Aufbau
Body
Carrosserie
Carrozzeria

PORSCHE

Workshop-Manual

914
914/6

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This publication contains the essential removal, installation and adjustment procedures for the Porsche 914-914/6 vehicles sold in the USA and Canada.

Components and procedures described in this manual are identical for both types unless differences are pointed out in the text.

It is assumed that the reader is familiar with basic automotive repair procedures. Special tools required in performing certain service operations are identified in the manual and recommended for usw. Use of tools or procedures other than those recommended in this repair manual may be detrimental to the vehicle's safe operation as well as the safety of the person servicing the vehicle.

The Porsche 914 - 914/6 Workshop Manual is divided into 8 volumes. The volumes are subdivided into 10 Main Groups as follows:

1st Volume	Engine and Clutch - 914	Main Group No. 1
2nd Volume	Fuel System - 914	Main Group No. 2
3rd Volume	Engine and Clutch - 914/6	Main Group No. 1
	Fuel System - 914/6	Main Group No. 2
4th Volume	Transmission	Main Group No. 3
5th Volume	Front Axle	Main Group No. 4
	Rear Axle	Main Group No. 5
6th Volume	Brakes, Wheels, Tires	Main Group No. 6
	Pedal System and Levers	Main Group No. 7
	Maintenance, Specifications	Main Group No. 0
7th Volume	Body	Main Group No. 8
8th Volume	Electrical System	Main Group No. 9

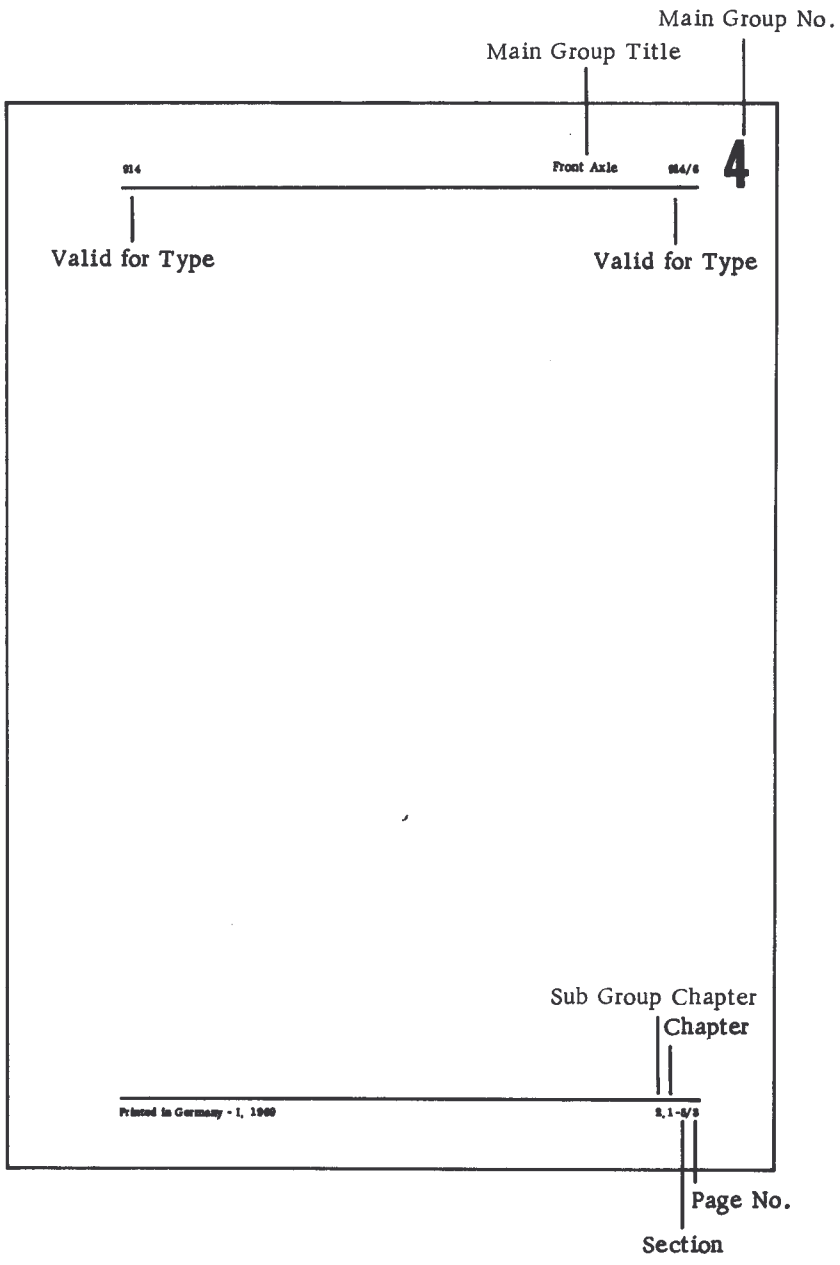
The binders have a transparent plastic pocket on the spine into which the appropriate volume title can be inserted.

To find the individual repair operations, each main group is subdivided into "Chapters" and "Sections". Every main group is provided with a very detailed table of contents. Refer to example on next page.

The repair operations described in this Workshop Manual are based on the Type 914 vehicle. Repair operations which apply to Type 914/6 vehicles are described separately. The type vehicle to which the repair operation applies is given on the top left or right of the page.

When certain repair operations are similar for both type vehicles, the procedures are described together and the minor differences for the 914/6 emphasized by notes and remarks.

XVI, 1974
USA/CAN



Technical Information

The "Technical Information" pages which are published from time to time should be filed in chronological order at the beginning of the respective Main Groups of the Workshop Manuals.

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4.1 Doors

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DESCRIPTION OF BODY

The two-door unitized body of Type 914 is provided with an integrated roll bar and a detachable roof panel made of glassfiber-reinforced vinyl.

The body is subdivided by bulk heads into the front luggage compartment, the compartment for the fuel tank, passenger compartment, engine compartment and rear luggage compartment.

The body consisting of side and cross beams, bulk heads and door pillows, front and rear side members (fenders) and the roll bar is welded to the frame to form a unitized body.

The front and rear panels as well as side member panelling and the bumpers are made of steel sheet and bolted on.

The rear luggage compartment and the engine compartment have individual lids, the front luggage compartment and the compartment for the fuel tank have a common lid.

LIDS

The lid for the front luggage compartment is attached by concealed hinges. It is held open by two springs and sealed by a weather strip. The rotary latch with hook lock is opened by a wire pull with its lockable grip on the left side under the dash board. The engine compartment lid is attached by concealed hinges and is not sealed. A rotary latch is opened from the inside by a wire pull. The handle is at the left rear door post. The lid is provided with a grille permitting the entry of cooling, heating and combustion air to the engine. A water trap plate is placed under the grille. The lid for the rear luggage compartment is also provided with concealed hinges and held open by two torsion bar springs. The lid is sealed by weather stripping and provided with a snap lock.

DOORS

The doors are attached to the front pillars by adjustable concealed hinges. The opening angles are restricted by door check rods.

The doors can be locked from inside by depressing the safety latch. If the doors are to be locked from the outside without using the key, the safety latch should be pressed in and the outside door handle pulled when closing door.

Both doors can be opened and closed from the outside by a key.

WINDOWS

The undivided, curved windshield of double-layer safety glass is mounted to the body by a single bonded rubber seal. The flat rear window is made of single-layer safety glass and is also bonded. An electrically heated rear window is available as an optional extra. Doors are provided with fixed curved triangular windows. The movable windows are slightly curved and have no frames.

SEATS

The driver's seat is a bucket seat with attached headrest. The seat frame is of a uni-mold construction made of glass fiber reinforced vinyl. The upholstery is foam molded. The seat cushion is removable.

The seat is adjustable forward and back, sliding on rails by approximately 160 mm (41.73 in.). In addition a three position height adjustment can be made.

The non-adjustable, wider passenger seat is of the same construction as the driver's seat with a removable seat cushion. The combined back rest - head rest is recessed in the rear cross section of the passenger compartment.

The console between the seats is provided with a shelf.

HEATING SYSTEM

The vehicle is equipped with a fresh air heater. The fresh air is heated by heat exchangers. The heat flow is generated by the engine fan or the electric fan. During city traffic with low engine speed, the electric fan supplies fresh air for the heater, at higher speed only the engine fan supplies the air.

To operate the heater pull the lever with the red handle between the front seats up. In fully raised position an electric contact starts the electric fan.

The red lever in the center of the dashboard controls warm air supply by an air distributor to the defroster outlets as well as to the outlet for the footwell.

An auxiliary gasoline heater is available for subsequent installation. This heater is gasoline operated and its fuel supplied by the fuel tank. The maximum heat output is 6300 BTU/hr. This heater can be operated independently from the engine.

FRESH AIR SUPPLY

The fresh air enters through louvers in the cowl panel. The air inlet is provided with a water separator. The air flow can be increased by a three-speed electric fan.

Fresh air is emitted from the combination heat and fresh air outlets at the windshield as well as the foot well, controlled by the upper lever on the dashboard. The two-chamber principle of the air distributor permits independent mixing of cold and warm air.

VENTILATION

The ventilation for the passenger compartment is provided through openings in the rear door pillars.

SOUND-PROOFING

For sound-proofing and insulation against outsinde temperatures, the vehicle underside is undercoated with a thermoplastic sound-proofing material.

The inner doors as well as the engine compartment are lined with bituminous board.

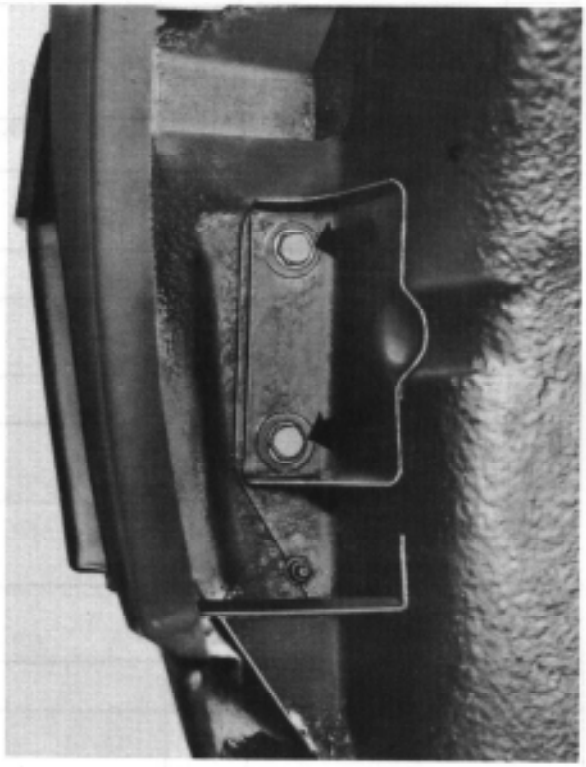
The rear wall of the passenger compartment is lined with a sound-proofing, foamed paneling with a recess for the back rest for the passenger seat.

Door panels and side panels are lined with foam-backed leatherette. The vehicle floor is lined with bonded fiber matting.

ROOF

The glassfiber-reinforced vinyl roof is attached to the windshield frame and the roll bar and held by snap locks. It can be easily removed and stored in the rear luggage compartment. The storage capacity of the luggage compartment is only negligibly effected.

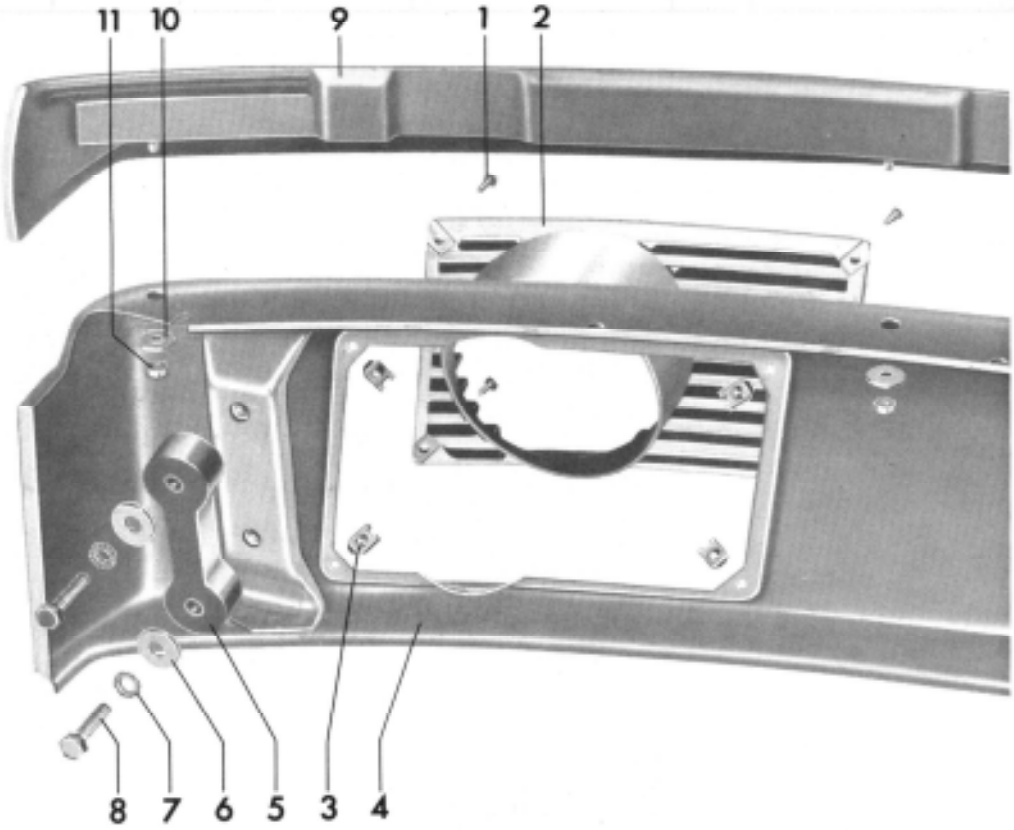
REMOVAL AND INSTALLATION OF FRONT BUMPER



Unscrew two hex. screws each from direction of wheel arch and remove bumpers.

During installation, a uniform spacing between the bumpers and the front overriders, as well as parallel alignment from bumper to front lid should be attained. Tighten hex. bolts only then. Do not forget washers and serrated disks.

DISASSEMBLY OF FRONT BUMPER

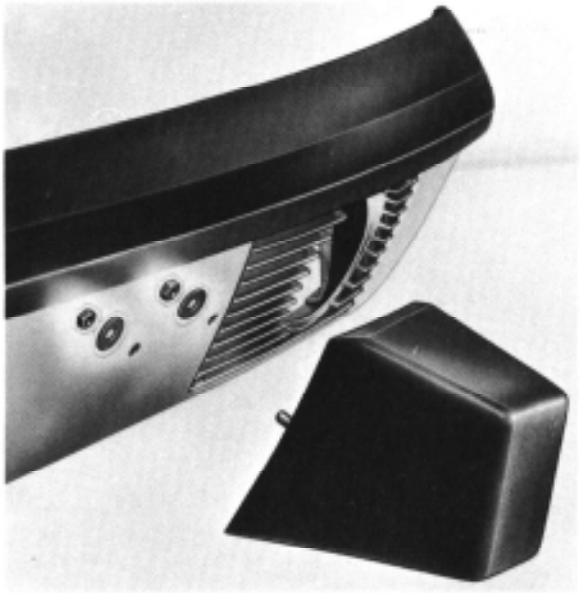


No.	Designation	Each	Observe during		Detailed Instr.
			Removal	Installation	
1	Sheet metal screw	8		Check and replace, if required	
2	Sound-absorbing grille	2			
3	Sheet metal nut	8		Check and replace, if required	
4	Bumper	1			
5	Shim	2		Check and replace, if required	
	End plate front	1			
6	Washer	4		Check and replace, if required	
7	Serrated disk	4		Check and replace, if required	
8	Hex. screw	4		Check and replace, if required	
9	Bead strip	1			
10	Washer	5		Check and replace, if required	
11	Hex. nut	5		Check and replace, if required, lubricate lightly	

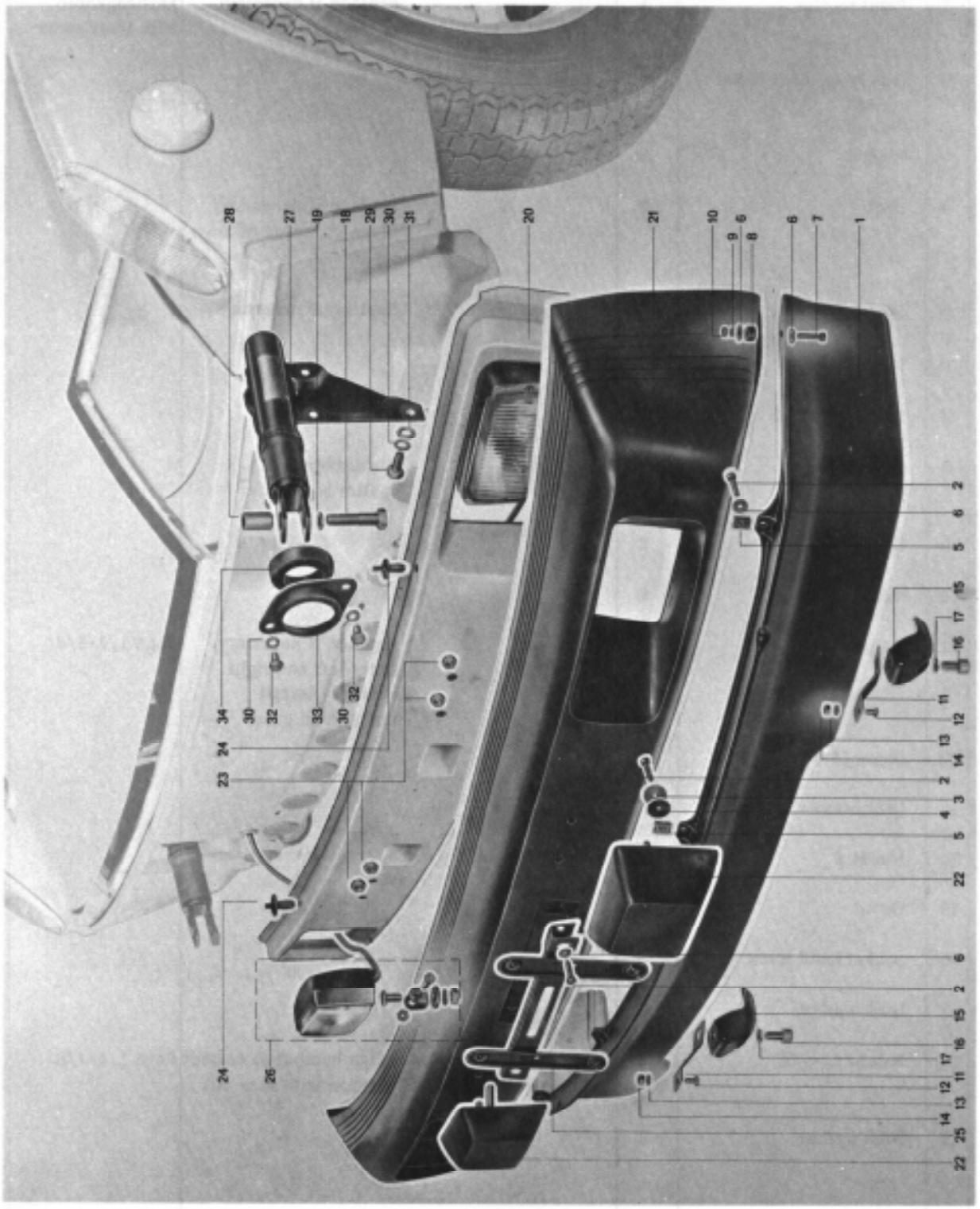
FRONT BUMPERS

Beginning with 1973 models the bumpers have energy-absorbing rubber horns that deform on moderate impact.

In addition, the forward body section is reinforced with a metal plate which is spot-welded to the front cross panel and side panels within the luggage compartment area.



FRONT BUMPER - 1975 MODEL



No.	Description	Qty.	Note when removing	Note when installing	Remarks
1	Front spoiler	1		Replace if necessary	Exchangeable with front apron
2	Hex head sheet metal screw	4	Remove from inside of cross panel		
3	Washer	2			
4	Seal	2		Replace if necessary; place on inside of cross panel	
5	Metal nut	4		Replace if necessary	
6	Washer	8			
7	Screw M 5 x 22	2			
8	Spacer	2		Place between spoiler and fender	
9	Lock washer	2			
10	Nut M 5	2			
11	Support	2		Replace if necessary; note: left and right versions; install underneath guard	Page 1.1-1/8
12	Screw M 6	2			
13	Lock washer				
14	Nut M 6	2			
15	Guard	2			
16	Socket head screw	2			
17	Lock washer	2			
18	Bolt M 12 x 55	2	Remove from below thru opening	Align bumper to correct position with mandrel	Page 1.1-1/8
19	Lock washer	2			

No.	Description	Qty.	Note when removing	Note when installing	Remarks
20	Bumper	1	Detach foam section at side of fender. Disconnect head-light plug connector. Remove bumper.	Install bumper with foam section, auxiliary head-lights, overrinders, and license plate holder.	Page 1-1-1/8
21	Foam section	1		Replace if necessary. Engage side on bumper.	
22	Overrider	2	Unscrew at rear of bumper.		
23	Nut M 8	4			
24	Rivet	4	Remove or chisel off.	Replace.	
25	License plate holder	1	Loosen metal screws with socket wrench.		
26	Auxiliary light with mtg. parts	2	Pull wire through cross panel. First loosen foam section at bumper.	Install on bumper with bumper installed. Check location, loosen side nut, if necessary.	Page 1.1-1/8
27	Impact energy absorber	2	Remove inner mtg. screws. Remove outer cover.	Replace if damaged. Install evenly on both sides.	
28	Spacer	2		Glue on absorber fork with sealant.	
29	Bolt M 10 x 18	6			
30	Lock washer	10			
31	Washer	6			
32	Bolt M 8 x 15	4			
33	Holder	2		Replace if necessary.	
34	Rubber bushing	2		Replace if necessary.	

Installation Notes

Install support underneath guard without tension, aligning if necessary. Install socket head screw and lock washer.
Torque to 4.9 mkp.

Pull foam section over bracket on fender, making sure that the foam section aligns with fender properly. Align bracket if necessary.

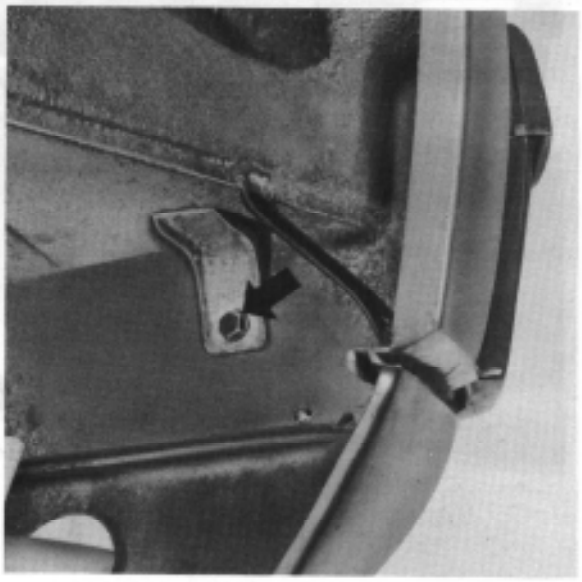
Slide bumper on impact energy absorber forks and align with a mandrel until the bumper can be bolted.
If car is not hoisted, aim auxiliary headlights and loosen or tighten nut with angled wrench - see arrow.

When installing impact energy absorber, make sure that the bores in the impact energy absorber forks as well as the height adjustment agree with the dimensions in the bumper. If necessary, make corrections on impact energy absorber plates in luggage compartment.

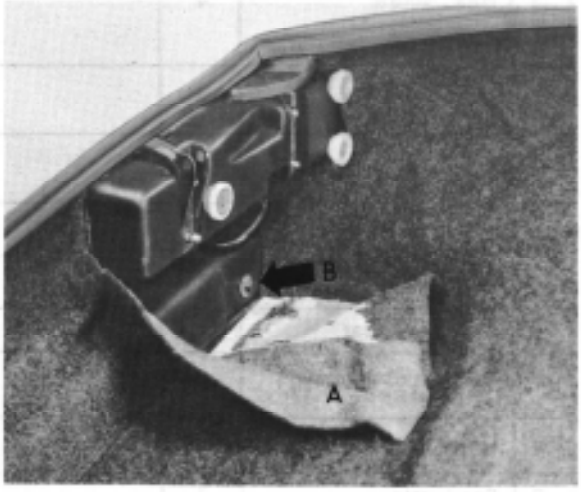
REMOVAL AND INSTALLATION OF REAR BUMPER

Unscrew number plate lights from bead strip prior to removal.

1 - Unscrew one hex. screw each from wheel arch.



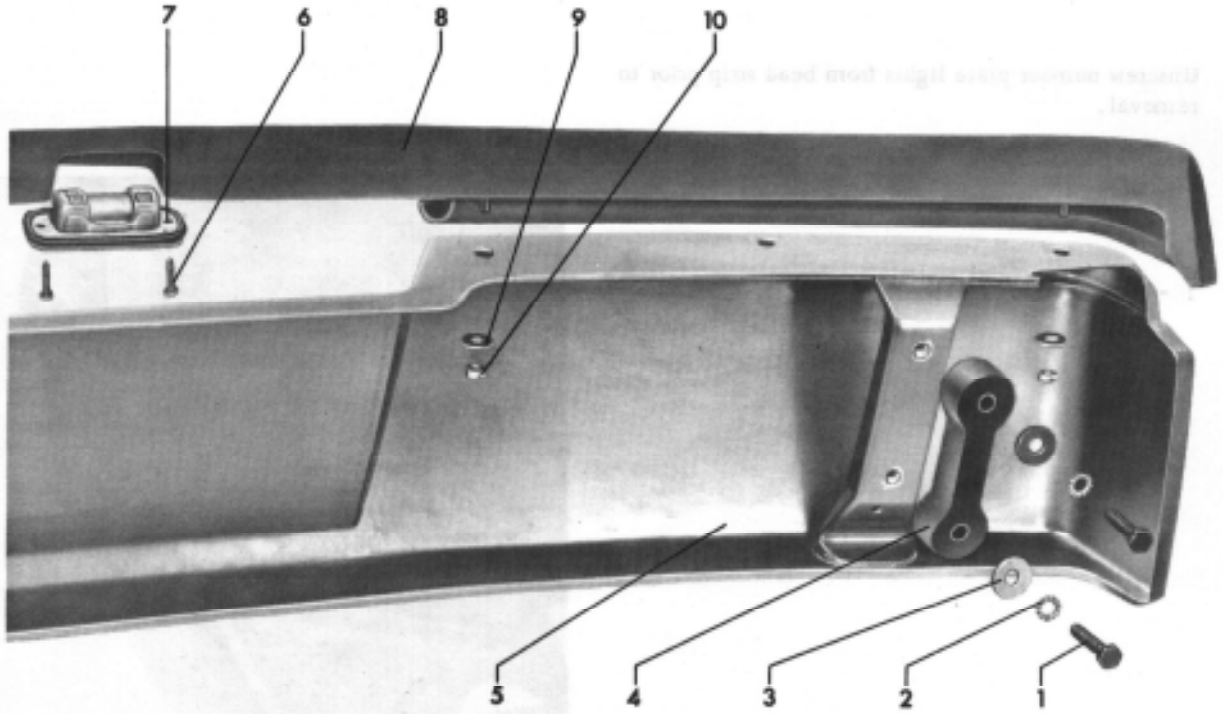
2 - Pull panelling - A - and unscrew hex. screw - arrow B - on on each side from direction of luggage compartment.



3 - Remove bumper.

During installation watch out for uniform distance between bumper and overrider rear and for parallel alignment in relation to styling bead in rear end plate. Tighten hex. screws only then. Do not forget washers and serrated disks.

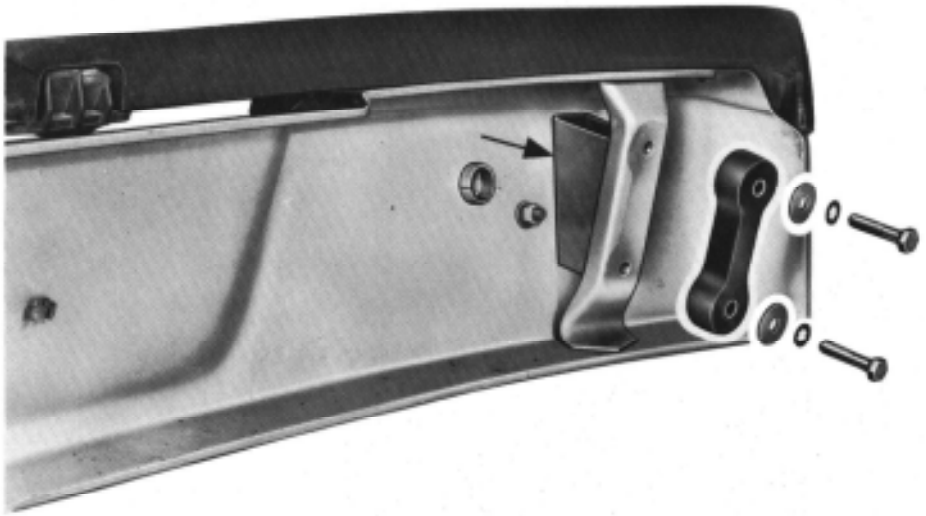
DISASSEMBLY OF REAR BUMPER



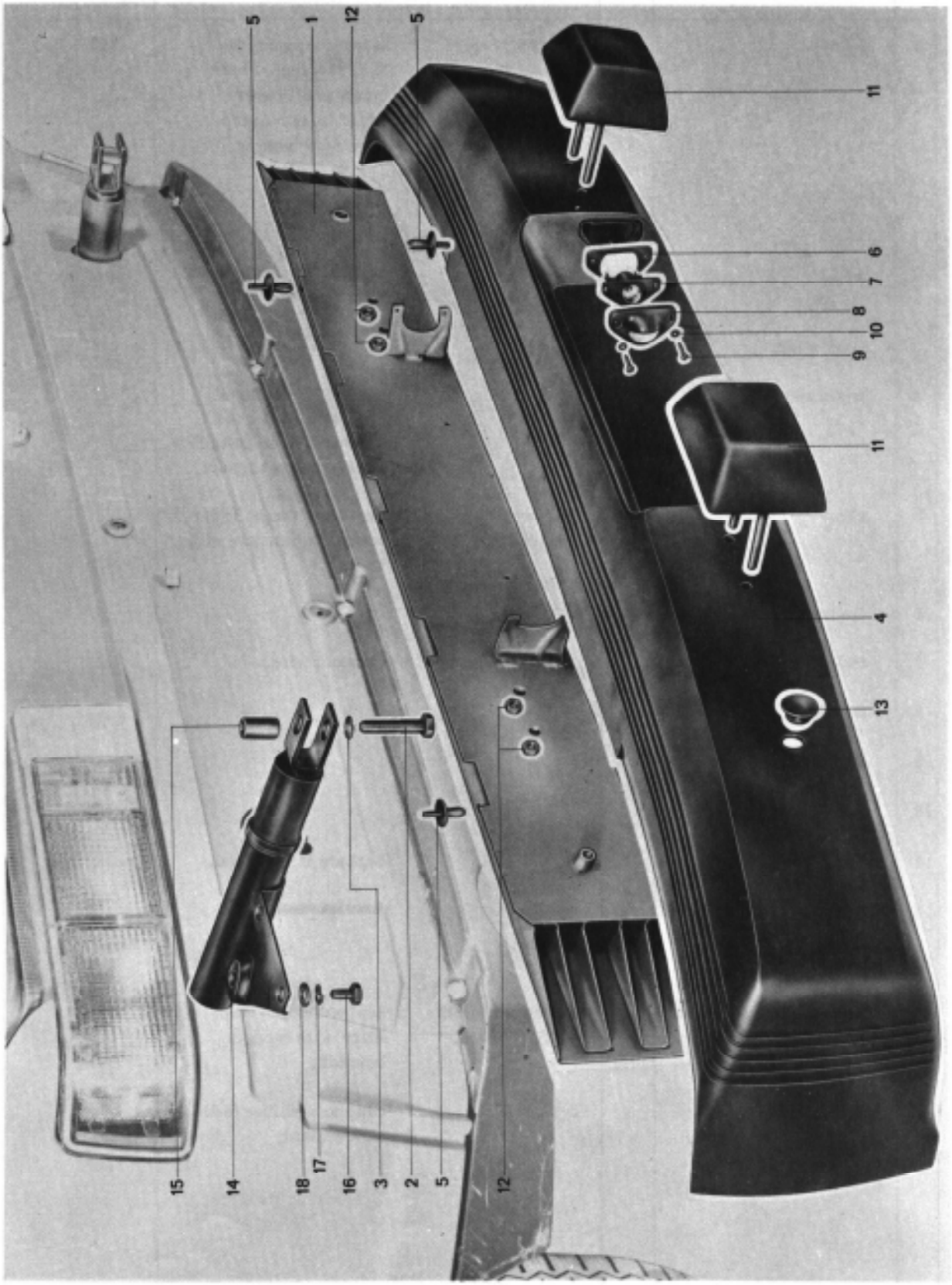
No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Hex. screw	4		Check and replace, if required, lubricate lightly	
2	Serrated disk	4		Check and replace, if required	
3	Washer	4		Check and replace, if required	
4	Shim	2			
5	Bumper	1			
	End plate rear	1			
6	Sheet metal screw	4		Check and replace, if required	
7	Number plate lights	2			9/3.5-1/1
8	Bead strip	1			
9	Washer	4		Check and replace, if required	
10	Hex. nut.	4		Check and replace, if required	

REAR BUMPER

Beginning with the 1974 models, all vehicles are quipped with energy-absorbing bumper guards which deform under strong impact.
The bumpers are reinforced with brackets which are installed on the inside of the bumper within the bumper guard area (see arrow).



