

AIR BAG - NEW FEATURES

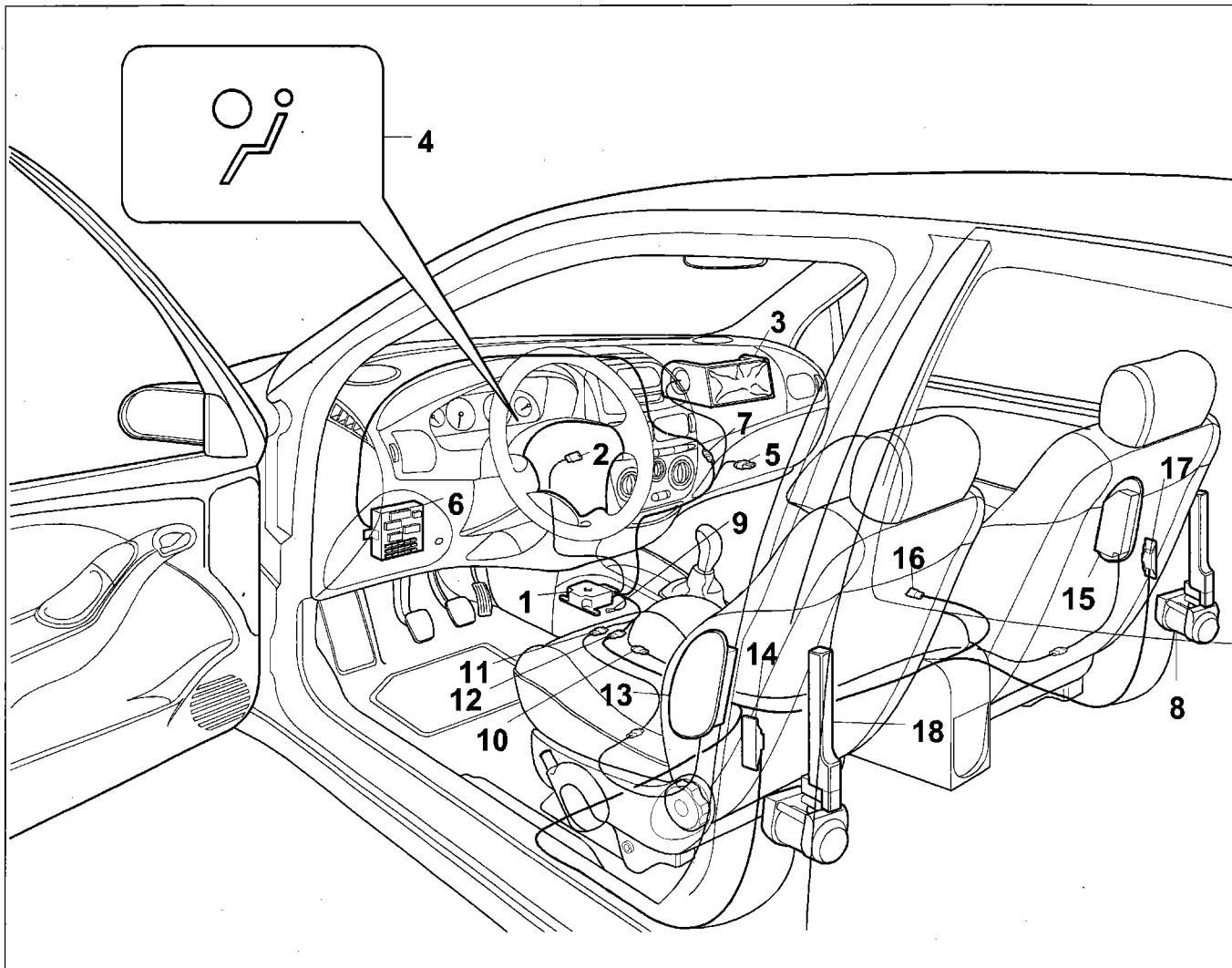
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INTRODUCTION

The 1999 Fiat Marea - Marea Weekend range is fitted with a new Air Bag system. This differs from the current system in the addition of a passenger presence sensor PPD on the front seat. This allows the passenger side air bag and pretensioner to go off only if the seat is occupied.

The standard system may also optionally be fitted with a side impact prevention system known as a side bag.

Location of air bag and side bag system components on the car.



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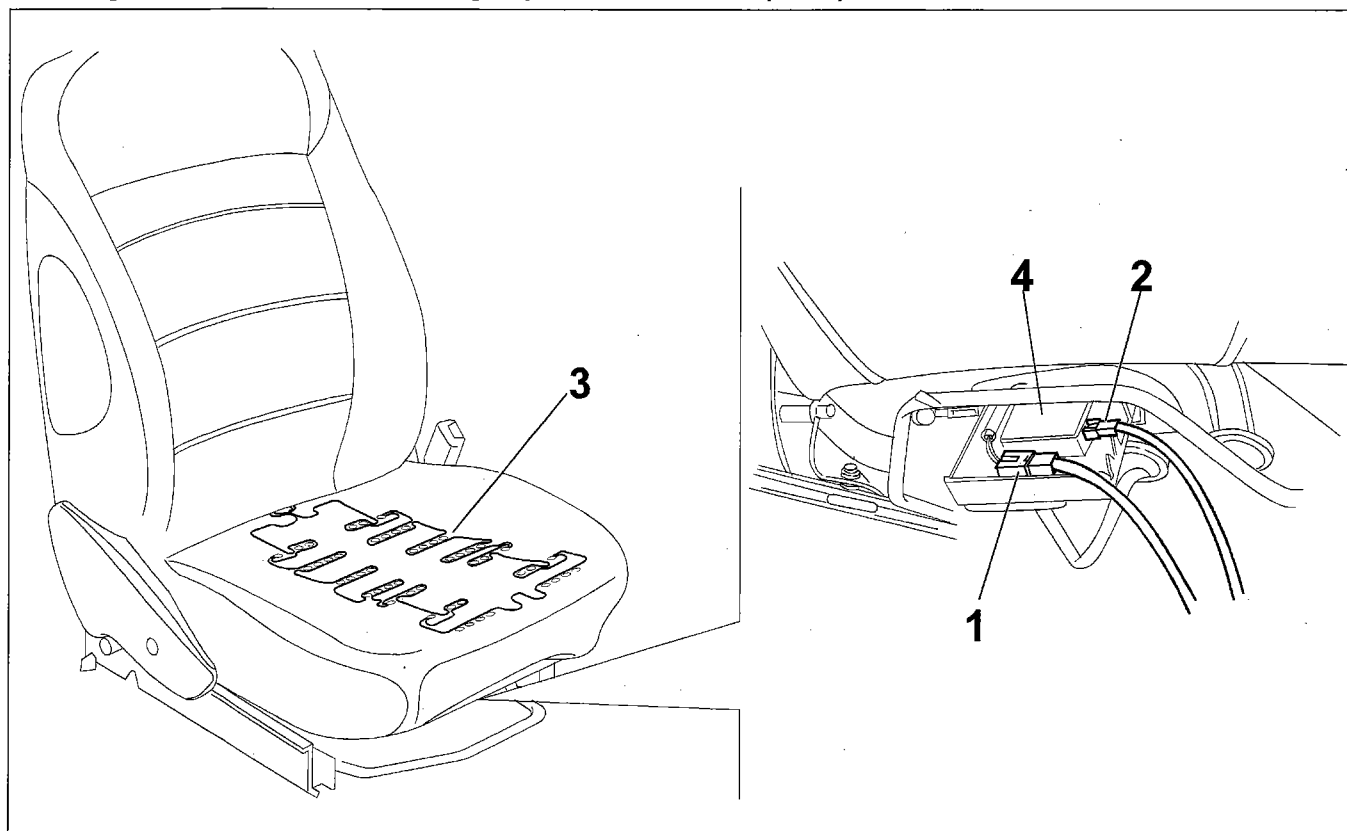
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|--|---|
| 1. Air bag control unit | 11. Driver air bag - side bag control unit junction |
| 2. Driver air bag module | 12. Air bag - PPD sensor control unit junction |
| 3. Passenger air bag module | 13. Driver side bag module |
| 4. Air bag system failure warning light | 14. Driver side impact recognition sensor |
| 5. Tester connection | 15. Passenger side bag module |
| 6. Junction unit | 16. Passenger presence sensor (PPD) |
| 7. Air bag control unit supply junction | 17. Passenger side impact recognition sensor |
| 8. Passenger side pretensioner | 18. Driver side mechanical pretensioner |
| 9. Air bag system earth | |
| 10. Passenger air bag - side bag control unit junction | |

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PASSENGER PRESENCE SENSOR PPD

The 1999 range air bag system now comes with a passenger presence sensor that prevents the front passenger air bag and passenger side bag (where fitted) going off if a passenger is not present.

Passenger side seat with passenger presence sensor (PPD)



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1. Side bag control connector
2. Passenger presence sensor connector
3. Passenger presence sensor PPD
4. Electronic interface device

The Passenger Presence Sensor identifies the presence of a weight on the seat cushion and transmits this information to the electronic control unit that manages the air bag system. The ECU, which also controls the pretensioner, is connected electrically to the system via a cable (with a yellow sheath). The cable connector is located in the lower part of the seat anchored to the bottom on the right side.

If no passenger is present, the control unit disables the front and side bags (where fitted) on the passenger side.

This solution allows a significant reduction in repair costs in the case of accidents where it is not necessary to activate the restraint and protection systems on the passenger side because no occupant is present.

An electronic device located in the lower part of the seat acts as an interface between signals from the control unit and signals from the passenger presence sensor (PPD).

The sensor consists of a fine, flexible plastic plate that is adhesive on the side in contact with the seat padding and contains an electrical circuit that controls its operation. The plate covers the entire seat cushion area except the two sides. It fits between the padding and trim without altering the functional, aesthetic and ergonomic properties of the seat.

A passenger's presence on the seat is therefore detected even if the passenger sits incorrectly and regardless of whether the seat belt is worn or not.

The sensor is also designed to be compatible with a seat heater (available as an option). If a heater is present, the sensor is located underneath it.

The system is adjusted to detect a weight of at least 12 kg under all service conditions (from -35 to +70°C). For lower weights, the response depends on service conditions (temperature, shape and position of the weight, trim type, presence or absence of a heater).

The passenger presence sensor and its branch of wiring are monitored continually during car use. The diagnostic function checks for short-circuits or open circuits.

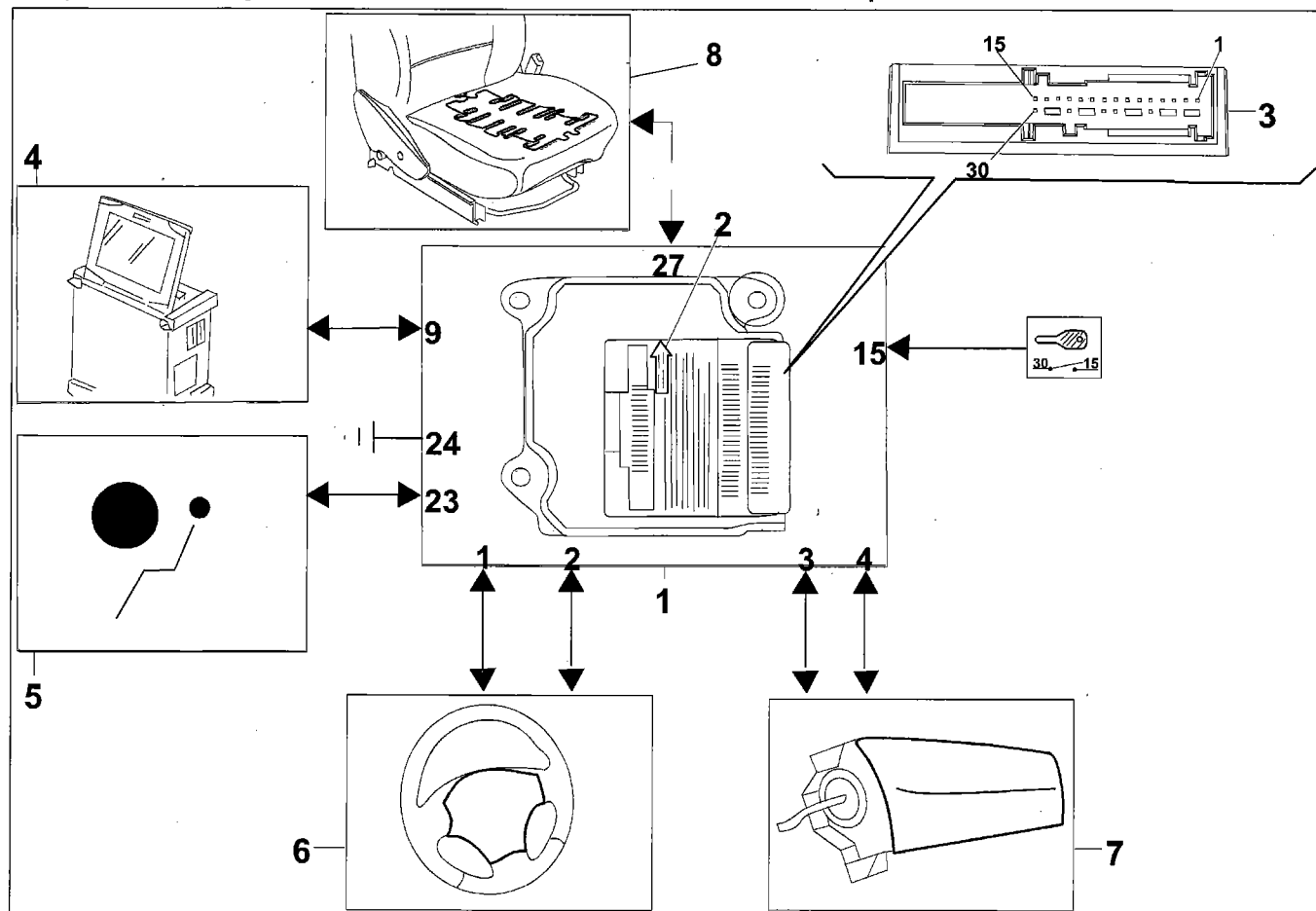
In the case of sensor malfunction, sensor readings are ignored and the system behaves in the same way as a conventional system, maintaining the passenger front and side bags active. The red failure warning light stays on.

ELECTRONIC CONTROL UNIT FOR AIR BAG SYSTEM AND PASSENGER PRESENCE SENSOR (PPD)

The air bag system fitted to the 1999 range Fiat Marea-Marea Weekend comes with a new electronic control that differs from the previous system in the addition of a connection to the passenger presence sensor and the integration of control functions.

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Diagram showing connections between control unit and components



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- | | |
|--|------------------------------------|
| 1. Electronic control unit | 6. Driver air bag module |
| 2. Arrow showing control unit installation direction | 7. Passenger air bag module |
| 3. 30 pin connection (see PIN OUT) | 8. Passenger presence sensor (PPD) |
| 4. Tester | |
| 5. System failure warning light | |
| Air bag | |

Control unit pin out

- | | |
|--|--|
| 1. Driver air bag | 18. Short circuit |
| 2. Driver air bag | 19. Short circuit |
| 3. Passenger air bag | 20. Not connected |
| 4. Passenger air bag | 21. Short circuit |
| 5. Available | 22. Short circuit |
| 6. Not connected | 23. Air bag system failure warning light |
| 7. Not connected | 24. Earth |
| 8. Available | 25. Short circuit |
| 9. Serial line (K) for testers | 26. Short circuit |
| 10. Not connected | 27. Passenger presence sensor |
| 11. Not connected | 28. Short circuit |
| 12. Available | 29. Short circuit |
| 13. Not connected | 30. Electronic wiring recognition input |
| 14. Not connected | |
| 15. Ignition-operated power supply (+15) | |
| 16. Short circuit | |
| 17. Short circuit | |

SYSTEM WITH SIDE BAG

The side impact protection system, or side bag, fitted as an option on the car, extends the system already present on the car and offers maximum protection to front seat passengers by protecting critical body areas.

The side bag system is controlled integrally with the two front air bags by a control unit that reads and processes deceleration and impact data from two sensors located in the car's side pillars.

The system consists of:

- control unit (50 pin)
- side bag modules within the front seat squabs, on the side facing the outside of the car;
- side deceleration sensors.

CONTROL UNIT FOR AIR BAG, SIDE BAG AND PASSENGER PRESENCE SENSOR (PPD) SYSTEM

The control unit for the system with side bag differs from the unit used with the system made up of driver air bag, passenger air bag, pretensioners and passenger presence sensor because it is able to process data sent by satellite side sensors and features a different pin out: the control unit is connected to the system via a 50-pin connection.

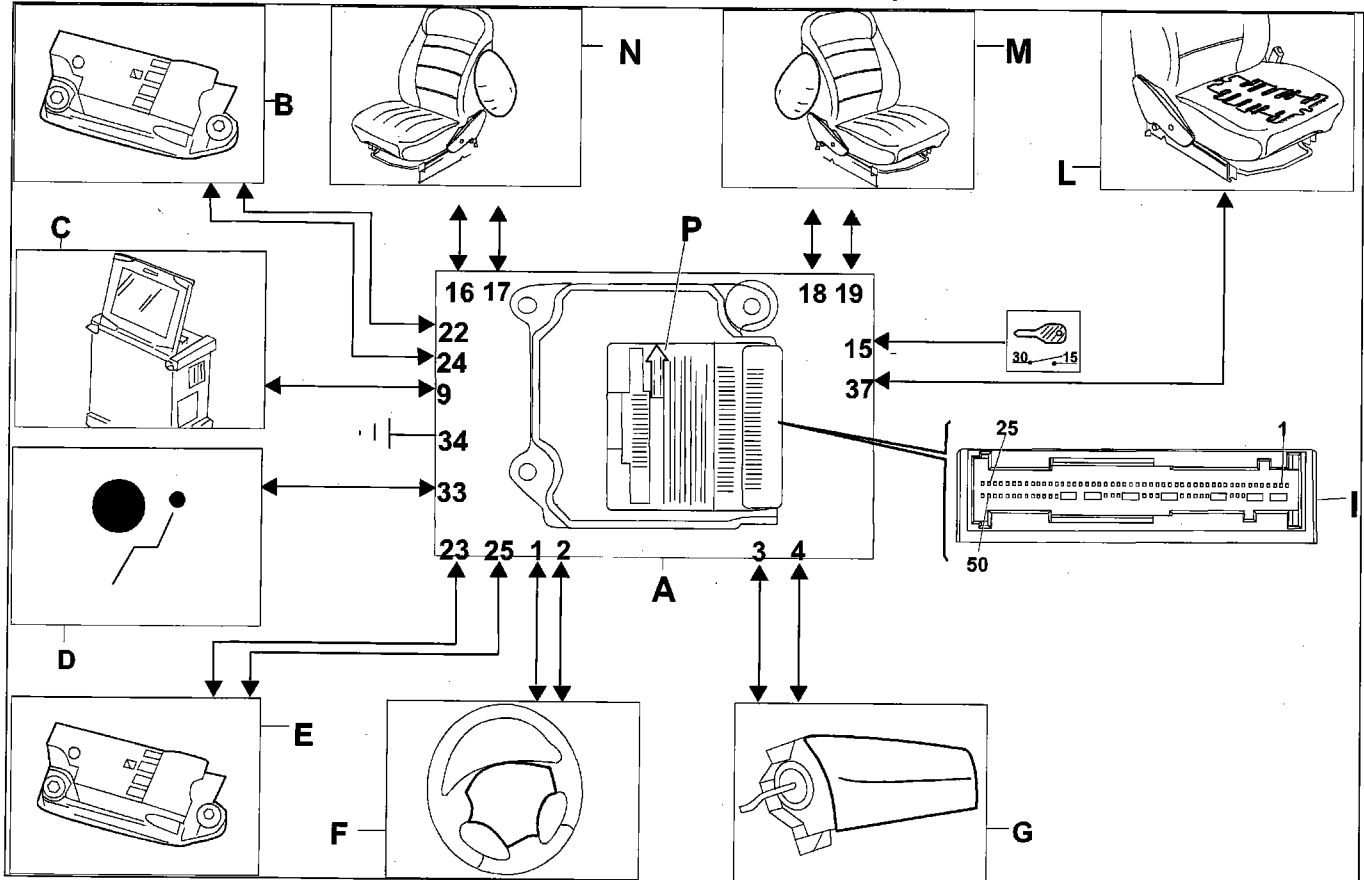
The system with side bags operates in the same way as the system with front air bags. The control unit is calibrated in accordance with specific activation thresholds that ensure the unit operates only in the case of impacts where the occupant requires additional protection. It is able to differentiate between these impacts and other events where operation is not necessary (low-energy side impact, blows against the side not caused by other vehicles, etc.).

The control unit is programmed to deactivate the front air bag, the side bag module on the passenger side and the associated pretensioner if the presence sensor detects the continual absence of a passenger for at least 30 seconds, and to reactivate them immediately as soon as a passenger presence is detected.

In the case of an air bag system with side bag, the wiring branch is monitored continuously by the control unit while the car is in use. If an anomaly is detected, the red failure warning light is activated and the system operates in conventional manner to keep the driver and passenger side air bags operational at all times.

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Diagram showing connections between control unit and components



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Control unit pin out

1. Driver's air bag	26. Short circuit
2. Driver's air bag	27. Short circuit
3. Passenger air bag	28. Short circuit
4. Passenger air bag	29. Short circuit
5. Available	30. Not connected
6. Not connected	31. Short circuit
7. Not connected	32. Short circuit
8. Available	33. Air bag system failure warning light
9. Serial interface (K) for tester	34. Earth
10. Not connected	35. Short circuit
11. Not connected	36. Short circuit
12. Available	37. Passenger presence sensor
13. Not connected	38. Short circuit
14. Not connected	39. Short circuit
15. (+15) ignition-operated power supply	40. Electrical wiring recognition input
16. Driver's side bag	41. Short circuit
17. Driver's side bag	42. Short circuit
18. Passenger side bag	43. Short circuit
19. Passenger side bag	44. Short circuit
20. Available	45. Not connected
21. Not connected	46. Not connected
22. Driver's side bag sensor power supply	47. Not connected
23. Passenger side bag sensor power supply	48. Not connected
24. Driver's side bag sensor earth	49. Not connected
25. Passenger side bag sensor earth	50. Not connected

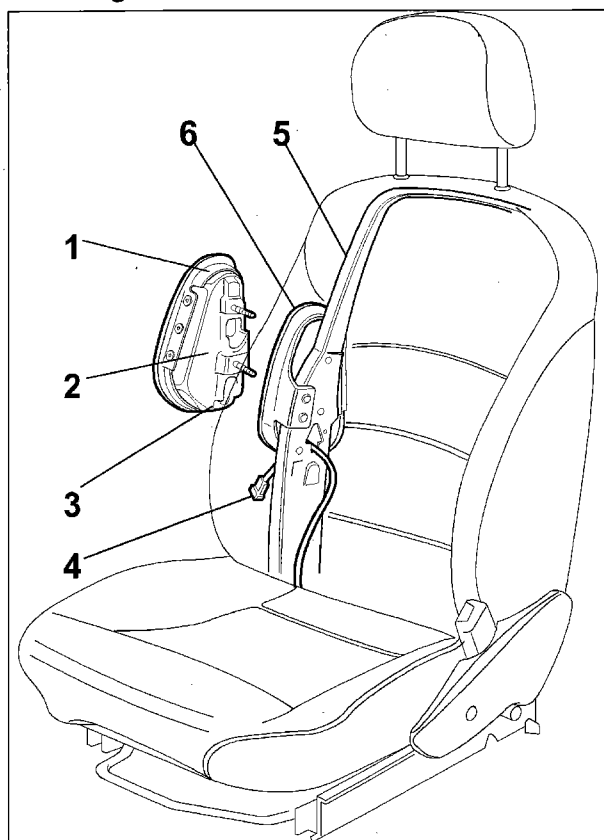
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|--|---|
| A. Electronic control unit | I. 50-pin connector (see pin out) |
| B. Driver's side impact recognition sensor | L. Passenger presence sensor |
| C. Tester | M. Passenger side bag module |
| D. Air bag system failure warning light bulb | N. Driver's side bag module |
| E. Passenger side impact recognition sensor | P. Arrow indicating control unit installation direction |
| F. Driver's air bag module | |
| G. Passenger air bag module | |

SIDE BAG MODULES

The side bag modules fitted to the Fiat Marea - Marea Weekend are fitted by a bracket to the inside of the squab on the side facing the outside of the structure. This is an improvement on the version where the modules are fitted to the door because the bag is always in optimal position in relation to the occupant regardless of seat position or occupant size.

