

EXTERIOR FEATURES

The distinctly youthful lines and the choice of practical solutions linked to the most classical sports vehicles and the return to tradition is particularly evident in the bonnet lid and the boot lid with their engraved centres, typical of the work of craftsmen far removed from mass production techniques, all in all making this Spider a vital model in the corporate plan of product renewal.

The solutions adopted during the design of the vehicle mean that it is firmly ensconced in the tradition of the so-called "open-top two-seaters" which include the legendary "Ferrari Barchetta" from which this car has taken its name.

In this tradition the *Fiat barchetta* has a manually operated PVC flexible cover (soft top) fitted as standard which is integral with the metal acrylate rearscreen.

A rigid cover (hard top), the same colour as the bodyshell, is also available as an optional extra, which means that when the weather conditions or safety demands it the vehicle can be transformed via a simple operation from an "open top" to a "coupè".

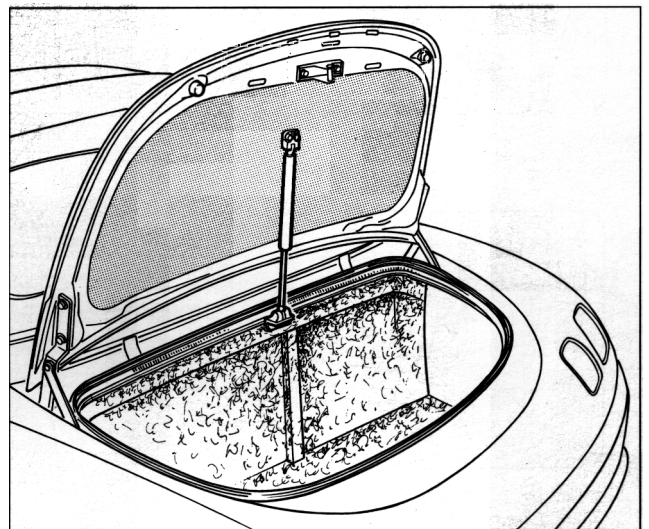
The attention paid to the problems of aerodynamics during the design stage is particularly evident in the solutions adopted as far as the following are concerned:

the metal door opening devices are characterized by the profile being within the line of the bodywork and they are produced showing the utmost concern for the parameters of ergonomics and safety;

the front light clusters are perfectly joined to the bodywork and the split rear light clusters are recessed in line with the bodyshell and the rear bumper.

the hood covering system, also equipped with a manually operated opening and closing device, is perfectly joined with the rear part of the vehicle.

the boot lid is equipped with gas shock absorbers



The *Fiat barchetta* also features:

exterior rear view mirrors on both doors, which can be folded back, if necessary, to facilitate parking manoeuvres.

a manual type radio system aerial;

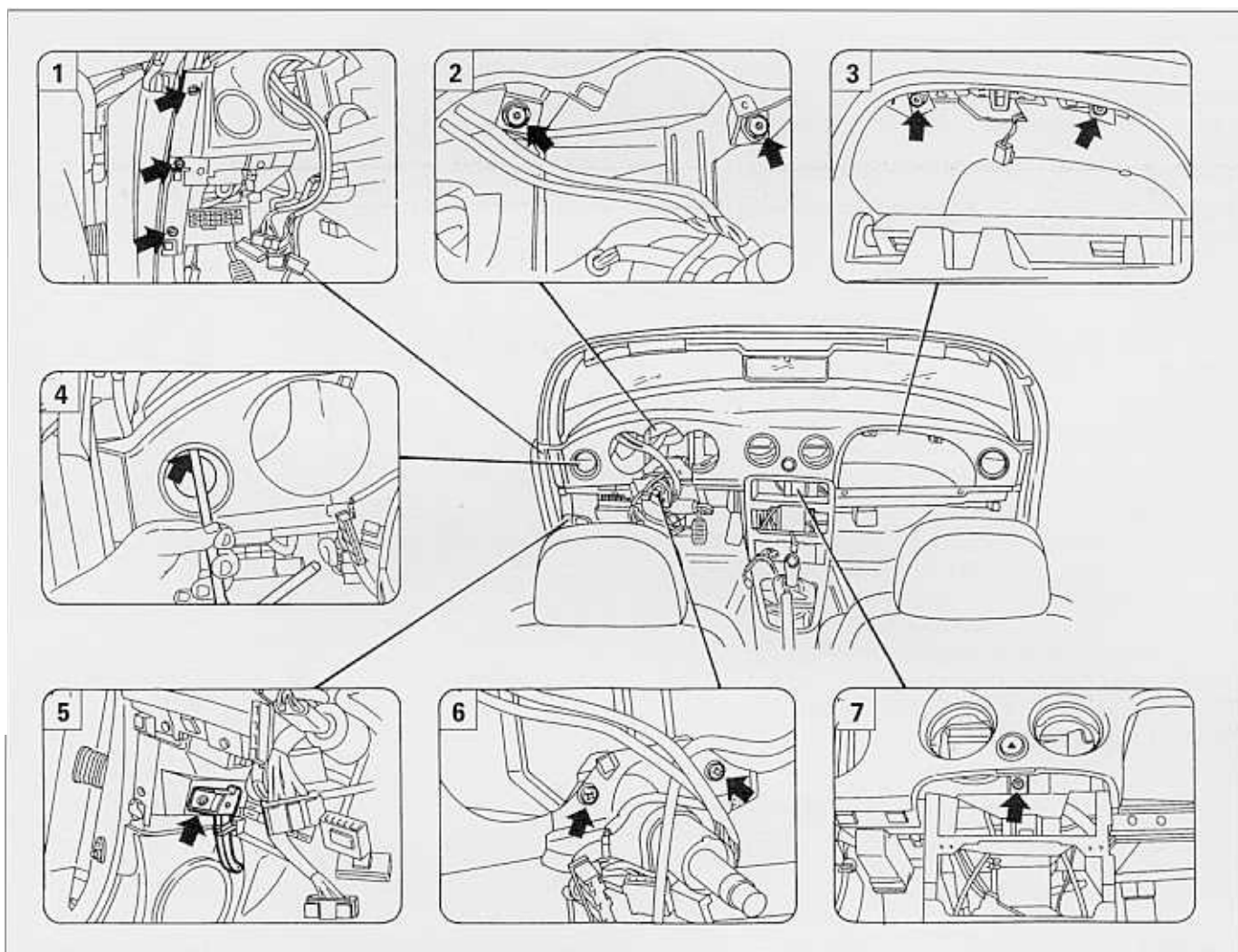
front bumpers which include the fog lamps and the direction indicators and rear bumpers colour matched to the bodyshell made from a new high energy absorption plastic type material: XENOY CL105 characterized by the possibility of being able to be painted directly without the need to apply base coats as in the case of "PP" polypropylene.

INTERIOR FITTINGS

The design of the interior of the *Fiat barchetta* has featured a single objective: to eliminate to the greatest possible extent the elements which separate the passengers and the surrounding environment.

With this aim in mind the solutions adopted are based on an apparent continuity of material and lines, soft and rounded, the colour of the bodywork "entering" the passenger compartment with the door panels colour matched to the bodyshell and the inserts in the dashboard made from ABS type plastic.

The dashboard, which appears thinner through the optical effect created by the presence of inserts, has been developed with soft lines; the only concessions to geometric lines are the three rims surrounding the indicators and the four air vents.



Features of the points where the dashboard is fixed to the bodyshell

Particular attention has been paid to the instruments: the rev counter is positioned in the centre, typical in sports cars, with black numbers on a white background deeply recessed for perfect visibility even in bright sunshine.

The steering wheel with three spokes is smaller than the one in saloons and the radio is perfectly integrated with the design of the interior located high up in the centre so that it can be easily reached without having to glance away from the road.

Below the radio there is a group of controls for the heater and/or air conditioning and air recirculation and a second unit underneath with the digital clock display and the ashtray.

The gear lever, smaller in size as befits a sports car, is in the centre console which continues towards the rear of the vehicle containing the handbrake and a small lockable compartment.

The doors, which have inserts which are black and the same colour as the bodywork, house the speakers and on the passenger side there is an armrest and a soft documents pouch.

Sporty driving requires an immediate and direct relation between the driver and the vehicle; in this case too thanks to the technical and stylistic solutions adopted the *Fiat barchetta* is distinguished by the style of driving which the design of the bodysell and the interior fittings make possible.

The body of the driver should form a single unit with the machine in order to sense even the slightest reactions.

The driving position in sports cars, for example in Formula One cars, should be extended.

The very crouched passenger compartment even in terms of width offers better support to both the driver and the passenger in opposing the strong side acceleration created when cornering at high speeds.

Always with the aim of improving support, the passenger side also has a footrest.

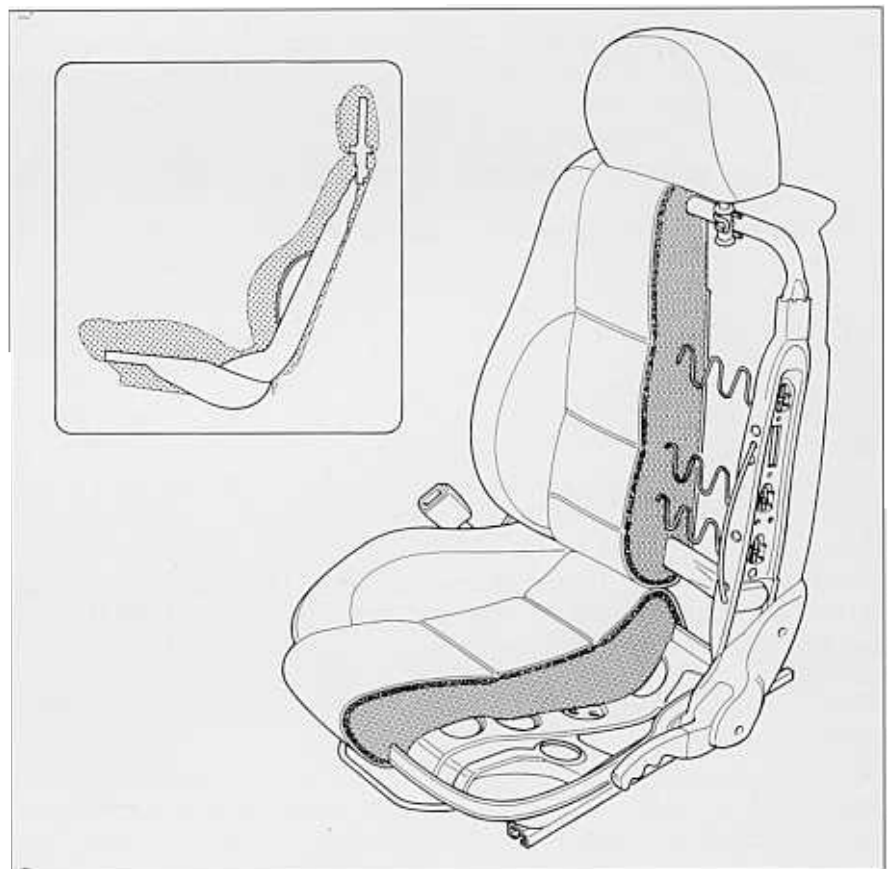
The clutch pedal has been specially designed for an extended position, in effect its trajectory is rectilinear.

The position of the short gear lever has been designed to allow the driver to change gear quickly and comfortably.

This position prevents tall people with the seat in the fully retracted position from having to stretch their arm too far forwards in order to reach the lever; at the same time it prevents short people with the seat completely forwards from touching the seat backrest with their elbow when engaging second and fourth gears.

The seats fitted on the *Fiat barchetta* are characterized by a more anatomical shape with more pronounced side bands and a very "wrap around" shape; they also perform a retaining function, in effect in the case of strong deceleration, with conventional seats passengers risk sinking into the seat and slipping under the seat belt lap strap.

On the *Fiat barchetta* this cannot happen because the front seats have an "anti-slip" property designed to ensure the perfect retention of the occupants.



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SAFETY

The problem of safety normally constitutes the most important aspect of a vehicle.

Even more so for a "spider" where the absence of a roof and central pillars increases the problems connected with safety where it has been necessary to develop all the possible solutions which guarantee passengers:

'a relaxing time in the vehicle" (**Preventative safety**)

"the reduction of possible accidents to a minimum" (**Active safety**);

"the cancelling and/or reduction of consequences following an accident" (**Passive safety**).

Preventative safety

Having a vehicle at your disposal where every component has been designed to facilitate driving and create a comfortable environment enhances both attention to traffic conditions and the relaxed state necessary to undertake longer journeys.

On the *Fiat barchetta* particular attention has been paid to the following features in order to improve the above mentioned characteristics:

- the driving position, in order to take full advantage of the vehicle's potential whilst remaining safe;
- the ergonomics of the controls so that they are easy to use and comfortably accessible;
- the instrument graphics making them quick and easy to read.

Active safety

As far as a vehicle is concerned active safety comprises all the solutions which ensure stable and responsive braking, prompt acceleration and predictable behaviour on the road to the point of making it possible to overcome even the most critical situations without difficulty.

As far as the *Fiat barchetta* is concerned particular attention has been paid to the following features in order to improve the above mentioned characteristics:

- the braking system is accurate and powerful;
- ABS anti-lock brakes are fitted;
- the new 1.8 16v engine features especially lively acceleration.

Passive safety

The bodyshell of the *Fiat barchetta* has been designed and produced in such a way that even though there is no roof and central pillars in the case of an impact it is possible to ensure that the passenger compartment remains intact and the occupants are not badly injured.

The special reinforcements on the *Fiat barchetta* are concentrated above all in the front and rear sections of the floor panel where there is a double central tunnel, in the reinforced side members, in the front pillars and a set of cross members positioned both in the floor under the seats and in the rear section by the fuel tank.

These areas have been designed so that they deform and thereby act as a "shield" for the passenger compartment.

The doors have also been fitted with high resistance, unbreakable, tubular impact bars which are combined with a particularly rigid structure with the doors themselves firmly welded to the bodyshell by means of high strength hinges and locks.

In effect it is absolutely vital that during the dynamic stages following a collision the doors remain closed to prevent the passengers from being thrown outwards; with this in mind the locks used on the *Fiat barchetta* have twice the resistance limits of those required by the homologation standards.

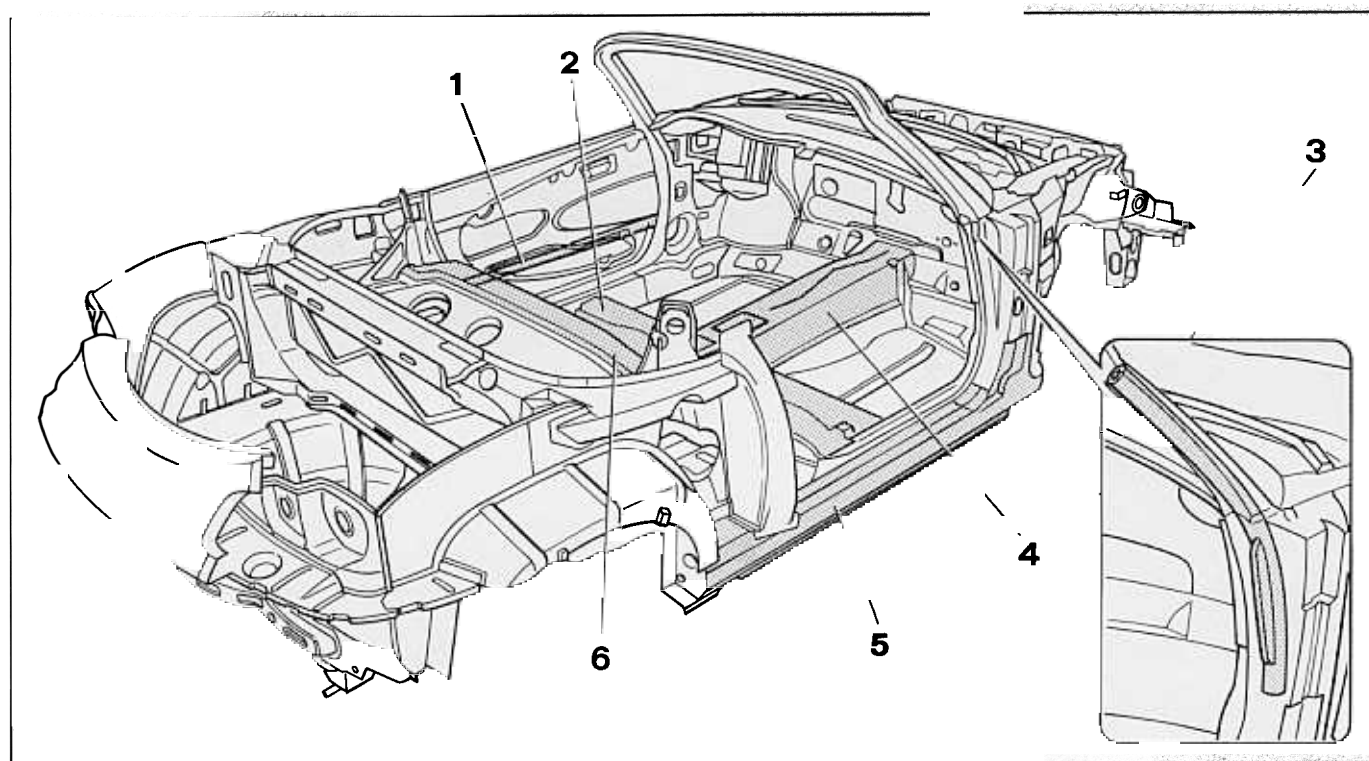
The bodyshell of the *Fiat barchetta* has been designed using mathematical methods. These methods have allowed the optimum structure dimensions and shape at the same time making it possible to check resistance to stress and distortion. The high bending and torsion strength values, features of the bodyshell of the *Fiat barchetta*, in addition to conferring excellent passive resistance qualities on the vehicle also produce a sensation of soundness and, more generally, comfort keeping the suspension angles correct and thereby offering precise driving.

The *Fiat barchetta* has produced brilliant results in the crushing test, in accordance with the most severe international regulations, thanks also being due to the front pillar which is reinforced with a special large tubular element (diameter: 24mm ; width: 4mm) made from a high resistance material.

In order to restrict the weight and the size of the load carrying structures which are most subject to stress, at the same time ensuring the required safety and durability qualities, so-called high resistance materials have always been used.

These materials are characterized by a lower specific weight with better resistance properties compared with conventional type materials.

These materials, made up of an alloy with a low content of carbon with small quantities of molybdenum, vanadium, manganese, niobium or titanium, are characterized by a particularly fine granular structure; as a result the resistance to breaking and yielding properties which normally assume values of between 15 and 22 kg/cm² are increased by up to 120+130% reaching resistance values of between 35 and 49 kg/cm²



1. Tubular door reinforcements

2. Seat cross member

3. Tubular windscreen pillar reinforcements

4. Twin central tunnel

5. Side members

6. Rear cross member

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In addition to the structural characteristics described previously, the *Fiat barchetta* guarantees extremely high safety levels also thanks to the presence of:

- seat belts (1) of the three-point type with idlers positioned above which ensure that they fit correctly irrespective of the height of the driver or the passenger;
- electronically controlled pyrotechnic type pre-tensioners (2) which, in the case of an impact greater than a pre-set magnitude, ensure that the passenger's body is held against the seat owing to the action of the webbing;
- In addition to the seat belts, which must always be fastened, the Air Bag has the function of reducing the effect of violent impacts.

It is fitted as standard for the driver (3) and is available as an optional extra for the passenger (4); it has been designed in accordance with European directives and is made up of two bags (42 litres for the driver and 90 litres for the passenger) in an artificial fibre (Naylon) "PA66" incorporated in the steering wheel and in the vehicle dashboard.

