

# LOGAN

## 8 Electrical equipment

80A BATTERY

80B HEADLIGHTS

81A REAR LIGHTING

81B INTERIOR LIGHTING

81C FUSES

82A IMMOBILISER

82B HORN

83A INSTRUMENT PANEL

84A CONTROLS - SIGNALS

85A WIPING / WASHING

86A RADIO

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**X90**

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**MAY 2004**

**Edition Anglaise**

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"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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**87B**

## **PASSENGER COMPARTMENT CONNECTION UNIT**

**87C**

## **OPENING ELEMENTS MANAGEMENT**

**87D**

## **ELECTRIC WINDOWS - SUNROOF**

**88A**

## **WIRING HARNESS**

**88C**

## **AIRBAG AND PRETENSIONERS**

**88D**

## **DRIVER POSITION**

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**X90**

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# L90 - Section 8

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# BATTERY

## Battery : Removal - Refitting

# 80A

L90

### Tightening torques

battery mounting clamp	1.2 daNm
battery terminals	0.65 daNm

The battery is located in the front-left part of the engine compartment.

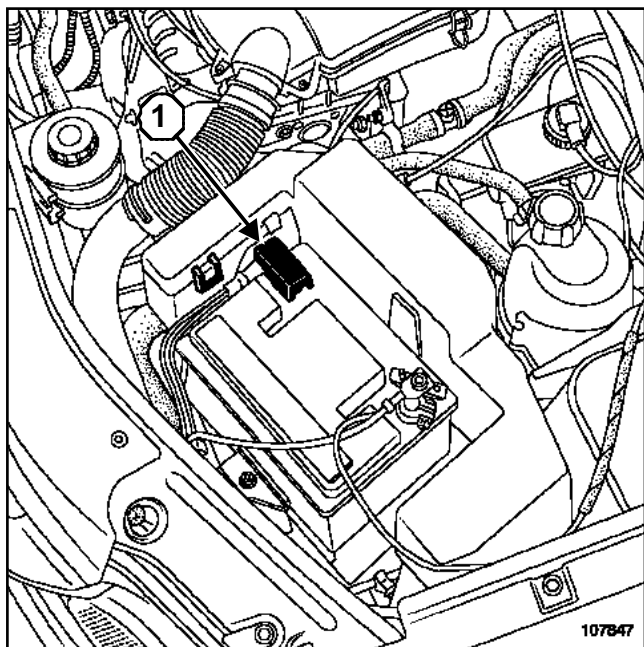
### WARNING

These vehicles are equipped with a battery with low water consumption. Topping up the electrolyte level is therefore prohibited.

## REMOVAL

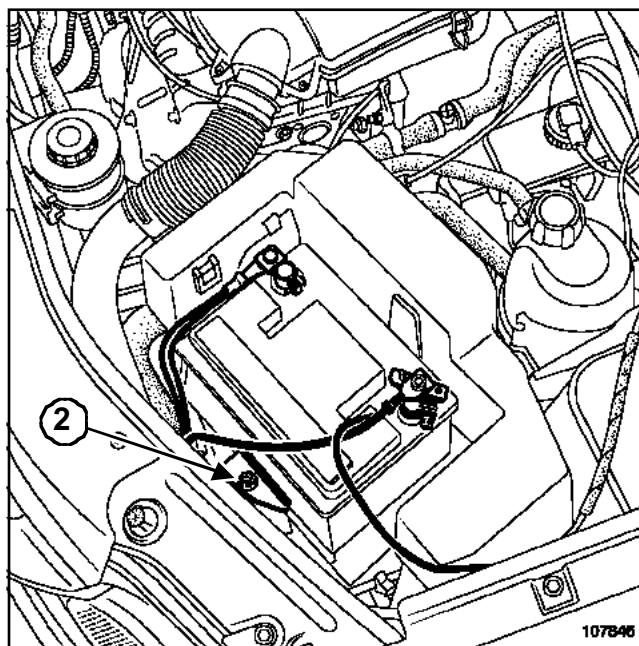
Switch off all the electrical consumers.

Disconnect the negative terminal.



107847

Remove the cover (1) from the positive terminal.



107846

Disconnect the positive terminal.

Remove:

- the mounting clamp (2),
- the battery.

## REFITTING

Correctly position the battery in its housing.

Tighten to torque the **battery mounting clamp (1.2 daNm)(2)**.

Connect:

- the positive terminal,
- the negative terminal.

Tighten to torque the **battery terminals (0.65 daNm)**.

### WARNING

Overtightening damages the terminal and the electrical contact.

Fit the positive terminal battery cover.

When refitting the battery or every time it has been disconnected, it may be necessary to carry out a certain number of simple programming operations, without the fault finding tool, for the vehicle to work properly:

- entering the four-digit radio code,
- setting the time on the clock.

L90

**IMPORTANT**

- A battery contains sulphuric acid, a dangerous substance.
- When a battery is being charged, oxygen and hydrogen are created, the mixture of these gases can presents a risk of explosion.

**I -DANGER ACID**

Sulphuric acid is a highly aggressive and toxic substance which corrodes most metals.

When handling batteries, it is very important to take the following precautions:

- protect your eyes by wearing goggles,
- wear acid proof gloves and clothing.

**IMPORTANT**

- If acid splashes on to your clothing, rinse all contaminated areas thoroughly in water.
- If it comes into contact with skin, consult a doctor.

**II - DANGER RISK OF EXPLOSION**

When a battery is charging oxygen and hydrogen are produced. Gas formation is at a maximum when the battery is completely charged, and the quantity of gas produced is proportional to the strength of the charging current.

The oxygen and hydrogen mix in the space on the surface of the plates, forming an explosive mixture. This mixture is highly explosive.

The smallest of sparks or heat sources can cause an explosion. The explosion is so strong that the battery can shatter and spray the acid into the surrounding atmosphere.

People nearby are at risk (exploded fragments, acid splashes). Acid splashes are dangerous. They also damage clothing.

Safeguarding against the danger of explosion, which can be caused by handling a battery carelessly, must be taken very seriously.

**IMPORTANT**

Check that all consumers are completely switched off.

When a battery is being charged in a room, switch off the charger before connecting or disconnecting the battery.

Do not place any metallic objects on the battery as this may create a short circuit across the terminals.

never hold a naked flame, a welding gun, blowtorch, a cigarette or a lighted match near to a battery.

# BATTERY

## Battery : Checking

# 80A

L90

### Essential special tooling

<b>Ele. 1593</b>	Battery tester. Midtronics R 330
------------------	----------------------------------

### Tightening torques

battery mounting bracket	<b>1.2 daNm</b>
battery terminal nuts	<b>0.65 daNm</b>

## I - CHECKING THE BATTERY

### 1 - Inspection of the mounting

Check that the battery is correctly secured (**battery mounting bracket (1.2 daNm)**):

- excessive tightening of the battery bracket is dangerous, the battery tray may be damaged or broken,
- insufficient tightening of the battery mounting bracket leaves a clearance, the battery tray may be worn through the resulting friction or break from impact.

### 2 - Visual cleanliness check

Check that there is no creep leakage (sulphation) on the battery terminals.

Clean the battery terminals.

Grease the battery terminals if necessary.

Check the tightening torque of the **battery terminal nuts (0.65 daNm)** on the terminals.

#### IMPORTANT

- Poor contact may cause starting or charging faults, create sparks and cause the battery to explode.
- If acid splashes on to your clothing, rinse all contaminated areas thoroughly in water.
- If it comes into contact with the skin or eyes, seek medical attention.

#### WARNING

These vehicles are equipped with an electrolyte consumption battery. Topping up the electrolyte is therefore prohibited.

## II - BATTERY CHARGE

The battery check is made using tool (Ele. 1593).

### 1 - Charger validation test reminder.

It is essential to use a constant voltage charger, to prevent heating proportional to the charge current.

### 2 - Test

Set the charge current setting potentiometer to maximum.

Read off the voltage displayed on your charger or at the battery terminals.

#### WARNING

If the voltage displayed is above **15 V**, the charger is not constant voltage (using it endangers the battery).

You must stop charging if the charger is not constant voltage.

## III - CHECKING PROCEDURE

(See NT 3682A, Battery, 80A, Battery Check).



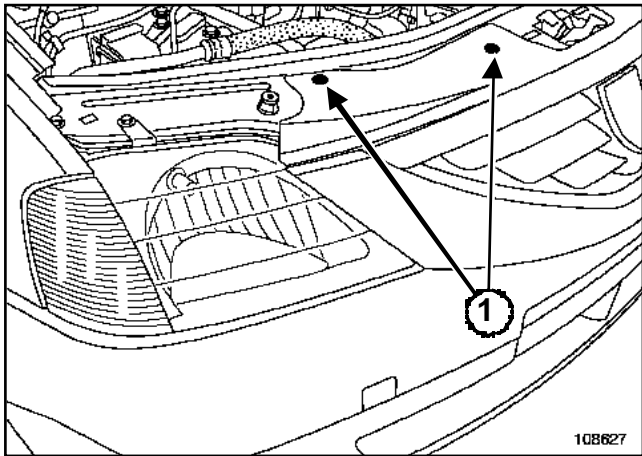
# HEADLIGHTS

## headlight

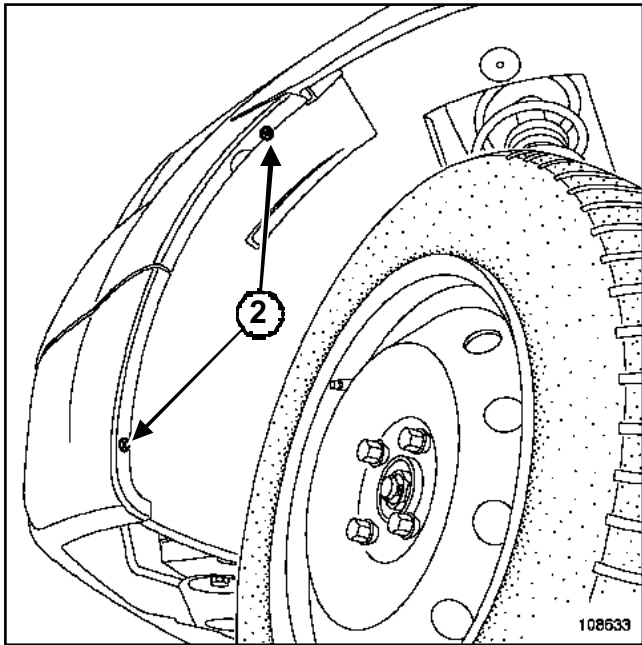
# 80B

L90

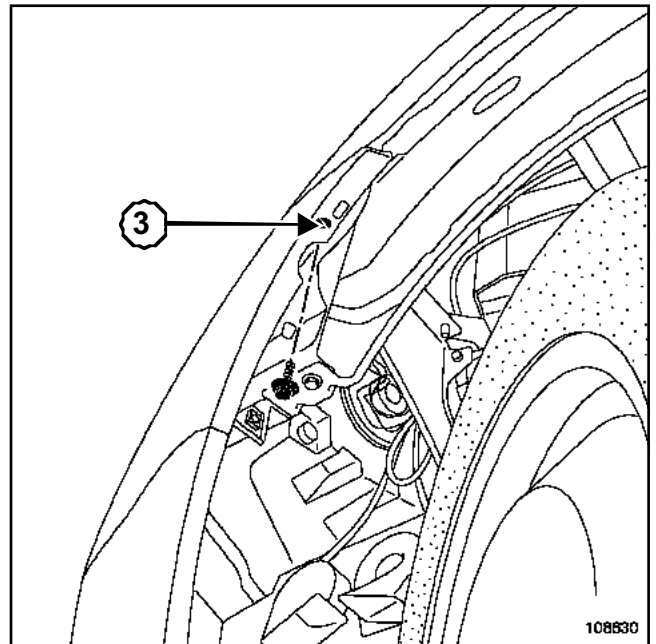
### REMOVAL



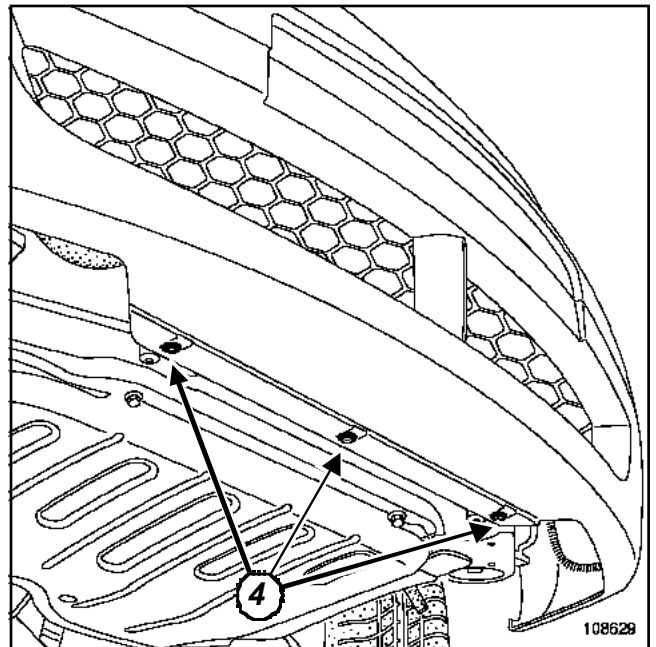
Remove bolts (1).



Remove the mudguard mounting bolts (2).



Remove the bolt (3).



Remove the lower mounting bolts (4).

Disconnect the fog light connector.

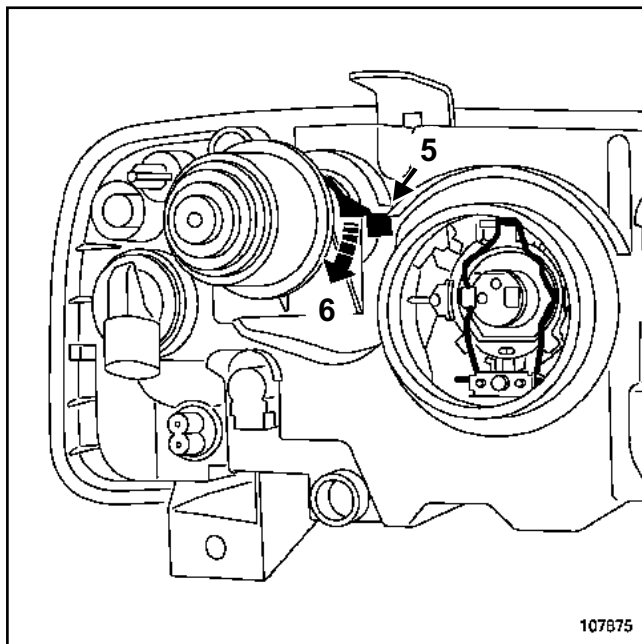
Remove the bumper.

# HEADLIGHTS

## headlight

# 80B

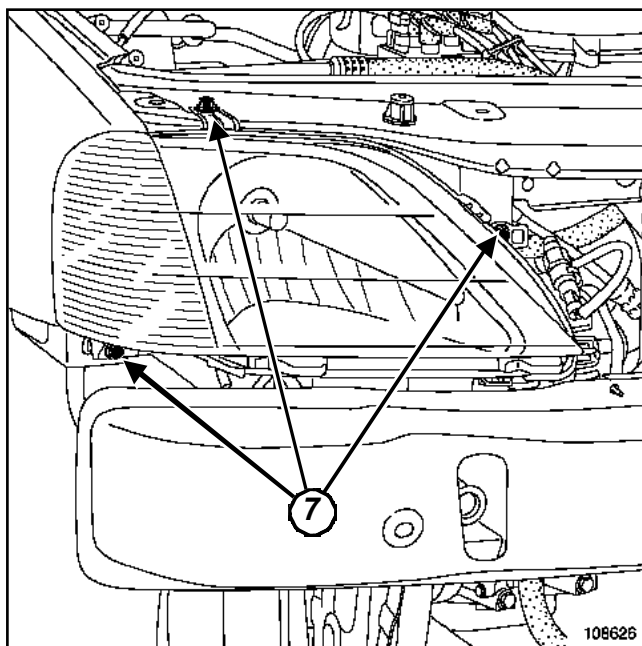
L90



107875

Remove the switch by moving clip (5) and turning it a quarter of a turn towards the vehicle interior (6)

Disconnect the headlight connectors.



108626

Remove the headlight mounting bolts (7)

## REFITTING

Proceed in the reverse order to removal.

Then adjust the headlights (see **80B, Headlights, Halogen headlights: Adjustment**).

# HEADLIGHTS

## Halogen headlight: Adjustment

# 80B

L90

### Essential equipment

headlight beam adjuster

Position the vehicle on a flat level surface.

Check the tyre pressures.

Increase the pressure if necessary.

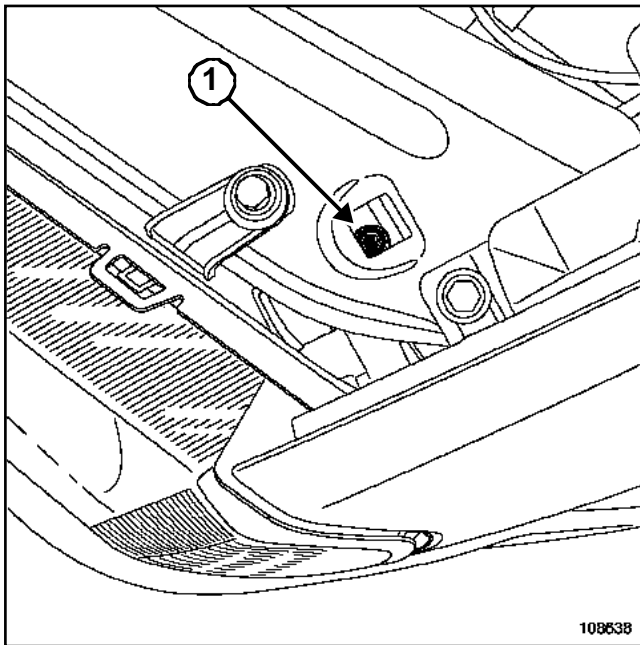
Ensure that the vehicle luggage compartment is empty.

### WARNING

Do not apply the handbrake.

Set the remote adjustment control to « 0 ».

Position a **headlight beam adjuster** in front of the vehicle and adjust according to the value displayed (**1.0%**).

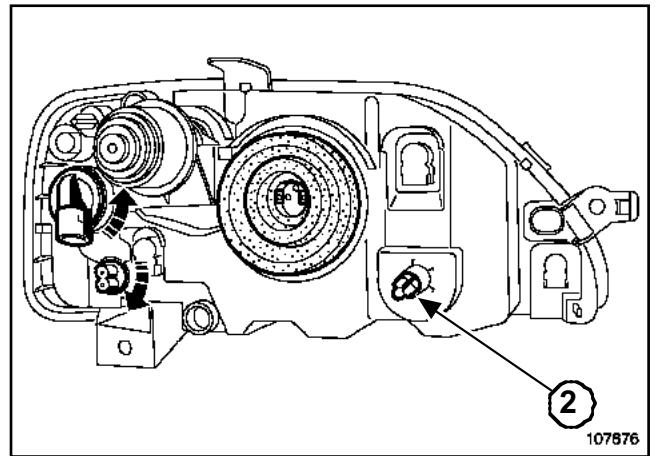


108638  
108638

Turn screw (1) for vertical adjustment.

### Note:

The vertical adjusting screw is located on the manual switch.



107876  
107876

Turn screw (2) for horizontal adjustment.

# HEADLIGHTS

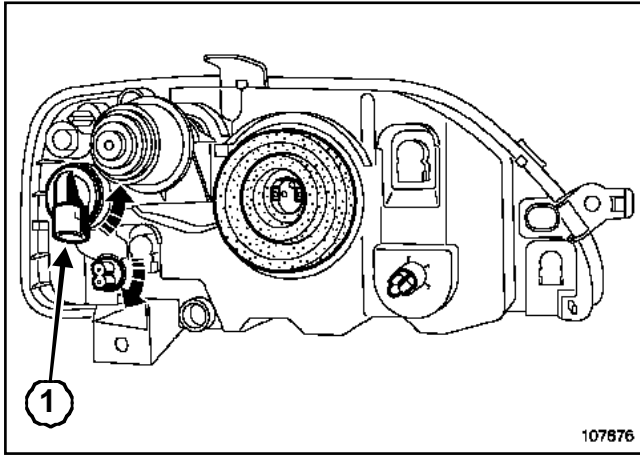
## Halogen bulbs: Replacement

# 80B

L90

The bulb replacement operation does not require the headlight to be removed.

### I - DIRECTION INDICATOR BULBS



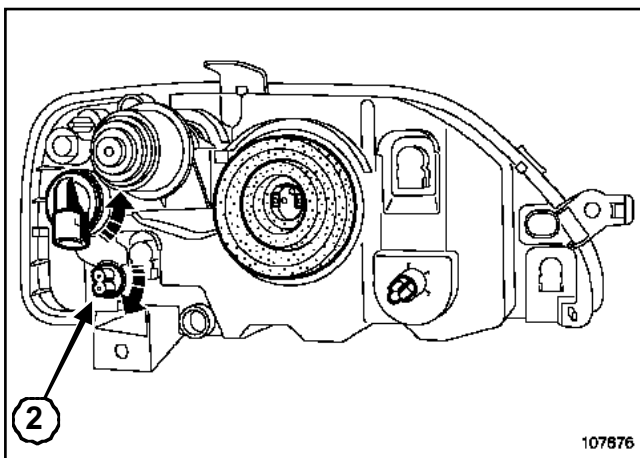
Remove:

- the bulb holder (1),
- the bulb.

Note:

Only use approved **PY21W** bulbs

### II - SIDE LIGHT BULBS



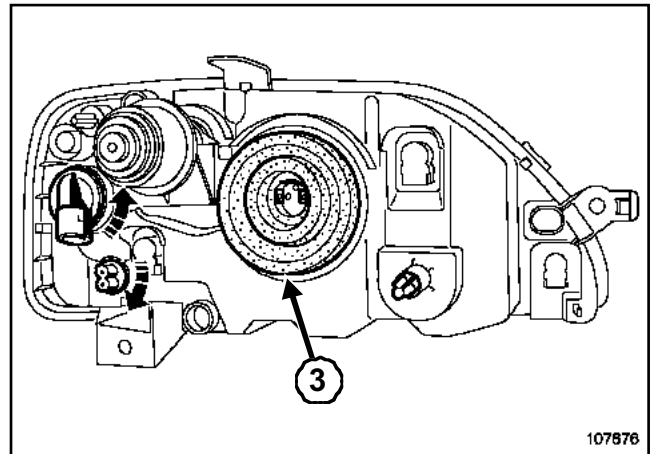
Remove:

- the bulb holder (2)
- the bulb.

Note:

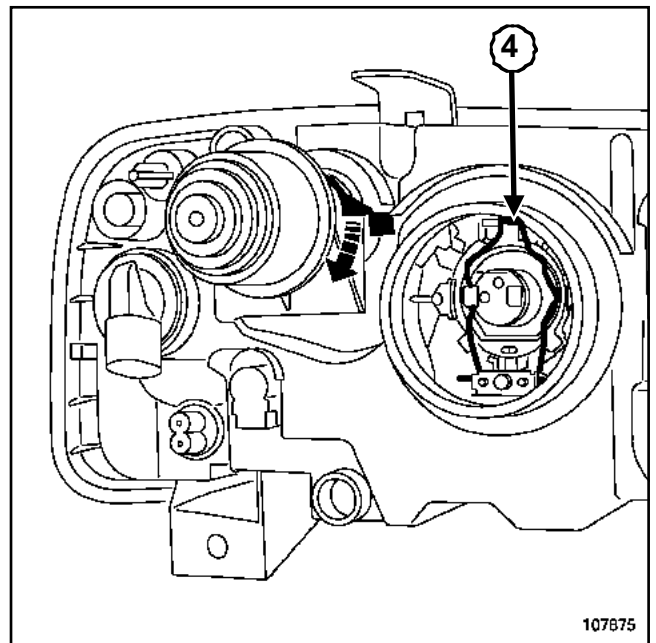
Only use approved **W5W** bulbs.

### III - DIPPED HEADLIGHT BULBS



Disconnect the connector.

Remove watertight cover (3).



Unclip retaining clip (4)

#### WARNING

- Do not touch the bulb or the halogen headlights directly.
- Make sure the covers are positioned correctly.

Note:

Only use approved **H4** bulbs

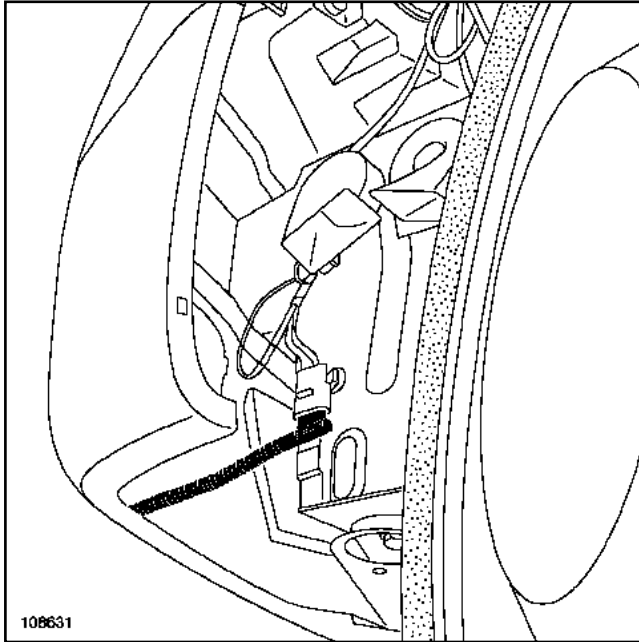
Then adjust the headlights (see **80B, Headlights, Halogen headlights: Adjustment**).

L90

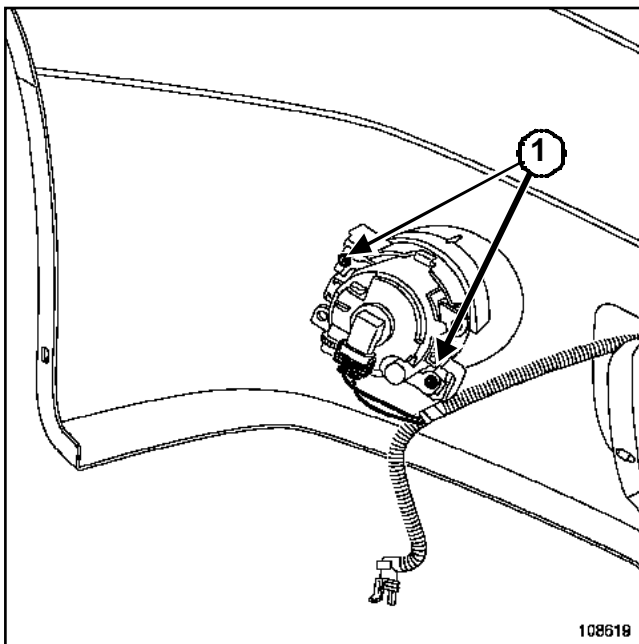
### REMOVAL

Note:

It is not necessary to remove the front bumper.



Disconnect the wiring harness connector

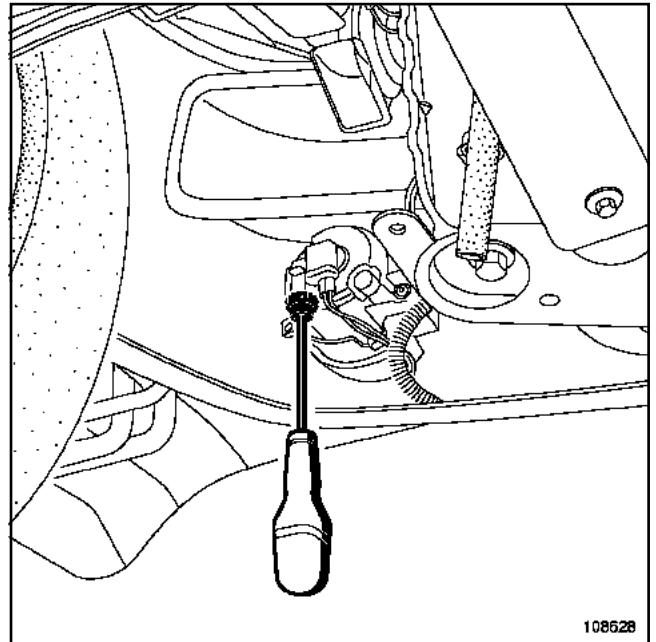


108619

Disconnect the fog light connector.  
Remove the two mounting bolts (1).

### REFITTING

Proceed in the reverse order to removal.



108628

Adjust the fog lights using a screwdriver.

When replacing a bulb, use a **H11** bulb.

#### WARNING

Do not touch the bulb or the halogen headlights directly.

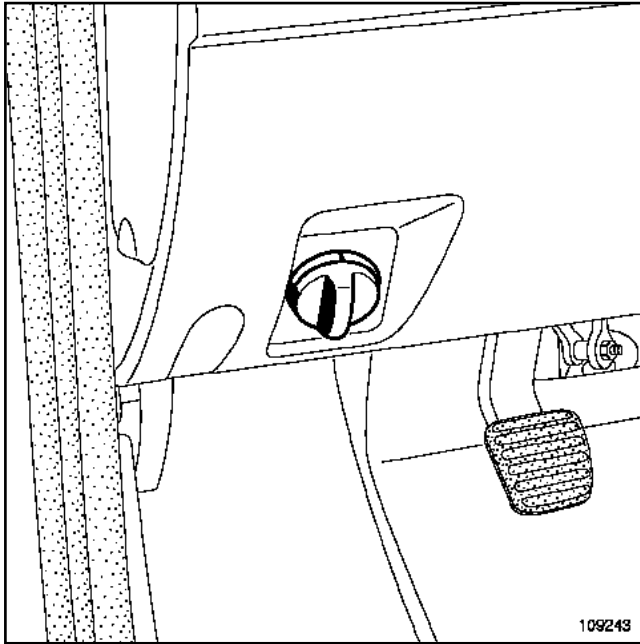
Note:

It is not necessary to remove the front bumper.

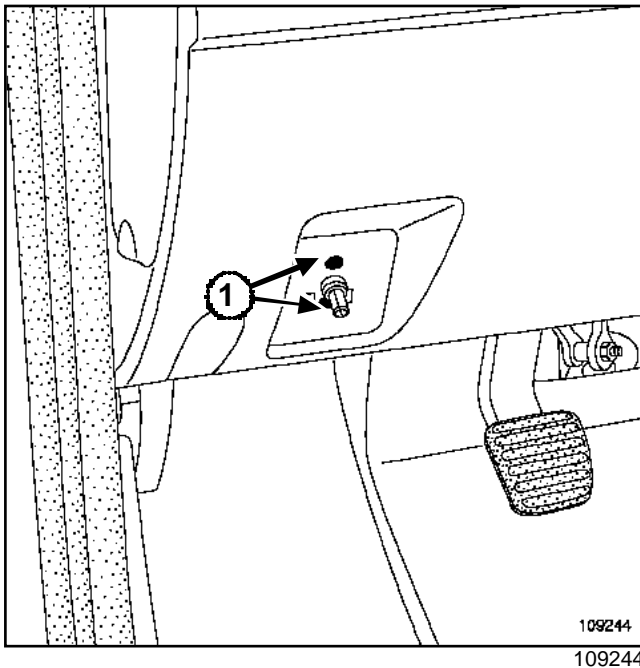
## Beam adjustment and lighting dimmer control

L90

### REMOVAL

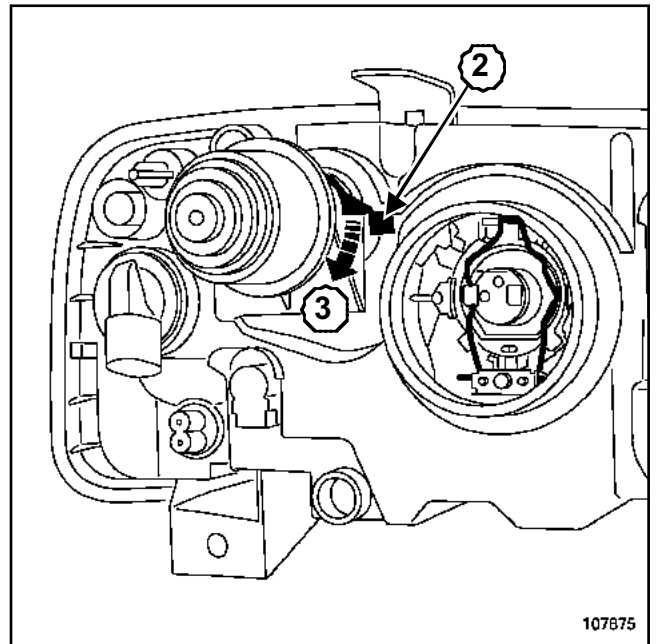


Unclip the adjuster stalk.

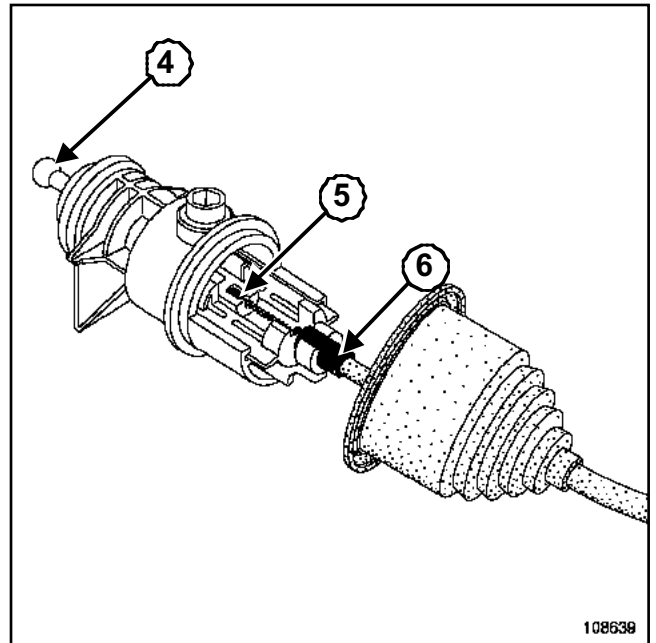


Remove:

- the bolts (1),
- the adjustment control through the dashboard.



Remove the switch by moving clip (2) and turning it a quarter of a turn towards the vehicle interior (3).



Roll-up the sleeve.

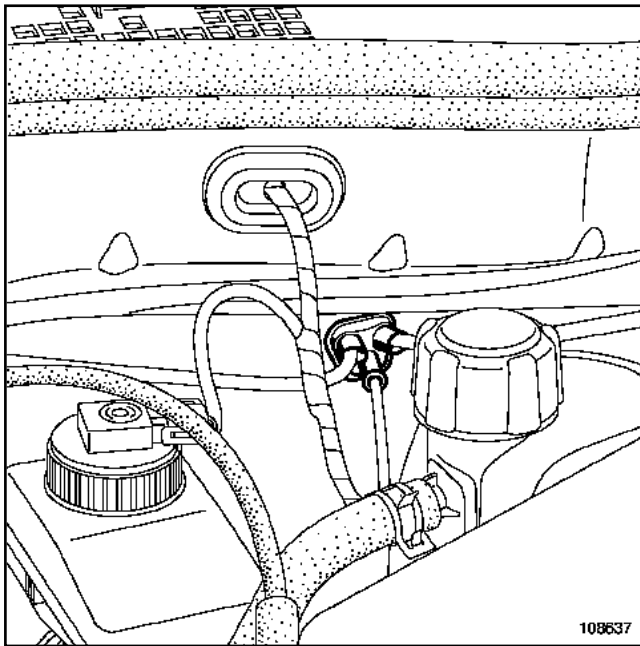
Apply pressure to the switch end (4) to create some play at the cable end stop (5).

Unclip the end of sheath (6).

Remove the cable.

## Beam adjustment and lighting dimmer control

L90



Mark the wiring routing.

Remove the « cable - sheath » assembly from inside the vehicle.

### REPLACEMENT

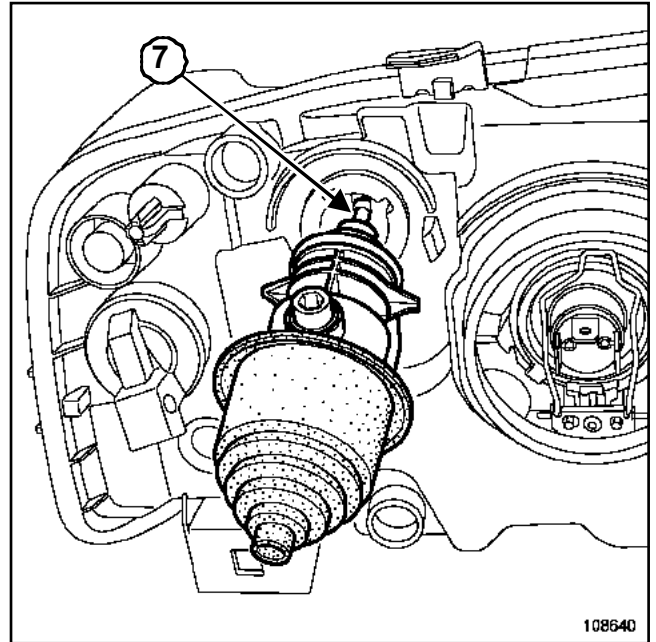
The replacement part available is an inseparable « control, sheath and cable », assembly.

The assembly is supplied pre-assembled.

### REFITTING

Proceed in the reverse order to removal.

**Special note on the headlight beam adjustment switch:**



Remove the bulb sealed cover.

Pull the reflector shell towards you to return the clip groove as close as possible to the rod end.

Insert the rod end into clip groove (7).

### WARNING

The rod end should not just be in contact with the groove, it should be fitted into it.

Clip in the switch.

Fit the cable stop to the actuator.

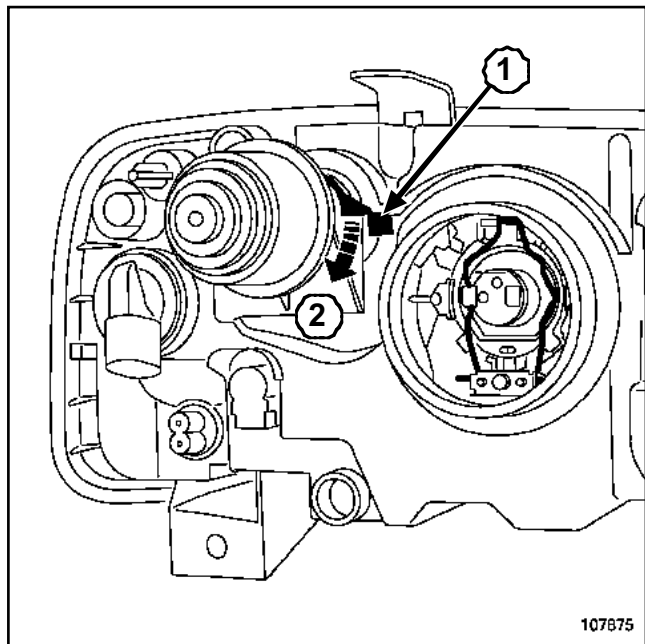
Clip the end of sheath to the switch.

Then adjust the headlights (see **80B, Headlights, Halogen headlights: Adjustment**).

## Headlight remote adjustment actuator

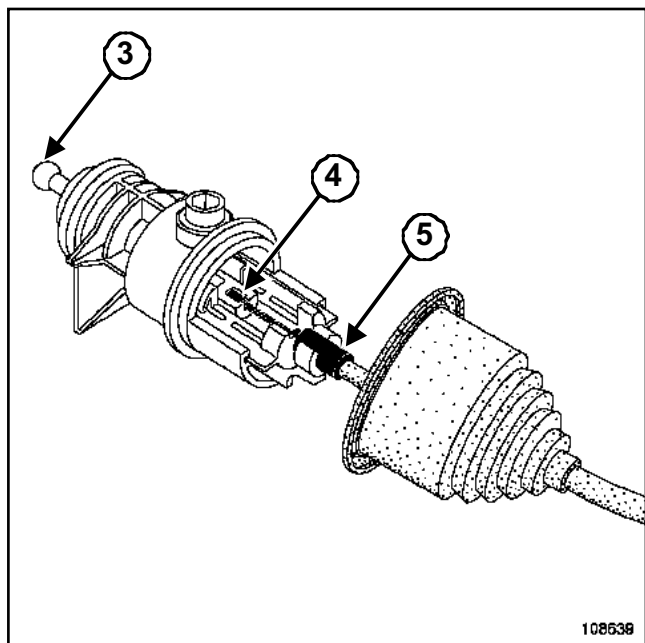
L90

### REMOVAL



107875

Remove the switch by moving clip (1) and turning it a quarter of a turn towards the vehicle interior (2)



108639

Roll-up the sleeve.

Apply pressure to the switch end (3) to create some play at the cable end stop (4)

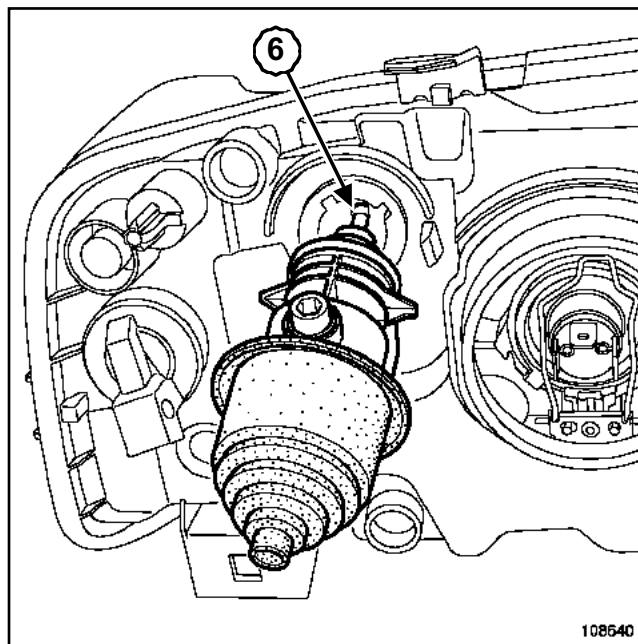
Unclip the end of sheath (5)

Remove the cable.

### REFITTING

Proceed in the reverse order to removal.

#### Special note on the headlight beam adjustment switch



108640

Remove the bulb sealed cover.

Pull the reflector shell towards you to return the clip groove as close as possible to the rod end.

Insert the rod end into clip groove (6)

#### WARNING

The rod end should not just be in contact with the groove, it should be fitted into it.

Clip in the switch.

Fit the cable stop to the switch.

Clip the end of the sheath to the switch.

Then adjust the headlights (see **80B, Headlights, Halogen headlights: Adjustment**).



# REAR LIGHTING

## High level brake light

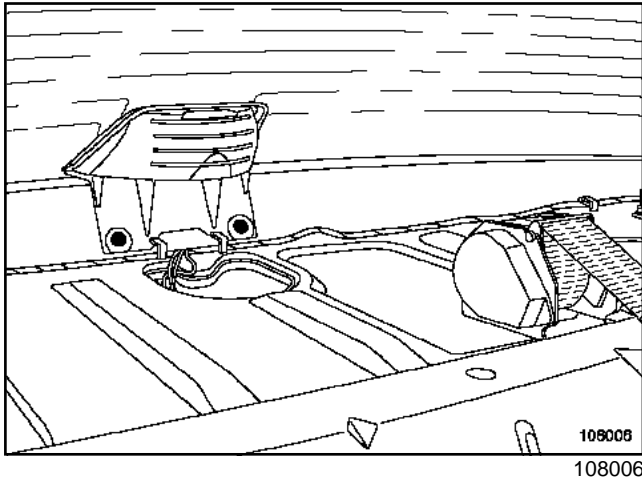
# 81A

### Tightening torques

raised brake light mounting bolts	2 Nm
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### REMOVAL

Remove the rear parcel shelf trim (see **74A, Parcel shelves, Rear parcel shelf**).

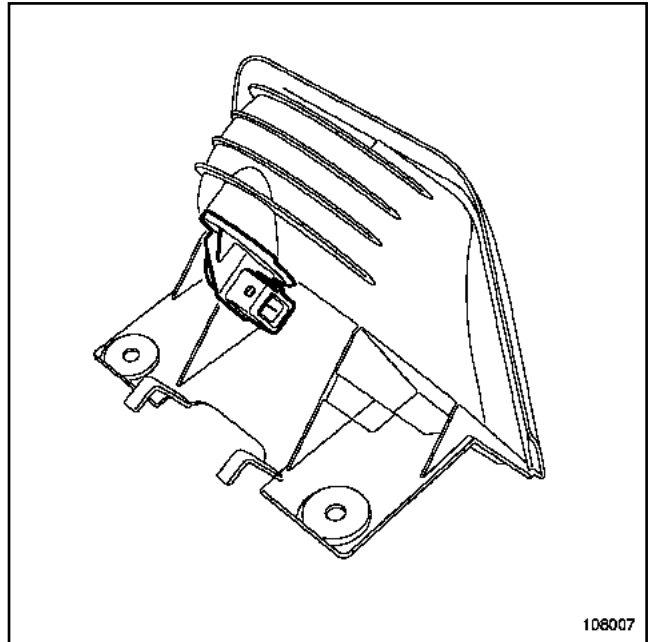


- Remove the two raised brake light bolts.
- Disconnect the connector.
- Remove the raised brake light.

### REFITTING

- Proceed in the reverse order to removal.
- Torque tighten the **raised brake light mounting bolts (2 Nm)**.

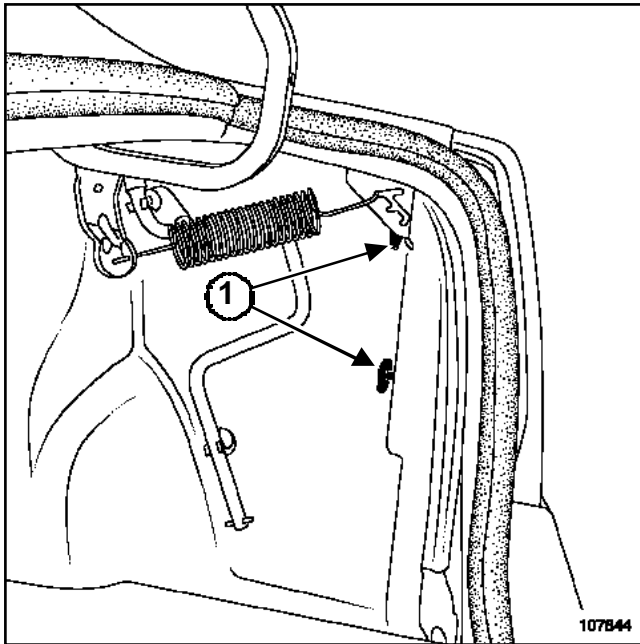
### Replacing the bulb



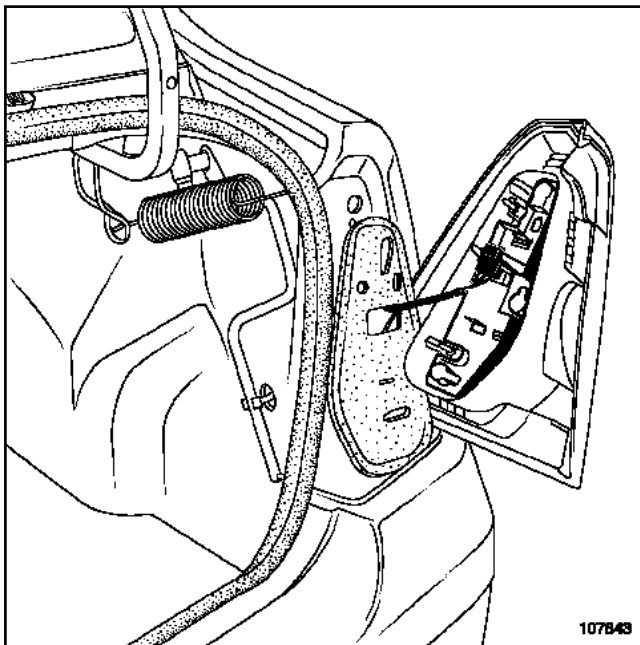
Turn the bulb holder one quarter of a turn through the boot.

When replacing a bulb, use a **P21W** bulb.

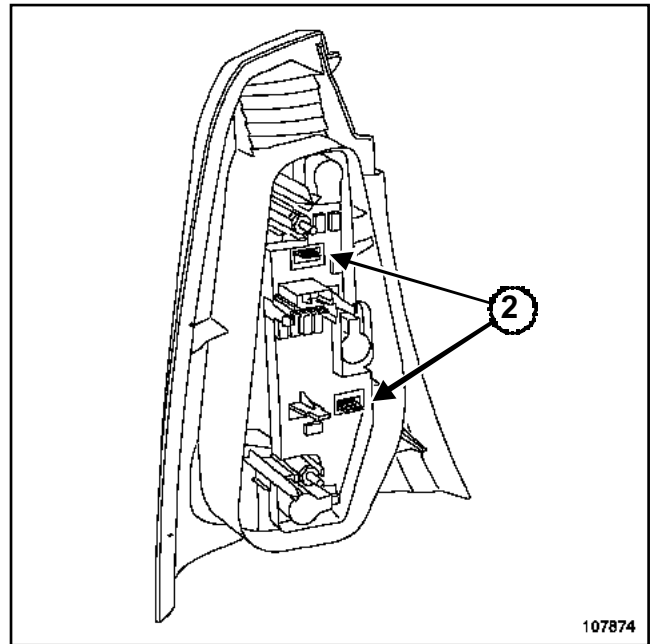
### REMOVAL



Remove the rear light mounting nuts (1).



Disconnect the connector.  
Remove the rear light.



Unclip the plate by moving clips (2).  
Remove the bulb holder plate.

### REFITTING

Proceed in the reverse order to removal.

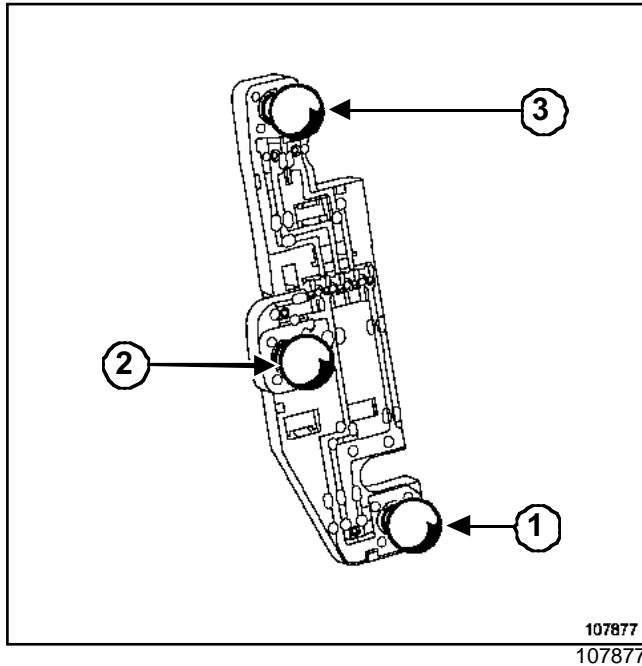
Check that the rear headlight foam lining is in the correct position.

# REAR LIGHTING

## Rear light: Connection

# 81A

### I - POSITION OF THE BULBS (RIGHT-HAND REAR LIGHT)



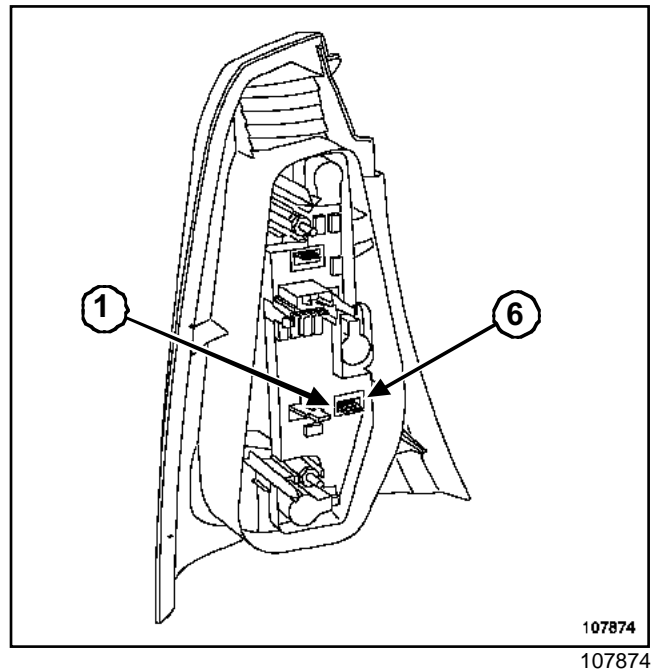
Bulb	Description
1	Reversing light
2	Indicator
3	Brake light and side light

With the left-hand rear light, the bulb (1) corresponds to the fog light.

### II - REPLACING BULBS

Bulb	Description	Part no.
1	Reversing light / Fog light	<b>P21W</b>
2	Indicator	<b>P21W</b>
3	Brake light and side light	<b>P21/5W</b>

### III - CONNECTION (REAR RIGHT-HAND SIDE LIGHT)



Track	Description
1	Reversing light
2	Side lights
3	Brake light
4	Brake light
5	Earth
6	Direction Indicator

Note:

The number of tracks is read from left to right.