The side bag modules consist mainly of:

- a bag measuring about 12 litres in volume and made out of permeable cloth that is able to protect the outer area of the chest and abdomen;
- a metal case containing a pyrotechnic charge that, when activated by an electric signal, causes gas to emerge and inflate the bag.
- an extremely light, plastic containment cover for the bag that maintains squab size and appearance while ensuring the bag emerges easily;
- bracket securing the module to the seat structure.

Side bag module

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1. Copertura in plastica
2. Scatola metallica
3. Connettore del modulo Side bag
4. Cavo elettrico di attivazione
5. Struttura schienale
6. Vano modulo Side bag

The side bag modules are fitted to the seat trim and do not alter the style or size of the original seat significantly.

A plastic cover in the seat trim over the module opens to allow the bag to inflate.

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GENERAL WARNINGS



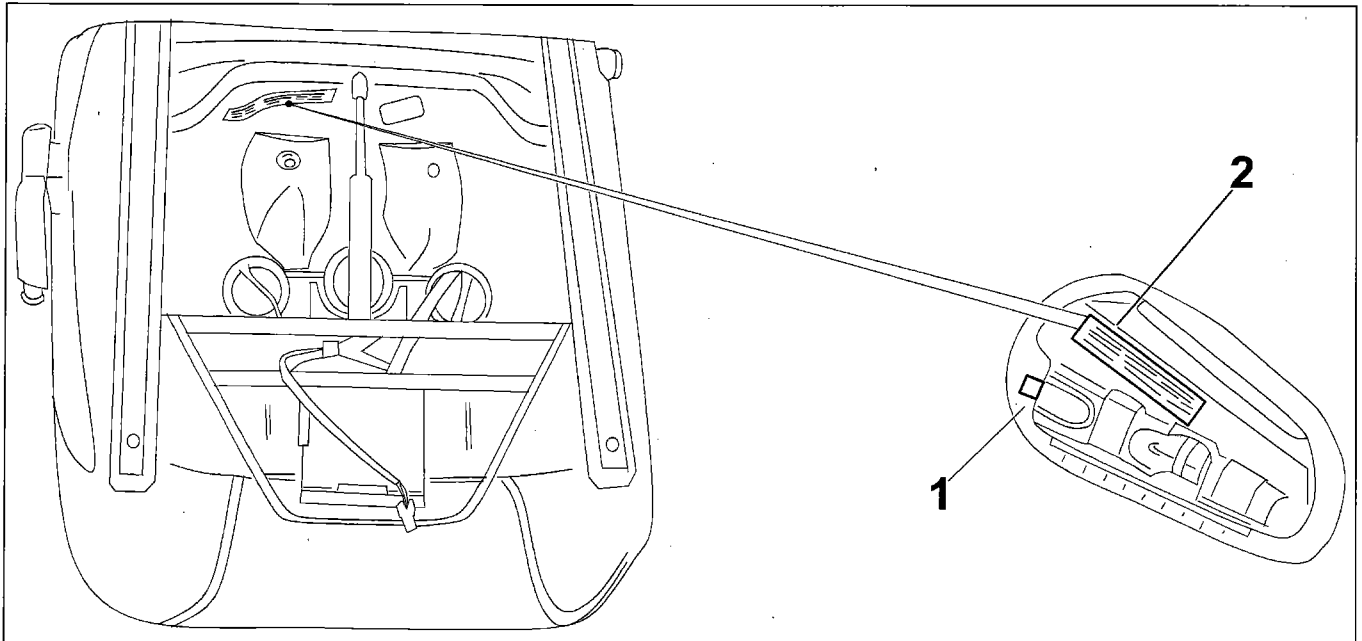
*IT IS ABSOLUTELY FORBIDDEN to use any type of seat cover that is not specifically designed for this type of seat. When replacing, take the greatest care to install in the correct position: the wording **SIDE BAG** must be on the same side of the squab as the side bag module.*



*Before disconnecting the seat connections to the air bag system (leads with yellow sheath), disconnect both battery terminals, take them out carefully and **WAIT AT LEAST 10 MINUTES**. Whenever working on the air bag system, it is **OBLIGATORY** to check system function using special test equipment at the end of the procedure.*



*It is **STRICTLY NECESSARY** to observe the contents of Identification and warning plates on the side bag module whenever the module is handled. When replacing the module, take off the removable label (1) on the new module and apply it to the front part of the seat structure at more or less the point indicated in the following figure so that it is legible with the seat fitted. Also record the serial number in the special log. If the seat structure is to be replaced and the side bag module transferred, the above label must be transferred from the old to the new structure.*



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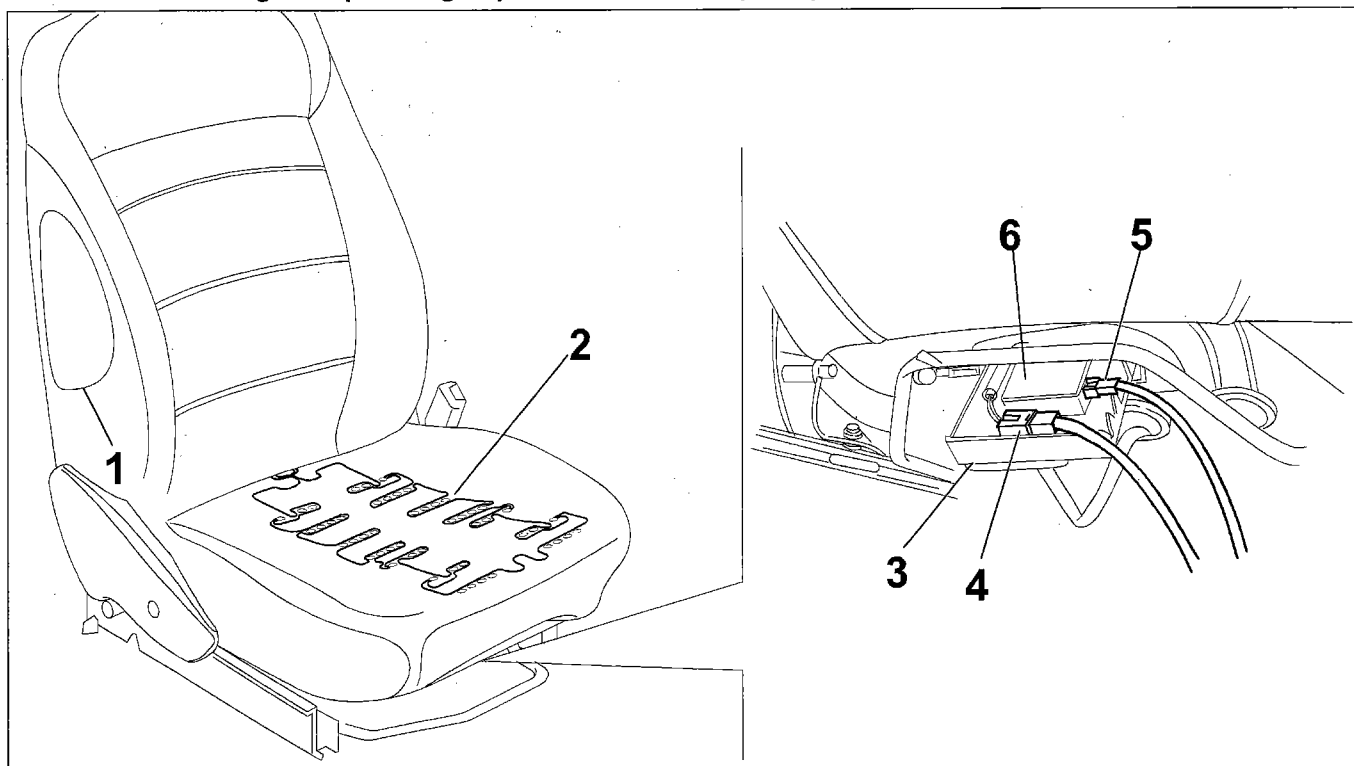
1. New side bag module
2. Removable self-adhesive plate

The connection points between the side bag module, air bag system and passenger presence sensor (leads with yellow sheath) are located on the bottom of the seat at the front inside a protective box.

The side bag module and passenger presence sensor connections are anchored in a box secured beneath the passenger seat.

When necessary to carry out checks on the system or remove the seat to gain access to the connections located inside the box, open the cover by undoing the retaining clips and prising up the box safety cap (see Removing-Refitting front seat with passenger presence detector and side bag).

Seat with side bag and passenger presence sensor (PPD)



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1. Side bag module
2. Passenger presence sensor (PPD)
3. Box protecting connections
4. Side bag module connection
5. Passenger presence sensor connection (PPD)
6. Electronic interface device

An electronic device located in the lower part of the seat acts as an interface between signals from the control unit and signals from the passenger presence sensor (PPD).

DECELERATION SENSORS

The deceleration sensors are secured to the central car pillars and contain an accelerometer that can detect acceleration that takes place during side impact.

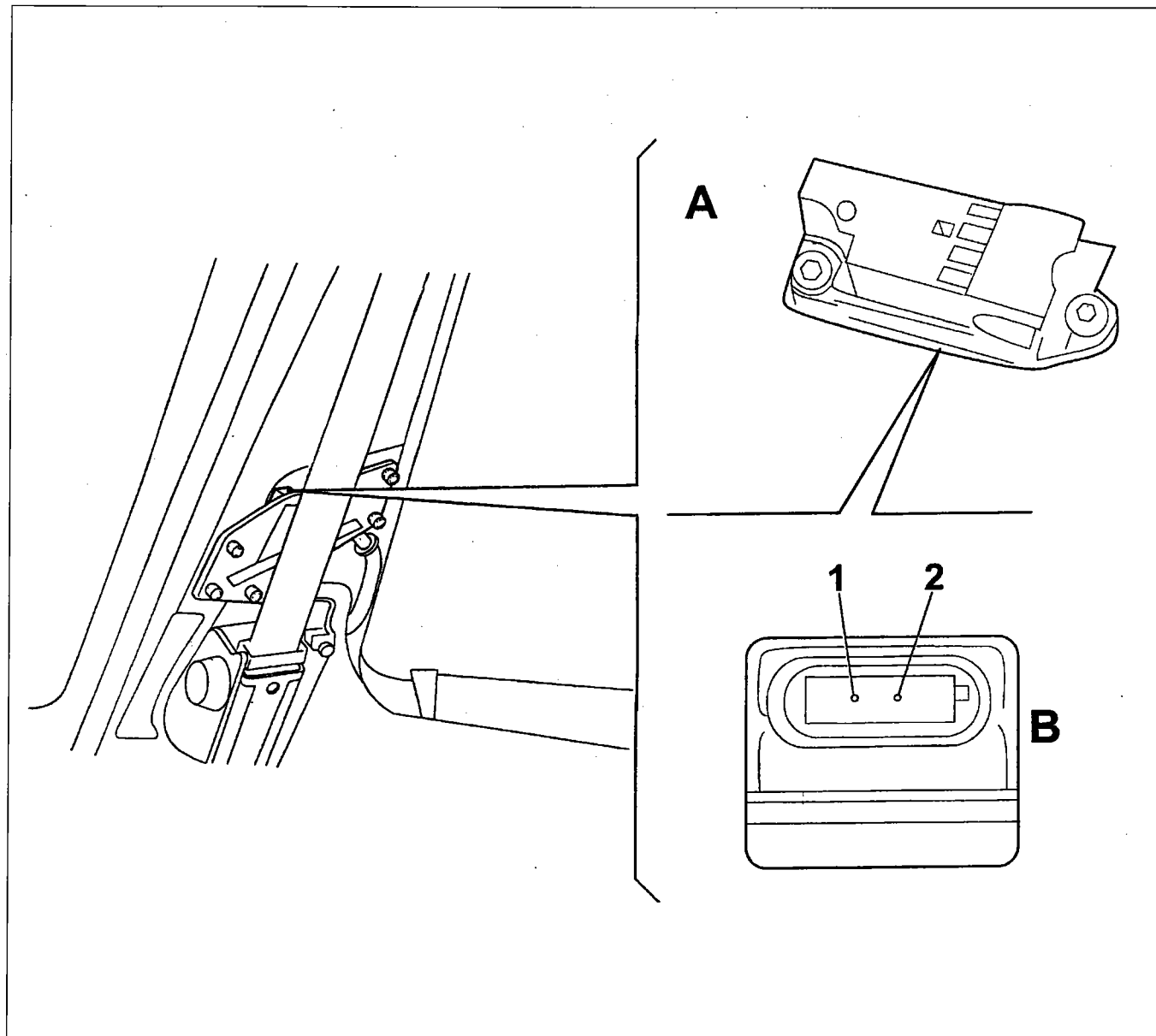
If the impact exceeds a set severity level, the information is transferred from the relevant sensor to the main air bag system control unit, which compares the information with input from a second accelerometer inside the control unit itself, which guarantees a safety function.

If the accelerometer signals detected by the satellite sensor and the control unit agree with one another, the main control unit sets off the side bag module on the side affected by impact.

If the impact is on the passenger side, the main control unit compares the signal from the deceleration sensor with a signal from the passenger presence sensor to determine whether or not to set off the side bag module.

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Location of deceleration sensors



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A. Deceleration sensor

B. Pin out 1. Side bag sensor power supply
 2. Side bag sensor earth

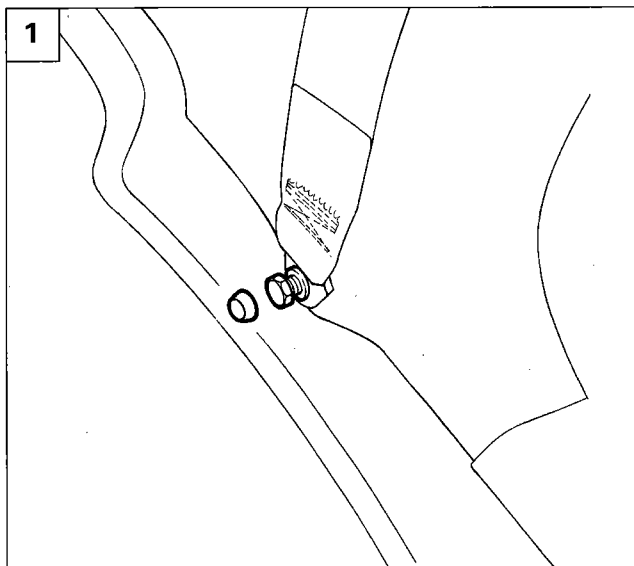
SAFETY RULES TO BE OBSERVED WHEN WORKING ON CARS FITTED WITH AIR BAG - SIDE BAG SYSTEMS



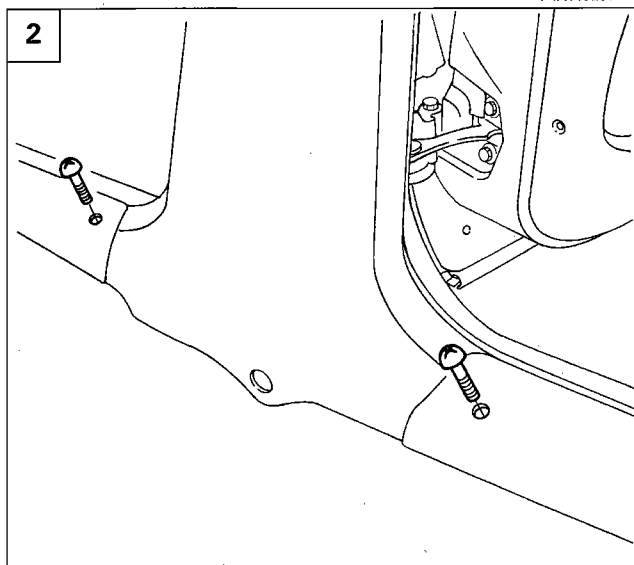
*The following rules **MUST BE ADHERED TO** when carrying out any operations on cars equipped with an air bag/side bag system.*

System components must be assembled and disassembled **ONLY** by authorised technical personnel, remembering that the components need handling with care. Component shipping and storage is governed by the handling procedures described in Section 55 - Electrical Equipment of the Fiat Marea - Marea Weekend Workshop Manual (volume 2).

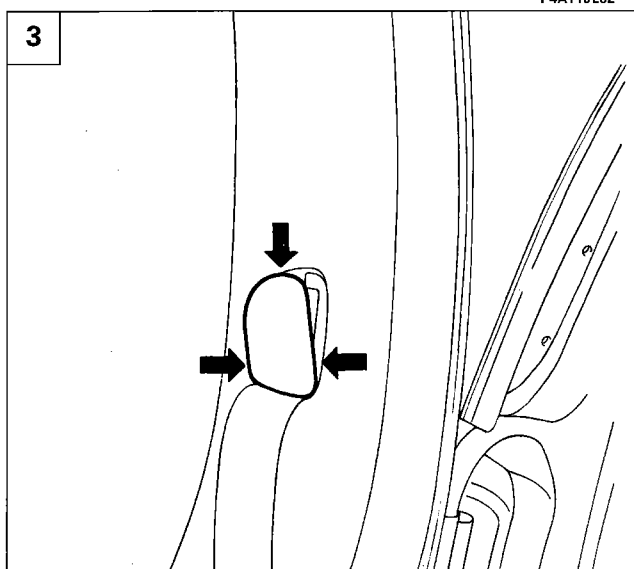
REMOVING-REFITTING DECELERATION SENSOR



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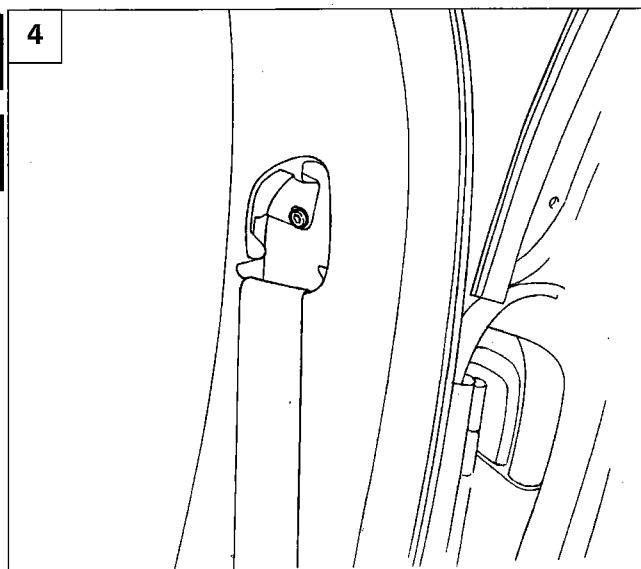


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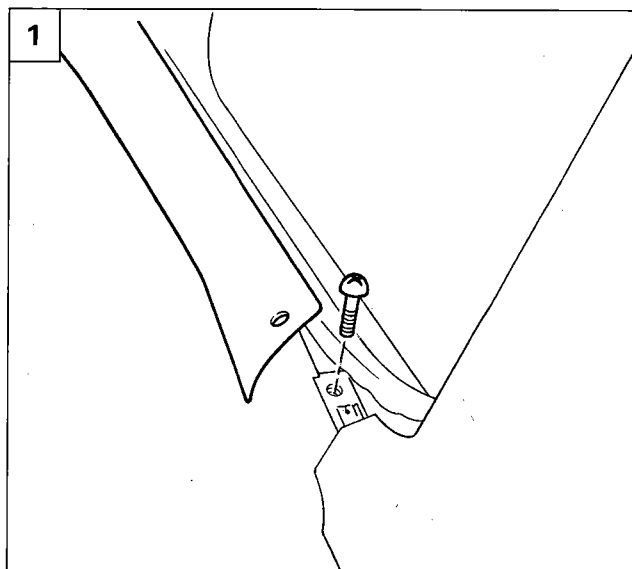
Turn the ignition key to STOP position and remove. Then disconnect the battery.

1. Prise up the fastener cover and unscrew the bolt securing the front seat belt.
2. Undo the sill plate bolts shown in the figure.
3. Undo the retaining tabs and remove the pillar trim bolt cover plate.
4. Undo the bolt securing the pillar trim.