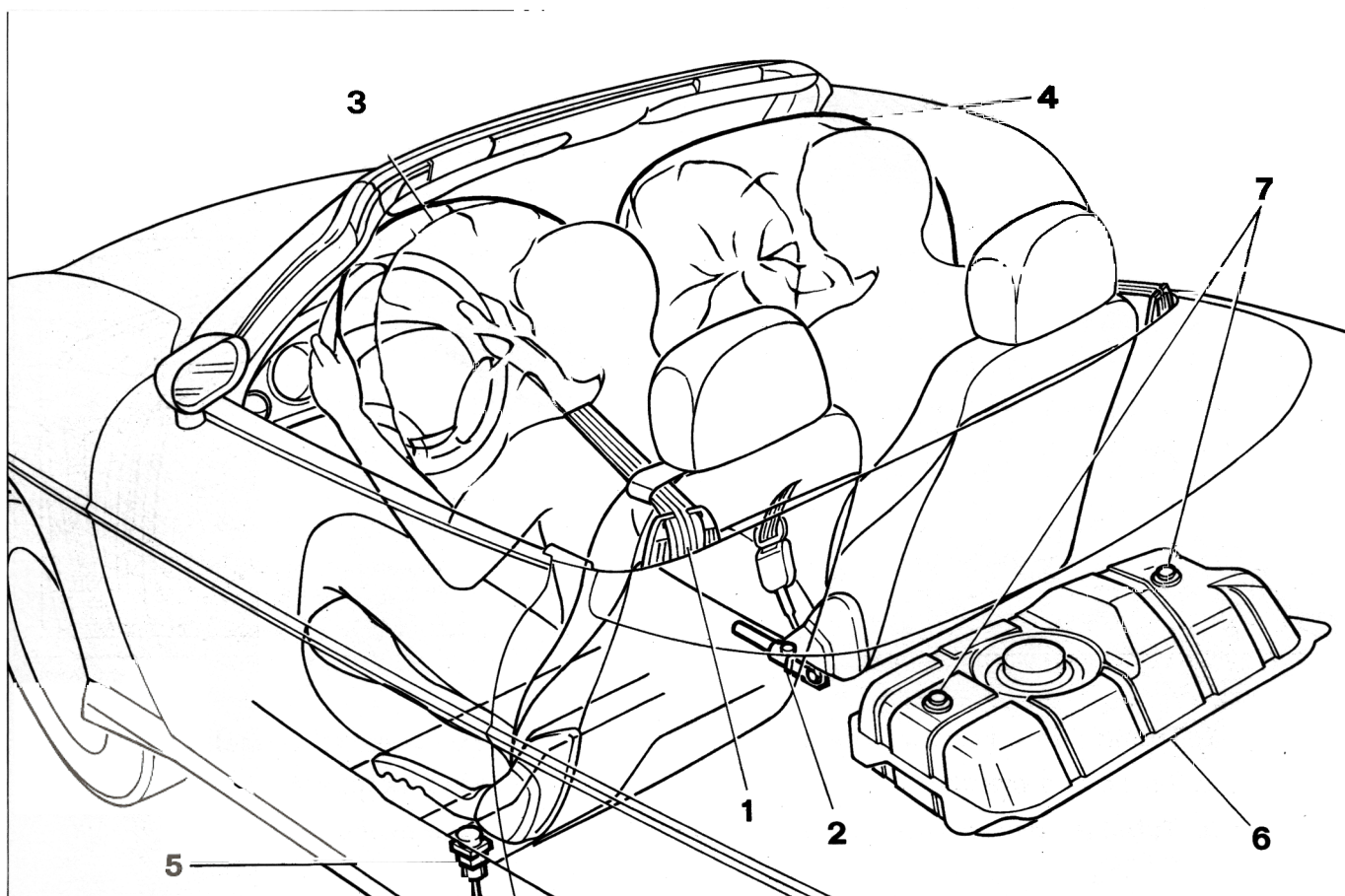
An electronic sensor, located in a control unit in the vehicle tunnel, together with a mechanical sensor, instantly detect the deceleration caused by a head-on collision and, if it is beyond a certain pre-set limit, a signal is sent which causes the ignition of the solid propellant and the consequent inflation of the insert gases in the bags.

- an inertia switch (5), a protected type tank (6) and an anti-reflux valve (7) downstream of the tank make it possible to keep the risk of fire to a minimum even in the case of violent collisions.

The inertia switch, located on the left hand side of the driver's seat under the floor covering, stops the operation of the electric fuel pump and consequently causes a sharp drop in pressure in the fuel supply ducts thereby preventing the escape and/or spraying of petrol from any pipes which may have been damaged as a result of the impact.

The tank, enclosed in a separate, sealed housing is protected at the back by the luggage compartment bulkhead, at the front by a double cross member, at the sides by the mechanics of the suspension and the fixings and at the top by the compartment housing the hood.

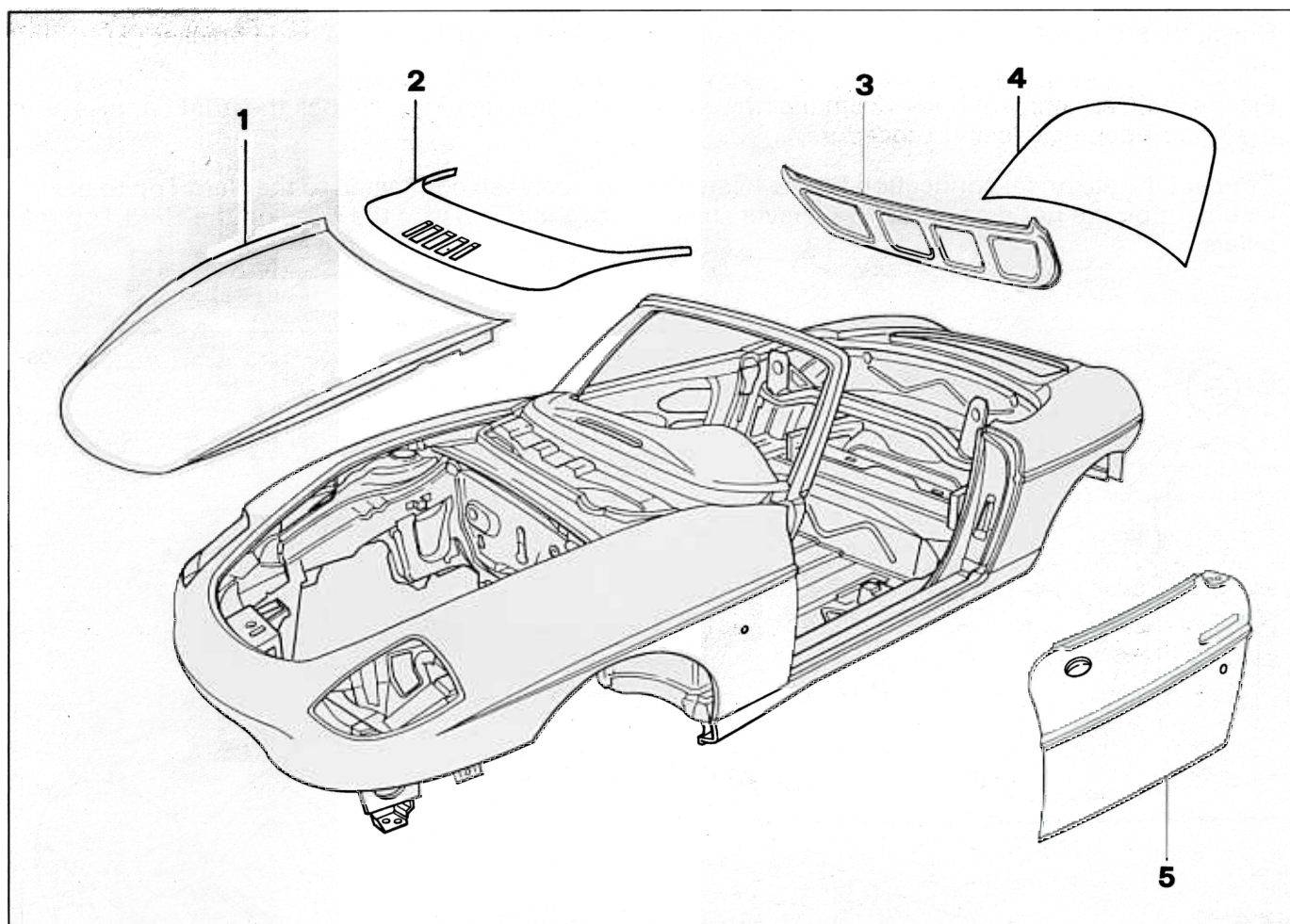
The one-way anti-reflux valves positioned on the fuel return pipe to the tank, prevent the flow of fuel from the tank if the pipe is broken.



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THE MOVEABLE PARTS

The diagram below illustrates the "moveable parts" of the vehicle.



1. Bonnet lid

2. Lower windscreen cover

3. Hood cover

4. Boot lid

5. Doors

The diagrams below represent, group together and summarize the elements involved in adjusting the moveable parts which differ from the conventional solutions normally adopted (doors and hood cover). For the description and the illustration of the complete procedures, consult the paragraphs relating to the element in question in the repair manual.

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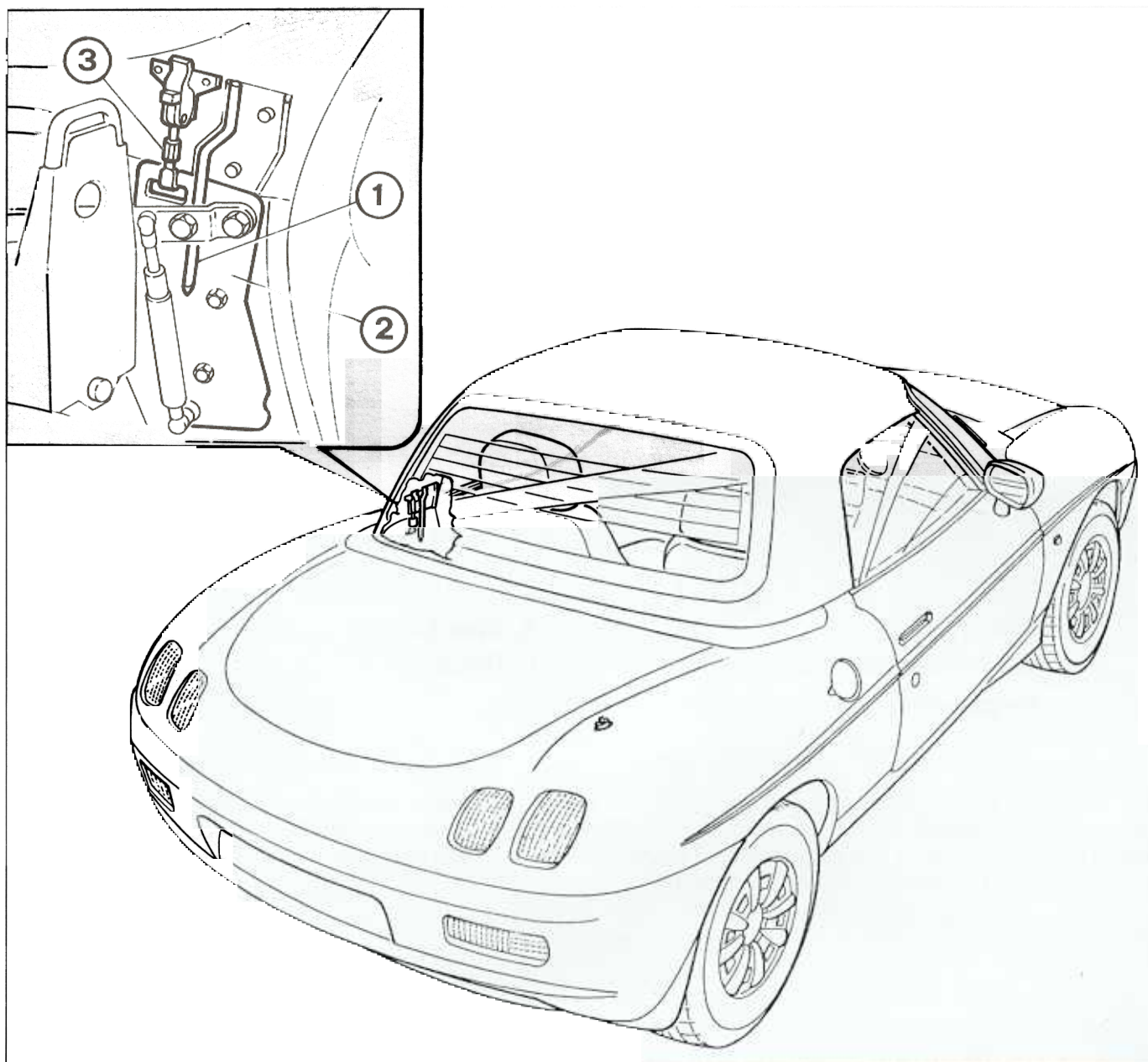
HARD TOP

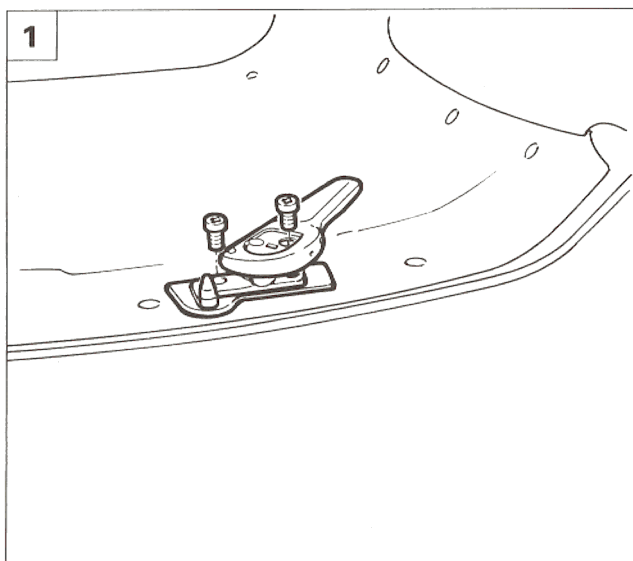
The vehicle can be equipped, as an optional extra with a black, rigid cover which incorporates a heated rear windscreen and push button.

The operation of installing the Hard Top requires a second operator. Then, proceed as described below:

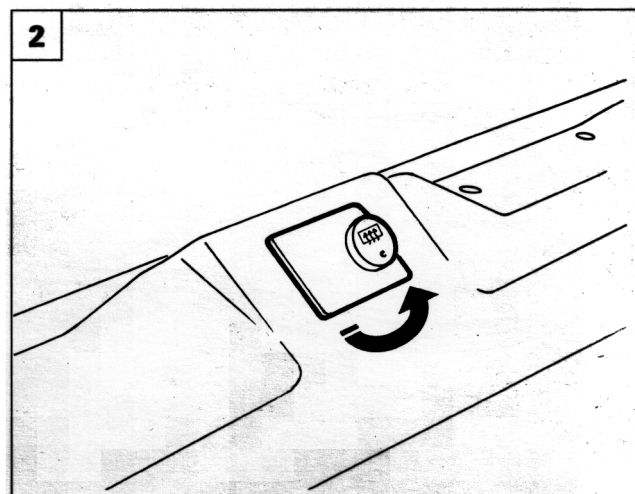
- Check that the centering pin (1) is correctly positioned in the housing in the hood bracket (2) behind the seats.
- Fix the rapid attachment hook (3) in the hole in the hood bracket (2), then lock the front handles as in the hood opening/closing procedure.

Connect the electrical connection for the heated rear windscreen connected to the Hard Top to the attachment by the hood cover opening lever shield. Lock the fixings for the flaps on the Hard Top rear pillars.



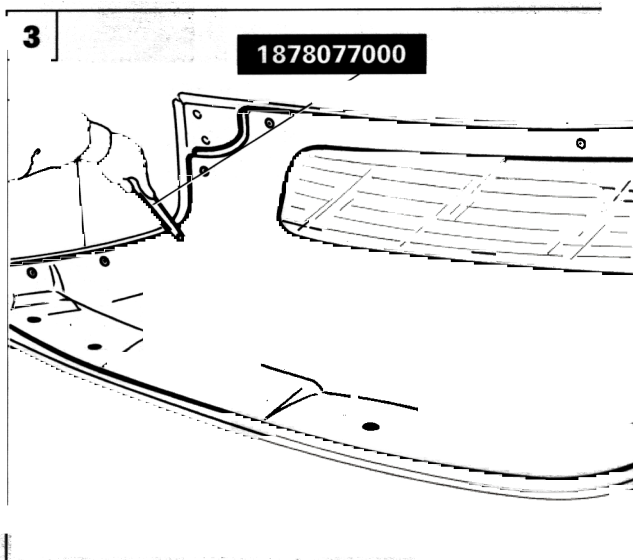


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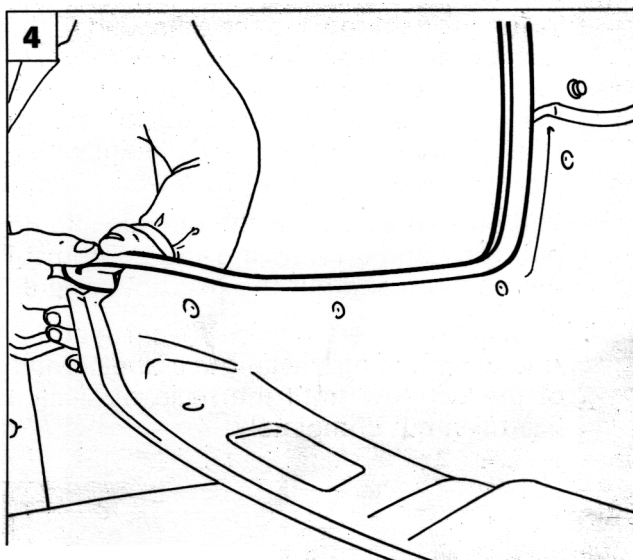
REMOVING-REFITTING HEATED REAR WINDSCREEN



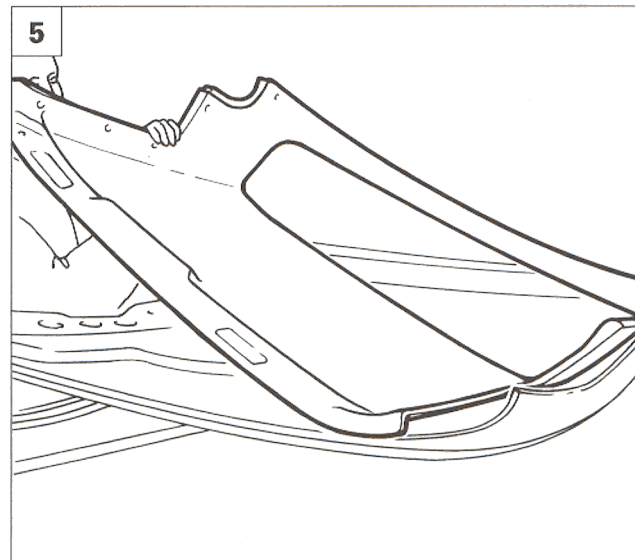
In order to make the operation of replacing the rear windscreen easier, remove the hard-top from the vehicle and place it on a suitable support surface.



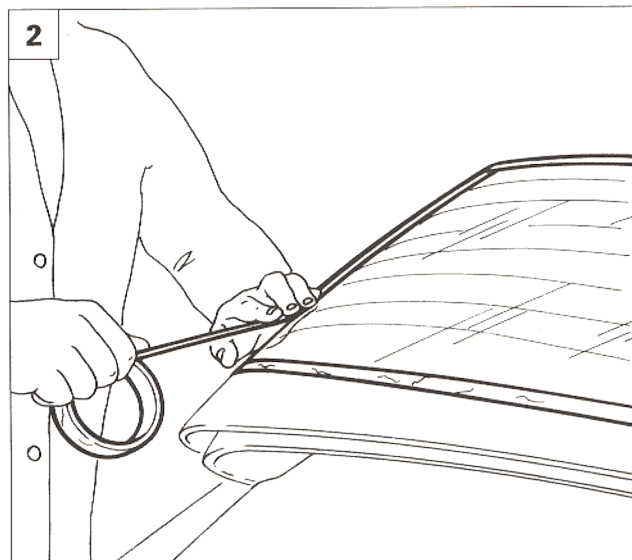
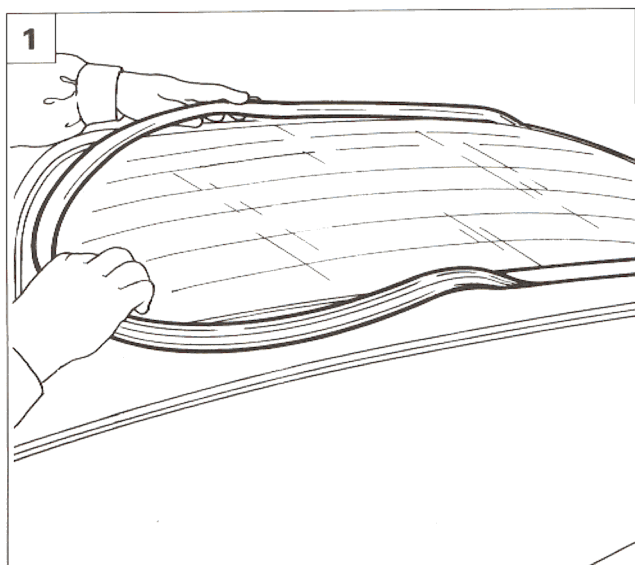
1. Remove the hard top locking handles.
2. Remove the cowling for the heated rear windscreen button, which is a press fit, then disconnect the appropriate supply connector.
3. Remove the buttons retaining the hard top inner cover using tool 1878077000.
4. Remove the side window side trims.
5. Remove the hard top inner cover.



