand tailgate earth via	
	tailgate module	
14	+ left hand number plate feed	
15	Screen motor closing	
16	- rear left hand fog lights control	
17	Right hand number plate earth control	
18	Left hand number plate earth control	
	_	

# PASSENGER COMPARTMENT CONNECTION UNIT Fault finding - XR25 fiche

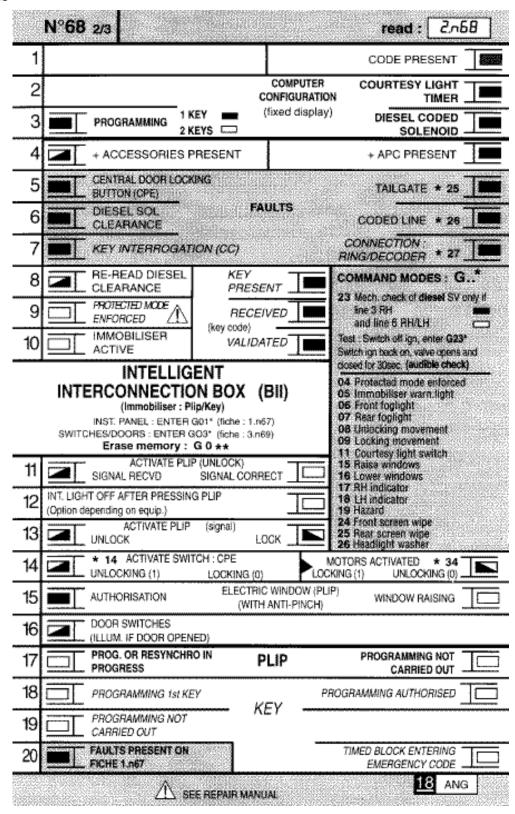
# XR25 fault finding fiche fiche N°67



FI21867

# PASSENGER COMPARTMENT CONNECTION UNIT Fault finding - XR25 fiche

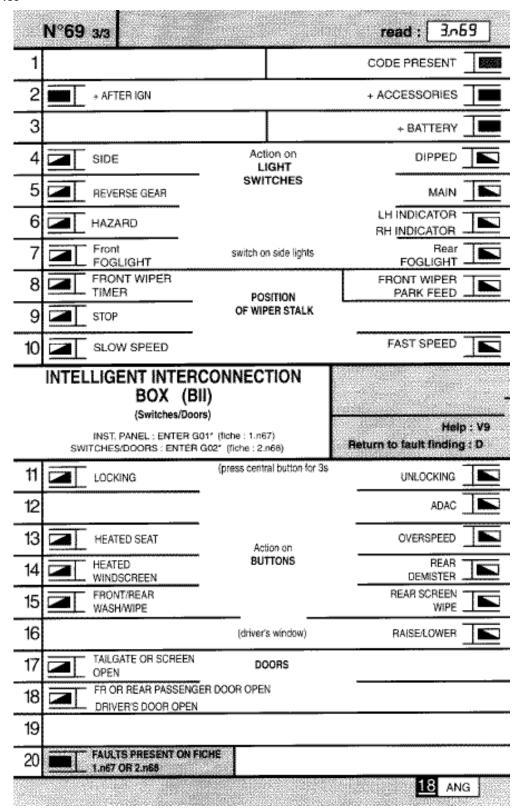
# XR25 fault finding fiche fiche N°.68



FI21868

# PASSENGER COMPARTMENT CONNECTION UNIT Fault finding - XR25 fiche

# XR25 fault finding fiche fiche N°.69



FI21869

# PASSENGER COMPARTMENT CONNECTION UNIT Fault finding - XR25 fiche

#### **BARGRAPH SYMBOLS**

-	for faults	(always	on a co	loured	background	l):
---	------------	---------	---------	--------	------------	-----



If illuminated, indicates a fault on the product tested. The associated text defines the fault.

This bargraph may be:

Illuminated : fault present.Flashing : fault memorised.

Extinguished : fault absent or not detected.

- for status (always on a white background:



Bargraph always on the top right hand side.

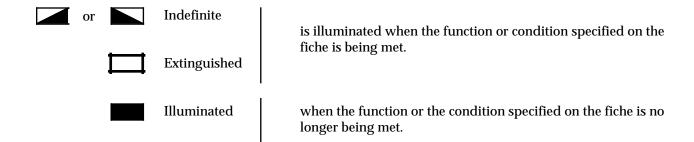
If illuminated, indicates that dialogue is established with the product computer.

If it remains extinguished:

The code does not exist.

- There is an XR25, computer or XR25 / computer connection fault.

The representation of the following bargraphs indicates their initial status: Initial status: (ignition on, engine stopped, no operator action).



- Additional details:

Certain bargraphs have a \*. The command\*.., when the bargraph is illuminated, allowing additional information on the type of fault or status to be displayed.

## PASSENGER COMPARTMENT CONNECTION UNIT

# Fault finding - Interpretation of XR25 bargraphs



1	Bargraph 1 RH side extinguished Code present	Fiche n° 67 side 1/3°
NOTES	Use bornier ELé 1506 to make the measurements.	

Check the condition of the + before ignition feed fuse.

Replace the fuse if necessary.

Ensure that the XR25 is not the cause of the fault by trying to communicate with another computer on the vehicle (air bag computer, injection computer, ...).

Check that the ISO selector is in position **S8**, that you are using the latest version of the XR25 cassette and the correct access code (**D 67**).

Check battery voltage (U > 10.5 volts). Recharge the battery if necessary.

Check that the 26 track yellow passenger compartment connection unit BII connector (A) is correctly connected.

Check that the passenger compartment connection unit BII is correctly fed:

- earth on track 1 of the 1 track white passenger compartment connection unit BII connector (C).
- + before ignition feed on track **13** of the 26 track yellow passenger compartment connection unit BII connector (A).

Ensure that the diagnostic socket is correctly fed.

Check and ensure the continuity and insulation of the wiring for tracks **2** and **15** of the 26 track yellow passenger compartment connection unit BII connector (A).

There is still no dialogue between the XR25 and the passenger compartment connection unit BII. Replace the passenger compartment connection unit BII

See configuration of the passenger compartment connection unit BII.

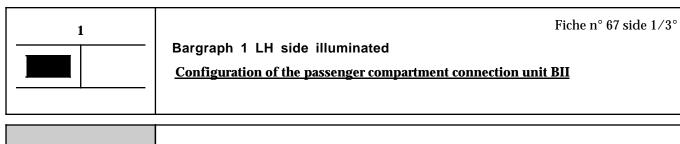
AFTER REPAIR

When communication has been established, deal with any illuminated fault bargraphs.

## PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs





**NOTES** 

This bargraph should be extinguished for fault finding.

#### **CONFIGURATION:**

<b>G</b> *	
42*1*	left hand drive
42*0*	right hand drive
41*2*	F3R engine
41*3*	F4R engine
41*4*	L7X engine
41*5*	G8T engine
41*6*	G8T TPP EGR engine
41*8*	F9Q engine
41*9*	LPG F3R engine
44*1*	fixed rear screen
44*0*	opening rear screen
47*1*	courtesy lights timing
47*0*	without courtesy lights timing
<b>57*1</b> *	with catalytic converter
<b>57*0</b> *	without catalytic converter
<b>58</b> *1*	with ADAC
<b>58*0</b> *	without ADAC
<b>59*1</b> *	with ABS
59*0*	without ABS
61*1*	injection or VP20 present (VP20 =
	depollution on G8T engines for
	Austria, etc.)
61*0*	injection or VP20 absent
51*1*	MIL (pollution warning light) present
	if F4R euro 2000 engine
<b>51*0</b> *	MIL (pollution warning light) absent
<b>52*1*</b>	coolant temperature indicated
<b>52*0*</b>	coolant temperature not indicated
<b>53*1</b> *	<b>0V after radiofrequency PLIP</b>

#### Additional checks:

#		
	11	= type of instrument panel
	41	= type of engine
		0001 = F3R
		0010 = F4R
		0011 = L7X
		0100 = G8T (VP20)
		0101 = G8T (TPPEGR)
		$0110 = \mathbf{G9T}$
		$0111 = \mathbf{F9Q}$
		1000 = LPG (F3R)

AFTER REPAIR

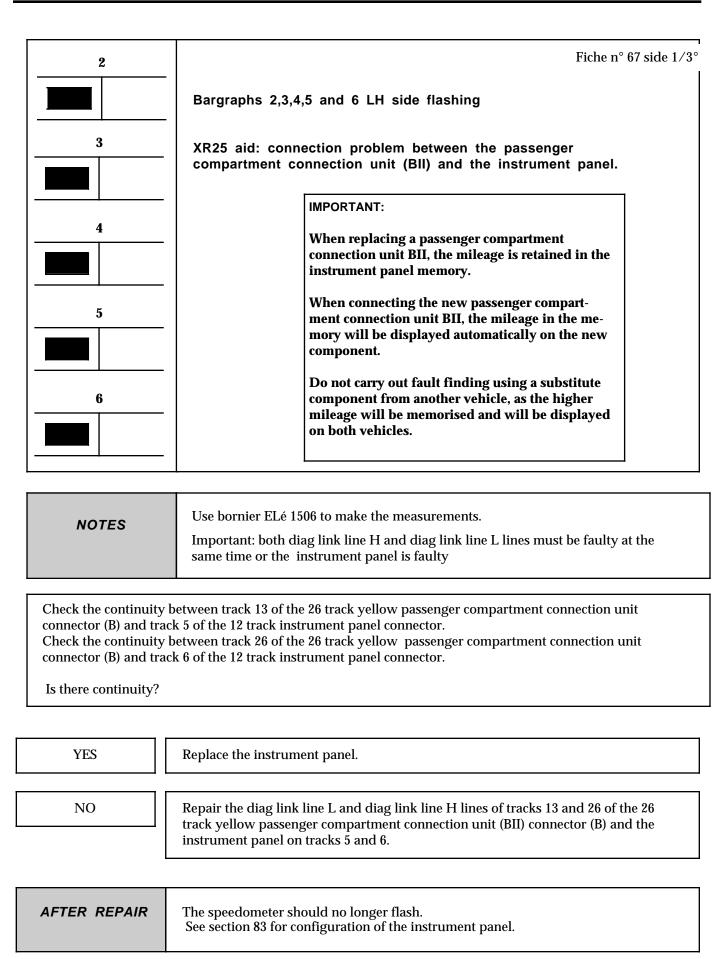
After configuring the passenger compartment connection unit BII, enter GO\*\*. Check the fault bargraphs

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### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

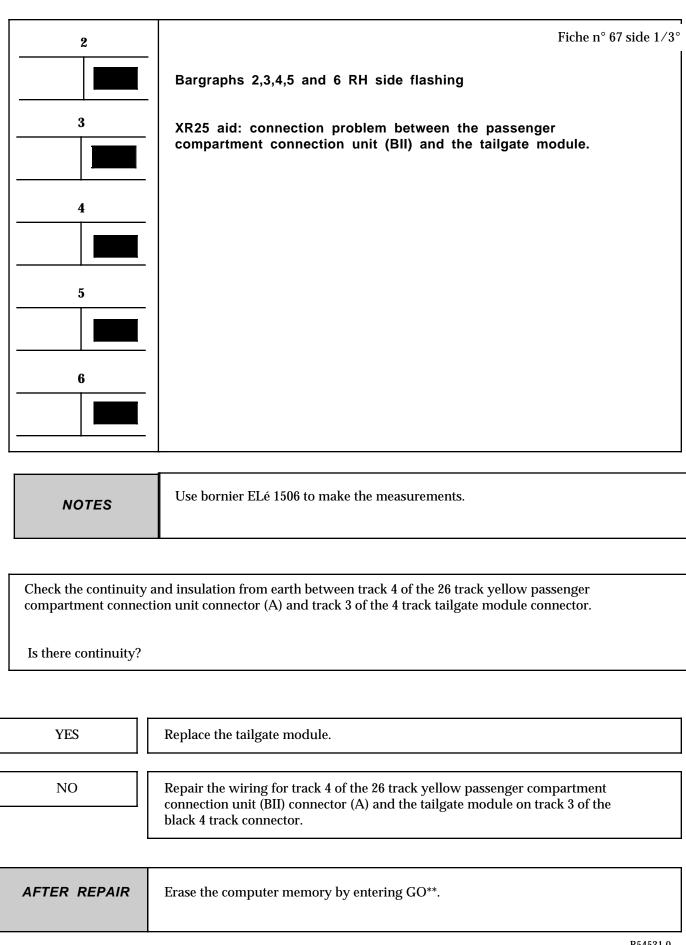




## PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs





## PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs



Bargraph 2 LH side illuminated
Catalytic converter overheating/Brake pad
XR25 aid: \*02 = 1 def catalytic converter overheating
\*02 = 2 def brake pad to earth

NOTES

Use bornier ELé 1506 to make the measurements.

NOTES

NOTES

NONE.

Disconnect the 26 track blue passenger compartment connection unit connector (F).
Check the insulation between track 23 of the 26 track blue connector (F) and earth.
Repair if necessary.

2.DEF NOTES None.

Disconnect the 26 track blue passenger compartment connection unit connector (F).

