RENAULT

Workshop Repair Manual

Clio

SRP

AIR BAGS, PRETENSIONERS and SEAT BELTS

All operations on the air bag and pretensioner systems must be carried out by qualified, trained personnel.

77 11 204 135 **FEBRUARY 1999** **Edition Anglaise**

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

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

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The Clio II from now on will be fitted with a new 2nd generation passive safety assembly comprising :
- a driver's front air bag with an **SRP** inflatable bag (unaltered),
- a new passenger's front air bag (according to equipment) with a new S.R.P inflatable bag which is incompatible with old computers part number **77 00 426 752** (see following page),
- front pretensioners (unaltered),
- front seat belts specific to the **SRP** programmed restraint system (unaltered),
- a new computer specific to this assembly (30 or 50 tracks according to equipment),
- a new driver's and passenger's side air bag assembly (according to equipment) with side impact sensor fitted in the central pillar of the same side.

IMPORTANT

With this assembly (SRP front air bags), the seat belts are connected to the air bag function.

The programmed restraint system for the seat belts is not calibrated in the same way according to whether they are mounted with an SRP air bag or not (the part number for each part must be checked before being replaced).

On these vehicles, it is forbidden to fit an SRP seat belt on a seat not provided with an air bag .

For more information about the SRP seat belts, see the corresponding bodywork technical note.

REPLACEMENT COMPATIBILITY

IMPORTANT

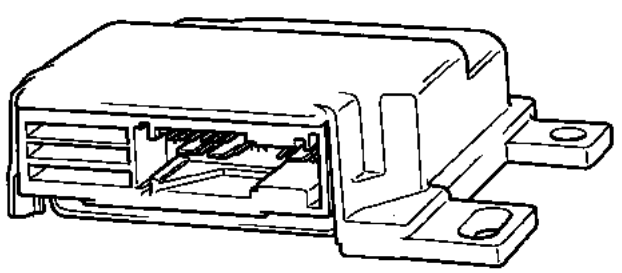
For replacement, the new type of computer (A) can be fitted to vehicles fitted with a 1st or 2nd generation passenger air bag module (B) .

On the other hand, a 2nd generation passenger air bag module (B) must not be fitted to a vehicle fitted with a computer (A) of the 1st generation part number 77 00 426 752.

The part numbers must correspond to the vehicle equipment .

The following table shows the serial numbers from which the 2nd generation passenger air bag module (B) has been fitted.

A



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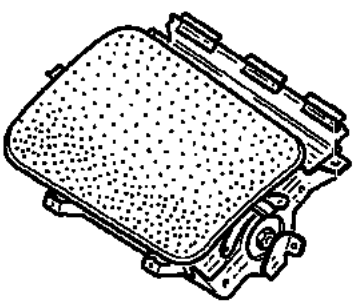
B



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NOTE : fitting of the 2nd generation passenger air bag modules (B) is in advance of the 2nd generation computers (A) .
In this case these vehicles are fitted with an intermediary computer (A) (part number **77 00 434 205**).

Application table for 2nd generation passenger air bag modules from serial number.			
Vehicle type	**Flins factory**	**Valladolid factory**	**Novo-Mesto factory**
BB0A	F034811	W040896	Y014493
BB0C	F012725	W017895	Y005743
BB0D	F005958	W009038	Y002147
BB0E	F013619	W018957	Y003980
BB0F	F002878	-	-
CB0A	F026224	W027307	Y006996
CB0C	F007921	W009013	Y002555
CB0D	F002768	W003402	Y000570
CB0E	F003038	W008683	Y000776
CB0F	F004644	-	-
SB0A	-	W000159	-
SB0E	-	W001913	-

NOTE : vehicles not mentioned are normally fitted with a 2nd generation passenger air bag module. If there is any doubt, check the computer part number.

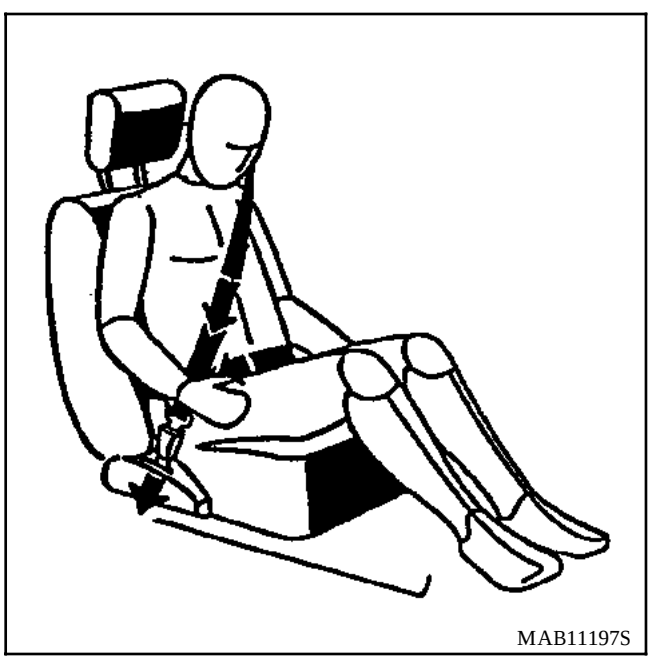
GENERAL

All operations on the air bag and pretensioner systems must be carried out by qualified and trained personnel.

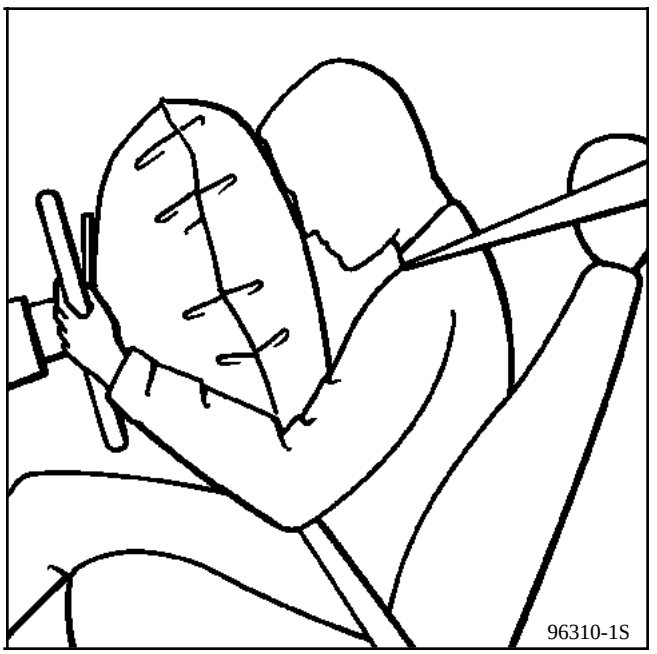
These safety features are complementary.

In the event of a frontal impact of sufficient force:

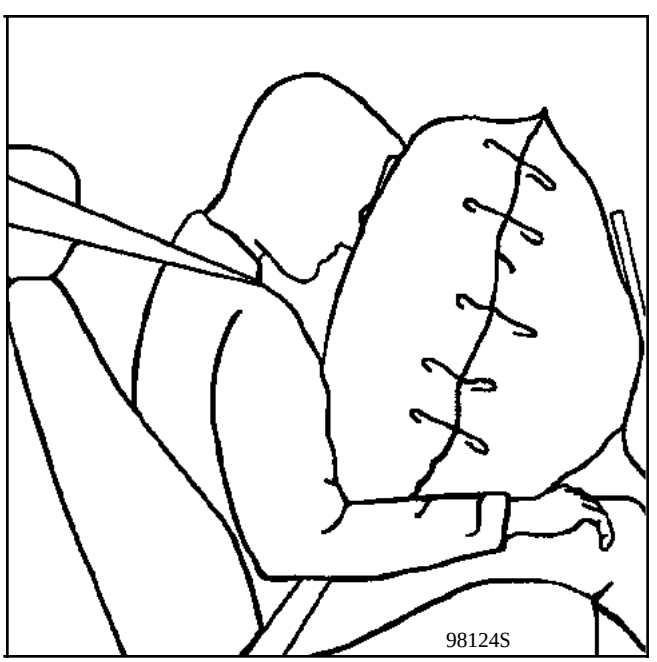
- **the front seat belts** retain the driver and passenger.
- **The pretensioners** tighten the front seat belts in such a way that they flatten them against the body.



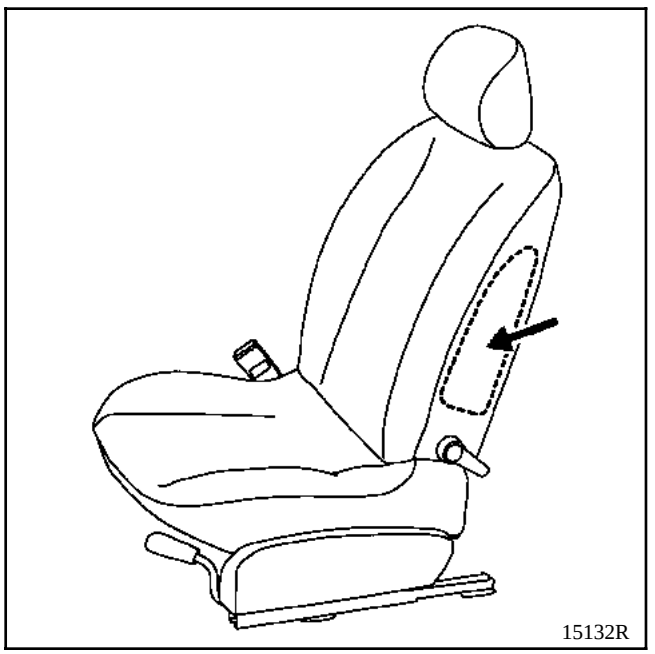
- **The programmed restraint system (SRP**) limits the force of the belt on the body.
- **The air bag cushions inflate** :
  - from the centre of the steering wheel to protect the driver's head,



  - from the dashboard to protect the front passenger's head (according to equipment).



In the event of a side impact of sufficient force, the corresponding side air bag (on the impact side) inflates on the door side, to protect the head and thorax of the seat occupant.



IMPORTANT:

- Do not put covers on the front seats.
- Do not put anything in the way which will obstruct inflation of the air bags.
- In the event of work being carried out on the vehicle sill (on the side impact sensor, on the bodywork, on the seat belt inertia reel,...), the air bag unit must be locked using the fault finding tool.
- Any operation involving removal and refitting of the seat trim on a seat back fitted with a side air bag, must not be carried out for the time being.

In case of a fault on the air bag cushion or following its inflation, the whole seat must be replaced following the specific Parts Department order procedure .

Reminder : for vehicles fitted with self contained side air bags, refer to Technical Note 3064A.

NOTE :

Vehicles fitted with front air bags are identified by a sticker placed in the lower corners of the windscreen on each side with the inscription "SRP air bag" in the centre of the steering wheel and on the dashboard (according to equipment).

Vehicles fitted with side air bags are identified by a sticker placed in the lower corners of the windscreen on each side with the inscription"air bag" on the side of the front seat backs (according to equipment).

After each replacement of the windscreen, remember to apply the stickers mentioning that the vehicle is fitted with air bags.

All of these stickers are available in a kit part number: **77 01 205 442**.

IMPORTANT : the pyrotechnic systems (pretensioners, front and side air bags) must be checked using a fault finding tool :
- following an accident in which the air bags did not inflate,
- following a theft or attempted theft of the vehicle,
- before selling a second hand vehicle.

SPECIAL TOOLING

These systems can have fault finding carried out using the following fault finding tools :

- **XR25** only for pretensioners and front air bags,
- **NXR or OPTIMA 5800** for pretensioners and front and side air bags (except self contained side air bags).

These tools allow faults in the computer or faulty lines in the system to be detected (see the"**Fault Finding**" section).

NOTE : These tools have an additional function which allows the trigger lines to be deactivated, to prevent triggering of the pyrotechnic gas generators.

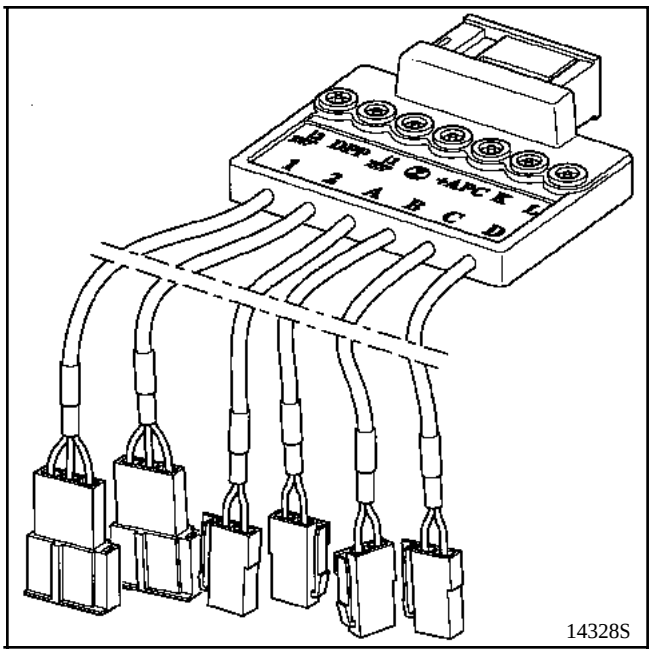
XRBAG TEST KIT (Elé. 1288)

This equipment is a specially designed tool for testing and fault finding of air bag and seat belt pretensioner devices.

It allows electrical measurements to be made on the various lines of the systems (see the "**Fault finding**" section).

IMPORTANT : no measurements may be made on these systems using an ohmmeter or any other electrical measuring equipment: the system may be triggered due to the operating current of the measuring equipment.

30 TRACK XRBAG ADAPTOR(B40)
for vehicles without side air bags



This bornier is connected in place of the computer.

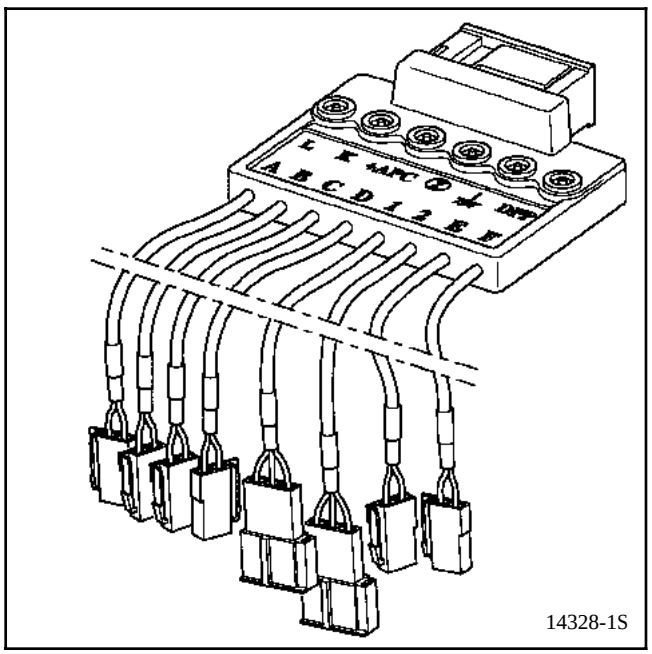
Using the **XRBAG**, it allows all the trigger lines to be checked, the computer supply voltage to be measured and forces the air bag warning light on the instrument panel to illuminate.

Terminals also allow continuity checks on the diagnostic lines, on the warning light lines and on the supply to the computer (see "**Fault Finding**" section).

Identification of adaptor output wiring

1 : Supply and warning light
2 : Not used
A : Driver's air bag lines
B : Passenger's air bag lines
C : Passenger's pretensioner lines
D : Driver's pretensioner lines

50 TRACK XRBAG ADAPTOR(B50)
for vehicles with side air bags



This bornier is connected in place of the computer.

Using the **XRBAG**, it allows all the trigger lines to be checked, the computer supply voltage to be measured and forces the air bag warning light on the instrument panel to illuminate.

Terminals also allow continuity checks on the diagnostic lines, the earth, the warning light lines and on the supply to the computer (see "**Fault Finding**" section).

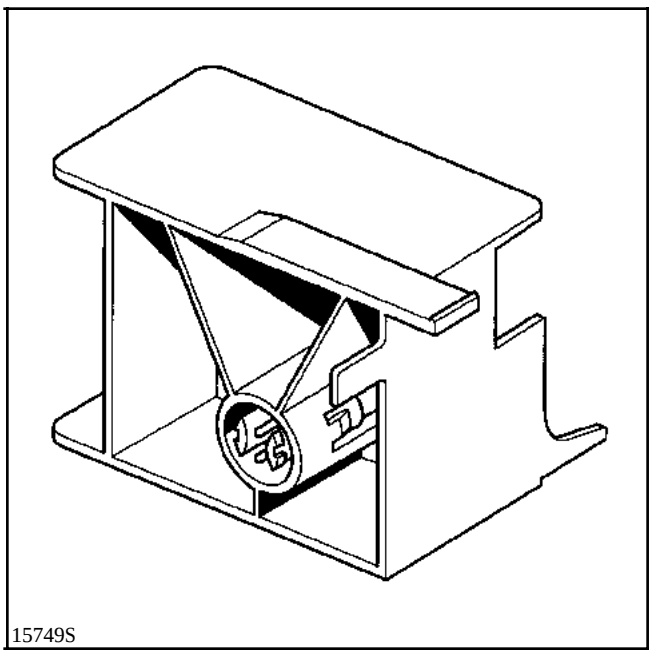
NOTE : the DPP terminal is not currently used on this system.