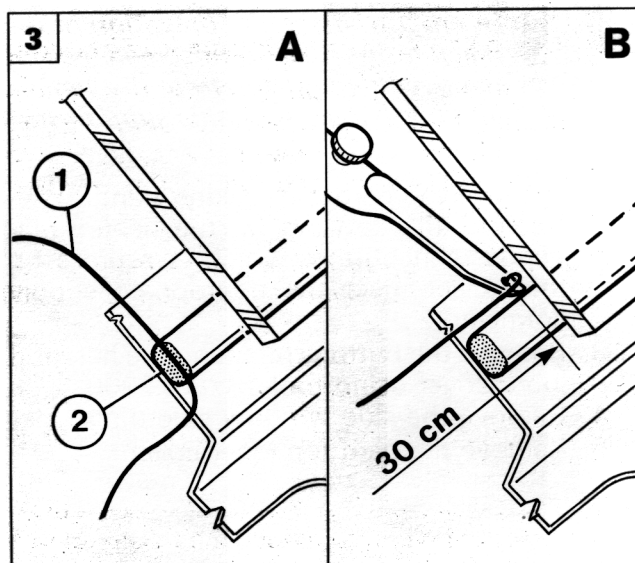
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P3W186M02



P3W186M03



1. Fold over the hard top on the work surface and fix it appropriately, then remove the rear windscreen perimeter trim.
2. Before starting the cutting procedure it is necessary to create a protective surface, using adhesive tape, along the edge of the heated rear windscreen housing to prevent damaging the paintwork.

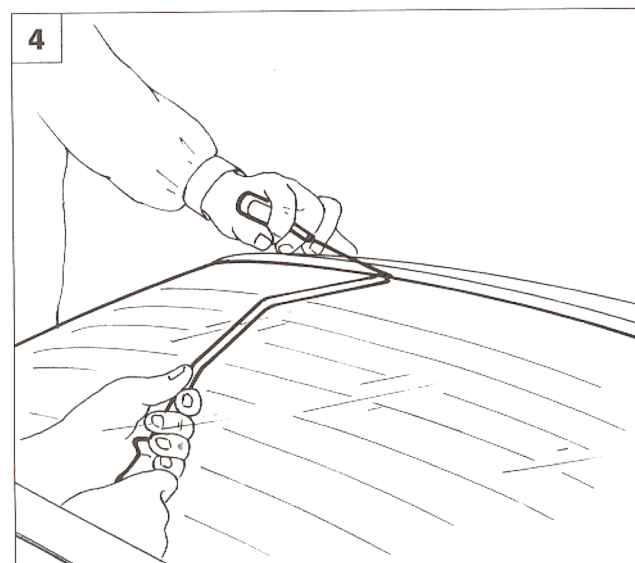
Instructions for using wire present in the sticking kit

3. Cut a length of wire about 50 cm, introduce one end of the wire (part. 1 det.A) through the bead of sealant (to facilitate this operation, heat the wire and use pliers).

Fix one end of the wire to the retaining tool inside the hard top and the other end to the traction handle on the outside of the hard top. The operator inside should introduce the retaining tool on the bead of sealant (FIG. B) about 30 cm from the point where the wire passes through (det. A).

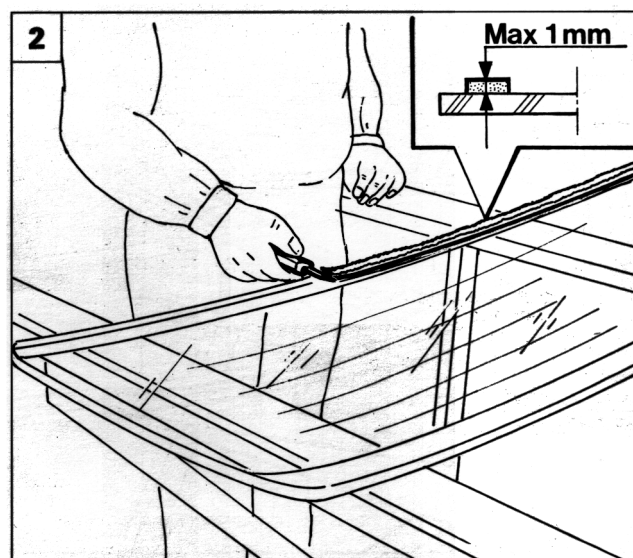
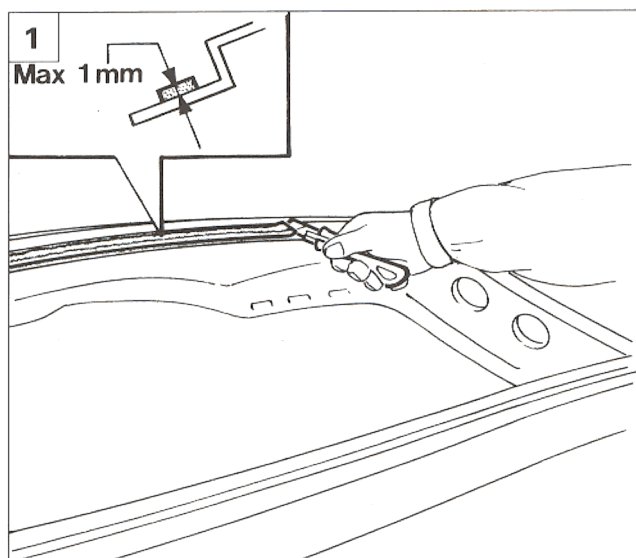
The other operator on the outside should pull the handle following the contour of the window and cut the bead of sealant.

4. Repeat the operation in 30 cm lengths, suitably reducing the length at the corners of the window until the bead of sealant has been cut completely.

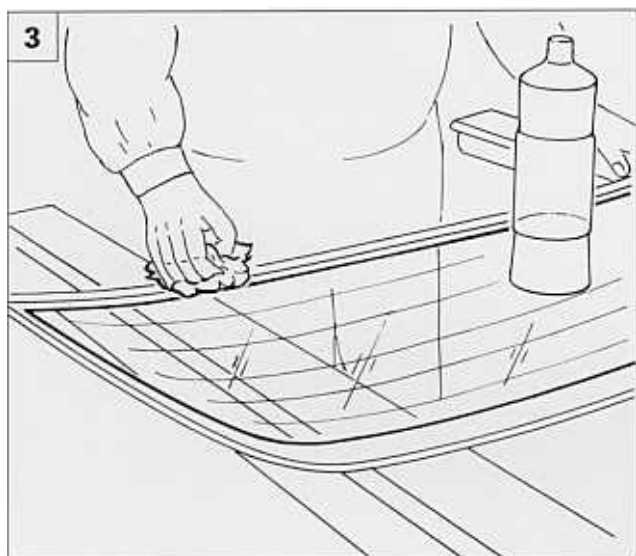


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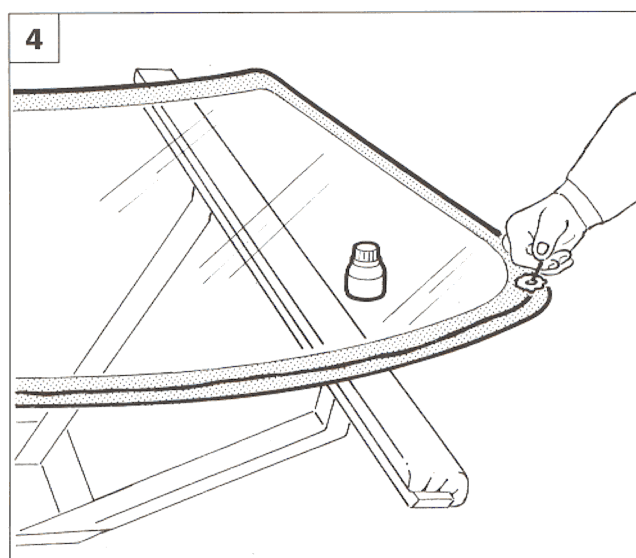
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Preparing the hard top rear screen housing

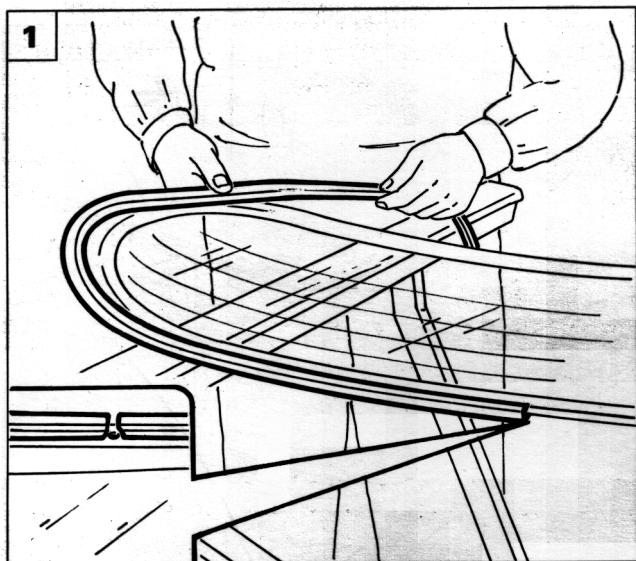
1. Using a suitable blade, cut and level the sealant for the rear screen housing, leaving a thickness of between 0.25 and 1 mm without reaching the paint and avoiding scratching it.

NOTE *The film of sealant remaining in the rear screen housing will act as a support for the subsequent sticking.*

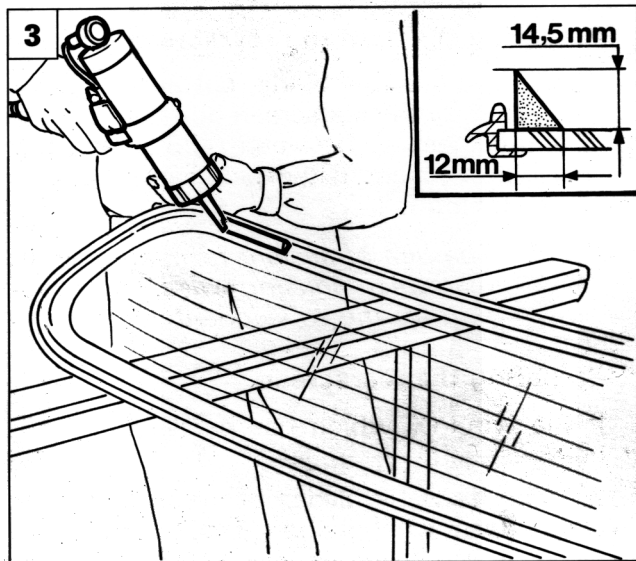
Preparing the rear screen

If the window which has been removed is being reused:

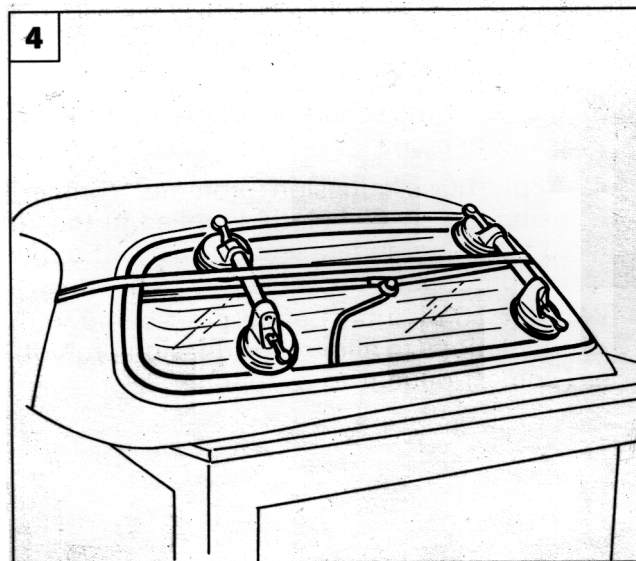
2. Using a suitable blade, cut and level the bead of sealant trying to reduce the thickness to a minimum. It is not necessary to remove the sealant completely. Avoid touching the surface of the remaining sealant. Take care not to damage the black serigraphed area on the perimeter of the glass.
3. Degrease the serigraphed area of the glass using heptane.
4. Apply glass adhesion promoter (primer) using the special cloth supplied in the kit to the serigraphed section. Do not apply the product to the sealant which remains. Wait for 15 minutes before proceeding with the operations to allow the adhesion promoter (primer) diluent to evaporate.



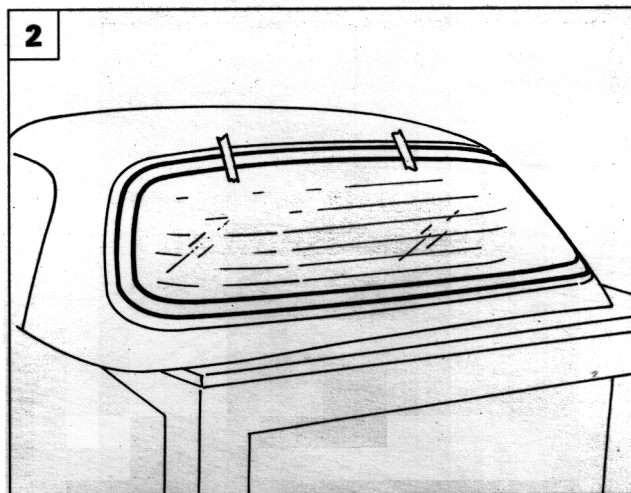
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P3W188M04



P3W188M02

Refitting

1. Fit the rearscreen trim, avoiding touching the area previously treated with your hands. The two ends of the trim should join up at the incision made in the centre of the edge of the glass.
2. Carry out a test fitting to perfectly centre the rearscreen and make reference marks.
3. Using a pneumatic gun, apply a bead of sealant along the perimeter of the rearscreen as evenly as possible (in the case of burrs, level the bead using a slice of potato).
4. Using special suction pads, place the rearscreen in position immediately after applying the sealant. Using suitable belts and shims, exert slight pressure on the glass so that it is correctly aligned with the structure of the hard top.

Keep the glass under pressure for at least an hour. During this period it is possible to apply water to the window to identify any possible penetration points and to accelerate the polymerization of the sealant.

Any excess sealant on the inside of the pillars can be removed when the sealant has hardened by cutting them with a blade and removing them with pliers.



Take care not to damage the serigraphed area of the glass with the blade.

Refit the elements removed previously and clean the glass. Position the hard top on the vehicle and adjust the position of the locking handles as described in the appropriate paragraph.

The vehicle should not be returned for at least 15 hours after the rearscreen has been stuck.

BODY PANELS

The protection of the body panels on the *Fiat barchetta* is vital to ensure the absence of corrosion.

With this in mind about 70% in weight of the panels used in the construction of the *Fiat barchetta* are galvanized or twin galvanized and absolutely all the box sections on the vehicle are made from entirely single galvanized panels and in addition some of them (side members, underdoor panel, etc.) are protected by wax based oils.

The galvanizing treatment, which consists in the application to either one or both sides of the panel of a thin layer of zinc, guarantees better protection against attack from atmospheric agents.

The protective action which the zinc confers on the panel is due to both the good reactivity properties of this metal in terms of the chemical elements present in the atmosphere and the high inertia of the compound from which it is derived (zinc oxide).

The coating of zinc oxide which forms on the parts of the body panels which may be exposed to atmospheric agents, in effect, constitutes an effective protective layer which safeguards the panel underneath from oxidation.

Depending on the different treatment methods, the deposition of the protective layer of zinc allows the panels to be divided into the following groups:

Twin galvanized (panels treated on both sides) which are used when both sides are exposed to the action of atmospheric agents: exterior panels, doors, lids, wings.

Single galvanized (panels treated on one side only) which are used when only one of the sides (the treated one) is exposed to the action of atmospheric agents: these panels make up the bodyshell frame or very occasionally, as described above, the box sections.

PAINTING

The painting of the bodyshell as is well known has two fundamental objectives: to protect the panel from attacks of an environmental nature and also an aesthetic function making it shiny and colourful.

On the *Fiat barchetta* the range of colours is very extensive offering a selection of four double layer pastel shades (Speed Red, Broom Yellow, Orange, Opaque Black) and four metallic colours (Steel Grey, Garden Green, Sea Blue, Midnight Blue).

The type of colour and its characteristics are given in the colour identification plate which also contains the following information:

Paint product supplier

Enamel colour and type

Code

Type of product to use for retouches and repainting.

In the case of metallescent colours the plate also contains a small letter "m" accompanied by an asterisk "*" and the identification code "M.S." as a symbol for HIGH and MEDIUM SOLID type enamels.

RECYCLING

The problem of recycling plastic materials is dealt with in a practical manner taking into account the technological limitations of the recovery processes.

This has led, as has already been mentioned previously, to the setting up of a system of codes, in accordance with ISO 1043 (International Standard Organization), which allows the immediate recognition of the type of material being examined.

As, with the exception of rare cases, the different families of plastic materials are incompatible with one another in terms of pressing, the introduction of an identification code means that the exact composition of each component can be identified when the vehicle is being scrapped and therefore the most appropriate recycling method can be implemented.

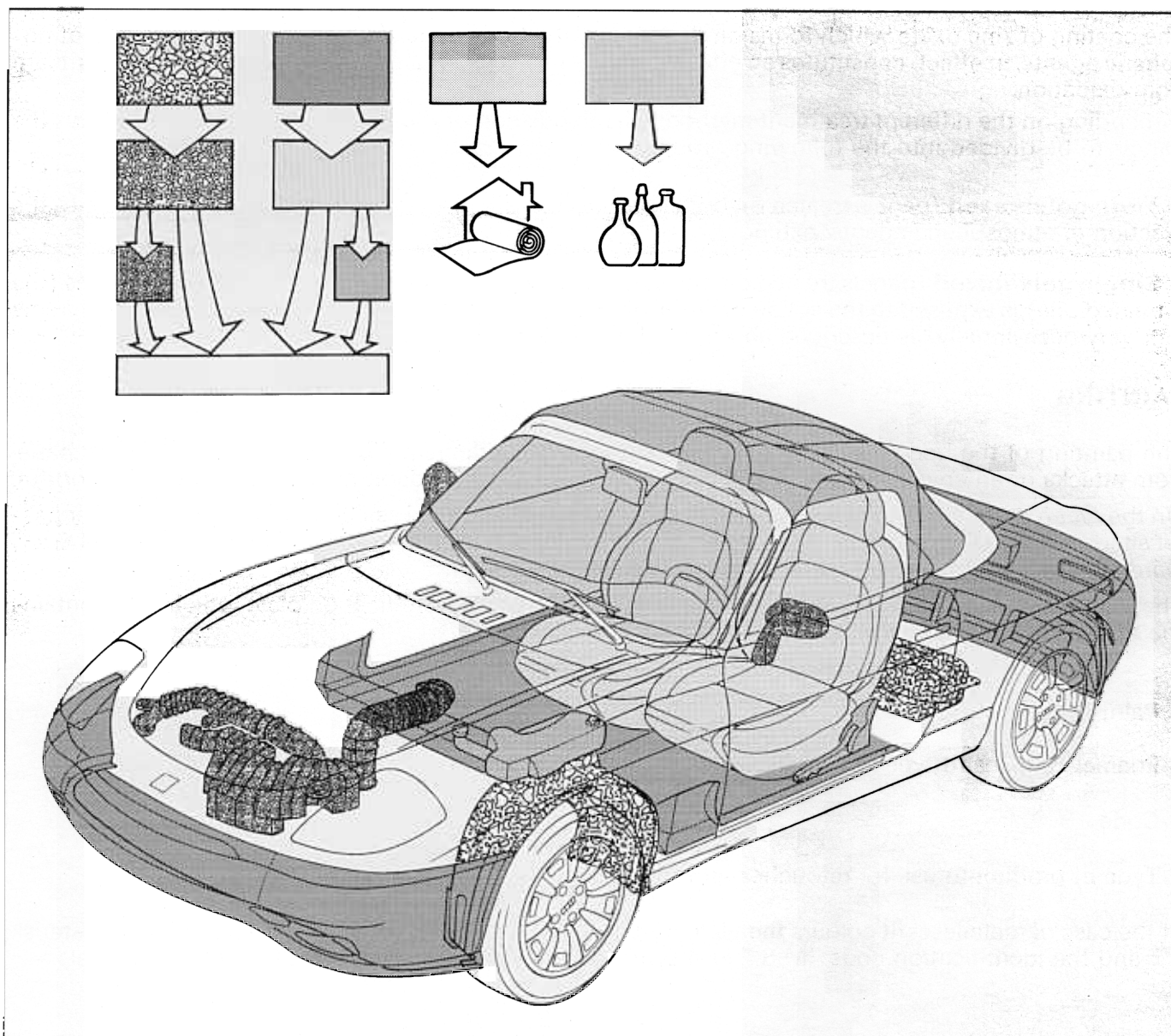


Diagram showing recycling of materials

By analyzing the different types of materials which go to making up a vehicle, the following current recycling techniques are listed below:

- **Plastic materials:** all the bumpers, the wheel arches and certain types of bands and trims after being recovered are subjected to washing and "flotation" treatments (separating the plastic from materials such as metals, gravel and plastics of a different nature), then the product is ground and extruded into granules which can be used for pressing new components.

Foams: polyurethane foams which make up the seats, are compacted using special presses which reduce their volume by around ten times so that they are ready for reuse.

During the recycling stage the foams are firstly ground into fine pieces, then resins which act as a binding material are added and then the material is transformed, using a special drawing machined, into a tape which is wound around itself.

By cutting these special tapes it is possible to obtain mats of varying thickness which can be used as carpet underlay.

This and other similar applications allow the wide reuse of the materials recovered and a considerable energy saving.

Glass: the glass (including the windscreen) is collected by organizations specialized in glass recycling; the glass is separated from the sheets of plastic material contained in the windscreen and then by crushing the material is turned into granules which can be reused.

