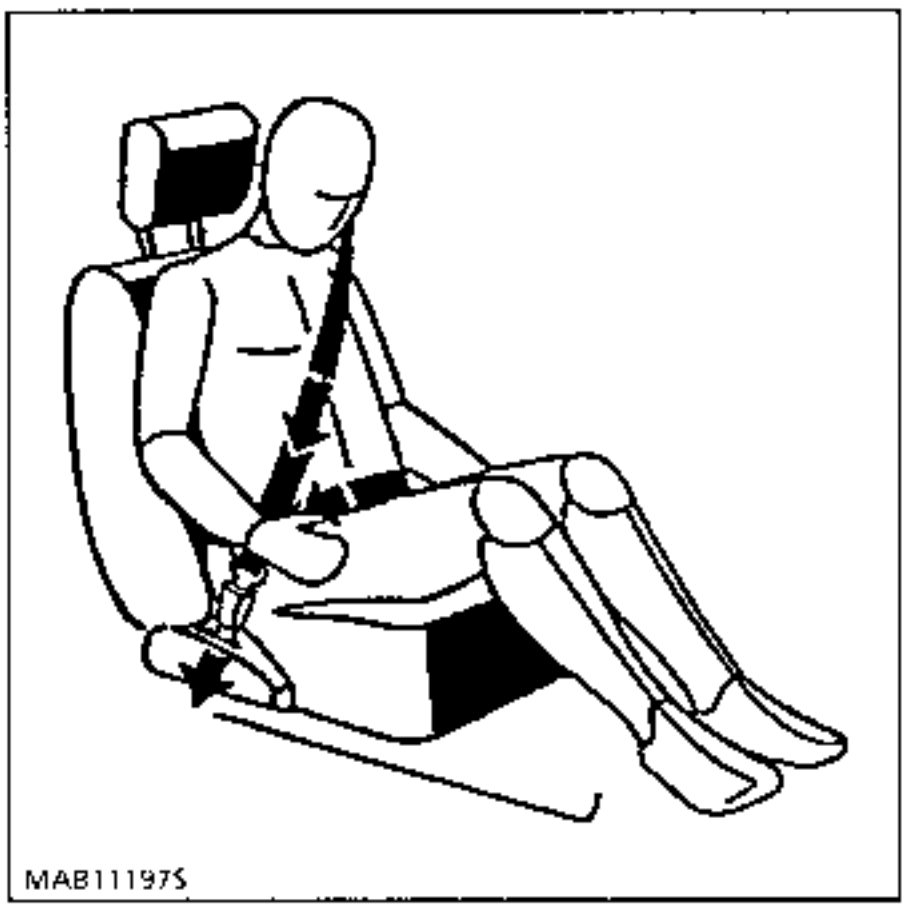
GENERAL

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

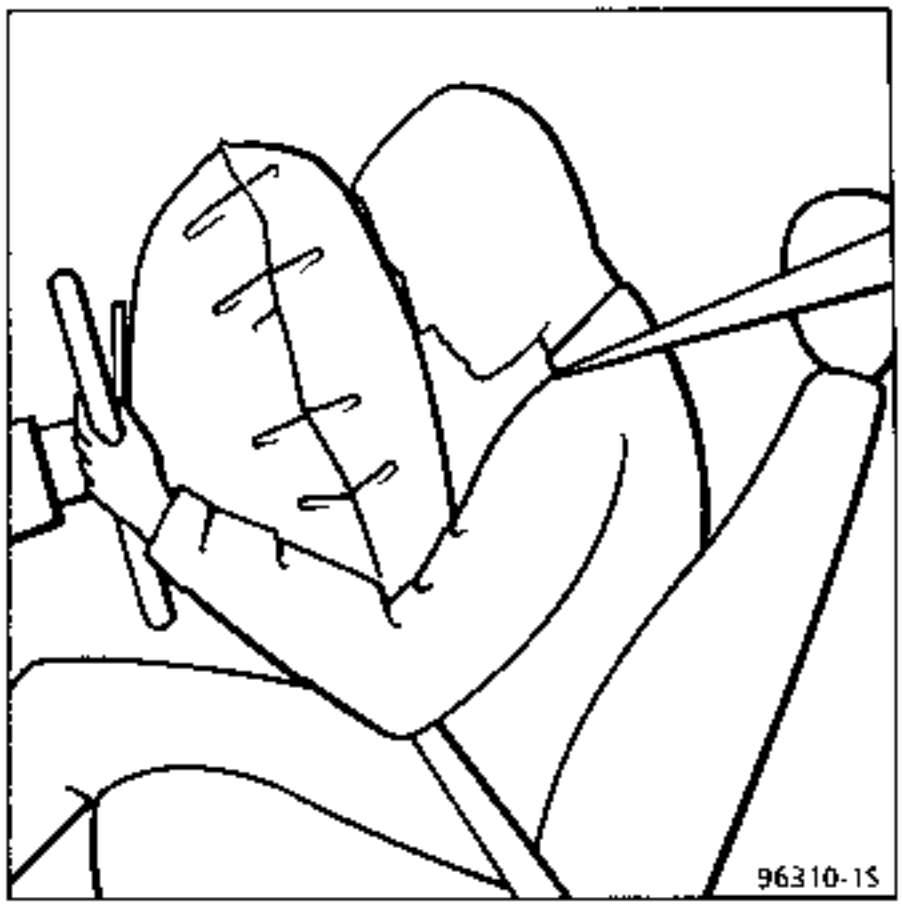
There are 3 safety systems in addition to the seat belts.

In the event of a frontal impact of sufficiently high force, the computer managing these systems triggers:

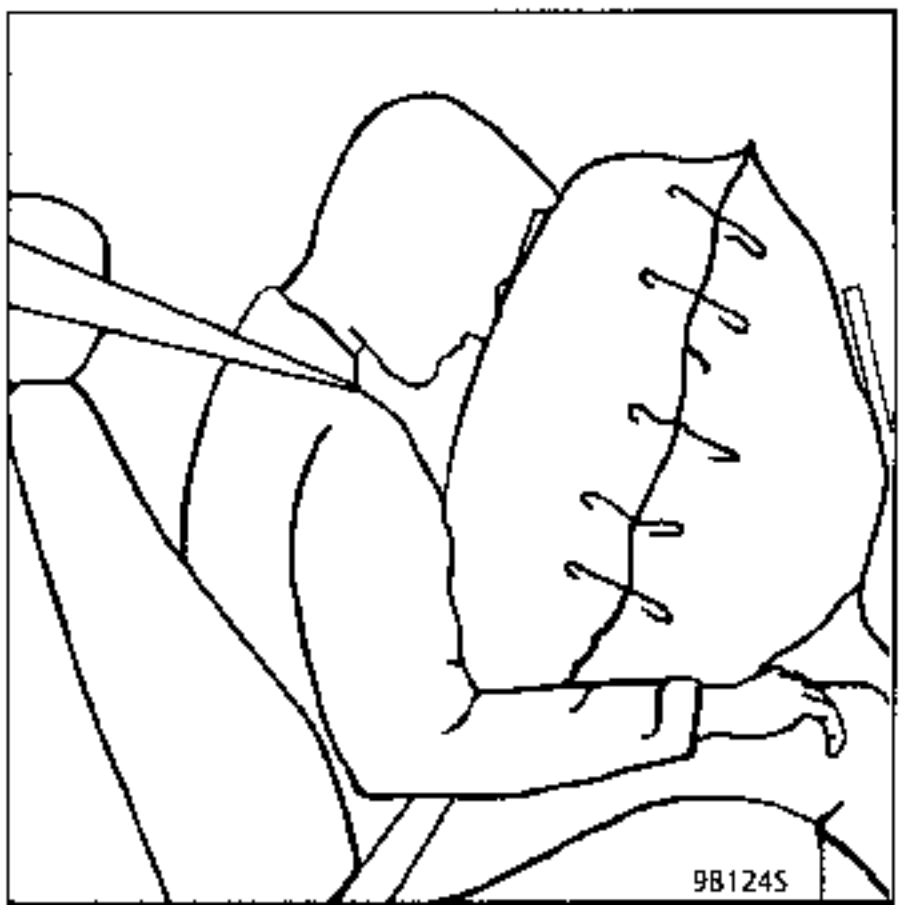
- **The pretensioners** which retract the front seat belts, so as to pull the belts against the body.



- The air **bag cushion** which inflates from the centre of the steering wheel to protect the driver's head.



- **The air bag module** which inflates from the dashboard to protect the front passenger head.



OPERATION AND BEHAVIOUR OF THE AIR BAGS AND PRETENSIONERS

1) Operation

Should an accident occur, the air bag prevents the occupant's head from coming into contact with the steering wheel or the dashboard.

In addition, by its absorption effect it reduces the maximum acceleration speed of the head.

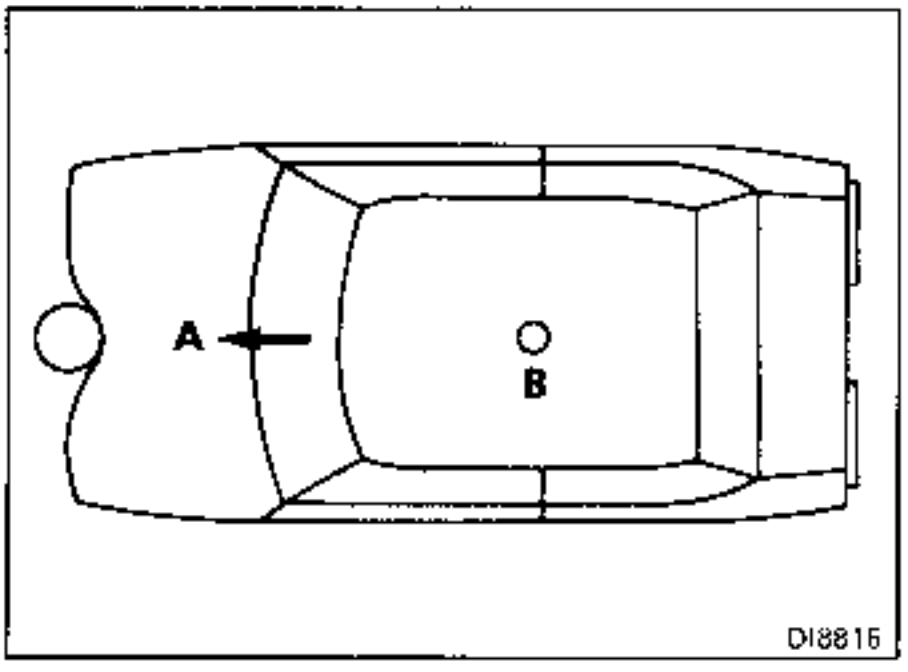
2) Triggering threshold

There are four likely situations which may occur :

1) FRONTAL IMPACT AGAINST A *RIGID* OBSTACLE

The triggering speed depends on the surface of the obstacle; the weaker the surface, the greater the speed.

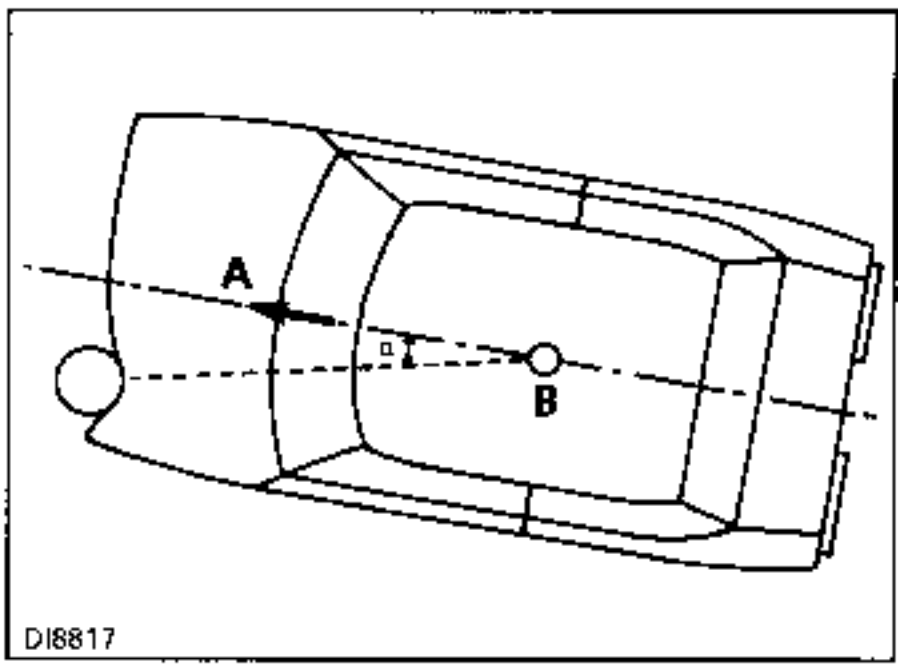
The pretensioners are triggered at a lower speed than the speed at which the air bag is triggered.



2) OFF-SET IMPACT AGAINST A *RIGID* OBSTACLE :

In this case, the speed at which the air bag is triggered depends on the angle of impact α.

The greater the angle, the greater the triggering speed.

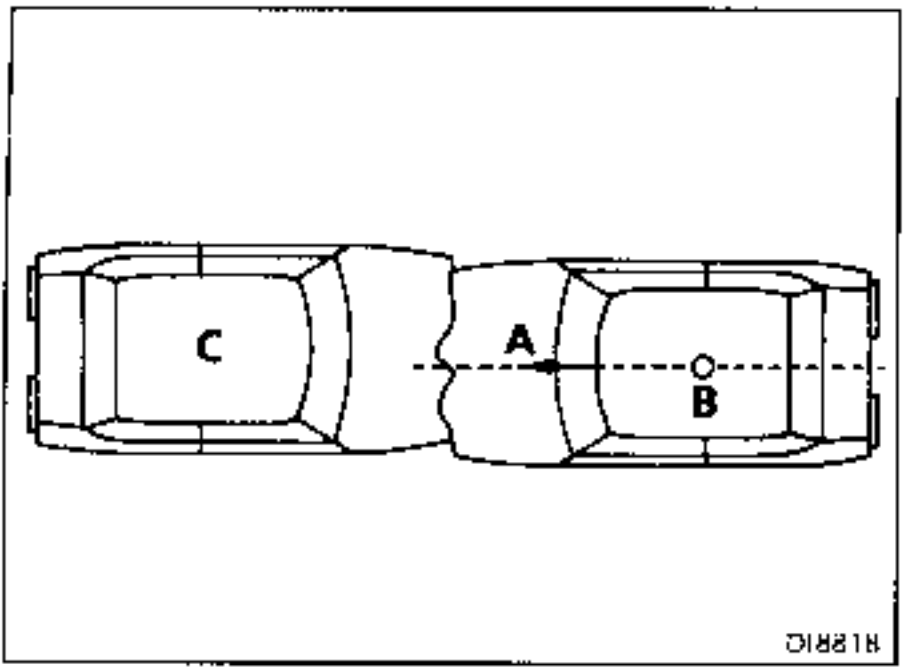


A Direction of travel
B Centre of gravity

3) FRONTAL IMPACT AGAINST A *FLEXIBLE* OBSTACLE :

The speed at which the air bag is triggered depends on the degree of flexibility of the bodywork of the vehicle impacted.

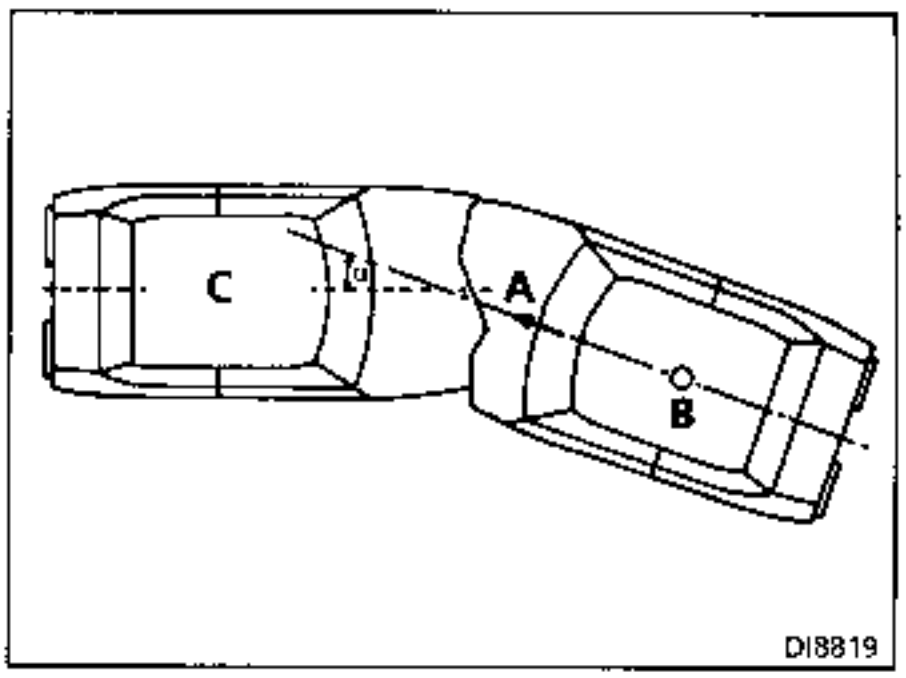
The more "supple" the other vehicle, the greater the triggering speed required (for a vehicle of equal suppleness and 100 % cover, the speed is greater than 25 mph (40 km/h) *(relative speed)*.



4) OFF-SET IMPACT AGAINST A *FLEXIBLE* OBSTACLE:

The speed required to trigger the air bag depends on the angle of impact α and on the flexibility of the impacted vehicle in the direction of travel.

The speed required to trigger the air bag is much greater if the angle α is wider and the flexibility of the impacted vehicle is great.



A Direction of travel
B Centre of gravity
C Parked vehicle

5) SUMMARY AND CONCLUSION

- The air bag only operates with deceleration in the direction of travel. A side impact or a "roll-over" may not trigger the operation of the air bag.
- The projection energy of the vehicle is transformed into deformation energy of the front section of the vehicle. Deceleration is much greater if deformation of the impacted vehicle is low, that is, the air bag will be triggered much sooner.
- The minimum speed at which the air bag is triggered is much greater the wider the angle of impact α (see above).
- If, during frontal impact, there is no deformation to the front right-hand pillars, or engine-gearbox impact, non-triggering of the air bag cannot be considered an operating fault as the speed required for triggering the air bag has possibly not been reached.
- The pretensioners are always triggered at a lower speed than that at which the air bag is triggered.
- Experience shows that the impact speeds indicated by the customer are not always correct as their reactions are generally reduced following the impact which has occurred. There is nearly always some confusion between the cruising speed prior to the impact and the actual speed of the impact, which fortunately in general is a lot lower.

Various vehicle configurations are possible:

Vehicle equipped with:

- Pretensioners only,
- Air bag only (Trafic),
- Pretensioners and driver's air bag,
- Pretensioners and driver's and passenger's air bag.

NOTE:

- A vehicle fitted with a driver's airbag can be identified by a label affixed to the lower corner of the windscreen on the driver's side and the words "Air bag" in the centre of the steering wheel.
- If a passenger air bag is fitted, a second label is affixed to the lower corner of the windscreen on the passenger side and the words "Air bag" are marked on the dashboard on the same side.

If the windscreen is replaced, do not forget to affix the adhesive labels stating that the vehicle is equipped with air bags.

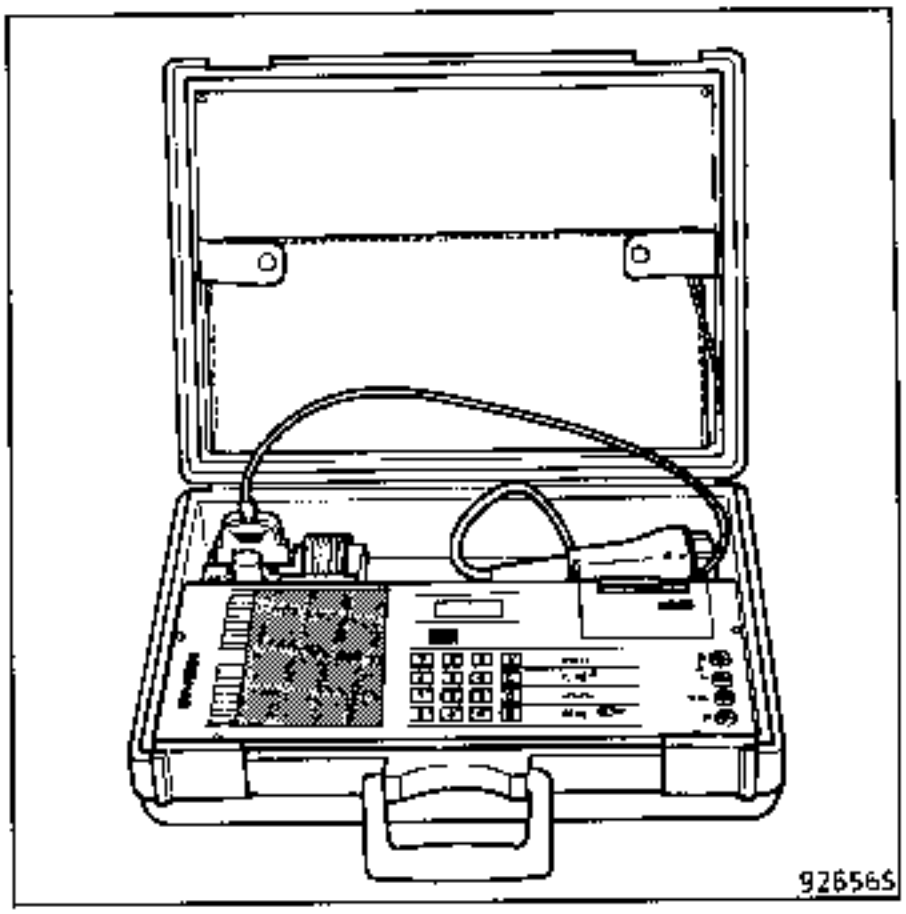
All these labels are available in a kit under part number:

– 77 01 204 970
and – 77 01 205 442

SPECIAL TOOLING

PRESENTATION

XR25

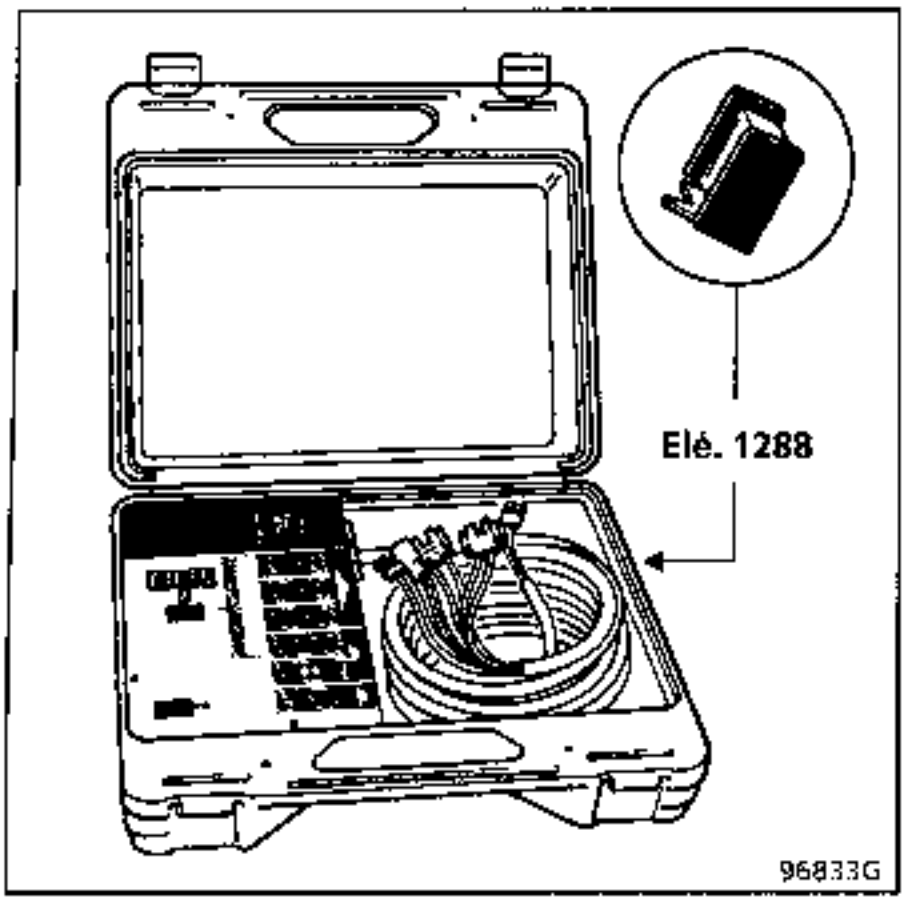


As the new 30-way computers are fitted with K and L lines, the XR25 can be used for fault-finding (except for vehicles equipped with pretensioners only).

Using the XR25, it is possible to detect computer faults or faulty system lines (see section on "Fault-finding").

NOTE: An auxiliary function allows the ignition lines to be deactivated before working on the system. This will avoid any risk of the pyrotechnic gas generators triggering.