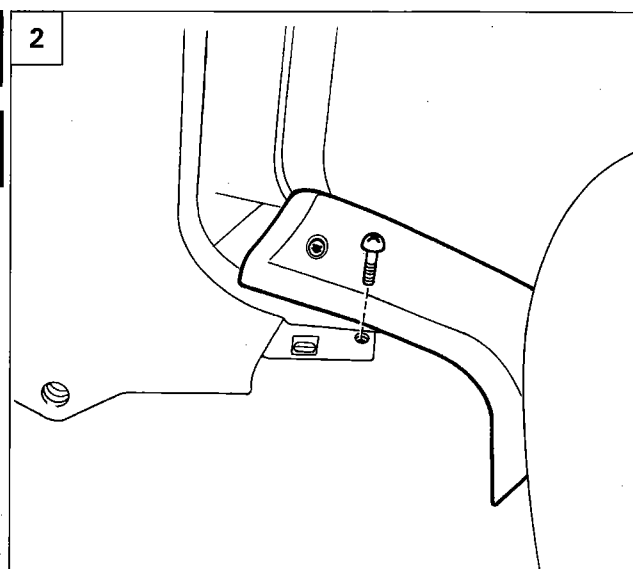


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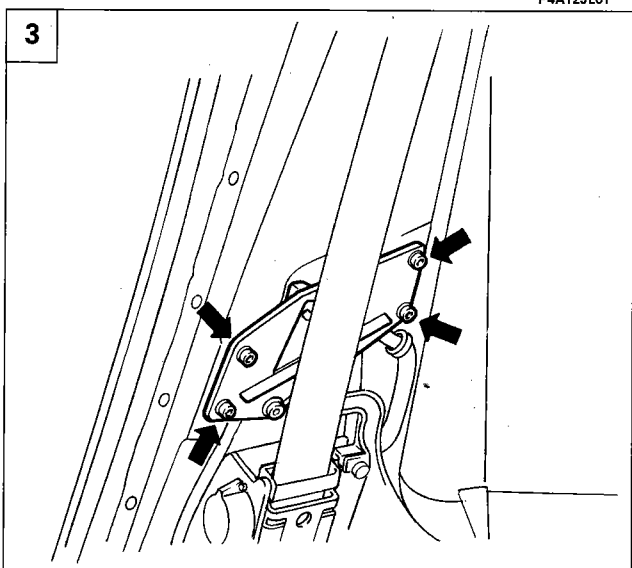
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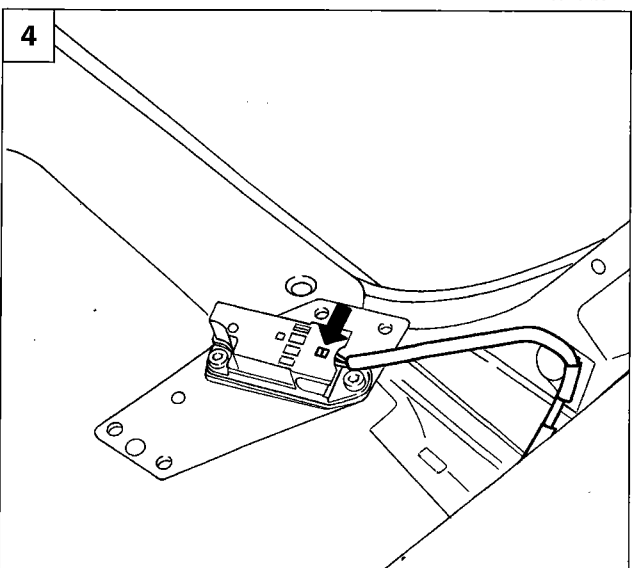
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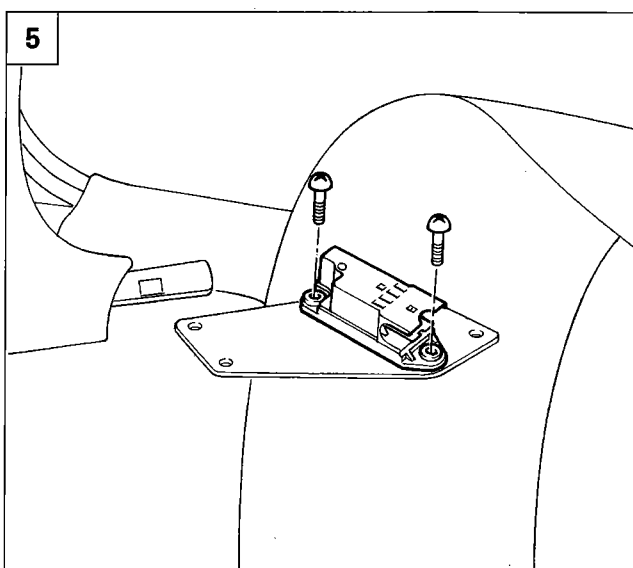
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1. Raise the rear sill plate, then undo the underlying bolt securing the pillar trim.
2. Raise the front sill plate, then unscrew the underlying bolt securing the pillar trim.
3. Raise the pillar trim, then unscrew the bolts securing the side bag deceleration sensor support bracket.
4. Undo the electrical connection shown in the figure
5. Undo the bolts shown in the figure, then remove the deceleration sensor from its bracket.



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55.

REMOVING-REFITTING FRONT SEAT WITH PASSENGER PRESENCE SENSOR AND SIDE BAG

Removing

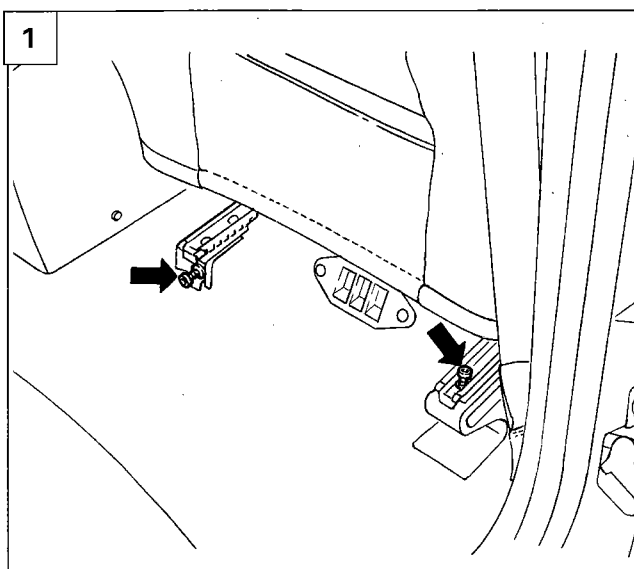
1. Move the seat forward to the end of its travel and undo the bolts securing the guides to the floor.
2. Move the seat back to the end of its travel and undo the bolts securing the guides to the floor.

Before removing the seat.

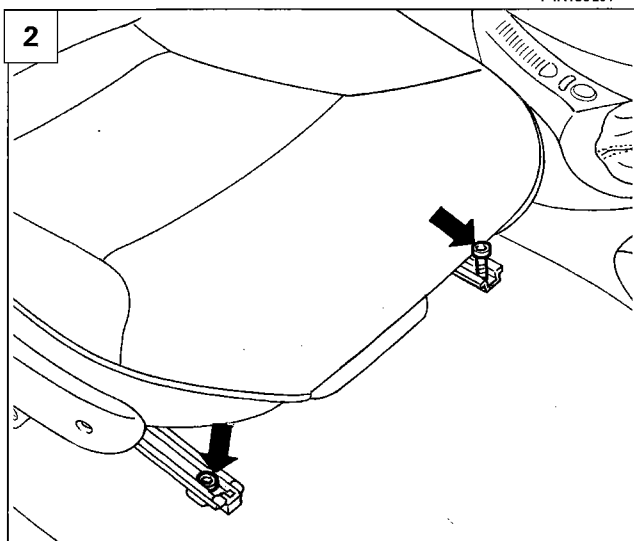
- disconnect the battery terminals;
- wait at least 10 minutes before disconnecting the passenger presence sensor connections, then proceed as follows.

3. Tilt the seat back to gain access to the connections, then disconnect the lumbar adjustment connector, heat pad and seat belt, if present. Prise up the connector holder box safety cap.

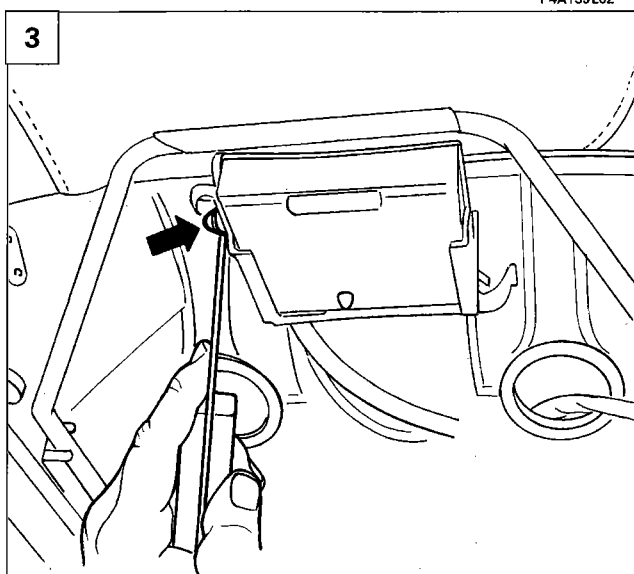
4. Remove the connection holder box flap.



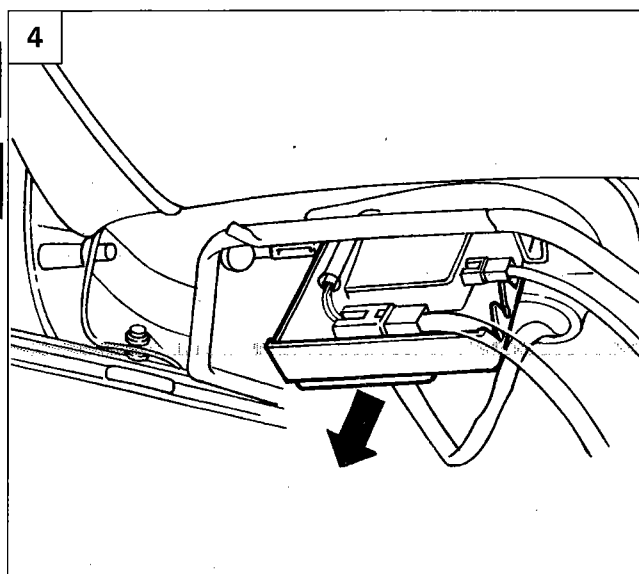
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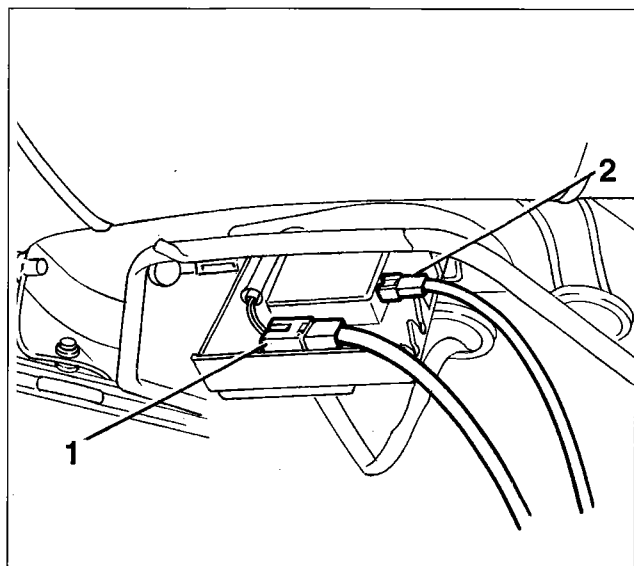


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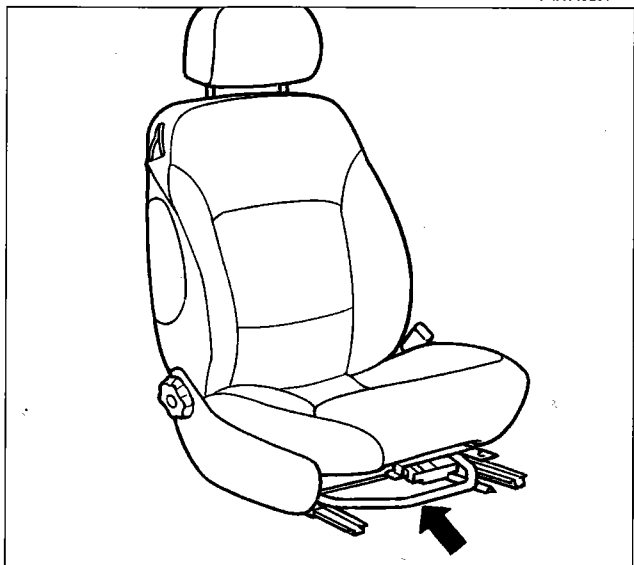


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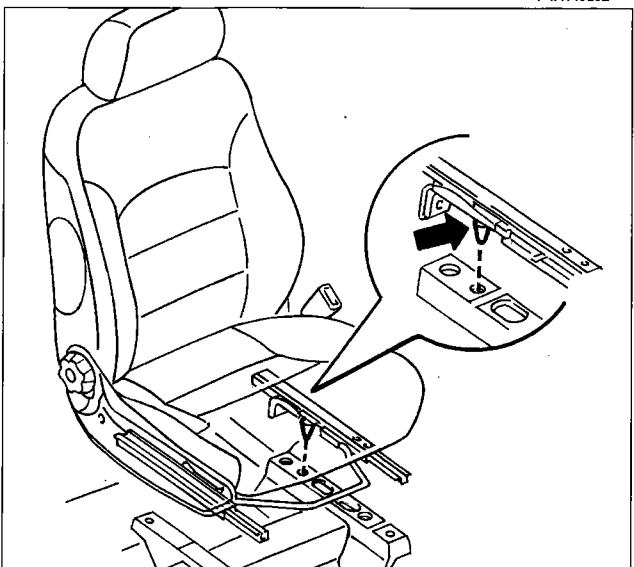
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Two connections are present on the passenger side seat (side bag and passenger presence sensor), while only the side bag connection is present on the driver's seat.

- Disconnect connector (1) controlling the side bag and connector (2) controlling the presence sensor;

- remove the seat from the car



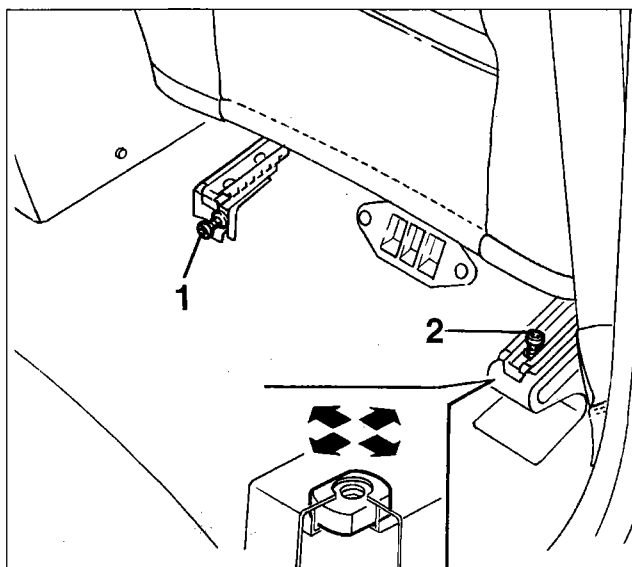
Do not remove the seat from its housing using the seat control lever arrowed in the figure or the guides may become misaligned.

Refitting

- Position the seat in the car;
- Connect the electrical connectors leading from the car floor;
- Ensure the locating pin on the seat guides is in the correct position;



Check that the carpet does not foul against the seat guide contact area.

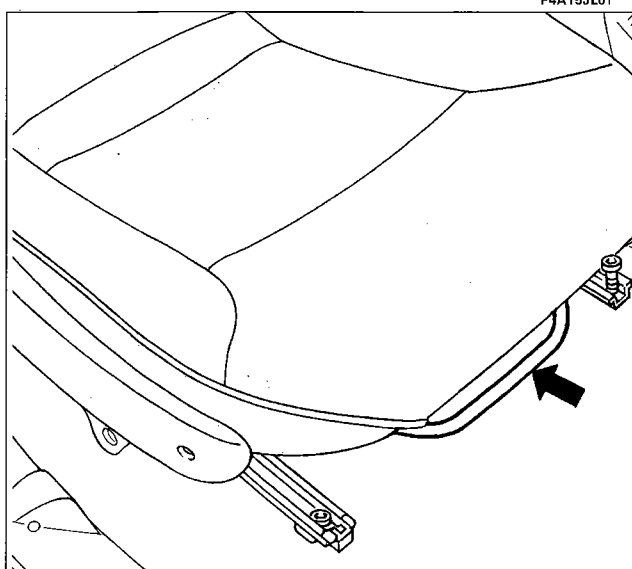


- fit and tighten the rear retaining bolts beginning from the inner edge (1) and continuing from the outer edge (2) to the torque of 2.4 daNm.



The seat must be fastened to the floor without distorting the guide rails. If necessary, adjust the floating nuts shown magnified in the figure and ensure they are free.

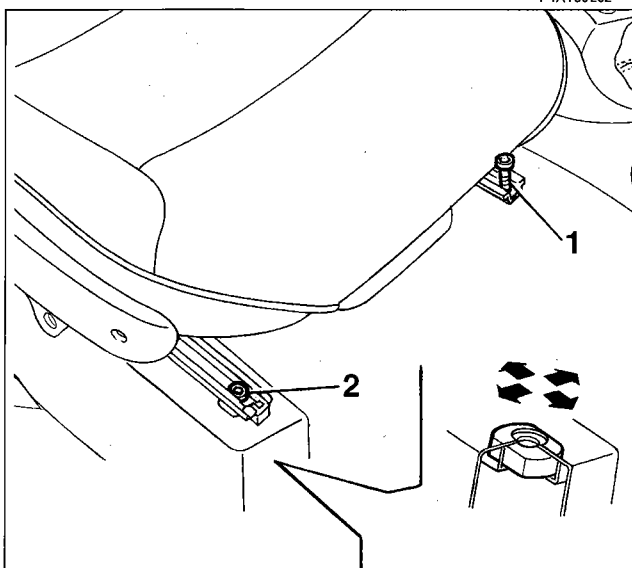
NOTE Do not lift the seat to fit the retaining bolts at this stage.



- move the seat to FULLY BACK position at the end of its travel using the guide control lever;



Ensure the guide control lever is correctly fitted (clicks into place).



- fit and tighten the front retaining bolts beginning from the inner edge (1) and continuing from the outer edge (2) to the torque of 2.4 daNm.



The seat must be fastened to the floor without distorting the guide rails. If necessary, adjust the floating nuts shown magnified in the figure and ensure they are free.

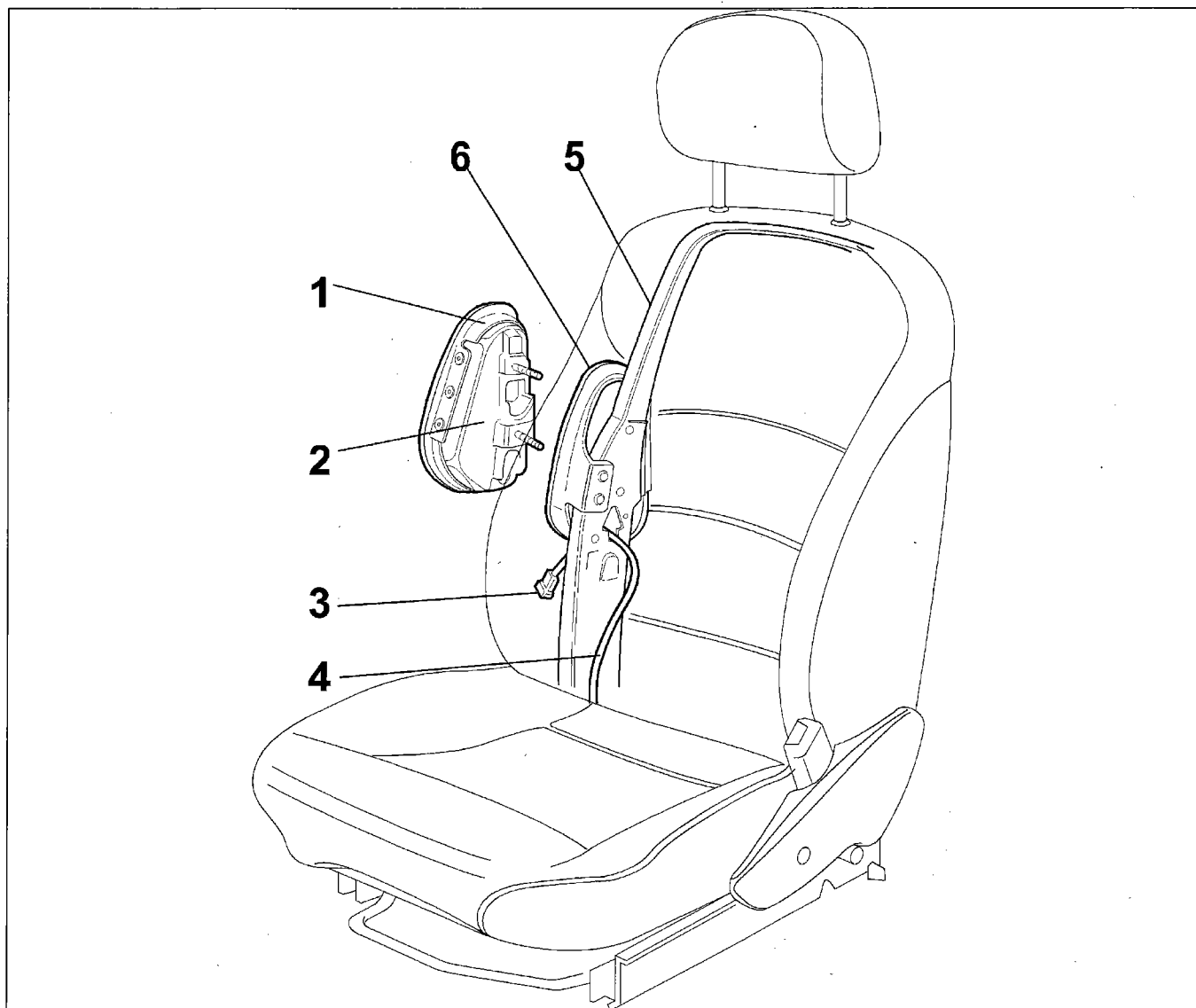
NOTE Whenever work is carried out on the air bag system, it is **COMPULSORY** to check the system is working properly using the relevant testers.

55.

PERSPECTIVE VIEW OF SIDE BAG

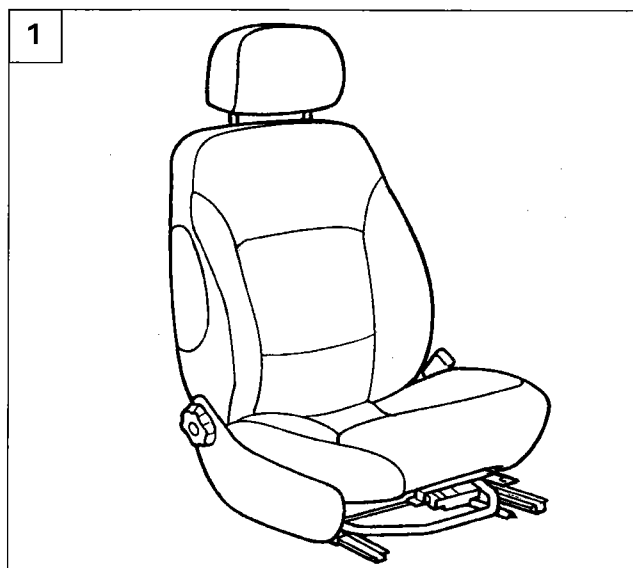
Dismantling the side bag

Side bag modules are fitted beneath the squab trim and do not significantly alter original seat style and size.