Identification of adaptor output wiring

1 : Not currently used
2 : Supply and warning light
A : Driver's pretensioner lines
B : Passenger's pretensioner lines
C : Driver's air bag lines
D : Passenger's air bag lines
E : Driver's side air bag lines
F : Passenger's side air bag lines

DUMMY IGNITION MODULE

A dummy ignition module integrated in a small red box is supplied in the XRBAG.



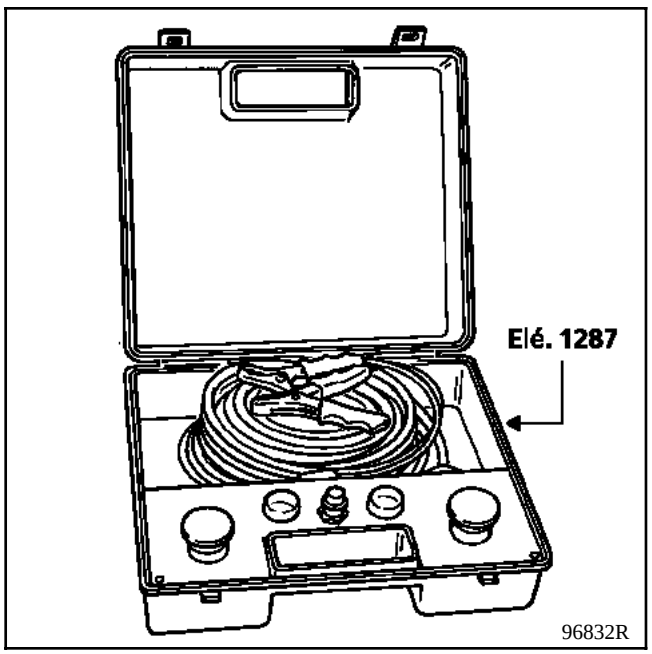
It has the same electrical specifications as a real ignition module and is used to replace the air bag or the pretensioner during fault finding.

Refer to your After Sales Head Office for further information.

DESTRUCTION EQUIPMENT

In order to avoid any risk of an accident the pyrotechnic gas generators for the air bags and seat belt pretensioners must be triggered before the vehicle or the part is scrapped.

Tool **Elé. 1287** must be used which is provided for this purpose.



Refer to "**Destruction procedure**" section.

IMPORTANT: do not trigger pretensioners which must be returned under warranty for a stalk problem. This makes analysis of the component impossible for the supplier.

Return the component in the packaging of the new one.

OPERATION OF PRETENSIONERS AND FRONT AIR BAGS

When the ignition is switched on, the control warning light for these systems is illuminated for several seconds and then is extinguished.

The computer is on standby and monitors the deceleration of the vehicle using the signal measured by two integral decelerometers.

In the event of a frontal impact of sufficient force, one of them simultaneously triggers the pyrotechnic generators for the two seat belt pretensioners.

Under the force of the gas generated by the system, a piston moves in its cylinder pulling a cable connected to a corresponding central buckle which retracts the seat belt (see the "**Pretensioners**" section).

If the frontal impact is greater, the second electronic decelerometer triggers the ignition of the pyrotechnic gas generators which inflate the driver and passenger air bags (according to equipment).

These systems will not trigger in the event of:
- a side impact,
- a rear impact.

When triggered, a pyrotechnic gas generator produces an explosion and a small amount of smoke.

NOTE : the computer and ignition modules supply normally comes from the vehicle battery. However, an energy reserve is included in the computer in case the battery is disconnected at the start of the impact.

OPERATION OF SIDE AIR BAGS

When the ignition is switched on, the control warning light for these air bag and pretensioner systems is illuminated for several seconds and then is extinguished.

The air bag and pretensioner system computer is then on standby as are the side air bags impact sensors located in the two inner sills of the vehicle.

In the event of a side impact of sufficient force, the side impact sensor on the impact side sends a signal to the air bag and pretensioner system computer , after having had confirmation of an impact from the electronic safety sensor (incorporated in the unit).

The unit triggers the ignition of the pyrotechnic gas generators in the seat which inflate the air bag cushion (on the impact side).

The side air bags are not triggered during:
- a frontal impact,
- a rear impact,
- an impact on the opposite side.

When triggered, a pyrotechnic gas generator produces an explosion and a small amount of smoke.

NOTE :the computer and ignition modules supply normally comes from the vehicle battery. However, an energy reserve is included in the computer in case the battery is disconnected at the start of the impact.

REMINDER : for vehicles fitted with self contained air bags, see Technical Note 3064A.

COMPUTER

Two types of computer are assembled on these vehicles according to their equipment :

- A unit supplied by a 30 track yellow connector for vehicles without side air bags. This must be configured according to the vehicle's equipment (see configuration).

- A unit supplied by a 50 track orange connector for vehicles with side air bags.

These units comprise :
- two electronic decelerometers for front air bags and pretensioners,
- an electronic safety sensor for non-self contained side air bags (unit with 50 track orange connector only),
- connections with side electronic sensors in the inner sills (unit with 50 track orange connector only),
- an ignition circuit for the different pyrotechnic systems ,
- an energy reserve,
- a fault finding circuit with memorisation of the faults detected,
- a control circuit for the warning light on the instrument panel,
- a communication interface K - L via the fault finding socket.

IMPORTANT

Before removing the computer, it must be locked using one of the fault finding tools (**XR25, NXR** or **OPTIMA 5800**).

When this operation is activated,all the ignition lines are inhibited and the air bag warning light on the instrument panel is illuminated (new computers are delivered in this condition).

See following procedure.

Special features after triggering

These types of unit (30 or 50 track) can accept up to four triggerings maximum. Therefore it is not necessary to replace them each time the air bags or pretensioners are triggered .

In the event of being triggered, the warning light on the instrument panel is illuminated, but the computer does not lock the ignition lines which have not been triggered. These remain in operation.

On the other hand, the computer locks the memorised faults in order to prevent accidental erasing of the context register for the impact which caused triggering.

These contexts can later be used to simplify the repair of the vehicles involved in accidents and also for examination needs.

IMPORTANT, during repair following an impact, an unlocking command must be carried out followed by a locking command for the computer to lock all of the ignition lines.

Erasing memorised faults is only possible following a computer unlocking command.

If the fault finding tool does not recommend replacing the computer, only replace the triggered components and check that there are no faults.

When everything is correct, unlock the computer using a fault finding tool; the system is again operational.

If the fault finding tool recommends replacing the computer, it will indicate either :

- that the computer has triggered four times either just the pretensioners or the pretensioners and air bags or the side air bag which is not self contained (according to equipment),
- or an internal fault in the computer .

In these two circumstances, replace the computer.

Special notes for replacing the computer

A new computer must be fitted to the vehicle before reconnecting its connector (tightening torque : **0.8 daN.m**).

The arrow on the computer must point towards the front of the vehicle.

After connecting the connector, carry out a check using the fault finding tool and proceed with configuration if the vehicle does not have a passenger air bag.

When everything is correct, unlock the computer using a fault finding tool; the system is again operational.

Procedure for locking the computer

Before removing the computer or before carrying out any repair on the air bag or pretensioners system, the computer must be locked either :

- **by using the XR25 (fiche n° 48)**
  1 Type in code **D49** ISO selector on **S8**
  2 Type in command **G80***
  When this operation is activated, all the ignition lines are inhibited, the air bag warning light on the instrument panel and bargraph **16 LH side** on the XR25 are illuminated (new computers are delivered in this condition).
  Fault finding remains possible when this mode is activated.

NOTE : to unlock the computer, use the same method using command **G81***. The air bag warning light on the instrument panel and bargraph **16 LH side** on the XR25 will be extinguished.

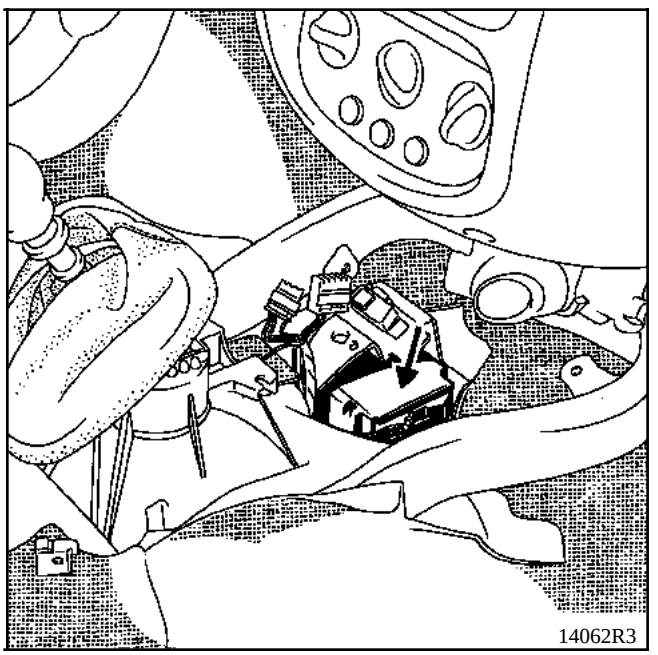
- **by using the NXR and the OPTIMA 5800**
  1 Choose the "**fault finding** " menu
  2 Select and validate the vehicle type (Clio II)
  3 Select and validate the "**Air bag and pretensioners**" system which is to have fault finding carried out
  4 Choose the "**Command**" menu
  5 Select and validate the "**Actuator Command**" operation then validate the "**computer locking**" command.
  6 Choose the "**Status**" menu and check that the computer is correctly locked. The bargraph for the "**locked computer**" line and the air bag warning light on the instrument panel must be illuminated (new computers are delivered in this condition).
  Fault finding remains possible when this mode is activated.

NOTE : to unlock the computer, use the same method validating the "**Computer unlocking**" line. The bargraph for the "**Computer locked**" line and the air bag warning light on the instrument panel must be extinguished.

Removal

It is located on the tunnel in the central console.

To access it :
- remove the central console,
- move the warm air ducts to one side and disconnect the computer,
- cut the carpet slightly to access the mounting bolts,
- remove the computer with the diagnostic socket support.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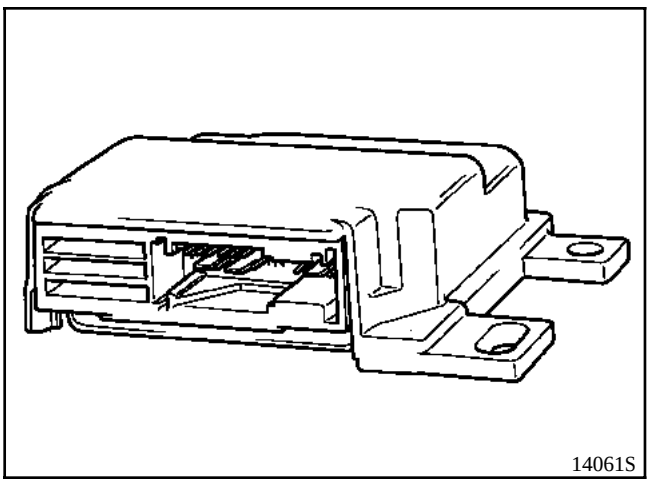
IMPORTANT

- when carrying out a repair underneath the vehicle (exhaust, bodywork, etc.), do not use a hammer or transfer an impact to the floor without having locked the computer using the fault finding tool .

- when installing an electrical accessory in after sales (speaker, alarm, or any equipment which can generate a magnetic field), it must not be fitted close to the air bag / pretensioners computer.

Removed computer

30 track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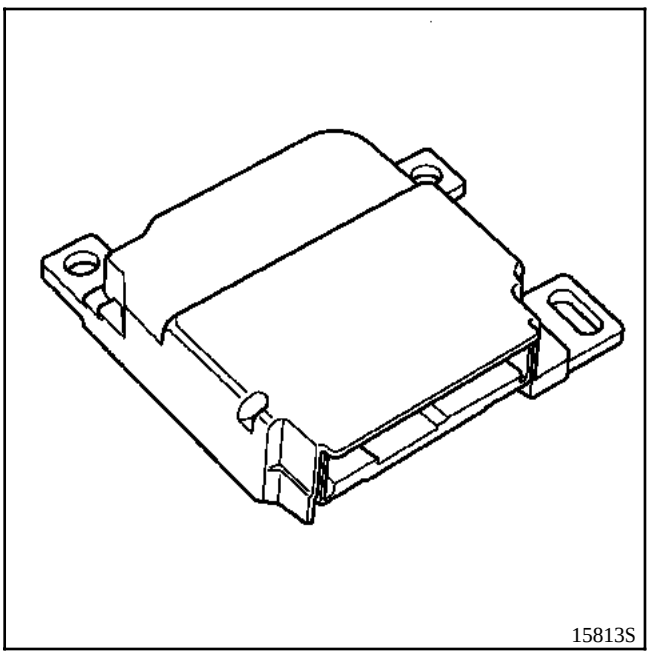
50 track
for vehicles fitted with side air bags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Computer configuration
(computer fitted with a 30 track connector only)

New computers are normally delivered configured for "**passenger air bag**".

If the vehicle does not have a passenger air bag, the computer will have to be configured without a passenger air bag using the fault finding tool.

In the event where the computer configuration does not correspond to the vehicle equipment, the air bag warning light will remain illuminated.

- **using the XR25 (fiche n° 48)**
  1 Type in code **D49** ISO selector on **S8**
  2 Type in command **G20*0*** ,bargraph **19 LH side** on the XR25 must be extinguished.

NOTE : to reconfigure the computer with a passenger air bag, use the same method using command **G20*1***, bargraph **19 LH side** on the XR25 must be illuminated.

- **using the NXR and the OPTIMA 5800**
  1 Choose the "**fault finding** " menu
  2 Select and validate the vehicle type (Clio II)
  3 Select and validate the system "**Air bag** "
  4 Choose the"**Command**" menu
  5 Select and validate the "**computer configuration**" operation then the "**computer configuration**" line. The tool displays the current configuration.

  To change it, select and validate the "**Passenger Air bag**" line (check the request has been taken into account in the "**Requested configuration**" column). Press "**Continue**" and confirm your request.

NOTE : to reconfigure the computer with a passenger air bag, use the same method validating the "**Passenger air bag**" line again.

Connection

NOTE : the computer connector has a special feature in that it short circuits the various trigger lines when it is disconnected. In effect, the shunts, located opposite each pretensioner or air bag line, prevent incorrect triggering of the system (by antenna effect for example).

Yellow 30 track connector
(full connection)

Track	Description
1	+ driver's pretensioner
2	- driver's pretensioner
3	+ passenger pretensioner
4	- passenger pretensioner
5	+ after ignition feed
6	Earth
7	Air bag warning light on the instrument panel
8	Not used
9	Diagnostic line"K"
10	+ driver's air bag
11	- driver's air bag
12	Not used
13	+ passenger's air bag
14	- passenger's air bag
15	Not used
16	Shunt
17	Shunt
18	Shunt
19	Shunt
20	Earth
21	Shunt
22	Shunt
23	Diagnostic line "L"
24	Not used
25	Shunt
26	Shunt
27	Not used
28	Shunt
29	Shunt
30	Not used

50 track orange connector

Track	Description
1	+ driver's pretensioner
2	- driver's pretensioner
3	+ passenger pretensioner
4	- passenger pretensioner
5	+ after ignition feed
6	Earth
7	Air bag warning light on the instrument panel
8	Not used
9	Diagnostic line"K"
10	+ driver's air bag
11	- driver's air bag
12	Diagnostic line "L"
13	+ passenger's air bag
14	- passenger's air bag
15	Not used
16	+ driver's side air bag
17	- driver's side air bag
18	- passenger's side air bag
19	+ passenger's side air bag
20	Driver's side impact sensor signal
21	- driver's side impact sensor
22	- passenger's side impact sensor
23	Passenger side impact sensor signal
24	Not used
25	Not used
26 to 29	Shunt
30	Not used
31	Shunt
32	Shunt
33	Not used
34	Not used
35	Shunt
36	Shunt
37	Not used
38	Shunt
39	Shunt
40	Not used
41 to 44	Shunt
45 to 50	Not used

WARNING LIGHT ON THE INSTRUMENT PANEL

This warning light controls the pretensioners and the driver and passenger air bags.

It must illuminate for several seconds when the ignition is switched on, then extinguish (and remain extinguished).

Not illuminating when the ignition is switched on or illuminating when the vehicle is moving indicates a fault in the system (see "**Fault Finding**" section).

