

SAAB

900

**SERVICE
MANUAL**

8:5 Convertible



SERVICE MANUAL

8:5 Convertible
M 1986

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812 Top stack (see separate
table of contents)

843 Glass

Lighting

High-mounted brake light

The high-mounted brake light is integrated in the middle of the rear spoiler.



Changing the glass and lamps

- 1 Remove the two screws and the glass.

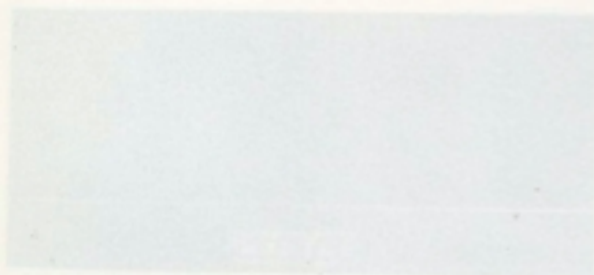


- 2 Pull out the faulty bulb.



Reading lights rear seat

The reading lights are mounted in the rear seat side lining.



Changing the reading light bulb

- 1 Remove the reading light by care fully removing it with the aid of a screwdriver.



- 2 Pull the bulb out of the holder.



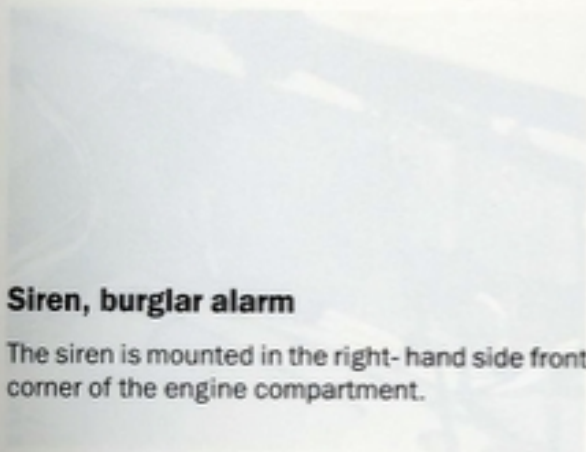
Burglar alarm

The switch for the burglar alarm is mounted in the rear end of the centre panel.



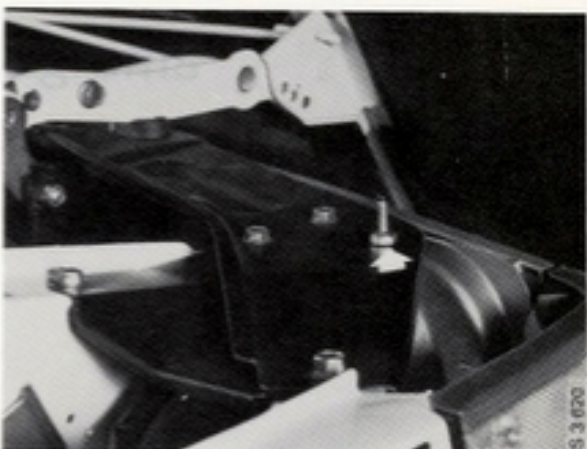
Hood switch, burglar alarm

The switch is mounted in the radiator member at the right-hand side.



Siren, burglar alarm

The siren is mounted in the right-hand side front corner of the engine compartment.

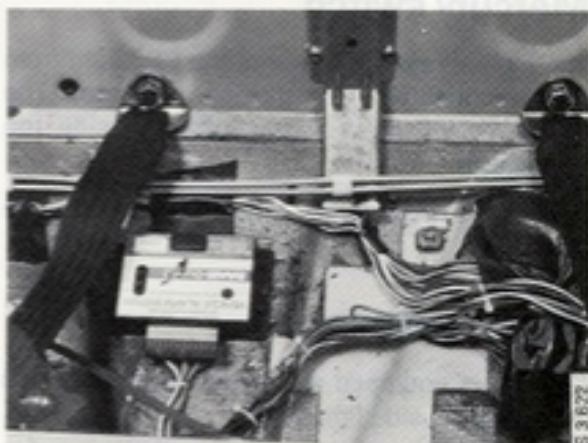


Electronic unit

The electronic unit is mounted under the rear seat.

Fuse, burglar alarm

A 10A fuse is mounted under the rear seat on the blue lead to the electronic unit.

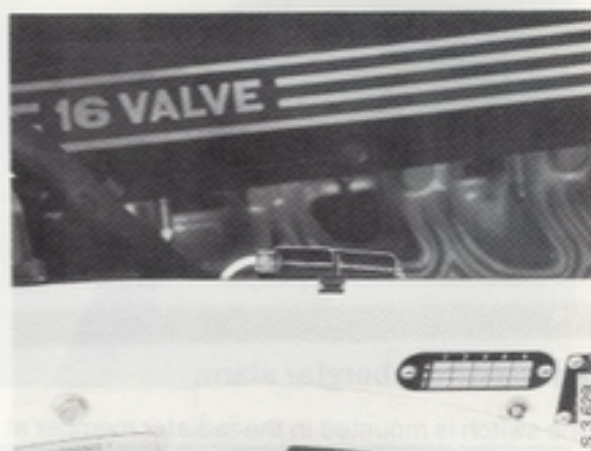


351-4 Lighting

Top

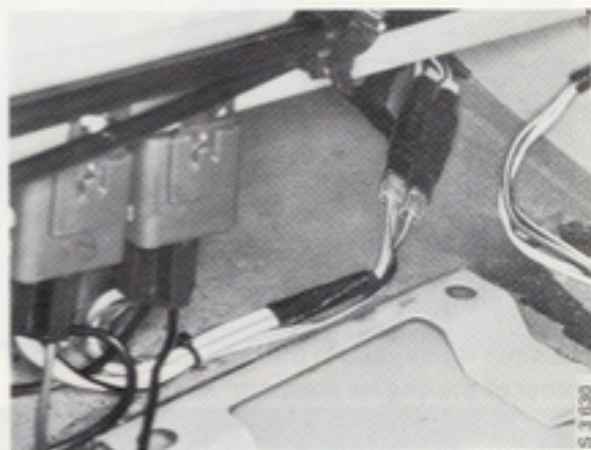
Fuse, top

A 30A hang fuse is mounted on the right-hand side wheel housing.



Relays, top

Two relays for raising and lowering the top are mounted under the rear seat to the right.



Diodes, top

Two diodes are mounted under the rear seat to the right.

Motor, top

The hydraulic pump motor is mounted under the rear seat.

Functional description, see page

Mercury switch

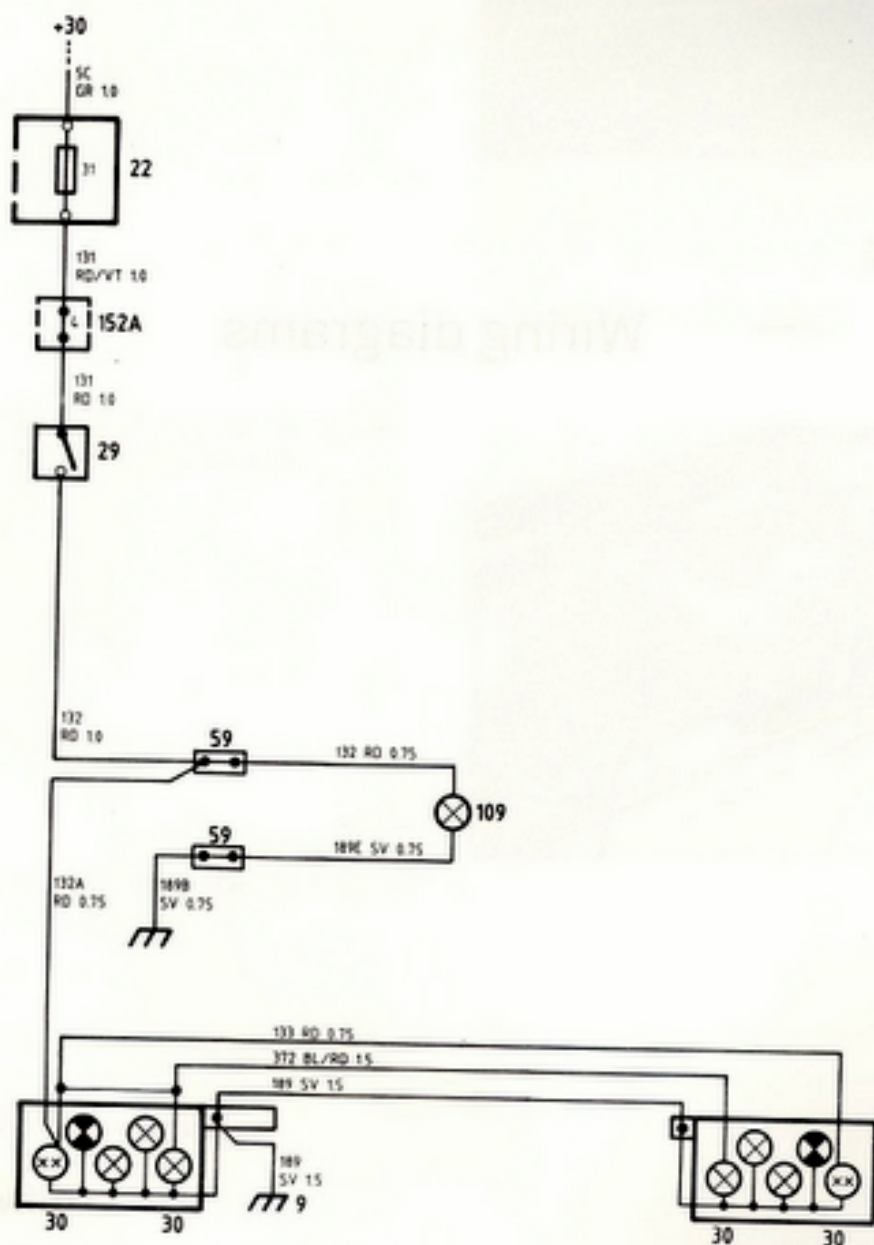
The mercury switch prevents the backlight from being connected when the top is lowered. The switch is mounted at the left-hand side top anchorage.

Functional description, mercury switch, see page

Radio installation

The car is equipped with speakers mounted in the rear seat side linings.

Brake lights



Operation

The supply to brake light switch 29 is taken from fuse 31, via the 29-pole white connector 152A. When the car is braked, the contacts will close and brake lamps will be energised - the high-level brake lamps 109 in the spoiler and the brake lamps 30 in the rear light clusters.

Fault-tracing hints

- 1 Check fuse 31 and check that the supply to it is live.
- 2 Check that brake light switch 29 is live.
- 3 Operate the brake light switch. Check the bulbs and check that the supplies to them are live. Check the earthing at each lamp.
- 4 Check the connectors, cable harnesses and earth connections.



371-4 Wiring diagrams

Locations of components

- 9 Earthing point
in the luggage compartment
- 22 Fuse box
in the electrical distribution box in the engine compartment, on the left-hand wheel housing
- 29 Brake light switch
at the brake pedal
- 30 Brake lamps
in the rear light clusters
- 59 Two 2-pole connectors
in the luggage compartment, at the left-hand lid hinge, behind the trim
- 109 High-level brake lights
in the spoiler, on the luggage compartment lid
- 152A 29-pole white connector
in the electrical distribution box in the engine compartment on the left-hand wheel housing. The connector is accessible from the interior of the car.

Operation

The lights are supplied across fuse 26 and the 29-pole white connector 152A, regardless of the position of the ignition switch.

The interior lights can be switched on and off by means of interior lighting switch 53 or ignition switch.

When the switch is in position 1, the lamp 52, behind the rear view mirror, ignition switch 52 and the door switches 225 will always be on.

In the position 2, the interior lights will be switched off by the operation of the door switches.

When the door is opened, the interior lights are always on. When the door is closed, the interior lights are switched off.

Door switch 225 is always on when the door is open.

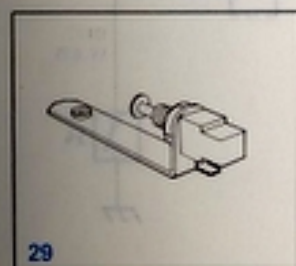
Time delay

The relay 151 is supplied across fuse 12 when the ignition switch is in the drive position, and with a constant supply from distribution terminal +26, regardless of the position of the ignition switch.

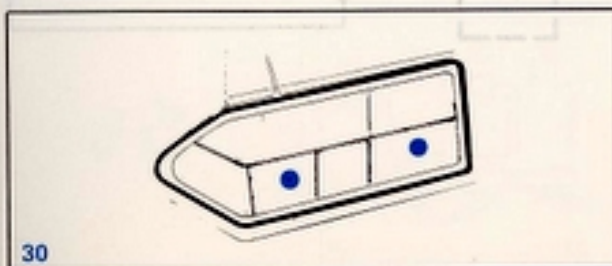
When the interior lights are switched on by a door being opened, terminal T is earthed and relay 151 is energised.

When the circuit is subsequently broken by a door being closed, the interior lighting will remain switched on, since the timing circuit of the relay will keep the switch closed across terminal T and 30.

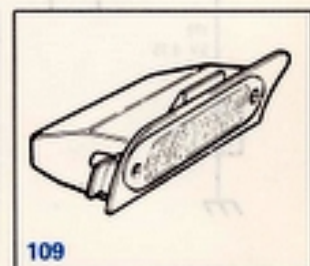
The time delay is about 15 seconds, but will be interrupted if the ignition switch is turned to the drive position. A positive voltage (from +54) is then supplied to terminal 30 of the relay. Terminal 30 and 30 will then both receive a positive voltage. The timing circuit is then broken, and the earth circuit across terminals T and 30 is broken.



29

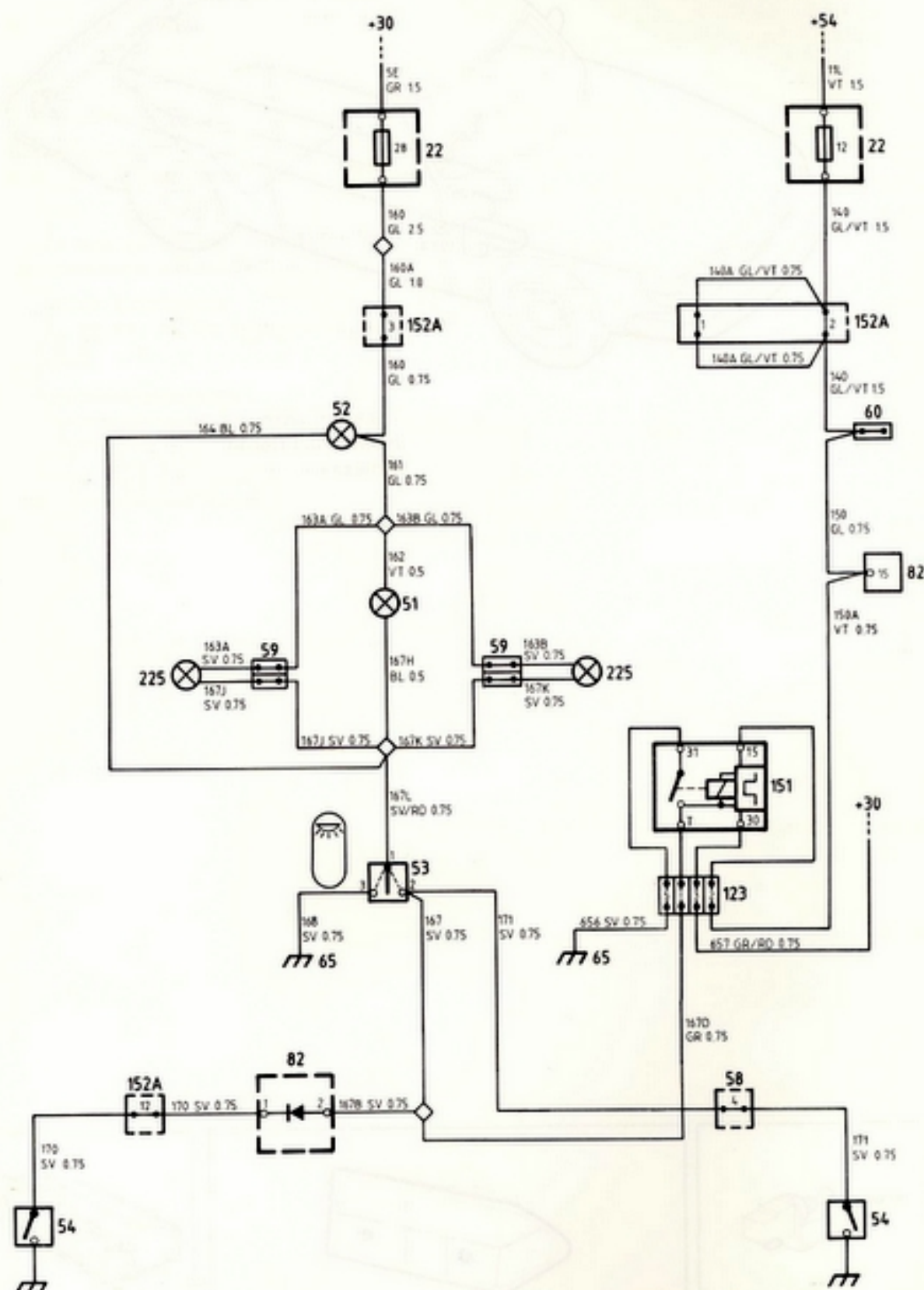


30



109

Interior lighting



Operation

The lights are supplied across fuse 28 and the 29-pole white connector 152A, regardless of the position of the ignition switch.

The interior lights can be switched on and off by means of interior lighting switch 53, at the ignition switch.

When the switch is in position 3, front lamp 51 behind the rear-view mirror, ignition switch lamp 52 and reading lamps 225 will always be on.

In the rear position 2, the interior lights will be switched on if one of the door switches 54 is closed, i.e. if a door is opened. In the centre position, the interior lights are always off.

Door switch 54 for the left-hand front door is supplied via seat belt/ignition switch warning relay 82.

Time delay

Time-delay relay 151 is supplied across fuse 12 when the ignition switch is in the drive position, and with a constant supply from distribution terminal +30, regardless of the position of the ignition switch.

When the interior lights are switched on by a door being opened, terminal T is earthed and relay 151 is energised.

When the circuit is subsequently broken by the door being closed, the interior lighting will remain switched on, since the timing circuit of the relay will keep the earth circuit closed across terminals T and 31.

The time delay is around 15 seconds, but will be interrupted if the ignition switch is turned to the drive position. A positive voltage (from +54) is then supplied to terminal 15 of the relay. Terminals 15 and 30 will then both receive a positive supply. The relay is thus de-energised, and the earth circuit across terminals T and 31 is broken.

Fault-tracing hints

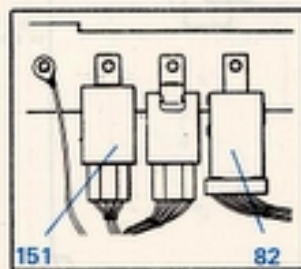
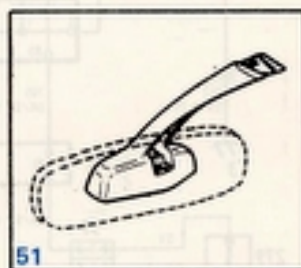
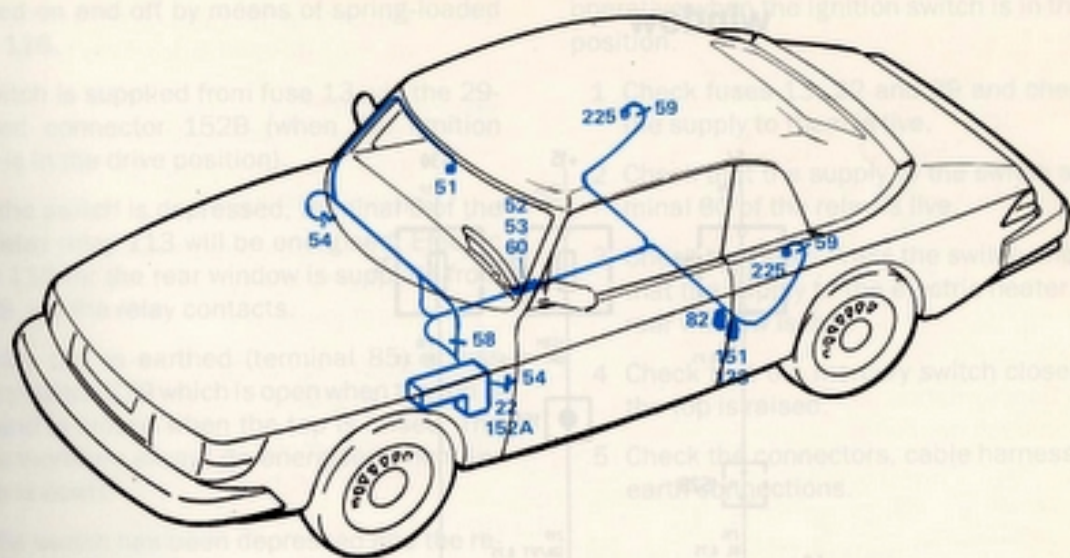
- 1 Check fuse 28 and check that the supply to it is live.
- 2 Check the bulbs for the interior lighting and check that the supply to them is live.
- 3 Check the switch for the interior lighting and the door switches.
- 4 Check the connectors, cable harnesses and earth connections.