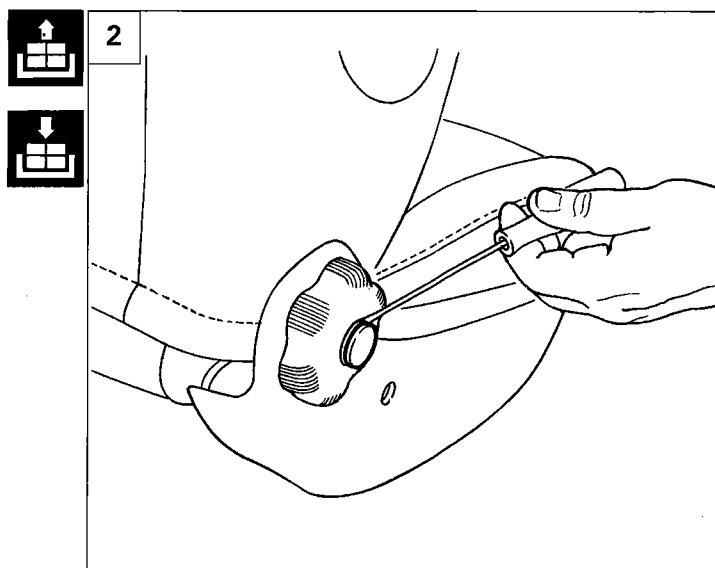


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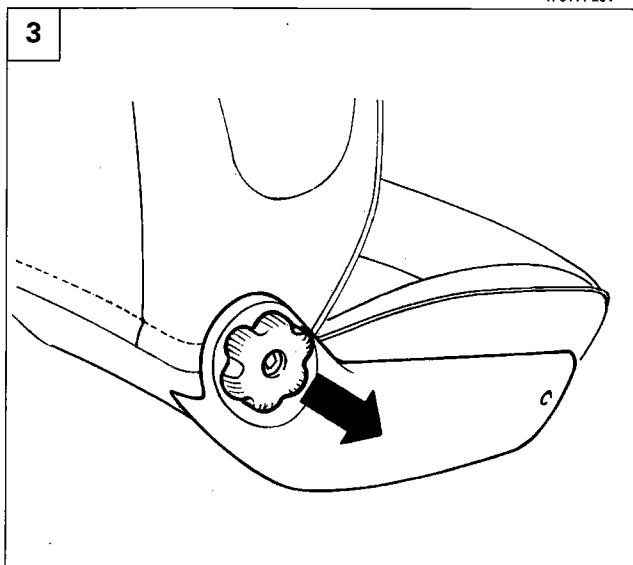
1. Plastic cover
2. Metal box
3. Side bag module connector
4. Electrical activation lead
5. Squab structure
6. Side bag module compartment



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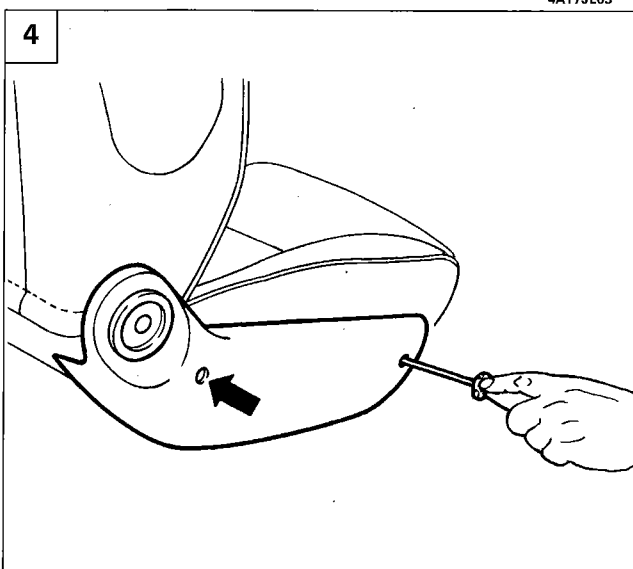
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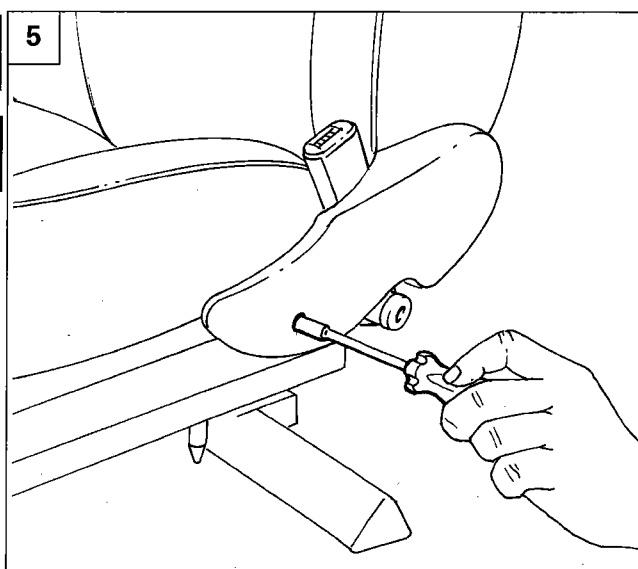
REMOVING-REFITTING SIDE BAG MODULE



1. Remove the front seat as described in the paragraph "FRONT SEAT WITH PASSENGER PRESENCE SENSOR AND SIDE BAG"
2. Prise up the plug securing the seat rake adjustment knob.
3. Remove the seat rake adjustment knob.
4. Unscrew the retaining bolts shown in the figure and remove the outer seat cover.
5. Undo the inner seat cover retaining bolt.

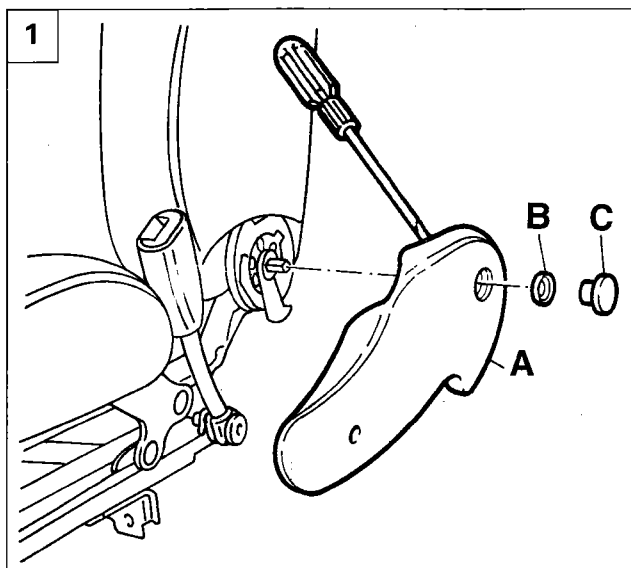


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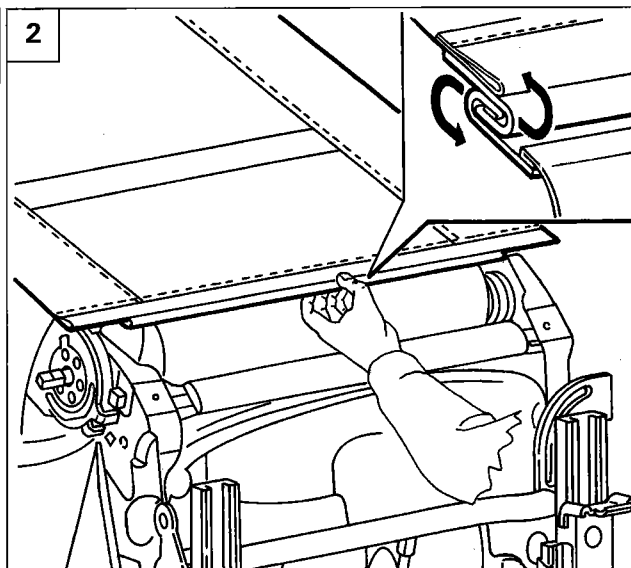


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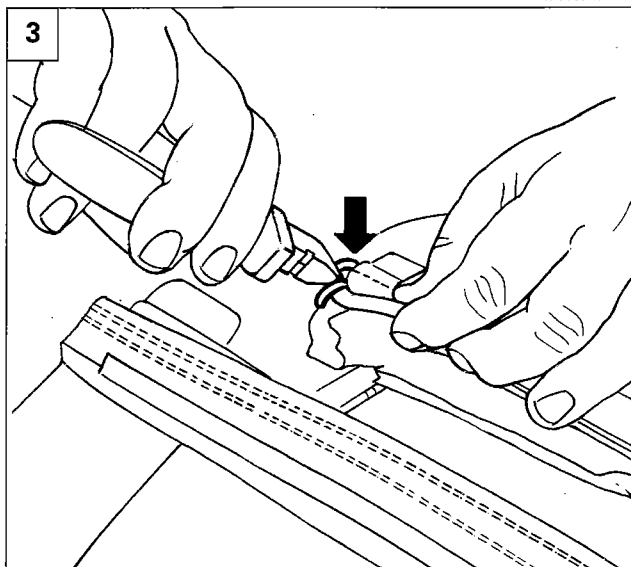
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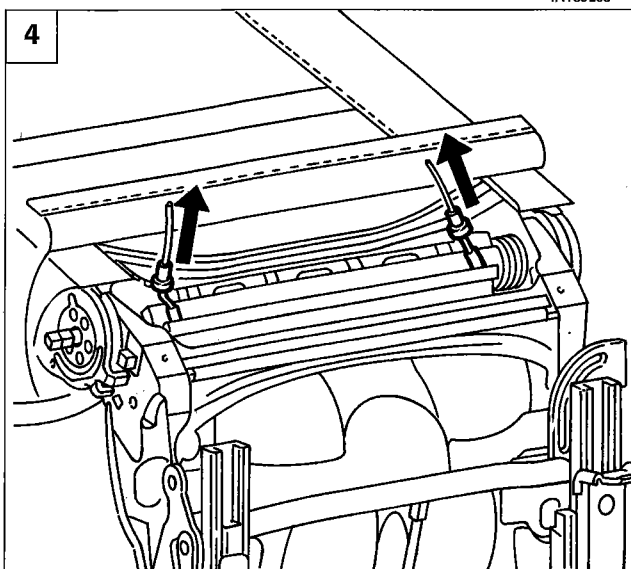
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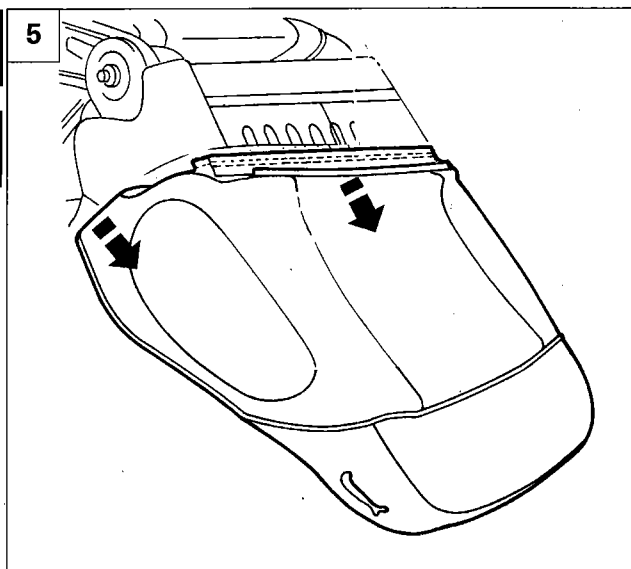
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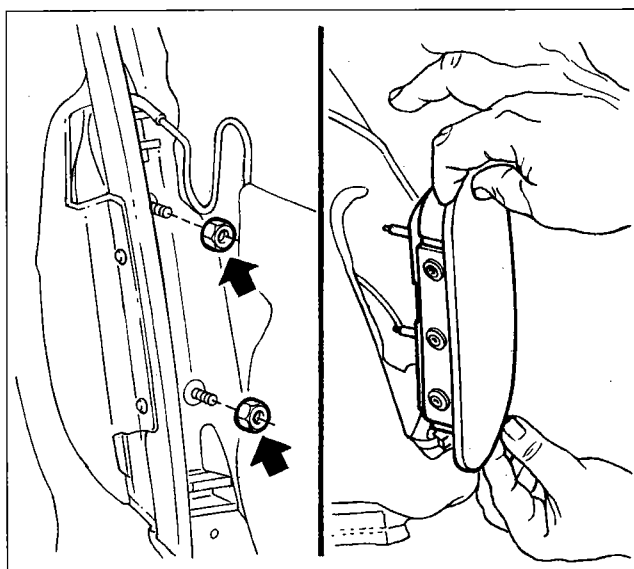


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4A18JL05

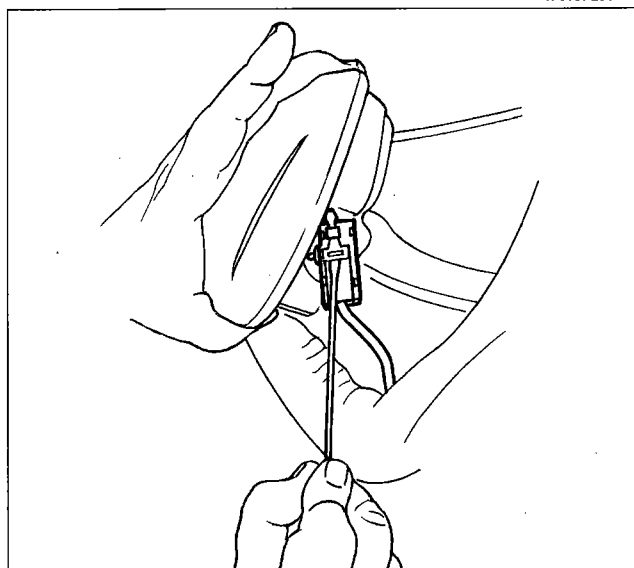
1. Remove cover A by manoeuvring to release washer B. Take care to avoid breakage. Push plug C from inside after removing the trim. Recover claw washer B.
2. Release the plastic squab section from its retaining system.
3. Undo the hooks (two on each side) securing the cover to the padding using cutting pliers.
4. Disconnect the tensioning links.
5. Withdraw the cover partly to gain access to the side bag module retaining nuts.



4F019FL01



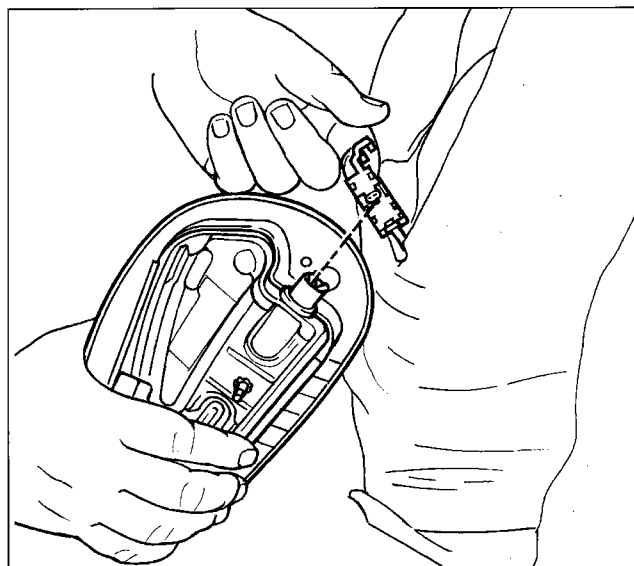
- Undo nuts (M6) securing the side bag module to the the seat frame, using a 10mm jointed or ratchet hexagonal wrench



4A19JL02



- remove the side bag module from its housing and disconnect the safety connection.



P4A19JL03



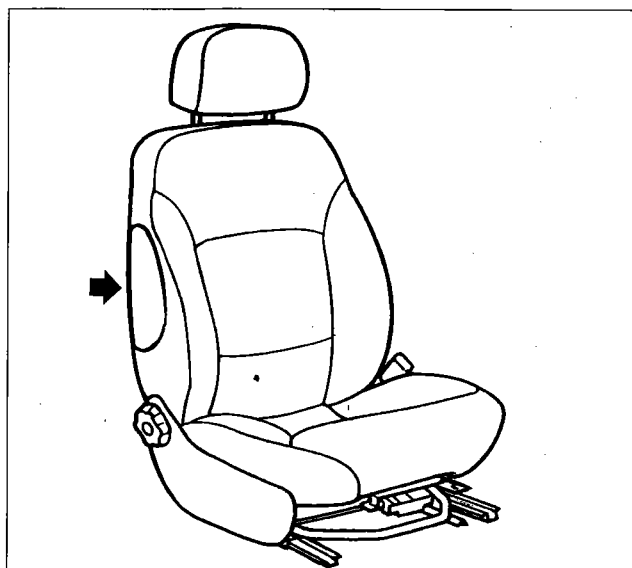
- remove the side bag module from its supply lead.*



Adhere scrupulously to the instructions in the General Warnings chapter when handling the side bag module.

NOTE To refit, reverse removal instructions. Ensure the side bag module safety connector is reconnected in all cases, otherwise the warning light on the instrument facia will come on to indicate a fault.

55.



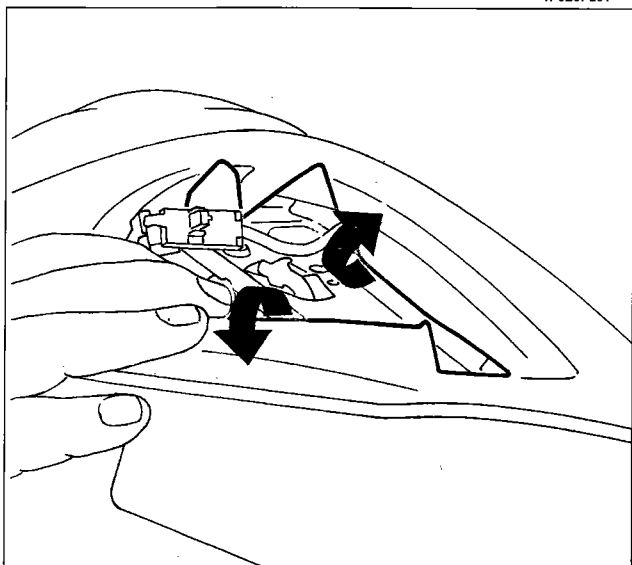
4F020FL01



REMOVING-REFITTING FRONT SEAT

Removing-refitting front seat squab cover.

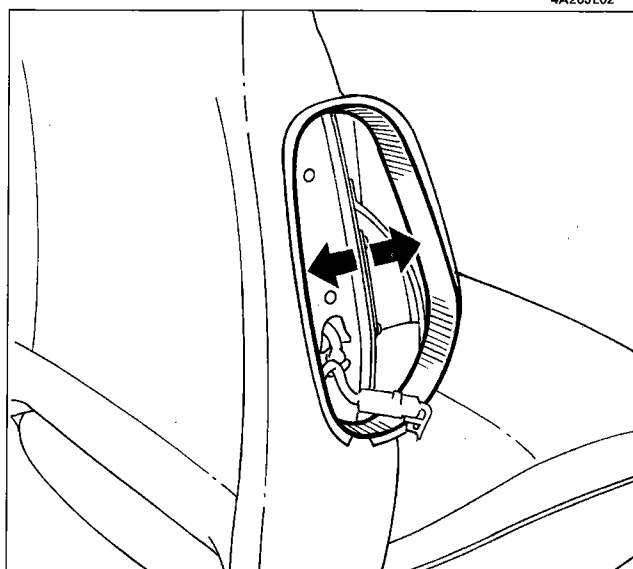
- Remove the side bag module as described in the "SIDE BAG MODULE" chapter.



4A20JL02



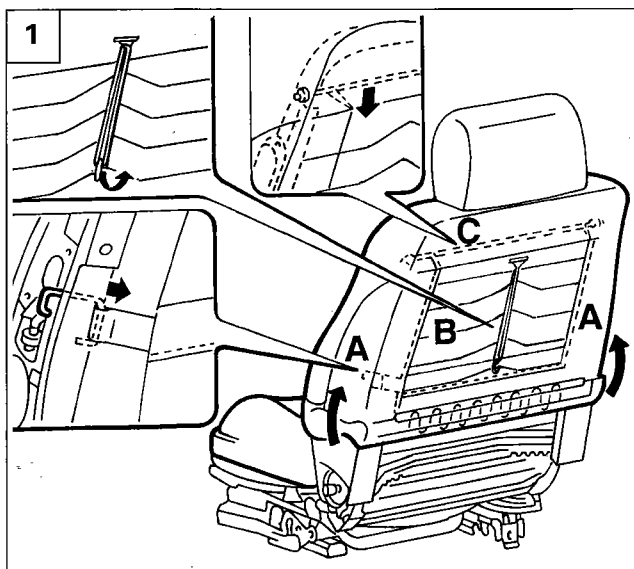
- remove the cover in the outer compartment of the side bag from the Velcro;



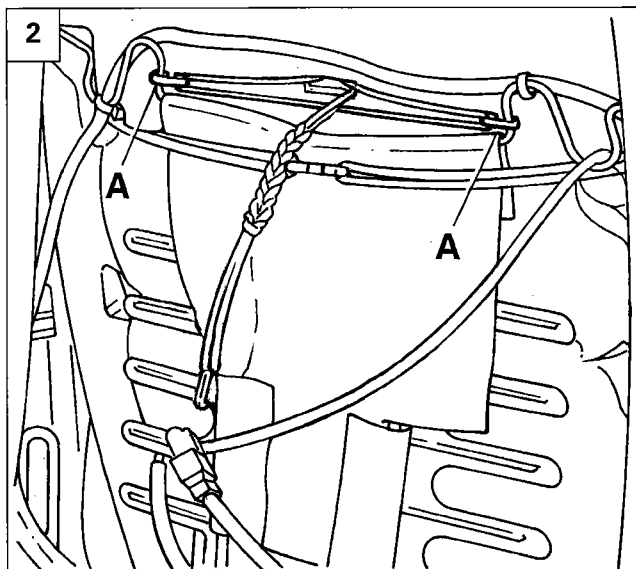
4A20JL03



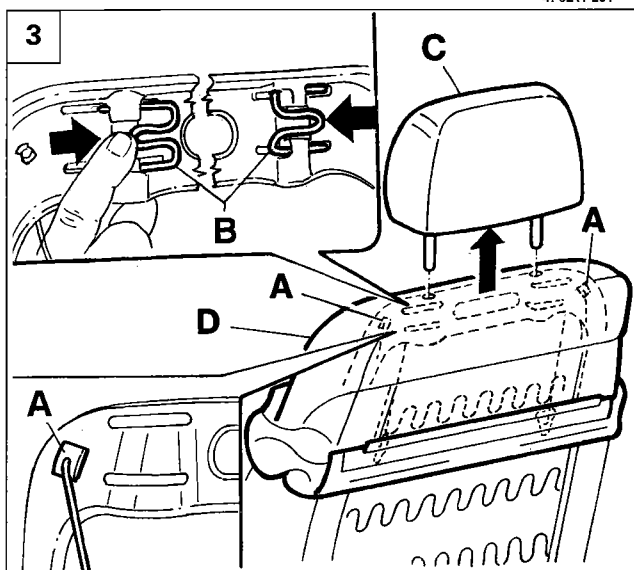
- secure the seat squab cover to the Velcro in the outer side bag compartment as shown in the figure (only during refitting).



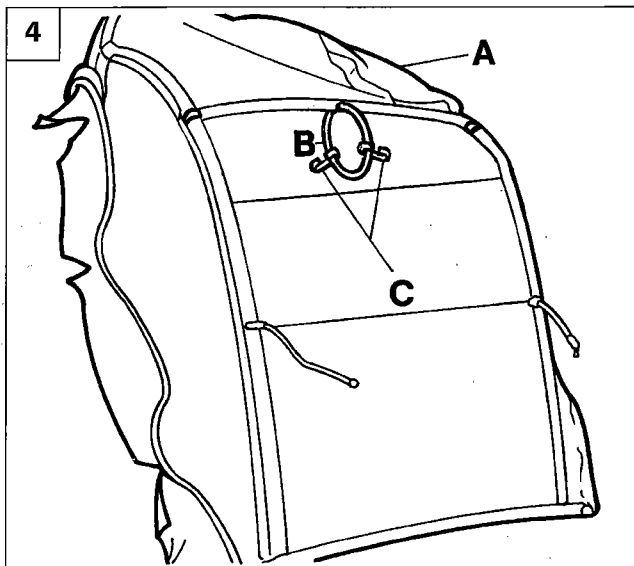
4F021FL01



4F021FL02



4F021FL03



4F021FL04

1. Withdraw the cover, then undo fastening hooks A. Release the elastic band B and then upper retaining rod C; (operation applies to passenger seat).
2. Release attachments (A) joining the tensioning elastic (operation applies to driver's seat).
3. Release the two links A from the housing as shown in the magnified section, turn spring B. Remove head restraint C, then remove cover D.