SIDE IMPACT SENSORS
(according to equipment)

IMPORTANT : before removing a side impact sensor, lock the computer using a fault finding tool. When this operation is activated, all the triggering lines are inhibited, the air bag warning light on the instrument panel is illuminated.

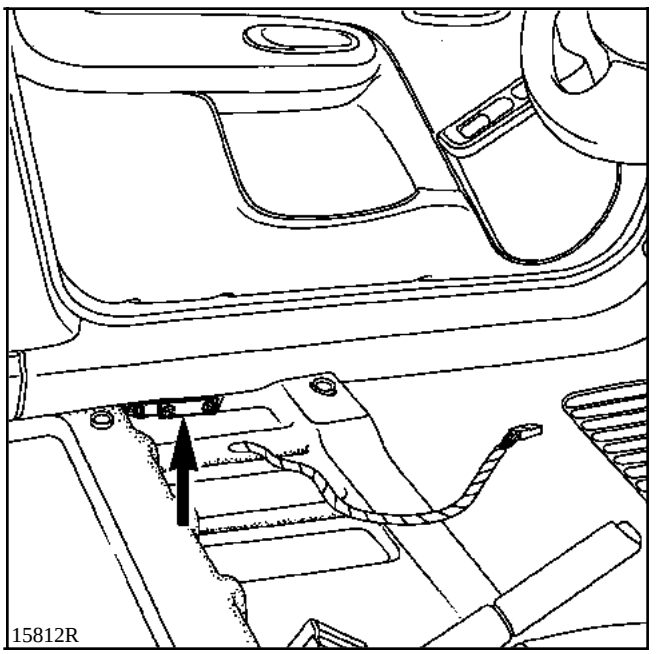
REMINDER : for vehicles fitted with self contained air bags, see Technical Note 3064A.

Removal

They are located on each side under the the inner sill trim.

To access it :
- remove the two sensor mounting bolts, passing the wrench under the seat runner,
- disconnect the sensor.

NOTE : removing the seat is not necessary.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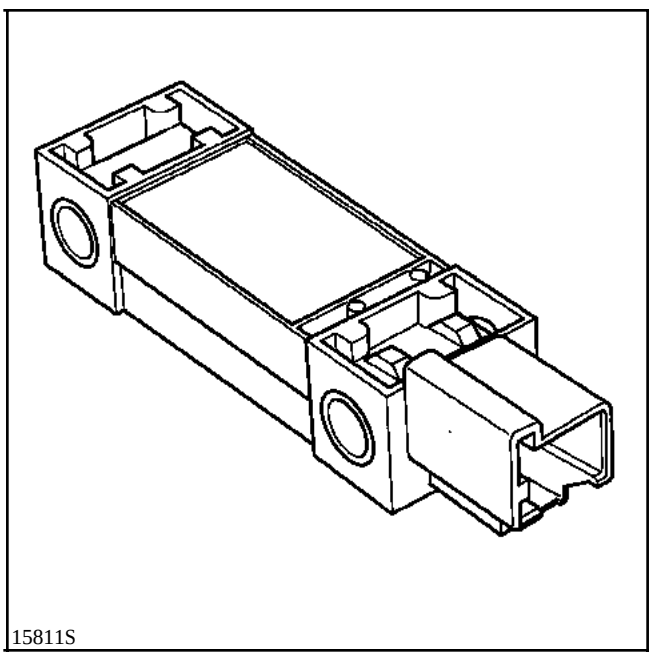
Removed sensor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IMPORTANT: In the event of the side air bag being triggered, the computer illuminates the air bag warning light on the instrument panel. The side impact sensor must be replaced (certain components lose their nominal specifications after the triggering energy has passed through them).

Refitting

To refit it, position the sensor using its lug and mount it to the vehicle before reconnecting the connector(tightening torque : **0.8 daN.m**).

After connecting its connector, carry out a check using the fault finding tool.

Unlock the computer if everything is correct, otherwise see the"**Fault Finding**" section.

Connection

Track	Description
1	Sensor supply
2	Earth
3	Not used

OPERATION ON THE TRIGGERING LINES

In the event of a fault noted on one of these lines, the component must be replaced and not repaired.

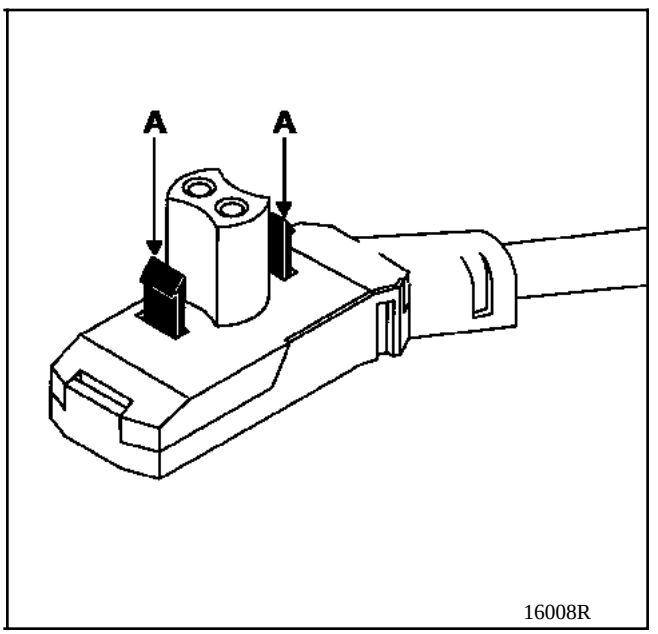
This safety device can not tolerate any conventional repair operation on the wiring or connectors.

The air bag and pretensioner triggering lines are integrated in the passenger compartment wiring harness. In order to make repairs easier, the replacement method consists of cutting the two extremities of the faulty wiring and making the new wiring follow the same route along the passenger compartment wiring harness.

IMPORTANT: when refitting the new wiring, ensure that it is not subject to damage and that the original cleanliness has been respected.

Special case : the connector with lugs

A series of vehicles are fitted with a red connector with lugs(A) passenger air bag module side.

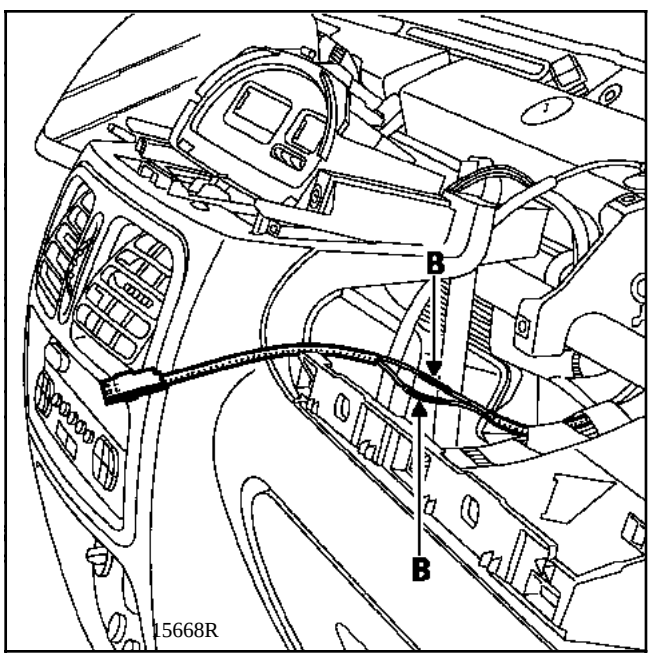


To disconnect it, carefully use a small screwdriver as a lever , so as not to damage the lugs .

In the event of the lugs breaking, replace the connector using the kit part number : **77 01 206 210** using the following method.

After deactivating the air bag function using the fault finding tool and removing the passenger air bag module :

- cut the passenger air bag wiring **60 mm** from the instrument panel wiring tape,
- unsheath the passenger air bag supply wiring by **30 mm**,
- strip the wiring provided in the kit and the passenger air bag wiring by approximately **10 mm**,
- thread **2 cm** of heat shrink sleeving (provided in the kit) on each of the vehicle's wiring lines,
- solder the vehicle's wiring to the wiring in the kit (B),
- position the heat shrink sleeving over the soldered joins and heat it,



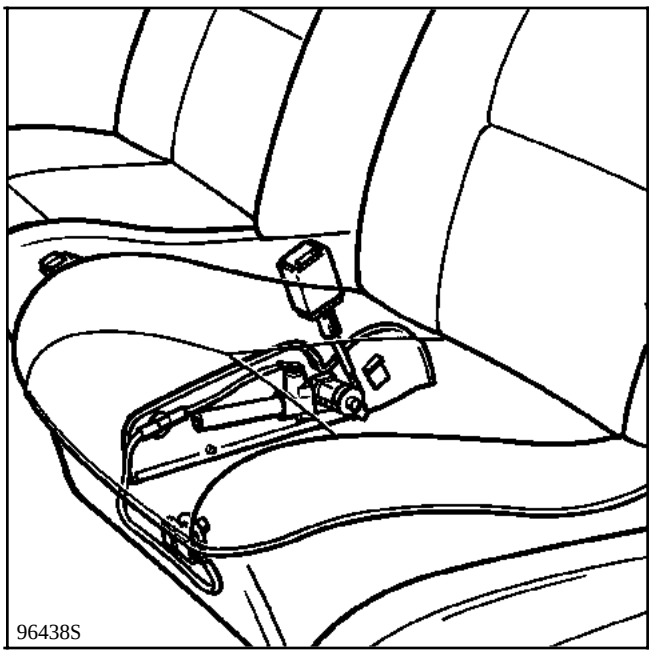
- refit and secure the passenger air bag module,
- connect the new connector to the passenger air bag module,
- carry out a check using the fault finding tool.

Unlock the computer if everything is correct, otherwise see the "**Fault Finding** " section.

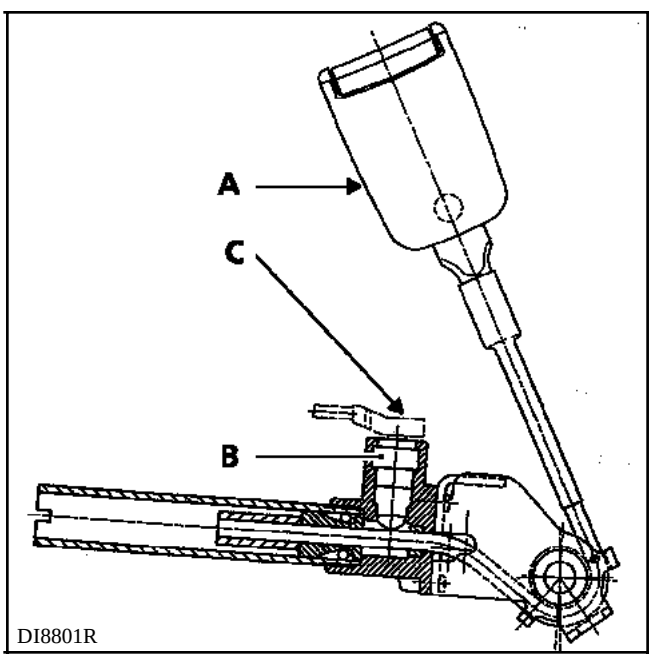
SEAT BELT PRETENSIONERS

Description

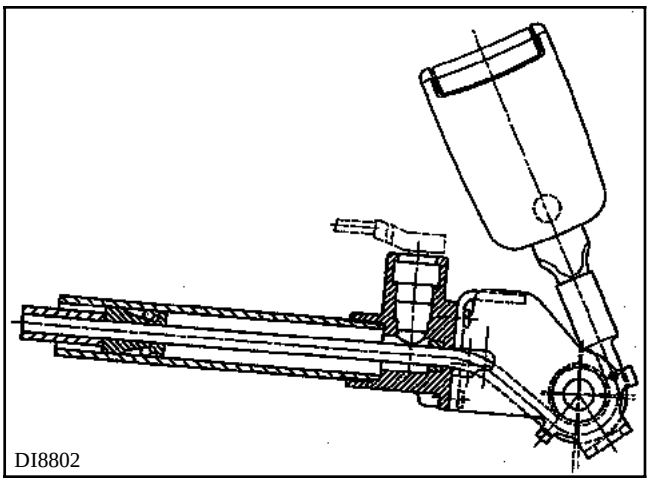
They are mounted to the side of the front seats.



A pretensioner comprises :
- a special belt buckle (A),
- a pyrotechnic gas generator with its ignition module (B).



When triggered, the system can retract the buckle by **70 mm** (maximum).


DI8802

The pretensioner's components can not be separated.

NOTE : this system is operational when the ignition has been switched on.

Removal

IMPORTANT: The pyrotechnic systems (pretensioners or air bags) must not be handled when near a heat source or a flame because there is a risk that the system will be triggered.

IMPORTANT

Before removing a pretensioner, lock the computer using the fault finding tool.

When this function is activated, all trigger lines are inhibited, the air bag warning light on the instrument panel is illuminated.

Remove:
- the pretensioner connector located under the front seat,
- the pretensioner assembly, after having removed the protective trim.

IMPORTANT : before scrapping an untriggered pretensioner module, it **MUST** be destroyed in accordance with the method described in the "**Destruction Procedure**" section (except parts which can be returned under warranty).

Refitting

Observe the wiring routing and the mounting points under the seat.

NOTE : press the connector in firmly on the pretensioner side (C) (strong clipping system).

IMPORTANT : after replacing the faulty parts and reconnecting the connectors, carry out a check using the fault finding tool.

Unlock the computer if everything is correct, otherwise see the"Fault Finding" section.

REMINDER: the computer in these vehicles can withstand several triggerings. Therefore, it does not have to be replaced after every triggering of the air bag(s) or pretensioners (see "**Computer**" section).

SEAT BELTS

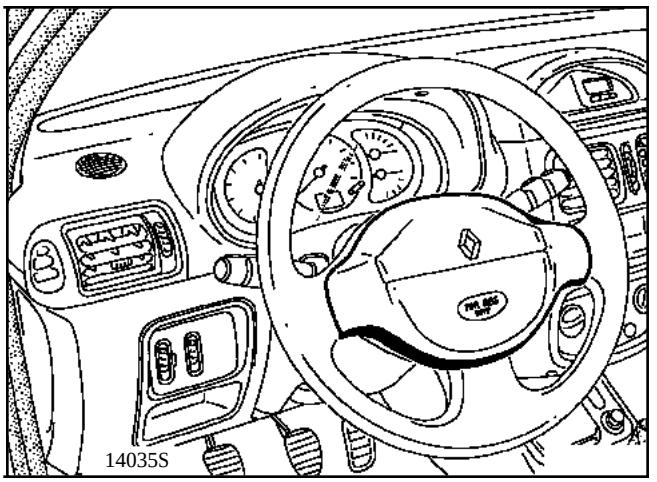
When the pretensioners are triggered one or both of the front seat belts must systematically be replaced if it was fastened when pretensioning took place (the seat belt must be replaced if there are any doubts about whether it was worn).

The physical forces applied to the catch affect the inertia reel and may damage the reel mechanism.

DRIVER'S AIR BAG

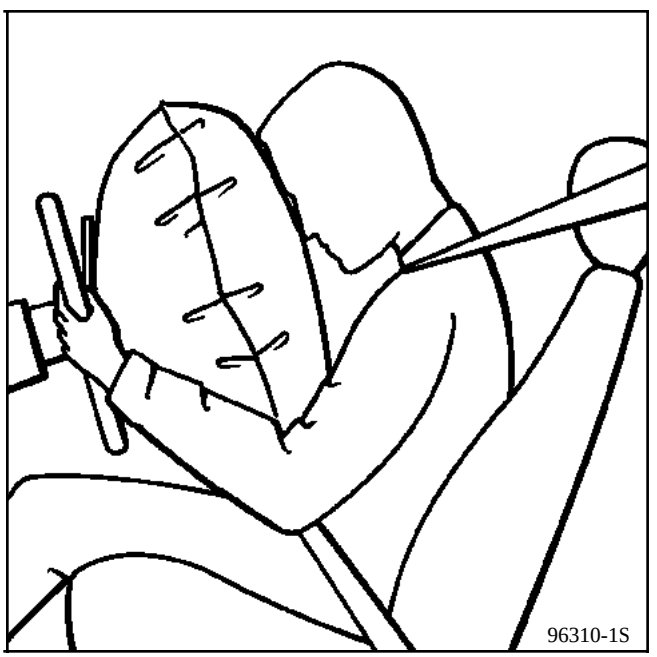
Description

It is located in the steering wheel cushion.



It comprises :
- an inflatable bag,
- a pyrotechnic gas generator and ignition module.

These components cannot be separated.



In order to work, the inflatable bag tears through the steering wheel cover.

NOTE : this system is operational after the ignition has been switched on.

Removal

IMPORTANT: The pyrotechnic systems (pretensioners or air bags) must not be handled when near a heat source or a flame because there is a risk that the system will be triggered.