Time delay

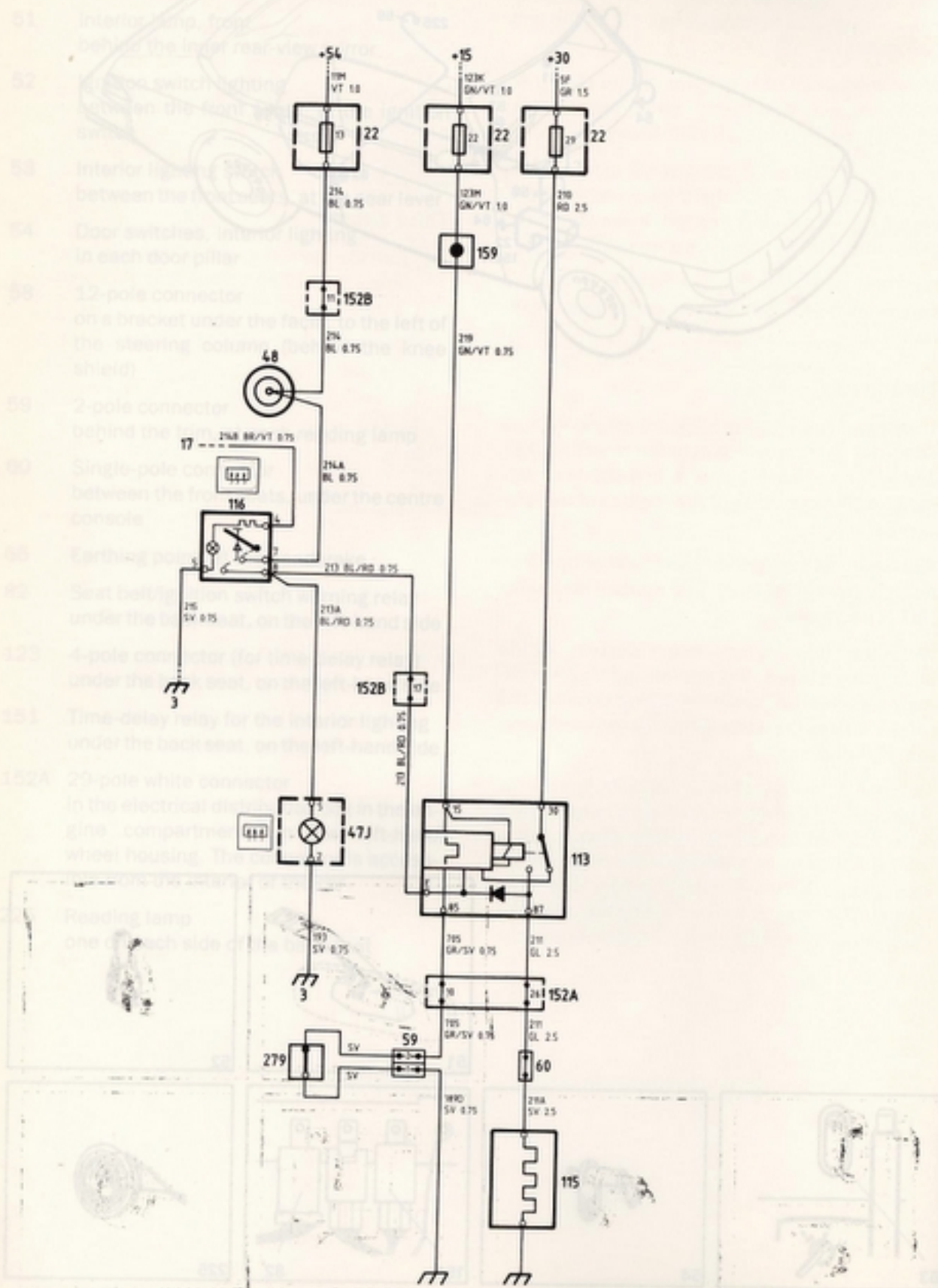
- 1 Turn the ignition switch to the drive position. Check fuse 12 and check that the supply to it is live.
- 2 Check that terminals 15 and 30 of relay 151 are live.

Locations of components

- 22 Fuse box
in the electrical distribution box in the engine compartment, on the left-hand wheel housing
- 51 Interior lamp, front
behind the inner rear-view mirror
- 52 Ignition switch lighting
between the front seats, at the ignition switch
- 53 Interior lighting switch
between the front seats, at the gear lever
- 54 Door switches, interior lighting
in each door pillar
- 58 12-pole connector
on a bracket under the fascia, to the left of the steering column (behind the knee shield)
- 59 2-pole connector
behind the trim, at each reading lamp
- 60 Single-pole connector
between the front seats, under the centre console
- 65 Earthing point, at the handbrake
- 82 Seat belt/ignition switch warning relay
under the back seat, on the left-hand side
- 123 4-pole connector (for time-delay relay)
under the back seat, on the left-hand side
- 151 Time-delay relay for the interior lighting
under the back seat, on the left-hand side
- 152A 29-pole white connector
in the electrical distribution box in the engine compartment, on the left-hand wheel housing. The connector is accessible from the interior of the car.
- 225 Reading lamp
one on each side of the back seat



Electric heating for the rear window



Operation

The electric heating of the rear window can be switched on and off by means of spring-loaded switch 116.

The switch is supplied from fuse 13, via the 29-pole red connector 152B (when the ignition switch is in the drive position).

When the switch is depressed, terminal E of the time-delay relay 113 will be energised. Electric heater 115 for the rear window is supplied from fuse 29, via the relay contacts.

The relay coil is earthed (terminal 85) across mercury switch 279 which is open when the top is down and is closed when the top is raised. The relay is therefore always de-energised whenever the top is down.

After the switch has been depressed and the relay has been energised, the time circuit in the relay will be supplied (terminal 15) from fuse 22. After around 10 minutes, the relay will switch off the supply to the electric heater for the rear window.

When the electric heating for the rear window is switched on, warning lamp 47J will be supplied from terminal E of the relay.

If the ignition is switched off while the electric heating for the rear window is switched on, the supply to terminal 15 will be opened, and the relay will immediately switch off the supply to the heating element for the rear window.

Fault-tracing hints

The electric heating for the rear window will be operative when the ignition switch is in the drive position.

- 1 Check fuses 13, 22 and 29 and check that the supply to them is live.
- 2 Check that the supply to the switch and terminal 30 of the relay is live.
- 3 Check the relay: Press the switch and check that the supply to the electric heater for the rear window is live.
- 4 Check that the mercury switch closes when the top is raised.
- 5 Check the connectors, cable harnesses and earth connections.

Locations of components

- 3 Earthing point, in the facia
- 17 Extra rheostat, lighting for the controls on the left-hand side of the facia
- 22 Fuse box
in the electrical distribution box in the engine compartment, on the left-hand wheel housing
- 47J Rear window heater warning lamp
in the combined instrument on the instrument panel
- 48 Cigarette lighter
on the facia
- 59 2-pole connector
on the left-hand side of the top
- 60 Single-pole connector
in the luggage compartment, at the left-hand lid hinge, behind the trim
- 113 Relay for the electrically heated rear window
in the electrical distribution box in the engine compartment, on the left-hand wheel housing
- 115 Electric heater for the rear window
- 116 Switch for the electrically heated rear window
in the centre of the facia
- 152A 29-pole white connector
- 152B 29-pole red connector
in the electrical distribution box in the engine compartment, on the left-hand wheel housing.
The connectors are accessible from the interior of the car
- 158 Negative distribution terminal
- 159 Distribution terminal +15
in the electrical distribution box in the engine compartment, on the left-hand wheel housing
- 279 Mercury switch for the electrically heated rear window of the Cabriolet
on the mounting for the top, on the left-hand side, on the inside of the top

Operation

The top is raised and lowered by means of two hydraulic cylinders, actuated by oil supplied by an electric-driven hydraulic pump.

Switch 181 for operating the top is supplied with fuse 12 via the white 29-pole connector.

To lower the top, power is supplied to the switch to relay 278. When the top is lowered, the relay coil is energised across switch 181. The relay coil is energised across switch 181, and the pump motor is actuated. The pump motor is actuated when the handbrake is applied before the top is lowered.

Motor 279 of the hydraulic pump (P) is now energised via the contacts from fuse 12. The second relay 278 is de-energised.

To raise the top, the pump motor is reversed, since relay 277 is energised and relay 278 is de-energised.

Diodes 283 prevent the flow of reverse current and energising of the relays on the wrong direction.

Fault tracing hints

1. Check fuse 12. If the supply to it is live.

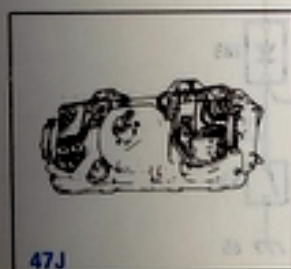
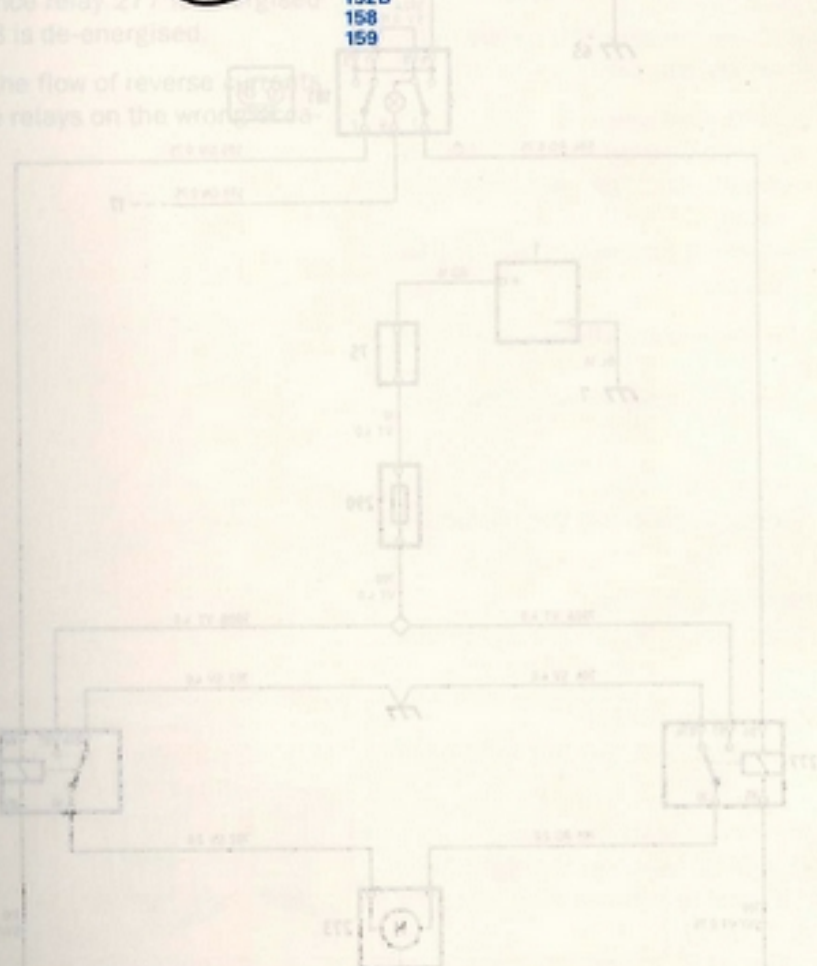
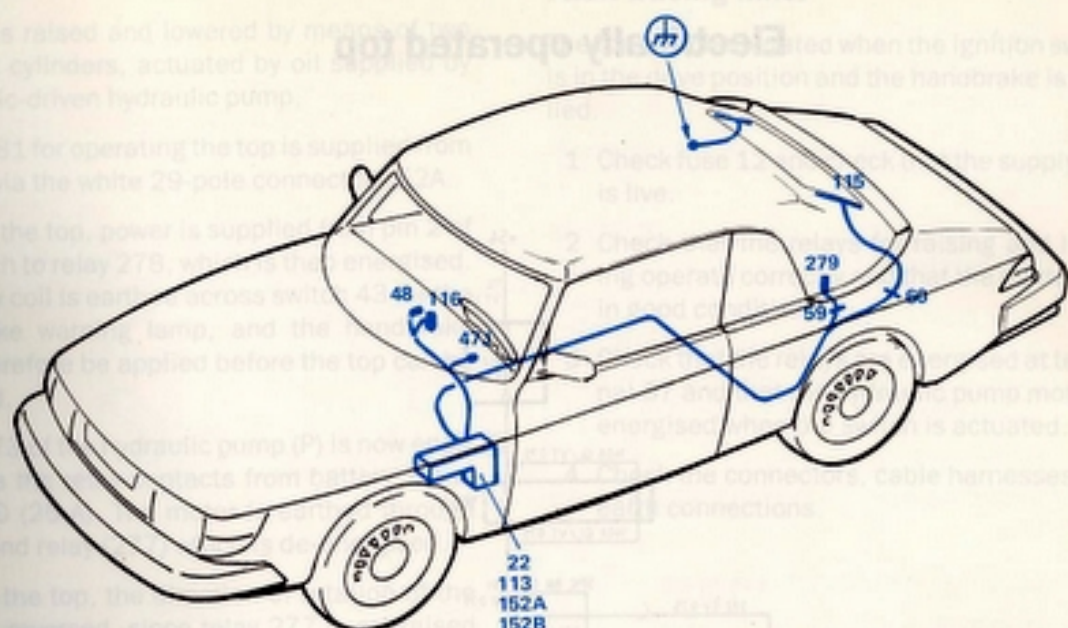
2. Check switch 181. If the supply to it is live.

3. Check relay 278. If the supply to it is live.

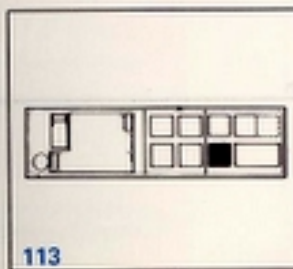
4. Check relay 277. If the supply to it is live.

5. Check pump motor 279. If the supply to it is live.

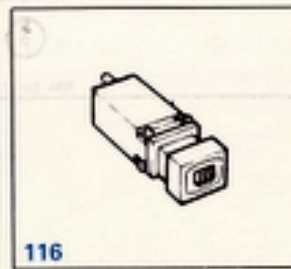
6. Check the connectors, cable harnesses and connections.



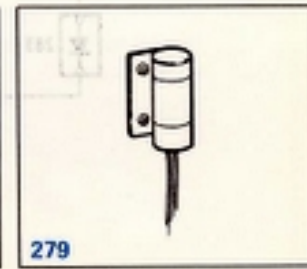
47J



113

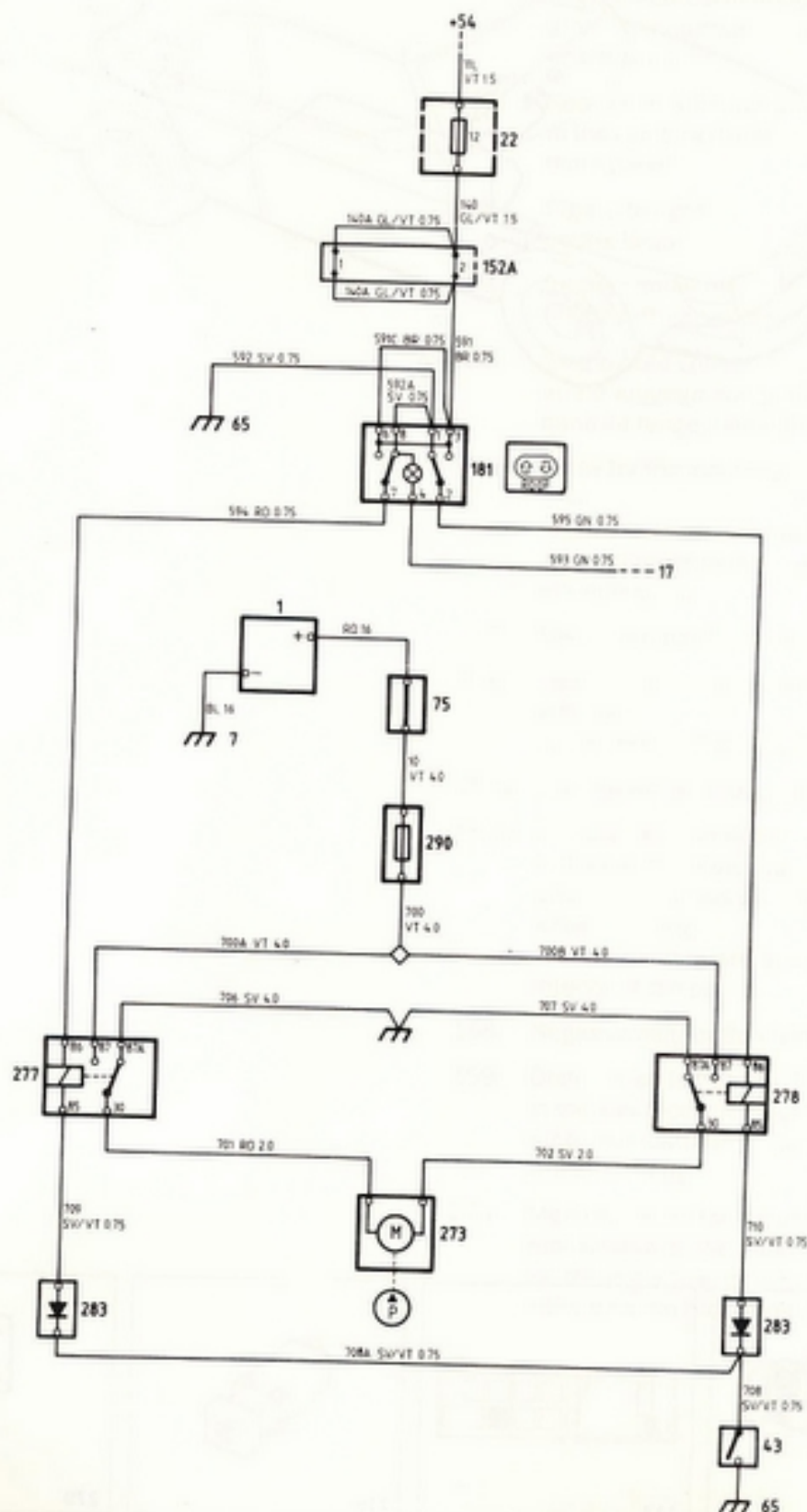


116



279

Electrically operated top



Operation

The top is raised and lowered by means of two hydraulic cylinders, actuated by oil supplied by an electric-driven hydraulic pump.

Switch 181 for operating the top is supplied from fuse 12 via the white 29-pole connector 152A.

To lower the top, power is supplied from pin 2 of the switch to relay 278, which is then energised. The relay coil is earthed across switch 43 for the handbrake warning lamp, and the handbrake must therefore be applied before the top can be operated.

Motor 273 of the hydraulic pump (P) is now energised via the relay contacts from battery 1 and fuse 290 (25 A). The motor is earthed through the second relay (277) which is de-energised.

To raise the top, the direction of rotation of the motor is reversed, since relay 277 is energised instead and relay 278 is de-energised.

Diodes 283 prevent the flow of reverse currents and energising of the relays on the wrong occasion.

Fault tracing hints

The top can be operated when the ignition switch is in the drive position and the handbrake is applied.