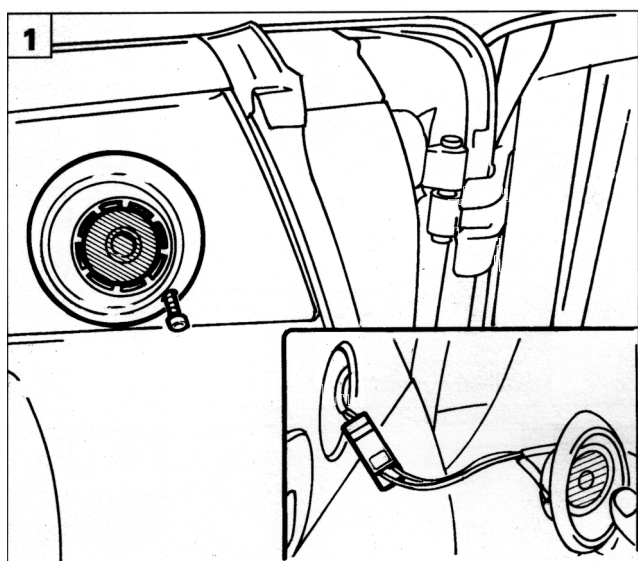
The material prepared in this way is sent to the glass industry where the glass from motor vehicles is used for bottles and various containers.

Bodyshells: bodyshells completely stripped of the elements which can be recycled are treated in special crushing plants normally present in steel works.

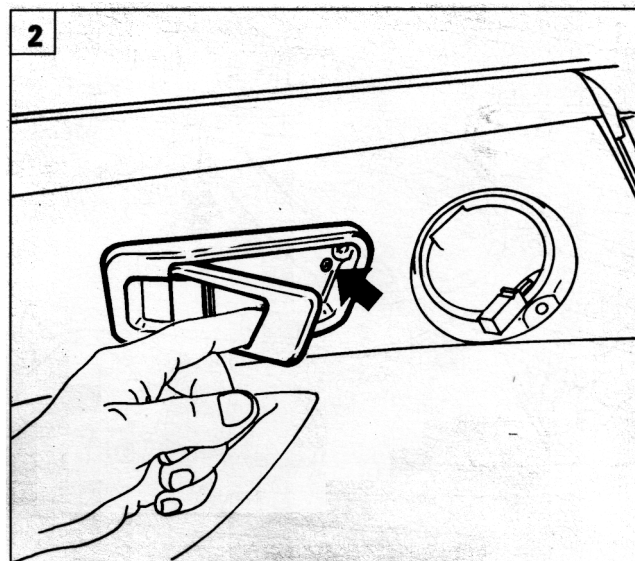
The remaining organic materials (Fluff) left on the bodyshell have a high calorific value, similar to that of conventional fuels.

The energy produced by the fluff during combustion is used to heat the scrap metal destined for electric ovens, where the temperatures reach over 400 C.

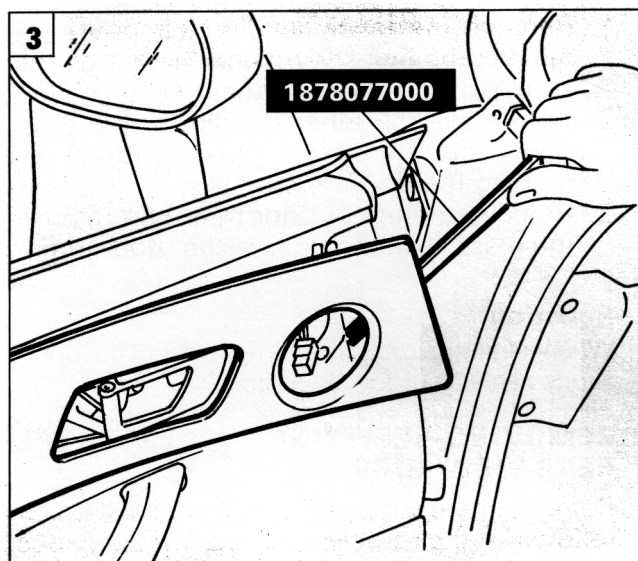
The overall energy consumption is therefore considerably lower compared with conventional technology and therefore even if it is in the form of energy rather than raw materials it is possible to conclude that the recycling of motor vehicles is equal to 100%.



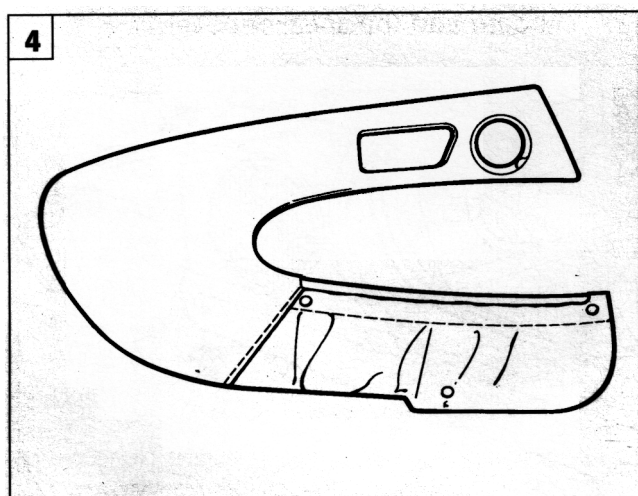
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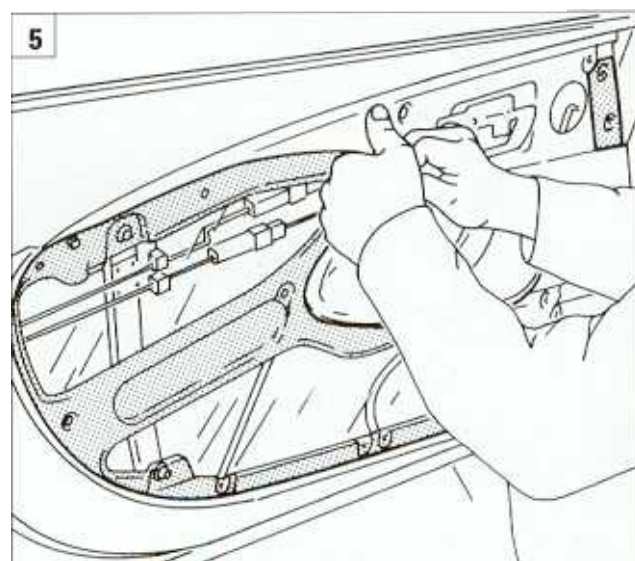
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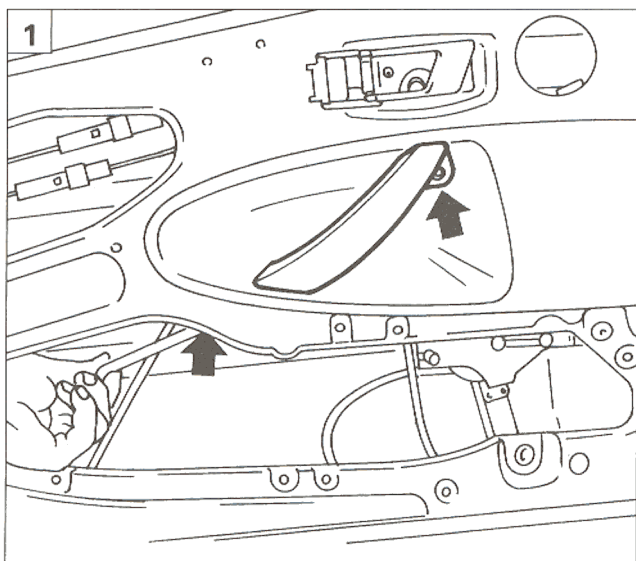
REMOVING-REFITTING DOOR PANEL AND PROTECTIVE LINING



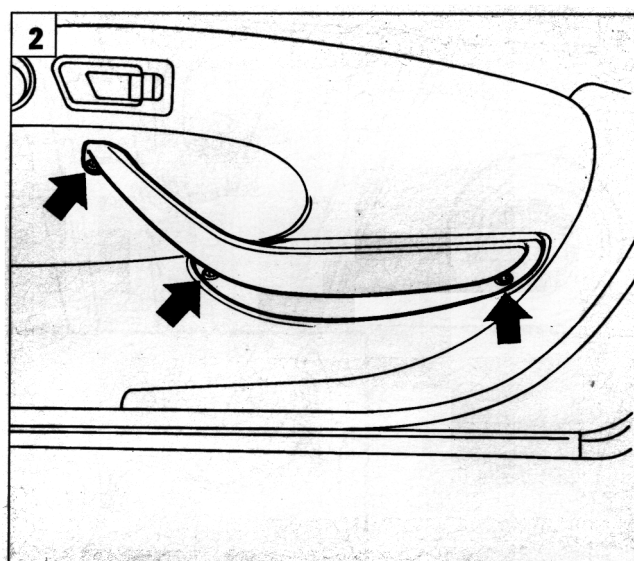
1. Remove the bolt fixing the high frequency speaker (tweeter), then extract the actual speaker and disconnect the supply connector.
2. Remove the bolt fixing the escutcheon shown in the diagram, then extract the escutcheon releasing it from the door opening control lever.
- 3-4. Acting as illustrated in the diagram, remove the door lining panel releasing it from the retaining springs using tool 1878077000.
5. Remove the protective door lining releasing it from the relevant fixings.



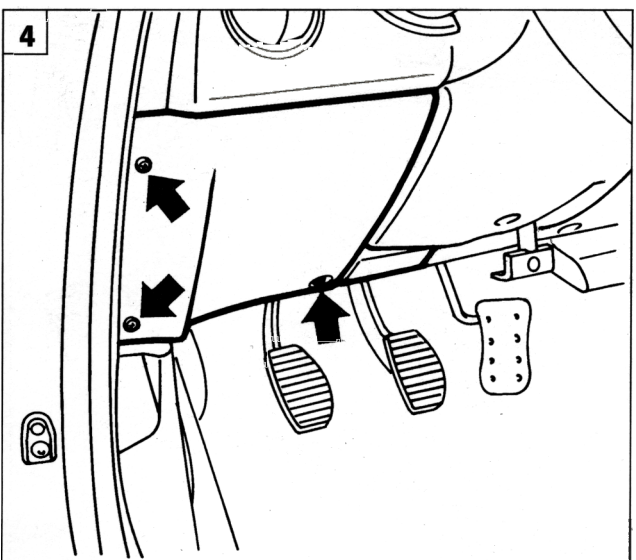
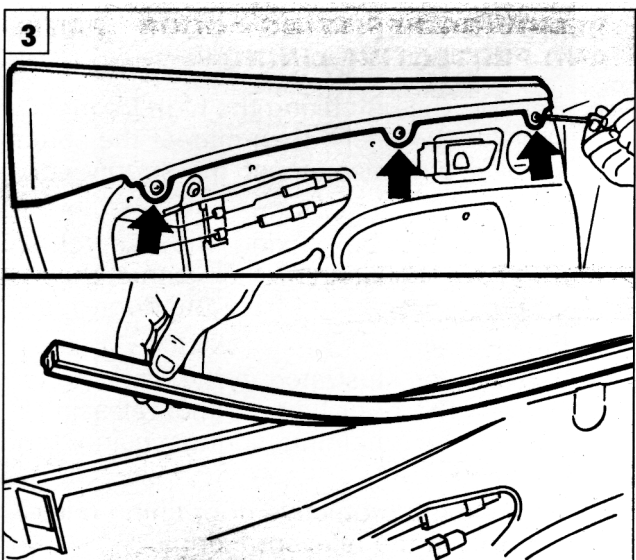
P3W013M05



P3W014M01



P3W014M02



P3W014M04



1. Remove the inner handle (left door) removing the bolt shown and the nut on the inner part of the door structure.
2. To remove the inner handle for the right door remove the bolts shown without removing the door lining.
3. Remove the upper door trim then remove the glass trim underneath the other trim.

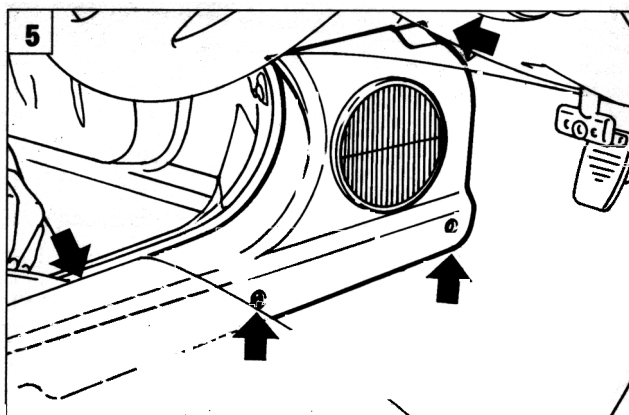
Refitting

When refitting, simply reverse the order of the operations carried out for the removal.

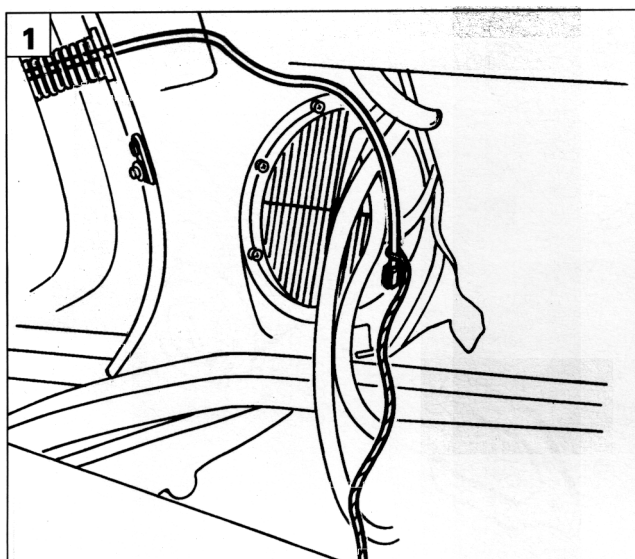
REMOVING-REFITTING EXTERNAL REAR VIEW MIRROR

Remove the door panel and protective cover following the description on the previous page.

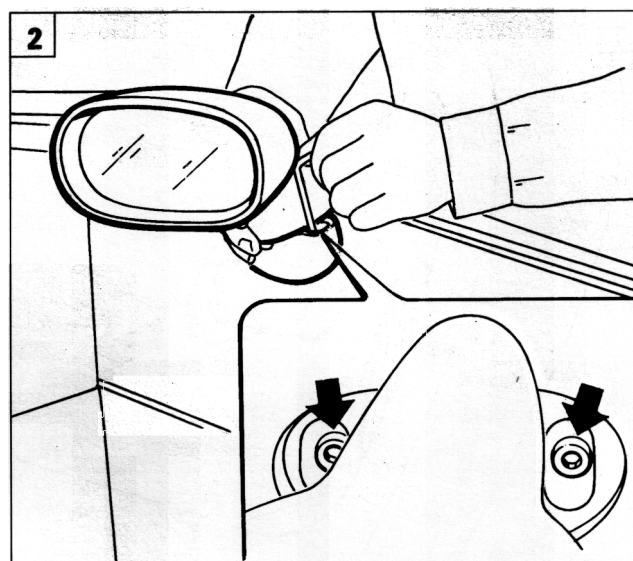
- 4-5. To gain access to the supply connector for the external rear view mirror, remove the coloured partition under the dashboard and the speaker cover.



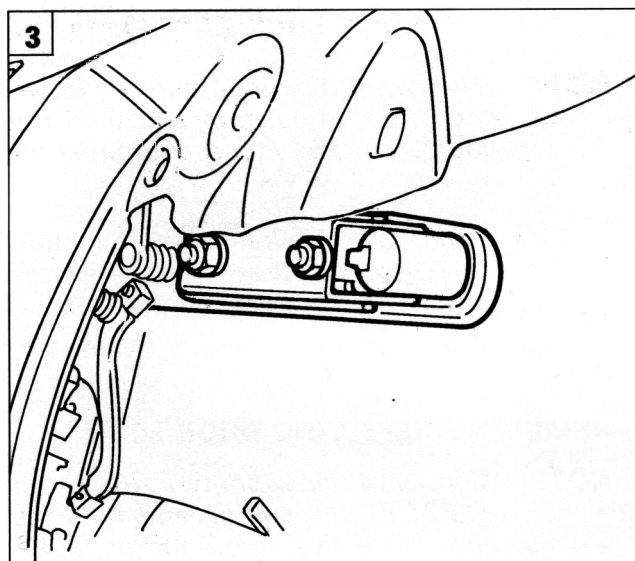
P3W014M05



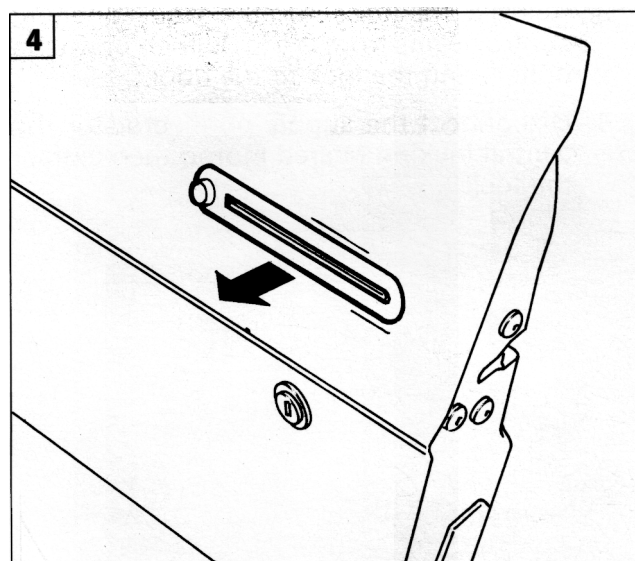
P3W015M01



P3W015M02



P3W015M03



P3W015M04

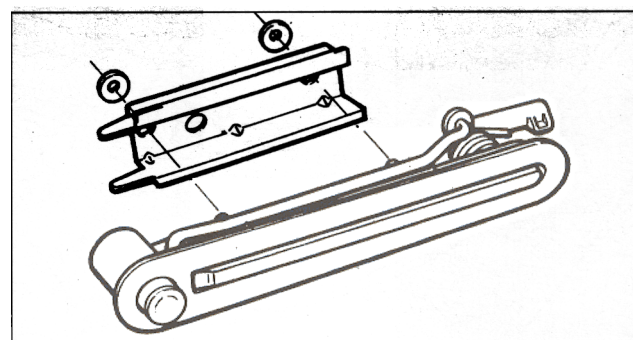
1. Disconnect the supply connector for adjusting the external rear view mirror, then attach a cable to the end of the connector and extract the cable passing it through the mounting connected to the door. Release the connector from the cable; the latter should be used during refitting when it will be necessary to reposition the connector inside the passenger compartment.
2. Turn the external rear view mirror so that it is possible to gain access to the bolts fixing it to the door shown in the inset.

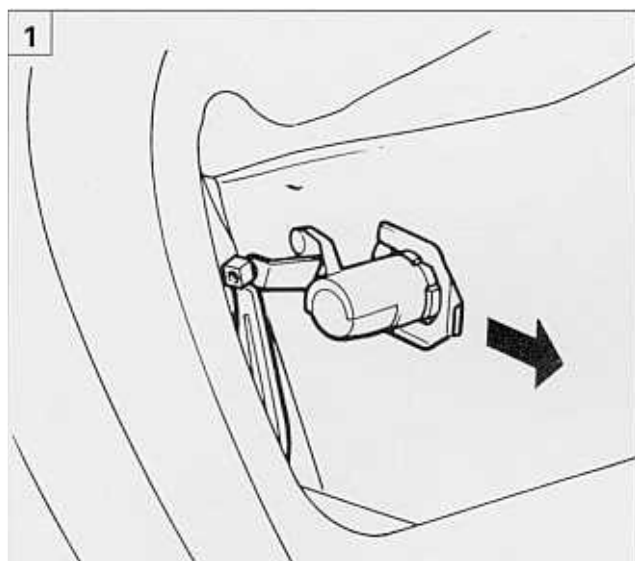
REMOVING-REFITTING OUTER DOOR HANDLE

Remove the door panel and protective cover.