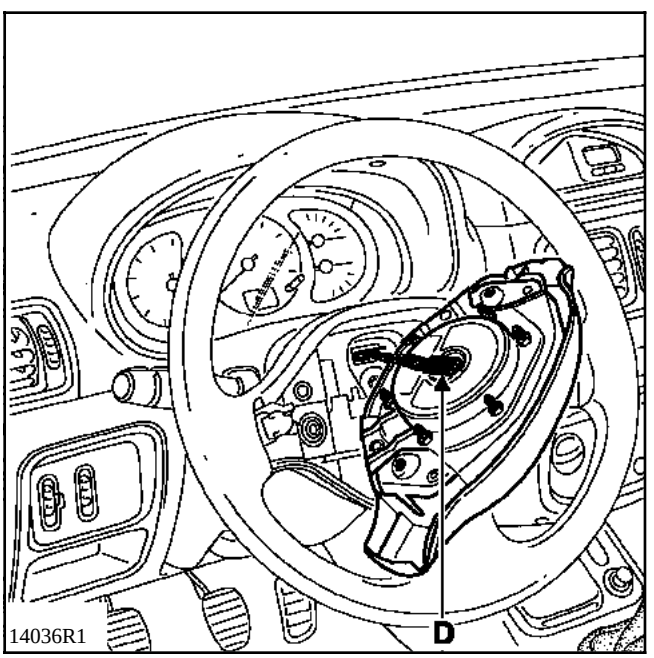
IMPORTANT : When removing the steering wheel, the air bag connector must be disconnected (D) (see below).

The air bag is fitted with a connector which short circuits when it is disconnected to avoid incorrect triggering .

IMPORTANT : before removing the air bag cushion, lock the computer using the fault finding tool.

When this operation is activated, all the triggering lines are inhibited, the air bag warning light on the instrument panel is illuminated

Remove the air bag cushion by its two torx bolts located behind the steering wheel and disconnect its connector (D).



IMPORTANT : before scrapping an untriggered air bag module, it **MUST** be destroyed in accordance with the method described in the "**Destruction Procedure**" section

Refitting

Reconnect the air bag cushion and mount it to the steering wheel (tightening torque : **0.5 daN.m**).

NOTE :press the connector in firmly on the cushion side (D) (strong clipping system).

IMPORTANT : after refitting everything,carry out a check using the fault finding tool .

Unlock the computer if everything is correct, otherwise see the"Fault Finding" section.

REMINDER: the computer in these vehicles can withstand several triggerings. Therefore, it does not have to be replaced after every triggering of the air bag(s) or pretensioners (see "Computer" section).

ROTARY SWITCH

The rotary switch ensures the electrical connection between the steering column and the steering wheel.

It consists of a strip with two conducting tracks (air bag) of which the length is long enough to allow **2.5 turns** of the steering wheel (full lock plus safety) for each side.

Removal

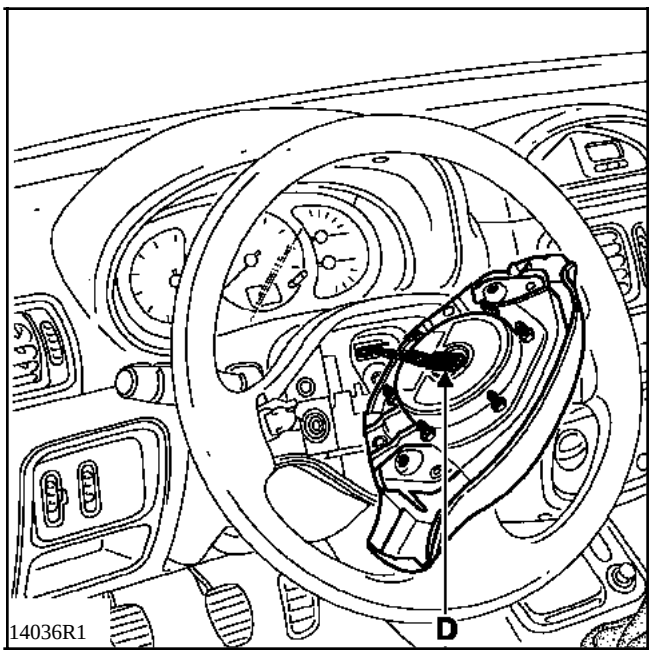
IMPORTANT: The pyrotechnic systems (pretensioners or air bags) must not be handled when near a heat source or a flame because there is a risk that the system will be triggered.

IMPORTANT : When removing the steering wheel, the air bag connector must be disconnected (D) (see below). The air bag is fitted with a connector which short circuits when it is disconnected to avoid incorrect triggering .

IMPORTANT : before removing the air bag cushion, lock the computer using the fault finding tool.

When this operation is activated, all the triggering lines are inhibited, the air bag warning light on the instrument panel is illuminated.

Remove :
- the air bag cushion by its two torx bolts located behind the steering wheel and disconnect its connector (D).

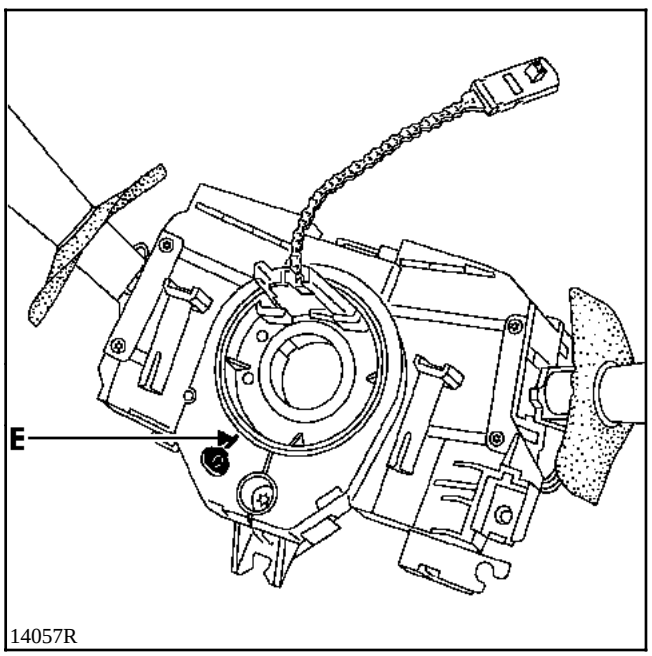


- the steering wheel bolt,
- the steering wheel after positioning the wheels straight,
- the half cowlings (three bolts).

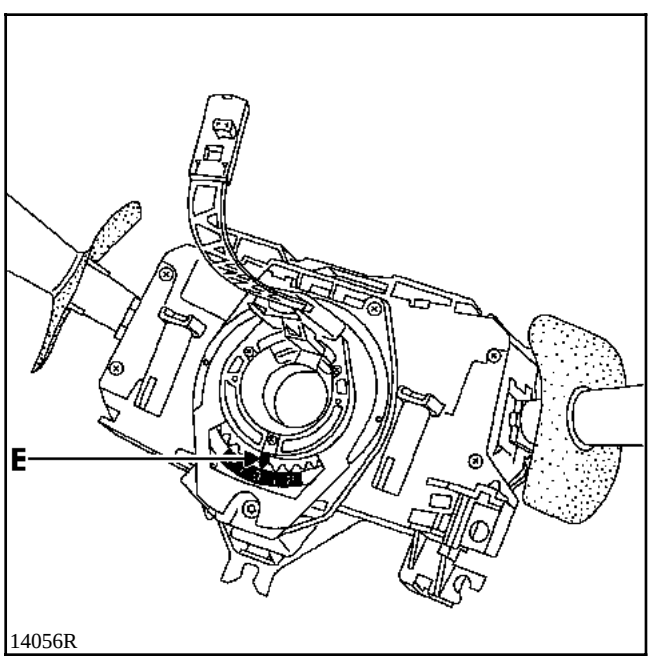
Disconnect the stalks (windscreen wipers and lights) and the rotary switch connector.

Before removing the assembly, the rotary switch position must be noted:
- by ensuring that the wheels are straight during removal in order to position the length of the strip in the centre ,
- by checking that the mark "0" is correctly positioned opposite the fixed index (E).

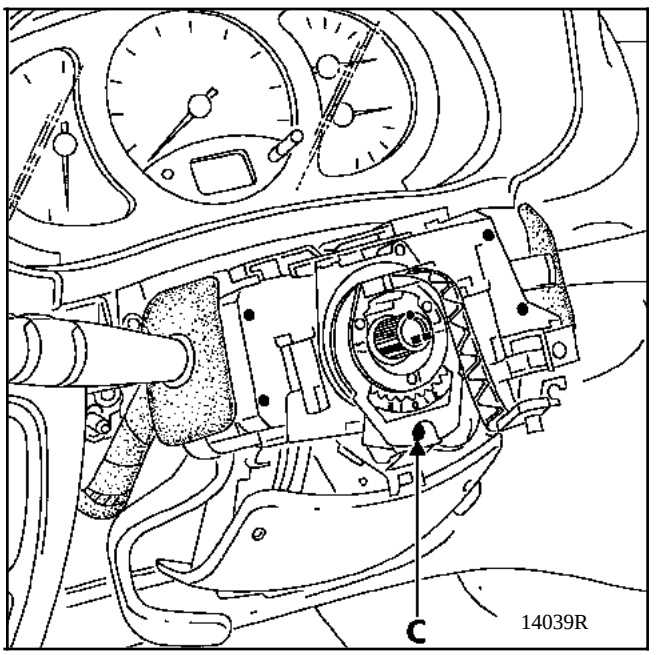
Valéo fitting



Lucas fitting



Slacken bolt (C), then tap the screwdriver sharply to loosen the cone and release assembly from the steering column .



Refitting

Ensure that the wheels are still straight.

Check that the mark "0" on the rotary switch is correctly positioned opposite the fixed index (E).

IMPORTANT: If these procedures are not correctly observed the systems may not operate correctly or may be accidentally triggered.

Engage the assembly on the steering column and connect the different connectors.

Carry out the rest of the refitting and only lock bolt (C) once the two half cowlings have been re-fitted, to position the stalks in alignment with the instrument panel and the dashboard.

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

Change the steering wheel bolt after each removal (pre-bonded bolt) and observe its tightening torque (**4.5 daN.m**).

Reconnect the air bag cushion and fix it to the steering wheel (tightening torque : **0.5 daN.m**).

NOTE : press the connector in firmly on the cushion side(D) (strong clipping system).

IMPORTANT

- To avoid damaging the rotary switch under the steering wheel, the fixed position of the steering wheel must be maintained during the operation.
- If there is any doubt about whether the steering wheel is correctly centred, it must be removed for verification.
- In the event of an operation to remove the steering, engine, transmission components etc, where the steering rack and steering column have to be separated, the steering wheel must be immobilised using a "**steering wheel locking**" tool.

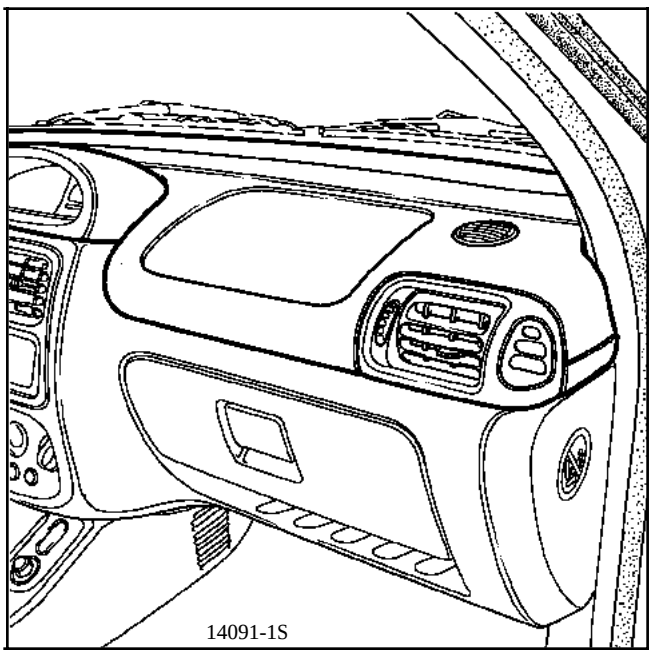
IMPORTANT : after refitting every thing, carry out a check using the fault finding tool.

Unlock the computer if everything is correct, otherwise see the"Fault Finding" section.

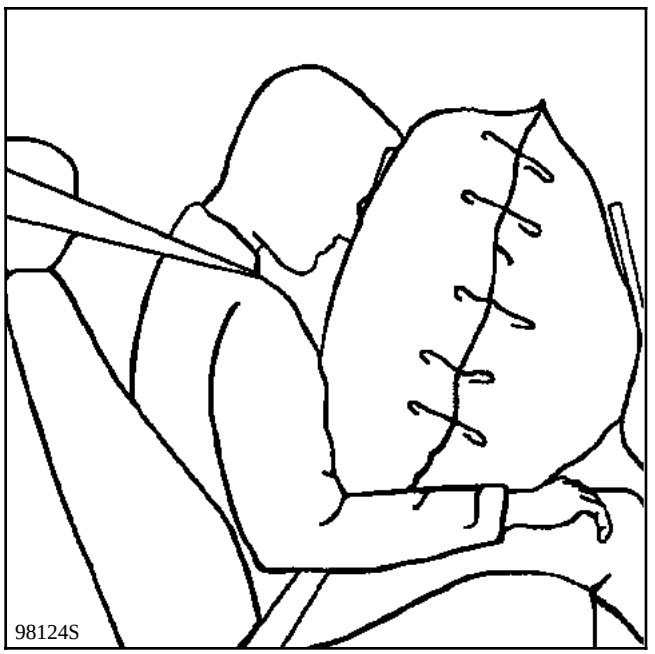
PASSENGER AIR BAG MODULE

Description

It is mounted in the dashboard opposite the front passenger.



It consists of:
- an inflatable cushion,
- a pyrotechnic gas generator and ignition module.



The air bag module components cannot be separated.

NOTE : this system is operational when the ignition has been switched on.

Accessing the ignition module

To access the ignition module of the passenger air bag module, the upper part of the dashboard must be removed.

Important, if the vehicle is fitted with a red connector with lugs, see the recommendations on the following page.

REMINDER: the ignition module check for the module must be carried out using the **XRBAG** as described in the "**Fault Finding**" section.

Removal

IMPORTANT: The pyrotechnic systems (pretensioners or air bags) must not be handled when near a heat source or a flame because there is a risk that the system will be triggered.

IMPORTANT : Before removing a passenger air bag module, lock the computer using the fault finding tool.

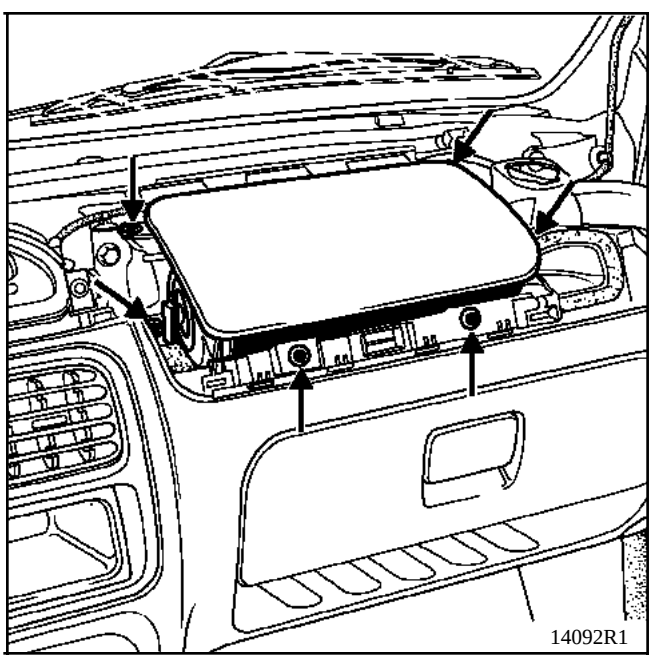
When this operation is activated, all of the triggering lines are inhibited, the air bag warning light on the instrument panel is illuminated.

To remove the passenger air bag module the upper part of the dashboard must be removed.

Remove:
- the windscreen pillar trim sections,
- the half cowlings under the steering wheel
- the mounting bolts on the upper part of the dashboard and release it (for more details see "**section 83 in MR 337**").

Disconnect the ignition module.