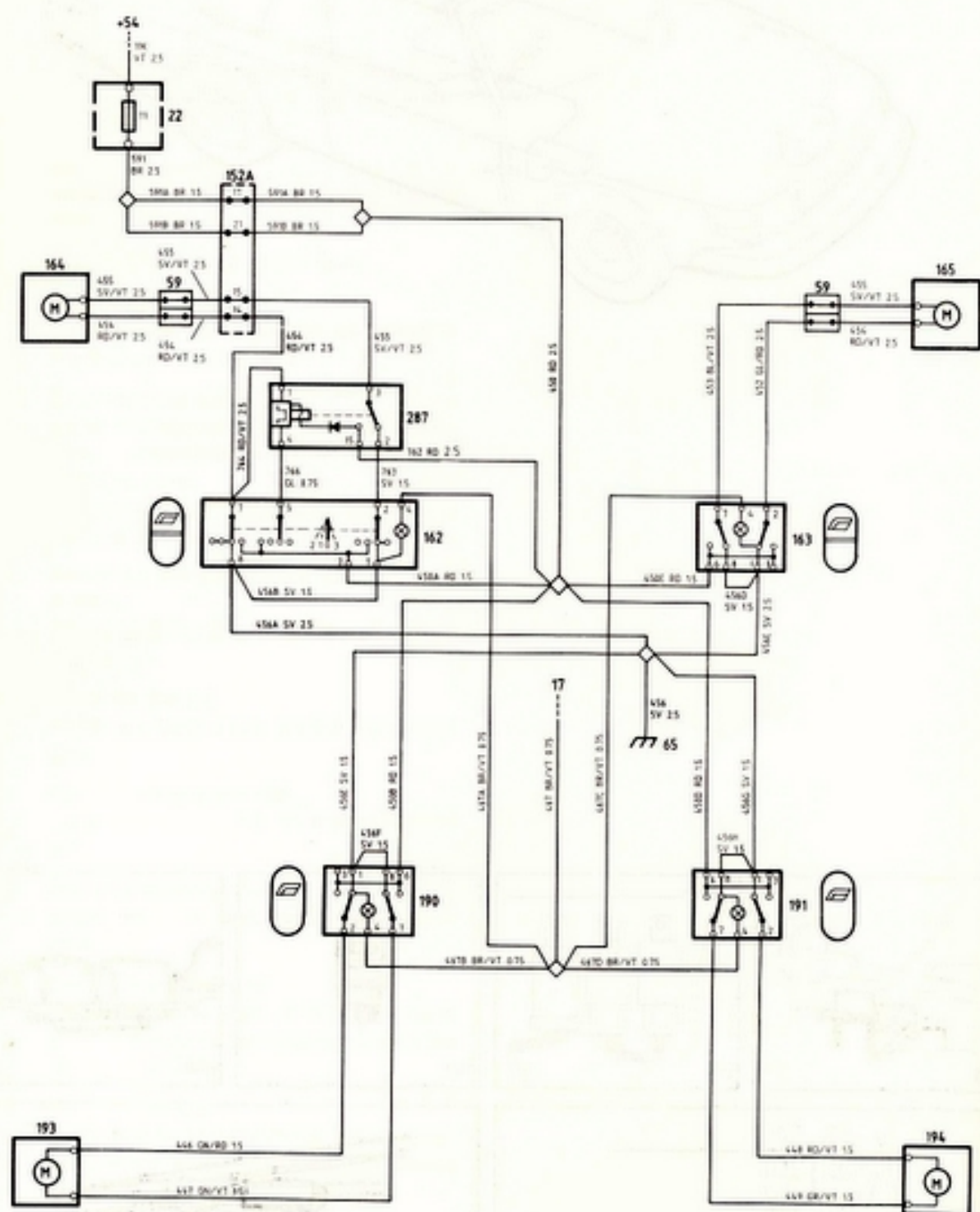
- 1 Check fuse 12 and check that the supply to it is live.
- 2 Check that the relays for raising and lowering operate correctly and that the diodes are in good condition.
- 3 Check that the relays are energised at terminal 87 and that the hydraulic pump motor is energised when the switch is actuated.
- 4 Check the connectors, cable harnesses and earth connections.



Locations of components

- 1 Battery
on the right-hand side of the engine compartment
- 7 Earthing point on the radiator cross-member
- 17 Extra rheostat for lighting the switches and controls
- 22 Fuse box
in the electrical distribution box in the engine compartment, on the left-hand wheel housing
- 43 Handbrake switch
under the plastic cover at the handbrake lever
- 65 Earthing point, handbrake lever
- 75 Distribution block
in the engine compartment, on the right-hand wheel housing wall
- 152A 29-pole white connector
in the electrical distribution box in the engine compartment, on the left-hand wheel housing.
The connector is accessible from the interior of the car
- 181 Switch for the electrically operated sun-roof/top
on the centre console between the front seats
- 273 Motor for the top
under the back seat, on the right-hand side
- 277 Relay for raising the top
under the back seat, on the right-hand side
- 278 Relay for lowering the top
under the back seat, on the right-hand side
- 283 Diode for the top relay
under the back seat, on the right-hand side, in the cable harness running to the relays (277/278)
- 290 Fuse for the top
in the engine compartment, on the right-hand wheel housing wall (at distribution block 75)

Electric window regulators



Operation

The window regulators can be operated by means of switches in the centre console between the front seats.

The supply is taken from fuse 11, via the 29-pole white connector 152A, to the following switches:

- 162 (left-hand front door)
- 163 (right-hand front door)
- 190 (left-hand rear door)
- 191 (right-hand rear door)

As an example, if switch 190 for the left-hand rear window is depressed, one of the two pairs of contacts (depending on whether the window is to be raised or lowered) will close. Current will then flow to regulator motor 193. It then flows through the second pair of contacts of the switch, back to the switch on the centre console and to earth (65).

The lighting for all switches is connected to rheostat 17 for the lighting of the switches and controls.

Automatic window regulator controls

Unlike the other switches, driver's door switch 162 has two positions for lowering the window. This switch is also connected to relay 287.

Position 1: The window travels downwards as long as the switch is kept depressed in this position.

A positive voltage is supplied to motor 164 across pin 2 on the switch and across the relay contacts. The motor will stop when the switch is released.

Position 2: The window opens fully even if the switch is released after a brief instant.

The coil of relay 287 is now supplied with a positive voltage across pin 5 of the switch, and the relay is energised. The motor is supplied across the closed relay contacts (pin 15). The supply is maintained (for approx. 6 seconds) by the time-delay function of the relay until the window has been lowered fully, even if the switch is released immediately. (The downward travel of the window can be interrupted by setting the switch to position 3, "Raise".)

Position 3: The window will travel upwards as long as the switch is held depressed in this position.

The motor is supplied with a positive voltage across pin 7 on the switch and the direction of rotation is reversed, causing the window to be raised.

Fault-tracing hints

The electric window regulators will be operative when the ignition switch is in the drive position.

- 1 Check fuse 11 and check that the supply to it is live.
- 2 Check that terminals 3 and 6 of the switches in the centre console are live. (On 162, terminal 3 only.)
- 3 Check the performance of switches by measuring at their terminals.
- 4 Check the connectors, cable harnesses and earth connections.

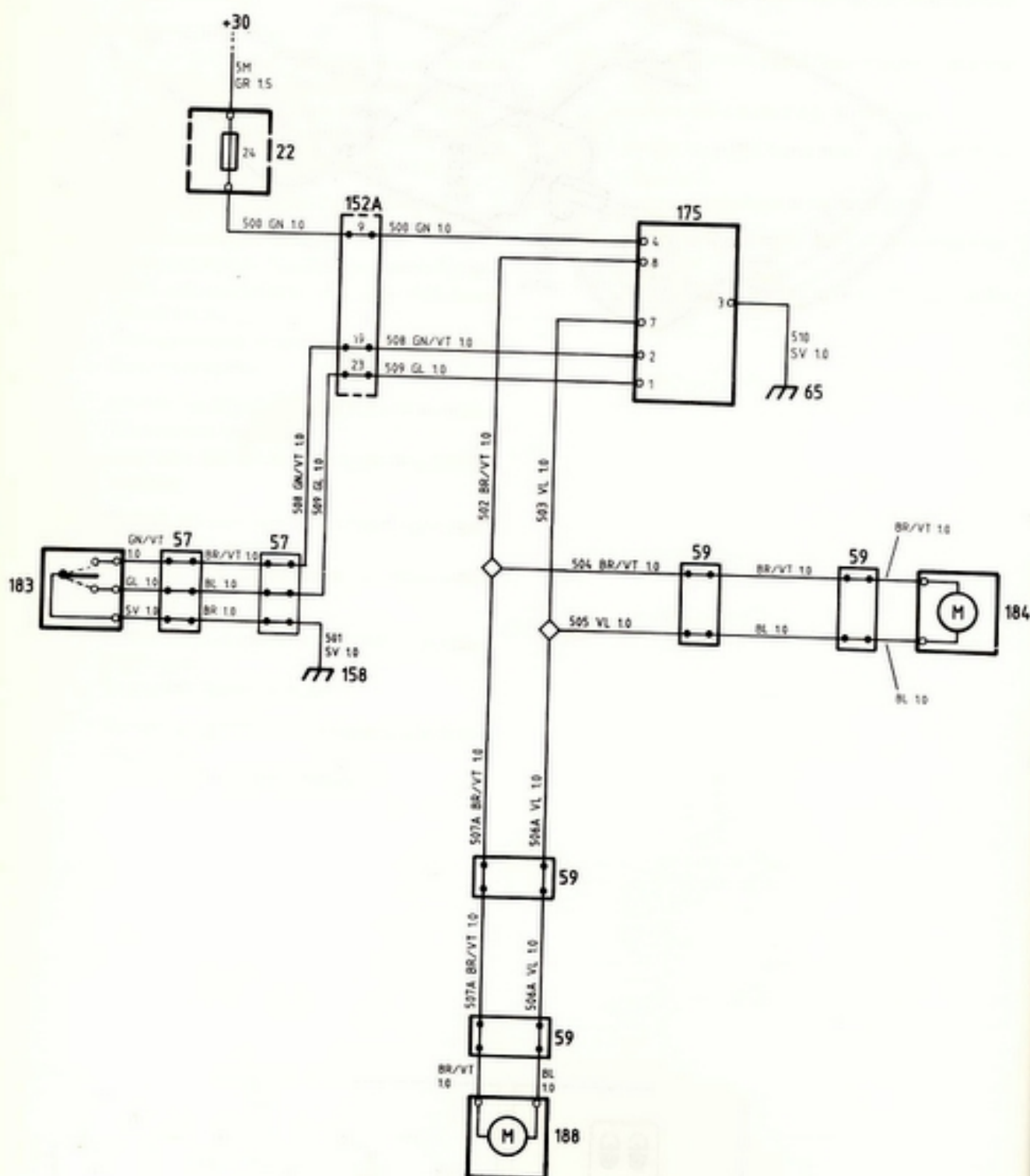
Automatic window regulator controls

Check the automatic window regulator controls as follows: Set switch 162 to position 2 and check that the supply to pin 4 on the relay is live. Pin 1 should be earthed. Check that pin 3 and pin 15 on the relay are live.

Locations of components

- | | |
|---|---|
| <p>17 Extra rheostat for the lighting of controls on the left-hand side of the facia</p> <p>22 Fuse box in the electrical distribution box in the engine compartment, on the left-hand wheel housing</p> <p>59 2-pole connector
one in the engine compartment, at the upper hinge of the left-hand door, behind the electrical distribution box
one in the engine compartment, at the upper hinge of the right-hand door</p> <p>65 Earthing point, at the handbrake</p> <p>152A 29-pole white connector in the electrical distribution box in the engine compartment, on the left-hand wheel housing.
The connector is accessible from the interior of the car</p> <p>162 Switch for the left-hand front door electric window regulator between the front seats, on the centre console</p> <p>163 Switch for the right-hand front door electric window regulator between the front seats, on the centre console</p> <p>164 Motor for left-hand front electric window regulator in the left-hand front door</p> <p>165 Motor for right-hand front electric window regulator in the right-hand front door</p> | <p>190 Switch for the left-hand rear electric window regulator between the front seats, on the centre console</p> <p>191 Switch for the right-hand rear electric window regulator between the front seats, on the centre console</p> <p>193 Motor for left-hand rear electric window regulator on the left-hand side, at the rear</p> <p>194 Motor for right-hand rear electric window regulator on the right-hand side, at the rear</p> <p>287 Relay for automatic control of window regulators under the back seat, on the left-hand side</p> |
|---|---|

Centrallås



Central locking

Operation

The central locking system of the car locks or unlocks all doors and the luggage compartment lid when the key is turned in the lock of the driver's door.

Terminal 4 of electronic unit 175 for the central locking system is continuously supplied from fuse 24, via the 29-pole white connector 152A. The electronic unit is controlled by control unit 183, which is mounted in the driver's door.

When the driver's door is locked, terminal 1 of the electronic unit will be earthed across the control unit to negative distribution terminal 158. Current will then flow from output 8. Both central locking motors will now be energised for approx. 1 second and the doors will lock. The motors are earthed through pin 7 of the electronic unit, and on from terminal 3 to earthing point 65.

When the driver's door is unlocked, terminal 2 of the electronic unit will instead be earthed across the control unit. The motors will now be energised from pin 7 instead, and will be earthed across pin 8 of the electronic unit (for approx. 1 second), causing the locks to open.



184

Fault-tracing hints

- 1 Check fuse 24 and check that the supply to it is live.
- 2 Check that the supply to terminal 4 of electronic unit 175 is live.
- 3 Check that pin 7 of the electronic unit is live when the doors are being unlocked and that pin 8 is live when the doors are being locked.

Note that terminals 7 and 8 are energised for only around one second in conjunction with locking and unlocking. Measurement at these terminals must therefore be carried out when control unit 183 is switching over.
- 4 Check the connectors, cable harnesses and earth connections.

Note:

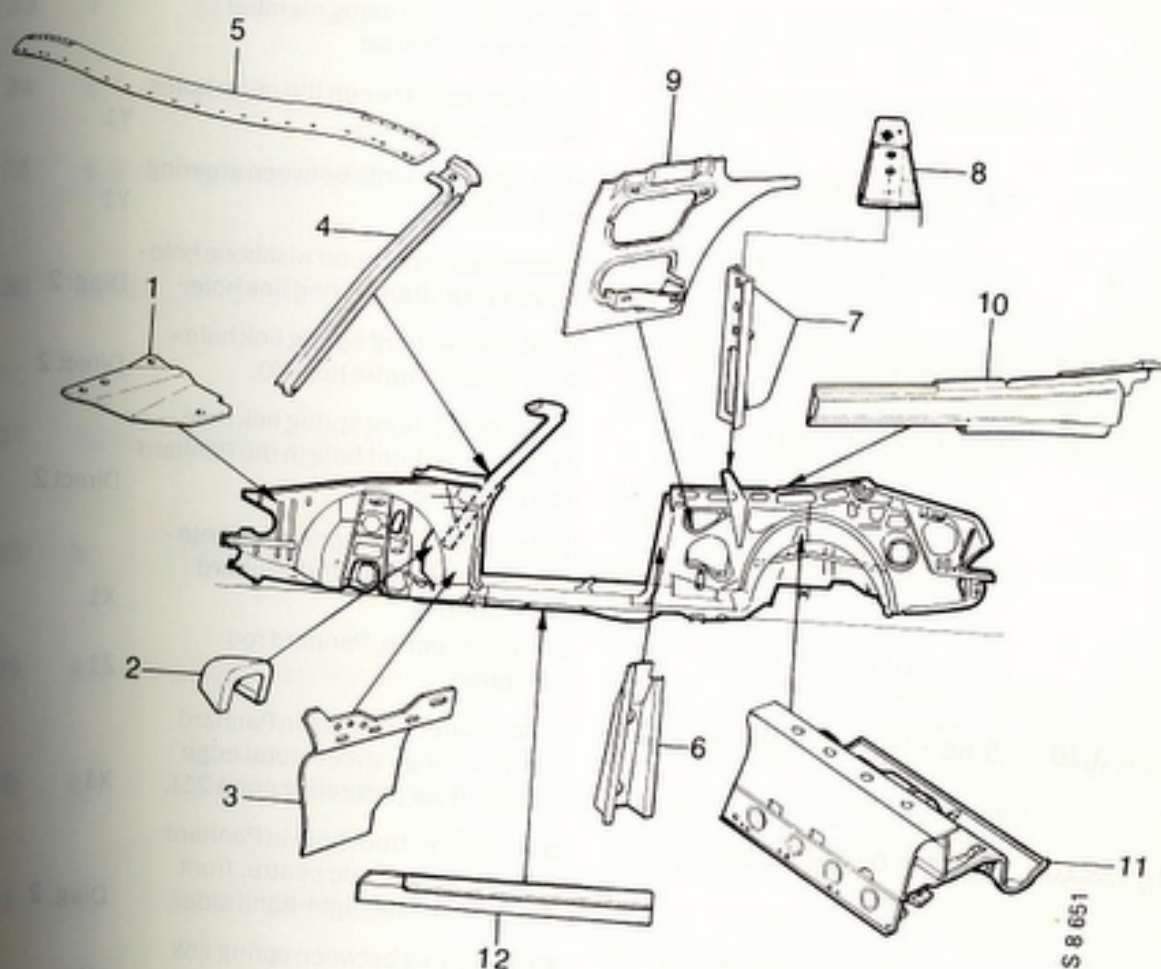
On testing, the actuating motors may be connected to terminals 7 and 8 of the electronic unit only. Do not connect them to any other power supply sources. Doing so may overload the motors and damage them.

Body assembly

The Saab 900 Convertible has a unit construction body of the same basic type as the Sedan and Combi Coupé models. The absence of a permanent roof is compensated by a strengthened system of chassis members and a load-bearing (glued) windscreen. The reinforcements are described below.

Additional body reinforcements on the Saab 900 Convertible

- | | |
|--|--|
| 1 Corner reinforcement for the top radiator cross-member | 7 Secondary B pillar (mounting point for the fabric top bracket) |
| 2 Wheel housing mounting for the A pillar | 8 Guide mounting, secondary B pillar |
| 3 Reinforcement of the wheel housing wall | 9 Inner front side panel |
| 4 A pillar, extended to the wheel housing | 10 Upper side member |
| 5 Roof member, windscreen frame | 11 Torsion box over the rear axle tunnel |
| 6 B pillar | 12 Sill reinforcing member |



810-2 Body assembly

Item	Figure	Dimension, in (mm) total	Measurement points	Measure
1	1,2	172 ± 0.20 (4372.0 \pm 5)	Total length measured along line Y0. Hole centre in the front bumper mounting - rear edge of the body.	X1
2	2,3	26.31 ± 0.12 (668.5 \pm 3)	Hole centre in bumper mounting - hole centre for the front wishbone.	X1
3	2,3	10.59 ± 0.04 (269.01 \pm 1)	Hole centre, between the front and rear wishbone holes.	X1
4	2,3	76.04 ± 0.08 (1931.5 \pm 2)	Hole centre, rear wishbone hole - hole centre, front spring link hole.	X1
5	2,3	59.29 ± 0.16 (1506.0 \pm 4)	Hole centre, front spring link hole - rear edge of the body at Y0.	X1
6	2,4	3.26 ± 0.08 (83.0 \pm 2)	Z0 - sheet steel edge of the front member.	Z1
7	2,4	8.58 ± 0.08 (218.0 \pm 2)	Z0 - underside of bumper mounting.	Z1
8	1,8	41.88 ± 0.08 (1064.0 \pm 2)	Hole centres between bumper mountings.	Y1
9	8,11	42.44 ± 0.08 (1078.0 \pm 2)	Hole centres, width between the inner wheel housing walls.	Y1
10	3	48.16 ± 0.08 (1223.5 \pm 2)	Hole centre, outer bolt hole in the front member - hole centre, front hole in the reinforcing member under the bulkhead.	Diag. 2
11	3,8	23.62 ± 0.08 (600.0 \pm 2)	Hole centres between the outer holes in the front member.	Y1
12	3,8	19.76 ± 0.04 (502.0 \pm 1)	Hole centres, width between steering gear holes.	Y1
13	3	84.15 ± 0.08 (2137.5 \pm 2)	Hole centre, rear outer wishbone hole - hole centre, front spring link hole.	Diag. 2
14	6,7,3	56.24 ± 0.12 (1301.5 \pm 3)	Hole centre, front spring link hole - hole centre, centre hole Y0.	Direct 2
15	3,10	17.64 ± 0.04 (448.0 \pm 1)	Hole centre, front spring link hole - hole centre, front hole in the Panhard rod mounting.	Direct 2
16	3,10	16.39 ± 0.12 (416.5 \pm 3)	Hole centre, front spring link hole - centre line through the Panhard rod mounting.	X1
17	3	5.35 ± 0.08 (136.0 \pm 2)	Z0 - hole centre, Panhard rod mounting.	Z1
18	3,10	5.66 ± 0.08 (144.0 \pm 2)	Hole centre, rear hole in Panhard rod mounting - sheet metal edge recess, floor (reference point 21).	X1
19	3,10	38.19 ± 0.08 (986.5 \pm 3)	Hole centre, front hole in Panhard rod mounting - hole centre, front spring link hole, right-hand side.	Diag. 2
20	3,10	41.73 ± 0.12 (1060.0 \pm 3)	Hole centres between spring link holes.	Y1