Check the insulation between track 9 of the 26 track blue connector (F) and earth.

Check the condition of the brake pad wear sensors.

Repair if necessary.

**AFTER REPAIR** Erase the computer memory by entering GO\*\*.

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## PASSENGER COMPARTMENT CONNECTION UNIT

# Fault finding - Interpretation of XR25 bargraphs



	Bargraph 2 RH side illuminated Coolant temperature	Fiche n° 67 side 1/3°
NOTES	None.	

Check the resistance value of the sensor by taking the sensor measurement between track 1 and  $\,$ 2:

At  $40^{\circ} = 1250\Omega \pm 100\Omega$ 

At  $80^{\circ} = 277\Omega \pm 15\Omega$ 

AFTER REPAIR

## PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs



Bargraph 3 LH side
Oil level
XR25 aid: \*03 CO : open circuit
CC : short circuit

NOTES

Important: timed control.

Use bornier ELé 1506 to make the measurements.

Disconnect the 26 track blue connector (F) in the passenger compartment connection unit. Check the resistance value of the sensor between tracks 3 and 16. It should be between 10 and 15 ohms.

CC Use bornier ELé 1506 to make the measurements.

Check the insulation and that there is no continuity between tracks 3 and 16, of the 26 track blue connector (F) in the passenger compartment connection unit.

Repair if necessary.

Repair if necessary.

AFTER REPAIR Erase the computer memory by entering GO\*\*.

# PASSENGER COMPARTMENT CONNECTION UNIT

# Fault finding - Interpretation of XR25 bargraphs

87

3	Bargraph 3 RH si  Fan assembly fus	ide illuminated se or coolant temperature	Fiche n° 67 side 1/3°
NOTES	None.		
Fan assembly	NOTES	None.	
fuse			
Check fuses <b>F54</b> an	d <b>F55</b> in the engine compar	rtment connection unit.	
Check the thermost assembly begins to Repair if necessary.	operate.	onding engine fiche, check the tempe	erature at which the fan
Coolant temperature	NOTES	Use bornier ELé 1506 to make the	e measurements.
unit connector (F).		ck 1 of the 26 track blue passenger c	ompartment connection
Repair if necessary.			

# PASSENGER COMPARTMENT CONNECTION UNIT



# Fault finding - Interpretation of XR25 bargraphs

4	Bargraph 4 LH side illuminated Brake fluid	Fiche n° 67 side 1/3°
NOTES	Use bornier ELé 1506 to make the measurements.	
Check the brake fluid l	evel.	
Disconnect the 26 track blue connector (F) in the passenger compartment connection unit.		
Check the insulation between track 8 and earth.		
Repair if necessary.		

AFTER REPAIR

# PASSENGER COMPARTMENT CONNECTION UNIT

# Fault finding - Interpretation of XR25 bargraphs



Bargraph 4 RH side illuminated
Oil pressure
XR25 aid: \*24 : CCO : short circuit to earth
CC1 : open circuit or to + 12v

NOTES

If 9 LG side illuminated, check the speed circuit.

Check the insulation of the line on track 22 and earth, of the 26 track blue connector (F) in the passenger compartment connection unit.

Repair if necessary.

Check the continuity between track 22 and earth of the 26 track blue connector (F) in the passenger compartment connection unit .

Repair if necessary.

AFTER REPAIR

# PASSENGER COMPARTMENT CONNECTION UNIT



## **Fault finding - Interpretation of XR25 bargraphs**

5	Bargraph 5 LH side illuminated F Charging circuit	iche n° 67 side 1/3°
NOTES	Use bornier ELé 1506 to make the measurements.	

Check the insulation of the line on track 12 and earth of the 26 track blue connector (F) in the passenger compartment connection unit.

Repair if necessary.

AFTER REPAIR

## PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs



Fiche  $n^{\circ}$  67 side  $1/3^{\circ}$ 

5 XR25 aid: \*25: 1 dEF: fuel low

Bargraph 5 RH side illuminated Fuel level and oil level low

: 2 dEF : oil low

: 3 dEF : 1.dEF + 2 dEF

**NOTES** 

If 3 LH side is illuminated, deal with 3 LH side first.

1.dEF

**NOTES** 

Use bornier ELé 1506 to make the measurements.

Check that the resistance value is between  $377\Omega$  and  $406\Omega$  by taking the measurement between tracks 15 and 2, of the 26 track blue connector (F) in the passenger compartment connection unit.

Repair if necessary.

2.dEF

**NOTES** 

Use bornier ELé 1506 to make the measurements.

Check the level using the dipstick, the resistance value is between  $7\Omega$  and  $15\Omega$  between tracks 3 and 16 of the 26 track blue connector (F) in the passenger compartment connection unit.

Repair if necessary.

3.dEF

**NOTES** 

None.

Consult 1.dEF, then 2.dEF.

AFTER REPAIR

Erase the computer memory by entering GO\*\*.

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# PASSENGER COMPARTMENT CONNECTION UNIT

# Fault finding - Interpretation of XR25 bargraphs



6	Bargraph 6 LH si - Fuel gauge XR25 aid: *06 : C	de illuminated O open circuit gauge 1 dEF : gauge blocked 2 dEF : CO + 1 dEF	Fiche n° 67 side 1/3°	
NOTES	None.			
co	NOTES	Use bornier ELé 1506 to make th	he measurements.	
Check the continuity of the line by measuring between tracks 15 and 2 of the 26 track blue connector(F) in the passenger compartment connection unit (BII).  Repair if necessary.				
1.dEF	NOTES	None.		
See the section on the removing the gauge and check its operation.  Repair if necessary.				
3.dEF	NOTES	None.		
Consult CO, then 1.dEF.				
<b>AFTER REPAIR</b> Erase the computer memory by entering GO**.				

# PASSENGER COMPARTMENT CONNECTION UNIT

# Fault finding - Interpretation of XR25 bargraphs



6	Bargraph 6 RH side illuminated Outside temperature	Fiche n° 67 side 1/3°
NOTES	Use bornier ELé 1506 to make the measurements.	

Check the continuity and insulation between track 16 and 3 on the 26 track yellow passenger compartment connection unit (BII) connector (A).

Repair if necessary.

**AFTER REPAIR** Erase the computer memory by entering GO\*\*.

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## PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs

87

8

Bargraph 8 LH side extinguished, ignition on Presence of + after ignition feed XR25 aid: Illuminated if + after ignition feed

Fiche  $n^{\circ}$  67 side  $1/3^{\circ}$ 

**NOTES** 

Use bornier ELé 1506 to make the measurements.

Check the condition of the + after ignition feed (F15) fuse.

Replace the fuse if necessary.

Ignition on, check for a voltage of + 12 Volts on track 17 of the 26 track yellow passenger compartment connection unit (BII) connector (A).

Is there 12 volts?

YES

Replace the passenger compartment connection unit (BII).

NO

Repair the wiring between track 17 of the 26 track yellow passenger compartment connection unit (BII) connector (A) and the passenger compartment fuse board.

AFTER REPAIR

Erase the computer memory by entering GO\*\*. If the passenger compartment connection unit has been replaced remember to configure it (see beginning of this section).

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs

87

8	}

Bargraph 8 RH side extinguished
Presence of + accessories feed
XR25 aid: Illuminated if + accessories feed

Fiche n° 67 side 1/3°

**NOTES** 

Use bornier ELé 1506 to make the measurements.

Check the condition of the + accessories feed (F33) fuse.

Replace the fuse if necessary.

Ignition on, check for a voltage of + 12 Volts on track 5 of the 26 track yellow passenger compartment connection unit (BII) connector (A).

Is there 12 volts?

YES

Replace the passenger compartment connection unit (BII).

NO

Repair the wiring between track 5 of the 26 track yellow passenger compartment connection unit (BII) connector (A) and the passenger compartment fuse board.

AFTER REPAIR

Erase the computer memory by entering GO\*\*. If the passenger compartment connection unit has been replaced remember to configure it (see beginning of this section).

## PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs



9	Bargraph 9 LH side extinguished, engine running Engine speed	Fiche n° 67 side 1/3°
NOTES	Use bornier ELé 1506 to make the measurements.	

If the bargraph remains illuminated when the engine is running, check:

The continuity between track 4 of the 26 track blue passenger compartment connection unit connector (F) and track (\*) of the injection computer connector,

- (\*) F9Q injection on track 2 of the injection computer connector.
- $(\mbox{\ensuremath{^{*}}})$  L7X and F3R injection on track 43 of the injection computer connector.
- (\*) F4R injection on track 70 of the injection computer connector.

AFTER REPAIR

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs



9	Bargraph 9 RH side illuminated, engine running Flow meter circuit XR25 aid: Illuminated engine running	Fiche n° 67 side 1/3°
NOTES	With ADAC only.	

If the bargraph remains extinguished, check:

- The continuity between track 11 of the 12 track blue connector (E) on the passenger compartment connection unit and track (\*) of the injection computer.
- (\*) F3R injection on track 13 of the injection computer connector.
- (\*) F4R injection on track 11 of the injection computer connector.
- (\*) F9Q injection on track 32 of the injection computer connector.
- (\*) L7X injection on track 15 of the injection computer connector.
- The insulation on track 11 of the 12 track blue connector (E) on the passenger compartment connection unit.

AFTER REPAIR

## PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs



10	Bargraph 10 LH side extinguished, engine running Battery charge XR25 aid: Extinguished, engine running	Fiche n° 67 side 1/3°
NOTES	Dealt with in fault bargraph 5 LH side or 9 LH side.	
10	Bargraph 10 RH side extinguished, engine running Oil pressure XR25 aid: Extinguished, engine running	Fiche n° 67 side 1/3°
NOTES	Dealt with in 4 RH side or 9 LH side.	

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs



11

Fiche n° 67 side 1/3°

## **Bargraph 11 LH side incorrect illumination**

**Injection connection** 

XR25 aid: Illuminates for 3 seconds when the ignition is switched on

**NOTES** 

Two cases are dealt with:

- BG 11 LH side remains extinguished when the ignition is switched on: case 1.
- BG 11 LH side remains illuminated for more than 3 seconds: case 2.

Use bornier ELé 1506 to make the measurements.

Case 1

If the bargraph does not illuminate, check:

- The continuity between track 21 of the 26 track blue connector (F) on the passenger compartment connection unit (BII) and track (\*) of the injection computer.
- (\*) F9Q and F3R injection on track 26 of the injection computer connector.
- (\*) L7X injection on track 15 of the injection computer connector.
- (\*) F4R Injection on track 34 of the injection computer connector.

Case 2

If the bargraph remains illuminated, check:

The insulation between track 21 of the 26 track blue connector (F) on the passenger compartment connection unit (BII) and earth.

AFTER REPAIR

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs



12

Bargraph 12 LH side incorrect illumination ABS connection

Fiche n° 67 side 1/3°

**XR25 aid :** Illuminates for 3 seconds with the ignition switched on

#### NOTES

Only for vehicles equipped with ABS

Two cases are dealt with:.

- BG 12 LH side always remains extinguished when the ignition is switched on : case  $^{\rm 1}$
- BG 12 LH side remains illuminated without a fault: case 2 Use bornier ELé 1506 to make the measurements.

#### Case 1

If the bargraph does not illuminate, check:

- The continuity between track 13 of the 26 track blue connector (F) on the passenger compartment connection unit (BII) and track 21 of the ABS computer.

#### Case 2

If the bargraph remains illuminated, check:

The insulation between track 13 of the 26 track blue connector (F) on the passenger compartment connection unit (BII) and earth.

AFTER REPAIR

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs



13

Fiche n° 67 side 1/3°

#### Bargraph 13 LH side incorrect illumination Diesel preheating connection

**XR25 aid**: Illuminates for 3 seconds with the ignition switched on

#### **NOTES**

Only for diesel vehicles

Two cases are dealt with:

- BG 13 LH side remains extinguished when the ignition is switched on: case 1.
- BG 13 LH side remains illuminated without preheating function: case 2.

Use bornier ELé 1506 to make the measurements.

#### Case 1

If the bargraph does not illuminate, check:

The continuity between track 24 of the 26 track blue connector (F) on the passenger compartment connection unit (BII) and track 54 of the diesel injection computer.

#### Case 2

If the bargraph remains illuminated without preheating function, check:

The insulation between track 24 of the 26 track blue connector (F) on the passenger compartment connection unit (BII) and earth.

AFTER REPAIR

DIESEL

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs



13

Fiche n° 67 side 1/3°

## Bargraph 13 RH side incorrect illumination Air bag connection

XR25 aid: Illuminates for 3 seconds with the ignition switched on

#### **NOTES**

Two cases are dealt with:

- BG 13 RH side remains extinguished when the ignition is switched on: case 1.
- BG 13 RH side remains illuminated without fault: case 2.

Use bornier ELé 1506 to make the measurements. Lock the air bag computer.

#### Case 1

If the bargraph does not illuminate, check:

- See configuration of the passenger compartment connection unit.
- The continuity between track 6 of the 26 track yellow connector (A) on the passenger compartment connection unit (BII) and track 8 of the air bag computer.

#### Case 2

If the bargraph remains illuminated without a fault, check:

The insulation between track 6 of the 26 track yellow connector (A) on the passenger compartment connection unit (BII) and earth.