REAR BUMPER - 1975 MODEL



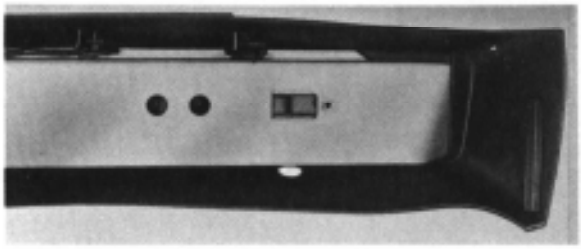
No.	Description	Qty.	Note when removing	Note when installing	Remarks
1	Bumper	1	Remove mtg. screws from below through opening. Detach license plate wire in luggage compartment.	Install bumper with foam section, overriders and license plate lights. Guide wire over bumper.	1.1 - 3/3
2	Bolt M 12 x 55	2		Locate bumper properly with mandrel.	
3	Lock washer	2			
4	Foam section	1		Replace if damaged. Press side strip over bumper. When installing, engage side at fender.	
5	Rivet	7	Extract or chisel off.	Replace. Attach foam section to bumper with rivets.	
6	Gasket	2			
7	Holder	2	Pull off wire.	Connect wire.	
8	Cover	2			
9	Metal screw 2.9 x 19	4			
10	Plastic washer	4			
11	Overrider	2		Replace if damaged.	
12	Nut	4			
13	Plug	1			
14	Impact energy absorber	2	Unscrew bottom at floor plate.	Replace damaged parts. Align with bumper brackets.	
15	Spacer	2		Glue to absorber forks with sealant.	

No.	Description	Qty.	Note when removing	Note when installing	Remarks
16	Bolt M 10 x 18	6			
17	Lock washer	6			
18	Washer	6			

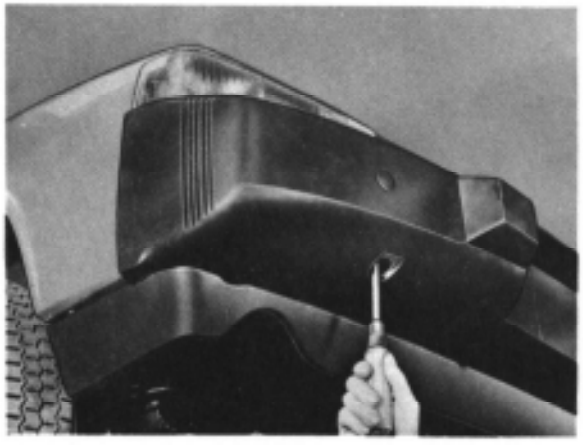
INSTALLATION NOTES

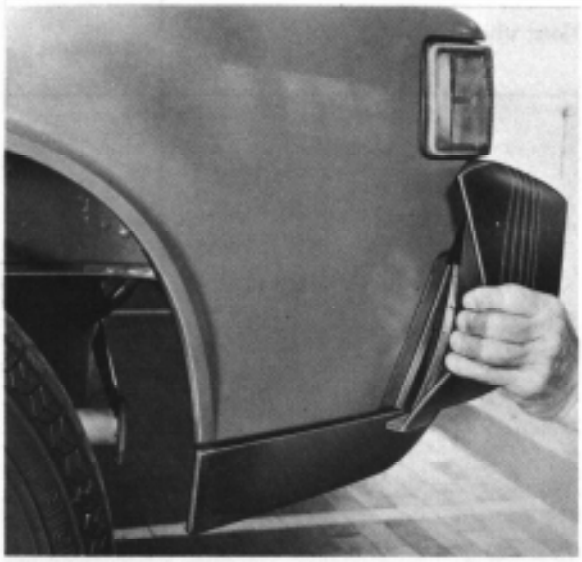
When installing impact energy absorber make sure that the bore dimensions in the impact energy absorber forks as well as height and length adjustment agree with the bumper. If necessary, correct with impact energy absorber plates in luggage compartment floor. File out bolt holes or insert spacers.

Insert both sides of bumper behind lips of foam section. Guide license plate wire, top, over bumper and pull out ends in foam section. Fasten foam section to bumper with rivets in all holes provided for this purpose.



Slide bumper on impact energy absorber forks and apply pressure with a mandrel until the bumper can be bolted.
Make sure that foam section is aligned evenly on body.

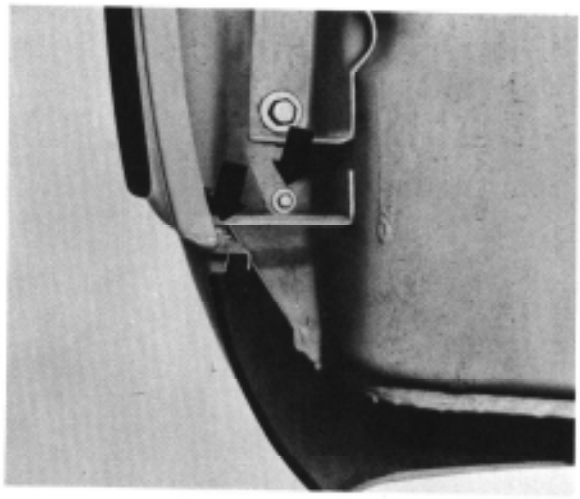




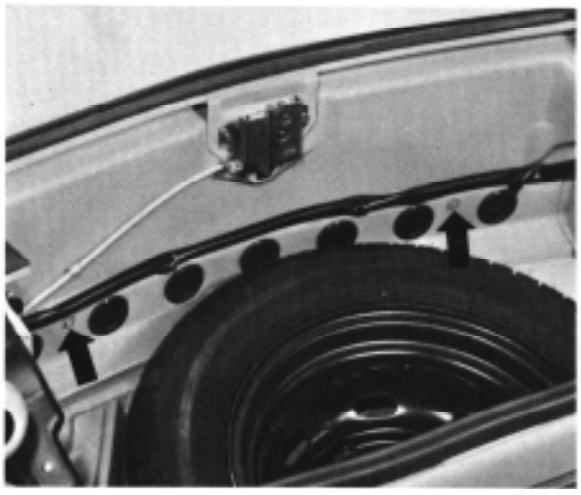
Pull side of foam section over bracket. Make sure it is flash with fender. Align bracket if necessary.

REMOVING AND INSTALLING FRONT PANEL

Removing



1 - Remove self tapping bolt from wheel housing side.

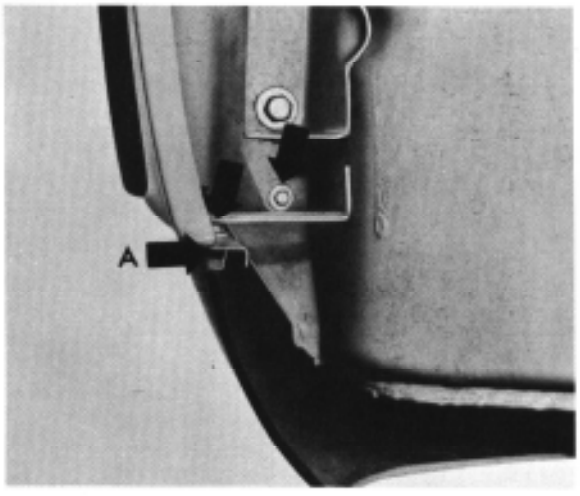


2 - Remove sheet metal screws from inside of front luggage compartment and remove front panel.

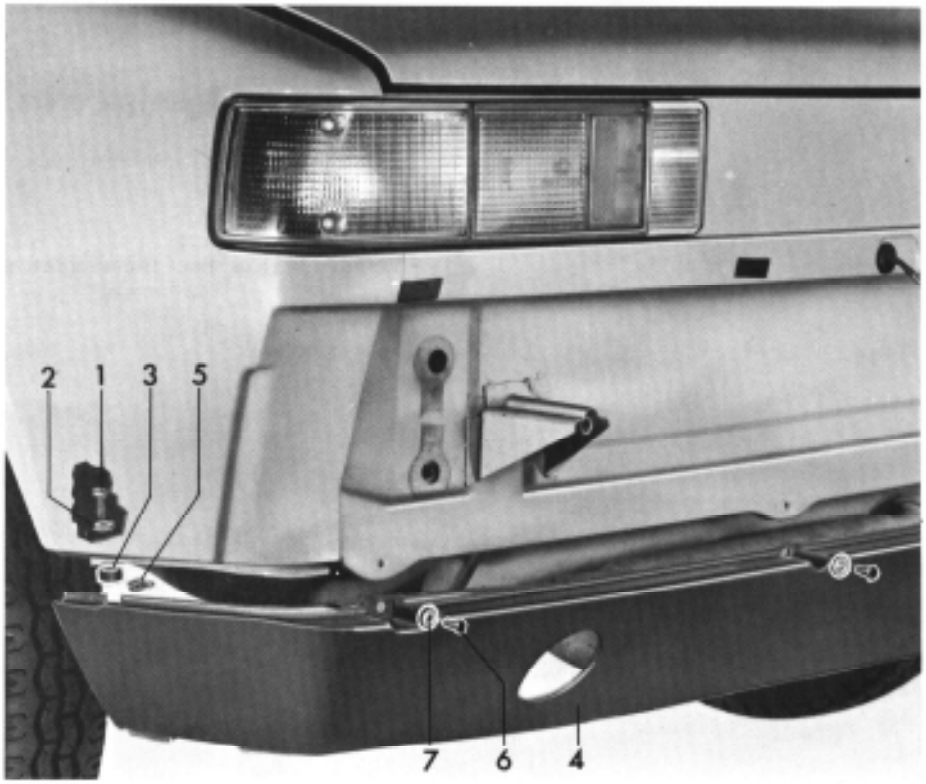
Installing

1 - Loosely attach front panel with two sheet metal screws.

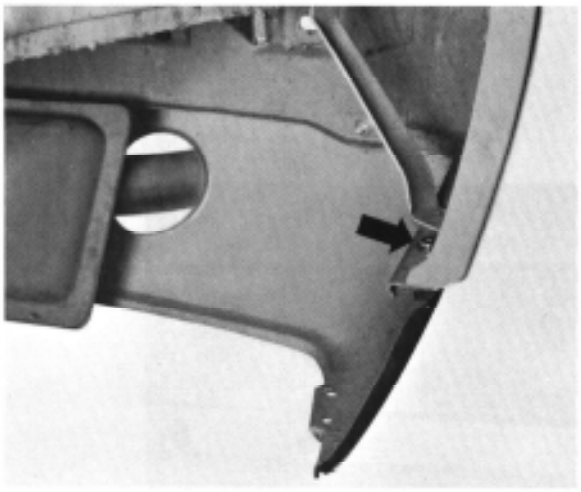
2 - Loosely attach two sheet metal screws in wheel housing. Align front panel and tighten. Use washers and rubber shim at point -A-.



REMOVING AND INSTALLING REAR PANEL



No.	Description	Qty.	Note when Removing	Note when Installing	Detailed Instr.
1	Phillips head sheet metal screw	2			
2	Washer Wheel housing	2 1			
3	Rubber shim	2			
4	Rear panel	1			
5	Speed nut	2		Place laterally on protective panel	
6	Self tapping bolt	4		Check and replace if necessary	
7	Washer	4			



Special Instructions:

Removing

First remove rear bumper (refer to 8/1.1-2/1).

1 - Remove Philips sheet metal screw on each side.

2 - Remove four sheet metal screws and remove panel.

Installing

1 - Attach protective plate with two center screws.

2 - Attach remaining sheet metal screws with washers. Align panel and tighten.

Use rubber shim on screws in area of wheel housing.

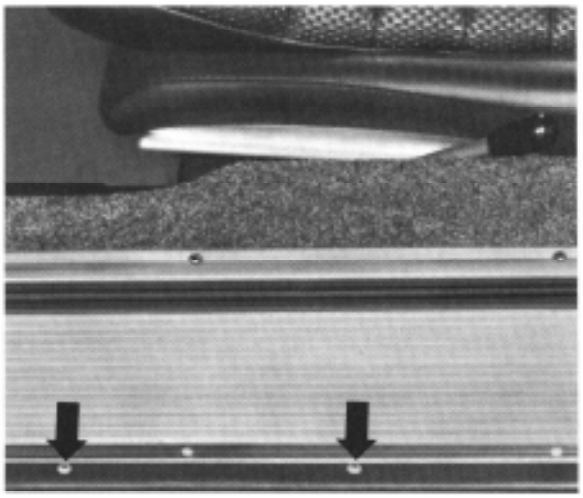
3 - Install bumper.

REMOVING AND INSTALLING SIDE MEMBER ROCKER PANEL

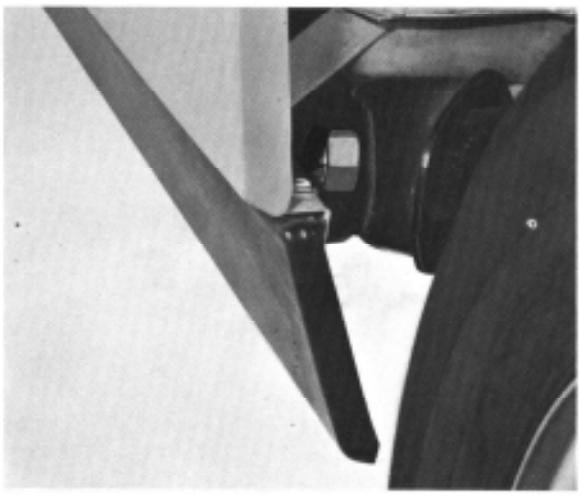
Removing

1 - Remove cover for jack opening.

2 - Remove six plastic expanding rivets.



3 - Remove Philips screws at ends in wheel housing.



4 - Remove three Philips screws at underside of member and remove rocker panel.

Installing

1 - Position rocker panel and attach loosely at center underside with three Philips screws, align rocker panel.

2 - Attach sheet metal nuts to rocker panel at ends. Use washers and rubber shim.

3 - Fasten panelling additionally with six plastic expanding rivets.

4 - Tighten all screws.

INSTALLING DEFLECTORS IN FLOOR PANEL (UNDERSIDE)

General:

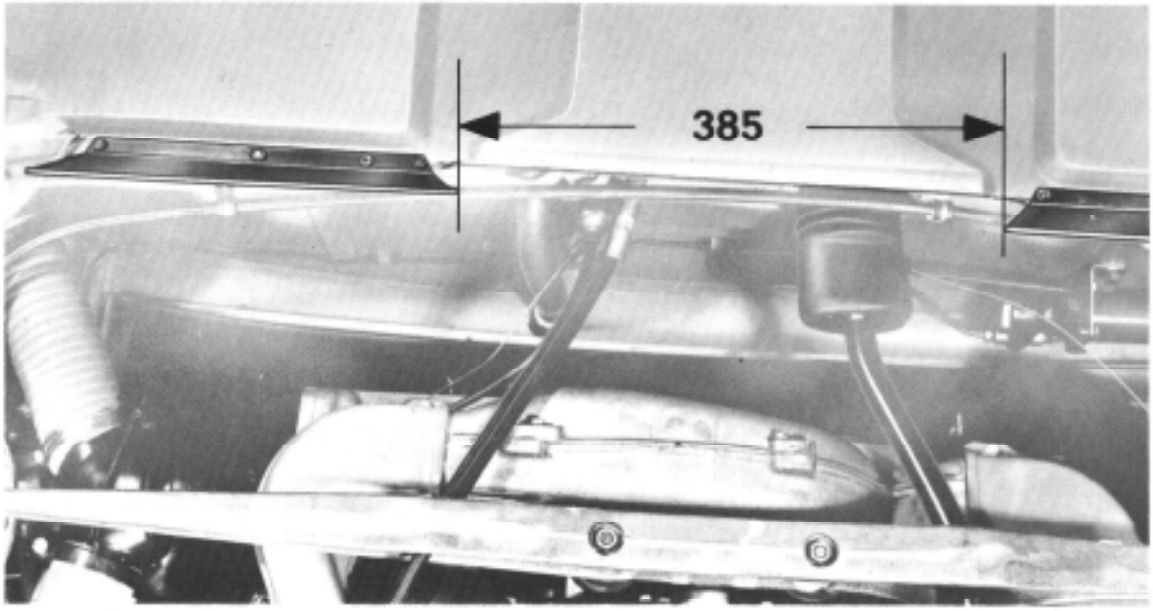
Beginning with the 1973 models, all Type 914 vehicles are equipped with two deflectors at the weld joint between the floor panel and lower part of the rear panel to improve cooling of the engine compartment. These fiberglass deflectors can also be installed in vehicles of older model versions.

Installing Deflectors

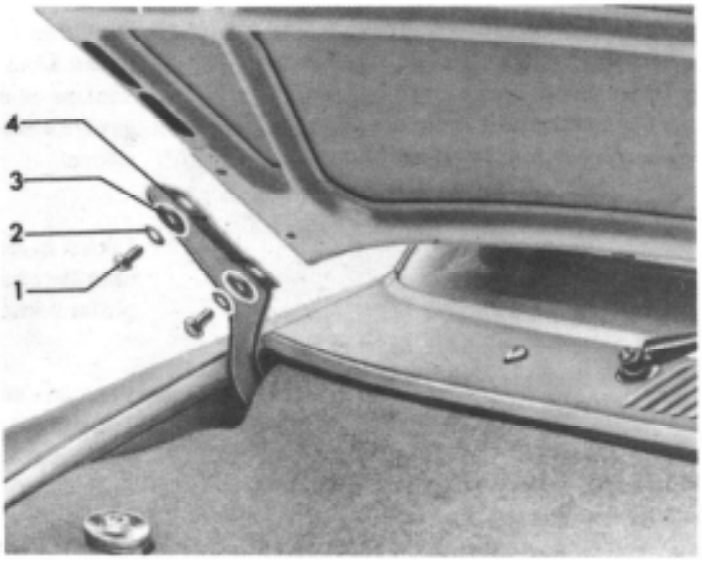
1. Clamp deflectors to the weld joint so that the distance between them is about 385 mm.

2. Mark 3 mounting points in the weld joint, on both sides, and drill 5,3 mm holes.

3. Secure deflectors with 5x12 mm bolts, washers, and lock washers.



REMOVAL AND INSTALLATION OF FRONT LID



No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Hex. screw	4		Check and replace, if required, lubricate lightly	
2	Undulated washer	4		Check and replace, if required	
3	Washer	4		Check and replace, if required	
4	Hinge	2	Observe special instructions!		8/3.1-1/3

Special Instructions:

Removal:

To eliminate any possibility of damaging the windshield vents, the work should be done by mechanics. In addition, the vents should be covered.

When the same lid is used again, mark the position of the hinges on the inside lid plate with a tracing needle.

A - Marking point

Installation:

Make sure of perfect seating and condition of lid sealing strips prior to installing lid. Use new lid sealing, if required. Prior to glueing rubber sealing strips down, remove remainders of old glue with cleaning gasoline from lid sealing ways, coat with original VW universal glue D 12 and leave to set. Then insert new seal.

When the same lid is put back again, align acc. to hinge marks on lid and screw down well. No fitting of lid is required.

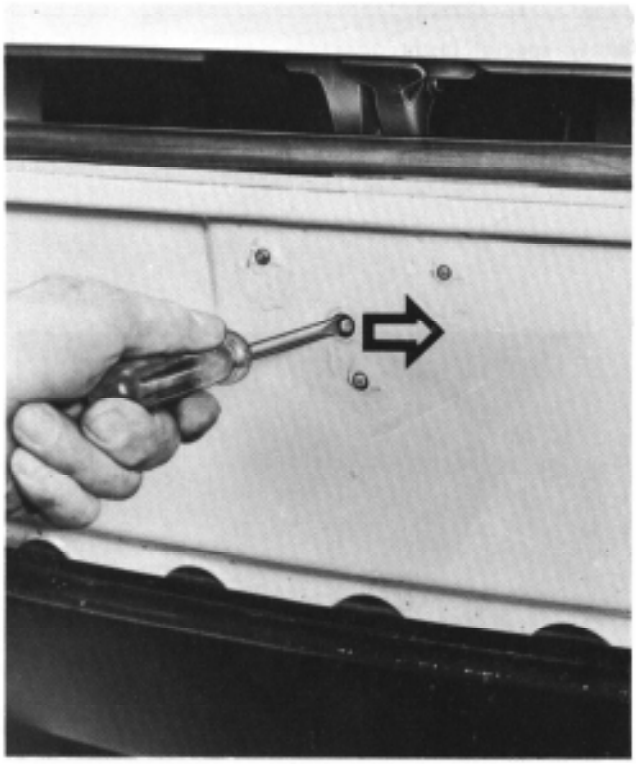
A new lid should be fitted prior to applying paint finish as a protection against scratching.

1 - Screw lid loosely to hinges and shift in oblong holes until perfect seating and sealing is attained along its entire circumference. Then tighten screws well.

2 - Align lid at level of blinker lights by screwing the adjustable rubber buffer in or out.

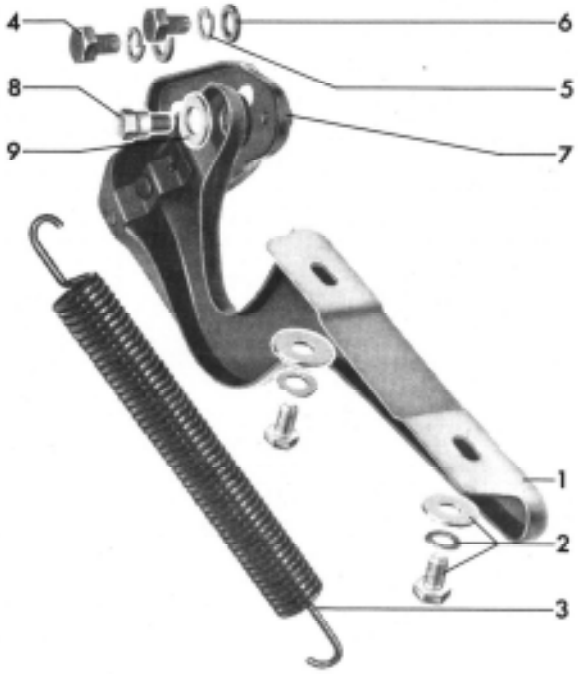
3 - Check function of lid lock by repeated opening and closing. Adjust lid lock top in oblong holes - or engaging depth of tap lock in oblong holes of cover lock bottom.

OPENING FRONT LID LOCK WHEN CONTROL CABLE BREAKS

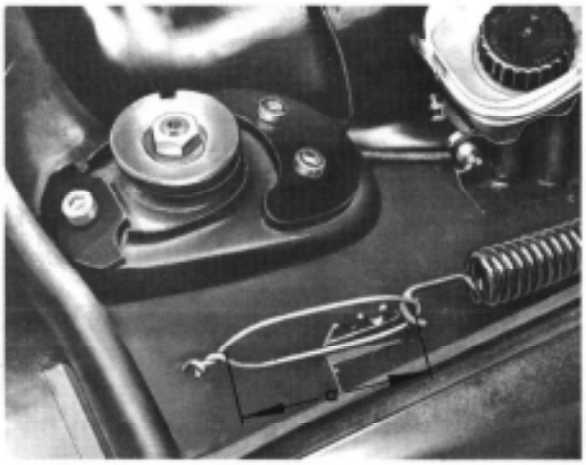


The front lid can be opened without damaging body parts by first removing the front bumper (see 1,1-1/1).
When the bumper is down, remove rubber plug from the cross panel, located just above the lower part of the lock. Using a screwdriver, actuate the lock bolt from the front to disengage the lock components.

Note for installation:
Lightly lubricate the new control cable, guide it into the clamping piece, and bend it over when adjusted but in such a way that the lock can be opened even if the clamping piece should loosen and slide away.



No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
	Lid front	1			8/3.1-1/1
1	Hinge section lid	2		Check and replace, if required	
2	Hex. screw Undulated washer Washer	3			8/3.1-1/1
	Panelling f. tank	1	Open in lateral ranges	Cover	
3	Lid spring	2	Observe special instructions!		
4	Hex. screws	4		Check and replace, if required, lubricate lightly	
5	Retaining ring	4		Check and replace, if required	
6	Washer	4		Check and replace, if required	
7	Hinge section Wheel arch	2		Check and replace, if required	
	Reinforcement Wheel arch	2	Observe special instructions!		
8	Bearing bolt	2		Check and replace, if required, lubricate lightly	
9	Washer	2		Check and replace, if required	



a = 95 mm

Special Instructions:

The lid hinge can be installed only with the lid removed.

Removal:

1 - Bend lug from 3 mm welding wire and attach to upper eye of lid spring.

2 - Use long mounting lever to remove lid spring carefully out of its mountings. The head of the spring strut is used as a counter support. The lateral section must be covered for this job.

3 - Unscrew hinge from reinforcement wheel arch.

4 - Disconnect lid spring from hole on hinge section of cover.

5 - Loosen lid hinge section by unscrewing bearing pin from wheel arch hinge section, if required.

Installation:

1 - Screw lid hinge section to wheel arch hinge section.

2 - Attach lid spring to lid hinge section

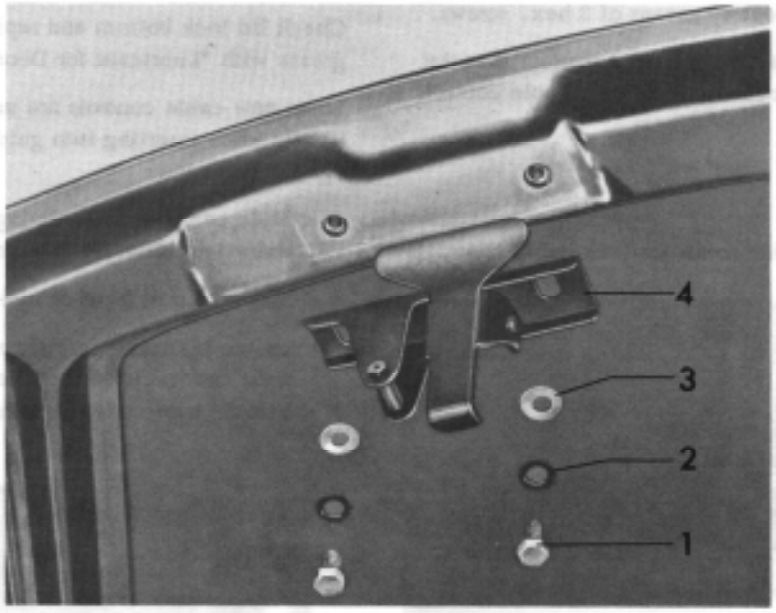
3 - Screw preassembled hinge to reinforcement of wheel arch.

4 - Mount lid and fit. Align hinge in oblong holes of wheel arch hinge section for height, if required.

5 - Attach lid spring carefully to spring mount. The spring mount has three holding slots for the spring. If the preload of the spring is too low, attach to another slot.

REMOVAL AND INSTALLATION OF FRONT LID LOCK

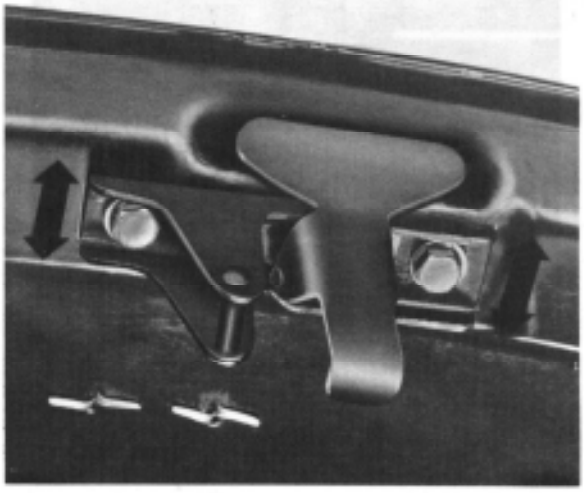
Lid Lock Top



No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Hex. screw	2		Check and replace, if required, lubricate lightly	
2	Undulated washer	2		Check and replace, if required	
3	Washer	2		Check and replace, if required	
4	Lid lock top	1	Observe special instructions!		

Special Instructions:

The lid lock top is provided with a safety hook next to the tap lock which enters a bent tab in lid lock bottom when the lid is closed.



Installation:

Replace lid lock top, if required, or grease with "Lubricant for Doors and Locks G 4".

Check for perfect seat of top by opening and closing lid several times.

If required, correct seat of top by shifting assembly in oblong holes.

Check function of safety hook. If required, unbend bent tab on lid lock bottom up to engagement point of safety hook.

The engagement depth of the tap lock can be adjusted at the lid lock bottom by shifting assembly in oblong holes.

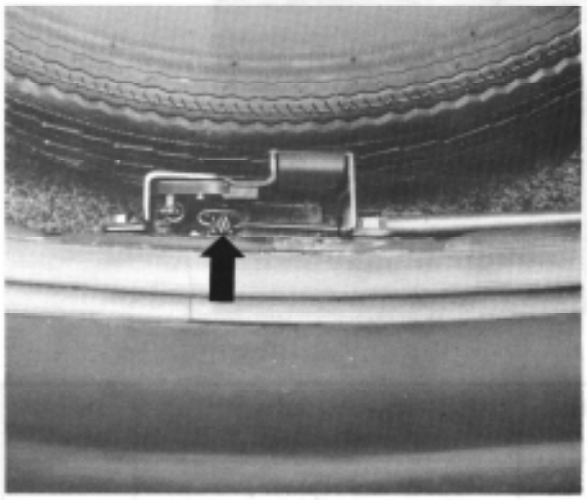
Lid Lock Bottom

The bottom of the lid lock is connected to the lock cross wall at the front by means of 3 hex. screws.

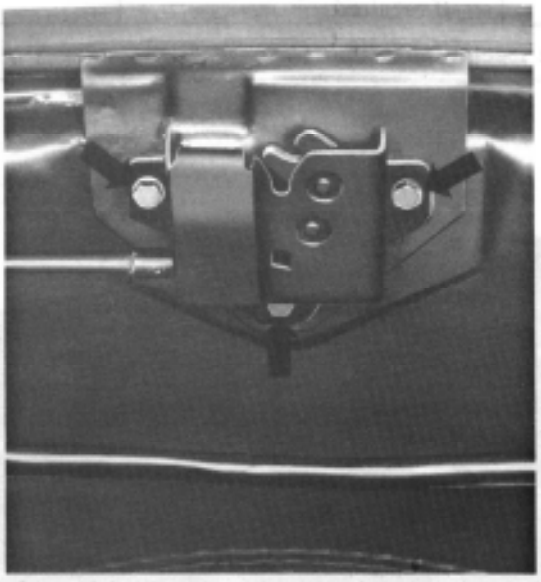
The lid lock is designed in such a manner that the lid will not be unlocked, if the lock cable controls should break.

Removal:

1 - Loosen clamping screw for lock cable controls.



2 - Unscrew 3 hex. screws.



3 - Pull bottom of lid lock laterally from lid lock cable controls.

Installation:

Check lid lock bottom and replace, if required, or grease with "Lubricant for Doors and Locks G 4".

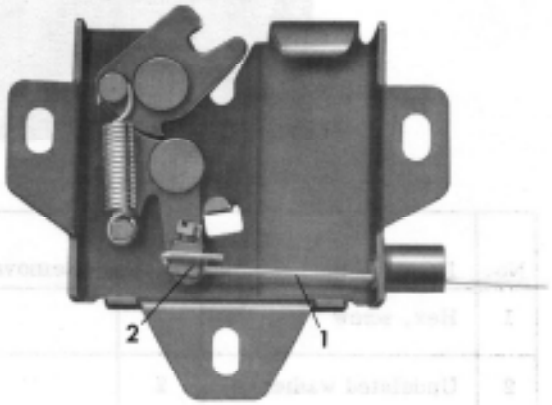
When new cable controls are used, please grease lightly when inserting into guide tube as a protection against corrosion.

1 - Slide cable controls through guide of base and screw provisionally to clamping piece.

2 - Screw base to front of lock cross wall.

3 - Loosen clamping screw, pull cable controls tight and screw down. Then

3 - bend cable controls behind clamping piece.

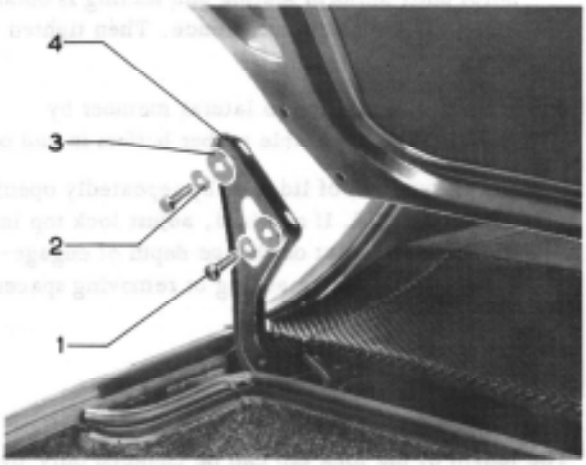


1 - Cable controls
2 - Clamping piece

To check the lock cable controls for perfect function, permit latch to engage and disengage several times with the lid opened.

Check for perfect seat of lid lock bottom by opening and closing lid several times. If required, shift assembly in oblong holes to correct seat of base.

REMOVAL AND INSTALLATION OF REAR LID



No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Hex. screw	4		Check and replace, if required, lubricate lightly	
2	Undulated washer	4		Check and replace, if required	
3	Washer	4		Check and replace, if required	
4	Hinge	2	Observe special instructions!		

Special Instructions:

Removal:

To eliminate the possibility of damage to adjacent components when removing and installing the lid, the work should be done by two mechanics. In addition, the rear section under the rear window should be covered with a soft cloth.

When the same lid is installed again, mark the position of the hinges on the lid with a tracing point.

A - Marking point

Installation:

Prior to installing the lid, check lid seals for perfect seat and condition. Use new seals, if required. The lid seals should not be glued on, but simply pressed on surrounding web.

If the same lid is installed again, align in accordance with markings for hinges on cover and screw down well. No fitting of lid will be required.

A new lid must be fitted prior to applying the paintwork to eliminate subsequent scratching.

1 - Screw lid loosely to hinges and shift in oblong holes until uniform seating and sealing is obtained along the entire circumference. Then tighten screws.

2 - Align lid in relation to lateral member by screwing the adjustable rubber buffers in and out.

