Chapter 11 Bodywork and fittings

Contents

Degrees of difficulty

Easy, suitable for novice with little experience 

Fairly easy, suitable for beginner with some experience 

Fairly difficult, suitable for competent DIY mechanic 

Difficult, suitable for experienced DIY mechanic 

Very difficult, suitable for expert DIY or professional 

Specifications

Powered hood - Cabriolet models

Power hood hydraulic system fluid type	Esso UNIVIS J26

Torque wrench settings

	Nm	lbf ft
Front seat slide to floor	25 to 32	18 to 24
Seat belt anchor bolts	29 to 45	22 to 33
Seat belt lower anchorage rail securing bolt	29 to 45	22 to 33
Front seat belt height adjuster bolt	25 to 45	18 to 33
Front seat slide to frame nuts	25 to 45	18 to 33
Bonnet hinge bolts	8.5 to 12	6.5 to 9
Bonnet latch bolts	9 to 11	7 to 8
Tailgate hinge bolts	21 to 27	16 to 20
Tailgate striker bolts	9 to 11	7 to 8
Tailgate lock bolts	9 to 11	7 to 8
Boot lid hinge bolts	21 to 27	16 to 20
Boot lid striker bolts	9 to 11	7 to 8
Boot lid latch bolts	9 to 11	7 to 8

1 General information

The bodyshell and underframe on all models is of all-steel welded construction, incorporating progressive crumple zones at the front and rear, and a rigid centre safety cell. The body style range is comprehensive, and includes the 3- and 5-door Hatchback, the 4-door Saloon, the 5-door Estate, the 2-door Cabriolet, and the Van.

A multi-stage anti-corrosion process is applied to all new vehicles. This includes zinc phosphating on some panels, the injection of wax into boxed sections, and a wax and PVC coating applied to the underbody for its protection.

Inertia reel seat belts are fitted to all models, and from the 1994 model year onwards, the front seat belt stalks are mounted on automatic tensioners (also known as "grabbers") **(see illustration)**. In the event of a serious front impact, a spring mass sensor releases a coil spring which pulls the stalk buckle downwards and tensions the seat belt. It is not possible to reset the tensioner once fired, and it must therefore be renewed.

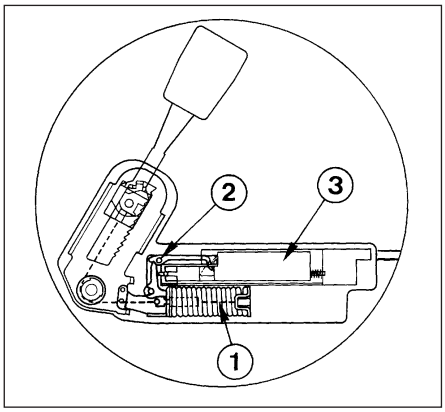
Central locking is a standard or optional fitment on all models. Where double-locking is also fitted, the lock mechanism is disconnected (when the system is in use) from the interior door handles, making it impossible to open any of the doors or the tailgate/bootlid from inside the vehicle. This means that, even if a thief should break a side window, it will not be possible to open the door using the interior handle.

Many of the procedures in this Chapter require the battery to be disconnected. Refer to Chapter 5, Section 1 first.

2 Maintenance - bodywork and underframe

The general condition of a vehicle's bodywork is the one thing that significantly affects its value. Maintenance is easy, but needs to be regular. Neglect, particularly after minor damage, can lead quickly to further deterioration and costly repair bills. It is important also to keep watch on those parts of the vehicle not immediately visible, for instance the underside, inside all the wheel arches, and the lower part of the engine compartment.

The basic maintenance routine for the bodywork is washing - preferably with a lot of water, from a hose. This will remove all the loose solids which may have stuck to the vehicle. It is important to flush these off in such a way as to prevent grit from scratching the finish. The wheel arches and underframe need washing in the same way, to remove any accumulated mud, which will retain moisture and tend to encourage rust. Paradoxically enough, the best time to clean the underframe and wheel arches is in wet weather, when the mud is thoroughly wet and soft. In very wet weather, the underframe is usually cleaned of large accumulations automatically, and this is a good time for inspection.

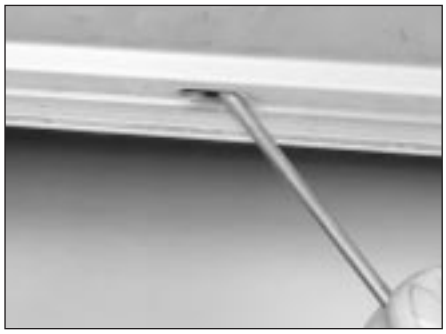


1.3 Automatic seat belt tensioner

1 Coil spring
2 Lever system
3 Spring mass sensor

Periodically, except on vehicles with a wax-based underbody protective coating, it is a good idea to have the whole of the underframe of the vehicle steam-cleaned, engine compartment included, so that a thorough inspection can be carried out to see what minor repairs and renovations are necessary. Steam-cleaning is available at many garages, and is necessary for the removal of the accumulation of oily grime, which sometimes is allowed to become thick in certain areas. If steam-cleaning facilities are not available, there are some excellent grease solvents available which can be brush-applied; the dirt can then be simply hosed off. Note that these methods should not be used on vehicles with wax-based underbody protective coating, or the coating will be removed. Such vehicles should be inspected annually, preferably just prior to Winter, when the underbody should be washed down, and any damage to the wax coating repaired. Ideally, a completely fresh coat should be applied. It would also be worth considering the use of such wax-based protection for injection into door panels, sills, box sections, etc, as an additional safeguard against rust damage, where such protection is not provided by the vehicle manufacturer.

After washing paintwork, wipe off with a chamois leather to give an unspotted clear finish. A coat of clear protective wax polish will give added protection against chemical pollutants in the air. If the paintwork sheen has dulled or oxidised, use a cleaner/polisher combination to restore the brilliance of the shine. This requires a little effort, but such dulling is usually caused because regular washing has been neglected. Care needs to be taken with metallic paintwork, as special non-abrasive cleaner/polisher is required to avoid damage to the finish. Always check that the door and ventilator opening drain holes and pipes are completely clear, so that water can be drained out **(see illustration).** Brightwork should be treated in the same way as paintwork. Windscreens and windows can be kept clear of the smeary film which often appears, by the use of proprietary glass cleaner. Never use any form of wax or other body or chromium polish on glass.



2.4 Ensure that the body drain holes are clear

3 Maintenance - upholstery and carpets

Mats and carpets should be brushed or vacuum-cleaned regularly, to keep them free of grit. If they are badly stained, remove them from the vehicle for scrubbing or sponging, and make quite sure they are dry before refitting. Seats and interior trim panels can be kept clean by wiping with a damp cloth. If they do become stained (which can be more apparent on light-coloured upholstery), use a little liquid detergent and a soft nail brush to scour the grime out of the grain of the material. Do not forget to keep the headlining clean in the same way as the upholstery. When using liquid cleaners inside the vehicle, do not over-wet the surfaces being cleaned. Excessive damp could get into the seams and padded interior, causing stains, offensive odours or even rot.

HAYNES HiNT ***If the inside of the vehicle gets wet accidentally, it is worthwhile taking some trouble to dry it out properly, particularly where carpets are involved. Do not leave oil or electric heaters inside the vehicle for this purpose.***

4 Minor body damage - repair

Note: *For more detailed information about bodywork repair, Haynes Publishing produce a book by Lindsay Porter called "The Car Bodywork Repair Manual". This incorporates*

information on such aspects as rust treatment, painting and glass-fibre repairs, as well as details on more ambitious repairs involving welding and panel beating.

Repairs of minor scratches in bodywork

If the scratch is very superficial, and does not penetrate to the metal of the bodywork, repair is very simple. Lightly rub the area of the scratch with a paintwork renovator, or a very fine cutting paste, to remove loose paint from the scratch, and to clear the surrounding bodywork of wax polish. Rinse the area with clean water.

Apply touch-up paint to the scratch using a fine paint brush; continue to apply fine layers of paint until the surface of the paint in the scratch is level with the surrounding paintwork. Allow the new paint at least two weeks to harden, then blend it into the surrounding paintwork by rubbing the scratch area with a paintwork renovator or a very fine cutting paste. Finally, apply wax polish.

Where the scratch has penetrated right through to the metal of the bodywork, causing the metal to rust, a different repair technique is required. Remove any loose rust from the bottom of the scratch with a penknife, then apply rust-inhibiting paint to prevent the formation of rust in the future. Using a rubber or nylon applicator, fill the scratch with bodystopper paste. If required, this paste can be mixed with cellulose thinners to provide a very thin paste which is ideal for filling narrow scratches. Before the stopper-paste in the scratch hardens, wrap a piece of smooth cotton rag around the top of a finger. Dip the finger in cellulose thinners, and quickly sweep it across the surface of the stopper-paste in the scratch; this will ensure that the surface of the stopper-paste is slightly hollowed. The scratch can now be painted over as described earlier in this Section.

Repairs of dents in bodywork

When deep denting of the vehicle's bodywork has taken place, the first task is to pull the dent out, until the affected bodywork almost attains its original shape. There is little point in trying to restore the original shape completely, as the metal in the damaged area will have stretched on impact, and cannot be reshaped fully to its original contour. It is better to bring the level of the dent up to a point which is about 3 mm below the level of the surrounding bodywork. In cases where the dent is very shallow anyway, it is not worth trying to pull it out at all. If the underside of the dent is accessible, it can be hammered out gently from behind, using a mallet with a wooden or plastic head. Whilst doing this, hold a suitable block of wood firmly against the outside of the panel, to absorb the impact from the hammer blows and thus prevent a large area of the bodywork from being "belled-out".

Should the dent be in a section of the bodywork which has a double skin, or some other factor making it inaccessible from behind, a different technique is called for. Drill several small holes through the metal inside the area - particularly in the deeper section. Then screw long self-tapping screws into the holes, just sufficiently for them to gain a good purchase in the metal. Now the dent can be pulled out by pulling on the protruding heads of the screws with a pair of pliers.

The next stage of the repair is the removal of the paint from the damaged area, and from an inch or so of the surrounding "sound" bodywork. This is accomplished most easily by using a wire brush or abrasive pad on a power drill, although it can be done just as effectively by hand, using sheets of abrasive paper. To complete the preparation for filling, score the surface of the bare metal with a screwdriver or the tang of a file, or alternatively, drill small holes in the affected area. This will provide a really good "key" for the filler paste.

To complete the repair, see the Section on filling and respraying.

Repairs of rust holes or gashes in bodywork

Remove all paint from the affected area, and from an inch or so of the surrounding "sound" bodywork, using an abrasive pad or a wire brush on a power drill. If these are not available, a few sheets of abrasive paper will do the job most effectively. With the paint removed, you will be able to judge the severity of the corrosion, and therefore decide whether to renew the whole panel (if this is possible) or to repair the affected area. New body panels are not as expensive as most people think, and it is often quicker and more satisfactory to fit a new panel than to attempt to repair large areas of corrosion.

Remove all fittings from the affected area, except those which will act as a guide to the original shape of the damaged bodywork (eg headlight shells etc). Then, using tin snips or a hacksaw blade, remove all loose metal and any other metal badly affected by corrosion. Hammer the edges of the hole inwards, in order to create a slight depression for the filler paste.

Wire-brush the affected area to remove the powdery rust from the surface of the remaining metal. Paint the affected area with rust-inhibiting paint, if the back of the rusted area is accessible, treat this also.

Before filling can take place, it will be necessary to block the hole in some way. This can be achieved by the use of aluminium or plastic mesh, or aluminium tape.

Aluminium or plastic mesh, or glass-fibre matting, is probably the best material to use for a large hole. Cut a piece to the approximate size and shape of the hole to be filled, then position it in the hole so that its edges are below the level of the surrounding bodywork. It can be retained in position by several blobs of filler paste around its periphery.

Aluminium tape should be used for small or very narrow holes. Pull a piece off the roll, trim it to the approximate size and shape required, then pull off the backing paper (if used) and stick the tape over the hole; it can be overlapped if the thickness of one piece is insufficient. Burnish down the edges of the tape with the handle of a screwdriver or similar, to ensure that the tape is securely attached to the metal underneath.

Bodywork repairs - filling and respraying

Before using this Section, see the Sections on dent, deep scratch, rust holes and gash repairs.

Many types of bodyfiller are available, but generally speaking, those proprietary kits which contain a tin of filler paste and a tube of resin hardener are best for this type of repair. A wide, flexible plastic or nylon applicator will be found invaluable for imparting a smooth and well-contoured finish to the surface of the filler.

Mix up a little filler on a clean piece of card or board - measure the hardener carefully (follow the maker's instructions on the pack), otherwise the filler will set too rapidly or too slowly. Using the applicator, apply the filler paste to the prepared area; draw the applicator across the surface of the filler to achieve the correct contour and to level the surface. As soon as a contour that approximates to the correct one is achieved, stop working the paste - if you carry on too long, the paste will become sticky and begin to "pick-up" on the applicator. Continue to add thin layers of filler paste at 20-minute intervals, until the level of the filler is just proud of the surrounding bodywork.

Once the filler has hardened, the excess can be removed using a metal plane or file. From then on, progressively-finer grades of abrasive paper should be used, starting with a 40-grade production paper, and finishing with a 400-grade wet-and-dry paper. Always wrap the abrasive paper around a flat rubber, cork, or wooden block - otherwise the surface of the filler will not be completely flat. During the smoothing of the filler surface, the wet-and-dry paper should be periodically rinsed in water. This will ensure that a very smooth finish is imparted to the filler at the final stage.