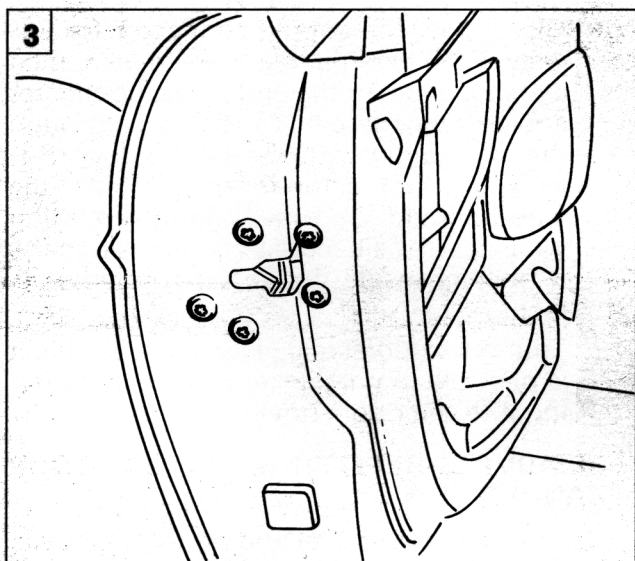
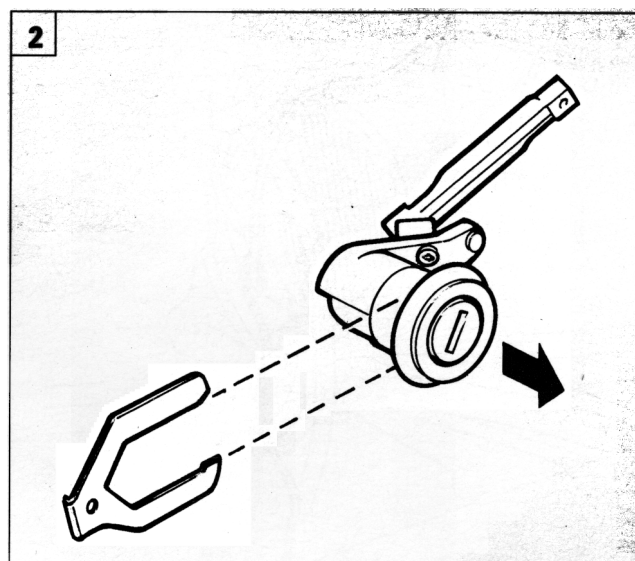
NOTE Before removing the panel, place the window in the upper end of travel position.

- 3-4. Undo the fixing nuts working from inside the door, then remove the handle extracting it from the outer part of the door.

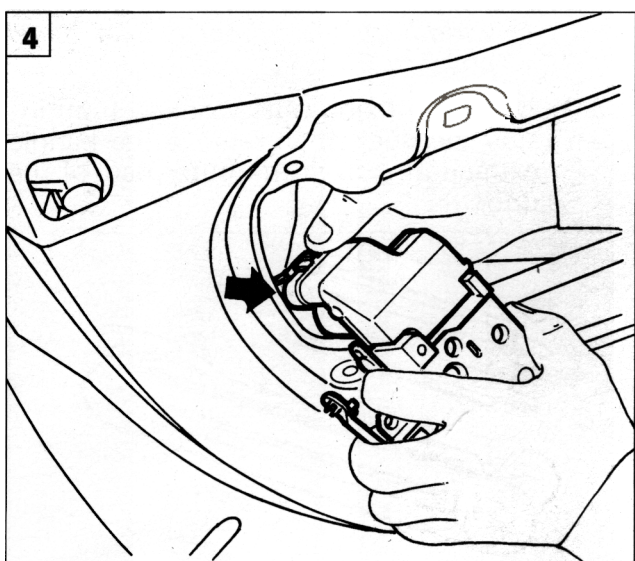




P3W016M01



P3W016M03



P3W016M04



REPLACING DOOR LOCK BARREL



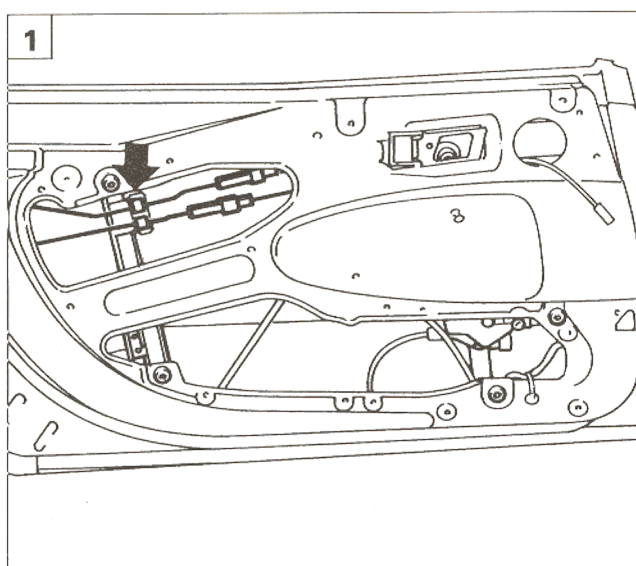
NOTE Work with the window in the upper end of travel position and with the door protective lining and panel removed.

1. Extract the retaining fork in the direction shown by the arrow, then release the control rod from the door opening rod.
2. Extract the door lock barrel outwards.

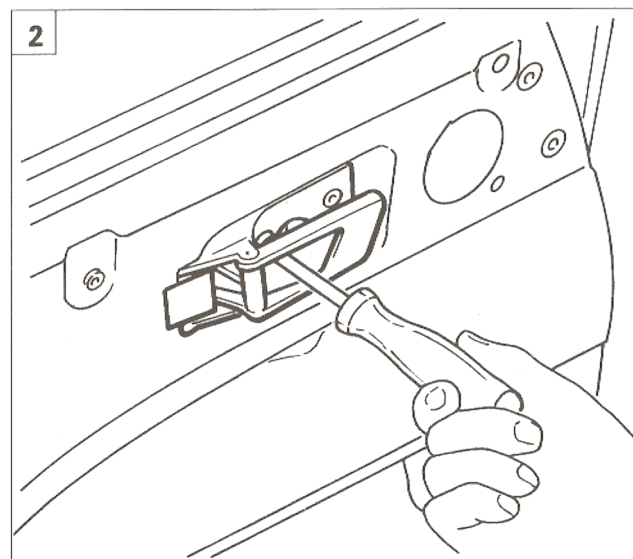
REMOVING-REFITTING DOOR LOCK

NOTE Work with the window in the upper end of travel position and with the door protective lining and panel removed.

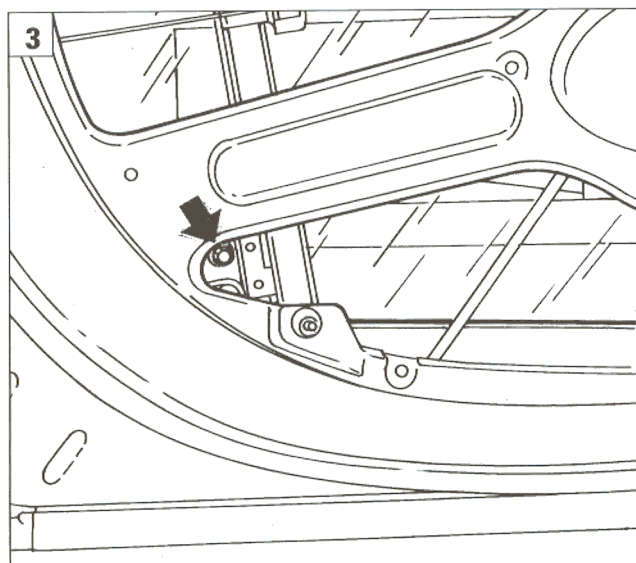
3. Release the rods for the door opening control levers from the lock, then undo the bolts fixing the lock to the door.
4. Disconnect the supply connector for the central locking geared motor, then extract the lock.



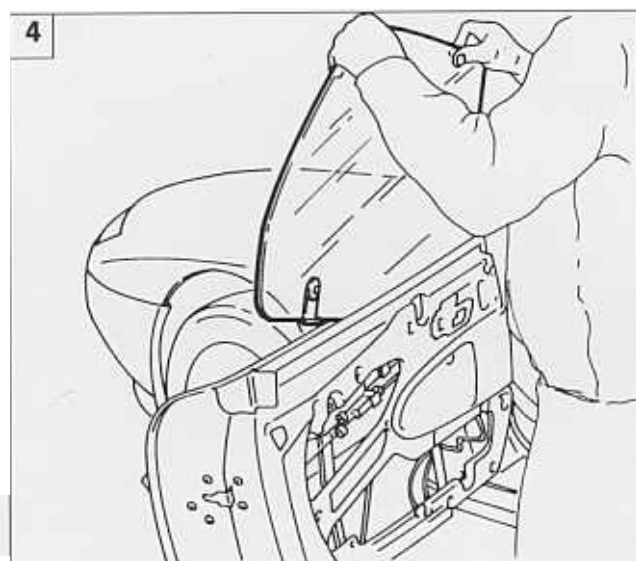
P3W017M01



P3W017M02



P3W017M03



P3W017M04



REMOVING-REFITTING DOOR OPENING LEVER



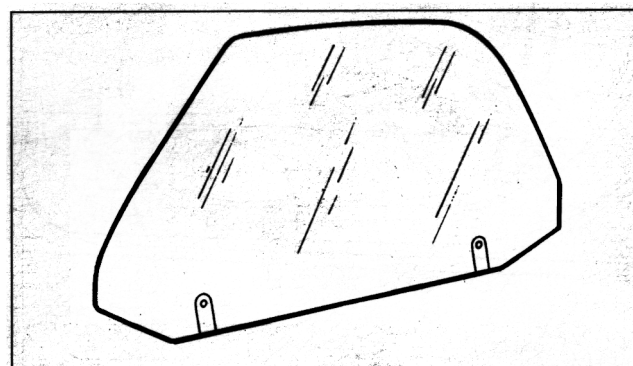
NOTE Work with the window in the upper end of travel position and with the door protective lining and panel removed.

1. Disconnect the rods from the lock and release them from the fixing clips.
2. Undo the bolt fixing the door opening control lever then extract it complete with rods.

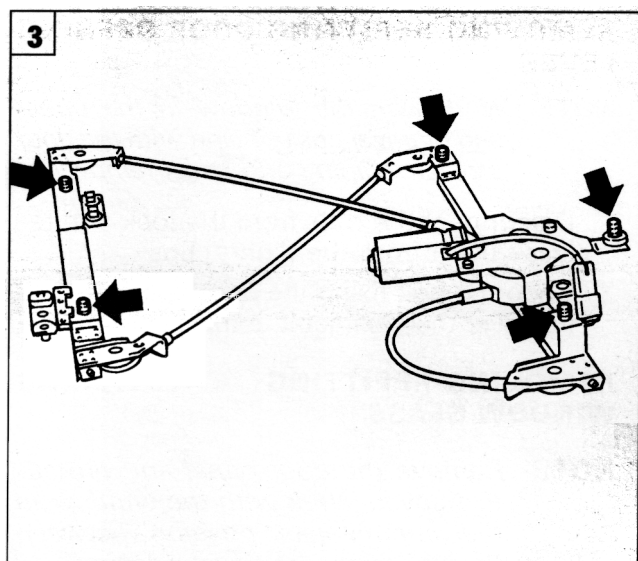
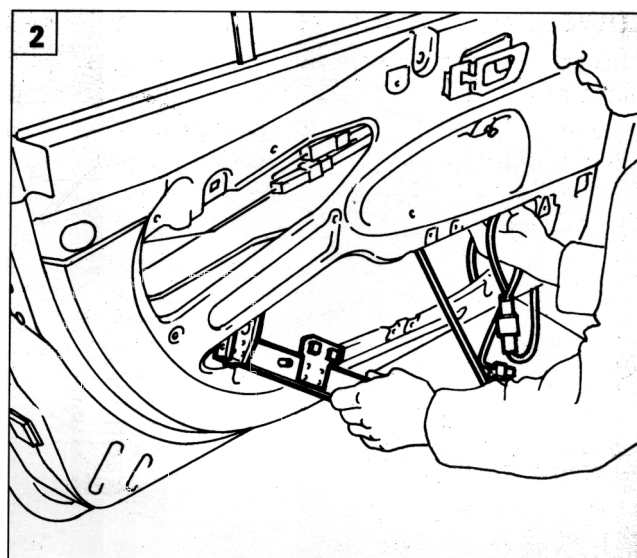
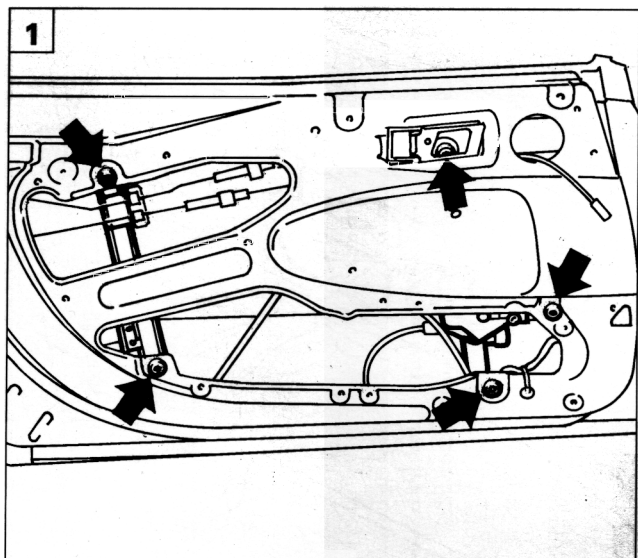
REMOVING-REFITTING LOWERING WINDOW GLASS

NOTE Remove the door panel and protective cover. Work with the window in the intermediate position between the upper end of travel position and the lower end of travel position.

3. Remove the window fixing bolts (right hand side and left hand side) from the window opening device.
4. Working as illustrated in the diagram, rotate the window and extract it from the door.



P3W017M05



REMOVING-REFITTING WINDOW OPENING DEVICE

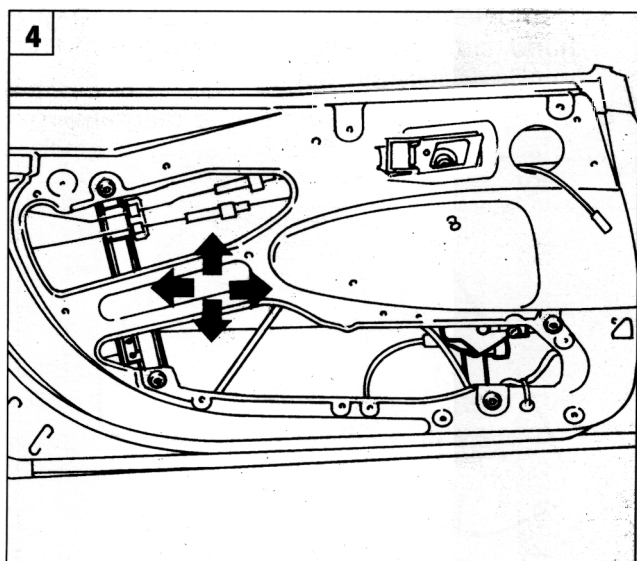


NOTE Remove the door panel and protective cover. Also remove the lowering window glass as described on the previous page.



1. Remove the nuts fixing the window opening device shown in the diagram.
2. Disconnect the connector for the window operating motor, then extract the window opening device as shown in the diagram.
3. Window opening device.
The arrows indicate the points where the device is fixed to the bodyshell. When refitting, suitably reverse the order of the operations described for the removal.
4. Adjust the position of the window opening device to ensure that the window slides correctly.

NOTE The arrows indicate the possible movements for the adjustment.



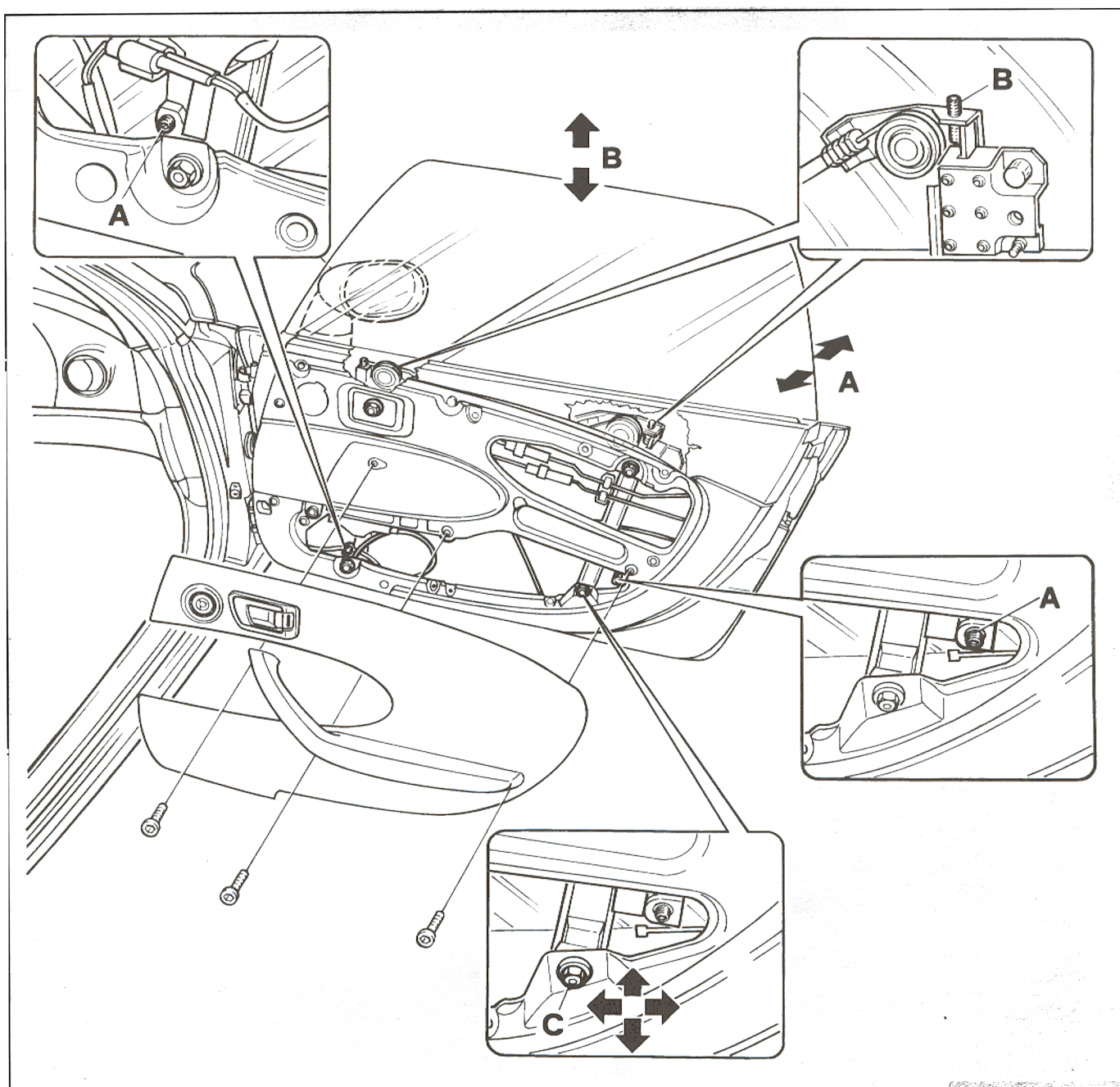
P3W018M04

LOWERING WINDOW GLASS ADJUSTMENTS

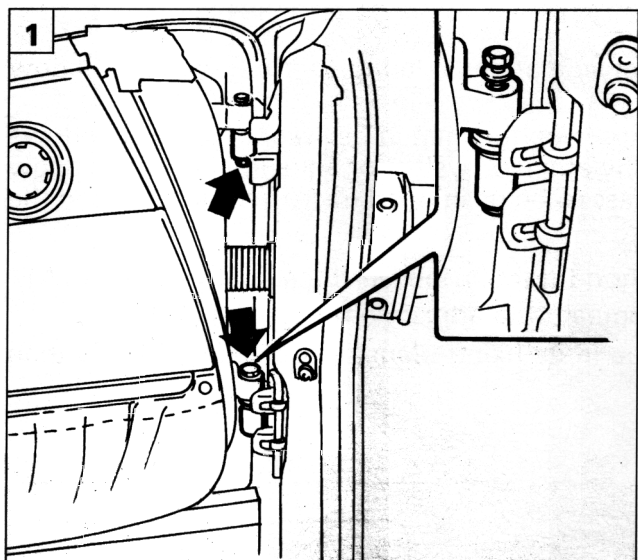
The special nature of the vehicle involves a series of considerations relating to the lowering window glass and in particular to the window opening device.

As the result of the lack door pillars and in order to ensure a perfect match between the side windows and the hood it has been necessary to design a particularly efficient system of adjustments which allow both the window opening device or only the window glass to be positioned micro-metrically along the three fundamental axes.

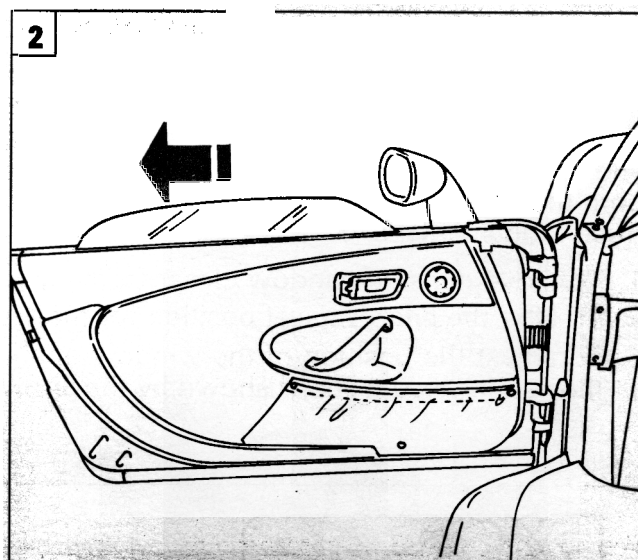
1. To move the side window closer to/away from the hood tighten/loosen the adjustment lugs (A).
2. To alter the end of travel position for the window regulate the adjustment lugs (B).
3. To adjust the position of the window opening device in its fixing plane, loosen the nuts (C) then move it in the directions shown by the arrows.