### IV - CONNECTION (REAR LEFT-HAND SIDE LIGHT)

Track	Description
1	Direction indicator
2	Earth
3	Side lights
4	Side lights

**REAR LIGHTING**  
**Rear light: Connection**

**81A**

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Track	Description
5	Brake light
6	Fog light

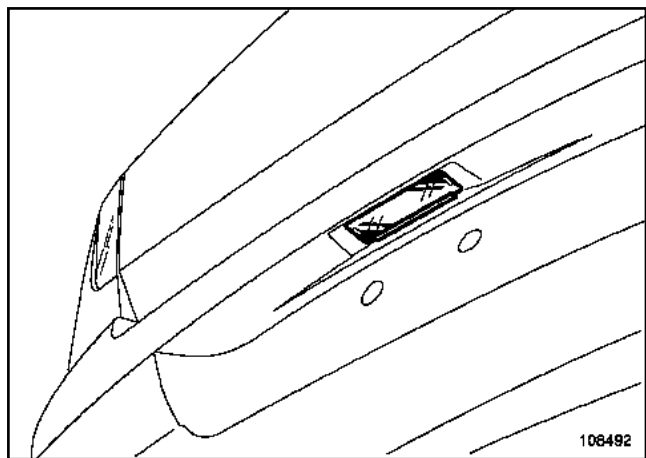
---

# REAR LIGHTING

## Registration plate light

# 81A

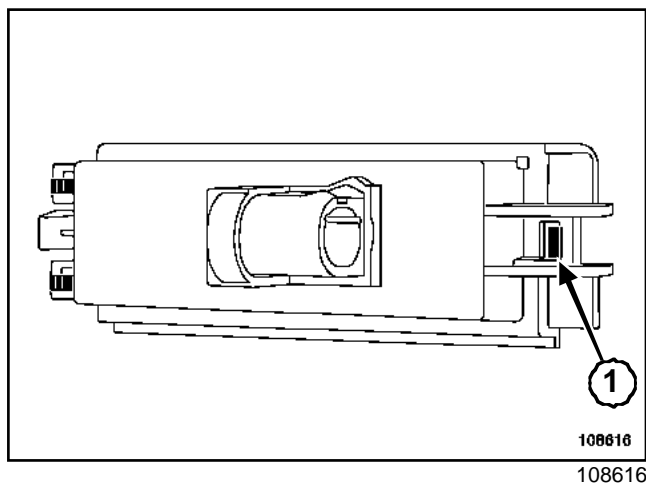
### REMOVAL



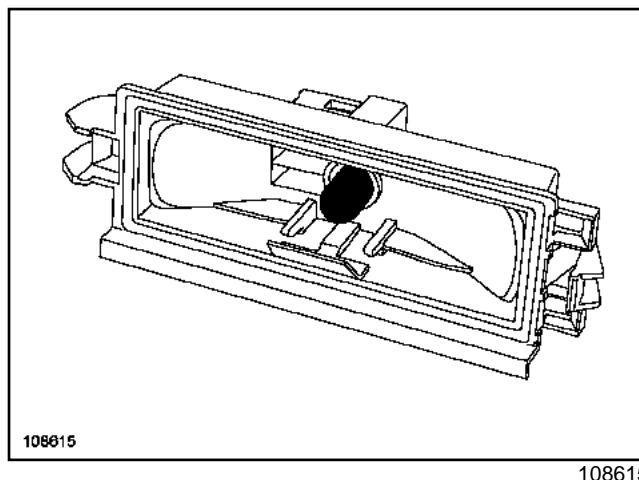
Remove the number plate light using a flat-blade screwdriver.

Disconnect the connector.

### REFITTING



Unclip the translucent cover by moving clip (1).



Remove the bulb.

When replacing a bulb, use a **W5W** bulb.

L90

### I -SPECIAL NOTES

Vehicles can have:

- a front timed courtesy light,
- a glove compartment light,
- a boot light (timed or not depending on the equipment level).

### II - TIMER FUNCTION

The UCH performs the timer function and the progressive switching out of the courtesy and boot lights.

The interior lights are switched on immediately by the UCH:

- when a door or the tailgate is opened,
- when unlocking the opening elements by remote control.

When switching of the interior lighting, the UCH imposes, depending on the scenario:

- switching off with no time delay: when the doors or boot are locked using the remote control (doors and boot closed)
- switching off with a time delay of **(30 s)** :
  - after the last door or the boot is closed,
  - when the doors or boot are unlocked with the remote control,
  - when the ignition is switched on (progressive).

Note:

The UCH controls the switching off of the interior lights after a period of approximately:**30 min**

- when the opening element is not open or not properly closed (courtesy light in timed mode),
- when the courtesy light is in the imposed lighting position.

# INTERIOR LIGHTING

## Courtesy light: General information

**81B**

L90

Depending on the equipment level, the courtesy light may be fitted with:

- a single centre light switch,
- a centre light switch and a map reading light.

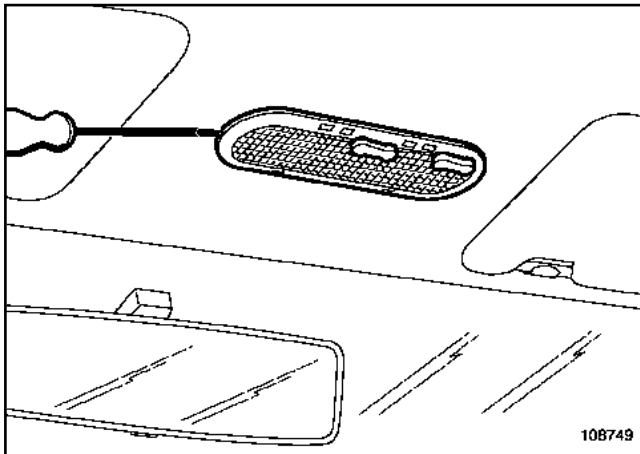
# INTERIOR LIGHTING

## Courtesy light

# 81B

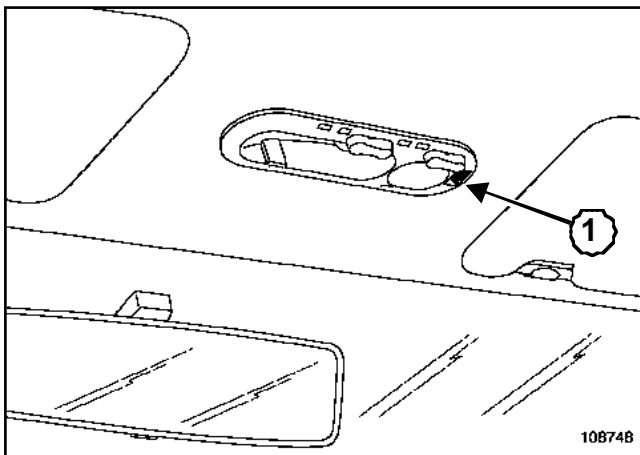
L90

### REMOVAL



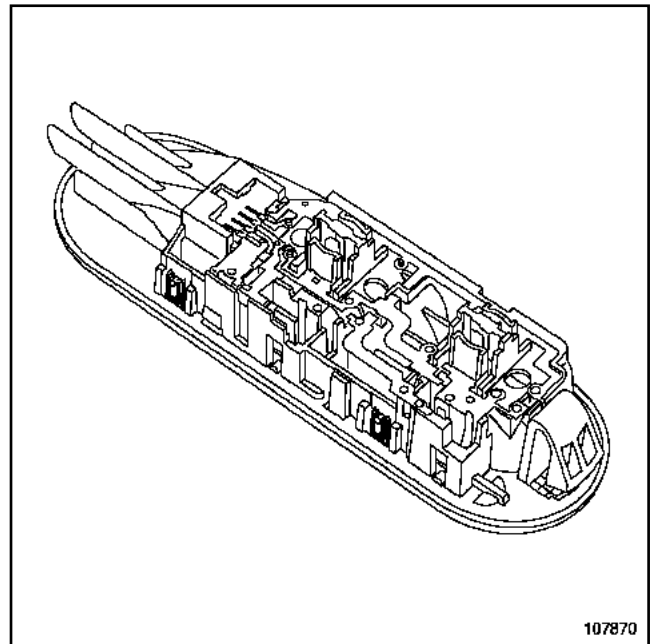
108749

Unclip the translucent cover using a flat-blade screwdriver.



108748

Press down on clip (1) using a flat-blade screwdriver to remove the courtesy light.

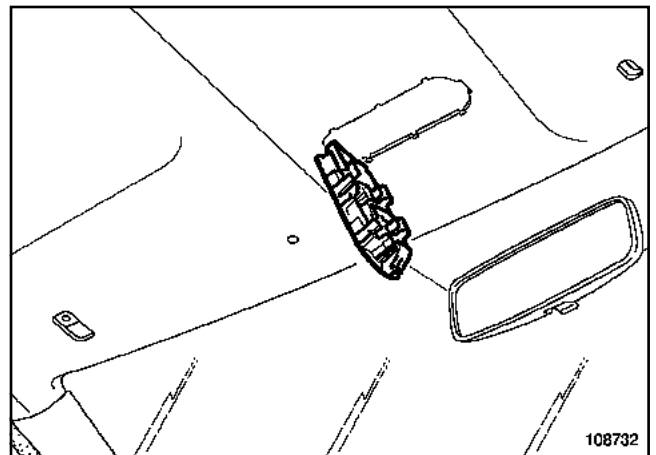


107870

107870

Disconnect the connector.

### REFITTING



108732

108732

Connect the connector.

Insert the courtesy light from the rear.

When replacing a bulb, use a **W5W** bulb.



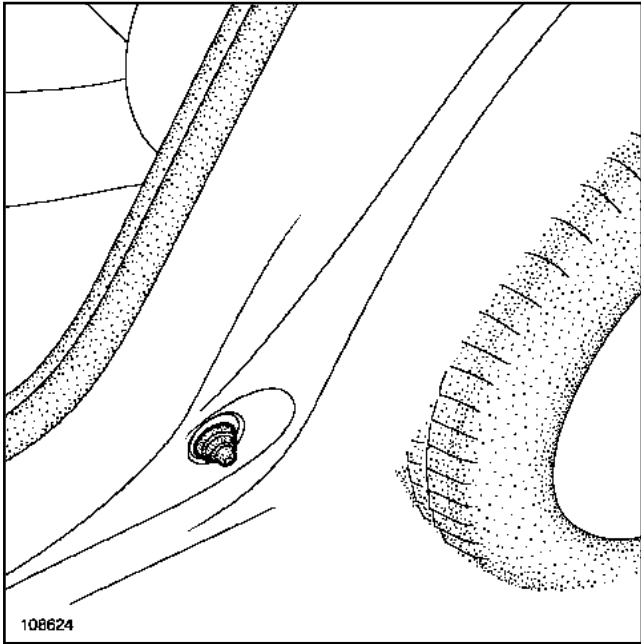
# INTERIOR LIGHTING

## Door switch

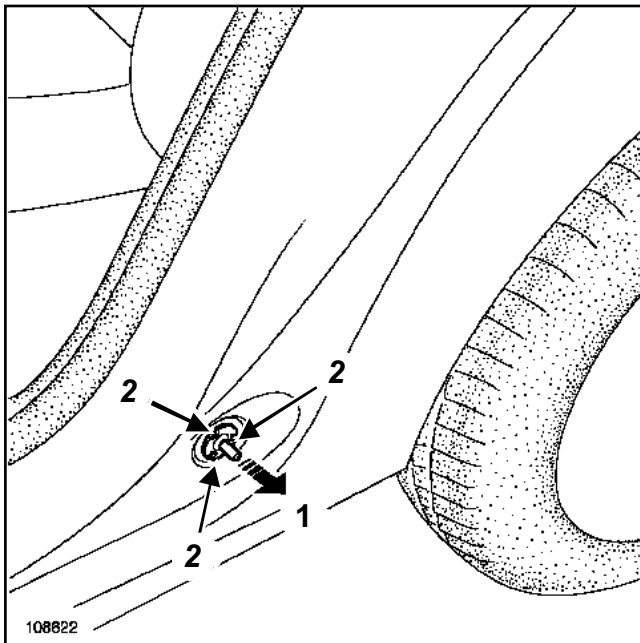
# 81B

L90

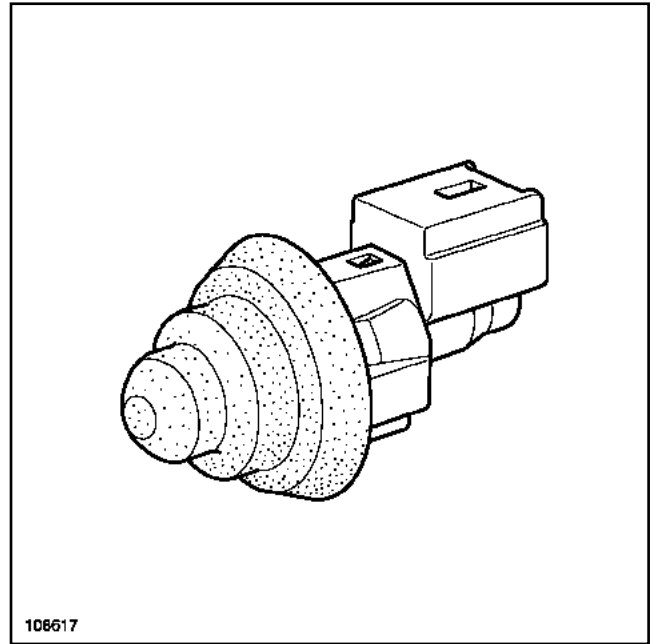
### REMOVAL



Remove the bellows seal.



Remove the switch (1) by squeezing the three clips (2).



Disconnect the connector.

### REFITTING

Proceed in the reverse order to removal.

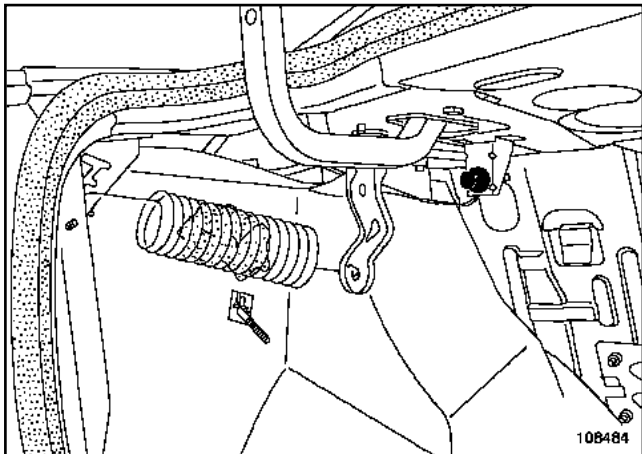
# INTERIOR LIGHTING

## Luggage compartment door switch

# 81B

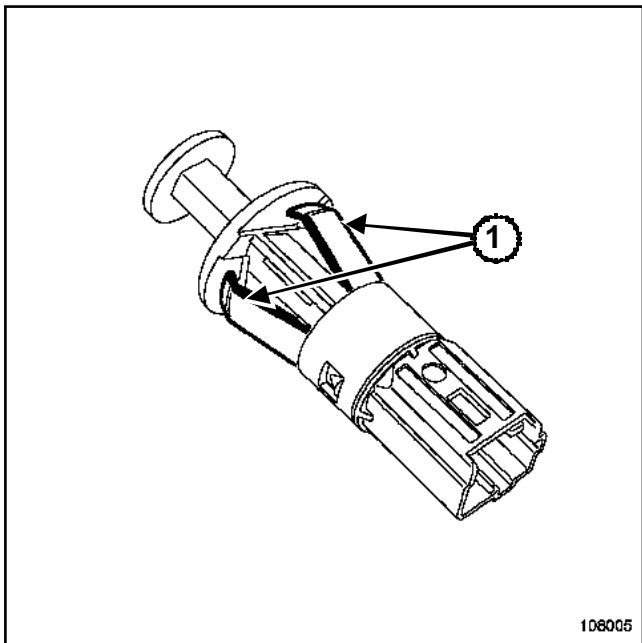
L90

### REMOVAL



108484

Disconnect the connector.



108005

108005

Remove the boot switch by squeezing the clips (1).

### REFITTING

Proceed in the reverse order to removal.

# INTERIOR LIGHTING

## Glovebox light

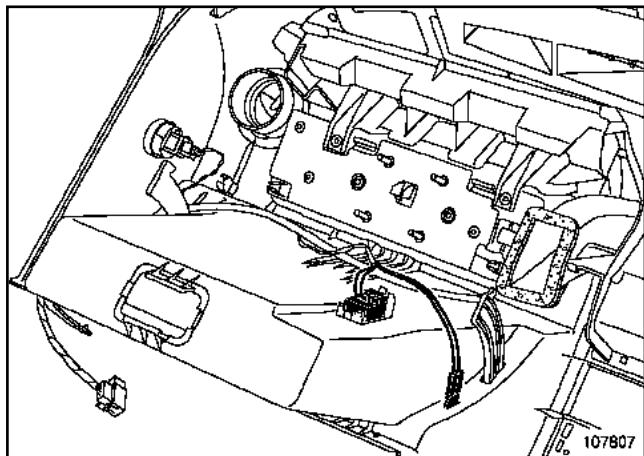
# 81B

L90

### REMOVAL

Note:

It is not necessary to remove the dashboard.



107807

Unclip the light.

Disconnect the light connector.

Note:

The glove compartment light can also be removed.

Unclip the switch.

Disconnect the connector.

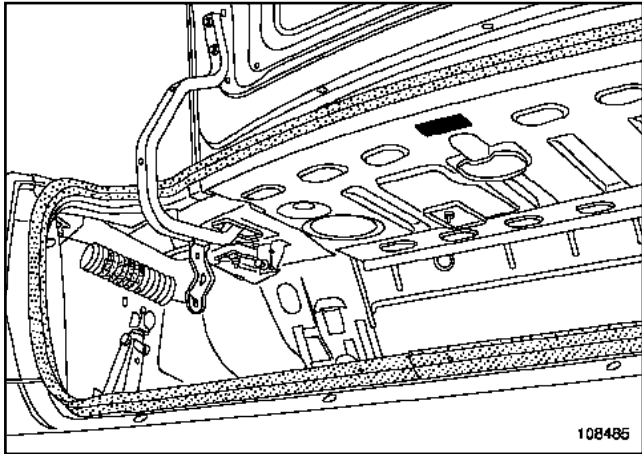
### REFITTING

Proceed in the reverse order to removal.

When replacing a bulb, use a **C5W** bulb.

L90

### REMOVAL



108485

Unclip the boot light.

Disconnect the connector.

### REFITTING

Proceed in the reverse order to removal.

When replacing a bulb, use a **C5W** bulb.

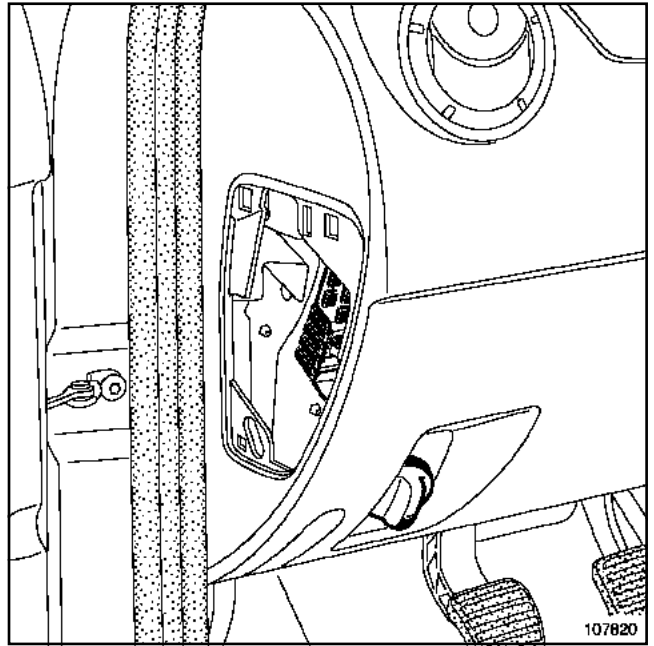
## Consumer cut-out fuse: Identification

L90

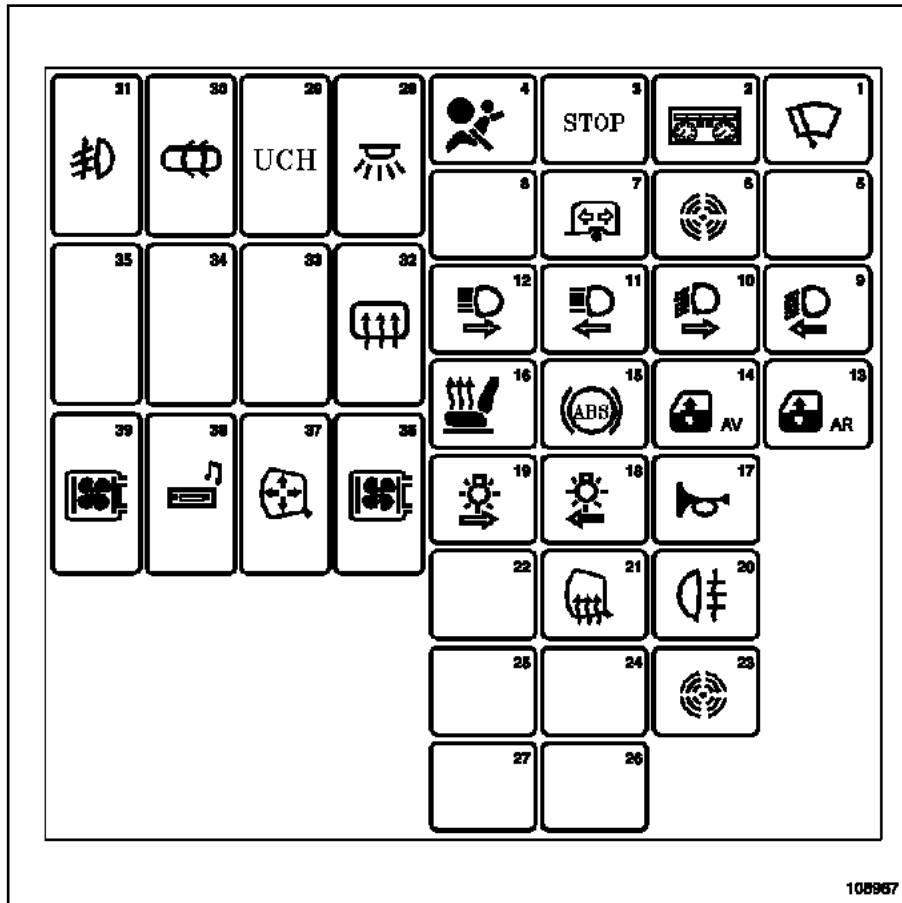
### LOCATION

The function is set up in the factory, where a fuse is removed from the passenger compartment fuse box located to the left of the instrument panel.

Remove the cover to access the passenger compartment fuse box



107820  
107820



108967

108987

## Consumer cut-out fuse: Identification

L90

## Note:

Use a **15A** , fuse available with charge fused, and connect it in position « n°28 » before the vehicle is delivered.

See (**Electrical wiring diagram, NT, component 1016**).

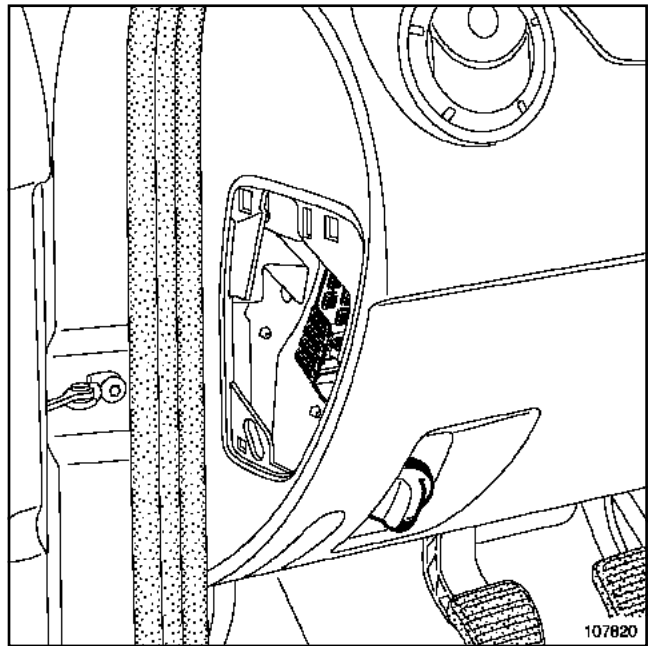
Passenger compartment fuse box: Identification

L90

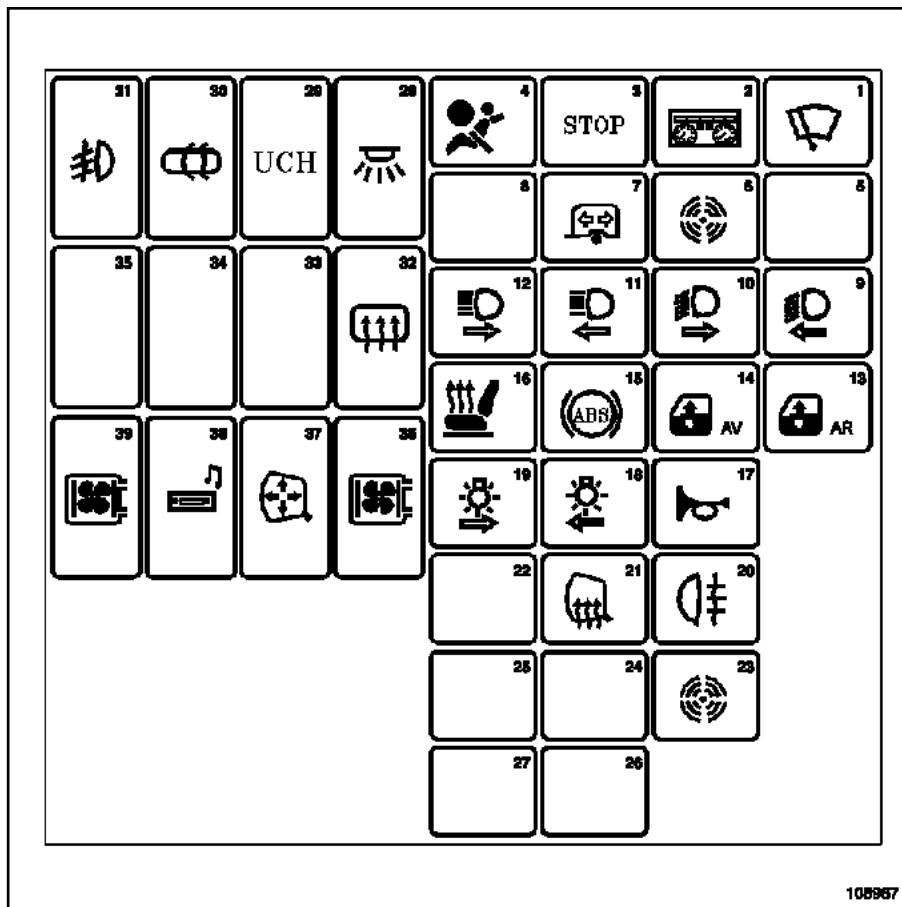
I - LOCATION

This unit is located in the passenger compartment, on the left-hand side of the dashboard.

Remove the cover to access the passenger compartment fuse box.



II - ALLOCATION OF FUSES (DEPENDING ON EQUIPMENT LEVEL)



108967

108987

See (Electrical wiring diagram, NT , component 1016).

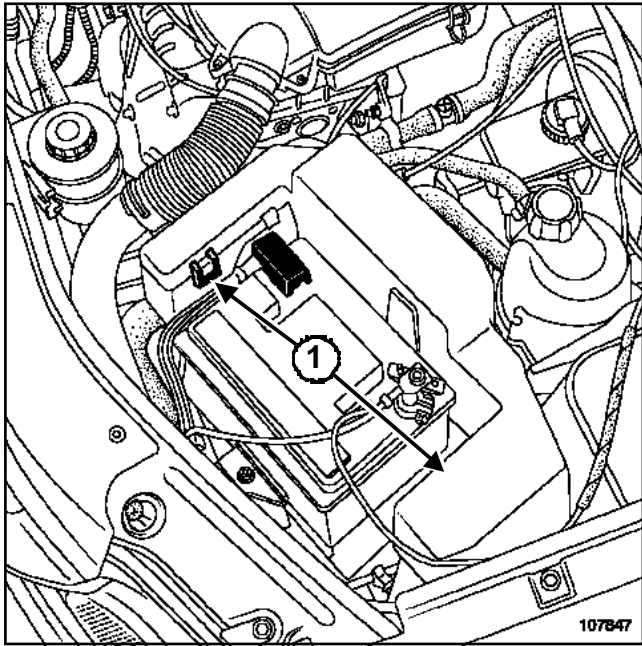
## Engine compartment fuse and relay box: Identification

L90

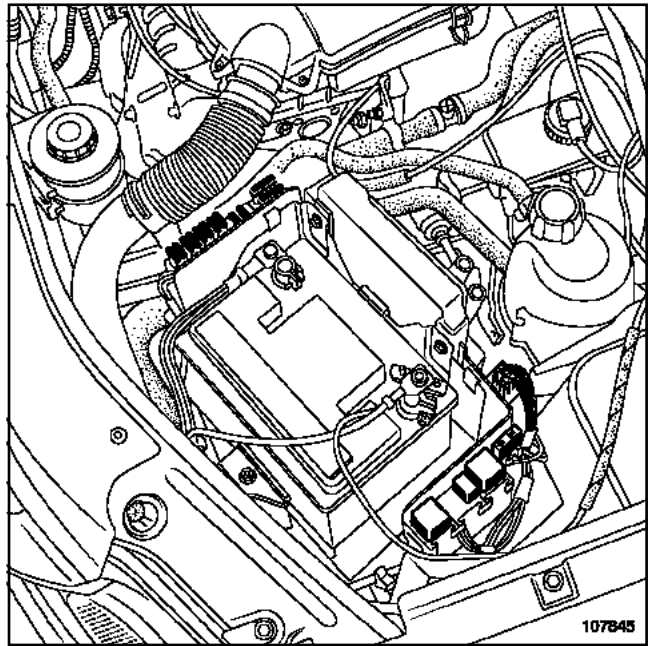
### LOCATION

This unit is located in the engine compartment next to the battery.

To access the engine compartment fuse and relay box unclip cover at (1).

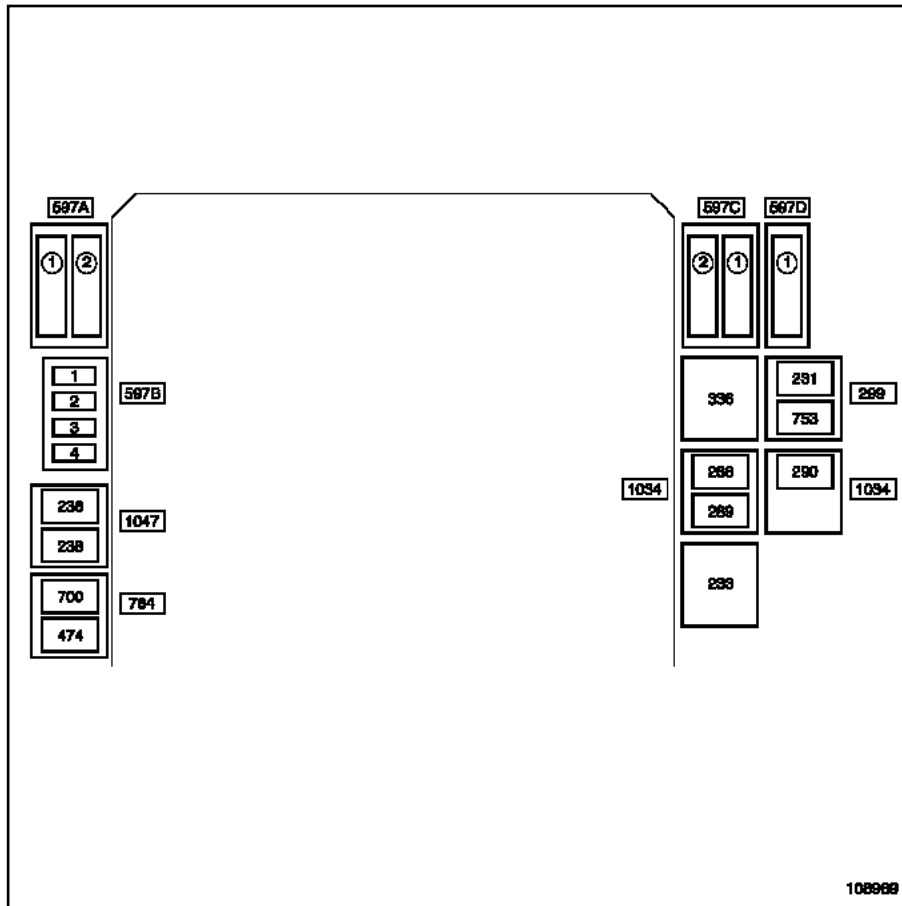


107847



107845

### Allocation of fuses and relays (depending on equipment level)



108988

108989



# FUSES

**81C**

## Engine compartment fuse and relay box: Identification

L90

(See wiring diagram NT, components (299 - 597 - 784  
- 1034 - 1047 - 336).

# IMMOBILISER

## General information

# 82A

L90

The function of the engine immobiliser is ensured by a key recognition system with exchanges of encrypted codes.

A coded chip (operating without a battery) independent of the remote control function is incorporated into the head of each of the vehicle's keys.

When the ignition is switched on, the UCH exchanges information with the key head by a transponder ring on the ignition switch.

If the UCH recognises the key code, it authorises the engine start and the injection is unlocked; the engine can be started.

The engine immobiliser is activated a few seconds after the ignition is switched off (indicated by the red engine immobiliser warning light flashing on the instrument panel).

A factory preset code of twelve hexadecimal characters is allocated to the vehicle to allow the engine immobiliser system to be repaired.

This repair code is required in after sales in order to:

- add keys,
- replace one or more keys,
- deallocate one or more keys (e.g. if lost or stolen),
- replace a UCH.

**Note:**

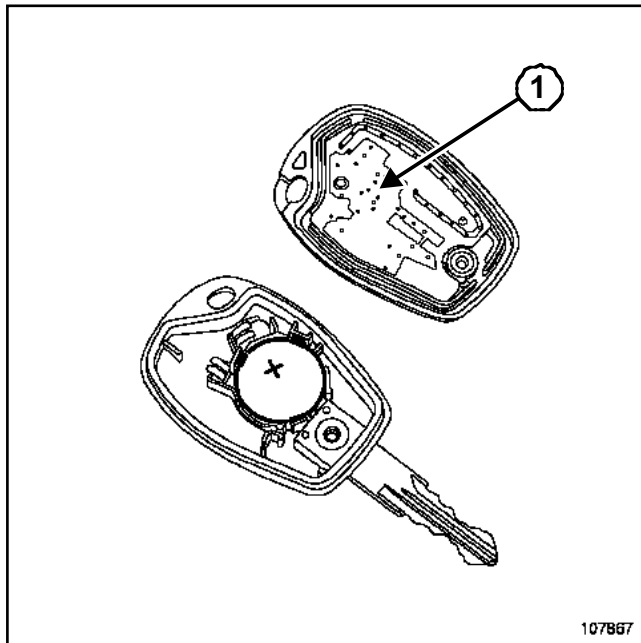
For all key or UCH programming operations, the repair code number will be asked for by at **DACIA** Network Techline (tel. 00 40 248500555) . In this case, it is necessary to provide the VIN and vehicle serial number.

L90

With this system, the engine immobiliser is activated a few seconds after the ignition is switched off (indicated by the red engine immobiliser warning light flashing).

This systems consists of several components.

### I - A KEY HEAD FITTED WITH ELECTRONICS



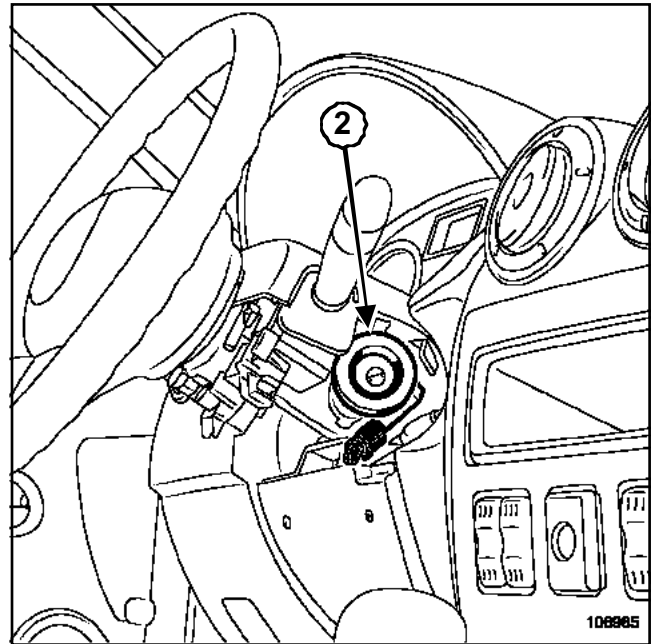
107867

The key head fitted with electronics (1) allows the engine immobiliser and central door locking to be commanded by radio frequency (depending on the version).

#### Note:

The immobiliser chip is now integrated in the remote control printed circuit.

### II - A TRANSPONDER RING



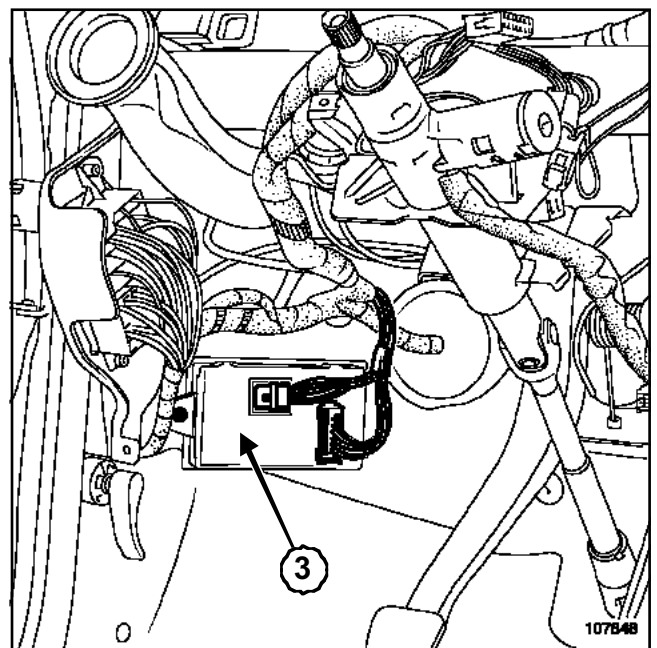
108985

The transponder ring (2), located around the ignition switch, is fitted with an electronic device for transmitting the key code to the UCH.

#### Note:

The transponder ring is not coded.

### III - A UCH



107848

The UCH (3) is located on the dashboard (see 87B, Connection unit, UCH).

# IMMOBILISER

## Description

82A

L90

For the engine immobiliser function, the UCH carries out the following functions:

- decodes the key signal,
- communicates with the injection computer,
- controls the instrument panel red warning light, communicates with the **diagnostic tool**.

### **IV - AN ENGINE IMMOBILISER RED WARNING LIGHT**

The engine immobiliser red warning light located on the instrument panel used signals:

- the activation of the engine immobiliser system (one flash per second),
- the non-recognition of the key (rapid flashing),
- a system failure (rapid flashing),
- programming of a key.

# IMMOBILISER

## Operation

82A

L90

When the engine immobiliser system is operational, the engine immobiliser red warning light flashes (slow flashing: one flash per second).

When the ignition is switched on, a process of mutual recognition between the key and the UCH begins.

If the key presented and the UCH have recognised each other, the UCH sends an unlocking code by wire to the injection.

If the injection recognises the code, it unlocks and authorises the engine start.

### **SPECIAL CASES:**

The injection computer is supplied uncoded. It has to be programmed with the engine immobiliser code when it is installed, to allow the vehicle to be started.

Switch on the ignition for a few seconds without starting the engine. Switch the ignition off; the immobiliser function will be activated after a few seconds, (the red immobiliser warning light will flash).

If the key and UCH codes do not recognise each other, the system remains locked. The engine immobiliser red indicator light flashes (quickly).

The engine is authorised to start by default for **2 seconds** only.

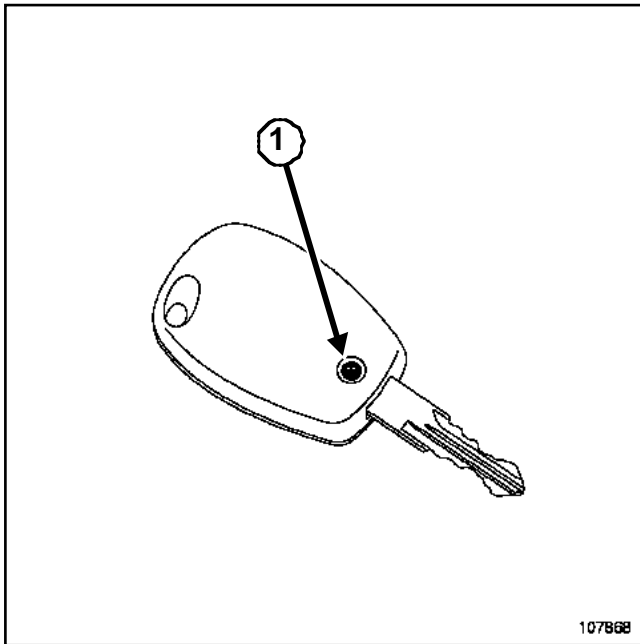
### **WARNING**

When the vehicle battery has a low charge, the drop in voltage caused by a starter request could reactivate the immobiliser. If the voltage is too low, the engine cannot be started, even by pushing the vehicle.

## Remote door locking control battery: Replacement

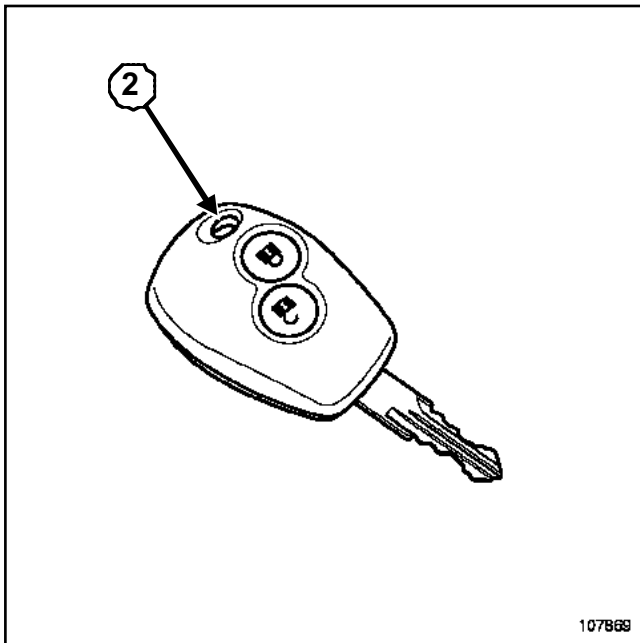
L90

### OPENING A KEY HEAD



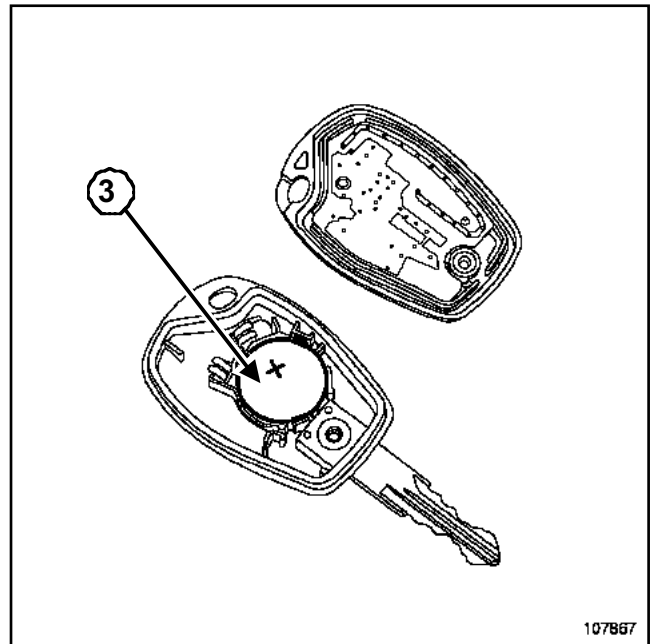
107868

Remove screw (1).



107869

Open the key with a flat screwdriver at (2).



107867

Replace the battery (3).

L90

### Essential equipment

diagnostic tool

### Tightening torques

steering wheel bolt	4.4 daNm
---------------------	----------

airbag cushion bolts	0.65 daNm
----------------------	-----------

### IMPORTANT

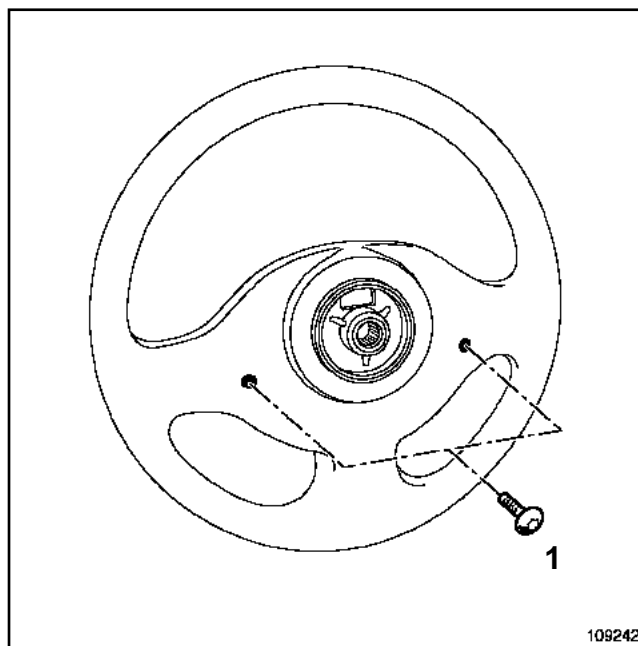
Before any work is carried out on a safety system component, be sure to lock the airbag computer using the **diagnostic tool** (see **88C, Airbags and pretensioners, airbag computer locking procedure**). When this function is activated, all the trigger lines are blocked and the airbag warning light on the instrument panel lights up continuously (ignition on).

### IMPORTANT

Handling pyrotechnic systems (airbags or pretensioners) near to a source of heat or flame is forbidden: there is a risk of triggering the airbags or pretensioners.

### REMOVAL

Disconnect the battery, starting with the negative terminal.

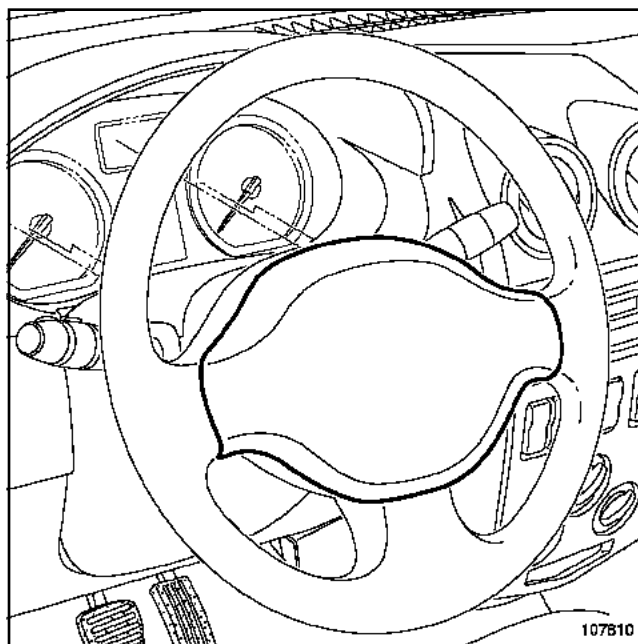


109242

109242

Turn the steering wheel through a quarter of a turn.

At the rear of the steering wheel, undo mounting bolts (1) from the driver's airbag module (30 torx socket).

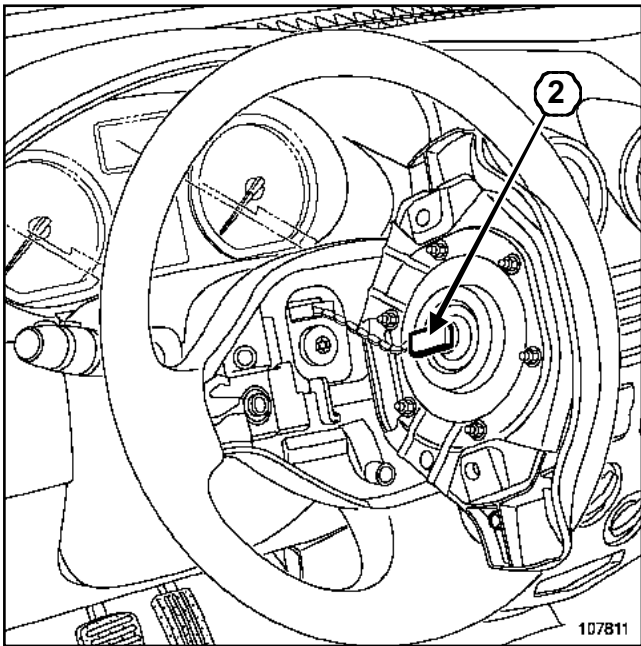


107810

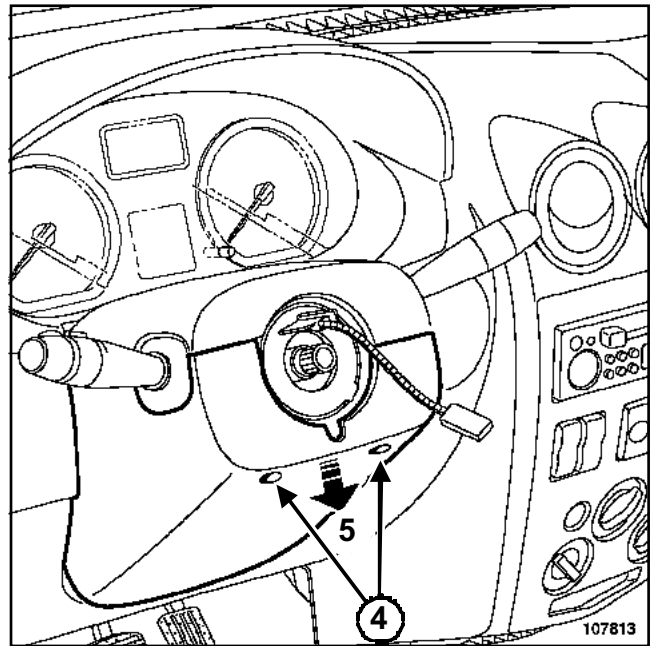
107810

Remove the airbag module.

L90

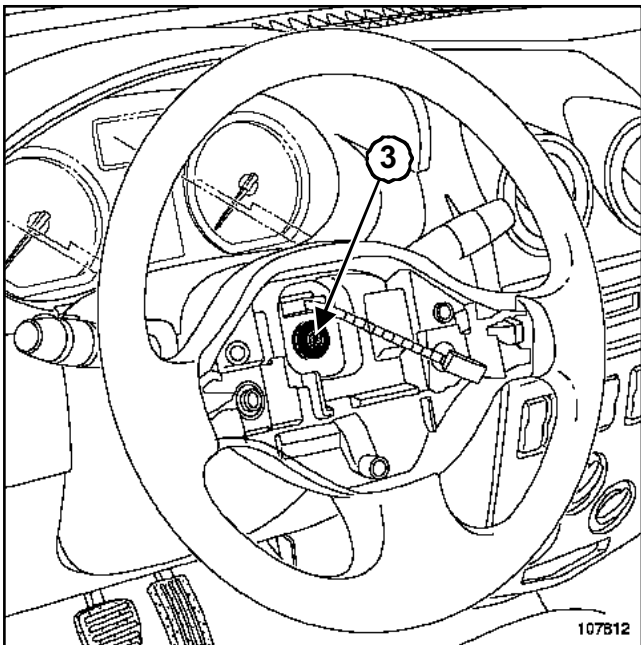


Unclip the connector (2).

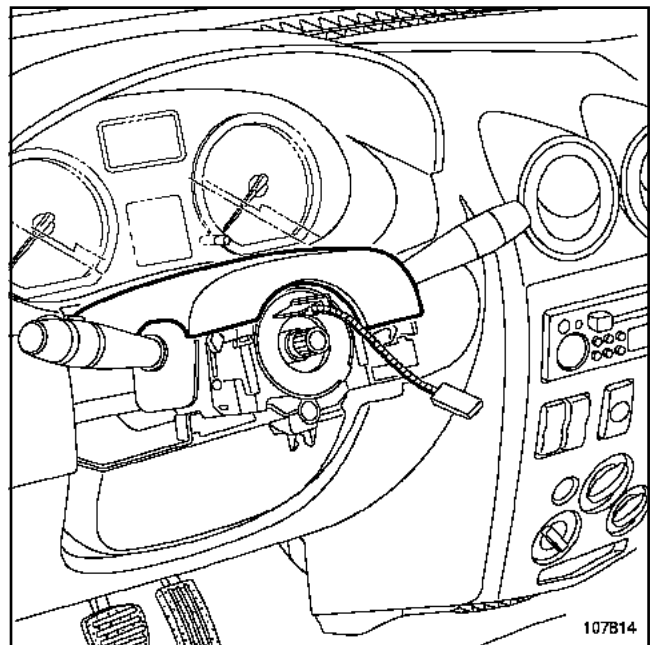


Loosen the bolts (4).

Remove the lower half cowling at (5).



107812



107814

Remove the upper half cowling.