At this stage, the "dent" should be surrounded by a ring of bare metal, which in turn should be encircled by the finely "feathered" edge of the good paintwork. Rinse the repair area with clean water, until all of the dust produced by the rubbing-down operation has gone.

Spray the whole area with a light coat of primer - this will show up any imperfections in the surface of the filler. Repair these imperfections with fresh filler paste or bodystopper, and once more smooth the surface with abrasive paper. Repeat this spray-and-repair procedure until you are satisfied that the surface of the filler, and the

feathered edge of the paintwork, are perfect. Clean the repair area with clean water, and allow to dry fully.

> **HAYNES HiNT** ***If bodystopper is used, it can be mixed with cellulose thinners to form a really thin paste which is ideal for filling small holes.***

The repair area is now ready for final spraying. Paint spraying must be carried out in a warm, dry, windless and dust-free atmosphere. This condition can be created artificially if you have access to a large indoor working area, but if you are forced to work in the open, you will have to pick your day very carefully. If you are working indoors, dousing the floor in the work area with water will help to settle the dust which would otherwise be in the atmosphere. If the repair area is confined to one body panel, mask off the surrounding panels; this will help to minimise the effects of a slight mis-match in paint colours. Bodywork fittings (eg chrome strips, door handles etc) will also need to be masked off. Use genuine masking tape, and several thicknesses of newspaper, for the masking operations.

Before commencing to spray, agitate the aerosol can thoroughly, then spray a test area (an old tin, or similar) until the technique is mastered. Cover the repair area with a thick coat of primer; the thickness should be built up using several thin layers of paint, rather than one thick one. Using 400-grade wet-and-dry paper, rub down the surface of the primer until it is really smooth. While doing this, the work area should be thoroughly doused with water, and the wet-and-dry paper periodically rinsed in water. Allow to dry before spraying on more paint.

Spray on the top coat, again building up the thickness by using several thin layers of paint. Start spraying at one edge of the repair area, and then, using a side-to-side motion, work until the whole repair area and about 2 inches of the surrounding original paintwork is covered. Remove all masking material 10 to 15 minutes after spraying on the final coat of paint.

Allow the new paint at least two weeks to harden, then, using a paintwork renovator, or a very fine cutting paste, blend the edges of the paint into the existing paintwork. Finally, apply wax polish.

Plastic components

With the use of more and more plastic body components by the vehicle manufacturers (eg bumpers. spoilers, and in some cases major body panels), rectification of more serious damage to such items has become a matter of either entrusting repair work to a specialist in this field, or renewing complete components. Repair of such damage by the DIY owner is not really feasible, owing to the cost of the equipment and materials required for effecting such repairs. The basic technique involves making a groove along the line of the crack in the plastic, using a rotary burr in a power drill. The damaged part is then welded back together, using a hot-air gun to heat up and fuse a plastic filler rod into the groove. Any excess plastic is then removed, and the area rubbed down to a smooth finish. It is important that a filler rod of the correct plastic is used, as body components can be made of a variety of different types (eg polycarbonate, ABS, polypropylene).

Damage of a less serious nature (abrasions, minor cracks etc) can be repaired by the DIY owner using a two-part epoxy filler repair material. Once mixed in equal proportions, this is used in similar fashion to the bodywork filler used on metal panels. The filler is usually cured in twenty to thirty minutes, ready for sanding and painting.

If the owner is renewing a complete component himself, or if he has repaired it with epoxy filler, he will be left with the problem of finding a suitable paint for finishing which is compatible with the type of plastic used. At one time, the use of a universal paint was not possible, owing to the complex range of plastics encountered in body component applications. Standard paints, generally speaking, will not bond to plastic or rubber satisfactorily. However, it is now possible to obtain a plastic body parts finishing kit which consists of a pre-primer treatment, a primer and coloured top coat. Full instructions are normally supplied with a kit, but basically, the method of use is to first apply the pre-primer to the component concerned, and allow it to dry for up to 30 minutes. Then the primer is applied, and left to dry for about an hour before finally applying the special-coloured top coat. The result is a correctly-coloured component, where the paint will flex with the plastic or rubber, a property that standard paint does not normally possess.

5 Major body damage - repair

Where serious damage has occurred, or large areas need renewal due to neglect, it means that complete new panels will need welding-in, and this is best left to professionals. If the damage is due to impact, it will also be necessary to check completely the alignment of the bodyshell, and this can only be carried out accurately by a Citroën dealer, using special jigs. If the body is left misaligned, it is primarily dangerous, as the car will not handle properly; secondly, uneven stresses will be imposed on the steering, suspension and possibly transmission, causing abnormal wear, or complete failure, particularly to such items as the tyres.

6 Bumpers - removal and refitting

Removal

Front bumper

1 Apply the handbrake, then raise and support the vehicle at the front end on axle stands.

2 Release the six fasteners and two clips, and remove the splash shield from the underside of the vehicle at the front. The six fasteners will either be clip types or plastic screws, in which case they can be prised free or unscrewed, or pop-rivets, which will need to be drilled through.

3 Undo the two bumper-to-wing retaining screws at the rear edge of the bumper each side **(see illustration)**.

4 Unscrew and remove the four bumper retaining nuts (two each side) securing the bumper to the front end of the vehicle **(see illustration)**.

5 Disconnect the wiring from the bumper mounted lights or indicators, where fitted.

6 Enlist the aid of an assistant, and carefully withdraw the bumper forwards from the vehicle.

Rear (single-piece) bumper

7 Prise free the number plate light from the bumper, then detach the wiring connectors and remove the light.

6.3 Front bumper retaining screws

6.4 Front bumper retaining nuts

6.8 Rear bumper retaining screws

6.10A Rear bumper retaining nuts (Hatchback and Saloon models)

6.10B Rear (upper) bumper retaining nut (Estate models)

8 Unscrew and remove the two retaining screws securing the forward ends of the bumper to the trailing end of the wheel arch each side **(see illustration)**.

9 Where applicable, remove the rear trim panel in the rear luggage compartment to gain access to the bumper securing nuts.

10 Unscrew and remove the bumper retaining nuts from the rear panel each side **(see illustrations)**. On some models, access to the nuts is from underneath the vehicle; on others, it is from within the luggage compartment after removal of the appropriate rear trim panel. Enlist the aid of an assistant, to help in pulling the bumper outwards to clear the body each side, and withdraw it rearwards from the vehicle.

Rear quarter bumper

11 Reach behind the bumper, compress the rear number plate light retaining clips, and extract the light from the bumper. Disconnect the wiring connectors and remove the light.

12 Working from above, between the bumper and the vehicle rear panel, undo the two Torx-type retaining screws and then remove the quarter bumper **(see illustration)**.

Refitting

13 Refitting is a reversal of the removal procedure. Check the bumper for alignment before fully tightening the retaining nuts/screws. On rear bumpers, check the operation of the rear number plate light on completion.

7 Bonnet - removal, refitting and adjustment

Removal

1 Open the bonnet, and support it in the open position using the stay.

2 Release the fasteners and remove the insulation panel from the underside of the bonnet.

3 Disconnect the windscreen washer hose from its connection to the washer jet, and from the locating clips on the bonnet and hinge.

4 Undo the retaining screw, and detach the earth lead from the bonnet near the left-hand hinge **(see illustration)**. Also, where applicable, disconnect the heated washer multi-plug and wiring from the bonnet.

5 To assist in correctly realigning the bonnet when refitting it, mark the outline of the hinges with a soft pencil, then loosen the two hinge retaining bolts each side.

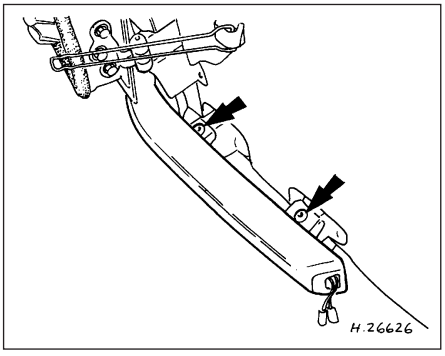
6 With the help of an assistant, remove the stay, unscrew the four bolts and lift the bonnet from the vehicle **(see illustration)**.

6.10C Rear (lower) bumper retaining nut (Estate models)

Refitting and adjustment

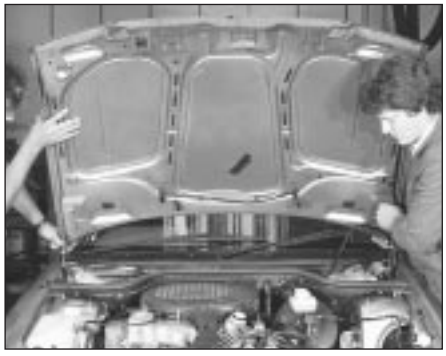
7 Refitting is a reversal of removal. Position the bonnet hinges within the outline marks made during removal, but alter its position as necessary to provide a uniform gap all round. Adjust the rear height of the bonnet by repositioning it on the hinges. Adjust the front height by repositioning the lock with reference to Section 9, and turn the rubber buffers on the engine compartment front crosspanel up or down to support the bonnet.

8 Ensure that the washer, wiring and earth lead connections are cleanly and securely made. Check the windscreen washer for satisfactory operation on completion.



6.12 Rear quarter bumper retaining screw locations (arrowed)

7.4 Bonnet hinge and earth lead connection



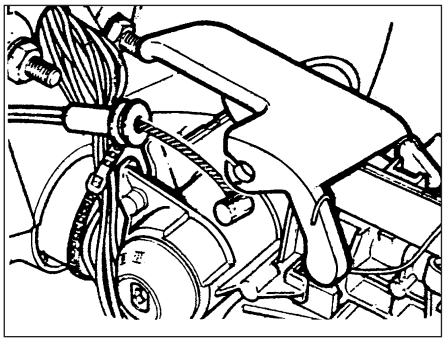
7.6 Bonnet removal

8.1 Bonnet release cable and lock

8 Bonnet release cable - removal and refitting

Removal

1 With the bonnet open, disconnect the cable from the locating slot in the lock frame, then release the inner cable nipple from the lock **(see illustration)**.
2 Working inside the vehicle, undo the four retaining screws, and lower the bottom shroud from the steering column.
3 Detach the inner cable nipple from the release lever, then withdraw the cable through the bulkhead (noting its routing) and remove it from the engine compartment side **(see illustration)**.



8.3 Detach the cable from the bonnet release lever on the steering column

Refitting

4 Refitting is a reversal of removal. On completion, check that the bonnet catch and release operate in a satisfactory manner.

9 Bonnet lock - removal and refitting

Removal

1 With the bonnet open, disconnect the cable from the locating slot in the lock frame, then release the inner cable nipple from the lock.
2 Unscrew the three retaining screws, and remove the lock from the vehicle.

Refitting

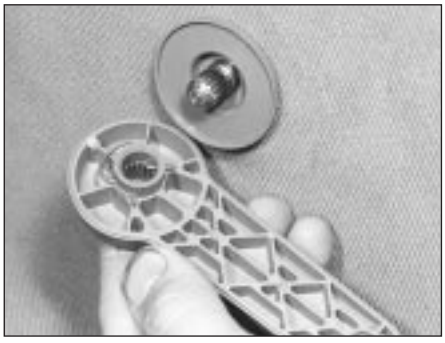
3 Refitting is a reversal of removal, but adjust the lock height so that the bonnet line is flush with the front wings, and so that it shuts securely without force. If necessary, adjust the lock laterally so that the striker enters the lock recess correctly; it may also be necessary to reposition the striker.

10 Door inner trim panel - removal and refitting

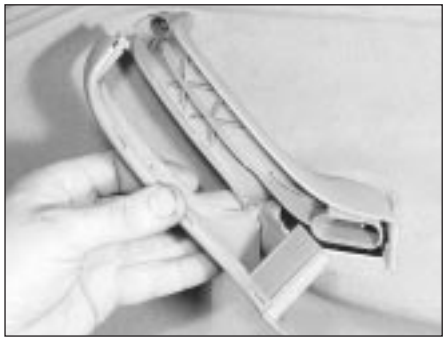
Removal

1 On models fitted with manual window regulators, fully shut the window, note the position of the regulator handle, then release the spring clip and withdraw the handle. The clip can be released by inserting a clean cloth between the handle and the door trim, and pulling the cloth back against the open ends of the clip to release its tension whilst simultaneously pulling the handle from the regulator shaft splines **(see illustrations)**.
2 Prise free the trim capping from the door handle, taking care not to break the single retaining clip, then undo the retaining screws and remove the handle **(see illustrations)**.
3 Undo the retaining screw from the inner door handle bezel, then slide free and remove the bezel **(see illustrations)**.
4 Unscrew and remove the door trim panel

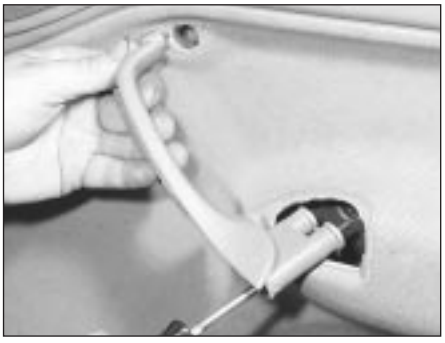
10.1A Release the regulator retaining clip as shown . . .