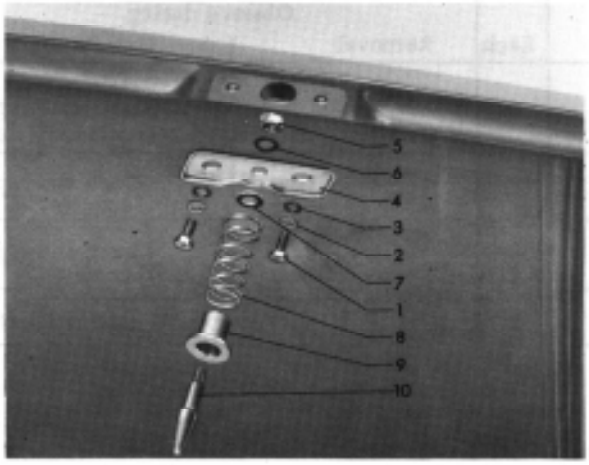
3 - Check function of lid lock by repeatedly opening and closing lid. If required, adjust lock top in rectangular cutout or change depth of engagement of lock tap by adding or removing spacer washers.

REMOVAL AND INSTALLATION OF LID LOCK REAR

Lid Lock Top

The lid lock top with lock tap can be adjusted lengthwise and crosswise in the rectangular cutouts for the fastening screws.

The length of the lock tap can be changed only by removing or adding spacer washers between the molding and the lock tap.



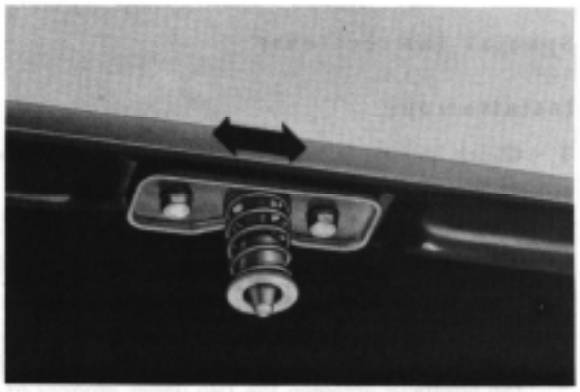
No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Hex. screw	2		Check and replace, if required, lubricate lightly	
2	Locking ring	2		Check and replace, if required	
3	Washer	2		Check and replace, if required	
4	Molding	1		Check and replace, if required	
5	Hex. nut	1		Check and replace, if required, lubricate lightly	
6	Undulated washer	1		Check and replace, if required	
7	Spacer washer	X	Observe special instructions!		
8	Spring				
9	Bushing	1			
10	Lock tap	1			

Special Instructions:

Installation:

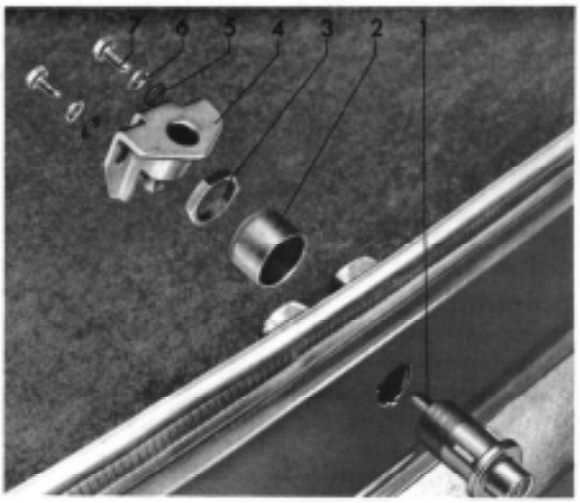
Check lid lock top and replace, if required, or grease with "Lubricant for Doors and Locks G 4".

Open and close lid several times to check perfect seat of top and length of lock tap. If required, correct seat of top by shifting assembly in rectangular cutouts and by changing the tap length by inserting or removing spacer washers.



Lid Lock Bottom

The lid lock bottom is connected to the lock support by two hex. screws. The snap lock is screwed to the end cross wall rear by means of a hex. nut.



No.	Designation	Each	Ovserve during Removal	Ovserve during Installation	Detailed Instr.
1	Snap lock	1		Grease with "Lubricant for Doors and Locks G 4"	
	End cross wall rear	1			
2	Spacer bushing	1		Check and replace, if required	
3	Hex. nut	1	Observe	Check and replace, if required, lubricate lightly	
	Lid support	1	special		
4	Lid lock base	1		Grease with "Lubricant for Doors and Locks G 4"	
5	Washer	2	instructions!	Check and replace, if required	
6	Locking ring	2		Check and replace, if required	
7	Hex. screw	2		Check and replace, if required, lubricate lightly	

Special Instructions:

Installation:

1 - Check locking cylinder and replace, if required, or grease with "Lubricant for Doors and Locks G 4".

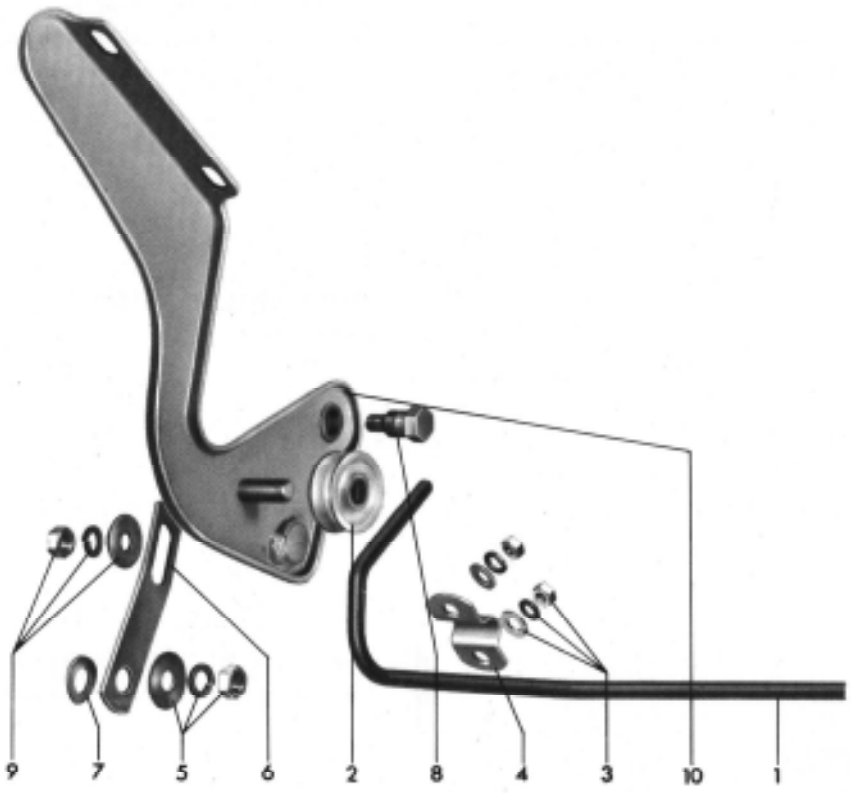
2 - Insert locking cylinder from outside through hole in end plate. Watch installation position of locking cylinder in relation to end plate. The snap lock is installed correctly when the closing tap points in between the two upper grooves of the end cross wall when in opened position.

3 - Fit spacer bushing to snap lock with flat surface toward end plate.

4 - Screw hex. nut to snap lock and tighten.

5 - Check lid lock top and replace, if required, or lubricate with "Lubricant for Doors and Locks G 4". Then screw to lid supports.

REMOVING AND INSTALLING REAR LUGGAGE COMPARTMENT LID, TYPE 914



No.	Description	Qty.	Note when removing	Note when installing	References
1	Torsion spring, left/right	1			
2	Guide roller	2		Check, replace if necessary.	
3	Nut, lock washer, washer	8	Note special instructions.	Check, replace if necessary. Oil nut slightly.	
4	Clamp	4			
5	Nut, lock washer, washer	2		Check, replace if necessary. Oil nut slightly.	
6	Guide rail	2		Check, replace if necessary.	
7	Spring washer	2		Check, replace if necessary.	
8	Shoulder bolt	2		Check, replace if necessary. Oil nut slightly.	
9	Nut, lock washer, washer	2		Check, replace if necessary. Oil nut slightly.	
10	Hinge, left/right	1			

Special Instructions:

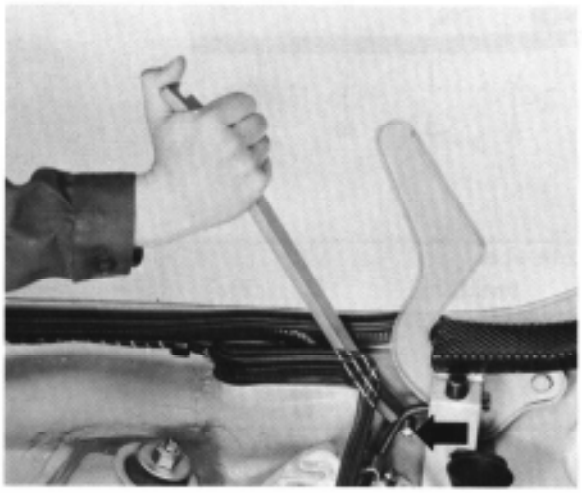
Removing

Two torsion rod springs assist in opening the rear luggage compartment lid and hold it in the open position.

Important

Use caution when removing rear luggage compartment lid, the torsion rod springs are under tension.

1 - Remove luggage compartment lid (refer to 8/3.1-2/1).

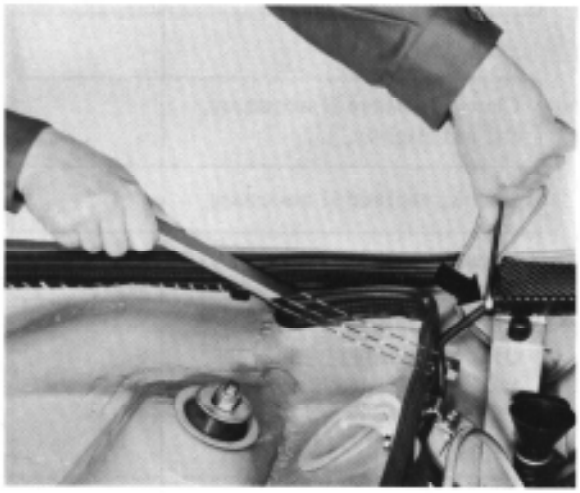


2 - Place assembly tool P 304 (local manufacture) behind upper bend of torsion rod spring.

Note:

Always position assembly tool in such a manner that the opening of the slot faces the center of the vehicle.

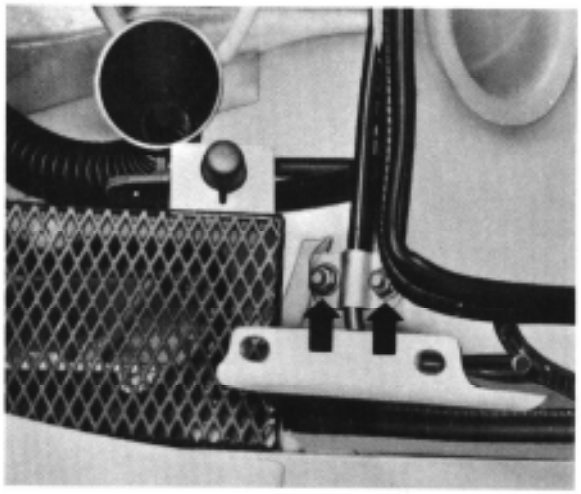
3 - Remove torsion rod from guide roller by pushing guide roller sideways with screw driver until the torsion rod clears roller.



4 - Allow torsion bar to press assembly tool against body.

5 - Hold torsion bar with box wrench and remove a assembly tool. Slacken spring completely. Continue to release tension using box wrench.

6 - Remove the two clamps then pull torsion rod to the right out of the welded-on retaining eye.



7 - Remove shoulder bolt; hinge can be removed.

Installing

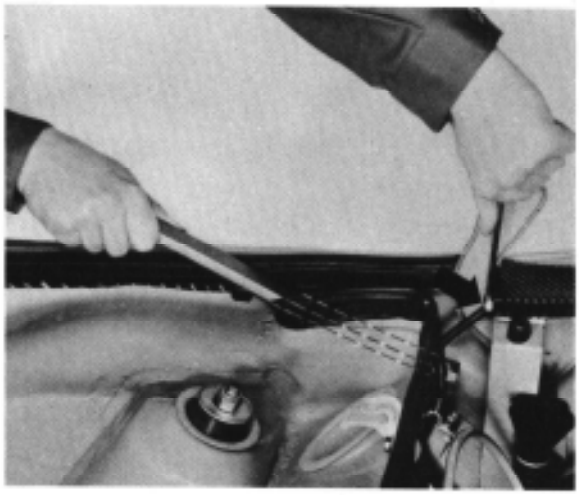
1 - Install hinge and position guide roller.

2 - Install torsion rod and align with guide roller.

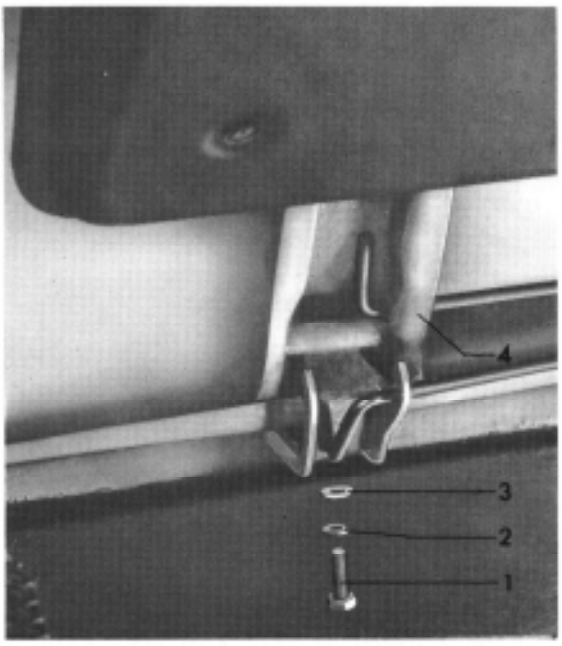
3 - Tighten securing clamps.

4 - Preload torsion bar spring with box wrench until the assembly tool (P 304) can be positioned behind the upper bend.

5 - Remove box wrench and set spring on guide rollers using a screw driver.



REMOVAL AND INSTALLATION OF ENGINE COMPARTMENT LID



No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Hex. screw	2		Check and replace, if required, lubricate lightly	
2	Locking ring	2		Check and replace, if required	
3	Washer	2		Check and replace, if required	
4	Engine compartment lid	1	Observe special instructions!		

Special Instructions:

To eliminate damaging other components when removing and installing lid, the work should be done by two mechanics.

Removal:

1 - Unscrew one hex. screw each.

2 - Carefully remove lid.

Installation:

Prior to installation, watch out for perfect seat and condition of seals between engine compartment lid and rear window. Use new seal, if required.

A new lid must be fitted prior to applying the paintwork to eliminate subsequent scratching.

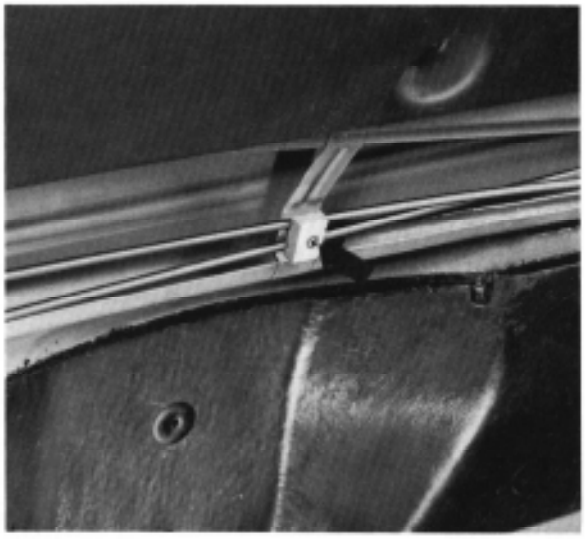
1 - Screw lid loosely to hinges and align to provide a uniform distance laterally and at the rear, so that a reliable seal will be provided between the lid and the rear window. Then tighten screws well.

2 - Align lid in relation to lateral engine compartment molding by screwing the adjustable rubber buffer in or out.

3 - Check function of lid lock by opening and closing lock several times.

Change depth of engagement of lock hook by screwing in or out.

REMOVAL AND INSTALLATION OF TORSION BAR SPRING



Caution!

The torsion bar spring is under considerable tension and should be carefully removed.

Removal:

1 - Remove tightening piece after unscrewing one cross-slotted screw.

2 - Disconnect one spring bar each at the left and right and pull out. Water pump pliers may be used.

Installation:

For installation, insert spring first into guide holes, then attach and screw to tightening piece.

Caution!

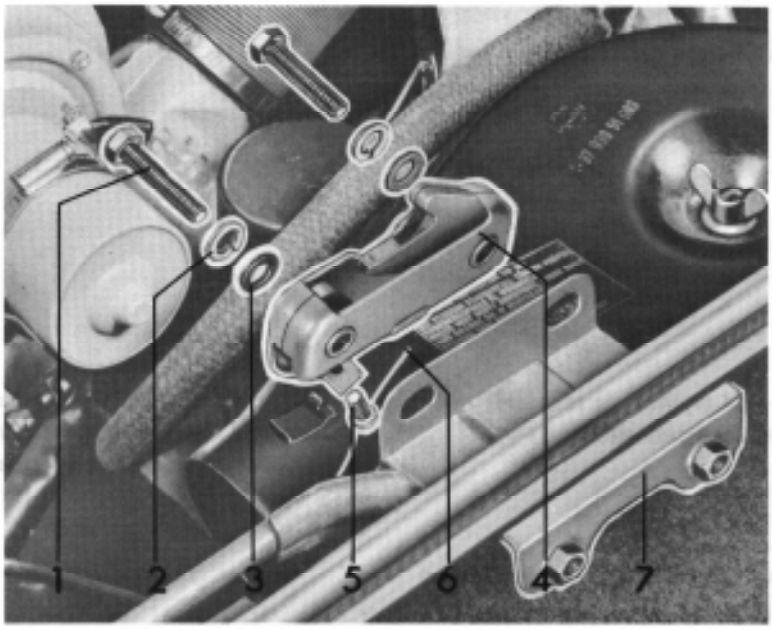
Proceed carefully when attaching spring.

NOTE:

Should spring tension be insufficient to keep lid open, preload spring by slightly twisting it in a vise.

REMOVAL AND INSTALLATION OF ENGINE COMPARTMENT LID LOCK

Engine Compartment Lid Lock Base



No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Hex. screw	2		Check and replace, if required, lubricate lightly	
2	Locking washer	2		Check and replace, if required	
3	Washer	2		Check and replace, if required	
4	Lid lock base	1		Lubricate with "Lubricant for Doors and Locks G 4"	
5	Clamping screw for lock cable controls	1	Observe special instructions!	Check and replace, if required, lubricate lightly	
6	Lid lock cable controls	1			
	Lid support	1			
7	Holding plate	1		Check and replace, if required	

Special Instructions:

Removal:

1 - Loosen clamping screw for lock cable controls - No. 4.

2 - Unscrew two hex. screws and remove lid lock base.

Installation:

Check lid lock base, and replace, if required, or grease with "Lubricant for Doors and Locks G 4".

New lid lock cable controls must be slightly greased when inserted into guide tube (corrosion protection, smooth operation).

1 - Screw lock cable controls provisionally to clamping piece.

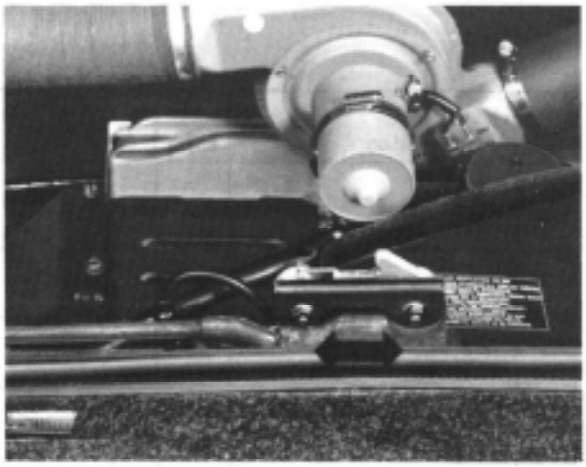
2 - Screw base to lock support.

3 - Loosen clamping screw, pull cable controls tight and screw down. Then

1 bend clamping piece.

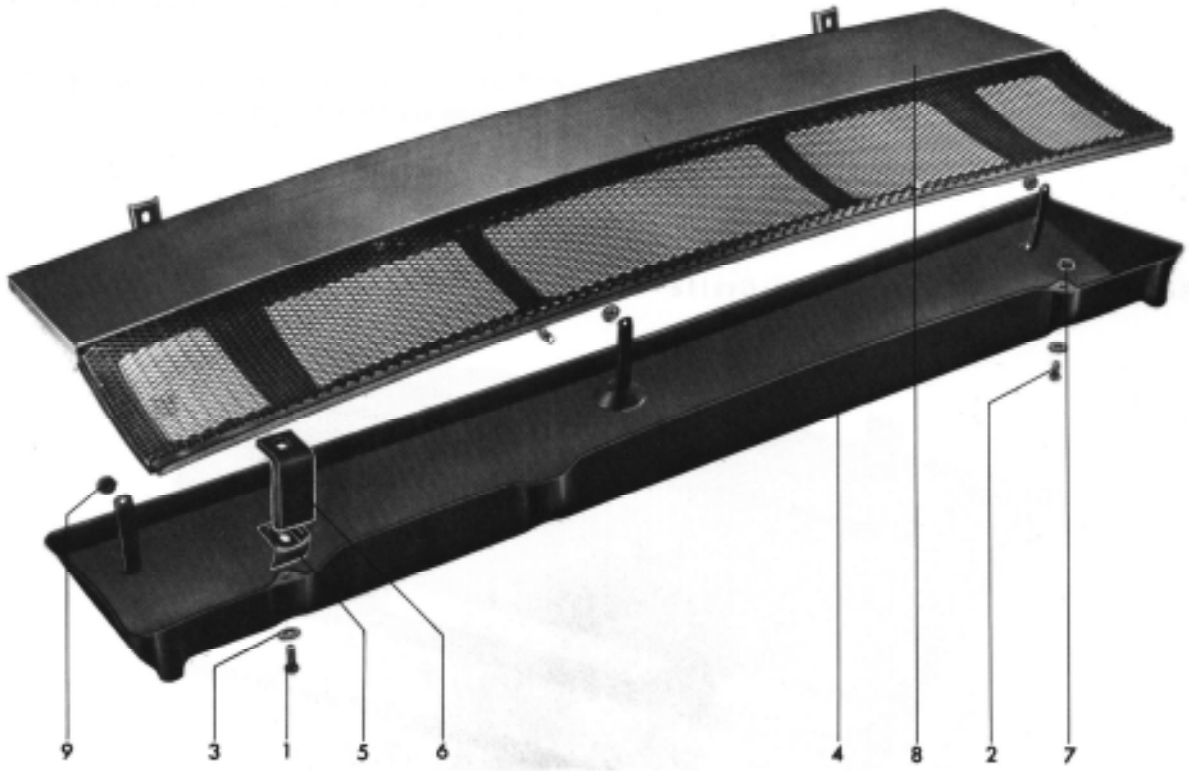
Check lock cable controls for perfect function. Engage and disengage latch several times with the lid opened.

Check perfect seat of lid lock base by repeatedly opening and closing lid; if required, shift base in oblong hole or change engagement depth of lock hook on engine compartment lid by screwing in or out.



DISASSEMBLING ENGINE COMPARTMENT LID

Removing and Installing Water Drip Pan



No.	Description	Qty.	Note when Removing	Note when Installing	Detailed Instr.
1	Phillips hd. screw M 6x20	1			
2	Phillips hd. screw M 6x15	1			
3	Flat washer	2			
4	Water drip pan	1			
5	Reinforcing elbow	1			
6	Rubber stop				
7	Spacer bushing	1			
8	Lid	1			
9	Clamping discs	3			

Special Instructions:

Removing

The water drip pan can be removed without removing the engine compartment lid. Carefully remove drip pan retaining discs from lid and remove pan.

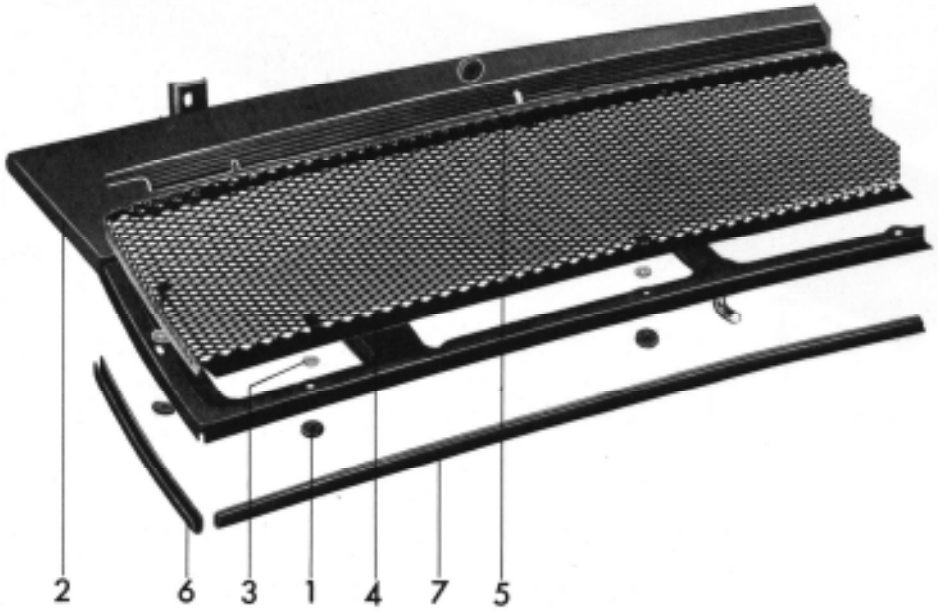
Installing

1 - Position drip pan on compartment lid pins and press on clamping discs.

2 - Install rubber stop with reinforcing elbow on left side of lid and tighten screw.

3 - Connect right side of pan to lid. Insert spacer bushing and tightening screw.

Removing and Installing Lid Grille



No.	Description	Qty.	Note when		Detailed Instr.
			Removing	Installing	
	Water drip pan	1			
1	Clamping discs	9	Pull from cover		
2	Lid outer panel	1			
3	Plastic washer	7			
4	Grille	1			
5	Sealing strip	1		Use D 21 glue	
6	Side edge moulding	2	Remove from cover	Check, replace if necessary	
7	Center edge moulding	1	Pull from cover	Check replace if necessary	

Special Instructions:

Removing

To remove the grille, the engine compartment lid should first be removed (refer to 8/3.1-3/1).

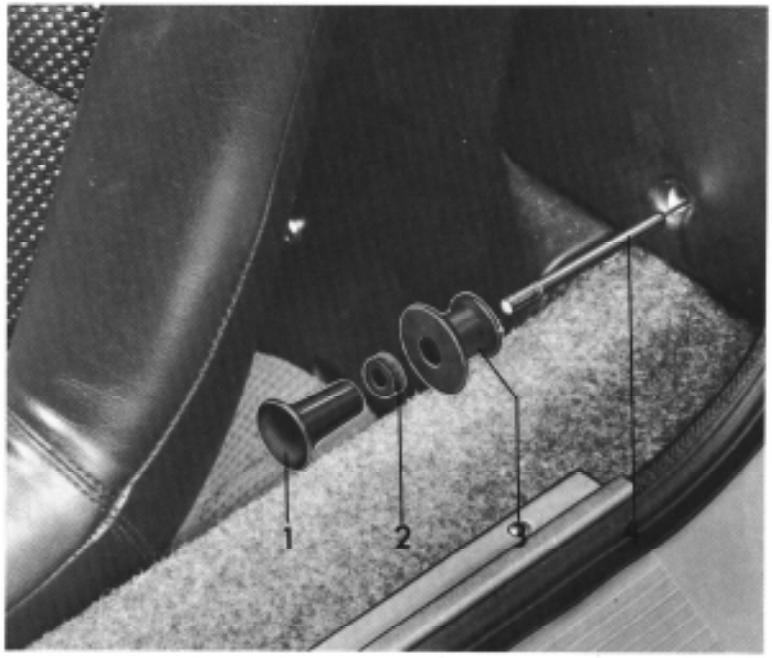
Installing

Install grille before painting to prevent any scratching later on.

1 - Place the seven plastic washers on the grille pins, then install the grille in the engine compartment lid. The plastic washers must be placed between the grille and the lid to prevent rattling.

2 - Press on center and side edge moulding.

REMOVING AND INSTALLING ENGINE COMPARTMENT LID RELEASE CABLE



No.	Description	Qty.	Note when		Detailed Instr.
			Removing	Installing	
1	Lid release knob	1			
2	Rubber washer	1		Check, replace if necessary	
3	Retainer bushing	1	Remove with lock ring pliers	Insert in rear wall panel	
4	Cable	1	Remove from engine compartment lock	Grease lightly, insert new cable greased into guide tube, fasten to engine compartment lid lock	

REMOVAL AND INSTALLATION OF DOOR

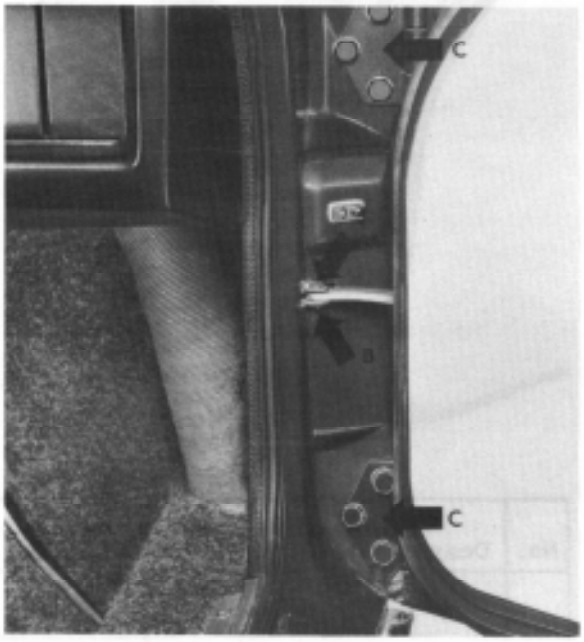
Removal:

1 - Extract pin for door safety lock - A - after pulling out cotter pin.

2 - If the same door is to be reinstalled, mark position of hinges on hinge pillar with tracing point.

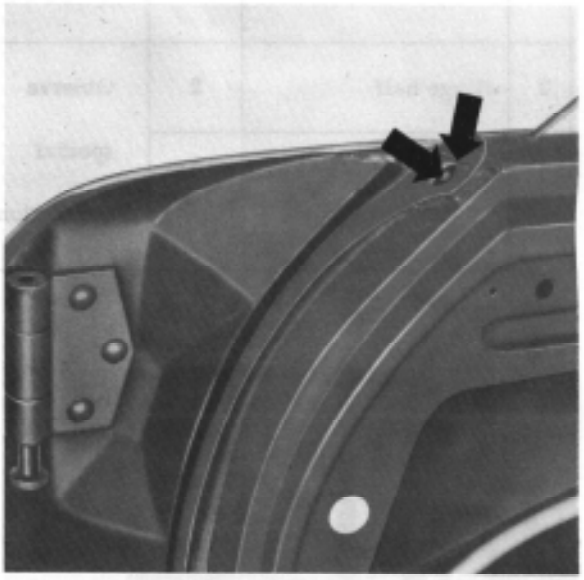
3 - Unscrew 6 hex. screws - C - and remove door.

Spray rusted screws with a solvent or loosen by means of impact screw driver.



Installation:

1 - Check door seals and replace, if required. Glue in new seal using VW profile glue D 21. In the upper range of the door, the seal is glued under the outer window channel seal and clamped to the door inside panel with a spreader pin.



2 - If the same door is reinstalled, simply align in accordance with markings on hinge pillar. Fitting door into body cutout is not required.

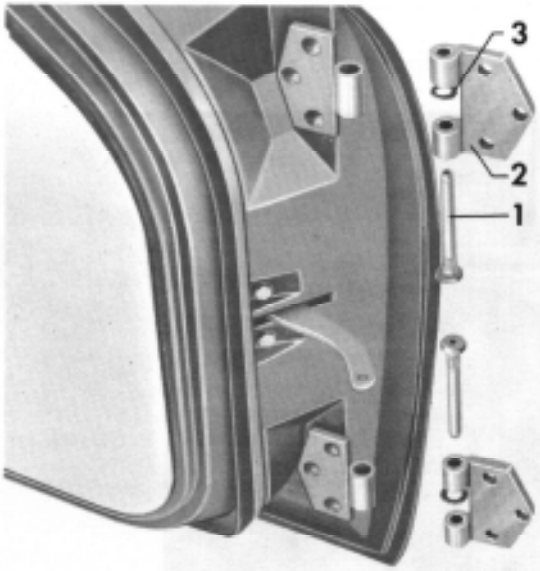
3 - When a new door is installed, proceed as follows:

Screw on door and fit into body cutout in such a manner that a uniform all-around of the rubber seal is assured and that the door can be opened and closed without jamming. This requireds removal of locking plate. The door hinges are screwed to movable, threaded plates located in hinge pillar. This permits reliable adjustment and fitting of the door to the external contours of the vehicle.

4 - Screw locking plate back again and adjust in such a manner that the depression for the handle in the door is in alignment with the depression in the lateral member at the rear. Simultaneously, see that the door does not extend too far outwards or inwards.

5 - Lubricate door hinges, coat mating surfaces of door catch housing on locking plate and on latch lightly with vaseline.