The bargraph also illuminates when the air bag computer is locked.

AFTER REPAIR

## PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

87

18	Bargraph 18 LH side illuminated Open rear screen XR25 aid: Illuminated with open rear screen. Extinguished with rear screen closed.	Fiche n° 67 side 1/3°
NOTES	None.	
18	Bargraph 18 LH side illuminated "MIL" warning light (pollution warning light) XR25 aid: Illuminated with MIL warning light F4R eng Extinguished without MIL warning light.	Fiche n° 67 side 1/3°
NOTES	Only if radio display is combined with instrument panel.	
19	Bargraph 19 LH side illuminated Metric configuration XR25 aid: Illuminated when speed in km/h. Extinguished when speed in Mph.	Fiche n° 67 side 1/3°
NOTES	None.	
19	Bargraph 19 LH side illuminated "RADIO OFF" Message XR25 aid: Illuminated message absent. Extinguished message displayed.	Fiche n° 67 side 1/3°
NOTES	Only if radio display is combined with instrument panel.	
AFTER REPAIR	Erase the computer memory by entering GO**.	

#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

87

20	•	20 RH side illuminated INITIALISED Extinguished, coolant temperature not indi panel. Illuminated, coolant temperature indicated	
NOTES	None.		

AFTER REPAIR

## PASSENGER COMPARTMENT CONNECTION UNIT Fault finding - Interpretation of XR25 bargraphs

## Important:

When replacing a passenger compartment connection unit BII, the mileage is retained in the instrument panel memory.

When connecting the new passenger compartment connection unit BII, the mileage in the memory will be displayed automatically on the new component.

Do not carry out fault finding using a substitute component from another vehicle, as the higher mileage will be memorised and will be displayed on both vehicles.

AFTER REPAIR

## PASSENGER COMPARTMENT CONNECTION UNIT **Fault finding - Interpretation of XR25 bargraphs**



	Bargraph 2 RH side incorrect illumination + ACCESSORIES FEED PRESENT	3/3
NOTES	Reminder: In normal operation  - BG <b>2 RH side</b> illuminated ignition switch in + accessories position  - BG <b>2 RH side</b> extinguished ignition off  Use bornier ELé 1506 to make the measurements.	
Check the condition of	f the + accessories feed fuse.	
Replace the fuse if nec	essary.	
	cessories position, check for a voltage of + 12 Volts on track <b>5</b> of the 26 track partment connection unit (BII) connector.	
Is there 12 volts?		
		<u> </u>
YES	Replace the passenger compartment connection unit (BII).	

Is there 12 volts?	
YES	Replace the passenger compartment connection unit (BII).
NO	Repair the wiring between track <b>5</b> of the 26 track yellow passenger compartment connection unit (BII) connector and the passenger compartment fuse board.

AFTER REPAIR

Enter  $GO^*$  to erase the memory. Check the configuration of the passenger compartment connection unit.

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## PASSENGER COMPARTMENT CONNECTION UNIT

# 87

## Fault finding - Interpretation of XR25 bargraphs

2	Fiche n°69 3/
	Bargraph 2 LH side incorrect illumination + AFTER IGNITION FEED PRESENT
NOTES	Reminder: In normal operation  - BG <b>2 LH side</b> illuminated ignition switch in + after ignition position  - BG <b>2 LH side</b> extinguished ignition switch in position other than + after ignition Use bornier ELé 1506 to make the measurements.
Check + after ignition Replace the fuse if nec	
Ignition on, check for connection unit (BII) constant Is there 12 volts?	a voltage of + 12 Volts on track <b>17</b> of the 26 track yellow passenger compartment connector.
YES	Replace the passenger compartment connection unit (BII).
NO	Repair the wiring between track 17 of the 26 track yellow connection unit (BII) connector and the passenger compartment fuse board.

AFTER REPAIR

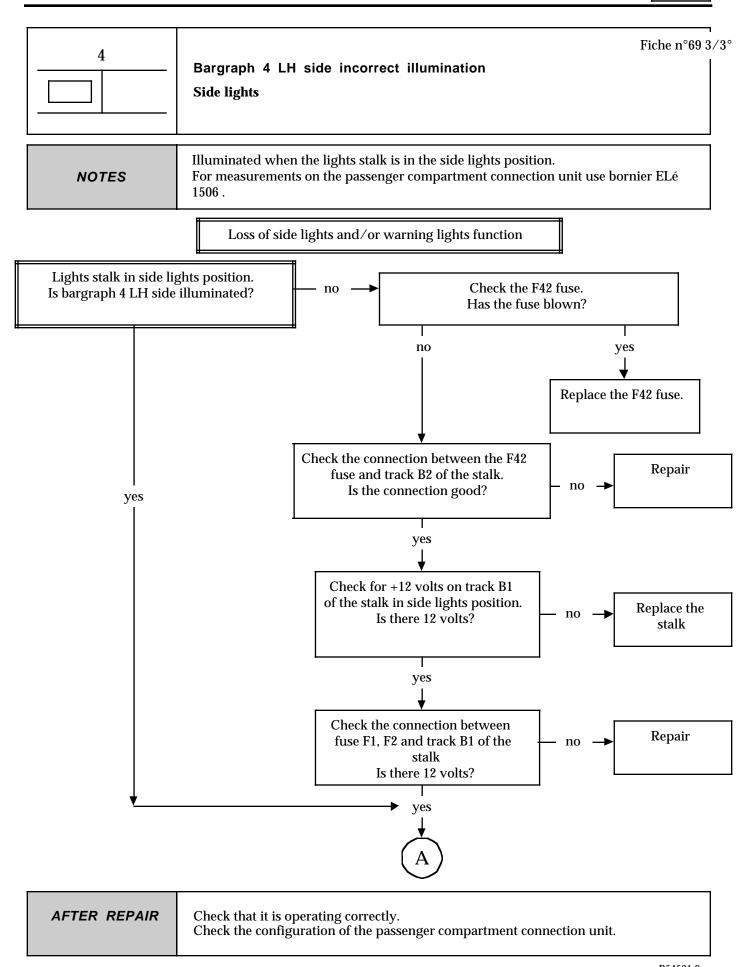
Enter GO\* to erase the memory. Check the configuration of the passenger compartment connection unit.

B54531.0

#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

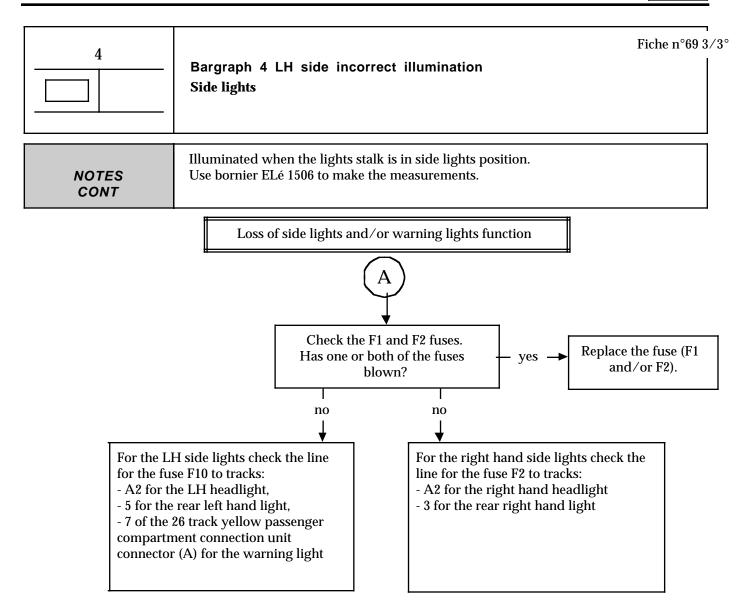
87



#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs





AFTER REPAIR

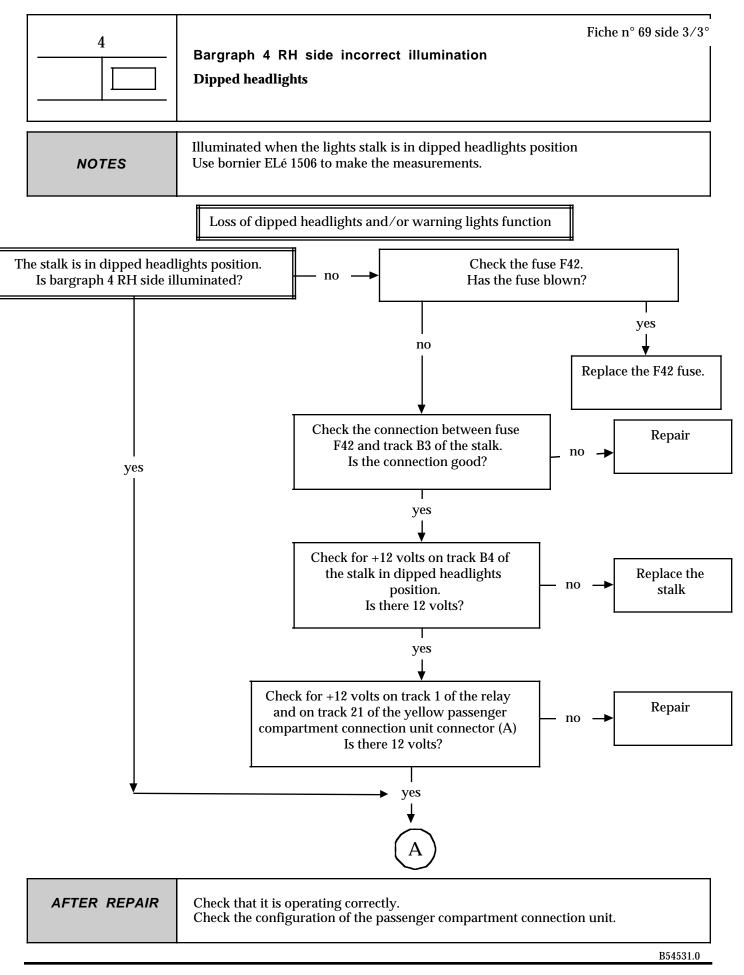
Check that it is operating correctly. Check the configuration of the passenger compartment connection unit.

B54531.0

## PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

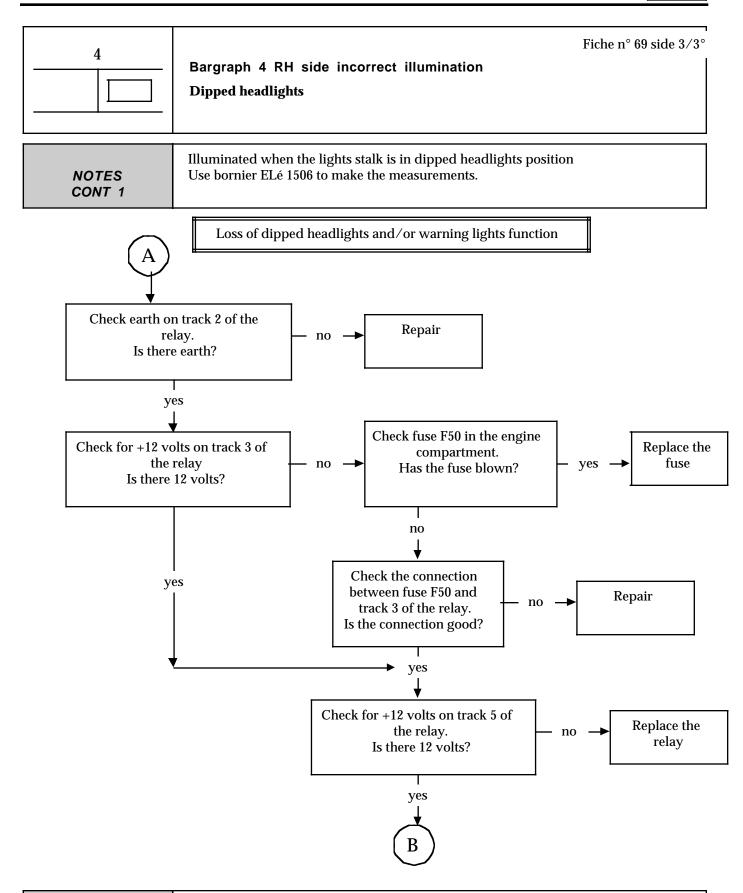
87



#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs





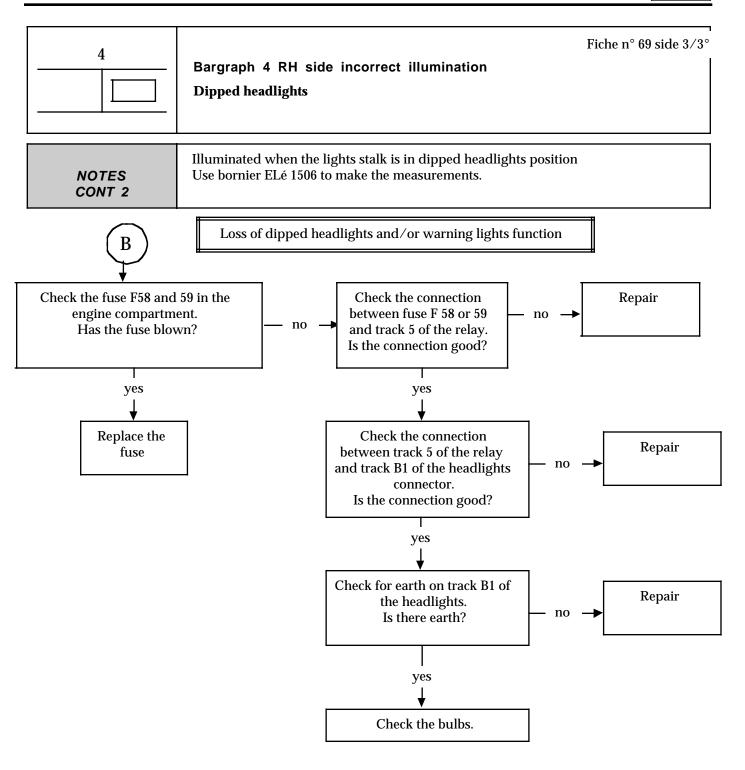
AFTER REPAIR

Check that it is operating correctly.