### WARNING

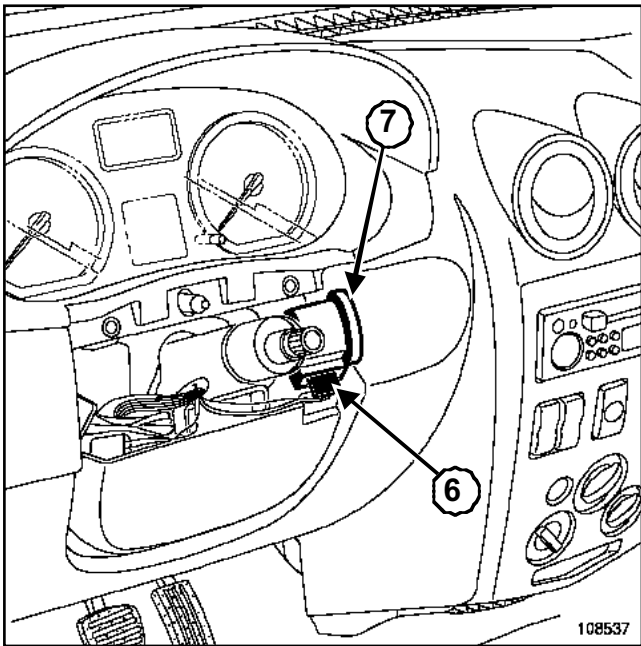
Make sure that the wheels are straight before the steering wheel is removed.

Remove:

- steering wheel bolt (3),
- the steering wheel.

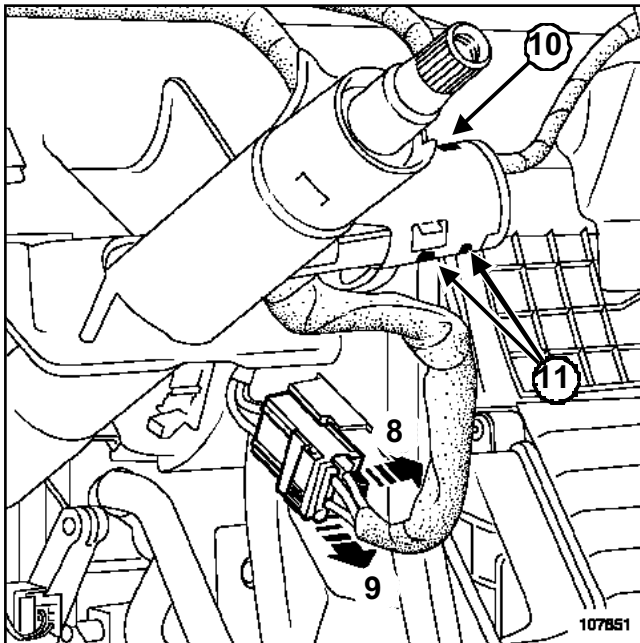


L90



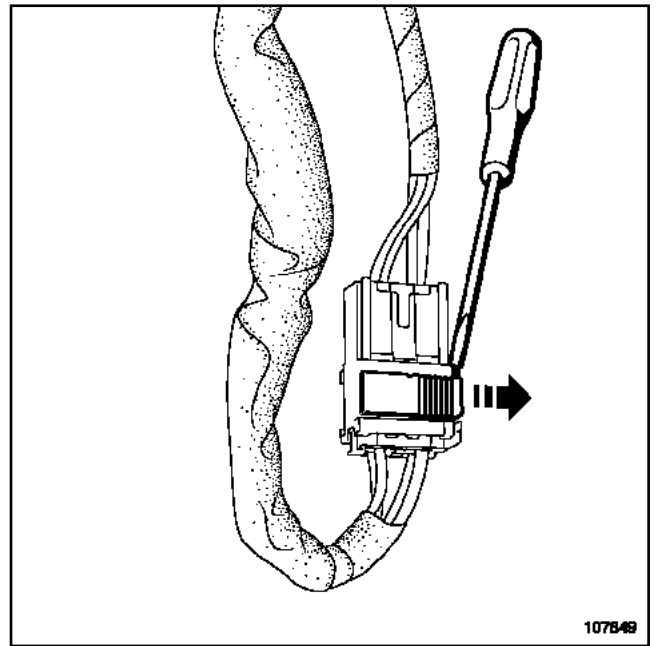
108537  
108537

Disconnect connector (6) from transponder ring (7).  
Remove transponder ring (7).



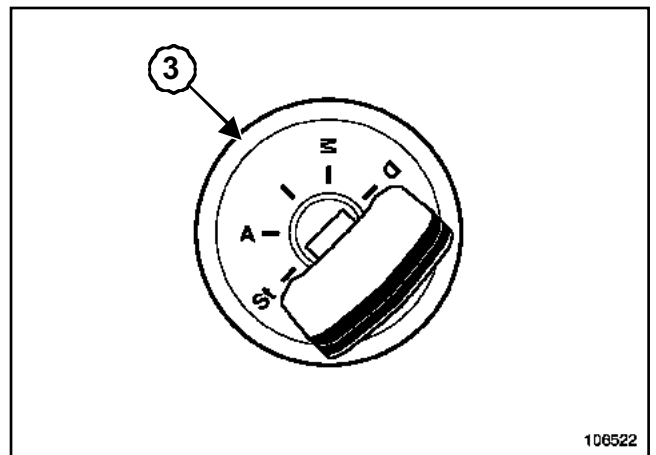
107851  
107851

Unclip the connector from its support at (8) and (9).



107849  
107849

Unclip the connector using a flat-blade screwdriver.  
Remove bolt (10).



106522  
106522

Move the ignition key to position (3).  
Tilt retaining lugs (11).  
Remove the switch.

### REFITTING

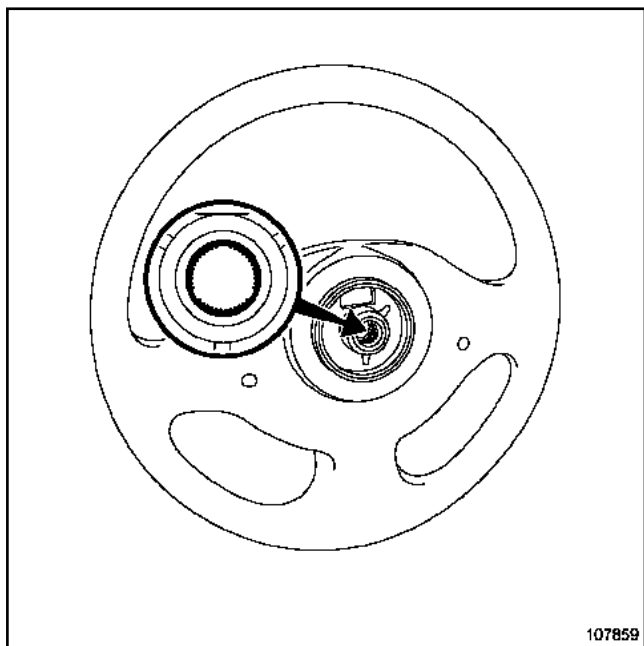
Proceed in the reverse order to removal.

### WARNING

It is essential to check that the transponder ring functions correctly by the red warning light on the instrument panel flashing (once per second) and the ignition-starter switch flashing.

L90

### I - SPECIAL NOTE ON THE STEERING WHEEL



107859

#### WARNING

- The steering wheel should enter the splines freely (the splines have foolproofing devices).
- Do not damage the spline location notches.
- It is essential to replace the steering wheel bolt

Torque tighten the **steering wheel bolt (4.4 daNm)**.

### II - SPECIAL NOTES ON THE AIRBAG

Ensure that the connectors are properly connected.

#### WARNING

It is essential to replace the airbag module mounting bolts each time the module is removed.

Tighten to torque the **airbag cushion bolts (0.65 daNm)**.

#### WARNING

Connect the battery, starting with the positive terminal; carry out the necessary programming (see **80A, Battery: Remove and Refit**).

#### WARNING

It is essential to check that the transponder ring functions correctly by the red warning light on the instrument panel flashing (once per second) and the ignition-starter switch flashing.

#### IMPORTANT

Unlock the computer using the **diagnostic tool** (see **88C, Airbags and pretensioners, Airbag computer locking procedure**).

Check the airbag computer using the **diagnostic tool**. Any failure to follow these instructions may lead to system malfunctions, or even result in the airbags being triggered accidentally.

# IMMOBILISER

## Transponder ring

# 82A

L90

### Essential equipment

diagnostic tool

### Tightening torques

steering wheel bolt	4.4 daNm
---------------------	----------

airbag bolts	0.65 daNm
--------------	-----------

### IMPORTANT

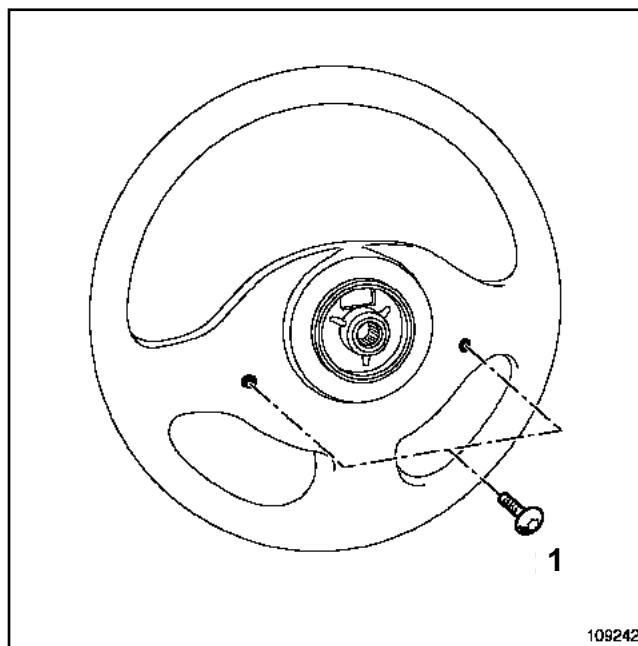
Before carrying out any work on a safety system component, lock the airbag computer using the **diagnostic tool** (see **88C, Airbags and pretensioners, Airbag computer locking procedure**). When this function is activated all the triggering lines are inhibited and the airbag warning light on the instrument panel lights up continuously (ignition on).

### IMPORTANT

Handling pyrotechnic systems (airbags or pretensioners) near to a source of heat or flame is forbidden: there is a risk of triggering the airbags or pretensioners.

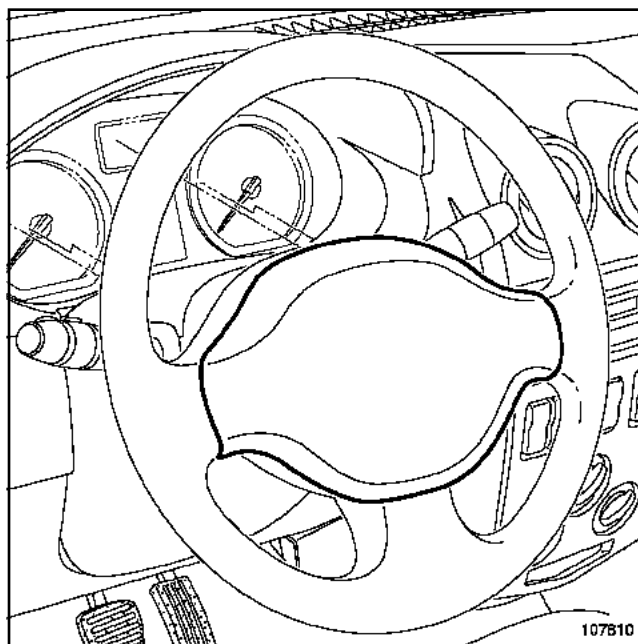
### REMOVAL

Disconnect the battery, starting with the negative terminal.



Turn the steering wheel a quarter of a turn.

Loosen the mounting bolts (1) of the driver's airbag module by behind the steering wheel (torx socket 30).



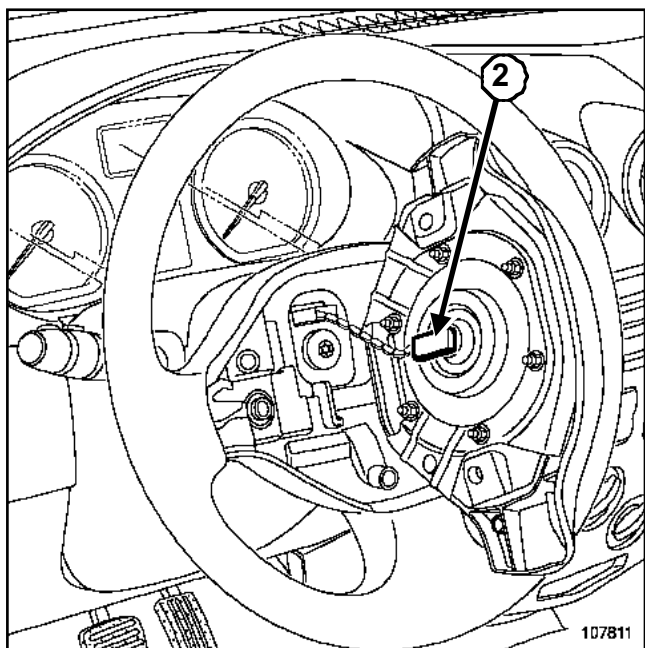
Remove the airbag module.

# IMMOBILISER

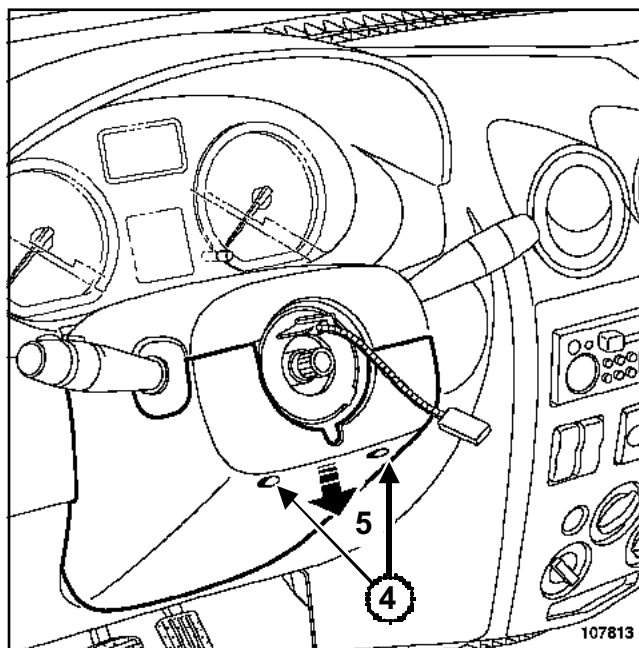
## Transponder ring

# 82A

L90

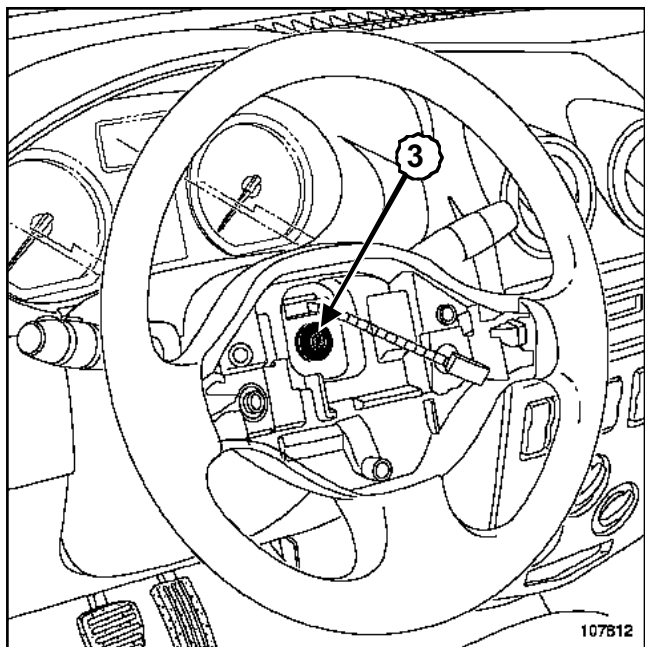


Unclip the connector (2).

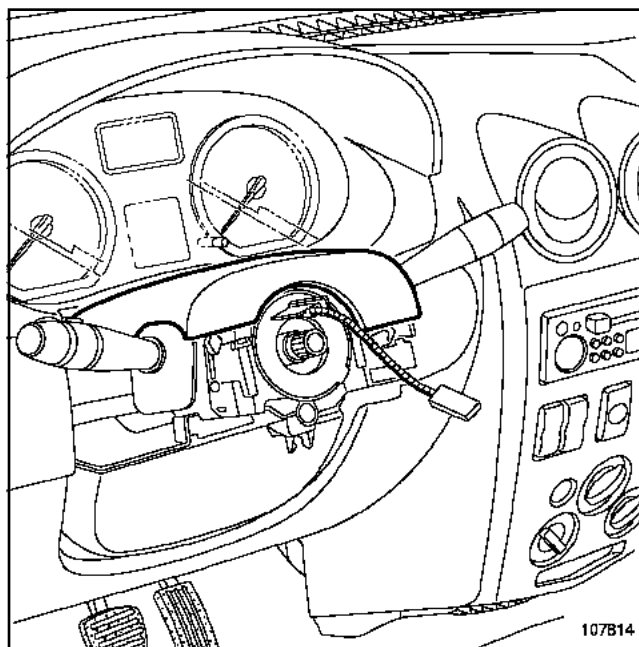


Loosen the bolts (4).

Remove the lower half cowling at (5).



107812



107814

Remove the upper half cowling.

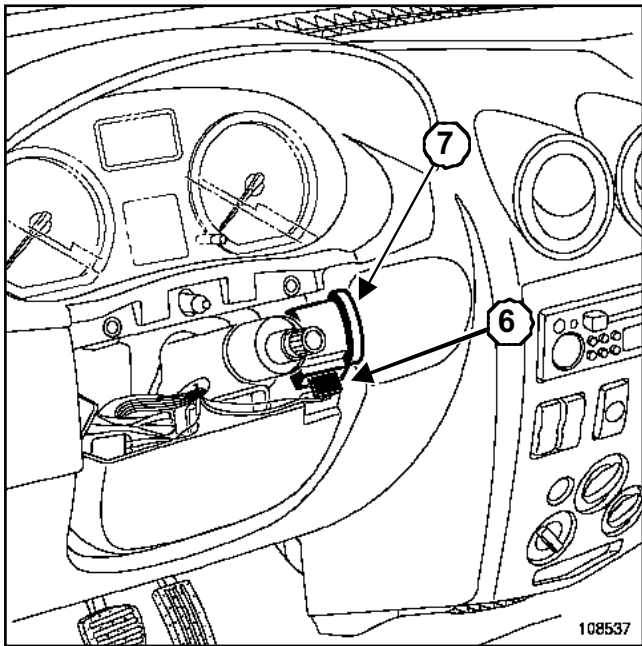
### WARNING

Ensure that the wheels are straight before removing the steering wheel.

Remove:

- the(3) steering wheel bolt,
- the steering wheel.

L90



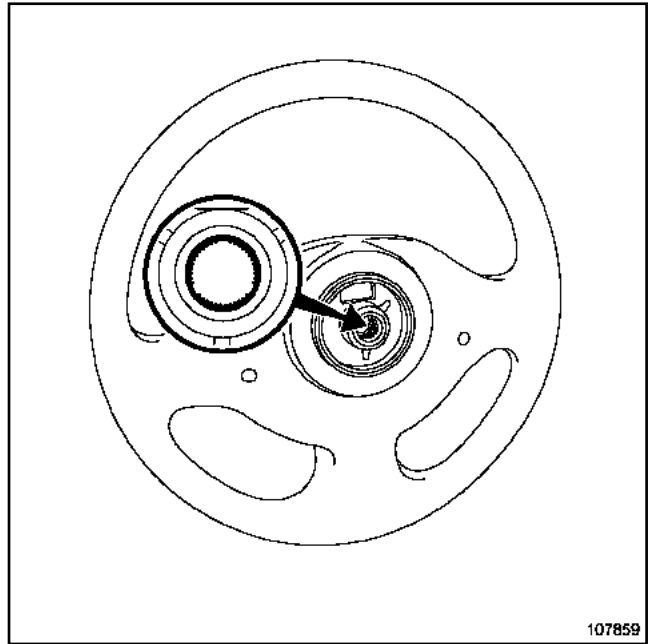
Disconnect the connector (6) of the transponder ring (7).

Remove the transponder ring (7).

### REFITTING

Proceed in the reverse order to removal.

### I - SPECIAL FEATURES OF THE STEERING WHEEL



#### WARNING

- The steering wheel should fit easily on the splines (the splines have a foolproofing design).
- Do not damage the spline foolproofing feature.
- The steering wheel bolt must be replaced.

Tighten to torque the **steering wheel bolt (4.4 daNm)**.

### II - AIRBAG SPECIAL FEATURES

Ensure that the connectors are properly connected.

#### WARNING

The airbag mounting bolt must be replaced with a new one when it is removed.

# IMMOBILISER

## Transponder ring

# 82A

L90

Tighten to torque the **airbag bolts (0.65 daNm)**.

### WARNING

Connect the battery, starting with the positive terminal; carry out the necessary programming (see **80A, Battery: Removal - Refitting**).

### WARNING

It is essential to check that the ignition switch and the transponder ring are working properly by seeing the red warning light flashing on the instrument panel (one flash per second).

### IMPORTANT

Unlock the computer with the **diagnostic tool** (see **88C, Airbags and pretensioners, Airbag computer locking procedure**).

Check the airbag computer using the **diagnostic tool**. Any failure to follow these instructions may cause system malfunctions, or even result incorrect triggering of the airbags.

# HORN

## Audible warning (beeper)

# 82B

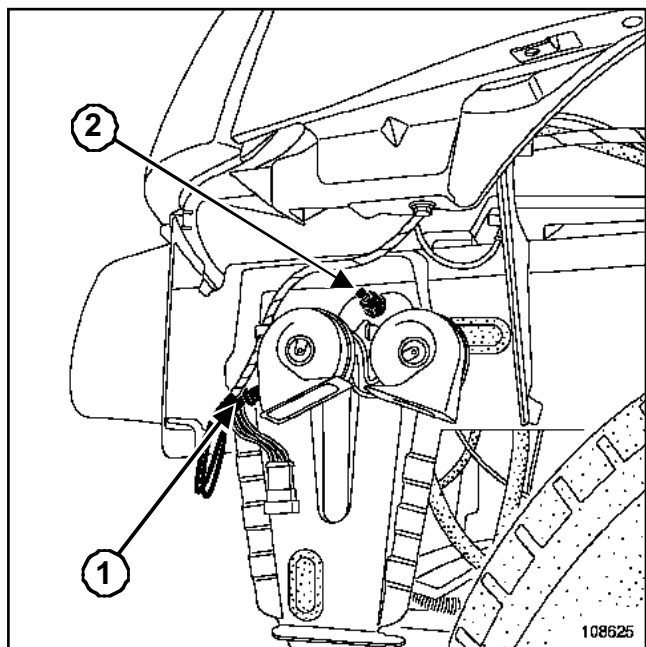
L90

### Tightening torques

mounting nut

2 daNm

## REMOVAL



Disconnect the connector (1).

Remove the mounting nut (2).

### Note:

It is not necessary to remove the bumper, or the wheel arch liner.

## REFITTING

Proceed in the reverse order to removal.

Torque tighten the mounting nut (2 daNm)(2).

# INSTRUMENT PANEL

## Dashboard

# 83A

### Essential special tooling

<b>Ms. 1373</b>	Philips radio removal tool
-----------------	----------------------------

### Essential equipment

diagnostic tool
-----------------

### Tightening torques

passenger airbag mounting nuts	<b>8 Nm</b>
--------------------------------	-------------

driver's airbag bolts	<b>6.5 Nm</b>
-----------------------	---------------

steering wheel bolt	<b>44 Nm</b>
---------------------	--------------

## REMOVAL

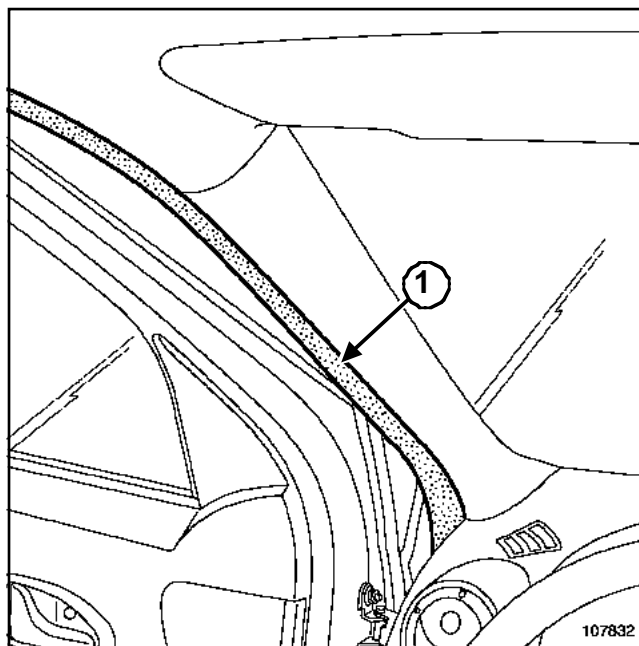
### IMPORTANT

Before carrying out any work on a safety system component, be sure to lock the airbag computer using the **diagnostic tool** (see **88C, Airbags and pretensioners, airbag computer locking procedure**). When this function is activated, all the trigger lines are inhibited and the airbag warning light on the instrument panel lights up permanently (when the ignition is on).

### IMPORTANT

It is forbidden to handle the pyrotechnic systems (airbags or pretensioner) near a source of heat or a flame: there is a risk of triggering the airbags or pretensioners.

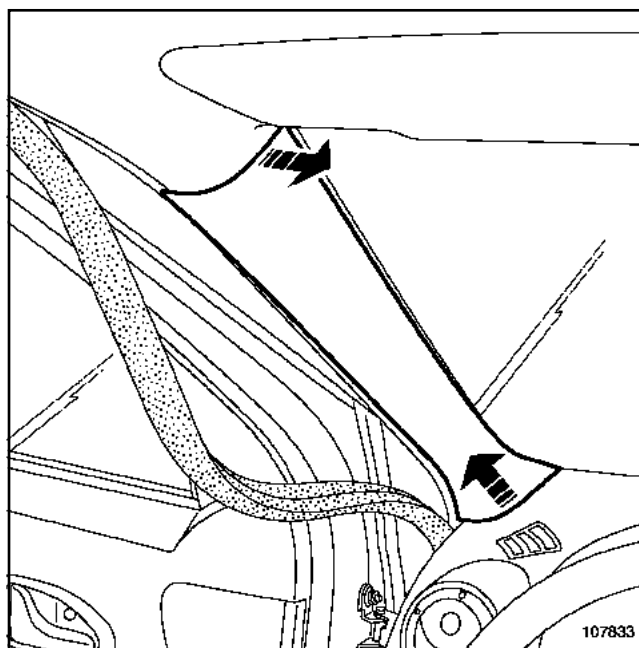
Disconnect the battery, starting with the negative terminal.



107832

107832

Partially remove door seals (1).



107833

107833

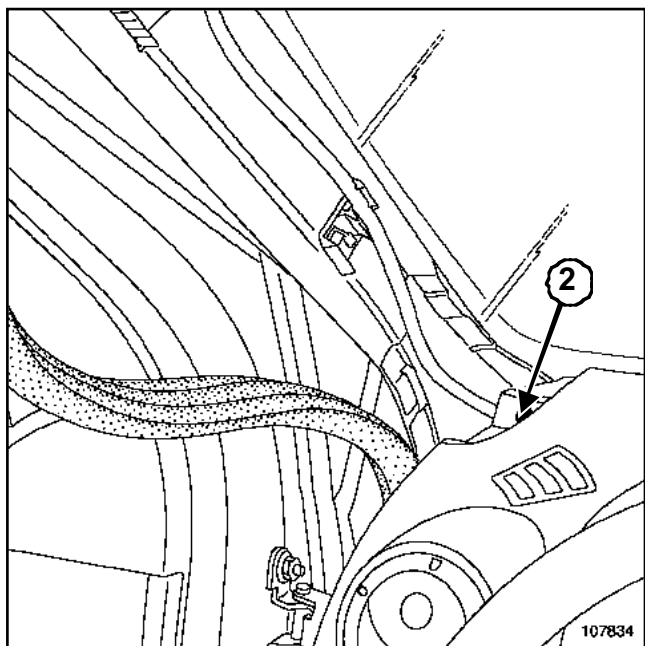
Remove the windscreen pillar trims.



# INSTRUMENT PANEL

## Dashboard

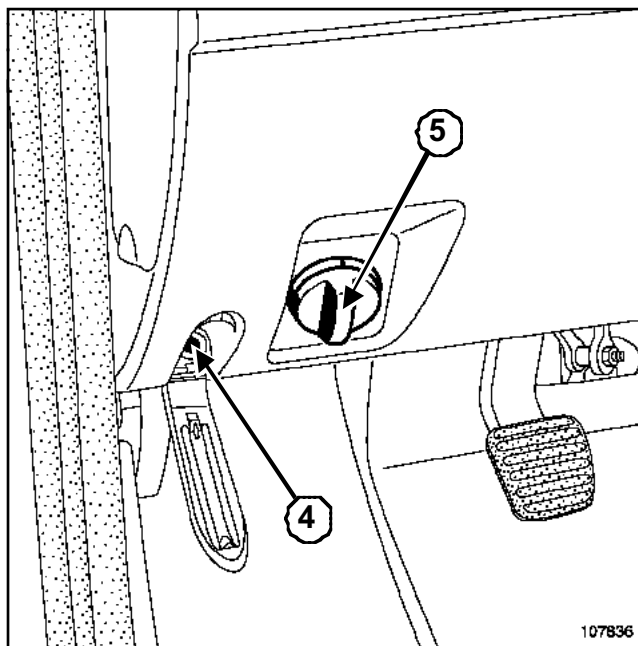
# 83A



107834

107834

Remove bolts (2) on either side of the dashboard .

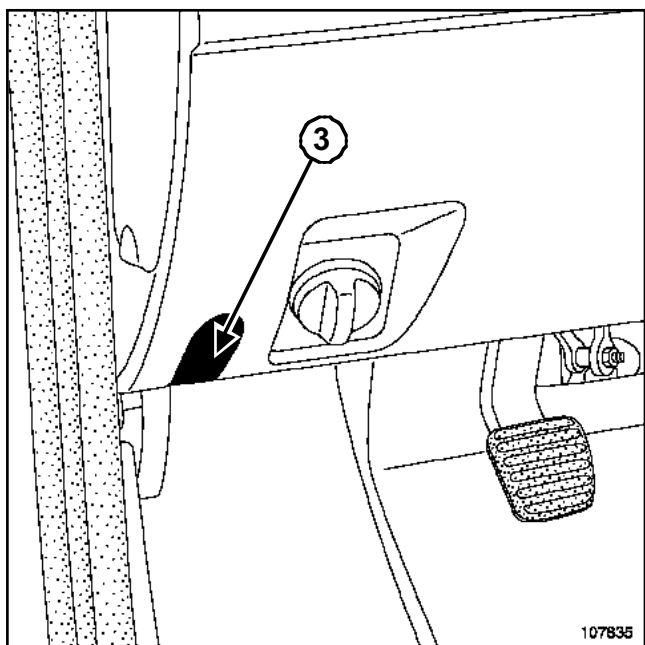


107836

107836

Remove:

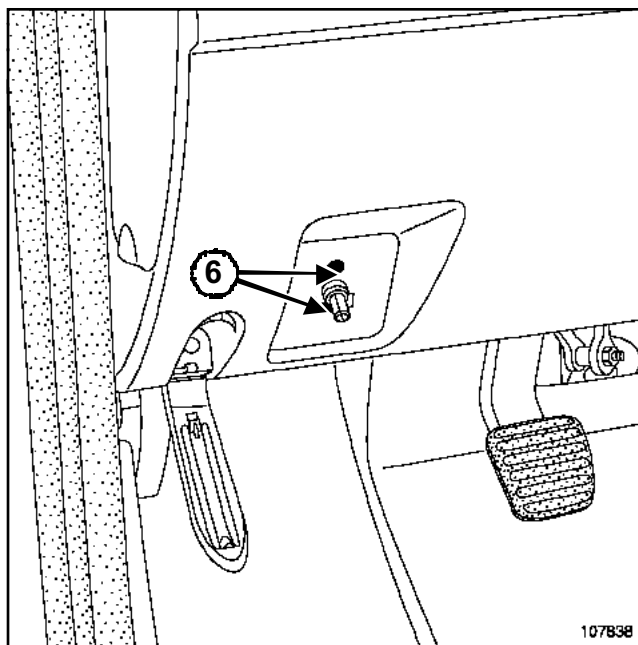
- bolts (4) on either side of the dashboard,
- the beam adjustment control (5).



107835

107835

Unclip covers (3) on either side of the dashboard.



107838

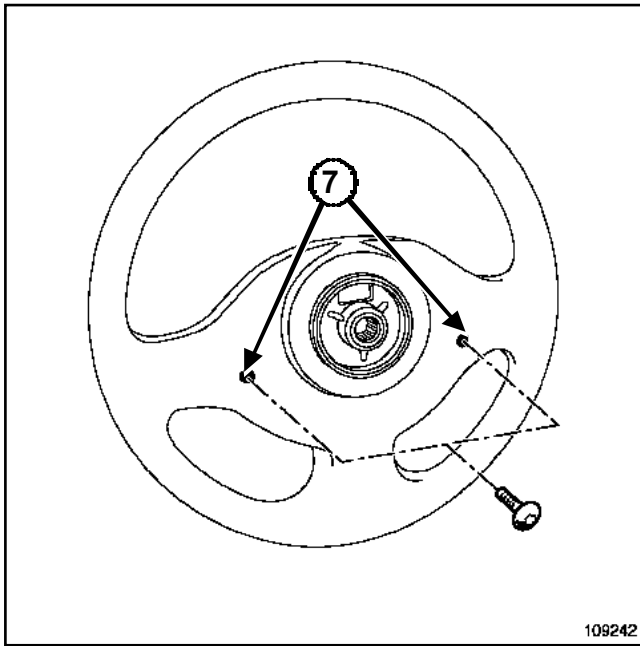
107838

Remove bolts (6).

# INSTRUMENT PANEL

## Dashboard

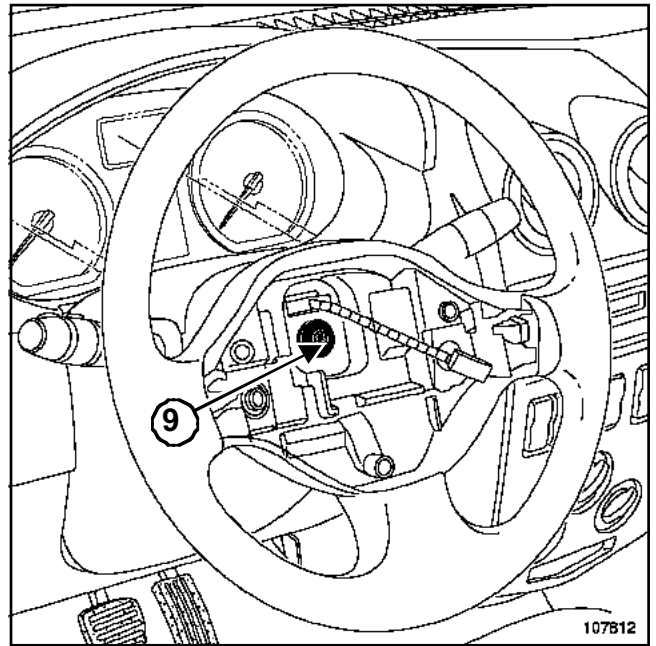
# 83A



109242

109242

Remove the airbag module mounting bolts (7) (using a 30 Torx socket).

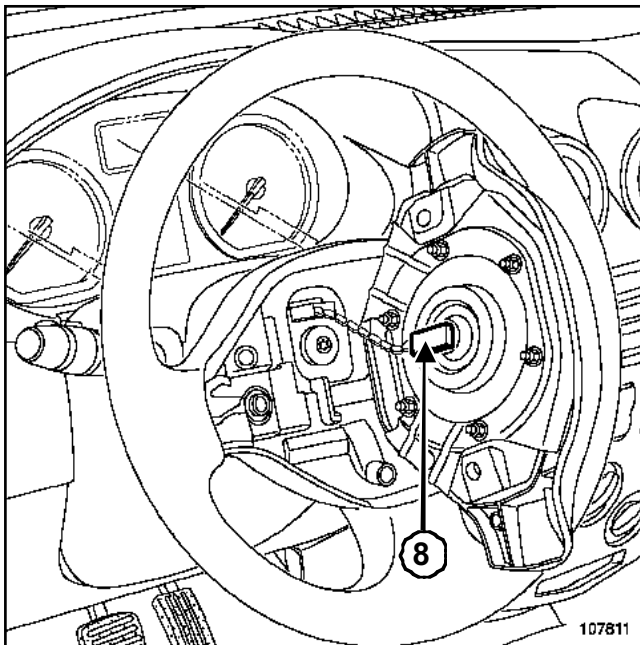


107812

107812

Remove:

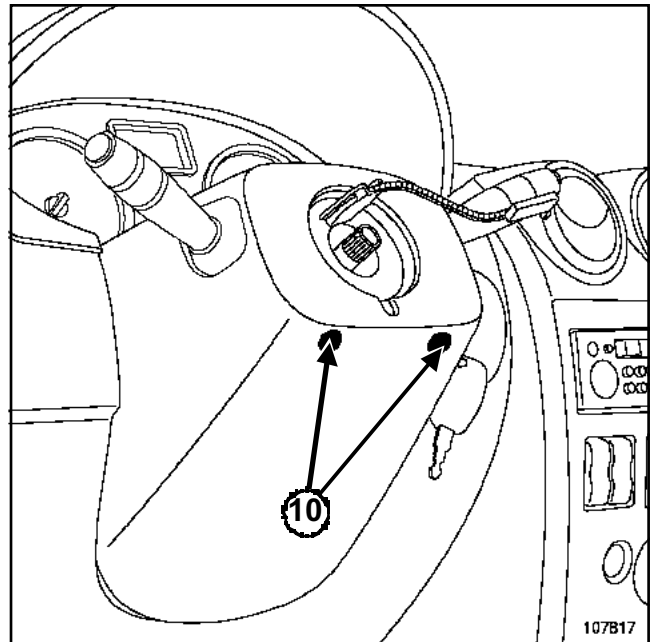
- the bolt (9),
- the steering wheel, after setting the wheels to straight ahead.



107811

107811

Disconnect the airbag module connector (8).



107817

107817

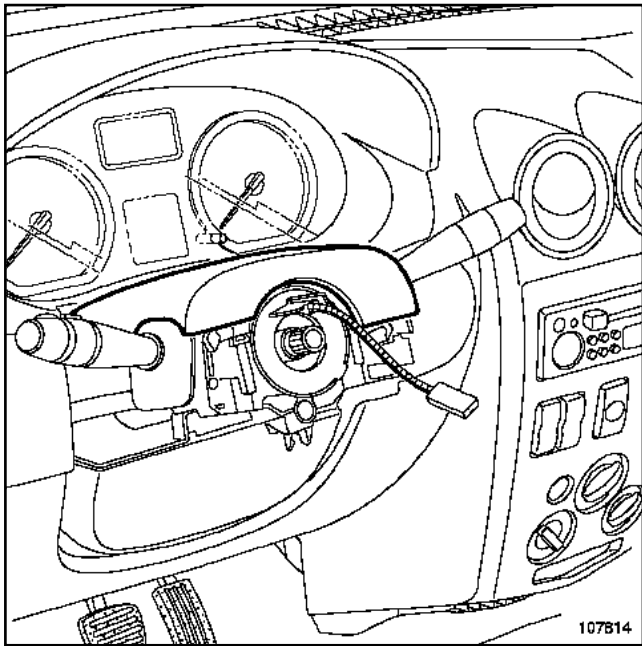
Remove:

- the bolts (10),
- the lower half cowling.

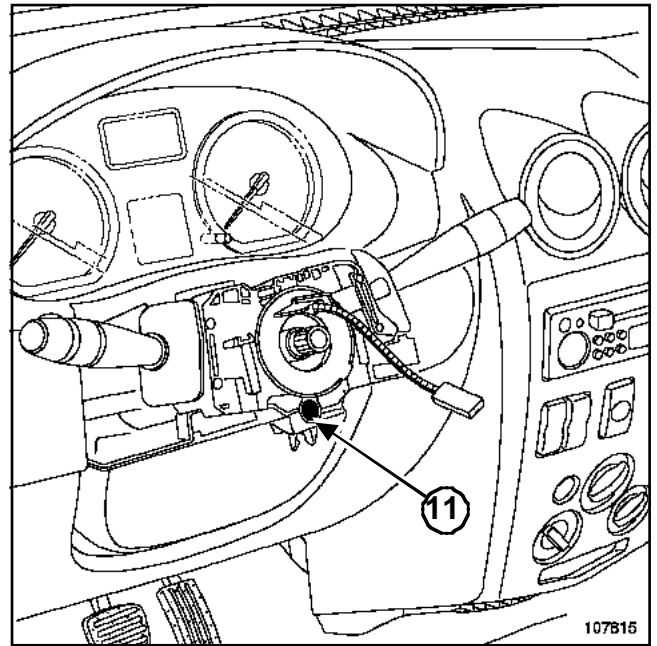
# INSTRUMENT PANEL

## Dashboard

# 83A



Remove the upper half cowling.



Slacken the bolt (11),  
Disconnect the connectors.

### WARNING

Before removing the assembly, be sure to mark the position of the rotary switch:

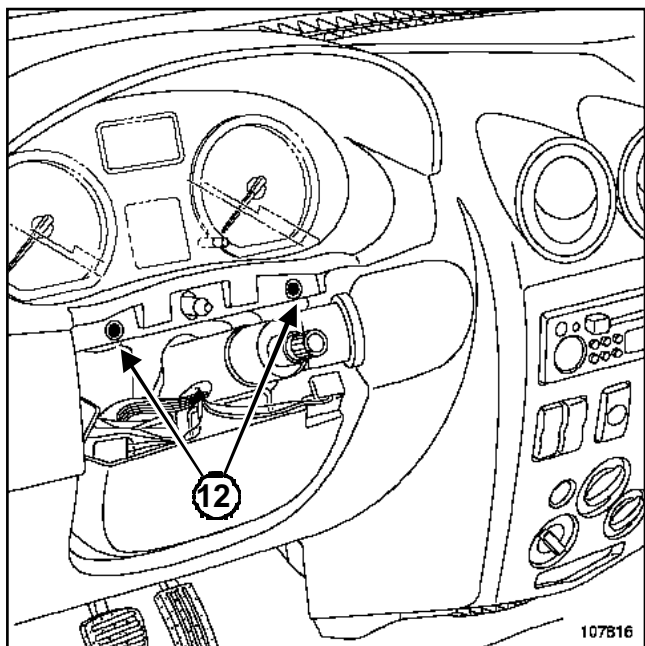
- ensuring that the wheels are pointing straight ahead at the time of removal.
- immobilising the rotary switch rotor with adhesive tape.

Withdraw the rotary switch assembly.

# INSTRUMENT PANEL

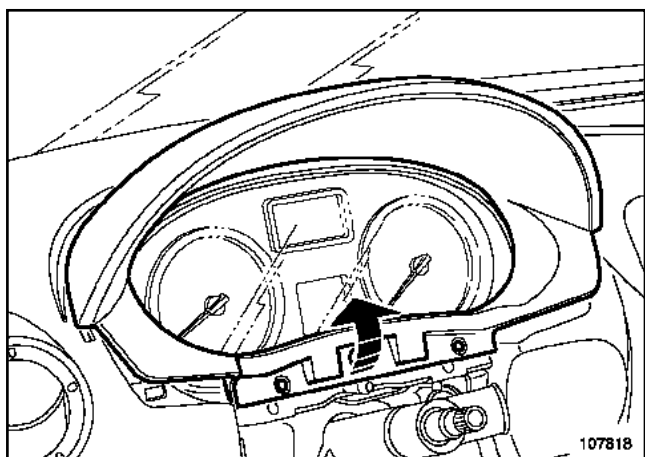
## Dashboard

# 83A



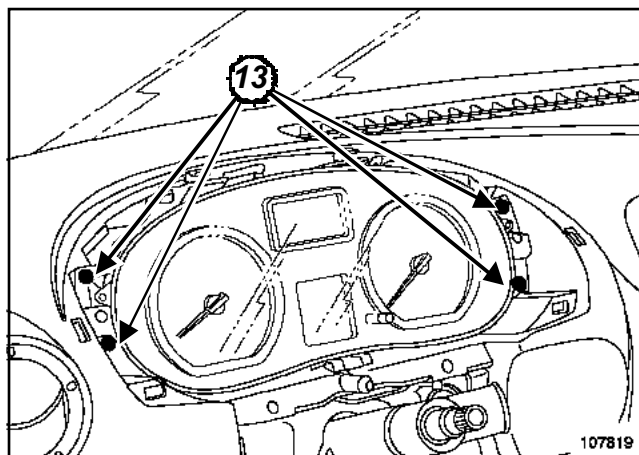
107816  
107816

Remove bolts (12).



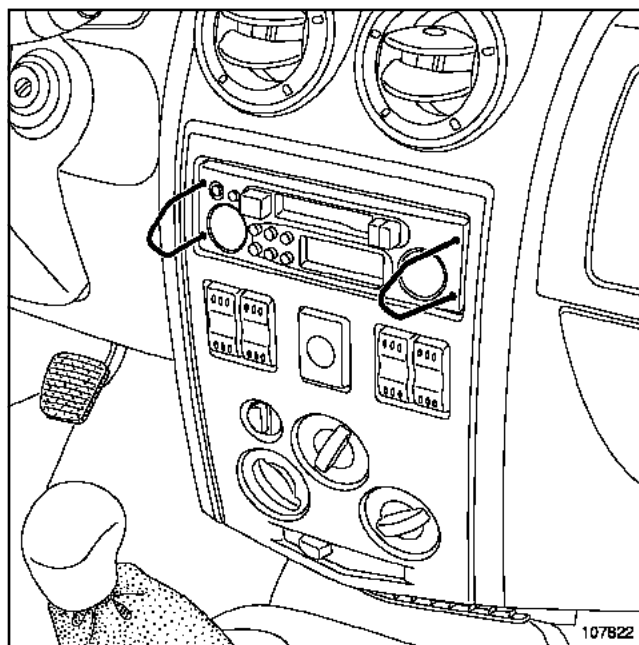
107818  
107818

Remove the instrument panel visor.



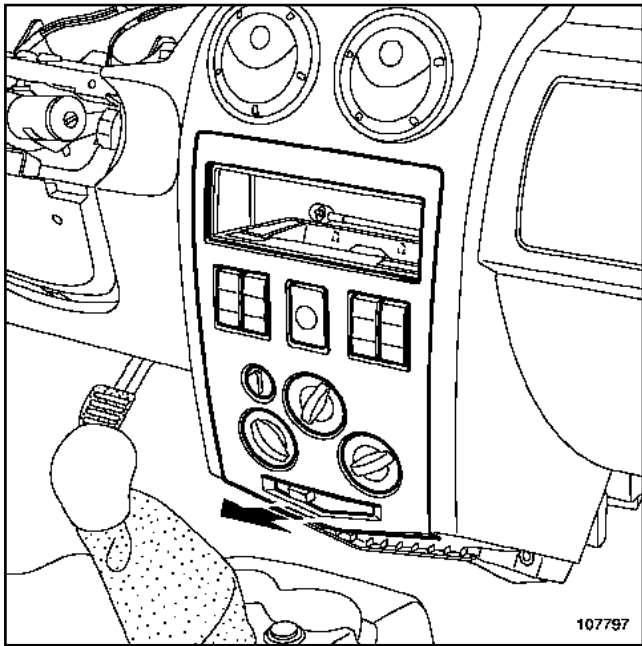
107819  
107819

Remove the instrument panel bolts (13),  
Disconnect the connectors.



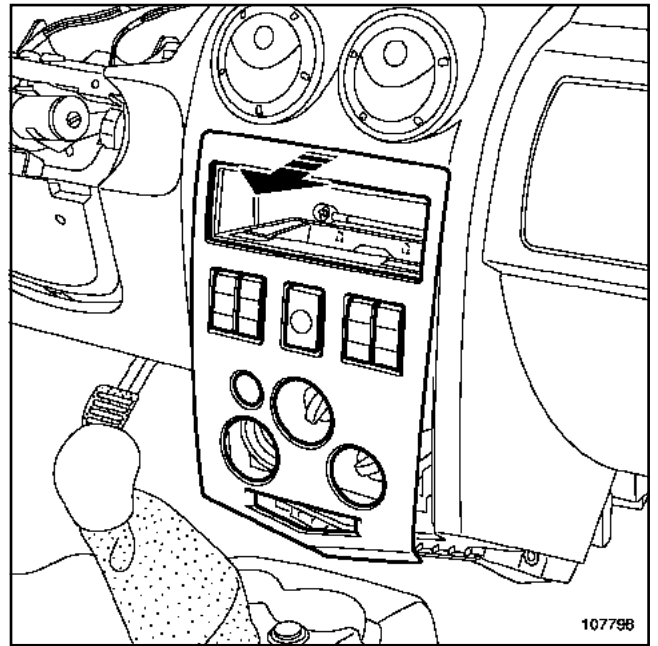
107822  
107822

Remove the radio using tool (Ms. 1373)

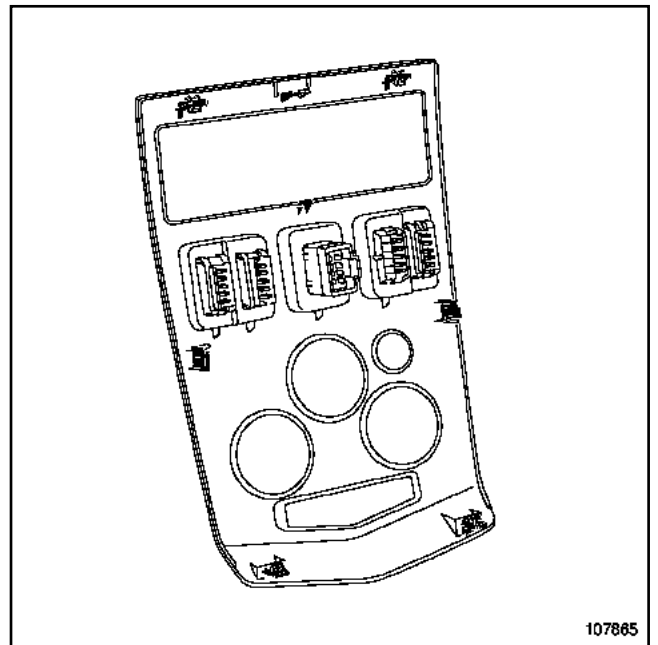


107797  
107797

Unclip the central trim assembly down and off.



107798  
107798



107865  
107865

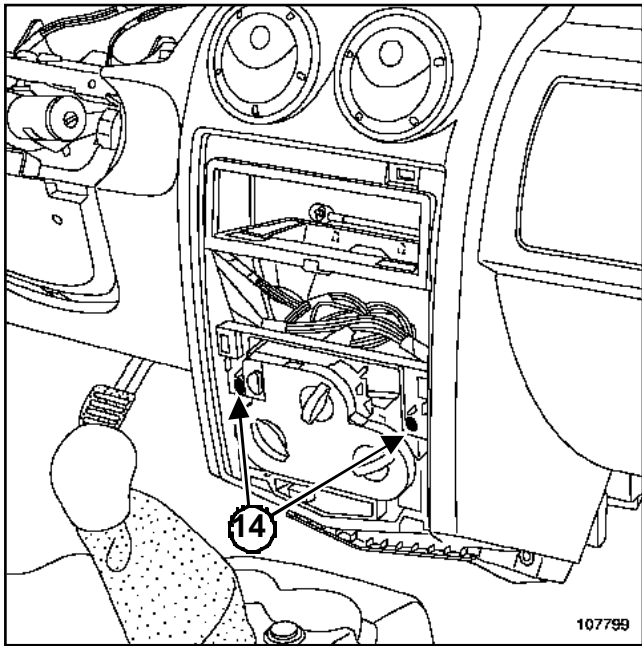
Withdraw the central trim assembly.

Disconnect the connectors.

# INSTRUMENT PANEL

## Dashboard

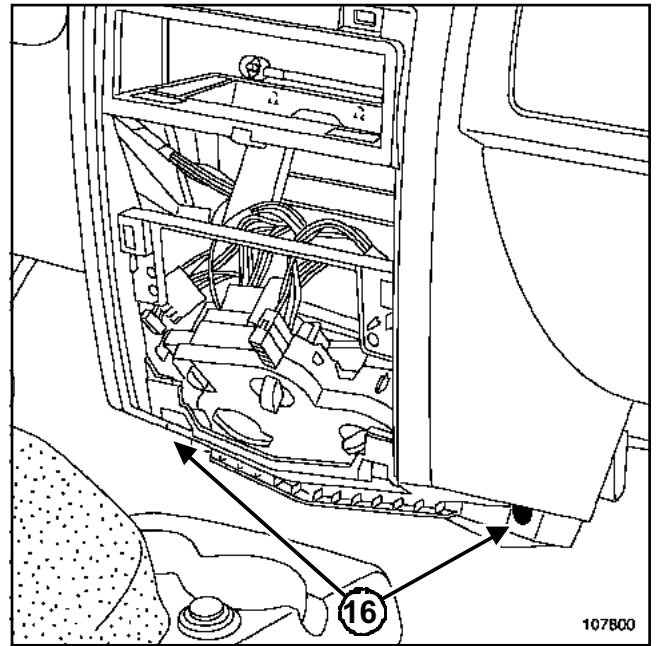
# 83A



107799

Remove:

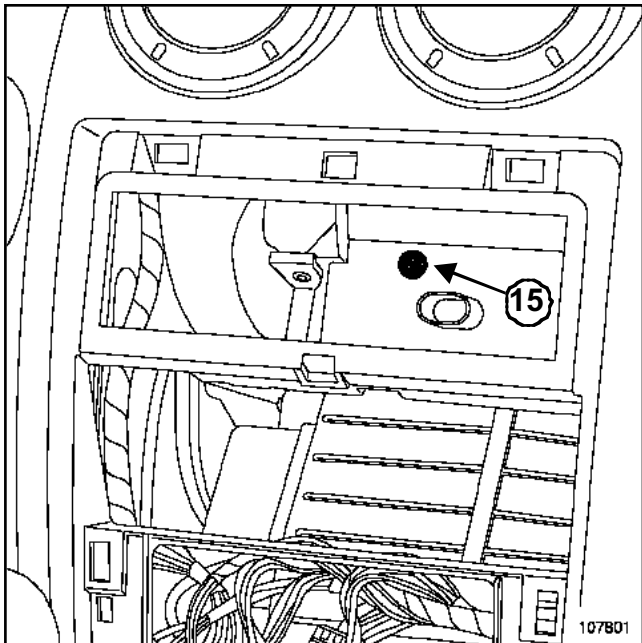
- the bolts (14),
- the heating controls partially.