REMOVAL AND INSTALLATION OF HINGE PIN



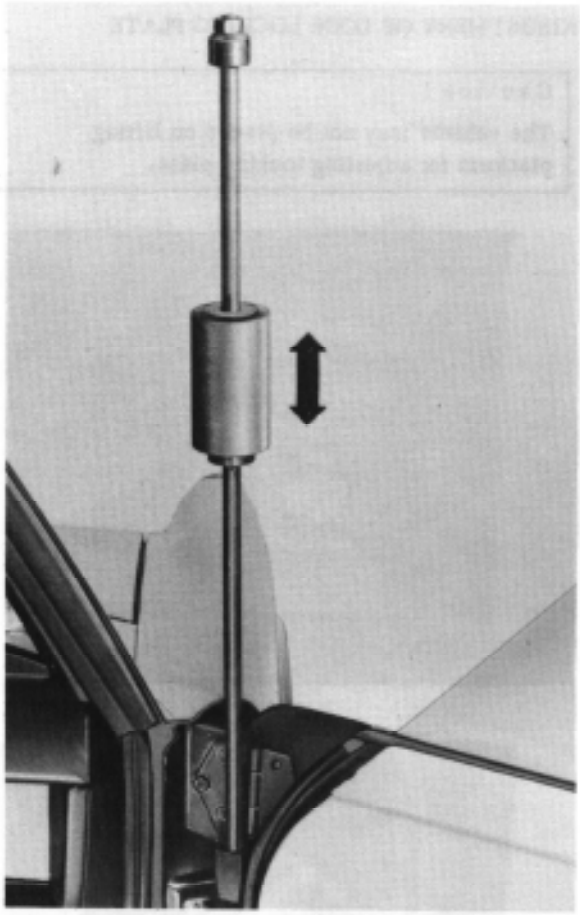
No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
	Door	1			
1	Hinge pin	2		Check and replace, if required, install with HD oil SAE 30	
2	Hinge half	2	Observe special instructions!	Check and replace, if required	
3	Spring washer	2		Check and replace, if required, place at top between hinge half of pillar end	

Special Instructions:

Removal:

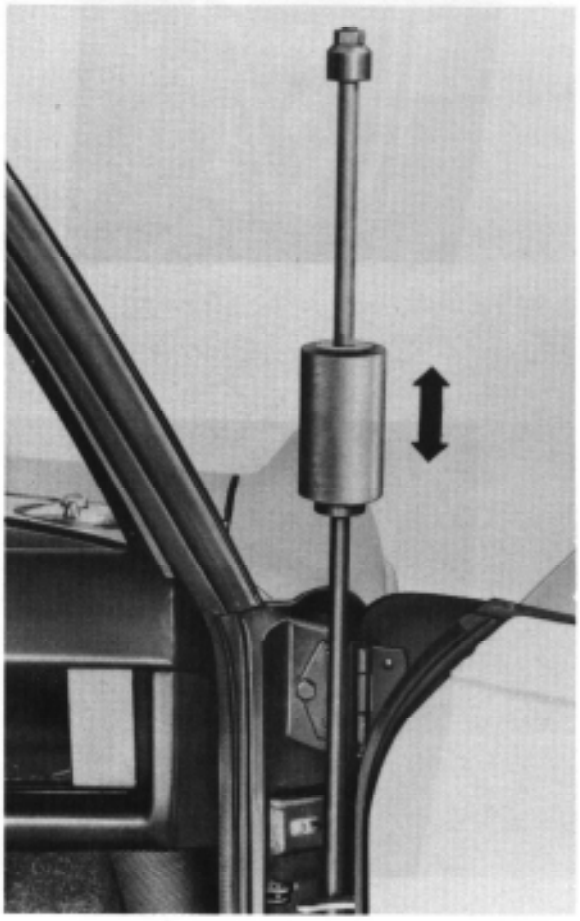
1 - Pull cotter pin out of bearing bolt and extract bolt for door safety lock.

2 - Remove hinge bolt with special tool P 290.



Note:

Special tool P 290 can be used both, for the upper and the lower hinge pin. Only the bottom section of the tool must be changed for pertinent hinge pin.



Installation:

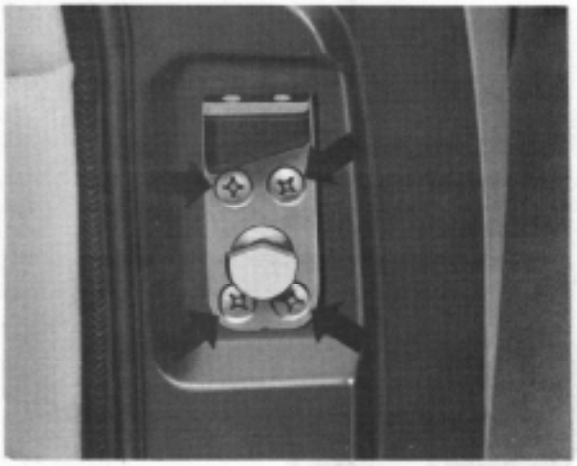
1 - Insert hinge half and spring washer into hinge half on pillar end.

2 - Force hinge pins into hinge from door center. The pin is far enough in hinge when it rests against the small lug. 6 mm will remain between the hinge and the collar to receive the extractor.

ADJUSTMENT OF DOOR LOCKING PLATE

Caution !

The vehicle may not be placed on lifting platform for adjusting locking plate.



To eliminate any back-and-forth movements of the catch during the vibrations occuring while driving, the locking plate is provided with a resilient rubber-metal latch. This latch cannot be adjusted.

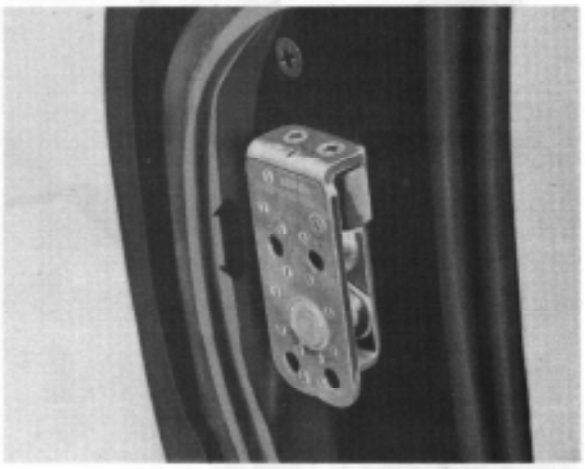
Occasionally, door chatter cannot be completely avoided merely by adjusting the locking plate. In such a case, the locking plate need not to be replaced. Simply place a sheet metal shim approx. 0.5 to 1.5 mm thick between the latch and the locking plate.

To check whether the latch is resting well against the latch of the locking plate, proceed as follows:

a - Remove locking plate.

b - Insert locking plate first at bottom into lock catch and then push down completely - closed position.

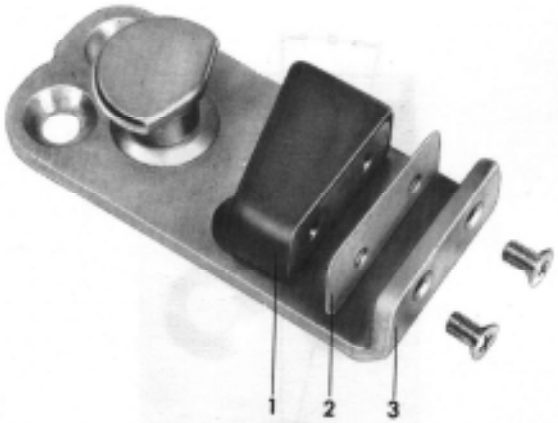
c - Then swing locking plate around in upward direction.



d - If swinging the locking plate up and down in this position will disclose a given play, the latch must be replaced or a shim must be added.

Note:

For this purpose, unscrew two counter-sunk screws out of angle portion of locking plate. Insert shim and screw back to locking plate together with latch.



1 - Latch
2 - Shim
3 - Locking plate

Upon removal of locking plate, the seating of the door in the door cutout is checked as follows:

a - Tight seat of hex. screws for fastening door hinges.

b - Alignment of door and front lateral member.

c - Uniform distance between door and door cutout.

d - Alignment of door and rear side member.

e - Alignment of depression of door handle with depression in side member rear.

If the above does not apply, proceed as follows:

Re b to d

Loosen hinges and displace door as required inwards, outwards or upwards. Tighten hex. screws again well.

Re d and e

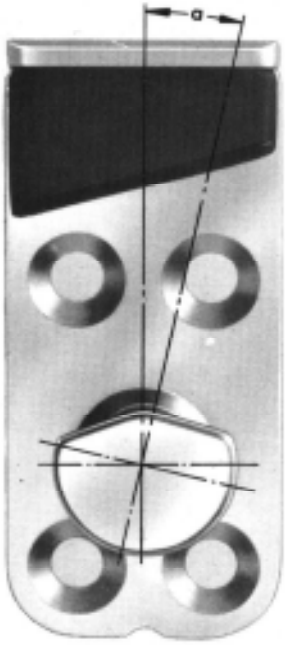
Install locking plate and adjust. The plate is adjusted correctly if:

1 - the door is in alignment with the rear side member,

2 - the depression of the door handle is in alignment with the depression in side member rear,

3 - no play is felt between the lock and the latch when energetically pulling or pushing door,

4 - the door can be opened from outside and inside without excessive energy.

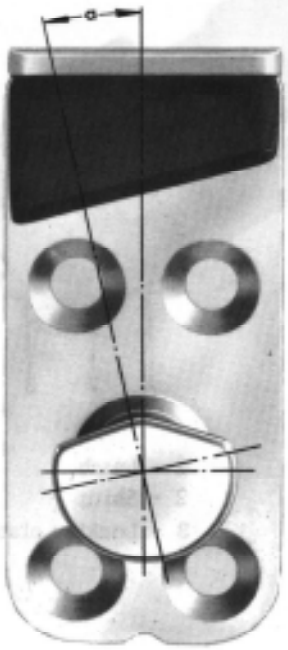


A wrongly adjusted locking plate can be adjusted correctly as follows:

a - If the door closes too fightly, the handel will be hard to move. The reason is, that the locking plate tilts too far inwards in the upper range.

Remedy:

Correct locking plate by the dimension "a".



b - If the door does not engage in its end position when it is slammed, but jumps back into the safety position, the locking plate is screwed down with too much outward tilt at the top. The door can be easily opened with handle.

Remedy:

Correct locking plate by dimension "a".

c - When the locking plate is set too high, the door is hard to open by means of the handle. When the door is opened, it will not move out of door cutout in parallel alignment, but will sag.

Remedy:

Displace locking plate in downward direction.

d - When the locking plate is set too low, the door will merely engage in the safety position when slammed. But it will jump out again out of the end position.

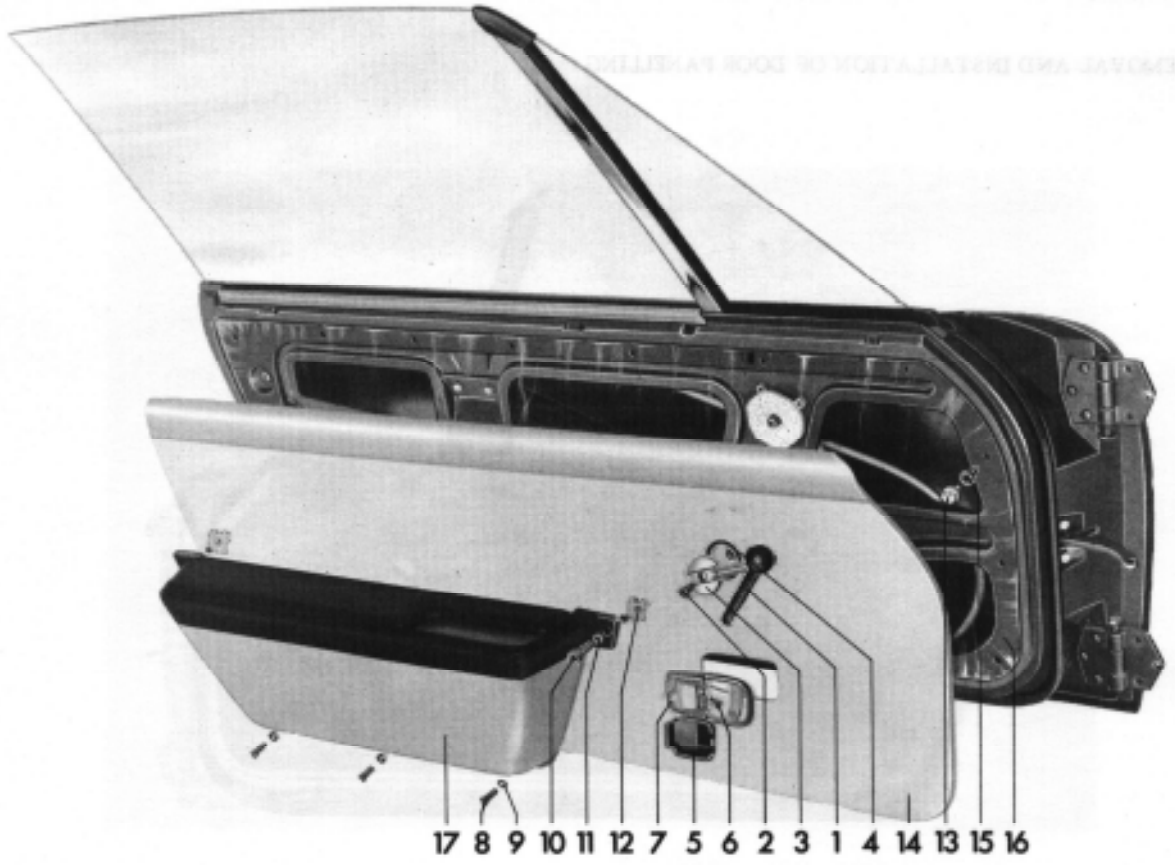
Remedy:

Displace locking plate in upward direction.

REMOVAL AND INSTALLATION OF DOOR PANELLING

Panelling driver's door

Panelling front passenger's door

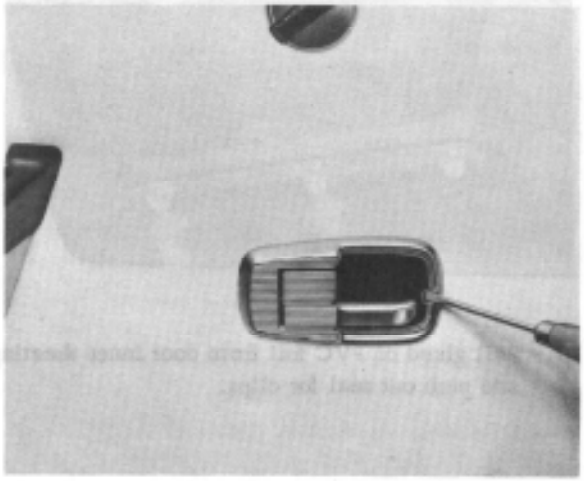


No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Cover for window crank	1	Press off		
2	Cross-slotted screw	1			
3	Window crank	1			
4	Shim	1		Check and replace, if required	
5	Handle shell for inside actuation	1	Observe special instructions!		
6	Cross-slotted screw	1			
7	Cover plate for inside actuation assy.	1			
8	Cross-slotted sheet metal screw	3			
9	Washer	3		Check and replace, if required	
10	Hex. socket screw	2		Check and replace, if required	
11	Washer	2		Check and replace, if required	
12	Cage nut	2		Place on door inside panel	
13	Clip	2		Check and replace, if required	
14	Door panelling	1			
15	Seal for clip	20		Check and replace, if required	
16	PVC foil	1		Check and replace, if required	
17	Door pocket	1			

Special Instructions:

Removal:

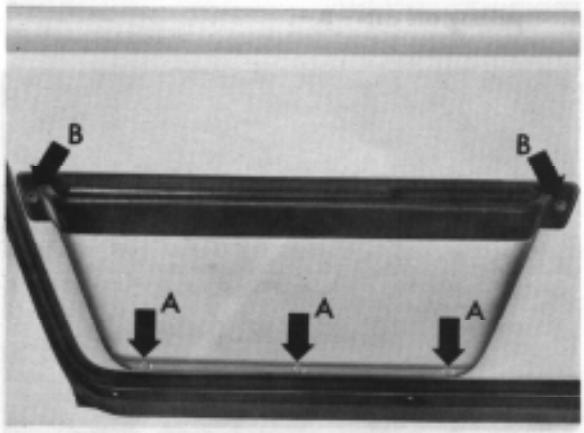
1 - Press off handle shell for inside actuation by using screw driver as a lever, unscrew one cross-slotted screw of cover plate for inside actuation and remove plate.



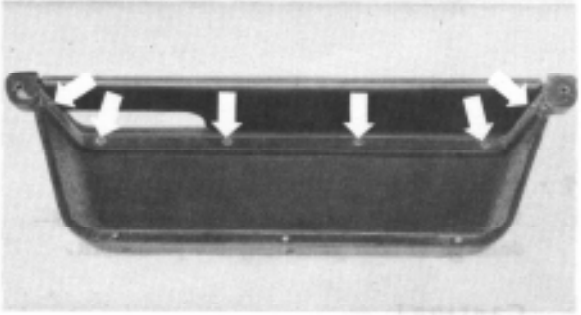
2 - Unscrew window crank after pressing of cap - A.

3 - Unscrew 3 sheet metal screws - arrow A - in lower range of door.

4 - Unscrew 2 hex. socket screws - arrows B - out of door pocket on side of driver.

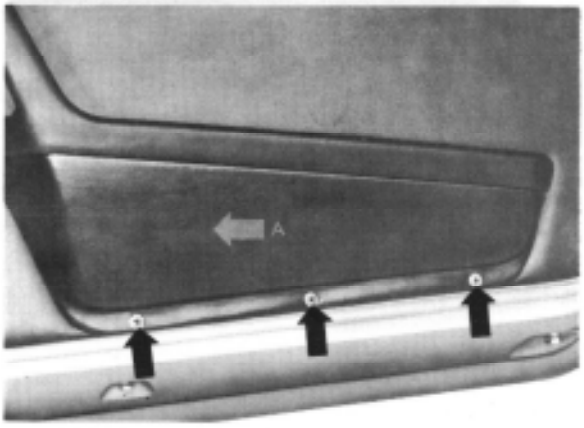


5 - The door pocket can be removed, if required, by unscrewing 6 sheet metal screws from arm rest.



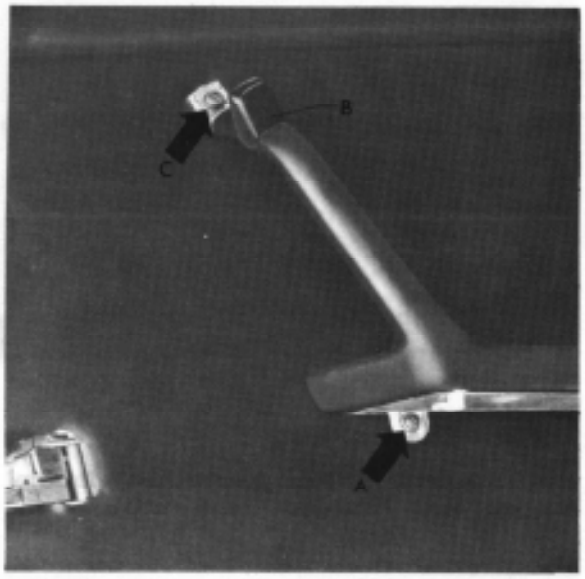
6 - When removing the door panelling on side of front passenger, observe the following:

a - Unscrew three sheet metal screws from arm rest bottom. Slide bottom in direction of arrow - A - and remove.



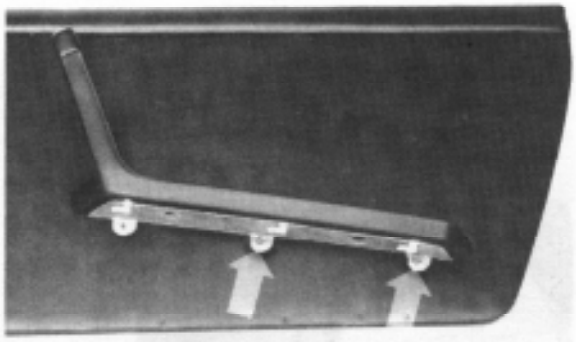
b - Unscrew oval head screw A.

c - Unscrew oval head screw - arrow C - after pulling off cab - B -.



Note for Front Passenger Door

After unscrewing 2 screw bolts from door panelling, the arm rest can also be replaced.

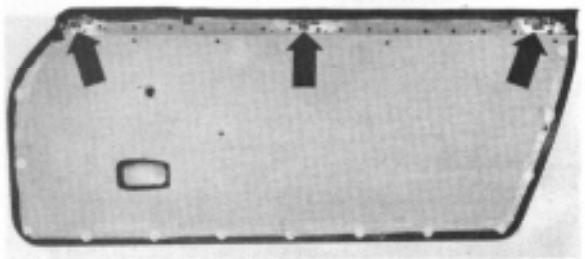


8 - Pull glued on PVC foil from door inner sheeting and push out seal for clips.

7 - Remove door panelling from door inside sheeting. Proceed carefully to prevent any damage to door panelling and paintwork.

Caution!

The door panelling is attached to three pertinent slots in the door inside sheeting by means of three welded-on sheet metal clips. For this reason, the door panelling must first be pulled off slightly and then removed in upward direction.



Installation:

1 - Check water drain holes for free passage and clean, if required.

2 - Check foam cover in range of remote control assy. and window crank, and be sure to replace if damaged. (Draft)

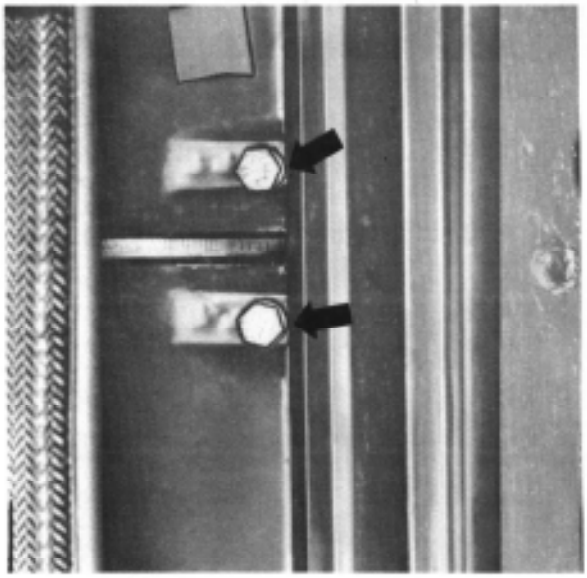
3 - Coat door inside sheeting lightly with universal glue D 12 and glue on PVC foil free of wrinkles. Perforate foil with dracing pin where the seals for the clips must be pushed in.

4 - When fitting door panelling, first attach plate clips to opening of inside door sheeting.

REMOVAL AND INSTALLATION OF DOOR SAFETY LOCK

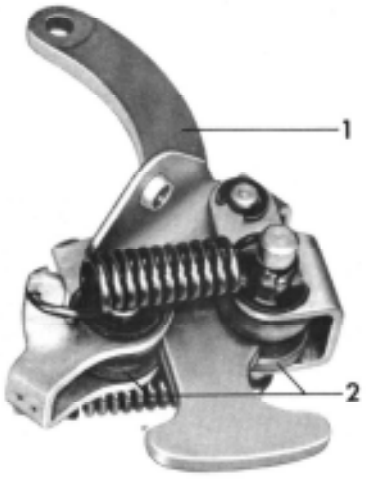
Removal:

1 - Extract cotter pin from bearing bolt of door holding plate and push out bolt.



2 - Remove door panelling and pull PVC foil from door inside sheeting.

3 - Unscrew two hex. screws holding door safety lock from door inside sheeting. Remove safety lock from between door inside and outside sheeting.



1 - Door holding plate
2 - Rollers

Installation:

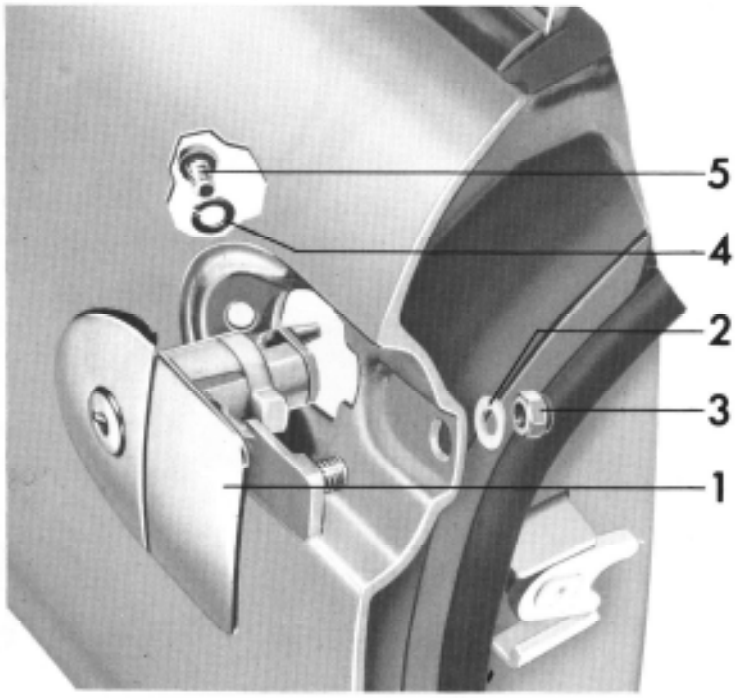
Prior to installation, lubricate bearing points of rollers in door safety lock with HD oil of viscosity SAE 30.

1 - Insert and screw safety lock in between door inside and outside sheeting.

2 - Reinsert bearing bolt, seal with cotter pin. Slightly lubricate joint of door safety lock.

3 - Glue in PVC foil, assemble door completely.

REMOVAL AND INSTALLATION OF DOOR HANDLE



No.	Description	Qty.	Note when removing	Note when installing	References
1	Door handle	1		Plastic lug must not press against lock actuating lever when in rest position.	See special instructions below.
2	Washer	1		Check, replace if necessary.	
3	Self-locking nut	1		Must be replaced.	
4	Lock washer	1		Check, replace if necessary.	
5	Socket head bolt	1	Unscrew (between door inner and outer sheetmetal).	Check, replace if necessary. Oil lightly.	

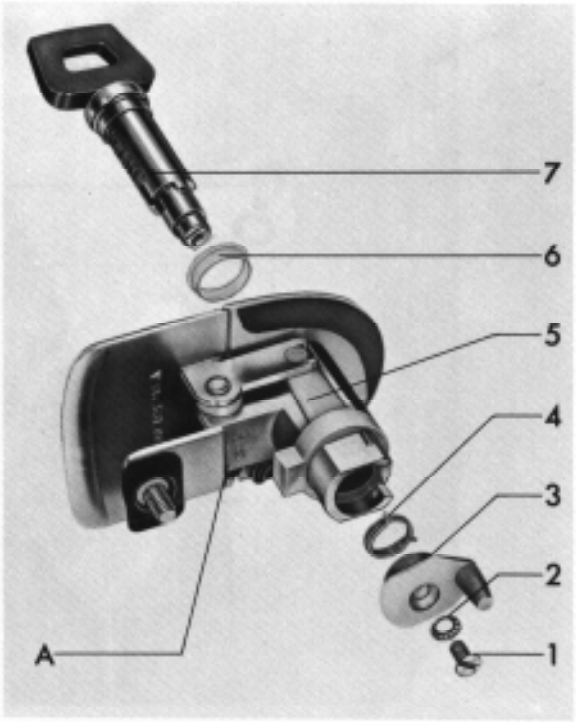
Special Instructions

Removal:

Move door window glass to topmost position and remove door paneling prior to removal of door handle (refer to 8-4.1-2/1, Removal and Installation of Door Paneling).

1 - Unscrew nut.
2 - Unscrew socket head bolt from between door inner and outer sheetmetal.
3 - Remove door handle.
Use new self-locking nut during reassembly.

REMOVING AND INSTALLING LOCK CYLINDER



No.	Description	Qty.	Note when Removing	Note when Installing	Detailed Instr.
1	Flat head screw	1			
2	Cone (lock) washer	1			
3	Eccentric	1			
4	Lock cylinder return spring	1			
5	Door handle	1			
6	Seal				
7	Lock cylinder	1		Lubricate with "Lubricant for Locks and Doors G 4"	
A	Key number				

Special Instructions:

The lock cylinder is located in the housing of outside door handle. To remove the lock cylinder, the outer door handle must first be removed.

Removing

1 - Remove flat head screw and cone washer and pull eccentric from lock cylinder.

2 - Remove lock cylinder return spring.

3 - Insert key and push lock cylinder with seal in forward direction out of door handle.

Caution
The inserted key prevents the loss of the tumblers and springs which are only loosely assembled in the guide ducts of the cylinder lock.

Installing

1 - Insert lock cylinder with inserted key and attached seal into door handle.

2 - Install spring on end of lock cylinder. The ends of the spring must be under tension between eccentric and housing.

3 - Push eccentric on square end of lock cylinder and install flat head screw with cone lock washer

4 - Install door handle and packing.

DISASSEMBLING LOCK CYLINDER

Remove lock cylinder and push tumblers and springs out of lock cylinder. The tumblers and springs are loose in the lock cylinder and are not peened.

LUBRICATING INSTRUCTIONS - LOCK CYLINDER

Before installing, lubricate lock cylinder with "Lubricant for doors and locks G 4" as follows:

a - Guide channels for tumblers (retainers)
b - Space between lock cylinder and housing
c - Grooves on lock cylinder housing

In winter cover the key holes before washing the vehicle with tape or caps available as accessories.

To thaw frozen lock cylinders, use an anti-freeze consisting of

40 % alcohol
50 % glycerine and
10 % anticorrosion oil

It is recommended that the lock cylinder be removed and dried well after thawing it out. Before reinstallation coat the outside of the lock cylinder with "Lubricant for doors and locks G 4".

REMOVING AND INSTALLING OF WINDOW REAR GUIDE CHANNEL

No.	Description	Qty.	Note when Removing	Note when Installing	Detailed Instr.
1	Philips head screw	1			
2	Guide piece	1			
3	Window guide channel	1			
4	Speed nut	1		Insert in window duct	
	Outside door panel	1			
5	Fillister head screw	1			
6	Washer	1			

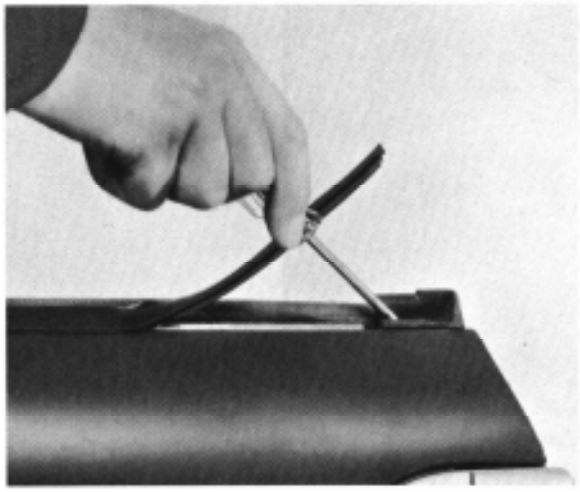
Special Instructions:

The window rear guide channel can be removed without first removing the door glass and lifter assembly.

Removing

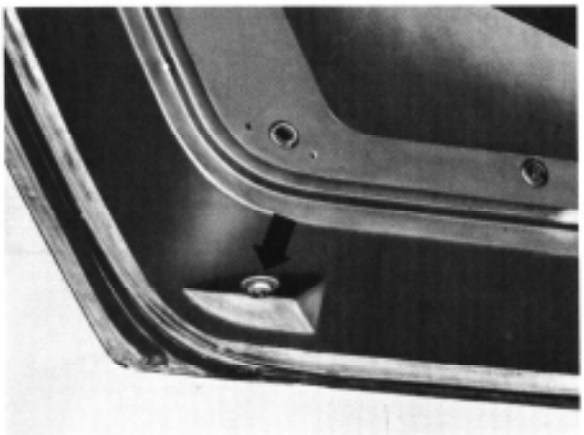
1 - Remove door panel (refer to 8/4.1-2/1) and pull off PVC sheeting. Then crank window completely down.

2 - Pull window weatherstrip back until window guide piece moves freely. Remove Philips head screw from guide. piece.



3 - Pull guide piece out in upward direction.

4 - Remove Fillister head screw at bottom of rear guide channel of door.



5 - Remove guide channel through opening in inner door panel.

Installing

1 - Clean guide channel and, if necessary, coat lightly with grease at inner edges.

2 - Crank window completely down.

3 - Install speed nut. Replace if necessary.

4 - Insert guide channel through lower panel opening.

5 - Push window guide piece on window guide channel and window duct.

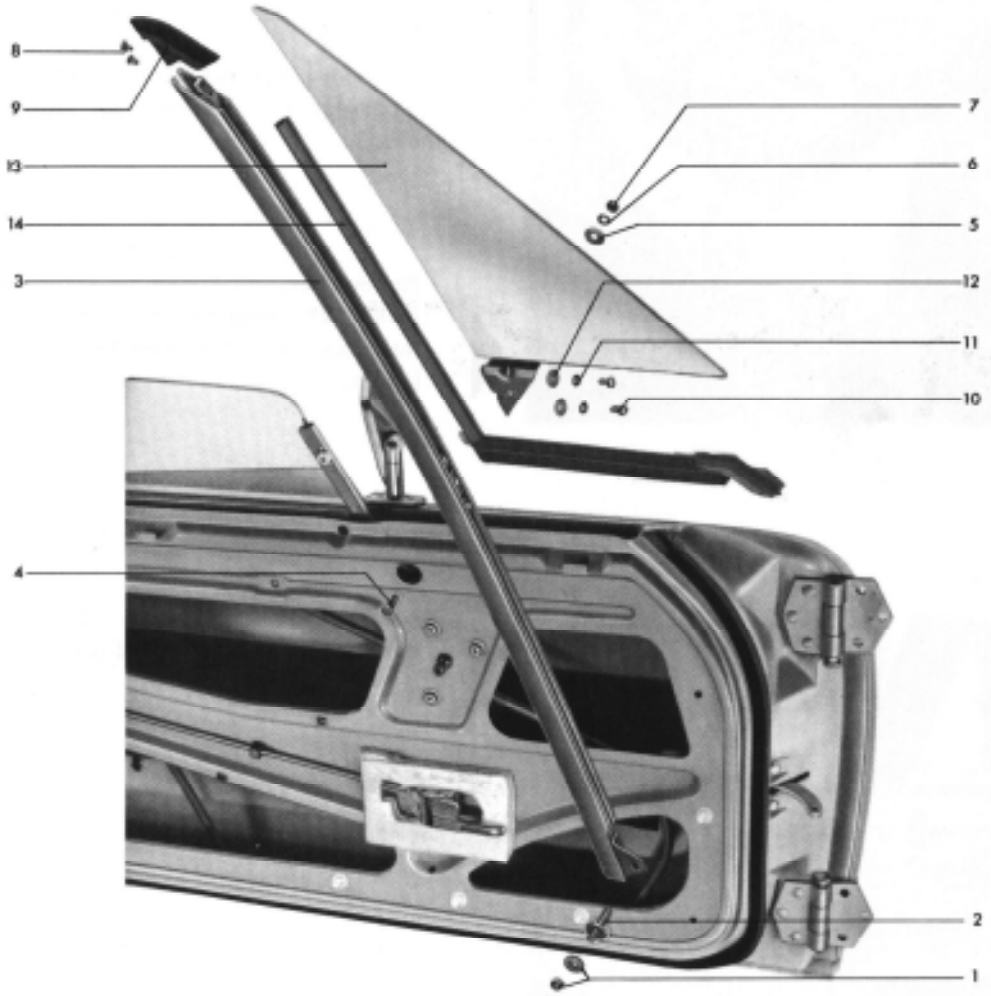
6 - Install Phillips head sheet metal screw and tighten guide piece to window duct.