#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs





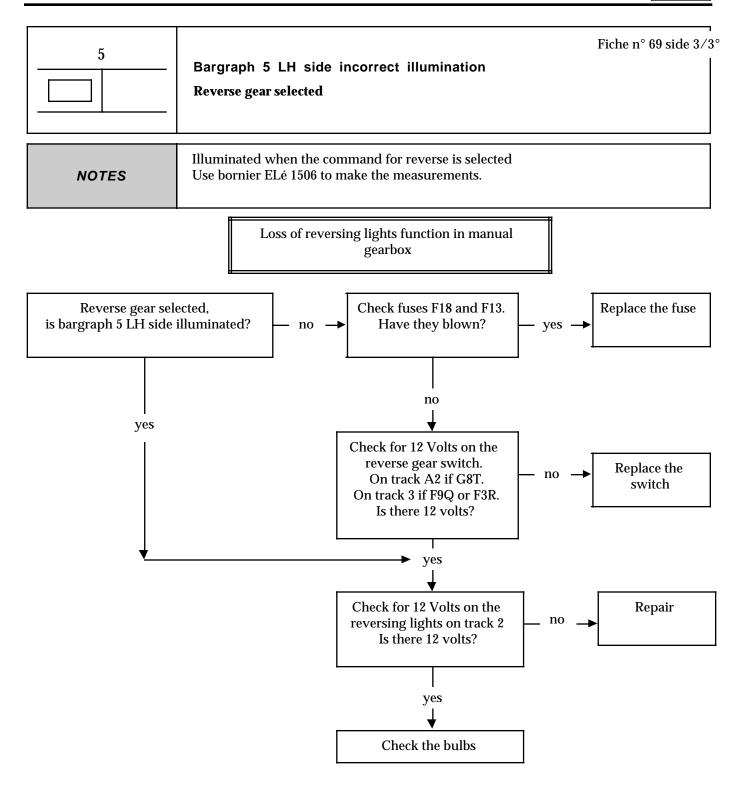
AFTER REPAIR

Check that it operates correctly.

## PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs





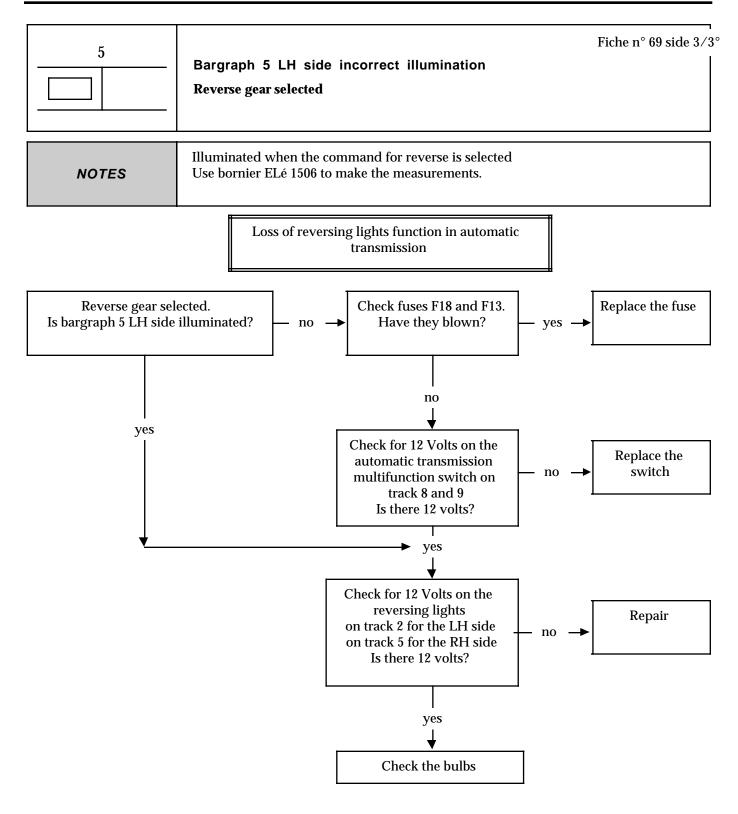
AFTER REPAIR

Check that it is operating correctly.

## PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs





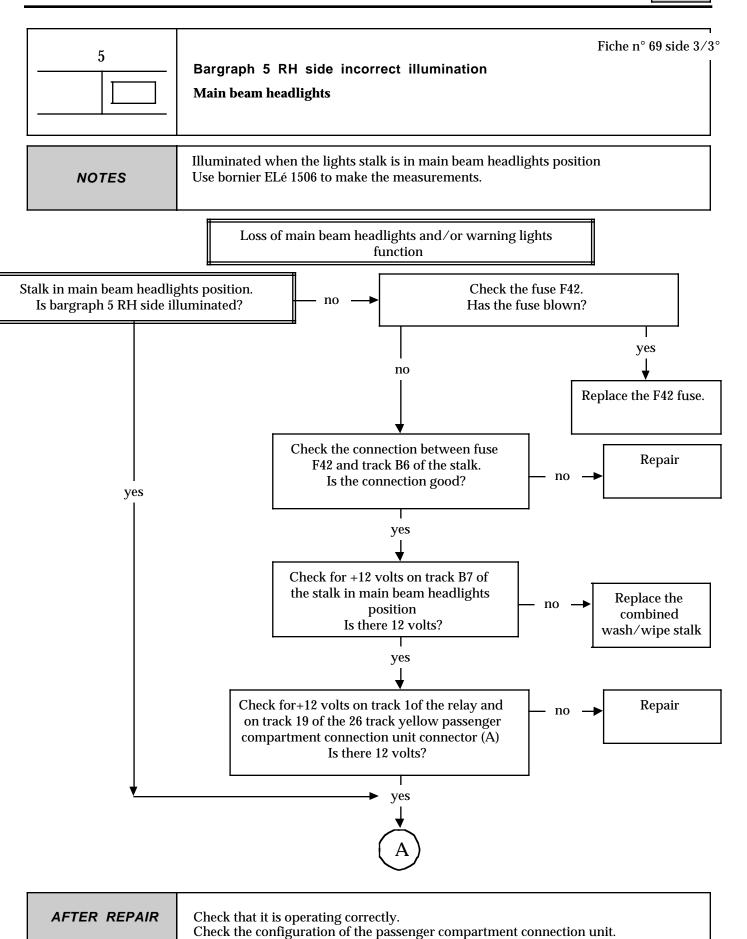
AFTER REPAIR

Check that it is operating correctly.

#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

87

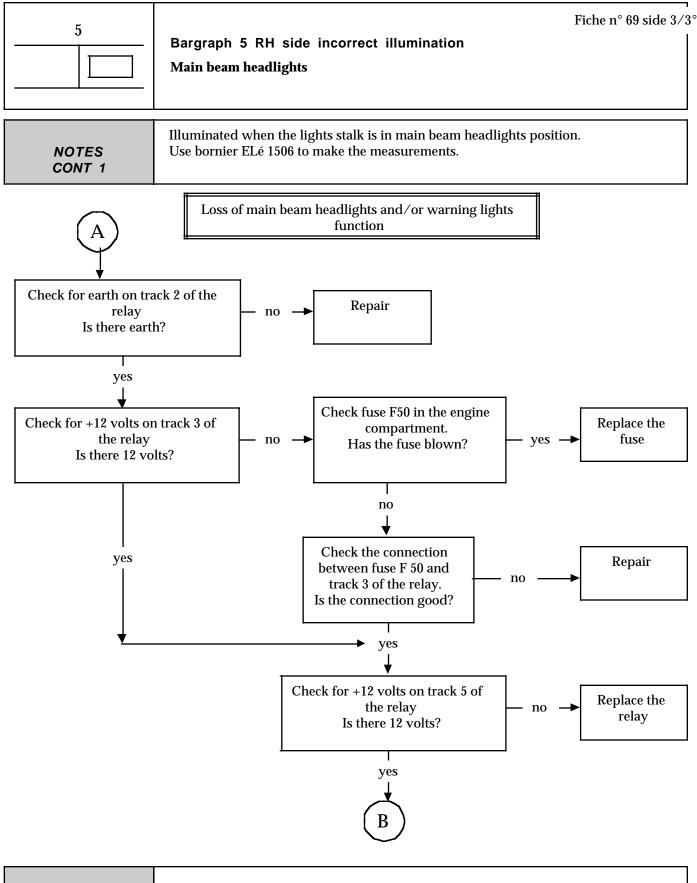


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#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

87



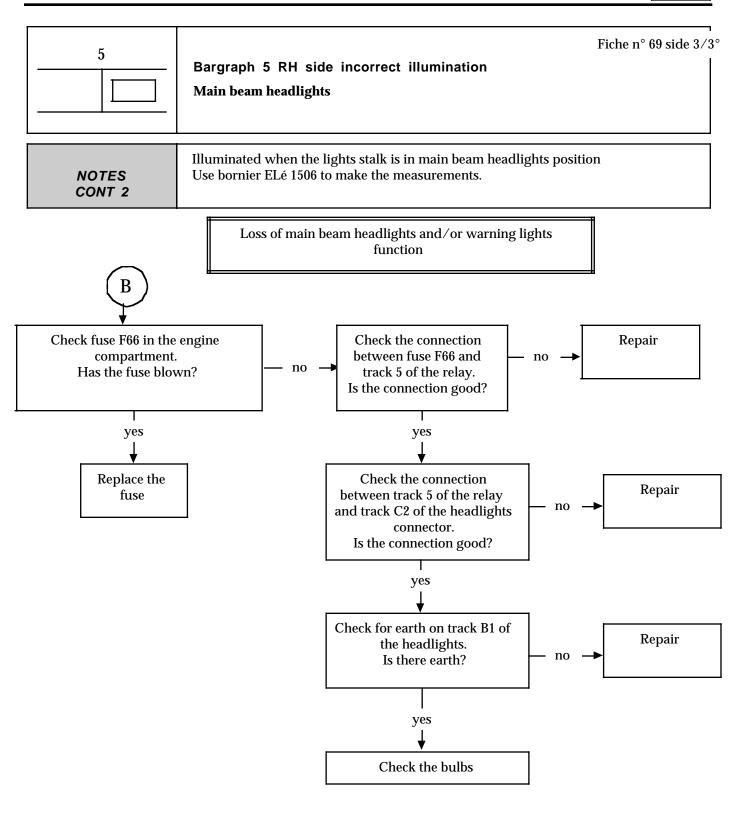
AFTER REPAIR

Check that it is operating correctly.

#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs





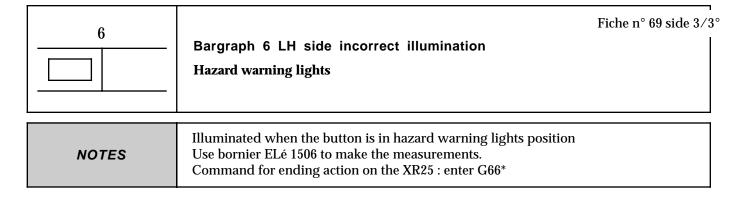
AFTER REPAIR

Check that it is operating correctly.