107800

107800

Remove bolts (16).



107801

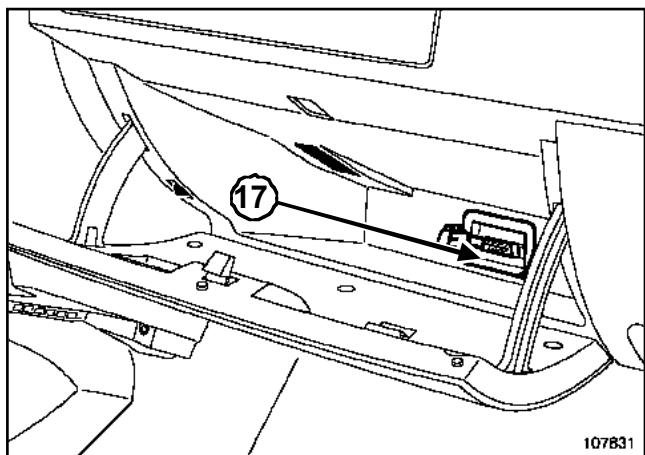
107801

Remove the bolt (15).

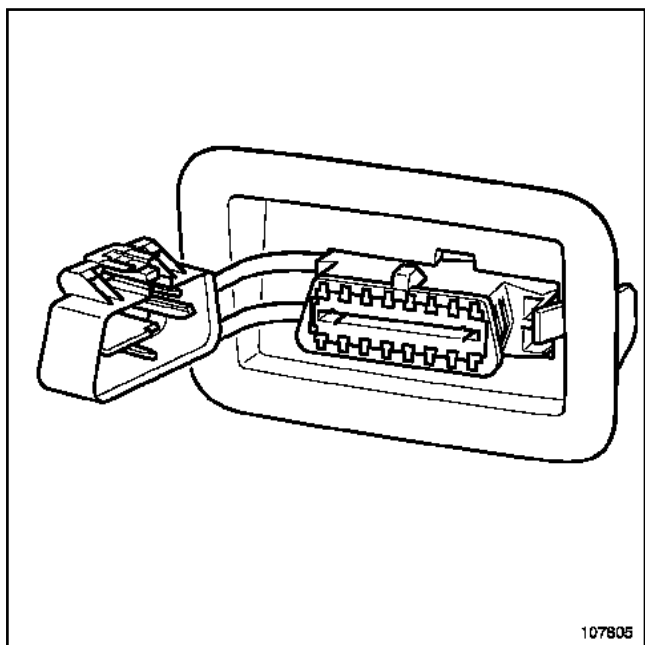
# INSTRUMENT PANEL

## Dashboard

# 83A

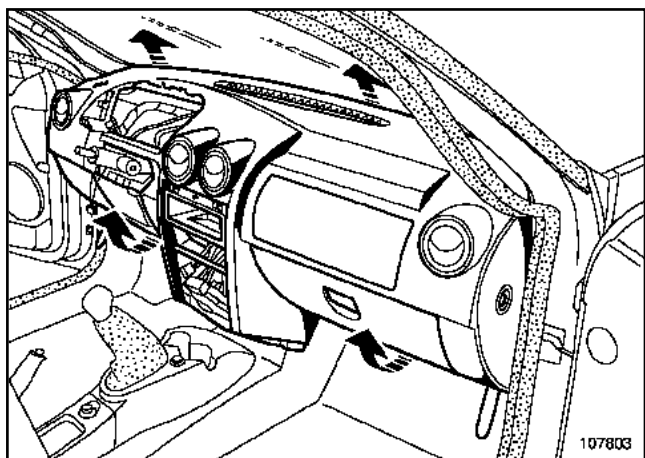


107831  
107831



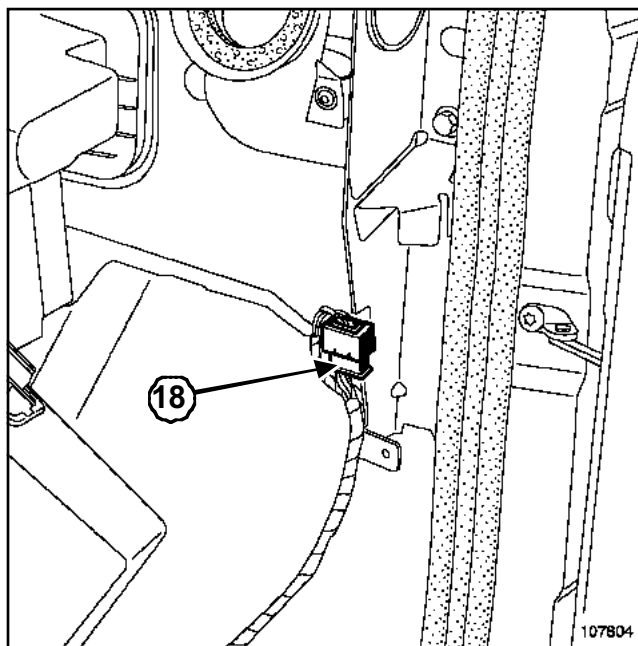
107805  
107805

Remove the diagnostic socket (17).



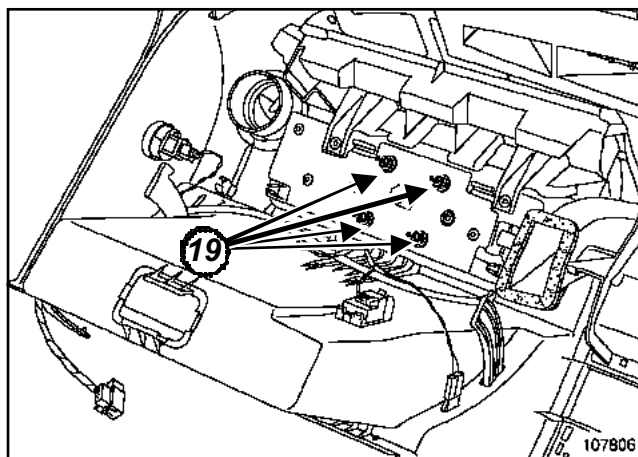
107803  
107803

Remove the dashboard (this operation requires two people).



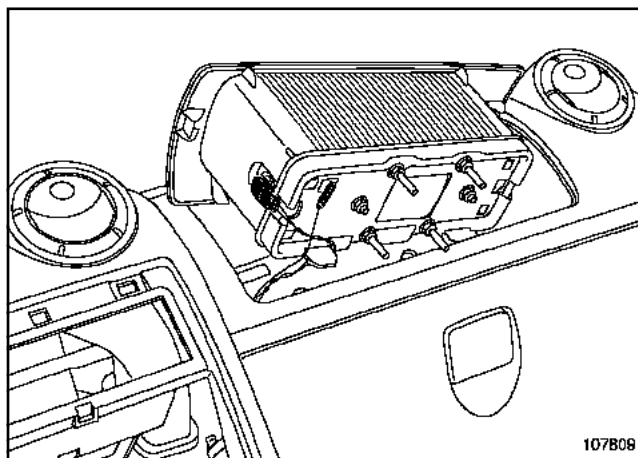
107804  
107804

Disconnect the connector (18).



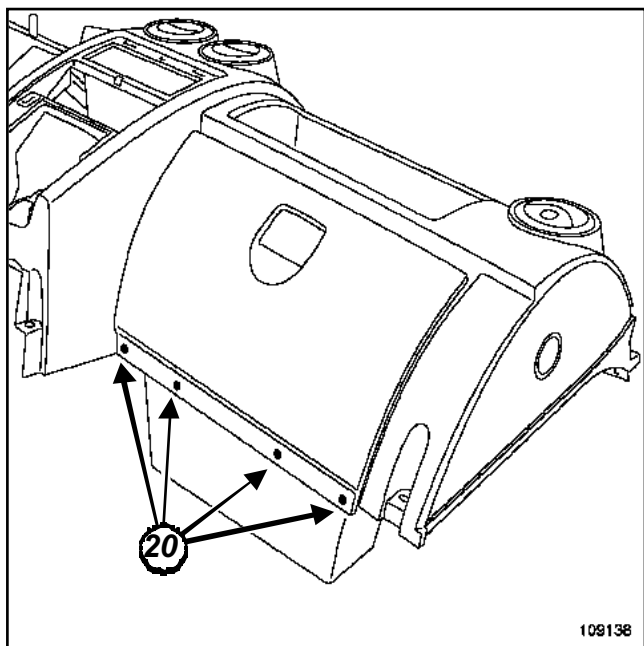
107806  
107806

Remove bolts (19).

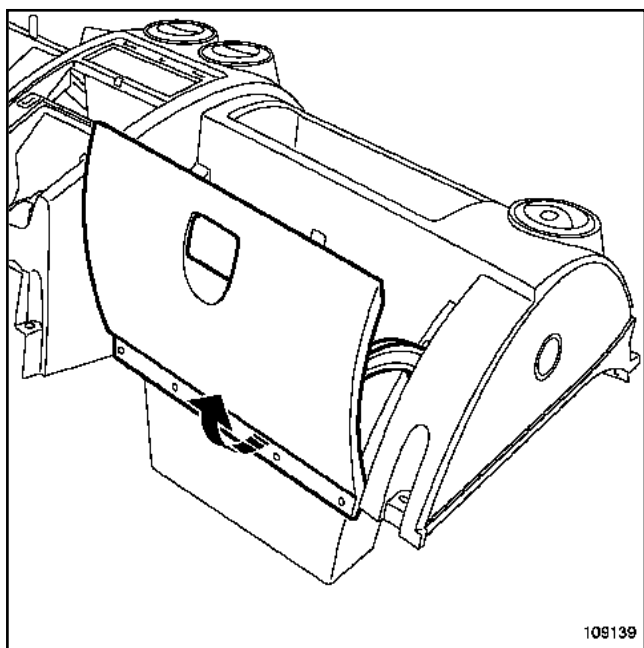


107809  
107809

Disconnect the connectors.



Remove rivets (20).



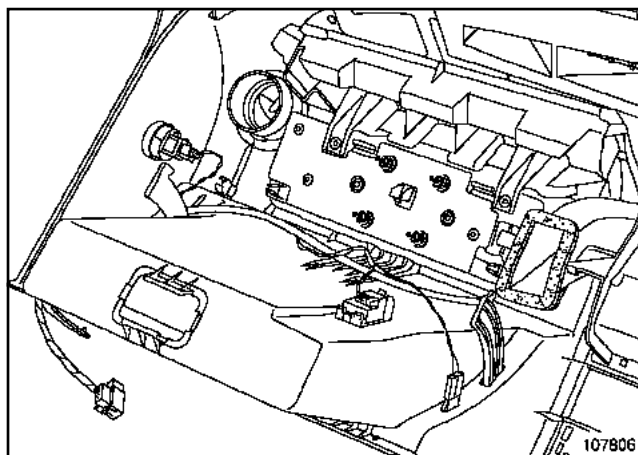
Remove the glove box cover

### REFITTING

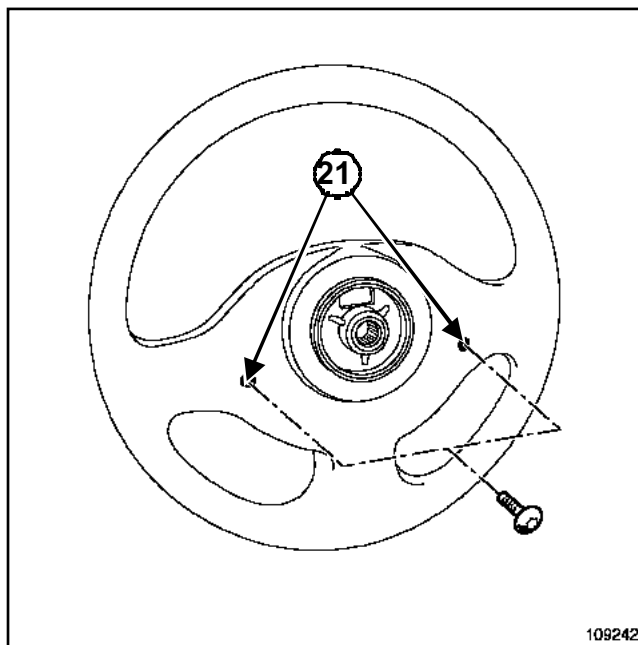
Proceed in the reverse order to removal.

### I - SPECIAL NOTES ON AIRBAGS

Ensure that the connectors are properly connected.



Tighten to torque the **passenger airbag mounting nuts (8 Nm)**.



Tighten to torque the **driver's airbag bolts (6.5 Nm)(21)**.

### IMPORTANT

Unlock the computer using the **diagnostic tool** (see **88C, Airbags and pretensioners, Airbag computer locking procedure**).

Check the airbag computer using the **diagnostic tool**. Any failure to follow these instructions may cause system malfunctions, or even result in false triggering of the airbags.

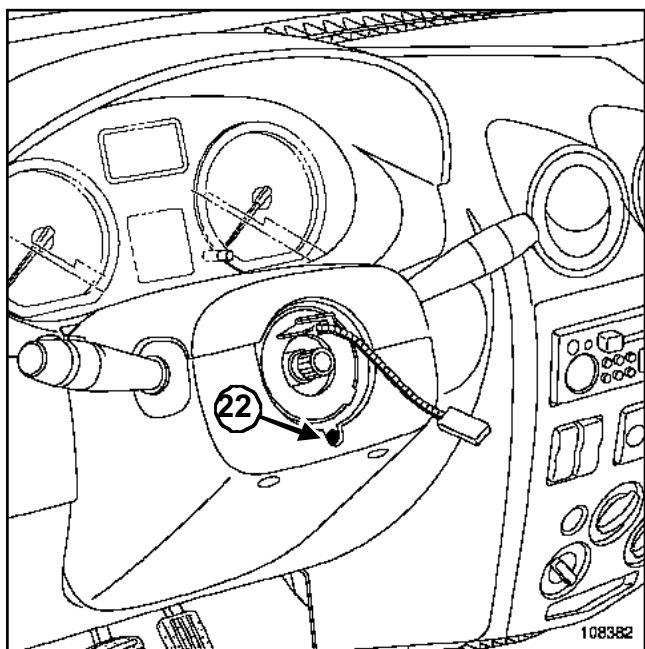


### II - SPECIAL NOTES ON THE ROTARY SWITCH

Ensure that the wheels are still pointing straight ahead.

Check that the rotary switch strip is positioned centrally (**2.5 turns to either side**).

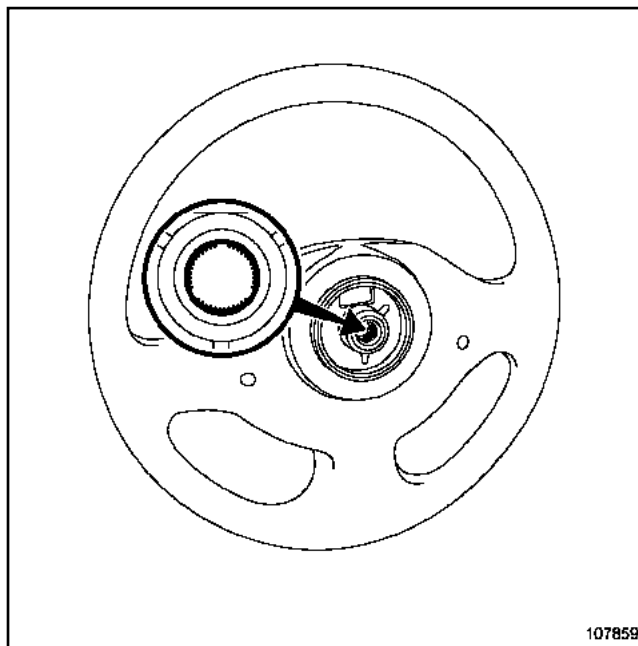
Mount the assembly on the steering column and connect the various connectors.



Position the switches with the instrument panel and dashboard aligned, and refit the two half cowlings (making sure to use the original bolts).

Lock the bolt (**22**).

### III - SPECIAL NOTES ON THE STEERING WHEEL



107859

#### WARNING

The steering wheel should enter the splines freely (the splines have foolproofing).

Do not damage the spline foolproofing.

Be sure to replace the steering wheel bolt with a new one whenever it is removed.

Tighten to torque the **steering wheel bolt (44 Nm)**.

# INSTRUMENT PANEL

## Instrument panel: General information

# 83A

L90

Three types of instrument panel can be found on vehicles:

- « entry level » instrument panel,

- « mid-range » instrument panel,

- « top of the range » instrument panel.

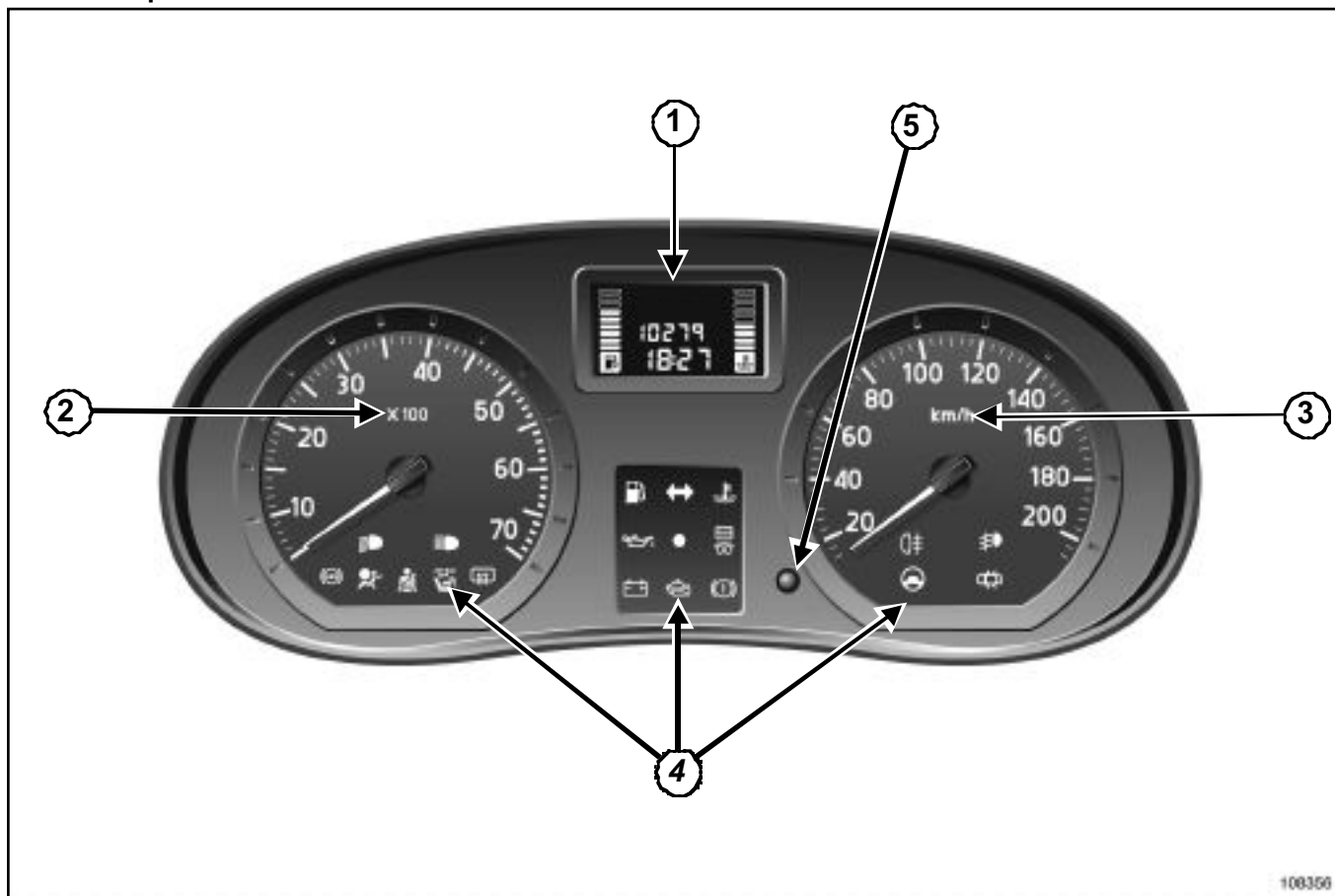
		Entry level	Mid-range	Top of the range
Needle gauge	Vehicle speed	X	X	X
	Rev counter	X	X	X
Display	Total mileage	X	X	X
	Trip mileage	X	X	X
	Coolant temperature	X	X	X
	Fuel	X	X	X
	Clock	X	X	X
	Fuel consumed since reset			X
	Average consumption			X
	Current consumption			X
	Estimated fuel range			X
	Distance travelled since reset			X
	Average speed			X

Note:

Only the glass can be replaced on this instrument panel. If other components are faulty, replace the instrument panel completely.

L90

### Instrument panel with rev counter



100350

108356

- (1) Display
- (2) Rev counter
- (3) Mileometer

- (4) Warning lights
- (5) Reset

### Table of inputs

Warning light	Computer or component	Connection
Fuel level	Level sensor in the tank	Wire
Brake fluid warning light	Ignition switch	Wire
Parking brake indicator light	Ignition switch	Wire
Vehicle speed	Speed sensor	Wire
Engine speed	Injection computer	Wire
Coolant temperature	Injection computer	Wire

# INSTRUMENT PANEL

## Instrument panel: General information

**83A**

L90

<b>Warning light</b>	<b>Computer or component</b>	<b>Connection</b>
Preheating, injection warning light, etc.	Injection computer	Wire
Hazard warning lights	UCH	Wire
Hazard warning light indicator light	UCH	Wire
Time	Instrument panel	
Fuel consumed	Instrument panel	
Opening element warning light	UCH	Wire
« Trip computer » scroll button	UCH	Wire
Rear screen de-icer light	Heated rear window switch	
Fault and inhibitor warning lights	Airbag computer	Wire
Hazard warning lights indicator	UCH	Wire
Main beam indicator light	UCH	
Dipped headlight indicator light	UCH	Wire
Fog light indicator light	UCH	Wire
ABS indicator light	ABS computer	Wire
Battery charge warning light	Alternator	Wire
Oil pressure warning light	Pressure sensor	Wire
Immobiliser warning light	UCH	Wire

# INSTRUMENT PANEL

## Instrument panel: Description

# 83A

L90

### I -INSTRUMENT PANEL WITHOUT TRIP COMPUTER (ADAC)

- Speedometer.
- Mileage and trip mileage display.

- Engine coolant temperature gauge.
- Fuel gauge.
- Rev counter (depending on version).
- Clock

### Instrument panel with rev counter



100350

108356

#### Note:

Only the glass can be replaced on this instrument panel. If other components are faulty, replace the entire instrument panel.

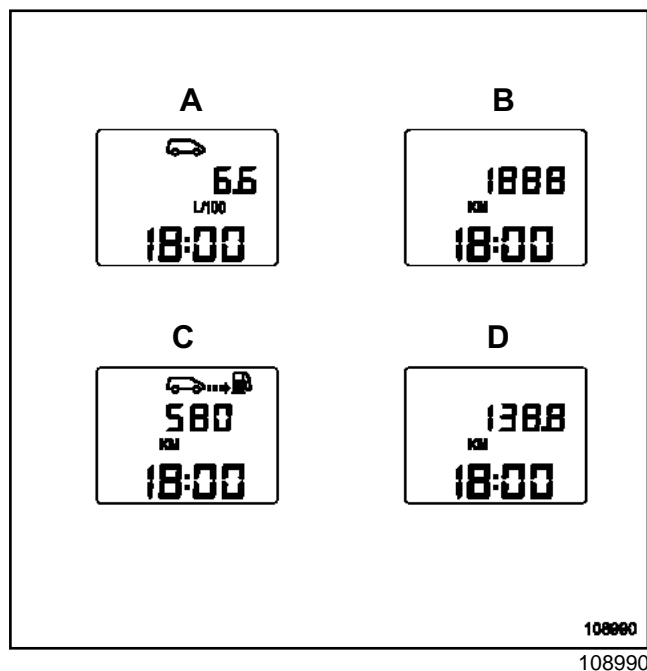
# INSTRUMENT PANEL

## Instrument panel: Description

# 83A

L90

### II - OPERATION OF THE DISPLAY WITHOUT THE TRIP COMPUTER (ADAC)



#### 1 - The mileometer (B) with clock

The mileometer display is shown when the ignition is switched on.

#### 2 - The trip mileometer (D)

The trip mileometer is displayed instead of the mileometer after the (1) button is pressed briefly. It is reset by pressing and holding down button (1).

#### 3 - Clock (B)

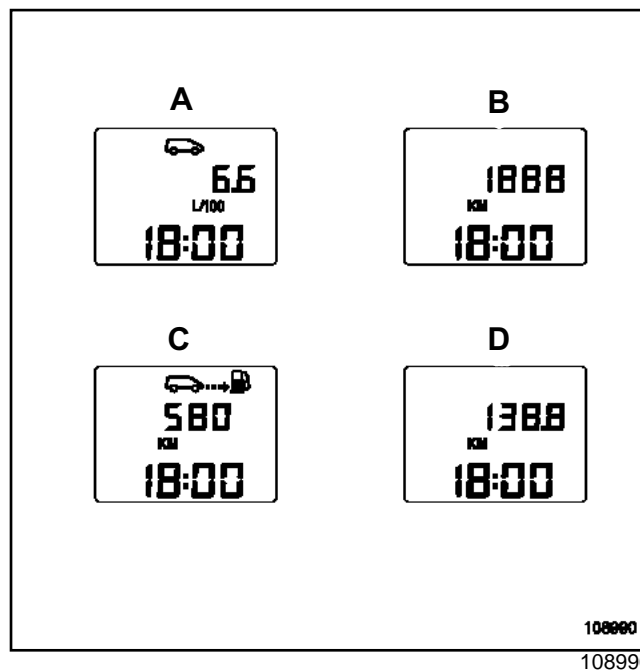
Setting the time:

- press the (1) button several times in order to select the mileometer (B),
- hold it down for several seconds (the time flashes),
- press briefly to move the time forward by one minute,
- press and hold down advance through the minutes,
- press and hold down to advance through the minutes in units of ten; then the hours,
- wait to confirm and then exit time setting mode.

Note:

The hours and minutes cannot be set independently.

### III - OPERATION OF THE DISPLAY WITH THE TRIP COMPUTER (ADAC)



#### 1 - The mileometer (B) with clock

The mileometer display is shown when the ignition is switched on.

#### 2 - The trip mileometer (D)

The trip mileometer is displayed instead of the mileometer when the button on the end of the windscreen wiper stalk is pressed (« ADAC » button). It is reset by pressing and holding down button (1).

#### 3 - Clock (B)

Setting the time:

- press the (1) button several times in order to select the mileometer (B),
- hold it down for several seconds (the time flashes),
- press briefly to move the time forward by one minute,
- press and hold down to advance through the minutes,
- press and hold down to advance through the minutes in units of ten; then the hours,
- wait to confirm and then exit time setting mode.

Note:

The hours and minutes cannot be set independently.

# INSTRUMENT PANEL

## Instrument panel: Description

# 83A

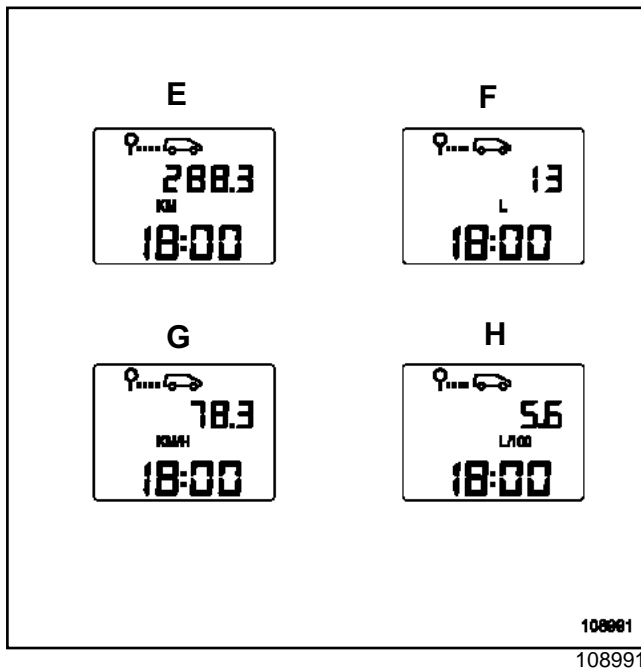
L90

### 4 - Trip computer (ADAC)

The various sequences of the trip may be displayed instead of the mileometers by pressing the button on the end of the windscreen wiper stalk (« ADAC » button).

It is reset by pressing button (1).

The trip computer information is displayed on screen from the trip meter as follows:



### 5 - Fuel consumed (F)

(Since the last reset).

Maximum capacity: **999 L**

### 6 - Average consumption (H)

(in **l/60 miles (100 km)** since the last reset).

This is only displayed after the vehicle has travelled **400 m**.

This takes into consideration the distance travelled and the fuel consumption since the last reset.

### 7 - Current fuel consumption (A)

(In **l/60 miles (100 km)**).

This is only displayed when the vehicle speed exceeds **18 mph (25 km/h)**.

This value should not exceed **29.9 l/60 miles (100 km)**.

If there is no flow pulse for at least **1 s** and if the speed is above **18 mph (25 km/h)**, the display is **0 l/100**.

### 8 - Estimated range with remaining fuel (C)

This is only displayed after the vehicle has travelled **400 m**.

This is the potential range, obtained by taking into account the distance travelled, the amount of remaining fuel in the tank and the fuel consumed.

Maximum capacity: **6210 miles (9999 km)**

### 9 - Distance travelled (E)

(Since the last reset).

Maximum distance: **6210 miles (9999 km)**

### 10 - Average speed (G)

(Since the last reset).

This is only displayed after the vehicle has travelled **400 m**.

This is obtained by dividing the distance travelled by the time elapsed since the last reset.

The time base is inside the trip computer.

## IV - FAULT FINDING

### 1 - Fault detection

The trip computer has searched to detect the faults which may affect the indications supplied by the display or by the indicators.

If the following indicators:

- fuel consumed,
- fuel range,
- average consumption,
- current consumption,

Are replaced by flashing arrows, this indicates a continuous flow signal fault for over **10 miles (16 km)**.

If only the fuel range indicator is replaced by flashing arrows and the minimum fuel level warning light is lit, this indicates a sender unit fault for over **100 s**

If the fault disappears, the minimum fuel level warning light goes out and the fuel indicator segments are lit (except if the fuel is at its minimum level)

In addition to indicating the fault by the display flashing or with a receiver segment fault, the trip computer stores the fault in non-volatile memory.

In all cases, proceed to the fault finding sequence to display the sensor fault memory.

# INSTRUMENT PANEL

## Instrument panel: Description

# 83A

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The trip computer includes a test program (fault finding sequence):

- for the different segments of the display,
- for the sensors used (fuel gauge, flow signal).

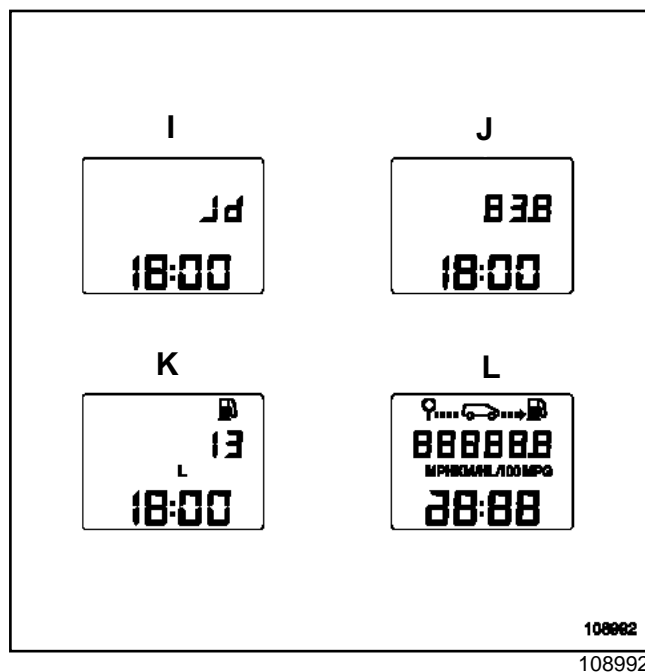
### 2 - Fault finding sequence

To access the fault finding sequence, press and hold the « ADAC » button on the end of the windscreen wiper, with the ignition on but the engine off.

Throughout the fault finding sequence, the speedometer needle sweeps its dial at the following speeds **6 mph (10 km/h), 30 mph (50 km/h), 55 mph (90 km/h), 80 mph (130 km/h), 105 mph (170 km/h)**.

In the same way and at the same time, the engine speed indicator needle sweeps its dial at speeds of **1000, 2000, 3000, 4000, 5000, 6000, 7000 rpm**.

These two sweeps are performed periodically alternately every second in an outward direction and then in an inward direction.



The software versions appears (I).

The LCD test appears (L)

All the segments on the LCD display should be lit.

To proceed to the next test, press button (1).

The test quantity of fuel remaining in the tank appears (K).

The value displayed should correspond to the quantity of fuel remaining the tank in litres.

To proceed to the next test, press button (1).

The fuel flow test in litres/hour appears (engine running) (J) (version « ADAC »).

The value should be displayed with the engine is running.

To go onto the next test, press button (1).

### 3 - Viewing stored faults.

#### a - Fuel tank sender unit fault

If a fuel sender unit fault appears two messages may appear after **100 s** :

- « Jo » for an open circuit on the fuel tank sender unit ,
- « Jc » for a short circuit on the tank sender unit.

#### b - Fuel flow fault

If a fuel flow fault appears the message « d » may be displayed.

« to » for an open circuit on the coolant temperature sensor.

« tc » for a short circuit to earth on the coolant temperature sensor.

Note:

Do not take this information into account when performing a more specific fault finding procedure. Refer to the fault finding manual (see **83A, Instrument panel devices, Instrument panel, Fault finding - introduction**).

### 4 - Reinitialising the system and exiting the fault finding sequence

To exit fault finding mode, press button (1). This clears all of the stored faults and resets the trip computer sequences.

To exit the fault finding sequence without clearing the stored faults, just switch off the ignition.



# INSTRUMENT PANEL

## Instrument panel

# 83A

L90

### Tightening torques

steering wheel bolt	4.4 daNm
airbag cushion bolts	0.65 daNm

### IMPORTANT

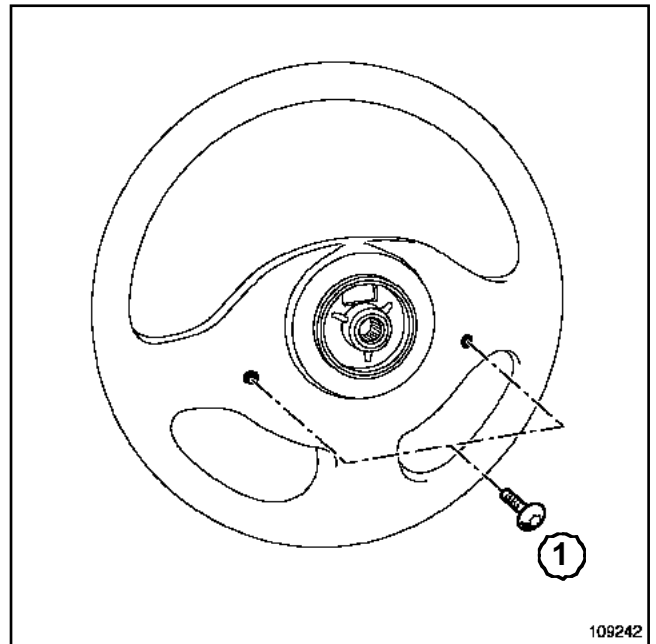
Before carrying out any work on a safety system component, be sure to lock the airbag computer using the diagnostic tool (see **88C, Airbags and pretensioners, airbag computer locking procedure** ). When this function is activated all the trigger lines are inhibited, and the airbag warning light on the instrument panel will be lit continuously (when ignition is on).

### IMPORTANT

Handling pyrotechnic systems (airbags or pretensioners) near to a source of heat or flame is forbidden: there is a risk of triggering the airbags or pretensioners.

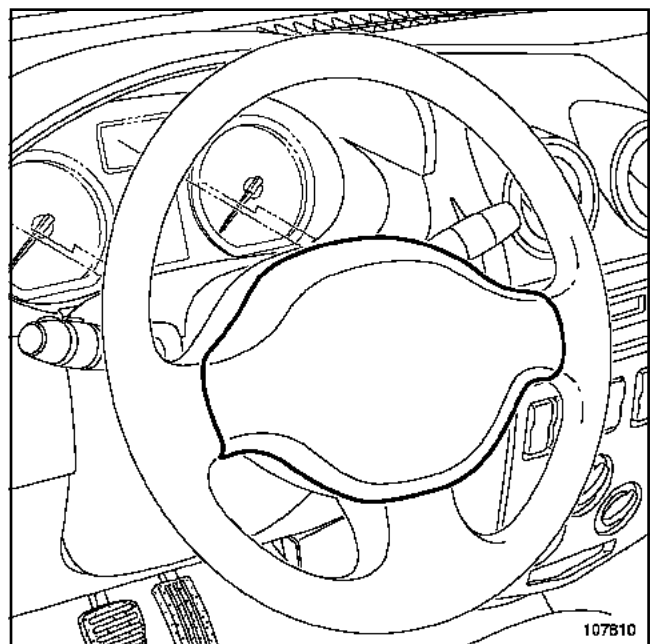
### REMOVAL

Disconnect the battery, starting with the negative terminal.



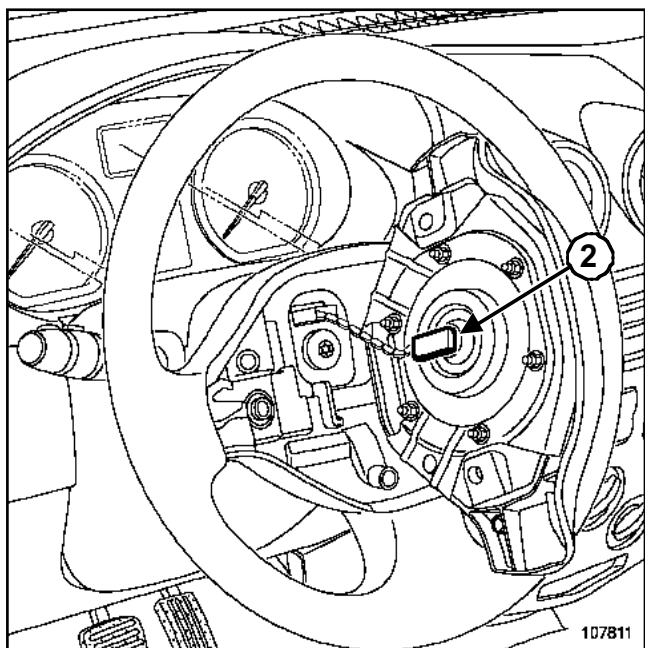
Turn the steering wheel one quarter of a turn.

Loosen mounting bolts (1) on the driver's airbag module from the rear of the steering wheel (30 torx socket).

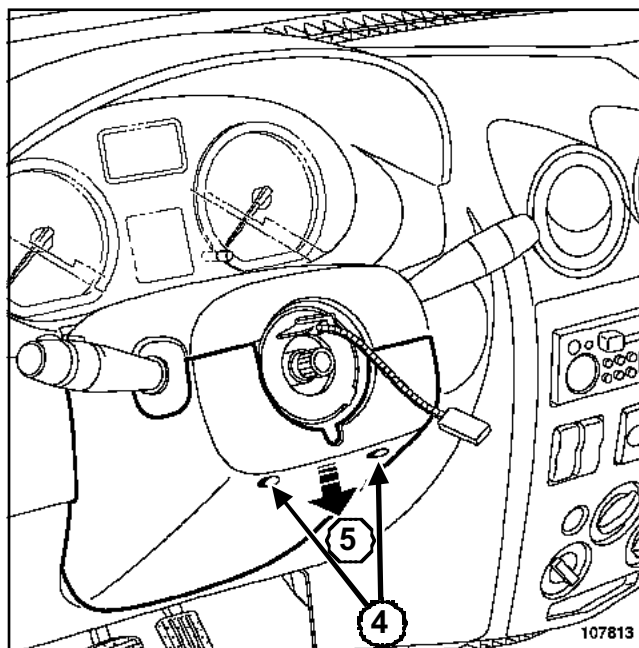


Remove the airbag module.

L90

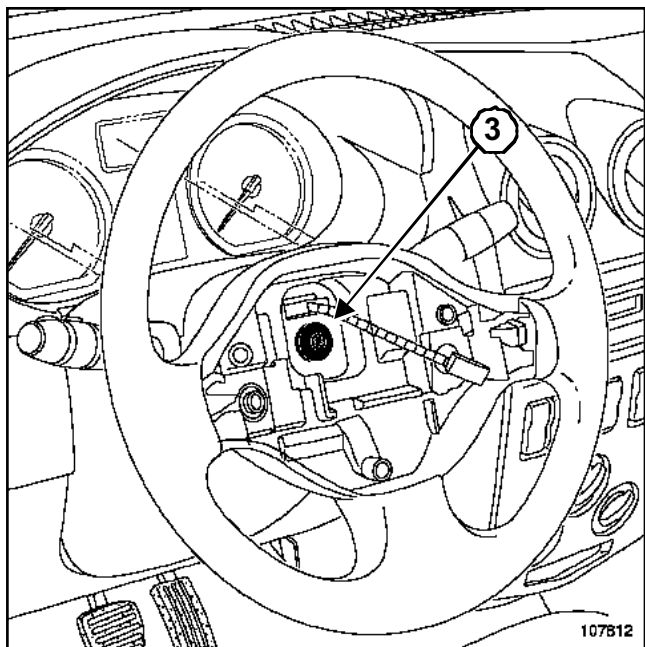


Unclip connector (2).

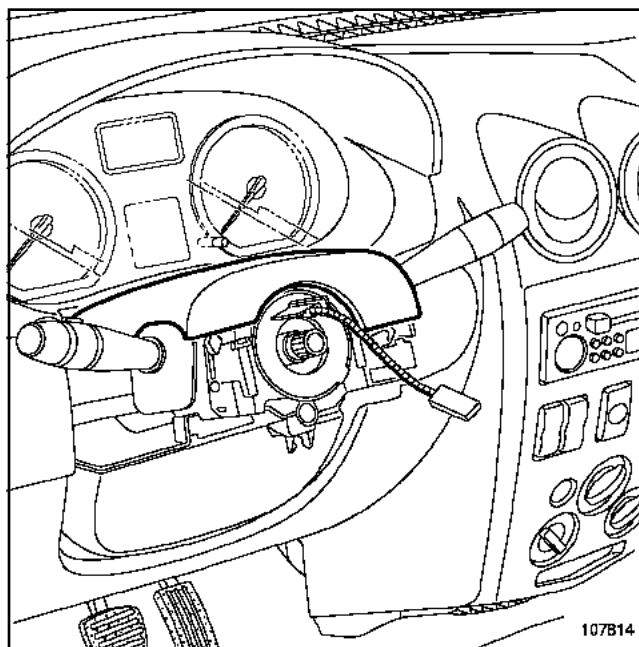


Loosen bolts (4).

Unclip lower half-cowling (5).



107812



107814

Remove the upper half cowling.

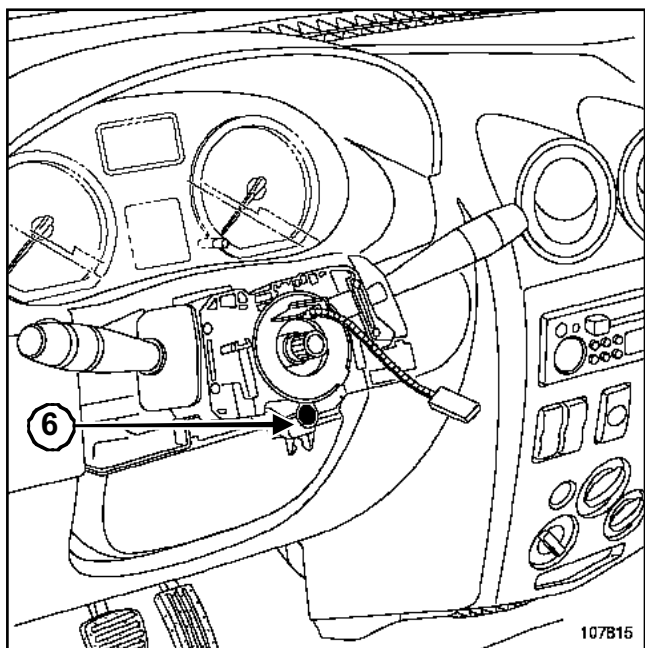
### WARNING

Make sure the wheels are straight before removing the steering wheel.

Remove:

- steering wheel bolt (3),
- the steering wheel.

L90



107815  
107815

Undo the rotary switch mounting bolt (6).

Pull the screwdriver to unlock the cone and release the steering column assembly.

### WARNING

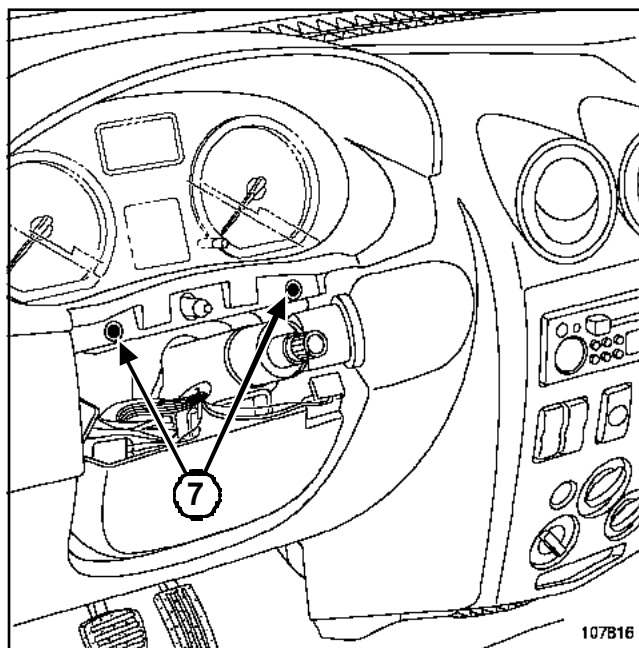
Before removing the assembly, be sure to mark the position of the rotary switch:

- immobilising the rotary switch rotor with adhesive tape.

Partially remove the steering wheel control assembly.

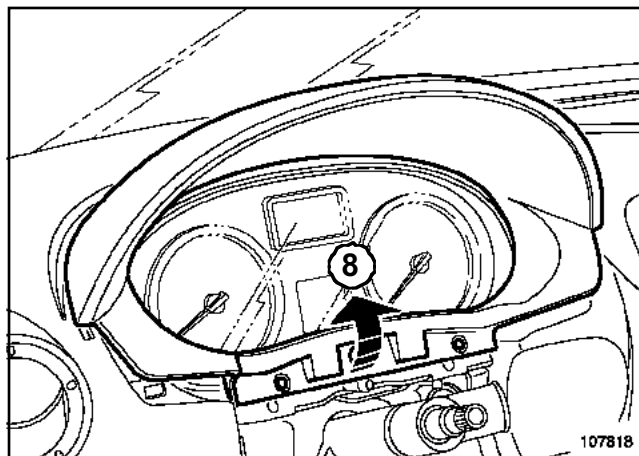
Disconnect the various connectors (wiper, lighting control) and the rotary switch connector.

Remove the steering wheel control assembly.



107816  
107816

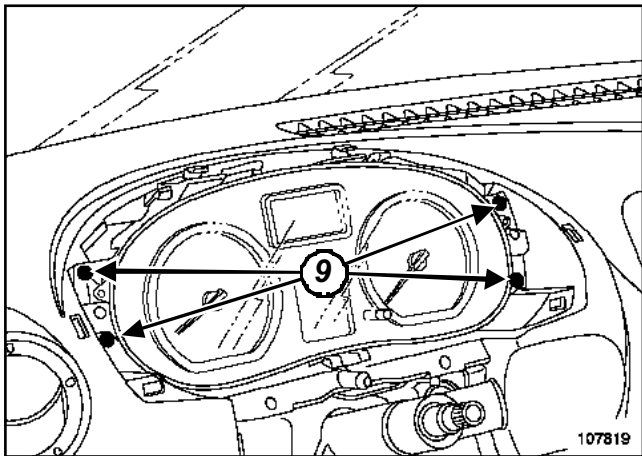
Remove bolts (7).



107818  
107818

Unclip the instrument panel surround (8).

L90



Remove bolts (9).

Unclip:

- the instrument panel,
- the instrument panel connectors.

Remove the instrument panel.

### REFITTING

Proceed in the reverse order to removal.

#### I -SPECIAL NOTES ON THE ROTARY SWITCH

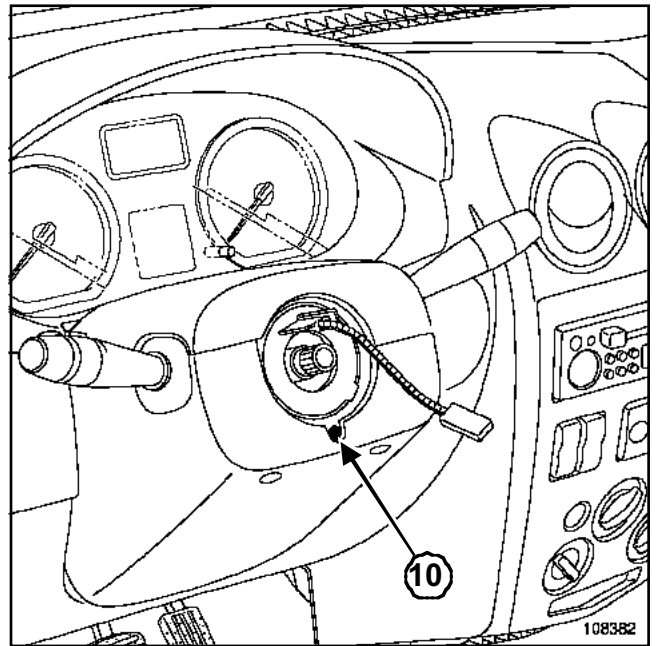
This makes the electrical connection between the steering column and the steering wheel.

Ensure that the wheels are still straight.

Check that the rotary switch strip is correctly centred (2.5 rotations on each side).

Fit the whole assembly on the steering column and connect the various connectors.

Remove the adhesive tape.



Continue refitting and do not tighten bolt (10) until the two half cowlings are refitted so that the stalks can be aligned with the instrument panel and dashboard.

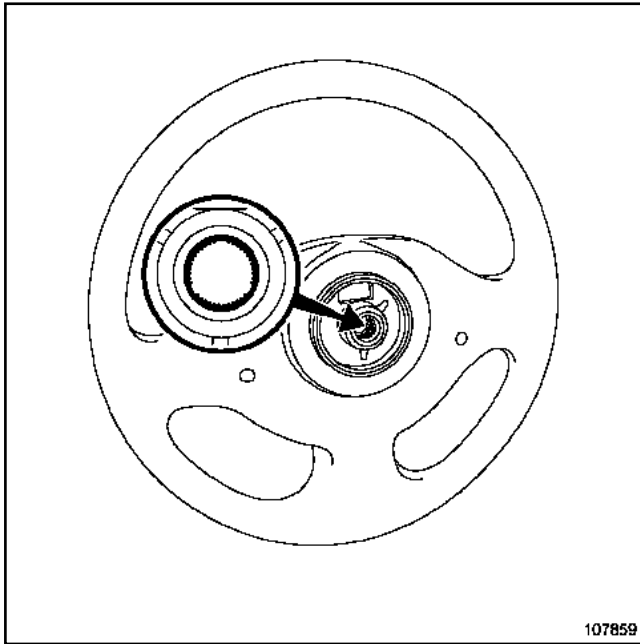
This operation is made easier by a cut-out section giving access to bolt (10) in the lower half cowling.

Note:

If the rotary switch is being replaced, the new part is supplied ready centred with an adhesive label which will tear off when the wheel is turned for the first time (wheels must be straight when fitting).

L90

### II - SPECIAL NOTE ON THE STEERING WHEEL



#### WARNING

- The steering wheel should enter the splines freely (the splines have foolproofing devices).
- Do not damage the foolproofing on the splines.
- The steering wheel bolts must be replaced.

Torque tighten the **steering wheel bolt (4.4 daNm)**.

### III - SPECIAL NOTES ON THE AIRBAG

Ensure that the connectors are properly connected.

#### WARNING

It is essential to replace the airbag module mounting bolts every time the module is removed.