10.1B . . . and withdraw the manual window regulator handle



10.2A Remove the door handle trim capping . . .



10.2B . . . and undo the handle retaining screws

10.3A Undo the retaining screw . . .

10.3B . . . and remove the bezel

10.4 Door trim retaining screws (arrowed)

10.6A Remove the insulation surrounding the inner release handle

10.6B Cut through the adhesive to remove the door insulation sheet

retaining screws **(see illustration)**, lift the panel to disengage it from the top edge clips (along the window edge), then remove the panel.

5 If required (and where fitted), the door pocket can be detached from the trim panel by unscrewing the three retaining screws, one of which is fitted from the inside-out. If an ashtray is fitted to the trim, it can be removed by carefully prising it free. If the door lock inner release or other internal components of the door are to be inspected or removed, first withdraw the bezel from the inner door release, then remove the insulation sheet from the door as follows.

6 Access to the inner door can be made by carefully extracting the insulator from the inner release, then peeling back the insulation sheet. In order not to damage and distort the insulation sheet, use a suitable knife to cut through the peripheral adhesive strip whilst the sheet is progressively peeled back and away from the door. Avoid touching the strip with the hands, as skin oils will adversely affect its adhesive properties **(see illustrations)**.

Refitting

7 Refitting is a reversal of removal, but where necessary, apply suitable mastic to the door panel before fitting the insulation sheet. When the door trim panel is refitted, check the operation of the door catch release and the window regulator (where applicable).

11 Door window glass - removal and refitting

Removal

Front door window glass (Hatchback, Saloon, Estate and Van models)

1 Remove the inner trim panel and the insulation sheet from the door as described in Section 10.

2 Prise free the inner and outer weatherstrips from the bottom of the window aperture in the door **(see illustration)**.

3 Wind the window up to close it, then have an assistant hold the window firmly in this position whilst you unscrew the window-to-regulator retaining screws through the aperture in the inner door **(see illustration)**.

4 Lower the window regulator, then tilting the window as required, withdraw it outwards from the door **(see illustration)**.

Front door window glass (Cabriolet models)

5 Remove the inner trim panel and the insulation sheet from the door as described in Section 10.

6 Wind down the window in the door, then prise free the inner and outer weatherstrips from the bottom of the window aperture in the door.

7 Undo the three retaining screws, partially withdraw the door-mounted speaker so that its wiring connections can be detached, then remove the speaker.

8 Undo the door mirror trim screw, remove the trim panel and then detach the mirror adjuster multi-plug.

9 Lower the window in the door, then unscrew the small slider bolt **(see illustration)**.

10 Raise the door glass, undo the large slider bolts, support the window regulator, and unscrew the three regulator retaining bolts **(see illustration)**.

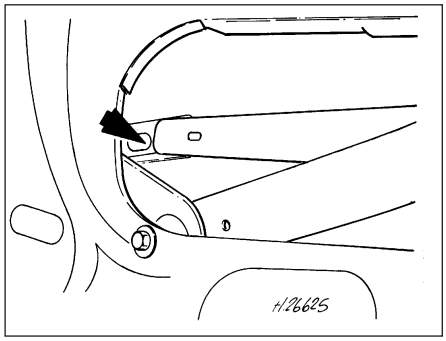
11 Lower the regulator and detach the regulator wiring multi-plug.

12 Move the glass rearwards to disengage it

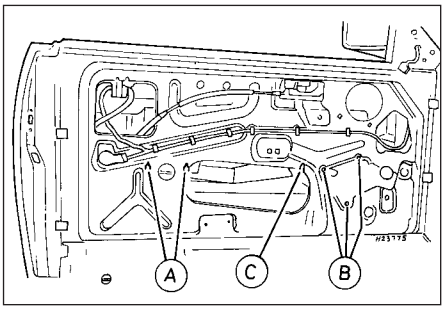
11.2 Remove the weatherstrips from the door

11.3 Undo the glass-to-regulator screws through apertures shown

11.4 Removing a door window glass



11.9 Location of small slider bolt (arrowed) in front door of Cabriolet models



11.10 Door window regulator retaining bolts on the front doors of Cabriolet models

A Large slider bolts
B Regulator retaining bolts
C Small slider bolt

from the front guide channel, then move it carefully towards the outer panel. Carefully pull the glass upwards to disengage it from the large slider and simultaneously away from the door mirror, and remove the glass from the door.

Refitting

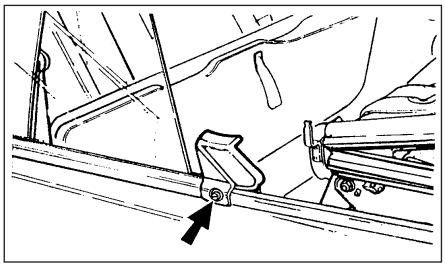
13 Refitting is a reversal of removal, but note then following:

a) When the glass is lowered into position in the door on Cabriolet models, loosely fit the retaining bolts, then close the window to ensure that the glass fits correctly before tightening the slider bolts to secure.
b) Where applicable, ensure that the wiring looms in the door are clear of the window and its regulating mechanism, and that the connections are secure.
c) On refitting the window glass, check that it operates fully and freely before refitting the insulation sheet and the door trim panel.

12 Rear quarter window glass (Cabriolet models) - removal and refitting

Removal

1 Open the roof, and lift the rear seat cushion.
2 Refer to Section 34 for details, and remove the rear side quarter trim panel.
3 Where applicable, undo the speaker retaining screws, partially withdraw the speaker to detach the wiring connections, and then remove the speaker.
4 Undo the screw, remove the cup washer, and detach the roof frame main pillar bottom seal **(see illustration)**.
5 Remove the outer and inner weather strips.
6 Carefully peel back and remove the insulation sheet. In order not to damage and distort the insulation sheet, use a suitable knife to cut through the peripheral adhesive strip as the sheet is peeled progressively back and away from the door. Avoid touching the strip with the hands, as skin oils will adversely affect its adhesive properties.
7 Reconnect the window regulator (handle or switch, as applicable) and with the window fully lowered, prise free and detach the window regulator arm from the channel.
8 Raise the window, then unscrew the shouldered bolt securing the regulator arm to the support channel **(see illustration)**. Tilt and lift the glass from the car.



12.4 Roof frame main pillar bottom seal screw (arrowed) on Cabriolet models

Refitting

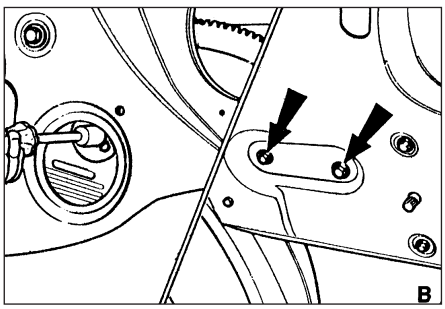
9 Refitting is a reversal of removal, but note then following:

*a) When the glass is lowered into position, and the regulator arm-to-support bolt is fitted, adjust the position of the glass by loosening the adjuster bolts as required. Tighten them once the necessary adjustment has been made **(see illustration)**.*
b) Where applicable, ensure that the wiring looms are clear of the window and its regulating mechanism, and that the connections are secure.
c) On refitting the window glass, check that it operates fully and freely before refitting the insulation sheet and the quarter trim panel.

13 Rear quarter window regulator (Cabriolet models) - removal and refitting

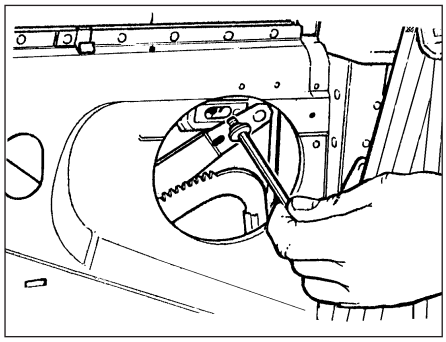
Removal

1 Remove the rear quarter window as described in the previous Section.
2 On models fitted with electric windows, detach the wiring multi-plug from the regulator motor.
3 Unscrew and remove the regulator arm retaining bolts.
4 Unscrew and remove the three regulator retaining bolts (to the right of the arm bolts), then withdraw the regulator from the side panel lower aperture.



12.9 Quarter window adjustment bolts on Cabriolet models

A Height adjustment B Lateral adjustment



12.8 Unscrewing the shouldered bolt securing the regulator arm to the support channel on Cabriolet models

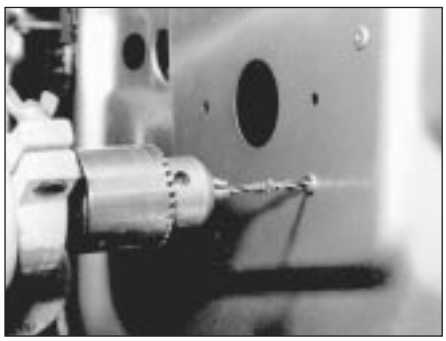
Refitting

5 Refitting is a reversal of removal. Ensure that the wiring connections are securely made, and check the operation of the regulator before refitting the window. Refer to Section 12 for details on refitting the window.

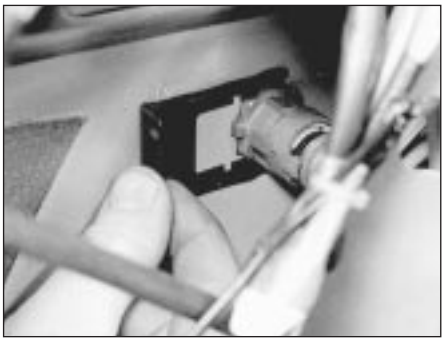
14 Door window regulator - removal and refitting

Removal

1 Remove the door trim and the insulation sheet as described in Section 10.
2 Locate the glass in the door so that the guide channel can be detached from the regulator. Disconnect the ball and socket(s) (two per front door, one per rear door), then lower the glass to the base of the door.
3 The regulator is secured by seven pop-rivets (front door) or four pop-rivets (rear door). Drill through the centre of each rivet, detach the regulator from the door, and withdraw it from the lower aperture **(see illustration)**.



14.3 Drilling out the door window regulator rivets



15.2A Remove the inner retaining clip . . .

15.2B . . . and withdraw the lock barrel from the door

15.5 Inner door release and retaining screw

Refitting

4 Refitting is a reversal of removal. Obtain the correct number of rivets to fit the regulator to the door. Check that the operation of the window regulator is satisfactory before refitting the door trim.

15 Door lock, lock cylinder and handles - removal and refitting

Removal

1 Remove the door inner trim panel and the insulation sheet as described in Section 10. Proceed as described below in the appropriate sub-Section. On 1993-on Cabriolet models, it will be necessary to remove the door window glass, as described in Section 11, for access to the door lock components.

Door lock barrel

2 Slide free the barrel retaining clip, detach the connecting rod and remove the lock barrel **(see illustrations)**.

Door lock

3 Remove the lock barrel as described above.

4 On models fitted with central locking, detach the wiring multi-plugs from the lock motor (attached to and removed with the lock).

5 Unscrew and remove the inner door release retaining screw **(see illustration)**.

6 Unscrew and remove the three (four on 1993-on Cabriolet models) door lock retaining screws **(see illustration)**.

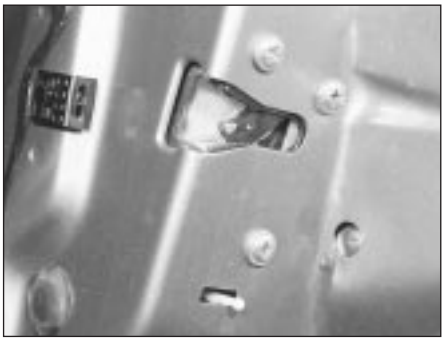
7 Remove the window rear guide (rear doors only).

8 Slide free the inner release from the door, then withdraw the lock together with the remote control inner release and cable. If required, the connecting cable to the inner release handle can be detached from the lock by removing the cover, sliding the outer cable from its locating slot in the lock, and then withdrawing the inner cable from the actuating pivot on the lock **(see illustrations)**.

9 On models with central locking, undo the two retaining screws to detach the lock from the actuating motor.

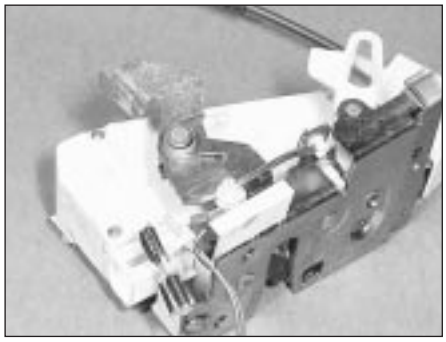
Inner release handle

10 Slide free the inner release and detach it from the door, then disconnect the release operating cable from the release handle case **(see illustrations)**.



15.6 Door lock retaining screws

15.8A Remove the door release . . .



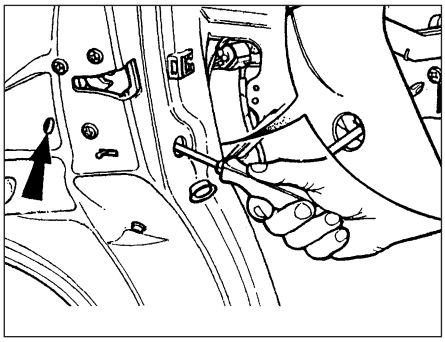
15.8B . . . and the door lock with cable

15.8C Remove cover to detach cable from the lock

15.10A Detach the inner release handle . . .