XRBAG TEST KIT (Ele. 1288)

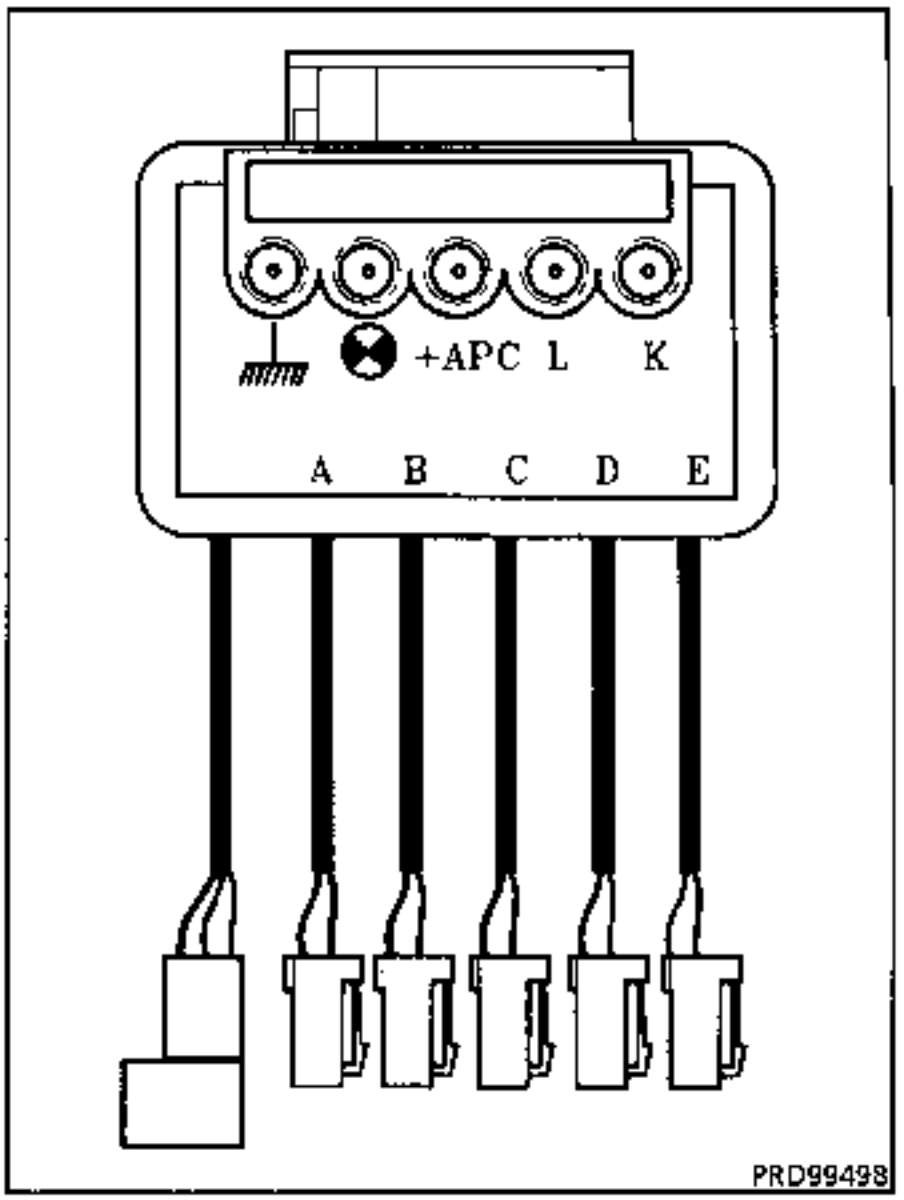


This equipment is a specially designed tool for the testing and fault-finding of air bag and pretensioner safety equipment.

Using this equipment, electrical measurements can be taken on the various circuits in the system (see section on "Fault-finding").

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

XRBAG 30-WAY ADAPTER



This bornier can be connected in place of computers equipped with a single 30-way connector.

Using this in combination with the XRBAG, it is possible to check the trigger lines, measure the computer supply voltage and illuminate the air bag indicator light on the instrument panel.

The continuity of the diagnostic lines, the indicator light and the computer supply can also be checked via the terminals (see section on "Fault-finding").

DUMMY AIR BAG IGNITION MODULE

A dummy air bag ignition module in a small red box is supplied with the XRBAG testing equipment.

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

Two dummy ignition modules are required for fault-finding on the passenger air bag.

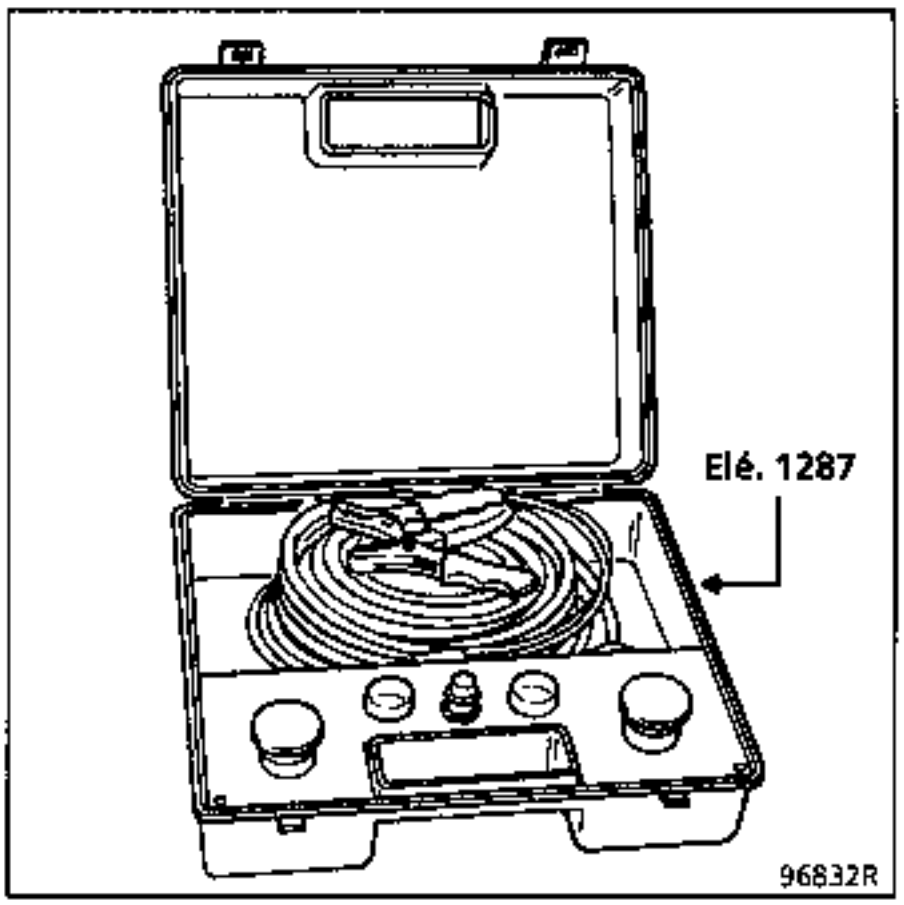
They are available from:

MEIGA
99 - 101, route de Versailles
CHAMPLAN
91165 LONGJUMEAU CEDEX
Tel. 01 69 10 21 70

DESTRUCTION EQUIPMENT

In order to avoid any risk of accident, the air bag and seat belt pretensioner pyrotechnic gas generators must be triggered before scrapping a vehicle or component.

It is ESSENTIAL that you use tool Ele. 1287 designed to carry out this operation.



Refer to the section "Destruction Procedure".

WARNING: do not trigger pretensioners which must be returned under the requirements of the Warranty in the event of a flexible stalk problem. **Return the old part in the packaging of the new one.**

COMPUTER

There are several different types of computer :

- A computer for pretensioners only.
- A computer for air bag only (Trafic).
- A computer for pretensioners and air bag(s).

Depending on their function, these computers contain:
- an electromechanical safety sensor,
- a deceleration sensor for the air bags,
- a trigger circuit for the various pyrotechnic systems,
- back-up power supply,
- a circuit for fault-finding and storing detected faults (except pretensioners only),
- an instrument panel indicator light control circuit (except pretensioners only),
- a K - L communications interface via the diagnostic socket (except pretensioners only).

NOTE: Clio vehicles equipped with pretensioners only (without an air bag) are equipped with a first generation computer with a 6-way connector (see section on "Fault-finding" for connection).

IMPORTANT

Before removing the computer :

Vehicle equipped with pretensioners only (without air bag) :

- Switch off the ignition.
- Remove the supply fuse (see allocation of fuses for the vehicle concerned) and wait five minutes for the back-up power supply to discharge.
- Disconnect the computer connector to avoid any risk of the system triggering.
- Ensure that there is no one in the passenger compartment while working on the computer.

When refitting the computer, it is **essential** to secure it to the vehicle again before reconnecting its connectors.

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

Vehicle equipped with air bag(s)

Lock the computer with the XR25 using command **G80*** (ISO selector in position **S8** code **D49**).

When this function is activated, all of the trigger lines are disabled; the air bag indicator light on the instrument panel and **left-hand bargraph 14** of the XR25 illuminate (new computers are delivered in this condition).

To refit the computer :

- Secure the computer to the vehicle (the arrow on the computer must point forwards).
- Connect the 30-way connector and carry out a test using the XR25.

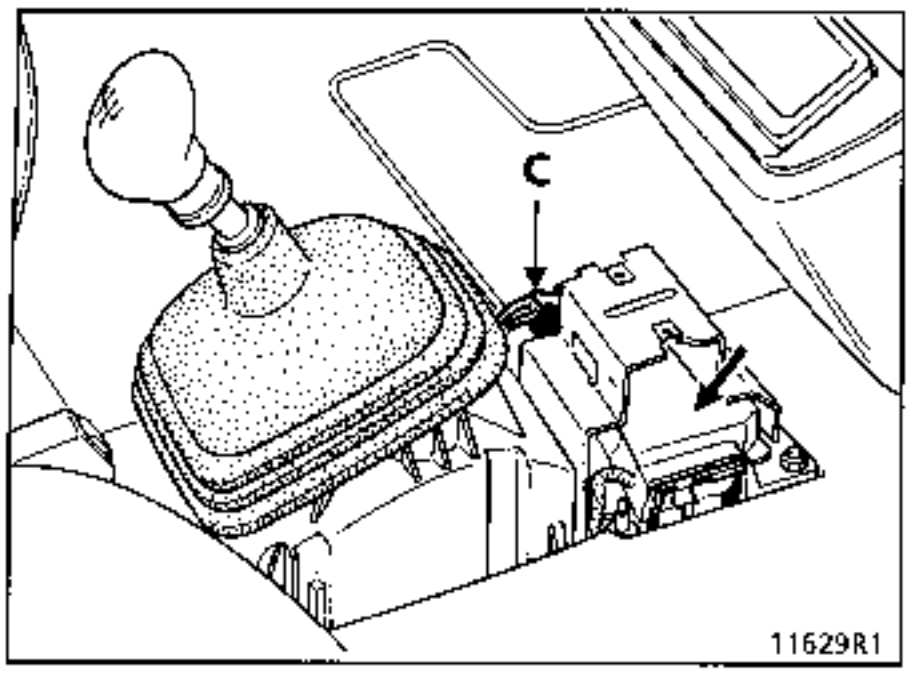
If everything is correct, use command **G81*** to unlock the computer.

LOCATION OF THE COMPUTER

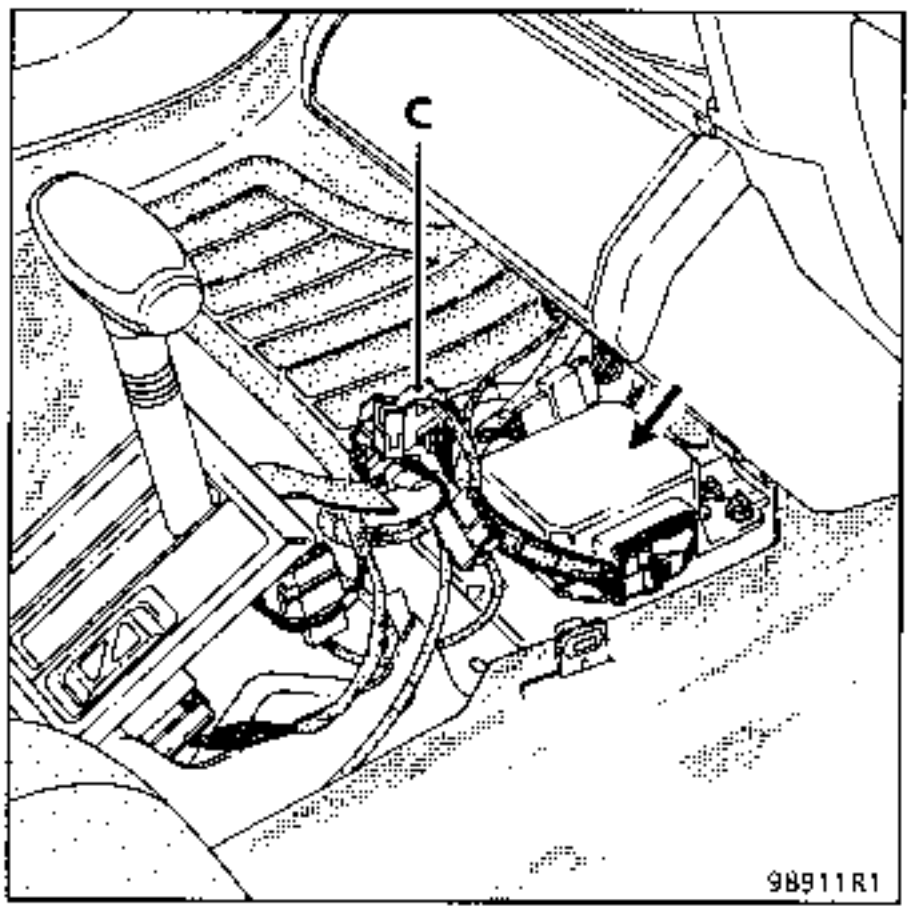
Twingo, Clio, Extra, Mégane and Laguna

It is located on the tunnel in the centre console.

Twingo

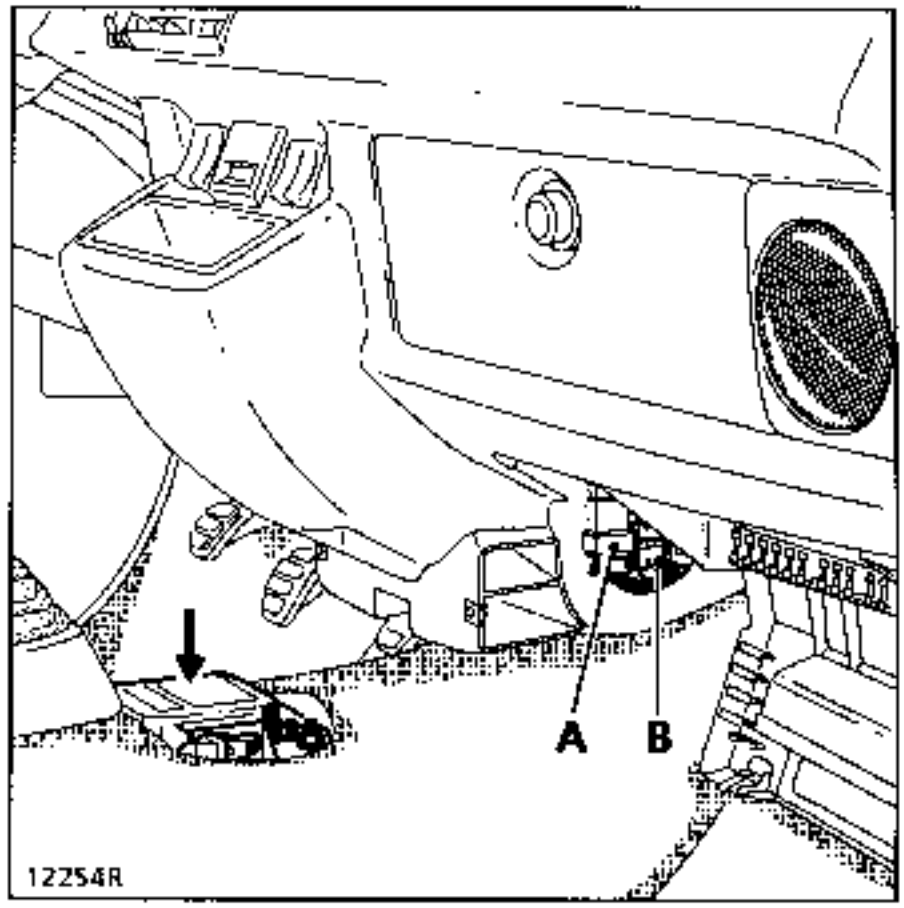


Clio



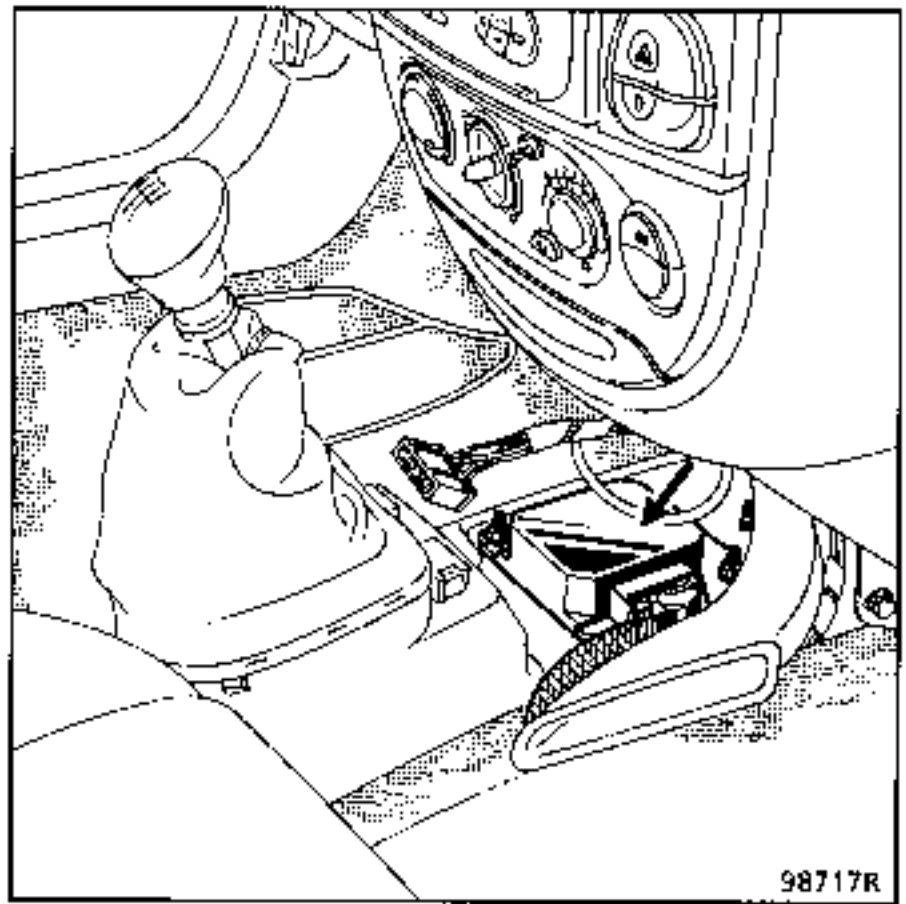
NOTE: on Twingo and **Clio** vehicles, the computer supply, lines K and L and the air bag indicator light pass via an intermediate **white 6-way** connector (C).

Extra

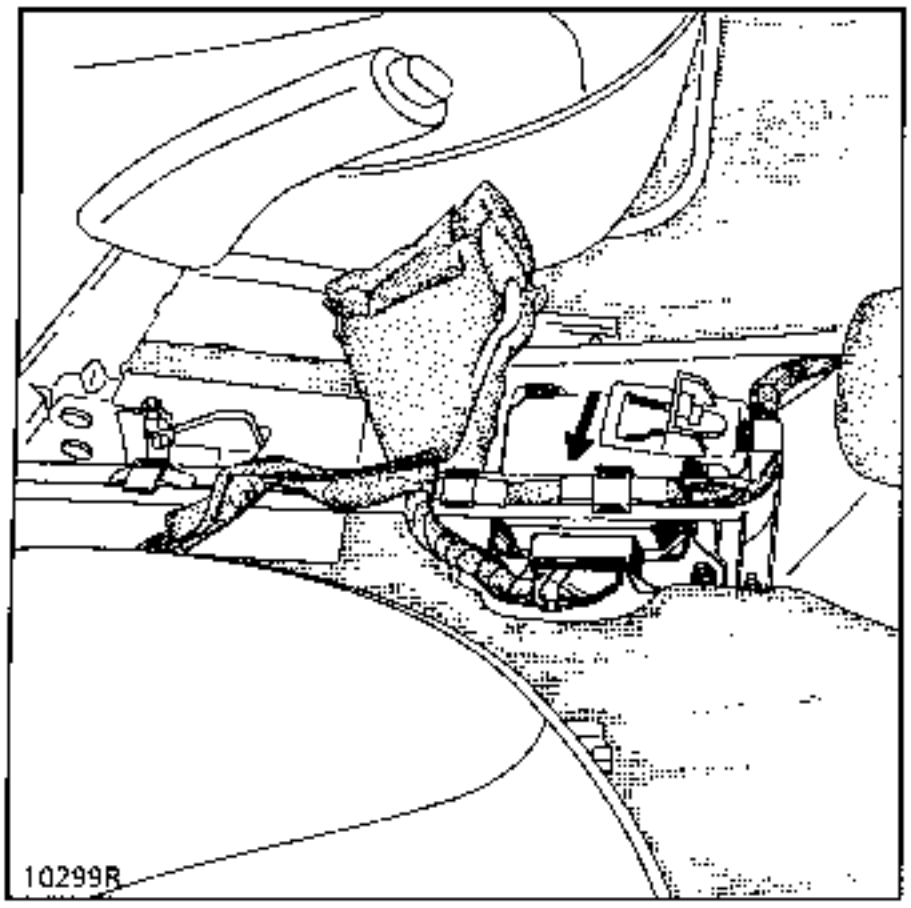


NOTE: on the **Extra**, the computer supply, lines K and L and the air bag indicator light pass via an intermediate **white 6-way** connector (A).
On this same vehicle, the air bag trigger lines pass via an intermediate **purple 2-way** connector (B).

Mégane

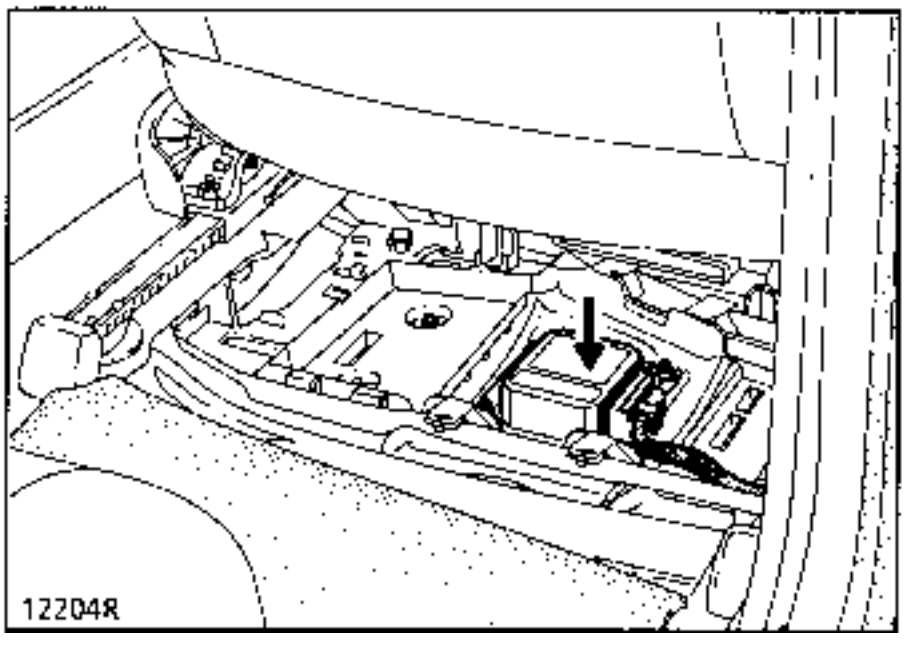


Laguna



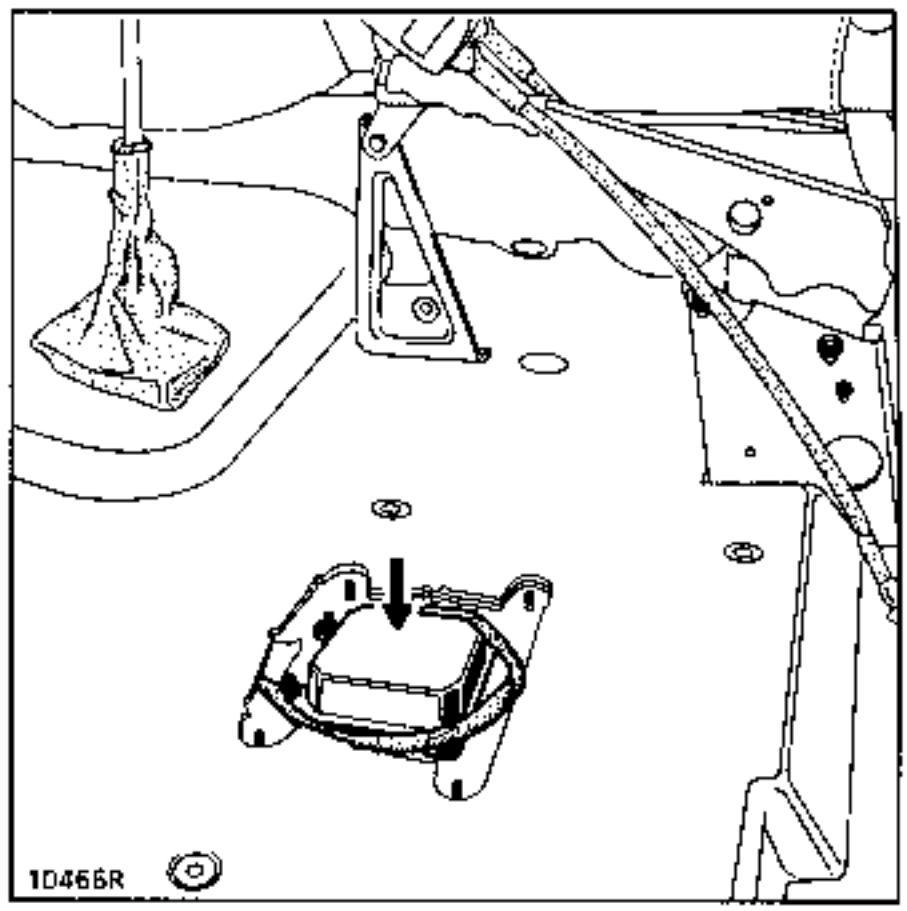
Safrane

It is located under the front passenger seat.