Torque tighten the **airbag cushion bolts (0.65 daNm)**.

#### WARNING

Connect the battery, starting with the positive terminal; carry out the necessary programming (see **80A, Battery: Remove and Refit**).

#### IMPORTANT

Unlock the computer using the diagnostic tool (see **88C, Airbags and pretensioners, Airbag locking procedure**).

Check the airbag computer with the diagnostic tool. Any failure to follow these instructions may cause system malfunctions, or even result in the air bags being triggered accidentally.

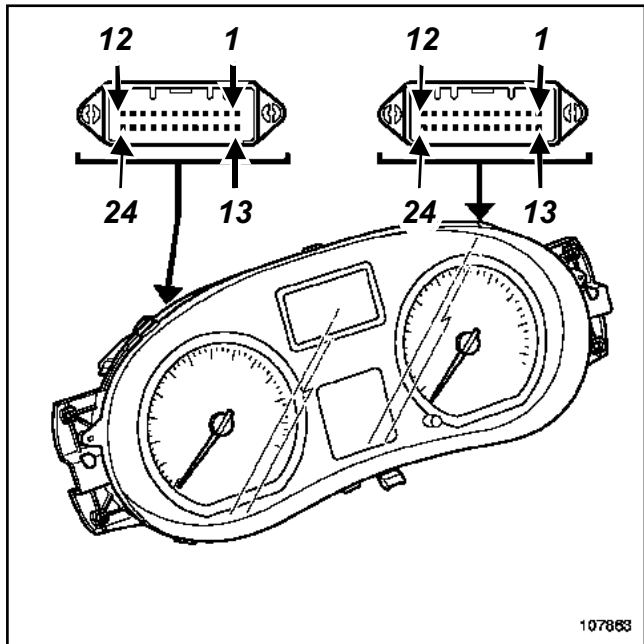
Carry out operational tests on the instrument panel and the steering wheel controls.

# INSTRUMENT PANEL

## Instrument panel: Connection

# 83A

L90



107863

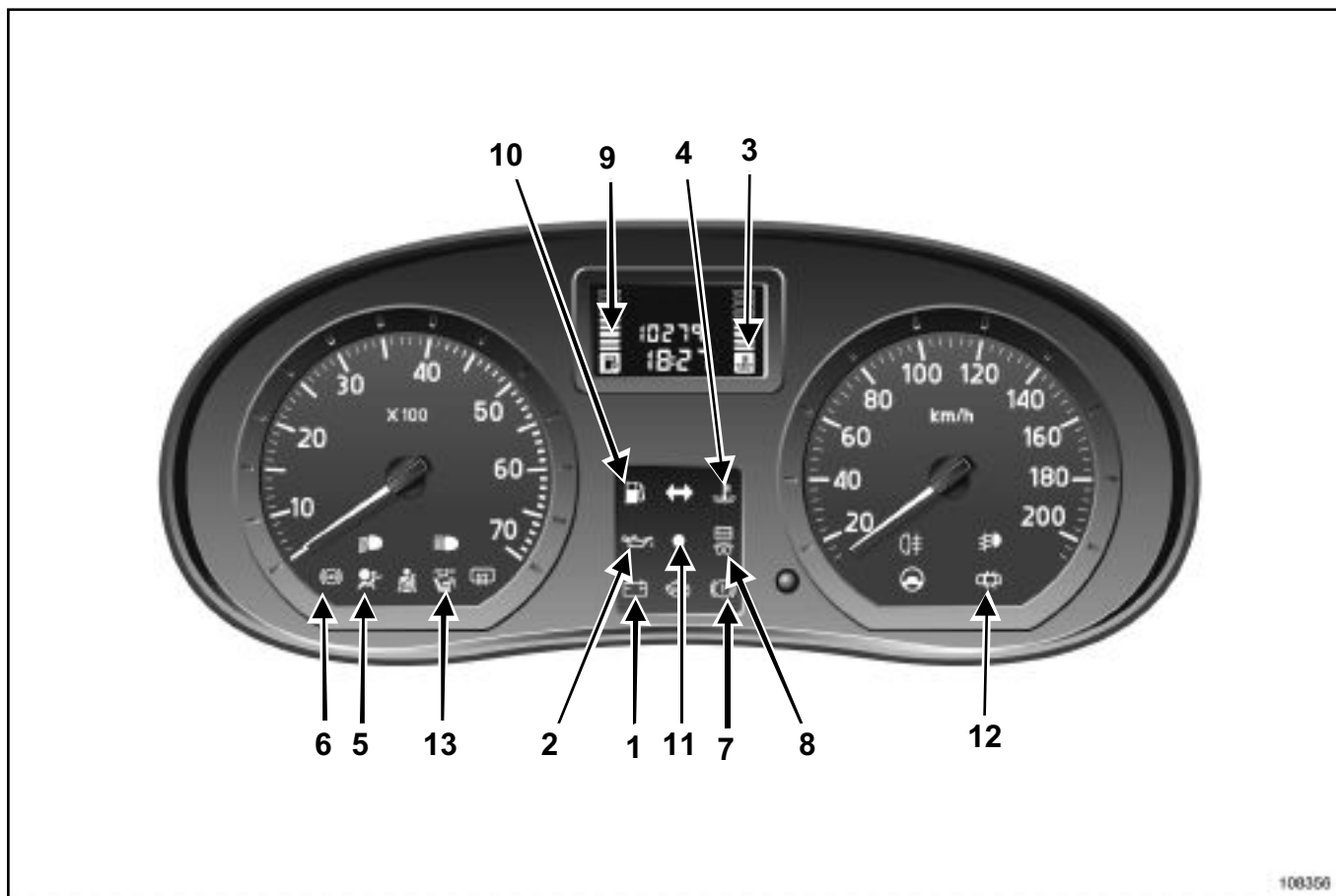
### WARNING

Do not swap the instrument panel connectors.

The black (P1) instrument panel connector is connected to the longest wiring harness (**23 wires**), the beige (P2) instrument panel connector is connected to the shortest wiring harness (**5 wires**).

For the connector connections see **Electrical wiring diagram NT, L90, Component 247**.

L90



108356

108356

|

Electronic	Warning light
Battery charge	(1)
Oil pressure	(2)
Coolant temperature	(3)(4)
Airbag	(5)
ABS	(6)
Brake fluid level	(7)
Injection	(8)
Fuel gauge	(9)(10)
Engine immobiliser	(11)

|

Action	Warning light
Door not closed warning light + boot	(12)

# INSTRUMENT PANEL

## Instrument panel: Warning lights and messages

**83A**

L90

Action	Warning light
Parking brake	(7)
Passenger airbags disconnected	(13)



# INSTRUMENT PANEL

## Instrument panel: Defect modes

# 83A

L90

|

Wiring input	Condition for fault confirmation	Condition for return to normal	Warning light
Fuel gauge	$R > 355 \Omega$	$6 < R < 345 \Omega$	Fuel level warning light continuously lit. All the bargraph segments are not lit. (defect mode displayed after <b>100 s</b> of the fault being present)
	$R < 4 \Omega$	$6 < R < 345 \Omega$	Fuel level warning light continuously lit. Bargraph segments are lit.
Fuel flow signal	Signal not present « arrows flashing continuously » for <b>10 miles (16 km)</b> : « ADAC » fuel consumed, average consumption; current, fuel range pages.	Resetting of the « ADAC », and presence of a flow signal.	
Brake fluid level	Open circuit		Brake warning light continuously lit
	Earthing		Brake warning light continuously lit
Parking brake	Open circuit		Brake warning light permanently not lit
	Earthing		Brake warning light continuously lit
Electrical adjustment of the brake	Open circuit		Brake warning light continuously lit
	Earthing		Brake warning light continuously not lit
ABS fault signal	Open circuit		ABS indicator light continuously lit
	Earthing		ABS indicator light continuously not lit
Coolant temperature sensor	$R > 1550 \Omega$ The engine fan assembly starts to operate after the engine starting phase	$8 < R < 1450 \Omega$	All the bargraph segments are not lit.
	$R < 4 \Omega$	$8 < R < 1450 \Omega$	All the bargraph segments are not lit.

## Fuel level sensor: Operating principle

L90

### OPERATING PRINCIPLE

The « current consumption » **(I)** displayed on the trip computer page is the information sent by the injection computer (unmodified by the instrument panel).

The « fuel level » **(F)**, display on the trip computer page and the « fuel warning » **(G)** light coming on depends on:

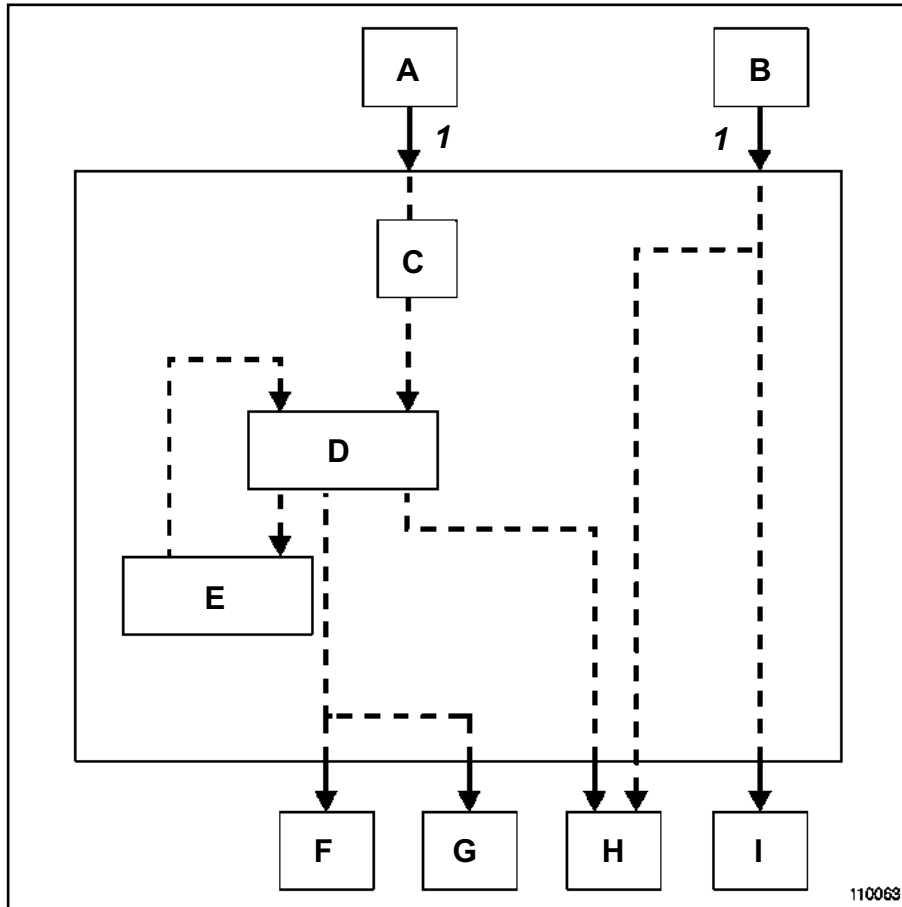
- the smoothed resistance of the gauge **(D)**,

- the stored resistance **(E)**.

The « mileage remaining » **(H)** depends on:

- the smoothed resistance of the gauge **(D)**,

- the fuel consumed signal through the injection **(B)**.



110063

110063

Reference	Vehicle status
(A)	Signal from the tank gauge (resistance)
(B)	Fuel consumption signal from the injection
(C)	Resistance smoothing
(D)	Comparison between the resistance measured and the stored resistance (resetting drop-down)
(E)	Memorisation
(F)	Segment level display
(G)	Low fuel level warning light comes on

# INSTRUMENT PANEL

## Fuel level sensor: Operating principle

**83A**

L90

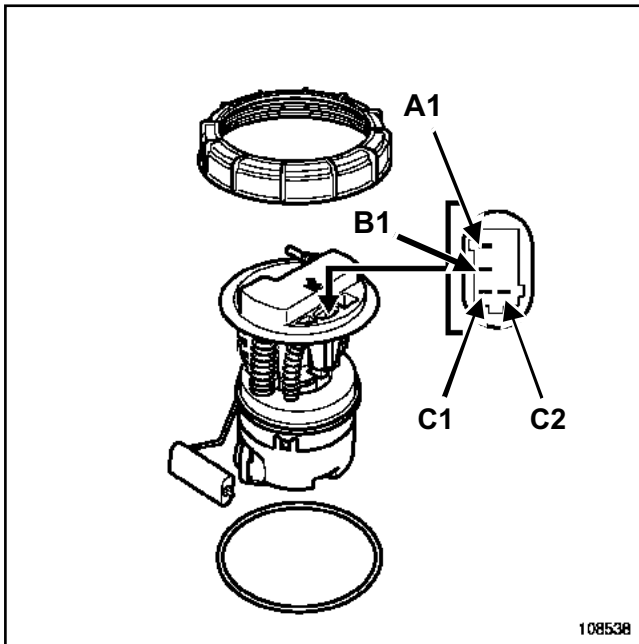
Reference	Vehicle status
(H)	Fuel range display on the « ADAC »
(I)	Fuel consumption display (current and average fuel consumed in « ADAC » function)
(1)	Wire connection

# INSTRUMENT PANEL

## Fuel level sensor: Connection

# 83A

L90



108538

For the pump-sender unit connection (see **Electrical wiring diagram NT, L90, Component 199**).

For the removal - refitting procedure, (see **19C, Tank, Pump-sender unit**).

Level	Sender unit resistance: Value measured by the INSTRUMENT PANEL ( $\Omega$ ) between A1 and B1	Useable fuel volume (l)
Tank full	$33 \pm 10 \Omega$	50
Tank half full (5 squares)	166	27
Tank half full	$313 \pm 10 \Omega$	0

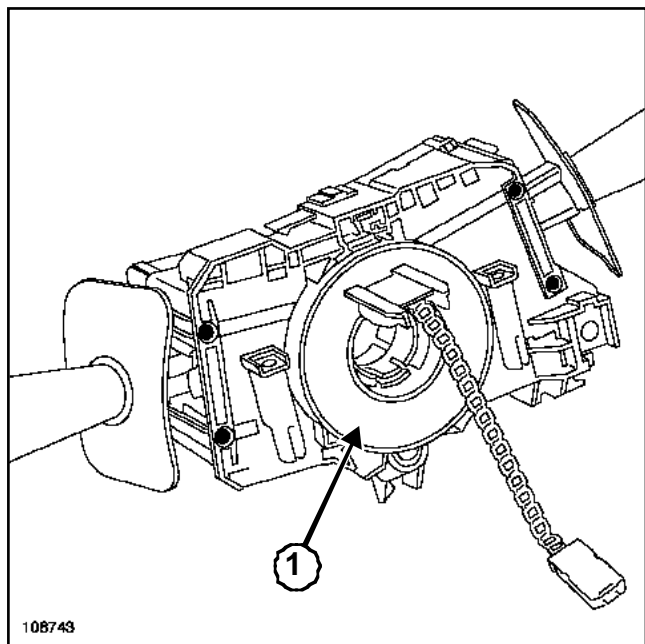
Note:

All these values are given as a guide.

L90

### REMOVAL

Remove the steering wheel control assembly (see **84A, Controls - Signals, Steering wheel controls**).



108743

Follow the safety instructions.

#### WARNING

Before removing the assembly, be sure to mark the position of the rotary switch:

- ensuring that the wheels are straight at the time of removal,
- immobilising rotor (1) of the rotary switch using adhesive tape.

Remove:

- the mounting bolts from the wiper stalk,
- the mounting bolts from the lighting stalk.

### REFITTING

Proceed in the reverse order to refitting.

#### SPECIAL NOTE ON THE ROTARY SWITCH

This makes the electrical connection between the steering column and the steering wheel.

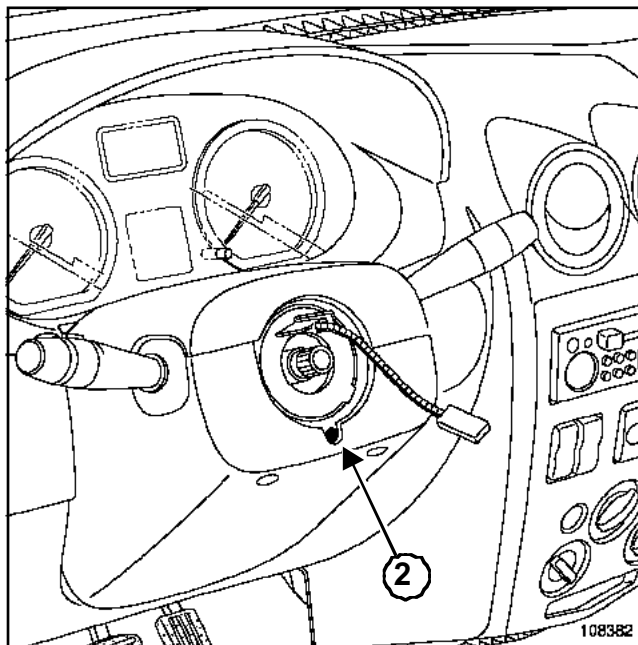
The rotary connector comprises a ribbon with conductor tracks, the length of which ensures that the steering wheel can be turned **2.5 turns** in either direction (steering lock + security).

Ensure that the wheels are still straight.

Check that the rotary switch strip is positioned centrally (**2.5 turns** on either side).

Engage the steering assembly on the steering column.

Connect the various connectors.



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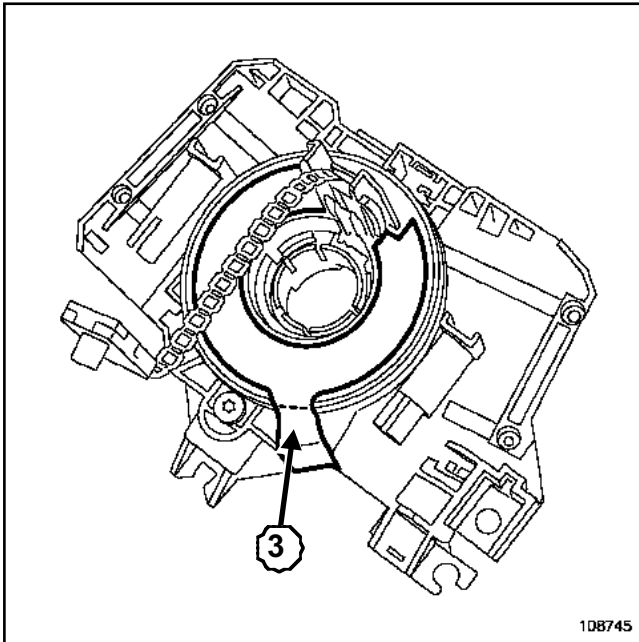
Continue refitting and do not tighten bolt (2) until the two half cowlings are refitted, so that the stalks can be aligned with the dashboard and the instrument panel.

This operation is made easier by a cut-out section giving access to bolt (2) in the lower half cowling.

Carry out a function test on the steering wheel control assembly.

## Rotary switch

L90



108745

## Note:

In the event of a rotary connector replacement, the new part is supplied centred by adhesive label (3) which tears off the first time the steering wheel is turned (to be fitted to the right-hand wheel).

L90

### Essential equipment

diagnostic tool

### Tightening torques

steering wheel bolt	4.4 daNm
airbag module mounting bolts	6.5 daNm

### IMPORTANT

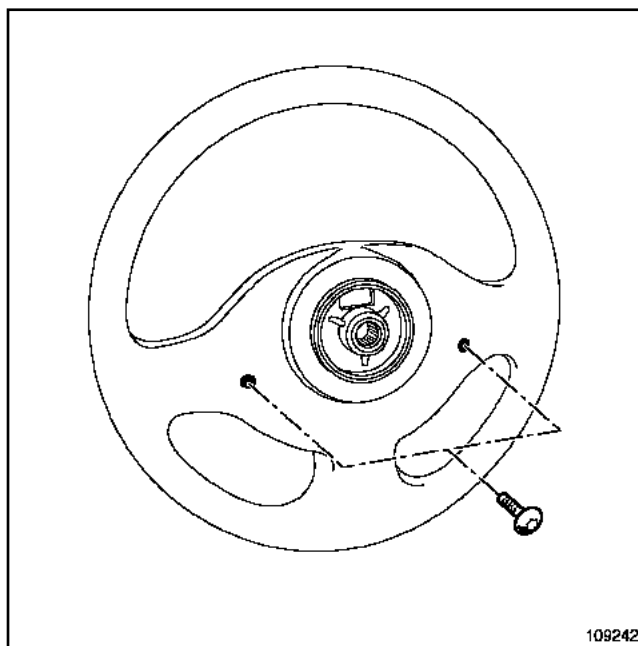
Before carrying out any work on a safety system component, be sure to lock the airbag computer using **diagnostic tool** (refer to **88C, Airbags and pretensioners, airbag computer locking procedure** ). When this function is activated all the trigger lines are inhibited, and the airbag warning light on the instrument panel is lit continuously (ignition switched on).

### IMPORTANT

Handling the pyrotechnic systems (airbags or pretensioners) near to a heat source or flame is prohibited; there is a risk of triggering the airbags or pretensioners.

### REMOVAL

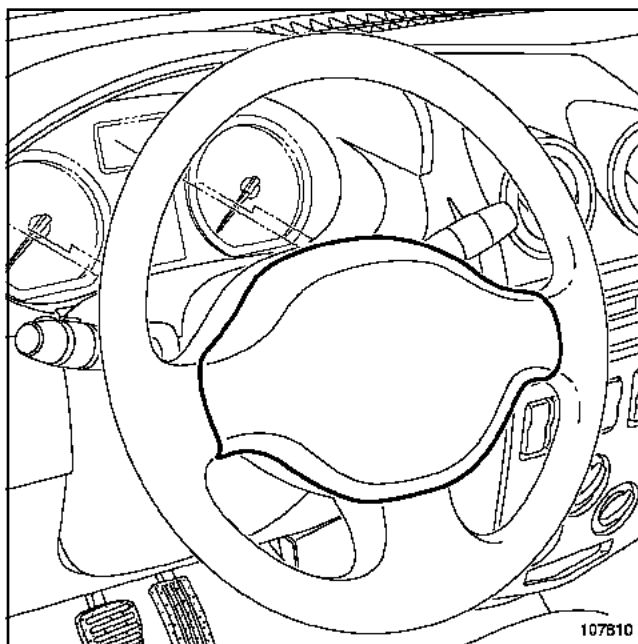
Disconnect the battery, starting with the negative terminal.



109242  
109242

Turn the steering wheel one quarter of a turn.

Remove the two airbag module mounting bolts through the rear of the steering wheel (30 torx socket).



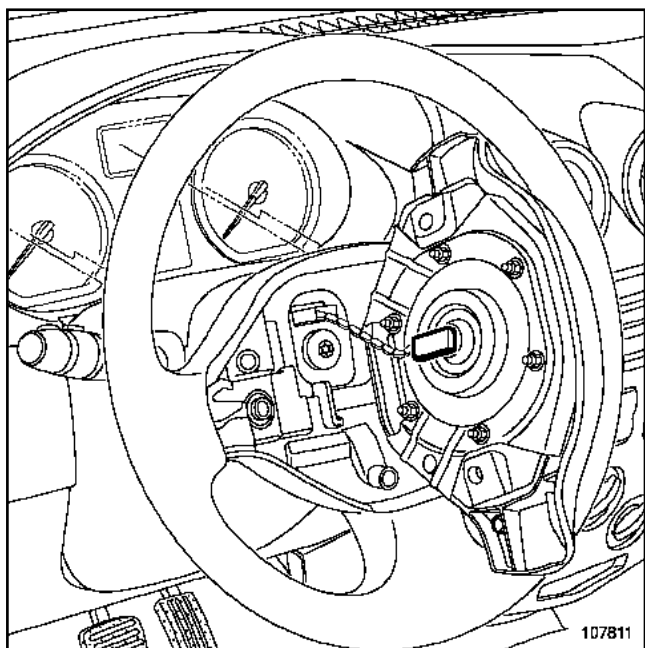
107810

107810

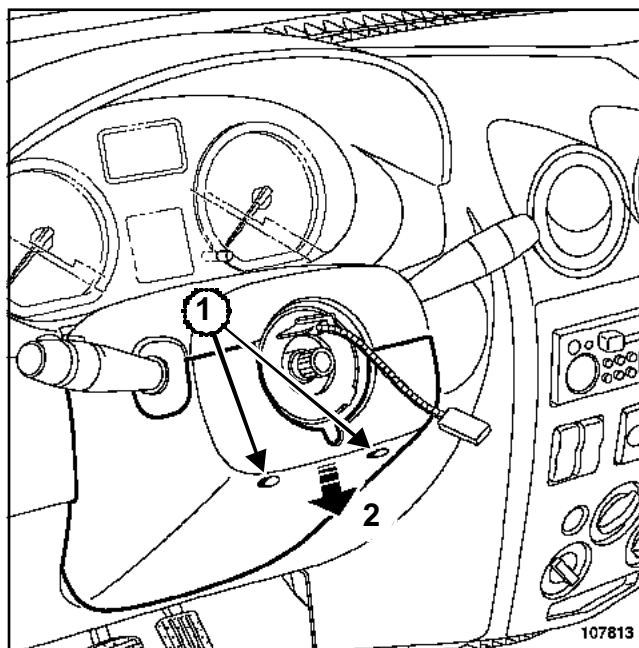
Remove the airbag module.

## Under steering wheel control assembly

L90

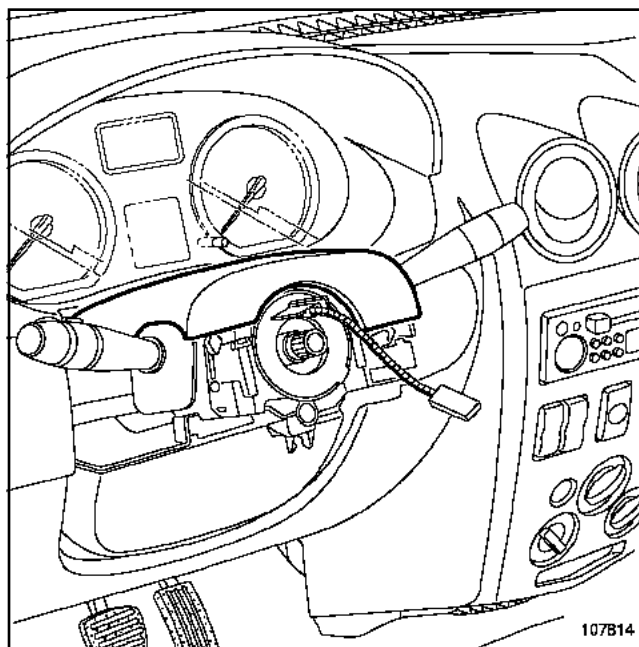
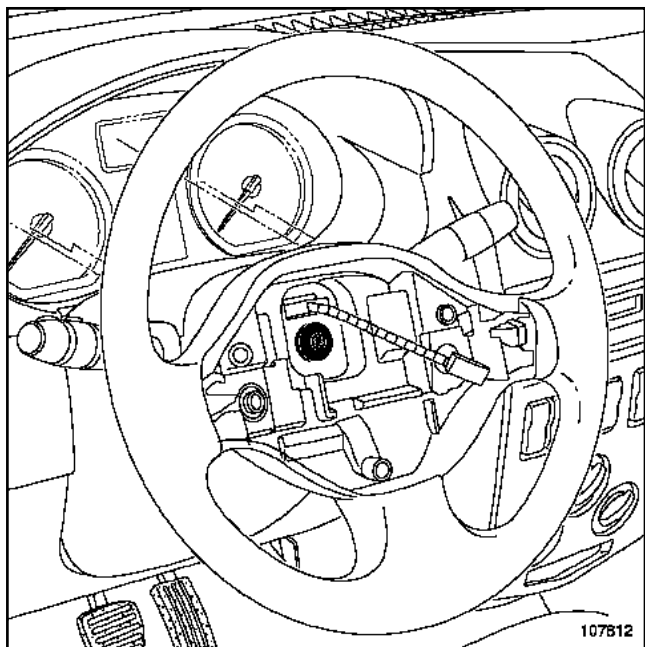


Disconnect the airbag module connector.



Remove the two lower mounting bolts (1).

Unclip the lower half-cowling .(2)



Unclip the upper half-cowling.

### WARNING

Make sure the wheels are straight before removing the steering wheel.

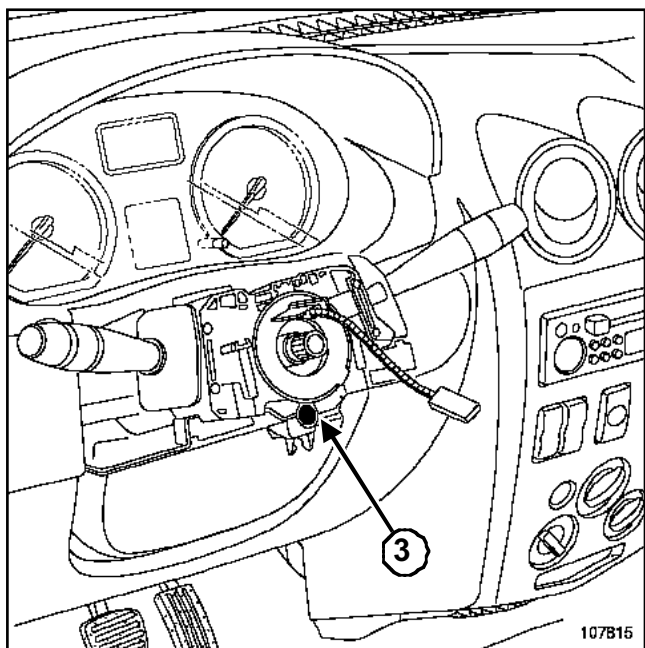
Remove:

- the steering wheel bolt,
- the steering wheel.



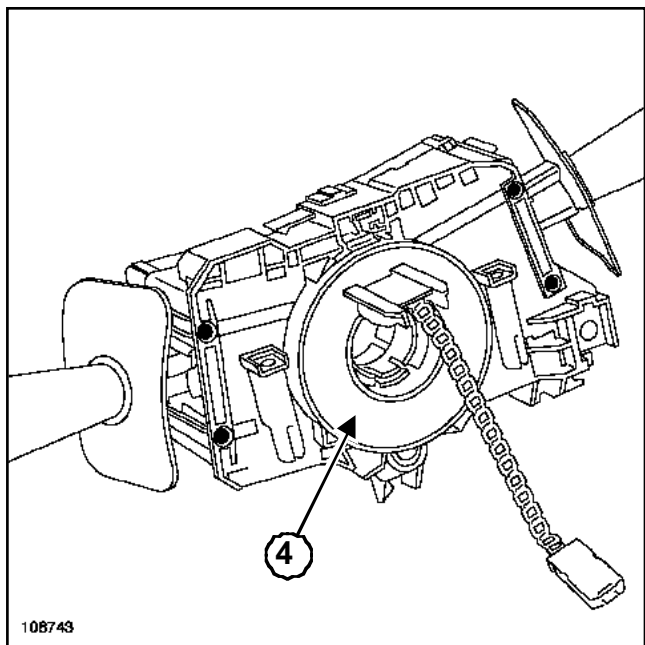
## Under steering wheel control assembly

L90



Undo the rotary switch mounting bolt (3).

Pull the screwdriver to unlock the cone and release the steering column assembly.



### WARNING

Before removing the assembly, it is essential to mark the position of the rotary switch by immobilising the rotary switch rotor (4) with adhesive tape.

Partially remove the steering wheel mounted control assembly to disconnect its connectors.

Remove the steering wheel mounted control assembly.

### REFITTING

#### I -SPECIAL NOTES ON THE ROTARY SWITCH

This connects the steering column and the steering wheel.

The rotary switch consists of strip with conductor tracks which are long enough to enable **2.5 rotations** of the steering wheel at each side (steering lock + safety).

Ensure that the wheels are still straight.

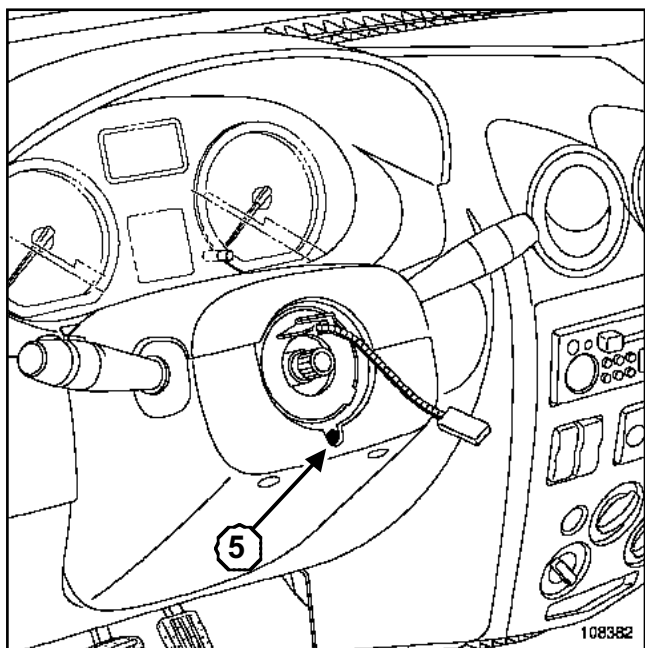
Check that the switch tape is correctly centred (**2.5 rotations** on both sides).

Fit the assembly to the steering column.

Connect the various connectors.

Remove the adhesive tape.

L90



108382

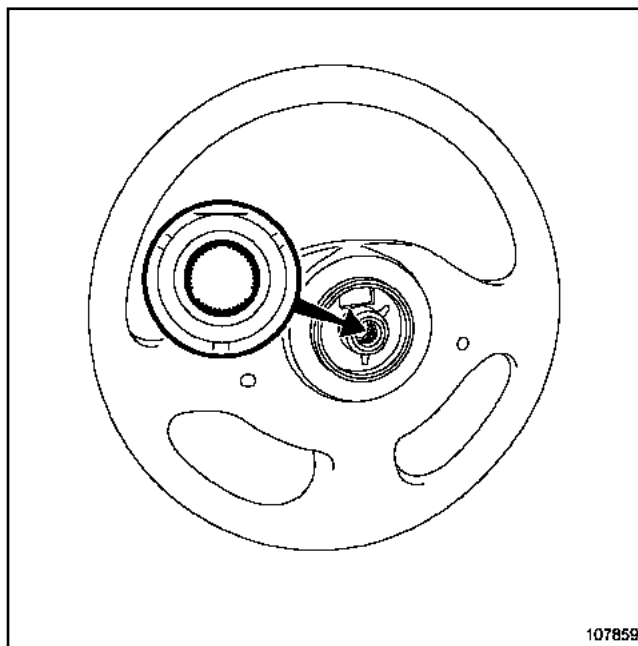
Continue refitting and do not tighten bolt (5) until the two half-cowlings are refitted so that the stalks can be aligned with the instrument panel and dashboard.

This operation is made easier by a cut-out section giving access to the bolt (5) in the lower half cowling.

**Note:**

If the rotary switch is being replaced, the new part is supplied ready centred with an adhesive label which will tear off when the wheel is turned for the first time (wheels must be straight when fitting).

### II - SPECIAL NOTES ON THE STEERING WHEEL



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**WARNING**

- The steering wheel should enter the splines freely (the splines have foolproofing devices).
- Do not damage the spline location notches.
- The steering wheel bolt must be replaced each time it is removed.

Torque tighten the **steering wheel bolt (4.4 daNm)**.

### III - SPECIAL NOTES ON THE AIRBAG

Ensure that the connectors are properly connected.

**WARNING**

It is essential to replace the airbag module mounting bolts every time the module is removed.

# CONTROLS - SIGNALS

## Under steering wheel control assembly

# 84A

L90

Torque tighten the **airbag module mounting bolts (6.5 daNm)**.

### WARNING

Connect the battery, starting with the positive terminal; carry out the necessary programming (see **80A, Battery, Battery: Remove and Refit**).

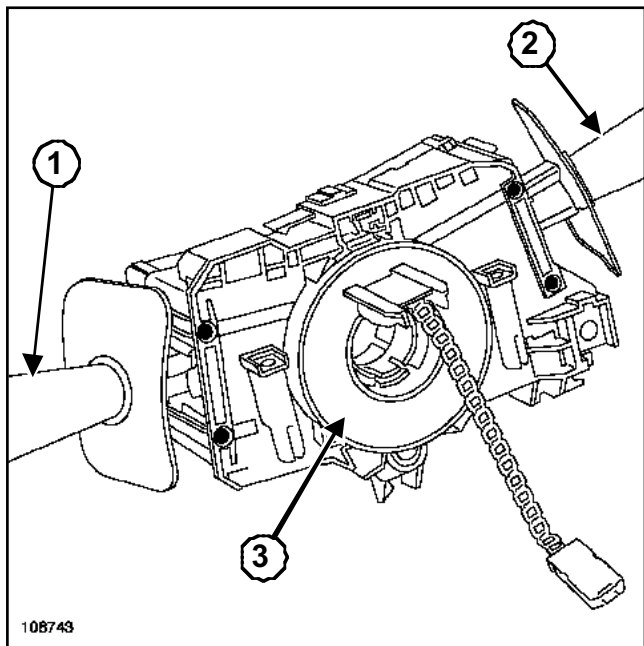
### IMPORTANT

Unlock the computer using **diagnostic tool** (see **88C, Airbags and pretensioners, Airbag locking procedure**).

Check the air bag computer using the **diagnostic tool**. Any failure to follow these instructions may cause system malfunctions, or even result in accidental triggering of the airbags.

Carry out an operational test on all the steering wheel controls.

L90



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The column-mounted control module is composed of three sections:

- the lighting control,(1)
- the wiper and washing controls and the ADAC button (2),
- the rotary switch.(3)

Each of these sections can have fault finding performed on them and can be replaced separately.

## Wiper control stalk

L90

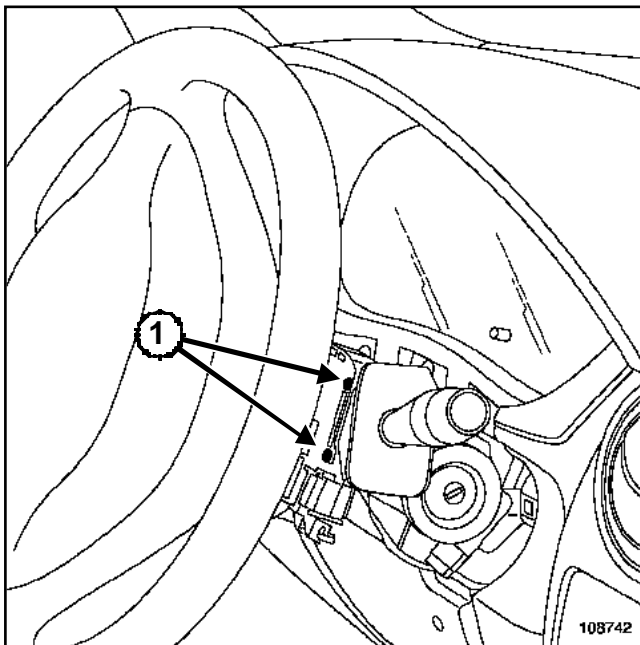
### REMOVAL

Note:

The steering wheel does not need to be removed.

Remove:

- the half-cowlings under the steering wheel,
- the transponder ring.



108742

Remove the two mounting bolts (1) from the wiper stalk.

Remove stalk from its mounting.

Disconnect the connector.

### REFITTING

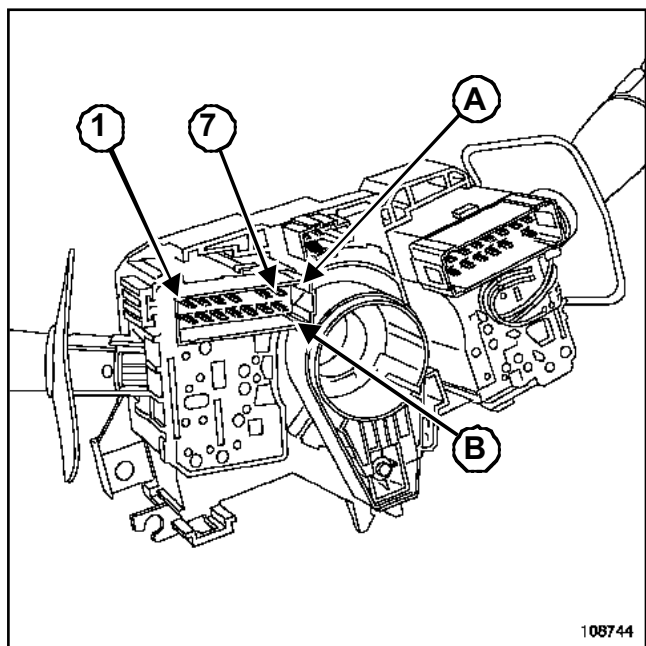
Proceed in the reverse order to removal.

# CONTROLS - SIGNALS

## Wiper control stalk: Connection

# 84A

L90



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### Operation

Control	Tracks
Windscreen washer pump	A4 / B4
Low-speed wiper	A3 / A7
High-speed wiper	A2 / A7
Timed windscreen wiper	A1 / A7 / A3 / A6
Timed low-speed windscreen wiper	A3/A6
Driving assistance	A4 / B7

Track	Description
A1	Control + front windscreen wiper timer feed
A2	Control+ high-speed windscreen wiping
A3	Control + low speed windscreen wiping control
A4	+ protected after ignition feed
A5	Not used
A6	Windscreen wiper low speed timer control
A7	+ protected after ignition windscreen wiper fuse feed
B1	Not used
B2	Not used
B3	Not used
B4	+ protected after ignition windscreen wiper fuse feed
B5	Not used
B6	Not used
B7	Driving assistance screen scrolling control

## Lighting stalk

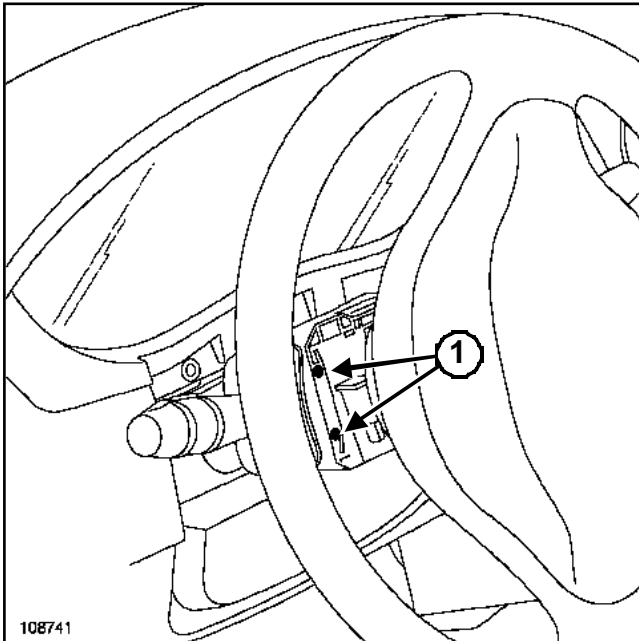
L90

**REMOVAL**

Note:

The steering wheel does not need to be removed.

Remove the two half cowlings under the steering wheel.



Remove the two mounting bolts (1) from the lighting stalk.

Remove the lighting stalk and its mounting.

Disconnect the connector.

**REFITTING**

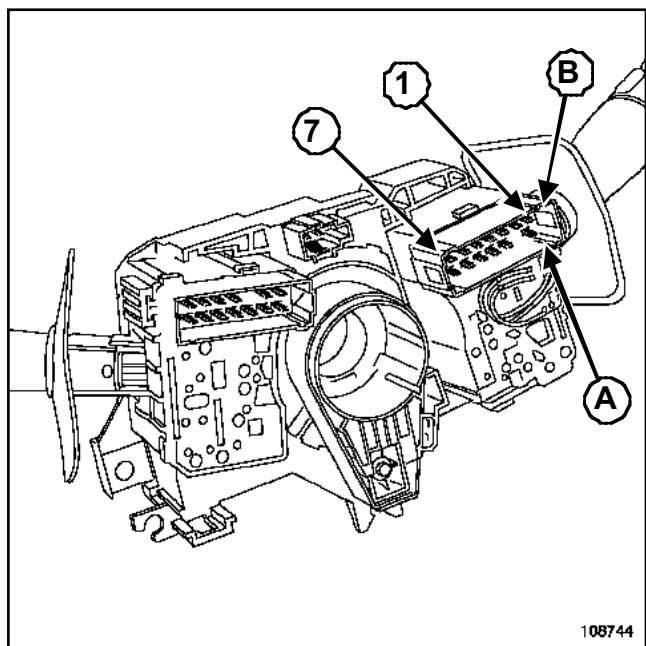
Proceed in the reverse order to removal.

# CONTROLS - SIGNALS

## Lighting stalk: Connection

# 84A

L90



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Track	Description
A1	Fog lights
A2	Not used
A3	Rear fog lights
A4	Horn
A5	Right-hand direction indicator
A6	Earth
A7	Left-hand indicator
B1	Side lights
B2	+ Before ignition side lights feed
B3	+ Before ignition dipped headlights feed
B4	Dipped headlights (dual lens)
B5	Dipped headlights (single lens)
B6	+ before ignition main beam headlights feed
B7	Main beam headlights

### Operation

Control	Tracks
Left-hand direction indicator	A7 / A6
Right-hand direction indicator	A5 / A6
Side lights	B1 / B2
Dipped headlights	B5 / B3
Main beam headlights	B5 / B3 / B7 / B6
Front fog lights	A1 / B2 / B1 / B2
Rear fog lights	A3 / B2 / B1 / B2
Horn	A4/B6

### Note:

The basic « headlight flash » command uses tracks B7 / B6.



# CONTROLS - SIGNALS

## Hazard warning light switch

# 84A

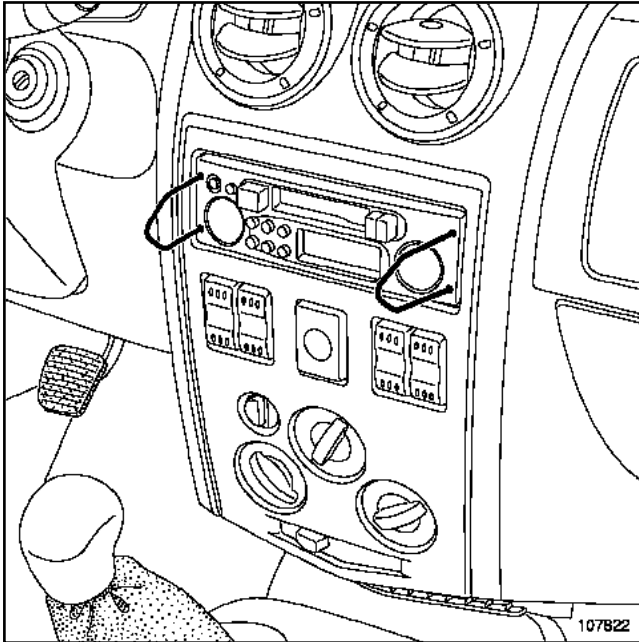
L90

### Essential special tooling

Ms. 1373

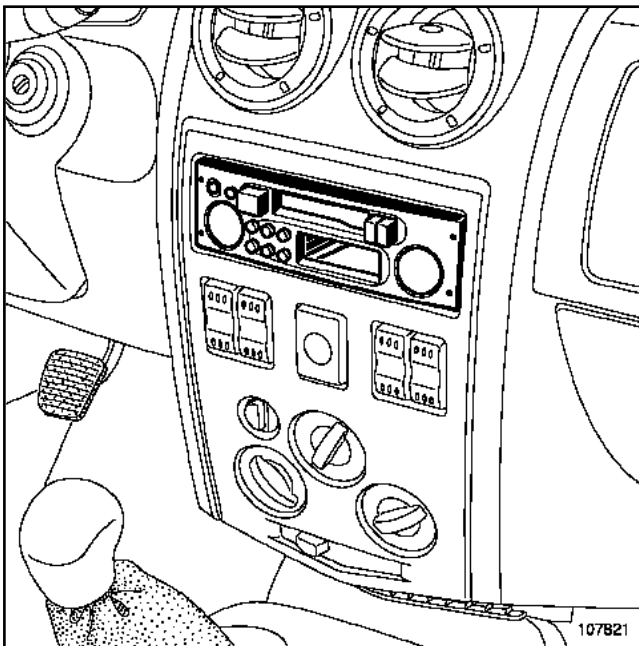
Philips radio removal tool

### REMOVAL



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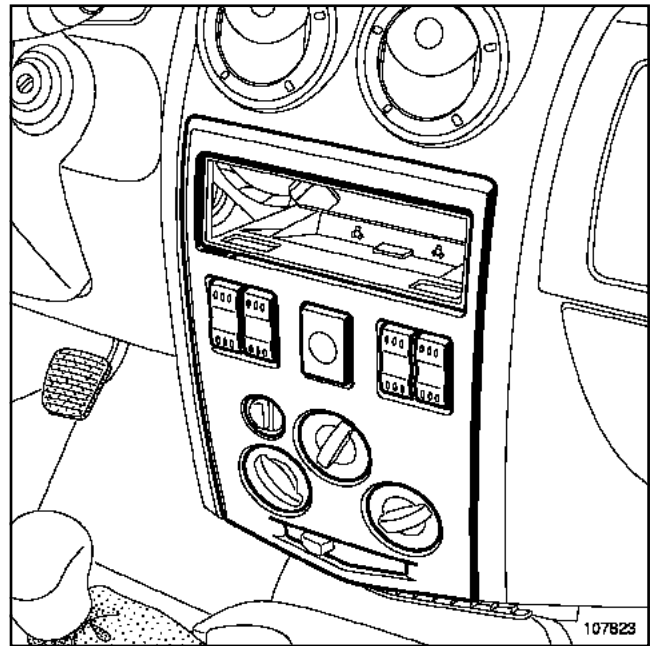
Insert tool (Ms. 1373) into the apertures.



107821

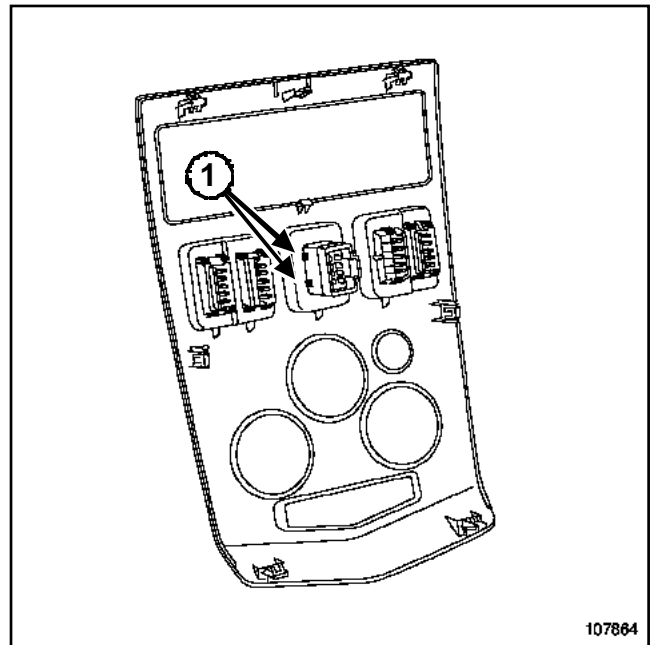
Remove the audio equipment.

Disconnect the audio equipment connectors.



107823

Unclip the plate.

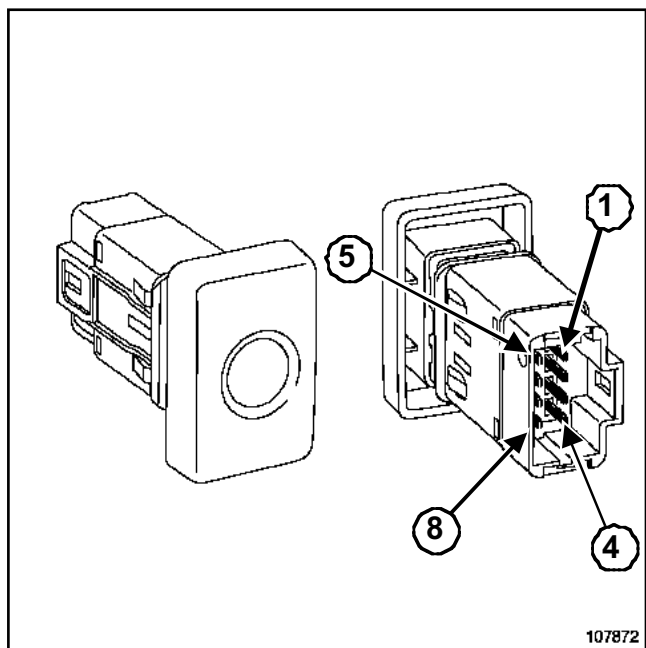


107864

Disconnect the switch connector.

Unclip the hazard warning light switch by moving clips (1).

L90



107872  
107872

Track	Description
1	+ left-hand side light protected (hazard warning light switch lighting)
2	Hazard warning lights indicator light on button
3	Not used
4	Not used
5	Earth
6	Earth
7	Not used
8	Timed central flasher switch

**OPERATION**

The function is initiated when contact is established between tracks 8 and 6.