15.10B . . . and disconnect the cable from the casing

15.11A Exterior handle retaining screws



15.11B Exterior handle retaining screw access point in rear door

16.1 Disconnect the wiring multi-plug connector

Exterior release handle

11 Undo the two retaining screws, detach the link rod from the release arm of the exterior handle, and remove the handle from the door **(see illustration)**. Note that on the rear doors it will be necessary to remove the blanking plug in the edge of the door to gain access to one of the handle securing screws **(see illustration)**.

Refitting

12 Refitting is a reversal of removal. Check for satisfactory operation of the lock and its associated components before refitting the door trim. Check that the striker enters the lock centrally when the door is closed. If necessary, loosen it with a Torx key, re-position and re-tighten it.

16 Door - removal and refitting

Removal

1 Fully open the door, then untwist and detach the wiring multi-plug connector **(see illustration)**.
2 Disconnect the door check strap by unscrewing the Torx screw on the door pillar **(see illustration)**.
3 Support the door on blocks of wood.
4 Unscrew the door hinge pin retaining bolt from each hinge **(see illustration)**, then lift the door clear of the hinges.

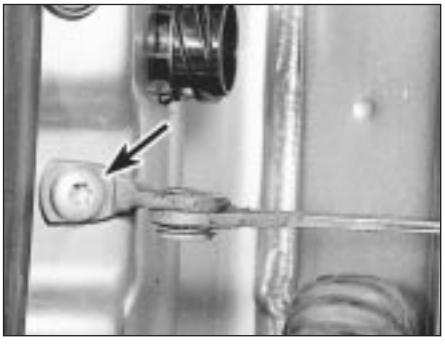
Refitting

5 Refitting is a reversal of removal. Check that the striker enters the lock centrally when the door is closed. If necessary, loosen it with a Torx key, re-position and re-tighten it **(see illustration)**.

17 Exterior mirror and glass - removal and refitting

Removal

1 If the mirror glass is to removed, insert a thin flat-bladed tool between the glass and the housing, and carefully prise it free. Where applicable, disconnect the wiring from the connectors on the rear face of the mirror **(see illustrations)**.
2 To remove the mirror, first remove the door trim as described in Section 10.
3 Undo the door mirror trim retaining screw, and remove the trim **(see illustration)**.

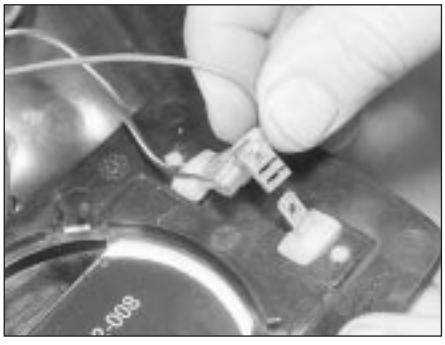


16.2 Door check strap screw (arrowed)

16.4 Door hinge pin bolt (arrowed)

16.5 Door striker - note Torx-head securing bolt

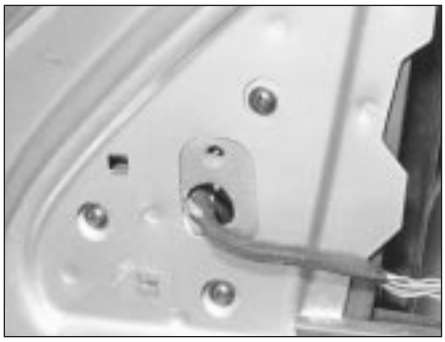
17.1A Prise free the door mirror glass . . .



17.1B . . . and detach the wiring connectors, where applicable

17.3 Undo the screw and remove the mirror trim

17.4 Detach the wiring multi-plug from the mirror control unit



17.5 Undo the three mirror retaining screws

17.6 Mirror motor and retaining screws (arrowed)

4 Carefully prise free the control unit from the trim, and where applicable, detach the wiring connector from the adjuster **(see illustration)**.
5 Support the mirror, undo the three retaining screws, and remove the mirror from the door **(see illustration)**.
6 The motor can be removed if required by undoing the three retaining screws **(see illustration)**.

Refitting

7 Refit in the reverse order of removal. Check that the operation of the mirror adjuster is satisfactory.

18 Interior mirror - removal and refitting

Removal

1 Using a length of strong thin cord or fishing line, break the adhesive bond between the base of the mirror and the glass. Have an assistant support and remove the mirror as it is released.
2 If the original mirror is to be refitted, thoroughly clean its base with methylated spirit and a lint-free cloth. Allow a period of one minute for the spirit to evaporate. Clean the windscreen black patch in a similar manner.

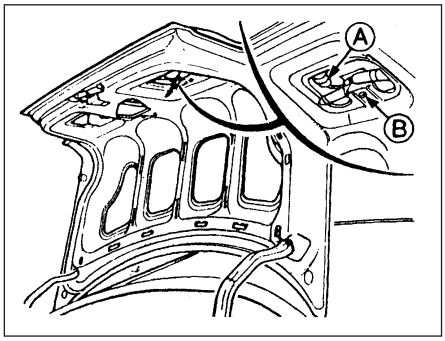
Refitting

3 During the installation of the mirror, it is important that the mirror base, windscreen black patch and the adhesive patch are not touched or contaminated in any way - poor adhesion will result.
4 Prior to fitting the mirror, the temperature inside the vehicle should ideally be around 20ºC. While this isn't critical, it's worth ensuring that the inside of the vehicle is as warm and dry as possible.
5 With the contact surfaces thoroughly cleaned, remove the protective tape from one side of the adhesive patch, and press it firmly into contact with the mirror base.
6 If fitting the mirror to a new windscreen, the protective tape must first be removed from the windscreen black patch.
7 Warm the mirror base and the adhesive patch for about 30 seconds to a temperature of 50 to 70ºC. Peel back the protective tape from the other side of the adhesive patch on the mirror base, then align the mirror base and the windscreen patch, and press the mirror firmly into position. Hold the base of the mirror firmly against the windscreen for a minimum period of two minutes to ensure full adhesion.
8 Wait at least thirty minutes before adjusting the mirror position.

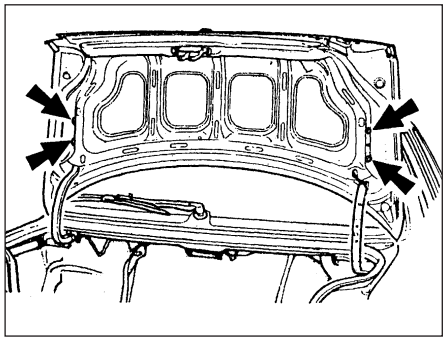
19 Boot lid - removal, refitting and adjustment

Removal

1 Open the boot lid, and mark the position of the hinges with a pencil.
2 Where applicable, disconnect the wiring multi-plug and the earth lead for the central locking motor from the boot lid **(see illustration)**. Attach a suitable length of strong cord to the end of the wire, then withdraw the lead from the bootlid. Detach the cord and leave it in position in the boot. This will then act as an aid to guiding the wiring through the lid when it is refitted.
3 Place cloth rags beneath each corner of the boot lid to prevent damage to the paintwork.
4 With the help of an assistant, unscrew the mounting bolts **(see illustration)** and lift the boot lid from the car.



19.2 Multi-plug (A) and earth lead (B) connection points in the boot lid



19.4 Boot lid hinge retaining bolt locations (arrowed)

Refitting and adjustment

5 Refitting is a reversal of removal. Check that the boot lid is correctly aligned with the surrounding bodywork, with an equal clearance around its edge. Adjustment is made by loosening the hinge bolts and moving the boot lid within the elongated mounting holes. Check that the lock enters the striker centrally when the boot lid is closed, and if necessary adjust the striker's position within the elongated holes.

20 Boot lid lock components - removal and refitting

Removal

Lock barrel

1 Open the boot and undo the screw securing the barrel retaining clip, then remove the clip.
2 Detach the barrel from the link rod, and withdraw the lock from the boot lid.

Lock

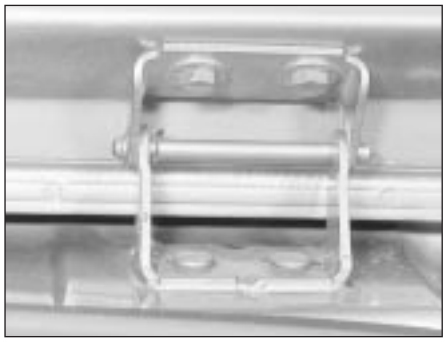
3 Open the boot lid and remove the lock barrel (see above for details).
4 Undo the three retaining screws, then withdraw the lock from the boot lid.

Lock striker and remote release

5 Open the boot, undo the two retaining screws, and remove the trim from the rear face of the luggage compartment.

21.4 Detach the wiring connector from the tailgate

21.5 Tailgate strut and balljoint



21.6 Tailgate hinge and retaining bolts

6 Using a soft pencil, mark an outline around the striker and the release unit, to act as a guide for repositioning on refitting. Undo the two Torx-type screws, and remove the lock striker and the release unit. Detach the operating cable from the release unit to remove it.

Release cable

7 Remove the striker and release unit as described above, then detach the release cable from it.
8 Detach and remove the kick panel trim beneath the front and rear doors on the driver's side. Fold back the carpet from around the bootlid lock release handle.
9 Withdraw the outer cable from the slot in the lever mounting plate, then detach the inner cable from the lever.
10 Remove the appropriate side trim panels from the rear of the vehicle on the side concerned, to expose the cable routing. Where the cable has to pass through cavities in the body, tie a suitable length of cord to the cable end before pulling the cable through and removing it. The cord can be untied from the cable, and left in situ in the vehicle. It will then act as a "puller-guide" when the cable is being refitted.

Refitting

11 Refitting is a reversal of removal. When refitting the lock, check that the striker enters the lock centrally when the boot lid is closed, and if necessary re-position the striker by loosening the mounting screws.

21 Tailgate - removal, refitting and adjustment

Removal

1 Open the tailgate, then undo the seven retaining screws and remove the trim panel from the tailgate.
2 Using a soft pencil, mark the fitted position outline around the tailgate hinges to act as a guide for repositioning when refitting.
3 Prise free and remove the plug for access to the washer jet, then detach the hose from the jet. Attach a suitable length of strong cord to the end of the hose to assist in guiding the hose back through the aperture of the tailgate when it is being refitted. Now prise free the flexible grommet on the left-hand side, and withdraw the washer jet hose from the tailgate. Undo the cord from the hose, and leave it in position in the tailgate.
4 Where applicable, detach the central locking lead multi-connector and earth lead from the tailgate **(see illustration)**. Attach a suitable length of strong cord to the end of the wire, to assist in guiding the wiring back through the aperture of the tailgate when it is being refitted. Now prise free the flexible grommet on the right-hand side, and withdraw the central locking wires from the tailgate. Undo the cord from the wire, and leave it in position in the tailgate.
5 Have an assistant support the tailgate in the open position, then prise open the support strut balljoint securing clip, and detach the strut each side from the tailgate **(see illustration)**.
6 Unscrew and remove the hinge bolts, then lift the tailgate clear of the vehicle **(see illustration)**.

Refitting and adjustment

7 Refitting is a reversal of removal, but check that the tailgate is correctly aligned with the surrounding bodywork, with an equal clearance around its edge. Adjustment is made by loosening the hinge bolts and moving the tailgate within the elongated mounting holes. Adjust the rear height by turning the rubber bump stop each side in the desired direction **(see illustration)**. Check that the striker enters the lock centrally when the tailgate is closed, and if necessary adjust the position of the striker within the elongated holes.

22 Tailgate support strut - removal and refitting

Removal

1 Support the tailgate in its open position. If both struts are to be removed, the tailgate will need to be supported by an alternative means.
2 Disconnect each end of the support strut by prising out the spring clip retainers with a small screwdriver and pulling the strut from the ball mountings.

Refitting

3 Refitting is a reversal of removal, but note that the piston end of the strut faces downwards.

23 Tailgate lock components - removal and refitting

Removal

Lock barrel

1 Open the tailgate, then remove the seven screws and remove the inner trim panel from the rear of the luggage area.
2 Depending on type, unscrew and remove the lock barrel clip retaining screw, then remove the clip or undo the two retaining nuts **(see illustration)**.

21.7 Tailgate bump stop

23.2 Tailgate lock barrel, operating rod and retaining nuts

23.5A Undo the three retaining screws . . .

23.5B . . . and withdraw the lock from the tailgate

23.6A Undo the retaining screws . . .

3 Disengage the operating rod and remove the barrel.

Lock

4 Open the tailgate and remove the lock barrel as described above.

5 Undo the three Torx-type retaining screws and remove the lock. Where applicable, detach the wiring in-line connector from the lock **(see illustrations)**.

Striker and release unit

6 Using a soft pencil, mark an outline around the striker and the release unit to act as a guide for repositioning on refitting. Undo the two Torx-type screws (and where applicable, the earth lead screw), then remove the lock striker and release unit. Detach the operating cable from the release unit to remove it **(see illustrations)**.

Release cable

7 Remove the striker and release unit as described above, then detach the release cable from it.

8 Detach and remove the kick panel trim beneath the front and rear doors on the driver's side. Fold back the carpet from around the tailgate release handle.