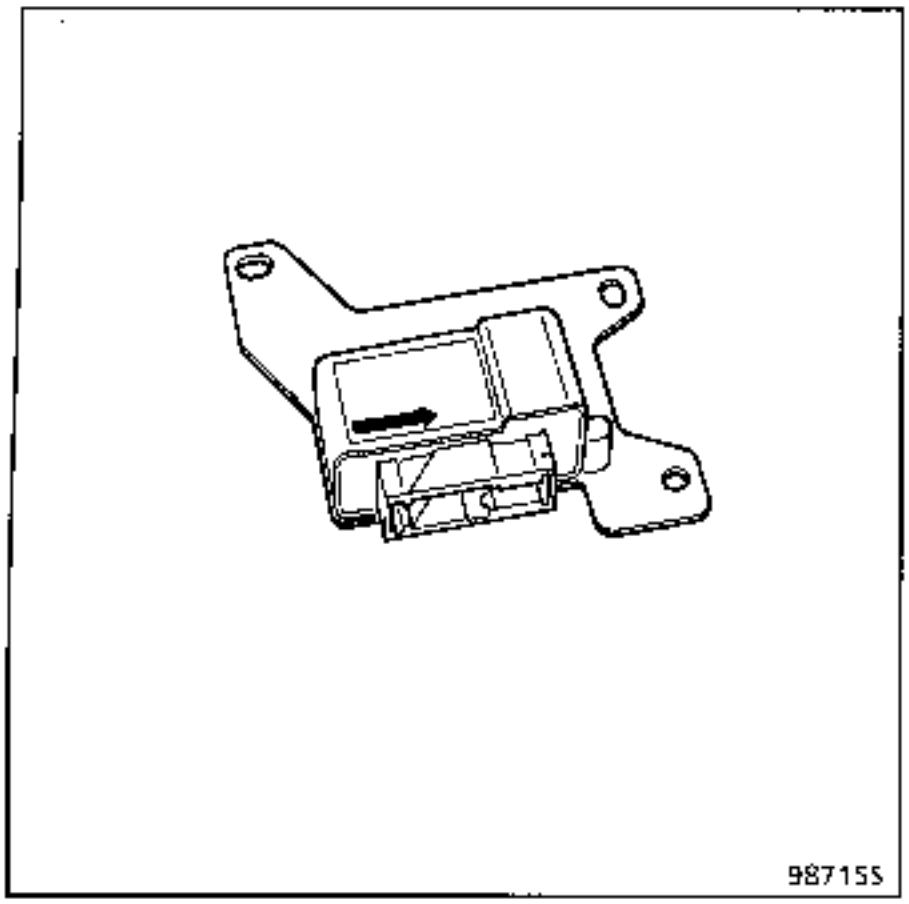
Trafic

It is located under the driver's seat (under a metal protector).

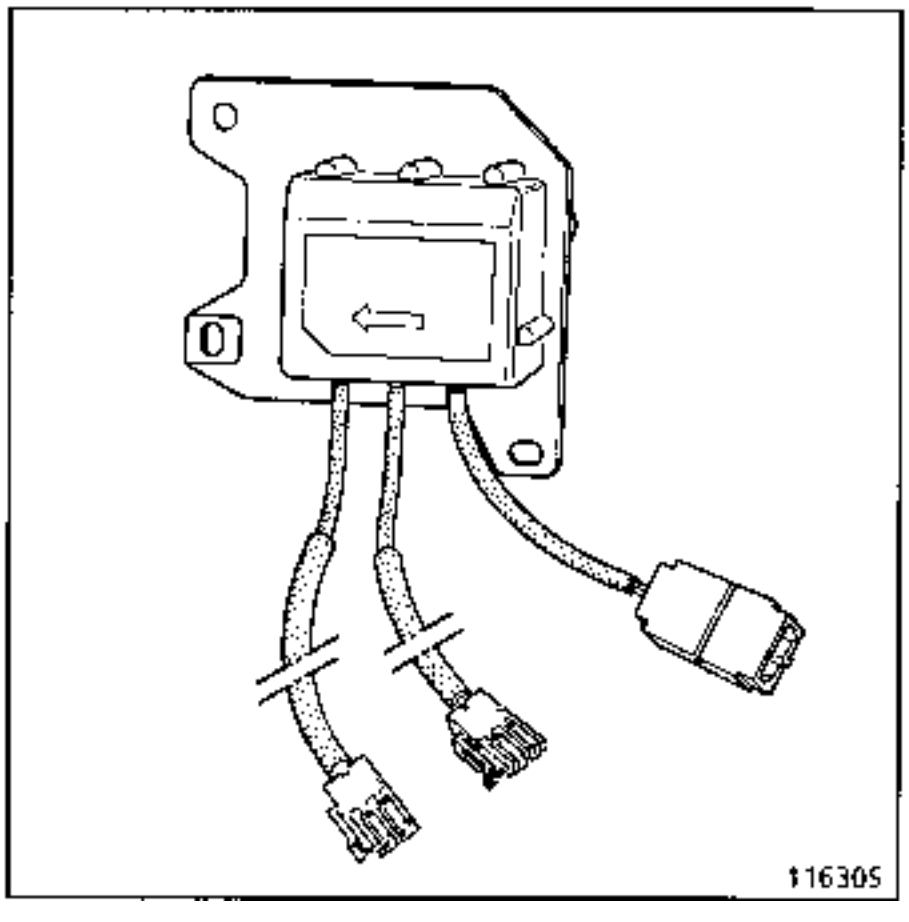


COMPUTER WITHOUT AIR BAG

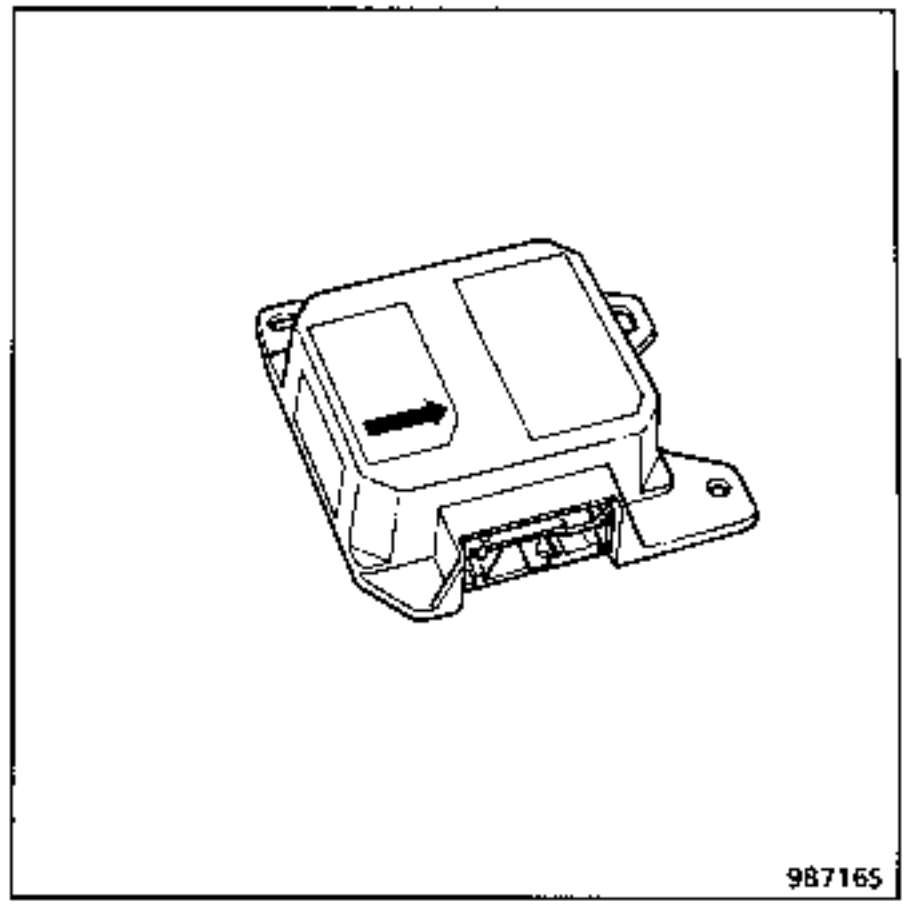
Mégane and Laguna



Twingo and Clio



COMPUTER WITH AIR BAG(S)



WARNING:

- The computer must be changed if the pretensioners and air bags have been triggered. Certain components are no longer to specification after the triggering current has passed through them.
- When an air bag computer is changed, it must be unlocked using the XR25 before it goes into service. (See section on "Fault-finding": Interpretation of left-hand bargraph 14.)

IMPORTANT : When a computer is refitted, it is essential to secure it to the vehicle again before reconnecting it. The arrow on the computer must point towards the front (tightening torque **0.4 daN.m**).

NOTE: the computer and the ignition modules are usually supplied by the vehicle battery.
However, there is a back-up power supply integral with the computer in case the battery should become disconnected on impact.

CONNECTION

- For Twingo and Clio vehicles with pretensioners only

6-way connector

Track	Function
A1	+ after ignition
A2	Spare
A3	Earth
B1	Spare
B2	Spare
B3	Spare

2-way connector
(located under the front seats)

Triggering of the pretensioners

COMMENT: a special feature of the pretensioner trigger wire connectors is that they short circuit (at the computer connector end) when they are disconnected, which avoids accidental triggering of these systems (aerial effect, for example).

- For Mégane and Laguna vehicles with pretensioners only or for all vehicles fitted with air bag(s)

30-way connector (the most complete)

Track	Function
1	+ driver's pretensioner
2	− driver's pretensioner
3	− passenger pretensioner
4	− passenger pretensioner
5	+ after ignition
6	+ passenger air bag (line 1)
7	− passenger air bag (line 1)
8	Indicator light
9	Earth
10	+ driver's air bag
11	− driver's air bag
12	Diagnostic line "K"
13	+ passenger air bag (line 2)
14	− passenger air bag (line 2)
15	Diagnostic line "L"
16 17	Shunt
18 19	Shunt
20	Spare
21 22	Shunt
23	Spare
24	Spare
25 26	Shunt
27	Spare
28 29	Shunt
30	Spare

COMMENT: A special feature of the 30-way computer connector is that it short circuits the various trigger lines when it is disconnected. The shunts situated opposite each pretensioner or air bag line avoids accidental triggering of the system (aerial effect, for example).

WARNING:

- When an operation is carried out under the vehicle (exhaust, bodywork, etc.), do not use a hammer or transfer impact forces to the floor of the vehicle without removing the pretensioner fuse and waiting 5 minutes for the back-up power supply to discharge (see section on "Fuse allocation", technical note with wiring diagrams) or, in the case of air bag functions, wait 2 seconds for the computer to discharge automatically.

- When installing after-sales electrical accessories (speakers, alarm or any other equipment which may create a magnetic field), these must not be fitted near to an air bag/pretensioner computer.

OPERATIONS ON THE TRIGGER WIRING

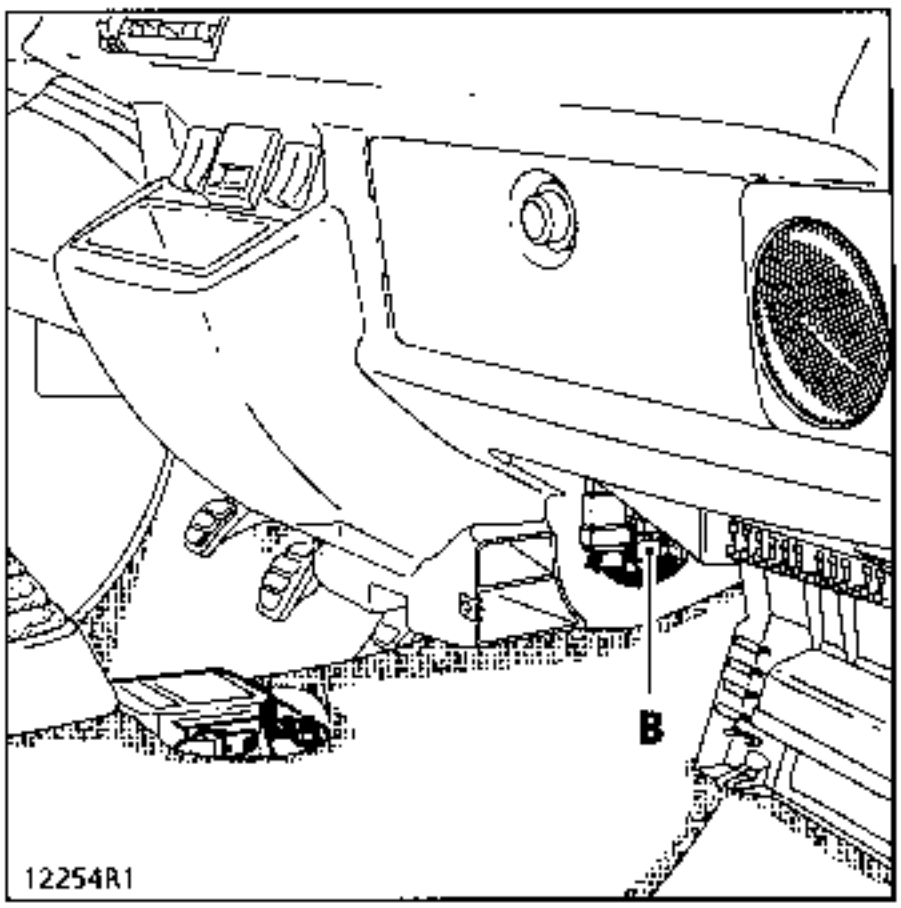
If there is a fault on one of these wires, the component must be changed - it must not be repaired.

This safety device will not withstand any conventional repair operation to wiring or connectors.

WARNING: When fitting new wiring, ensure that this is not damaged in any way and that it is correctly routed.

Special features of the Extra

The air bag trigger wiring has an intermediate connector (B) located to the left of the fuse box.



OPERATION WITH AIR BAG(S) AND PRETENSIONERS

When the ignition is switched on, the air bag test indicator light illuminates for a few seconds and then extinguishes.

This computer is now active and monitors vehicle deceleration as recorded by its integral decelerometer.

In the event of a frontal impact of sufficient force, after the electromechanical safety sensor has detected the shock and signalled this to the decelerometer, the decelerometer triggers the simultaneous ignition of the pyrotechnic generators for the two front seat belt pretensioners.

Under the force of the gas generated by the system a piston is moved in a cylinder, pulling a cable connected to a corresponding central buckle, which retracts the seat belt (see section on pretensioners).

If the frontal impact is more severe, after receiving a signal of confirmation from the electromechanical safety sensor the decelerometer triggers the pyrotechnic gas generators which inflates the driver's and passenger's air bags.

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

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

NOTE: Where only pretensioners are fitted, the computer only has one (electromechanical) sensor and operates in the same way as first generation computers.

IMPORTANT: These systems MUST be checked using the XRBAG tool following:
- an accident which did not cause the system to be triggered,
- an attempted theft or actual theft of the vehicle,
- before selling a second-hand vehicle.

INDICATOR LIGHT ON INSTRUMENT PANEL

This indicator light monitors the pretensioners and air bags, except on vehicles fitted with pretensioners only.

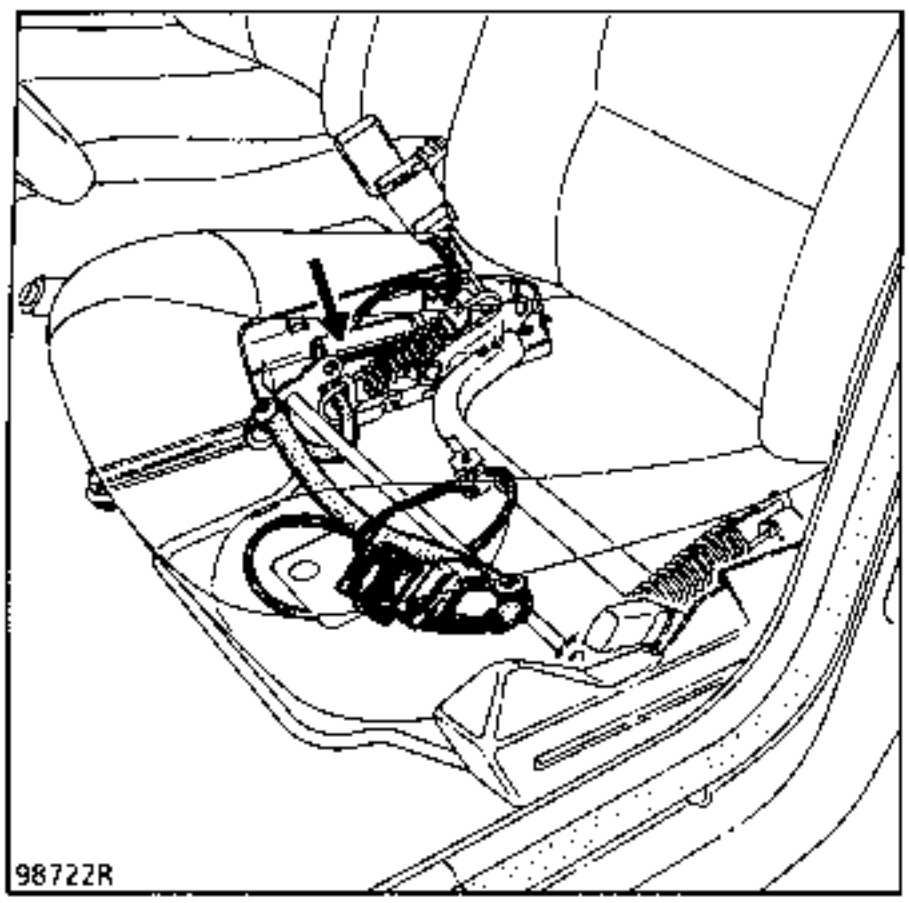
It should illuminate for a few seconds when the ignition is switched on and then extinguish (and remain extinguished). If it does not illuminate when the ignition is turned on or if it illuminates when the vehicle is moving, this indicates a fault in the system (see section on fault-finding).

SEAT BELT PRETENSIONERS

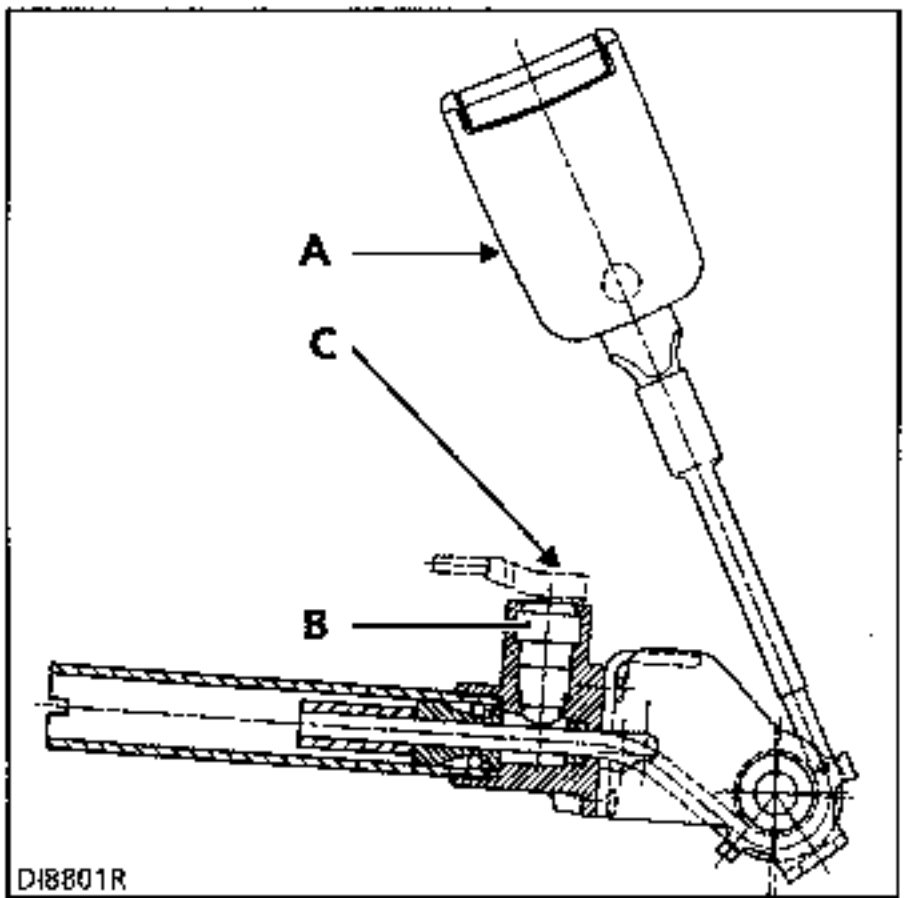
DESCRIPTION

They are secured to the side of the front seats.

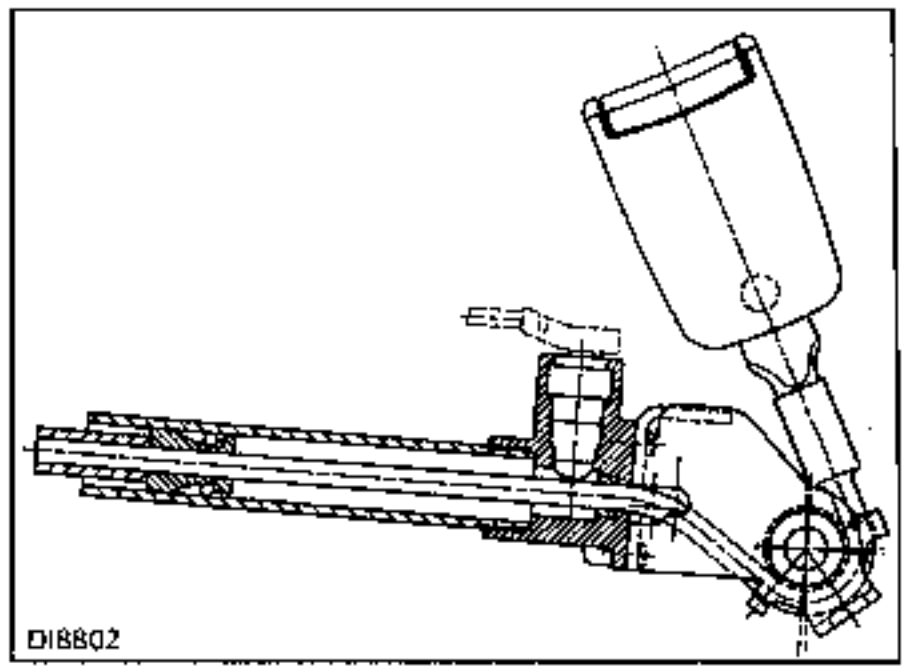
Example : Mégane



A pretensioner is made up of :
- a special seat belt buckle (A),
- a gas pyrotechnic generator and ignition module (B).

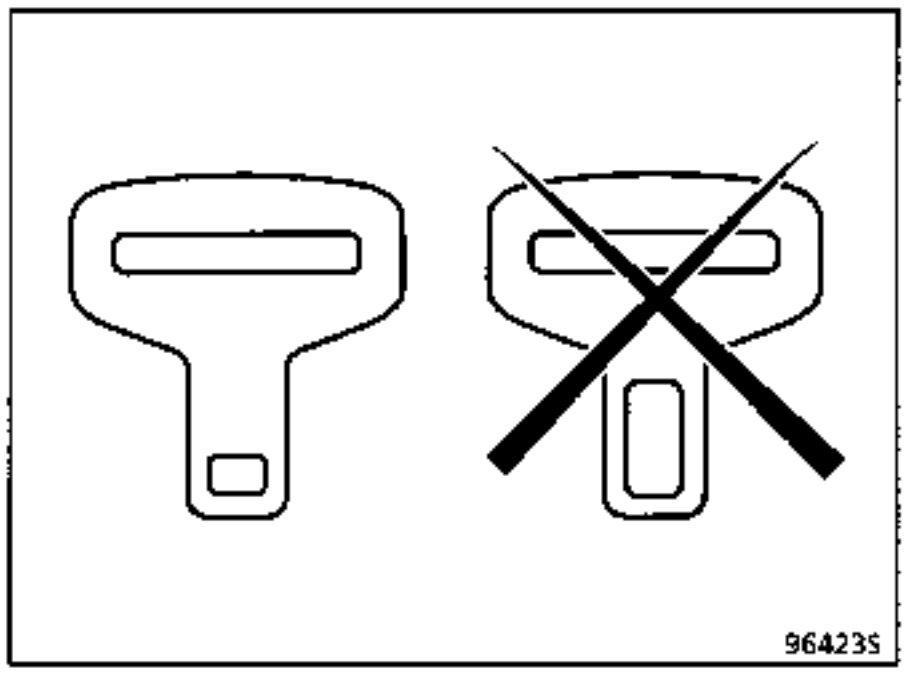


When triggered, the system can retract the buckle up to **70 mm** (maximum).



The components of the pretensioner cannot be separated.

WARNING: The pretensioner catches must be used with seat belts which have buckles with small windows.



SEAT BELTS

If the seat belt pretensioners have been triggered, the front seat belt or belts must be changed if they were in use at the time of the impact (if in any doubt, change the seat belt). The physical forces applied to the catch affect the inertia reel and may have damaged the reel mechanism.

REMOVAL

WARNING: Never bring pyrotechnic systems (pretensioners) near to a source of heat or naked flame - there is a risk that they may be triggered.

NOTE: For vehicles with air bag(s), when work is being carried out on the system the computer can be locked using the XR25 and the command **G80*** (ISO selector in position **S8, code D49**).

When this function is activated, all trigger lines are disabled. The air bag indicator light on the instrument panel and **left-hand bargraph 14** on the XR25 illuminate (new computers are delivered in this condition).

After the work has been completed, carry out a test using the XR25. If everything is correct, unlock the computer using the command **G81***.

Remove:
- the pretensioner connector located under the front seat,
- the seat (4 mounting bolts under the frame according to specification),
- the pretensioner assembly, first removing its protective trim.

IMPORTANT: Before scrapping a non-triggered pretensioner it **MUST** be destroyed in accordance with the destruction procedure (except for parts which are to be returned under Warranty), see section on "Destruction Procedure".