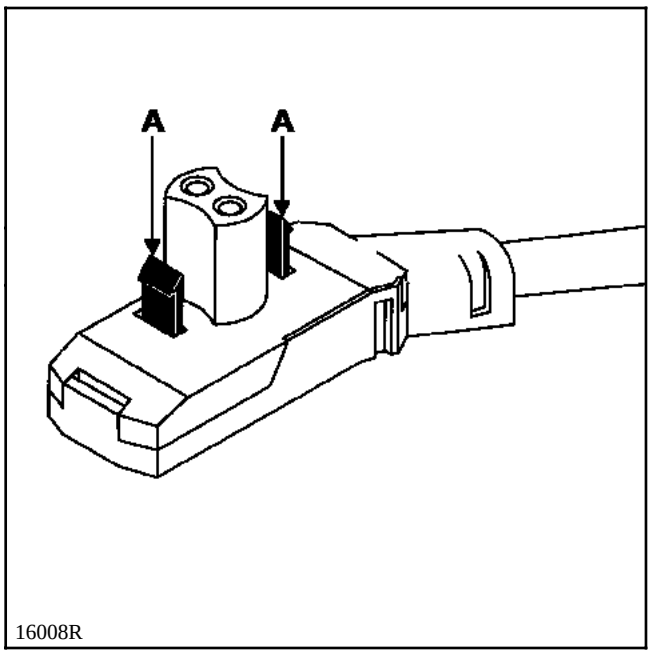
The passenger air bag module is mounted by six bolts.



IMPORTANT : In the event that the passenger air bag module should be triggered, the deformation of the mountings (microcracks) means the metal dashboard support beam must be replaced.

Special case : the connector with lugs

A series of vehicles are fitted with a red connector with lugs (A) on the passenger air bag module.

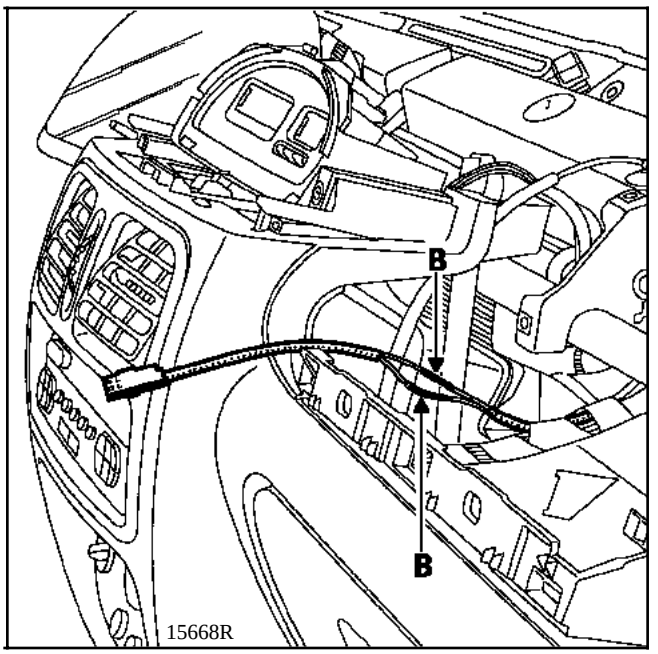


To disconnect it, carefully use a small screwdriver as a lever , so as not to damage the lugs .

In the event of the lugs breaking, replace the connector using the kit part number : **77 01 206 210** using the following method.

After deactivating the air bag function using the fault finding tool and removing the passenger air bag module :

- cut the passenger air bag wiring **60 mm** from the instrument panel wiring tape,
- unsheath the passenger air bag supply wiring by **30 mm**,
- strip the wiring provided in the kit and the passenger air bag wiring by approximately **10 mm**,
- thread **2 cm** of heat shrink sleeving (provided in the kit) on each of the vehicle's wiring lines,
- solder the vehicle's wiring to the wiring in the kit (B),
- position the heat shrink sleeving over the soldered joins and heat it,



- refit and secure the passenger air bag module,
- connect the new connector to the passenger air bag module,
- carry out a check using the fault finding tool.

Unlock the computer if everything is correct, otherwise see the "**Fault Finding** " section.

Refitting

IMPORTANT: the safety notes which must be followed to refit or replace the passenger air bag module must be observed .
If these procedures are not correctly observed the systems may not operate correctly or may be accidentally triggered, presenting a danger to the occupants of the vehicle.

IMPORTANT: a 2nd generation passenger air bag module must not be fitted to a vehicle fitted with a 1st generation computer (see the table on pages 2 and 3).
Observe part numbers mentioned in the spare parts catalogue, referring to vehicle equipment.

Refitting is the opposite of removal

IMPORTANT

- No foreign body (bolt,clip...) must be forgotten when refitting the air bag module.
- Reconnect the passenger air bag module and secure it (tightening torque : **0.6 daN.m**).
- Press the connector in firmly on the module side (strong clipping system).
- Attach a blue adhesive sticker " **after sales system tamperproof label**" sold under part number : **77 01 205 356** on the air bag module connector.
- After refitting everything, carry out a check using the fault finding tool.
- Unlock the computer if everything is correct, otherwise see the"Fault Finding" section.

REMINDER: the computer in these vehicles can withstand several triggerings. Therefore, it does not have to be replaced after every triggering of the air bag(s) or pretensioners (see "Computer" section).

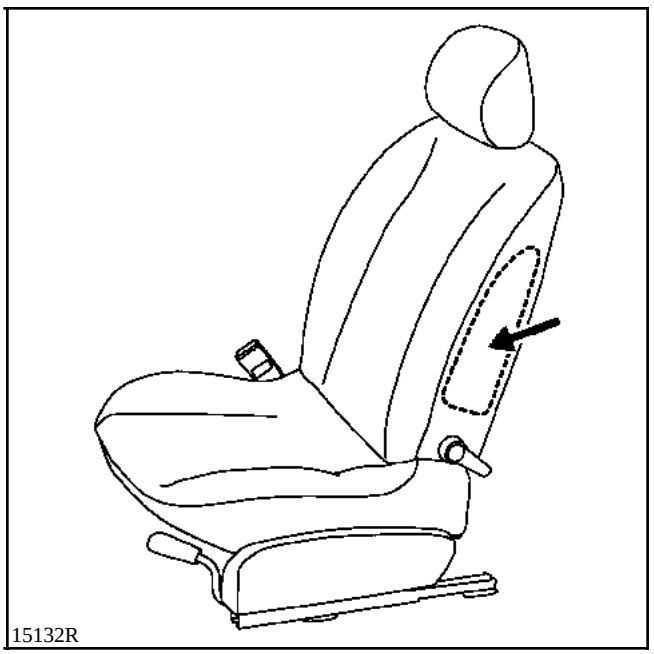
SIDE AIR BAG MODULE

Description

It is fitted into the seatback of the front seats on the door side.

It comprises :
- an inflatable bag,
- a pyrotechnic gas generator and ignition module.

These components cannot be separated.


15132R

In order to work the inflatable bag tears through the module cover, the foam and the seat trim.

NOTE: this system is operational after the ignition has been switched on.

IMPORTANT:
The pyrotechnic systems (pretensioners or air bags) must not be handled when near a heat source or a flame because there is a risk that the system will be triggered.

No measurements may be made on these systems using an ohmmeter or any other electrical measuring equipment: the system may be triggered due to the operating current of the measuring equipment.

Removal - Refitting

Any operation involving removal and refitting of the seat trim of a seat back fitted with a side air bag, must not be carried out for the time being.

In case of a fault on the air bag cushion or following its inflation, the whole seat must be replaced following the specific Parts Department order procedure .

IMPORTANT :

- Before removing a seat, lock the computer using the fault finding tool.
  When this operation is activated, all the triggering lines are inhibited and the air bag warning light on the instrument panel is illuminated.
- When refitting, after replacing the seat and reconnecting the connectors, carry out a check using the fault finding tool. Unlock the computer if everything is correct, otherwise see the"Fault Finding" section.

REMINDER: the computer in these vehicles can withstand several triggerings. Therefore, it does not have to be replaced after every triggering of the air bag(s) or pretensioners (see "Computer" section).

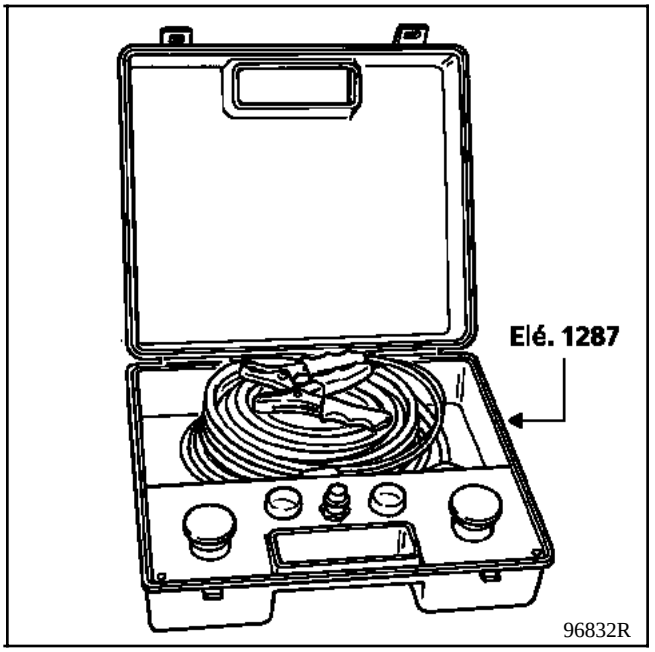
On the other hand, in the event of a triggering being caused, the side impact sensor must be replaced (certain components lose their nominal specifications after the triggering energy has passed through them).

IMPORTANT : before scrapping an untriggered air bag module, it **MUST** be destroyed in accordance with the method described in the "**Destruction Procedure**" section

DESTRUCTION PROCEDURE

To avoid the risk of an accident, the pyrotechnic gas generators must be triggered before scrapping a vehicle or a single part.

Tool Elé**. 1287** must be used.



- **Pretensioners**

IMPORTANT: do not trigger pretensioners which must be returned under warranty for a stalk problem. This makes analysis of the component impossible for the supplier.

Return the component in the packaging of the new one.

Destruction of the part fitted to the vehicle

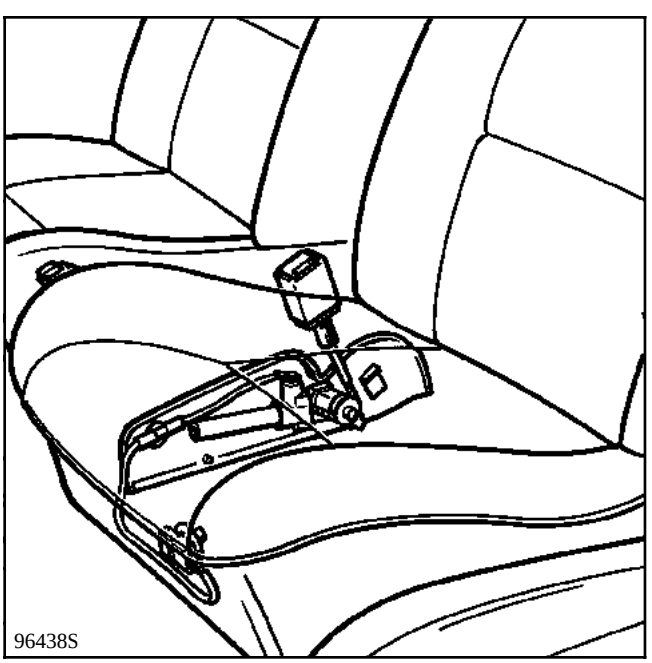
Move the vehicle outside the workshop.

Connect the destruction tool to the pretensioner after removing the seat runner cover.

Unroll all the wire supplied with the tool so that you are far enough away from the vehicle (approximately **10 metres**) when the unit is triggered.

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

After ensuring that no-one is near, carry out the destruction of the pretensioner by pressing the two push buttons on the tool at the same time.


96438S

NOTE : if the unit cannot be triggered (faulty ignition module), return the old part in the packaging from the new replacement part to ITG (Service 0429).

Destruction of the component removed from the vehicle

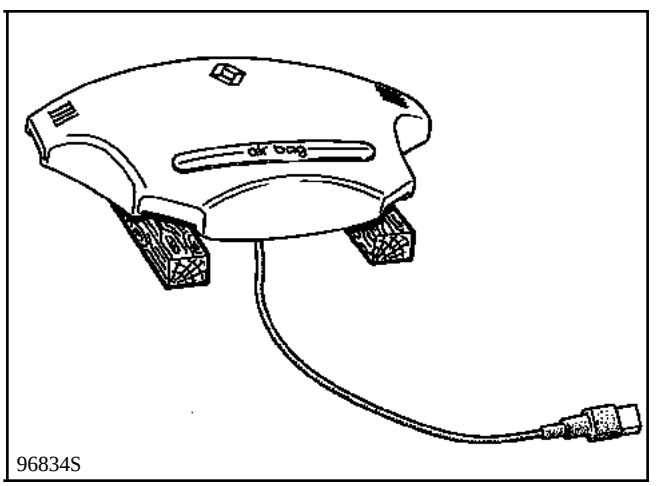
Carry out the procedure in the same way as for the driver's air bag in the pile of old tyres (see below).

- **Driver's air bag**

Destruction of the component removed from the vehicle

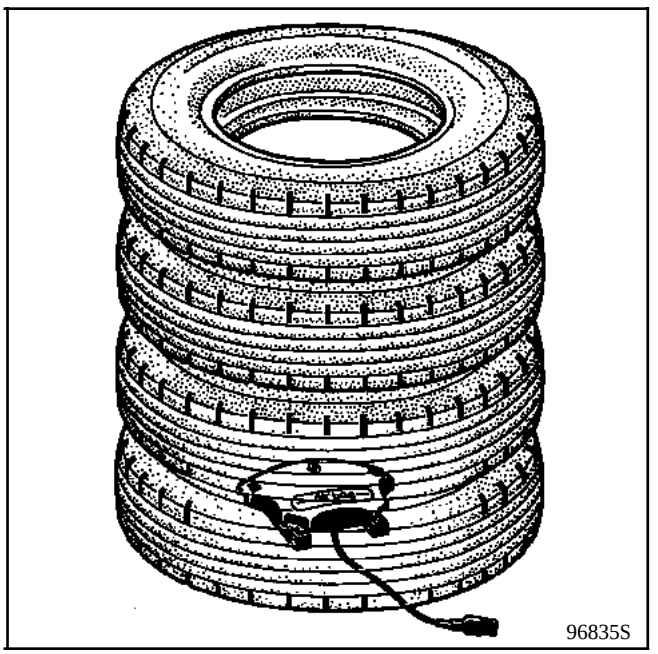
Carry out the operation outside the workshop.

After connecting the corresponding wiring, place the air bag cushion on two wooden blocks in order to avoid damaging the connector on the ground.



96834S

Cover the assembly with a stack of four old tyres.



Unroll all the wire supplied with the tool so that you are far enough away from the assembly (approximately **10 metres**) when the unit is triggered and connect it to the air bag cushion wiring.

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

After ensuring that no-one is near the unit, carry out the destruction of the air bag by pressing the two push buttons on the tool at the same time.

NOTE : if the unit cannot be triggered (faulty ignition module), return the old part in the packaging from the new replacement part to **ITG** (Service **0429**).

- **Passenger air bag module**

Destruction of the component removed from the vehicle

Carry out the procedure in the same way as for the driver's air bag in the pile of old tyres (see above).

FAULT FINDING - INTRODUCTION

This fault finding section comprises two parts :

- For systems only with front air bags marked "Front".
- For systems with front and side air bags marked "Side".

CONDITIONS FOR APPLYING THE CHECKS DEFINED IN THIS FAULT FINDING

In this fault finding, each fault is interpreted for a type of special memory (fault present, fault memorised, fault present or memorised).
The checks defined for the processing of each fault are therefore only applied to a vehicle if the fault is interpreted for the type of fault declared by the fault finding tool.

If a fault is only interpreted in this fault finding if it is declared "present", applying the fault finding when the fault is only "memorised" does not enable the origin of memorising this fault to be located. In this case, only a check of the wiring and the connections for the part at fault needs to be carried out (it is possible to test the wiring concerned in fault finding mode in order to try to see the change from memorised fault to fault present).

If a fault is interpreted when it is declared"memorised", the conditions for confirming the actual presence of the fault (and the need to apply fault finding) appear in the "Notes" section or at the beginning of the fault interpretation.

Note : the ignition must be switched off before operating the fault finding tool.

TOOLING REQUIRED FOR OPERATIONS ON THE AIR BAG AND SEAT BELT PRETENSIONER SYSTEMS :

- fault finding tool (except XR25).
- XRBAG update N° 4 for front air bags (with the 30 track B40 adaptor with yellow computer base).
- XRBAG update N° 5 for side air bags (with the new 50 track B50 adapter with orange computer base).

REMINDERS :

When carrying out an operation on the air bag / seat belt pretensioner systems, the computer must be locked using the fault finding tool to prevent any risk of incorrect triggering (all trigger lines will be inhibited).This "locked" mode is indicated by illumination of the warning light on the instrument panel.

If the operation follows an impact during which the pretensioners and/or air bags were triggered, locking will only be possible following a computer unlocking command.