9 Withdraw the outer cable from the slot in the lever mounting plate, then detach the inner cable from the lever **(see illustration)**.

10 Remove the appropriate side trim panels from the rear of the vehicle on the side concerned, to expose the cable routing.

HAYNES HiNT ***Where the cable has to pass through cavities in the body, tie a suitable length of cord to the cable end before pulling the cable through and removing it. The cord can be untied from the cable, and left in situ in the vehicle. It will then act as a "puller-guide" when the cable is being refitted.***

Refitting

11 Refitting is a reversal of removal. When refitting the lock, check that the striker enters the lock centrally when the tailgate is closed, and if necessary re-position the striker by loosening the mounting screws.

24 Central locking system control module - removal and refitting

Removal

1 Disconnect the battery negative (earth) lead (refer to Chapter 5, Section 1).

2 Remove the front footwell side cowl trim panel from the driver's side, as described in Section 34.

3 Withdraw the central locking module from its location bracket, and detach the multi-plug wiring connections from it **(see illustration)**.

23.6B . . . withdraw the tailgate striker plate and detach the release cable

Refitting

4 Refit in the reverse order of removal. Check the operation of the system to complete.

25 Windscreen and fixed windows - removal and refitting

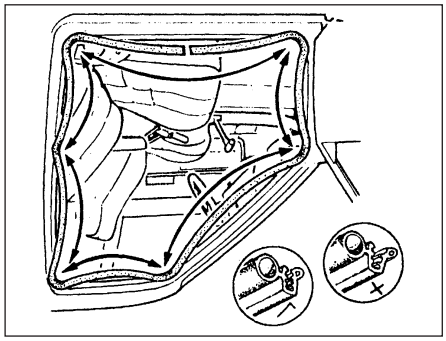
Removal

Windscreen and rear quarter and rear window/tailgate glass

1 The windscreen, rear quarter and rear window/tailgate glass are bonded in place with special mastic. Special tools are required to cut free the old glass and fit replacements,

23.9 Tailgate release handle and operating cable

24.3 Central locking system control module location



26.4 Initial securing points when fitting a door weatherstrip

together with cleaning solutions and primers. It is therefore recommended that this work is entrusted to a Ford dealer or windscreen replacement specialist.

Rear window(s) - Van models

2 Working from the inner face of the door concerned, use a blunt-ended instrument to push the inner lip of the weatherseal beneath the window frame, starting at the top. Get an assistant to support the window on the outside during this operation.
3 With the weatherseal free, withdraw the window from the door.

Rear window - Cabriolet models

4 Detach the heated rear window lead, and withdraw the lead from the weatherstrip.
5 Arrange for an assistant to support the glass from the outside, then wearing protective gloves, press the window outwards and remove it from its frame. Take care not to apply undue strain to the hood material or the hood frame as the window is pressed out.
6 Remove the weatherstrip from the glass.

Refitting

7 Clean the window and aperture in the body/frame. Petrol or spirit-based solvents must not be used for this purpose, as they are harmful to the weatherstrip.
8 Fit the weatherseal on the window, then insert a cord in the weatherseal groove so that the ends project from the bottom of the window and are overlapped by approximately 150 mm.
9 Locate the window on its location aperture, and pass the ends of the cord inside the vehicle. Have an assistant hold the window in position.
10 Slowly pull one end of the cord (at right-angles to the window frame, towards the centre of the glass) so that the lip of the weatherseal goes over the aperture. At the same time, have the assistant press firmly on the outside of the window. When the cord reaches the middle top of the window, pull the remaining length of cord to position the other half of the weatherseal.
11 Reconnect the heated rear window lead, and press it under the weatherstrip (Cabriolet models).

26 Door and tailgate weatherstrips - removal and refitting

Removal

1 To remove a weatherstrip seal from its aperture flange, grip the strip at its joint end, and progressively pull it free, working around the aperture to the other end of the strip.

Refitting

2 First check that the contact surfaces of the weatherstrip and the aperture flange are clean. Check around the aperture flange for any signs of distortion, and rectify as necessary.
3 To refit the weatherstrip, start by roughly locating its ends midway along the base of the aperture concerned, but do not press them into position over the flange at this stage. Proceed as follows, according to type.

Door weatherstrip

4 In the case of a door weatherstrip, press the strip into position at the corners to initially locate it **(see illustration)**. Check that the distances between each contact point are such that the strip will fit smoothly around the aperture (without distortion), then firmly press the strip fully into position, starting at the top edge and working down each side to finish at the bottom joint. Check that the seal is correctly located, then apply a suitable sealant to the joint, to prevent the possibility of water leakage through it caused by capillary action.
5 Shut the door, and check it for fit. Adjust if required by resetting the position of the striker plate to suit.

Tailgate weatherstrip

6 Position the ends of the weatherstrip so that they are centralised within 300 mm of the tailgate striker plate. A new weatherstrip will need to be measured and cut to length. Progressively fit the weatherstrip around the aperture flange, squeezing it closed over the flange by hand to secure. When fitted, check that it is not distorted, then close the tailgate and check it for fit. Adjustment of the striker plate and the tailgate bump stops may be necessary to obtain a satisfactory fit and seal.

27 Body side-trim mouldings and adhesive emblems - removal and refitting

Removal

1 Insert a length of strong cord (fishing line is ideal), between the moulding or emblem concerned, and break the adhesive bond between the moulding (or emblem) and the panel.
2 Thoroughly clean all traces of adhesive from the panel using methylated spirit, and allow the moulding/emblem location to dry.

Refitting

3 Peel back the protective paper from the rear face of the new moulding/emblem, and then carefully fit it into position on the panel concerned, but take care not to touch the adhesive. When in position, apply a hand pressure to the moulding/emblem for a short period to ensure maximum adhesion to the panel.

28 Roof moulding (Van models) - removal and refitting

Removal

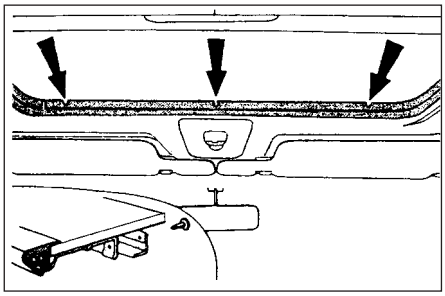
1 Prise free and lift the moulding up from the roof at the front end, then pull the moulding from its location channel in the roof.
2 Clean the contact faces of the moulding and the roof channel before refitting the moulding.

Refitting

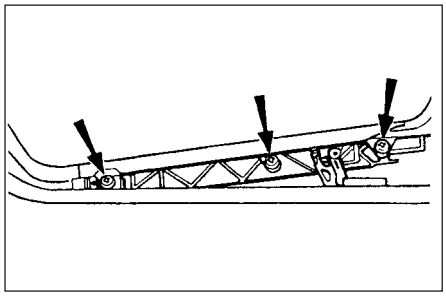
3 Locate the moulding into position over the channel, check that it is correctly realigned, then progressively press it into place using the palm of the hand.

29 Sunroof - checking and adjustment

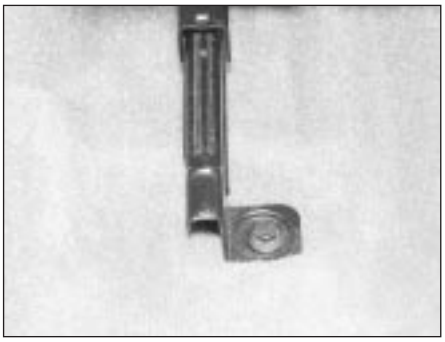
1 The sunroof should operate freely, without sticking or binding, as it is opened and closed. When in the closed position, check that the panel is flush with the surrounding roof panel, the maximum allowable gap at the front edge being 1.0 mm.
2 If adjustment is required, open the sun blind, then undo and remove the three lower frame-to-glass panel retaining screws **(see illustration)**. Slide the lower frame back into the roof.
3 Loosen off the central and front securing screws, adjust the glass roof panel so that it is flush at its front edge with the roof panel, then retighten the securing screws **(see illustration)**.
4 Pull the lower frame forwards, insert and tighten its retaining screws to complete.



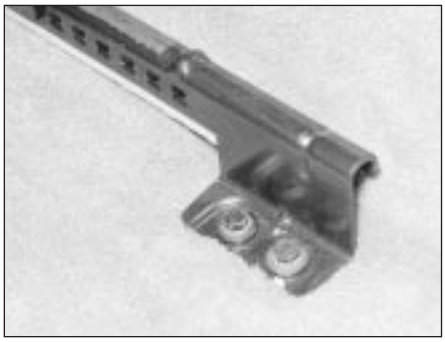
29.2 Sunroof lower frame-to-glass panel retaining screws (arrowed)



29.3 Loosen off these screws (arrowed) to adjust the sunroof glass panel



32.1A Front seat/runner rear outboard retaining bolt



32.1B Front seat/runner rear inboard retaining bolts

32.2 Front seat/runner forward mounting bolt

30 Sunroof panel - removal and refitting

Removal

1 Open the sun blind, unscrew and remove the three screws securing the lower frame, and slide the frame back into the roof.
2 Undo the three roof panel-to-sliding gear screws, then push the panel up and out to remove it from the vehicle. Have an assistant lift the panel free from above as it is raised, to avoid the possibility of the panel and/or the surrounding roof from being damaged.

Refitting

3 Refit in the reverse order of removal. When the panel is in position, adjust it as described in the previous Section.

31 Sunroof weatherstrip - removal and refitting

Removal

1 Wind the sunroof panel into the tilted open position, then grip the ends of the weatherstrip and pull it free from the flanged periphery of the roof panel.
2 Clean the contact faces of the panel and the weatherstrip (where the original strip is to be used) before refitting.

Refitting

3 Refit in the reverse order of removal. Ensure that the weatherstrip joint is located in the middle of the rear face of the panel.

32 Seats - removal and refitting

Removal

Front seat

Warning: On vehicles fitted with seat belt pre-tensioning stalks, be careful when handling the seat, as the tensioning device ("grabber") contains a powerful spring, which could cause injury if released in an uncontrolled fashion. The tensioning mechanism should be immobilised by inserting a safety "transit clip" available from Ford parts stockists.

1 If required, the front seat cushion can be removed on its own by undoing the two retaining screws on the underside of the seat at the front, and sliding the cushion forwards. To remove the complete seat, slide the seat forwards to the full extent of its travel, then unscrew and remove the rear mounting bolts (one on the outer slide and two on the inner) **(see illustrations)**.
2 Now slide the seat fully to the rear, then unscrew the front securing bolt each side **(see illustration)**. Lift the seat and remove it from the vehicle.

Rear seat cushion

3 Prise free the blanking plugs, then unscrew and remove the cushion hinge retaining screw each side **(see illustration)**. Remove the cushion from the vehicle.

Rear seat backrest (Hatchback, Saloon and Estate models)

4 Pivot the rear seat cushion forwards, then fold the backrest down. Undo the two screws retaining the hinge to the backrest each side, and remove the backrest from the vehicle **(see illustration)**.

Rear seat backrest (Cabriolet models)

5 Raise the seat cushion, then unscrew and remove the seat belt lower reel anchor bolts.
6 Unscrew and remove the screws (one each side) securing the backrest upper section.
7 Pivot the seat backrest down (release knob in boot), pull back the backrest cover, then unscrew and remove the two screws each side retaining the top section.
8 Detach the seat belt guide from the top of the backrest, then lift the backrest and feed the belt reel lower anchor plate through the backrest to allow the backrest to be removed from the car.
9 Unscrew the bolts securing the lower backrest to the hinges on each side, and remove the backrest lower section.

Refitting

10 Refitting is a reversal of the removal procedure. Where applicable, tighten the seat belt anchor bolts to the specified torque wrench setting.

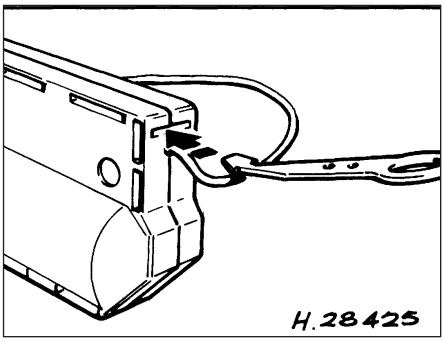
33 Seat belts - removal and refitting

Removal

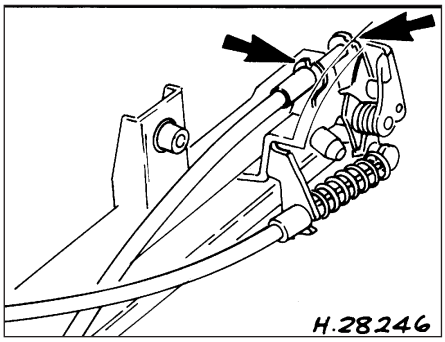
Warning: On vehicles fitted with seat belt pre-tensioning stalks, be careful when working on the seat belts, as the tensioning device ("grabber") contains a powerful spring, which could cause injury if

32.3 Rear seat cushion retaining screw (Saloon)

32.4 Rear seat backrest-to-cushion hinge screws



33.0 Inserting the seat belt "transit clip" to immobilise the seat belt pre-tensioner



33.5 On vehicles fitted with seat belt pre-tensioners, move the seat fully forwards and disconnect the pre-tensioner cable at the points arrowed

33.7 Remove the cover for access to the seat belt upper anchor bolt

released in an uncontrolled fashion. The tensioning mechanism should be immobilised by inserting a safety "transit clip" available from Ford parts stockists (see illustration).