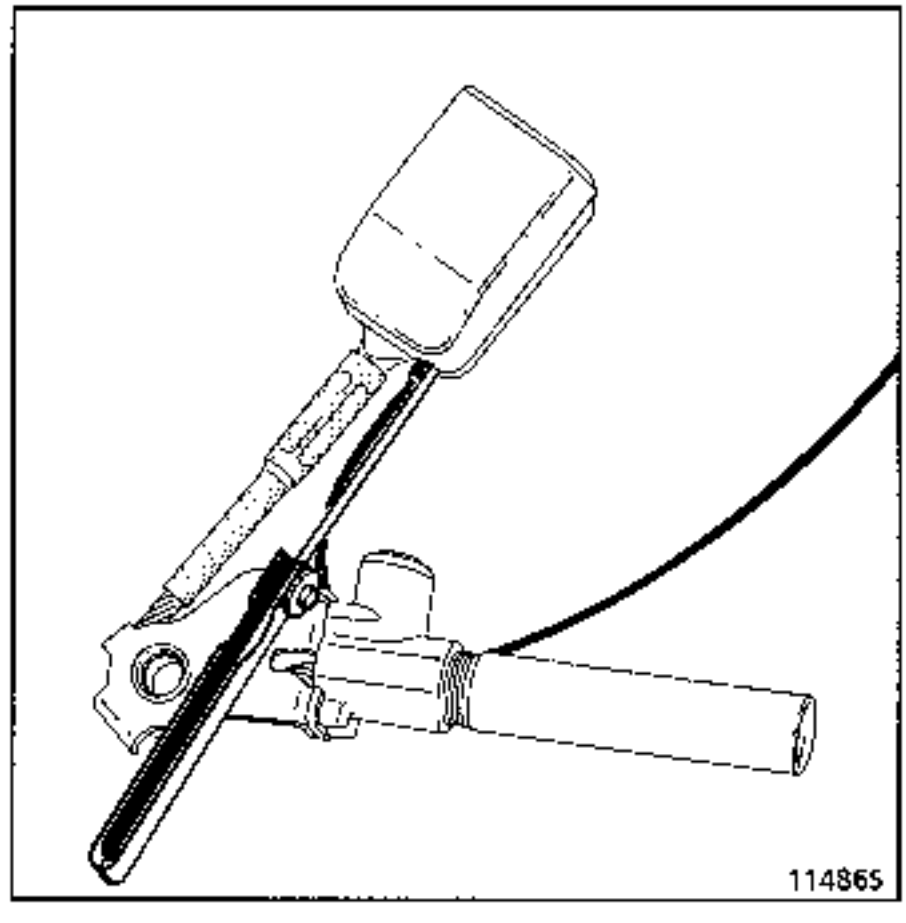
REFITTING

Ensure the wiring is correctly routed and secured under the seat.

Special points

On some vehicles the flexible seat belt stalk, on the driver's side, has an electric contact which signals that the seat belt is not fastened via an indicator light on the instrument panel.

To unclip the connector, insert a **0.25** shim as shown on the diagram in order to free the connector clip and then disconnect the connector by pulling the wire.



To refit, simply reconnect the wiring to the flexible stalk.

IMPORTANT:

For vehicles with pretensioners only (without XR25 fault-finding) :

- before reconnecting the pretensioners, (connector under the seat) check the condition of the installation using the **XRBAG (Elé. 1288)** testing equipment on the two pretensioners (see the section on "Fault-finding"),
- at the pretensioners end, clip the connector (C) fully into place (clip firmly).

For vehicles with pretensioners and air bag(s)

- carry out a test using the XR25 after reconnecting the connectors. Unlock the computer using command **G81*** if everything is correct.
- at the pretensioners end, clip the connector (C) fully into place (clip firmly).

REMINDER: if the pretensioners have been triggered, their computer MUST be changed.

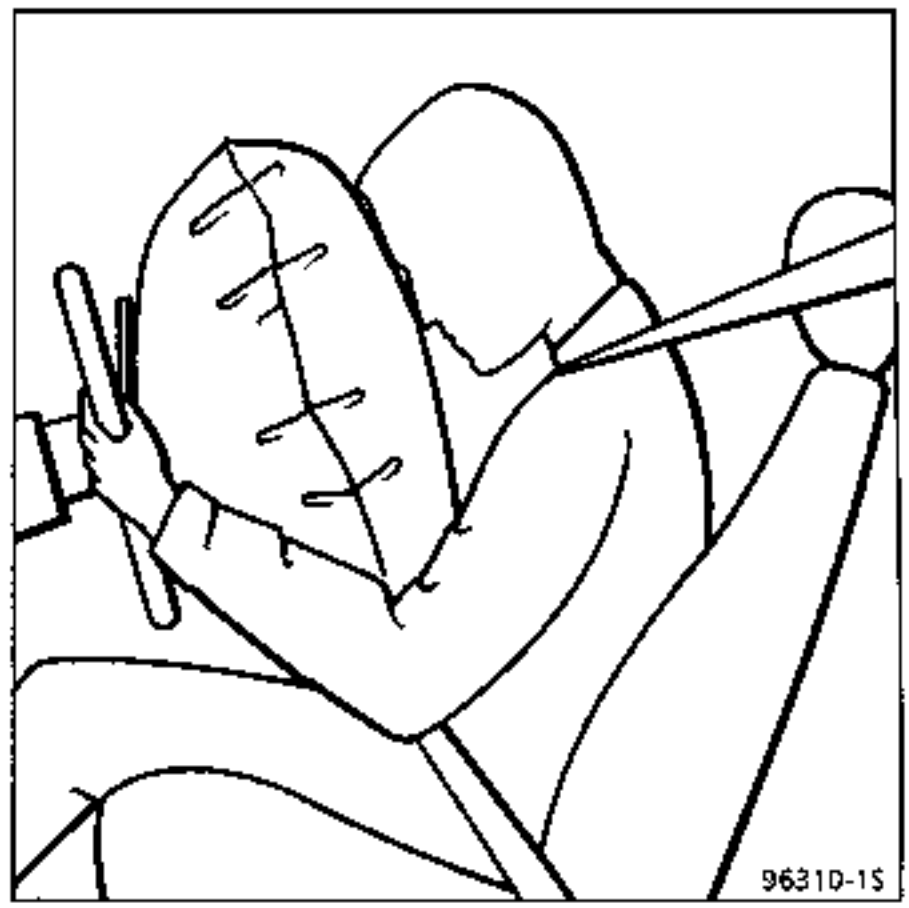
DRIVER'S AIR BAG

DESCRIPTION

This is located in the steering wheel cushion.

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

These components may not be separated.



NOTE: When the air bag inflates, the steering wheel cover is torn.

Indicator light  on the instrument panel shows monitoring of the correct operation of the driver's air bag and pretensioners (depending on equipment).

NOTE : This system is operational after the ignition has been turned on. A vehicle fitted with a driver's air bag can be identified by a label affixed to the lower corner of the windscreen on the driver's side and the words "Air bag" in the centre of the steering wheel.

If the windscreen has to be changed, do not forget to reaffix an adhesive label stating that the vehicle is fitted with an air bag. (This self-adhesive label can be obtained under Part No.

– 77 01 204 970
and – 77 01 205 442

REMINDER: The computer must always be changed if the air bag has been triggered. Certain components are no longer to specification after the triggering current has passed through them.

AIR BAG, STEERING WHEEL AND ROTARY SWITCH

REMOVAL

IMPORTANT: Never bring pyrotechnic systems (air bag and pretensioners) near a source of heat or a naked flame; the systems may be triggered.

IMPORTANT: When the steering wheel is removed, the air bag connector (D) **MUST** be disconnected.
The air bag has a connector which short circuits when it is disconnected to avoid accidental triggering of the system.

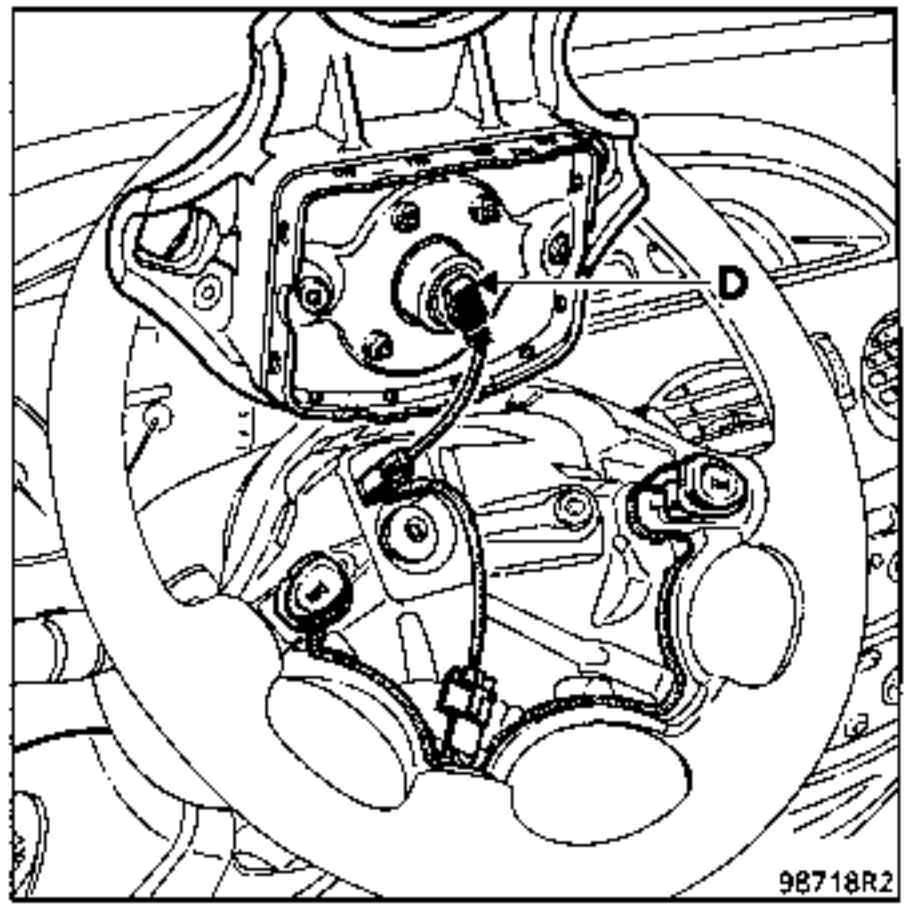
COMMENT: On these vehicles the computer can be locked by entering command **G80*** on the XR25 (ISO selector in position **S8** code **D49**) when work is being carried out on the system.

When this function is activated, all of the triggering lines are disabled. The air bag indicator light on the instrument panel and **left-hand bargraph 14** on the XR25 illuminate (new computers are supplied in this condition).

After the work has been completed, check the system using the XR25. If everything is correct, unlock the computer using command G81*.

Remove:
- the air bag by removing the two bolts (tightening torque **0.5 daN.m**) located behind the steering wheel and disconnect the connector (D),

Example : Mégane



- the horn or cruise control connectors, if fitted,
- the steering wheel bolt,
- the steering wheel after positioning the wheels straight.

IMPORTANT : Before scrapping a non-triggered air bag it **MUST** be destroyed in accordance with the destruction procedure (see section "Destruction procedure for part removed from vehicle").

SPECIAL NOTES FOR THE ROTARY SWITCH UNDER THE STEERING WHEEL

This switch ensures the electrical connection between the steering column and the steering wheel.

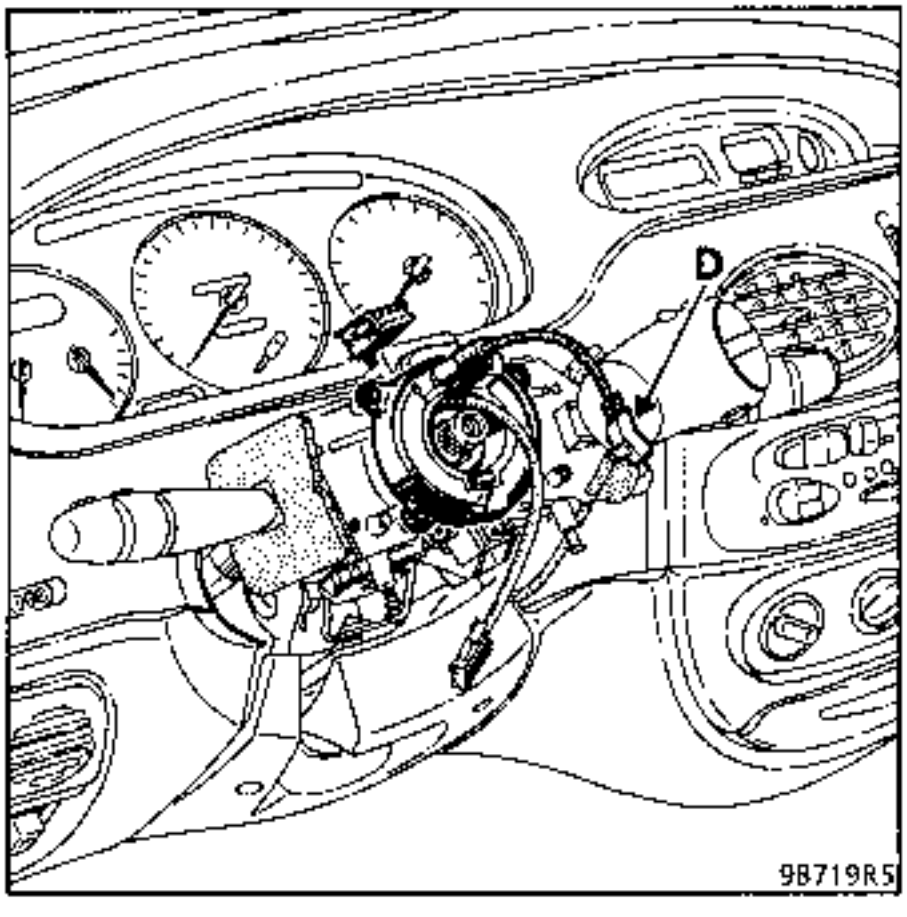
The switch is a strip with conducting tracks (air bag) which are long enough to allow the steering wheel to be rotated 2.5 times (full lock plus an extra amount for safety) to each side.

REMOVAL

When the switch is removed, its position must be noted, either:

- by ensuring the wheels are straight when the switch is removed so that the strip is positioned in the centre,
- by securing the rotary switch in position using adhesive tape.

Example : Mégane



If the switch is changed, the new part is supplied ready centred. It is held in position by a label which tears when the steering wheel is moved for the first time (fit with the wheels straight).

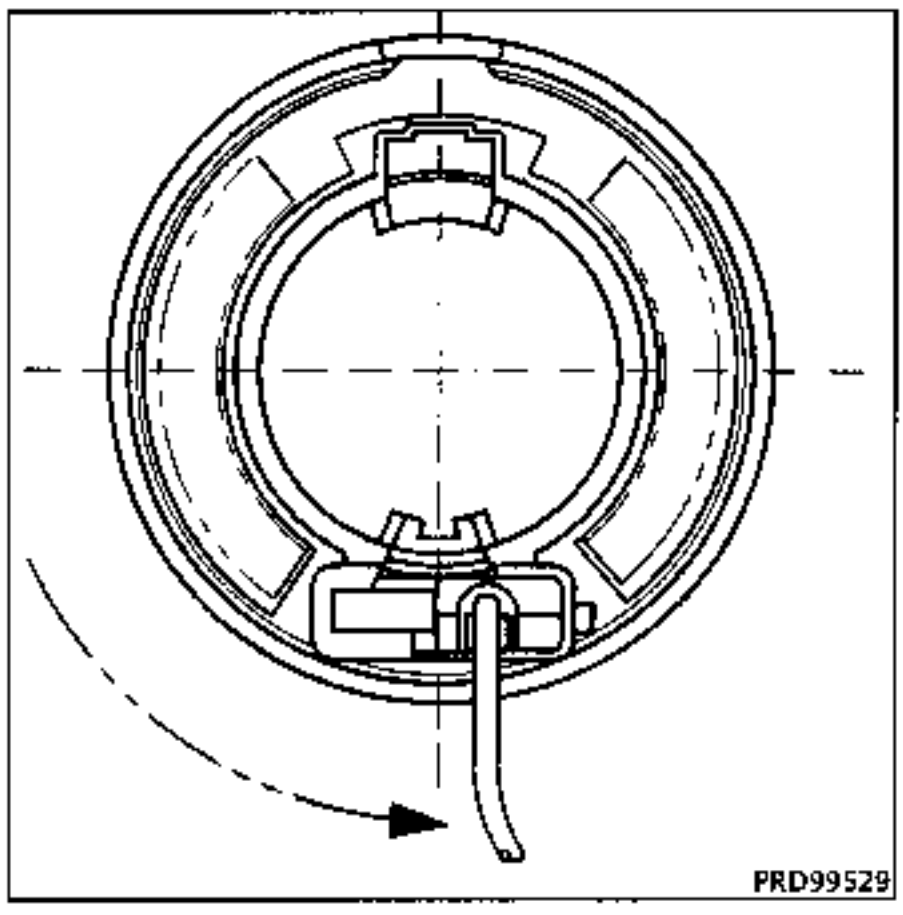
REFITTING

Make sure that the wheels are always in the straight-ahead position.

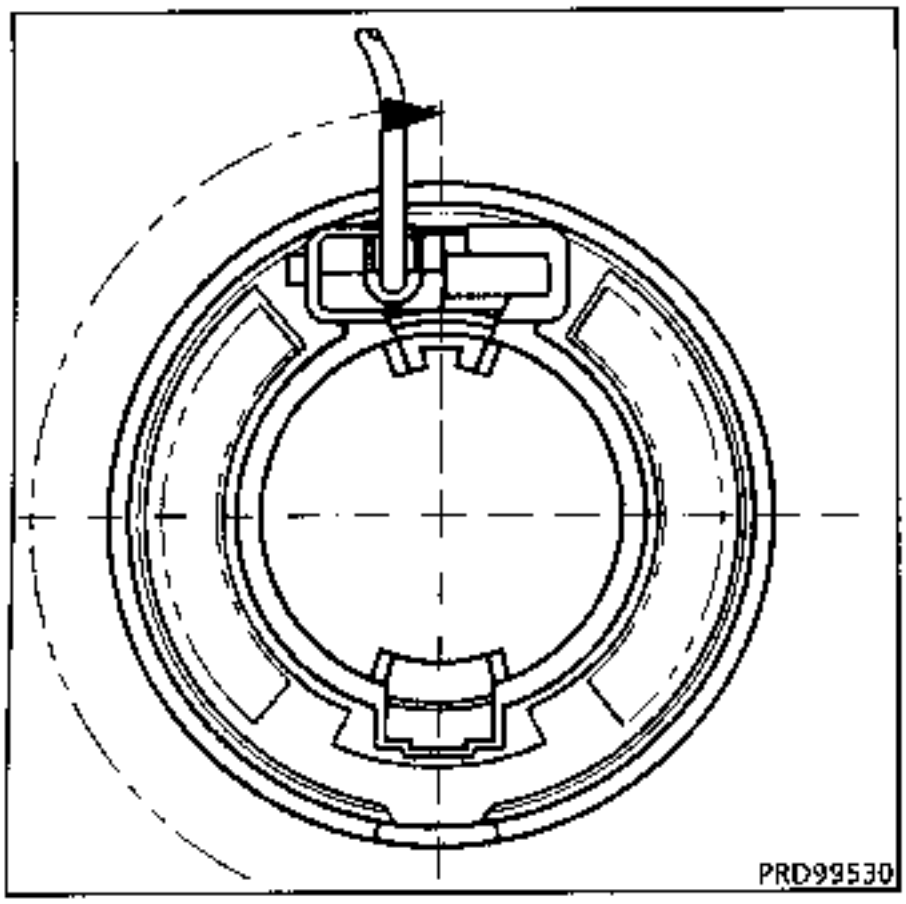
Check that the rotary switch is always secured in position before it is refitted.

If this is not the case, apply the following centring method:

- Turn the upper section of the rotary switch anti-clockwise. The switch becomes difficult to rotate (but it must not be forced) when it gets near to the extreme position, as shown below.



- Then apply slight pressure to turn the upper part (in a clockwise direction) and check that the rotary switch is correctly in the position shown below.



– Turn the part in a clockwise direction again through two complete rotations and make sure that the rotary switch is correctly in the position described above after this operation.

Refit the steering wheel with a new nut, ensuring the tightening torque is **4.5 daN.m**.

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

SPECIAL CASES

If any work is carried out on the vehicle which involves removing the steering unit, engine, gearbox, etc. requiring the steering rack to be disconnected from the steering column:

→ the steering wheel must be secured in position, using a "steering lock" tool.

WARNING: So that the rotary switch under the steering wheel is not irreparably damaged, it is IMPORTANT that the steering wheel remains in the same position for the duration of the work.

If there is any doubt whatsoever that the steering wheel may not be correctly centred, the steering wheel must be removed and the centring method described above must be used.

REMINDER: In this case, only trained, qualified personnel may work on the airbag.

IMPORTANT:

When everything has been refitted:

- Use the XR25 to make sure that the system is free of faults.
- Use command **G81*** to unlock the computer.
- Check that the air bag indicator light illuminates for 3 seconds after the ignition is switched on and then extinguishes and remains extinguished.

If the indicator light does not operate as described above, refer to the section on "Fault-finding" and check the system using the XRBAG tool (Ele. 1288) or the XR25.

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

PASSENGER AIR BAG MODULE

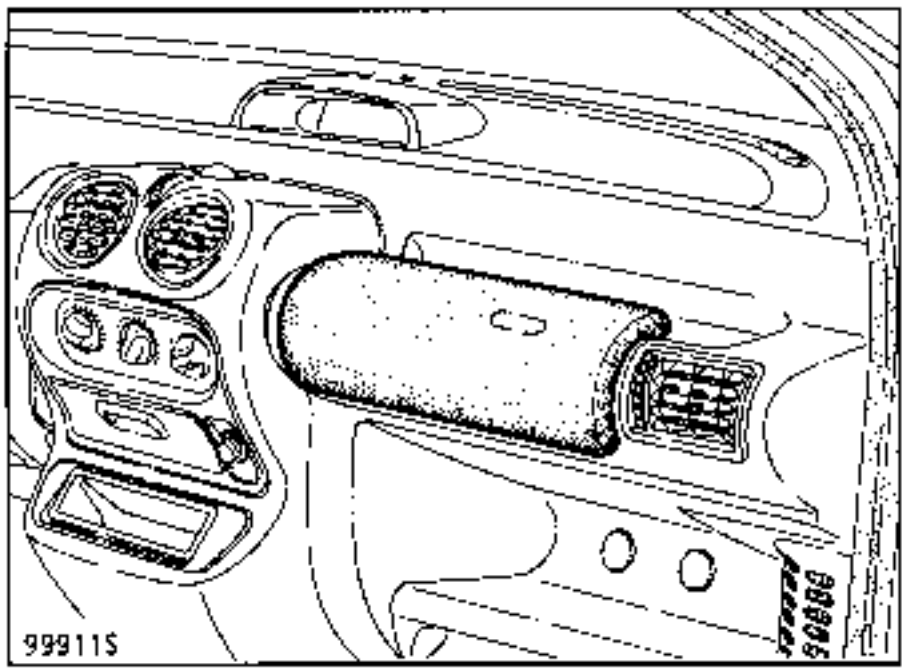
DESCRIPTION

The air bag module is located in the dashboard, opposite the front passenger.

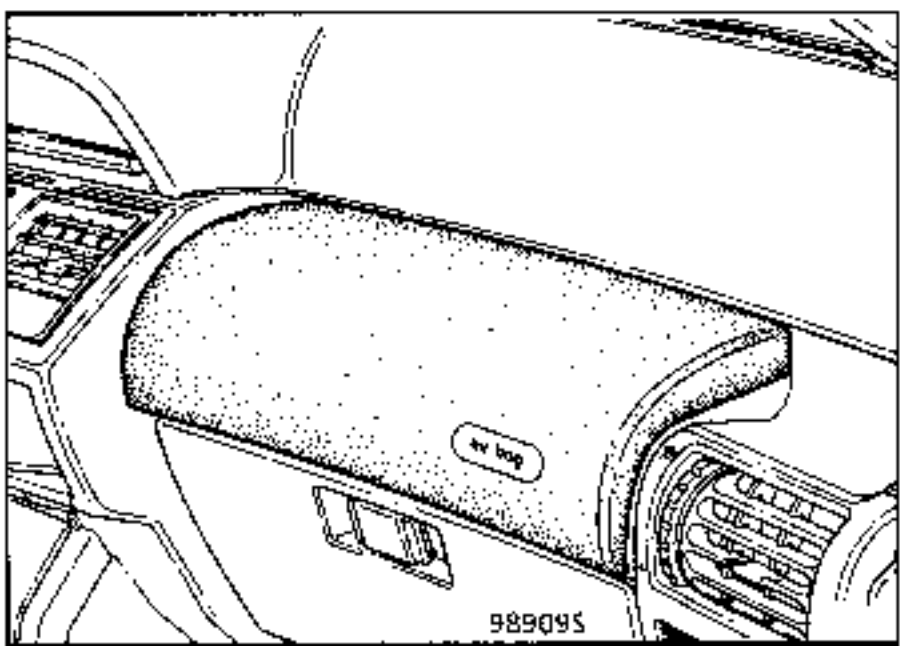
It comprises:
- an inflatable cushion,
- two pyrotechnic gas generators and their ignition modules.