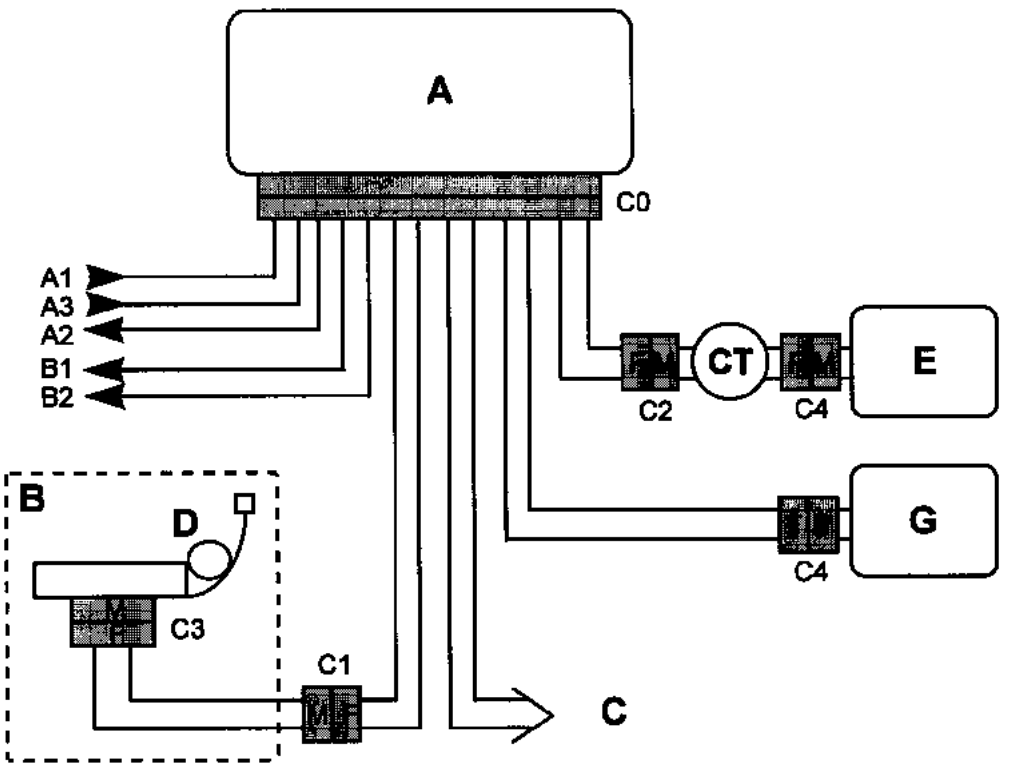
Following an impact during which the pretensioners and/or air bags were triggered, erasing the memorised faults will only be possible following a computer unlocking command.

Never take measurements on the air bag and pretensioner triggering lines with an apparatus other than the XRBAG.
Before using a dummy ignition module, ensure that its resistance is between 1.8 and 2.5 ohms.
During an operation ensure that the computer supply voltage does not fall below 10 volts (#01).

FAULT FINDING - INTRODUCTION

FICHE XRBAG

Pretensioners, front air bags



DI8826

The connector is identical for the pretensioners and side air bags on both seats

A Central computer
B Driver's seat
C Passenger's seat
D Pretensioner
E Driver's air bag ignition module
G Passenger's air bag ignition module

CT Rotary switch
A1 + 12 Volts
A2 Warning light
A3 Earth
B1, **B2** Fault finding lines

	FRONT AIR BAGS	
	Measuring point	Correct value
Driver	C0, C2 and C4	**2.1 to 7 ohms**
Passenger	C0 and C4	**1.3 to 4.5 ohms**
	PRETENSIONERS	
	Measuring point	Correct value
	C0, C1 and C3	**1.3 to 4.5 ohms**

Correct insulation value : display> = 100 h or 9999 flashing.

FAULT FINDING- INTERPRETATION OF FAULTS

DF001 present or memorised	Computer
NOTES	None

Replace the air bag computer (refer to "Aid" section for this operation).

AFTER REPAIR	None

FAULT FINDING- INTERPRETATION OF FAULTS

DF002 present	Computer supply voltage 1.dEF : Too many micro-cuts 2.dEF : Feed voltage too low 3.dEF : Feed voltage too high
NOTES	Use the B40 XRBAG adaptor for operations on the computer connector.

1.dEF	***NOTES***	None

For a micro-cut fault, check the computer supply lines :
- condition of the connections on the computer.
- condition of the computer earths (tracks 6 and 20 of the 30 track connector to front right hand pillar earth).
- condition / position of the fuse,.
- condition and tightness of the battery terminals.

2.dEF - 3.dEF	***NOTES***	None

Carry out the operations necessary to obtain the correct supply voltage for the computer:
9 volts ± 0.1 < correct voltage < 18 volts ± 0.1
- Check the battery charge.
- Check the charging circuit.
- Check the tightness and condition of the battery terminals.
- Check the computer earth.

AFTER REPAIR	Erase the computer memory

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FAULT FINDING- INTERPRETATION OF FAULTS

DF003 present	Driver's front air bag CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth

NOTES	Never carry out measurements on the triggering lines with equipment other than the XRBAG.

CO - CC

NOTES	None

Lock the computer using the command on the fault finding tool.
Switch off the ignition and remove the 2 steering wheel boss mounting bolts.
Check that it is connected correctly.

Disconnect the steering wheel boss and attach a dummy ignition module to the ignition module connector. Switch on the ignition and carry out a check using the fault finding tool.
Replace the air bag cushion if the fault has been memorised (fault no longer declared present).

With the ignition switched off, disconnect then reconnect the rotary switch connector under the steering wheel.
Repair the connections if the fault has just been memorised (fault no longer declared present).

The XRBAG must be used to measure resistance at **point C2** of the driver's air bag circuit.
If the value obtained is not correct, replace the rotary switch under the steering wheel.

Reconnect the rotary switch under the steering wheel, disconnect the computer connector and fit the 30 **track B40 adaptor**.
The XRBAG must be used to measure resistance on **adaptor cable A** .
If the value obtained is not correct, check the connections on the 30 track connector (tracks 10 and 11) and replace the wiring if necessary.

If there is no evidence of a fault after these checks have been carried out, check on the air bag computer base for the 5 shunt opening pins for the 30 track connector.
Check the condition of the computer connections
Check the condition of the 30 track connector (locking system, ...).

AFTER REPAIR	Reconnect the computer and the air bag cushion ignition module, then switch on the ignition. Erase the computer memory, then switch off the ignition. Carry out a check again using the fault finding tool and, in the absence of a fault, unlock the computer. Destroy the air bag if there has been a replacement (tool ELE. 1287).

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FAULT FINDING- INTERPRETATION OF FAULTS

DF003 present *CONT*	

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

Lock the computer using the command on the fault finding tool. Switch off the ignition and remove the two steering wheel boss mounting bolts. Check the condition of the trigger cable.
The XRBAG must be used for insulation measurement appropriate to the type of fault at **point C2** of the driver's front air bag circuit. If the value obtained is not correct, replace the rotary switch under the steering wheel.
Reconnect the rotary switch under the steering wheel, disconnect the computer connector and fit the **30 track B40 adaptor**. The XRBAG must be used for insulation measurement appropriate to the type of fault on **adaptor cable A** . If the value obtained is not correct, check the connections on the 30 track connector (tracks 10 and 11) and replace the wiring if necessary

AFTER REPAIR	Reconnect the computer and the air bag cushion ignition module, then switch on the ignition. Erase the computer memory, then switch off the ignition. Carry out a check again using the fault finding tool and, in the absence of a fault, unlock the computer. Destroy the air bag if there has been a replacement (tool ELE. 1287).

FAULT FINDING- INTERPRETATION OF FAULTS

DF004 present	Passenger's front air bag circuit CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth
NOTES	Never carry out measures on the triggering lines with equipment other than the XRBAG.

CO - CC	***NOTES***	None

Lock the computer using the command on the fault finding tool.
Switch off the ignition, disconnect the computer connector and fit the **30 track B40 adaptor**.
The XRBAG must be used to measure resistance on **adaptor cable B** .

Is the value obtained correct?

YES	If the value obtained is correct at **adaptor cable B**, check on the air bag computer base for the 5 shunt opening pins for the 30 track connector. Check the condition of the computer connections. Check the condition of the 30 track connector (locking system, connections, ...)
NO	If the value obtained is not correct at **adaptor cable B** , check the connections on the 30 track connector (tracks 13 and 14).
	If the value remains incorrect, switch off the ignition and remove the dashboard visor to access the passenger air bag module wiring. Disconnect the passenger air bag ignition module, connect a dummy ignition module to the ignition module connector, then use the XRBAG to measure the resistance on **adaptor cable B** again. If the value obtained is correct, change the passenger air bag module. If the value obtained is still incorrect, replace the air bag wiring.

AFTER REPAIR	Reconnect the computer and the passenger air bag ignition module, then switch on the ignition. Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.Destroy the passenger air bag module if there has been a replacement (tool Elé. 1287).

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FAULT FINDING- INTERPRETATION OF FAULTS

DF004 present *CONT*	

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

Lock the computer using the command on the fault finding tool.
Switch off the ignition, disconnect the computer connector and fit the **30 track B40 adaptor**.
The XRBAG must be used to measure insulation appropriate to the type of fault declared by the fault finding tool on **adaptor cable B** .

Is the value obtained correct?

YES	Check the condition of the connections on the 30 track connector (tracks 13 and 14).
NO	Check the condition of the connections on the 30 track computer connector (tracks 13 and 14).
	If the value remains incorrect, replace the air bag wiring.

AFTER REPAIR	Reconnect the computer and the passenger air bag ignition module, then switch on the ignition. Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.Destroy the passenger air bag module if there has been a replacement (tool Elé. 1287).

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FAULT FINDING- INTERPRETATION OF FAULTS

DF010 present	Air bag fault warning light circuit CC.1 : Short circuit to 12 volts CO.0 : Open circuit or short circuit to earth
NOTES	Use the XRBAG 30 track B40 adaptor for operations on the computer connector.

CC.1	***NOTES***	None

Lock the computer using the command on the fault finding tool.
Check the condition of the warning light bulb.
Ensure the insulation in relation to 12 volts of the connection between the warning light and **track 7** of the 30 track connector.

CO.0	***NOTES***	None

Ignition on, warning light extinguished

Lock the computer using the command on the fault finding tool.
Check the condition of the warning light bulb.
Ensure the continuity of the connection between the warning light and **track 7** of the 30 track connector.
Ensure the presence of **12 volts** on the warning light.
If the checks carried out have not enabled a fault to be found, disconnect the computer connector and fit the **XRBAG 30 track B40 adaptor**.Use the XRBAG in its instrument panel warning light test mode with **grey adaptor cable 1** .
If the warning light can be illuminated by the XRBAG, replace the air bag computer (refer to the "Aid" section for this operation).
If the warning light can not be illuminated, repeat the checks described above.

Ignition on, warning light illuminated

Lock the computer using the command on the fault finding tool.
Disconnect the sir bag computer and check on the air bag computer base for the 5 shunt opening pins for the connector. Ensure the insulation in relation to earth of the connection between the warning light and **track 7** of the 30 track connector.

AFTER REPAIR	Erase the computer memory and switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

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FAULT FINDING- INTERPRETATION OF FAULTS

DF029 present	Driver's pretensioner circuit CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth
NOTES	Never carry out measures on the triggering lines with equipment other than the XRBAG.

CO - CC

NOTES	None

Lock the computer using the command on the fault finding tool.
Switch off the ignition and check the ignition module for the driver's pretensioner is correctly connected.

Disconnect the ignition module for the driver's pretensioner and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the fault finding tool.
Change the driver's pretensioner if the fault has been memorised (fault no longer declared present).

The XRBAG must be used to measure resistance at **point C1** (seat connector) on the driver's pretensioner line.
If the value obtained is not correct, replace the wiring between **points C1 and C3** (seat wiring).

Disconnect the computer connector and fit the **30 track B40 adaptor**.
The XRBAG must be used to measure resistance on **adaptor cable D.** If the value obtained is not correct, check the connections on the 30 track connector (tracks 1 and 2) and replace the wiring if necessary

If there is no evidence of a fault after these checks have been carried out, check on the air bag computer base for the 5 shunt opening pins for the 30 track connector.
Check the condition of the computer connections.
Check the condition of the 30 track connector (locking system, ...).

AFTER REPAIR	Reconnect the computer and the pretensioner ignition module , switch the ignition on again. Erase the computer memory, then switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer. Destroy the pretensioners if there has been a replacement (tool Elé. 1287).

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FAULT FINDING- INTERPRETATION OF FAULTS

DF029 present *CONT*	

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

Lock the computer using the command on the fault finding tool.
Disconnect the ignition module for the driver's pretensioner and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the fault finding tool.
If the fault is memorised (fault no longer declared present), check the condition of the seat wiring.
Replace the driver's pretensioner if the wiring is not faulty.

The XRBAG must be used for insulation measurements appropriate to the type of fault on **point C1** (seat connector) on the driver's pretensioner line.
If the value is not correct, replace the wiring between **points C1 and C3** (seat wiring).

Disconnect the computer connector and fit the **30 track B40 adaptor**.
The XRBAG must be used for insulation measurements appropriate to the type of fault on **adaptor cable D** . If the value obtained is not correct, check the connections on the 30 track connector (tracks 1 and 2) and replace the wiring if necessary

If the checks carried out do not indicate the presence of a fault on the driver's pretensioner circuit, check on the air bag computer base for the 5 shunt opening pins for the 30 track adaptor.
Check the condition of the computer connections.
Check the condition of the 30 track connector (locking system, ...).

AFTER REPAIR	Reconnect the computer and the driver's pretensioner ignition module , switch the ignition on again. Erase the computer memory, then switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer. Destroy the pretensioners if there has been a replacement (tool Elé. 1287).

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FAULT FINDING- INTERPRETATION OF FAULTS

DF030 present	Passenger's pretensioner circuit CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth
NOTES	Never carry out measures on the triggering lines with equipment other than the XRBAG.

CO - CC

NOTES	None

Lock the computer using the command on the fault finding tool.
Switch off the ignition and check that the passenger's pretensioner ignition module is connected correctly.

Disconnect the ignition module for the passenger's pretensioner and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the fault finding tool.
Replace the passenger's pretensioner if the fault is memorised (no longer declared as present).

The XRBAG must be used to measure resistance on **point C1** (seat connector) of the passenger's pretensioner line.
If the value is not correct, replace the wiring between **points C1 and C3** (seat wiring).

Disconnect the computer connector and fit the **30 track B40 adaptor**.
The XRBAG must be used for resistance measurements on **adaptor cable C** . If the value is not correct, check the connections on the 30 track connector (tracks 3 and 4) and replace the wiring if necessary

If the checks carried out do not indicate the presence of a fault, check on the air bag computer base for the 5 shunt opening pins for the 30 track adaptor.
Check the condition of the computer connections.
Check the condition of the 30 track connector (locking system, ...).

AFTER REPAIR	Reconnect the computer and the pretensioner ignition module , switch the ignition on again. Erase the computer memory, then switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer. Destroy the pretensioners if there has been a replacement (tool Elé. 1287).

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FAULT FINDING- INTERPRETATION OF FAULTS

DF030 present *CONT*	

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

Lock the computer using the command on the fault finding tool.
Disconnect the ignition module for the passenger's pretensioner and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the fault finding tool.
If the fault is memorised (no longer declared as present), check the condition of the seat wiring.
Replace the passenger's pretensioner if the wiring is not faulty.

The XRBAG must be used for insulation measurements appropriate to the type of fault on **point C1** (seat connector) on the passenger's pretensioner line.
If the value is not correct, replace the wiring between **points C1 and C3** (seat wiring).

Disconnect the computer connector and fit the **30 track B40 adaptor**.
The XRBAG must be used for insulation measurements appropriate to the type of fault on **adaptor cable C** . If the value is not correct, check the connections on the 30 track connector (tracks 3 and 4) and replace the wiring if necessary

If the checks carried out do not indicate the presence of a fault on the passenger's pretensioner circuit, check on the air bag computer base for the 5 shunt opening pins for the 30 track adaptor.
Check the condition of the computer connections.
Check the condition of the 30 track connector (locking system, ...).

AFTER REPAIR	Reconnect the computer and the pretensioner ignition module, switch the ignition on again. Erase the computer memory, then switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer. Destroy the pretensioner if there has been a replacement (tool Elé. 1287).

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FAULT FINDING- INTERPRETATION OF FAULTS

DF034 present	Computer locked

NOTES	None.

This fault enables the locked condition of the computer to be seen.
When it is present, all trigger lines are inhibited, which prevents triggering of the air bags and seat belt pretensioners.

This fault is normally present in two circumstances :
- The computer is new (it is sold locked).
- The computer locking command on the fault finding tool has been used during an operation on the vehicle.

AFTER REPAIR	Erase the computer memory and switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

FAULT FINDING- INTERPRETATION OF FAULTS

DF035 present	Erasing locked memorised faults
NOTES	None.

This fault is normally present following an impact in the presence of memorised faults

This locking prevents accidental erasing of the registered contexts of impacts which lead to the systems being triggered (the contexts are erased using the erasing command for the fault memory).