7 - Align rear guide channel with window and tighten fillister head screw from outside of panel.

8 - Check window operation. Readjust bottom fastening screw if necessary.

9 - Install PVC sheeting and door panel.

REMOVING AND INSTALLING WINDOW FRONT GUIDE CHANNEL AND FRONT QUARTER (triangular) WINDOW



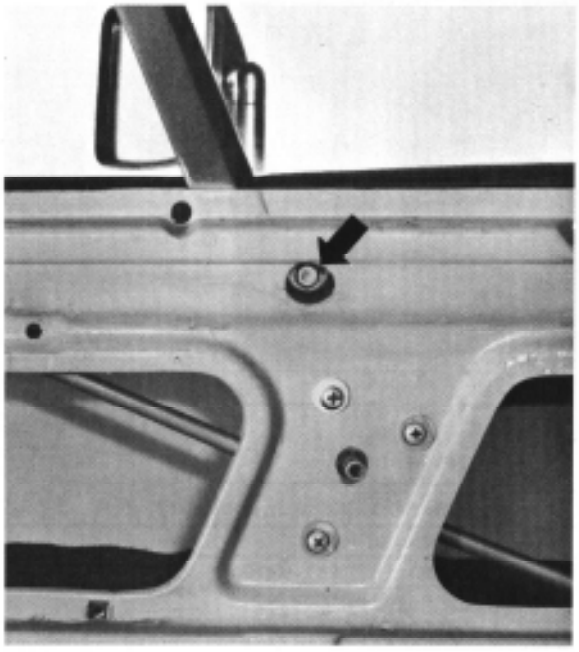
No.	Description	Qty.	Note when Removing	Note when Installing	Detailed Instr.
1	Nut, washer	1		Check, replace if necessary,	
2	Adjusting screw	1		lubricate lightly	
3	Window front guide	1	See special instructions	Grease running surfaces	
	channel			slightly	
4	Bolt, M 6x12	1		Check, replace if required, lubricate slightly	
5	Flat washer	1			
6	Lock washer	1			
7	Hex. nut	1			
8	Countersunk screw	2		Check, replace	
9	Protective cap	1		if necessary	
10	Bolt	2			
11	Lock washer	2			
12	Flat washer	2			
13	Quarter window	1	See special instructions	Seal with D 10 cement	
14	Sealing frame	1			

Special Instructions

Removing

Remove door panel first (refer to 8/4.1-2/1). The door glass and lifter assembly need not be removed.

1 - Remove hex. nut from adjusting screw - B - located at bottom of door. Turn adjusting screw into door until the window front guide channel is loose.



2 - Remove anchorbolt - arrow - from door, using an open end wrench to hold nut.

3 - Pull guide rail with quarter window approx. four inches (100 mm) out of door duct. Remove front guide adjusting screw and pull guide rail out completely.

Installing

1 - Slide front guide channel with front quarter window into window duct.

2 - Align quarter window with front guide channel to the windshield frame.

3 - Close door and check fit of door glass in relation to seals on roof and roll bar. For adjustment of door glass refer to 8/4.1-7/2.

4 - Seal quarter window and sealing frame with D 10 cement.

5 - Install door panel.

6 - Glue front of sealing frame to door seal with SICOMET 85 or similar adhesive.

REMOVING AND INSTALLING DOOR LOCK

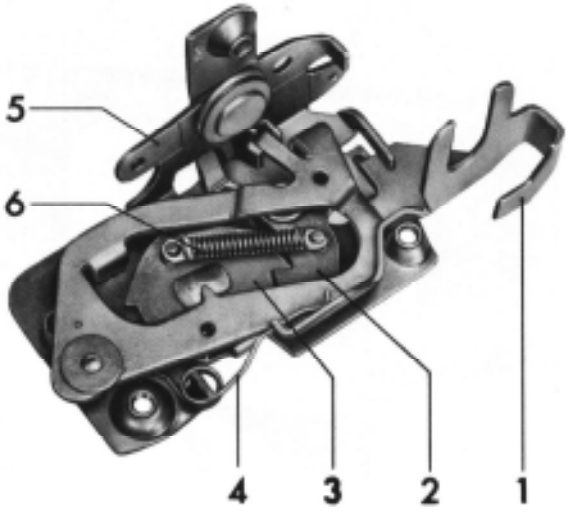
No.	Description	Qty.	Note when Removing	Note when Installing	Detailed Instr.
1	Retaining spring clip for pull rod	1		Check, replace if necessary	
2	Pull rod for inside actuation	1			
3	Philips head screw	3		Check, replace if necessary, lubricate lightly	
4	Door lock	1		Check operation, replace if necessary. Grease moving parts with "Lubricant for doors and locks G 4".	

Special Instructions:

Removing

First remove the door panel and the window rear guide channel (refer to 8/4.1-2/1 and 8/4.1-5/1). Pull off PVC sheeting from inside door panel.

1 - Actuating lever
2 - Pawl
3 - Rachet wheel
4 - Spring
5 - Remote control lever
6 - Draw spring



1 - Wind window completely up.

2 - Remove retaining spring clip for pull rod (No. 1) and disconnect rod.

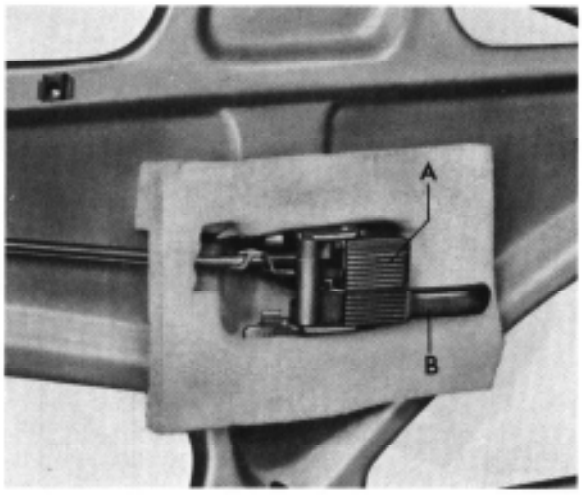
3 - Move lock latch to vertical position, remove three philips head screws and pull lock downward out of door.

Installing

1 - Move lock latch to vertical position and insert lock into door from below. Fasten with three Philips head screws.

2 - Attach pull rod to remote control lever on lock. Slide retaining spring clip at end of pull rod toward opposite end of hook, connect pull rod to lock and turn retaining clip on rod until it snaps in place.

3 - Before further assembly check the operation of the door lock release lever and safety catch. To make adjustments to the length of the pull rod use a bending tool or pliers as required.



Caution!

The correct length of the pull rod is attained if the opening lever - B - on the inside door handle is aligned with the safety lever - A -.

To prevent any rattling of the pull rod, be sure that the pull rod holder is properly inserted in the inside door panel.

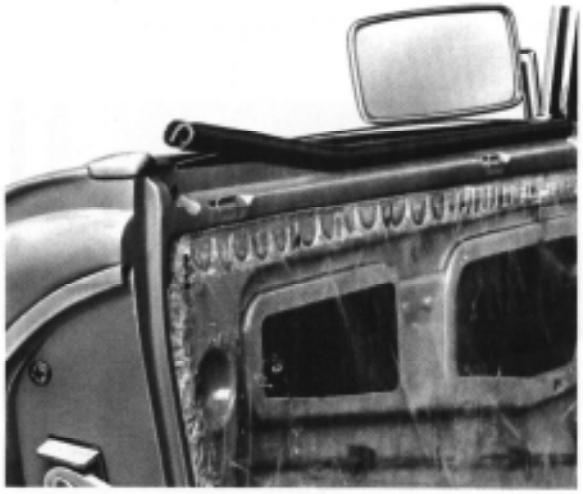
4 - Install window rear guide channel and door panel. Glue on PVC sheeting.

REMOVING AND INSTALLING DOOR WINDOW

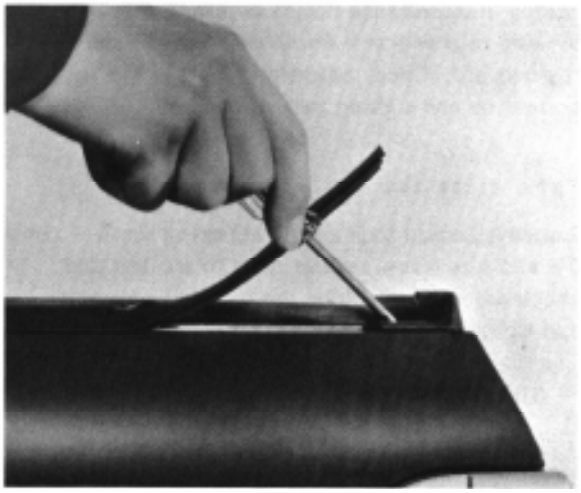
Removing

Remove door panel first (refer to 8/4.1-2/1).

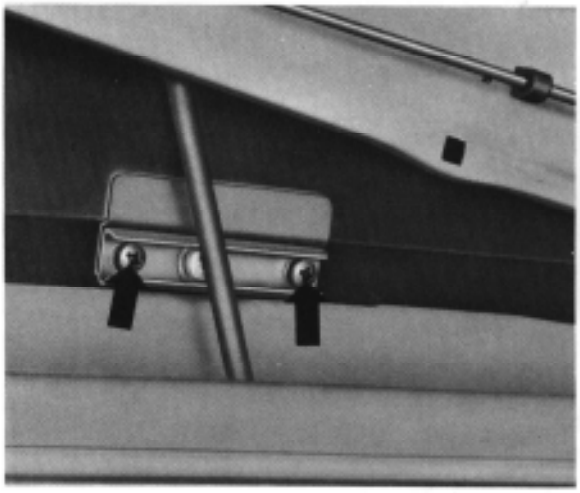
1 - Pull off inside door duct weatherstrip.



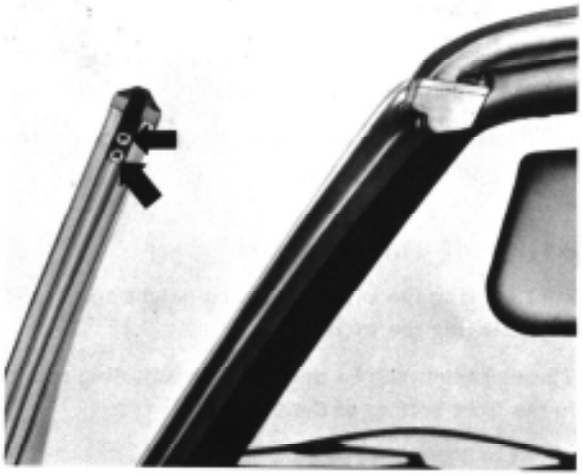
2 - Remove guide piece from window rear guide channel.



3 - Remove two Philips head screws to loosen window lifter channel.



4 - Remove two Philips head screws and pull off protective cap on front quarter window.

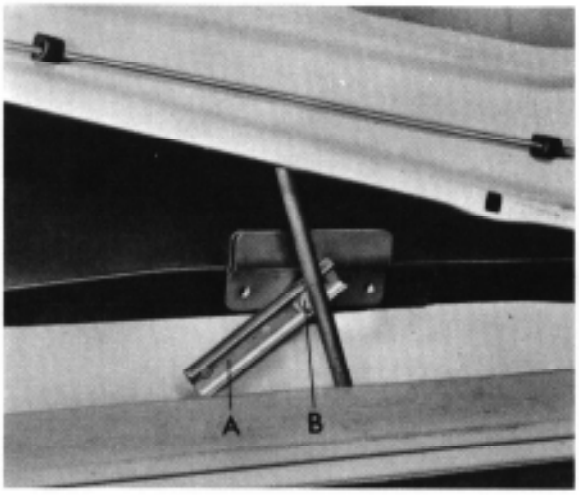


5 - Lift door glass out of window duct.

Installing

1 - Insert door glass with guide rollers into window channel.

2 - Clean guide rail - A - if necessary, and coat slightly with grease at inner edges. Then slide on guide roller - B - and fasten to window lifter channel with two Philips head screws.



A - Guide rail
B - Guide roller

3 - Insert window rear channel guide piece and fasten with Philips head sheet metal screw.

4 - Press on door duct weatherstrip on flange of inside door panel.

5 - Open and close window several times to check for free operation.

6 - Close door and check glass alignment with seals on roof and roll bar.

Adjusting Instructions:

a - Changing the window winding height and
b - Changing the window tilt.

These changes can be made by two adjusting screws in the front bottom of the door.

Ref. a

Window cannot be cranked high enough

Remedy: Loosen lock nut on adjusting screw - arrow A - and release screw for several turns. Move window to top position and check adjustment. Make the required correction and tighten lock nut again.

Window can be cranked up too high

Remedy: Crank window down approximately one turn. Loosen lock nut on adjusting screw - arrow A - and tighten screw for several turns, move window to top position and check adjustment. Make the required correction and tighten lock nut again.

Ref. b

Glass tilts too far inward

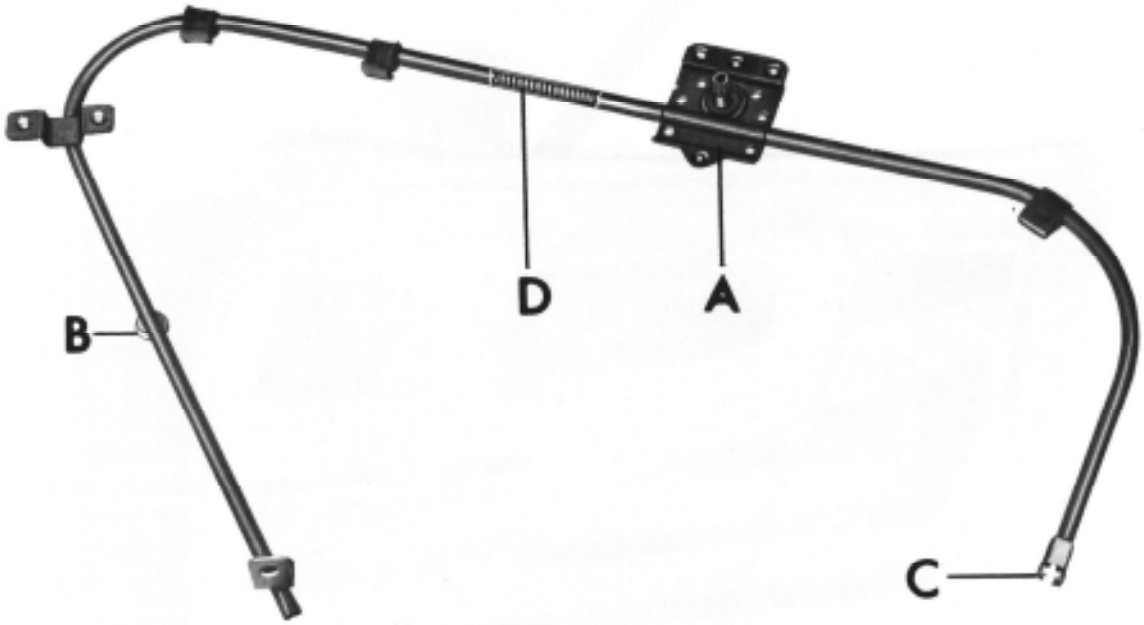
Remedy: Loosen lock nut on adjusting screw - arrow B - and release screw for several turns. Pane will tilt outward. Check adjustment. Make the required correction and tighten lock nut again.

Pane tilts too far outward

Remedy: Loosen lock nut on adjusting screw - arrow B - and turn screw several turns to the left and check adjustment. Make the required correction and tighten lock nut again.

7 - Glue on PVC sheeting and install door panel.

WINDOW LIFTER - DESCRIPTION



A - Drive
B - Guide rollers
C - Stop
D - Coil

The single-track, cable-operated window lifter is secured to the door inner panel at six points by Philips head sheet metal screws.

The guide roller (B) is attached to the cable control coil and winds the door window up and sown when the drive (A) is actuated.

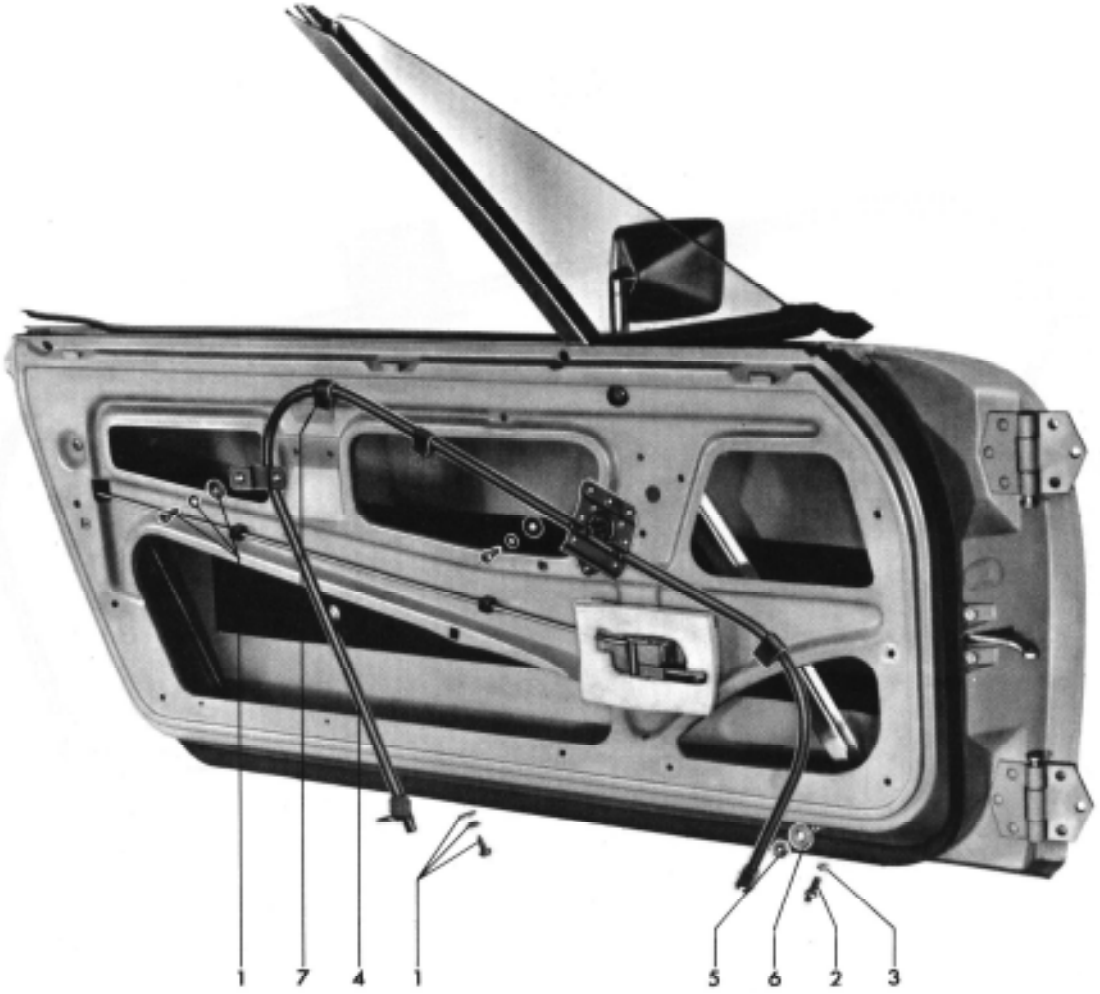
The adjusting height of the window lifter or the door glass can be set by an adjusting screw on the stop (c).

The cable control coil is coated with perlon flocking and is therefore oiled. Not greased.

The cable and drive coil are housed in a slotted tube to which the drive is also secured.

Individual parts of the window lifter are not exchangeable.

REMOVING AND INSTALLING WINDOW LIFTER

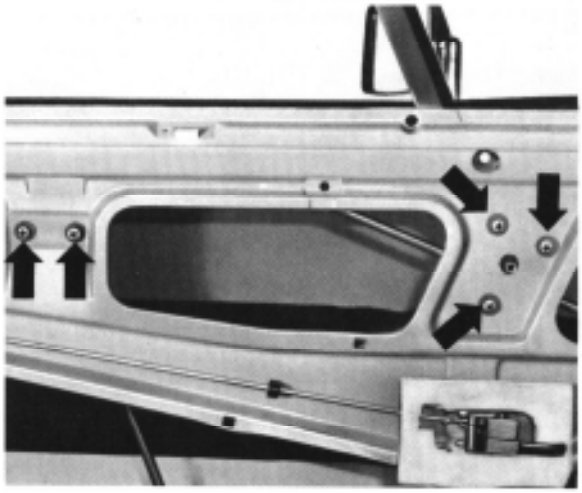


No.	Description	Qty.	Note when Removing	Note when Installing	Detailed Instr.
1	Philips head screw, lock washer, flat washer	6	Remove five screws from inside door panel, one screw from under door	Check, replace if necessary	
	Inside door panel	1			
2	Adjusting screw (winding height)	1			8/4.1-7/2
3	Hex. nut	2			
4	Window lifter	1			
5	Hex. nut (to lock lateral tilt adjusting screw)	1		Check, replace if necessary	8/4.1-7/2
6	Flat washer	1			
7	Foam strip	3			

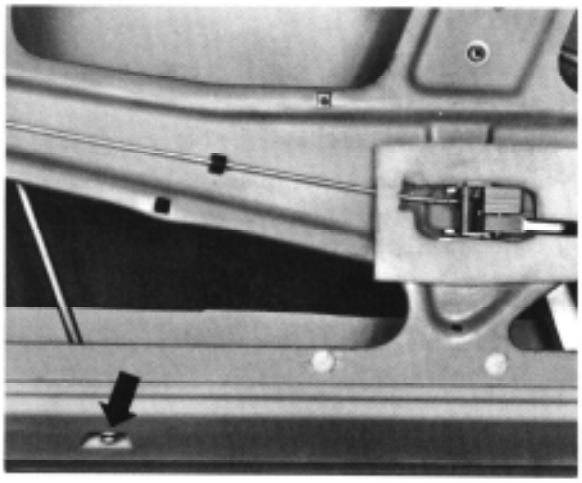
Special Instructions:

Removing

Remove door paneling (refer to 8/4.1-2/1) and door glass (refer to 8/4.1-7/1) first.



five Philips head sheet metal screws

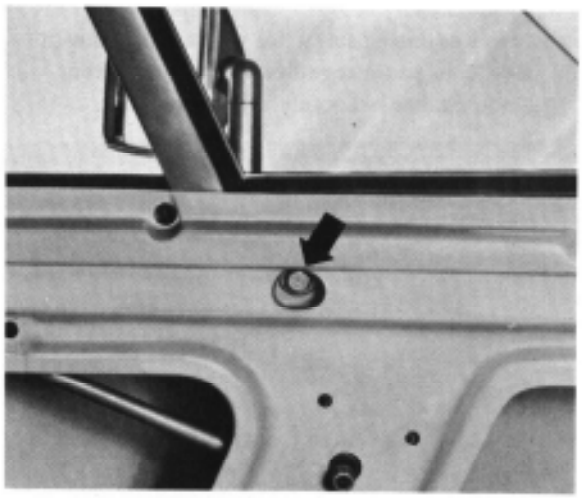


One Philips head sheet metal screw

1 - Unscrew lock nut from adjusting screw - arrow A - and remove adjusting screw. Push window lifter out of rubber sleeve.

2 - Loosen lock nut from adjusting screw - arrow B - and turn adjusting screw down until the front window guide rails are loose.

3 - Remove hex. head bolt - arrow - (hold nut with open end wrench.)



4 - Pull window front guide channel toward the rear. Push window lifter drive from inside door panel and remove window lifter from door duct.

Installing

Check operation before installing lifter. If necessary straighten slotted tube and oil drive coil. If tight spots cannot be eliminated, replace window lifter.

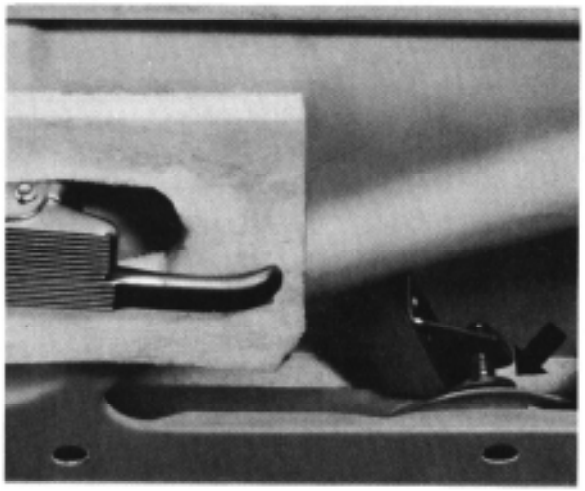
If the coil in the slotted tube of the window raiser should rattle, carefully squeeze tube at the location where the rattling occurs.

1 - Insert window lifter in door duct.

2 - Insert window lifter with stop into rubber sleeve of inside door panel.

Turn in adjusting screw with nut and lock.

3 - Insert adjusting screw for window tilt into inside door panel together with window front guide channel. Loosely attach lock nut.



4 - Loosely attach window front guide channel with anchor bolt.

5 - Insert window duct weatherstrip near front quarter window.

Note

If the window duct weatherstrip at the quarter window end should become loose during assembly, glue to door seal with SICOMET 85 cement or similar adhesive.

6 - Attach window lifter with six Philips head screws.

7 - Install door glass (refer to 8/4, 1-7/1). Crank up and check fit with door closed, then make corrections, if necessary.

8 - Fasten lock nut on window tilt adjusting screw.

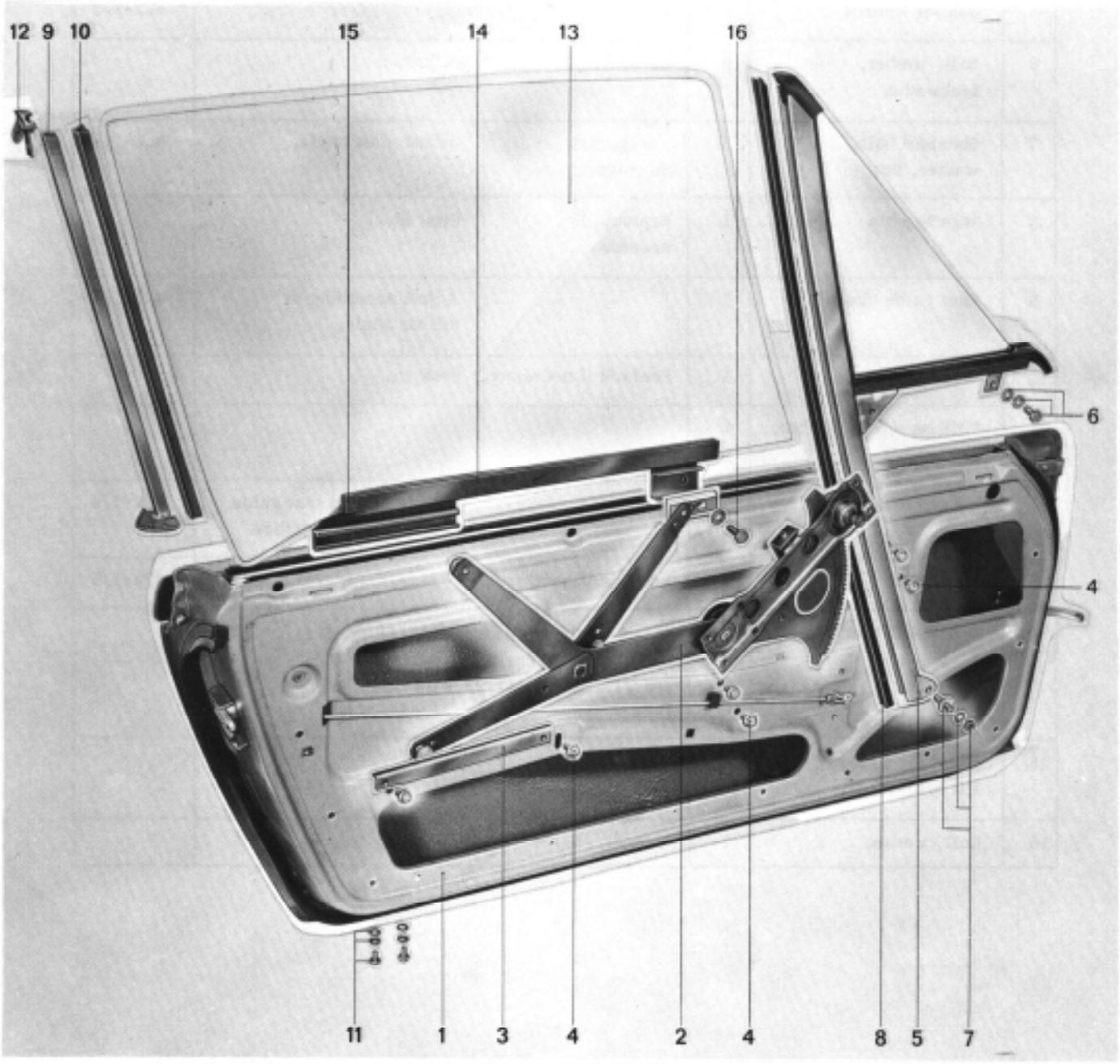
9 - Fasten anchor bolt for window front guide channel.

10 - Glue PVC sheeting to inside door panel and install door panel.

REMOVING AND INSTALLING WINDOW REGULATOR - 1973 MODELS

General

Beginning with 1973 models, Type 914 cars are equipped with modified window regulators. The following parts had to be modified as well:
Door glass with lift bracket; front and rear window guide channels with weatherstrip; door shell (inner panel and base); channel end piece; inside door release cover plate; window regulator crank and cover; leatherette attachment at the door panel trim strip.



No	Description	Qty.	Note when removing	Note when installing	Remarks
1	Door	1			
2	Window regulator	1	Check, replace if necessary.		4.2-1/4
3	Guide rail	1		Adjust.	4.2-1/4
4	Bolt	6		Replace if necessary.	
5	Front guide channel with quarter window	1	See remarks.		4.2-1/3 4.2-1/5
6	Bolt, washer, lockwasher	2	Remove.	Adjust.	
7	Shoulder bolt, washer, nut	1	See special instructions	Adjust glass angle.	4.2-1/3
8	Weatherstrip	1	Replace if necessary.	Press in.	
9	Rear guide channel	1		Adjust according to rollbar angle.	4.2-1/4
10	Weatherstrip	1	Replace if necessary.	Press in.	
11	Phillips screw, washer, lockwasher	2			
12	Channel end piece	1		Push in behind rear guide channel, bolt together.	4.2-1/4
13	Door glass	1	Replace if necessary.		4.2-1/6
14	Window lift bracket	1	If loose, glue in with DEKAFLEX-8089 and hardener "A", curing 25 minutes at 60°C; or use TEROKAL-2441-2K with 24-hr curing time.		
15	Insert for window lift bracket.	1			
16	Bolt, washer	1			

Removal

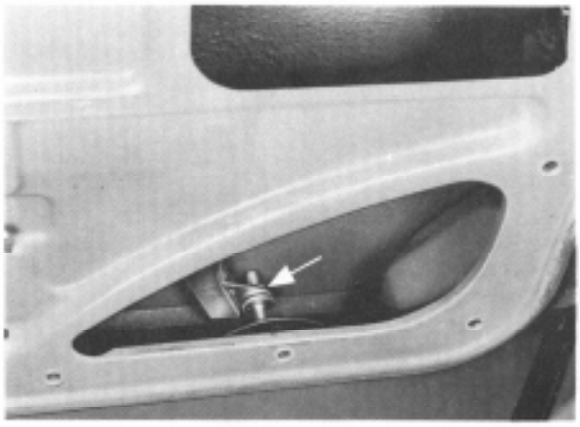
1. Remove cover from window regulator crank. Unscrew countersunk screw and pull crank off.

2. Remove door release cover plate.

3. Remove upper and lower door pocket retaining screws, unhook spring, and take the pocket off.

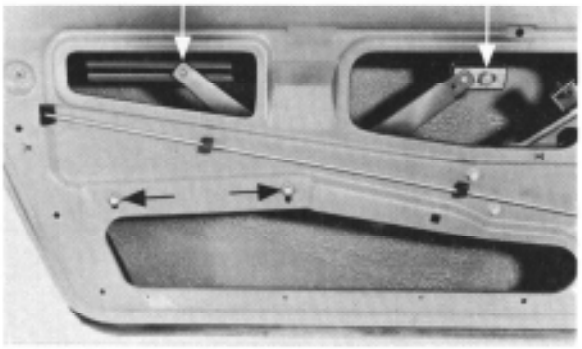
4. Pull door panel out of bottom retainer and take off upward.