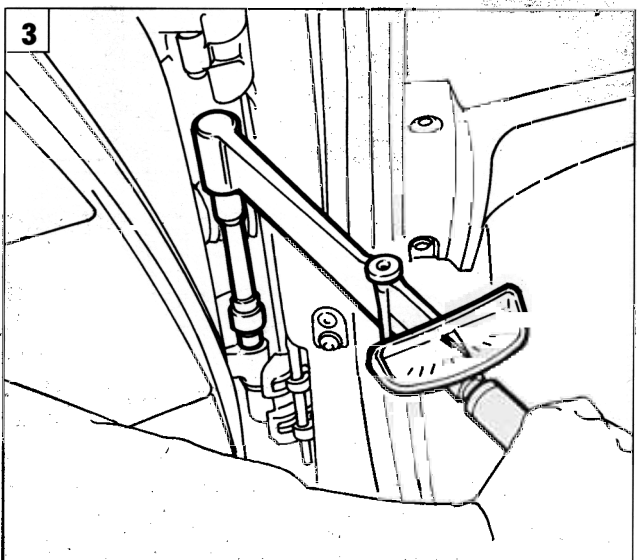
P3W18AM01



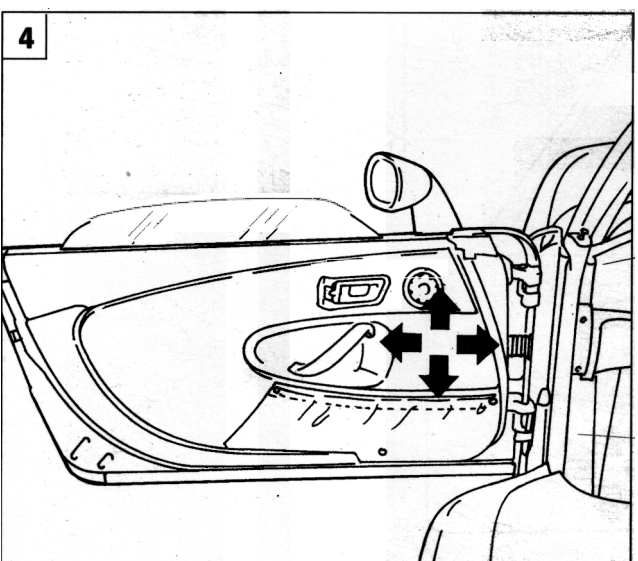
P3W020M01



P3W020M02



P3W020M03



P3W020M04

REMOVING-REFITTING DOOR

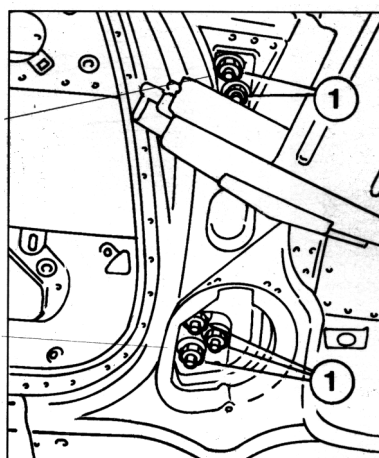


1. Disconnect the supply connectors for the door electrical devices, then undo the bolts fixing the hinges to the door.
2. Remove the door working in the direction shown by the arrow.
3. To refit suitably reverse the operations carried out for the removal tightening the bolts fixing the hinges to the door to a torque of 1.5 daNm.

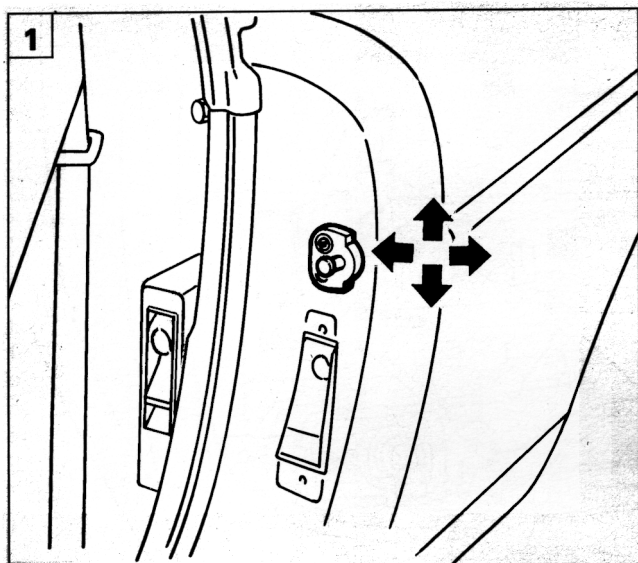
DOOR ADJUSTMENTS

4. Loosen the nuts (1) fixing the hinges to the bodyshell; to gain access to them remove the vehicle interior cover (dashboard) and the front speaker (mid-woofer).

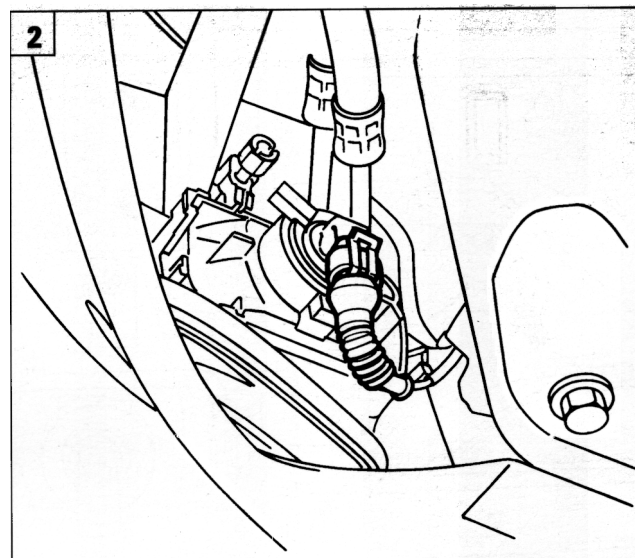
NOTE The arrows indicate the possible movements for the adjustment. If a transverse adjustment of the door is necessary it is possible to achieve the desired result by placing a series of shims between the hinges and the bodyshell.



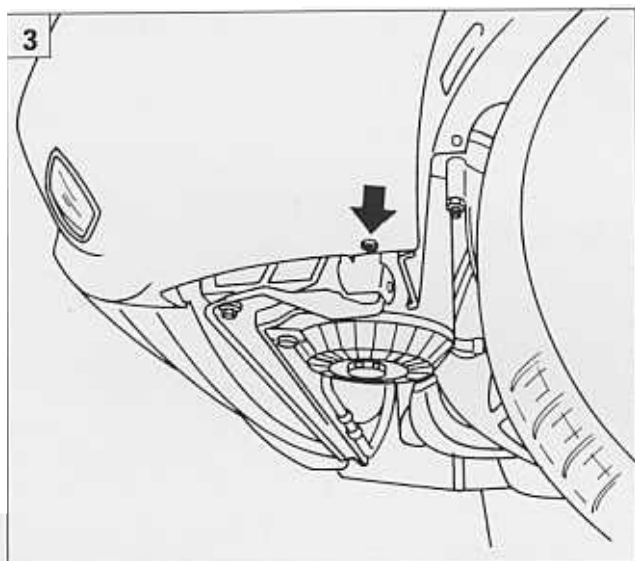
P3W020M05



P3W021M01



P3W021M02



P3W021M03

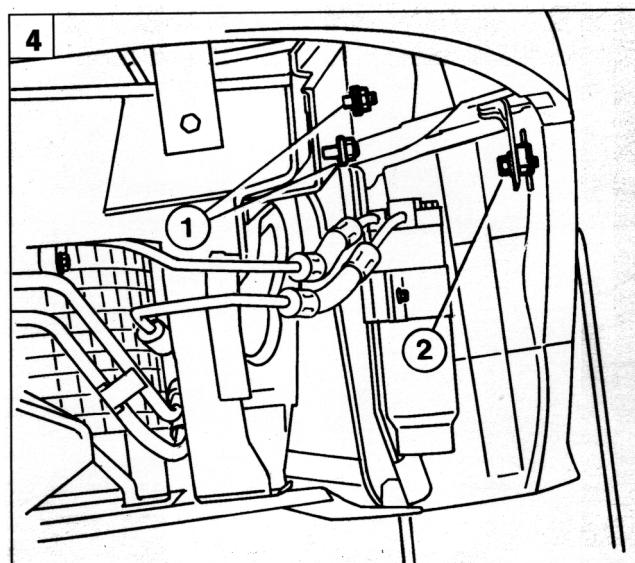


1. Adjust the position of the door lock striker.

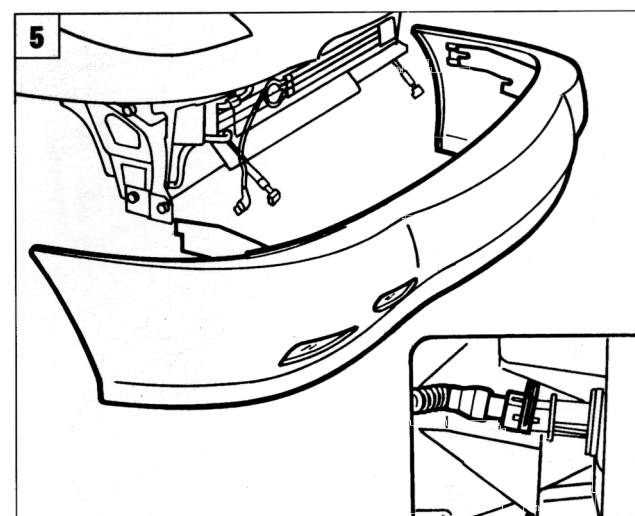
NOTE For the striker to be correctly adjusted it may be necessary to insert suitable shims. The arrows indicate the possible movements for the adjustment.

REMOVING-REFITTING FRONT BUMPER

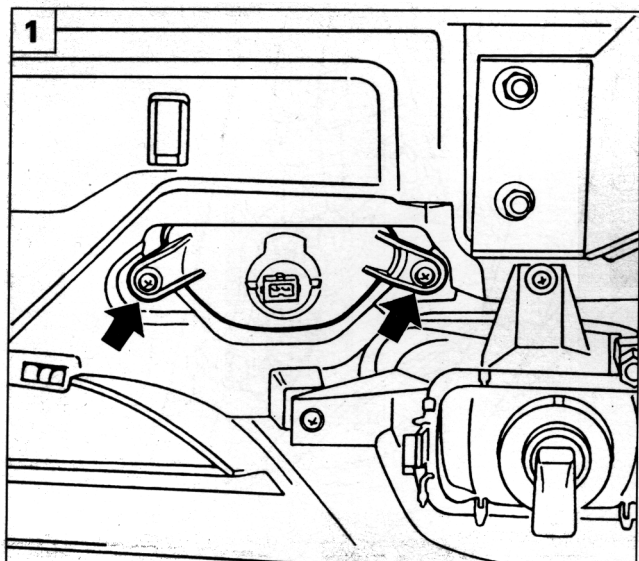
2. Disconnect the fog lights supply connector (right side and left side).
3. Undo the lower bolt fixing the bumper to the wheel arch liner (right side and left side).
4. Loosen the nuts (1) and the bolt (2) fixing the bumper to the bodyshell.
5. Extract the bumper outwards, then disconnect the front direction indicators supply connector (left and right hand sides).



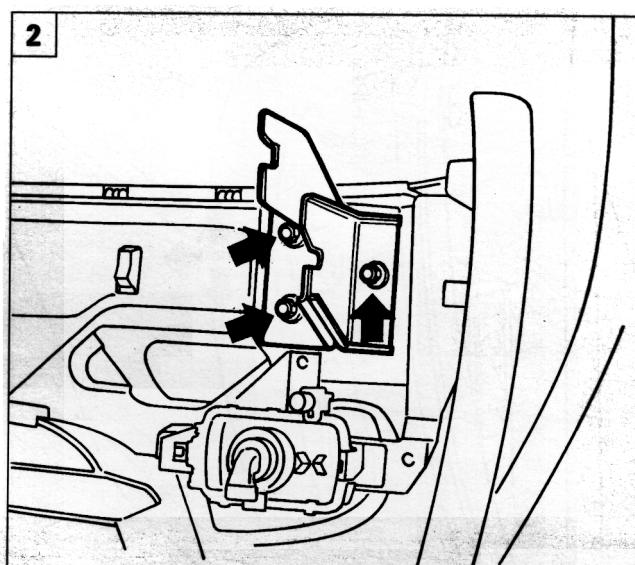
P3W021M04



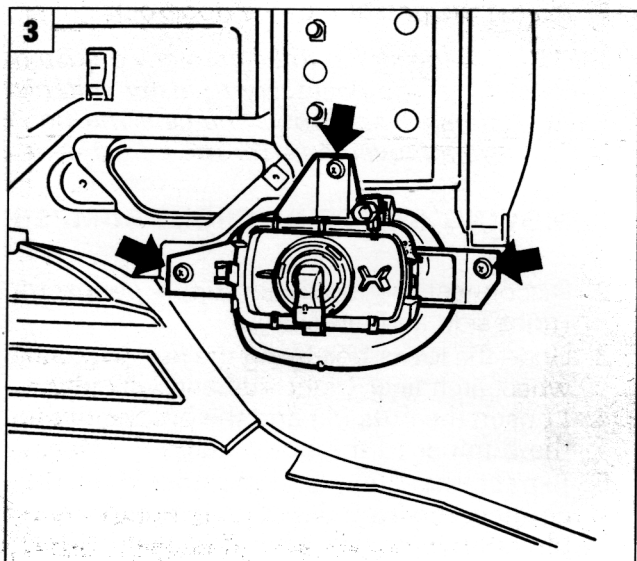
P3W021M05



P3W022M01



P3W022M02



P3W022M03

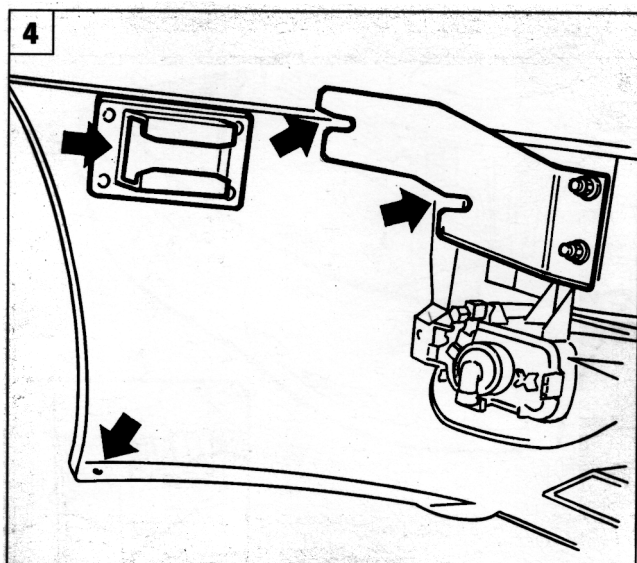


1. Remove the front direction indicator from the bumper.
2. Remove the bracket fixing the bumper to the bodyshell.
3. Remove the fog light.

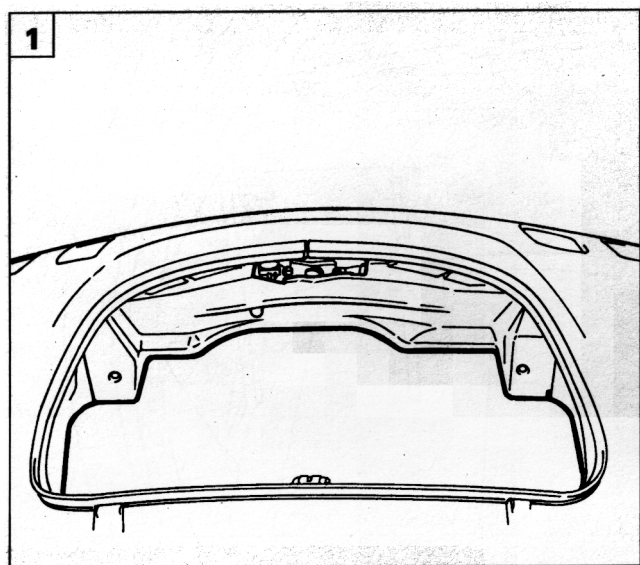
Refitting

4. To refit, simply reverse the order of the operations carried out for the removal.

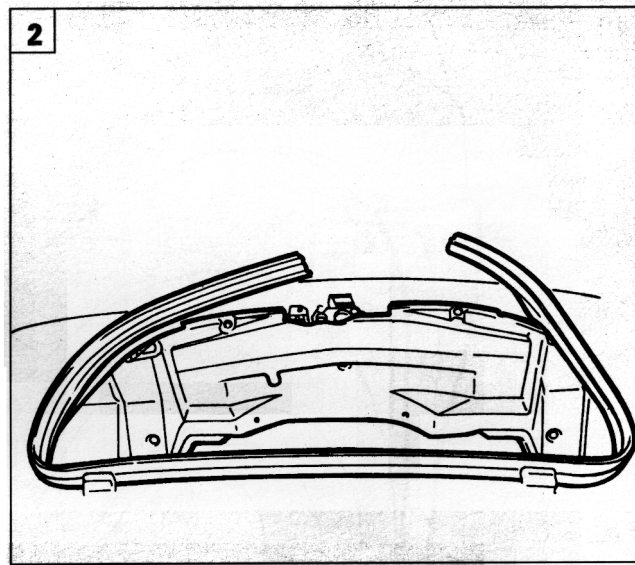
NOTE *The arrows indicate the points where the bumper is fixed to the bodyshell.*



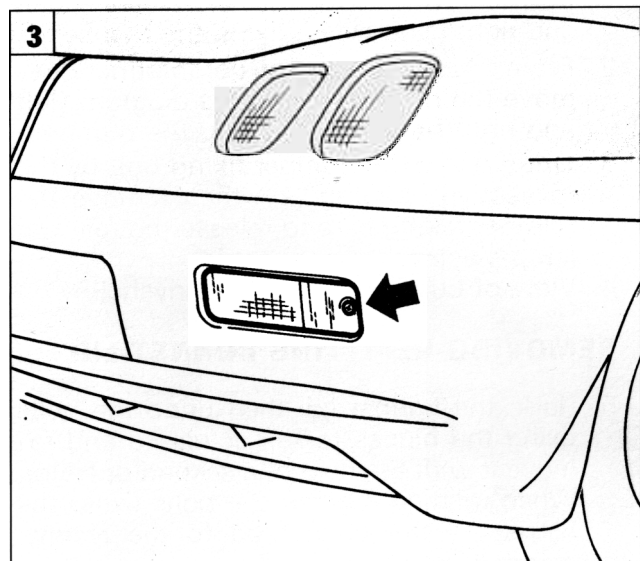
P3W022M04



P3W023M01



P3W023M02

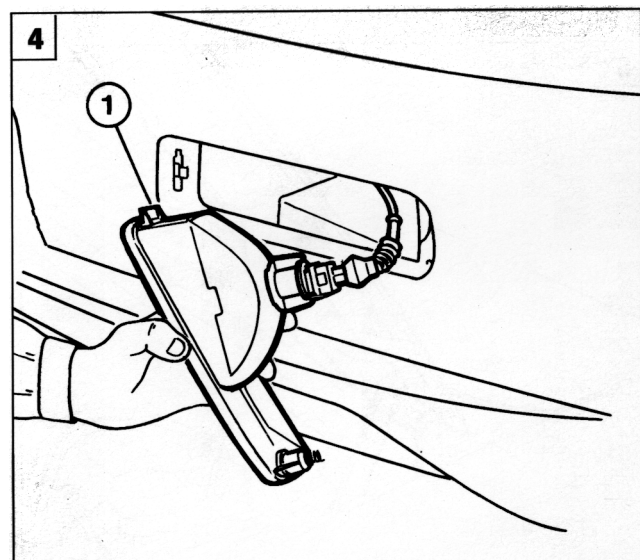


P3W023M03

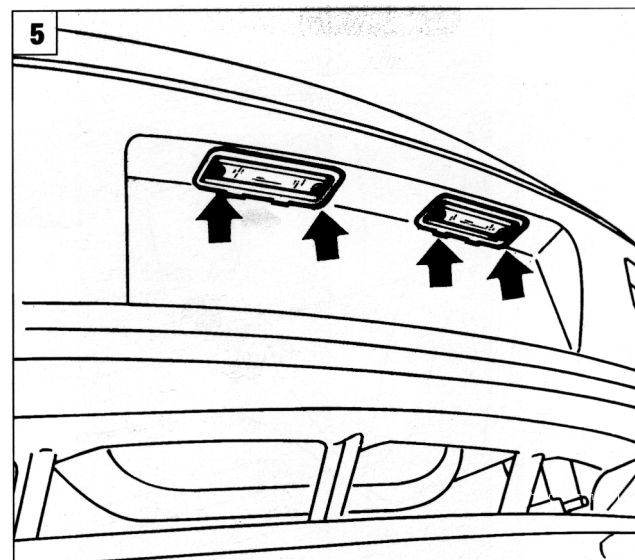


REMOVING-REFITTING REAR BUMPER

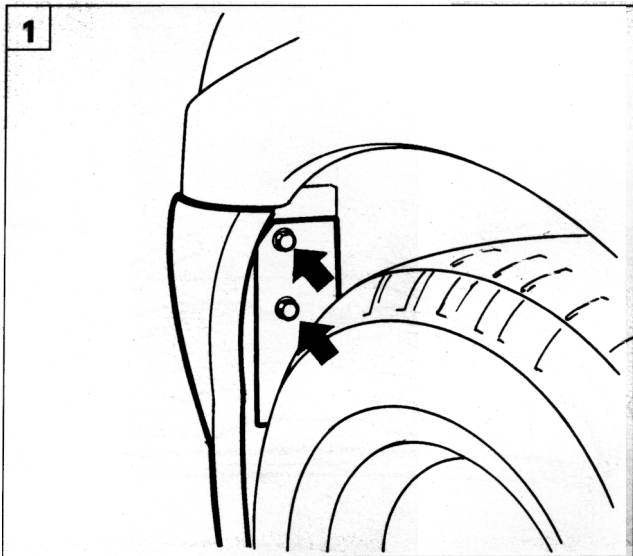
1. Remove the lower lining for the luggage compartment.
2. Lift up the trim and remove the lining for the partition inside the luggage compartment.
3. Remove the bolt fixing the rear fog lamp, then extract the lamp releasing the retaining tab.
4. Disconnect the supply connector for the rear fog lamp. When refitting firstly insert the retaining tab (1) in the special slot then position the lamp. Repeat this operation for the reversing light.
5. Remove the bolts fixing the number plate lights, then extract them from their housing disconnecting the supply connectors.