LOCATION

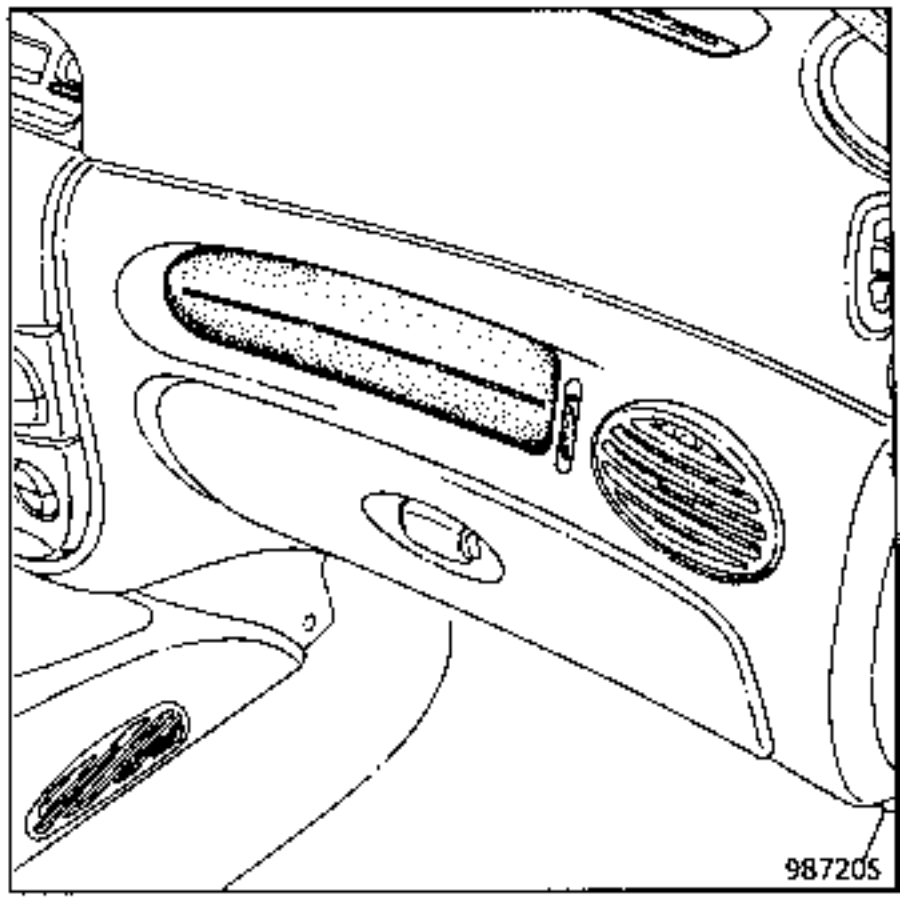
Twingo



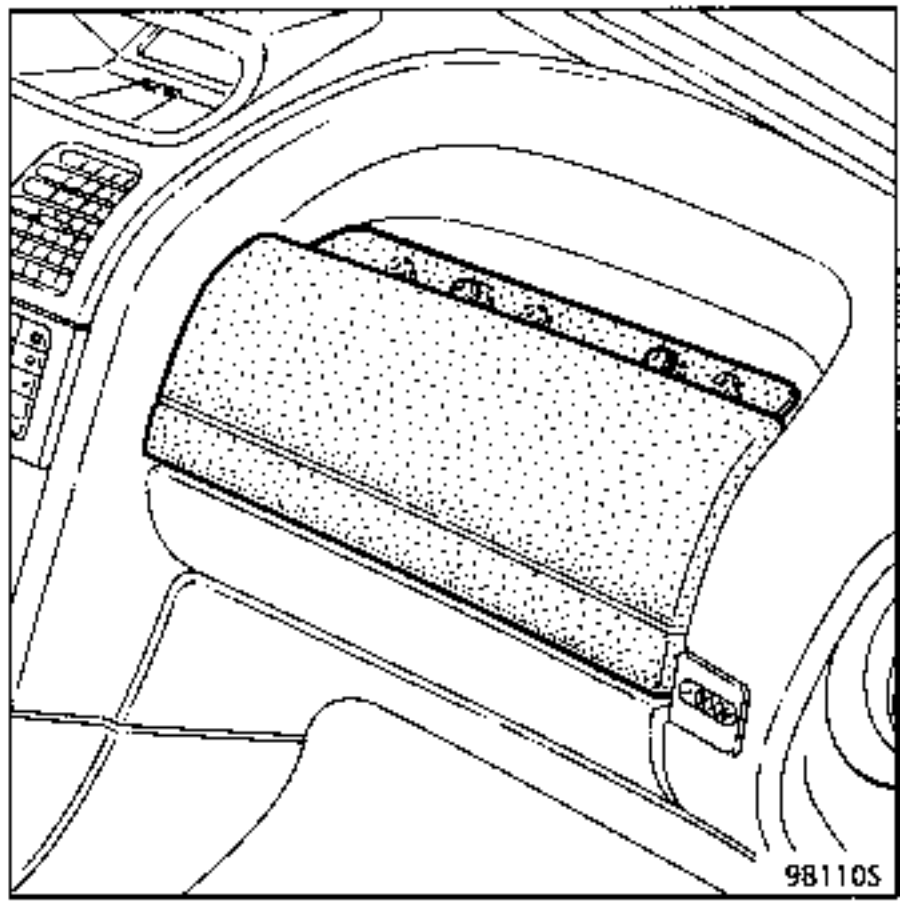
Clio



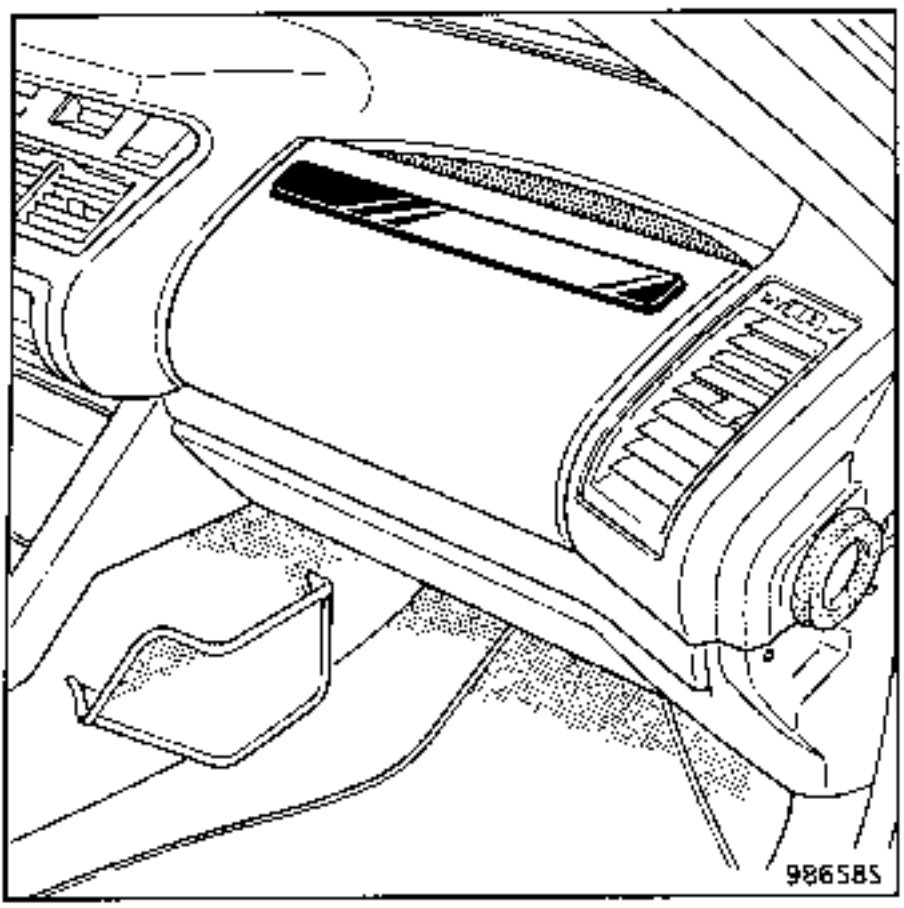
Mégane



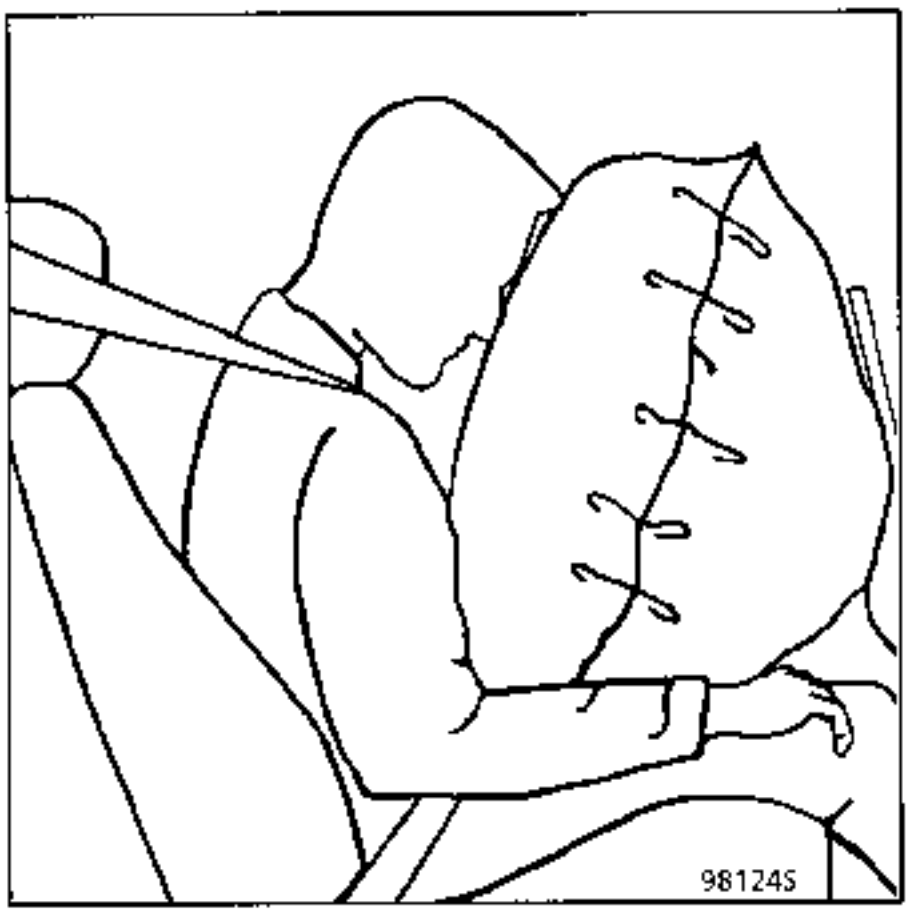
Laguna



Safrane



The air bag module components may not be separated.



NOTE : When the air bag inflates, the passenger air bag module cover on the dashboard opens.

Indicator light  on the instrument panel shows the monitoring of the correct operation of the driver and passenger air bags.

NOTE: This system is operational after the ignition has been turned on. A vehicle fitted with a passenger air bag can be identified by a label affixed to the lower corner of the windscreen on the passenger side and the words "Air bag" on the dashboard on the same side. Two other labels, on the front door window and on the side of the dashboard, indicate that a child seat may not be fitted to the front passenger seat. In addition, the passenger should not rest his feet on the dashboard or stick or pin any objects to the dashboard (refer to the Driver's Handbook).

If the windscreen (or window in the passenger side door) has to be changed, do not forget to reaffix an adhesive label stating that the vehicle is fitted with an air bag. (This self-adhesive label can be obtained under Part No.77 01 204 970).

REMINDER: The computer **must always** be changed if the air bag has been triggered. Certain components are no longer to specification after the triggering current has passed through them.

Access to air bag ignition modules for fault-finding

Twingo and Clio

To gain access to the passenger air bag ignition modules, the dashboard must be removed.

Mégane

To gain access to the passenger air bag ignition modules, the upper part of the dashboard and the hot air ducts must be removed.

Laguna without AC

Access to the passenger air bag ignition modules is from underneath the dashboard.

Laguna with AC and Safrane

To gain access to the passenger air bag ignition modules, the air bag module must be removed.

IMPORTANT: The two air bag ignition modules must be checked using the XRBAG as described in the section on "Fault-finding ".

CHANGING THE PASSENGER AIR BAG MODULE

WARNING: The pyrotechnic systems (air bags and pretensioners) must not be handled near to a heat source or flame. They may be triggered.

COMMENT: On these vehicles the computer can be locked by entering command **G80*** on the XR25 (ISO selector in position **58** code **D49**) when work is being carried out on the system.

When this function is activated, all of the trigger lines are disabled. The air bag indicator light on the instrument panel **left-hand bargraph 14** on the XR25 illuminate (new computers are supplied in this condition).

After the work has been completed, carry out a check using the XR25.

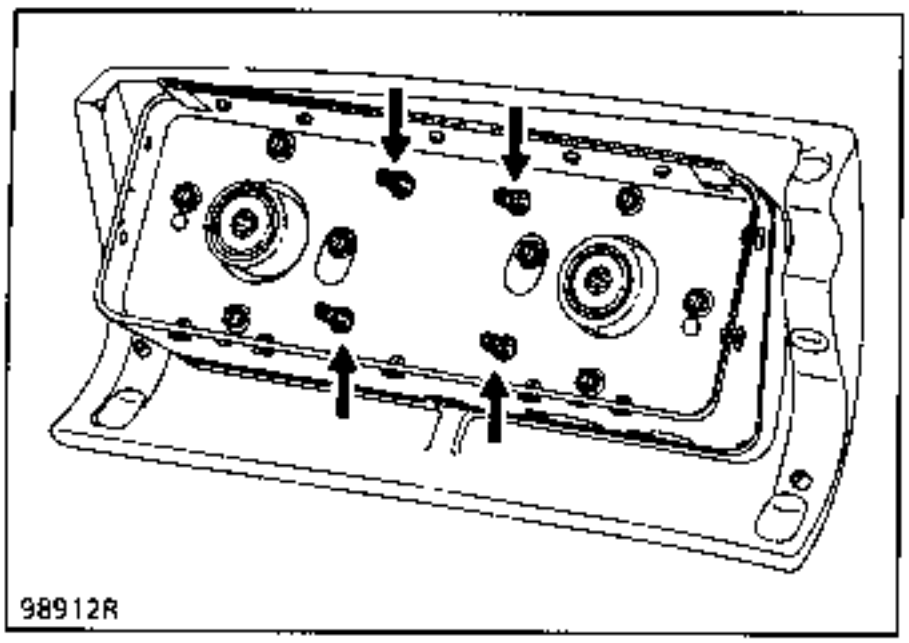
If everything is correct, unlock the computer using command **G81***.

Twingo and Clio

REMOVAL

The dashboard must be removed in order to remove the passenger air bag module.

Then remove the adhesive "tamper-proof label" and remove the air bag module (four nuts).



IMPORTANT : if a passenger air bag is triggered, the damage caused to mountings means that the dashboard must be changed.

IMPORTANT : Before scrapping an air bag which has not been triggered, it MUST be destroyed following the method described for the driver's air bag "Destruction procedure for a part removed from the vehicle".

REFITTING

WARNING: The safety recommendations given for refitting or changing a passenger air bag module MUST be observed. Failure to observe these conditions could cause the system to operate incorrectly or may even present a risk to the occupants of the vehicle.

IMPORTANT:

Refitting is the reverse of removal. It is **essential** to observe the **tightening** torque for the four module mounting bolts **(0.6 daN.m)**.

- The "tamper-proof label" must be replaced by a blue After Sales label (sold in a kit for all types Part No. 77 01 204 944).
- Remember to remove all foreign bodies (bolts, clips...) when refitting the air bag module.

IMPORTANT:

Check the system wiring before reconnecting the passenger air bag module and changing the dashboard:

Connect a dummy ignition module (Ele. 1288) to each of the two passenger air bag module connectors.

Connect the 30-way XRBAG adapter to the orange 30-way connector of the computer wiring.

When the XRBAG has been supplied with power (from the battery), connect the white 2-way measuring socket connector:

- To the wiring (A) of the adapter. The measurement should be between 1.8 and 4.6 Ω,
- Then to the wiring (C) for the adapter. The measurement should be between 1.8 and 4.6 Ω.

If the measurements are correct :

- Disconnect the dummy ignition modules.
- Reconnect the wiring to the passenger air bag ignition module (via the dashboard) and reconnect the white 2-way XRBAG measuring socket:
  - To the adapter wiring (A). The measurement should be between 1.8 and 4.6 Ω.
  - Then to the adapter wiring (C). The measurement should be between 1.8 and 4.6 Ω.

If the measurements are correct:

- Refit the dashboard.
- Use the XR25 to make sure that the system is free of faults.
- Use command G81* to unlock the computer.
- Check that the air bag indicator light illuminates for 3 seconds after the ignition is switched on and then extinguishes and remains extinguished.

If the indicator light does not operate as described above or the measured values are incorrect, refer to the section on "Fault-finding".

Mégane

REMOVAL

To remove the passenger air bag module, the dashboard must be removed.

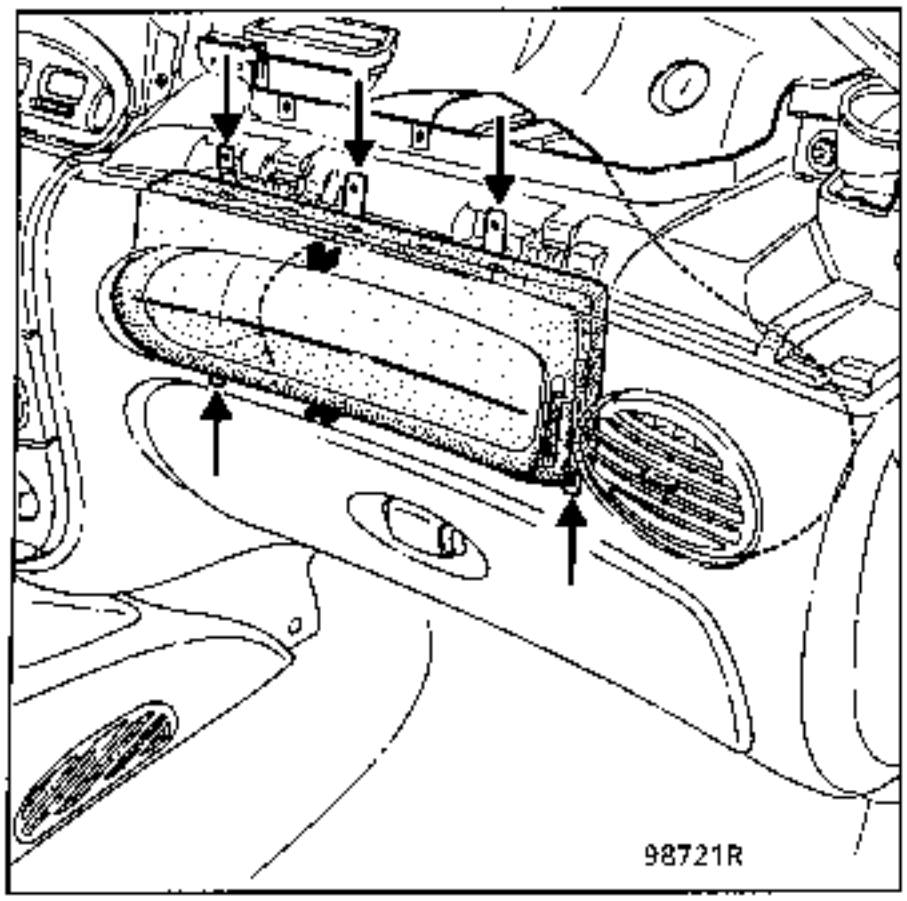
IMPORTANT : if a passenger air bag is triggered, the damage caused to mountings means that the dashboard must be changed.

IMPORTANT : Before scrapping an air bag which has not been triggered, it **MUST** be destroyed by following the "Destruction procedure for a part removed from the vehicle" described in the instructions for all **types of driver's air bags** .

REFITTING

IMPORTANT: The safety recommendations given for refitting or changing a passenger air bag module **MUST** be observed. Failure to observe these conditions could cause the system to operate incorrectly or may even present a risk to the occupants of the vehicle.

IMPORTANT: Refitting is the reverse of removal. It is essential to observe the tightening torque for the five module mounting bolts (0.2 daN.m) Remember to remove all foreign bodies (bolts, clips...) when refitting the air bag module.



Refit the dashboard.

IMPORTANT:

When everything has been refitted:

- Use the XR25 to make sure that the system is free of faults.
- Use command **G81*** to unlock the computer.
- Check that the air bag indicator light illuminates for 3 seconds after the ignition is switched on and then extinguishes and remains extinguished.

If the indicator light does not operate as described above, refer to the section on "Fault-finding" and check the system using the XRBAG tool (Ele. 1288) or the XR25.

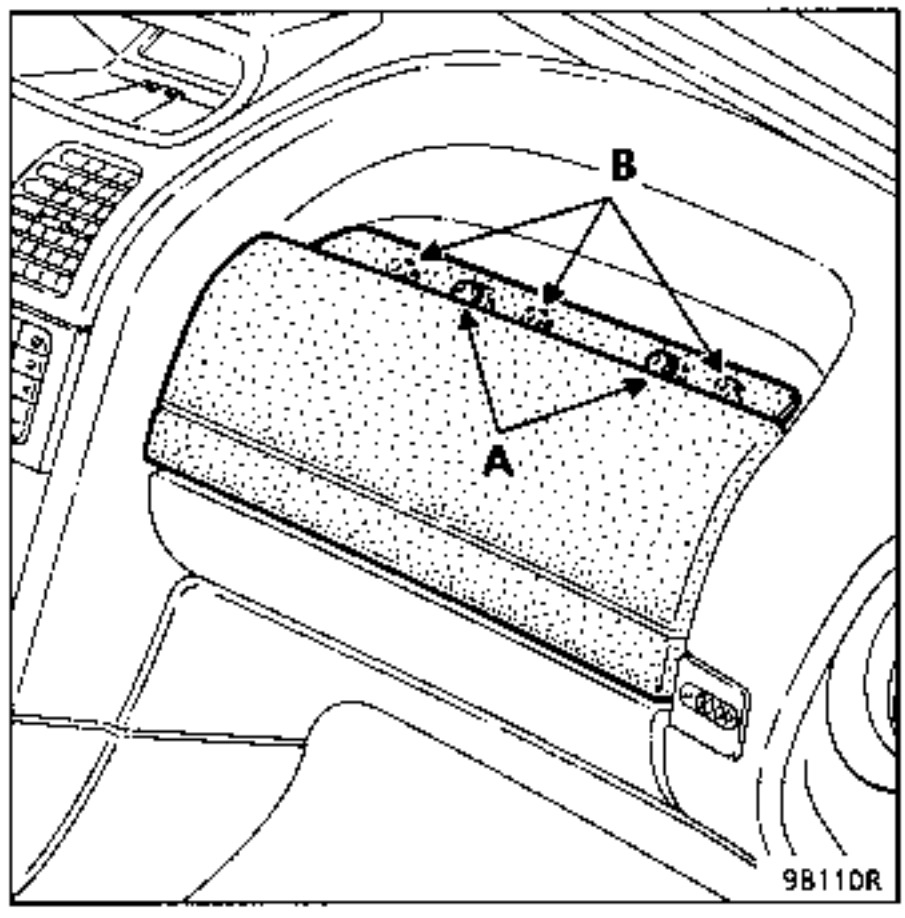
WARNING: If these procedures are not correctly observed, the systems may not operate correctly or may be accidentally triggered.

Laguna

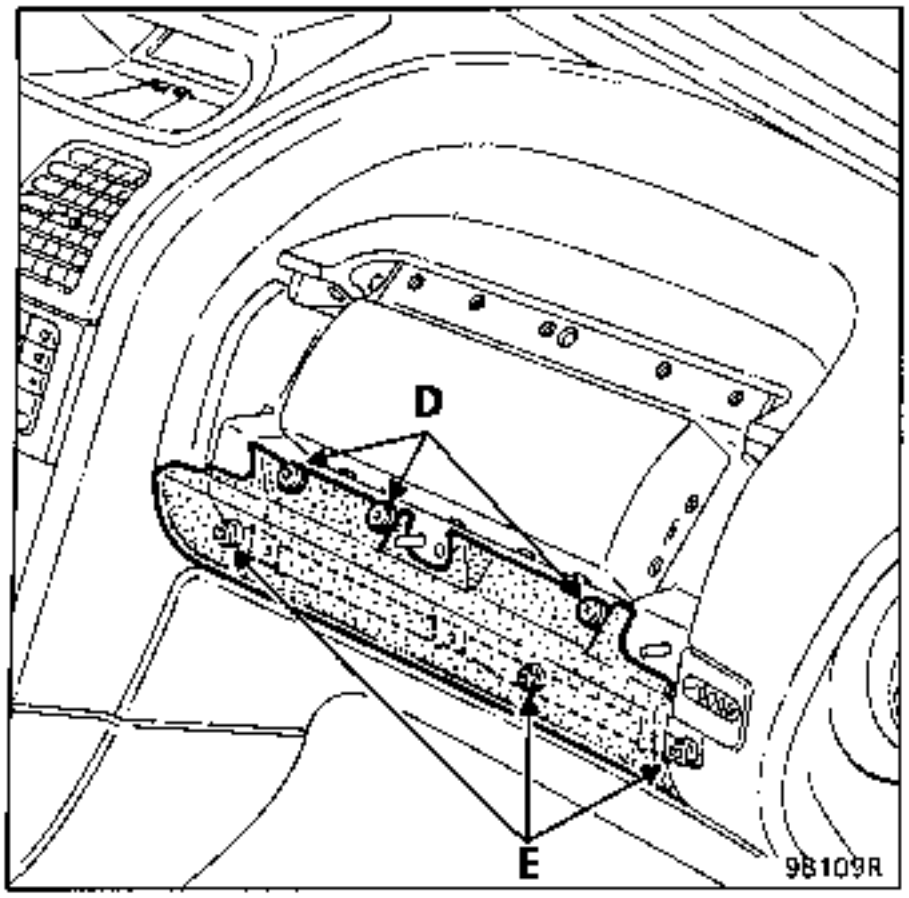
REMOVAL

Remove:
- the dashboard rubber matting,
- the adhesive "tamper-proof label" (yellow when fitted in the factory, light blue after an After Sales operation).