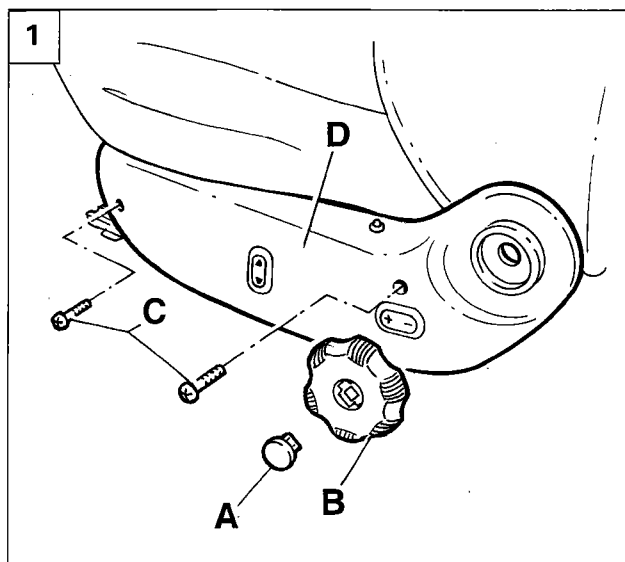
4. View of inside of cover
 - A. Cover
 - B. Elastic retainer
 - C. Retaining hooks

NOTE Reverse removal instructions to refit. Secure the squab cover hooks using tool 1878077000, taking care to do up the links correctly.

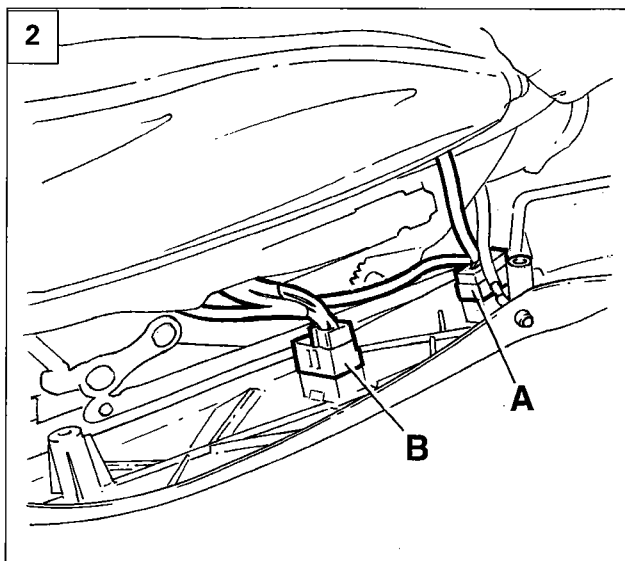


Use new hooks.

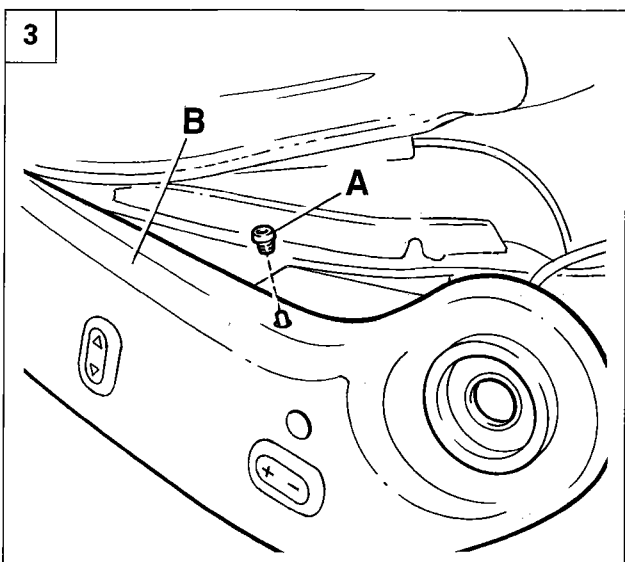
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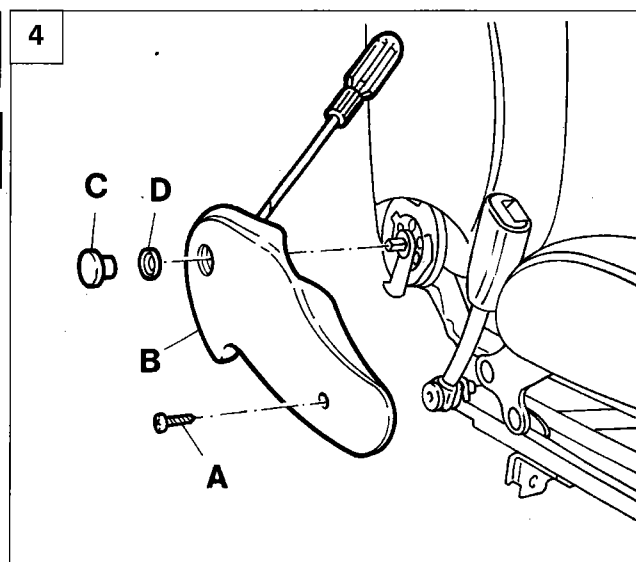
4F022FL01



4F022FL02



4F022FL02

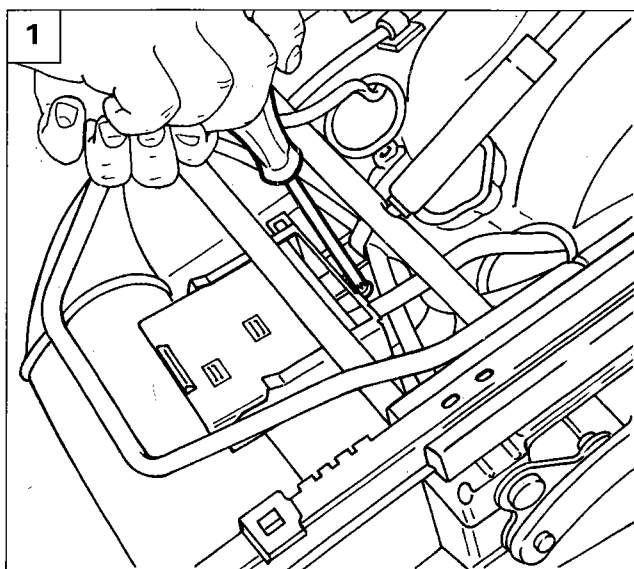


4A22JL04

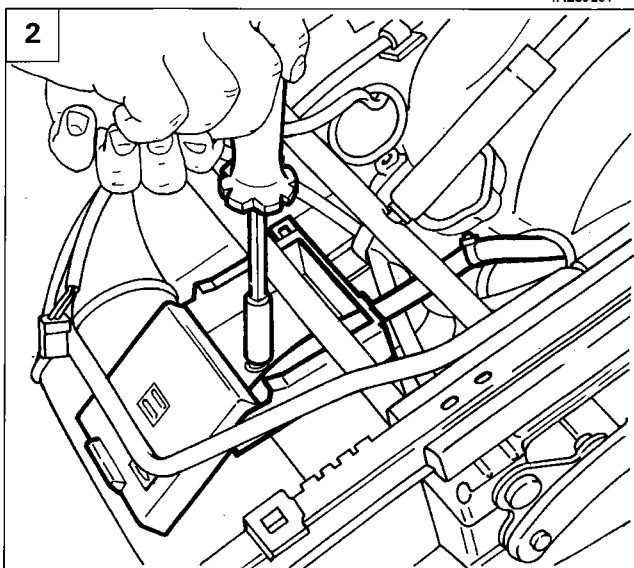
Removing-refitting front seat cushion cover.

Remove the front seat as described in the chapter "FRONT SEAT WITH PASSENGER PRESENCE SENSOR AND SIDE BAG"

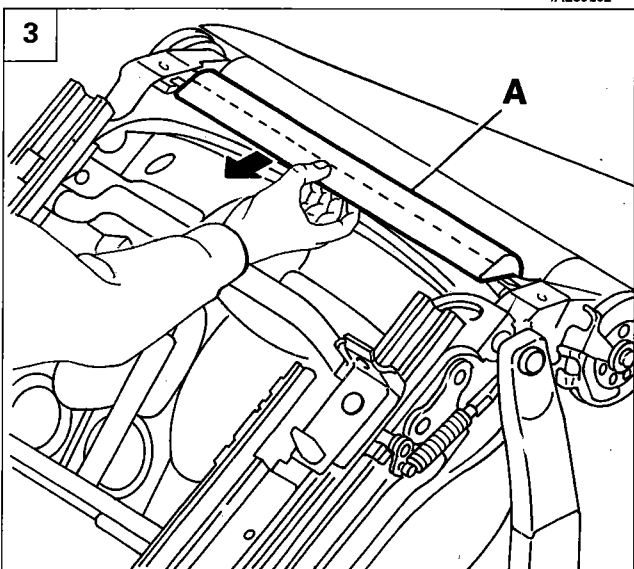
1. Remove plug (A) and squab adjustment knob (B). Unscrew bolts (C) securing trim (D).
2. Disconnect electrical connection (A) supplying the lumbar adjustment, and electrical connection (B) supplying the seat ride adjustment.
3. Undo lock-ring (A) of the heat pad warning light (if present), then separate the seat outer trim (B).
4. Undo bolt (A) securing trim (B) to release claw washer (D), taking care not to break. Push plug (C) inwards after removing the trim, recover claw washer (D).



4A23JL01



4A23JL02



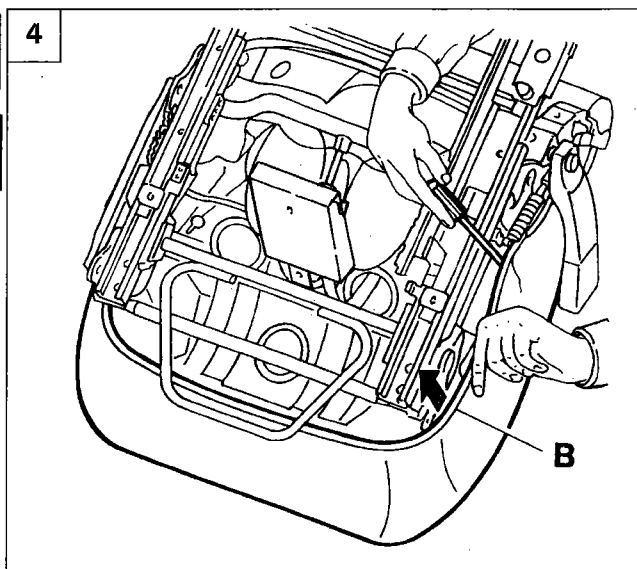
4A021M08



1. Undo the bolt securing the connection carrier box.
2. Remove the box flap, undo the underlying bolt and place the connection carrier box to one side.
3. Release plastic section (A) at the rear as shown in the figure.
4. Remove plastic section B, beginning from the rear side area. Prise up with the aid of a screwdriver, then remove the cushion.

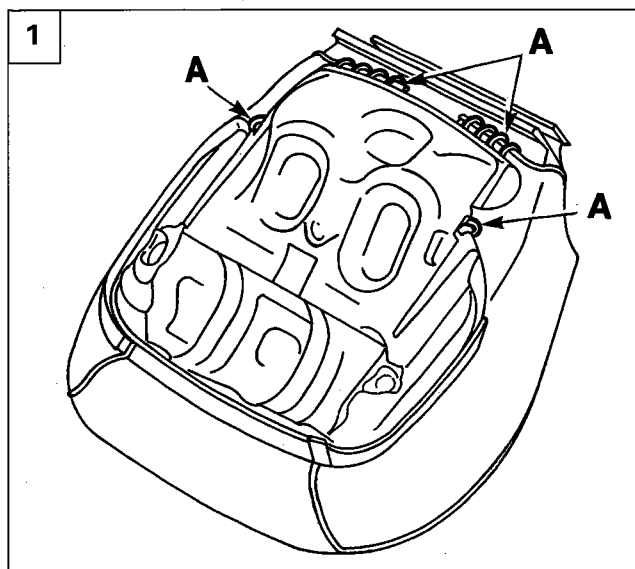


Remove the cushion complete with cover from its seat, taking care with the electrical wiring and in particular with the passenger presence sensor and heat pad.

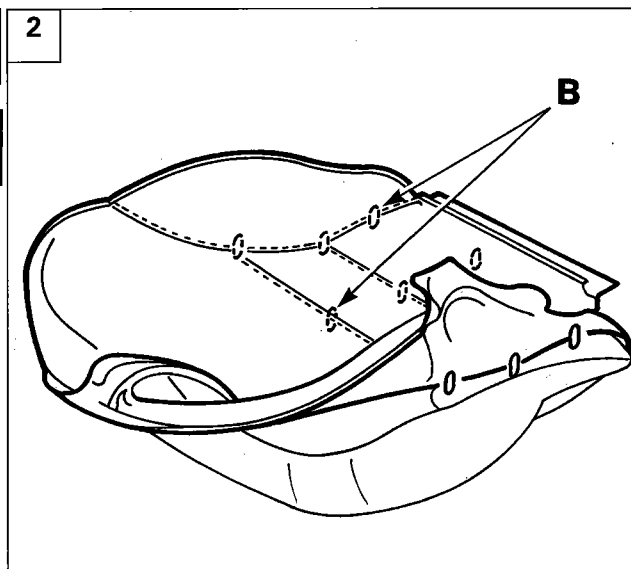


4F030FL01

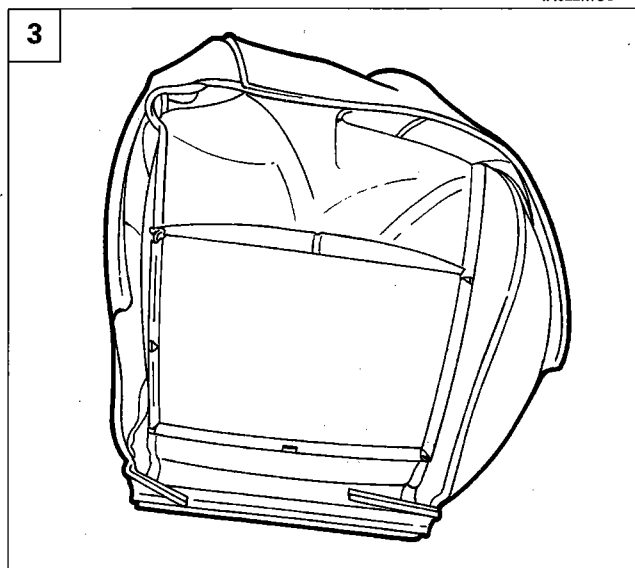
55.



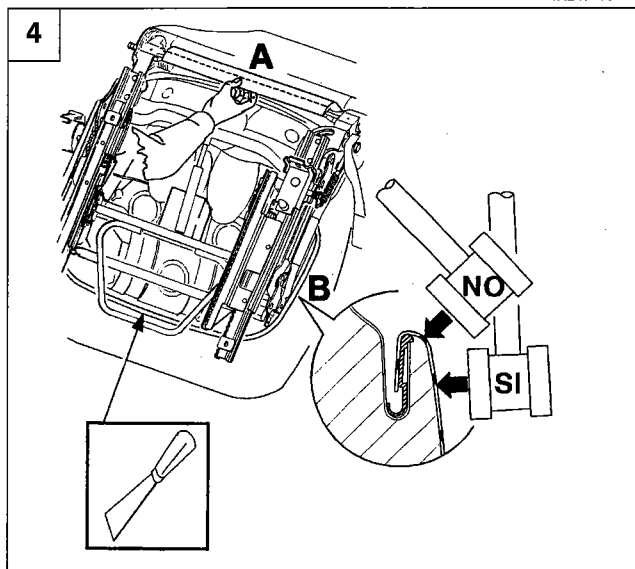
4A022MO6



4A022MO7



4A24JL03



4A24JL04

1. Remove hooks (A) securing the cover to the padding using cutting pliers.
2. Turn the cover over and remove retaining hooks B located at the sealing edges.



Remove any remaining hooks connected to the padding to prevent damage to the new cover.

3. Remove the seat cushion cover from its housing.

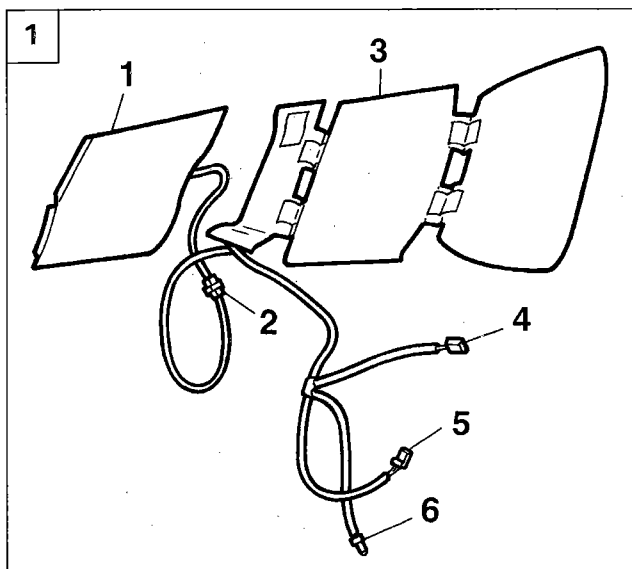
NOTE Reverse removal instructions to refit. Secure the cushion cover hooks using tool 1878077000.

Fitting

4. Refit the sealed cushion module to the seat frame; secure the plastic section (A) and secure plastic section (B) using a spatula and beginning from the central front area. Rivet the channel using a rubber mallet (the correct use of a rubber mallet is shown in the figure).



The use of other tools may damage the cover.



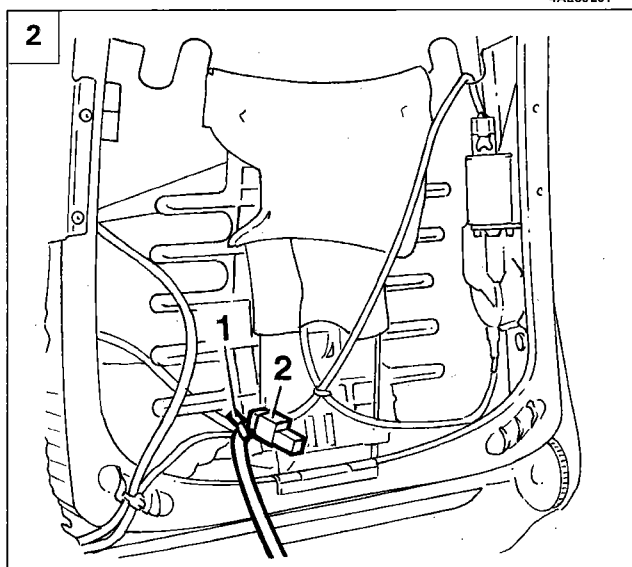
SEAT HEAT PAD

1. Squab heat pad
2. Squab - cushion heat pad connector
3. Cushion heat pad
4. Heat pad key switch connector
5. Supply connector
6. Seat heat pad activation warning light connector

Removing-refitting squab heat pad

Remove the front seat squab cover as described in the paragraph "Dismantling refitting front seat squab cover", except for the head restraint, releasing only the part that covers the heat pad.

NOTE Remove the squab lowering lever and frame.



4A25JL01

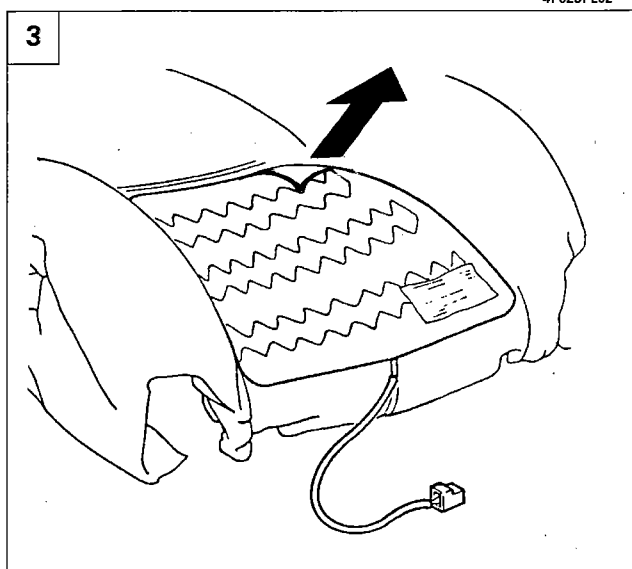


2. Cut the retaining collar (1) and disconnect the electrical supply connection (2). Withdraw the lead by pulling it in front of the squab padding.
3. Disconnect the heat pad and remove from the seat squab padding.

Refitting

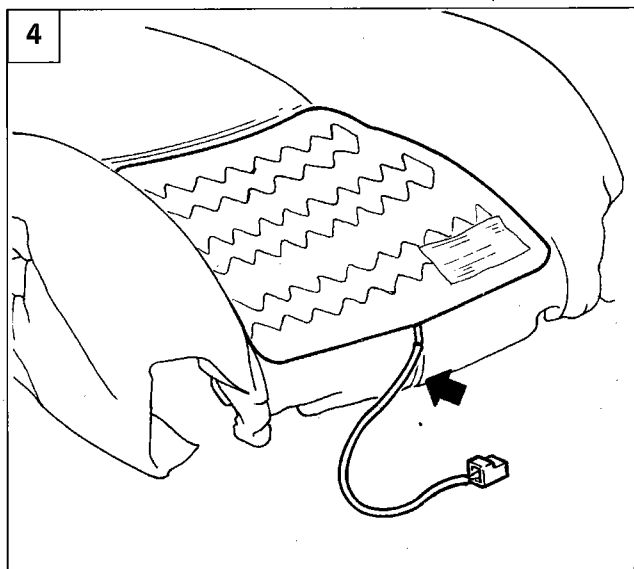
4. To refit, position the heat pad on the squab as shown in the figure. Thread the cable behind the padding by passing through the slot indicated on the base of the squab. Reconnect the electrical connection and refit the squab cover as shown.

Refit the front seat squab cover as described in the paragraph "Dismantling assembling front seat squab cover".