5. Remove door inner controls.



6. Pull foil off door inner panel. Remove door inner seal.

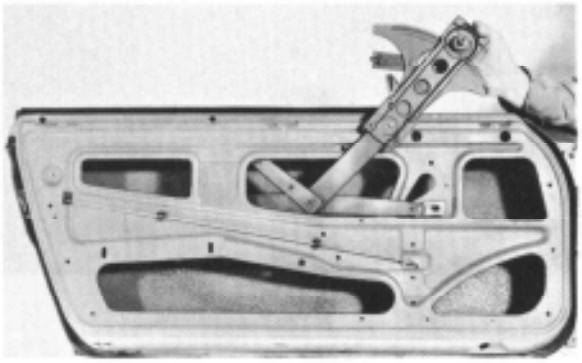
7. Remove lock nut from front guide channel and screw shoulder bolt in. Remove upper channel fasteners. Break glue joint to door weatherstrip. Pull front guide channel up; unscrew shoulder bolt, take channel out.



8. Adjust door window to a height of about 10 cm above the upper edge of the door.

9. Remove adjusting screw from the plastic wedge at the front lift arm. Pull the window out of the lift bracket and remove from door.

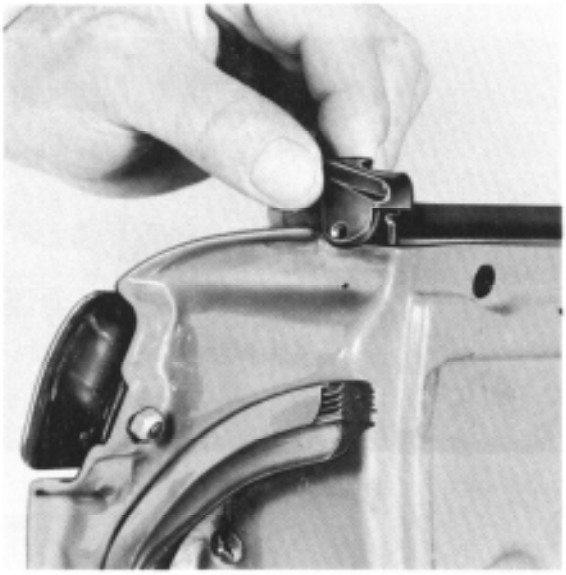
10. Unscrew guide rail from door inner panel and push off the guide head.



11. Unscrew self-locking bolts shich secure the window regulator and take the regulator out.

12. Remove rear channel end piece retaining screw. Remove Phillips screws from bottom part of the rear channel and take the channel out.

Installation



1. Attach door outer weatherstrip to door shell with brush strip and rubber seal.

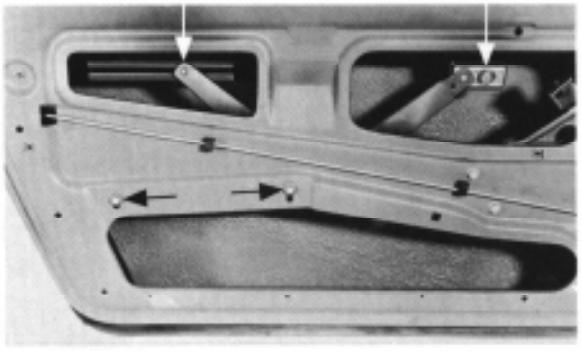
2. Insert rear guide channel with weatherstrip (use new weatherstrip, if necessary) into the door shell and attach at the top together with the channel end piece. Lightly tighten the screws in the door bottom.

3. Insert window regulator and secure with self-locking bolts. Adjust the regulator to about 10 cm above its lowest point. Slide guide rail onto the guide head and fasten to door inner panel.

NOTE:
The cutout in the guide rail must be at the rear and facing down when attached.

Grease all moving parts of the regulator.

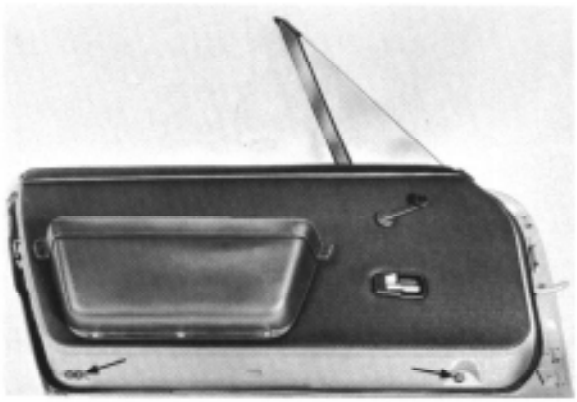
4. Insert window glass. Slide plastic plug into the window lift bracket. Insert plastic plate in forward part of guide channel and tighten lightly.

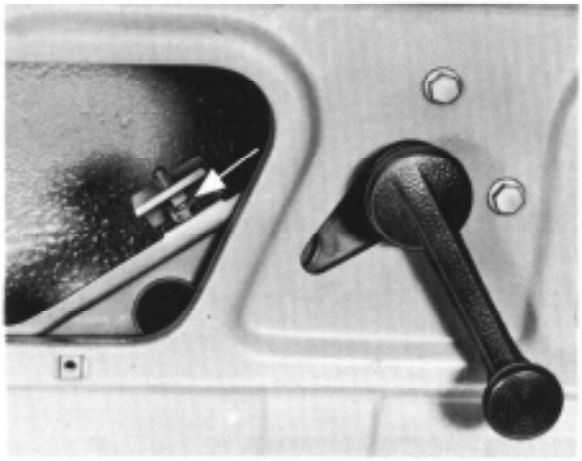


5. Insert front guide channel with weatherstrip (replace if necessary) and complete quarter window with upper protector piece. Make sure that the window rides in the guide channel. Turn the shoulder bolt into the front guide channel all the way to its shoulder. Push the front guide channel inside the door shell so that the quarter window sealing frame is fully in the door. If necessary, drive it in with an appropriate wooden wedge.

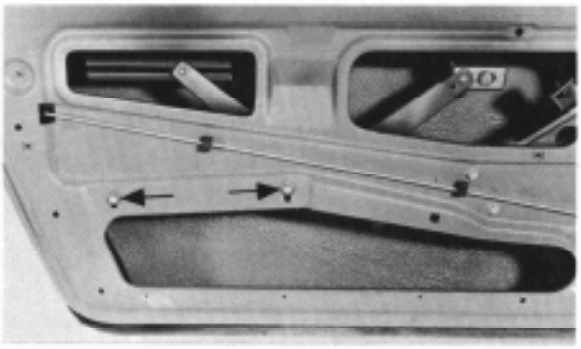
6. Secure front guide channel and quarter window assembly. Adjust the shoulder bolt to the required angle in reference to the door weatherstrip, tighten lock nut.

7. Adjust the rear guide channel in parallel. Crank the window up and check alignment in relation to the roll bar, adjusting if necessary.



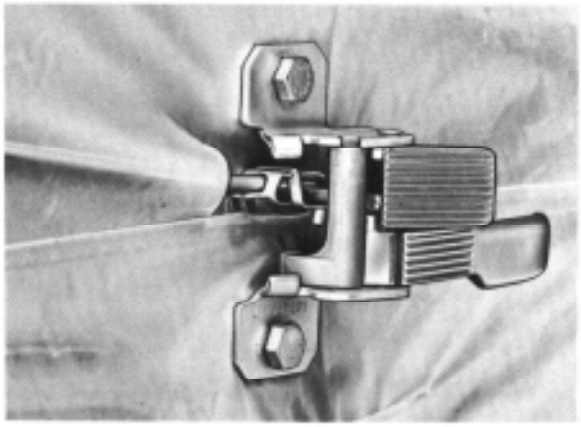


8. Crank window up to the roof weatherstrip level. Unscrew travel limiting bolt as far as it will go, tighten lock nut.



9. Adjust guide rail at the door inner panel so the window moves freely (lengthwise) in the front guide channel. Tighten all mounting points.

10. Install door inner seal.

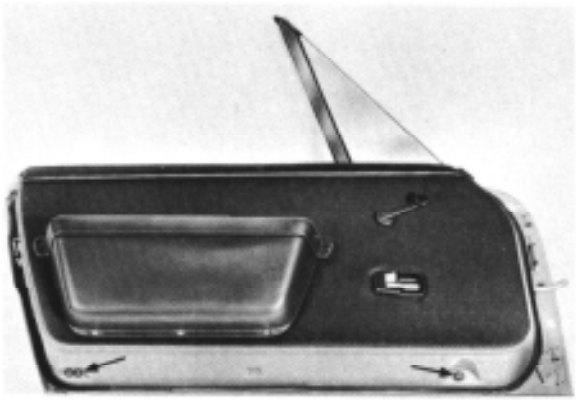


11. Glue sealing foil tightly to the door inner panel. Connect inner door release to the linkage and bolt on in such way that the locking lever is flush with the door release lever.

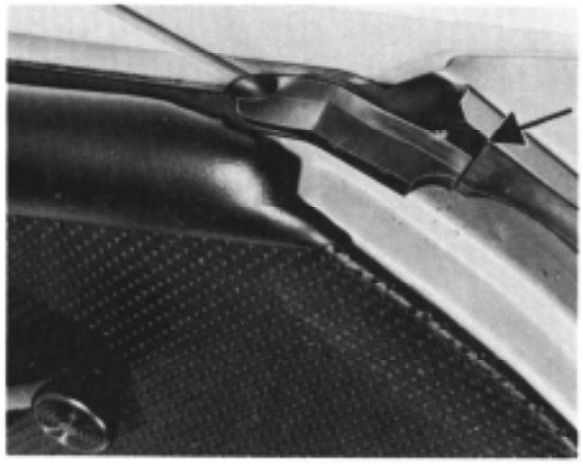
12. Replace damaged door panel clips and sockets. Hang the panel in place on its hooks and press retaining clips in.

13. Secure door release cover plate. Connect side pocket spring and fasten side pocket.

14. Install window crank with washer. Coat countersunk screw with LOCTITE, install with lock washer, and tighten. Press handle cover into place.



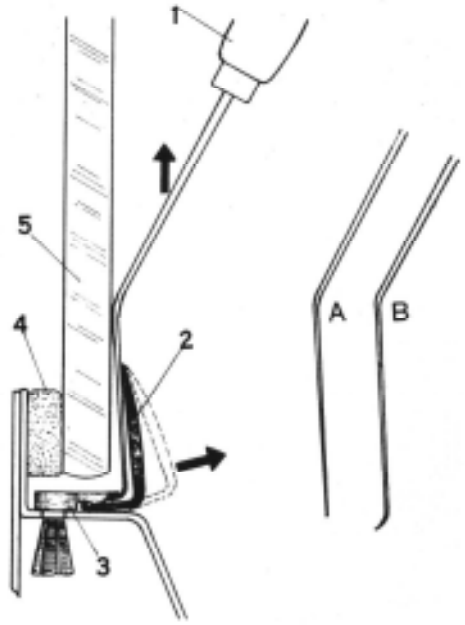
15. Close door and check alignment of window in relation to weatherstrip along the windshield corner post and roll bar. If necessary, correct the window angle by readjusting screws in the door bottom.



16. Glue weatherstrip of the quarter window to that of the door.

REMOVING AND INSTALLING WINDSHIELD

The safety glass windshield is bonded with its weatherstrip to the frame. This bonding installation method provides for good sealing and eliminates any stress to the glass.

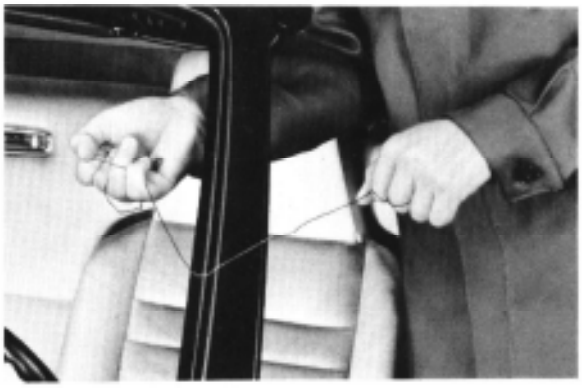


1 - Scraper or flat steel stock
2 - Trim strip
3 - Plastic retaining clips
4 - SOLBIT seal
5 - Windshield

Removing

1 - Remove windshield trim strip. To do this, modify two scrapers or flat steel stock approx. 25 mm (1 in.) wide. Tool "A" is used for locating the retaining clips. Tool "B" is used for lifting the clips to free the trim strip.

2 - Remove screws from side and top of upholstered inner windshield frame.



3 - Remove edge liner from lower windshield flange.

4 - Cover the instrument panel area adjacent to the windshield with cloth tape to prevent damage when "cutting" the windshield out.

5 - Push thin bailing wire through the rubber seal. Work wire carefully along glass to cut the bonding.

Note:

If the seal cannot be cut through (too hard), in some case it will be necessary to break the windshield and then remove the glass pieces from the frame recess.

Caution!

Use gloves and goggles for protection against glass chips. Cover the car interior and exterior to prevent damage.

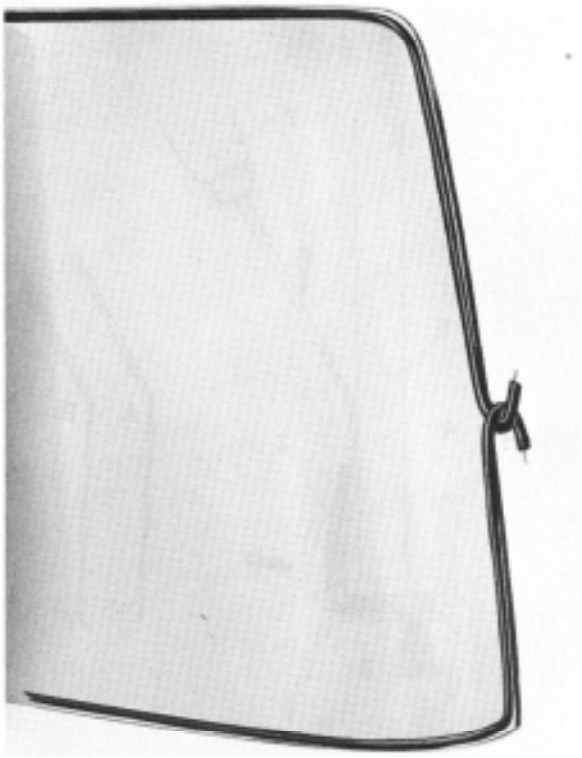
6 - Using a sharp knife, carefully remove remaining seal from the windshield.

Installing

Install the windshield with "SOLBIT TWS", (8 mm dia.) manufactured by BOSTIK or similar.

1 - If necessary, install expansion pins for mounting the trim strip retainers in windshield frame.

2 - Clean the windshield frame with laquer thinner.



3 - Apply "SOLBIT primer 5014" with a brush to bonding surface of windshield.

4 - Warm up the SOLBIT seal in the package for approx. 15-40 seconds until the seal becomes slightly tacky on the ends. This can be done by:

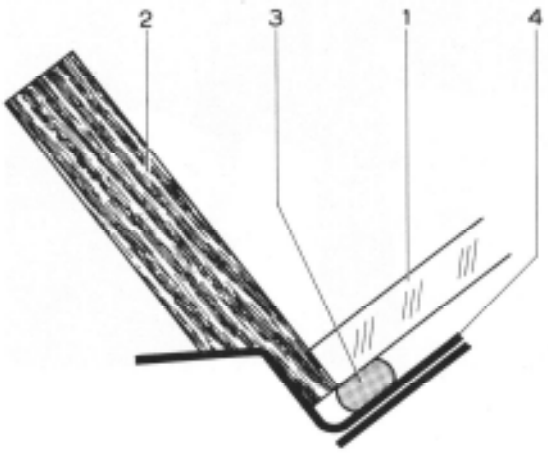
a. connecting a battery charger adjusted to an output of 24V and 11A (6V per meter at 11A),

or

b. connecting two 12V batteries (in good electrical condition) in a series (positive terminal of one battery to negative terminal of the other).

5 - Press the seal into the edge of the windshield. Bend the seal ends at right angles. The ends of the seal should meet on the side of the windshield. Twist ends.

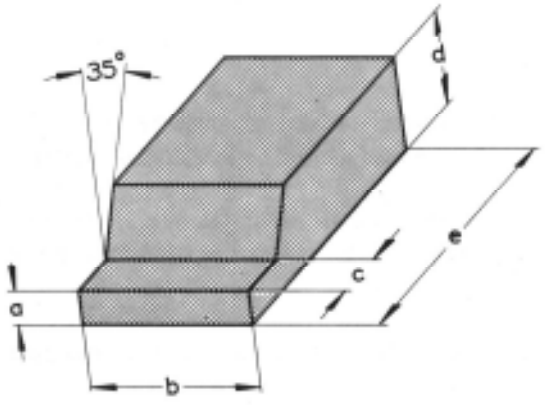
6 - Insert windshield in frame recess. Position two 4 mm (0.16 in.) thick wooden spacer strips into the lower area between windshield and frame recess.



Sectional view of lower windshield and frame

1 - Windshield
2 - Wooden spacer strip
3 - SOLBIT seal
4 - Windshield frame recess

The wooden spacers are local manufacture items.



a = 4 mm (0.16 in.)
b = approx. 20 mm (0.79 in.)
c = 10 mm (0.39 in.)
d = approx. 11 mm (0.43 in.)
e = approx. 55 mm (2.17 in.)

Note:

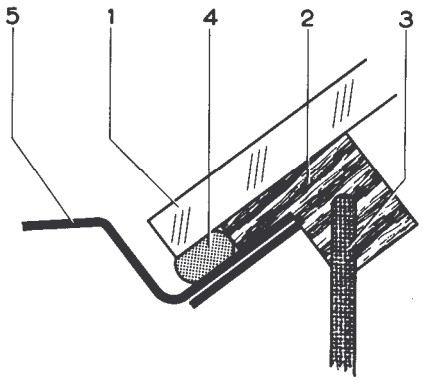
Make sure that the windshield is positioned in center with equal space between glass edge and frame recess on both sides.

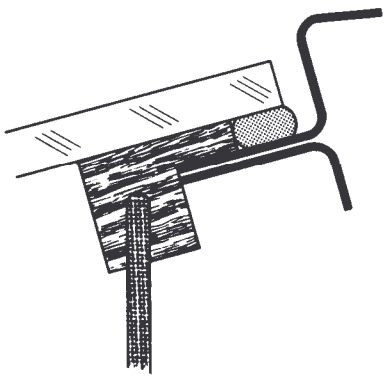
Caution

The seal must make contact along the bottom outer edge of the windshield or else the edge liner cannot be positioned.

7 - Insert two wooden spacers at top and bottom.

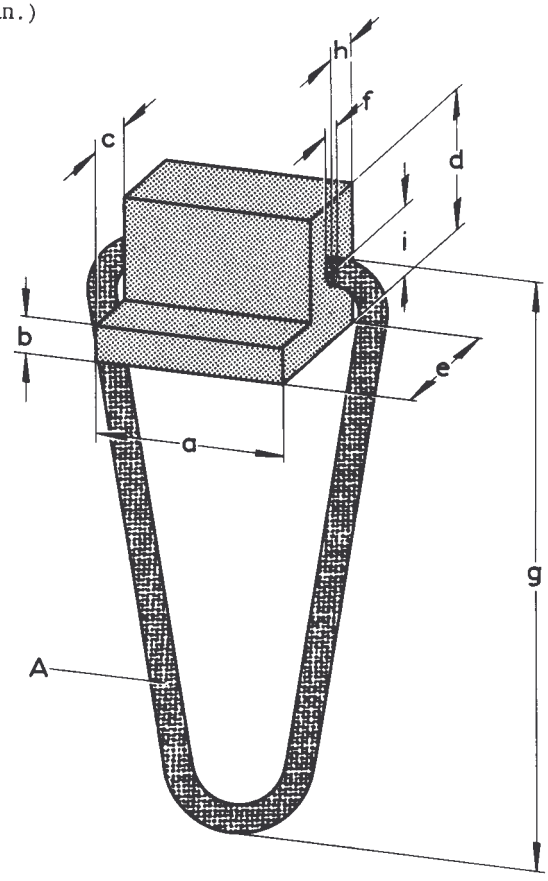
Cross-section of lower and upper windshield area





1 - Windshield
2 - Wooden spacer blocks
3 - Pull grip
4 - SOLBIT seal
5 - Windshield frame

a =	approx. 20 mm (0.79 in.)	f =	3 mm
b =	4 mm (0.16 in.)	g =	60 - 80 mm (2.36 - 3.15 in.)
c =	8 mm	h =	6 mm (0.24 in.)
d =	approx. 15 mm	j =	8 mm (0.31 in.)
e =	approx. 20 mm (0.79 in.)	A =	Pull grip



8. Apply masking tape to body below the connecting point.

9. Reconnect seal to electrical power source. After approx. 3 minutes of heating, the seal becomes so soft enough that it can be compressed to a thickness of 4 mm. Press windshield down with hands. The pressure should be maintained for about 5 seconds.

10. Heat the windshield for a total of 60 minutes.

11. After the heating period, cut the protruding ends of the seal at the windshield edge and smoothen the cut with a putty knife.

12. Remove wooden spacer blocks and strips.

13. Fasten upholstered windshield frame sections in place.

14. Install windshield trim strip.

15. Press edge liner on the windshield frame.

Note:

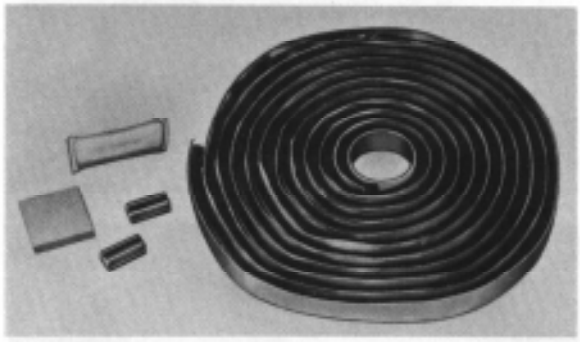
Materials contained in the repair kit are useable for a period of up to 6 months if stored at a temperature of approx. 20° C (68° F).
The kits can be stored indefinitely at temperatures below freezing.

REMOVING AND INSTALLING WINDSHIELD

General Notes

To facilitate replacement of the windshield, a new repair kit, Part No. 914 541 910 10, with a self-adhesive seal is now available.

Probably Scotch Window Weld 5/16" (≈ 8mm)



Removing

1. Cut out windshield with steel wire - refer to Group 8, 5.1 - 1/1 of the Repair Manual.

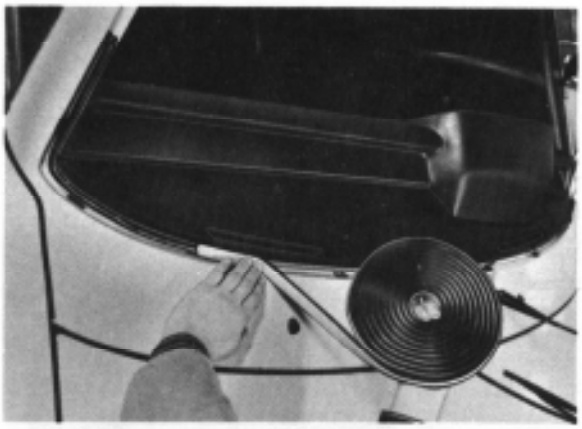
2. Remove all old seal residue from windshield flange.

3. Paint damaged flange surfaces.

Installing

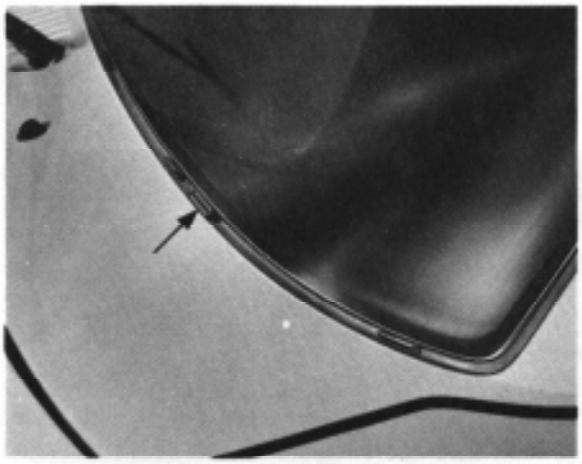
1. Install clean windshield and align with windshield frame, making marks on windshield and frame.

2. Clean and degrease windshield flange and edge of windshield glass with Acetone thoroughly.



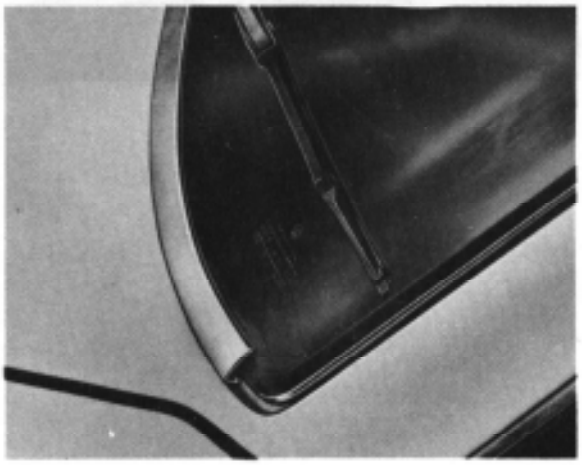
3. Place self-adhesive seal around windshield flange and pull off protective paper.
Cut off excess seal and tie ends tight.

4. Coat edge of windshield glass with a primer - about 15 mm wide - and air dry.



5. Insert spacer (included with kit) at bottom of flange and install windshield according to marks. If necessary, cut off enough of spacer to provide equal distances between windshield and opening at top and bottom. Press edge of windshield evenly until it can be seen that the seal fits at least 6 - 10 mm all the way around.

6. Place suitable rubber liners on two bottom outboard clips as well as in the middle between the windshield and clip, to prevent the windshield from wandering downward. Remove spacers.



7. Install trim moulding and press down on windshield until the moulding fits tightly.

REMOVING AND INSTALLING, REAR WINDOW

The rear window safety glass is bonded with its weather strip to the frame. This method of installation provides for good sealing and eliminates any stress to the glass.

Removing:

Remove both seats and remaining back rest, engine compartment lid release, interior light, rear wall panel and roll bar padding.

1 - Remove rear window flange seal.

2 - Push thin bailing wire through the rubber seal. Work wire carefully along glass to break the bonding.

3 - Clean glass of remaining seal.

Installing:

Install window with "Solbit TWS 8 mm" manufactured by Bostik or similar.

1 - Clean window seal contact surfaces with laquer thinner.

2 - Apply "Solbit primer 5014" to bonding surface with a brush.

3 - Cut Solbit strip to a length of 10 ft. 6 in. (3200 mm). Connect ends to power source for approximately 1 minute (6 volt per 3 ft. at 11 amps).

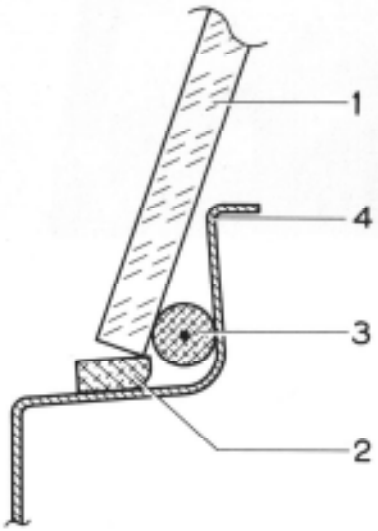
We suggest the following power surces:

a - A battery charger using a 12 volt scale. Adjust to 12 volt at 11 amps.

b - One 6 volt battery and one 12 volt battery connected in series. (positive pole of first battery connected with negative pole of second battery).

4 - Press Solbit strip against edge of window glass. The ends should meet at the center of the lower edge. Twist ends.

5 - Install window from inside passenger compartment. Position the two spacers (Part No. 914 541 907 10) between frame and bottom edge of glass.



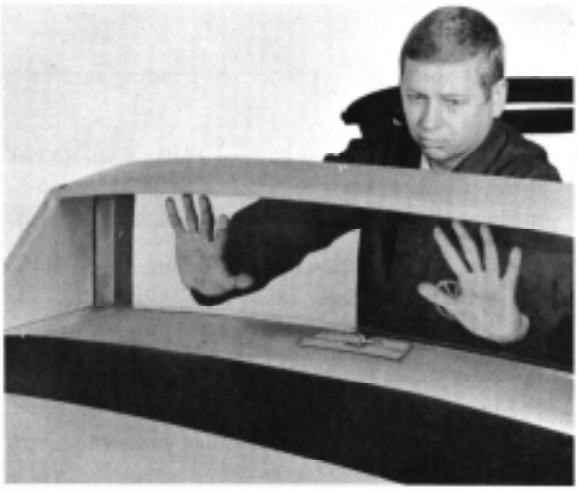
Sectional view, lower glass edge and frame

1 - Rear window
2 - Spacer
3 - Solbit strip
4 - Frame

Note:

Ensure even spacing between glass and roll bar.

6 - Protect engine compartment lid from profile wires by masking the area with tape.

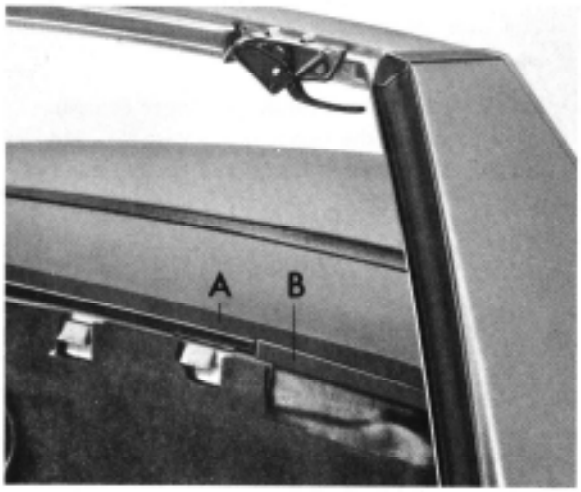


7 - Reconnect Solbit strip to power source. After approximately 3 minutes the Solbit strip is plyable. Pressing evenly against the window by hand for approximately 5 seconds assures proper sealing.

8 - Leave power supply connected and heat for approximately 1 hour.

9 - At the end of the heating phase cut off the projecting ends of the Solbit strip at the edge of the glass. Smooth cut using a flat blade.

10 - Install seal to flange between engine compartment lid and rear window by pressing it on. (Do not glue.)

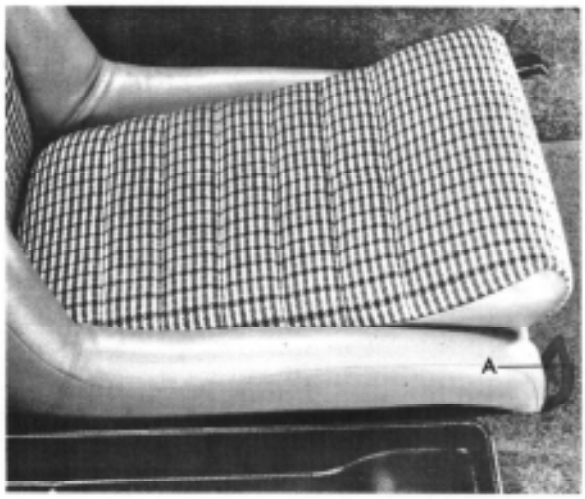


11 - Apply electric tape - A - 3/4 of an inch. wide all around window edge from inside. Apply additional tape, approximately 8 in. wide, -B- on lower corners as indicated.

12 - Reinstall roll bar padding, rear paneling, engine compartment lid release and interior light.

REMOVAL AND INSTALLATION OF DRIVER'S SEAT

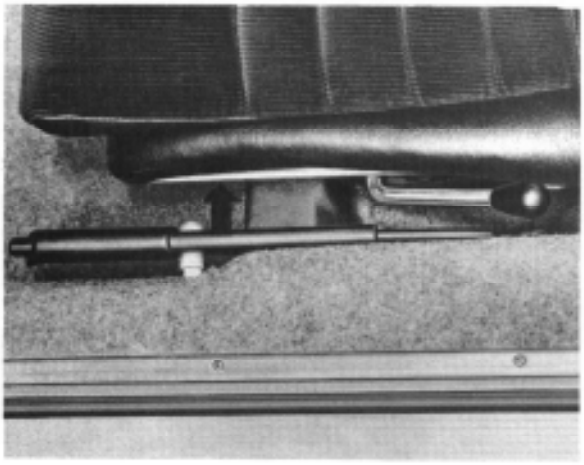
The seat cushion is held to the driver's seat at the front by means of a sheet metal clip. Raise cushion at rear end and unhook at front.



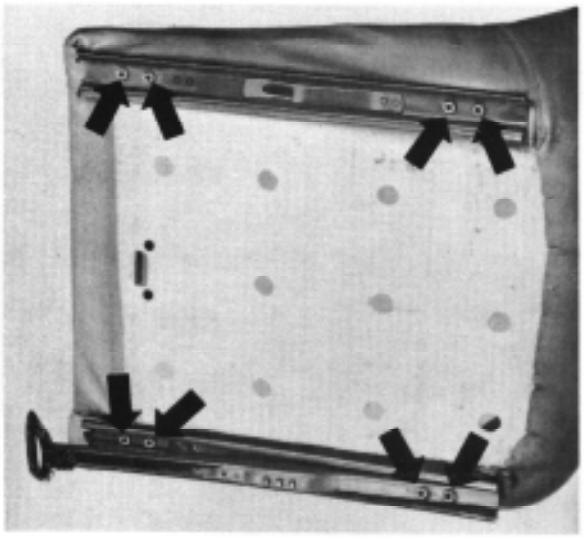
Removal:

1 - Pull up lever for longitudinal adjustment - A - and slide seat out in forward direction until stop is encountered.

2 - Raise spring underneath lefthand running rail and slide seat out completely.



3 - If required, remove running rails after unscrewing eight hexagon socket screws.



Installation:

1 - If required, screw running rails to seat with eight hexagon socket screws.

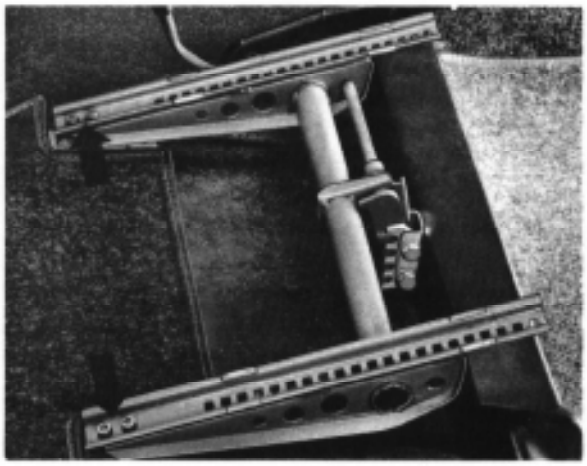
2 - Clean guide rails and coat thinly with universal grease.