Remove:
- the upper plate by removing its two bolts (A),
- the module cover by removing its three bolts (B),



- the lower module trim by removing its three bolts (D),

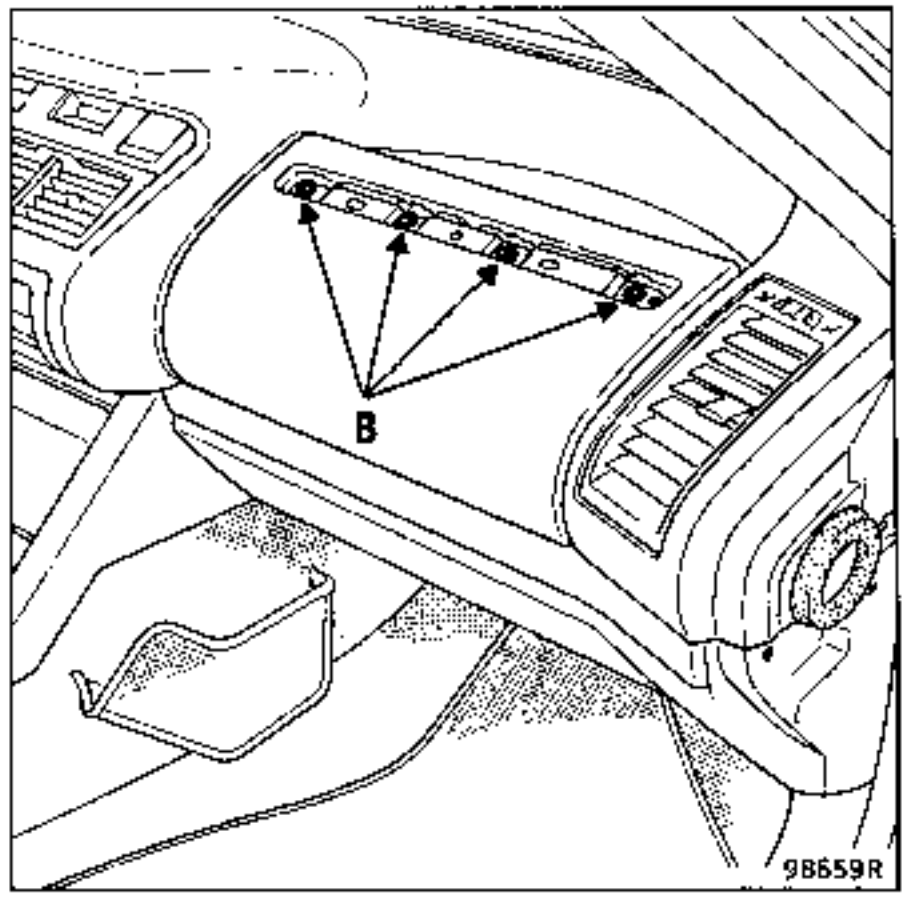


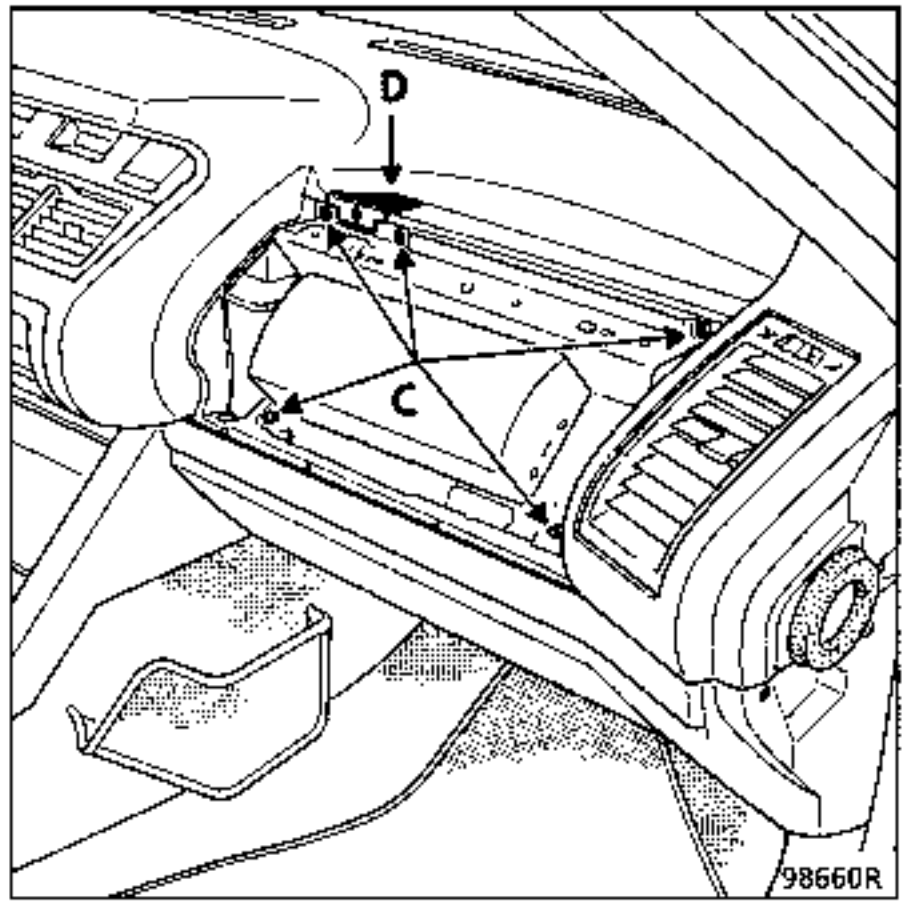
- the air bag module by removing its three lower bolts (E),
- the 2 connectors for the passenger air bag ignition modules.

Safrane

Remove:
- the dashboard rubber matting,
- the blanking strip,
- the adhesive "tamper-proof label" (yellow when fitted in the factory, light blue after an After Sales operation).

Remove:
- the upper plate by removing its four bolts (B) (tightening torque: **0.5 daN.m**),





- "glove compartment lock" cap (D) (one bolt),
- the air bag module by removing its five bolts (C).

Disconnect the two passenger air bag ignition module connectors.

REFITTING
(Laguna and Safrane)

IMPORTANT: If a passenger air bag is triggered, the damage caused to mountings means that the **dashboard must be changed.**

IMPORTANT: Before scrapping an air bag which has not been triggered, it **MUST** be destroyed by following the "Destruction procedure for a part removed from the vehicle" described in the instructions for **all types of driver's air bags** .

IMPORTANT: The safety recommendations given for refitting or replacing a passenger air bag module **MUST** be observed. Failure to observe these conditions could cause the system to operate incorrectly or may even present a risk to the occupants of the vehicle.

IMPORTANT:

Fitting is then the reverse of removal. It is **essential** to observe the tightening torque **(0.5 daN.m)** for the three module mounting bolts.

- The "tamper-proof label" **must always** be replaced by a blue After Sales label, sold in a kit for all types (Part Number 77 01 205 356, blue colour), after first cleaning the surface to which the label is to be applied with heptane (Part Number 77 11 170 064). This precaution ensures the tamper-proof label system is totally efficient.
- Remember to remove all foreign bodies (bolts, clips...) from between the module and the passenger air bag cover.

IMPORTANT:

When everything has been refitted:

- Use the XR25 to make sure that the system is free of faults.
- Use command **G81*** to unlock the computer.
- Check that the air bag indicator light illuminates for 3 seconds after the ignition is switched on and then extinguishes and remains extinguished.

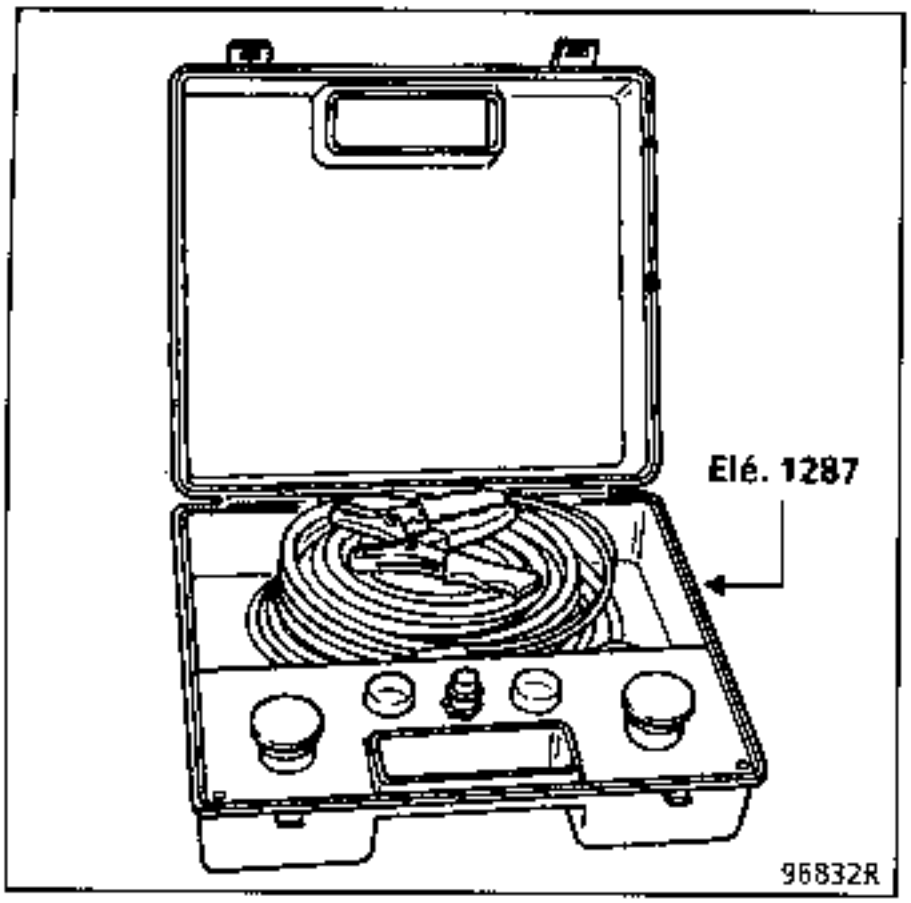
If the indicator light does not operate as described above, refer to the section on "Fault-finding" and check the system using the XRBAG tool (Ele. 1288) or the XR25.

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

DESTRUCTION PROCEDURE

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

Special tool Ele. 1287 must be used.



PRETENSIONERS

WARNING: do not trigger pretensioners which must be returned under Warranty because of a flexible strap problem. The supplier will not be able to analyse the part.
Return the old part in the packaging of the new part.

DESTRUCTION OF THE PART FITTED TO THE VEHICLE

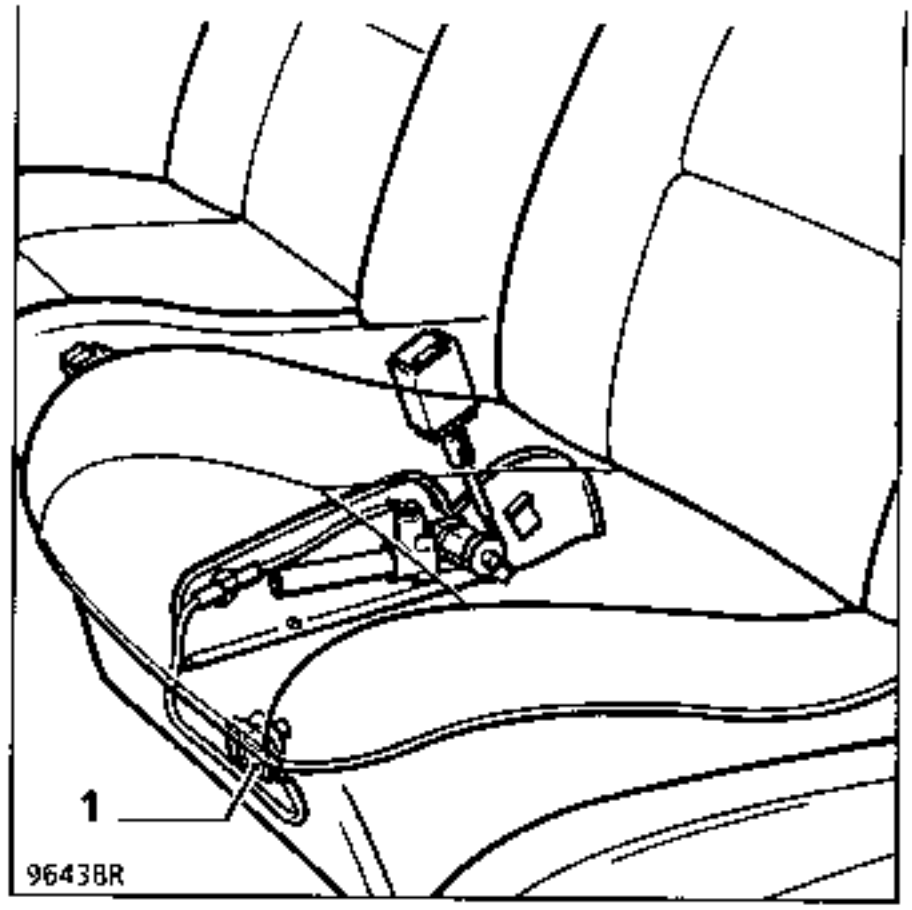
Move the vehicle outside of the workshop.

Connect the destruction tool to connector (1) located under the front seat using the corresponding wire.

Unroll all the wire supplied with the tool so that you are at a sufficient distance from the vehicle (approximately 10 metres) when the unit is triggered.

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

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



Repeat the procedure for the second pretensioner.

NOTE : If the unit cannot be triggered (ignition module faulty), return the old part in the packaging from the new replacement part to your local After Sales Head Office (for UK, send to Technical Services Department, Swindon).

DESTRUCTION OF THE PART REMOVED FROM THE VEHICLE

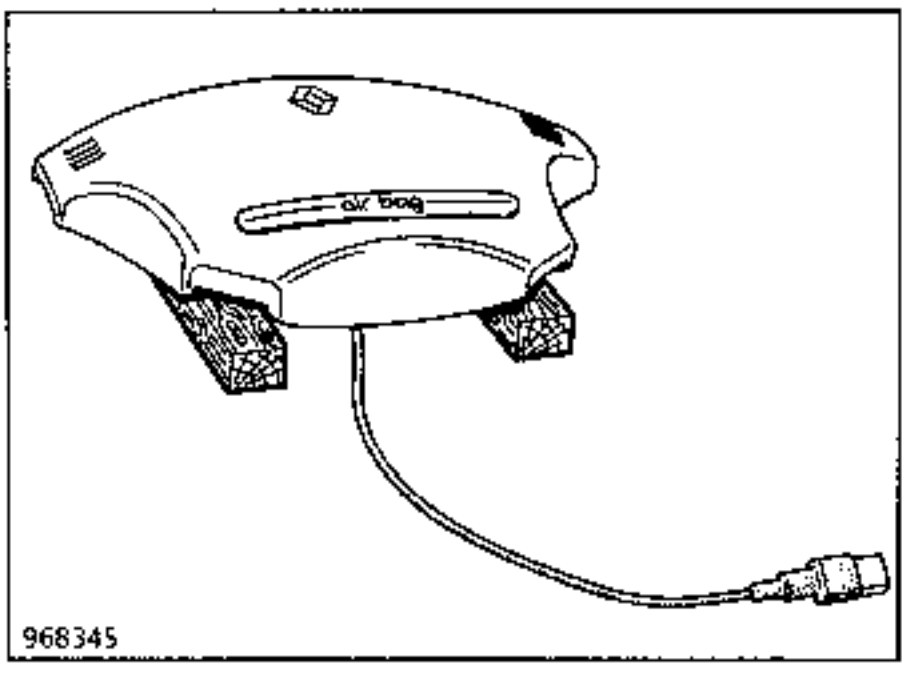
Proceed in the same manner as for the air bag (part removed from vehicle).

DRIVER'S AIRBAG

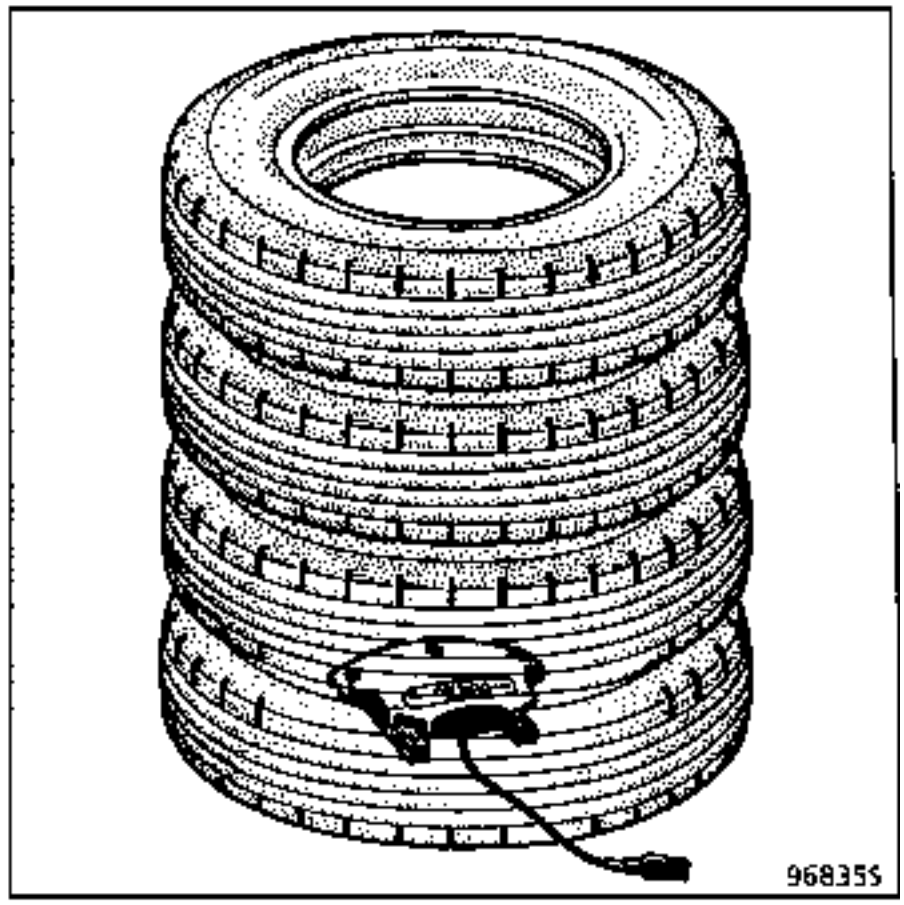
DESTRUCTION OF THE PART REMOVED FROM THE VEHICLE

Carry out the operation outside the workshop.

After connecting the correct wiring, set the air bag cushion on 2 blocks of wood to avoid damaging the connector against the ground.



Stack 4 old tyres over the assembly.



Unroll all the wire supplied with the tool so that you are at a sufficient distance from the vehicle (approximately 10 metres) when the unit is triggered and connect the tool wire to the air bag cushion connector.

Connect the two supply 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 (ignition unit faulty), return the old part in the packaging from the new replacement part to your local After Sales Head Office (for UK, send to Technical Services Department, Swindon).

PASSENGER AIR BAG

DESTRUCTION OF THE PART REMOVED FROM THE VEHICLE

Proceed in the same manner as for the driver's air bag (part removed), destroying each of the pyrotechnic gas generators in turn.

FAULT-FINDING - INTRODUCTION

CONDITIONS FOR PERFORMING CHECKS SPECIFIED IN THESE FAULT-FINDING INSTRUCTIONS

The checks specified in these fault-finding instructions should only be applied when the fault bargraph is illuminated, indicating that the fault is present on the vehicle at the moment when the check is made. The computer is only changed if a computer fault is indicated and the bargraph is either illuminated or flashing.

If the fault is only memorised and not present, the bargraph flashes and performing the checks specified in the fault-finding instructions will not allow the source of the fault to be identified. In this instance, only the wiring and connectors of the component indicated as being faulty should be checked. (It is possible to select the wiring concerned in fault-finding mode to try to obtain illumination of the bargraph.)

ESSENTIAL TOOLING FOR WORKING ON AIR BAG AND SEAT BELT PRETENSIONER SYSTEMS

- XR25 (with cassette No. 15 or later edition).
- XRBAG, update no. 3 (with the new measuring cable and adapters, as well as the 30-way adapter for work on the computer connector).

REMINDERS

Never measure the air bag and pretensioner trigger lines with any equipment except the XRBAG.

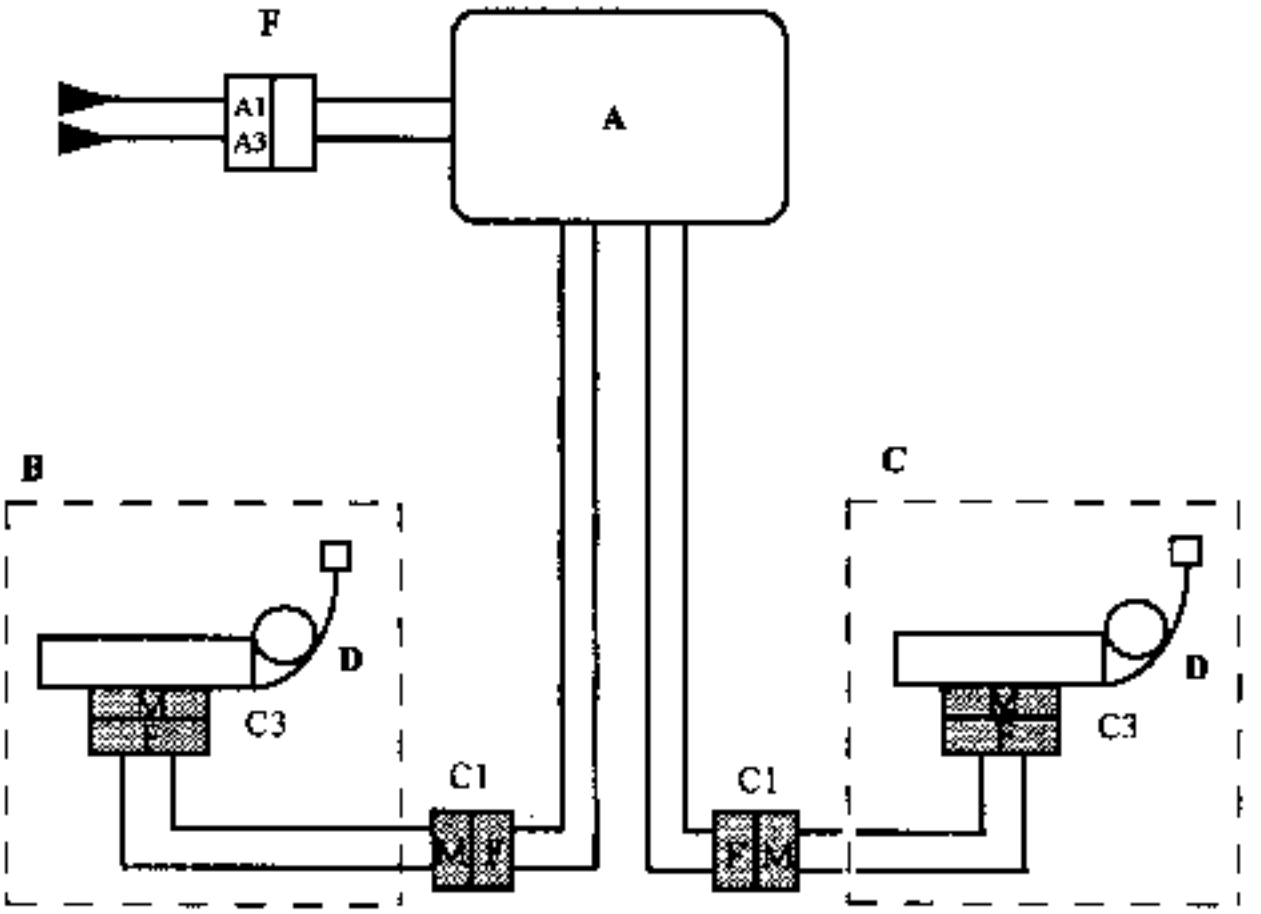
Before using a dummy ignition module, make sure its resistance is between 1.8 and 2.5 Ω.

The XR25 can only be used for fault-finding on computers which incorporate the air bag function . The XRBAG must be used to check computers which operate pretensioners only, performing the checks described in the fault-finding instructions.

Switch the ignition off and then on again to extinguish the indicator light after erasing the fault memory using command G0**.