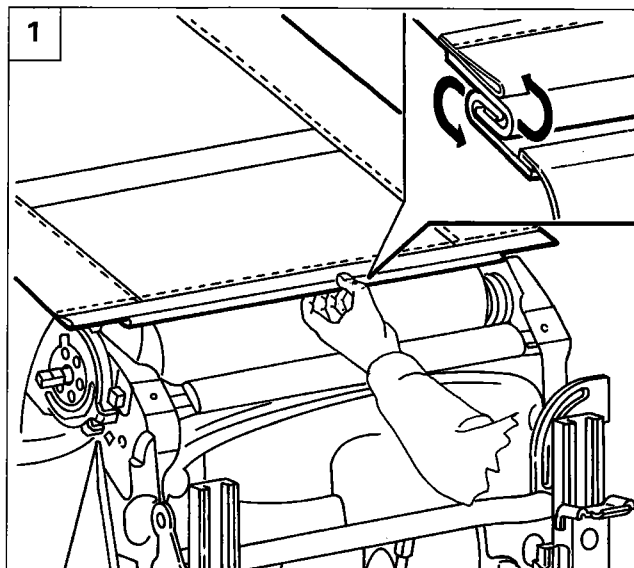
4F023FL02

4A25JL03

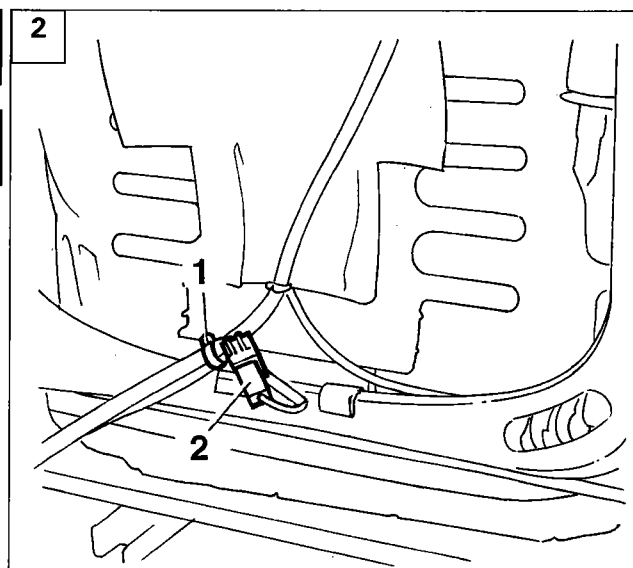


3U92NL05

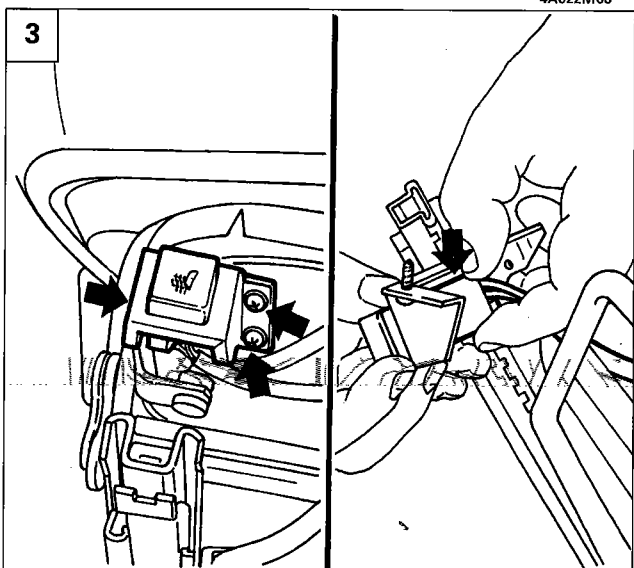
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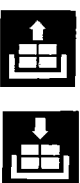
4A022M08



F026FL02



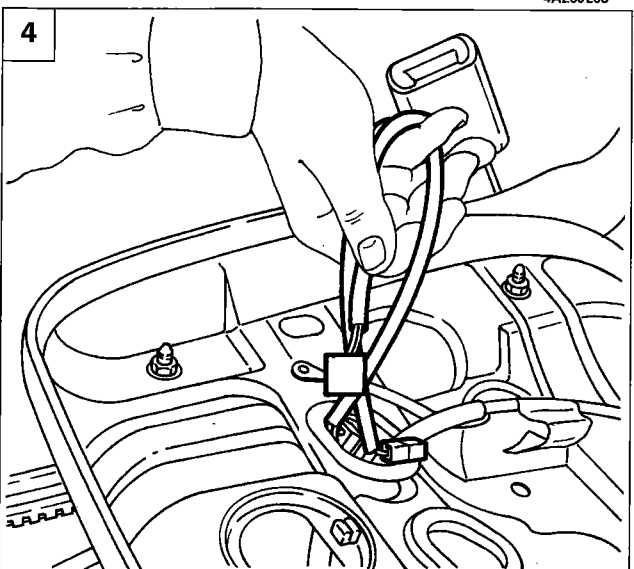
4A26JL03



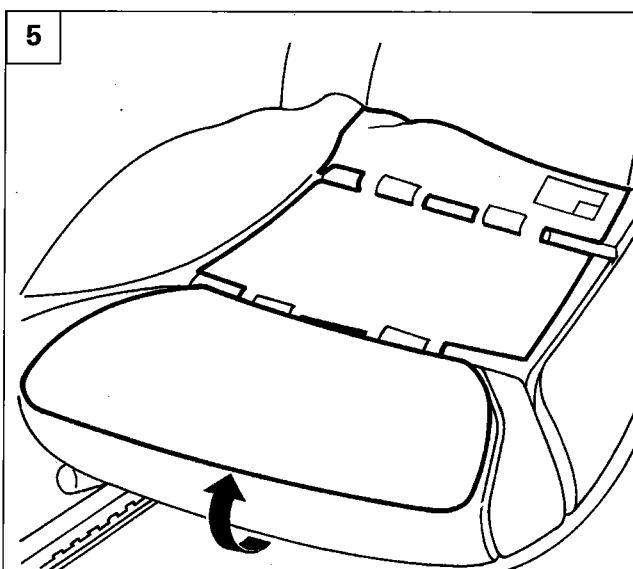
Removing-refitting cushion heat pad

1. Release the squab plastic section from its retaining system.
2. Remove the seat cover partly to cut retaining collar (1), disconnect electrical supply connection (2) and withdraw the wiring. Remove the cushion cover as described in the paragraph "Removing-refitting front seat cushion cover".
3. Under the heat pad switch bolts, disconnect the heat pad electrical supply connection.
4. Raise the seat cushion padding and release the electrical wiring from the retaining clips.
5. Remove the heat pad without damaging the PPD sensor.

NOTE Reverse removal instructions to refit.

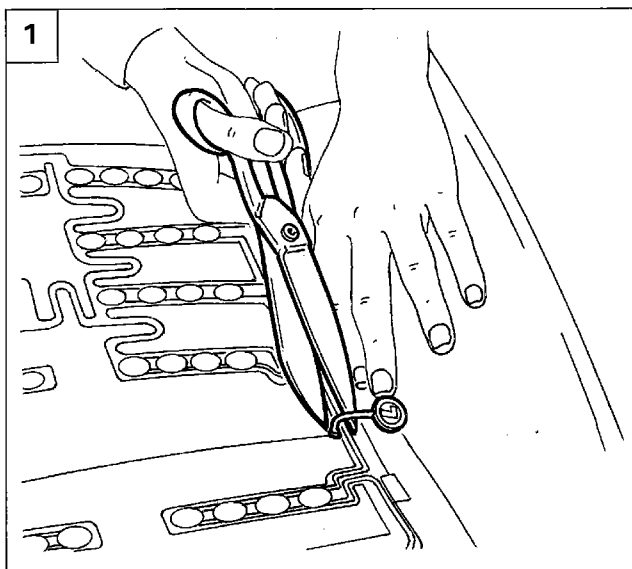


4A26JL04



4A26JL05

REMOVING-REFITTING PASSENGER PRESENCE SENSOR (PPD)



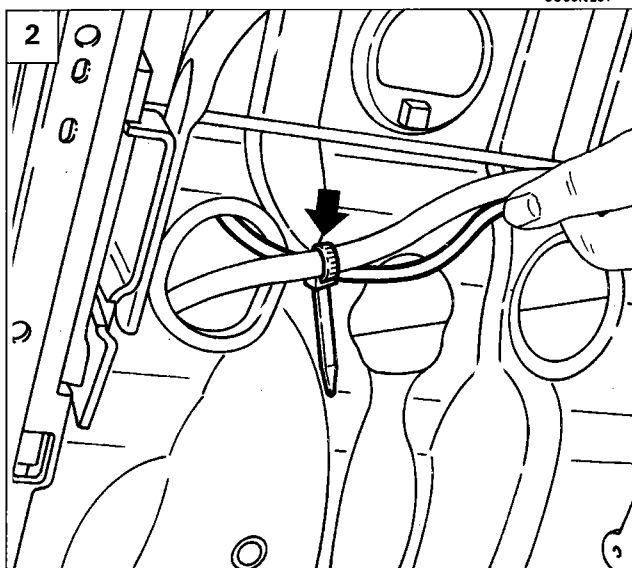
Removing

Remove the front seat cushion cover as described in the paragraph "Removing-refitting front seat cushion" and the cushion heat pad (if present).

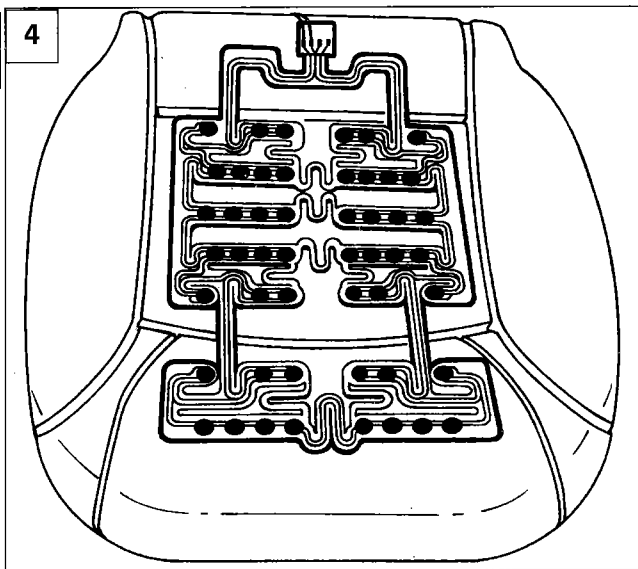
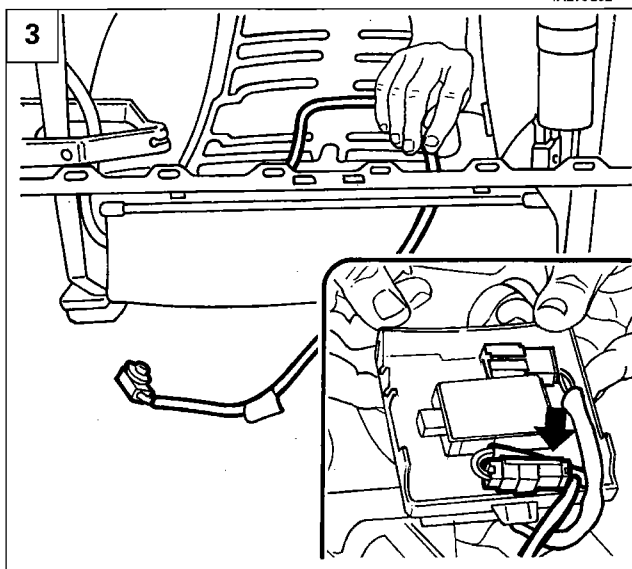
1. Cut the warranty seal, taking great care not to damage the sensor.



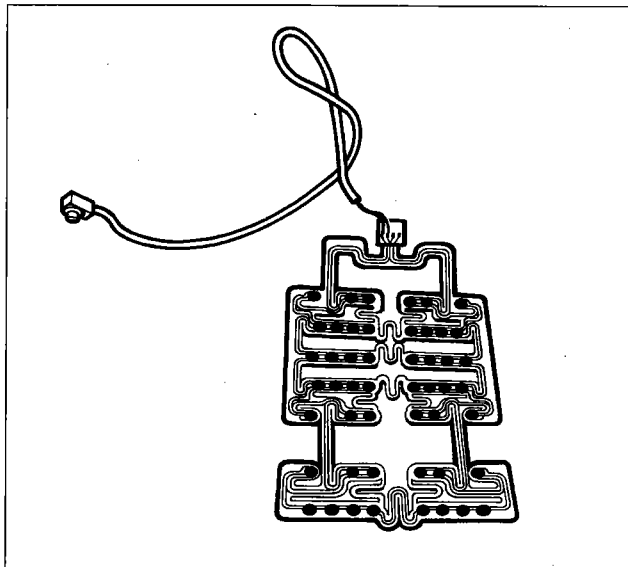
The seal is fitted as a guarantee that the PPD sensor is working correctly. As soon as the seal is removed for any reason, the manufacturer's warranty is cancelled. When refitting, replace the warranty seal with an original Fiat seal.



2. Release the passenger presence sensor supply lead from the retaining collar.
3. Disconnect the connector in the connector carrier box (shown magnified), then withdraw the passenger presence sensor supply lead from the bottom of the seat.
4. Disconnect the PPD sensor from the cushion padding, taking care not to damage.



55.

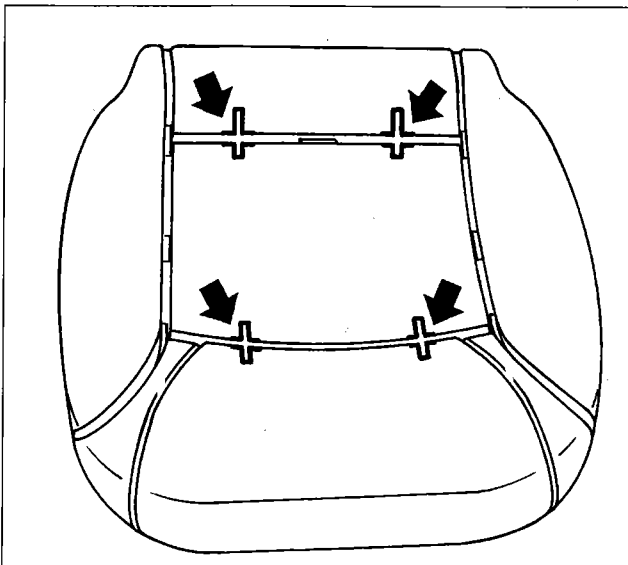


4A28JL01



Refitting

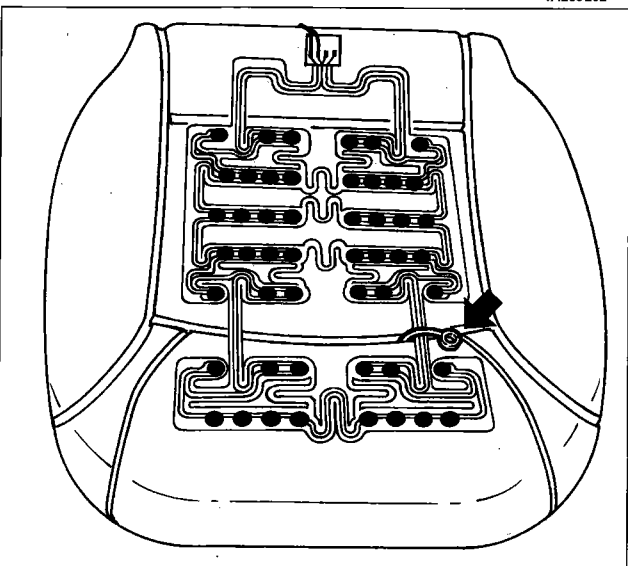
- To refit, position the PPD sensor with the adhesive side facing the padding;



4A28JL02



- insert the PPD sensor into the notches in the cushion padding shown in the figure;



4A28JL03

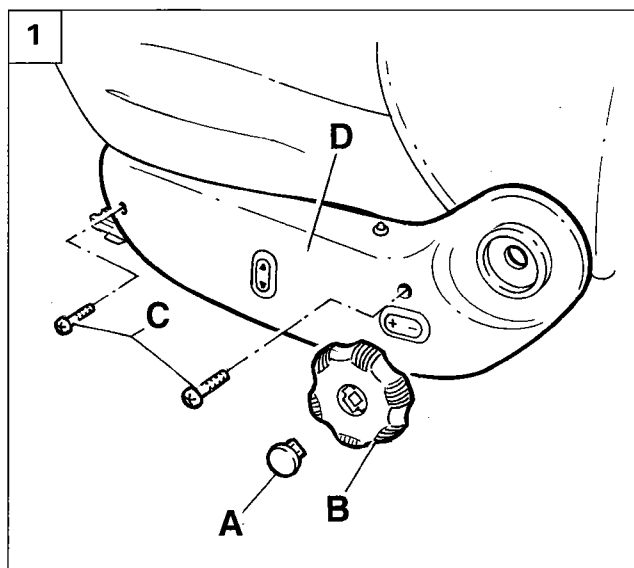


- reposition the PPD electrical wiring and restore the warranty seal.

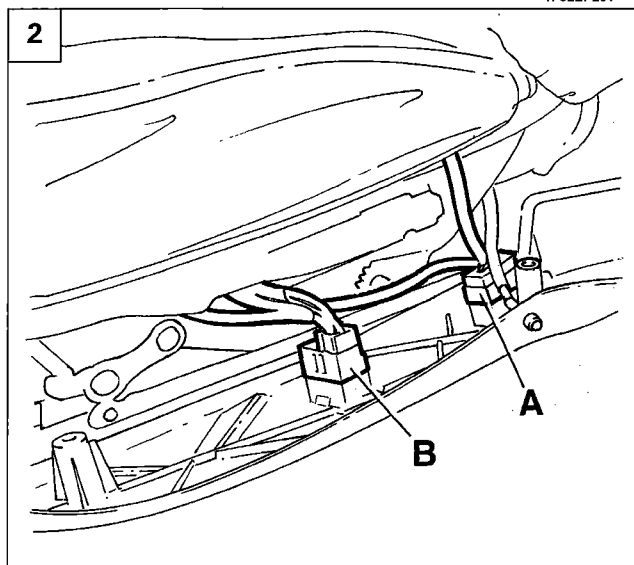


*Whenever working on the air bag system, it is **COMPULSORY** to check system operation at the end of the procedure using appropriate test equipment.*

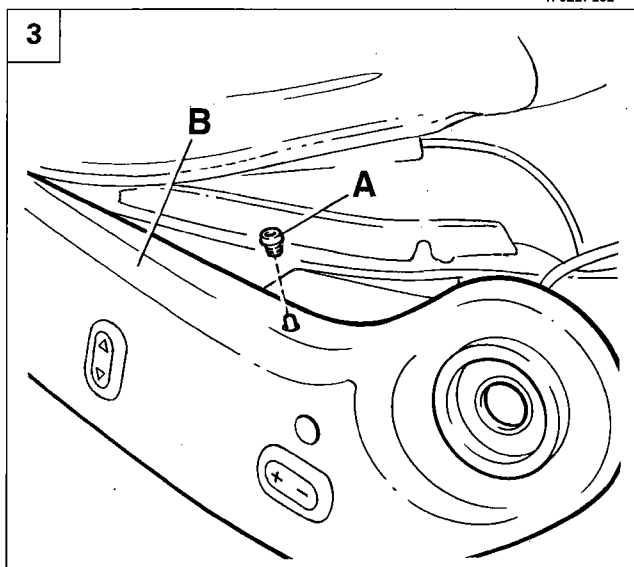
REMOVING-REFITTING SIDE BAG SUPPLY LEAD



4F022FL01



4F022FL02

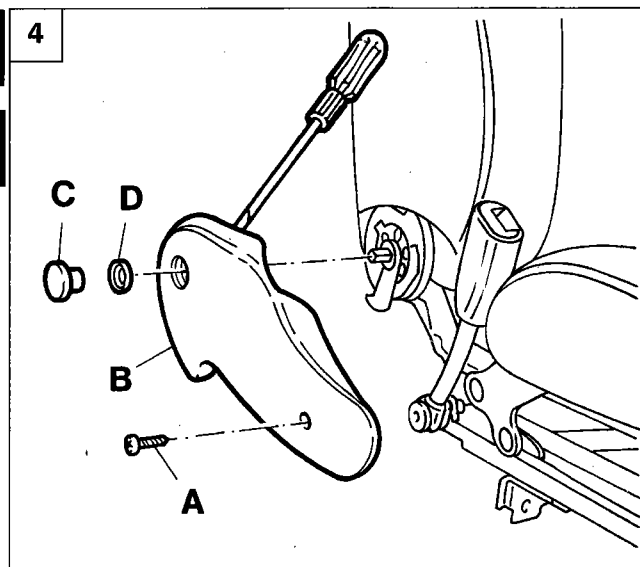


4F022FL03



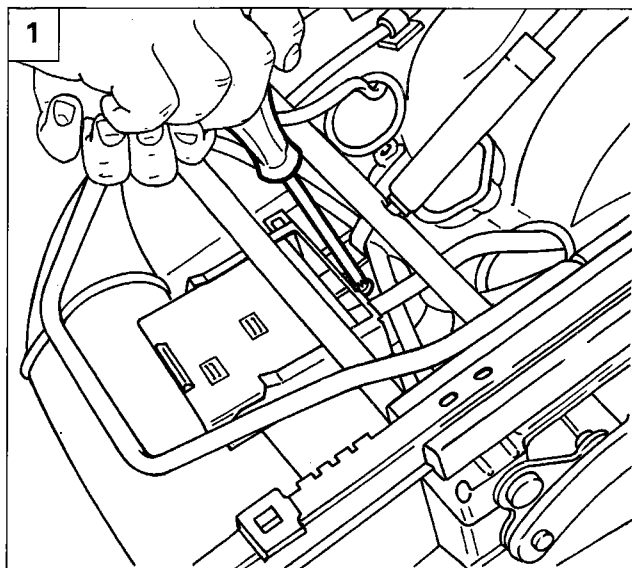
Remove the side bag module as described in the paragraph "REMOVING-REFITTING SIDE BAG MODULE" shown on previous pages.

1. Remove cap A and squa adjustment knob B, unscrew bolts C securing trim D.
2. Disconnect lumbar adjustment electrical supply connection A and seat ride adjustment electrical supply connection B.
3. Unscrew lock-ring A of the heat pad warning light (if present), then separate seat exterior trim B.
4. Unscrew bolt A securing trim B to undo claw washer D, taking care to avoid breakage. Push cap C from the inside after removing the trim, recovering claw washer D.

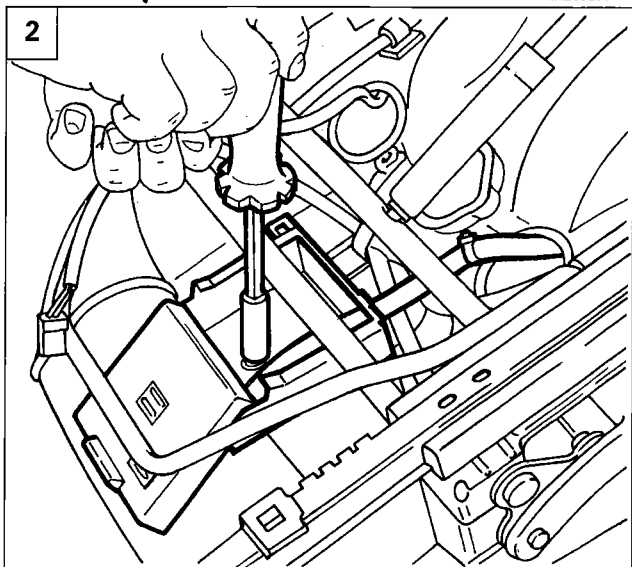


4A22JL04

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4A23JL01



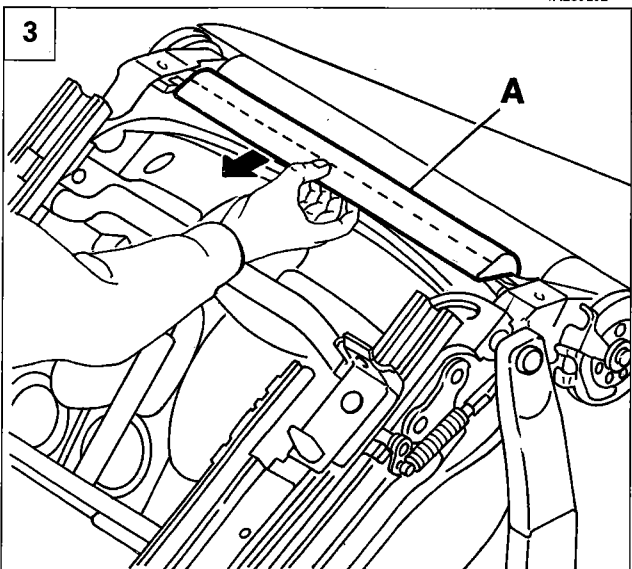
4A23JL02



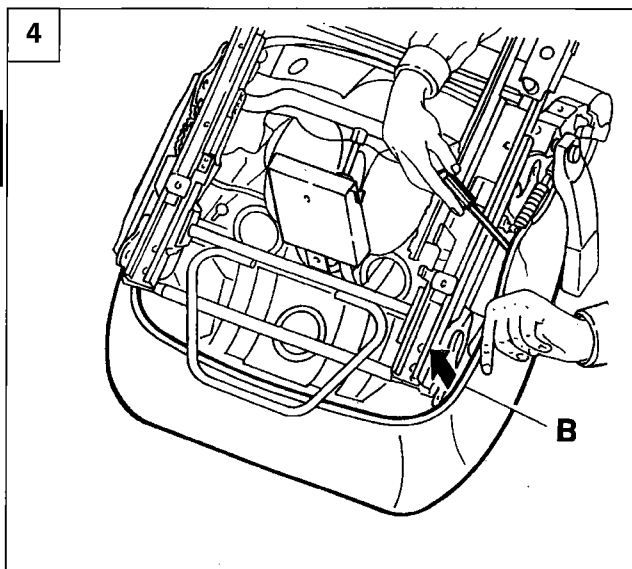
1. Undo the connector carrier box retaining bolt.
2. Remove the box flap, undo the underlying bolt and place the connector carrier box to one side.
3. Release the plastic section (A) at the rear, working as shown in the figure.
4. Remove plastic section (B), beginning from the rear side are. Prise out with the aid of a screwdriver, then remove the cushion.