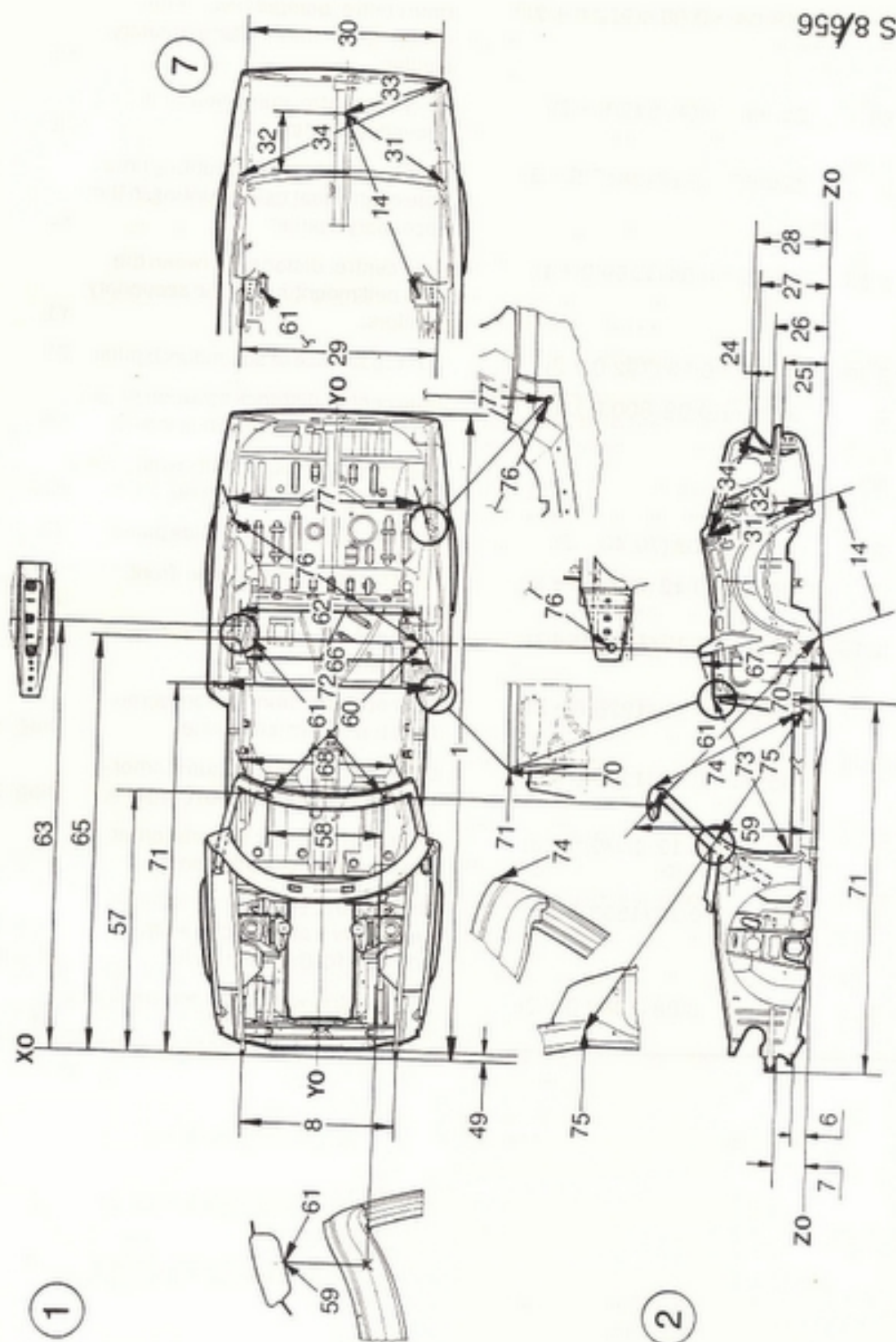
Item	Figure	Dimension, in (mm) total	Measurement points	Measure
21	3,10	1.29 ± 0.04 (33.0 \pm 1)	Recess in the rear floor.	Direct 2
22	3,10	47.24 ± 0.12 (1200.0 \pm 3)	Width of rear floor.	Y1
23	3,10	0.51 ± 0.08 (13.0 \pm 2)	Y0 - hole centre, line through the hole in the collision member.	Y1
24	2	6.73 ± 0.08 (171.0 \pm 2) -0.04 (-1)	Lamp housing opening.	Z2
25	6	10.90 ± 0.16 (277.0 \pm 4)	Z0 - top of cross-member at Y0.	Z1
26	6	12.55 ± 0.16 (319.0 \pm 4)	Z0 - top of connecting plate at Y0.	Z1
27	6	19.25 ± 0.16 (489.0 \pm 4)	Z0 - rear corner in the lid opening.	Z1
28	6	19.88 ± 0.16 (505.0 \pm 4)	Z0 - waistline, rear corner.	Z1
29	7	52.02 ± 0.16 (1321.5 \pm 4)	Distance between hinge mountings.	Y1
30	7	52.00 ± 0.16 (1321.0 \pm 4) -0.08 (-2)	Width of lid opening at the rear edge.	Y1
31	6,7	41.10 ± 0.16 (1044.0 \pm 4)	Hole centre, hinge pin hole - hole centre, centre hole at Y0 in the rear floor.	Diag. 2
32	6,7	27.06 ± 0.08 (687.5 \pm 2)	Hole centre, centre hole in the floor - bottom edge of gutter in the rear member, line Y0.	Z3
33	7	31.83 ± 0.12 (808.5 \pm 3)	Hole centre, centre hole in the floor (Y0) - rear corner of lid opening.	Diag. 3
34	6,7	60.43 ± 0.20 (1535.0 \pm 5)	Rear corner of lid opening - hole centre, hinge pin hole.	Diag. 3
35	8,9	50.35 ± 0.08 (1279.0 \pm 2)	Hole centre, front hole in the inner wheel housing wall - hole centre, guide hole in the bulkhead gutter.	Direct 2
36	8,9,11	28.34 ± 0.12 (720.0 \pm 3)	Hole centre, front hole-steering-gear Y0, underside of the bulkhead gutter (in between the holes of the wiper spindles).	Diag. 2
37	8,9,11	19.25 ± 0.12 (489.0 \pm 3)	Distance between the front hole in the inner wheel housing wall - outer spoiler hole.	Diag. 2
38	8	7.59 ± 0.12 (193.0 \pm 3)	Hole centre, front hole in the inner wheel housing wall - hole centre, mounting lug in the wing.	Direct 2
39	8,9	44.58 ± 0.08 (1132.5 \pm 2)	Hole centre, mounting lug in the wing - hole centre, guide hole in the bulkhead gutter.	Direct 2
40	8,9	21.88 ± 0.04 (556.0 \pm 1)	Hole centre, guide hole in the inner wheel housing flange hole centre, guide hole in the bulkhead gutter.	Direct 2
41	11	52.75 ± 0.12 (1340.0 \pm 3)	Hole centre, distance between the mounting lugs in the wings.	Y1
42	5	5.18 ± 0.04 (131.5 \pm 1)	Hole centre, distance between the holes in the front engine mounting (later design).	Y1

810-4 Body assembly

Item	Figure	Dimension, in (mm) total	Measurement points	Measure
43	5	$1.57 \pm 0.02 (40.0 \pm 5)$	Hole centre, right-hand bolt hole - line Y0 (offset).	Y1
44	5	$7.83 \pm 0.04 (199.0 \pm 1)$	Z0 - height in the hole centre on the nut.	Z1
45	5	$6.77 \pm 0.04 (172.0 \pm 1)$	Hole centre, bolt hole in the bumper mounting (X0) - hole centre in the nut on the engine mounting.	X1
46	5	$20.35 \pm 0.04 (517.0 \pm 1)$	Hole centre, width between rear engine mounting holes.	Y1
47	5	$2.87 \pm 0.04 (73.0 \pm 1)$ -0 (-0)	Inside distance, front engine mounting (earlier design).	Y1
A48	5	$29.09 \pm 0.08 (739.0 \pm 2)$	Hole centre, left-hand rear engine mounting - hole centre, right-hand hole in the front engine mounting.	Diag. 1
B48	5	$29.56 \pm 0.08 (751.0 \pm 2)$	Hole centre, right-hand rear engine mounting - hole centre, left-hand hole in the front engine mounting.	Diag. 1
49	3	$2.18 \pm 0.04 (55.5 \pm 1)$	Hole centre, bolt hole for bumper - hole centre, five holes in the front member.	X1
50	8	$7.75 \pm 0.08 (197.0 \pm 2)$	Hole centre, front steering gear hole - vertical part of the lower bulkhead (not on the reinforcing crease).	X2
51	9	$25.98 \pm 0.12 (660.0 \pm 3)$	Y0, windscreen flange - top of the exhaust pipe tunnel (edge against the bulkhead).	Direct 2
52	9	$8.56 \pm 0.08 (217.5 \pm 2)$	Y0, windscreen flange - top edge of the steering wheel member.	Direct 2
53	9,11	$25.35 \pm 0.08 (644 \pm 2)$	Distance between radii in the flange plane, windscreen.	Direct 2
54	12	$46.45 \pm 0.16 (1180.0 \pm 4)$	Distance between insides of sills.	Y1
55	3, 12	$52.59 \pm 0.16 (1336.0 \pm 4)$	Distance between outsides of sills.	Y1
56	12	$5.90 \pm 0.08 (150.0 \pm 2)$	Z0 - top of sill.	Z1
57	1	$69.54 \pm 0.08 (1766.5 \pm 2)$	Hole centre, bumper hole - hole centre, guide hole in the windscreen frame.	X1
58	1	$31.50 \pm 0.04 (800.0 \pm 1)$	Distance between guide holes in the windscreen frame.	Y1
59	1,2	$42.44 \pm 0.08 (1078.5 \pm 2)$	Z0 - hole centre, guide hole in the windscreen frame.	Z1
60	1	$59.02 \pm 0.12 (1499.0 \pm 3)$	Hole centre, guide hole in the windscreen frame - hole centre, seat belt mounting in the secondary B pillar.	Direct 2
61	1,2,10	$70.91 \pm 0.08 (1801.0 \pm 2)$	Hole centre, guide hole in the windscreen frame - hole centre, front spring link hole.	Direct 2

asure

Item	Figure	Dimension, in (mm) total	Measurement points	Measure
62	1,13	49.56 ± 0.08 (1259.0 ± 2)	Hole centre, width between secondary B pillars.	Y1
63	1	115.04 ± 0.08 (2922.0 ± 2)	Hole centre, bumper hole - hole centre, guide hole in the secondary B pillar.	X1
64	13	21.39 ± 0.08 (543.5 ± 2)	Z0 - hole centre, guide hole in the secondary B pillar.	Z1
65	1	110.92 ± 0.12 (2817.5 ± 3)	Hole centre, bumper mounting hole - hole centre seat belt mounting in the secondary B pillar.	X1
66	1,13	49.56 ± 0.04 (1259.0 ± 1)	Hole centre, distance between the seat belt mountings in the secondary B pillars.	Y1
67	2,13	31.18 ± 0.08 (792.0 ± 2)	Z0 - top surface of secondary B pillar.	Z1
68	1	31.50 ± 0.08 (800.0 ± 2)	Hole centre, distance between guide pin holes in the windscreen frame.	Y1
69	11		Diagonal dimension in the windscreen opening (largest dimension).	Direct 3
70	2	2.77 ± 0.08 (70.40 ± 2)	Z0 - front upper corner, side panel.	Z1
71	2	98.93 ± 0.12 (2513.0 ± 3)	Hole centre, bumper hole - front corner of side panel.	Z1
72	1,13	57.83 ± 0.12 (1469.0 ± 3)	Distance between front top corners, side panel.	Y1
73	2	48.23 ± 0.12 (1225.5 ± 3)	Door opening, front bottom corner - front top corner, side panel.	Diag. 3
74	2	45.66 ± 0.12 (1160.0 ± 3)	Door opening, rear bottom corner - top corner of windscreen frame.	Diag. 3
75	2	42.53 ± 0.12 (1080.5 ± 3)	Door opening, rear bottom corner - top rivet hole for A pillar seal.	Diag. 3
76	1	61.16 ± 0.12 (1553.5 ± 3)	Hole centre, seat belt mounting in secondary B pillar - hole centre, bolt hole for the rear spoiler.	Direct 2
77	1	54.40 ± 0.08 (1382.0 ± 2)	Hole centre, width between bolt holes, rear spoiler.	Y1



S 8/556

Specifications

General

Curb weight

Gross vehicle

weight rating

Number of seats

including driver

Top manufacturer

Top material

Tyres

Saab 900 Car

Tyre pressure

(cold tyre)

Normal

Front

30-32

Other

Staples

Short

Long

Adhesive

Cleaning

Cleaning agent

moving

the top

(This cleaning agent should be used if the

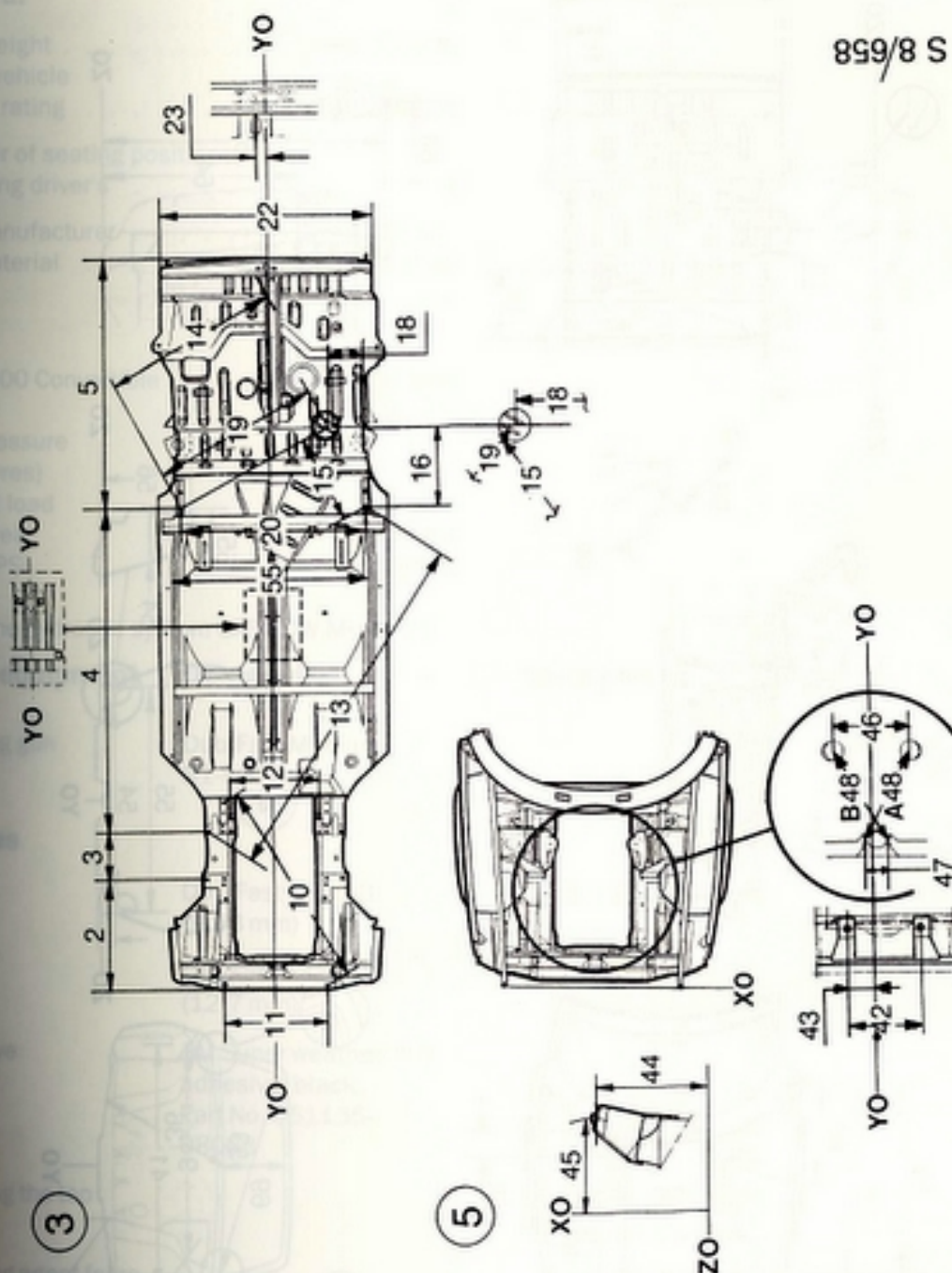
cannot be removed with soap-based

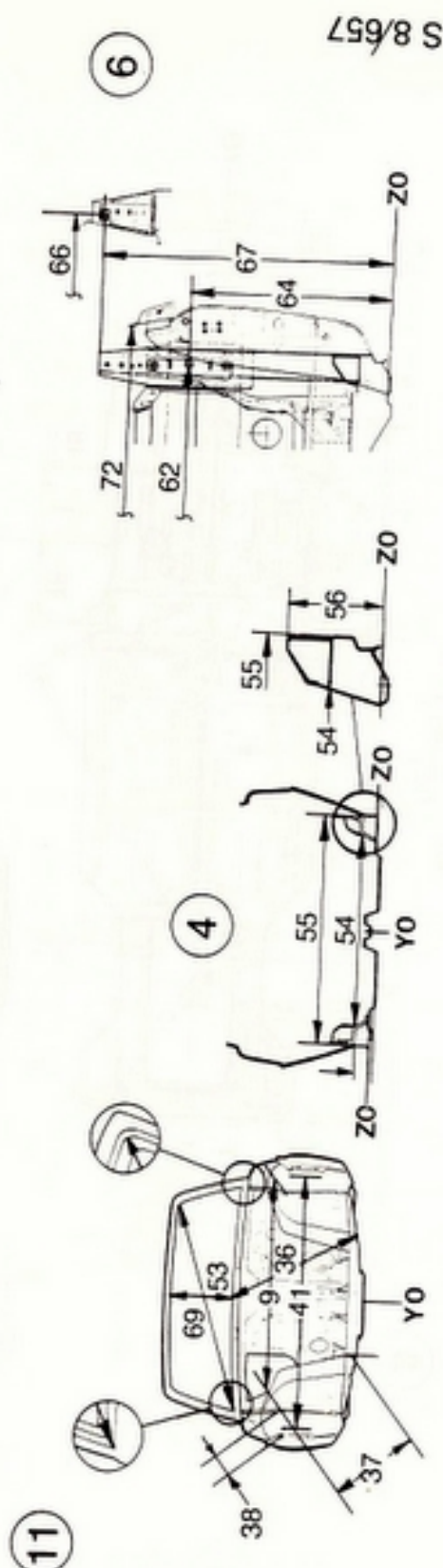
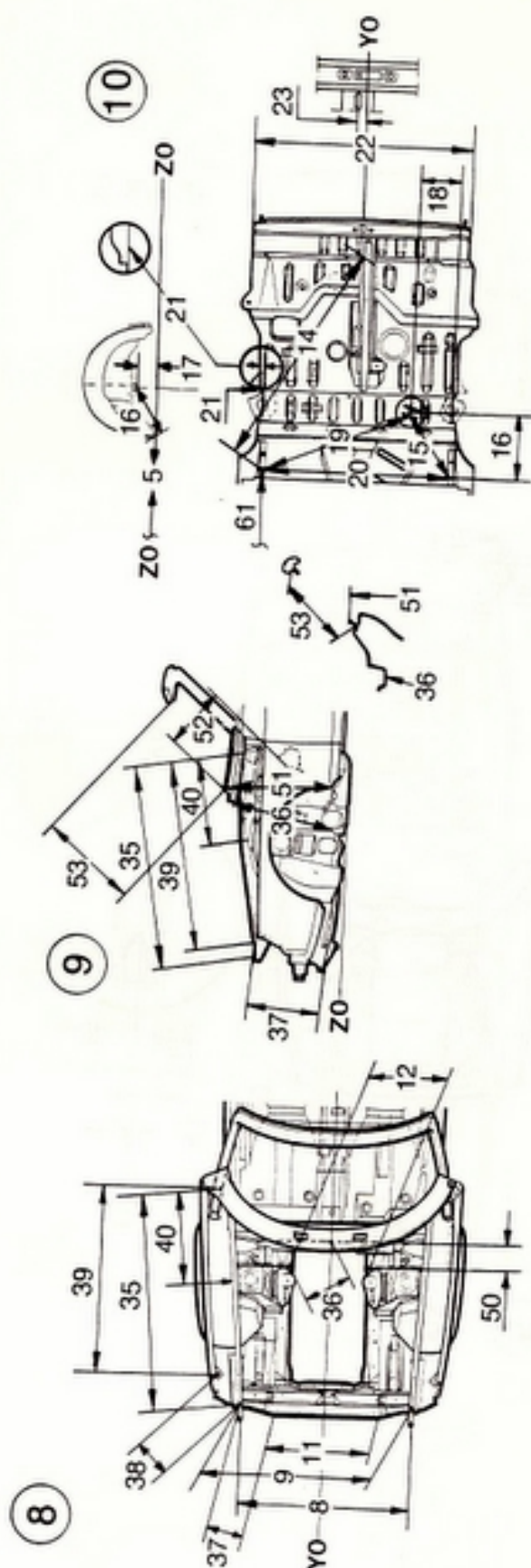
and water.)

Note: Follow the manufacturer's safety

when using the cleaning agent.

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Stapling

Staples

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Technical specification

Specifications

General

Curb weight	2980-3020 lb
Gross vehicle weight rating	3790-3840 lb
Number of seating positions, including driver's	4
Top manufacturer	ASC Inc.
Top material	Cambria cloth

Tyres

Saab 900 Convertible	195/60 R15 86H
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Tyre pressure

(cold tyres)	
Normal load	Full load
Front/Rear	Front/Rear
30/32 PSI	35/36 PSI

Oil in the hydraulic system SAE 10W Motor Oil

Other equipment	Designation	Saab part No.
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Stapling gun	Duo-Fast Medium B1-5324	
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Staples

Short	Duo-Fast 5310-D (9.53 mm)	69 35 712
Long	Duo Fast 5316-0 (12.7 mm)	69 34 285

Adhesive	3M Super weather strip adhesive, black Part No. 051135- 08008	
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Cleaning the top

See the instructions in
the Owner's Manual

Cleaning agent for re- moving spots on the top:

Sikkens Reducer M600.
Manufacturer's code:
96045

(This cleaning agent should be used if the spots cannot be removed with soap-based detergent and water.)