FAULT FINDING - XRBAG FICHE

Pretensioner only (Twingo and Clio)



DI8820

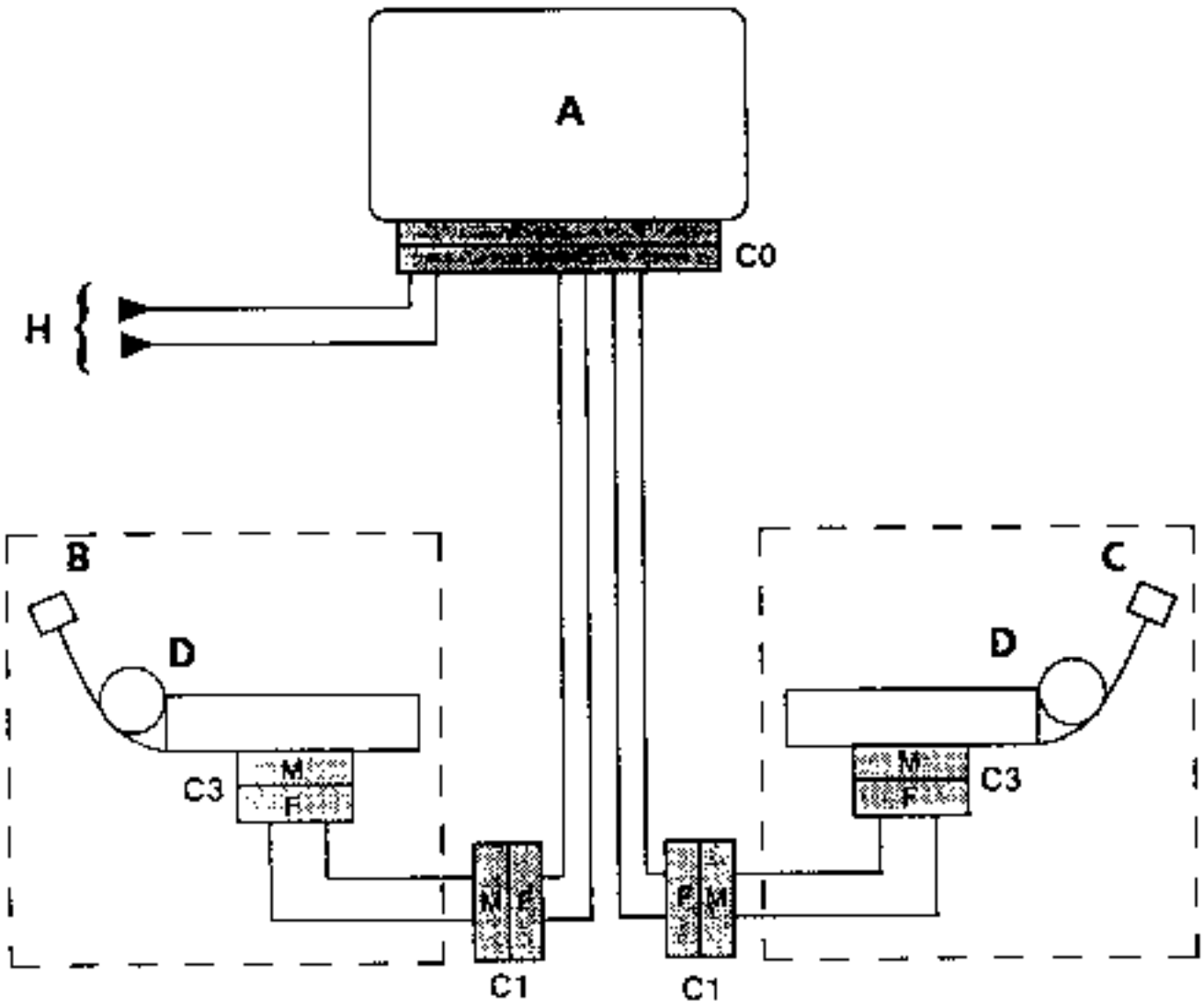
A Self-contained air bag computer
B Driver's seat
C Passenger seat
D Pretensioners
F Sigma 6-way connector
A1 − 12 V
A3 Earth

PRETENSIONERS	
Measuring point	Correct value
C1 and C3	1.6 to 4.6 Ω

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

FAULT-FINDING - XRBAG FICHE

Pretensioner only (except Twingo and Clio)



Dt8811.1

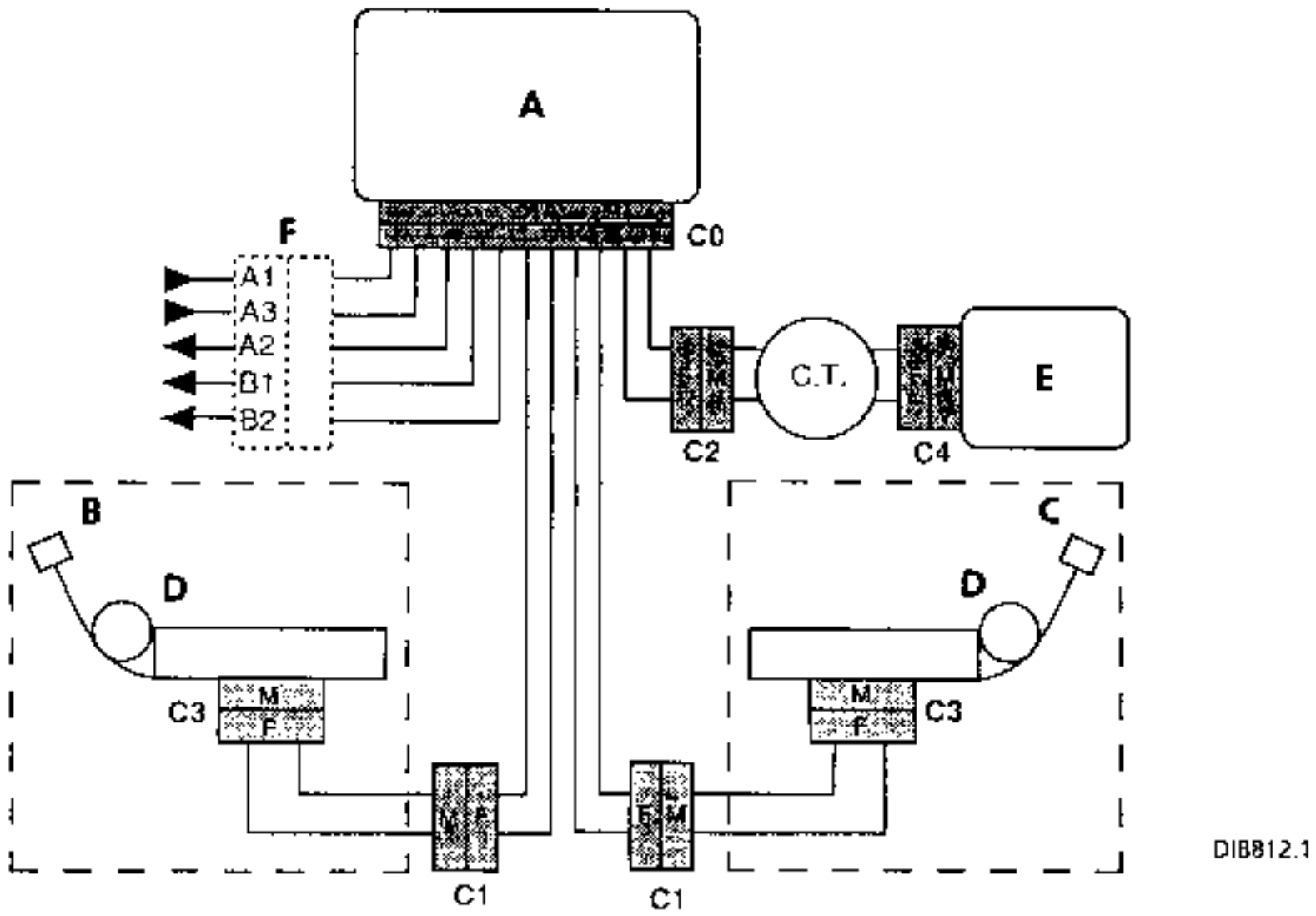
A Self-contained computer
B Driver's seat
C Passenger seat
D Pretensioners
H { − 12 V
Earth

PRETENSIONERS	
Measuring point	Correct value
C0, C1 and C3	1.6 to 4.6 Ω

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

FAULT-FINDING - XRBAG FICHE

Pretensioner and driver's air bag (except Extra)



A	Central computer
B	Driver's seat
C	Passenger seat
D	Pretensioners
E	Driver's air bag ignition module
F	Sigma 6-way connector (Twingo and Clio)

CT	Rotary switch
A1	+ 12 Volts
A3	Earth
A2	Indicator light
B1, B2	Diagnostics socket

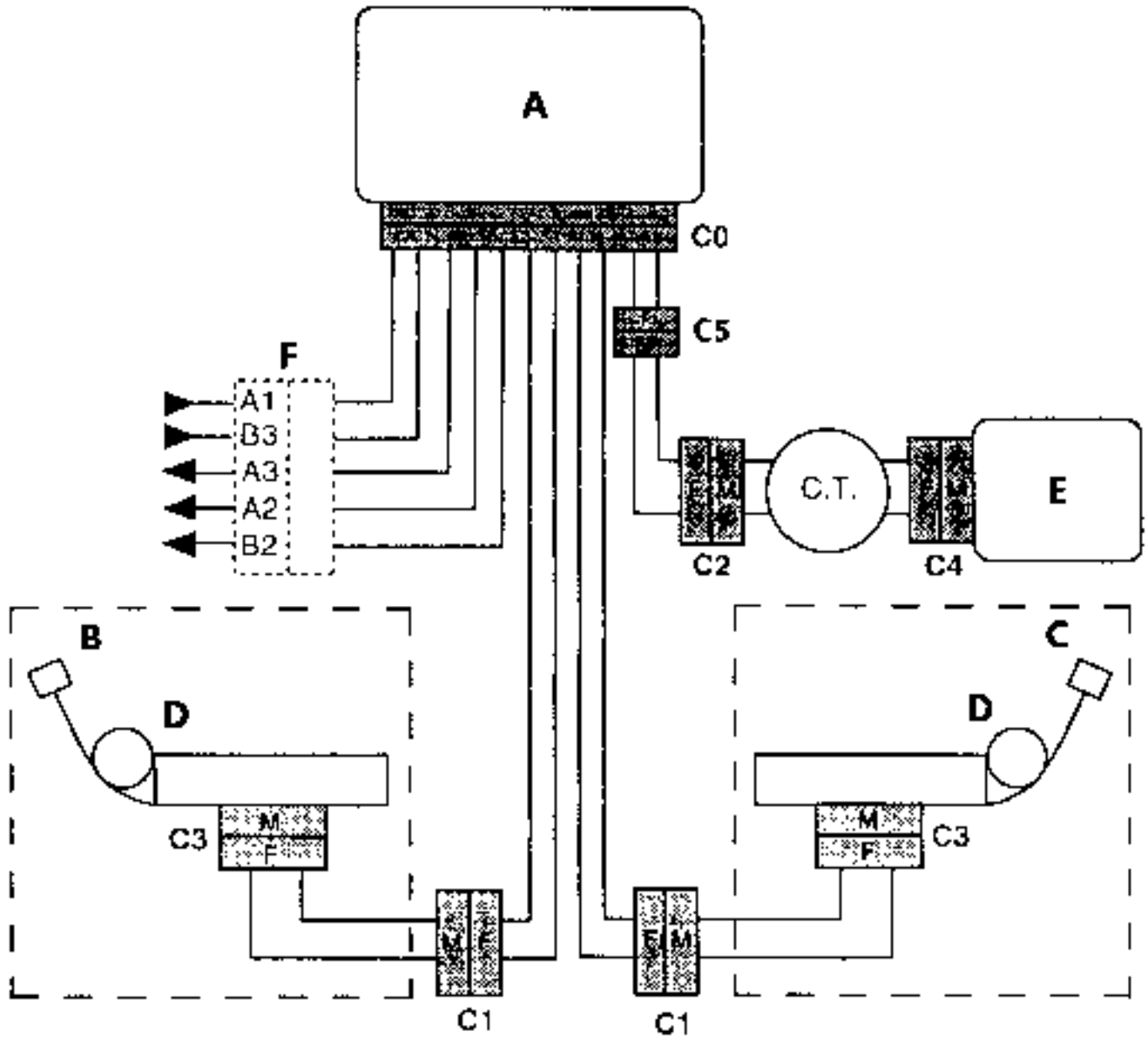
AIR BAG	
Measuring point	Correct value
C0, C2 and C4	2 to 9.4 Ω

PRETENSIONERS	
Measuring point	Correct value
C0, C1 and C3	1.6 to 4.6 Ω

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

FAULT-FINDING - XRBAG FICHE

Pretensioner and driver's air bag (Extra)



DI8812.2

A Central computer
B Driver's seat
C Passenger seat
D Pretensioners
E Driver's air bag ignition module
F White Sigma 6-way connector located to the left of the fuse box

CT Rotary switch
A1 + 12 Volts after ignition
B3 Earth
A3 Indicator light
A2, B2 } Diagnostics socket

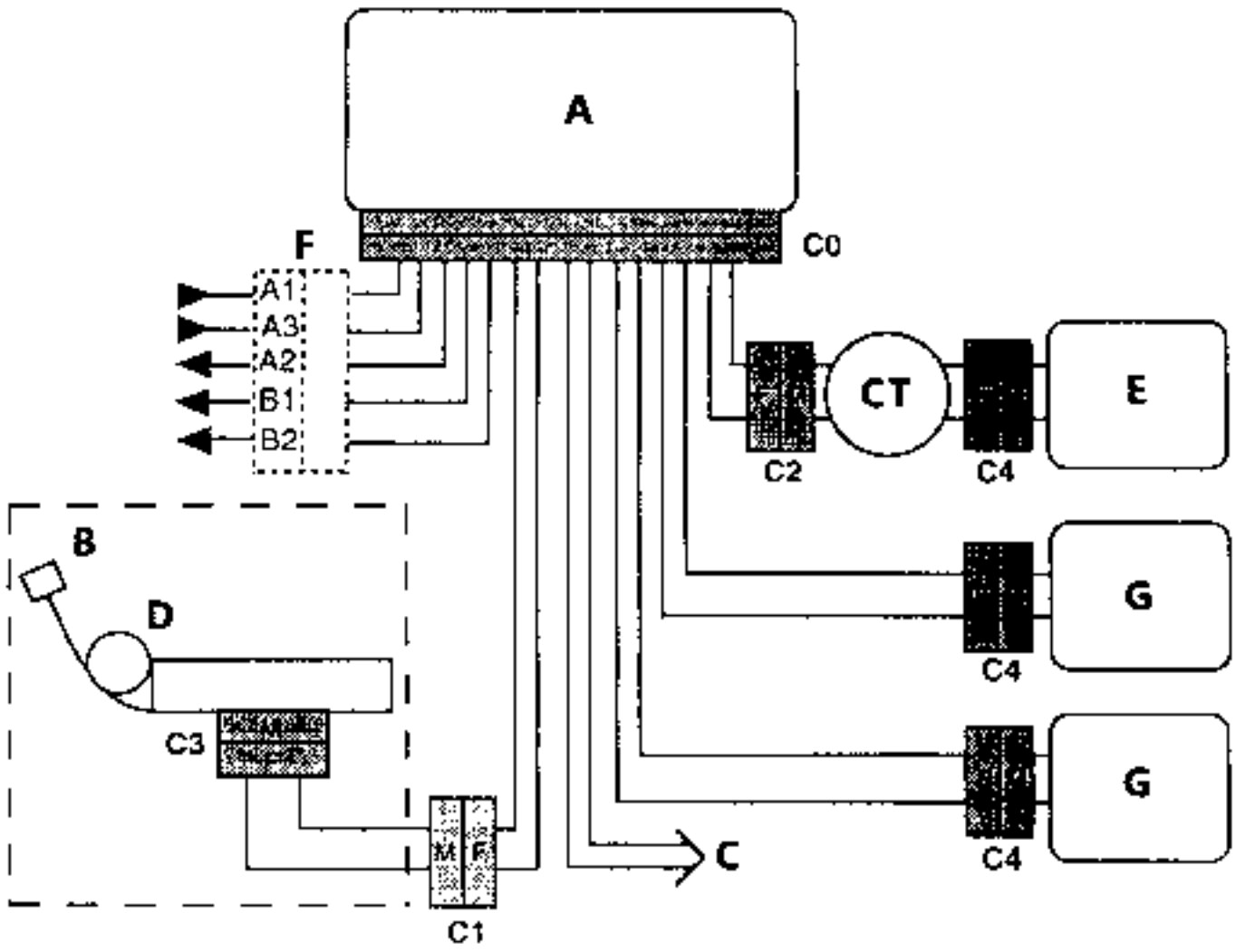
AIR BAG	
Measuring point	Correct value
C0, C2, C4 and C5	2 to 9,4 Ω

PRETENSIONERS	
Measuring point	Correct value
C0, C1 and C3	1.6 to 4.6 Ω

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

FAULT-FINDING - XRBAG FICHE

Driver's and passenger's air bag and pretensioner



DI8813.1

- **A** Central computer
- **B** Driver's seat
- **C** Passenger seat
- **D** Pretensioners
- **E** Driver's air bag ignition module
- **F** Sigma 6-way connector (Clio)
- **G** Passenger's air bag ignition unit
- **CT** Rotary switch
- **A1** – 12 Volts
- **A3** Earth
- **A2** Indicator light
- **B1**, **B2** Diagnostics socket

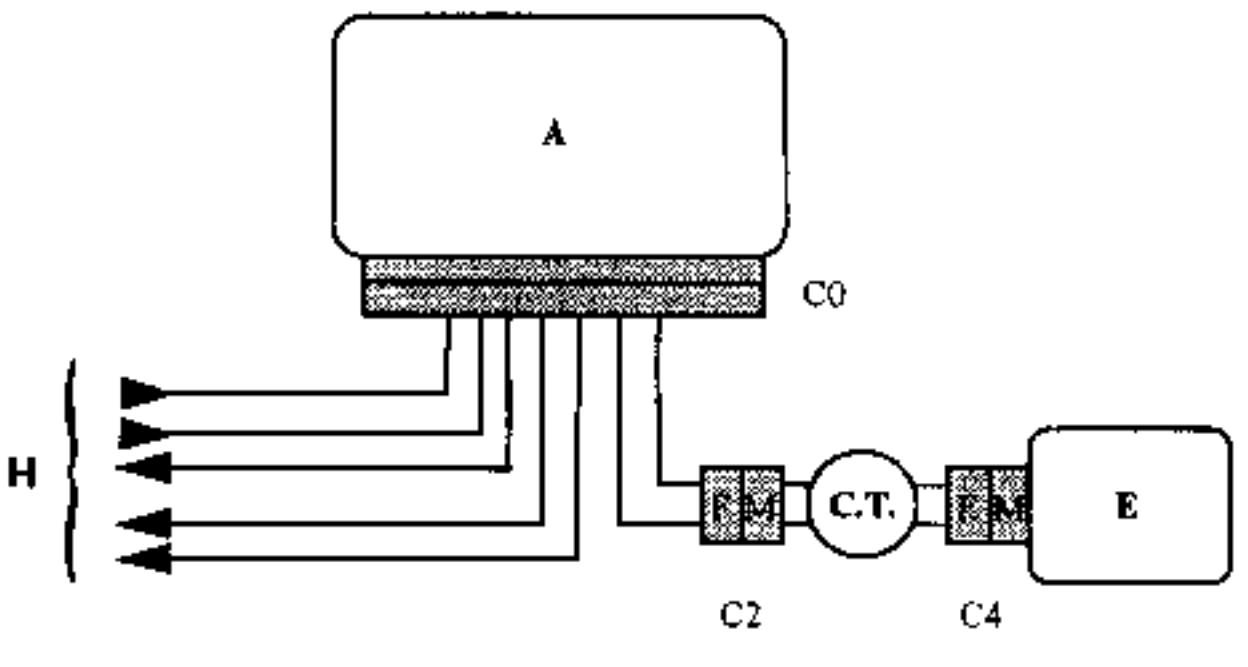
	AIR BAG	
	Measuring point	Correct value
Driver	C0, C2 and C4	2 to 9,4 Ω
Passenger	C0 and C4	1.6 to 4.6 Ω

PRETENSIONERS	
Measuring point	Correct value
C0, C1 and C3	1.6 to 4.6 Ω

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

FAULT-FINDING - XRBAG FICHE

Driver's air bag only (Trafic)



DI8821

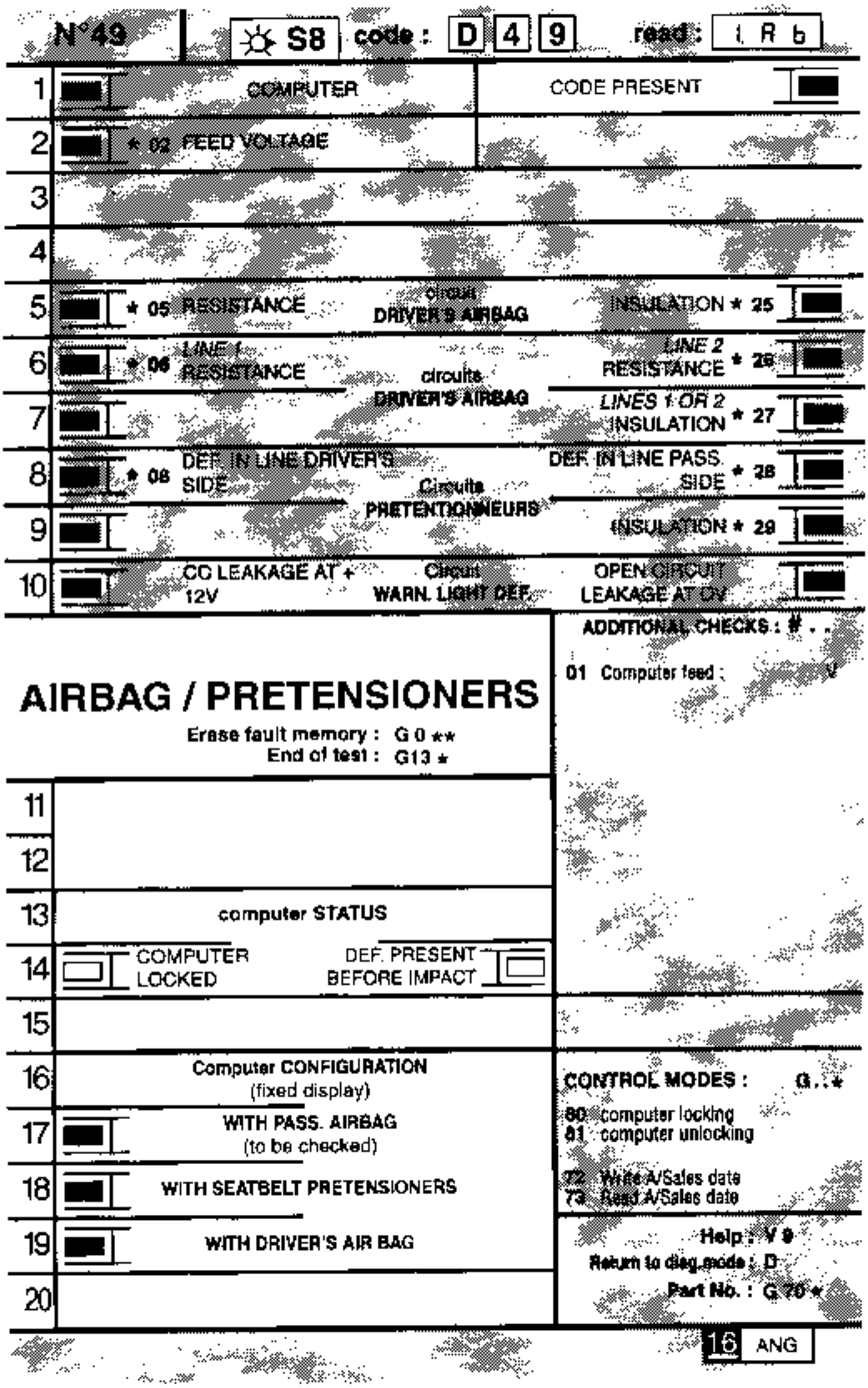
A Central computer
E Driver's air bag ignition module
CT Rotary switch

H
- + 12 Volts
- Earth
- Indicator light
- Diagnostics socket

AIR BAG	
Measuring point	Correct value
C0, C2 and C4	2 to 9.4 Ω

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

FAULT FINDING - XR25 FICHE



FI21649

FAULT FINDING - XR25 FICHE

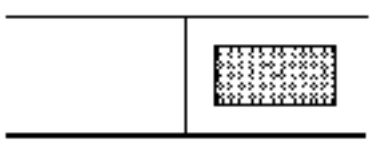
INTERPRETATION OF BARGRAPHS

FAULTS (always on a coloured background)

If illuminated there is a fault in the product being diagnosed - the associated text defines the fault.
This bargraph may be:

- Illuminated : fault present.
- Flashing : fault memorised.
- Extinguished : fault absent or not diagnosed.

STATUS (always on a white background)



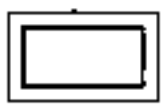
Bargraph always situated at top right-hand side.
Illuminates when dialogue with the product computer has been established.
If it remains extinguished :

- the code does not exist,
- there is fault in the test kit, the computer or the XR25/computer connection.

The representation of the following bargraphs indicates their initial status :
Initial status : (ignition on, engine not running, without operator intervention).

or

Indefinite



Extinguished

Illuminated if the function or condition specified on the fiche is met.

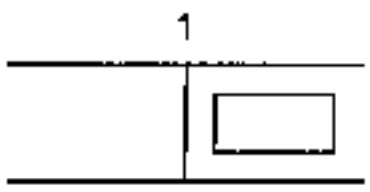
Illuminated

Extinguished if the function or condition specified on the fiche is not met.

ADDITIONAL INFORMATION

Some bargraphs are marked with * . The command *.., when the bargraph is illuminated, will display additional information on the type of fault of condition present.

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Right-hand bargraph 1 extinguished Fiche n° 49

Code present

INSTRUCTIONS

XR25 fault-finding cannot be used on computers which only control seat belt pretensioners. (Check must be made using the XRBAG.)

Make sure the fault is not with the XR25 by trying to communicate with a computer on another vehicle.
Check that the ISO interface is set to S8, that you are using the latest version of the XR25 cassette and the correct access code.
Check the battery voltage and carry out the work required to obtain the correct voltage (10.5 volts < U battery < 16 volts.

Check that the airbag fuse is in position and in good condition.
Check the computer connection and that the connector is properly inserted.
Check the computer is correctly supplied:

- Disconnect the air bag computer and fit the 30-way XRBAG connector.
- Check and make sure + after ignition is present between the terminals marked earth and + after ignition.

Check that the diagnostic socket is correctly supplied:

- + before ignition at track 6 (track 16 on the new 16-way socket).
- Earth at track 2 (at track 5 on the new 16-way socket).

Check the continuity and insulation of the diagnostic socket/air bag computer connecting lines :

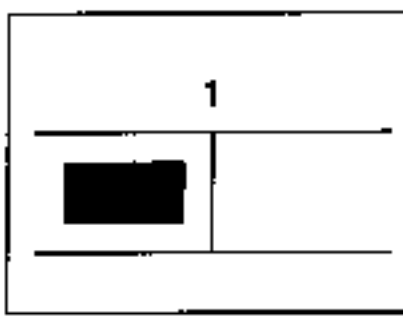
- Between the terminal marked L and track 10 of the diagnostic socket (track 15 on the 16-way socket).
- Between the terminal marked K and track 11 of the diagnostic socket (track 7 on the 16-way socket).

If a dialogue has still not been established after these various checks, change the air bag computer. (Refer to the "Help" section for this operation.)

AFTER REPAIR

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

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Left-hand bargraph 1 illuminated or flashing Fiche n° 49

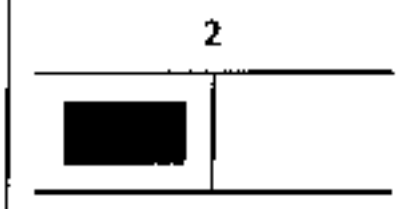
Computer

INSTRUCTIONS	None

Change the air bag computer. (Refer to the "Help" section for this operation.)

AFTER REPAIR	None

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Left-hand bargraph 2 illuminated

Fiche n° 49

Supply voltage

XR25 : *02 : 1.dEF : Voltage too low
2.dEF : Voltage too high
3.dEF : Too many micro-cuts
dEF : Collection of faults 1.dEF/2.dEF/3.dEF

INSTRUCTIONS	Use the 30-way XRBAG adapter when working on the computer connector.

1.dEF - 2.dEF	INSTRUCTIONS	None

Carry out the work required to obtain a correct computer supply voltage:
10.5 volts ± 0.1 < voltage correct < 16 volts ± 0.1.
- Checking battery charge.
- Checking charging circuit.
- Checking tightening and condition of battery terminals.
- Checking computer earth.

3.dEF	INSTRUCTIONS	None

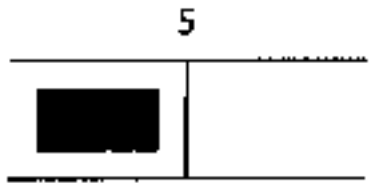
If there is a micro-cut fault, check the computer supply lines:
- Condition of computer connections (+ of engine - dashboard connection on Megane).
- Condition of computer earth (track 9 of 30-way connector)
- Condition/position of fuse.
- Condition and tightening of battery terminals.

dEF	INSTRUCTIONS	None

The ***dEF*** display on the XR25 indicates that a minimum of 2 of the 3 faults indicated by the ***1.dEF***, ***2.dEF*** and ***3.dEF*** displays are memorised. (Bargraph flashing.)
Operations to perform:
- Check battery charge.
- Check charging circuit.
- Check tightening and condition of battery terminals.
- Condition of computer connections (− of engine - dashboard connection on Megane).
- Condition of computer earth.
- Condition/position of fuse.