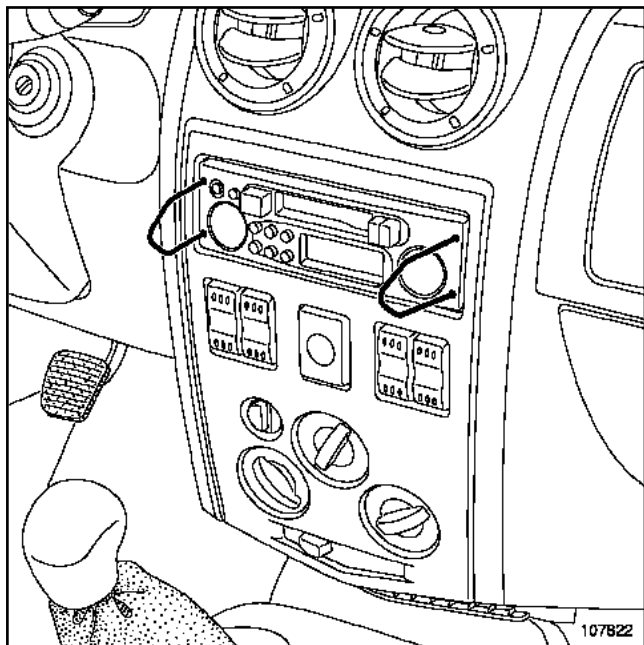
L90

### Essential special tooling

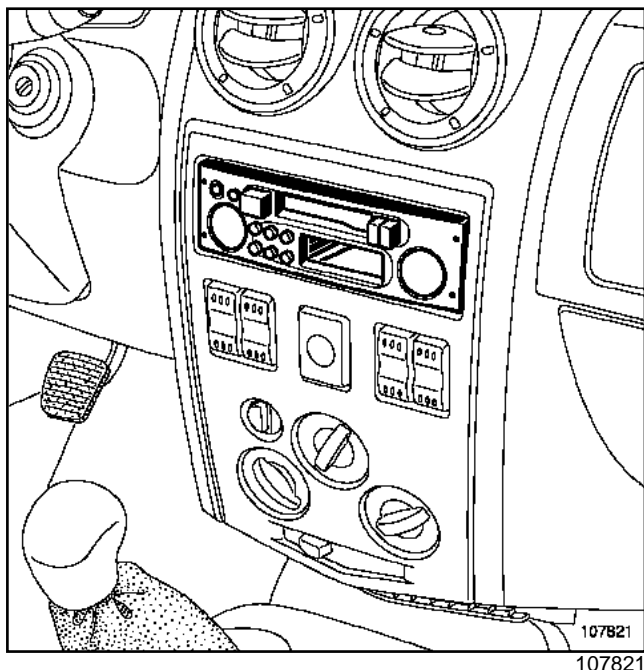
Ms. 1373

Philips radio removal tool

### REMOVAL

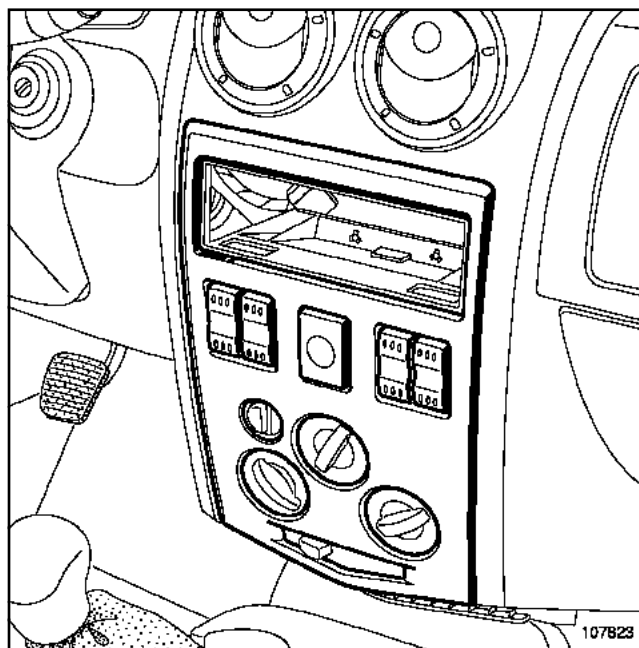


Insert tool (Ms. 1373) into the apertures.

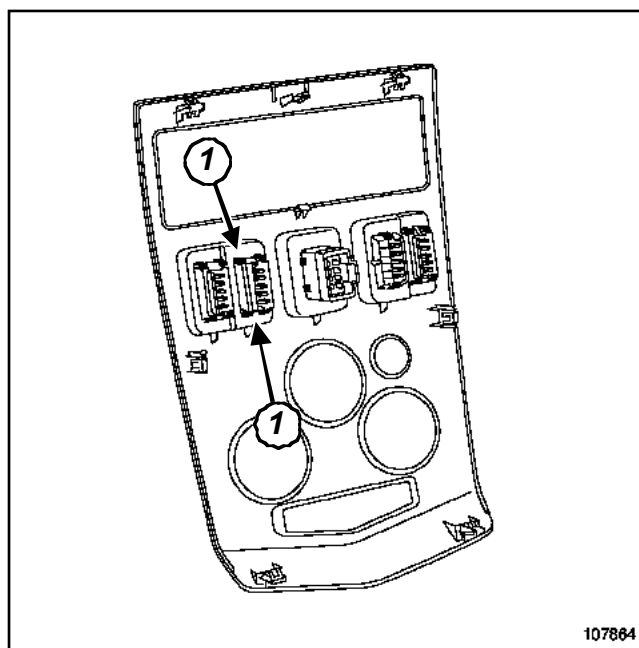


Remove the audio equipment.

Disconnect the audio equipment connectors.



Unclip the plate.



Disconnect the switch connector .

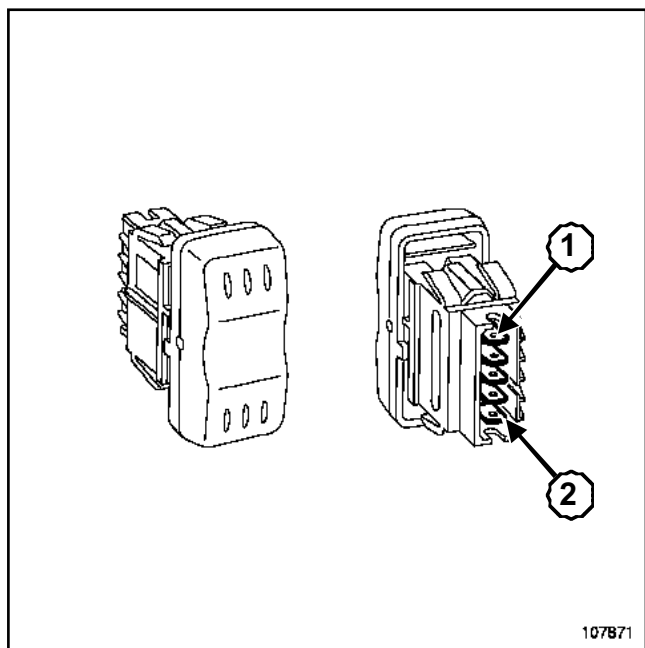
Unclip the central locking switch by moving clips (1).

# CONTROLS - SIGNALS

## Central locking switch: Connection

# 84A

L90



107871  
107871

Track	Description
1	Timed electric door locking switch
2	Earth
3	Earth
4	+ left-hand side light protected (centralisation switch lighting)
5	Timed electric door opening switch

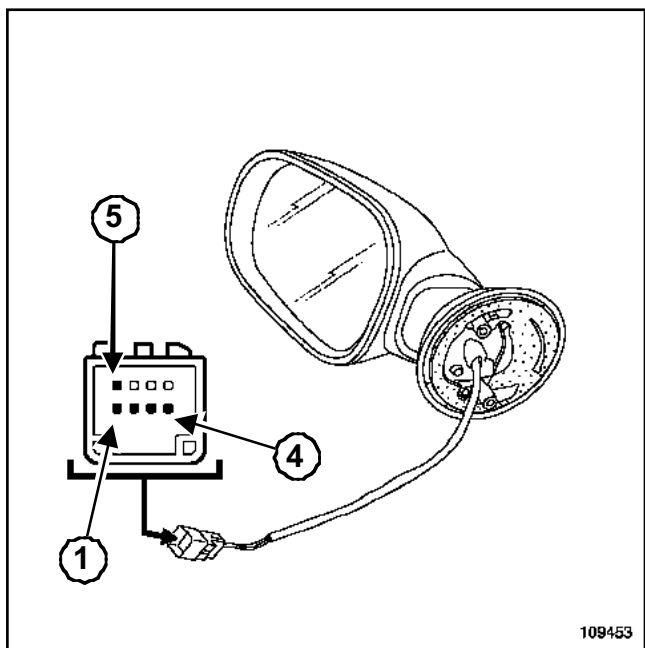
### OPERATION

The functions are activated when contact is established between two tracks:

Function	Track
Opening	3 and 5
Closing	3 and 1

Electric external rear-view mirror: Connection

L90



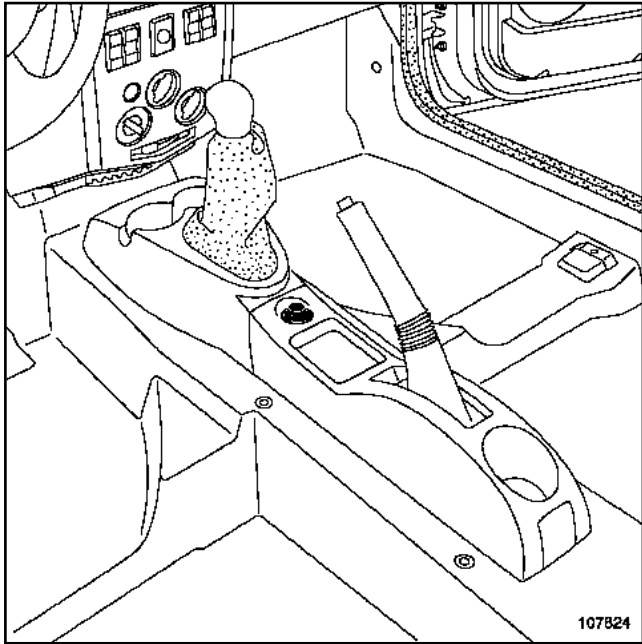
109453

109453

Track	Description
1	Door mirror horizontal control
2	Door mirror shared motor
3	Door mirror vertical control
4	+ protected heated door mirror control feed
5	Earth

L90

### REMOVAL



Unclip the door mirror control.

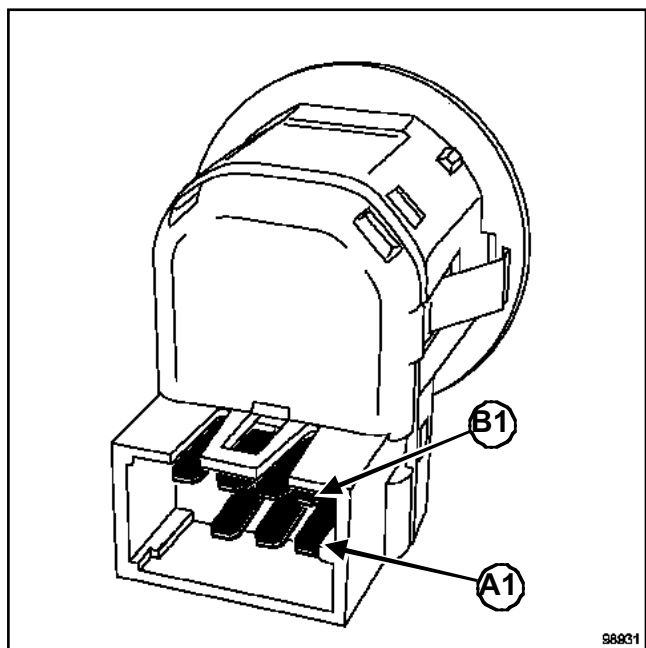
Disconnect the connector.

### REFITTING

Proceed in the reverse order to removal.

## Rear-view mirror control: Connection

L90



98931  
98931

Tracks	Right-hand door mirror function
B2/B3 and B4/A2	Raising
B2/A2 and B4/B3	Lowering
B1/B3 and B4/A2	Left
B4/B3 and B1/B2	Right

Track	Description
A1	Left-hand door mirror horizontal control
A2	+ battery feed
A3	Left-hand door mirror vertical control
B1	Right-hand door mirror horizontal control
B2	Right-hand door mirror vertical control
B3	Earth
B4	Shared door mirror motor

### Operation

Tracks	Left-hand door mirror function
A3/B3 and B4/A2	Raising
A3/A2 and B4/B3	Step-down
B4/A2 and A1/B3	Left
B4/B3 and A1/A2	Right

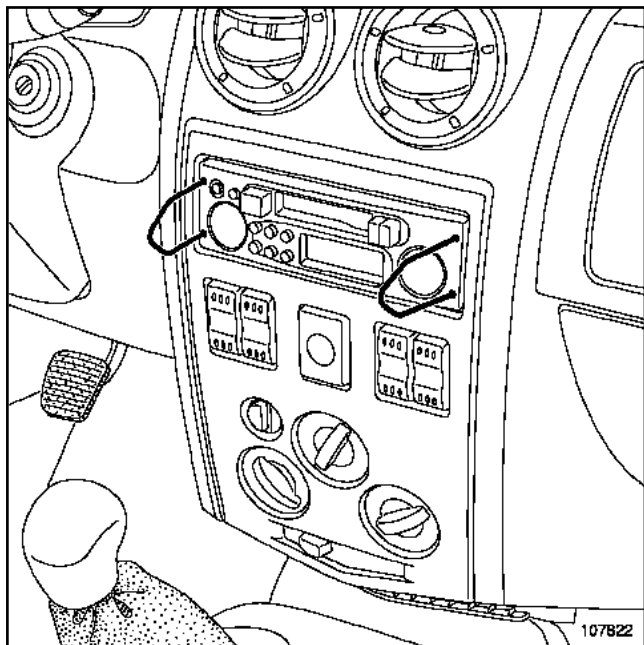
L90

### Essential special tooling

Ms. 1373

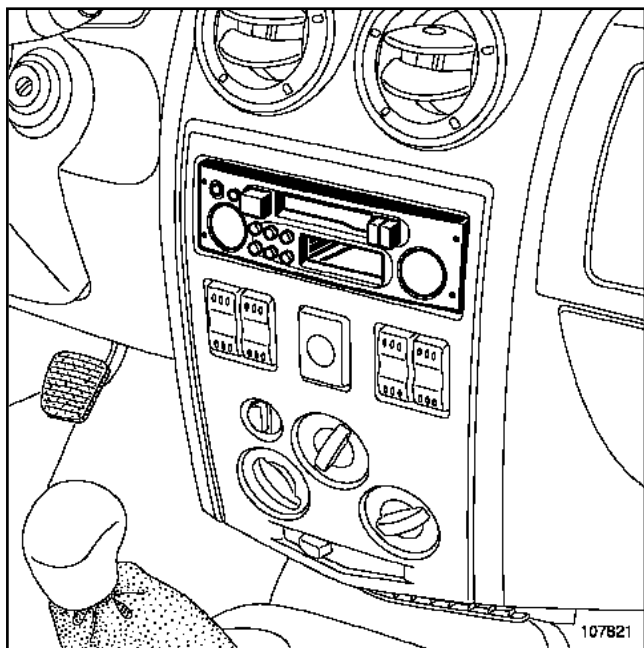
Philips radio removal tool

### REMOVAL



107822

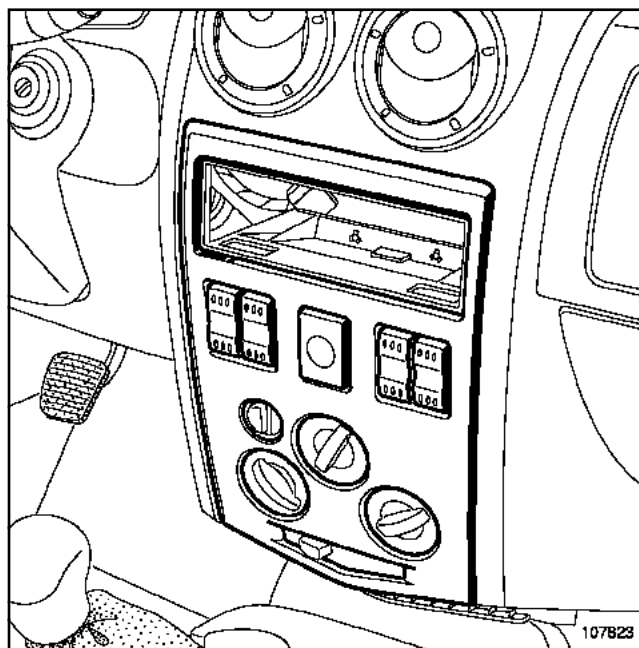
Insert tool (Ms. 1373) into the apertures.



107821

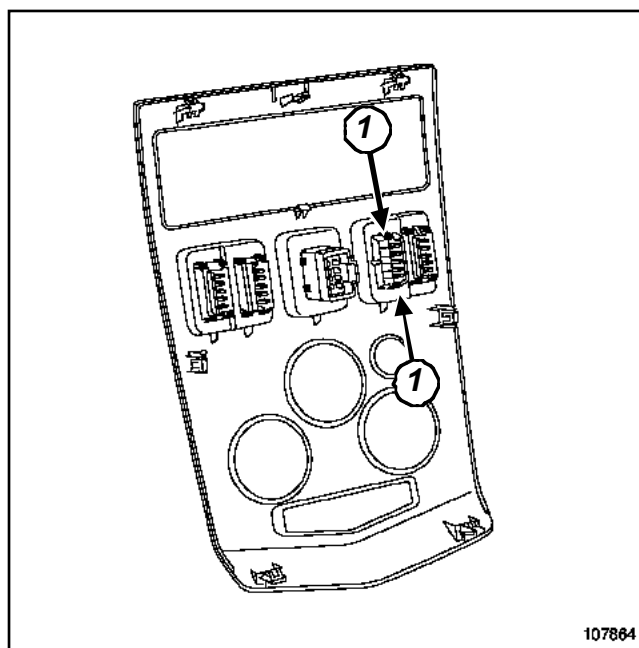
Remove the audio equipment.

Disconnect the audio equipment connectors.



107823

Unclip the plate.



107864

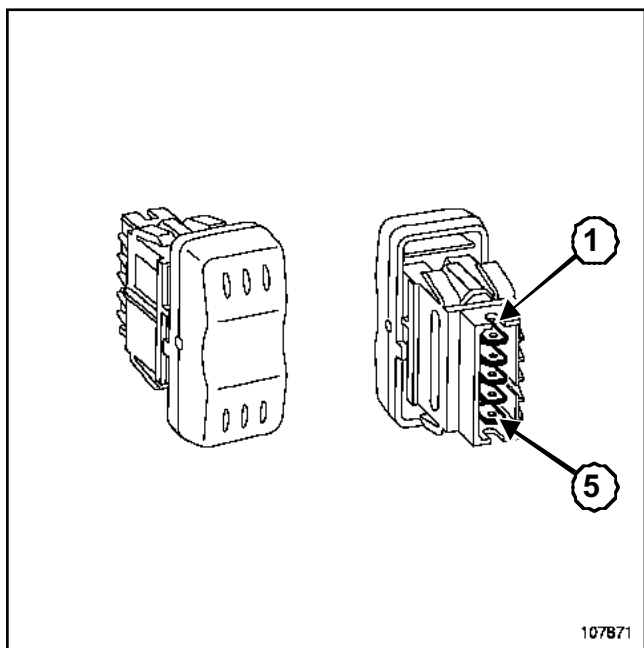
Disconnect the switch connector.

Unclip the rear screen switch by moving clips (1).



Heated rear screen switch : Connection

L90



107871  
107871

Track	Description
1	Earth
2	+ left-hand side light (heated rear screen switch lighting)
3	Heated rear screen indicator light
4	Switch + heated rear screen protected
5	+ after ignition protected, rear screen fuse

**OPERATION**

The function is activated when contact is established between tracks 1 and 4.

# CONTROLS - SIGNALS

## Heated rear screen: Repair

# 84A

L90

The screen printed heated grid on the inner face of the window may have an accidental cut, making the affected part of the circuit useless.

Determine the exact location of the cut using a voltmeter.

Faults such as these can be repaired by using the heated rear screen repair varnish available at the magasin Pièce de rechange.

### I - DETERMINING THE EXACT LOCATION OF THE CUT USING A VOLTMETER

Switch on the ignition.

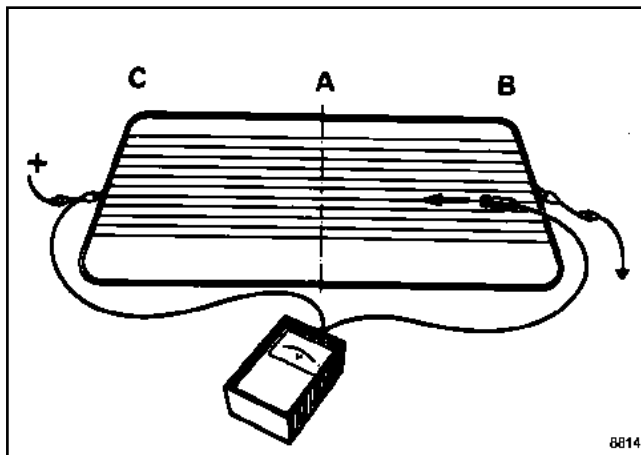
Switch on the heated rear screen supply.

#### 1 - Detection between lines B and A

Connect the + wire of the voltmeter to the + supply terminal of the rear screen.

Put the voltmeter - wire on a filament at the - terminal end of the rear screen (line B); the voltage obtained should be roughly equal to the battery's.

Move the - wire to line A (arrow): the voltage gradually drops.



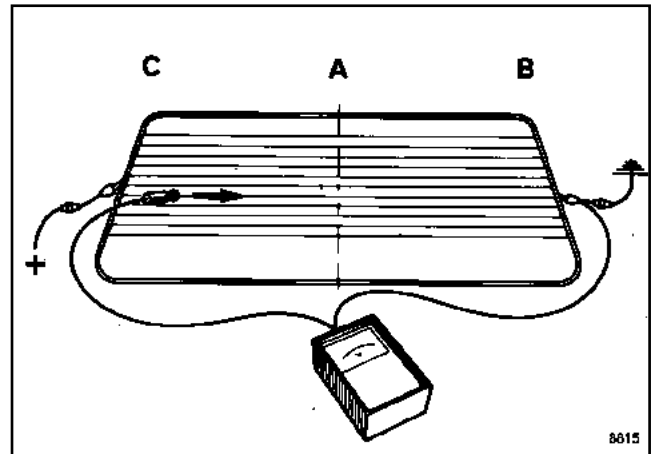
A sudden voltage drop indicates that the filament is cut at that point (carry out this operation for each filament).

#### 2 - Detection between lines C and A

Connect the - wire of the voltmeter to the - terminal of the rear screen.

Put the voltmeter + wire on the filament at the + terminal end of the rear screen (line C); the voltage obtained should be roughly equal to the battery's.

Move the + wire towards line A (arrow); the voltage gradually drops.



A sudden voltage drop indicates that the filament is cut at that point (carry out this operation for each filament).

### II - REPAIRING THE FILAMENT

Clean the section to be treated locally to remove all dust or grease, preferably using alcohol or a glass cleaner, and wipe with a clean, dry cloth.

To ensure that the new line is straight, before varnishing, apply adhesive tape to either side of the section to be repaired, leaving the conducting line free.

Before using the varnish, shake the bottle to prevent the silver particles settling on the bottom.

#### Repair

Carry out the repair using a small brush, applying a sufficiently thick layer. If applying successive coatings, allow sufficient drying time between each coating and do not repeat the operation more than three times.

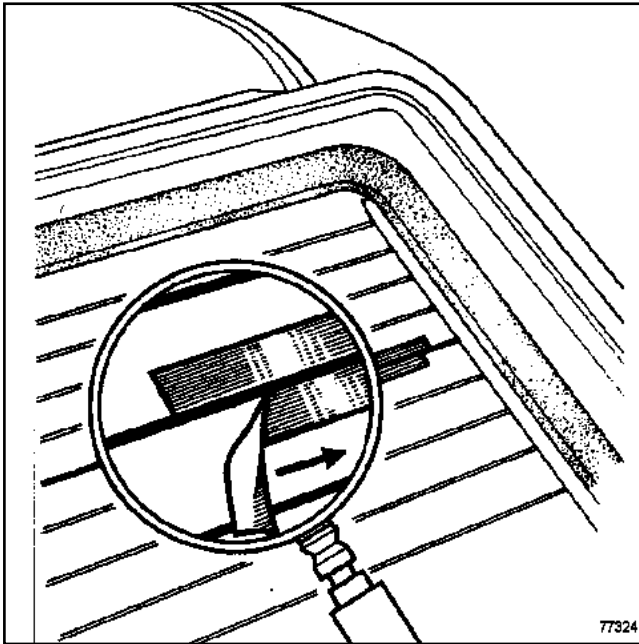
If the varnish runs however, it can be removed using a knife point, but only after several hours, once the product has properly hardened.

# CONTROLS - SIGNALS

## Heated rear screen: Repair

# 84A

L90



77324

The adhesive tape used as a guide must not be removed until around one hour after application. The tape must be pulled off perpendicularly to the resistance, in the direction of the arrow.. When used at an ambient temperature of **20°C**, the varnish is fully dry in three hours. At lower temperatures the drying time is slightly longer.

# WIPING / WASHING

## Windscreen wiper motor

# 85A

L90

### Tightening torques

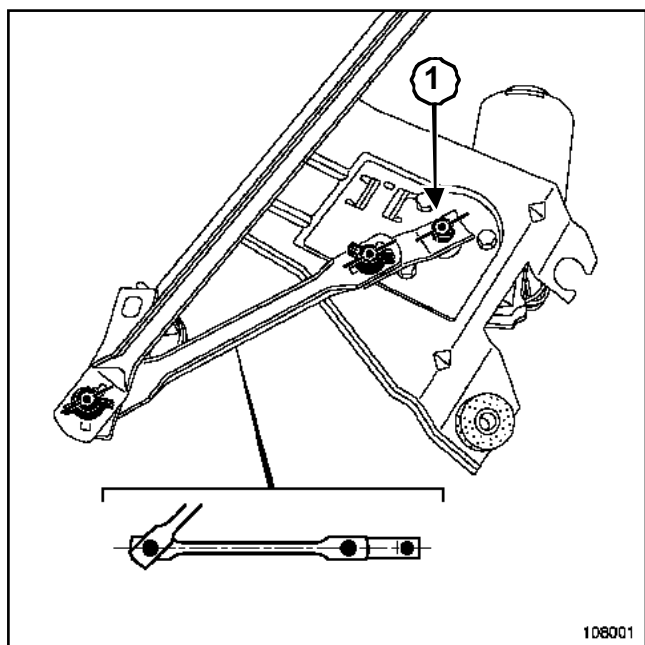
motor mounting bolt to torque	<b>0.8 daNm</b>
motor shaft nut to torque	<b>1.6 daNm</b>

## REMOVAL

### WARNING

Check that the motor mechanism is correctly positioned in the park position.

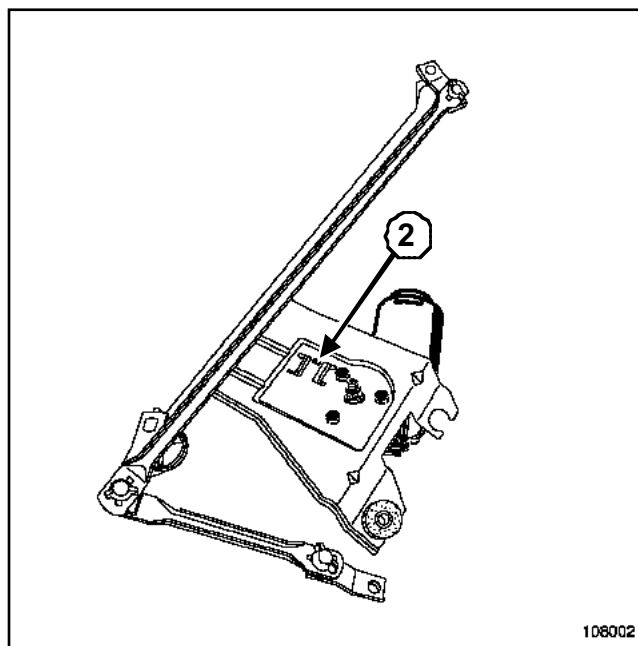
Remove the windscreen wiper mechanism (see **85A, Wiping / Washing, Windscreen mechanism**).



108001

Remove:

- the motor shaft nut (1),
- the washer.



108002

Unclip the windscreen wiper motor connector (2).

Remove:

- the three motor mounting bolts,
- the motor.

## REFITTING

Proceed in the reverse order to removal.

### WARNING

Check that the motor is correctly positioned in the park position.

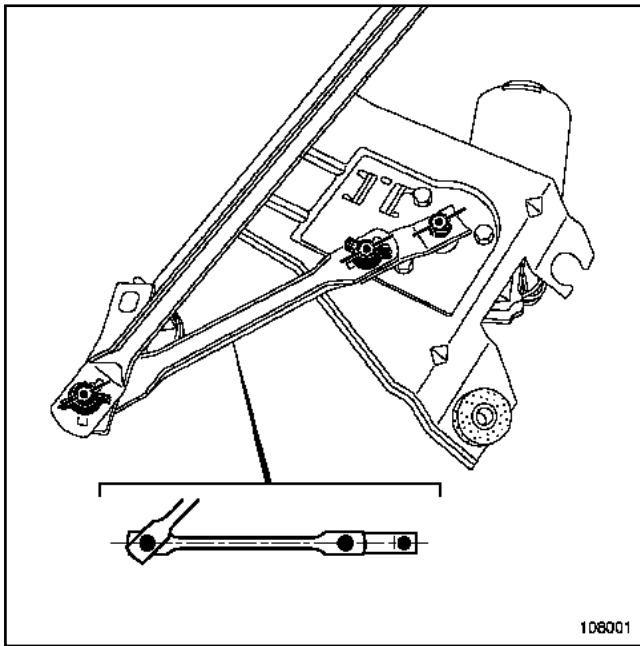
Tighten the **motor mounting bolt to torque (0.8 daNm)**.

# WIPING / WASHING

## Windscreen wiper motor

# 85A

L90



108001

Position the linkages as shown in the above illustration.

Tighten the **motor shaft nut to torque (1.6 daNm)**.

Fit the mechanism (see **85A, Wiping / Washing, Windscreen wiper motor mechanism**).

# WIPING / WASHING

## Windscreen wiper motor mechanism

# 85A

L90

### Essential special tooling

<b>Ele. 1294-01</b>	Tool for removing windscreen wiper arms
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### Tightening torques

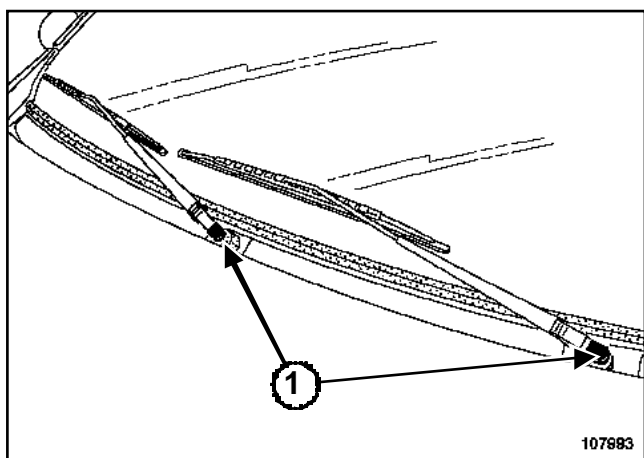
motor mounting bolt to torque	<b>0.8 daNm</b>
motor shaft nut	<b>1.6 daNm</b>
windscreen wiper mechanism nuts	<b>0.8 daNm</b>
windscreen wiper mechanism mounting bolt	<b>0.8 daNm</b>
windscreen wiper arm nuts	<b>1.6 daNm</b>

## REMOVAL

### WARNING

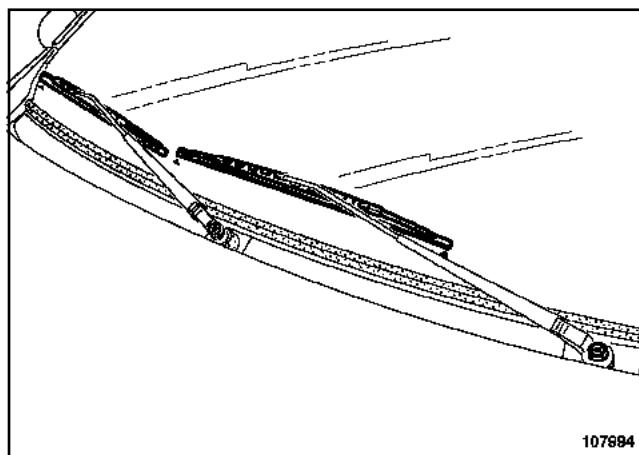
Check that the motor is correctly positioned in the park position.

Disconnect the battery, starting with the negative terminal.



107983  
107993

Remove the screw covers (1).



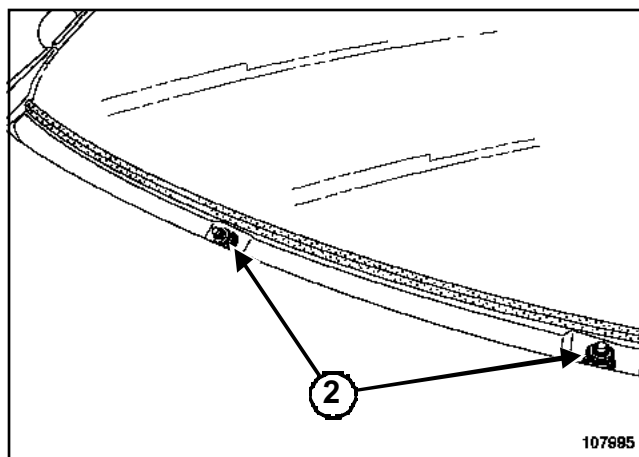
107984  
107994

### WARNING

Mark the windscreen wiper arms before removal.

Remove:

- the nuts,
- the wiper arms using tool (Ele. 1294-01).



107985  
107995

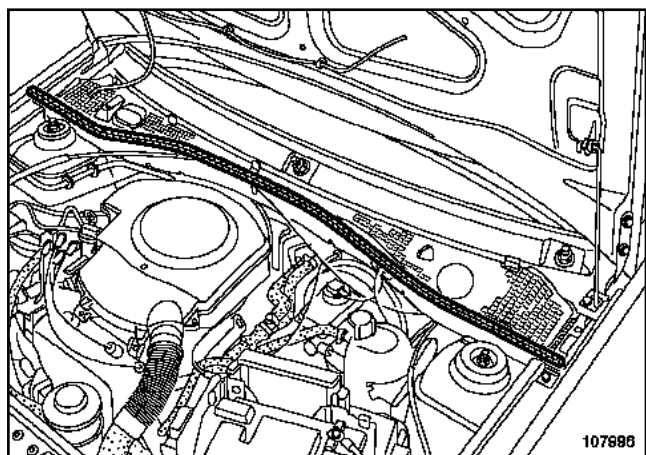
Remove the nut covers (2).

# WIPING / WASHING

## Windscreen wiper motor mechanism

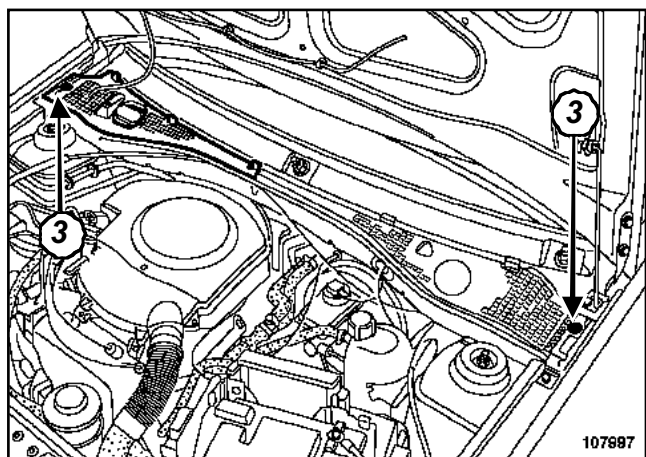
# 85A

L90



107996  
107996

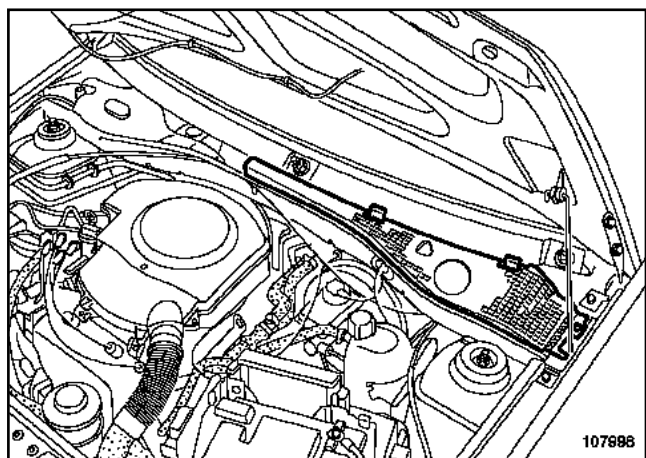
Remove the engine compartment seal.



107997  
107997

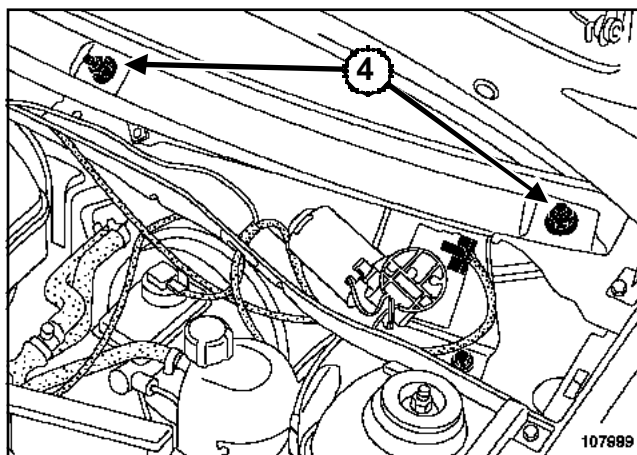
Remove:

- the two scuttle side panel bolts (3),
- the right-hand half scuttle side panel.



107998  
107998

Remove the left-hand scuttle side panel grill.



107999  
107999

Disconnect the wiper motor connector.

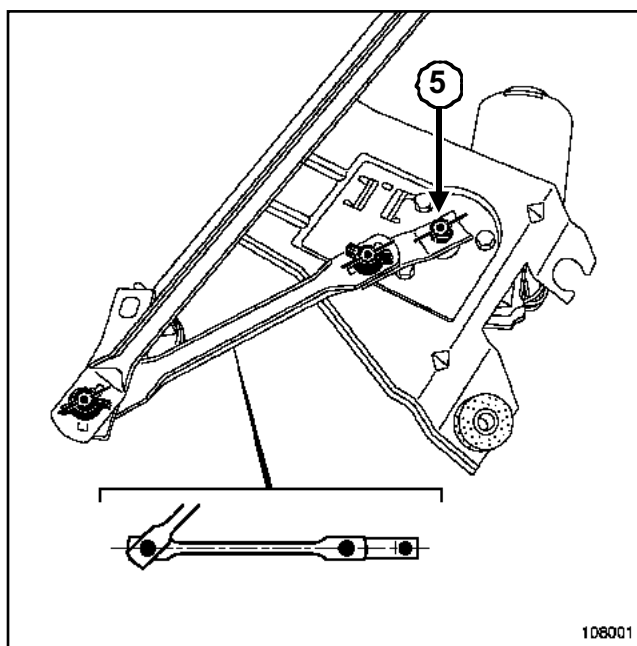
Remove:

- the windscreen wiper mechanism nuts (4),
- the windscreen wiper mechanism mounting bolts,
- the washers.

### WARNING

The windscreen wiper mechanism mountings (4) are fragile: the threads are plastic.

Remove the « mechanism - motor » assembly.



108001  
108001

Remove:

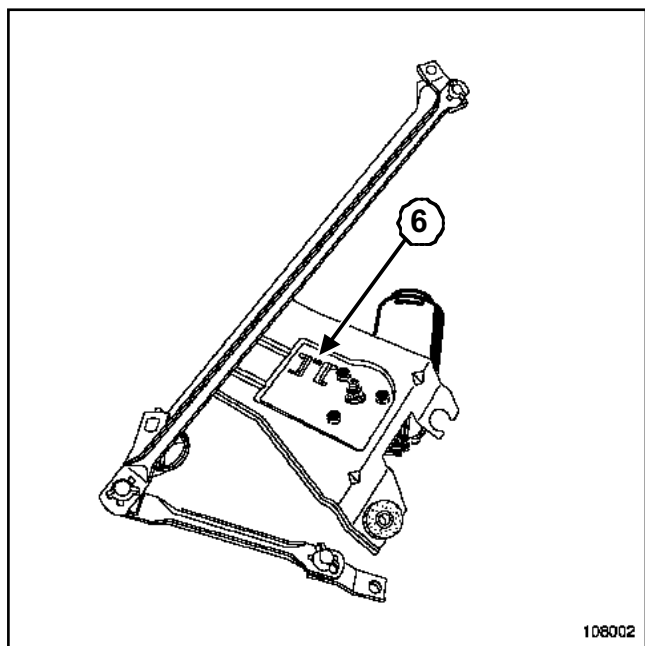
- the motor shaft nut (5),
- the washer.

# WIPING / WASHING

## Windscreen wiper motor mechanism

# 85A

L90



Unclip the windscreen wiper motor connector (6).

Remove:

- the three motor mounting bolts,
- the motor.

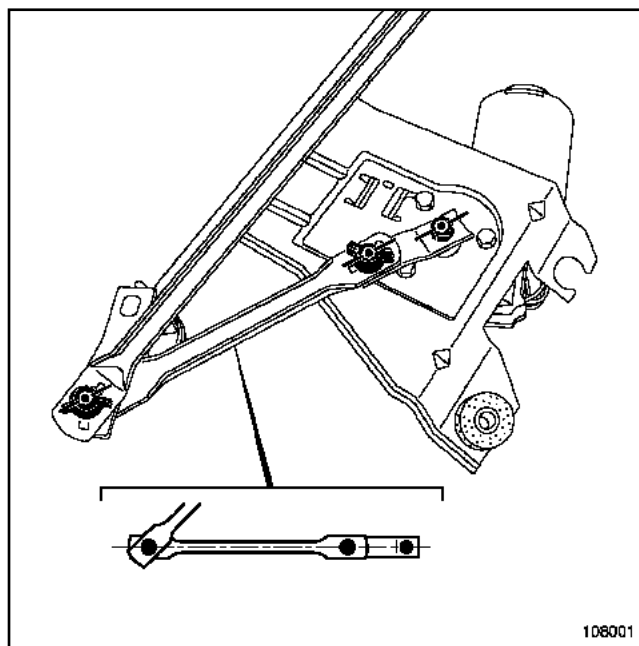
### REFITTING

Proceed in the reverse order to removal.

#### WARNING

Check that the motor is correctly positioned in the park position.

Tighten the **motor mounting bolt to torque (0.8 daNm)**.



Position the linkrods as shown in the above diagram.

Torque tighten the **motor shaft nut (1.6 daNm)**.

Put the mechanism in place.

Torque tighten:

- the **windscreen wiper mechanism nuts (0.8 daNm)**,
- The **windscreen wiper mechanism mounting bolt (0.8 daNm)**.

#### WARNING

Before refitting the windscreen wiper arms, check that the windscreen motor is correctly positioned in the park position and clean the windscreen wiper arm shaft splines.

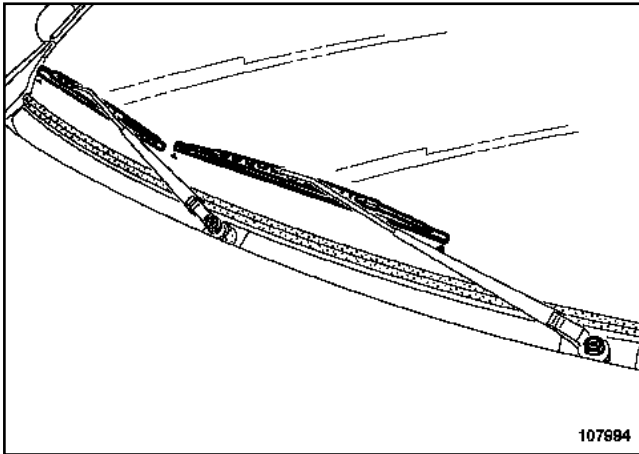


# WIPING / WASHING

## Windscreen wiper motor mechanism

# 85A

L90



107994

Position the wiper arms according to the markings on the windscreen.

Torque tighten the **windscreen wiper arm nuts (1.6 daNm)**.

### WARNING

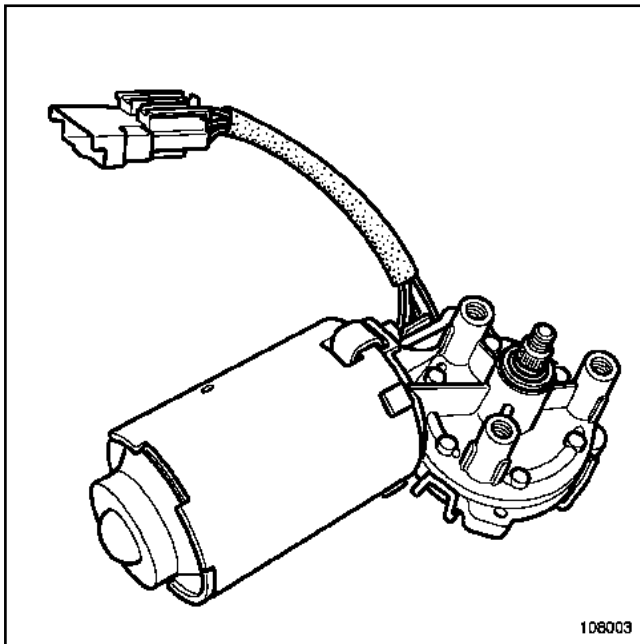
Connect the battery, starting with the positive terminal; carry out the necessary programming (see **80A, Battery, Battery: Removal - Refitting**).

# WIPING / WASHING

## Windscreen wiper motor: Connection

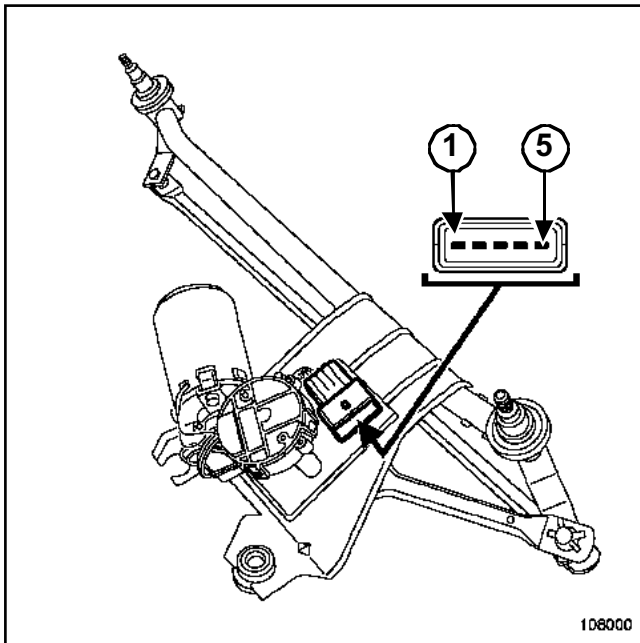
# 85A

L90



108003

108003



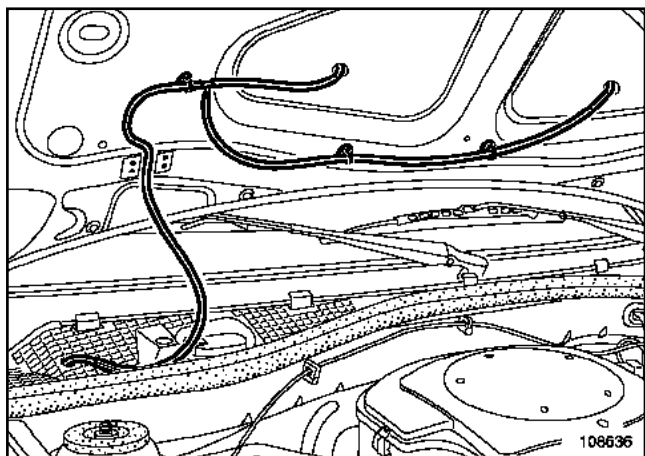
108000

108000

Track	Description
1	Earth
2	Wiper park position control
3	+ protected after ignition feed
4	Low-speed wiping control
5	High-speed wiping control

L90

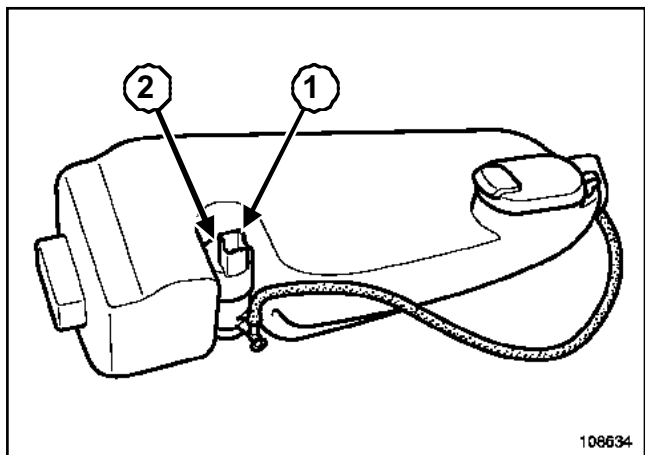
### I - OPERATION



108636

The vehicle is fitted with an electric pump which supplies the windscreen washer fluid.

### II - CONNECTION



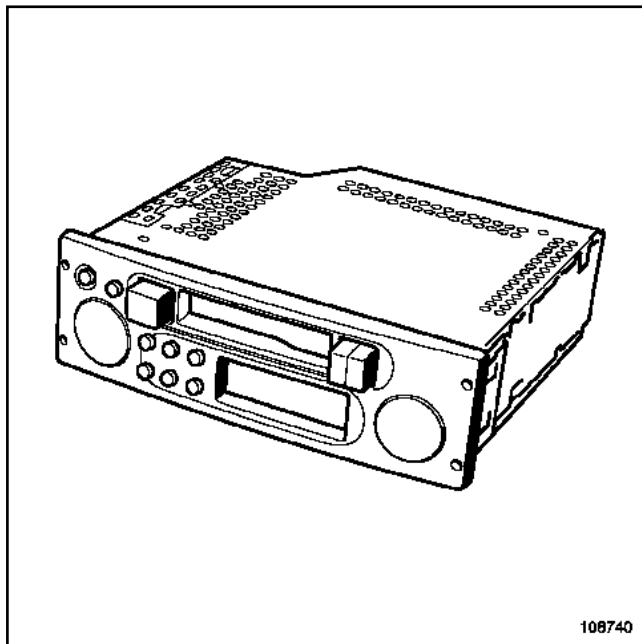
108634  
108634

Track	Description
1	Earth
2	Windscreen washer pump + control feed

L90

Vehicles can be fitted with:

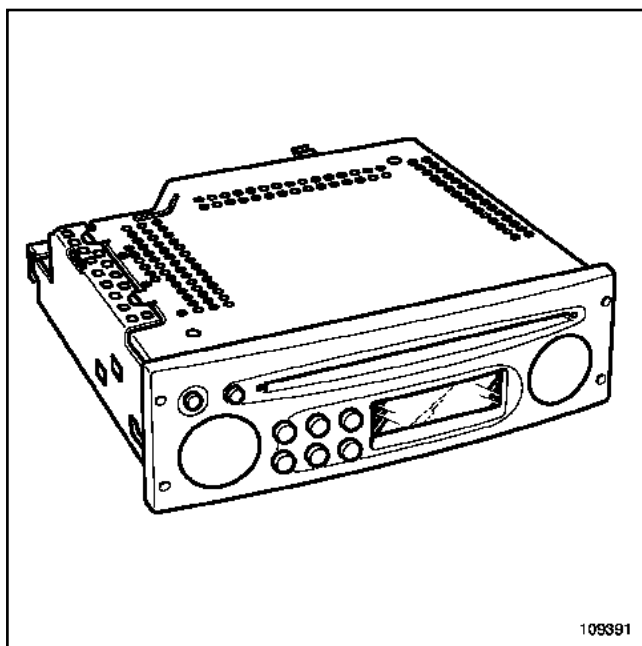
- a radio cassette player with built-in display (PN2) (depending on the version),



108740

108740

- a radio CD player with built-in display (PN4) (depending on the version).



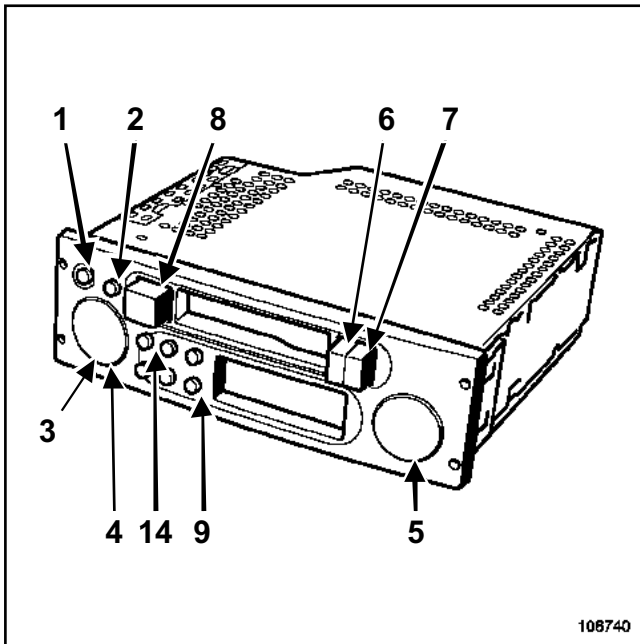
109391

109391

Radio	Display	Protection code
Cassette player	integrated	yes
CD player	integrated	yes

"entry level": General information

L90



108740  
108740

Reference	Description
(1)	on/off
(2)	MSS button
(3)	The « et » button enables you to change the configuration mode and access the menus
(4)	The settings can be adjusted by pressing the + and - buttons
(5)	The « source » button (SRC)
(6)	Rewind button
(7)	Fast forward button
(8)	Eject button
(9) to (14)	Stored radio stations

The features of the radio allow you to:

- listen to the radio (four geographical zones can be programmed for FM radio),
- display the name of the station using RD. which automatically switches to the best transmitter (AF function),
- receive traffic information (« I Traffic » function),
- receive news flashes and emergency bulletins, (« I news »),

- Receive emergency public safety bulletins «PTY 31 ».