Note: *Seat belts and associated components which have been subject to impact loads must be renewed.*

Front seat belt and stalk (3-door Hatchback and Cabriolet models)

1 Prise free the upper cover, then unscrew and remove the front seat belt upper anchor plate retaining bolt. Remove the plate and spacer.

2 Undo the lower anchor rail retaining bolt, pivot the rail towards the centre of the vehicle, pull it free from its mounting and then slide the belt from the rail.

3 Remove the rear quarter trim panel, then on Cabriolet models, undo the two retaining screws and remove the belt guide.

4 Unscrew the bolt retaining the inertia reel unit, then remove the reel and the belt.

5 On vehicles fitted with seat belt pre-tensioners, move the seat fully forwards and disconnect the pre-tensioner cable **(see illustration)**.

6 Undo the single retaining screw, and remove the front seat belt stalk from the seat frame.

Front seat belt and stalk (5-door Hatchback, Saloon and Van models)

7 Prise free the cover, then unscrew and remove the front seat belt upper anchor plate retaining bolt. Remove the plate and spacer **(see illustration)**.

8 Unscrew and remove the lower anchor plate retaining bolt.

9 Remove the trim from the centre "B" pillar by pulling free the weatherstrip, unscrewing the two retaining screws, withdrawing the trim from the panel and detaching the securing pegs (where applicable).

10 Undo the six screws retaining the scuff plate in position, extract the belt from the slotted hole, and remove the scuff plate.

11 Undo the retaining bolt, and detach the inertia reel unit from the central pillar **(see illustration)**.

12 On vehicles fitted with seat belt pre-tensioners, move the seat fully forwards and disconnect the pre-tensioner cable **(see illustration 33.5).**

13 Undo the single retaining screw (Torx-type) and detach the front seat belt stalk from the seat frame.

Front seat belt height adjuster

14 Prise free the upper cover, then unscrew and remove the front seat belt upper anchor plate retaining bolt. Remove the plate and spacer.

15 Remove the trim from the centre "B" pillar by pulling free the weatherstrip, unscrewing the two retaining screws, withdrawing the trim from the panel and detaching the securing pegs (where applicable).

16 Unscrew the retaining bolts and remove the height adjuster **(see illustration)**.

Rear seat belts (3-door Hatchback models)

17 Prise free the upper cover, then unscrew and remove the front seat belt upper anchor plate retaining bolt. Remove the plate and spacer.

18 Undo the lower anchor rail retaining bolt, pivot the rail towards the centre of the vehicle, pull it free from its mounting and then slide the belt from the rail.

19 Lift the rear seat cushion for access, then unscrew the retaining bolt and remove the centre buckle/belt anchor plate **(see illustration)**.

20 Unscrew the lower reel belt anchor plate bolt.

21 Unscrew and remove the upper anchor plate bolt, and detach the plate and spacer from the rear "C" pillar.

22 Pivot the rear seat backrest down, and undo the two Torx screws securing the backrest.

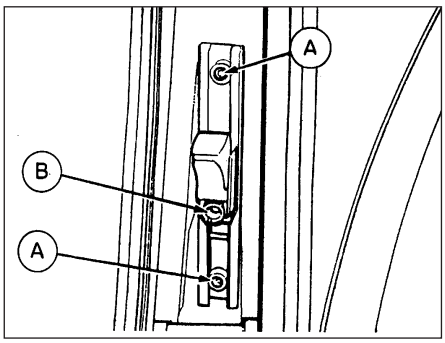
23 Remove the trim from the centre "B" pillar by pulling free the weatherstrip, unscrewing the two retaining screws, withdrawing the trim from the panel and detaching the securing pegs (where applicable).

24 Remove the rear quarter trim panel (Section 34).

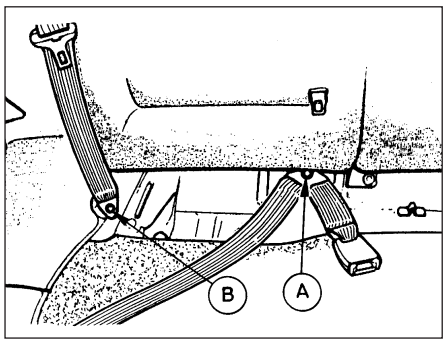
25 Remove the trim panel from the "C" pillar as described in Section 34.

26 Undo the three Torx bolts, and detach the rear seat backrest catch bracket.

33.11 Inertia reel unit and retaining bolt



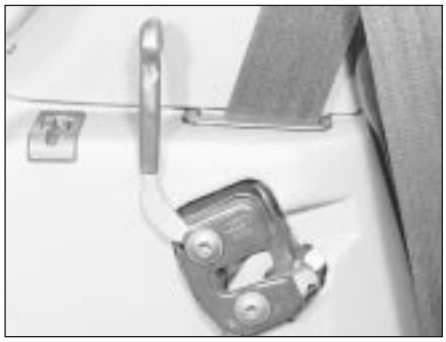
33.16 Front seat belt height adjuster retaining bolts (A) and anchor plate bolt (B)



33.19 Rear seat belt anchor plates for the central buckle/belt (A) and the reel belt (B)

33.30 Rear seat belt upper anchor bolt

33.31 Rear seat backrest catch (Hatchback models)



33.46 Rear seat backrest catch (Estate models)

27 Unscrew the inertia reel retaining bolt, and withdraw the inertia reel unit and belt.

Rear seat belts (5-door Hatchback models)

28 Lift the rear seat cushion for access, then unscrew the retaining bolt and remove the centre buckle/belt anchor plate.
29 Unscrew the lower reel belt anchor plate bolt.
30 Detach the cover for access, then unscrew and remove the anchor plate and spacer from the "C" pillar **(see illustration)**.
31 Pivot the rear seat backrest down, and undo the two Torx screws securing the backrest catch **(see illustration)**.
32 Remove the trim panel from the "C" pillar as described in Section 34.
33 Undo the three Torx bolts, and detach the rear seat backrest catch bracket.
34 Unscrew the inertia reel retaining bolt, and withdraw the inertia reel unit and belt.

Rear seat belts (Saloon models)

35 Lift the rear seat cushion for access, then unscrew the retaining bolt and remove the centre buckle/belt anchor plate.
36 Unscrew the lower reel belt anchor plate bolt.
37 Detach the cover for access, then unscrew and remove the anchor plate and spacer from the "C" pillar.
38 Pivot the rear seat backrest down, and remove the trim panel from the "C" pillar as described in Section 34.
39 Unscrew the retaining nut, and remove the rear seat backrest catch pull knob from its bracket in the boot. Pull the cable from the clip on the underside of the boot.
40 Undo the two Torx screws, and release the seat back catch from the mounting bracket.
41 Undo the three Torx bolts, and detach the rear seat backrest catch bracket.
42 Unscrew the inertia reel retaining bolt, and withdraw the inertia reel unit and belt.

Rear seat belts (Estate models)

43 Lift the rear seat cushion for access, unscrew the retaining bolt and remove the centre buckle/belt anchor plate.
44 Unscrew the lower reel belt anchor plate bolt.
45 Detach the cover for access, then unscrew and remove the anchor plate and spacer from the "C" pillar.
46 Pivot the rear seat backrest down, undo the two Torx screws and remove the backrest catch **(see illustration)**.
47 Detach and remove the "C" and "D" pillar trim panels, followed by the rear luggage area trim panel, as described in Section 34.
48 Undo the three Torx screws, and detach the backrest catch mounting **(see illustration)**.
49 Unscrew the retaining bolt, and remove the inertia reel/belt unit **(see illustration)**.

Rear seat belts (Cabriolet models)

50 Lift the rear seat cushion for access, then unscrew the retaining bolt and remove the centre buckle/belt anchor plate.
51 Unscrew the lower anchor plate bolt. To remove the centre lap belt, remove the lower belt buckle and twin buckle assemblies.
52 Unscrew and remove the lower reel belt anchor plate bolt.
53 Release the catch in the boot, and fold down the rear seat backrest. Pull free the cover from the rear face of the backrest for access to its upper section. Undo the two retaining screws on each side **(see illustration)**. Remove the belt guide from the top of the backrest.
54 Raise the backrest, feed the belt anchor plate through and then remove the backrest.
55 Unscrew the retaining bolt and remove the inertia reel/belt.

Refitting

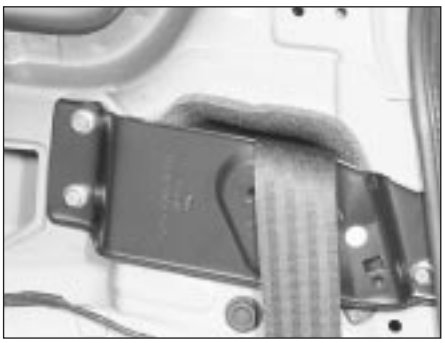
56 On all models, refitting of the front and rear seat belts is a reversal of the removal procedure. Tighten all fastenings to the specified torque settings, and check for satisfactory operation.

34 Interior trim panels - removal and refitting

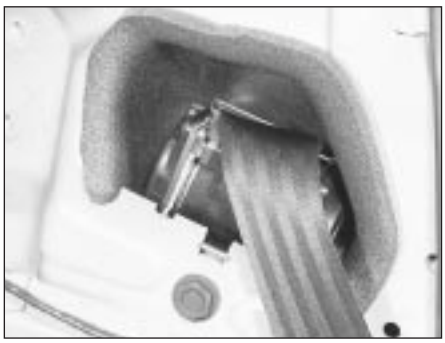
Removal

Windscreen "A" pillar trim

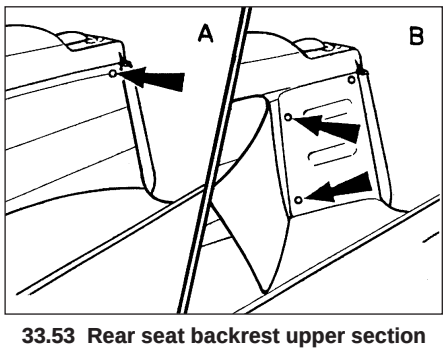
1 Pull free the weatherstrip from the flange on the "A" pillar, undo the retaining screw and withdraw the trim from the pillar.



33.48 Rear seat backrest catch mounting (Estate models)



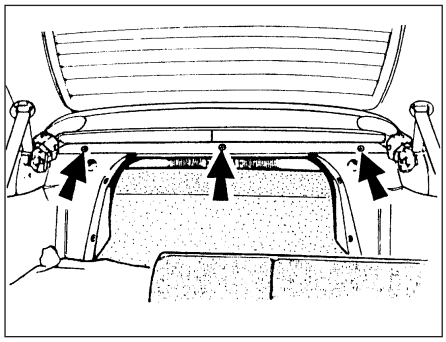
33.49 Rear seat inertia reel unit (Estate models)



33.53 Rear seat backrest upper section retaining screw locations on Cabriolet models

34.20 "C" pillar trim removal (Estate models)

34.21 "D" pillar trim removal (Estate models)



34.24A Rear parcel shelf retaining screws (arrowed) - Saloon models

Centre "B" pillar

2 Pull free the weatherstrip from the pillar flange. Prise free the cover, then unscrew and remove the front seat belt upper anchor plate retaining bolt. Remove the plate and spacer.
3 On 5-door models, undo the two screws securing the centre pillar trim.
4 Carefully prise free and detach the trim from the central pillar (to which it is attached by plastic pegs).

Rear "C" pillar trim (Hatchback models)

5 Hinge the rear seat cushion forwards, and lower the seat backrest.
6 Where fitted, undo the three retaining screws to withdraw the speaker, and detach the speaker wire. Do not remove the speaker itself.
7 Undo the two Torx-type retaining screws, and remove the backrest catch. Also prise free and remove the rear suspension top mounting cover (just to the rear of the catch).
8 Unscrew and remove the rear seat belt lower anchor plate bolt.
9 Prise free the seat belt upper anchor plate cover, then unscrew the retaining bolt and detach the upper anchor plate and spacer.
10 Prise free the door weatherstrip from the pillar flange.
11 On 3-door models, remove the rear quarter trim as described later in this Section.
12 Undo the retaining screws and withdraw the trim panel from the pillar, feeding the seat belt and anchor through the trim. Note that it is necessary to remove a cover for access to the rear retaining screw.

Rear "C" pillar trim (Saloon models)

13 Hinge the rear seat cushion forwards, and lower the seat backrest.
14 Detach and remove the rear parcel shelf (see paragraphs 22 to 24).
15 Unscrew and remove the rear seat belt lower anchor plate bolt.
16 Prise free the seat belt upper anchor plate cover, then unscrew the retaining bolt and detach the upper anchor plate and spacer.
17 Undo the two "C" pillar retaining screws. Prise free the door weatherstrip from the "C" pillar flange, then carefully prise free the trim panel from the pillar, feeding the seat belt through it as it is withdrawn.

"C" pillar trim (Estate models)

18 Hinge the rear seat cushion forwards, and lower the seat backrest.
19 Prise free the seat belt upper anchor plate cover, then unscrew the retaining bolt and detach the upper anchor plate and spacer.
20 Carefully prise free and remove the trim panel from the "C" pillar **(see illustration)**.

"D" pillar trim

21 Prise free the trim panel from the "D" pillar to release it from the retaining clips, and remove the trim **(see illustration)**.