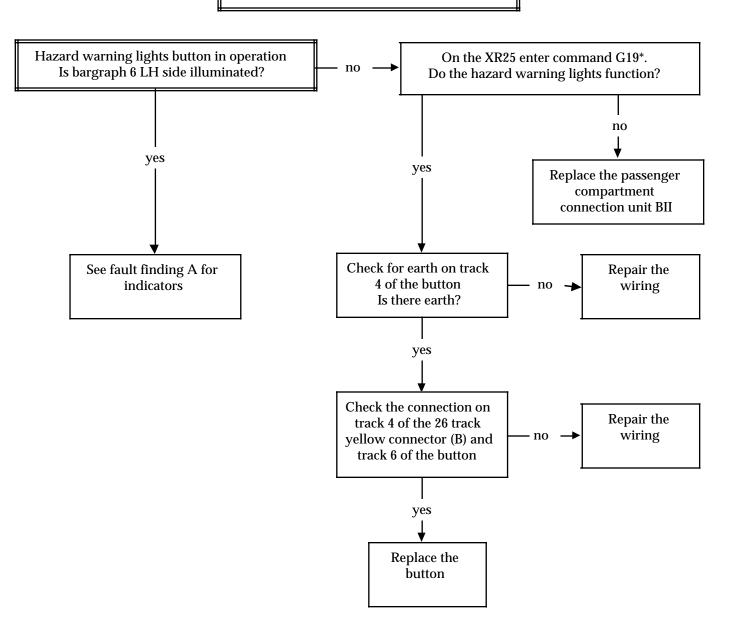
#### PASSENGER COMPARTMENT CONNECTION UNIT



Fault finding - Interpretation of XR25 bargraphs



Loss of hazard warning lights function



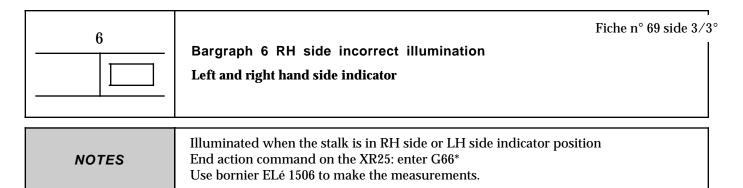
AFTER REPAIR

Check that it is operating correctly.

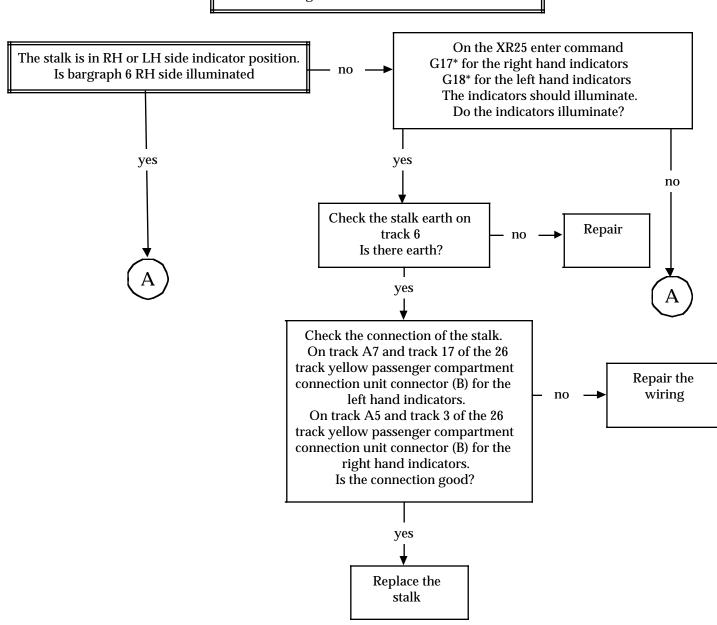
#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs





Loss of right hand side indicator function



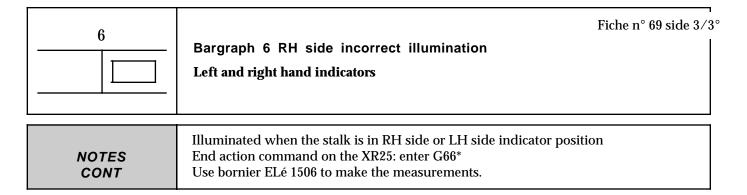
AFTER REPAIR

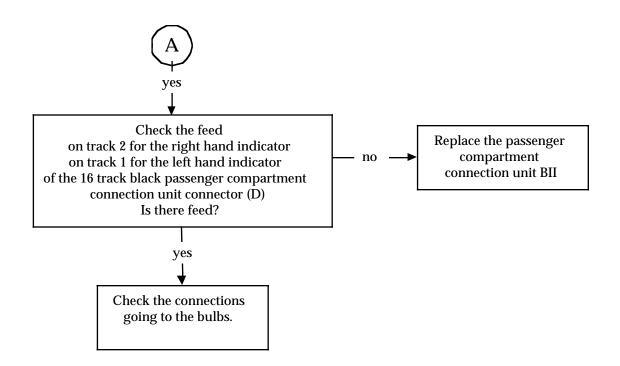
Check that it is operating correctly.

#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

87





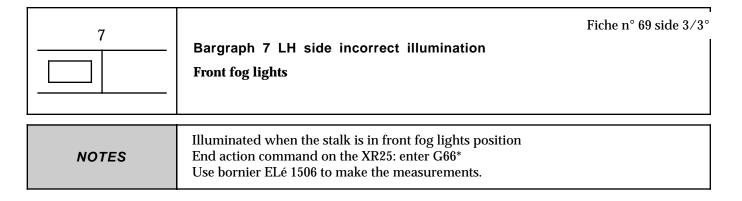
AFTER REPAIR

Check that it is operating correctly.

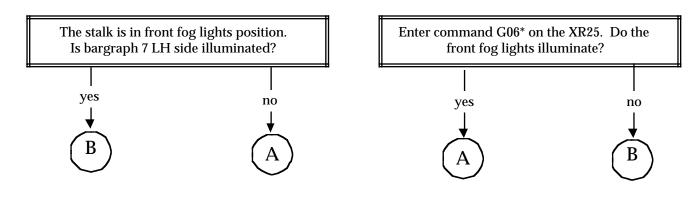
## PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs





Loss of front fog lights function

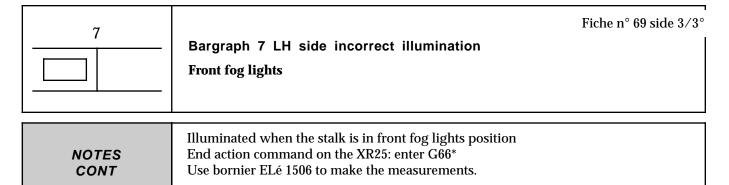


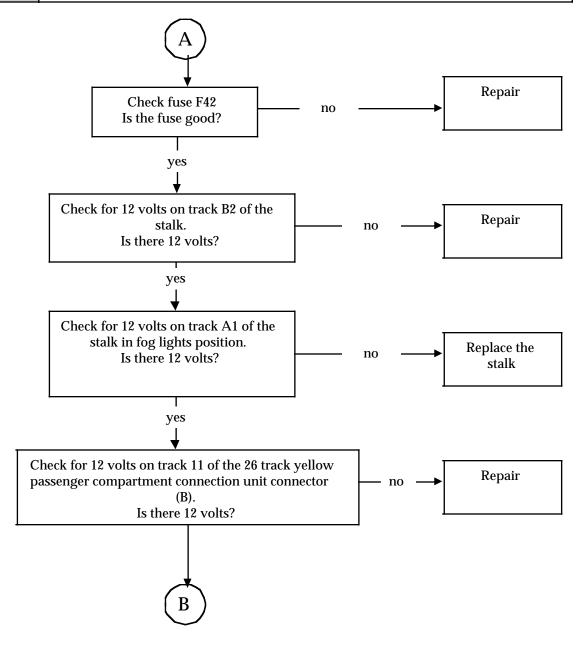
AFTER REPAIR Check that it is operating correctly.

#### PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs





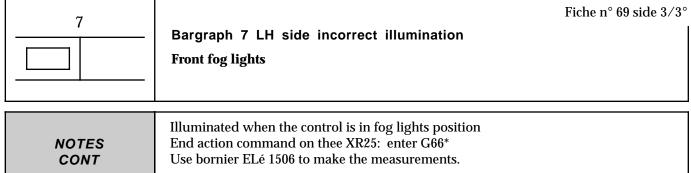


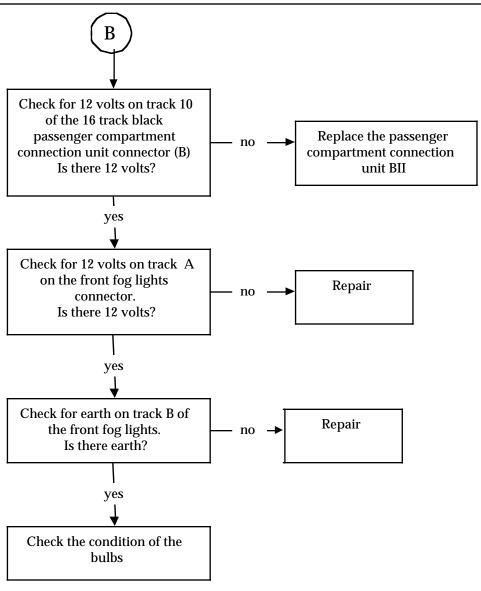
AFTER REPAIR Check that it is operating correctly.

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs







AFTER REPAIR

Check that it is operating correctly. Check the configuration of the passenger compartment connection unit.

B54531.0

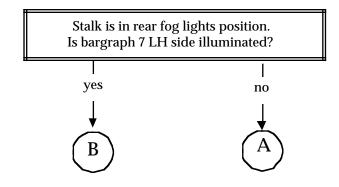
#### PASSENGER COMPARTMENT CONNECTION UNIT

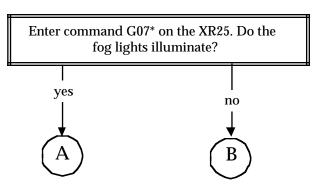
Fault finding - Interpretation of XR25 bargraphs



7	Bargraph 7 RH side incorrect illumination Rear fog lights	Fiche n° 69 side 3/3°
NOTES	Illuminated when the stalk is in fog lights position. End action command on the XR25: enter G66*. Use bornier ELé 1506 to make the measurements.	

Loss of rear fog lights function





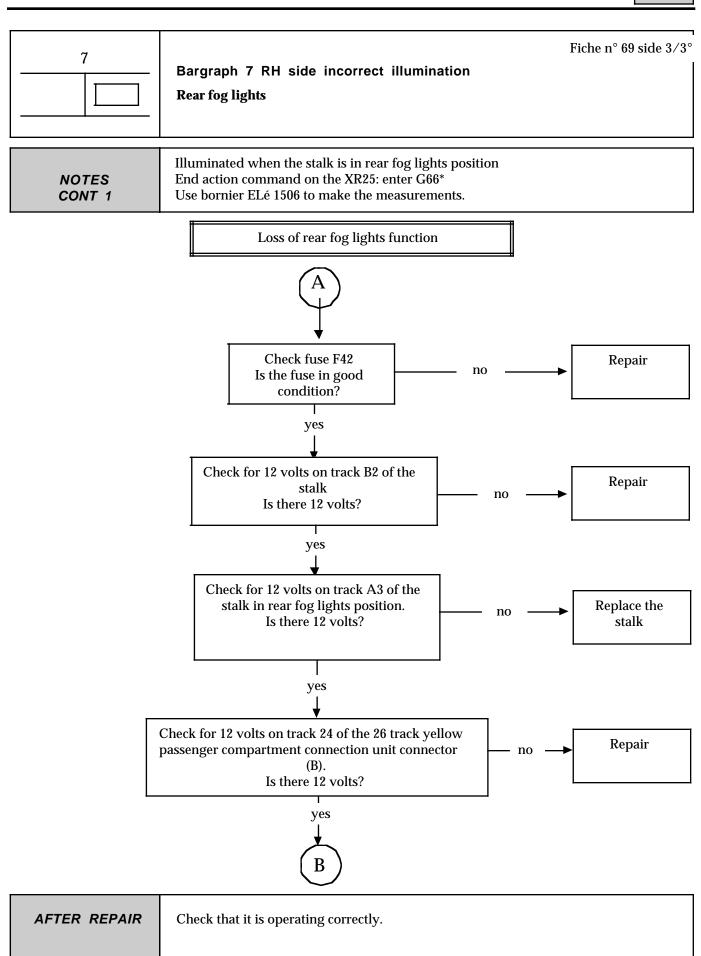
AFTER REPAIR

Check that it is operating correctly.

#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

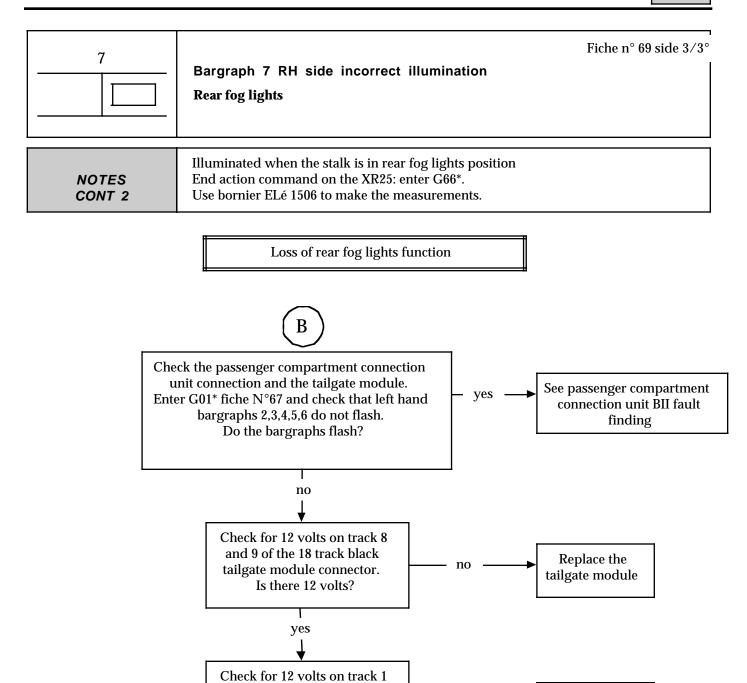
87



#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

87



AFTER REPAIR

Check that it is operating correctly. Check the configuration of the passenger compartment connection unit.

no

B54531.0

Repair

of the rear fog lights

connector.
Is there 12 volts?

yes

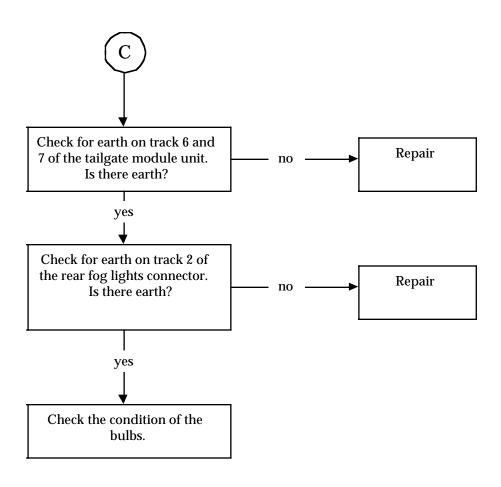
#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs



7	Fiche n° 69 side 3/3°  Bargraph 7 RH side incorrect illumination  Rear fog lights
NOTES CONT 2	Illuminated when the stalk is in rear fog lights position End action command on the XR25: enter G66*. Use bornier ELé 1506 to make the measurements.