Note:

Four geographical zones can be programmed for the radio.

The radio has three selection modes displayed on the screen and accessible from the radio front panel:

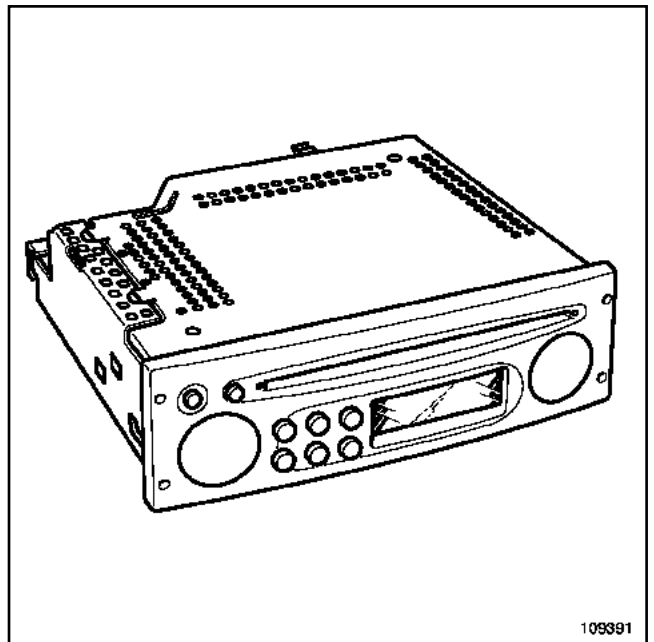
- manual mode (MANU),
- preset mode (PRESET),
- alphabetical order mode (LIST).

**I -CASSETTE FUNCTION**

The cassette plays automatically once the cassette source has been selected using the steering wheel control or the front panel.

Only the Dolby fast forward and rewind with search controls can be selected by specific buttons.

**II - CD FUNCTION (SINGLE DISC)**



109391  
109391

The CD player can play conventional discs and any audio tracks on a CD-ROM.

CDs can be played in order or tracks can be chosen at random.

**"entry level": General information**

L90

Note:

If a CD changer is being used, random play is only possible on one disc.

**III - HEAT PROTECTION**

If the radio temperature is too high for it to function properly, the volume is automatically reduced (without changing the volume shown in the display).

Should one of the speaker channels short circuit, the supply to the amplifier will be cut off.

**IV - VOLUME CONTROL**

The volume can be increased according to the vehicle speed. To operate this function: select the required volume adjustment curve using the « Expert » mode (press and hold down the « source » (SRC) button until you hear a beep):

- **5** for maximum volume increase,
- **0** to return to the previous volume setting.

Note:

Check that the radio is correctly connected for this function to be operational.

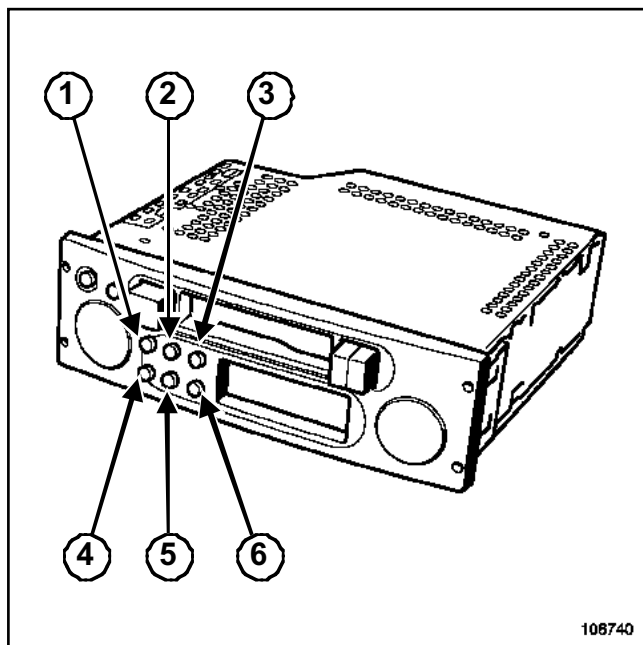
Note:

Depending on the vehicle, the radio may be equipped with a graphic equaliser. To modify the vehicle type, (see **86A, Radio, Audio equipment, Configuration**).

**"entry level": Protection code**

L90

The radio is protected by a four-digit code. This code must be entered using the audio equipment keypad each time the battery or audio equipment connectors are disconnected.

**ENTRY VIA THE AUDIO EQUIPMENT**108740  
108740

Enter the figures using buttons (1), (2), (3) and (4) and then confirm using button (6) (see **Fault finding chart, security code**).

If an incorrect code is entered, the audio equipment locks (for **1 minute** for the first incorrect code, for **2 minutes** for the second, for **4 minutes** for the third, etc., for a maximum of **32 minutes**).

After the code is entered for the first time, certain configurations must be programmed (see **86A, Radio, Standard: Configuration**). These configurations are stored if the battery or audio equipment connectors are disconnected.

**Note:**

If there is a configuration error, you can return to scrambled mode by pressing the (2) and (5) buttons at the same time as switching the power on. Then wait for **2 minutes**.

**Reminder:**

The audio equipment can function for approximately **2 minutes** without the code having been entered (you will hear regular warning beeps).

**Note:**

If the old audio equipment code is lost, the changer code can be cleared using the clearing code. This clearing code is transmitted from the **DACIA** network via Techline (tel. 00 40 248 500 555) .

# RADIO

## Entry level: Radio

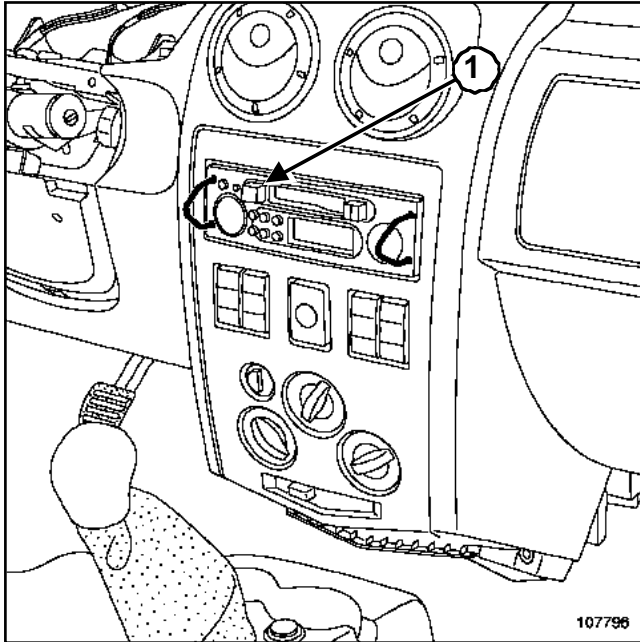
# 86A

L90

### Essential special tooling

<b>Ms. 1373</b>	Philips radio removal tool
-----------------	----------------------------

### REMOVAL



107796

107796

Remove the radio (1) using tool (Ms. 1373).

Disconnect the connectors.

### REFITTING

Proceed in the reverse order to removal.



# RADIO

## "entry level": Configuration

# 86A

L90

### I - CONFIGURATION

Configuration is required after the security code has been entered for the first time or after buttons **2**, **5** and **radio ON** have been pressed.

Wait for approximately **2 minutes** and then enter the security code.

Select the relevant region:

- Others (Europe, Africa, other),
- America,
- Japan,
- Asia,
- Arabia.

If your country of residence is not included in the selection shown, the value « Others » may be displayed by default.

Press and hold button **6** to confirm.

Select the tone graph appropriate for the vehicle

- 0: Inactive regulation,
- 1: Twingo,
- 2: Clio,
- 3: Mégane - Scénic,
- 4: Laguna,
- 5: VelSatis - Espace.

If your vehicle type is not included in the selection shown, the value « 0 » may be displayed by default.

Configuration of the rear speakers « REAR ON - OFF ».

If the relevant configuration is not included in the selection shown, a single value may appear in the display by default.

Note:

These configurations are not required once the secret code has been entered after the supply has been cut.

### II - SETTINGS

The parameters can be adjusted by pressing and holding down the « source » button (SRC).

Activate or deactivate the automatic station resynchronisation tracking (RDS): « AF ON/OFF » using keys « + » and « - ».

Use the < and > buttons to jump to the next parameter.

- Select the curve for speed-dependent volume control then confirm:

- « SPEDD 0 »: Inactive regulation,
- « SPEDD 5 »: maximum adjustment.

- Using the « + » and « - » buttons.

Activate or deactivate the « Loudness » function: « LOUD ON/OFF ».

Using the « + » and « - » buttons.

Select the: « TUNE MAN/AUTO » tuner operating mode.

Using the « + » and « - » buttons.

Configure the rear speaker « REAR ON/OFF ».

Using the « + » and « - » buttons.

Configure the list update « LIST MAN/DYN » list update.

Using the « + » and « - » buttons.

Note:

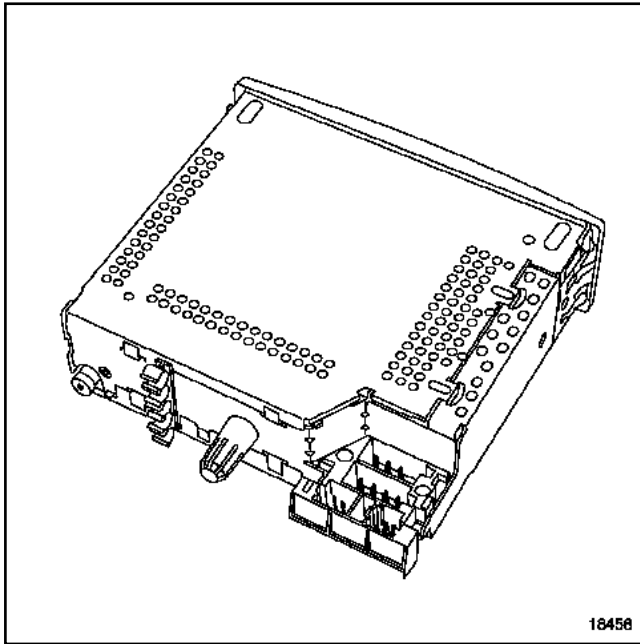
Pressing the source button once while the settings are being entered cancels the changes.

# RADIO

## "entry level": Connection

# 86A

L90



18458

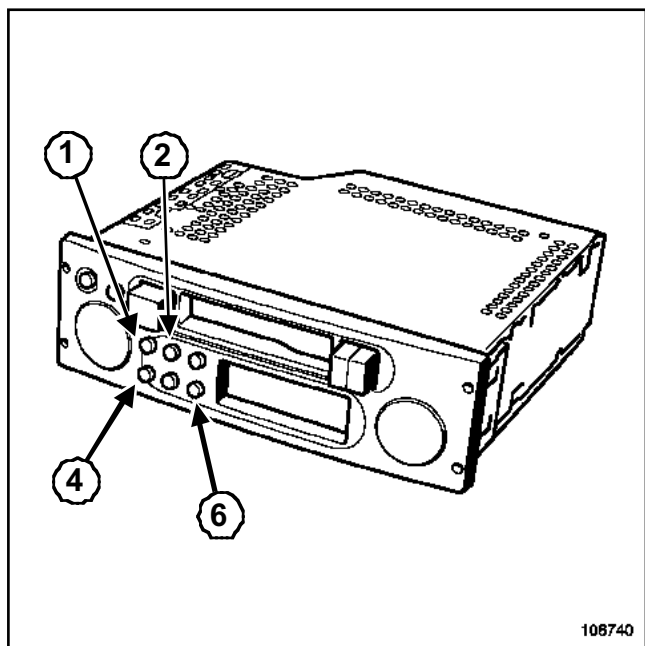
For information on connecting the audio equipment (see **Technical Note: Wiring diagram, component 261**).

Note:

The speakers are connected in parallel on each output.

## "entry level": Self-diagnostic

L90



108740

108740

**SELF-DIAGNOSTIC MODE**

The self-diagnostic mode checks some of the main functions:

- the speakers are tested

the speakers are supplied one by one if you press buttons **(2)** and **(4)** simultaneously. This is confirmed by the display. Compare the signals from each speaker:

- test the level of reception (after the frequency is displayed),

the display shows the radio reception information if you press buttons **(1)** and **(6)** simultaneously.

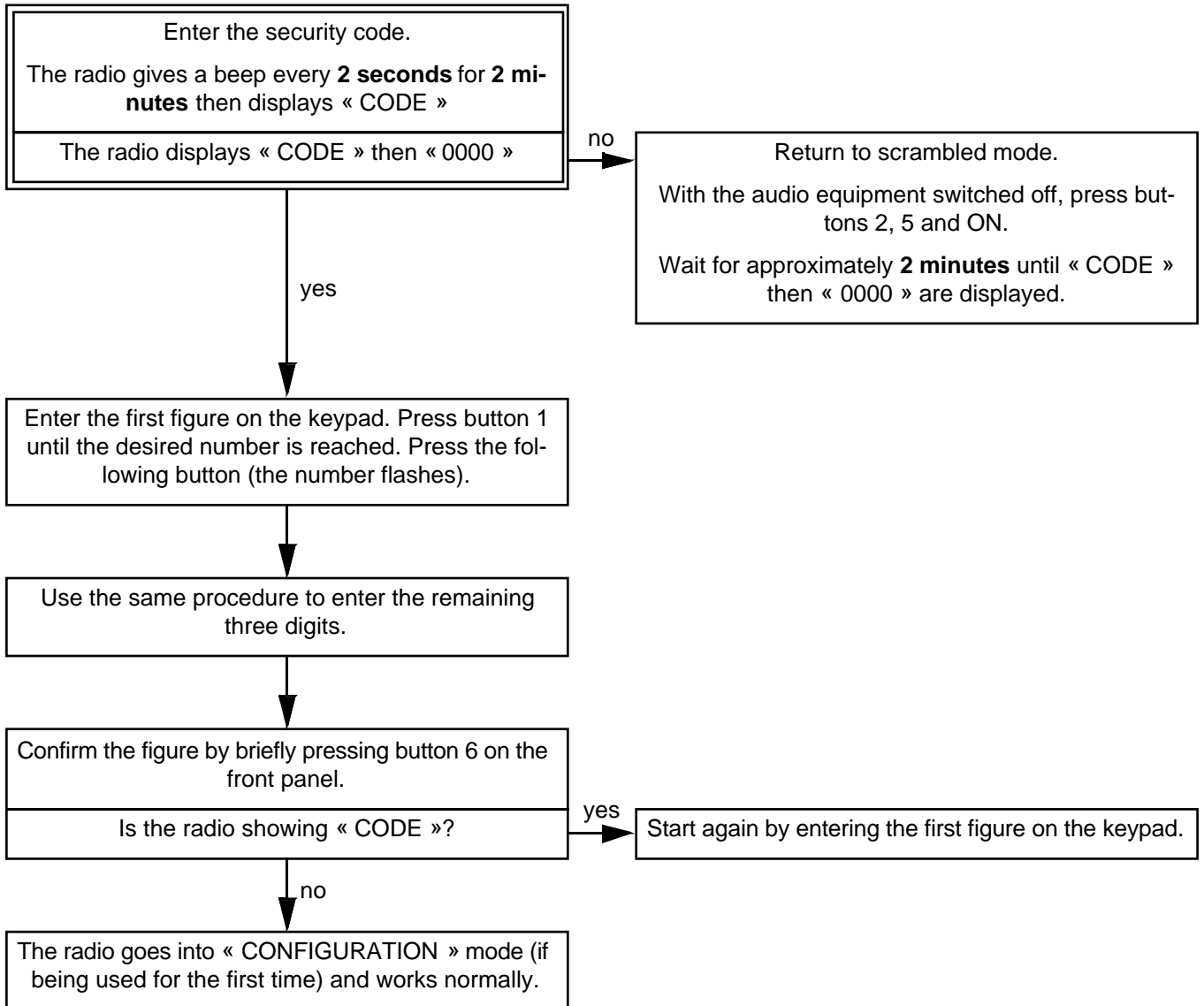
- 9 or a letter: good reception,
- lower than 3: bad signal,
- 2: total loss of reception.

**"entry level": Entering protection code**

L90

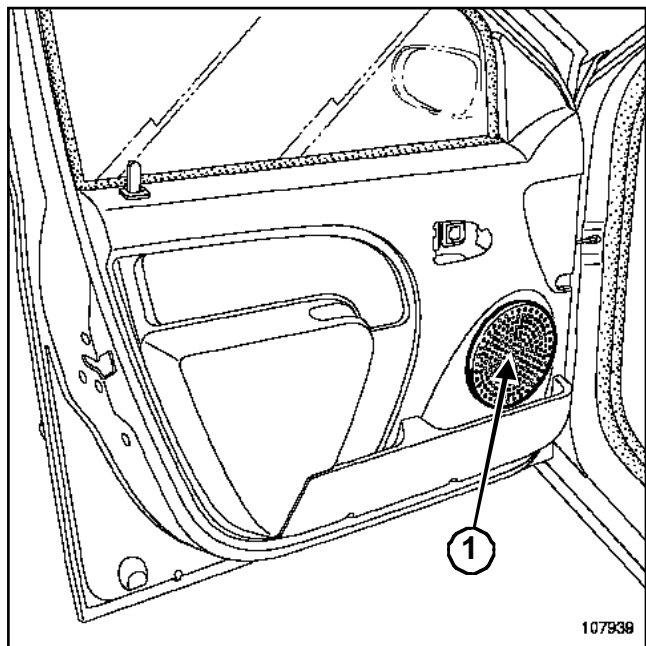
**CHART 1**

**The display shows CODE or 0000**



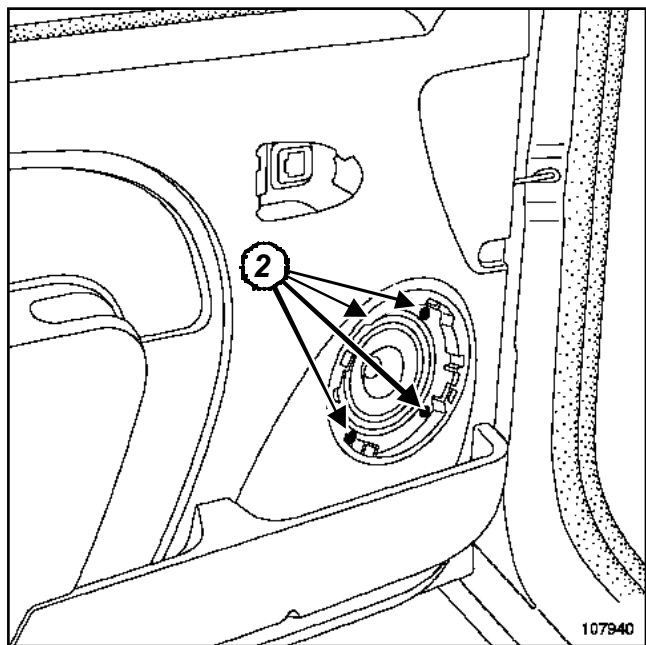
L90

**REMOVAL**



107939

Unclip front speaker grille (1).



107940

Remove:

- the bolts (2),
- the speaker.

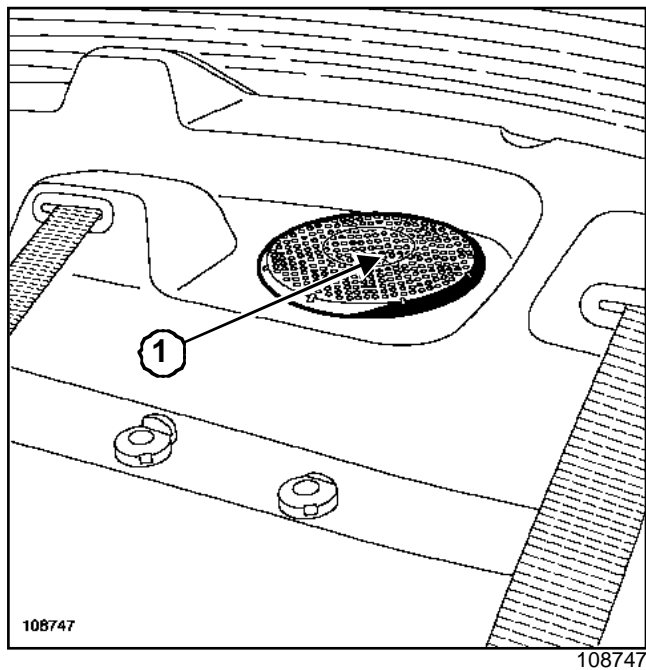
Unclip the connector .

**REFITTING**

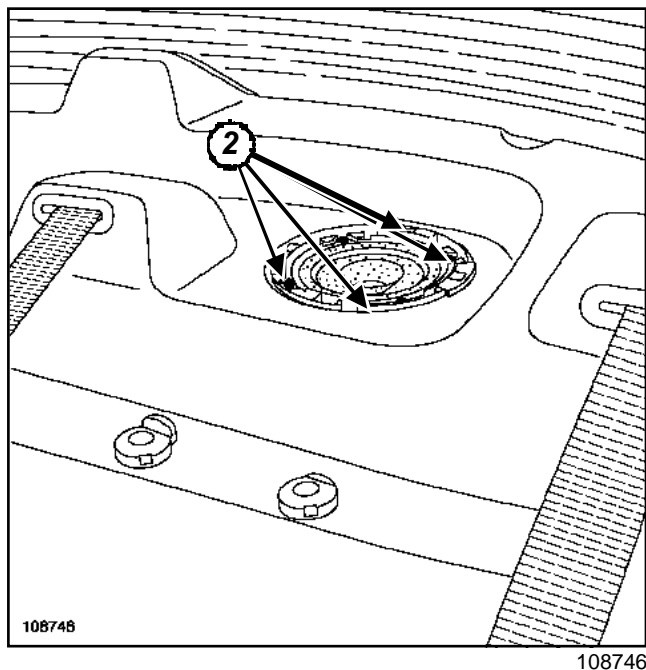
Proceed in the reverse order to removal.

L90

**REMOVAL**



Unclip rear speaker grille (1).



Remove:

- the bolts (2),
- the speaker.

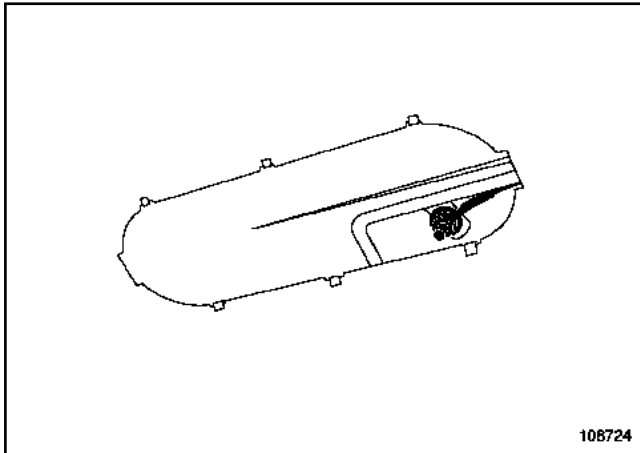
Unclip the connector.

**REFITTING**

Proceed in the reverse order to removal.

L90

The radio aerial is located on the front roof.



108724  
108724

### **REMOVAL**

Remove the headlining (see **71A, Body internal trim, headlining**).

Remove the mounting nut.

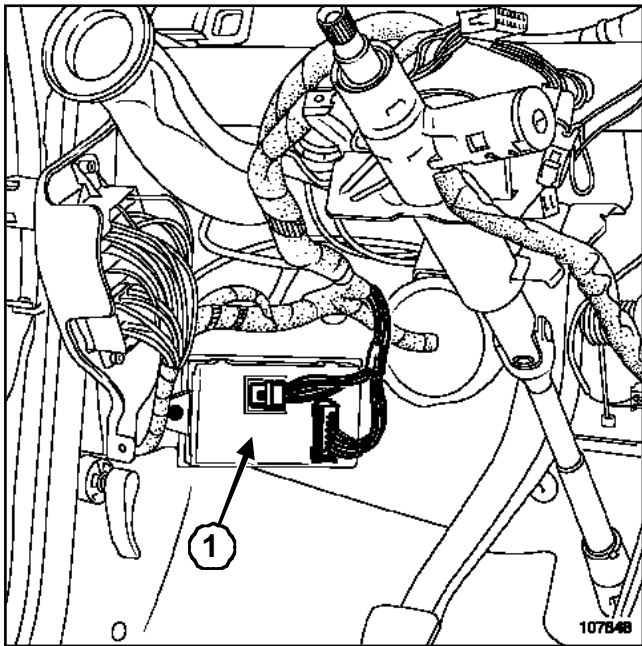
**Note:**

To remove the aerial cable, remove the dashboard (see **83A, Instrument panel, dashboard**).

### **REFITTING**

Proceed in the reverse order to removal.

L90



107848

There are two UCH models (1) which can be fitted to the vehicles:

- « entry level » N2 UCH, corresponding to equipment level E0,

- « top of the range » N3, N4, N5 UCH for equipment levels E1 and E2.

Note:

The two UCH versions are available as replacement parts.

	Listed UCH functions	EQUIPMENT LEVEL			
		E0	E1	E1+	E2
		N2	N3	N4	N5
Fault finding	Diagnostic connection	#	#	#	#
Engine immobiliser	Encoded transponder / Immobiliser (with indicator light)	#	#	#	#
Lighting	Direction indicators / Hazard warning lights	#	#	#	#
	Direction indicator indicator light	#	#	#	#
	Lights on reminder buzzer (side lights)	#	#	#	#
	Relay supply for interior lighting	#	#	#	#
	Interior lighting management		#	#	#
Wipers	Windscreen wiper with fixed wiping speed	#	#	#	#



# PASSENGER COMPARTMENT CONNECTION UNIT

## UCH: General information

# 87B

L90

	Listed UCH functions	EQUIPMENT LEVEL			
		E0	E1	E1+	E2
		N2	N3	N4	N5
Doors and boot/tail-gate	Radio frequency remote control door locking			#	#
	Interior radio frequency aerial			#	#
	Retrofitted alarm / door locking indicator light			#	#
	Automatic static relocking (after 30 s)				#
	Door open indicator light				#
	Exterior door locking control			#	#
	Radio frequency key with two buttons			#	#
Heated rear screen	Heated rear screen management		#	#	#
	Engine speed signal for heated rear screen function		#	#	#
#: function present and used.					

L90

### Essential equipment

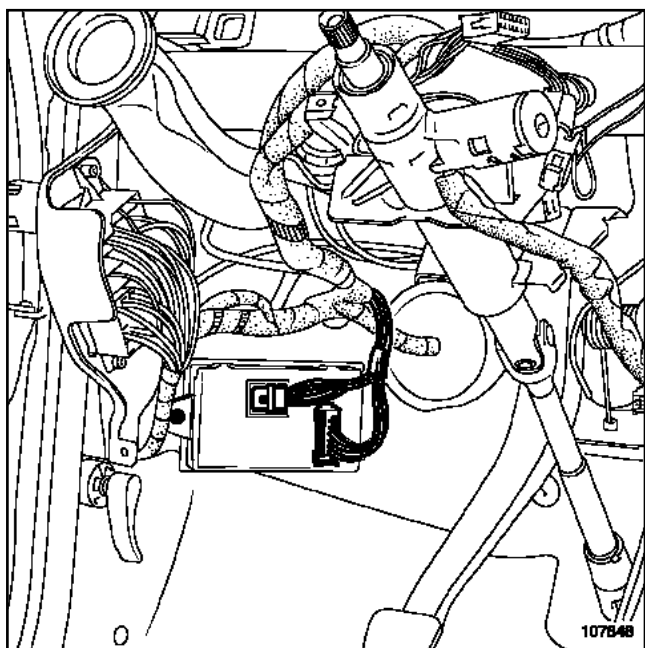
diagnostic tool

## REMOVAL

### WARNING

If replacing the UCH, it is essential to display the configurations using **diagnostic tool**.

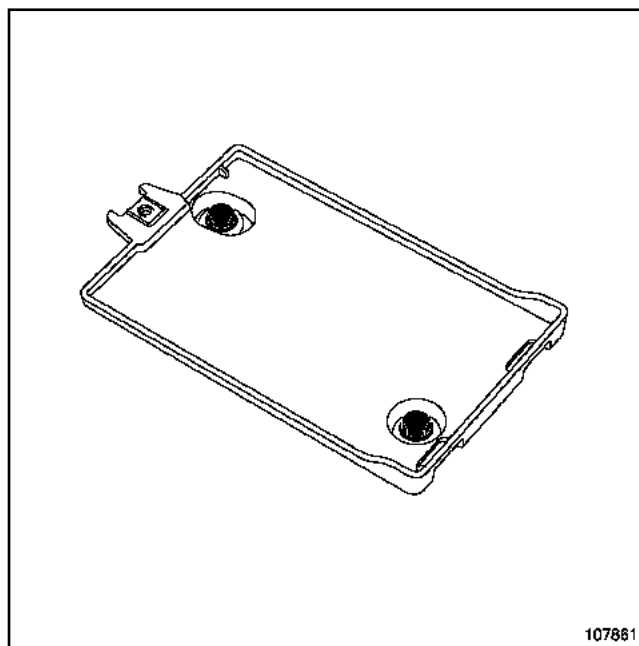
Disconnect the battery, starting with the negative terminal.



Disconnect the connectors.

Remove:

- the UCH mounting bolt,
- the UCH.



107861

### Note:

The UCH is secured onto its mounting.

## REFITTING

Proceed in the reverse order to removal.

### WARNING

Connect the battery, starting with the positive terminal; carry out the necessary programming (see **80A, Battery: Remove and Refit**).

Program the vehicle code and the keys (see **82A, Engine immobiliser**).

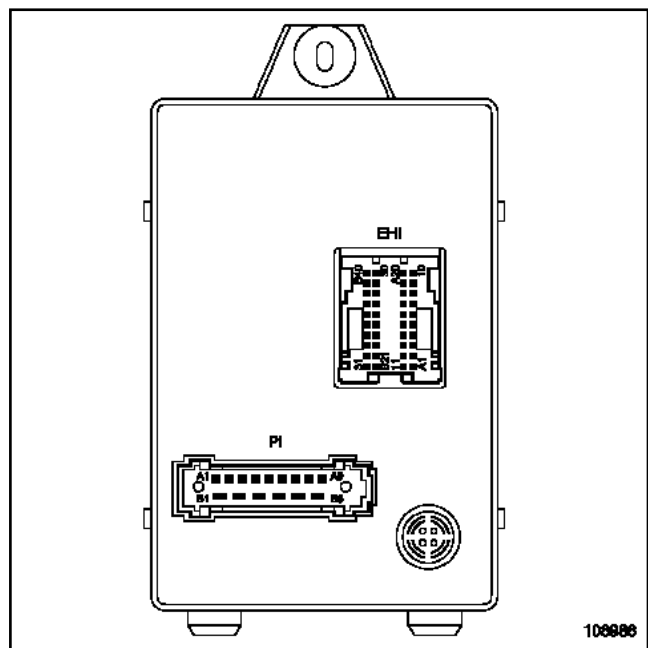
Configure the UCH according to the equipment level (see **87B, UCH, Configuration**).

# PASSENGER COMPARTMENT CONNECTION UNIT

## UCH: Connection

# 87B

L90



108988  
108988

### PI connector

Track	Description
A1	Earth
A2	Courtesy light timer - control feed
A3	+ protected continuous computer feed
A4	Windscreen low-speed wiping timer control
A5	+ protected after ignition feed
A6	Windscreen wiper park position + control feed
A7	Not connected
A8	Right-hand direction indicator control
A9	Left-hand direction indicator control
B1	Not connected
B2	Electric central door locking closing control output
B3	+ Protected after ignition feed
B4	Electric central door locking opening control output
B5	+ battery protected timed lighting feed
B6	+ battery circuit cut-off relay feed

### EHI connector

Track	Description
1A	Not connected
2A	Not connected
3 a	Not connected
4 a	Not connected
5 A	Left/right-hand direction indicator light output
6A	Vehicle speed signal input
7A	Not connected
8A	Electric door locking opening timer + control feed
9 a	Transponder aerial radio frequency earth
10A	Radio frequency signal
11A	Not connected
12A	Not connected
13A	Not connected
14A	Not connected
15A	+ protected left-hand side light feed
16A	Transponder aerial bus signal
17A	Electric central door locking closing timer + control feed
18A	Not connected
19A	Not connected
20A	1 <sup>st</sup> ignition switch signal position
21B	Not connected
22B	Brake lights fuse protected + after ignition feed
23B	Airbag UCH impact signal
24B	Windscreen wiper timer + control feed
25B	Not connected
26B	Left-hand direction indicator timer activation control

# PASSENGER COMPARTMENT CONNECTION UNIT

## UCH: Connection

# 87B

L90

Track	Description
27B	Not connected
28B	Right-hand direction indicator timer activation control
29B	Not connected
30B	- boot lighting control
31B	Heated rear screen relay - control
32B	Immobiliser warning light output
33B	- hazard warning light timer control
34B	Diagnostic K signal
35B	Not connected
36B	Engine immobiliser injection code signal
37B	Not connected
38B	Engine speed input
39B	Heated rear screen + control feed
40B	Interior lighting control through door switch

## Door locks: Connection

L90

Depending on the level of equipment, only the driver's door lock is different:

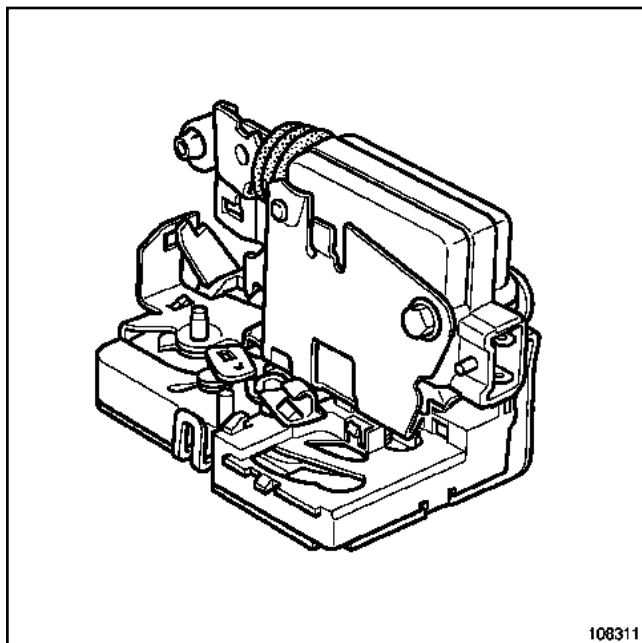
- the top of the range version (with remote control) is fitted with a simple electric lock (2-track connector),
- the standard version (without remote control) is fitted with an electric lock (5-track connector) which allows the four doors to be locked/unlocked (with the driver's door as the master door).

All the locks on the other doors are simple electric locks.

**Note:**

The UCH controls the central locking function. It provides authorisation for locking/unlocking the doors, either via:

- a request sent by the remote control key,
- or the locking switch on the driver's door.



### I - SIMPLE ELECTRIC LOCK (WITH REMOTE CONTROL)

Track	Description
A1	Supply to the door lock motor (unlocking)
A2	Supply to the door lock motor (locking)

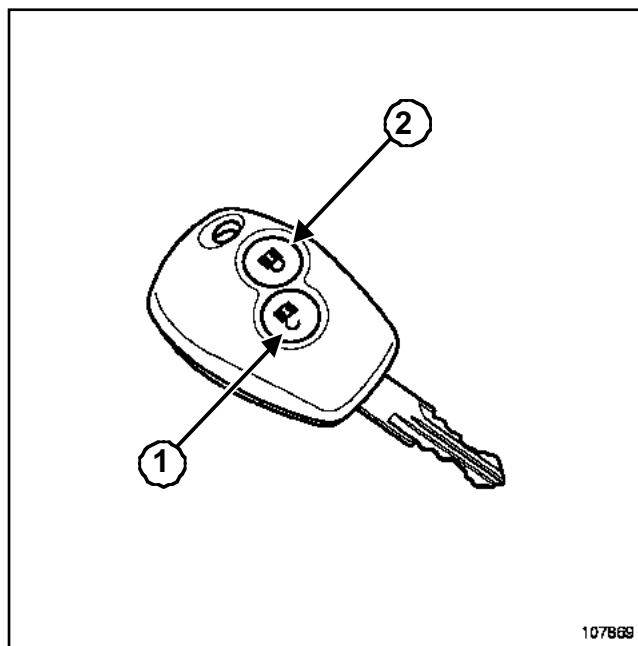
### II - DRIVER'S DOOR LOCK WITH ELECTRIC CENTRAL LOCKING FEATURE (WITHOUT REMOTE CONTROL)

Track	Description
A1	Request to UCH to unlock doors
A2	Earth
A3	Supply to the driver's door lock motor (unlocking)
A4	Request to UCH to lock doors
A5	Supply to the driver's door lock motor (locking)

### III - OPERATING THE DOOR LOCK WITH ELECTRIC LOCK

Function	Track
Rest	-
Opening	A2 / A1
Closing	A2 / A4

### IV - DESCRIPTION OF THE RADIO FREQUENCY KEY



The key has two buttons:  
 - an « opening » button(1),

L90

- a « closing » button(2).

Only one of the two keys is a remote control unit for locking the doors.

Note:

To lock the doors centrally using the remote control:

- when the doors are being locked, the UCH sends a request for the indicators to flash twice.
- when the doors are being unlocked, the UCH sends a request for the indicators to flash once.

## Electric window: Operation

L90

Depending on its equipment level, the vehicle may be fitted with:

- driver and passenger electric windows,
- driver and passenger electric windows and rear electric windows.

### **OPERATION**

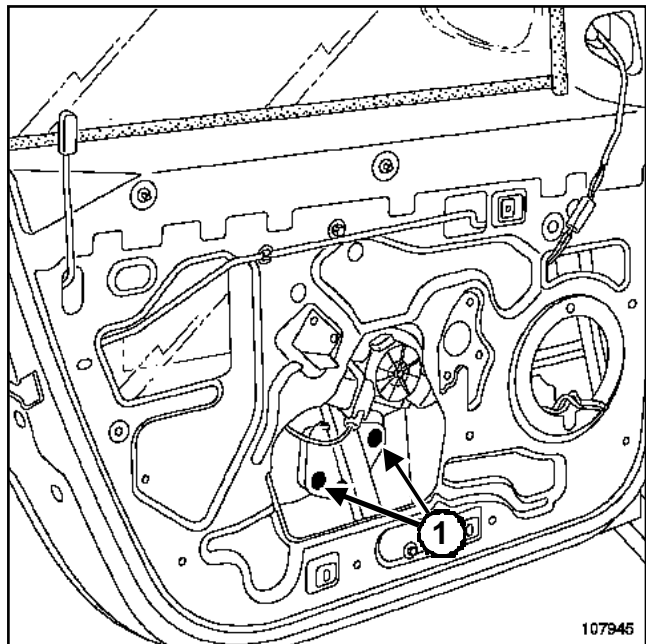
The electric window motor is supplied through the electric window switch, which can also reverse the polarity (for lowering or raising).

## Front side door electric window mechanism

### REMOVAL

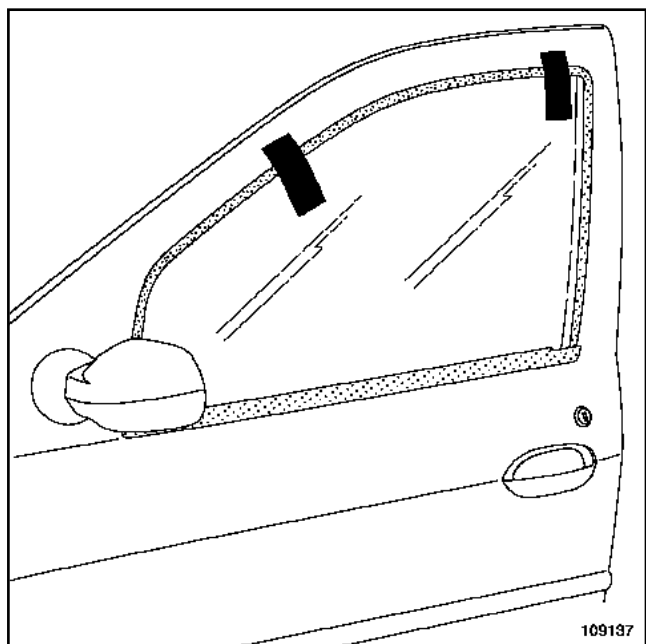
Remove the door trim (see 72A, Side opening elements trim, Front side door trim

Lower the window.

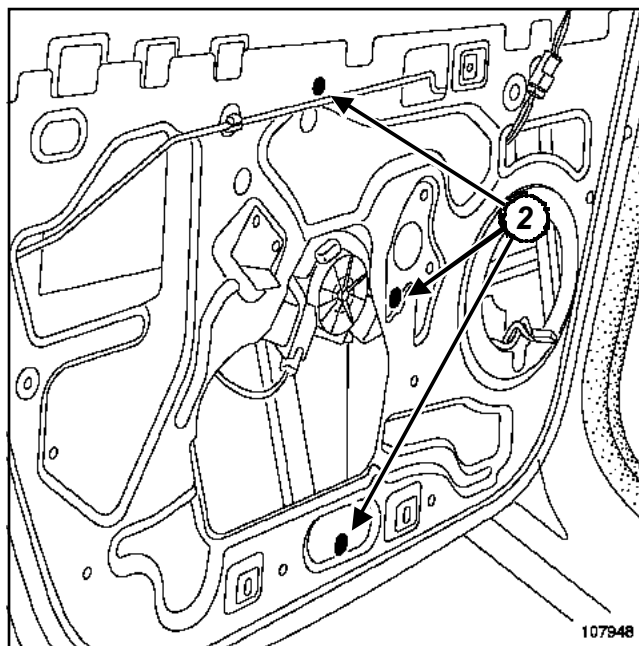


Remove the bolts (1).

Raise the window fully.



Keep the window in the raised position using adhesive tape.

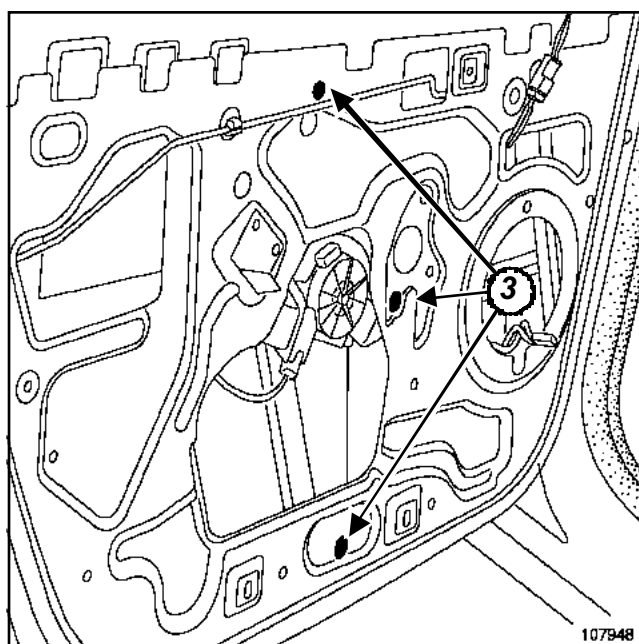


Remove the nuts (2).

Extract the window riser mechanism.

Disconnect the connector.

### REFITTING



Replace the window riser mechanism.

Reconnect the connector.

Refit the nuts (3).

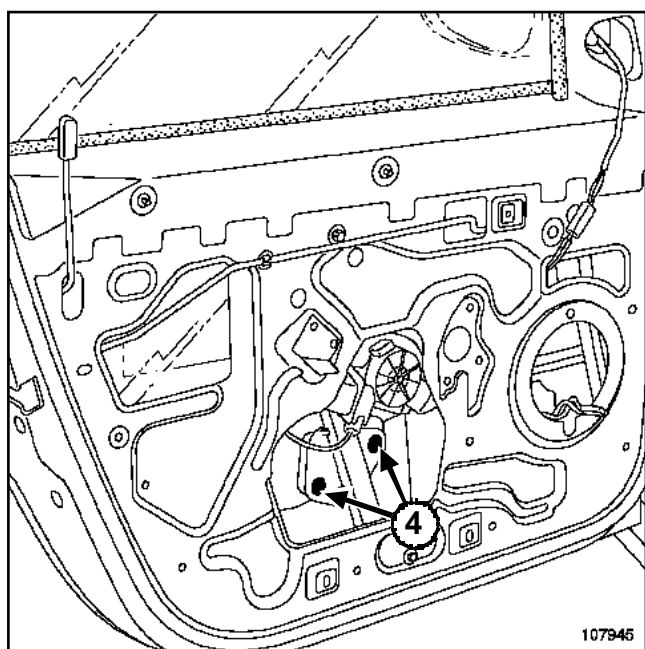
Return the window to the correct position.



# ELECTRIC WINDOWS - SUNROOF

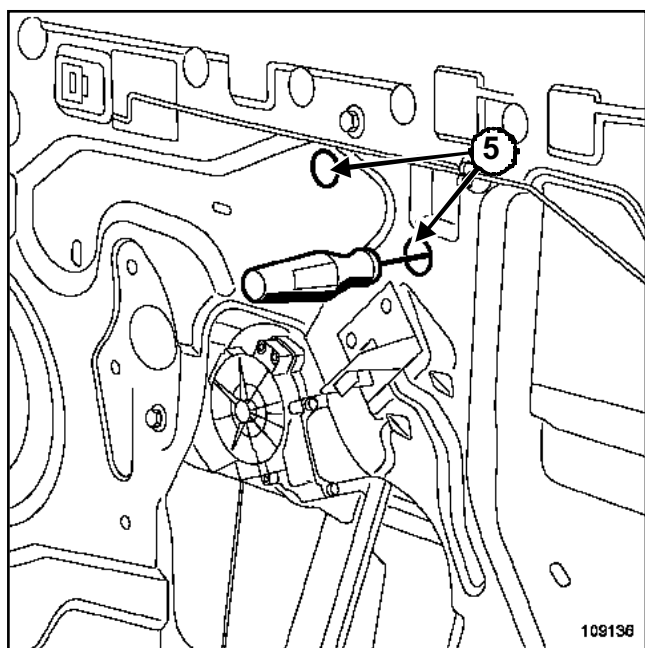
## Front side door electric window mechanism

87D



107945  
107945

Refit the bolts (4) without tightening them.  
Refit the window.



109136  
109136

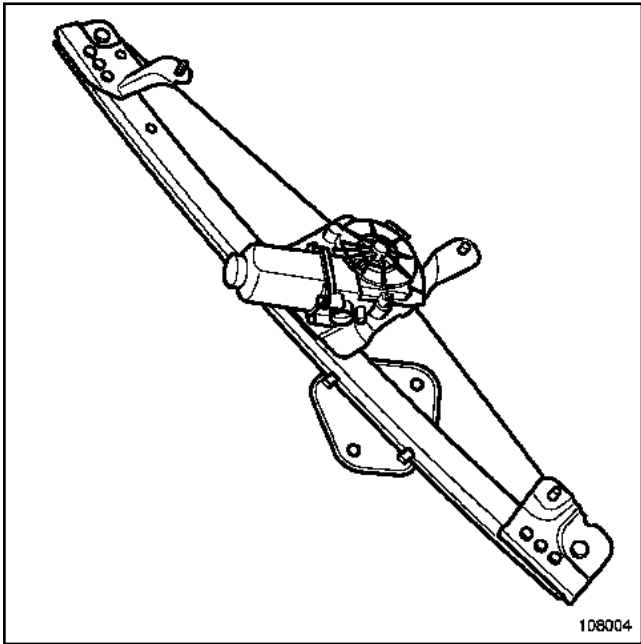
Tighten the bolts (4) via the holes (5).  
Carry out a function test.  
Proceed in the reverse order to removal.

# ELECTRIC WINDOWS - SUNROOF

## Front electric window motor: Connection

87D

L90



108004

108004

Track	Description
1	Raise command
2	Lower command

L90

### REMOVAL

Remove the rear door trim (see **72A, Side opening elements trim, Rear side door trim**).

Note:

The procedure is the same for the front electric window motor.

Lower the window.

Remove the window clip screw.

Raise the window fully.

Hold the window in this position using adhesive tape.

Disconnect the connector.

Remove the mechanism mounting bolts.

Remove the mechanism.

### REFITTING

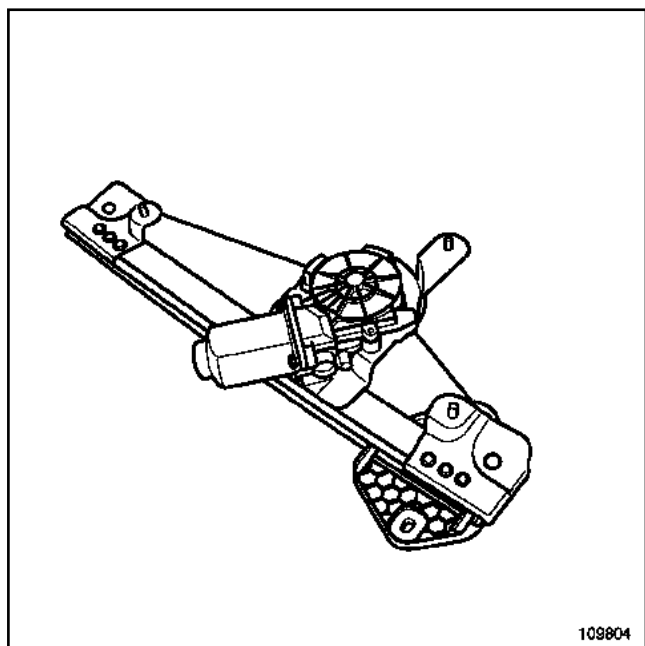
Proceed in the reverse order to removal

# ELECTRIC WINDOWS - SUNROOF

## Rear electric window motor: Connection

# 87D

L90



109804  
109804

Track	Description
1	Raise command
2	Lower command

## Front window switch

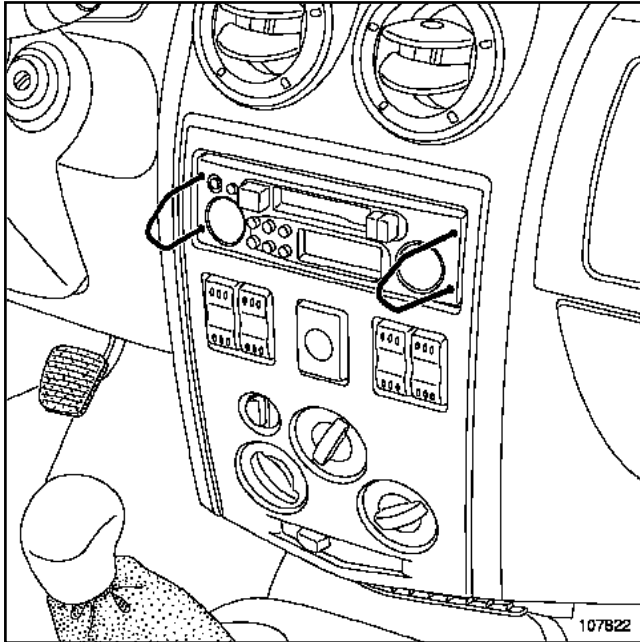
L90

### Essential special tooling

Ms. 1373

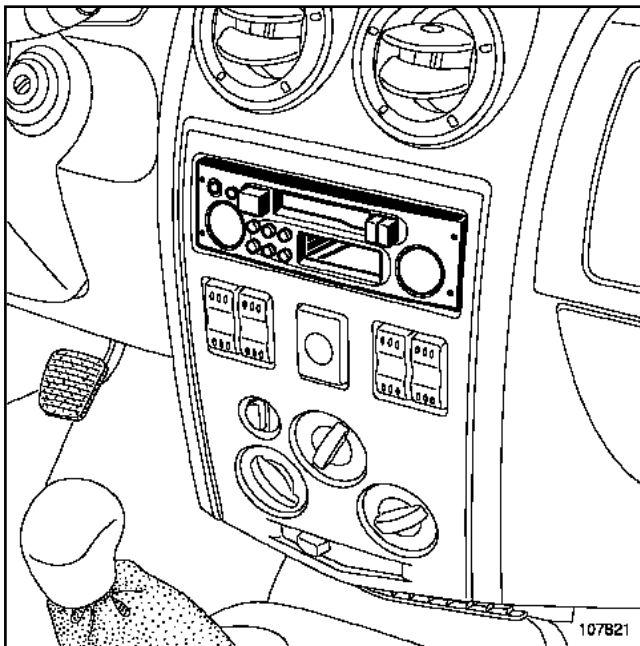
Philips radio removal tool

### REMOVAL



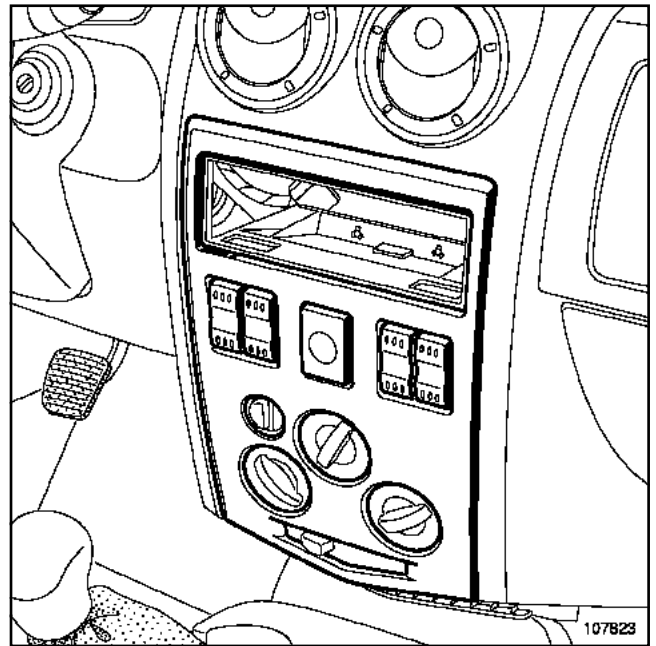
107822

Insert tool (Ms. 1373) into apertures.