Note. Follow the manufacturer's safety directives when using the cleaning agent.

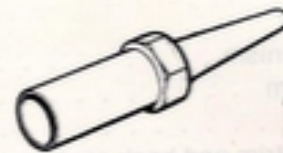
Stapling the fabric

	Distance between staples	Staple length
Drainage pocket	100 mm	Short
Rear window section, centre part	5-10 mm	Long
Rear window section, side part	5-10 mm	Short at the thin tack strip
Side sections, rear	5-10 mm	Long for several layers of fabric
Side sections, behind the rear window	5-10 mm	Long for rear side windows

All staples should be horizontal.

Special tools

82 92 492 (A2) Spacer (2 needed) used for fitting the top.



099 8 S



- 1 First bar
- 2 Second bar
- 3 Third bar
- 4 Fourth bar
- 5 Back strip

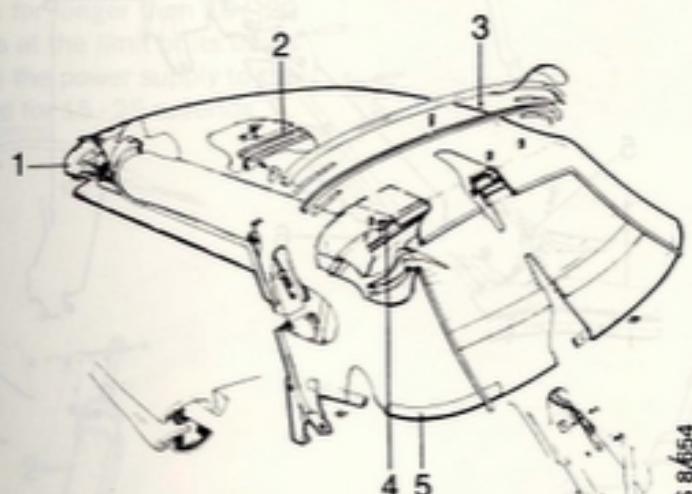
Top stack Contents

Top with mechanism	812- 1	To change the pump	812-13
Hydraulic system	812- 3	To remove spoiler sections	812-16
Sealing strips	812- 4	To remove headliner from top	812-19
To remove side trim and back seat	812- 5	To change latch mechanism	812-21
To change seat belts	812- 6	To change the top assembly	812-23
To remove rear side windows	812- 7	To change rear window	812-28
To change motor	812-10	To change the top fabric	812-30
Adjustment facilities for the top	812-11	To change the cross bars	812-33
Weather strips	812-12	Stapling	812-36
To replace servo cylinders	812-13		

Top stack

Top with mechanism

The top consists of a fabric top part (the fabric is known as Cambria) and a mechanism consisting of two three- part metal rails interconnected by means of four cross-bars. The cross- bars are numbered from the front, i.e. the first is above the windscreen. The rear window is glued to the fabric of the top. The fabric in which the rear window is mounted is secured to the top by means of a zip fastener. The window section can thus be released from the top and can be lowered separately. The rear window section need not be folded down separately when the top is raised and lowered. It is automatically lowered into the space between the back seat and the boot when the top is folded down.



- 1 First bar
- 2 Second bar
- 3 Third bar
- 4 Fourth bar
- 5 Tack strip

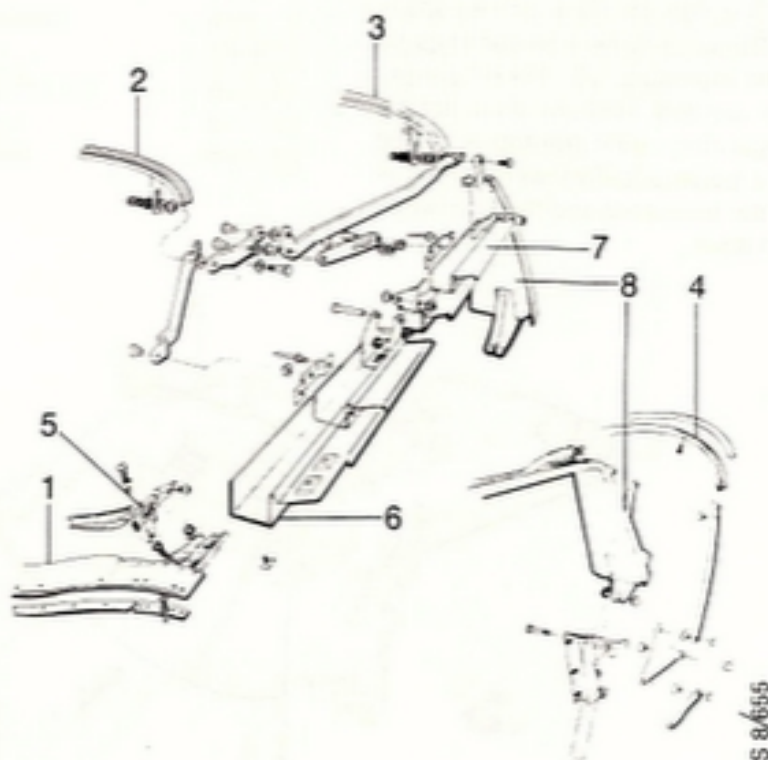
The bottom part of the top and the rear window section are stapled to tack strips which are pop-riveted to the body. The tack strips are made of plastic. The staples retaining the fabric are made of stainless material and are available in two sizes. The longer staples are used for securing several layers of fabric, whereas the shorter are used for securing one layer of fabric.

The head liner is made of fabric and is secured to the four cross-bars.

The rear section of the headliner is taped to the front part at No. 4 cross-bar. The fabric tabs on the rear section are secured to the top by means of Velcro tape.

Mechanism

The mechanism consists of a front rail, a centre rail and a rear rail, and the four cross-bars interconnecting the rails. The first cross-bar includes two latch mechanisms, i.e. one on each side. The latch mechanisms lock the front cross-bar to the top cross-member of the windscreen frame when the top is raised.



- 1 First bar
- 2 Second bar
- 3 Third bar
- 4 Fourth bar
- 5 Latch mechanism
- 6 Front rail
- 7 Intermediate rail
- 8 Rear rail

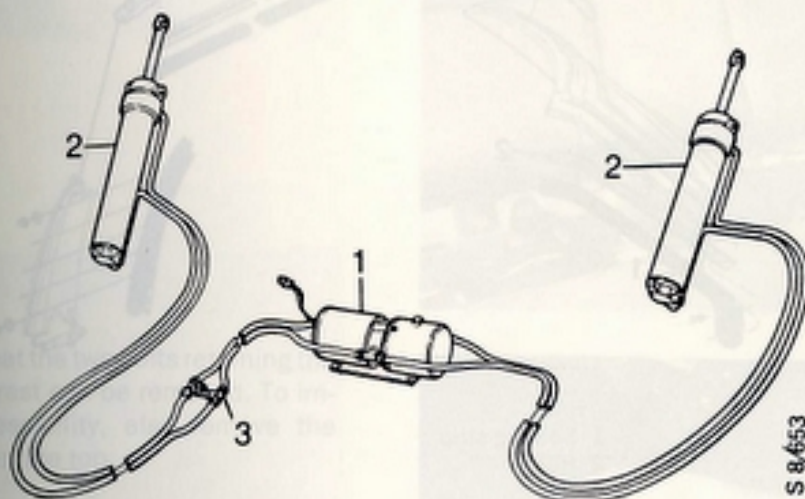
Hydraulic system

The top is operated electro-hydraulically. An electric motor driven hydraulic pump is located under the back seat. The hydraulic pump is connected by means of plastic hoses to two hydraulic cylinders secured to the mechanism of the top. The hydraulic system runs with mineral oil, although Motor Oil SAE 10W can also be used.

A by-pass valve is fitted between the pump and one of the hydraulic cylinders, and this valve can be operated manually through an opening in the boot trim for manual raising and lowering of the top.

The pump motor is equipped with an internal safety system which protects it against overheating or internal damage. The system performs as follows:

If the pump motor runs for longer than 10 - 20 seconds after the top is at the limit of its travel (fully raised or lowered) the power supply to the motor will be interrupted for 15 - 25 seconds.



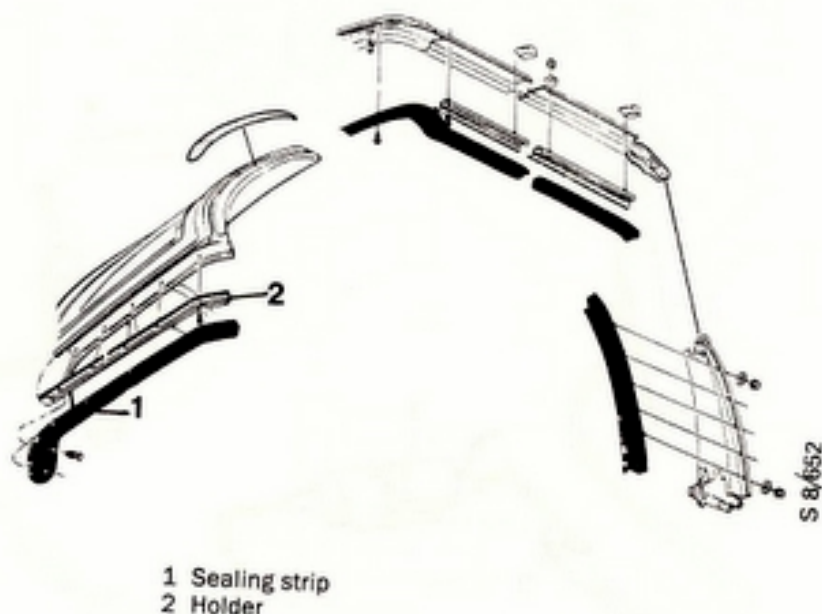
- 1 Pump
- 2 Hydraulic cylinders
- 3 By-pass valve

Sealing strips

The sealing strip at the A-pillar is glued to a holder which is secured by means of screws to the A pillar. The lower part of the sealing strip is secured by means of screws to the body.

The top section is provided with one front, one centre and one rear sealing strip. The rear strip also serves as a guide for the rear side window and is secured by means of screws to the top. The centre and front sealing strips are mounted in grooves in the holder and are both secured to the holder by means of screws and adhesive.

The front strip also seals between the windscreen and the front edge of the top.



To remove the side trim and back seat

Seat cushion

- 1 Remove the four bolts retaining the strip at the front of the seat cushion, and lift out the cushion.

- 2 Remove the two bolts retaining the backrest at the bottom.

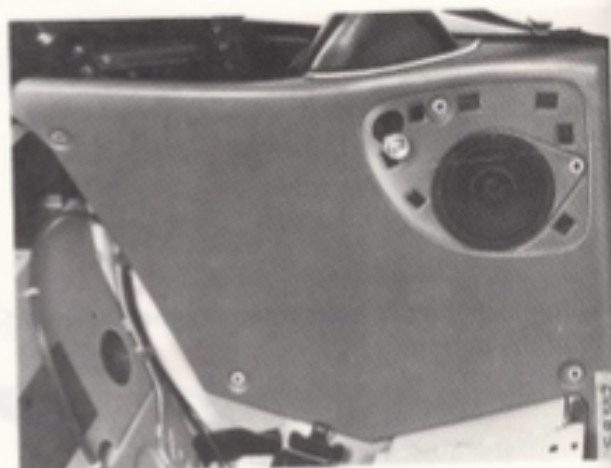
- 3 Lift the top so that the two bolts retaining the top of the backrest can be removed. To improve the accessibility, also remove the headrests. Lower the top.



812-6 Top stack

- 4 Lift up and remove the backrest.
- 5 Remove the speaker trim of the side trim, press out the lamp and remove the screws retaining the side trim. Disconnect the speaker cables and remove the side trim.

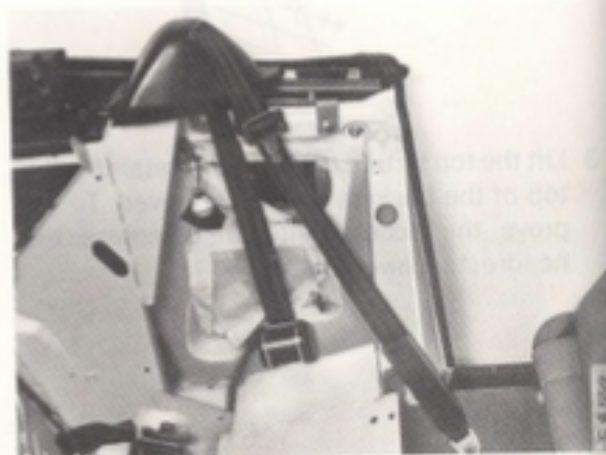
The top section is provided with one front, one centre and one rear sealing strip. The rear strip also serves as a guide for the rear side window and is secured by means of screws to the top.



To change the front seat belts

Follow the description for removing the side trim and then continue as follows:

- 1 Remove the seat-belt anchorage and the reel retaining bolt.



- 2 Remove the two screws retaining the cover over the top anchor point of the belt and remove the bolt for the anchorage.

Assemble in the reverse order. The tightening torque for the retaining bolt is 25-67 Nm.



To remove the rear side window

- 1 Remove the side trim.
- 2 Remove the screws retaining the cover over the seat-belt anchorage.

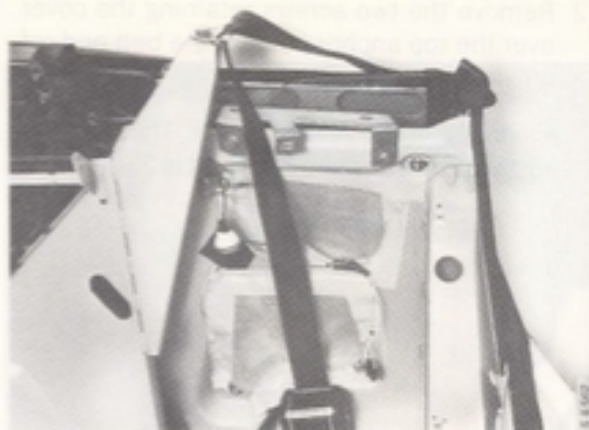


- 3 Remove the window support (two screws).

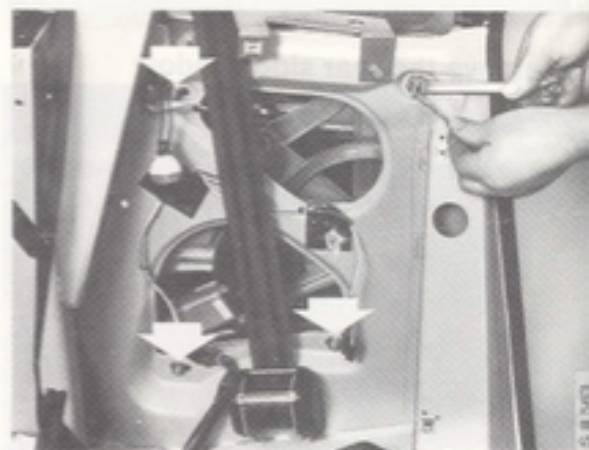
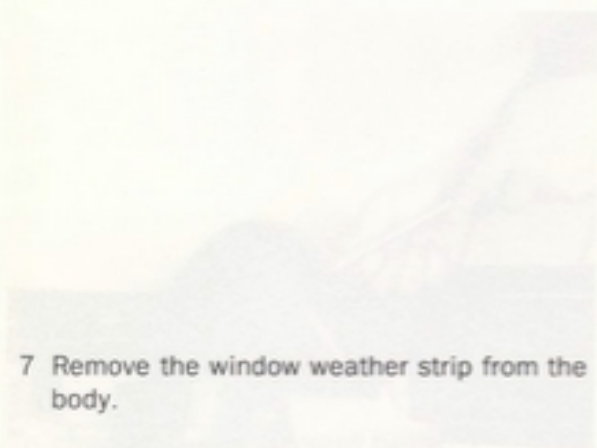


812-8 Top stack

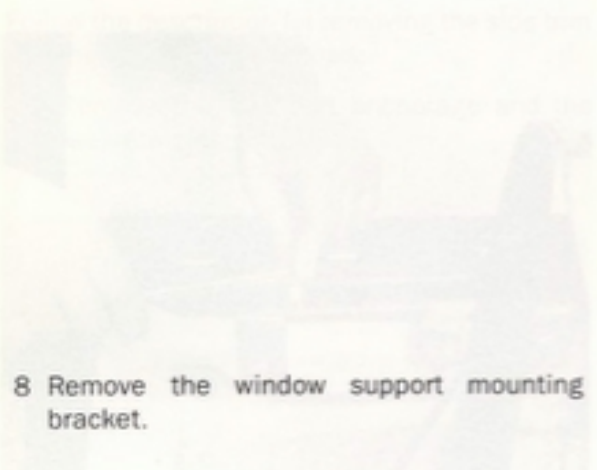
- 4 Remove the drainage paper from the body.
- 5 Raise the window to the top of its travel.



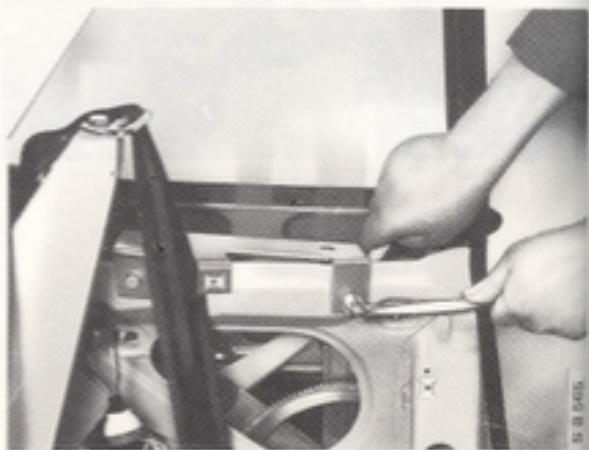
- 6 Release the four retaining nuts for the window regulator.



- 7 Remove the window weather strip from the body.



- 8 Remove the window support mounting bracket.



- 9 Remove the weather strip on the outside of the window.



- 10 Release the upper anchorage for the seat-belt and turn the bracket towards the centre of the car.



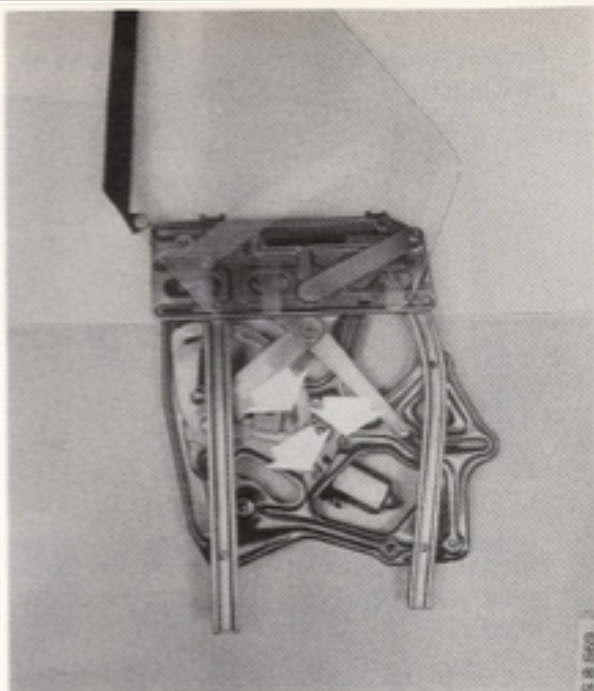
- 11 Disconnect the electric cables from the motor. Lift the window, together with the mechanism and the motor, from the body.



To change the motor

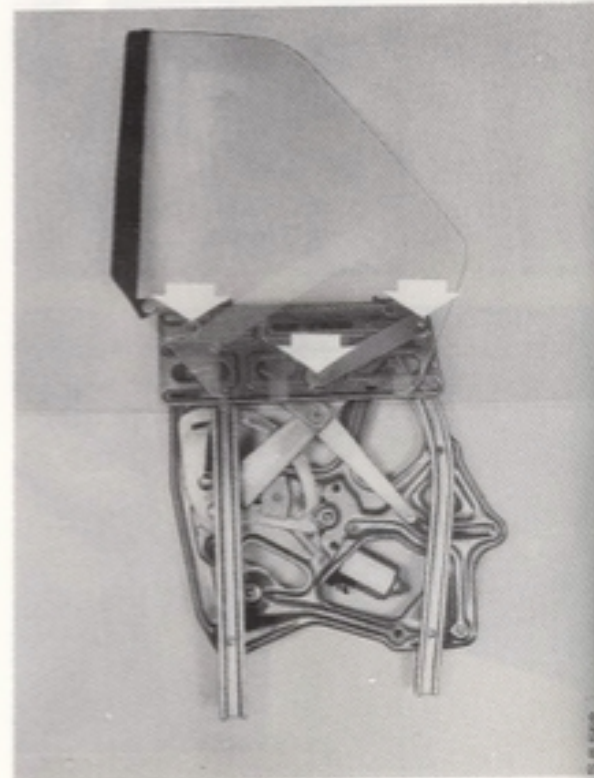
Remove the three screws and remove the motor.