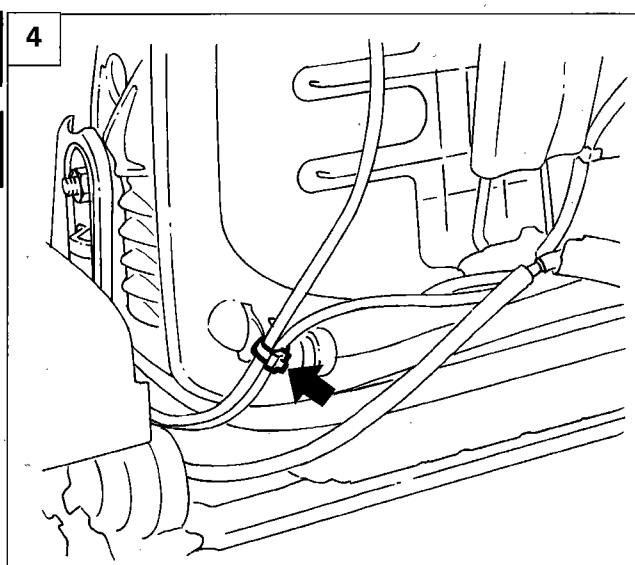
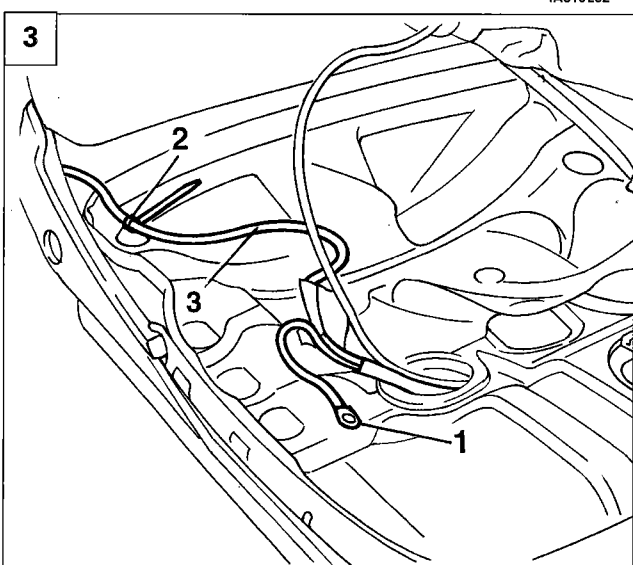
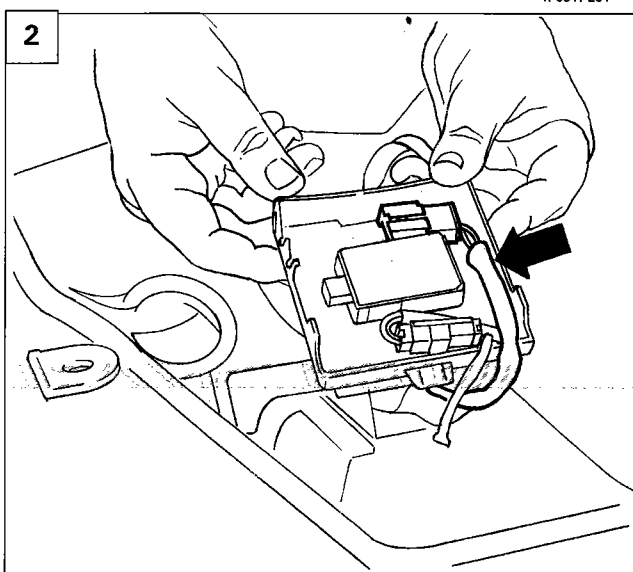
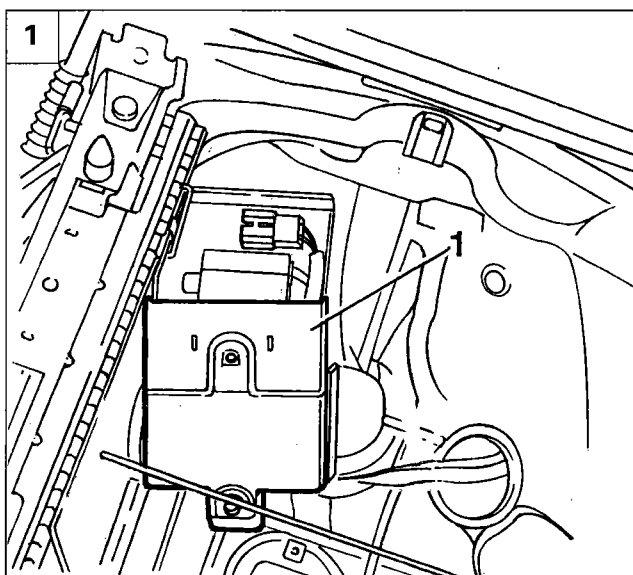
Remove the cushion complete with cover from the seat, taking care of the electrical wiring and in particular the passenger presence sensor and heat pad.



4A021M08



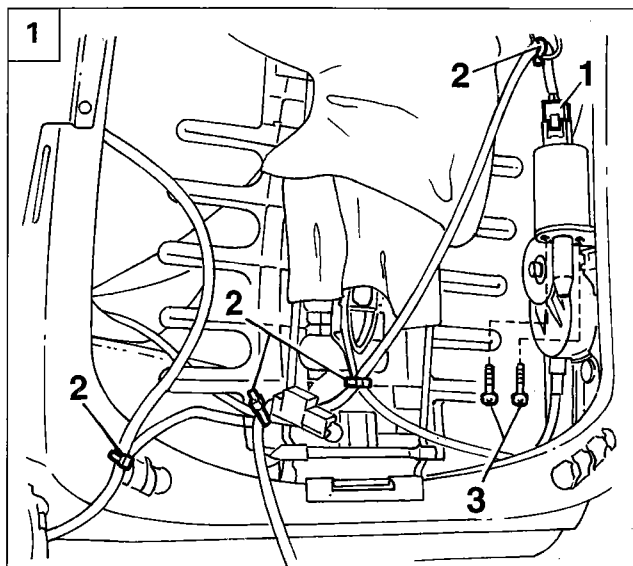
4F030FL01



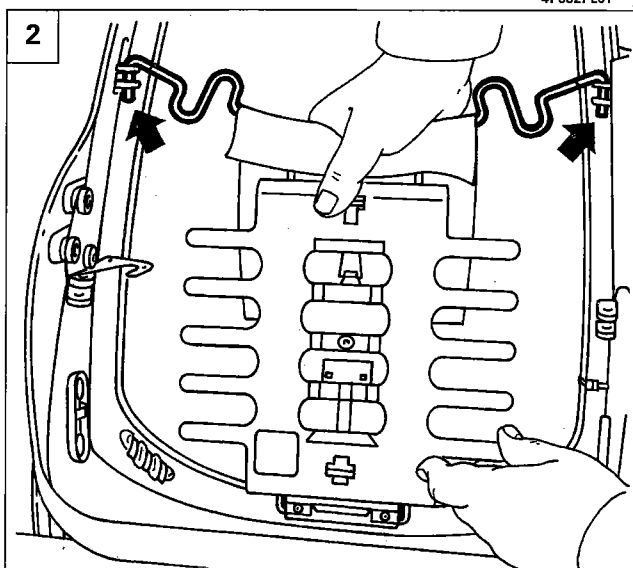
1. Remove connector carrier flap (1) and release the supply leads.
2. Remove the side bag supply lead from the connection carrier box, shown in the figure.
3. Remove rivet (1) securing the earth lead, extend retaining collar (20) and disconnect side bag supply lead (3) from the seat.
4. Cut the collar securing the supply lead to the seat squab frame.

NOTE Reverse removal instructions to refit.

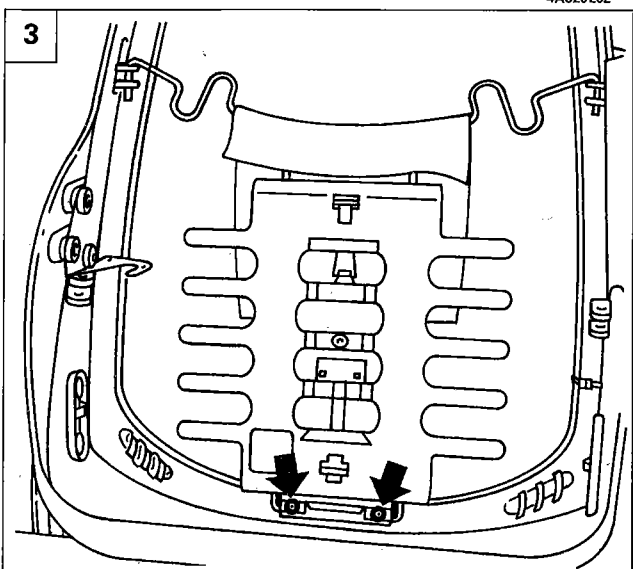
55.



4F032FL01



4A32JL02



4A32JL03

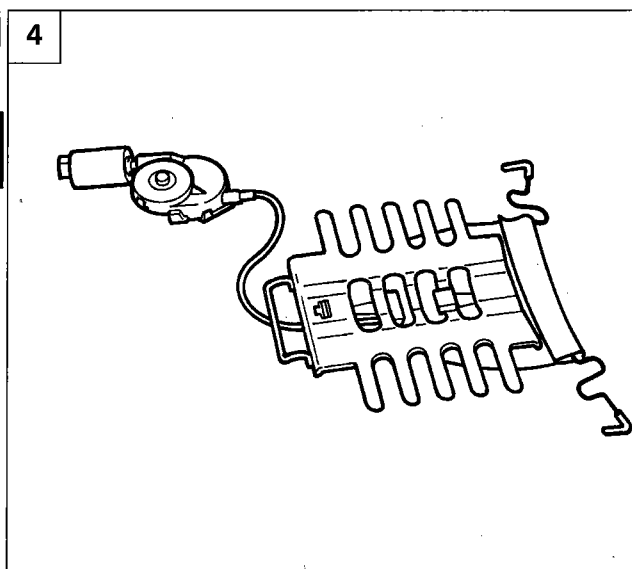


REMOVING-REFITTING LUMBAR ADJUSTMENT DEVICE

Raise the front seat squab cover as described in the paragraph "Removingrefitting front seat squab cover".

1. Disconnect lumbar adjustment motor electrical connection (1), then disconnect collars (2) retaining the supply lead and undo bolts (3) securing the motor to the bracket.
2. Undo the hooks securing the lumbar adjustment device to the squab frame.
3. Undo the bolts securing the lumbar adjustment device shown in the figure.
4. Remove the lumbar adjustment device from the seat squab.

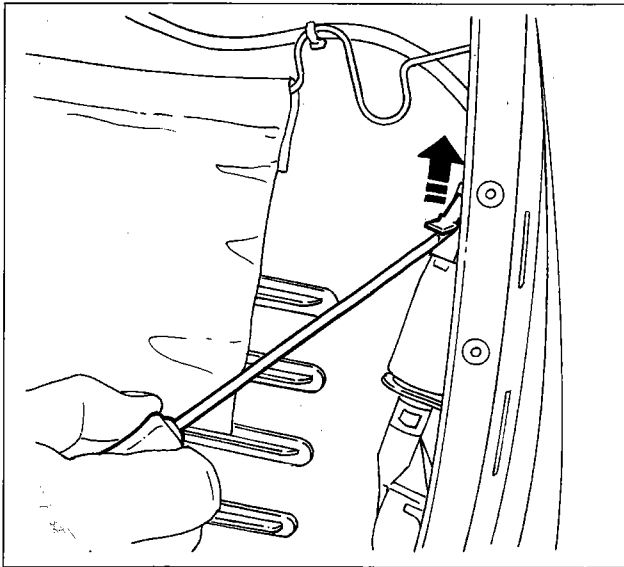
NOTE Reverse removal instructions to refit.



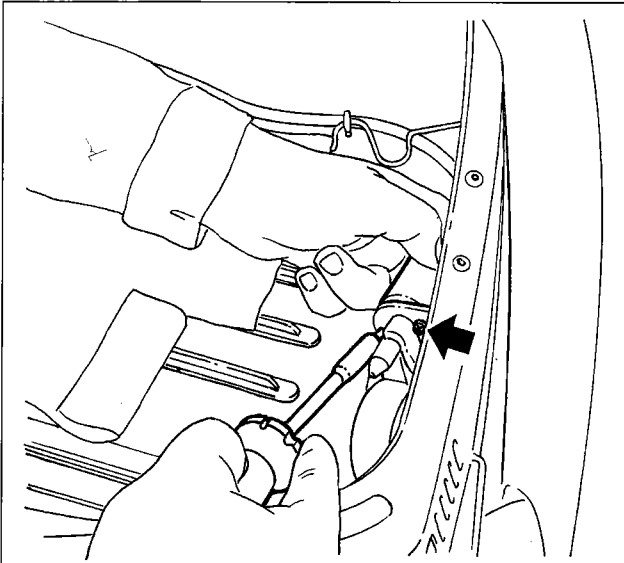
4A32JL04

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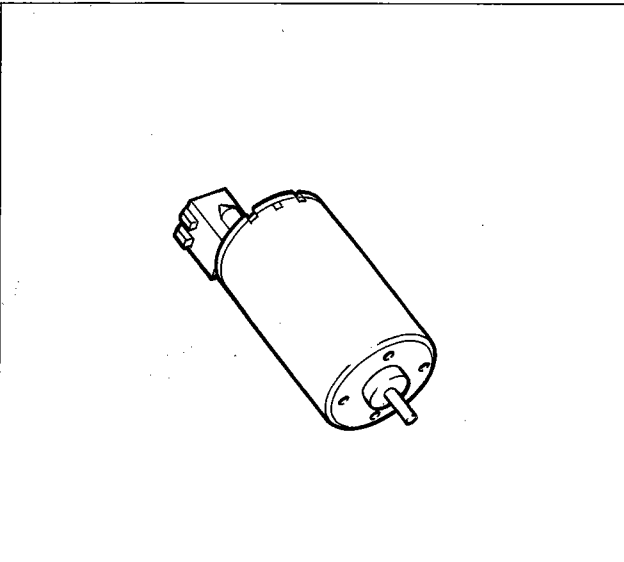
Removing-refitting lumbar adjustment device motor



4A33JL01



4A33JL02



4A33JL03



Remove the front seat squab cover as described in the paragraph "Removing-refitting front seat squab cover", except for the head restraint.

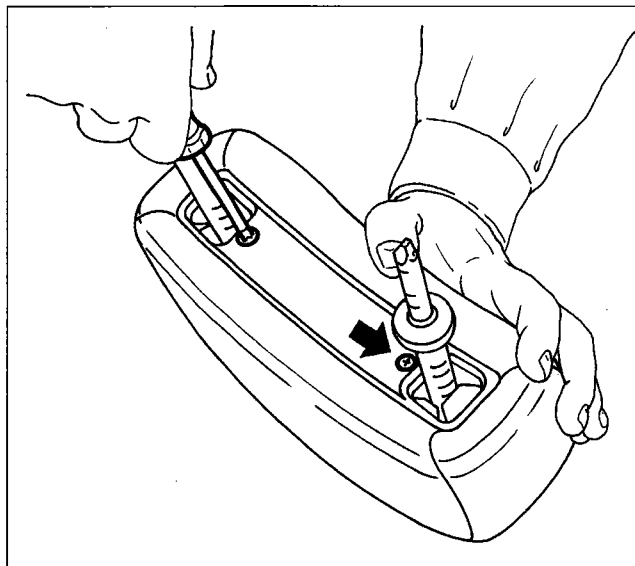
- Disconnect the lumbar adjustment motor electrical supply connection;

- undo the motor retaining bolts shown in the figure;

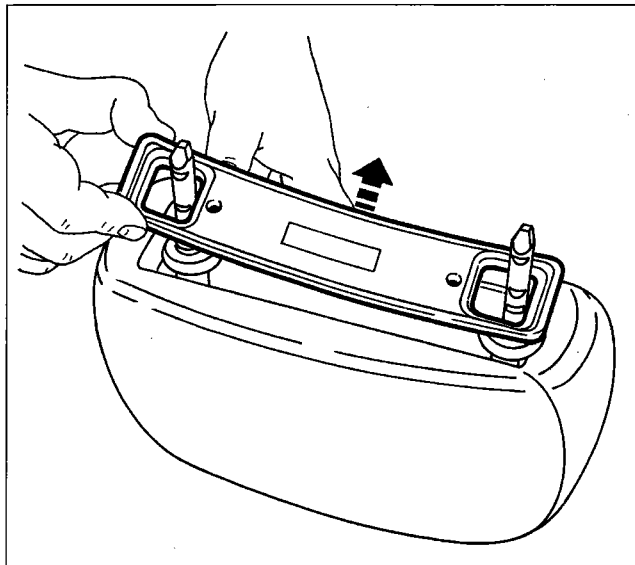
- remove the lumbar adjustment device from its seat.

NOTE Reverse removal instructions to refit.

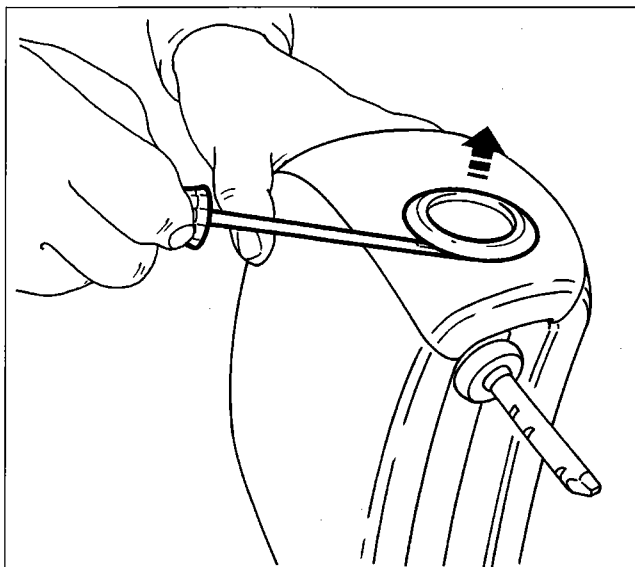
55.



4A34JL01



4A34JL02

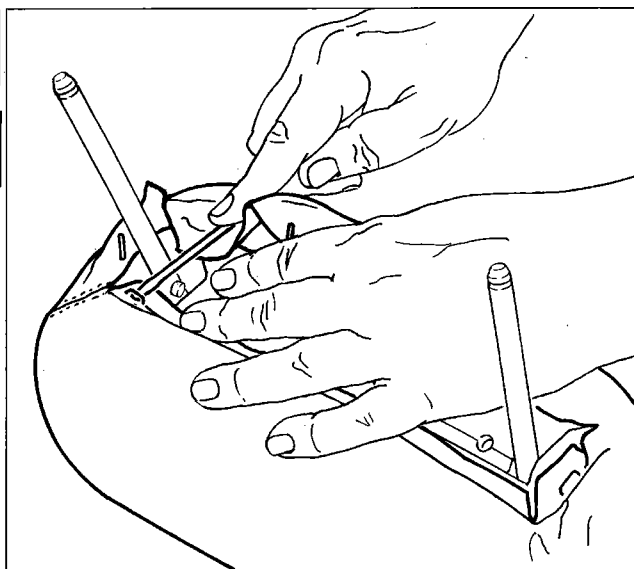


4A34JL03

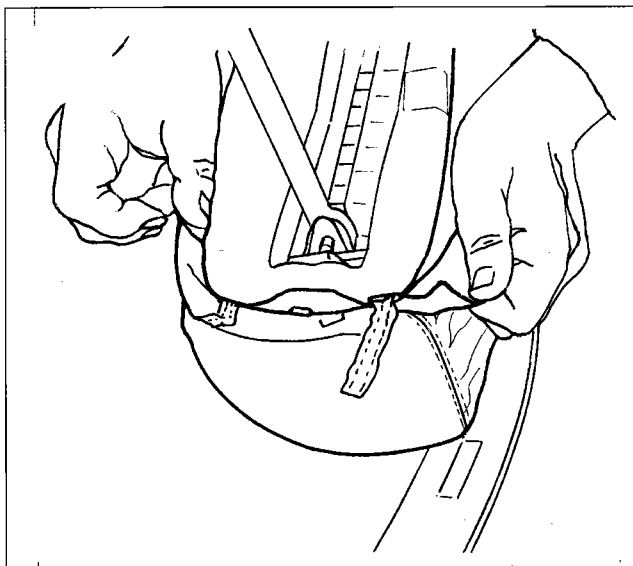
DISMANTLING THE HEAD RESTRAINT

Remove the head restraint as described in the paragraph "Removing-refitting front seat squab cover".

1. Undo the cover retaining plate bolts.
2. Raise the panel and remove from the head restraint.
3. Prise up the frame and the head restraint height adjustment button.
4. Raise the anchorage hooks from the head restraint trim and remove.