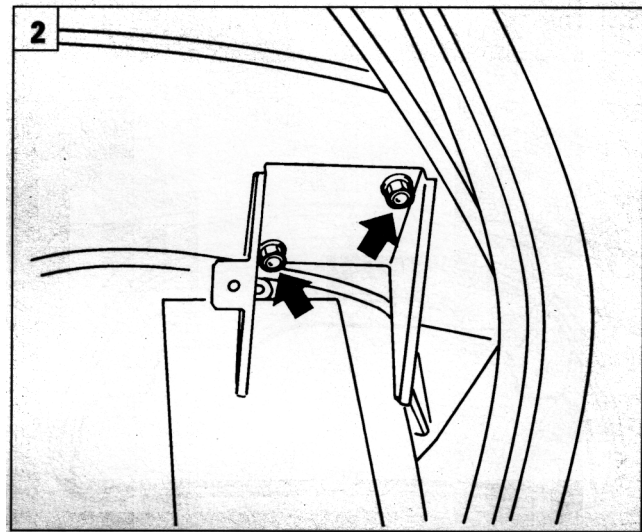
P3W023M04



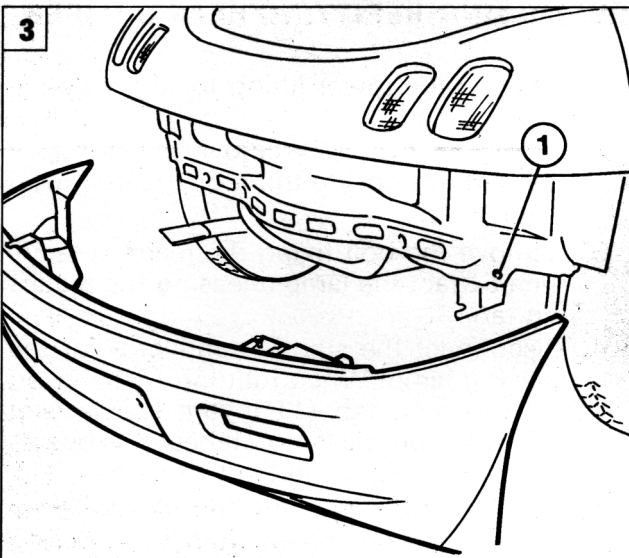
P3W023M05



P3W024M01



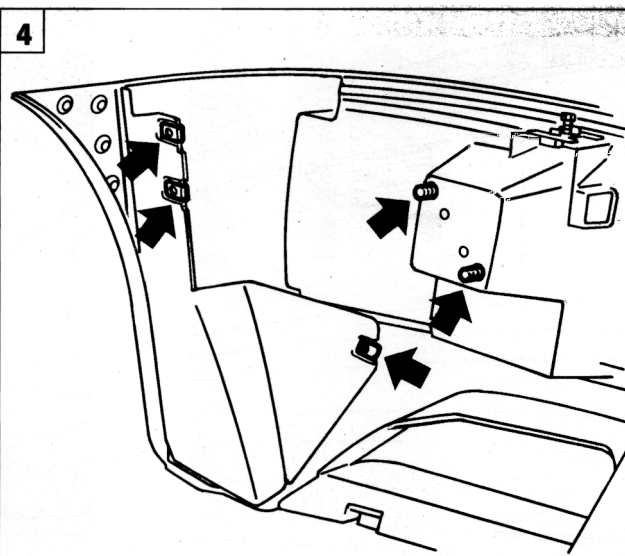
P3W024M02



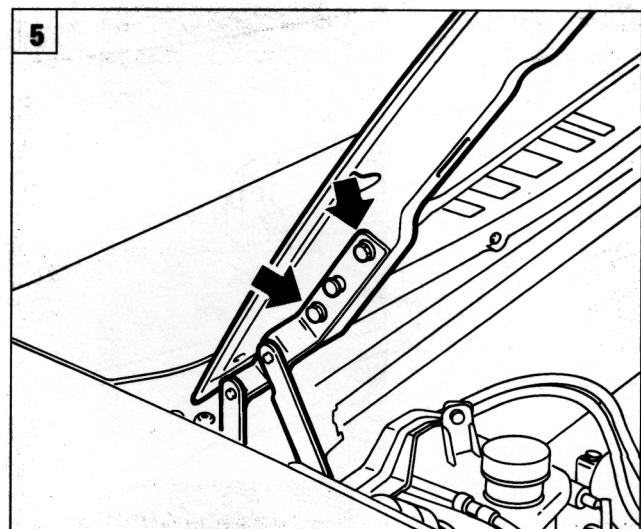
1. Gain access from the rear wheel arch and remove the bolts shown in the diagram (left and right hand sides) fixing the bumper.
2. From inside the luggage compartment, remove the nuts shown in the diagram (left and right hand sides) fixing the bumper.
3. Undo the lower bumper fixing bolt by the respective opening (1), then remove the bumper taking care to release the rear fog lamp electrical supply cables.
4. View of bumper fixings to bodyshell.

REMOVING-REFITTING BONNET LID

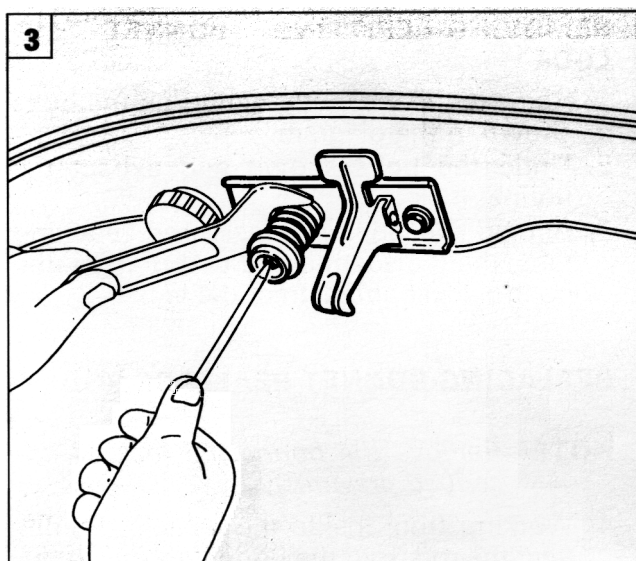
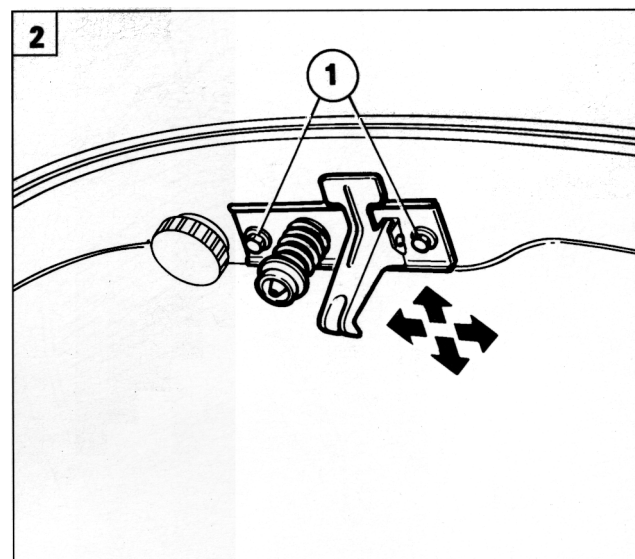
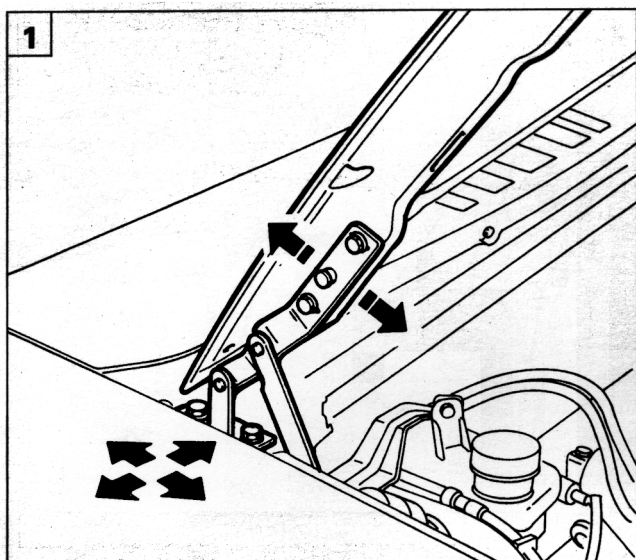
5. Raise the bonnet lid, then undo the bolts fixing the hinges to the actual lid and remove it with the help of a second operator. When refitting, tighten the bolts fixing the hinges to the bonnet lid to the recommended torque.



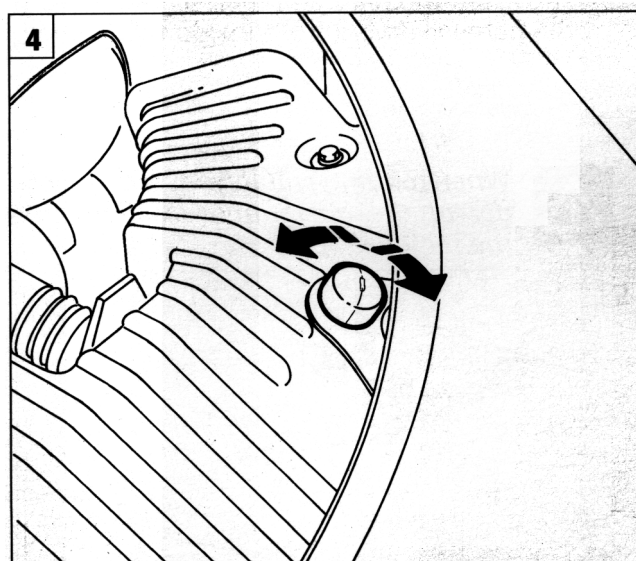
P3W024M04



P3W024M05



P3W025M03



ADJUSTMENTS

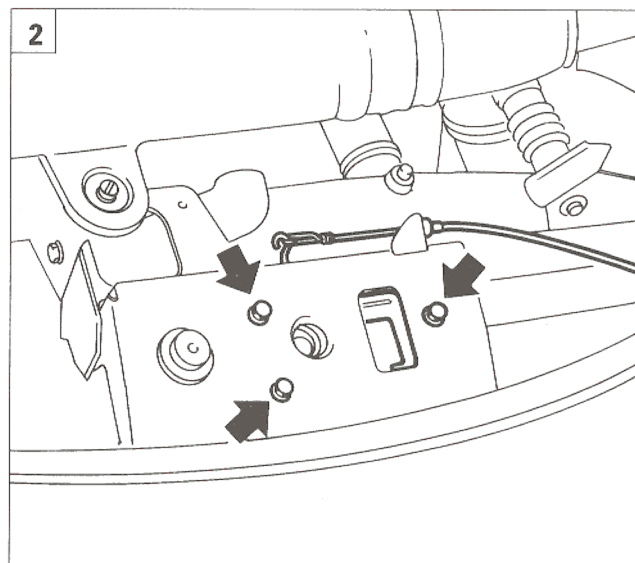
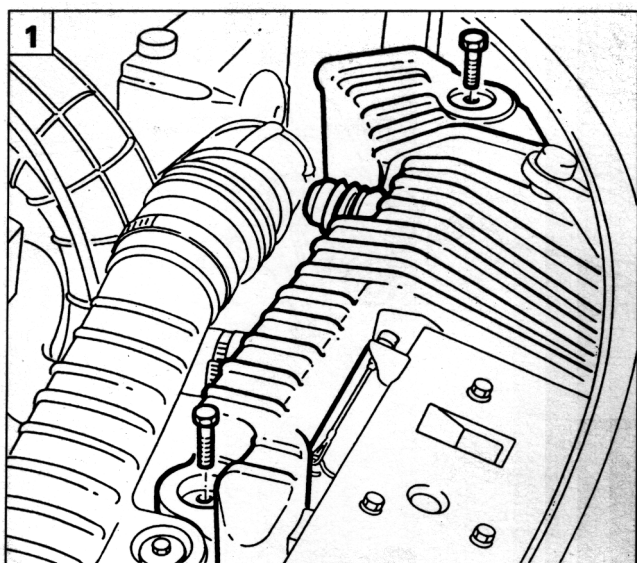
1. Loosen the bolts fixing the hinges, then adjust the position of the bonnet lid; once the adjustment has been carried out tighten the bolts fixing the hinges to the recommended torque.



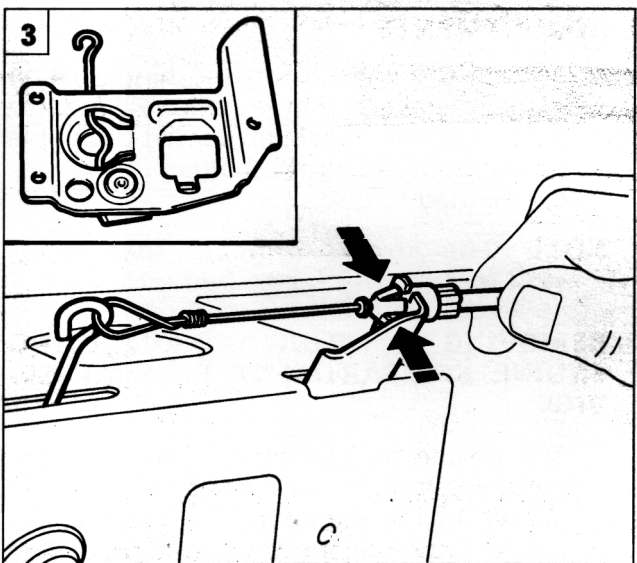
NOTE *The arrows indicate the movements which can be carried out.*

REMOVING-REFITTING AND ADJUSTING ENGINE COMPARTMENT CLOSING DEVICE

2. The device for closing the engine compartment is fixed by means of bolts (1) shown in the diagram. The arrows indicate the possible movements in case of an adjustment.
3. Working as illustrated in the diagram adjust the vertical position of the bonnet lid.
4. Check and, if necessary, adjust the vertical position of the lid, suitably turning the rubber mountings located at the sides of the engine compartment.



P3W026M02



P3W026M03



REMOVING-REFITTING BONNET LID LOCK

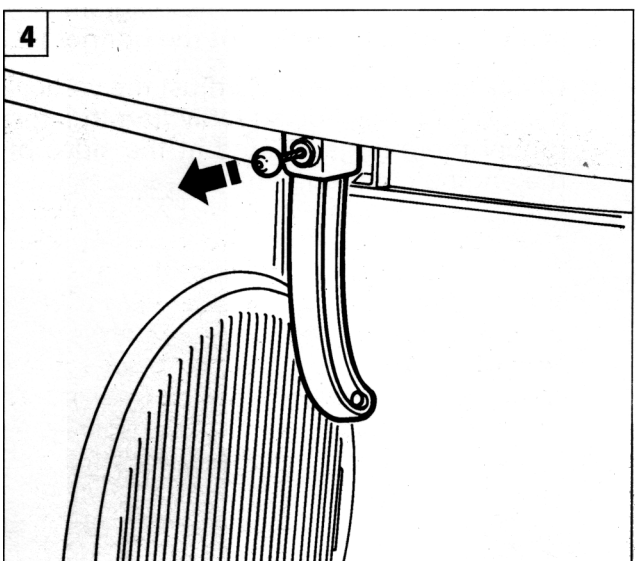


1. Remove the resonator acting on the bolts shown in the diagram.
2. Undo the bolts shown and extract the bonnet lock.
3. Act on the bonnet release rod retaining tabs then disconnect the rod from the control lever and extract the lock.

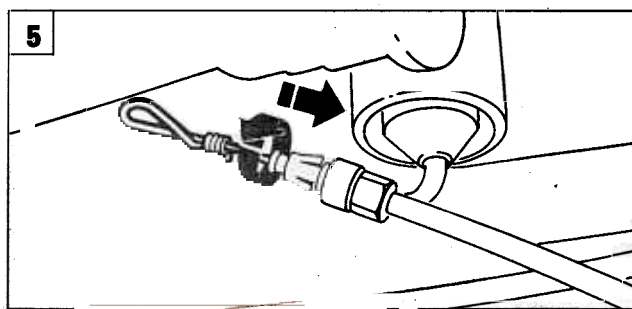
REPLACING BONNET REALEASE ROD

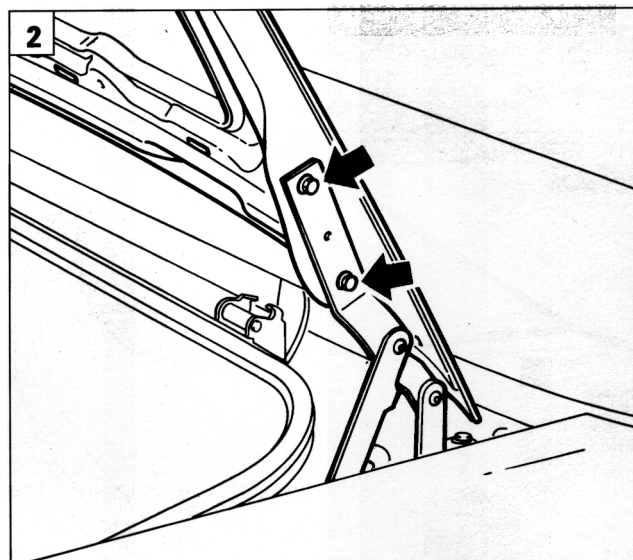
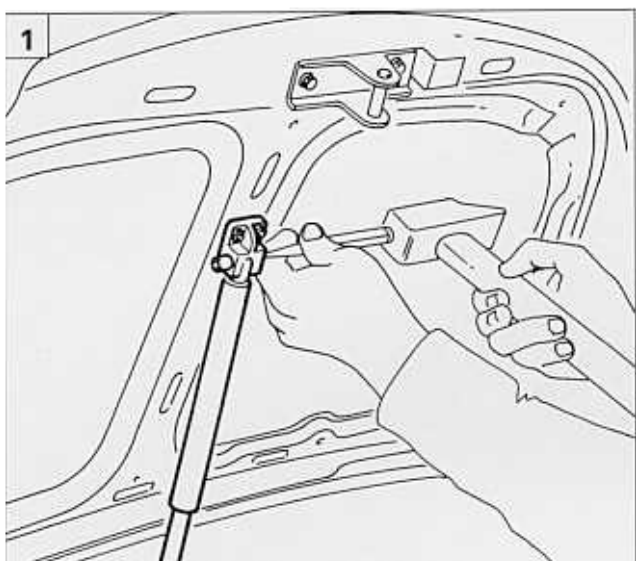
NOTE Remove the bonnet lid lock as described previously.

4. Working from inside the vehicle disconnect the rod from the bonnet release lever.
5. Move the end of the bonnet release rod as shown in the diagram, then extract it from the cable working from inside the vehicle.