AFTER REPAIR	Erase the computer memory using command G0**.

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Left-hand bargraph 5 illuminated Fiche n° 49

Driver's air bag line resistance

XR25 : *05 : CC : Short circuit
CO : Open circuit

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
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 check using the XR25.
Change the air bag if the fault has been memorised (positive fault indicated).

With the ignition off, disconnect and then reconnect the connector of the rotary switch under the steering wheel.
If left-hand bargraph 5 flashes, work on the connectors is required.

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

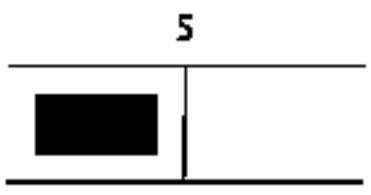
Reconnect the rotary switch under the steering wheel, disconnect the computer connector and fit the 30-way adapter.
The XRBAG must be used to measure the resistance on the adapter wire marked B.
If the value obtained is not correct, check the connections on the 30-way connector (tracks 10 and 11) and change the wiring, if necessary.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer. (Refer to the "Help" section for this operation.)
Reconnect the driver's air bag ignition module and resecure the boss to the steering wheel.

AFTER REPAIR

Erase the computer memory using command G0 and then switch off the ignition. Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.).
If an air bag has been changed, detonate the old one (tool Ele. 1287).**

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Left-hand bargraph 5 illuminated Fiche n° 49

Driver's air bag line resistance

XR25 : *05 : CC : Short circuit
CO : Open circuit

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
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 check using the XR25.
Change the air bag if the fault has been memorised (positive fault indicated).

With the ignition off, disconnect and then reconnect connector of the rotary switch under steering wheel.
If left-hand bargraph 5 flashes, work on the connectors is required.

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

Reconnect the connector at point C2 and use the XRBAG to measure the resistance at point C5 on the driver's air bag circuit (located to the left of the fuse box).
If the value obtained is not correct, change the wiring between points C5 and C2.

Reconnect the connector at point C5, disconnect the computer connector and fit the 30-way adapter.
The XRBAG must be used to measure the resistance on the adapter wire marked B.
If the value obtained is not correct, check the connections on the 30-way connector (tracks 10 and 11) and change the wire, if necessary.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer. (Refer to the "Help" section for this operation.)
Reconnect the driver's air bag ignition module and resecure the boss to the steering wheel.

AFTER REPAIR

Erase the computer memory using command G0 and then switch off the ignition. Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If an air bag has been changed, detonate the old one (tool Ele. 1287).**

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

Right-hand bargraph 5 illuminated

Fiche n° 49

Driver's air bag line insulation

XR25 : *25 : CC.1 : Short circuit to12 volts
CC.0 : Short circuit to earth

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
Switch off the ignition and remove the two steering wheel boss mounting bolts.
Check the condition of the trigger wire.

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

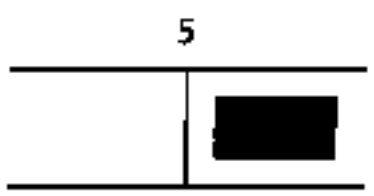
Reconnect the rotary switch under the steering wheel, disconnect the computer connector and fit the 30-way adapter.
The XRBAG must be used for insulation measurement appropriate for the type of fault on the adapter wire marked B.
If the value obtained is not correct, check the connections on the 30-way connector (tracks 10 and 11) and change the wiring, if necessary.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer. (Refer to the "Help" section for this operation.)
Reconnect the driver's air bag ignition module and resecure the boss to the steering wheel.

AFTER REPAIR

Erase the computer memory using command G0 and then switch off the ignition. Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If an air bag has been changed, detonate the old one (tool Ele. 1287).**

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Right-hand bargraph 5 illuminated Fiche n° 49

Driver's air bag line insulation

XR25 : *25 : CC.1 : Short circuit to 12 volts
CC.0 : Short circuit to earth

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
Switch off the ignition and remove the two steering wheel boss mounting bolts.
Check the condition of the trigger wire.

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

Reconnect the connector at point C2 and use the XRBAG tool to measure the insulation appropriate to the type of fault at point C5 of the driver's air bag circuit (located to the left of the fuse box).
If the value obtained is not correct, change the wiring between points C5 and C2.

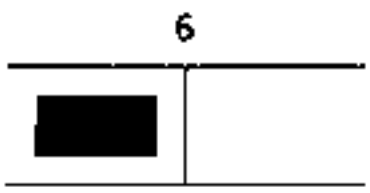
Reconnect the rotary switch under the steering wheel, disconnect the computer connector and fit the 30-way adapter.
The XRBAG must be used for insulation measurement appropriate for the type of fault on the adapter wire marked B.
If the value obtained is not correct, check the connections on the 30-way connector (tracks 10 and 11) and change the wiring, if necessary.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer. (Refer to the "Help" section for this operation.)
Reconnect the driver's air bag ignition module and resecure the boss to the steering wheel.

AFTER REPAIR

Erase the computer memory using command G0** and then switch off the ignition.
Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If an air bag has been changed, detonate the old one (tool Ele. 1287).

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Left-hand bargraph 6 illuminated Fiche n° 49

Passenger air bag resistance - line 1

XR25 : *06 : CC : Short circuit
CO : Open circuit

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
Switch off the ignition, disconnect the computer connector and fit the 30-way adaptor.
Use the XRBAG to measure the resistance at the adapter wire marked C.
Is the value obtained correct?

YES

If the value obtained at adapter wire C is correct, check the condition of the connector at the computer.

NO

If the value obtained at adapter wire C is not correct, check the connections at the 30-way connector (tracks 6 and 7).

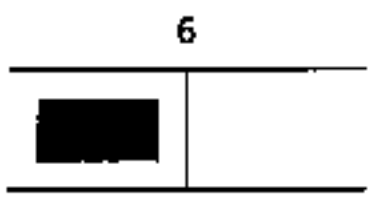
If the value is still incorrect, switch off the ignition and remove the dashboard to gain access to the passenger air bag wire. Disconnect the left-hand ignition module from the passenger air bag, connect a dummy ignition module to the ignition module connector and then repeat the XRBAG resistance measurement on the adapter wire marked C.
If the value obtained is correct, change the passenger air bag.
If the value obtained is still incorrect, change the air bag wiring.

Reconnect the computer and the passenger air bag ignition module. Then switch on the ignition again.
Carry out a test using the XR25.
If the XR25 still indicates that there is a fault on line 1 of the passenger air bag and the checks performed have not been able to detect a fault, change the air bag computer. (Refer to the "Help" section for this operation.)

AFTER REPAIR

Erase the computer memory using command G0** and then switch off the ignition.
Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If a passenger air bag has been changed, detonate the old one (tool Ele. 1287).

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPH



Left-hand bargraph 6 illuminated Fiche n° 49

Passenger air bag resistance line - 1

XR25 : *06 : CC : Short circuit
CO : Open circuit

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
Switch off the ignition and remove the items required to gain access to the passenger air bag module wiring (Megane: Remove top of dashboard; Laguna: Remove air bag module).
Check that the 2 ignition modules are correctly connected.

Disconnect passenger air bag module left-hand ignition module and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the XR25.
Change the passenger air bag module if the fault has been memorised (positive fault indicated).

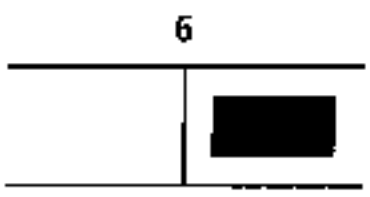
Disconnect the computer connector and fit the 30-way adapter.
The XRBAG must be used to measure resistance on the adapter wire marked C.
If the value obtained is not correct, check the connections on the 30-way connector (tracks 6 and 7) and change the wiring, if necessary.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer. (Refer to the "Help" section for this operation.)
Reconnect the passenger air bag ignition module.

AFTER REPAIR

Erase the computer memory using command G0 and then switch off the ignition. Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If a passenger air bag has been changed, detonate the old one (tool Ele. 1287).**

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Right-hand bargraph 6 illuminated Fiche n° 49

Passenger air bag resistance line - 2

XR25 : *26 : CC : Short circuit
CO : Open circuit

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system .

Lock the computer using XR25 command G80*.
Switch off the ignition, disconnect the computer connector and fit the 30-way adaptor.
The XRBAG must be used to measure resistance on the adapter wire marked A.
Is the value obtained correct?

YES

If the value obtained at adapter wire A is correct, check the condition of the connector at the computer.

NO

If the value obtained to adapter wire A is not correct, check the connections at the 30-way connector (tracks 13 and 14).

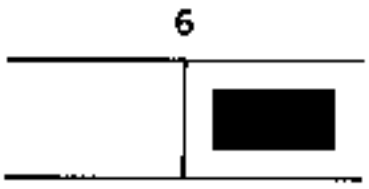
If the value is still incorrect, switch off the ignition and remove the dashboard to gain access to the passenger air bag wiring. Disconnect the right-hand ignition module from the passenger air bag module, connect a dummy ignition module to the ignition module connector and then repeat the XRBAG resistance measurement on the adapter wire marked A.
If the value obtained is correct, change the passenger air bag module.
If the value obtained is still incorrect, change the air bag wiring.

Reconnect the computer and the passenger air bag ignition module. Then switch on the ignition again.
Carry out a check using the XR 25.
If the XR25 still indicates that there is a fault on the passenger air bag line and the checks performed have not been able to detect a fault, change the air bag computer. (Refer to the "Help" section for this operation.)

AFTER REPAIR

Erase the computer memory using command G0** and then switch off the ignition.
Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If a passenger air bag has been changed, detonate the old one (tool Ele. 1287).

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPH



Right-hand bargraph 6 illuminated Fiche n° 49

Passenger air bag resistance line - 2

XR25 : *26 : CC : Short circuit
CO : open circuit

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
Switch off the ignition and remove the items required to gain access to the passenger air bag module wiring (Megane: Remove top of dashboard; Laguna: Remove airbag module).
Check that the 2 module ignition modules are correctly connected.

Disconnect the right-hand ignition module from the passenger air bag module and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and make a check using the XR25.
Change the passenger air bag module if the fault has been memorised (positive fault indicated).

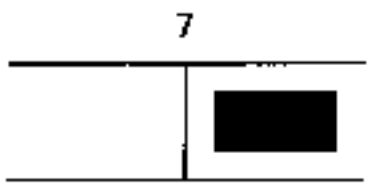
Disconnect the computer connector and fit the 30-way adapter.
The XRBAG must be used to measure resistance on the adapter wire marked A.
If the value obtained is not correct, check the connections on the 30-way connector (tracks 13 and 14) and change the wiring, if necessary.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer.
(Refer to the "Help" section for this operation.)
Reconnect the passenger air bag ignition module.

AFTER REPAIR

Erase the computer memory using command G0 and then switch off the ignition.
Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.**
If a passenger air bag has been changed, detonate the old one (tool Ele. 1287).

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Right-hand bargraph 7 illuminated Fiche n° 49

Passenger air bag insulation - lines 1 or 2

XR25 : *27 : CC.1 : Short circuit to12 volts
CC.0 : Short circuit to earth

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
Switch off the ignition, disconnect the computer connector and fit the 30-way adaptor.
The XRBAG must be used for insulation measurement appropriate for the type of fault on the adapter wires marked A and C.
Is the value obtained correct?

YES

If the values obtained for adapter wires A and C are correct, check the condition of the connector at the computer.

NO

If one of the values obtained is not correct for the adapter cables, check the connections for the 30-way connector (tracks 13/14 for wire A and 6/7 for wire C).

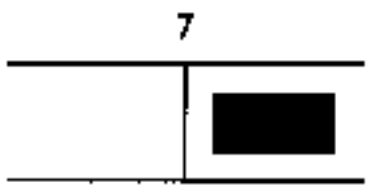
If the value is still incorrect, change the air bag wiring.

Reconnect the computer and the passenger air bag ignition module. Then switch on the ignition again.
Carry out a check using the XR 25.
If the XR25 still indicates that there is a fault on the passenger air bag line and the checks performed have not been able to detect a fault, change the air bag computer. (Refer to the "Help" section for this operation.)

AFTER REPAIR

Erase the computer memory using command G0 and then switch off the ignition. Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If a passenger air bag has been changed, detonate the old one (tool Ele. 1287).**

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Right-hand bargraph 7 illuminated Fiche n° 49

Insulation, passenger air bag - lines 1 or 2

XR25 : *27 : CC.1 : Short circuit to 12 volts
CC.0 : Short circuit to earth

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
Switch off the ignition and remove the items required to gain access to the passenger air bag module wiring (Megane: Remove top of dashboard; Laguna: Remove air bag module).
Check the condition of the 2 trigger wires.

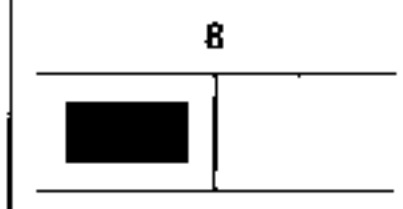
Disconnect the computer connector and fit the 30-way adapter.
The XRBAG must be used for insulation measurement appropriate for the type of fault on the adapter wires marked A and C.
If one of the values obtained is not correct, check the connections on the 30-way connector (tracks 13 and 14 for wire A and 6 /7 for wire C) and change the wiring, if necessary.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer. (Refer to the "Help" section for this operation.)
Reconnect the passenger air bag ignition modules.

AFTER REPAIR

Erase the computer memory using command G0** and then switch off the ignition.
Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If a passenger air bag has been changed, detonate the old one (tool Ele. 1287).

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Left-hand bargraph 8 illuminated

Fiche n° 49

Driver's pretensioner line resistance

XR25 : *08 : CC : Short circuit
CO : Open circuit

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
Switch off the ignition and check that the driver's pretensioner ignition module is correctly connected.

Disconnect driver's pretensioner ignition module and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and make a check using the XR25.
Change the driver's pretensioner if the fault has been memorised (positive fault indicated).

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, change the wiring between points C1 and C3 (seat wiring).

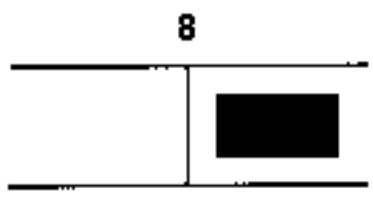
Disconnect the computer connector and fit the 30-way adapter.
The XRBAG must be used to measure resistance on the adapter wire marked E.
If the value obtained is not correct, check the connections on the 30-way connector (tracks 1 and 2) and change the wiring, if necessary.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer. (Refer to the "Help" section for this operation.)
Reconnect the driver's pretensioner ignition module.

AFTER REPAIR

Erase the computer memory using command G0** and then switch off the ignition.
Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If the pretensioner has been changed, detonate the old one (tool Ele. 1287).

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Right-hand bargraph 8 illuminated

Fiche n° 49

Passenger pretensioner line resistance

XR25 : *28 : CC : Short circuit
CO : Open circuit

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
Switch off the ignition and check that the passenger pretensioner ignition module is correctly connected.

Disconnect passenger pretensioner ignition module and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the XR25.
Replace the passenger pretensioner if the fault has been memorised (positive fault indicated).

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

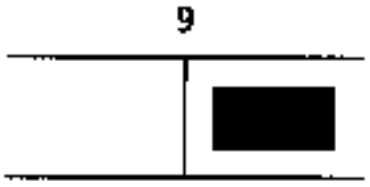
Disconnect the computer connector and fit the 30-way adapter.
The XRBAG must be used to measure resistance on the adapter wire marked D.
If the value obtained is not correct, check the connections on the 30-way connector (tracks 3 and 4) and change the wiring, if necessary.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer.
(Refer to the "Help"section for this operation.)
Reconnect the passenger pretensioner ignition module.

AFTER REPAIR

Erase the computer memory using command G0** and then switch off the ignition.
Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If the pretensioner has been changed, detonate the old one (tool Ele. 1287).

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Right-hand bargraph 9 illuminated

Fiche n° 49

Insulation of pretensioner lines

XR25 : *29 : CC.1 : Short circuit to 12 volts
CC.0 : Short circuit to earth

INSTRUCTIONS

Never use any piece of equipment except the XRBAG to measure the lines which trigger the system.

Lock the computer using XR25 command G80*.
Disconnect the driver's pretensioner ignition module and connect a dummy ignition module to the ignition module connectors.
Switch on the ignition and carry out a check using the XR25.
If the fault has been memorised (presence of positive fault indicated), check the condition of the seat wiring.
Change the driver's pretensioner if the wiring is not faulty.
Then carry out the same operations on the passenger pretensioner (if the fault is not on the driver's side).

The XRBAG must be used for insulation measurement appropriate for the type of fault at point C1 (seat connector) of the driver's pretensioner line.
If the value obtained is not correct, change the wiring between points C1 and C3 (seat wiring).
Then carry out the same measurement on the passenger pretensioner (if no fault on driver's side).

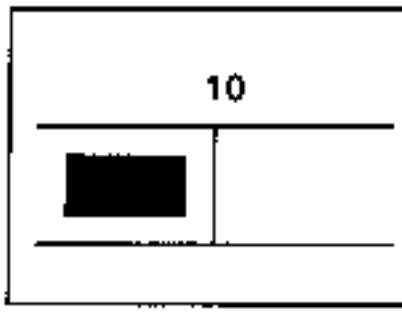
Disconnect the computer connector and fit the 30-way adapter.
The XRBAG must be used for insulation measurement appropriate for the type of fault on the adapter wires marked **D** (passenger) and **E** (driver).
If one of the values obtained is not correct, check the connections on the 30-way connector (tracks 3 and 4 for wire **D** and 1/2 for wire **E** and change the wiring, if necessary.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer. (Refer to the "Help" section for this operation.)
Reconnect the ignition modules for the seat belt pretensioners.

AFTER REPAIR

Erase the computer memory using command G0** and then switch off the ignition.
Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.
If the pretensioners(s) has/have been changed, detonate the old one(s) (tool Ele.

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Left-hand bargraph 10 illuminated Fiche n° 49

Short circuit or insulation to 12 volts warning light line

INSTRUCTIONS

Use the XRBAG 30-way adapter when performing any work on the computer connector.

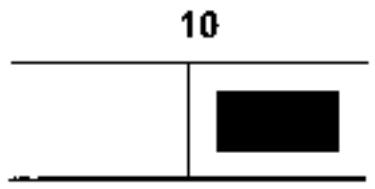
Lock the computer using XR25 command G80*.
Check the condition of the indicator light bulb.
Make sure insulation to 12 volts on the line between the indicator light and track 8 of the 30-track connector is correct.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer. (Refer to the "Help" section for this operation.)

AFTER REPAIR

Erase the computer memory using command G0** and then switch off the ignition. Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Right-hand bargraph 10 illuminated Fiche n° 49

Open circuit or insulation to earth on indicator light line

INSTRUCTIONS

Use the XRBAG 30-way adapter when performing any work on the computer connector.

Indicator light extinguished with + after ignition

INSTRUCTIONS

None

Lock the computer using XR25 command G80*.
Check the condition of the indicator light bulb.
Make sure the continuity of the line between the indicator light and track 8 of the 30-way connector is correct.
Make sure the indicator light is supplied with 12 volts.

If, after carrying out the checks, it has not been possible to identify a fault, disconnect the computer connector and fit the XRBAG 30-way adapter. Operate the XRBAG in the test mode for the instrument panel indicator light using the grey wire for the adapter.
If the indicator light can be illuminated by the XRBAG, change the air bag computer. (Refer to the "Help" section for this operation.)
If it is not possible to control the indicator light, repeat the checks described above.

Warning light illuminated with + after ignition

INSTRUCTIONS

None

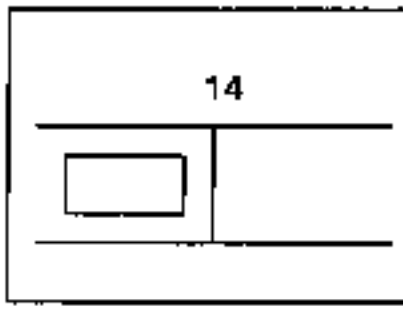
Lock the computer using XR25 command G80*.
Make sure the insulation to earth of the line between the indicator light and track 8 of the 30-way connector is correct.

If, after carrying out the checks, it has not been possible to identify a fault, change the air bag computer. (Refer to the "Help" section for this operation.)

AFTER REPAIR

Erase the computer memory using command G0 and then switch off the ignition. Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.**

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Left-hand bargraph 14 Fiche n° 49

Computer locked

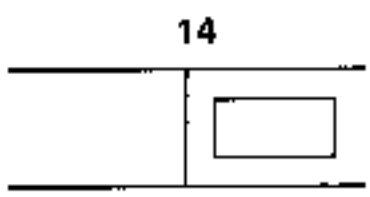
INSTRUCTIONS None

The locked condition of the computer can be displayed on left-hand bargraph 14.
When it is illuminated, all the trigger lines are disabled, preventing the air bags and seat belt pretensioners from being triggered.
Normally, this bargraph is illuminated in two situations:

- The computer is new (it is locked when it is sold).
- The computer locking control mode on the XR25 has been used when working on the vehicle (G80*).

AFTER REPAIR **Erase the computer memory using command G0** and then switch off the ignition. Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.**

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Right-hand bargraph 14

Fiche n° 49

Fault present before impact

INSTRUCTIONS

Refer to **NT 2685A** if the vehicle is a Scénic.

This bargraph is usually illuminated in the following cases:

An impact has been detected.

- A fault was stored in the computer memory prior to the impact.
- The stored fault was indicated by illumination of the fault indicator light prior to the impact.

Left-hand bargraph 14 can thus enable non-triggering of an air bag or a seat belt pretensioner to be justified.

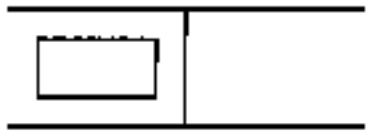
Inform the Techline if this bargraph is illuminated in other conditions (no fault, no impact...)

AFTER REPAIR

Erase the computer memory using command G0** and then switch off the ignition. Repeat the XR25 check and, if no fault is present, unlock the computer using command G81*.

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

17-18-19



Left-hand bargraphs 17, 18 and 19 Fiche n° 49

Computer configuration

INSTRUCTIONS None

The computer configuration can be displayed using left-hand bargraphs 17, 18 and 19 and it is thus possible to make sure that the computer is correct for the vehicle.

AFTER REPAIR **Erase the computer memory using command G0** and then switch off the ignition. Repeat the check using the XR25.**

FAULT FINDING - CHECKING SPECIFICATION

INSTRUCTIONS	Only check the specification after performing all the checks on the XR25.

Order of operations	Function to be checked	Action	Bargraph	Display and notes
1	XR25 connection	D49 (selector on S8)		1.Ab
2	Computer specification	#02		Twingo 0 Clio 1 Laguna 3 Safrane 4 Mégane 7 Trafic 16 Express 17
3	Computer configuration		17 / 18 / 19 	Make sure the computer configuration defined by these three bargraphs corresponds to the vehicle equipment.
4	Operation of indicator light - check computer initialisation	Switch on ignition		Indicator light illuminates for 3 seconds when the ignition is switched on. (Consult fault-finding if it remains illuminated or does not illuminate.)

FAULT FINDING - CHECKING PRETENSIONERS

Checking seat belt pretensioner circuits on the computer without 30-way connector

INSTRUCTIONS	None

With the ignition off, disconnect the connector supplying power to the pretensioner computer.
Use the XRBAG to check the computer supply voltage.
Carry out the work needed to ensure that the voltage is between 10.5 volts and 16 volts between tracks A1 and A3 of the connector (ignition on).

Switch off the ignition, check continuity is correct between track A3 of the connector supplying power and earth and then reconnect the computer.
The XRBAG must be used to perform resistance measurements and leakage tests to positive and earth at points C1 of the wiring on both pretensioners.
If the values obtained for both circuits are correct, there is not a fault on the circuit for the seat belt pretensioners.
If one of the values obtained is not correct, the XRBAG must be used to perform resistance measurements and leakage tests to positive and earth at point C3 of the circuit for the faulty pretensioner.

- If all the values obtained at point C3 are correct, change the wiring between points C1 and C3 (seat wiring) and then repeat the test at point C1 to check the repair.
- If one of the values at point C3 is incorrect, change the pretensioner tested and detonate it using the correct procedure. Carry out the same test on the other pretensioner, starting at point C1.

AFTER REPAIR	**If the pretensioner(s) has/have been changed, detonate the old one(s) (tool Ele. 1287).**

FAULT FINDING - CHECKING PRETENSIONERS

Checking seat belt pretensioner circuits
on computer with 30-way connector without airbag function

INSTRUCTIONS	None

With the ignition off, disconnect the computer connector and connect up the XR BAG 30-way adaptor.
Switch on the ignition and check the computer supply voltage between the terminals marked earth and positive after ignition.
Carry out any work required to ensure that the voltage is between 10.5 volts and 16 volts.

The XRBAG must be used to perform resistance measurements and leakage tests to positive and earth on the adapter wires marked D and E.
If the values obtained for both circuits are correct, there is not a fault on the circuit for the seat belt pretensioners. Reconnect the computer.
If one of the values obtained is not correct, check the connections on the 30-way connector (tracks 3/4 for wire D and 1/2 for wire E) and change the wiring, if necessary.

The XRBAG must be used to perform resistance measurements and leakage tests to positive and earth at point C1 of the faulty pretensioner (wire D: passenger and E: driver).
If all the values obtained are correct, change the wiring between points C0 and C1 and then repeat the test with the adapter to check that the repair is correct.

The XRBAG must be used to perform resistance measurements and leakage tests to positive and earth at point C3 (pretensioner ignition module).
If all the values obtained are correct, change the wiring between points C1 and C3 (seat wiring) and then repeat the test with the adapter to check that the repair is correct.
If one of the values at C3 is not correct, change the seat belt pretensioner and then repeat the test with the adapter to check that the repair is correct.

AFTER REPAIR	If the pretensioner(s) has/have been changed, detonate the old one(s) (tool Ele. 1287).

FAULT FINDING - HELP

CHANGING THE AIR BAG COMPUTER

Air bag computers are supplied locked to prevent accidental triggering. (All trigger lines are disabled.) This mode is indicated by the illumination of the instrument panel indicator light.

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

- Make sure the ignition is switched off.
- Replace the computer.
- Use the XR25 to perform checks.
- Only unlock the computer using command G81* if the XR25 does not detect any faults.