These contexts will be used later to simplify the repair of vehicles involved in accidents and also for examination needs .

AFTER REPAIR	Erase the computer memory and switch off the ignition. Carry out a check again using the fault finding tool.

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FAULT FINDING- INTERPRETATION OF FAULTS

DF045 present	Driver's front air bag configuration

NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment.
The vehicle must be fitted with triggering lines which are not declared in the computer configuration, especially the driver's front air bag triggering line.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory and switch off the ignition. Carry out a check again using the fault finding tool.

FAULT FINDING- INTERPRETATION OF FAULTS

DF046 present	Front passenger air bag configuration

NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment.
The vehicle must be fitted with triggering lines which are not declared in the computer configuration, especially the passenger's front air bag triggering line.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory and switch off the ignition. Carry out a check again using the fault finding tool.

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FAULT FINDING- INTERPRETATION OF FAULTS

DF047 present	Driver's pretensioner configuration

NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment.
The vehicle must be fitted with triggering lines which are not declared in the computer configuration, especially the driver's pretensioner triggering line.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory and switch off the ignition. Carry out a check again using the fault finding tool.

FAULT FINDING- INTERPRETATION OF FAULTS

DF048 present	Passenger's pretensioner configuration
NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment.The vehicle must be fitted with triggering lines which are not declared in the computer configuration, especially the passenger's pretensioner triggering line.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory and switch off the ignition. Carry out a check again using the fault finding tool.

FAULT FINDING- CHECKING CONFORMITY

NOTES	Only carry out this conformity check after a complete check using the fault finding tool.

Order	Function	Parameter / status checked or action	Display/notes	Diag
1	Computer conformity	PR002 VEHICLE TYPE	Clio II : **06** Replace computer if not suitable	None
2	Computer configuration	Driver's pretensioner Passenger's pretensioner Driver's front air bag Passenger's front air bag	Ensure that the computer configuration corresponds to the vehicle equipment.	None
3	Operation of warning light Check computer initialisation	Ignition on	Illumination of the warning light for 3 seconds when the ignition is switched on	None

FAULT FINDING- AID

CHANGING THE AIR BAG COMPUTER

Air bag computers are sold locked to prevent any risk of incorrect triggering (all trigger lines are inhibited). This "locked" mode is indicated by illumination of the warning light on the instrument panel.

When changing an air bag computer, follow the instructions below:

- Ensure that the ignition is switched off.
- Change the computer.
- Carry out a check using the fault finding tool.
- If necessary change the computer configuration using the "computer configuration" command
- Unlock the computer, only in the absence of a fault declared by the fault finding tool.

FAULT FINDING- FAULT CHARTS

Chart 1	NO DIALOGUE WITH THE AIR BAG COMPUTER

NOTES	None

Ensure that the fault finding tool is not the cause of the fault by trying to communicate with a computer on another vehicle . If the tool is not at fault and dialogue can be established with another computer on the same vehicle, it may be that a faulty computer has disrupted the fault finding lines **K** and **L**.
Proceed using successive disconnections in order to locate this computer.
Check the battery voltage and carry out the necessary operations to obtain the correct voltage (10.5 volts < U battery > 16 volts).

Check the presence and condition of the air bag computer supply fuse.
Check the computer connector connection and the condition of its connections.
Check the the computer is correctly supplied :
- Disconnect the air bag computer and fit the XRBAG **30 track B40 adaptor** .
- Check and ensure the presence of the +**After Ignition Feed** between the terminals marked **earth** and **+After Ignition Feed** .

Check that the diagnostic socket is supplied correctly :
- +**Before Ignition Feed** on **track 16**.
- **Earth** on **track 5**.

Check the continuity and insulation of the diagnostic socket / air bag computer connection lines:
- Between the terminal marked **L** and **track 15** of the diagnostic socket.
- Between the terminal marked **K** and **track 7** of the diagnostic socket .

If dialogue is still not established after carrying out these different checks, replace the air bag computer (refer to "Aid" section for this operation).

AFTER REPAIR	When communication is established, deal with any faults which may be declared.

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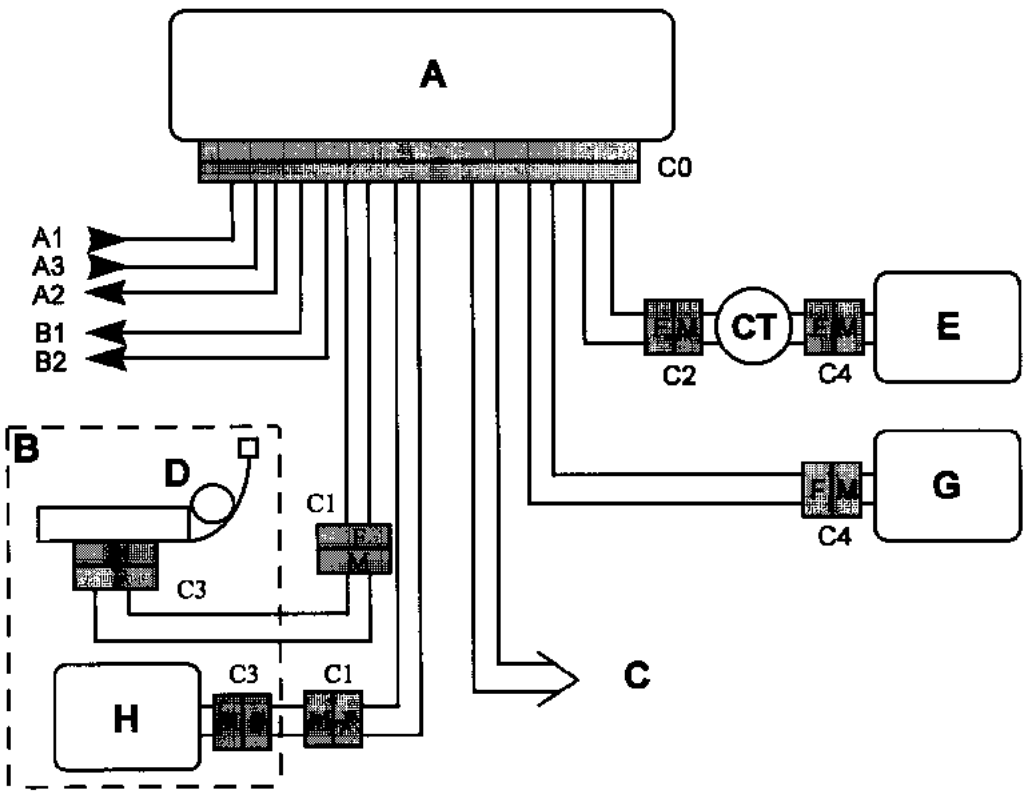
FAULT FINDING - INTRODUCTION

FICHE XRBAG

Pretensioners, front and side air bags



DI8827

The connection is identical for the pretensioners and side air bags on both seats.

A Central computer
B Driver's seat
C Passenger's seat
D Pretensioner
E Driver's air bag ignition module
G Passenger's air bag ignition module
H Side air bag ignition module

CT Rotary switch
A1 +12 Volts
A2 Warning light
A3 Earth
B1, B2 } Diagnostic lines

	FRONT AIR BAGS	
	Measuring point	Correct value
Driver	C0, C2 and C4	**2.1 to 7 ohms**
Passenger	C0 and C4	**1.3 to 4.5 ohms**
	SIDE AIR BAGS AND PRETENSIONERS	
	Measuring point	Correct value
	C0, C1 and C3	**1.3 to 4.5 ohms**

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

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FAULT FINDING - INTERPRETATION OF FAULTS

DF001 present or memorised	Computer
NOTES	None

Change the air bag computer (refer to the "Aid" section for this operation).

AFTER REPAIR	None

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FAULT FINDING - INTERPRETATION OF FAULTS

DF002 present	Computer supply voltage 1.dEF : Too many micro-cuts 2.dEF : Feed voltage too low 3.dEF : Feed voltage too high
NOTES	Use the B50 XRBAG adaptor for operations on the computer connector.

1.dEF

NOTES	None

For a micro-cut fault, check the computer supply lines :
- condition of the connections on the computer,
- the condition of the computer earths (tracks 6 and 30 on the 50 track connector to the front right pillar earth).
- condition / position of the fuse,
- condition and tightness of the battery terminals.

2.dEF - 3.dEF

NOTES	None

Carry out the operations necessary to obtain the correct supply voltage for the computer :
9 volts ± 0.1 < correct voltage < 18 volts ± 0.1.
- Check the battery charge.
- Check the charging circuit.
- Check the tightness and condition of the battery terminals.
- Check the computer earth.

AFTER REPAIR	Erase the computer memory.

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FAULT FINDING - INTERPRETATION OF FAULTS

DF003 present	Driver's front air bag circuit CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth
NOTES	Never carry out measuring operations on the trigger lines with equipment other than the XRBAG.

CO - CC	***NOTES***	None

Lock the computer using the fault finding tool command.
Switch off the ignition and remove the two steering wheel boss mounting bolts.
Check that it is correctly connected.

Disconnect the steering wheel boss and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the fault finding tool.
Replace the air bag if the fault has been memorised (fault no longer declared present).

With the ignition switched off, disconnect then reconnect the rotary switch connector under the steering wheel.
Repair the connections if the fault has just been memorised (fault no longer declared present)

The XRBAG must be used to measure resistance at **point C2** of the driver's air bag circuit.
If the value obtained is not correct, replace the rotary switch under the steering wheel.

Reconnect the rotary switch under the steering wheel, disconnect the computer connector and fit the **50 track B50 adaptor**.
The XRBAG must be used to measure resistance on **adaptor cable C** .
If the value obtained is not correct, check the connections on the **50 track connector** (tracks 10 and 11) and replace the wiring if necessary.

If there is no evidence of a fault after these checks have been carried out, check on the air bag computer base for the 7 shunt opening pins for the 50 track connector.
Check the condition of the computer connections
Check the condition of the 50 track connector (locking system).

AFTER REPAIR	Reconnect the computer and the air bag cushion ignition module, then switch on the ignition again. Erase the computer memory, then switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault , unlock the computer. Destroy the air bag if there has been a replacement (tool ELE 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF003 present *CONT*	

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

Lock the computer using the fault finding tool command.
Switch off the ignition and remove the two steering wheel boss mounting bolts.
Check the condition of the trigger cable.

The XRBAG must be used for insulation measurement appropriate to the type of fault at **point C2** of the driver's front air bag circuit.
If the value obtained is not correct, replace the rotary switch under the steering wheel.

Reconnect the rotary switch under the steering wheel, disconnect the computer connector and fit the **50 track B50 adaptor**.
The XRBAG must be used to measure insulation appropriate to the type of fault on **adaptor cable C** .
If the value obtained is not correct, check the connections on the 50 track connector (tracks 10 and 11) and replace the wiring if necessary

AFTER REPAIR	Reconnect the computer and the air bag ignition module, then switch on the ignition again. Erase the computer memory, then switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault , unlock the computer. Destroy the air bag if there has been a replacement (tool ELE 1287).

FAULT FINDING - INTERPRETATION OF FAULTS

DF004 present	Passenger's front air bag circuit CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth
NOTES	Never carry out measuring operations on the trigger lines with equipment other than the XRBAG.

CO - CC	***NOTES***	None

Lock the computer using the fault finding tool command.
Switch off the ignition, disconnect the computer connector and fit the **50 track B50 adaptor**.
The XRBAG must be used to measure resistance on adaptor cable **D** .

Is the value obtained correct?

YES	If the value obtained is correct at adaptor cable **D** check on the air bag computer base for the 7 shunt opening pins for the 50 track connector. Check the condition of the computer connections Check the condition of the 50 track connector (locking system, connections,...).
NO	If the value obtained is not correct at adaptor cable **D** check the connections on the 50 track connector (tracks 13 and 14).
	If the value remains incorrect, switch off the ignition and remove the dashboard visor to access the passenger air bag module wiring . Disconnect the passenger air bag ignition module, connect a dummy ignition module to the ignition module connector, then use the XRBAG to measure the resistance on **adaptor cable D** . If the value obtained is correct, change the passenger air bag module. If the value obtained is still incorrect, replace the air bag wiring.

AFTER REPAIR	Reconnect the computer and the passenger air bag ignition module, then switch on the ignition.Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer Destroy the passenger air bag module if there has been a replacement (tool Elé. 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF004 present *CONT*	

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

Lock the computer using the fault finding tool command.
Switch off the ignition, disconnect the computer connector and fit the **50 track B50 adaptor**.
The XRBAG must be used to measure insulation appropriate to the type of fault declared by the fault finding tool on **adaptor cable D** .

Is the value obtained correct?

YES	Check the condition of the connections on the 50 track computer connector (tracks 13 and 14).
NO	Check the condition of the connections on the 50 track computer connector (tracks 13 and 14). If the value remains incorrect, replace the air bag wiring.

AFTER REPAIR	Reconnect the computer and the passenger air bag ignition module, then switch on the ignition.Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer . Destroy the passenger air bag module if there has been a replacement (tool Elé. 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF008 present	Driver's side air bag circuit CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth
NOTES	Never carry out measuring operations on the trigger lines with equipment other than the XRBAG.

CO - CC	***NOTES***	None

Lock the computer using the fault finding tool command.
The XRBAG must be used for resistance measurements appropriate to the type of fault at **point C1** (seat connector) on the driver's side air bag module line.

Is the value obtained correct?

YES

Check the connections on the seat connector (**point C1**).
Visually check the seat wiring. Reconnect point **C1**.

Disconnect the computer connector and fit the **50 track B50 adaptor**.
The XRBAG must be used to measure resistance on adaptor cable **E**
If the value obtained is not correct, check the connections on the 50 track connector (16 and 17) and replace the wiring if necessary
If the value obtained is correct at adaptor cable **E**, check on the air bag computer base for the 7 shunt opening pins for the 50 track connector.
Check the condition of the computer connections
Check the condition of the 50 track connector (locking system, connector,...).

NO

Check the connections on the seat connector.
Strip the driver's seat and check that the side air bag ignition module is connected correctly .

Disconnect the driver's side air bag ignition module, connect a dummy ignition module to the ignition module connector and measure the resistance with the XRBAG on **point C1** again.
If the value obtained is correct, replace the driver's side air bag module.
If the value obtained is still incorrect, replace the wiring between **points C1** and **C3** (seat wiring).

AFTER REPAIR	Reconnect the computer and the driver's side air bag ignition module, then switch on the ignition. Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer . Destroy the side air bag module if there has been a replacement (tool Elé. 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF008 present *CONT*	

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

Lock the computer using the fault finding tool command.
The XRBAG must be used to measure insulation appropriate to the type of fault at **point C1** (seat connector) on the driver's side air bag module line.

Is the value obtained correct?

YES	Check the connections on the seat connector (point C1). Visually check the seat wiring. Reconnect point **point C1**.
	Disconnect the computer connector and fit the **50 track B50 adaptor**. The XRBAG must be used to measure the insulation appropriate to the type of fault on **adaptor cable E** . If the value obtained is not correct, check the connections on the 50 track connector (tracks 16 and 17) and replace the wiring if necessary
NON	Check the connections on the seat connector Replace the wiring between **points C1** and **C3** (seat wiring).

AFTER REPAIR	Reconnect the computer and the driver's side air bag ignition module, then switch on the ignition. Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer . Destroy the side air bag module if there has been a replacement (tool Elé. 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF009 present	Passenger's side air bag circuit CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth
NOTES	Never carry out measuring operations on the trigger lines with equipment other than the XRBAG.

CO - CC	***NOTES***	None

Lock the computer using the fault finding tool command.
The XRBAG must be used for resistance measurements at **point C1** (seat connector) on the passenger's side air bag module line.

Is the value obtained correct?

YES

Check the connections on the seat connector (**point C1**).
Visually check the seat wiring. Reconnect point **C1**.

Disconnect the computer connector and fit the **50 track B50 adaptor**.
The XRBAG must be used to measure the resistance on **adaptor cable F** .
If the value is not correct, check the connections on the 50 track connector (tracks 18 and 19) and replace the wiring if necessary
If the value obtained is correct at adaptor cable **F**, check on the computer base for the 7 shunt opening pins for the 50 track connector.
Check the condition of the computer connections
Check the condition of the 50 track connector (locking system, connector,...).

NON

Check the connections on the seat connector.
Strip the passenger's seat and check that the side air bag ignition module is connected correctly .

Disconnect the passenger's side air bag ignition module, connect a dummy ignition module to the ignition module connector and measure the resistance with the XRBAG on **point C1** again.
If the value obtained is correct, replace the passenger's side air bag module.
If the value obtained is still incorrect, replace the wiring between **points C1** and **C3** (seat wiring).

AFTER REPAIR	Reconnect the computer and the passenger's side air bag ignition module, then switch on the ignition. Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer . Destroy the side air bag module if there has been a replacement (tool Elé. 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF009 present *CONT*	

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

Lock the computer using the fault finding tool command.
The XRBAG must be used for insulation measurements appropriate to the type of fault at **point C1** (seat connector) on the passenger's side air bag module line.