Rear parcel shelf (Saloon models)

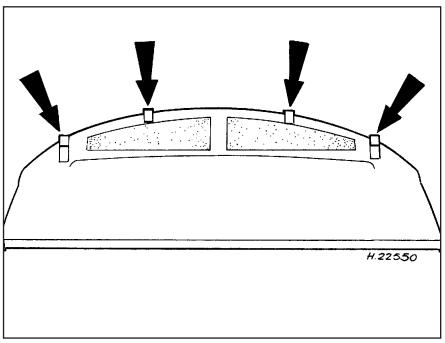
22 Hinge down the rear seat backrest. Where fitted, detach and remove the rear speakers from the parcel shelf.
23 Undo the retaining screw, and remove the seat belt guide trim panel each side.
24 Unscrew and remove the three parcel shelf retaining screws, then lift the panel at the front edge to detach it from the four plastic retaining clips, and withdraw the panel from the car **(see illustrations)**.

Rear quarter trim panel

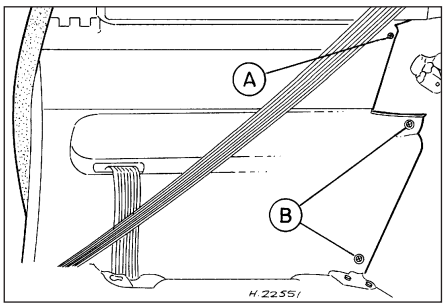
25 Detach the front seat belt at its upper and lower anchor points, as described in Section 33.
26 Detach and remove the centre "B" pillar trim as described previously in this Section.
27 Undo the two scuff plate retaining screws, and ease the plate away from the quarter panel.
28 Hinge forward the rear seat cushion and backrest, then detach the belt trim guide bezel from the quarter panel.
29 Unscrew and remove the retaining screws at the rear of the panel. Prise free the quarter panel from the "B" pillar at the points indicated, and withdraw the panel **(see illustrations)**. As it is withdrawn, disengage the seat belt and anchors through the panel slots.

Front footwell side cowl trim panel

30 Rotate the plastic retaining clip at the front of the panel through 90º to release the

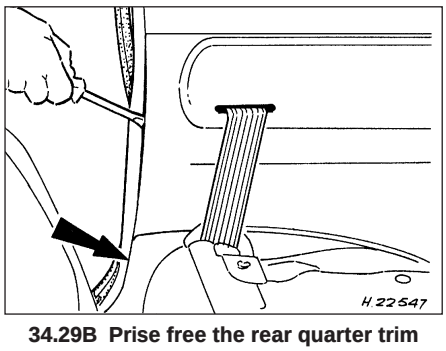


34.24B Rear parcel shelf retaining clips (arrowed) - Saloon models

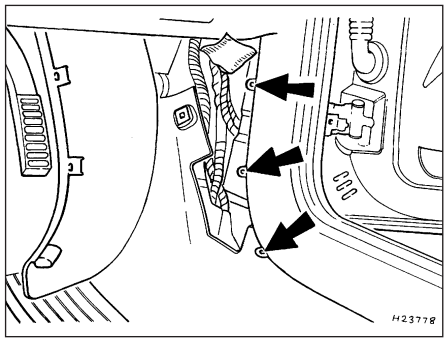


34.29A Rear quarter trim panel securing screw locations

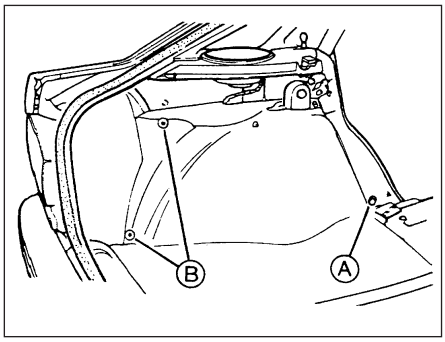
A Screw B Screw with washer



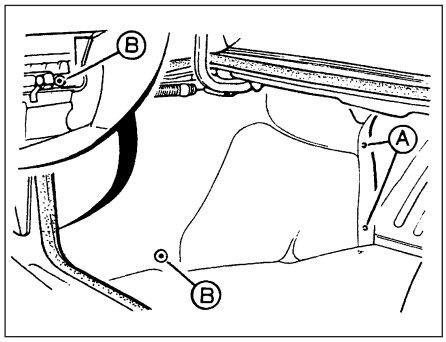
34.29B Prise free the rear quarter trim panel from the "B" pillar at the points indicated



34.30 Location of front footwell side cowl trim panel retaining tabs (arrowed)



34.36A Luggage area trim retaining clip (A) and screws (B) - Hatchback models



34. 36B Luggage area trim retaining clips (A) and screws (B) - Saloon models

panel at the forward fixing, then ease the panel away from the three tab fasteners at the rear edge **(see illustration)**.

Scuff plate

31 Remove the front footwell side cowl trim panel as described above.
32 Prise free the door weatherstrip from the door sill flange.
33 On 5-door Hatchback, Saloon, and Van models, unscrew and remove the screw at the lower end of the "B" pillar trim (just above the seat belt slot in the scuff plate).
34 Unscrew and remove the six scuff plate retaining screws, then feeding the seat belt through it (where applicable), withdraw the scuff plate.

Luggage area trim (Hatchback and Saloon models)

35 Hinge down the rear seat backrest(s), and on Hatchback models, prise free and remove the trim cap from the rear suspension top mounting.
36 Prise free the trim panel retaining clips using a suitable flat-bladed tool **(see illustrations)**.
37 Unscrew and remove the two trim retaining screws together with their large washers, then withdraw the trim panel.

Luggage area trim (Estate models)

38 Lift the rear seat cushion and unscrew the scuff plate screw at the rear, then unscrew and remove the two luggage area trim screws **(see illustration)**.

39 Hinge down the rear seat backrest, then prise free the upper cover and remove the rear seat belt upper anchor plate retaining bolt. Remove the plate and spacer.
40 Undo the two Torx screws, and remove the rear seat backrest catch.
41 Prise the trim panel from the "C" pillar, and remove it.
42 Similarly, prise the trim panel from the "D" pillar, and remove it.
43 Undo the screw attaching the trim panel to the "C" pillar, then the screws securing the luggage area trim panel to the "D" pillar **(see illustration)**.
44 Undo the three luggage area trim panel-to-floor screws, and the single screw securing the panel to the rear crossmember.
45 Lift the trim panel to release it from the inner side panel, then withdraw it from the vehicle.

Partition panel (Van models)

46 Working from the front of the panel, unscrew and remove the three panel-to-crossmember retaining bolts on its lower edge **(see illustration)**.
47 Working from the rear of the panel, unscrew and remove the two bolts securing the panel to the rear face of the "B" pillar each side **(see illustration)**, then withdraw the partition panel.

Sun visor

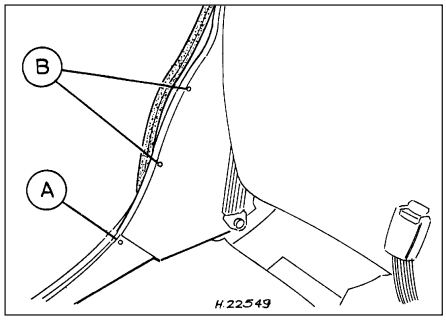
48 Release the visor from the retaining clip, undo the two retaining screws at its hinge mounting, and remove the visor. To remove the retaining clip, prise open the cover flap to expose the retaining screw, then undo the screw and remove the clip.

Passenger grab handle

49 Prise back the trim flaps at each end of the grab handle to expose the retaining screws. Undo the screws and remove the handle.

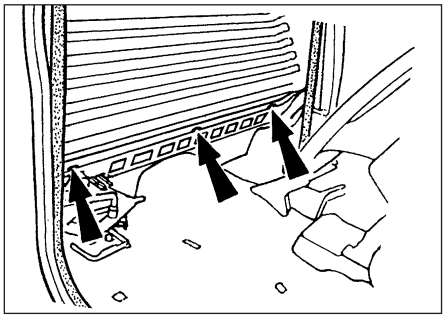
Refitting

50 Refitting is a reversal of the removal procedure. Ensure that any wiring connections are securely made. Where applicable, tighten the seat belt fixings to the specified torque wrench setting and check the seat belt(s) for satisfactory operation on completion.

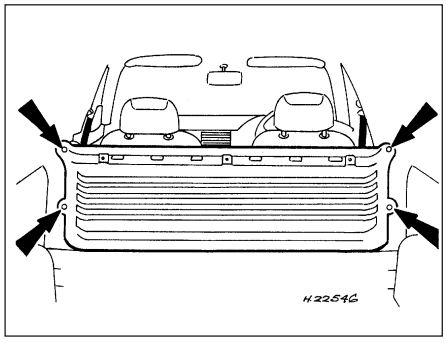


34.38 Rear scuff plate screw (A) and luggage area trim forward screws (B) (Estate models)

34.43 Luggage area side trim retaining screws removal (Estate)



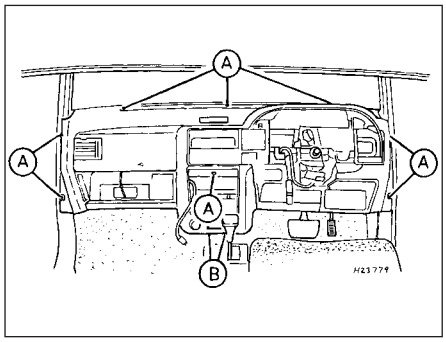
34.46 Partition panel-to-crossmember retaining bolts on the lower edge (arrowed) - Van models



34.47 Partition panel side securing bolts (arrowed) - Van models

35.5 Side vent panel removal on the driver's side

35.8A Pull free the weatherstrip for access to the outboard facia screws



35.8B Facia retaining screw locations "A" (screw only) and "B" (screw and washers)

35 Facia - removal and refitting

Warning: On vehicles fitted with a passenger's air bag, seek the advice of a Ford dealer concerning safety implications when removing the facia assembly.

Removal

1 Disconnect the battery negative (earth) lead (refer to Chapter 5, Section 1).

2 Refer to Chapter 10 for details, and remove the steering wheel.

3 Undo the two upper and four lower retaining screws, and remove the upper and lower steering column shrouds.

4 Refer to the appropriate Chapters concerned for details, and remove the following facia-associated items:

a) Steering column multi-function switch (Chapter 12).
b) Instrument panel (Chapter 12).
c) Choke cable (Chapter 4).
d) Heating/ventilation controls and control panel (Chapter 3).
e) Cigar lighter and ashtray (Chapter 12).
f) Radio/cassette player (Chapter 12).
g) Clock (Chapter 12).

5 Undo the two retaining screws, and remove the side vent panel from the facia on the driver's side. As it is withdrawn, disconnect any wiring connections from the panel-mounted switches **(see illustration)**.

6 Undo the two hinge/retaining screws securing the glovebox lid, and remove it. Undo the two catch screws, and remove the lock/catch. As the catch is withdrawn, disconnect the bulbholder/switch wiring connector.

7 Where fitted, detach and remove the footwell lights from the driver and passenger side lower facia (Chapter 12).

8 Pull free the weatherstrip from the leading edge of the door aperture each side to gain access to the outboard mounting screws. Unscrew and remove the retaining screws from the points indicated **(see illustrations)**.

9 Withdraw the facia from its mounting. As it is withdrawn, note the routing of the cables attached to the facia, then detach the cable ties and remove the facia from the vehicle.

10 The associated components of the facia can (if required) be detached by undoing the appropriate retaining screws.

Refitting

11 Refitting is a reversal of the removal procedure. Ensure that all wiring and cables are correctly routed and securely reconnected. Refer to the appropriate Chapters for details on refitting the associated fittings to the facia panel.

12 When the facia panel is completely refitted, reconnect the battery then test the various facia and steering column switches to ensure that they operate in a satisfactory manner.

36 Centre console - removal and refitting

Removal

Short console (manual transmission)

1 Unscrew and remove the knob from the gear lever, then prise free the lever gaiter and bezel. Slide the gaiter and bezel up the lever, and lift them off.

2 Unscrew the four retaining screws, and remove the console **(see illustration)**.

Long console (manual and automatic transmission)

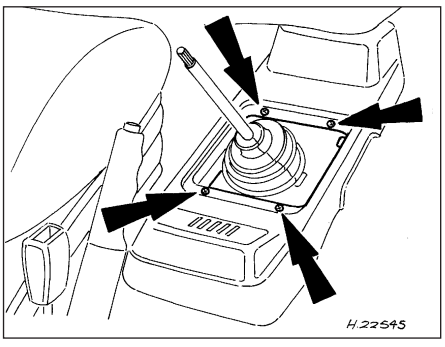
3 On manual transmission models, Unscrew and remove the knob from the gear lever, then prise free the lever gaiter and bezel. Slide the gaiter and bezel up the lever, and lift them off.

4 On automatic transmission models, select "P" (Park). Unscrew and remove the knob from the lever, then prise free the lever indicator panel, followed by the bezel **(see illustration)**.

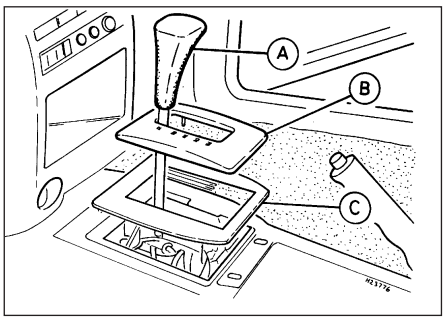
5 On vehicles with electric windows or an electrically-operated luggage compartment lock, carefully prise out the switch panel or switch, and disconnect the wiring connectors.