3 - Insert running rails into guide rails. Slide seat toward the rear and permit to engage.

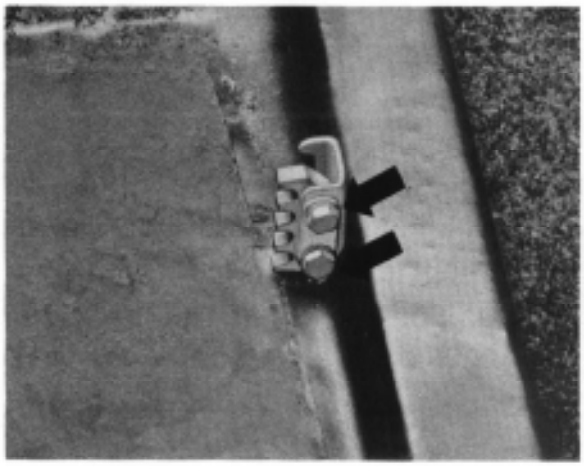
REMOVAL AND INSTALLATION OF HEIGHT ADJUSTMENT WITH GUIDE RAILS

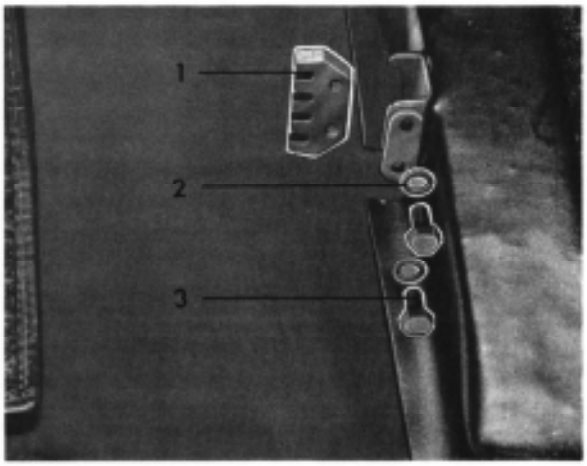
Removal:

1 - Remove driver's seat.
2 - Unscrew four hexagon socket screws and remove height adjustment.



3 - Remove retaining plate after unscrewing two hex. bolts.





No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Retaining plate	1		Check and replace, if required	
	Pawl bracket	1			
2	Spring ring	2		Check and replace, if required	
3	Hex. bolt	2		Check and replace, if required, lubricate lightly	

Installation:

1 - Unscrew retaining plate.
2 - Install height adjustment.
3 - Slide driver's seat in position.

REMOVAL AND INSTALLATION OF FRONT PASSENGER SEAT, CENTER SEAT AND REAR WALL PANELLING

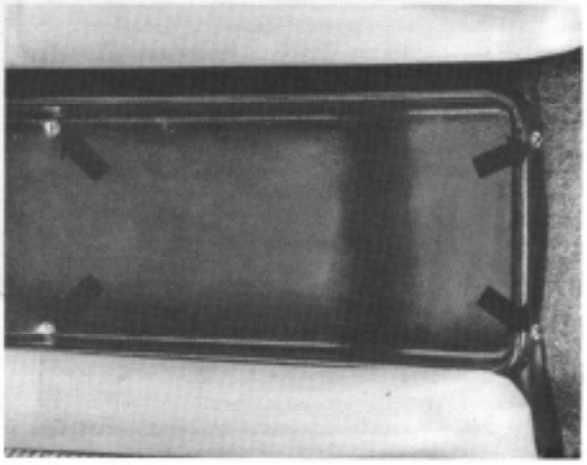
Removal:

Preliminary Jobs:

Remove interior light and pull knob for engine compartment lid.

1 - Remove driver's seat and take out center seat cushion.

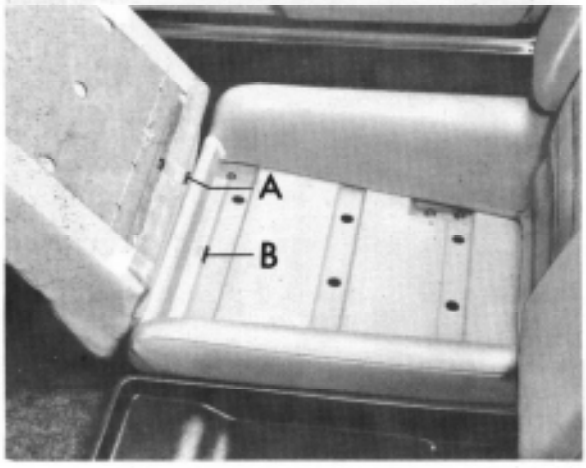
2 - Remove center seat bracket after unscrewing four cross-slotted screws.



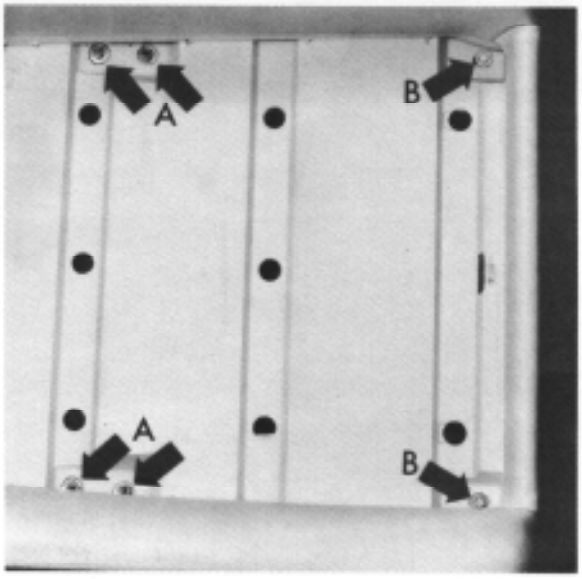
3 - Remove seat cushion for front passenger seat.

Note:

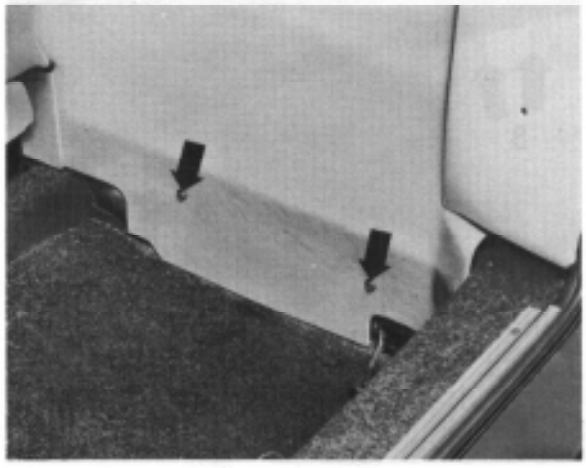
Pull seat cushion up at rear end. Then unhook clip - A - attached at front of seat cushion from "support for seat cushion" - B -.



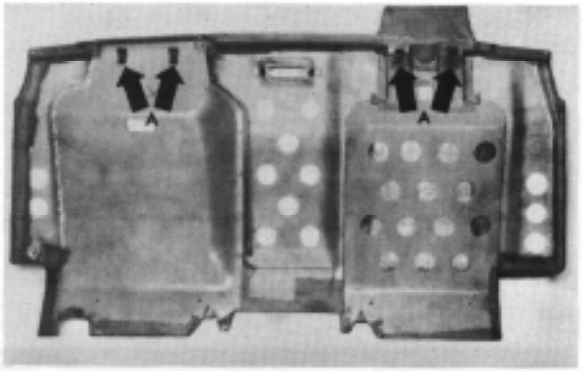
4 - Remove "support for seat cushion" front passenger seat after unscrewing four hex. nuts - arrows A - and two hex. screws - arrows B -.



5 - Unscrew two sheet metal screws each in lower range of rear wall.

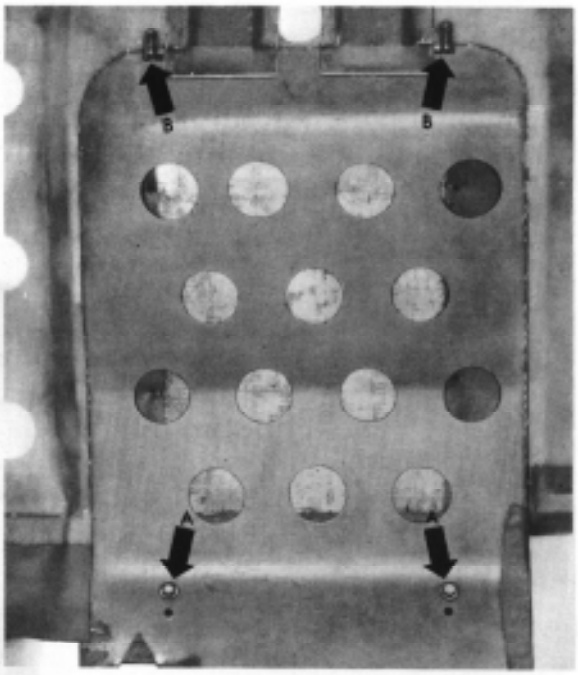


6 - Unhook rear wall lining in downward direction. It is attached to the rear wall - arrow B - with four clips - arrow A -.

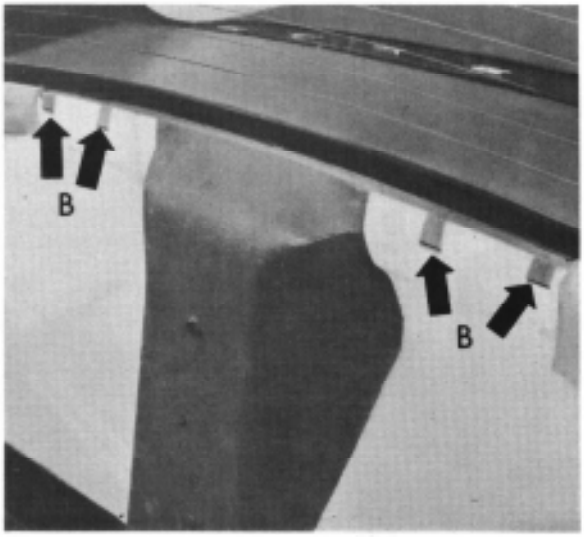


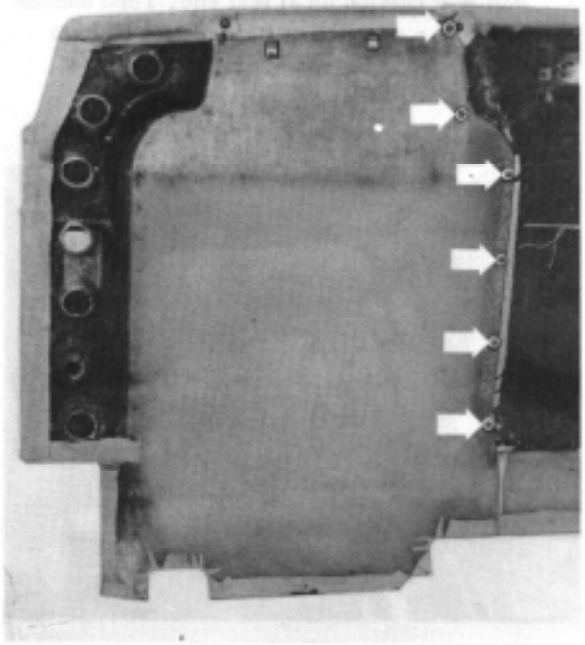
7 - The rear wall lining can be disassembled in three parts:

a - Front passenger seat backrest, after unscrewing two continuous screws - arrows A -. At the trop, the backrest is hooked to the lining with two wire gears - arrows B -.



b - Driver's seat lining, after unscrewing six sheet metal screws.





c - Rear wall lining

Installation:

1 - Connect driver's seat lining to rear wall lining by screwing down six sheet metal screws.

2 - Insert backrest of front passenger seat with wire eyelets into rear wall lining and screw down at bottom with two continuous screws.

3 - Press interior light into lining and connect electric leads.

4 - Fit lining. In the upper range, it is hooked to the rear wall by means of four sheet metal clips.

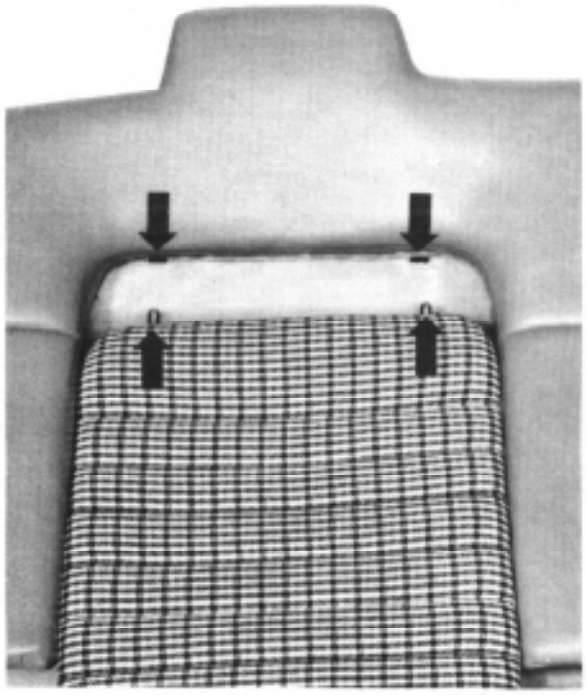
5 - Screw on lining in lower range by means of two sheet metal screws each.

6 - Install "support for sheet cushion front passenger seat".

> Caution!
>
> The support is attached with two hex. screws and four self-locking hex. nuts. These self-locking hex. nuts must be replaced each time.

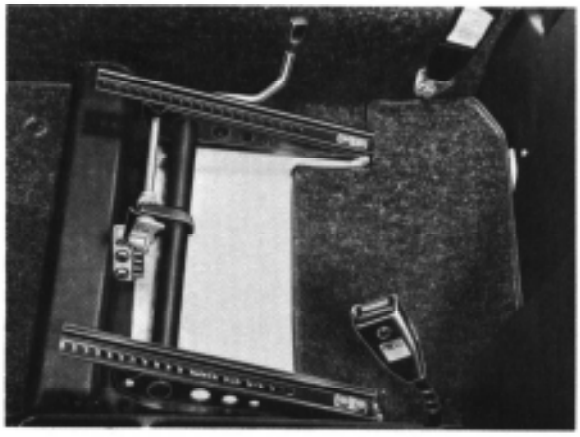
7 - Insert seat cushion, install center seat and driver's seat.

8 - Install pull knob for engine compartment lid.



PASSENGER SEAT, 1972 MODEL

Beginning with the 1972 model, passenger seat height and front:rear adjustment is the same as the driver's seat. Consequently, removing and installing is the same as outlined for the driver's seat (see 6,1-1/1).



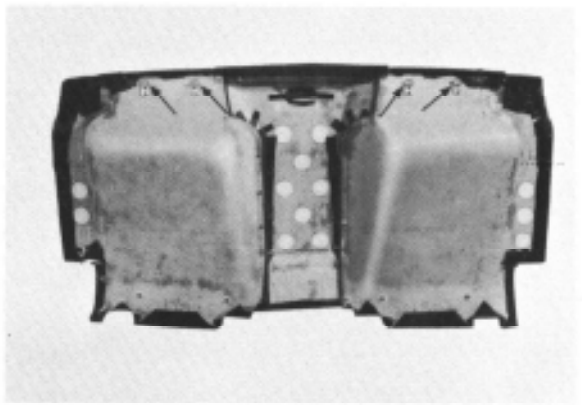
Passenger seat adjustment

REAR WALL LINING, 1972 MODEL

Beginning with the 1972 model, new rear wall lining is used in conjunction with the adjustable passenger seat. The rear wall consists of three form-shaped hard-fiber pieces which are lined with leatherette and unitized into a single assembly.

Removing

1. Push both seats forward.
2. Remove storage pan (occasional seat pillow).
3. Unscrew engine compartment lid control knob and support bushing.
4. Remove lower sheetmetal screws (see arrows).
5. Pull rear wall lining downward and out of the upper fasteners.



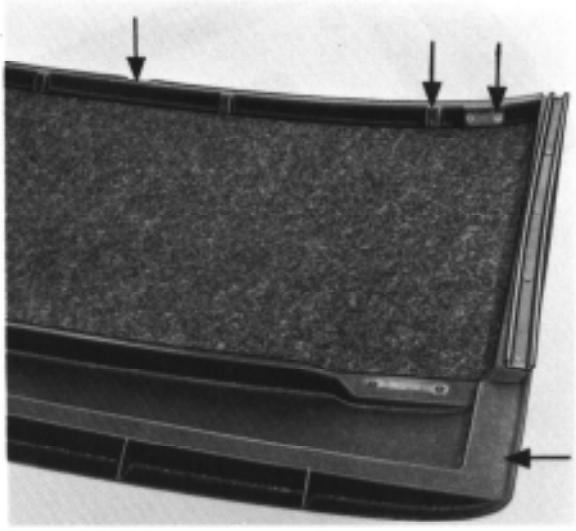
Installing

When installing be sure that the upper fasteners are engaged in the rear wall lining.

Roof Changes in Type 914

Beginning with chassis number 473 292 6222 (July 4, 1973 production), a new roof version is utilized. The changes are as follows:

1. Contour of the front roof rail is changed. In addition, new type threaded inserts for the front locks are cast into the roof assembly (see illustration).



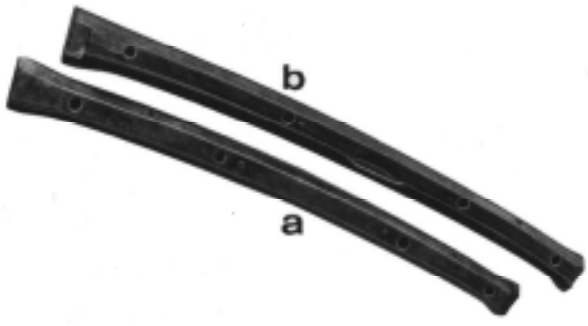
new version

2. The rear roof rail is flattened on the sides to accomodate the roll bar weather seal (see illustration).

old version

3. The roof edge padding was changed along the foam section to match the roof rail contour.

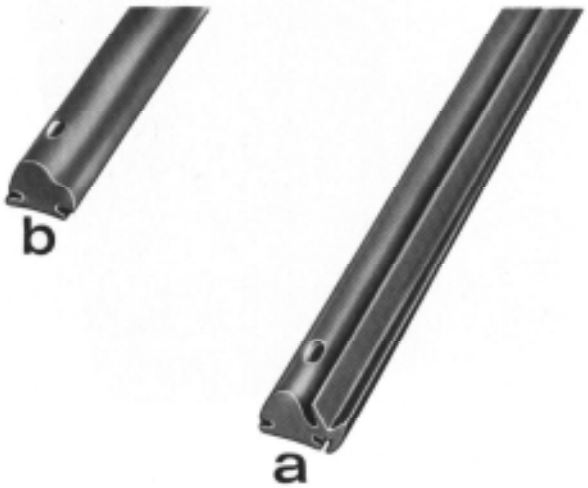
a - new version
b - old version



4. The new roof seal for the roll bar, Part Nr 914 563 077 11, has a wider, integral plush cover. The retaining side rails are reparate. Attachment to roof is by oval-head sheetmetal screws 2.9x9.5 mm.

a - new version b - old version

NOTE: The roof seals are not interchangeable.



5. The new roof/door glass weather seals, Part. Nr 914 531 185/186 10 have a changed contour and are furnished with an additional sealing lip which provides a better seal at the tow op the door windows.

a - new version b - old version

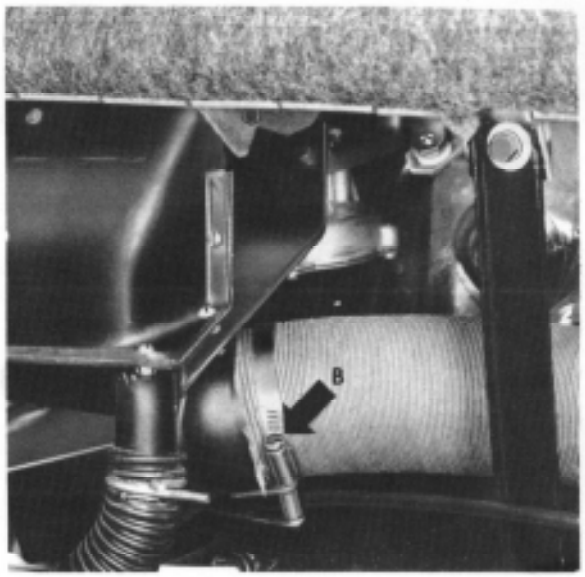
NOTE: These weather seals can be used in all former models.

REMOVAL AND INSTALLATION OF FRESH AIR AND BLOWER BOX

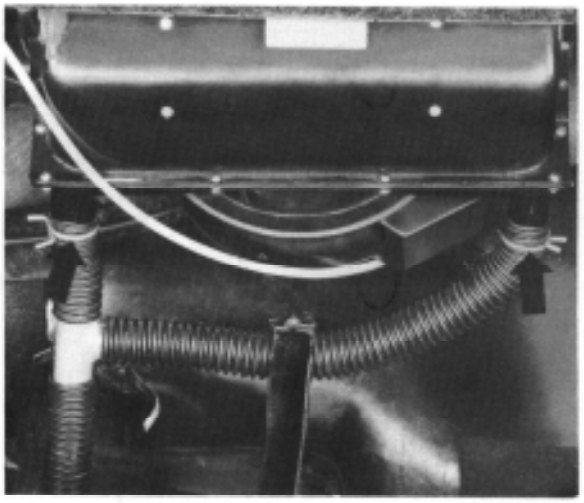
Removal:

First remove fuel tank.

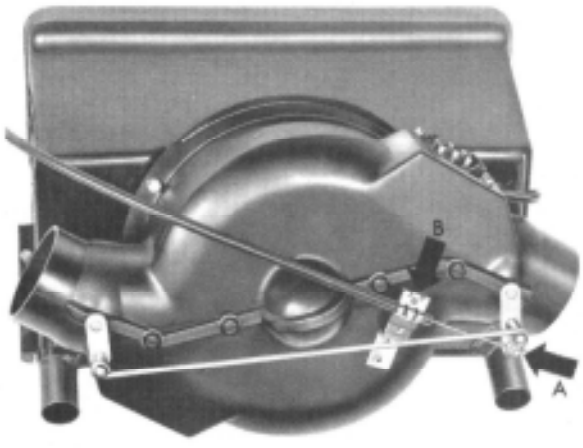
1 - Unscrew one hex. screw - arrow A - on each box end, as well as one hose clip, after unscrewing a cheese head screw - arrow B - and pull off hoses.



2 - Pull off two water drain hoses in downward direction after compressing the wire clip end.

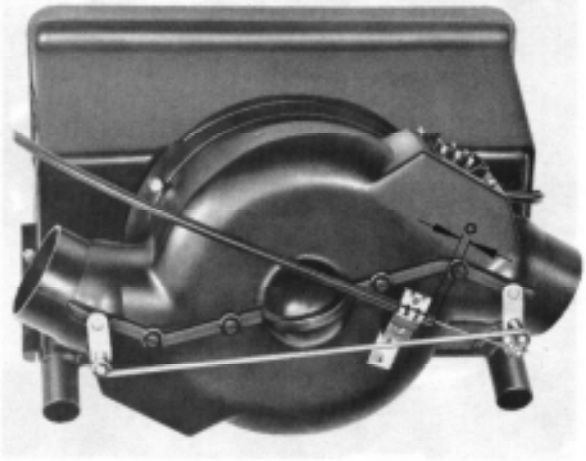


3 - Remove wire cable underneath blower by loosening clamping nut - arrow A - and pushing off holding clip - arrow B -.

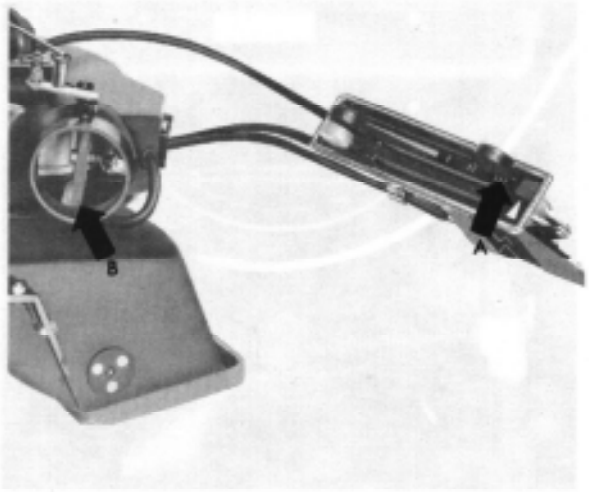


Caution !

Do not bend or distort cable, since only a straight cable will guarantee perfect function.



a = 5 mm



4 - Pull off multiple plug for electric connection.

5 - Remove fresh air box
(For disassembly of fresh air and blower box refer to 9/6.2 - 4/1 "Disassembly and Installation of Fresh Air Blower")

Installation:

1 - Position box without screwing on and provisionally attach cable.

2 - Attach cable envelope with holding clip.

Note:

The envelope is properly attached if it ends approx. 5 mm in front of holding clip.

3 - Screw box to holding bracket.

4 - Adjust cable; adjust in such a manner that in position III - arrow A - on actuating lever for fresh air, both opening flaps on fresh air box are open. - Arrow B - check function several times.

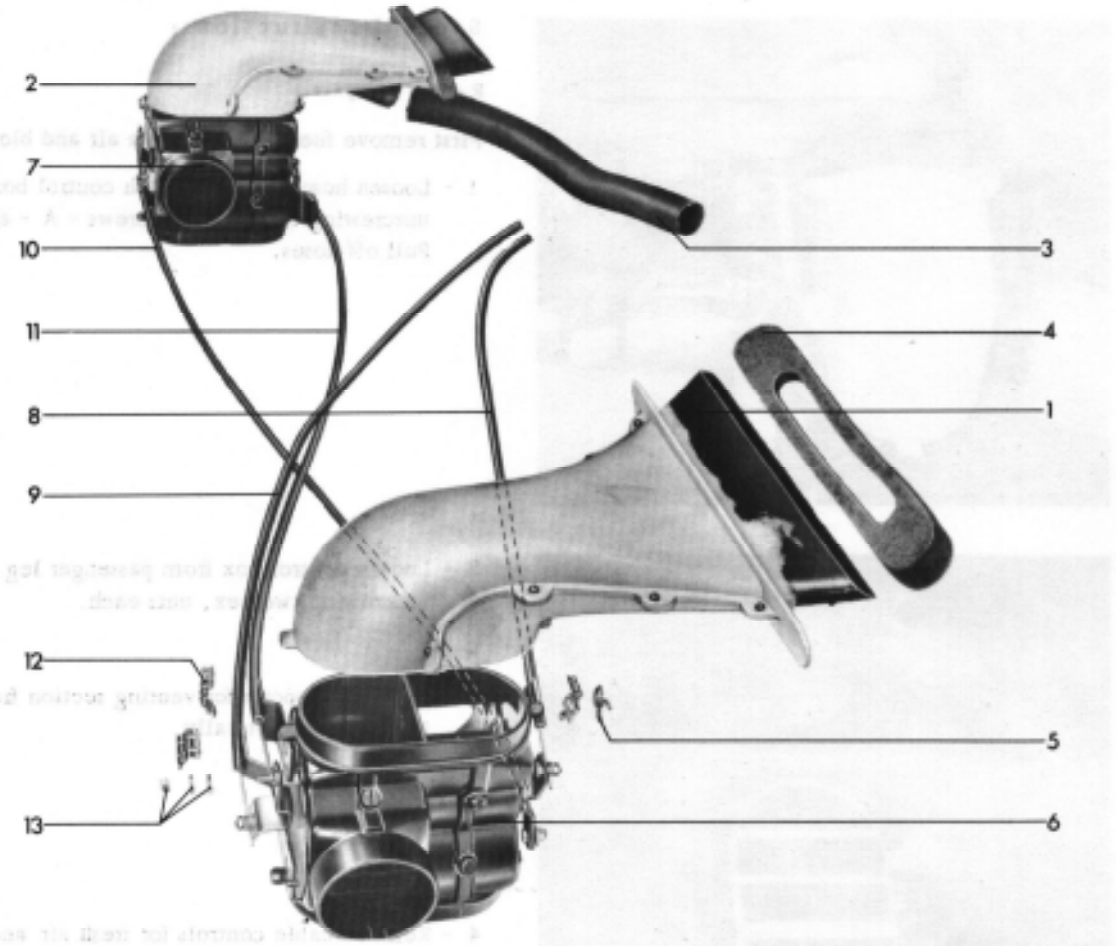
5 - Position air hoses and screw hose clips tight.

6 - Attach water drain hoses.

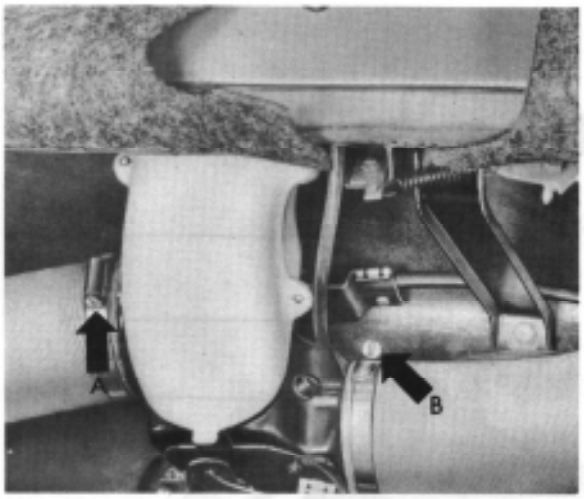
7 - Attach multiple plug for electric connection.

8 - Install fuel tank.

REMOVAL AND INSTALLATION OF CONTROL BOX LEFT/RIGHT AND DEFROSTER NOZZLES



No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Defroster nozzle left	1			
2	Defroster nozzle right	1			
3	Air hose	1		For defroster nozzle - No. 2 - only	
4	Seal	2	Observe	Check and replace, if required	
5	Clip	4	special	Check and replace, if required	
6	Control box left	1	instructions!		
7	Control box right	1			
8	Cable controls fresh air	1			
9	Cable controls warm air	1			
10	Connection controls fresh air	1		Observe	
11	Connection controls warm air	1		special	
12	Holding clip	6	Push off with screw driver	instructions!	
13	Clamping nut with spring ring and washer	4		Check and replace, if required	

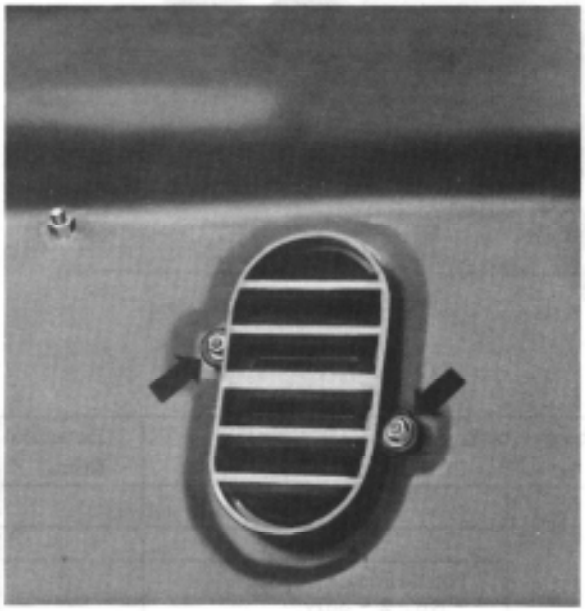


Special Instructions:

Removal:

First remove fuel tank and fresh air and blower box.

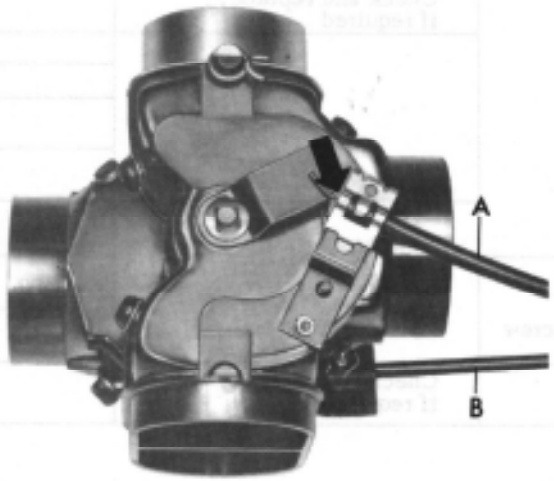
1 - Loosen hose clips from both control boxes by unscrewing cheese head screws - A - and - B -. Pull off hoses.



2 - Loosen control box from passenger leg room by unscrewing two hex. nuts each.

3 - Unscrew supports for venting section from below and swing up laterally.

4 - Remove cable controls for fresh air and warm air (coming from actuating switch of instrument panel) from control box left by loosening two clamping nuts and pushing off two holding clips.



A - Cable controls fresh air
B - Cable controls warm air

Installation:

1 - Assemble connecting cable controls - No. 10 and 11 - with control boxes - No. 6 and 7 - in removed condition.

a - Connect cable controls into actuating levers of control box right.

b - Attach cable controls with holding clips.

Note:

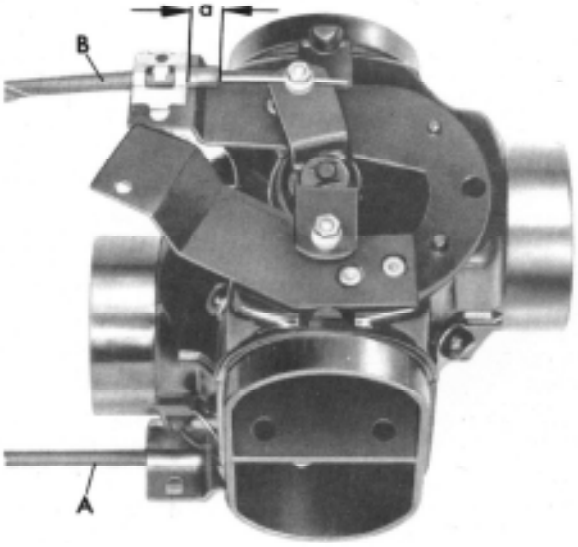
The envelope of the cable controls - both fresh air and warm air - is properly attached, if it is flush with the holding clip - arrow -.

c - Insert cable controls crosswise into the pertinent clamping screws on control box. Tighten clamping screws lightly.

d - Clamp cable controls with holding clips.