Is the value obtained correct?

YES	Check the connections on the seat connector (point C1). Visually check the seat wiring. Reconnect point **point C1**.
	Disconnect the computer connector and fit the **50 track B50 adaptor**. The XRBAG must be used to measure the insulation appropriate to the type of fault on **adaptor cable F** . If the value is not correct, check the connections on the 50 track connector (tracks 18 and 19) and replace the wiring if necessary
NO	Check the connections on the seat connector. Replace the wiring between points **C1 and C3** (seat wiring).

AFTER REPAIR	Reconnect the computer and the passenger's side air bag ignition module, then switch on the ignition. Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer . Destroy the side air bag module if there has been a replacement (tool Elé. 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF010 present	Air bag fault warning light circuit CC.1 : Short circuit to 12 volts CO.0 : Open circuit or Short circuit to earth
NOTES	Use the XRBAG 50 track adaptor for operations on the computer connector.

CC.1	***NOTES***	None

Lock the computer using the command on the fault finding tool.
Check the condition of the warning light bulb
Check the insulation in relation to 12 volts of the connection between the warning light and track **7** of the 50 track connector.

CO.0	***NOTES***	None

Warning light extinguished with After Ignition Feed

Lock the computer using the command on the fault finding tool.
Check the condition of the warning light bulb.
Ensure the continuity of the connection between the warning light and **track 7** of the 50 track connector.
Ensure the presence of **12 volts** on the warning light.
If the checks carried out have not enabled a fault to be found, disconnect the computer connector and fit the **XRBAG 50 track adaptor**.Use the XRBAG in its instrument panel warning light test mode with **grey adaptor cable 2** .
If the warning light can be illuminated by the XRBAG, replace the air bag computer (refer to the "Aid" section for this operation).
If the warning light can not be illuminated, repeat the checks described above.

Warning light illuminated with After Ignition Feed

Lock the computer using the command on the fault finding tool.
Disconnect the sir bag computer and check on the air bag computer base for the 7 shunt opening pins for the connector. Ensure the insulation in relation to earth of the connection between the warning light and **track 7** of the 50 track connector.

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

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FAULT FINDING - INTERPRETATION OF FAULTS

DF029 present	Driver's pretensioner circuit CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth
NOTES	Never carry out measuring operations on the trigger lines with equipment other than the XRBAG.

CO - CC	***NOTES***	None

Lock the computer using the fault finding tool command.
Switch off the ignition and check whether the ignition module for the driver's pretensioner is correctly connected.

Disconnect the ignition module for the driver's pretensioner and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the fault finding tool.
Change the driver's pretensioner if the fault has been memorised (fault no longer declared present).

The XRBAG must be used to measure resistance at **point C1** (seat connector) on the driver's pretensioner line.
If the value obtained is not correct, replace the wiring between **points C1 and C3** (seat wiring).

Disconnect the computer connector and fit the **50 track B50 adaptor**.
The XRBAG must be used to measure resistance on adaptor cable **A** . If the value obtained is not correct, check the connections on the 50 track connector (tracks 1 and 2) and replace the wiring if necessary

If there is no evidence of a fault after these checks have been carried out, check on the air bag computer base for the 7 shunt opening pins for the 50 track connector.
Check the condition of the computer connections
Check the condition of the 50 track connector (locking system).

AFTER REPAIR	Reconnect the computer and the pretensioner ignition module , then switch the ignition on again.Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer .Destroy the pretensioner if there has been a replacement (tool Ele. 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF029 present *CONT*	

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

Lock the computer using the fault finding tool command.
Disconnect the ignition module for the driver's pretensioner and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the fault finding tool.
If the fault is memorised (fault no longer declared present), check the condition of the seat wiring.
Replace the driver's pretensioner if the wiring is not faulty.

The XRBAG must be used for insulation measurements appropriate to the type of fault on **point C1** (seat connector) on the driver's pretensioner line.
If the value is not correct, replace the wiring between **points C1 and C3** (seat wiring).

Disconnect the computer connector and fit the **50 track B50 adaptor**.
The XRBAG must be used for insulation measurements appropriate to the type of fault on **adaptor cable A**
If the value obtained is not correct, check the connections on the 50 track connector (tracks 1 and 2) and replace the wiring if necessary

If the checks carried out do not indicate the presence of a fault on the driver's pretensioner circuit, check on the air bag computer base for the 7 shunt opening pins for the 50 track connector.
Check the condition of the computer connections
Check the condition of the 50 track connector (locking system).

AFTER REPAIR	Reconnect the computer and the pretensioner ignition module , then switch the ignition on again.Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer .Destroy the pretensioner if there has been a replacement (tool Ele. 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF030 present	Passenger's pretensioner circuit CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth
NOTES	Never carry out measuring operations on the trigger lines with equipment other than the XRBAG.

CO - CC	***NOTES***	None

Lock the computer using the fault finding tool command.
Switch off the ignition and check that the passenger's pretensioner ignition module is connected correctly.

Disconnect the ignition module for the passenger's pretensioner and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out check using the fault finding tool.
Replace the passenger's pretensioner if the fault is memorised (no longer declared as present).

The XRBAG must be used to measure resistance on **point C1** (seat connector) of the passenger's pretensioner line.
If the value is not correct, replace the wiring between **points C1 and C3** (seat wiring).

Disconnect the computer connector and fit the **50 track B50 adaptor**.
The XRBAG must be used to measure resistance on adaptor cable **B** . If the value obtained is not correct, check the connections on the 50 track connector (tracks 3 and 4) and replace the wiring if necessary

If there is no evidence of a fault after these checks have been carried out, check on the air bag computer base for the 7 shunt opening pins for the 50 track connector.
Check the condition of the computer connections
Check the condition of the 50 track connector (locking system).

AFTER REPAIR	Reconnect the computer and the pretensioner ignition module , then switch the ignition on again.Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer .Destroy the pretensioner if there has been a replacement (tool Ele. 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF030 present *CONT*	

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

Lock the computer using the fault finding tool command.
Disconnect the ignition module for the passenger's pretensioner and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out check using the fault finding tool.
If the fault is memorised (no longer declared as present), check the condition of the seat wiring.
Replace the passenger pretensioner if the wiring is not faulty.

The XRBAG must be used to measure the insulation appropriate to the type of fault at **point C1** (seat connector) of the passenger's pretensioner line.
If the value is not correct, replace the wiring between **points C1 and C3** (seat wiring).

Disconnect the computer connector and fit the **50 track B50 adaptor**.
The XRBAG must be used for insulation measurements appropriate to the type of fault on **adaptor cable B** . If the value is not correct, check the connections on the 50 track connector (tracks 3 and 4) and replace the wiring if necessary

If the checks carried out do not indicate the presence of a fault on the passenger's pretensioner circuit, check on the air bag computer base for the 7 shunt opening pins for the 50 track connector.
Check the condition of the computer connections
Check the condition of the 50 track connector (locking system).

AFTER REPAIR	Reconnect the computer and the pretensioner ignition module , then switch the ignition on again.Erase the computer memory then switch off the ignition.Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer .Destroy the pretensioner if there has been a replacement (tool Ele. 1287).

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FAULT FINDING - INTERPRETATION OF FAULTS

DF033 present	Side sensor programming not carried out

NOTES	None.

The absence of this fault corresponds to the absence of programming for the side sensors identification by the air bag computer (this identification enables the computer to check that the side sensors are the correct ones for the vehicle).

This bargraph is normally illuminated when the computer is new (it is sold without identification).

Carry out the identification programming for the side sensors using the "Side sensor programming" command on the fault finding tool.

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check again using the fault finding tool

FAULT FINDING - INTERPRETATION OF FAULTS

DF034 present	Computer locked
NOTES	None.

This fault enables the locked condition of the computer to be visualised.
When the fault is present, all the triggering lines are inhibited, which prevents the air bags and seat belt pretensioners from being triggered.

This fault is normally present in 2 circumstances :
- the computer is new (it is sold locked).
- the computer locking command on the fault finding tool has been used during an operation on the vehicle.

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

FAULT FINDING - INTERPRETATION OF FAULTS

DF035 present	Erasing locked memory faults
NOTES	None.

This fault is normally present following an impact in the presence of memorised faults

This locking prevents accidental erasing of the registered contexts of impacts which lead to the systems being triggered (the contexts are erased using the erasing command for the fault memory).

These contexts will be used later to simplify the repair of vehicles involved in accidents and also for examination needs .

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check again using the fault finding tool

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FAULT FINDING - INTERPRETATION OF FAULTS

DF036 present	Disrupted driver's side sensor signal (or in open circuit)

NOTES	None.

Lock the computer using the command on the fault finding tool.
Check that the driver's side sensor is connected correctly and check its connection.
Check the condition of the connections on the computer (tracks 20 and 21).
Check the condition of the 50 track connector (locking system, connector,...).

Replace the wiring if the fault persists.

AFTER REPAIR	Reconnect the computer and the driver's side sensor then switch on the ignition. Erase the computer memory then switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

FAULT FINDING - INTERPRETATION OF FAULTS

DF037 present	Driver's side sensor identification

NOTES	None.

This fault is normally present when the computer detects an inconsistency between the recognition signal emitted by the side sensor and the programming which it has received.

Either the side sensor is not adapted to the vehicle, or the computer comes from another vehicle.

If the sensor has been replaced, fit another sensor adapted to the vehicle.
If the computer comes from another vehicle, use the "Side sensor programming" command on the fault finding tool to change the computer's programming.

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

FAULT FINDING - INTERPRETATION OF FAULTS

DF038 present	Driver's side sensor
NOTES	None.

Replace the driver's side sensor

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

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FAULT FINDING - INTERPRETATION OF FAULTS

DF039 present	Driver's side sensor circuit

NOTES	None.

Lock the computer using the fault finding tool command.
Check that the driver's side sensor is connected correctly and check its connections.
Check the condition of the connections on the computer (tracks 20 and 21).
Check the condition of the 50 track connector (locking system, connections,...).

Replace the wiring if the fault persists.

AFTER REPAIR	Reconnect the computer and the driver's side sensor then switch on the ignition. Erase the computer memory then switch off the ignition Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

FAULT FINDING - INTERPRETATION OF FAULTS

DF040 present	Passenger's side sensor circuit

NOTES	None.

Lock the computer using the command on the fault finding tool.
Check that the passenger side sensor is connected correctly and check its connections.
Check the condition of the connections on the computer (tracks 22 and 23).
Check the condition of the 50 track connector (locking system, connections,...).

Replace the wiring if the fault persists.

AFTER REPAIR	Reconnect the computer and the passenger side sensor then switch on the ignition again. Erase the computer memory then switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

FAULT FINDING - INTERPRETATION OF FAULTS

DF041 present	Disrupted passenger's side sensor signal(or in open circuit)

NOTES	None.

Lock the computer using the command on the fault finding tool.
Check that the passenger side sensor is connected correctly and check its connections.
Check the condition of the connections on the computer (tracks 22 and 23).
Check the condition of the 50 track connector (locking system, connections,...).

Replace the wiring if the fault persists.

AFTER REPAIR	Reconnect the computer and the passenger side sensor then switch on the ignition again.Erase the computer memory then switch off the ignition. Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

FAULT FINDING - INTERPRETATION OF FAULTS

DF042 present	Passenger's side sensor identification
NOTES	None.

This fault is normally present when the computer detects an inconsistency between the recognition signal emitted by the side sensor and the programming which it has received.

Either the side sensor is not adapted to the vehicle, or the computer comes from another vehicle.

If the sensor has been replaced, fit another sensor adapted to the vehicle.
If the computer comes from another vehicle, use the "Side sensor programming" command on the fault finding tool to change the computer's programming.

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

FAULT FINDING - INTERPRETATION OF FAULTS

DF043 present	Passenger's side sensor
NOTES	None.

Replace the passenger's side sensor.

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check using the fault finding tool and, in the absence of a fault, unlock the computer.

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FAULT FINDING - INTERPRETATION OF FAULTS

DF045 present	Driver's front air bag configuration

NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment.
The vehicle must be fitted with triggering lines which are not declared in the computer configuration, especially the driver's front air bag triggering line.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check again using the fault finding tool

FAULT FINDING - INTERPRETATION OF FAULTS

DF046 present	Passenger's front air bag configuration
NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment.
The vehicle must be fitted with triggering lines which are not declared in the computer configuration, especially the passenger's front air bag triggering line.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check again using the fault finding tool

FAULT FINDING - INTERPRETATION OF FAULTS

DF047 present	Driver’s pretensioner configuration

NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment.
The vehicle must be fitted with triggering lines which are not declared in the computer configuration, especially the driver’s pretensioner triggering line.

Change the computer configuration using the fault finding tool command "Configuration of the system’s components"

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check again using the fault finding tool

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FAULT FINDING - INTERPRETATION OF FAULTS

DF048 present	Passenger's pretensioner configuration
NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment.The vehicle must be fitted with triggering lines which are not declared in the computer configuration, especially the passenger's pretensioner triggering line.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check again using the fault finding tool

FAULT FINDING - INTERPRETATION OF FAULTS

DF049 present	Driver's side air bag configuration
NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment .
The vehicle must be fitted with triggering lines not declared in the computer configuration, especially the driver's side air bag triggering line.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check again using the fault finding tool

FAULT FINDING - INTERPRETATION OF FAULTS

DF050 present	Passenger's side air bag configuration
NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment .
The vehicle must be fitted with triggering lines not declared in the computer configuration, especially the passenger's side air bag triggering line.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check again using the fault finding tool

FAULT FINDING - INTERPRETATION OF FAULTS

DF051 present	Driver's side sensor configuration
NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment .
The vehicle must be fitted with side air bag sensors not declared in the computer configuration, especially the driver's side sensor.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check again using the fault finding tool

FAULT FINDING - INTERPRETATION OF FAULTS

DF052 present	Passenger's side sensor configuration
NOTES	None.

The presence of this fault corresponds to an incoherence detected by the computer between the computer configuration and the vehicle equipment .
The vehicle must be fitted with side air bag sensors not declared in the computer configuration, especially the passenger's side sensor.

Change the computer configuration using the fault finding tool command "Configuration of the system's components"

AFTER REPAIR	Erase the computer memory then switch off the ignition Carry out a check again using the fault finding tool

FAULT FINDING - CHECKING CONFORMITY

NOTES	Only carry out this conformity check after a complete check using the fault finding tool.

Order	Function	Parameter / status checked or action	Display /notes	Diag
1	Computer conformity	PR002 VEHICLE TYPE	Clio II : **06** Replace computer if not suitable	None
2	Computer configuration	Driver's pretensioner Passenger's pretensioner Driver's front air bag Passenger's front air bag Driver's side air bag Passenger's side air bag Driver's side sensor Passenger's side sensor	Ensure that the computer configuration corresponds to the vehicle equipment.	None
3	Operation of warning light Check computer initialisation	Ignition on	Illumination of the warning light for 3 seconds when the ignition is switched on	None

FAULT FINDING - AID

CHANGING THE AIR BAG COMPUTER

Air bag computers are sold locked to prevent any risk of incorrect triggering (all trigger lines are inhibited). This "locked" mode is indicated by illumination of the warning light on the instrument panel.

When changing an air bag computer, follow the instructions below:

- Ensure that the ignition is switched off.
- Change the computer.
- Carry out a check using the fault finding tool.
- If necessary, change the computer configuration using the "computer configuration"command .
- Unlock the computer, only when no fault is declared by the fault finding tool.

FAULT FINDING- FAULT CHARTS

Chart 1	NO DIALOGUE WITH THE AIR BAG COMPUTER

NOTES	None

Ensure that the fault finding tool is not the cause of the fault by trying to communicate with a computer on another vehicle . If the tool is not at fault and dialogue can be established with another computer on the same vehicle, it may be that a faulty computer has disrupted the fault finding lines **K** and **L**.
Proceed using successive disconnections in order to locate this computer.
Check the battery voltage and carry out the necessary operations to obtain the correct voltage (10.5 volts < U battery > 16 volts).

Check the presence and condition of the air bag computer supply fuse
Check the computer connector connection and the condition of the connector.
Check the computer is correctly supplied :
- Disconnect the air bag computer and fit the XRBAG **50 track B50 adaptor** .
- Check and ensure the presence of the +**After Ignition Feed** between the terminals marked **earth** and **+ After Ignition Feed**

Check that the diagnostic socket is supplied correctly :
- **+ Before Ignition Feed on track 16**.
- **Earth** on **track 5**.

Check the continuity and resistance of the diagnostic socket / air bag computer connection lines :
- Between the terminal marked **L** and track **15** of the diagnostic socket.
- Between the terminal marked **K** and track **7** of the diagnostic socket.

If dialogue is still not established after carrying out these different checks, replace the air bag computer (refer to "Aid" section for this operation).

AFTER REPAIR	When communication is established, deal with any faults which may be declared.

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