Fit a new motor.



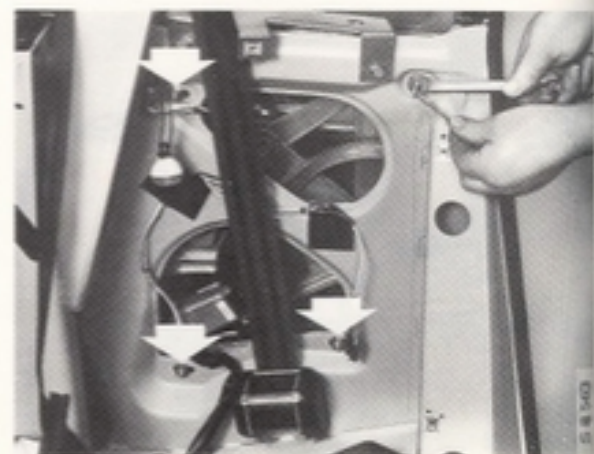
To remove the window

- 1 Remove the three screws retaining the glass in the frame. The centre screw allows for adjustment.



To fit the side window with window regulator

- 1 Lower the window into the body and refit the four screws to approximately the correct position for fitting.



NOTE

Ensure that the tensioning strap for the leatherette trim is not nipped when the rear screw is fitted.

- 2 Fit the weather strips to the inside and outside of the body.
- 3 Raise the window to the top of its travel and adjust it with the top raised and the door closed.
- 4 Tighten the seat-belt guide.
- 5 Fit the side trim and the back seat.

Adjustment facilities for the top**Adjustment facilities in the front edge**

- 1 Release the hook which is adjustable in height by screwing out the Torx screw. One turn corresponds to 1 mm up or down.
- 2 Pin which prevents movement sideways.



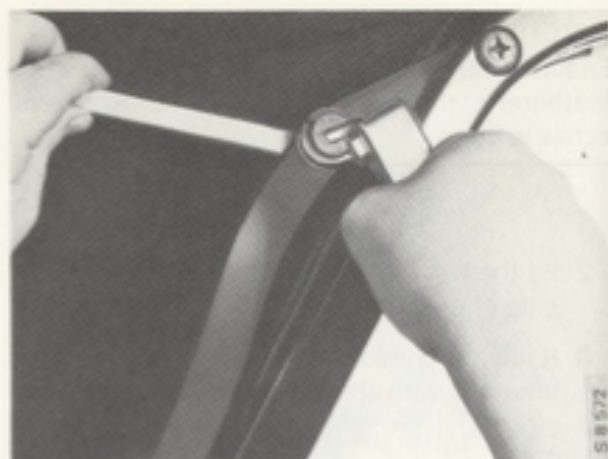
1 Hook, adjustment in height
2 Pin, adjustment, sideways

- 3 Hinge adjusting screw.
Horizontal adjustment of the front rail in relation to the door window.



- 4 Eccentric for adjusting the position of the top at the front edge before it is pulled down manually towards the windscreen frame.

Recommended position. 20-30 mm above the window frame.



- 5 Adjustment of the top in the lowered position.

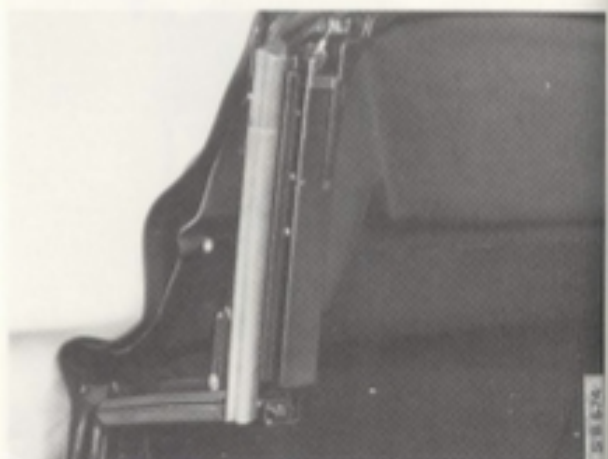
Release the two lock nuts through the oval hole in the side members and move the top up or down.



To change the front weather strip

The strip is glued to the sides in the front strip holder and is secured by means of screws to the front edge.

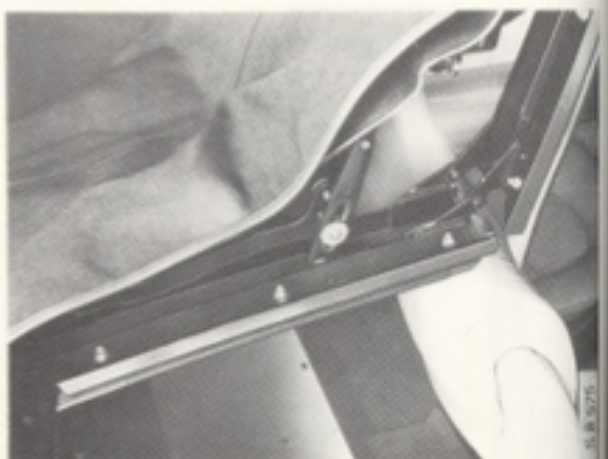
- 1 Pull the strip away from the strip holder and remove the screws retaining the front edge.
- 2 Screw it in position and glue the new strip. See the technical specification for particulars of the adhesive.



Centre sealing strip

The strip is glued to the strip holder which, in turn, is secured by means of screws to the centre hinge part.

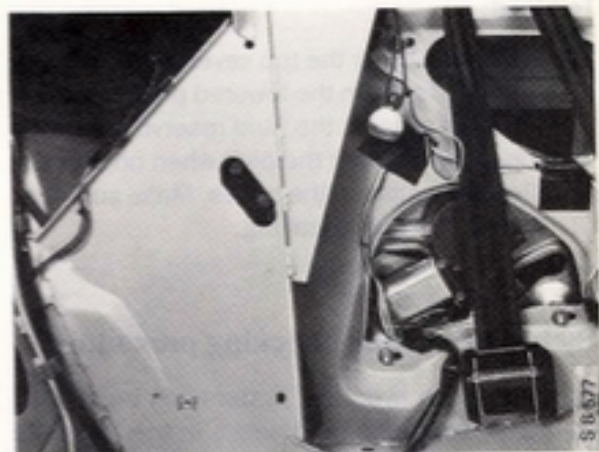
Rear weather strip - window guide. The strip is secured by means of four screws and a plastic clip. When fitting, apply adhesive to the surfaces that were glued earlier. See the technical specification for particulars of the adhesive.



To replace the servo cylinder

To remove

- 1 Remove the side trim.
- 2 Raise the top
- 3 Remove the two screws which are accessible through the oval hole in the side bracket of the body. Remove the split pin and the pivot pin in the top end. Press the cylinder inwards into the car and remove it.



- 4 If the cylinder must be withdrawn to improve the accessibility, a clip retaining the oil line on the rear support wall can be removed.

Assemble in the reverse order.

To change the servo pump

- 1 Lift the pump out of the rubber bearings and disconnect the electrical connections. Mark them to facilitate re-connecting.



812-14 Top stack

- 2 Place pieces of cloth under the pump. Disconnect the hydraulic lines from the pump. Mark the connections.
- 3 Connect the new pump and fill its fluid reservoir with Motor Oil SAE 10W.

To bleed:

- 4 Raise and lower the top several times. Every time the top is in the lowered position, open the filler plug on the fluid reservoir to bleed the air. Retighten the plug when no air bubbles are visible in the hoses. Make sure that the system is not leaking.

Hydraulic system checking procedure

Failures in the hydraulic system can be caused by lack of hydraulic fluid, leaks in the hydraulic system, obstructions or kinks in the hydraulic hoses or faulty operation of a cylinder or the pump.

- 1 Checking hydraulic fluid level in reservoir.
 - a) Remove rear seat cushion
 - b) Remove plug from reservoir
 - c) Check level of fluid in the reservoir. Fluid level should be even with fill hole.
 - d) If fluid is low, add high grade, light industrial white mineral oil or Motor Oil SAE 10W.
 - e) Install filler plug.
- 2 Checking operation of hydraulic cylinders. Operate the top up and down several times and observe the hydraulic cylinders during the "up" and "down" cycles for these following conditions:
 - If movement of the cylinders is uncoordinated or sluggish when the top is actuated, check the hydraulic hoses from the motor/pump to the cylinders for kinks.
 - If one cylinder rod moves slower than the other, and the hydraulic hoses are free of kinks, then the cylinder having the slower moving rod may be defective.



- Disconnect the cylinders from the top mechanism and operate the cylinders in free motion. If one cylinder rod still moves slower than the other, the cylinder having the slower moving rod is defective and should be replaced.
- If both cylinder rods move slowly or do not move at all, check the pressure of the pump.

Note:

To insure proper operation of the hydraulic cylinders, the hydraulic cylinder rods should be cleaned and lubricated. To perform this operation, raise the top to its "up" position and wipe the exposed portion of each rod with a cloth dampened with a high grade, light industrial white mineral or type Motor Oil SAE 10W to remove any oxidation and/or accumulation of grime.

Caution:

Exercise care so that fluid does not come in contact with any paint or trim parts of body.

3 checking pressure at the pump.

- Remove the motor/pump assembly from under the rear seat.
- Install a plug into one side of the pump and a pressure gauge into the side being checked.
- Actuate motor with an applied terminal voltage within the range of 9.5V to 11.0V. Pressure gauge should show pressure between 2344.2 kPa to 2620.0 kPa (340 P.S.I. to 380 P.S.I.).
- Check pressure on the opposite side of the pump.

NOTE:

A difference in pressure readings may exist between the pressure port of the top of the cylinders and the pressure port for the bottom of the cylinders. This condition is acceptable if both readings are within the limits 2344.2 kPa to 2620.0 kPa (340 P.S.I. to 380 P.S.I.).

- If the pressure is not within specified limits, the motor/pump unit is defective and should be replaced.

To remove the spoiler**Side spoiler**

The side spoiler has three mounting points. One of which is located at the rear of the car. The other two are located on the side panel. To remove the side spoiler, first remove the rear seat cushion and backrest. Then remove the side spoiler.

Rear spoiler

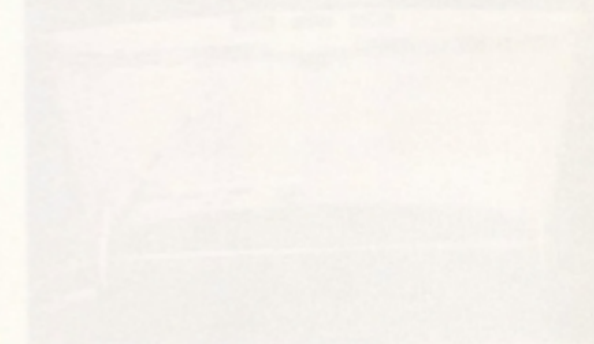
The rear spoiler is secured by means of two screws. To remove the rear spoiler, first remove the rear seat cushion and backrest. Then remove the rear spoiler.

**To remove the back seat cushion and backrest**

1. Remove the back seat cushion and backrest.

**To remove the rear seat cushion and backrest**

1. Remove the rear seat cushion and backrest.



To remove the spoiler

Side spoiler

The side spoiler has three mounting points, one of which is accessible from the boot. Each of the other two is accessible from the inside of the corresponding rear side panel after the back-seat cushion, the backrest and the corresponding side trim have been removed.

Rear spoiler

The rear spoiler is secured by means of two screws through the boot lid. The rear spoiler is fitted with a brake light fitting with three bulbs.

Hydraulic system checking procedure

Failures in the hydraulic system can be caused by lack of hydraulic fluid, leaks in the hydraulic system, air in the lines or blockages in the hydraulic lines. Always operate the cylinder at the full hydraulic pressure and check for leaks.

Side spoiler

To remove

- 1 Remove the back-seat cushion and backrest.
- 2 Release the two front mountings of the spoiler from the inside of the car.



- 3 The wing nuts retaining a wire running through a tube up to the rear end of the spoiler are accessible through holes cut in the boot trim at the hinges. Remove these wing nuts and the spoiler can then be removed.

N.B. The spoiler is also secured to the lid with tape.

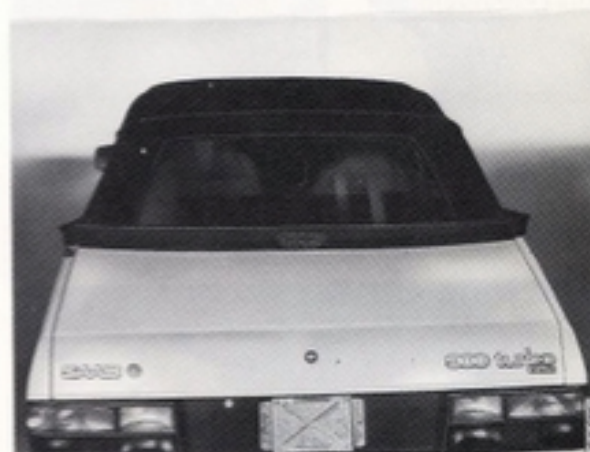
Assemble in the reverse order.



Rear spoiler

To remove

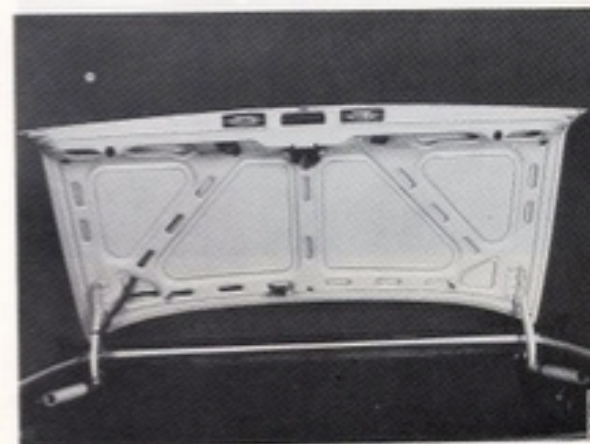
- 1 Disconnect the connector to the brake lights from the inside of the trunk lid.



- 2 Remove the nuts on the retaining screws and lift off the spoiler.

N.B. The spoiler is also secured to the lid with tape.

Assemble in the reverse order.



812-18 Top stack

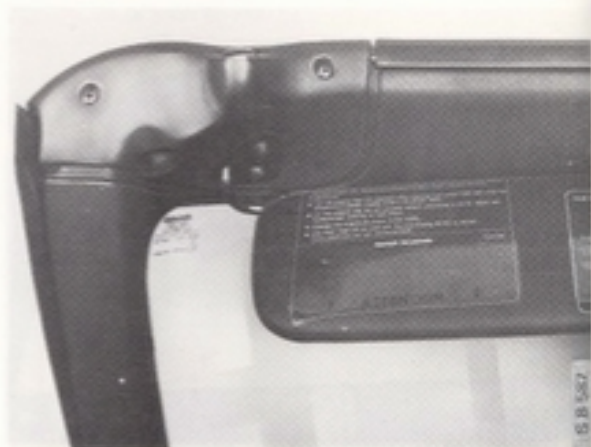
To replace the weather strip on the A pillar

The strip is glued to the holder which is secured to the A pillar by means of screws.

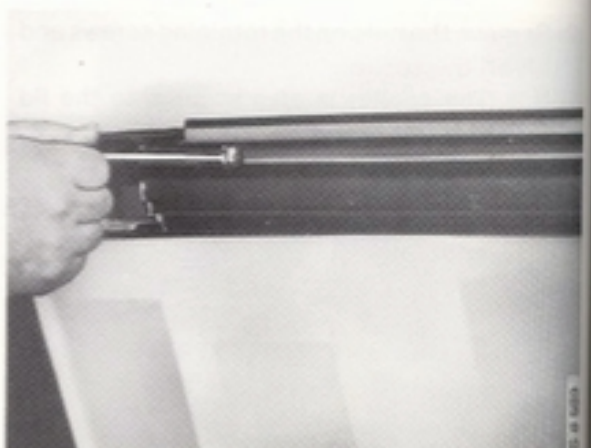


To remove the strip at the top of the windscreen frame

Remove a sun visor, the corner plate (four screws) and the sun visor support. Remove the rear-view mirror (two screws in the base), disconnect two electric cables and remove the support for the other sun visor.



Remove the nuts retaining the cover strip.



To remove the headliner from the top

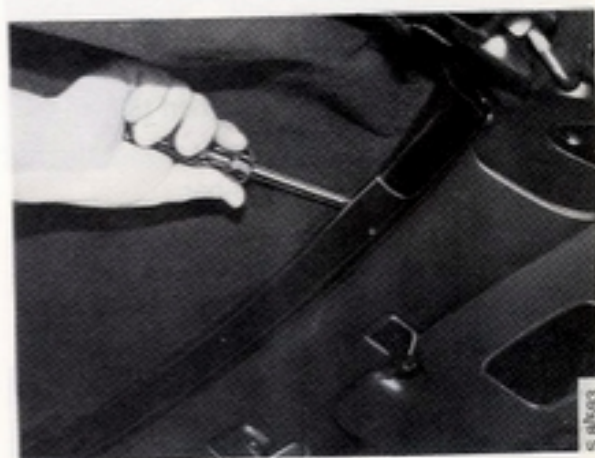
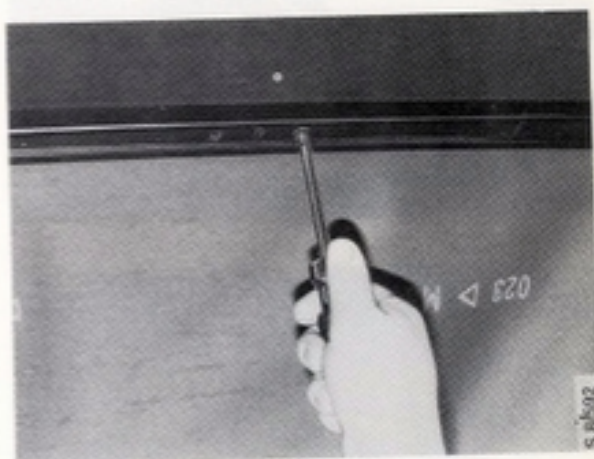
The top must be in the raised position.

- 1 Unzip the rear window and lower it. Release the snap fasteners that retain the top fabric at the rear.
- 2 Release the cross-recess screws retaining the strip for the rear cross-bar (No. 4 cross-bar). Pull away the tape retaining the fabric.

- 3 Let the top drop down and continue with the next cross-bar.

- 4 Remove the front strip and pull away the tape retaining the front edge of the top fabric.

- 5 Remove the No. 2 cross-bar.



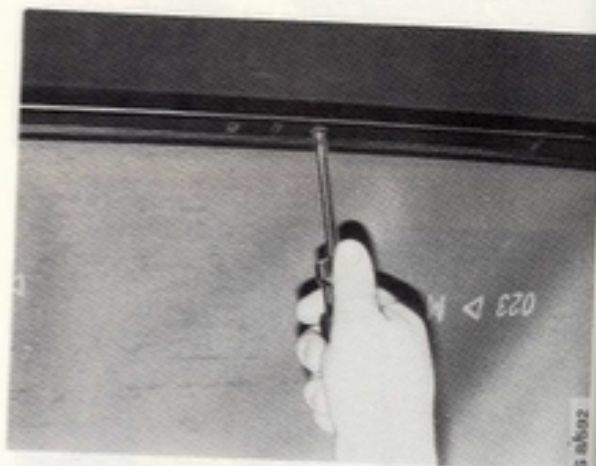
812-20 Top stack

To fit

NOTE

The screws for the two centre cross-bars are fitted into a strip in a V-shaped rail. Ensure that the screws engage in the thread in the strip.

- 1 Secure the top to No. 2 cross-bar but don't tighten the screws hard.



- 2 Secure the top at the front edge (make sure that it is centred sideways). Secure the sheet metal strip with the screws.



- 3 Pull No. 2 cross-bar towards the rear of the car to tension the fabric. Then tighten the screws.

- 4 Fit and secure No. 3 cross-bar.