Loss of rear fog lights function

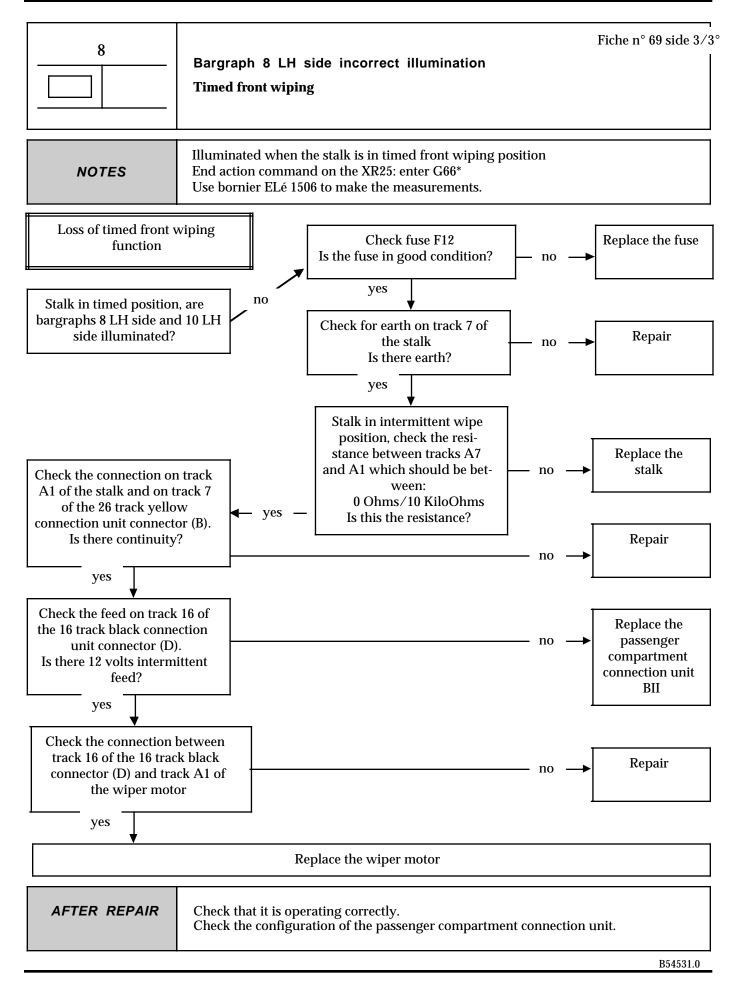


AFTER REPAIR Check that it is operating correctly.

#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

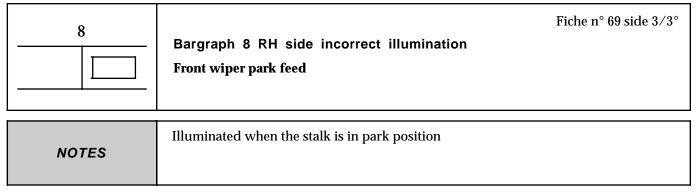
87

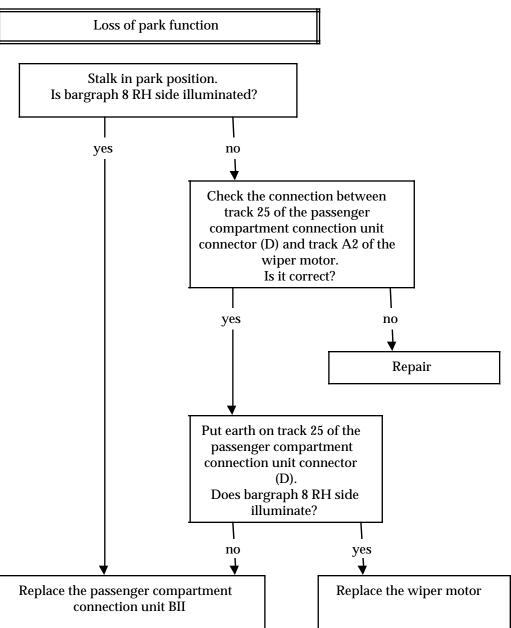


#### PASSENGER COMPARTMENT CONNECTION UNIT

## Fault finding - Interpretation of XR25 bargraphs







AFTER REPAIR

Check that it is operating correctly. Check the configuration of the passenger compartment connection unit.

B54531.0

# PASSENGER COMPARTMENT CONNECTION UNIT Fault finding - Interpretation of XR25 bargraphs



9	Fiche n° 69 side 3/3°  Bargraph 9 LH side incorrect illumination  Front wiper park
NOTES	Illuminated when the stalk is in park position See fault finding for bargraph 8 RH side

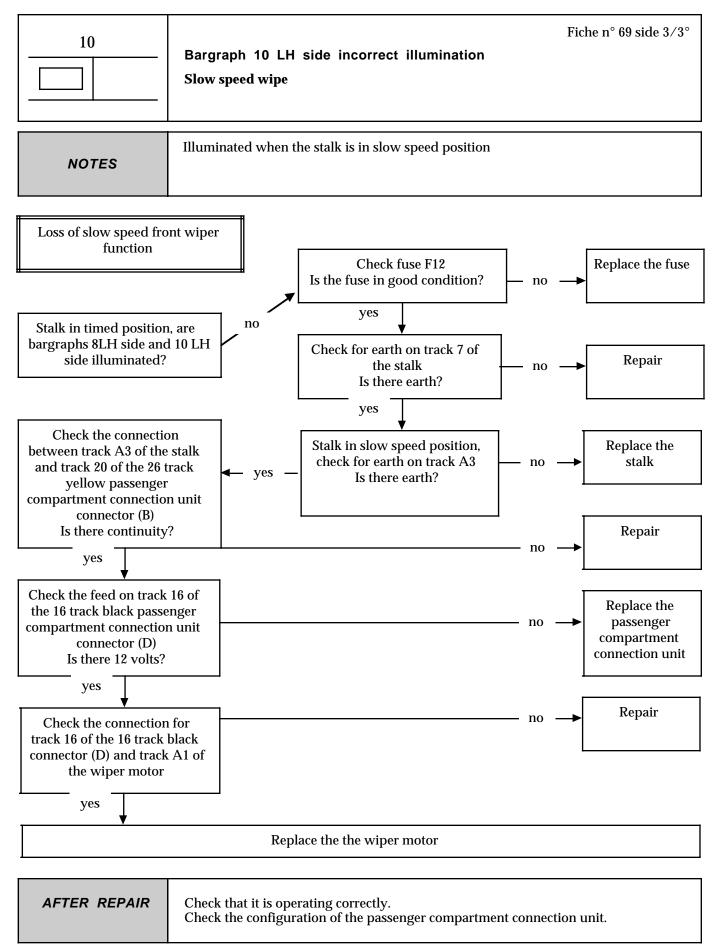
AFTER REPAIR Check that it is operating correctly.

B54531.0

#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

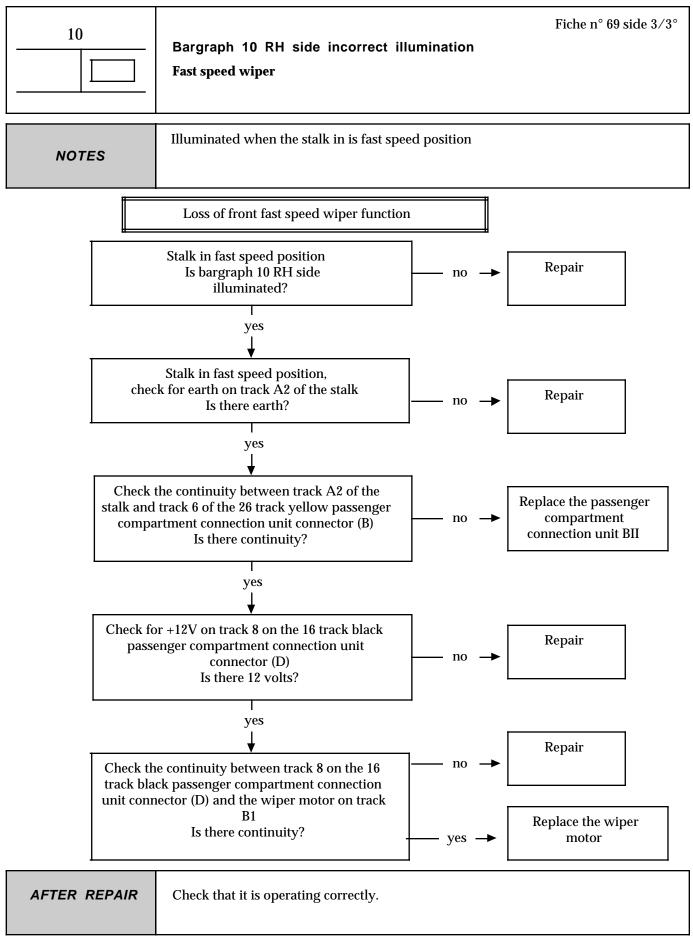
87



#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

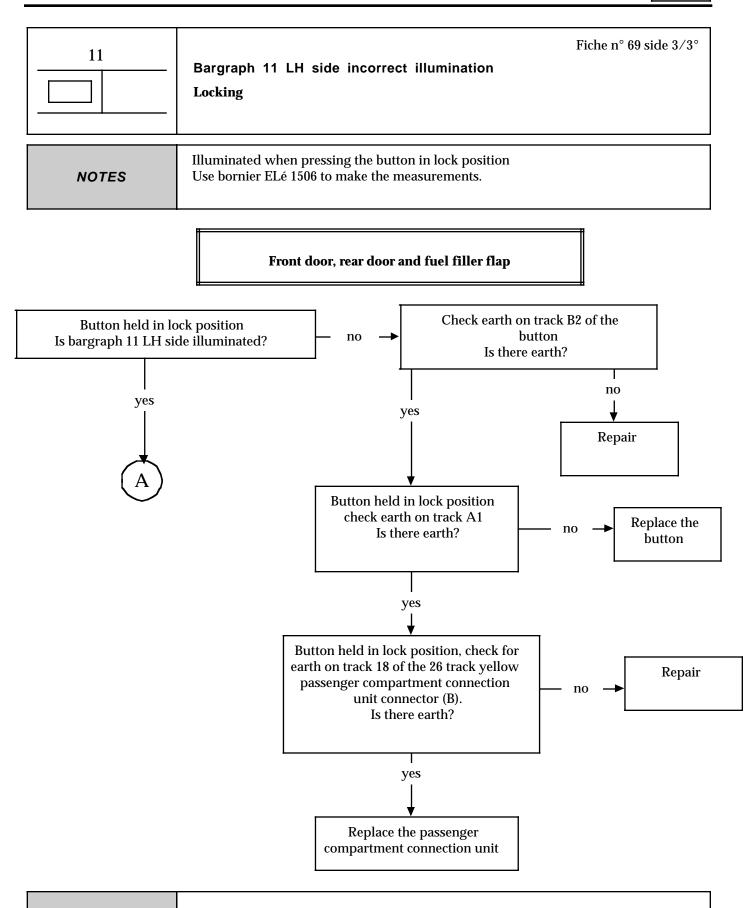
87



#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

87



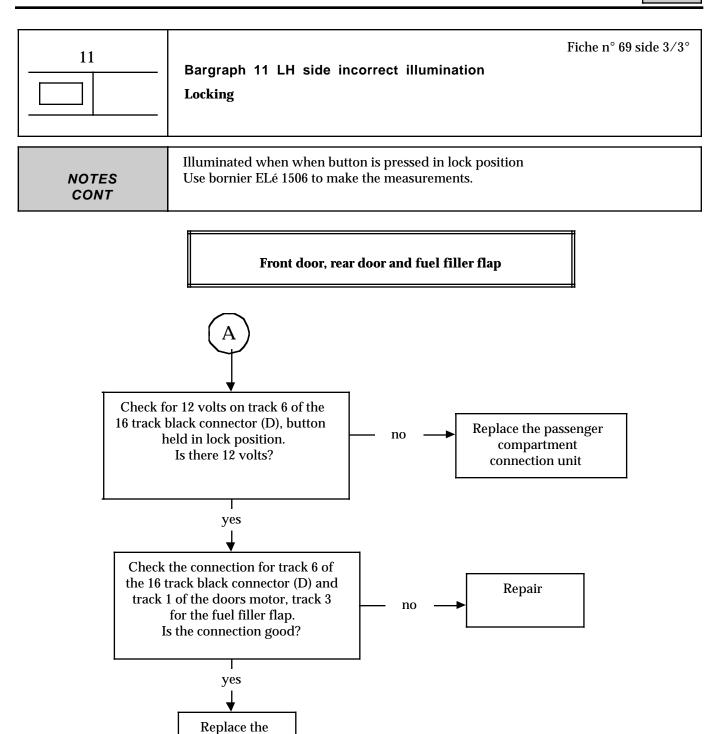
AFTER REPAIR

Check that it is operating correctly. Check the configuration of the passenger compartment connection unit.