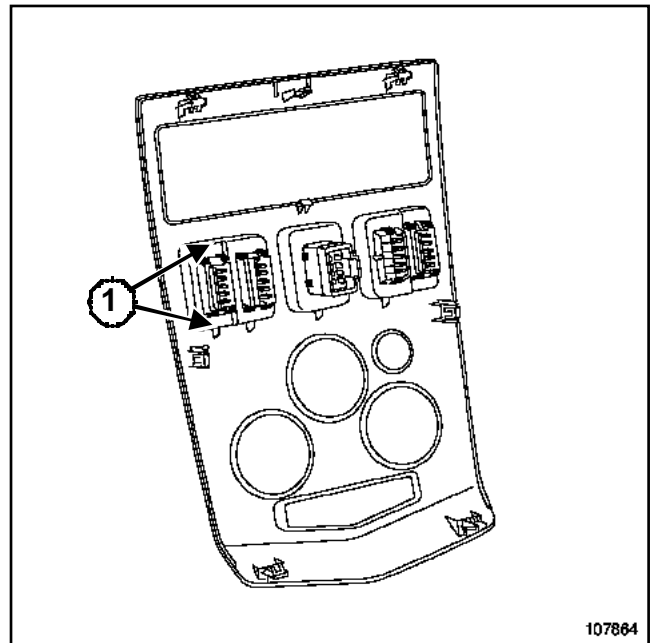
107821

Remove the audio equipment.  
Disconnect the connectors.



107823

Unclip the plate.



107864

Disconnect the switch connector .

Unclip the hazard warning light switch by moving clips (1).

### REFITTING

Proceed in the reverse order to removal.

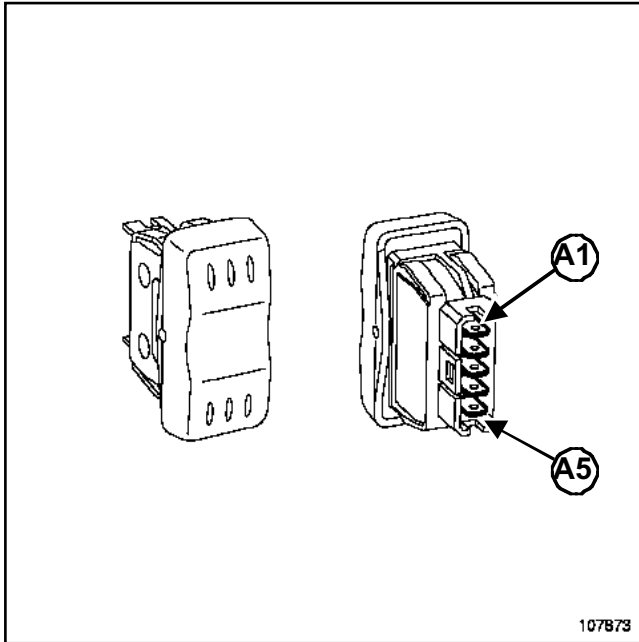
# ELECTRIC WINDOWS - SUNROOF

## Front window switch Connection

# 87D

L90

### Driver's and front passenger electric windows switch



107873

Track	Description
A1	Raising switch
A2	Earth
A3	+ after ignition protected
A4	+ left-hand side light protected (lighting control)
A5	Lowering switch

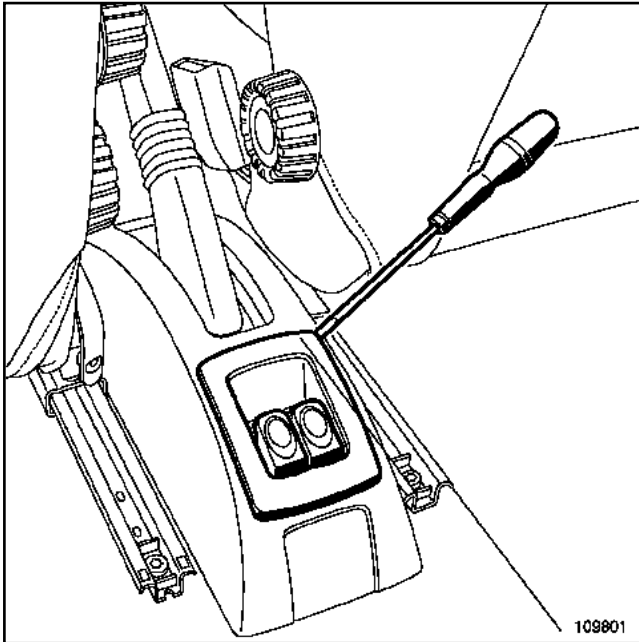
### Switch functions

Function	Tracks
Rest position	A1/A2 and A5/A2
Open position	A1/A2 and A5/A3
Closed position	A5/A2 and A1/A3

## Rear window switch

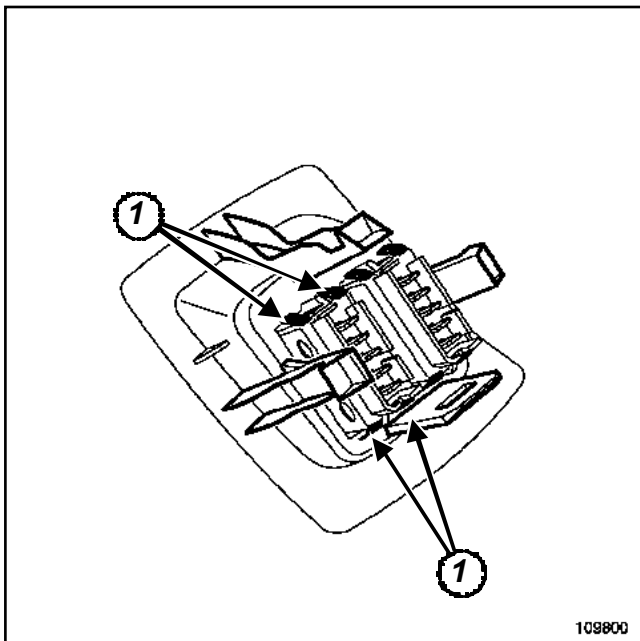
L90

## REMOVAL



Unclip the plate.

Disconnect the connector.



Unclip the switch by moving clips (1).

## REFITTING

Proceed in the reverse order to removal.

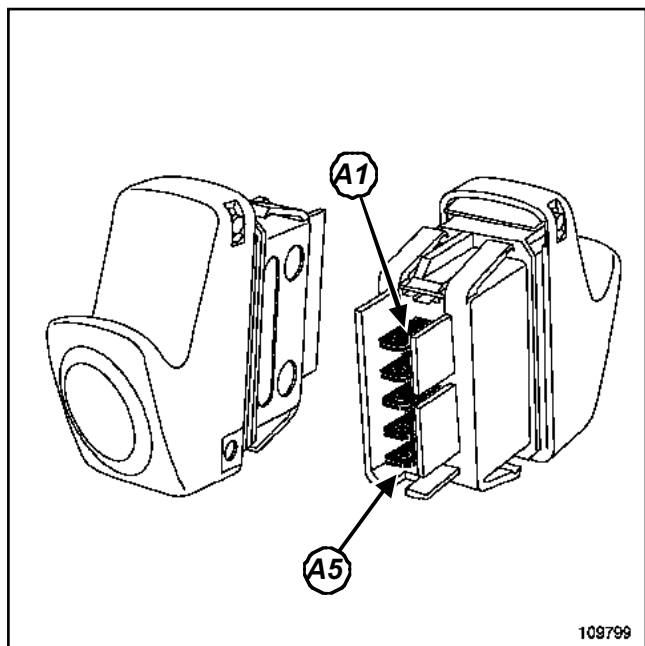
# ELECTRIC WINDOWS - SUNROOF

## Rear window switch: Connection

# 87D

L90

### Electric rear window switches



109799

109799

Track	Description
A1	Raising switch
A2	Earth
A3	+ after ignition protected
A4	+ left-hand side light protected (lighting control)
A5	Lowering switch

### Switch functions

Function	Tracks
Rest position	A1/A2 and A5/A2
Open position	A1/A2 and A5/A3
Closed position	A5/A2 and A1/A3



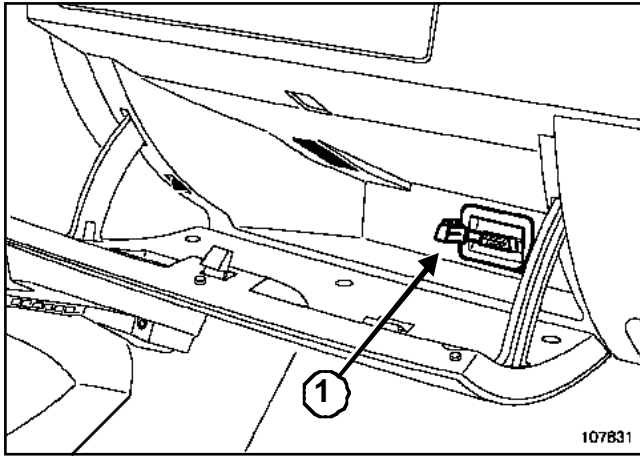
# WIRING HARNESS

## Diagnostic socket

# 88A

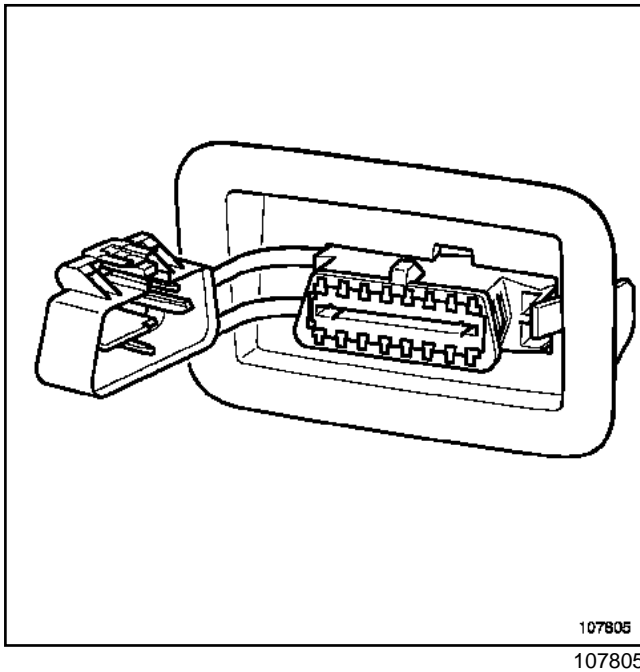
L90

### I - LOCATION



The diagnostic socket (1) is located in the glovebox.

### II - CONNECTION



Track	Description
1	+ after ignition feed
2	Not used
3	Not used
4	Earth
5	Earth
6	Not used

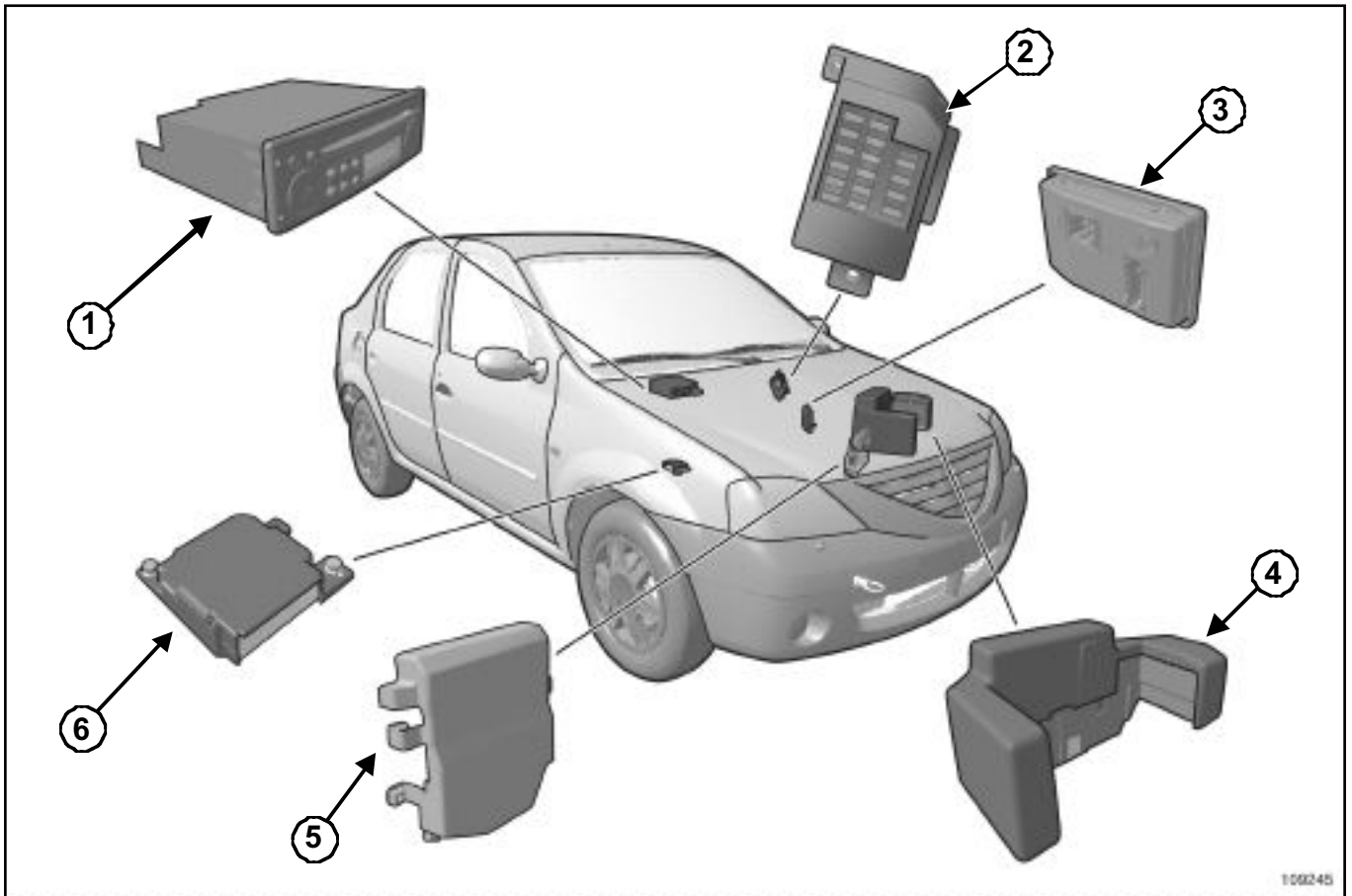
Track	Description
7	Diagnostic signal K
8	Not used
9	Not used
10	Not used
11	Not used
12	Not used
13	Not used
14	Not used
15	Diagnostic signal L
16	+ Battery feed

# WIRING HARNESS

## Computer locations

# 88A

L90



109245

109245

- |     |                                   |
|-----|-----------------------------------|
| (1) | Audio system                      |
| (2) | Passenger compartment fuse box    |
| (3) | UCH                               |
| (4) | Engine compartment fuse/relay box |
| (5) | Fuel injection computer           |
| (6) | Airbag computer                   |

## General information

L90

### I -DESCRIPTION

These vehicles are fitted with a passive safety system of the SRP (Programmed Restraint System) type, comprising:

- front airbags at the front seats,
- a computer,
- a passenger airbag inhibition switch,
- a system fault warning light,
- a deactivation indicator light.

### II - OPERATION

- The seat belts restrain the driver and the passengers.
- The front frontal airbags are inflated:
  - from the centre of the steering wheel to protect the driver's head,
  - from the dashboard to protect the front passenger's head.

#### **IMPORTANT**

When triggered, the pyrotechnic gas generator produces an explosion combined with light smoke.

#### Note:

Power supply to the computer and ignition modules is usually provided by the vehicle battery.

Nevertheless, a power reserve capacity is incorporated into the airbag computer in case of battery failure on impact.

## Precautions during repair

L90

## PRECAUTIONS FOR REPAIR

**IMPORTANT**

- All operations on airbag and pretensioner systems must be carried out by qualified trained personnel.
- Handling pyrotechnic systems (airbags or pretensioners) near to a source of heat or flame is forbidden: there is a risk of triggering the airbags or pretensioners.
- The airbags are fitted with a pyrotechnic gas generator, an ignition module and an airbag which must in no circumstances be separated.
- Before removing a safety system component, lock the airbag computer using the **diagnostic tool**. When this function is activated all the trigger lines are inhibited and the airbag warning light on the instrument panel lights up continuously (ignition on).
- Any operation, even minor, on the pyrotechnic components trigger lines is prohibited.

When an airbag or a pretensioner is triggered, the airbag computer is permanently locked and the « airbag fault » warning light lights up on the instrument panel.

The airbag computer must be replaced (some components lose their nominal characteristics after being subjected to the trigger energy).

After refitting all the parts, carry out a check using the **diagnostic tool**.

If everything is correct, unlock the computer if not refer to (see **Workshop Repair Manual 390, Fault finding**).

**IMPORTANT**

- It is essential to refer to the **Destruction procedure** when scrapping a pyrotechnic system that has not been triggered.
- The computers and impact sensors contain sensitive components, do not drop them.
- The airbags have a pyrotechnic gas generator.
- Keep the airbag deployment zone clear.
- When working under the vehicle (on the bodywork, sill panel, etc.), lock the airbag computer with the **diagnostic tool** switch off the engine and wait for **2 seconds**.
- The pyrotechnic systems (pretensioners and airbags) must be checked with the **diagnostic tool**:
  - after an accident that did not trigger the systems,
  - after theft or attempted theft of the vehicle,
  - before selling a used vehicle.

**IMPORTANT**

After an impact:

- If the driver front airbag is triggered, the steering wheel, its mounting bolt and the steering column must be replaced. Replace the airbag module mounting bolt.
- Triggering of the passenger front airbag does not always entail the replacement of the dashboard, but its condition is to be checked. Replace the airbag module mounting bolt.
- Any seat belts being worn by a vehicle occupant when an airbag is triggered must always be replaced. If there are any doubts about whether the seat belt was being worn, you should replace it.

## Computer

L90

### Essential equipment

diagnostic tool

### Tightening torques

computer mounting bolts

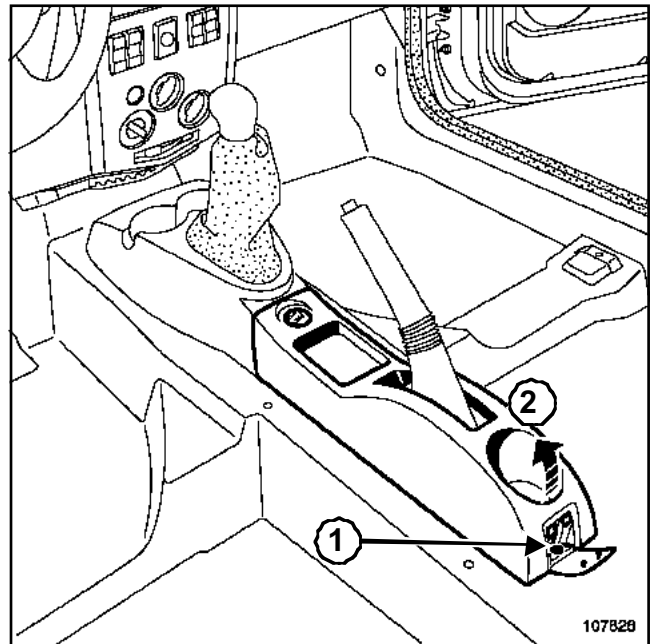
6.5 daNm

### WARNING

Before removing a safety system component, lock the airbag computer using the **diagnostic tool**. When this function is activated all the trigger lines are inhibited and the airbag warning light on the instrument panel lights up continuously (ignition switched on).

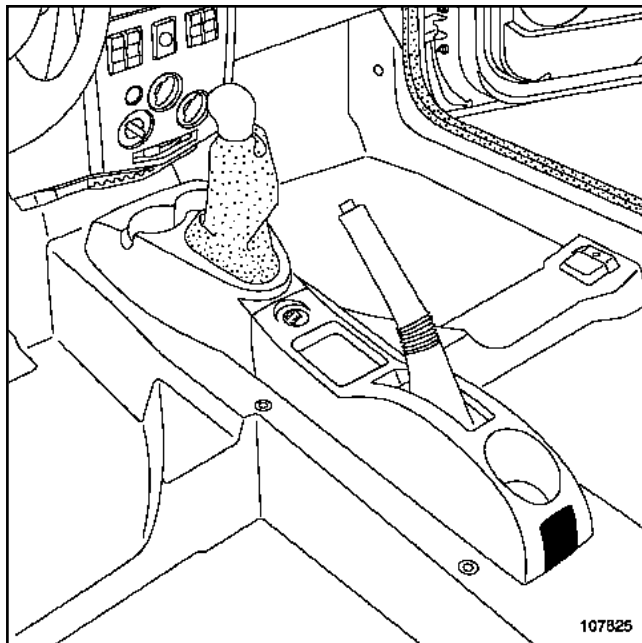
### REMOVAL

Disconnect the battery, starting with the negative terminal.

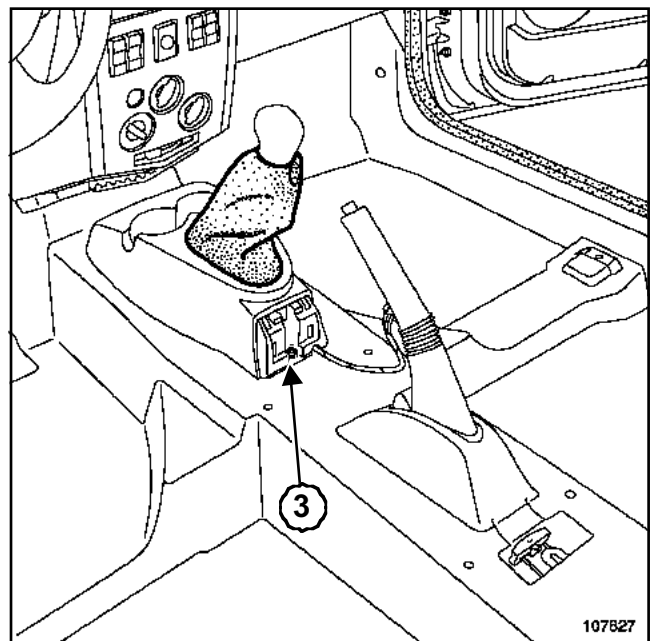


Remove the bolt (1).

Remove the console trim (2) from the parking brake lever.



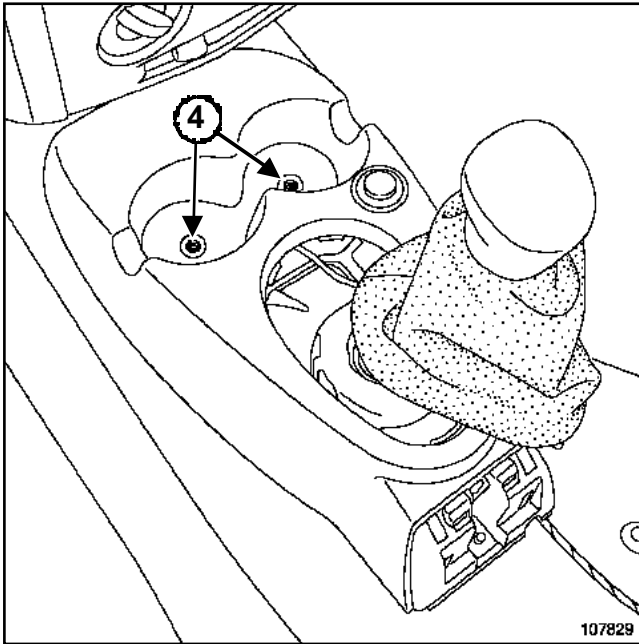
Unclip the console bolt cover.



Unclip the gear lever gaiter.

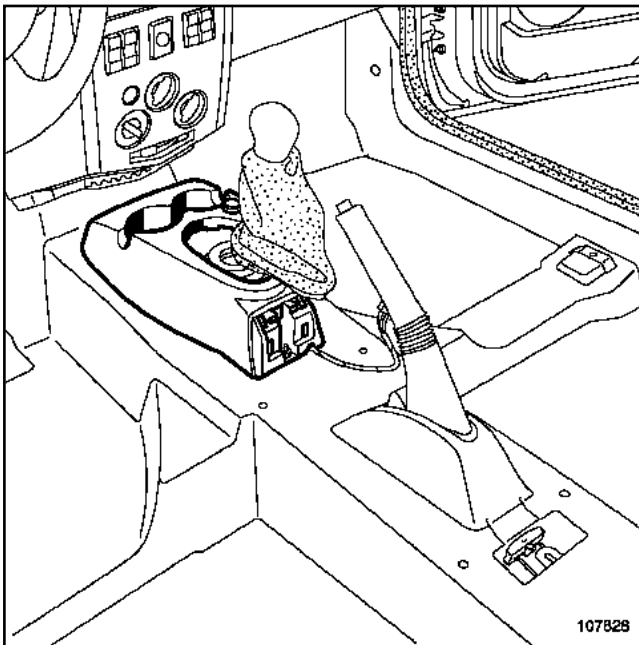
Remove the bolt (3).

L90



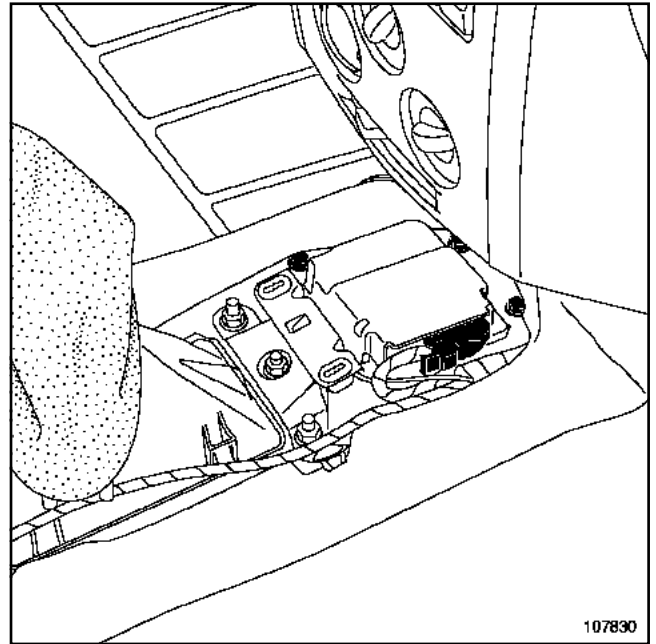
107829  
107829

Remove bolts (4).



107828  
107828

Remove the console trim from the gear lever.



107830  
107830

Disconnect the connector.

Remove:

- the computer mounting bolts,
- the computer.

### REFITTING

Tighten to torque the **computer mounting bolts (6.5 daNm)**.

#### IMPORTANT

Locate the computer, with the arrow on the computer to the front of the vehicle.

Proceed in the reverse order to removal.

#### WARNING

Connect the battery, starting with the positive terminal; carry out the necessary programming (see **80A, Battery: Remove and Refit**).

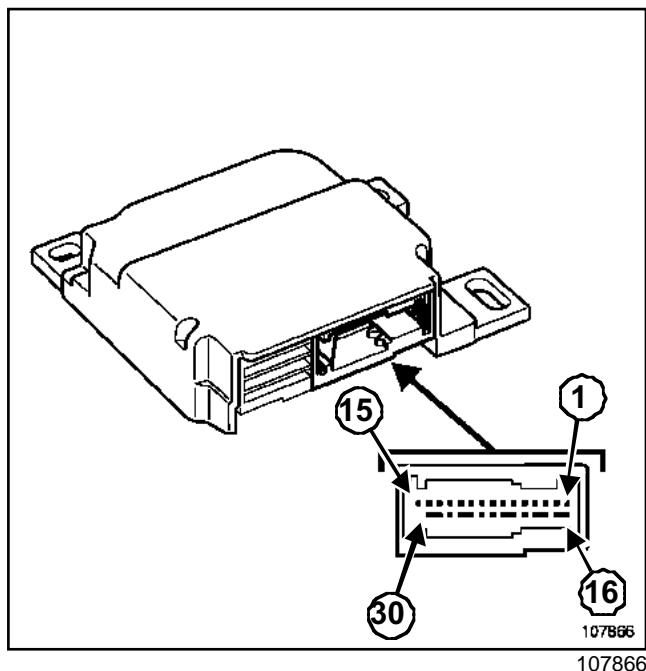
Configure the computer (see **88C, Airbag and pretensioners, Computer: Configuration**).

#### WARNING

- Check the airbag computer using the **diagnostic tool**.
- If everything is correct, unlock the computer, if not (see **Workshop Repair Manual 390, Fault finding**).

L90

### 30-track connector



Track	Description
1	Not used
2	Not used
3	Not used
4	Not used
5	+ after ignition feed
6	Earth
7	Airbag fault warning light
8	+ passenger airbag inhibition command
9	Fault finding K signal
10	+ passenger airbag signal
11	- passenger airbag signal
12	Not used
13	+ driver airbag signal
14	- driver airbag signal
15	- passenger airbag inhibition command
16	Not used
17	Not used

Track	Description
18	Not used
19	Not used
20	Not used
21	Not used
22	Not used
23	Fault finding L signal
24	Passenger airbag inhibition command warning light
25	Not used
26	Not used
27	Airbag computer impact signal
28	Not used
29	Not used
30	Not used

See **Technical Note Wiring diagram, L90, 756.**

# AIRBAG AND PRETENSIONERS

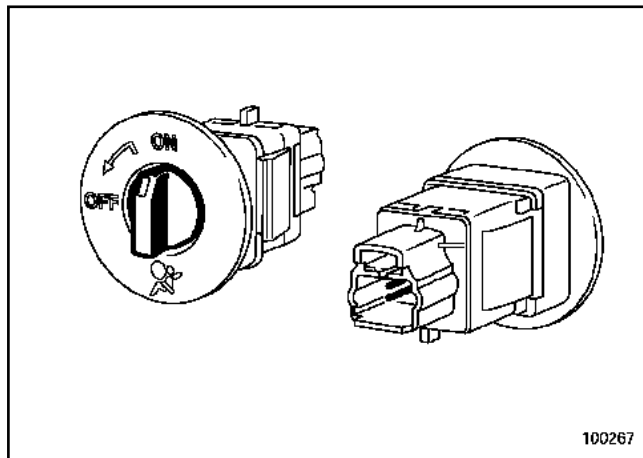
## Inhibitor switch: Operating principle

88C

L90

The inhibitor switch is located on the side panel of the dashboard, passenger side.

The inhibitor switch inhibits the passenger front airbag trigger lines.



This switch has two positions:

- position ON = functioning of the passenger airbag (resistance = **400 Ω**),
- position OFF = the passenger airbag is deactivated to allow a child seat to be installed.

This position is indicated on the instrument panel by an amber-coloured « airbag OFF » warning light (resistance = **100 Ω**).

### IMPORTANT

- The front seat belt is set up to operate with a passenger front airbag. Make sure that its replacement has the correct part number.
- The position of the inhibitor switch is only taken into account if the ignition is switched off and the computer is configured correctly.



## Inhibitor switch

L90

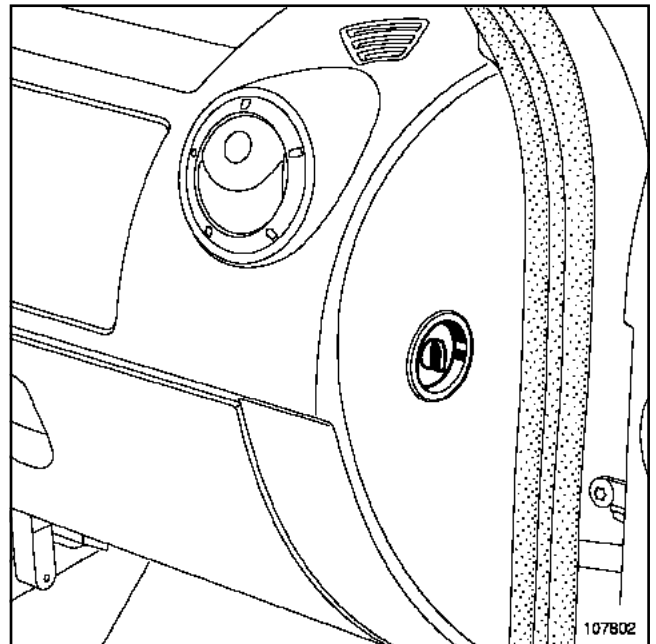
### Essential equipment

diagnostic tool

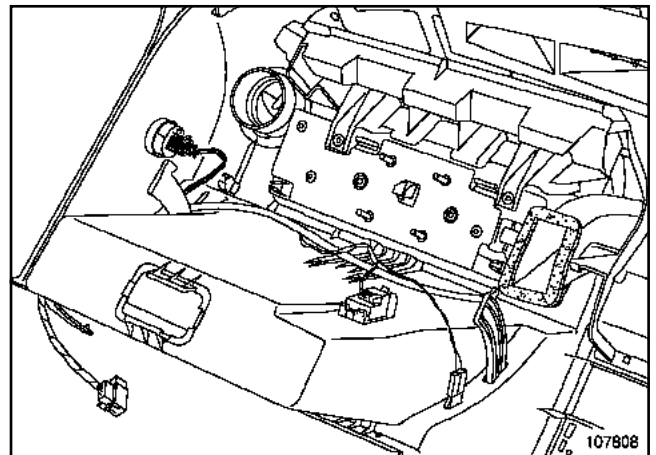
### REMOVAL

#### IMPORTANT

Before removing a safety system component, lock the airbag computer using the **diagnostic tool**. When this function is activated, all the trigger lines are inhibited and the airbag warning light on the instrument panel lights up continuously (ignition on).



107802



107808

Unclip the switch by pressing on the clips from the inside.

#### Note:

It is not necessary to remove the dashboard.

Remove the switch.

Disconnect the connector.

### REFITTING

Proceed in the reverse order to removal.

#### IMPORTANT

Check the airbag computer using the **diagnostic tool**.

L90

If everything is correct, unlock the airbag computer if not, (see **Workshop Repair Manual 390, Fault finding**).

Check that the following are operational:

- the switch,
- the airbag « warning light OFF ».

## Driver's front airbag

L90

### Essential equipment

diagnostic tool

### Tightening torques

steering wheel bolt	<b>44 Nm</b>
airbag module mounting bolts	<b>6.5 Nm</b>

### IMPORTANT

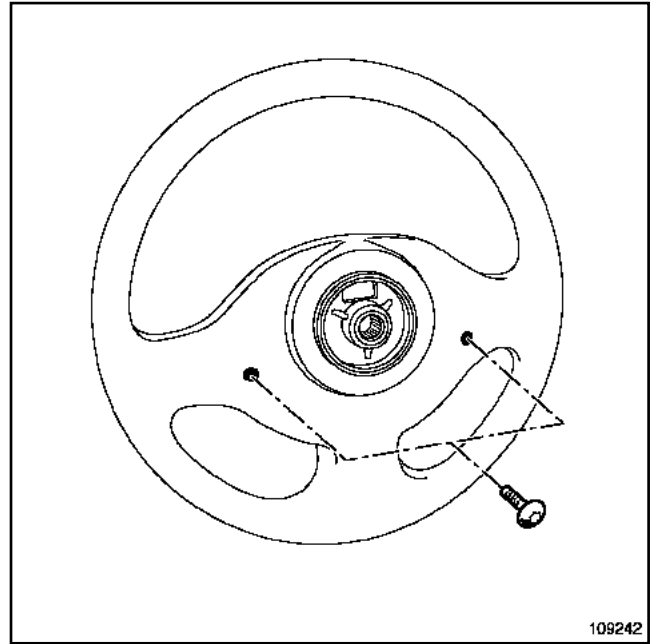
Before carrying out any work on a safety system component, lock the airbag computer using the fault finding tool (see **88C, Airbags and pretensioners, Airbag computer locking procedure**). When this function is activated all the trigger lines are inhibited, and the airbag warning light on the instrument panel will be lit continuously (when ignition is on).

### IMPORTANT

Handling pyrotechnic systems (airbags or pretensioners) near to a source of heat or flame is forbidden: there is a risk of triggering the airbags or pretensioners.

Disconnect the battery, starting with the negative terminal.

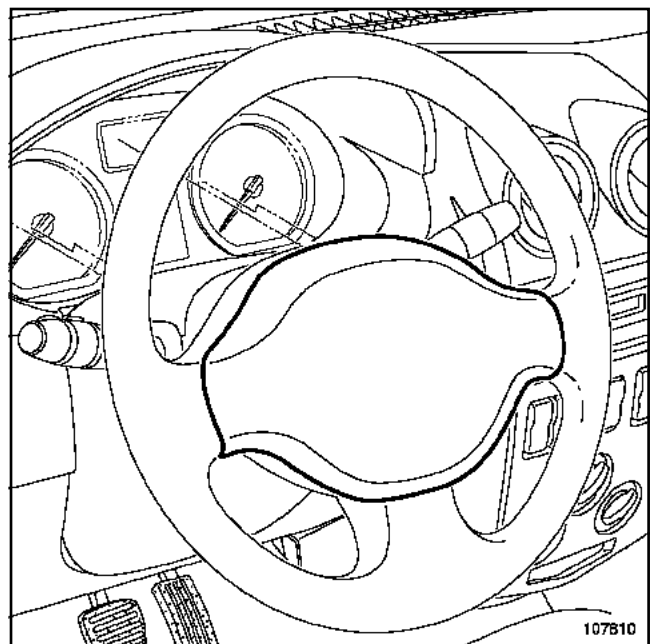
## REMOVAL



109242  
109242

Turn the steering wheel a quarter of a turn.

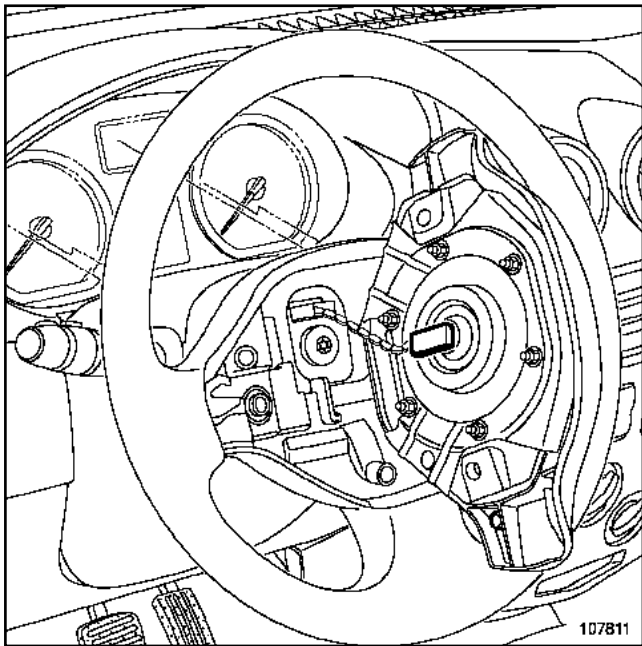
Remove the driver airbag module mounting bolt from the rear of the steering wheel (torx socket 30).



107810  
107810

Remove the airbag module.

L90



Disconnect the airbag module connector.

Remove the airbag module.

### IMPORTANT

- The airbag has a connector which short circuits if disconnected, to prevent accidental triggering.
- For scrapping a non-triggered airbag, (see **88C, Airbags and pretensioners, Destruction procedure**).

### REFITTING

Proceed in the reverse order to removal.

### WARNING

- When an airbag has been triggered, certain parts must be replaced (See **88C, Airbag and pretensioners, Precautions for repairs**).
- When the steering wheel is removed, replace the steering wheel and airbag module mounting bolts.

Fit the connector.

Position the airbag on the steering wheel.

Tighten to torque:

- the **steering wheel bolt (44 Nm)**,
- the **airbag module mounting bolts (6.5 Nm)**.

### WARNING

Connect the battery, starting with the positive terminal; carry out the necessary programming (see **80A, Battery: Remove and Refit**).

### WARNING

- Check the airbag computer using the **diagnostic tool**.
- If everything is correct, unlock the computer, if not (see **Workshop Repair Manual 390, Fault finding**).

## Passenger front airbag

L90

### Essential equipment

diagnostic tool

### Tightening torques

airbag module mounting nuts	<b>8 Nm</b>
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It is mounted under the dashboard in front of the front passenger.

### IMPORTANT

Before carrying out any work on a safety system component, lock the airbag computer using the fault finding tool (see **88C, Airbags and pretensioners, Airbag computer locking procedure**). When this function is activated all the trigger lines are inhibited, and the airbag warning light on the instrument panel will be lit continuously (when ignition is on).

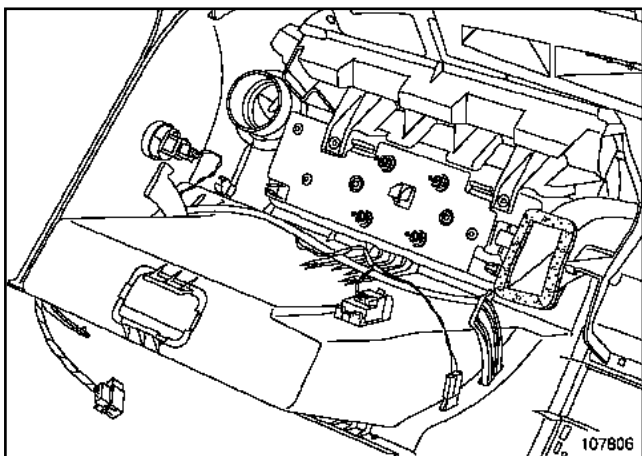
### IMPORTANT

Handling pyrotechnic systems (airbags or pretensioners) near to a source of heat or flame is forbidden: there is a risk of triggering the airbags or pretensioners.

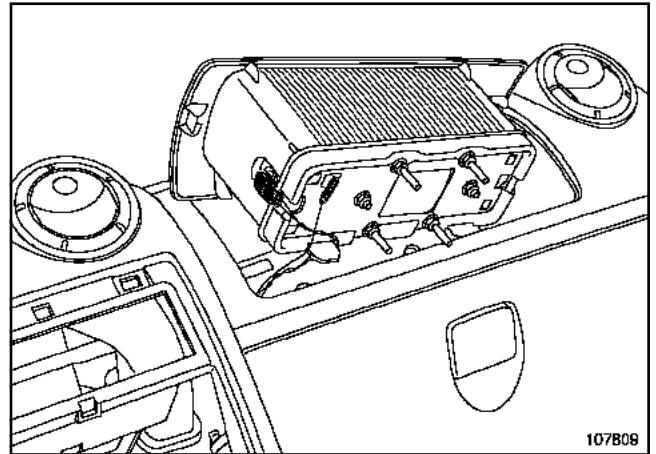
Disconnect the battery, starting with the negative terminal.

### REMOVAL

Remove the dashboard (see **83A, Instrument panel, Dashboard**).



Replace the airbag module mounting nuts.



Disconnect:

- the connector,
- the earth terminal.

### REFITTING

Proceed in the reverse order to removal.

Tighten to torque the **airbag module mounting nuts (8 Nm)**.

### WARNING

- When the passenger front airbag has been triggered, certain parts must be replaced (See **88C, Airbag and pretensioners, Precautions for repair**).
- Whenever the passenger airbag is removed, it is essential to replace the panel nuts that hold the module to the dashboard.

### WARNING

Connect the battery, starting with the positive terminal; carry out the necessary programming (see **80A, Battery: Remove and Refit**).

### WARNING

- Check the airbag computer using the **diagnostic tool**.
- If everything is correct, unlock the computer, if not (see **Workshop Repair Manual 390, Fault finding**).

## Destruction procedure

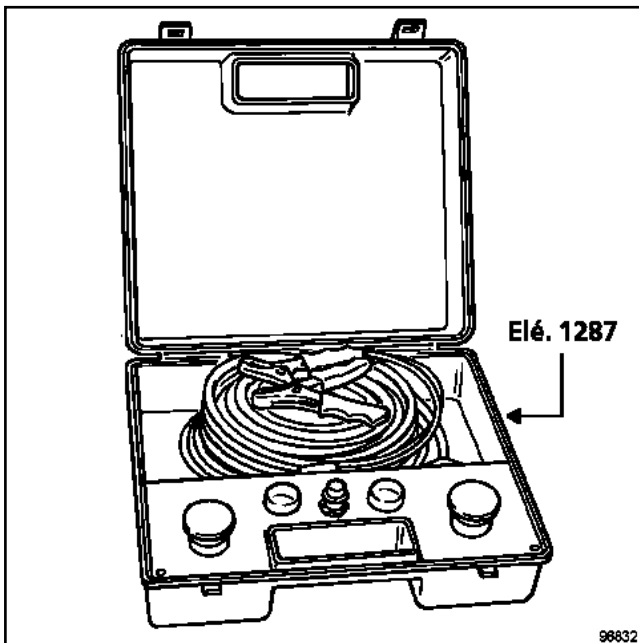
L90

### IMPORTANT

To avoid any risk of an accident, the pyrotechnic gas generators must be triggered before the vehicle or the part itself is scrapped.

### WARNING

The destruction procedure cannot be carried out if local regulations stipulate a special procedure that has been validated and distributed by the methods, fault finding and repair department.



Tool (Ele. 1287) and the adapter leads (Ele. 1287-1) and (Ele. 1287-02) must be used.

### IMPORTANT

Do not reuse pyrotechnic components. The pretensioners or airbags on a vehicle which is to be scrapped must be destroyed.

### WARNING

- Each part is intended for a specific vehicle type and should not be fitted on another vehicle under any circumstances. The parts are not interchangeable.
- Do not trigger pretensioners which are to be returned under warranty because of a problem with the stalk. This makes analysis of the part by the supplier impossible. Return the defective part to Techline in the packaging of the new part.

## I - PYROTECHNIC PRETENSIONERS AND INERTIA REELS

### 1 - Destruction of part fitted to the vehicle

Move the vehicle outside the workshop.

Connect the destruction tool (Ele. 1287) to the pretensioner after removing the seat runner cover.

Unwind the tool wiring fully, so that you are far enough away from the vehicle (approximately ten metres) when the device is triggered.

Connect the two supply wires on the tool to a battery.

Ensure that there is no-one in the area.

Destroy the pretensioner by pressing both of the push buttons on the apparatus simultaneously.

### 2 - Destruction of the part removed from the vehicle

Proceed in the same way as for the frontal airbag, in a stack of old tyres.

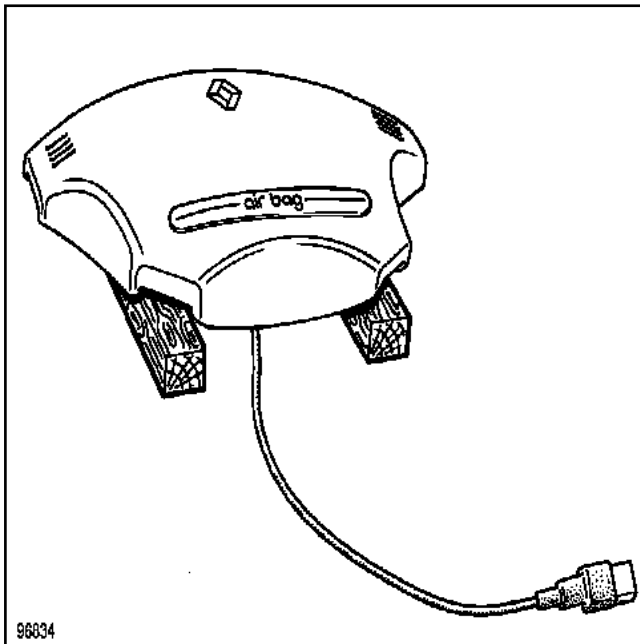
## II - AIRBAGS

These components can only be destroyed when they have been removed, and outside the workshop.

Connect the corresponding wiring.

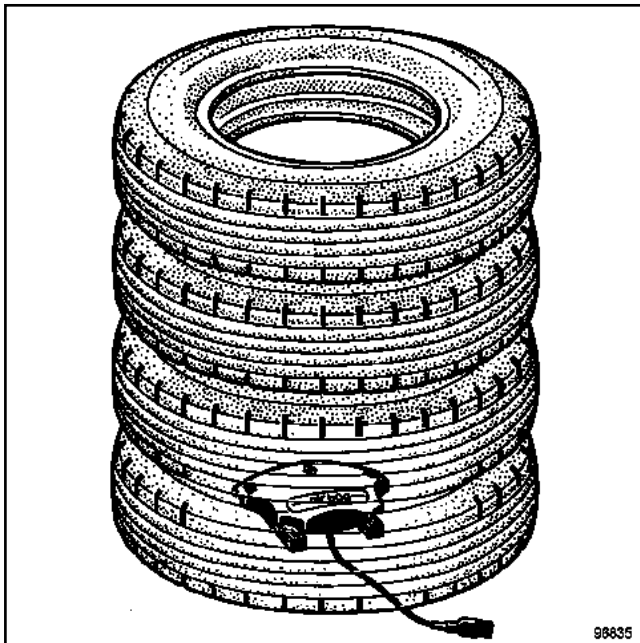
## Destruction procedure

L90



96834

Put the airbag on two wooden blocks.



96835

The destruction procedure is carried out in a stack of old tyres.

Make sure that the airbag deployment will not be hindered.

Unwind the tool wiring fully so that you are far enough away from the unit (approximately ten metres) during triggering, and connect it to the airbag.

Connect the destruction tool's two supply wires (Ele. 1287) to a battery.

Ensure that there is no-one in the area.

Destroy the airbag by pressing both push buttons on the device at the same time.

Note:

If triggering is not possible (faulty ignition module) return the part to the Techline.

# DRIVER POSITION

## Cigarette lighter

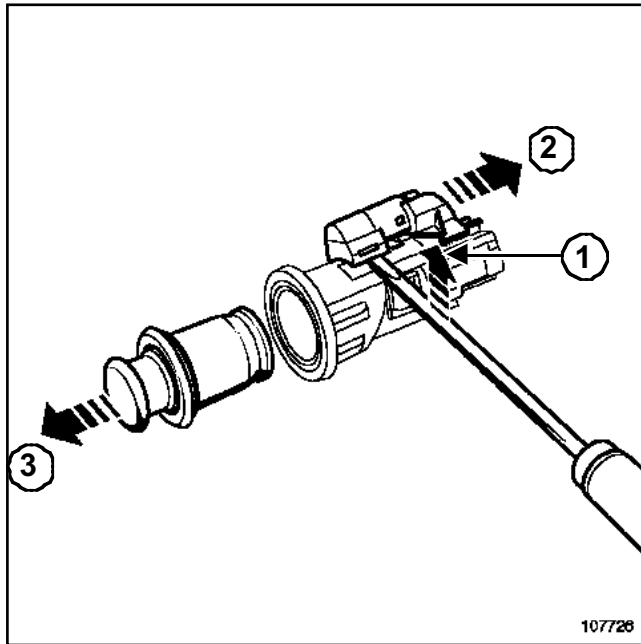
# 88D

L90

### REMOVAL

Remove the centre console (see 57A, Centre console).

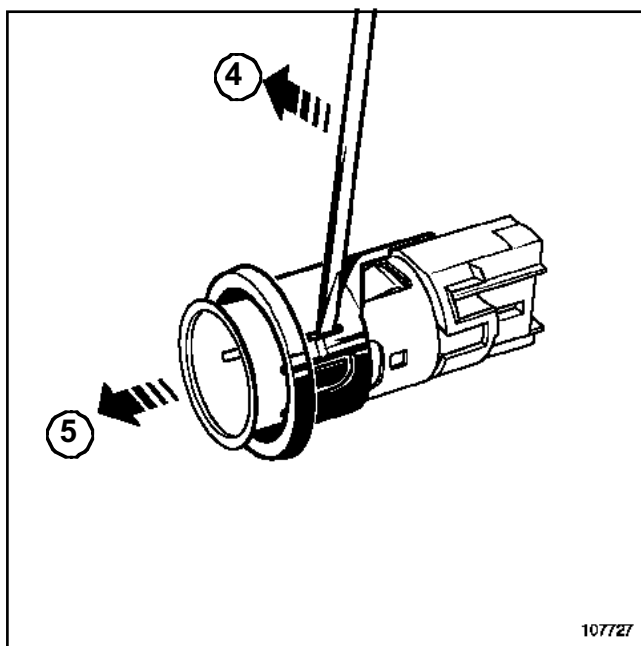
Disconnect the cigarette lighter connector.



107726

Unclip the lamp support with a flat screwdriver in (1) and (2).

Remove the resistor support (3).



107727

Keep the plastic support unlocked in (4).

Pull the cigarette lighter at (5).

Unclip the console plastic support.

### REFITTING

Proceed in the reverse order to removal.