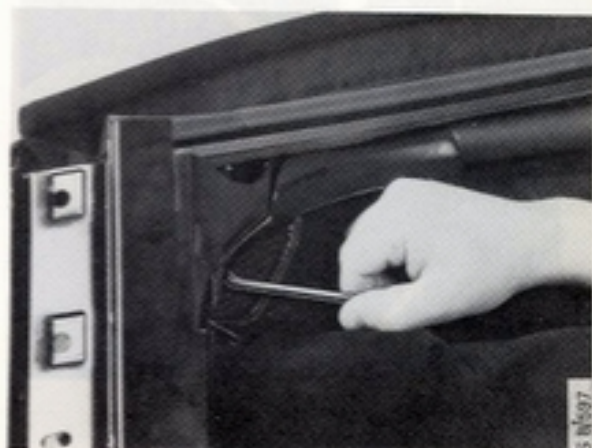
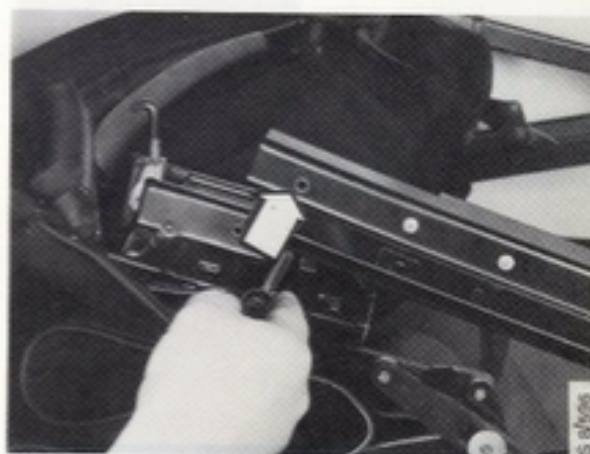
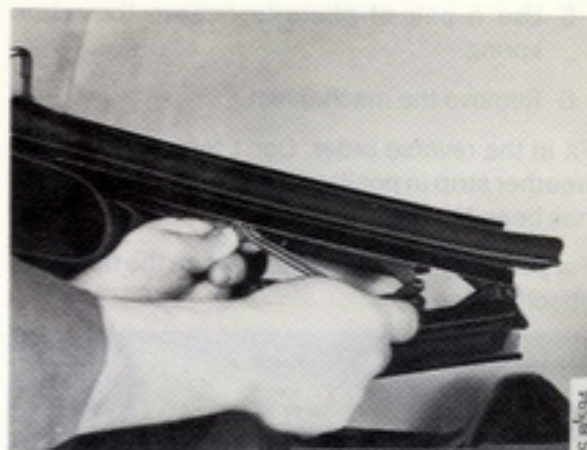
- 5 Tape the top at the rear edge (No. 4 cross-bar), fit the sheet metal strip and tighten it. Secure the strap for the rear window by means of the centre screw.

- 6 Raise the rear window and zip it up.



To change the latch mechanism at front

- 1 Open the top almost fully. Remove the two screws retaining the front weather strip and place the strip on the top. The glued joint must be broken.
- 2 Release the front rail by removing two nuts and a cross-recess screw.
- 3 The socket-head screw retaining the joint of the mechanism is not accessible from the outside. Remove a cross-recess screw at the front edge of the bottom part.
- 4 The screw retaining the locking handle can be removed from the underside, between the fabric and the corner itself.



812-22 Top stack

- 5 Use a pair of pliers to remove the return spring.
- 6 Remove the mechanism.

Fit in the reverse order. Don't forget to glue the weather strip in position if any of the glued joints has been broken.

For particulars of the adhesive, see the technical specification.

To change the latch mechanism at front
1. Open the top almost fully. Remove the two
screws retaining the front weather strip and
place the strip on the top. The glued joint
must be broken.



S 31/506

To change the top, with the rear window and mechanism

To remove

Remove the headliner. (See separate description).

- 1 Remove the three parts of the spoiler (see separate instruction).
- 2 Remove the strip over the top fabric at the rear.

- 3 Remove the staples retaining the top fabric on the plastic strip.

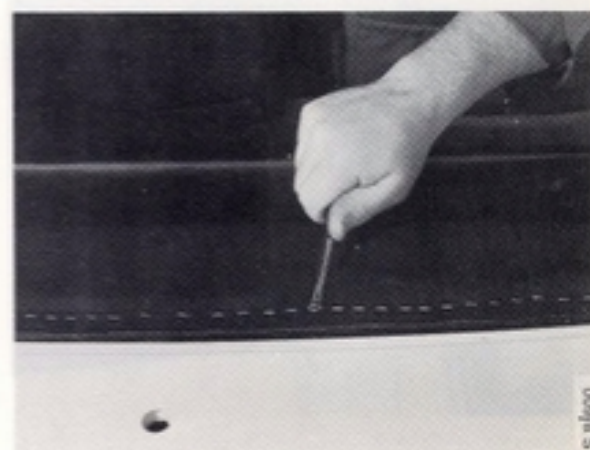
- 4 Disconnect the connectors from the rear window, remove the connectors and withdraw the cables from the fabric. Remove the rear window.

- 5 Unhook the rear retainer for the top fabric. The hook can be suspended on the edge of a bracket on the inside of the side panel.

- 6 Lift up the front edge of the top and release the strip at the front edge and the weather strips on the sides, with the strip holder.

- 7 Remove the centre and rear weather strips with the strip holders.

- 8 Remove the split pins in the top mountings of the hydraulic cylinder. Remove the pivot pins.



812-24 Top stack

- 9 Release the lower anchorage of the hydraulic cylinders and let the hydraulic cylinders drop down.
- 10 Use a felt pen to mark the washer positions in the mounting screws, to facilitate the fitting of the new top.

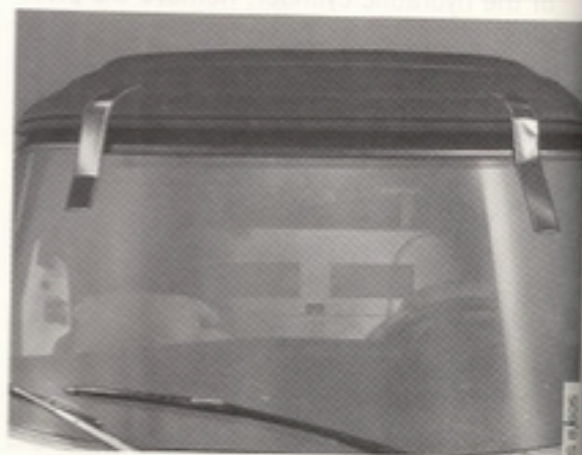
For instructions of the adhesive, see the technical specifications.



- 11 Release the top, disconnect the electric cables and lift out the top. You'll need an assistant to lift the other side.

To fit

- 1 Place the new top in position and secure it by means of the screws. Fit the screws into the appropriate places in accordance with the marking.
- 2 Fit the spacer pins (part No. 82 92 492) at the front and secure the front edge, e.g. by means of tape.



- 3 Pull the spring hooks in the sides up with a piece of steel wire or pliers and hook them onto the top fabric.

NOTE

Cover the boot lid to protect it from damage.

When stapling, use short staples for one layer of fabric and long staples for two or more layers.

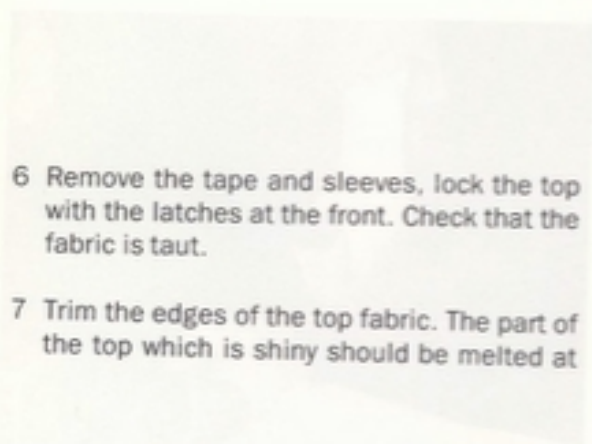
- 4 Tension the fabric towards the rear and ensure that the marking in the centre of the top fabric is in the centre of the car. To achieve good results, you'll need an assistant, to be able to tension the fabric on both sides. Secure the fabric by means of staples at three points. For particulars of the staples, see the technical specification.

- 5 Continue with the tabs on each side of the rear window and staple them. Staple a layer on the right-hand side and then the corresponding layer on the left-hand side, etc. Space the staples about 2 cm apart. Staple the sides at the rear.



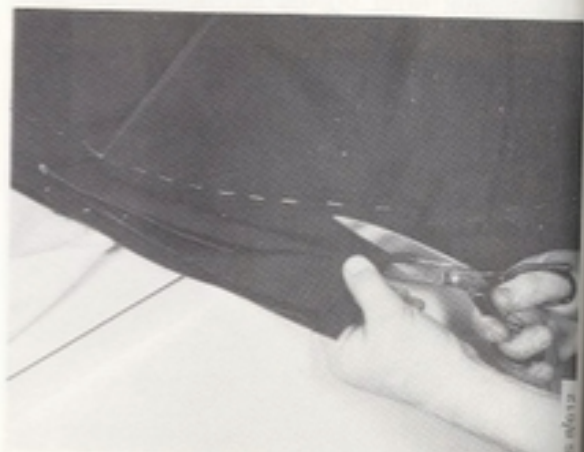
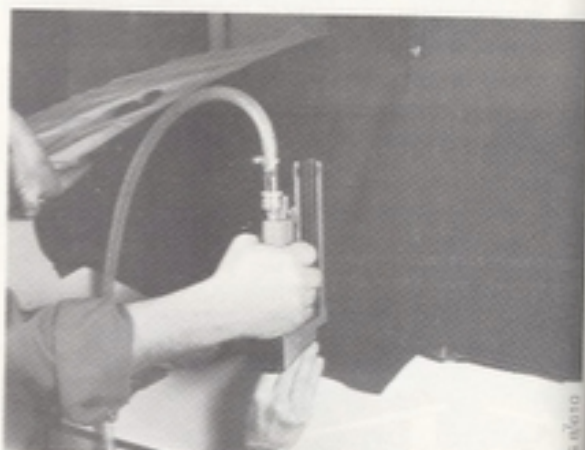
5 Release the lower discharge of the hydraulic cylinder and let the hydraulic cylinder come down.

12 Use a felt pen to mark the washer positions on the retaining screws, to facilitate the fitting of the new top.



6 Remove the tape and sleeves, lock the top with the latches at the front. Check that the fabric is taut.

7 Trim the edges of the top fabric. The part of the top which is shiny should be melted at



the edge to prevent fraying. Use a soldering iron. Secure the strip at the rear window by means of screws.



8 Raise the top and fit the weather strips for the windows and connect the electric cables to the rear window.

9 Connect the hydraulic cylinders and raise and lower the roof several times to check the fit and the performance.

10 Fit the headliner (see separate description).

11 Fit the spoiler sections. See separate instructions.

To change the rear window

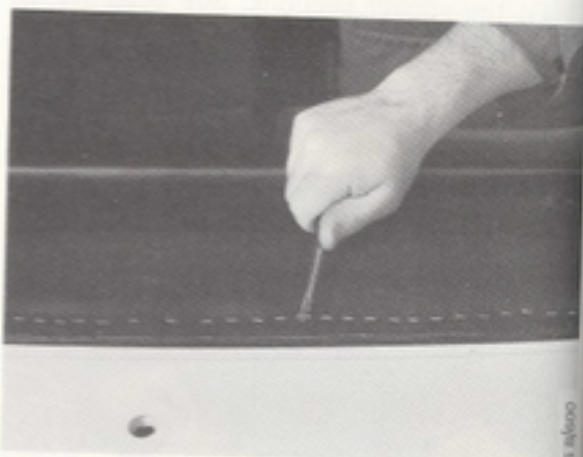
To remove

Remove the three spoiler sections (see separate instructions page 812-16).

- 1 Remove the strip over the fabric.
- 2 Remove the staples retaining the bottom edge of the window section.
N.B. Some of the staples retaining the side fabric must also be removed.
- 3 Release the zip fastener. Disconnect the connectors from the rear window, remove the connectors and withdraw the cables from the fabric. Remove the rear window.

To fit

- 1 Place the spacers 89 92 492 in the holes in the windscreen frame and secure the front edge with tape.



- 2 Cover the boot lid to protect it against damage.
- 3 Fit a new rear window in position and zip it up. Run the electric cables to the rear window, connect the connectors to the window cables, and connect the window to the electrical system of the car.
- 4 Tension the fabric and ensure that the marking at the bottom edge of the rear window is in the centre of the car. You will need an assistant for tensioning the top on both sides. Secure the fabric with 3-4 long staples in the centre.
- 5 Continue with the tabs on each side of the rear window and staple them in place. Staple a layer on the right-hand side and then the corresponding layer on the left-hand side, etc. Space the staples 5 - 10 mm apart. Staple the side at the rear.
- 6 Remove the tape and the spacer sleeves, and latch the front of the top to the windscreen cross-member. Check that top is correctly tensioned.
- 7 Trim the edges of the top. Secure the strip at the rear window.

Fit the spoiler sections.



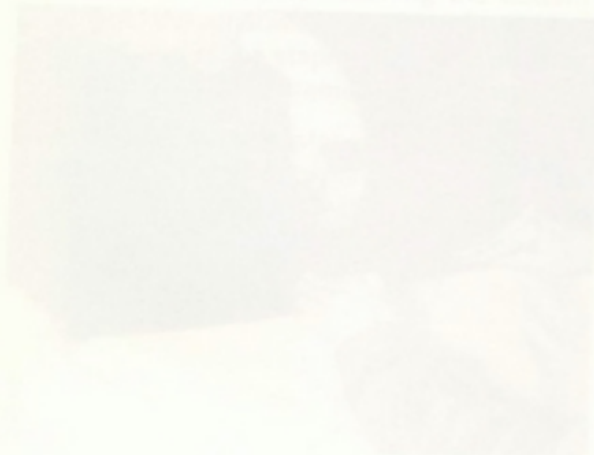
Top

To change the top fabric

The spoiler sections must first be removed, see separate instruction page 812-16.

- 1 Remove the sealing strips at the front on both sides by removing the screws. Remove the sealing strip at the front edge of the top and the sealing strips at the sides. Carefully release the glued joints.
- 2 Release the glued joint securing the strip to the front edge of the top. Then remove the staples retaining the plastic strip and release the lower glued joint.

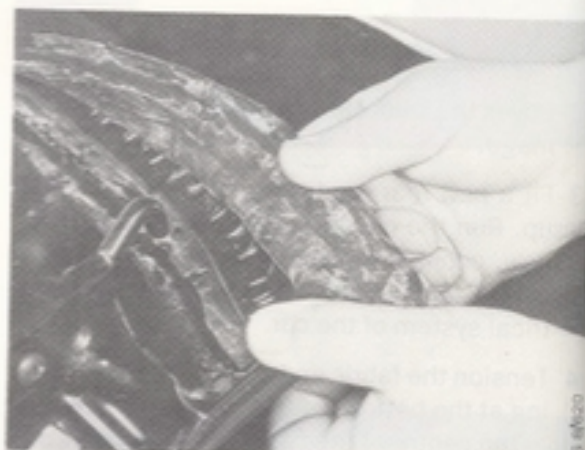
Remove the staples retaining the bottom



To fit

Place the sections 812 422 and 812 423 in the window frame and secure the front edge with tape.

- 3 Remove the top fabric. The fabric is glued and is secured with a number of staples on each side. Release the tabs on the sides.



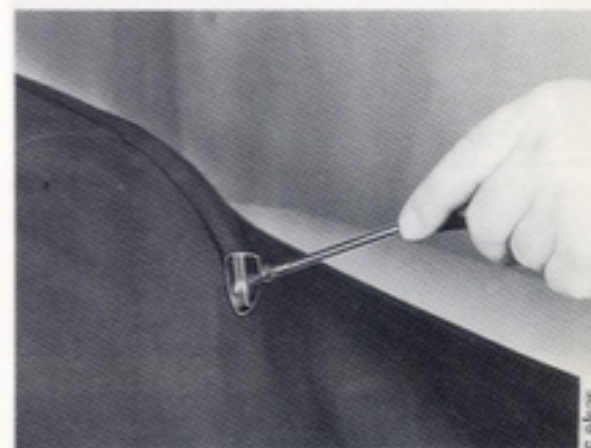
- 4 Raise the top and release the cable mountings at the front of the sides.



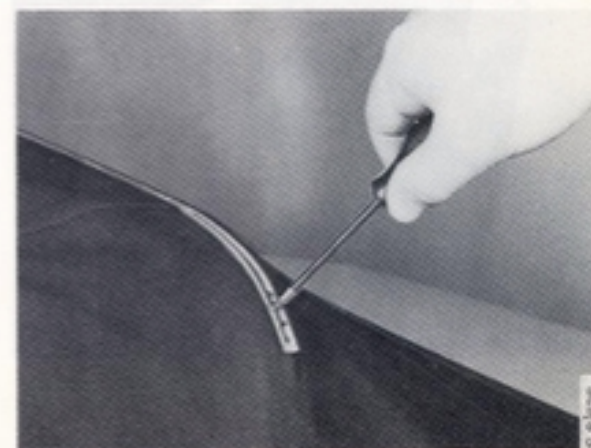
- 5 Release the glued joint retaining the top fabric on the rear rail of the mechanism.



- 6 Unhook the wire hooks retaining the top fabric on the inside of the side panel. Withdraw the cable and let it hang in its mounting in the mechanism.



- 7 Release the end pieces for the strip over No. 4 cross-bar and pull off the protective strip from the top.



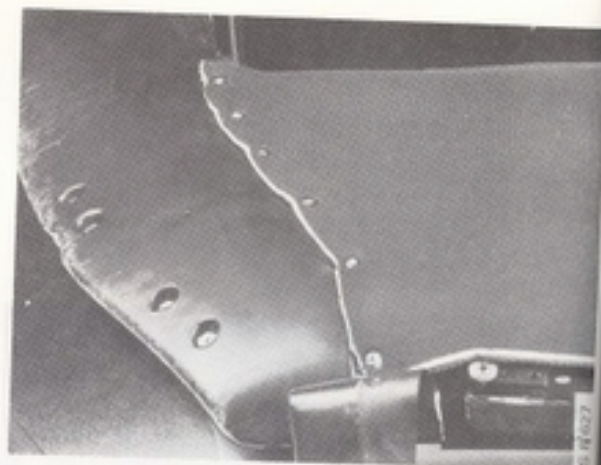
- 8 Remove the screws retaining the metal strip. Remove the staples under the strip.

- 9 Remove the staples at the rear and sides and lift off the fabric top.

812-32 Top stack

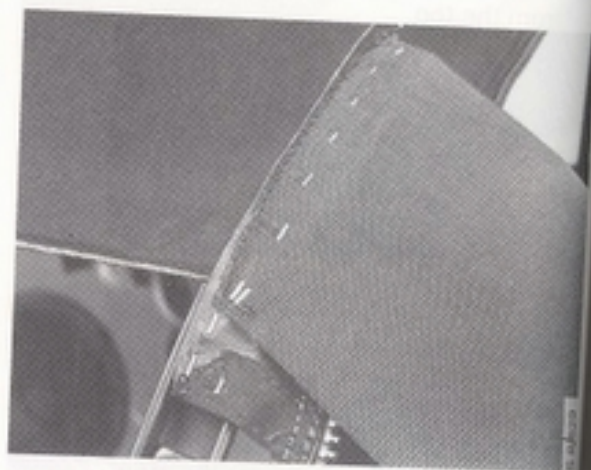
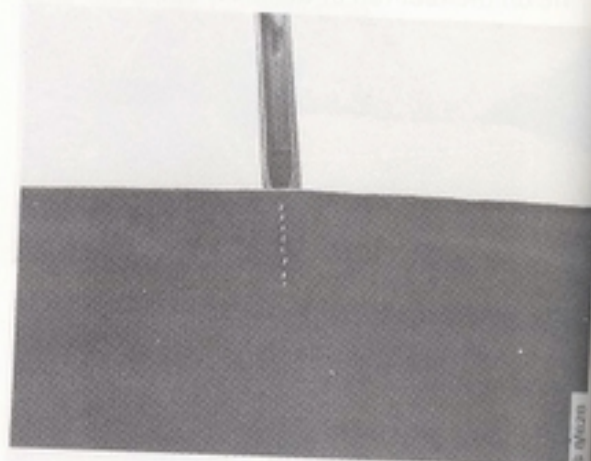
To change the side pieces (Top removed)

- 1 Release the tape at the front edge and drill out the pop rivets.



- 2 Remove the staples in No. 2, 3 and 4 cross-bars. In No. 4 cross-bar, the side piece is under the fabric part which is at the extreme rear and also under one part of the zip fastener. These must first be released.

Fit in the reverse order.



To change the cross-bars

Top removed

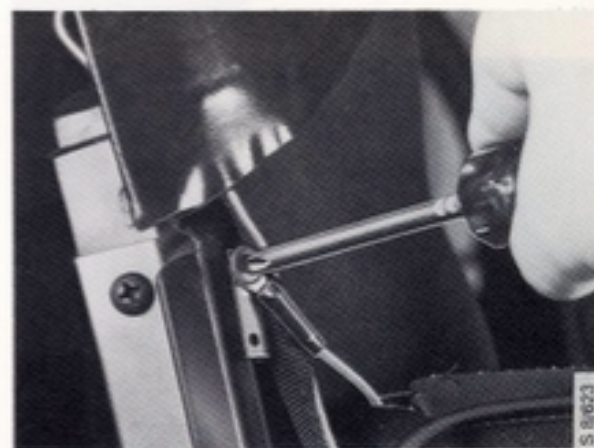
The front cross-bar is secured to the front edge of the mechanism by means of two screws. The fabric is pop-riveted to the ends of the cross-bar. The second cross-bar is secured by means of screws to the front rail. The fabric is stapled to a plastic strip.

The third cross-bar is secured by means of screws to the joints for the rear rail and the fourth cross-bar is secured by means of a stay to the mechanism. If this cross-bar is to be changed, the staples for the three layers of fabric must be removed. The cross-bar is provided with a plastic strip.