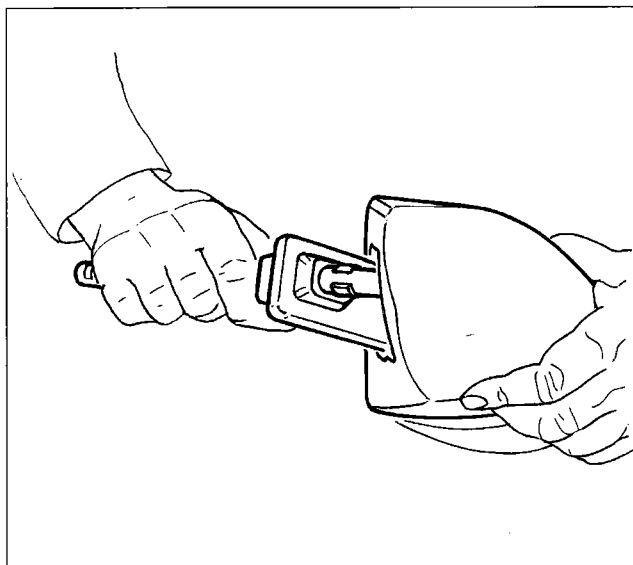
3U84NL07



3U84NL08



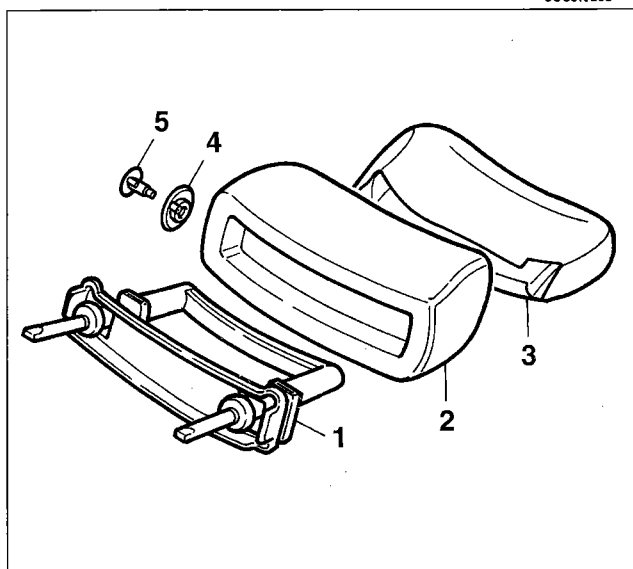
- Prise up the trim from the head restraint padding;



3U85NL05



- separate the padding from the head restraint structure;

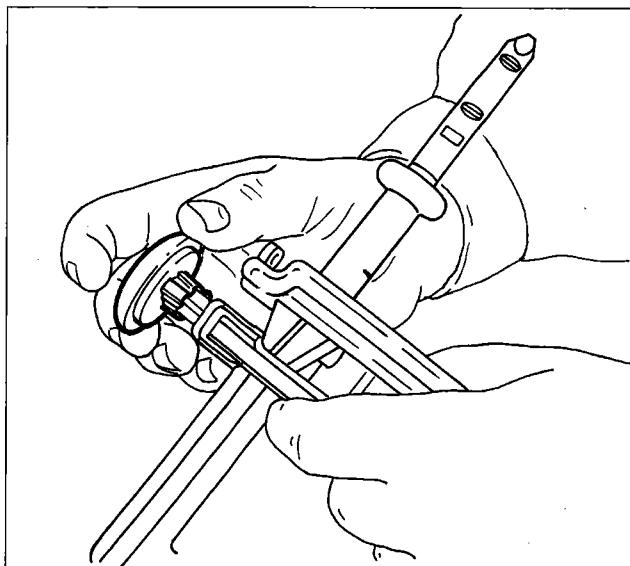


4A35JL03



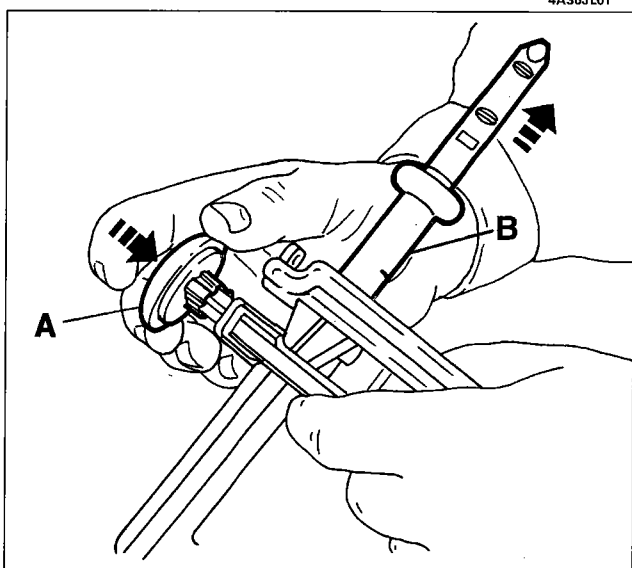
- structure (1), padding (2), trim (3), frame (4), button (5);

55.



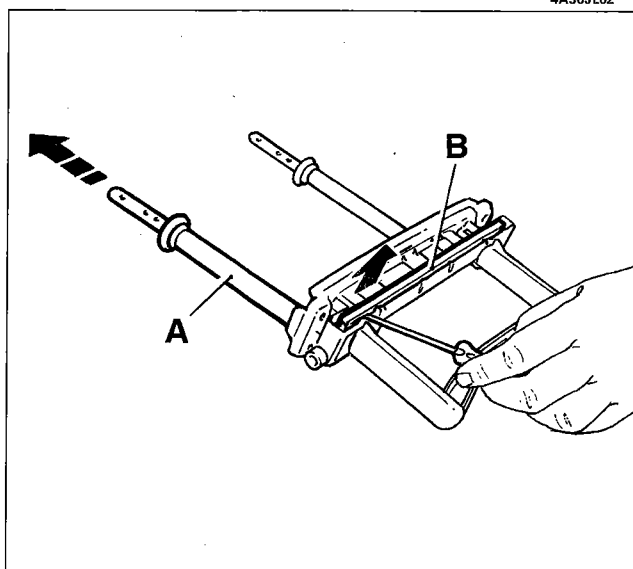
4A36JL01

- position the head restraint height adjustment button in its housing;



4A36JL02

- press button (A) and position head restraint rod (B) at the end of its course;
- remove the button fitted previously;

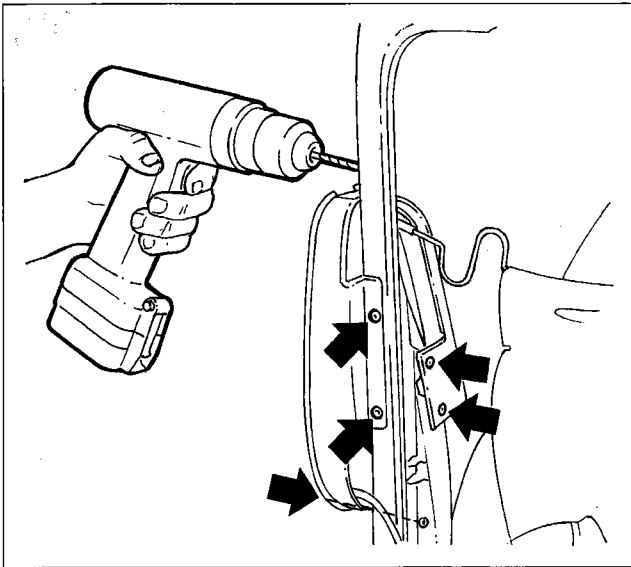


4A36JL03

- handle detent insert (B) carefully to prevent the retaining clip coming out, the remove head restraint rod (A).

NOTE Reverse removal instructions to refit.

REMOVING-REFITTING SIDE BAG FRAME



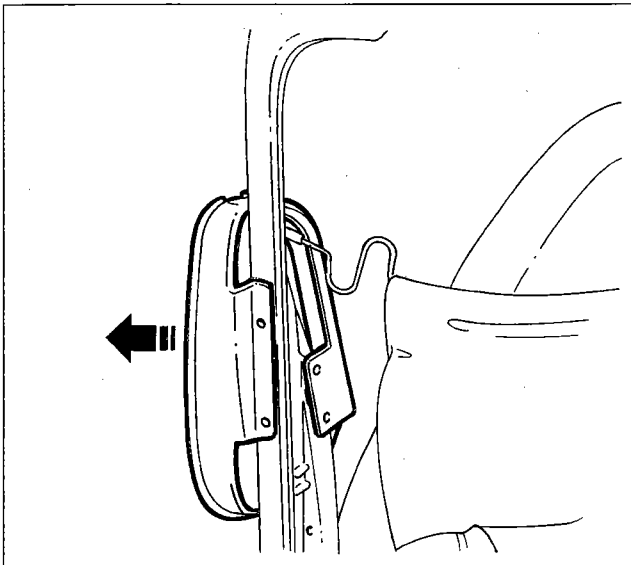
4F037FL01



Removing

Remove the squab cover as described in the paragraph "REMOVING-REFITTING FRONT SEAT SQUAB COVER"

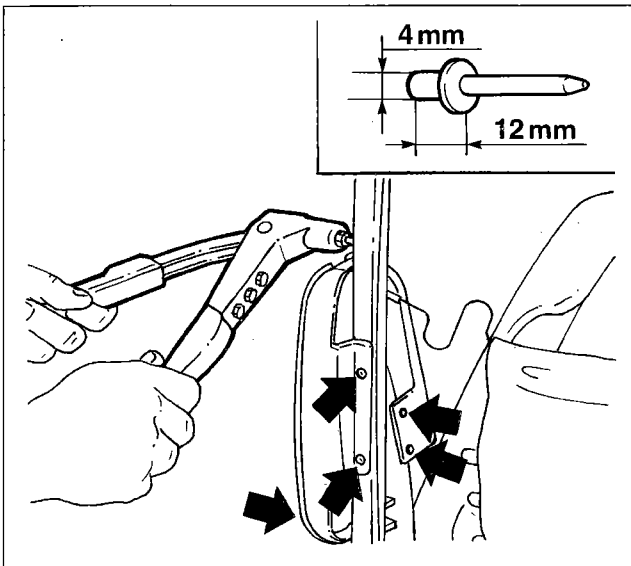
- Remove the preformed padding from its seat to gain access to the side bag frame, then use a drill with a 4 mm bit at the points indicated;



4F037FL02



- Remove the side bag frame from the seat squab frame.



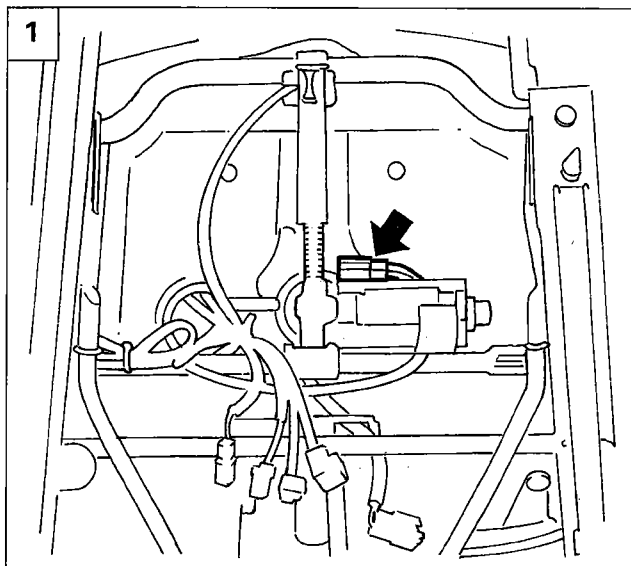
4F037FL03



Refitting

- Position the side bag frame and fit rivets of the size shown in the figure at the points indicated by arrows.

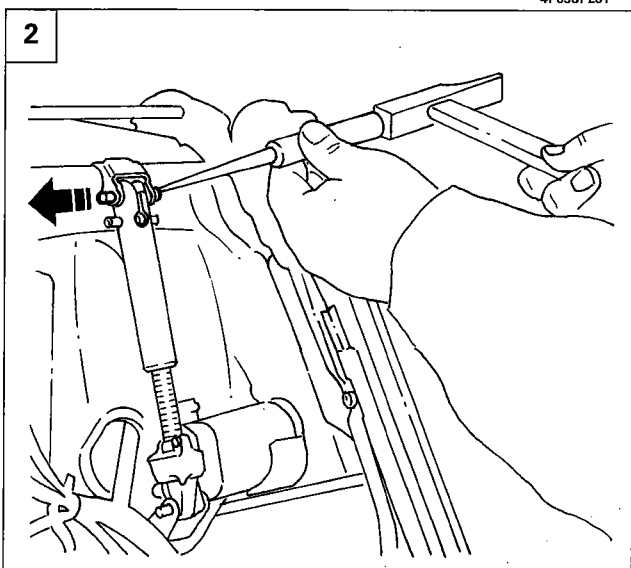
55.



4F038FL01



REMOVING-REFITTING SEAT HEIGHT-ADJUSTMENT MOTOR



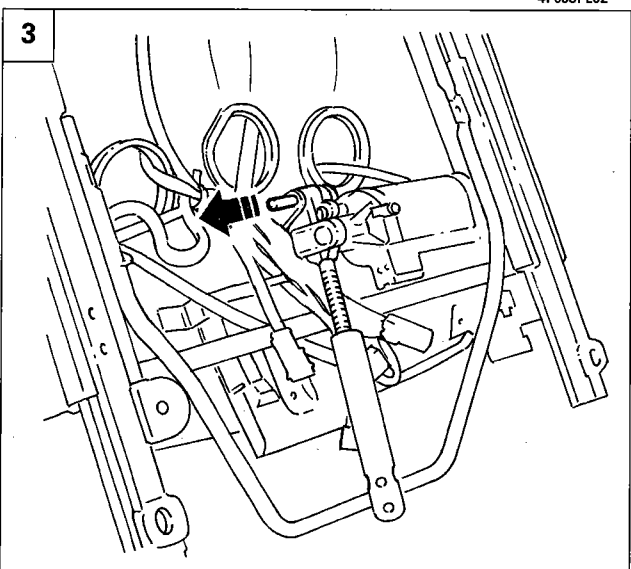
4F038FL02



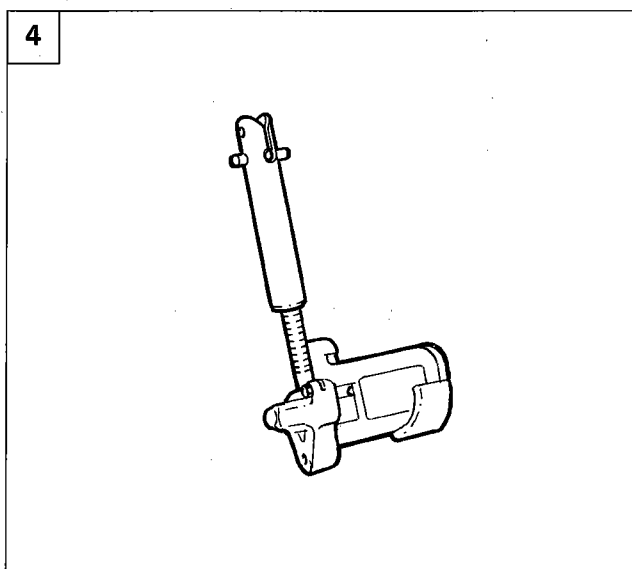
Remove the front seat as described in the paragraph "REMOVING-REFITTING FRONT SEAT WITH PASSENGER PRESENCE SENSOR AND SIDE BAG"

1. Position the seat on the bench and disconnect the height-adjustment motor supply connection.
2. Use a suitable drift to remove the upper pin securing the height-adjustment motor adjustment rod.
3. Turn the motor adjustment rod over and remove the lower retaining pin using a suitable drift.
4. Remove the height-adjustment motor from the seat.

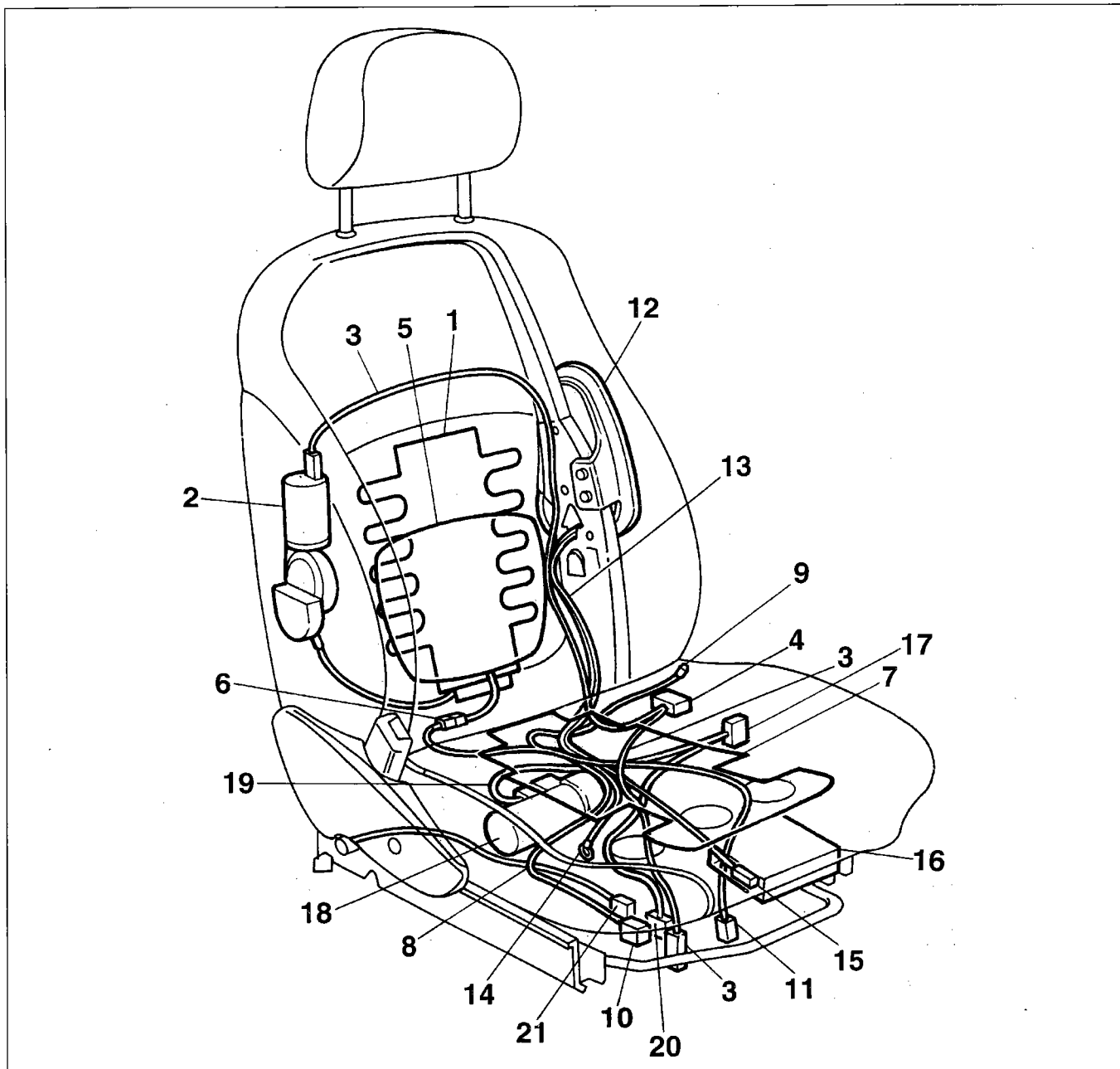
NOTE Reverse removal operations to refit.



4F038FL03



4F038FL04

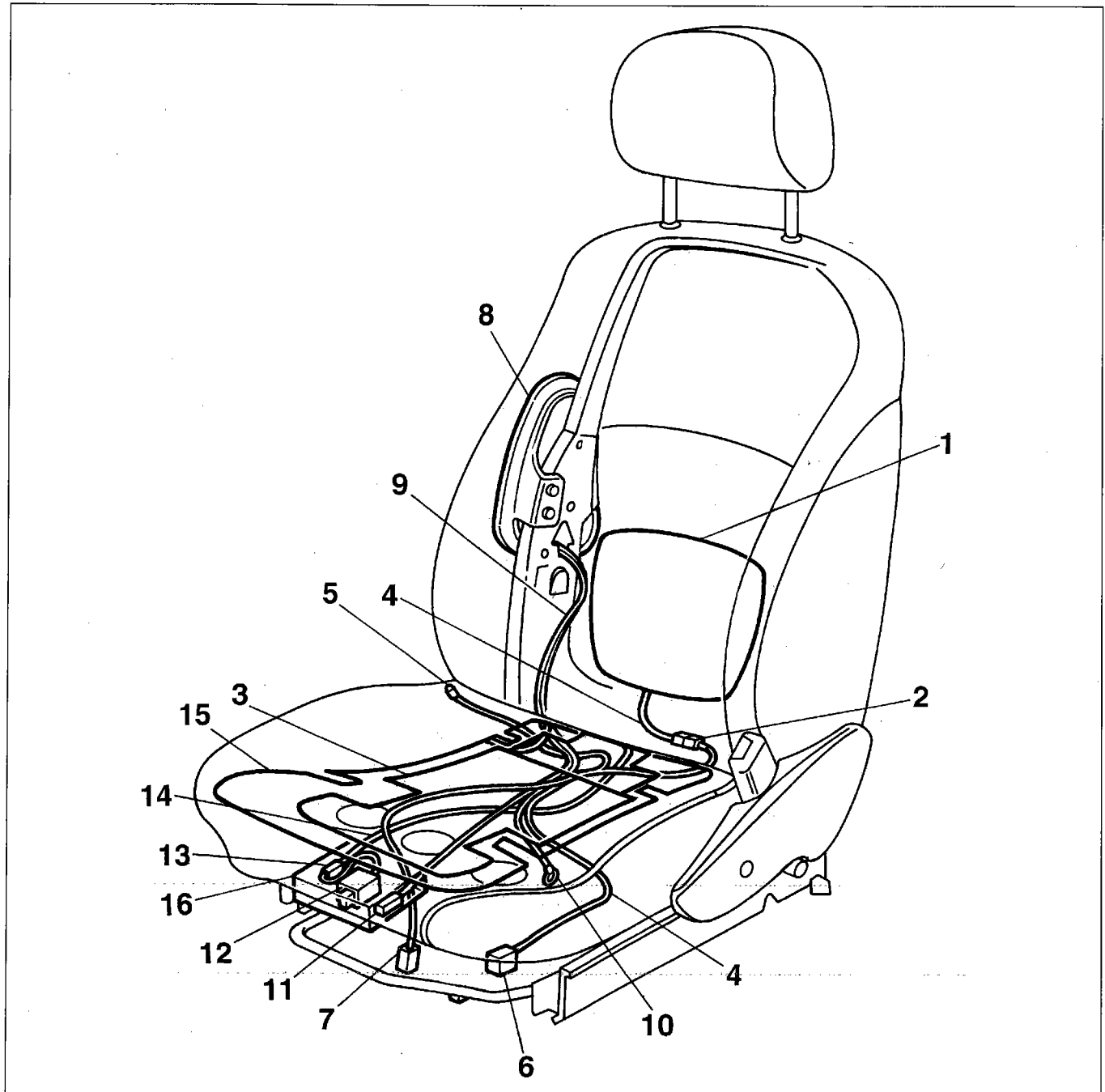
LOCATION OF DRIVER'S SEAT COMPONENTS

4F039FL01

- | | |
|---|------------------------------------|
| 1. Lumbar adjustment device | 13. Side bag supply lead |
| 2. Lumbar adjustment motor | 14. Side bag earth |
| 3. Lumbar supply lead | 15. Side bag power supply |
| 4. Lumbar adjustment switch | 16. Connection carrier box |
| 5. Squab heat pad | 17. Height adjustment switch |
| 6. Squab and cushion heat pad connector | 18. Height adjustment motor |
| 7. Cushion heat pad | 19. Wiring |
| 8. Heat pad supply lead | 20. Height adjustment power supply |
| 9. Heat pad warning light | 21. Safety circuit power supply |
| 10. Heat pad switch | |
| 11. Heat pad power supply | |
| 12. Side bag | |

55.

LOCATION OF PASSENGER SEAT COMPONENTS



4F040FL01

- | | |
|---|---|
| 1. Squab heat pad | 11. Side bag power supply |
| 2. Squab and cushion heat pad connector | 12. Passenger presence sensor PPD interface control unit |
| 3. Cushion heat pad | 13. Passenger presence sensor connector (PPD) with interface control unit |
| 4. Heat pad supply lead | 14. Passenger presence sensor (PPD) supply lead |
| 5. Heat pad warning light | 15. Passenger presence sensor |
| 6. Heat pad switch | 16. Connection carrier box |
| 7. Heat pad power supply | |
| 8. Side bag | |
| 9. Side bag supply lead | |
| 10. Side bag earth | |