6 Undo the four console retaining nuts and two screws **(see illustration)**.

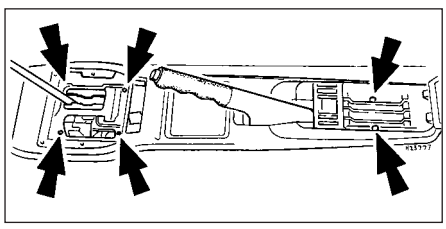
7 Pull up the handbrake lever as far as possible, and manipulate the console over the handbrake lever and gear lever. If insufficient clearance exists, slacken the handbrake adjuster as described in Chapter 1.



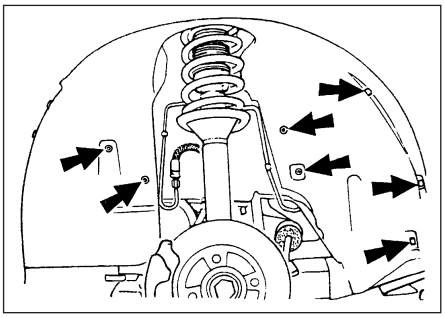
36.2 Short centre console retaining screw locations (arrowed)



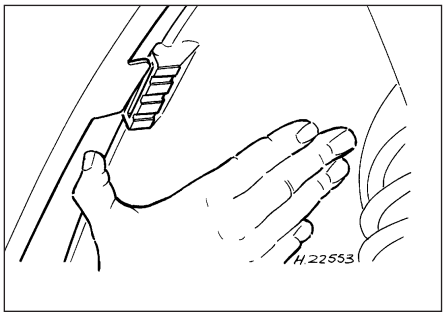
36.4 Automatic transmission selector lever knob (A), lever indicator panel (B) and panel bezel (C)



36.6 Long centre console retaining nut and screw locations (arrowed) - automatic transmission console shown



37.2 Wheel arch liner retaining screw locations (arrowed)



37.3 Disengaging the wheel arch liner from the locating tang

38.1 Radiator (front) grille panel retaining screw removal - pre-1993 models

Refitting

8 Refitting is a reversal of removal. If it was necessary to slacken the handbrake adjustment for removal of the console, re-check the adjustment as described in Chapter 1.

37 Wheel arch liners - removal and refitting

Removal

1 Apply the handbrake, then loosen off the front roadwheel nuts on the side concerned. Raise the vehicle at the front end, and support it on axle stands. Remove the roadwheel.
2 Unscrew and remove the seven Torx-type retaining screws **(see illustration)**.
3 Press the liner inwards at the top to disengage it from the locating tang **(see illustration)**, then withdraw it from the vehicle.

Refitting

4 Refit in the reverse order of the removal procedure. Tighten the roadwheel nuts to the specified torque wrench setting.

38 Radiator grille - removal and refitting

Removal

Pre-1993 models

1 Raise and support the bonnet. Unscrew and remove the four retaining screws along the top edge of the grille, then carefully lift the grille free, and disengage it from the locating socket each side at the bottom **(see illustration)**.

1993-on models

2 Raise and support the bonnet. Undo the three nuts securing the grille to the inside of the bonnet, and lift off the grille.

Refitting

3 Refit in the reverse order of the removal procedure.

39 Powered hood (Cabriolet models) - removal and refitting

Note: *The following instructions detail the removal and refitting of the hood cover only. The removal, repair and refitting of the hood frame, insulation and headlining are specialised tasks, and must be entrusted to a Ford garage or an automotive upholstery specialist.*

Removal

1 Open the roof, then remove the rear seat cushion by prising free the blanking plugs and unscrewing the seat hinge screw each side.
2 Remove the rear quarter trim panel as described in Section 34.
3 Raise the roof just enough the allow access to the rear parcel shelf.
4 Disconnect the spring wire rod from the retainer on each side **(see illustration)**.
5 Unscrew and remove the spring wire securing screw on each side.
6 Disconnect the spring wire from the housing at the other end on each side.
7 Detach the wiring from the heated rear window connectors.
8 Unscrew and remove the two hinge damper bolts on each side **(see illustration)**, then fully open the roof.
9 Prise free the hydraulic rod securing clip, then unscrew and remove the three retaining bolts from the brackets **(see illustration)**.
10 Enlist the aid of an assistant to help in removing the roof assembly from the car. Grip the roof and pull it towards the front to release it at the rear end, then carefully lift clear of the car.

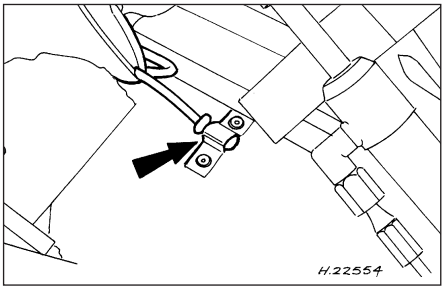
Refitting

11 Refitting is a reversal of the removal procedure. When the roof assembly is fully reconnected, check that it operates in a satisfactory manner before refitting the rear quarter panel and seat cushion.

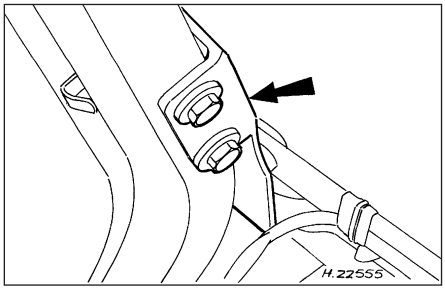
40 Powered hood control system - hose removal, refitting and system bleeding

Hose removal

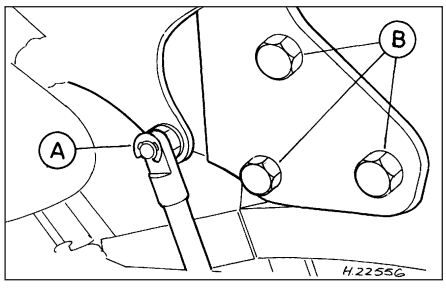
1 Open the boot lid and lower the hood. Remove the appropriate trim panels to gain access to the pump (in the left-hand side of the luggage area) and the hydraulic ram (located behind the rear quarter panel) on the side concerned.
2 Where more than one hose is to be detached from the pump, the respective hoses and their connections to the pump should be labelled and marked for correct identification, to avoid



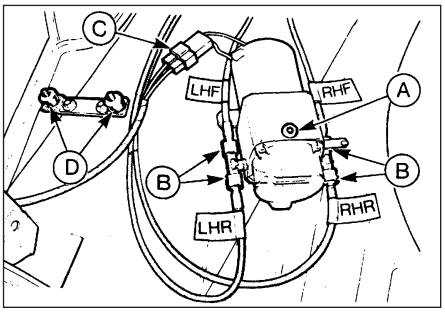
39.4 Cabriolet powered hood spring wire rod retainers



39.8 Cabriolet powered hood hinge damper (arrowed)



39.9 Cabriolet powered hood hydraulic rod
A Securing clip B Retaining bolts



40.2A Hydraulic hose connections to the powered hood pump unit

A Filler plug
B Hose unions and markings
C Pump multi-plug
D Pump mounting

the possibility of confusion when reconnecting them **(see illustrations)**.

3 Loosen off the fluid filler plug on the pump to depressurise the system.

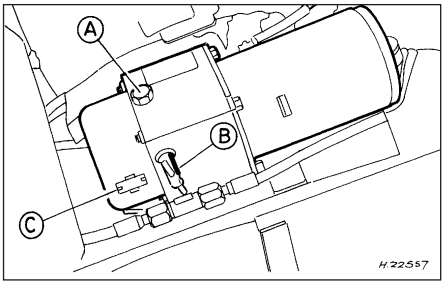
4 Disconnect the hose(s) from the location tangs to the body, and the tape securing it to the ram and other hoses. Loosen off the hose-to-pump union(s), and detach the hose(s). Note that it may well be necessary to detach and partially remove the pump as described in Section 42 to enable a hose on the left-hand side of the pump to be disconnected. Catch any spillage of hydraulic fluid in a suitable container, and plug the hose(s)/connection(s) to prevent the ingress of dirt. Note that the hood must not be raised whilst the hydraulic lines are disconnected, or hydraulic fluid remaining in the system will be ejected

Hose refitting

5 Refitting is a reversal of the removal procedure. When the hoses are reconnected, top-up and bleed the hydraulic system as follows.

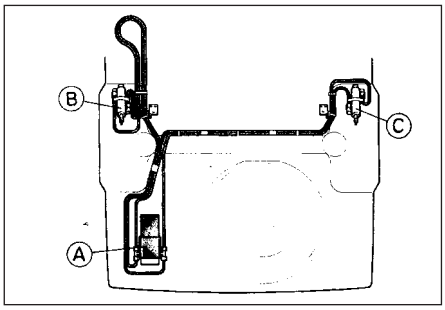
System bleeding

6 Remove the fluid filler plug from the pump. Top-up the fluid level with the specified fluid type (see Specifications) to the "MAX" mark, then loosely retighten the plug. Unscrew and open the by-pass tap 90 to 180º (maximum), then manually raise and lower the hood once. Recheck the fluid level in the pump, top-up



40.6 Cabriolet powered hood hydraulic pump

A Filler plug
B By-pass tap
C Fluid level MAX mark



40.2B Cabriolet powered hood operating components and hydraulic hose routings

A Hydraulic pump
B Hydraulic ram (left-hand side)
C Hydraulic ram (right-hand side)

the level if required, tighten the by-pass tap and refit the filler plug **(see illustration)**.

7 Turn the ignition switch to position "I" (accessory), then close and open the roof five times using the roof operating switch. At the end of this cycle, the roof should operate smoothly in each direction, and the pump motor should have a constant operating sound.

8 With the roof in the open position, recheck the hydraulic fluid level in the pump, and top-up if required.

41 Powered hood control damper/hydraulic ram - removal and refitting

Removal

1 Lower the hood, then detach and remove the left-hand trim panel in the luggage area to gain access to the hydraulic pump.

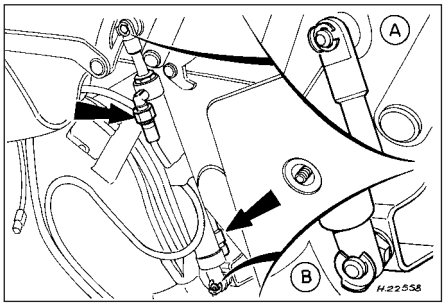
2 Depressurise the hydraulic system by loosening off the pump hydraulic fluid filler plug.

3 Remove the rear quarter trim panel from the side concerned, as described in Section 34.

4 Label the hoses and their connections to the hydraulic ram, to identify them for refitting **(see illustration)**.

5 Release the circlips securing the ram at each end to its attachment points to the vehicle. Note that the lower securing point has the larger of the circlips.

6 Loosen off the hydraulic hose union connectors to the ram, withdraw the ram from



41.4 Cabriolet powered hood hydraulic ram hose connections, showing the upper (A) and lower (B) mounting circlips

its mounting points, and hold it and the hydraulic connections over a suitable container. Detach the hydraulic hoses, and drain all of the fluid into the container before removing the ram. Use plugs to seal off the hoses and the hydraulic connections to the ram, so preventing the ingress of dirt and any further fluid leakage. Note that the hood must not be raised whilst the hydraulic lines are disconnected, or hydraulic fluid remaining in the system will be ejected.

Refitting

7 Refitting is a reversal of the removal procedure. When the ram is refitted to its mountings and the hoses are reconnected to it, top-up and bleed the hydraulic system as described in the previous Section, before refitting the quarter trim panel (Section 34) and the pump cover/side trim in the luggage area.

42 Powered hood operating motor and pump - removal and refitting

Removal

1 Disconnect the battery negative (earth) lead (refer to Chapter 5, Section 1).

2 Open the boot lid, then detach and remove the left-hand side trim in the luggage area for access to the pump/motor.

3 Unscrew the by-pass tap 90 to 180º **(see illustration 40.6).**

4 Lower the roof manually, then allow any residual pressure in the system to escape by loosening the filler plug on the top of the pump.

5 Retighten the filler plug and tap. Detach the wiring connector to the pump motor.

6 Label the respective hoses and their connections to the pump for correct identification prior to detaching them, to avoid any possibility of confusion when reconnecting them **(see illustration 40.2A).**

7 Undo the pump retaining nuts, then partially withdraw the pump. Locate a suitable container (or some rags) beneath it, then unscrew the hydraulic hose unions and detach the hoses from the pump. Plug the exposed ends of the pump and hoses, to prevent the ingress of dirt and further fluid leakage. Remove the pump. Note that the hood must not be raised whilst the hydraulic lines and pump are disconnected, or hydraulic fluid remaining in the system will be ejected.

Refitting

8 Ensure that the hose connections are clean, then reconnect the hoses to the pump, hand-tightening them at this stage.

9 Reconnect the pump motor wiring connection, relocate the pump into position, and tighten its retaining nuts. Check that the hoses are not distorted or under undue tension, then fully tighten their unions.

10 Top-up the pump with the specified hydraulic fluid, and bleed the system as described in Section 40.

11 Reconnect the battery earth lead.