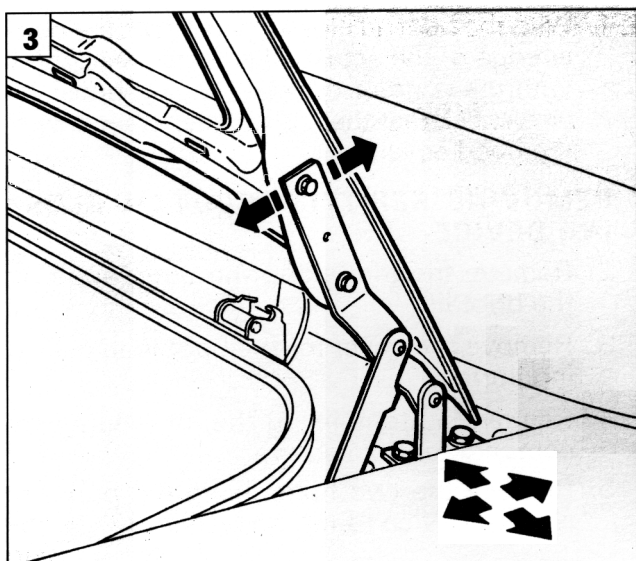


When refitting suitably reverse the order of the operations described for the removal.





P3W027M02



P3W027M03



REMOVING-REFITTING BOOT LID



1. Release the gas shock absorber from the upper fixing point on the boot lid, as shown in the diagram.



Suitably support the boot lid before carrying out the removal operations.

2. Undo the bolts fixing the hinges to the boot lid, then remove the actual lid with the help of a second operator.

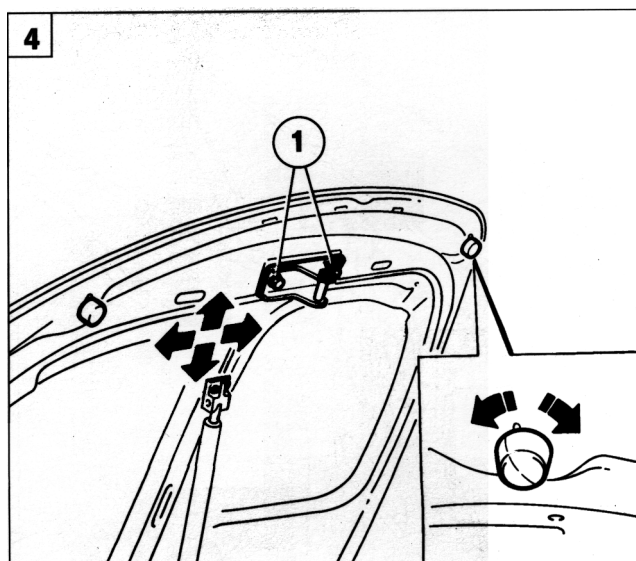
ADJUSTMENTS

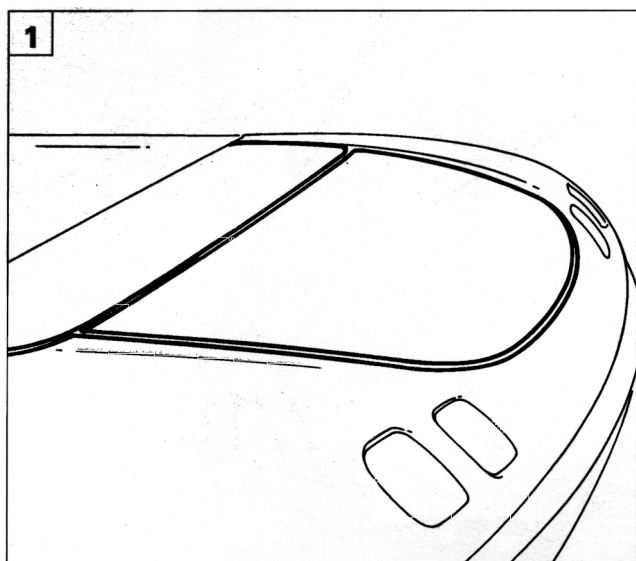
3. Loosen the bolts fixing the hinges, then adjust the position of the boot lid.

NOTE *The arrows indicate the movements which can be carried out.*

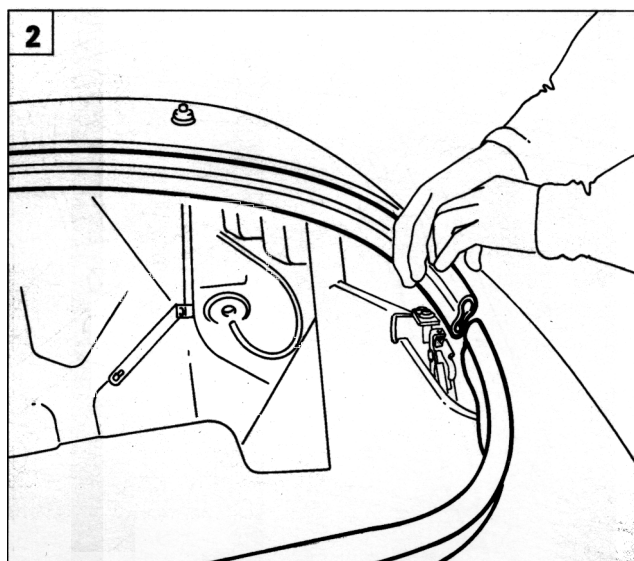
REMOVING-REFITTING AND ADJUSTING BOOT LID LOCK STRIKER

4. The luggage compartment lock striker is fixed by the bolts (1) shown in the diagram. The arrows indicate the possible movements for an adjustment. Check and, if necessary, adjust the vertical position of the lid, suitably rotating the rubber mountings located at the edges of the boot lid, as shown in the inset.

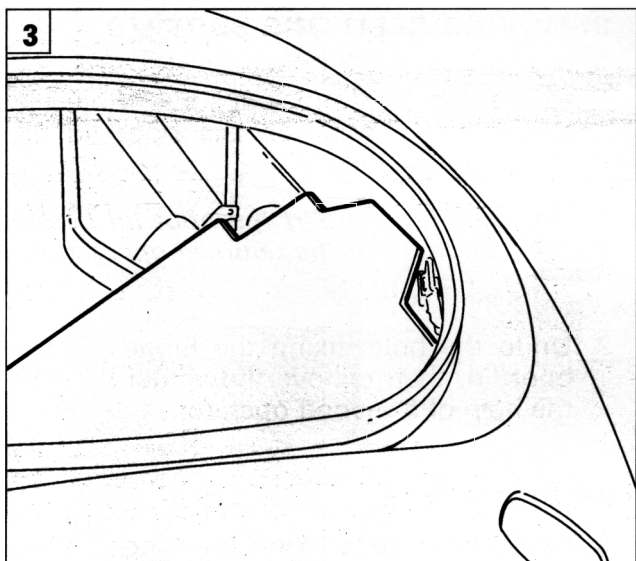




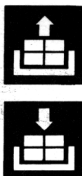
P3W028M01



P3W028M02



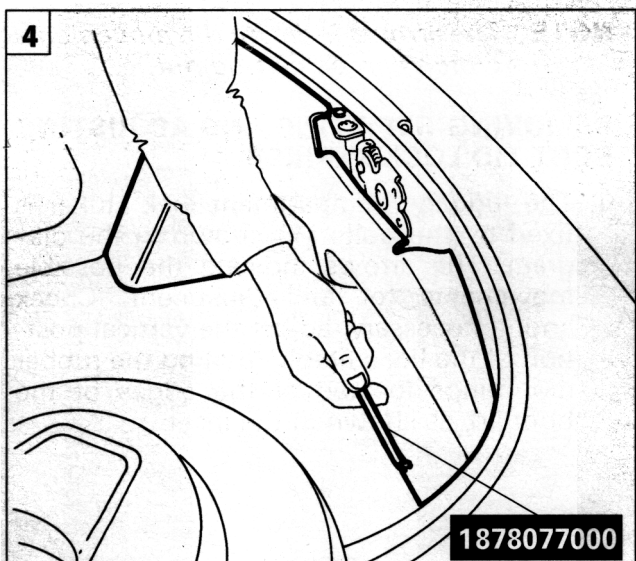
P3W028M03



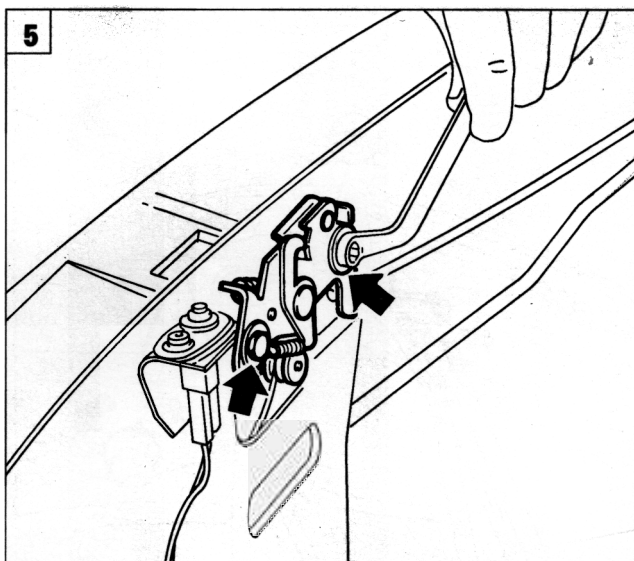
1. With the boot lid closed, check that the outer edge of the actual lid is correctly aligned with the edge of the surrounding housing; also check that there is no interference with the hood cover.

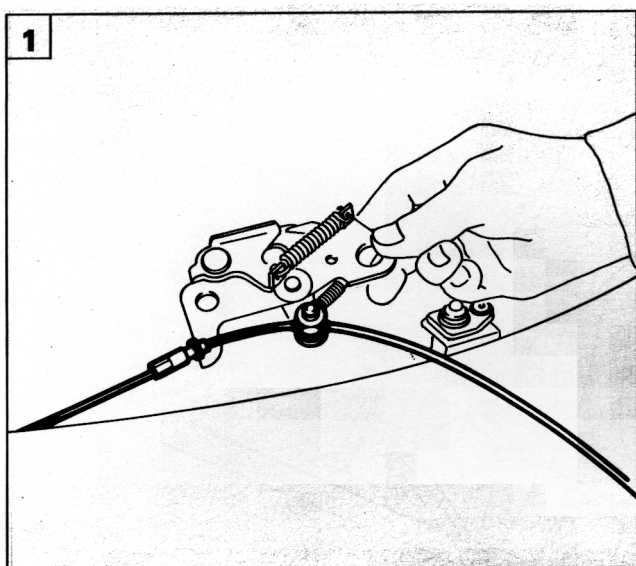
REMOVING-REFITTING BOOT LID CLOSING DEVICE

2. Remove the trim along the outer edge of the boot lid.
3. Remove the cover for the boot load carrying surface.
4. Remove buttons fixing the inner luggage compartment cover.
5. Remove the two bolts fixing the boot lid closing device to the bodyshell.

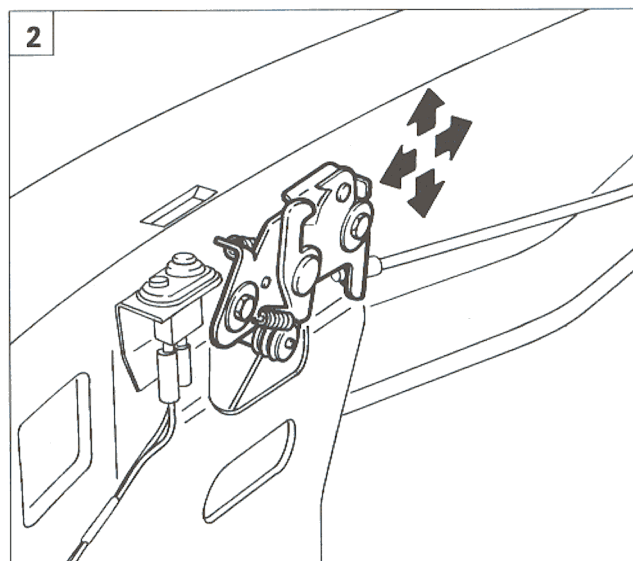


P3W028M04

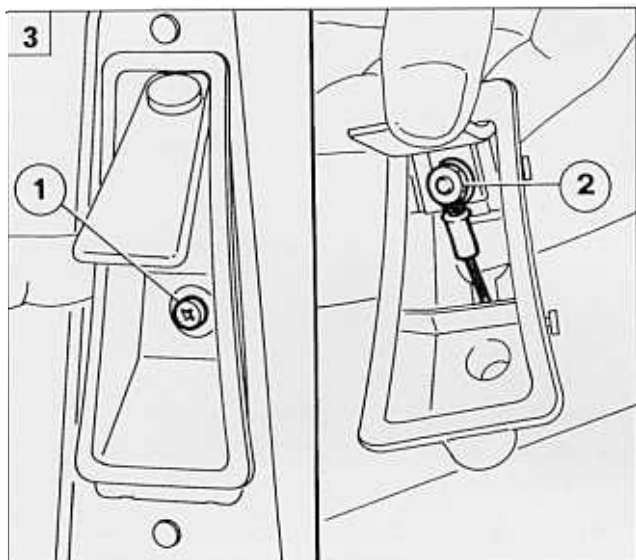




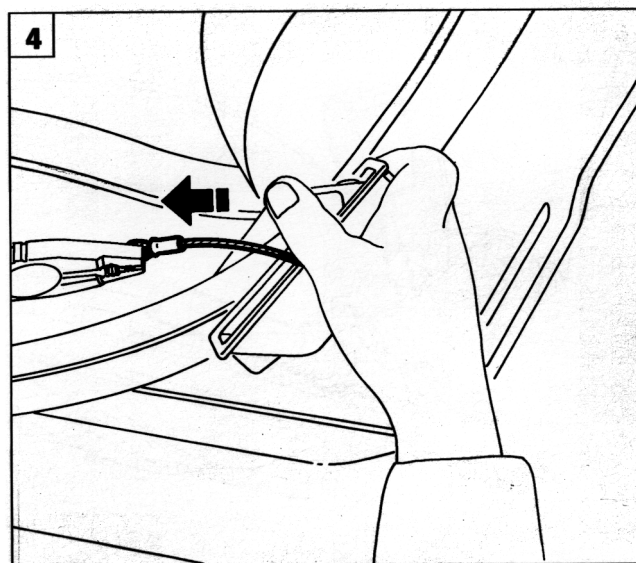
P3W029M01



P3W029M02



P3W029M03



P3W029M04



1. Disconnect the boot lid opening control rod acting on the nut and the lock nut shown in the diagram, then remove the lock.



2. Adjust the position of the boot lid opening lock striker. The arrows indicate the possible movements.

REPLACING BOOT LID OPENING CONTROL ROD

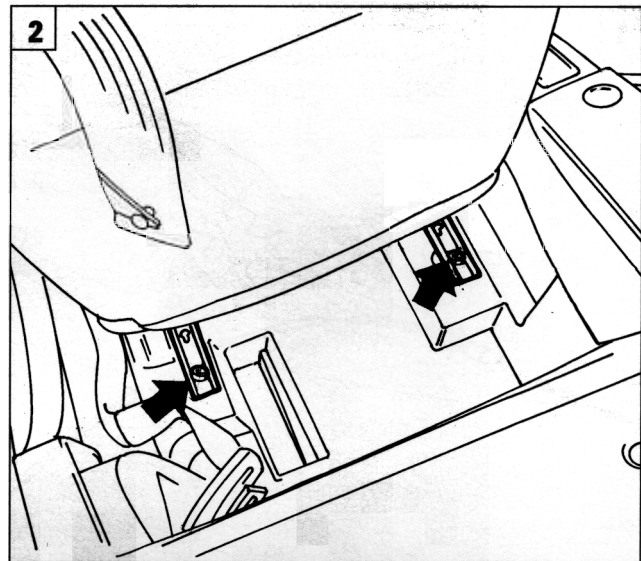
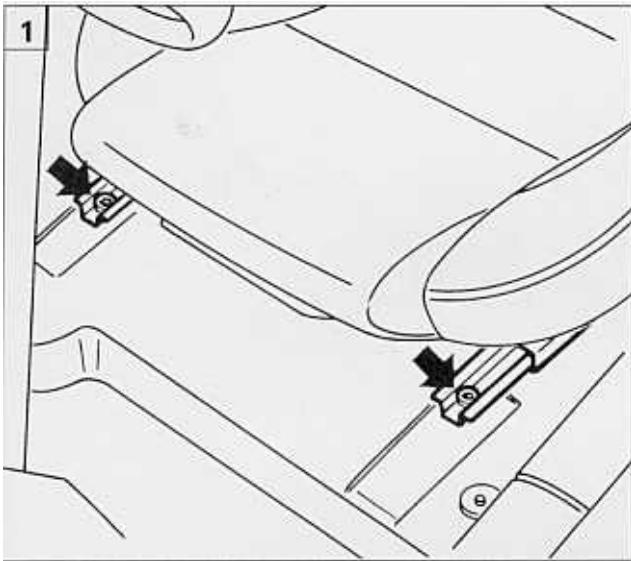
NOTE Remove the boot lid closing device as described previously.

3. Remove the bolt (1) fixing the boot lid opening control rod and extract it from its housing; then undo the nut (2) fixing the rod to the actual lever.

4. Work as illustrated in the diagram to extract the boot lid opening control rod.



When refitting suitably reverse the order of the operations carried out for removal.



P3W030M02

REMOVING-REFITTING SEAT



SCRUPULOUSLY observe the safety instructions relating to moving and refitting seats and pre-tensioners contained at the end of this chapter. Also refer to section 55 in this manual.



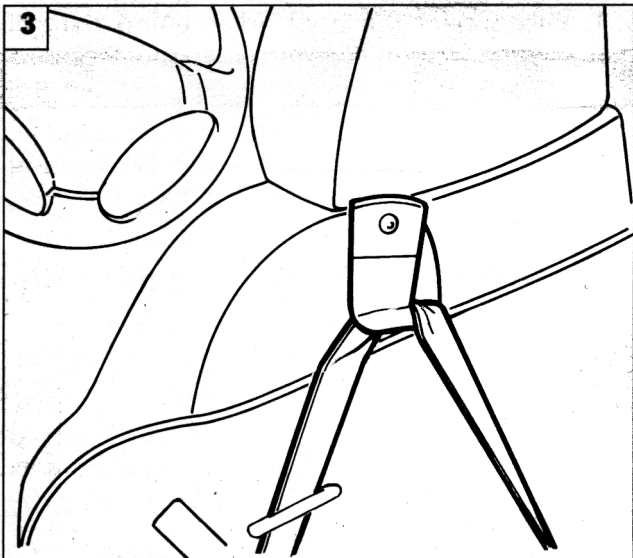
1-2. Undo the front and rear bolts fixing the seat to the floor.

3. Remove the button fixing the seat belt retaining webbing and disconnect the supply connector for the pre-tensioner then remove the seat from the vehicle.

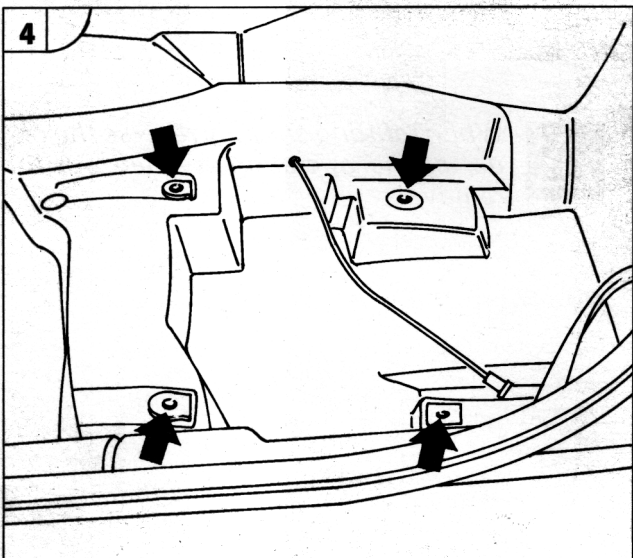
4. Location of fixing points for seat on floor panel.

DISMANTLING-REASSEMBLING SEAT

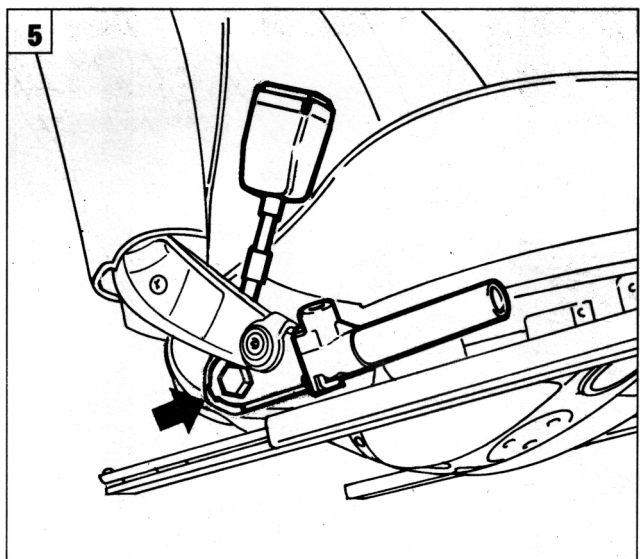
5. Remove the bolt fixing the pre-tensioner device.



P3W030M03



P3W030M04



P3W030M05