#### PASSENGER COMPARTMENT CONNECTION UNIT

### Fault finding - Interpretation of XR25 bargraphs

87



AFTER REPAIR

Check that it is operating correctly.

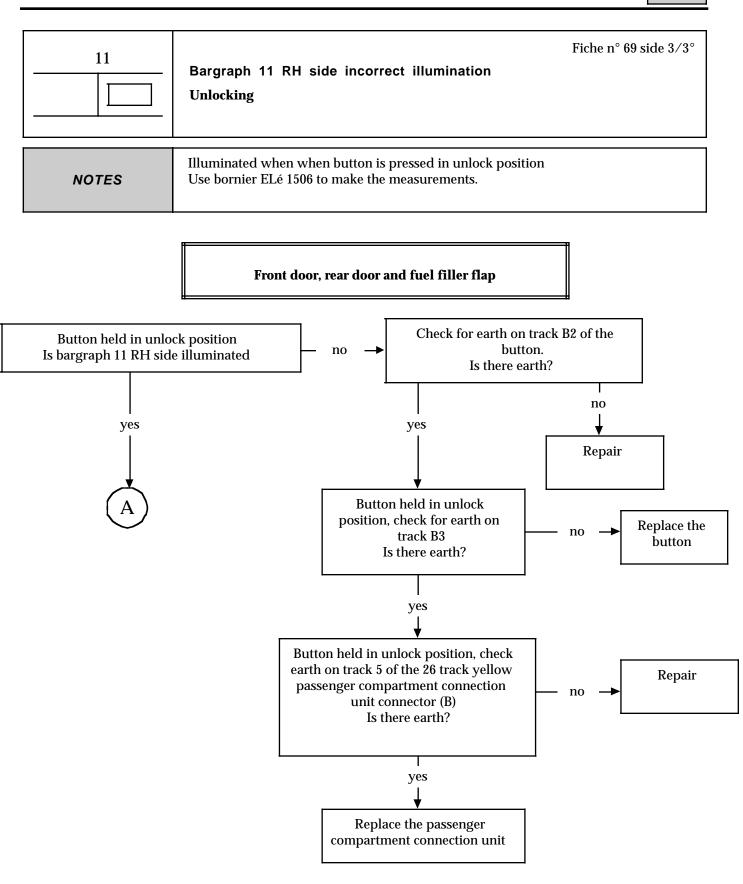
Check the configuration of the passenger compartment connection unit.

motor

#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

87



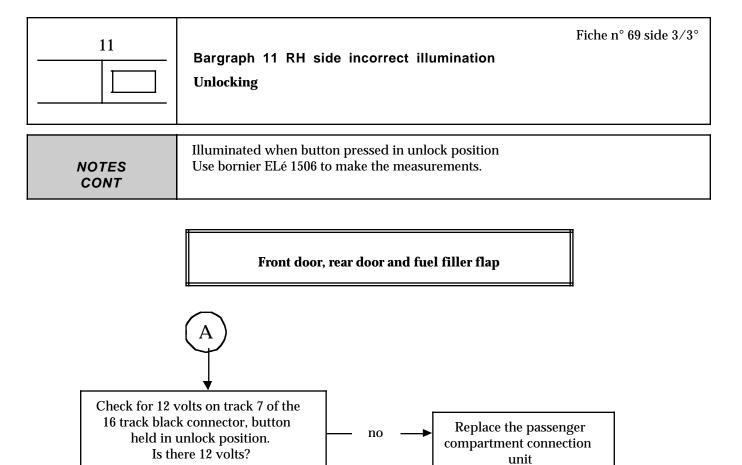
AFTER REPAIR

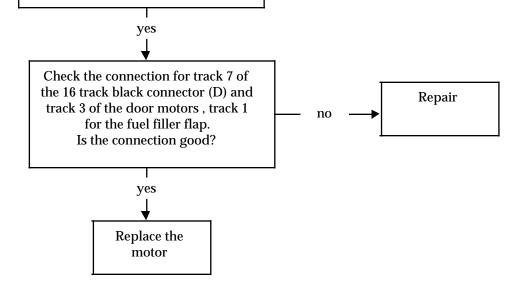
Check that it is operating correctly. Check the configuration of the passenger compartment connection unit.

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs







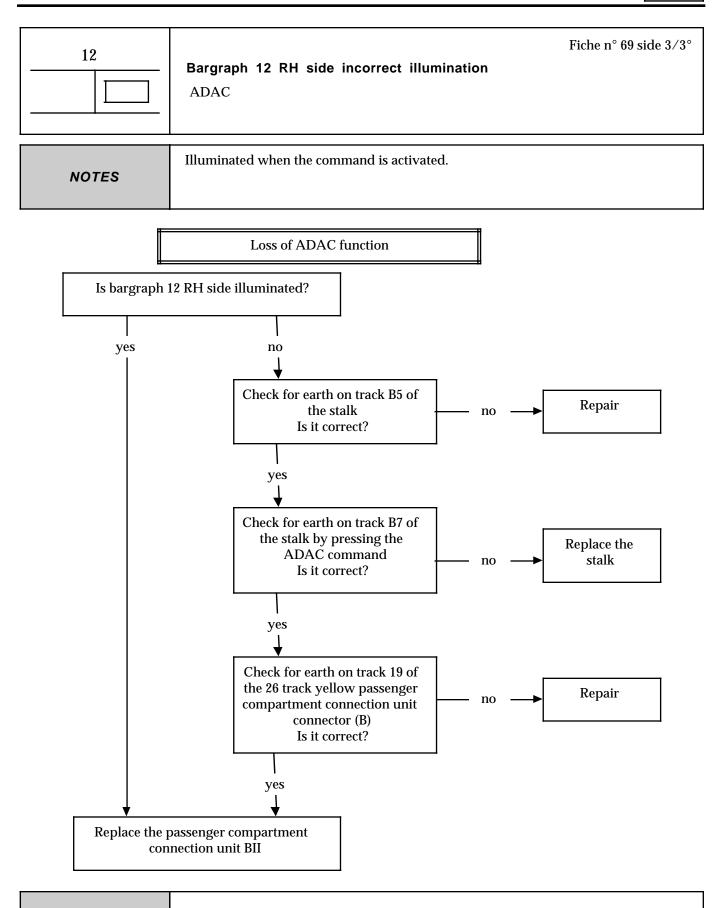
AFTER REPAIR

Check that it is operating correctly. Check the configuration of the passenger compartment connection unit.

## PASSENGER COMPARTMENT CONNECTION UNIT

# 87

Fault finding - Interpretation of XR25 bargraphs

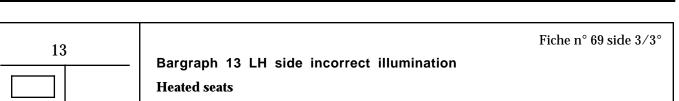


AFTER REPAIR

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs

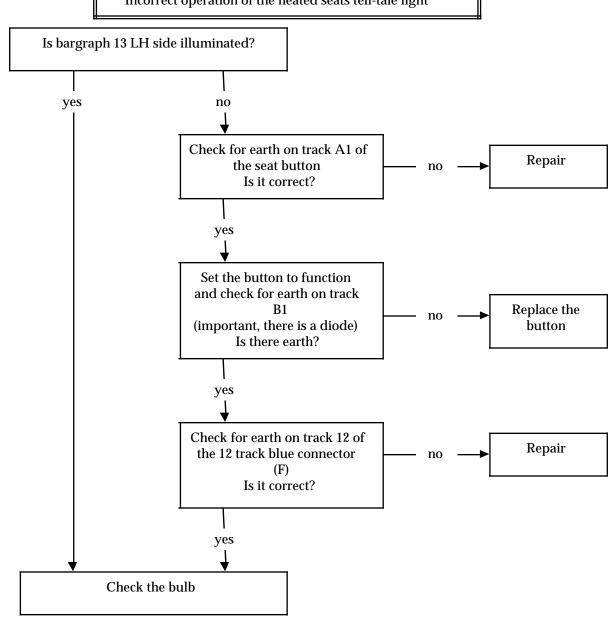
87



NOTES

Illuminated when the control is activated.

Incorrect operation of the heated seats tell-tale light



AFTER REPAIR

### PASSENGER COMPARTMENT CONNECTION UNIT

# 87

Fault finding - Interpretation of XR25 bargraphs

13	Bargraph 13 RH side incorrect illumination Excess speed	Fiche n° 69 side 3/3°
NOTES	Not active for this application.	

AFTER REPAIR Check that it is operating correctly.

## PASSENGER COMPARTMENT CONNECTION UNIT

87

Fault finding - Interpretation of XR25 bargraphs

	Bargraph 14 LH side incorrect illumination	Fiche n° 69 side 3/3°
NOTES	Not active for this application.	

AFTER REPAIR Enter G0\* to erase the memory.

### PASSENGER COMPARTMENT CONNECTION UNIT

### Fault finding - Interpretation of XR25 bargraphs

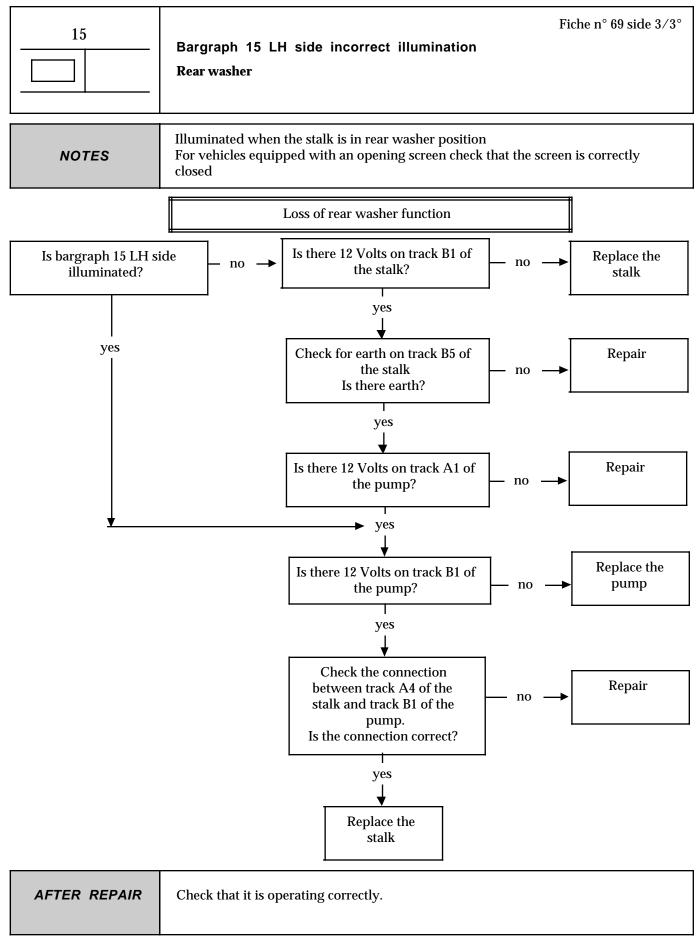
8	7

14	Fiche n° 69 side 3  Bargraph 14 RH side  Rear de-icing	3/3°
NOTES	Not active for this application.	

AFTER REPAIR	Check that it is operating correctly.
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#### PASSENGER COMPARTMENT CONNECTION UNIT