To fit the top fabric

- 1 Place the top fabric over the cross-bars and secure the strip to No. 2 and 3 cross-bars.

- 2 Raise the top slightly and secure the two cables to the sides.

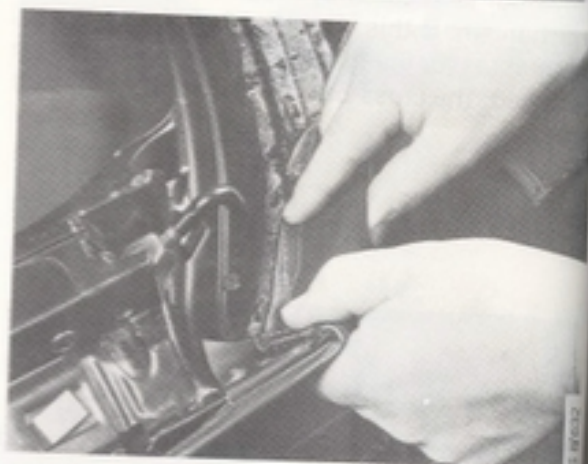


812-34 Top stack

- 3 Tension the top forward and centre it sideways by pulling down the side panels so that they are both at the same level.



- 4 Lift off the top and apply adhesive to the underside of the front cross-bar. Secure the fabric around the front edge.



- 5 Fit the strip at the front edge and staple it in place. The correct location of the strip is important from the appearance aspect.



- 6 Apply adhesive and place the fabric edge on it.



- 7 Fit the spacers to the front edge and let the top rest on them. Tape the top to the windscreen. Check that the top is centred and that the fit at the flaps on the sides is good.



- 8 Glue the edges to the rear rail on both sides.



Stapling

NOTE

Cover the boot lid to protect it from damage.

When stapling, use short staples for one layer of fabric and long staples for two or more layers.

- 9 Tension the fabric towards the rear and ensure that the marking in the centre of the top fabric is in the centre of the car. To achieve good results, you'll need an assistant, to be able to tension the fabric on both sides. Secure the fabric by means of staples at three points. For particulars of the staples, see the technical specification.
- 10 Continue with the tabs on each side of the rear window and staple them. Staple a layer on the right-hand side and then the corresponding layer on the left-hand side, etc. Space the staples about 2 cm apart. Staple the sides at the rear.





S 81606



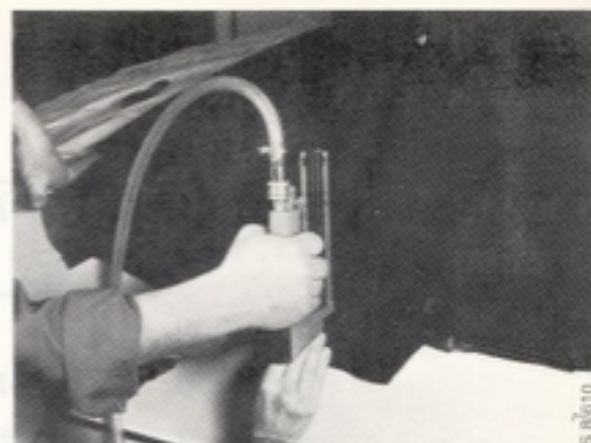
S 81607



S 81608



S 81609



S 81610



S 81611

12 Trim the edges of the top fabric. The part of the top which is shiny should be melted at the edge to prevent fraying. Use a soldering iron. Secure the strip at the rear window by means of screws.



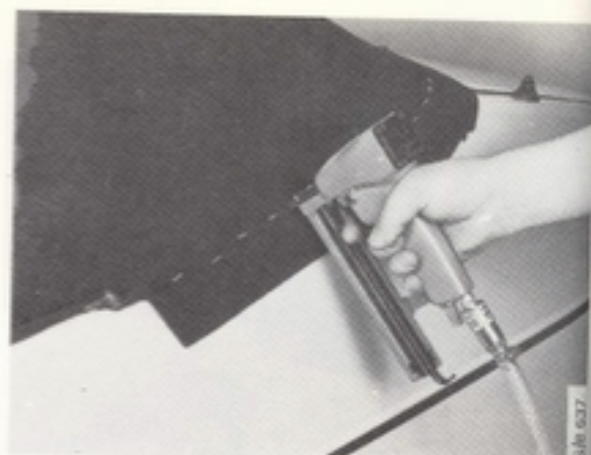
S 81612



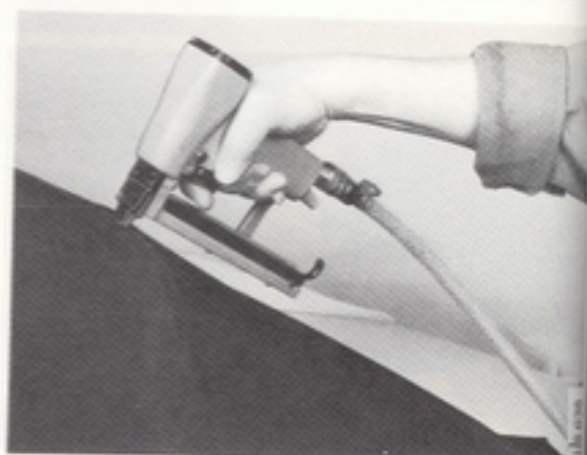
S 81613

812-38 Top stack

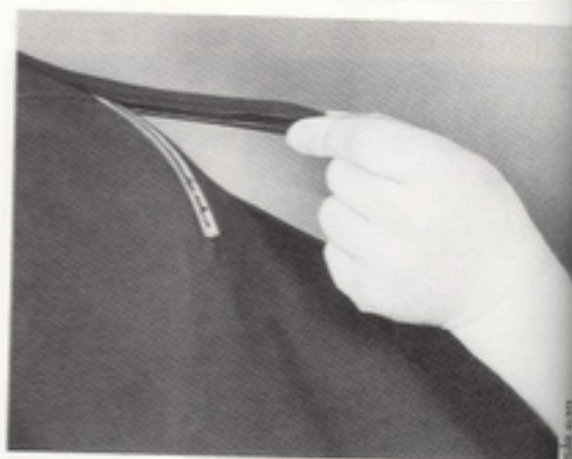
Staple the rear of the top so that it is as taut as possible.



- 13 Staple the fabric to the fourth cross-bar.



- 14 Screw the metal strip to the fourth cross-bar and fit the decorative strip.



- 15 Remove the spacers and close the top. Check the fit. Mount the sealing strips and the spoiler sections.
- 16 Cut off the rear edge and mount the decorative strip.
- 17 Mount the sealing strips and the spoiler sections.

Tools



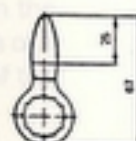
Oscillating cutting machine

Fein part No.

ASTLXE 636-5

Quantity

1



Trimming knife

6 39 03 073 01 1

2



Knife, 24 mm

6 39 03 076 01 6

2



Knife, 36 mm

6 39 03 079 01 2

2



(45) 30 14 123 Pneumatic adhesive gun for use with adhesive cartridges. Pressure adjustable between 0 and 10 bar.



(45) 30 14 107 Glass suckers for lifting window glass. Set of two.

Protective equipment

Wear rubber gloves and protective goggles when using the adhesive and chemicals.

Sheet metal and paintwork repairs

Due to the risk of corrosion attack, the adhesive must not be applied to unpainted sheet steel. If the paint has been removed from the sheet steel flange or if a sheet steel part has been replaced, the flange must be painted so that good adhesion will be obtained between the steel and the paint. Follow the instructions in Group 8, section 890 of the Service Manual, entitled "Recommendations for body repair spraying".

To change the glued windscreen

The windscreen is glued to the flange in the windscreen opening. This improves the strength and rigidity of the body.

A special polyurethane adhesive is used for glueing the windscreen. For strength reasons, this must not be replaced by any other type of glue or by tape.

Spacers for fitting the windscreen in position are taped to every new windscreen supplied.

The external decorative strip is produced in the form of a ring. It is held in position by means of a plastic retaining strip secured to the edge of the windscreen.

Materials

Adhesive, cleaning agent and primer are available as spares (spares type 45) in kits that are sufficient for one windscreen.

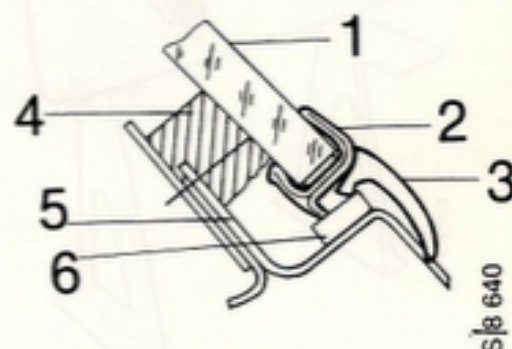
Note

Only the adhesive, cleaning agent and primer supplied as genuine spares have been tested and approved.

To change the windscreen

The space between the edge of the windscreen and the body is covered by a decorative strip which is kept in position by a strip retainer.

The decorative strip and its retainer must first be removed before the adhesive can be cut to remove the windscreen.



- 1 Windscreen
- 2 Strip retainer
- 3 Decorative strip
- 4 Adhesive
- 5 Body flange
- 6 Spacer

To remove the windscreen

- 1 Use a screwdriver to remove the strip retainer joint pieces in the bottom corners.

Sheet metal and paintwork repairs

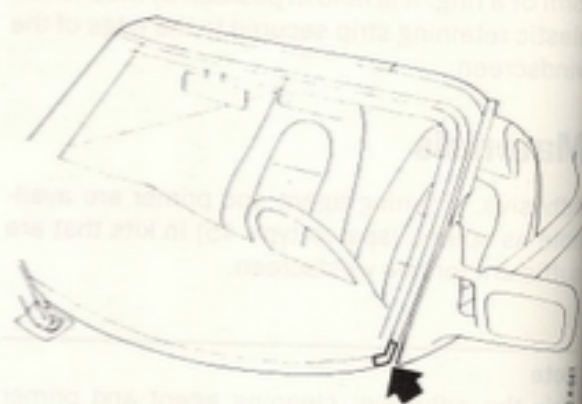
Due to the risk of corrosion attack, the adhesive must not be applied to untreated sheet metal. A light zinc treatment is sufficient to prevent this. The zinc treatment must be applied to the entire surface of the sheet metal. The zinc treatment must be applied to the entire surface of the sheet metal. The zinc treatment must be applied to the entire surface of the sheet metal.

- 2 Remove the decorative strip.

- 3 Tape the edges all round to avoid damaging the paintwork.



- 4 Lift out and remove the strip retainer.
- 5 Cut away the windscreen.
 - Start with a 24 mm long knife.
 - Start the machine and insert the knife through the bead of adhesive.

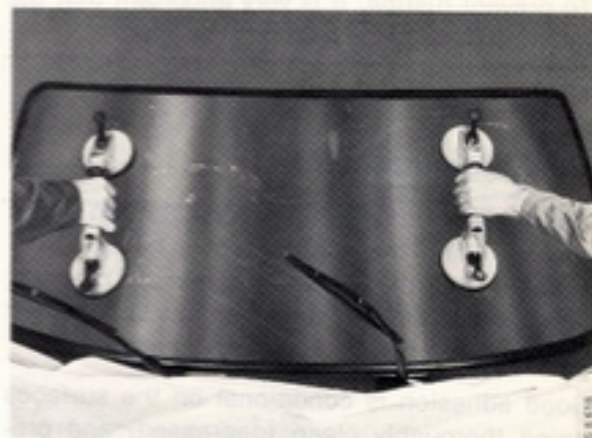


- Move the machine clockwise and cut away the adhesive all round.
If the windscreen is not released, it may be necessary to cut again, using the 36 mm long knife.



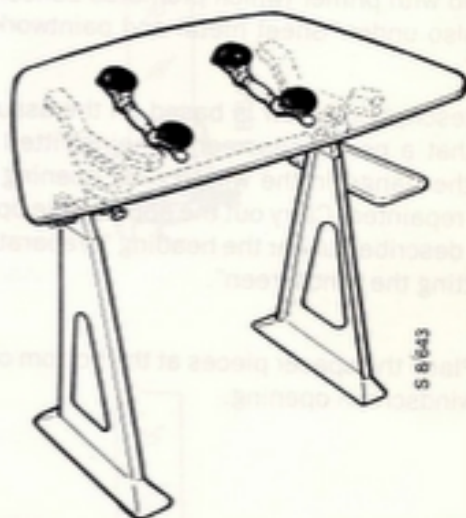
- 6 Fit the lifting handles and remove the windscreen. Note the locations of the handles.

- 7 Remove the protective tape from the body.



Preparations for fitting the windscreen

- 1 Fit the lifting handles to the outside of the windscreen and place it on a stand, with the inside up.



- 2 Cut down the bead of adhesive on the windscreen flange and on the windscreen (if it is to be refitted) to a maximum height of 2 mm, using the trimming knife.



Note

Old adhesive which adheres firmly provides a good anchor for the new bead of adhesive. Any loose adhesive on the paintwork and windscreen must be removed. Wash the surface with cleaning agent and apply the primer.

- 3 Touch up any paintwork damage that will be concealed by the decorative strip.

Note

To prevent rusting, it is very important that the paintwork should be in good condition.

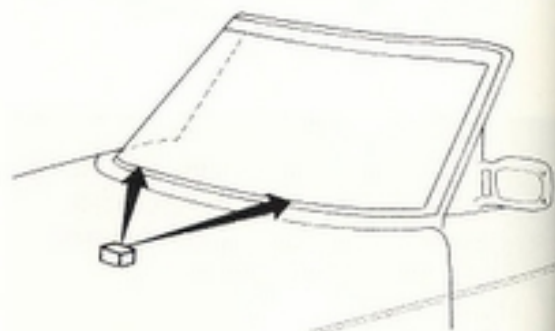
To fit the windscreen

The car must be standing on its wheels on a level surface when the windscreen is being fitted. Note that only the adhesive, primer and cleaning agent in the genuine spares kit has been tested and approved for fitting the windscreen.

Good adhesion is conditional on the surfaces being thoroughly clean (degreased) and pre-treated with primer (which promotes adhesion). See also under "Sheet metal and paintwork repairs".

The description below is based on the assumption that a new windscreen is being fitted and that the flange in the windscreen opening has been repainted. Carry out the appropriate operations described under the heading "Preparations for fitting the windscreen".

- 1 Place the spacer pieces at the bottom of the windscreen opening.



- Carefully wash the edge of the windscreen and the flange in the opening with cleaning agent. Wet the surface thoroughly with a piece of cloth and then wipe it dry with another piece of cloth.

Note

Fatty residues will remain if the cleaning agent is allowed to dry naturally. Always use clean, lint-free cloth. Turn the cloth frequently and take a new piece of cloth for every object.

- Apply primer to the edge of the windscreen and the flange in the windscreen opening. See the description in item 5.

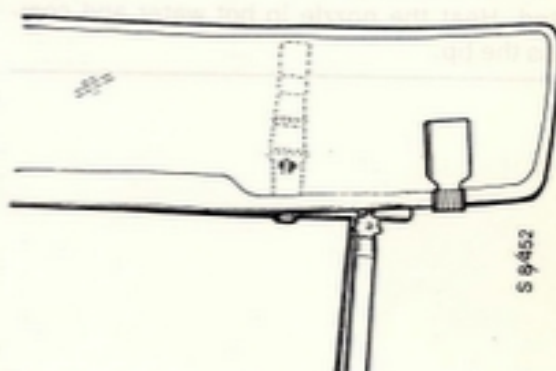
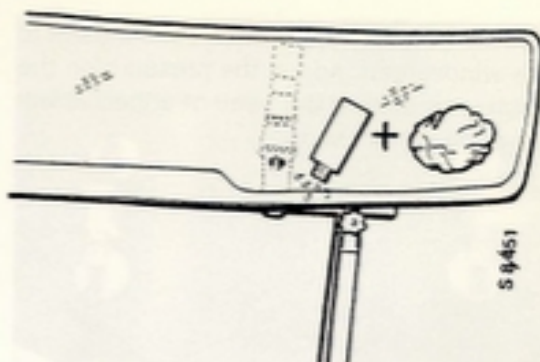
- Fit the strip retainer.

Note

The decorative strip can be fitted with the windscreen in position, but it is an advantage to be able to adjust the height of the windscreen by means of the strip.

Note

Press the strip into place (don't use a mallet to hammer it into place) so that the sealing compound in the strip will seal correctly.



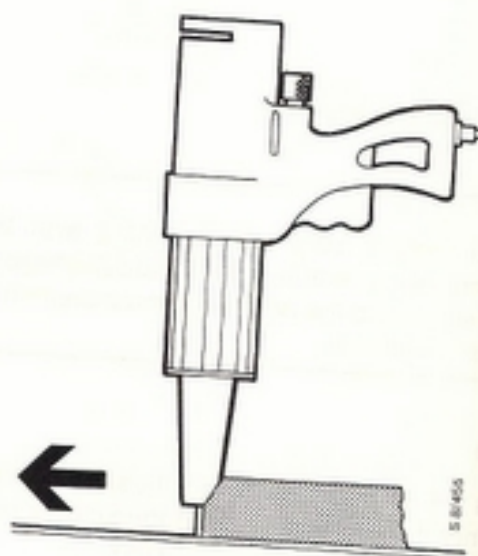
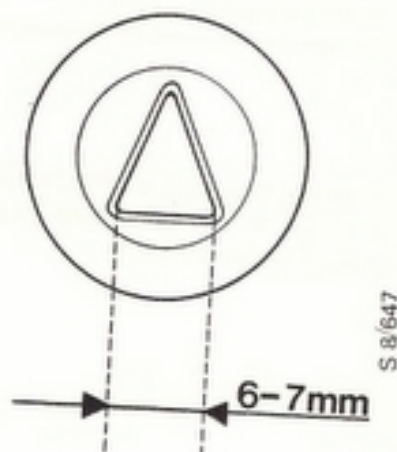
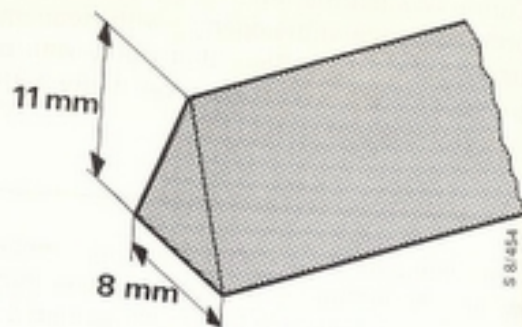
- 5 Use the nozzle to apply a bead of adhesive to the windscreen. Adjust the pressure on the applicator so that the bead of adhesive will have the correct shape.

Note

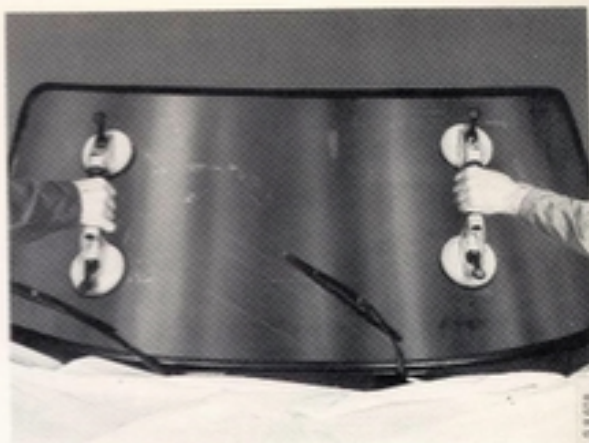
The width of the applicator nozzle must be adjusted. Heat the nozzle in hot water and compress the tip.

- Hold the nozzle at right angles to the windscreen and apply the bead of adhesive along the edge of the strip retainer.

Check that there are no gaps in the bead of adhesive.



- 6 Fit the windscreen into place and check that the decorative strip is correctly in position. Press down the windscreen so that the decorative strip is in contact with the body all round.



Hardening and leakage testing

Hardening is accelerated by moisture and heat. Tightness testing can therefore be carried out immediately after fitting. It is advantageous if fitting of the windscreen is planned so that the car can be left undisturbed overnight. The adhesive will then have a longer time to harden, which is particularly important in the winter.

The car can be moved after about two hours.

Tightness testing and sealing of any leakage

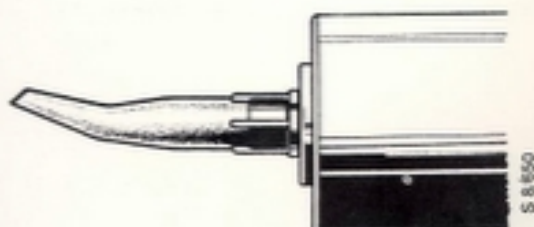
- 1 Raise the decorative strip slightly at the centre of the top edge and pour in some water.



- 2 Check from the inside of the car that no water leaks in.

- 3 Seal any leakage from the inside.

- Bend a tipped standard nozzle.
- Inject the adhesive and smooth it out with a piece of wood (dip the piece of wood in soapy water, so that the adhesive will not stick to it).



Cleaning

Petrol (gasoline) is recommended for removing residues of adhesive.

Note

Take care when cleaning the inside of the windscreen, so that you will not disturb it before the adhesive has set.

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