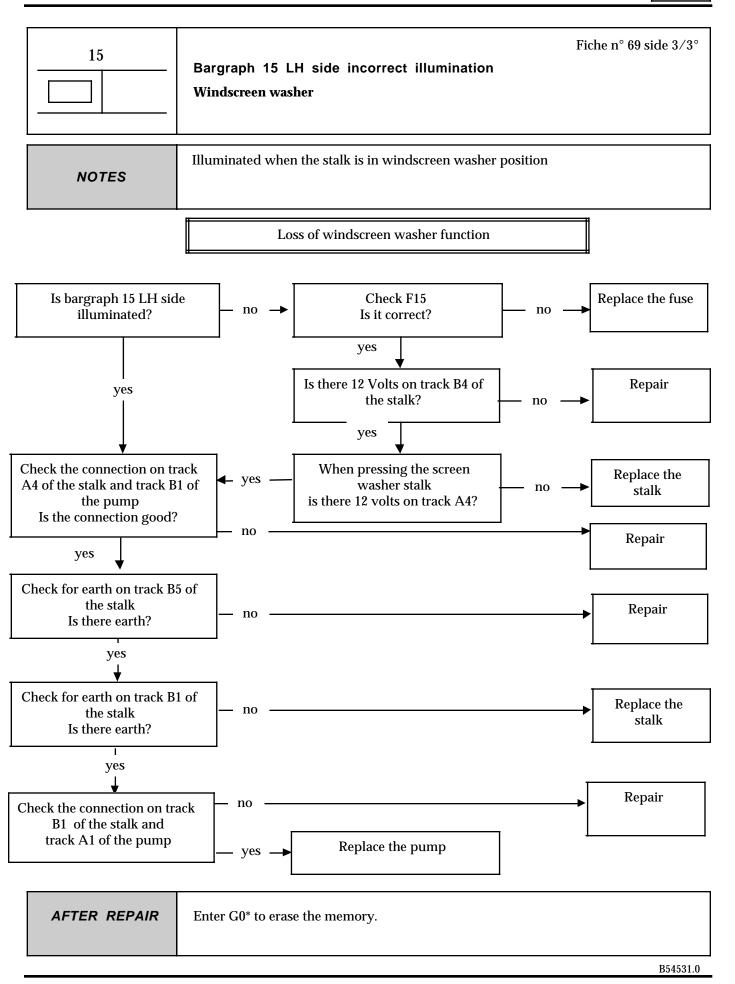
Fault finding - Interpretation of XR25 bargraphs



#### PASSENGER COMPARTMENT CONNECTION UNIT

Fault finding - Interpretation of XR25 bargraphs

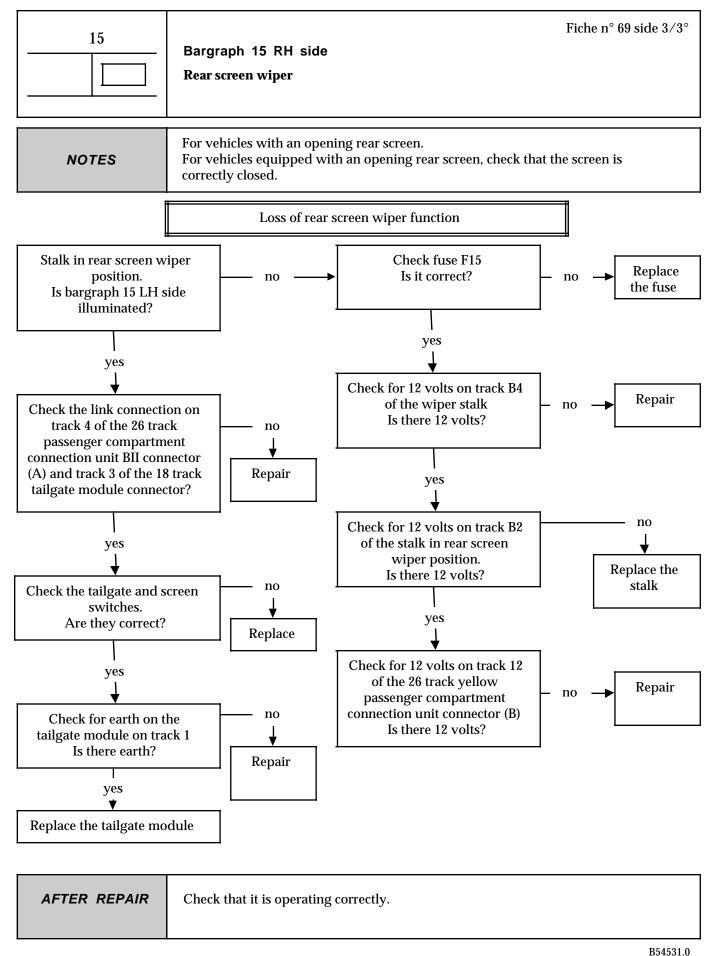
87



#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs

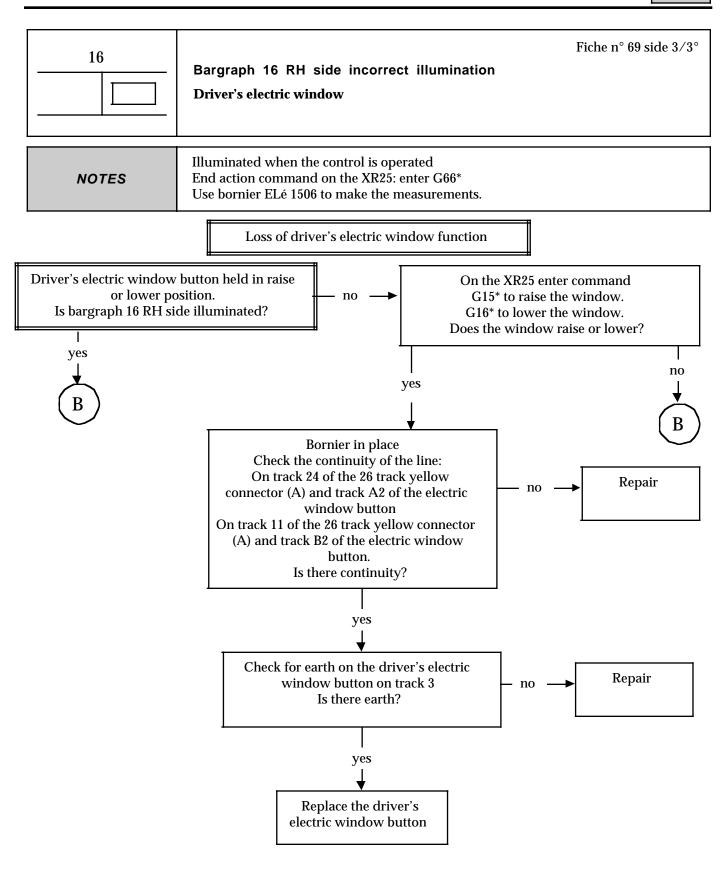




#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs

87

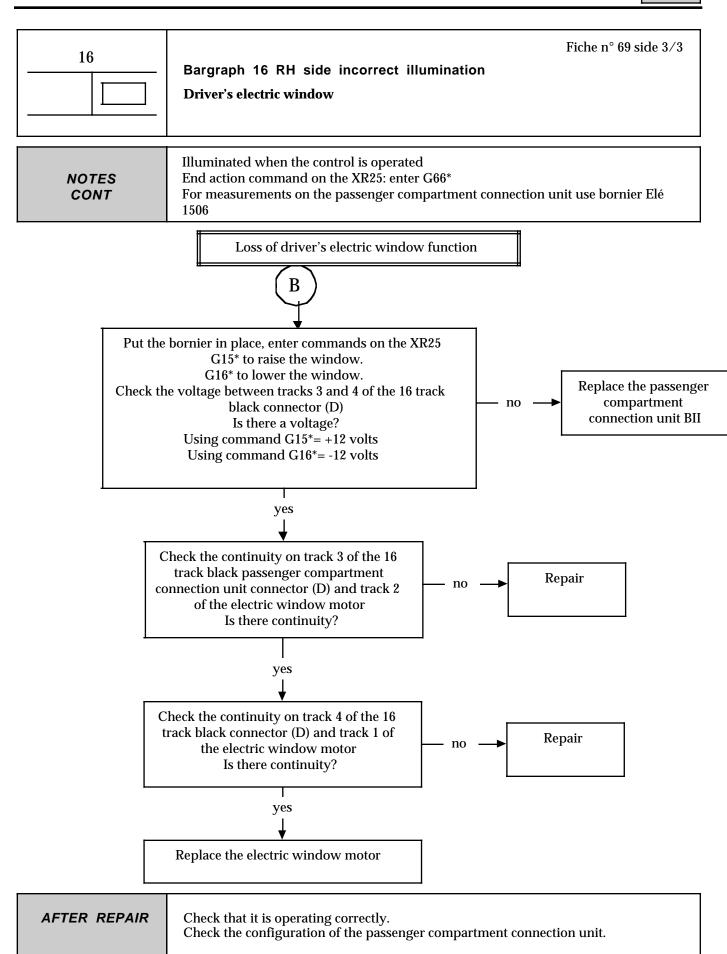


AFTER REPAIR

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs

87



### PASSENGER COMPARTMENT CONNECTION UNIT

### Fault finding - Interpretation of XR25 bargraphs



17	Bargraph 17 LH side illuminated Tailgate or screen open	Fiche n° 69 side 3/3°
NOTES	Illuminated when the tailgate or the screen is open	
When the rear screen or the tailgate is open:  Illumination of courtesy lights: - Rear row - Luggage compartment Extinguishes immediately.		
SEE CHART "Courtesy light illumination fault" on the following pages.		

AFTER REPAIR

#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs



18	Fiche n° 69 side 3/3°  Bargraph 18 LH side illuminated  Front or rear passenger door open  Driver's door open
NOTES	Illuminated if door open.

**NOTE**: Normal operation of courtesy lights:

- When the radiofrequency PLIP is operated

Illumination of courtesy lights: - Front and centre console

- Middle row

Timed when the doors are closed.

- When the front door is opened:

Illumination of courtesy lights: - Front and centre console

- Middle row.

Timed when the doors are closed.

- When the rear door is opened:

Illumination of courtesy lights: - Front and centre console Timed extinguishing

- Middle row Timed extinguishing

- Rear row Extinguishes immediately

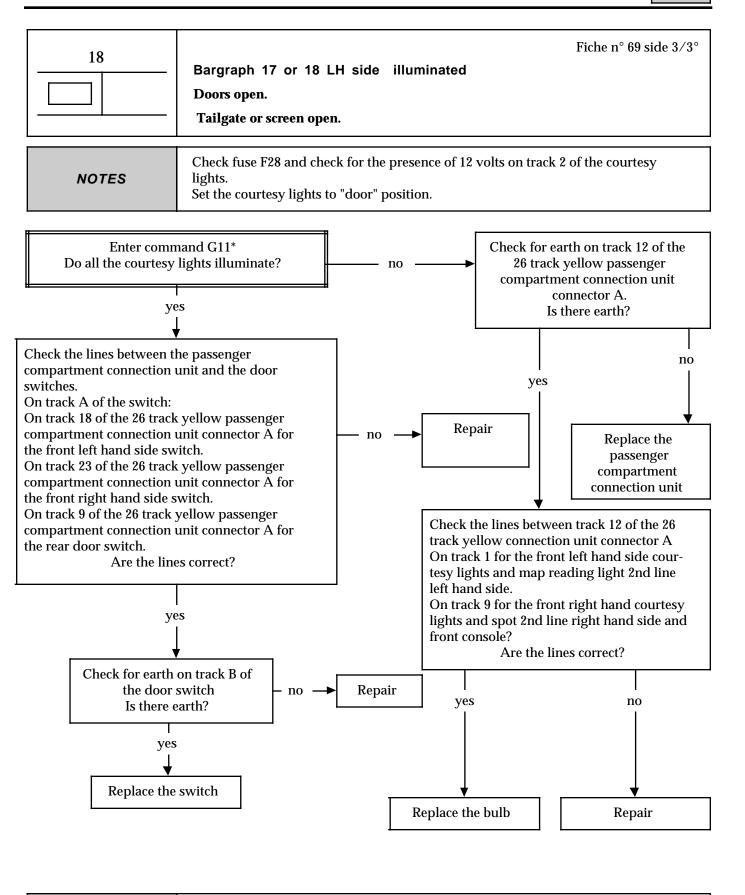
- Luggage compartment Extinguishes immediately

SEE CHART "Courtesy light illumination fault" on the following pages.

AFTER REPAIR	Check that it is operating correctly.
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#### PASSENGER COMPARTMENT CONNECTION UNIT

#### Fault finding - Interpretation of XR25 bargraphs



AFTER REPAIR

## PASSENGER COMPARTMENT CONNECTION UNIT

# 87

#### Fault finding - Interpretation of XR25 bargraphs

20	Bargraph 20 LH side illuminated Faults present on fiche N°67 or N°68	Fiche n° 69 side 3/3°
NOTES	Enter code G 01* for fiche 1n67 Enter code G 02* for fiche 2n68	

AFTER REPAIR Enter G0\* to erase the memory.

#### **ADDITIONAL CHECKS**

#### COMMAND MODES G--\*

To use this function, enter G on the XR25, then the number of the desired command followed by a star.

- **06** Front fog lights command.
- **07** Rear fog lights command.
- **08** Door unlock command (activates the micromotors for 3 seconds on the unlock side).
- **09** Door lock command (activates the micromotors for 3 seconds on the lock side).
- 11 Front and rear courtesy light command.
- 15 Driver's window raise command.
- 16 Driver's window lower command.
- 17 Right hand indicator command.
- 18 Left hand indicator command.
- 19 Hazard warning lights command.
- 24 Windscreen wiper command.
- 25 Rear screen wiper command.
- 66 End action command