Note !

The envelope of the cable controls - both fresh air and warm air - is properly attached, if it ends approx. 5 mm in front of holding clip.
a = 5 mm



2 - Move opening flaps of each control box into upper end position and then tighten clamping nuts well. Check function "Opening and Closing" several times.

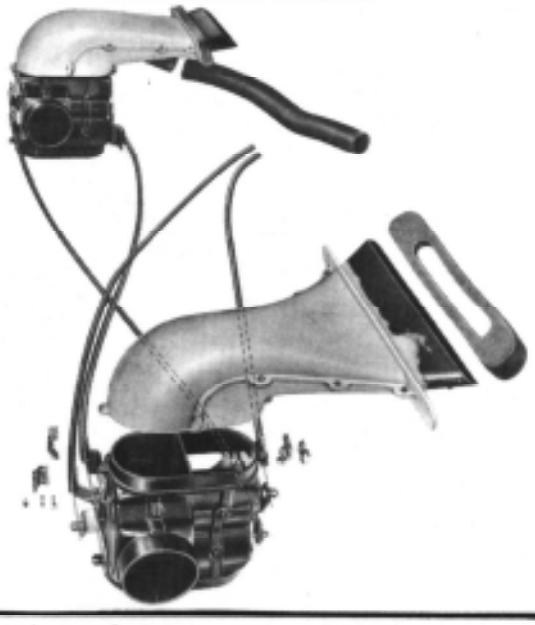
Caution !

If wrongly adjusted, the flaps of the control boxes may break upon actuation !

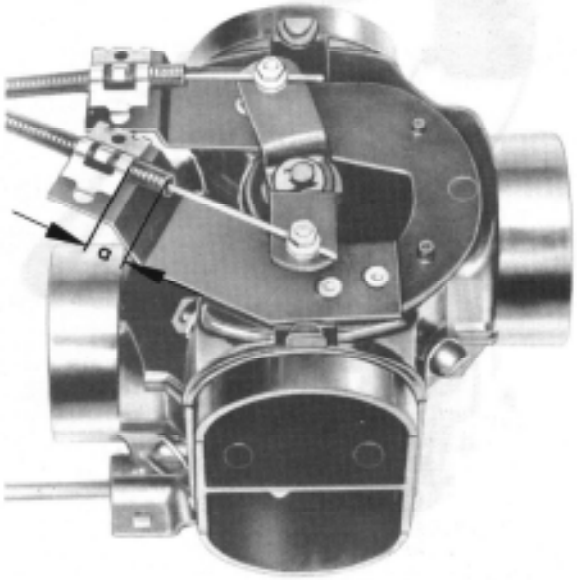
A - Cable controls fresh air
B - Cable controls warm air

3 - Place defroster nozzles on control boxes and clamp down with two clips each.

4 - Insert preassembled control boxes with defroster nozzles into vehicle.



5 - Insert cable controls fresh air, warm air (coming from actuating switch of instrument panel) into pertinent clamping screws on control box left. Tighten clamping nuts lightly.



a = 5 mm

6 - Clamp cable controls down with holding clips.

Note:

The envelope of the cable controls - both fresh air and warm air - is properly attached, if it ends approx. 5 mm behind holding clip.

7 - Move opening flaps into end position in compliance with actuating levers on instrument panel. Then tighten clamping nuts well. Check function "Opening and Closing" several times.

Caution!

If wrongly adjusted, the flaps of the control boxes may break upon actuation.

8 - Screw on supports for venting section.

9 - Screw on control boxes of passenger leg room.

10 - Position air hoses and attach with hose clips.

11 - Install fresh air and blower box.

12 - Install fuel tank.

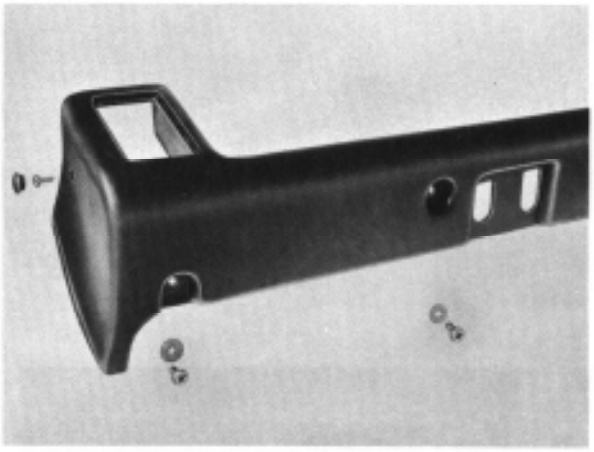
General

Beginning with the 1972 model, adjustable ventilation outlets have been incorporated in the knee guard near the instrument panel. Air ducted upward from the control boxes to the new defroster outlets partially flows through the distribution stack and ducts to the air outlets located in the knee guard. In addition, new air distributors are mounted under the control boxes resulting in improved ventilation of the leg area.

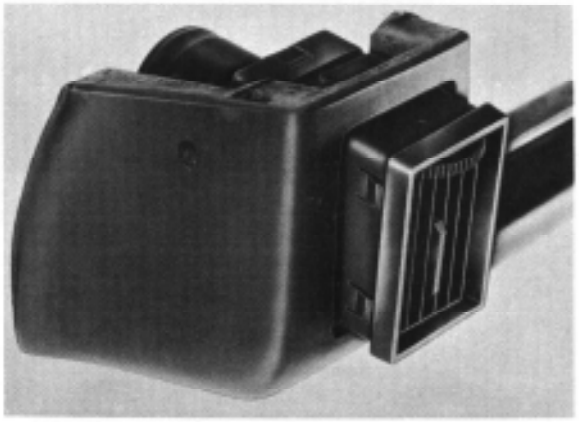
Removing and Installing Ventilation Outlets

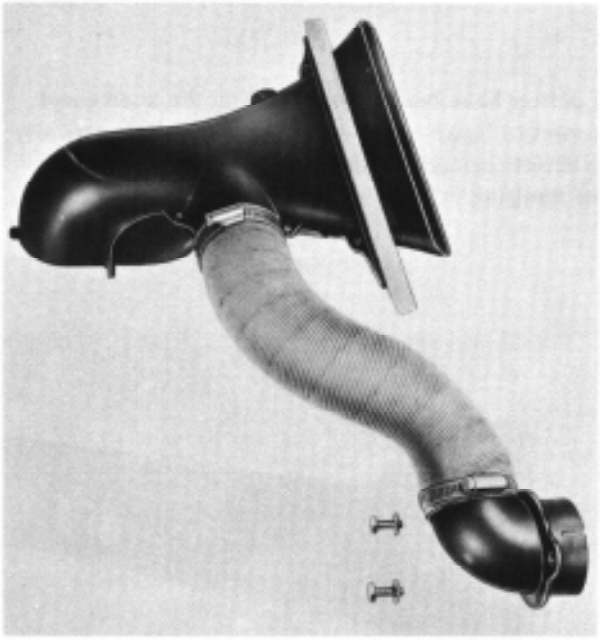
Removing

1. Detach knee guard assembly and remove together with the air outlets.



2. Unhook ventilation outlet spring retainers and push out.



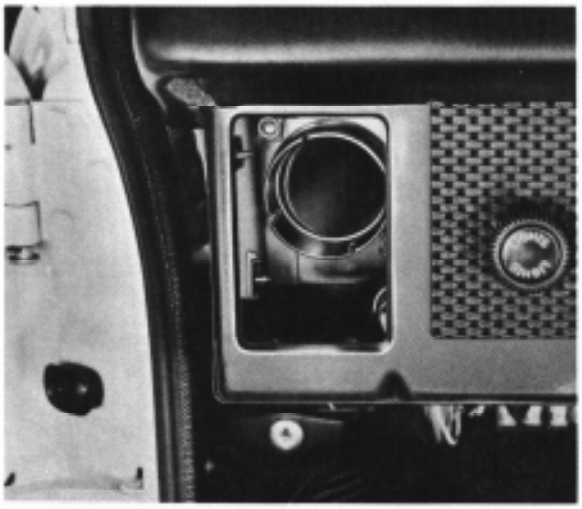


3. Remove curved duct from fuel tank area.

4. Loosen hose clamps at defroster outlets and pull hoses off.

5. The defroster outlets can be detached from the control boxes, if necessary, by releasing the retaining clips.

Installing

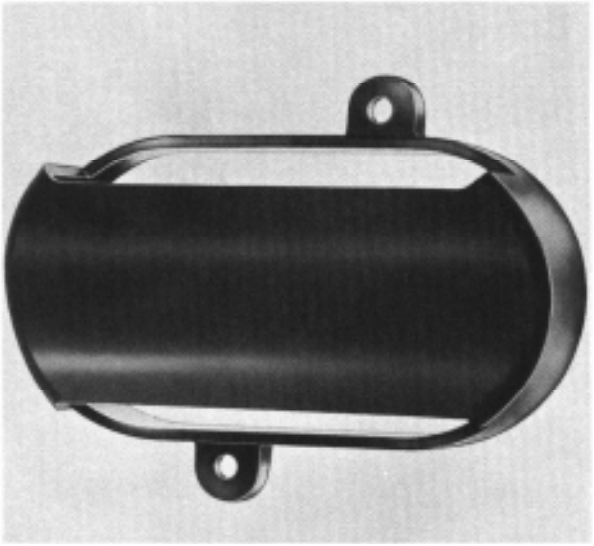


1. Connect air hoses to defroster outlets and tighten clamps.

2. Attach curved piece to front wall and fasten hose.

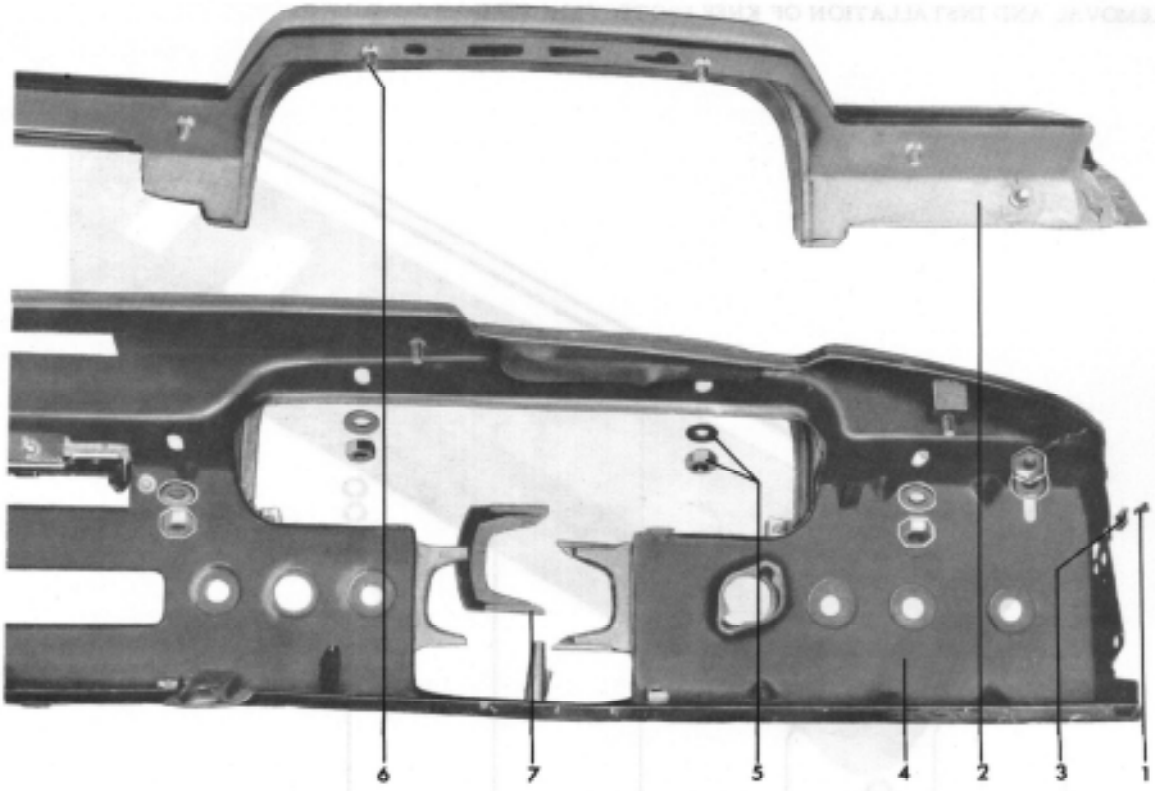
3. Push ventilation outlets into the knee guard. Make sure that the spring retainers snap into place behind the sheetmetal frame.

4. Attach knee guard to instrument panel.



Air Distributor - New Version

REMOVAL AND INSTALLATION OF INSTRUMENT PANEL PADDING AND STEERING COLUMN CASING

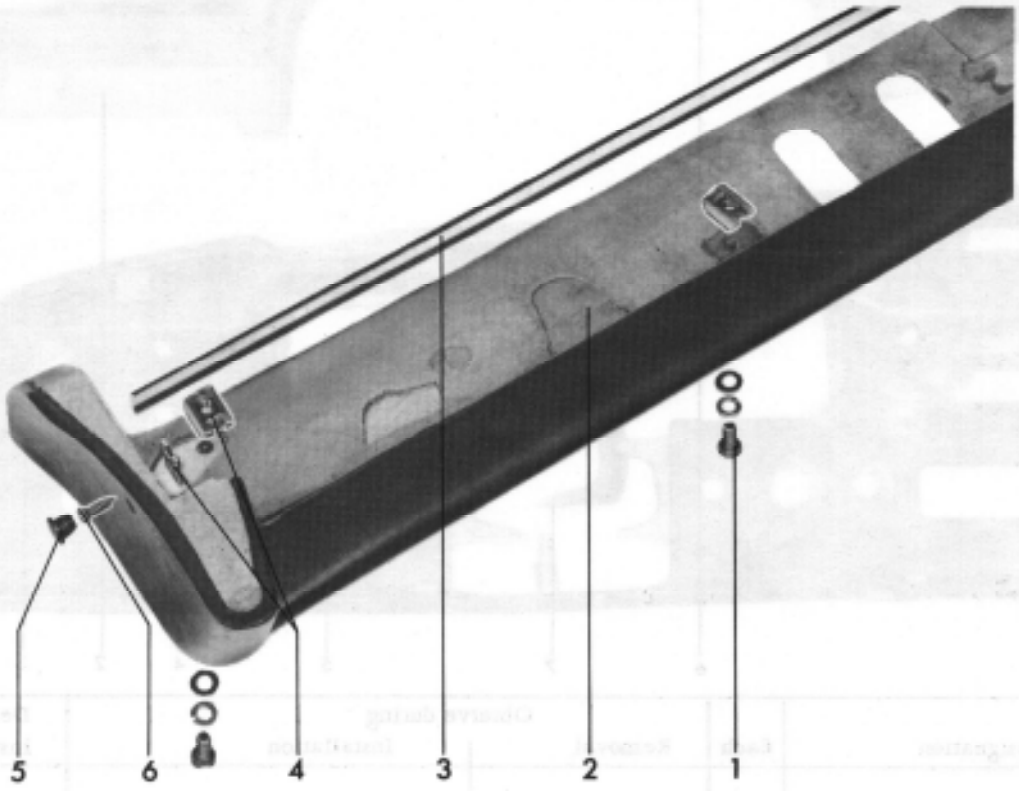


No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Sheet metal screw	2		Check and replace, if required	
2	Padding	1			
3	Sheet metal nut	2		Check and replace, if required, Press on instrument panel supporting plate	
4	Instrument panel supporting plate	1	Observe special instructions !		
5	Plastic hex. nut with washer	8		Check and replace, if required	
6	Plastic spreader pin with threads	8		Check and replace, if required	
7	Cover steering column	2		Slide on instrument panel molding. When replacing, distinguish between model 914 and 914/6	
	Knee protection strip	1			8/9.1-2/2

Special Instructions:

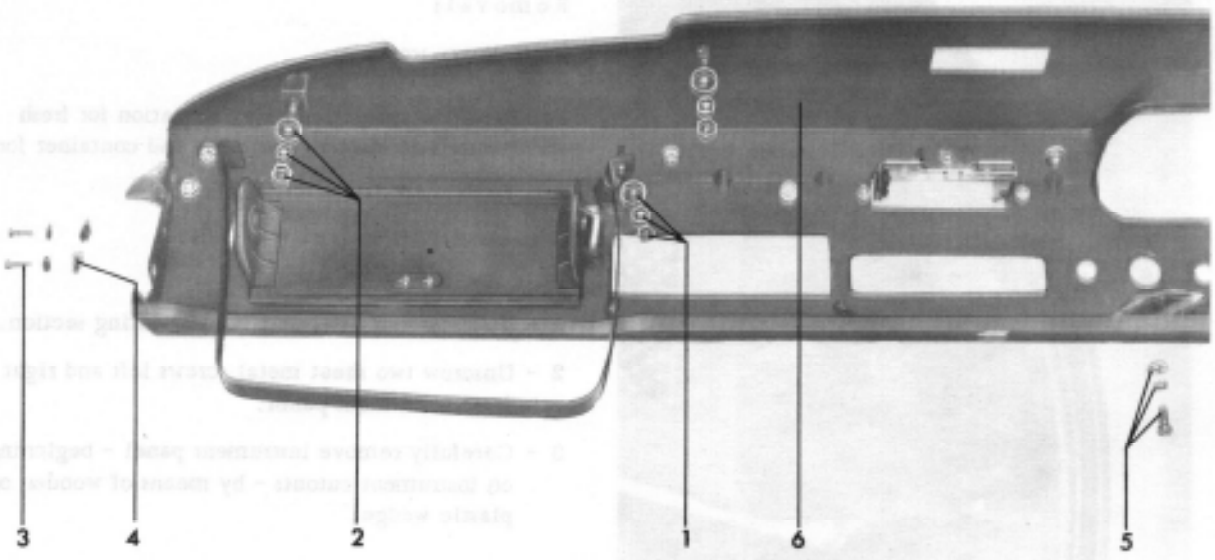
The assembly work can be done without removing the instrument panel supporting plate. But it is recommended to remove the knee protection strip prior to assembly.

REMOVAL AND INSTALLATION OF KNEE PROTECTION STRIP

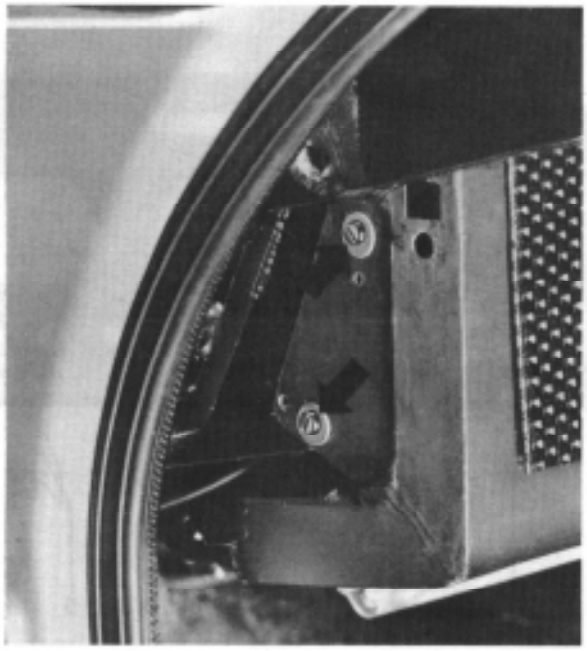


No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Oval head screw, locking ring, wahser	5		Check and replace, if required	
2	Knee protection strip	1			
3	Trim strip	1		Glue into knee protection strip with original VW Plastic Glue D 11	
	Supporting plate - instrument panel	1			
4	Cage nut	7		Insert into supporting plate - instrument panel	
5	Closing cap	2		Check and replace, if required	
6	Cross-slotted sheet metal screw	2		Check and replace, if required	

REMOVAL AND INSTALLATION OF INSTRUMENT PANEL



No.	Designation	Each	Observe during		Detailed Instr.
			Removal	Installation	
	Knee protection strip	1			8/3.1-2/2
	Fuel tank	1			
	Container windshield washer	1			9/4.4-4/1
	Actuation fresh air heater and blower	1			
	Steering wheel	1			9/5.1-2/1
	Instrument panel box		Hex. nut for strap No. 1		
1	Hex. nut with spring ring and washer	1	Observe special instructions!	Check and replace, if required, grease lightly	
2	Hex. nut with spring ring and washer	4		Check and replace, if required	
3	Sheet metal screws with washers	4		Check and replace, if required	
4	Sheet metal nuts	4		Insert into lateral supports	
5	Hex. socket screw with spring ring and washer	1		Check and replace, if required	
	Instrument panel instruments, switches, cables				9/3.6
6	Instrument panel support				



Special Instructions:

Removal:

Preliminary work:

Remove knee protection strip, actuation for fresh air, heater and blower, fuel tank and container for windshield washer.

1 - Unscrew four hex. nuts below venting section.

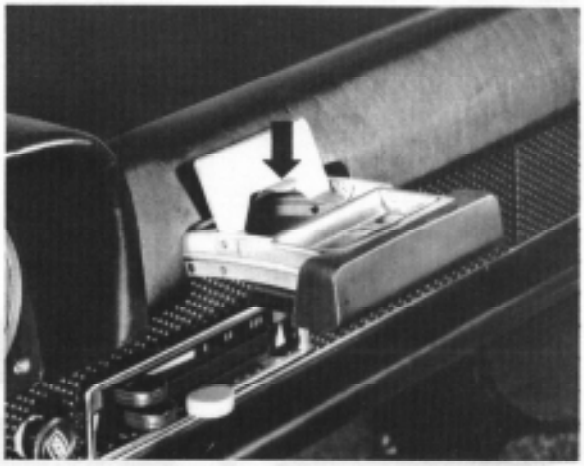
2 - Unscrew two sheet metal screws left and right from instrument panel.

3 - Carefully remove instrument panel - beginning on instrument cutouts - by means of wooden or plastic wedge.

REMOVAL AND INSTALLATION OF ASHTRAY AND ASHTRAY SUPPORTING PLATE

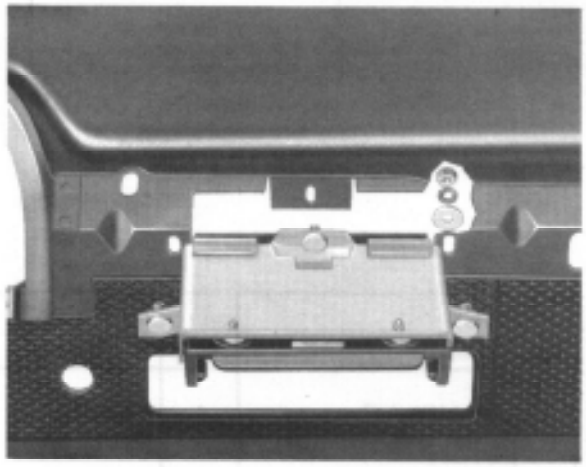
Removal:

The ashtray can be pulled out after pushing down resilient latch - arrow A -

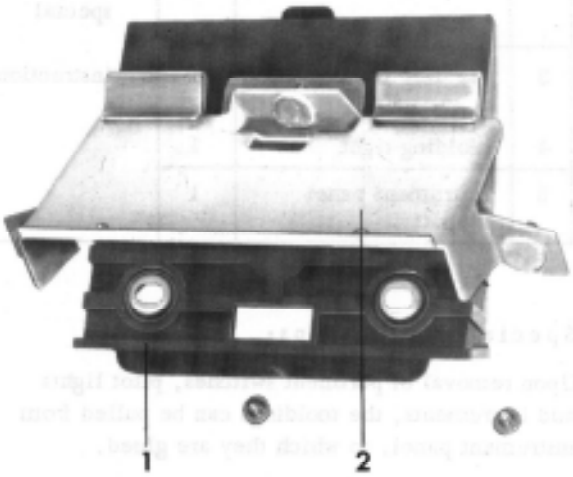


1 - Remove instrument panel padding (refer to 8/9.1 - 2/1)

2 - Unscrew 3 hex. nuts behind instrument panel and pull out supporting plate.



3 - Pull ashtray housing from supporting plate, if required, after unscrewing two sheet metal screws.

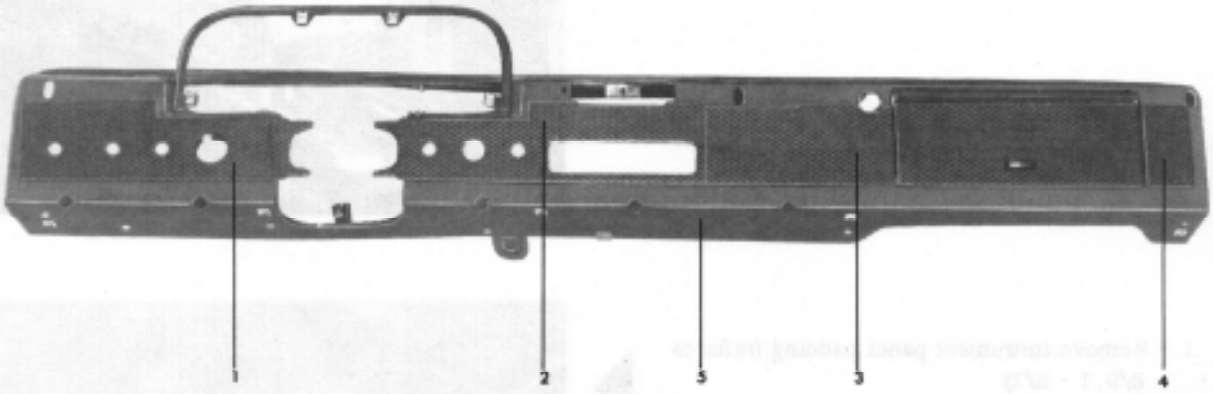


1 - Ashtray housing
2 - Supporting plate

Installation:

1 - Insert supporting plate into ashtray housing, fasten screw and tighten lightly.
2 - Fit supporting plate with ashtray into instrument panel supporting plate.
3 - Shift supporting plate in oblong holes of ashtray housing, if required, and tighten screws well.
4 - Attach supporting plate behind instrument panel by means of 3 hex. nuts.
Screw nuts down only lightly.
5 - Attach instrument panel padding loosely and insert ashtray. Then check seat in relation to instrument panel padding. Shift support plate with ashtray in oblong holes, if required.
6 - Tighten hex. nuts.
7 - Screw down instrument panel padding.

REMOVAL AND INSTALLATION OF INSTRUMENT PANEL MOLDINGS



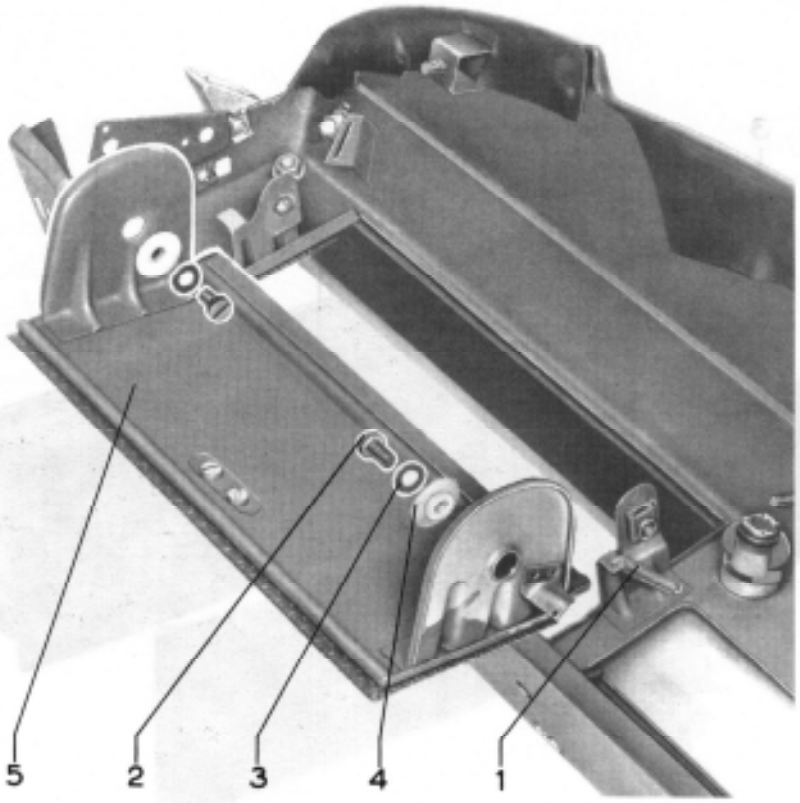
No.	Designation	Each	Observe during		Detailed Instr.
			Removal	Installation	
1	Molding left	1	Observe special instructions!	When replacing, distinguish between model 914 and 914/6	
2	Molding center left	1		When replacing, distinguish between model 914 and 914/6	
3	Molding center right	1		When replacing, observe type of radio	
4	Molding right	1		When replacing,	
5	Instrument panel support	1			

Special Instructions:

Upon removal of pertinent switches, pilot lights and instruments, the moldings can be pulled from instrument panel, to which they are glued.

Upon replacement, glue new moldings to instrument panel supporting plate by means of "Original VW Plastic Glue D 11" or with doublespread "Scotchband" (3M Company).

REMOVAL AND INSTALLATION OF INSTRUMENT PANEL BOX COVER

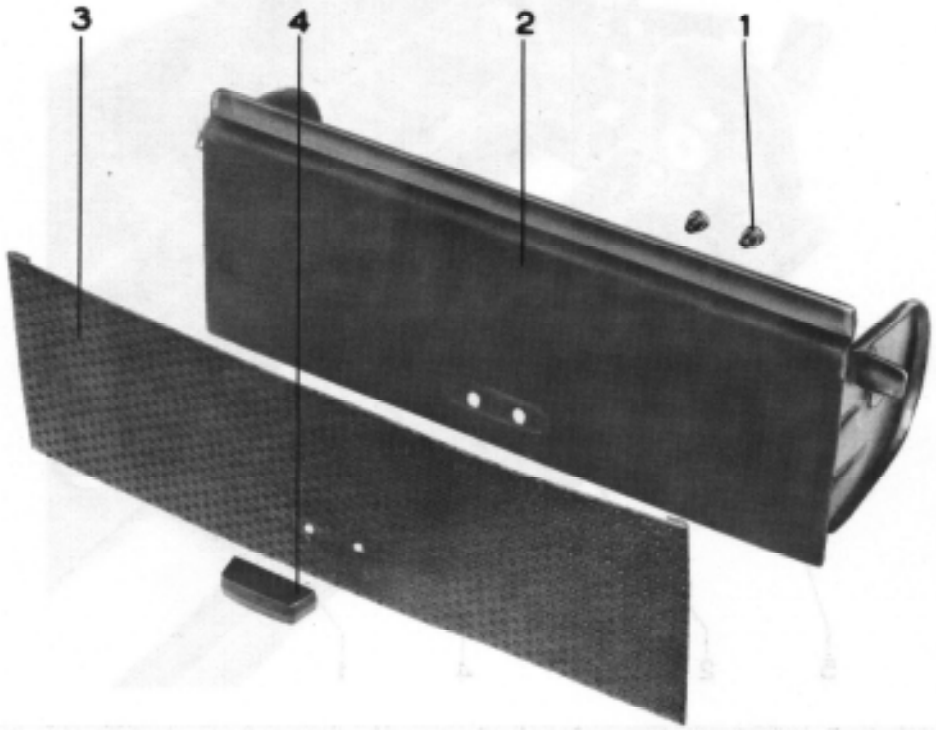


No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
	Glovebox strap	1	Observe special instructions!		
	Instrument panel box	1			
1	Spring	2	Disconnect from cover		
2	Cheese-head screw	2		Check and replace, if required, lubricate lightly	
3	Undulated washer	2		Check and replace, if required	
4	Centering washer	2		Check and replace, if required	
5	Instrument panel box cover	1			8/9.1-2/8

Special Instructions:

To remove cover, first unscrew strap and remove instrument panel box.

DISASSEMBLY OF INSTRUMENT PANEL BOX COVER



No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Cheese-head screw	2		Check and replace, if required	
2	Cover	1	Remove		8/9.1-2/7
3	Molding	1	Observe special instructions!		
4	Handle	1			

Special Instructions:

During installation, cover and molding must be glued down with "Original VW Plastic Glue D 11" or with doublespread "Scotchband" (3M Company).

REMOVAL AND INSTALLATION OF LOCK FOR INSTRUMENT PANEL BOX

No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
	Instrument panel box	1	Observe special instructions !		
1	Nut	1		Check and replace, if required, lubricate lightly	
2	Spring washer	1		Check and replace, if required	
3	Bolt	1		Check and replace, if required	
4	Hex. nut	1		Check and replace, if required, lubricate lightly	
5	Spacer bushing	1		Check and replace, if required	
	Instrument panel supporting plate	1			
6	Lock	1		Grease with "Lubricant for doors and locks G 4"	

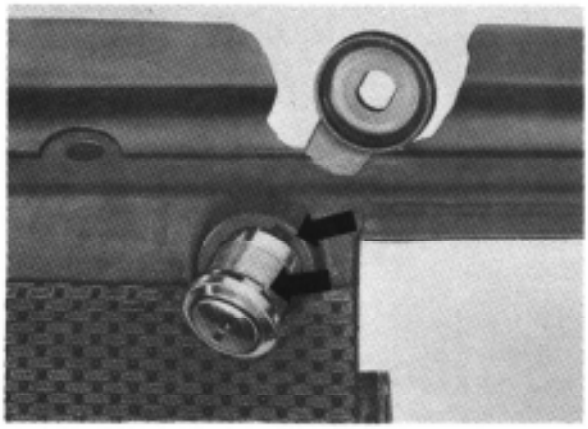
Special Instructions:

Remove instrument panel box for removing lock.

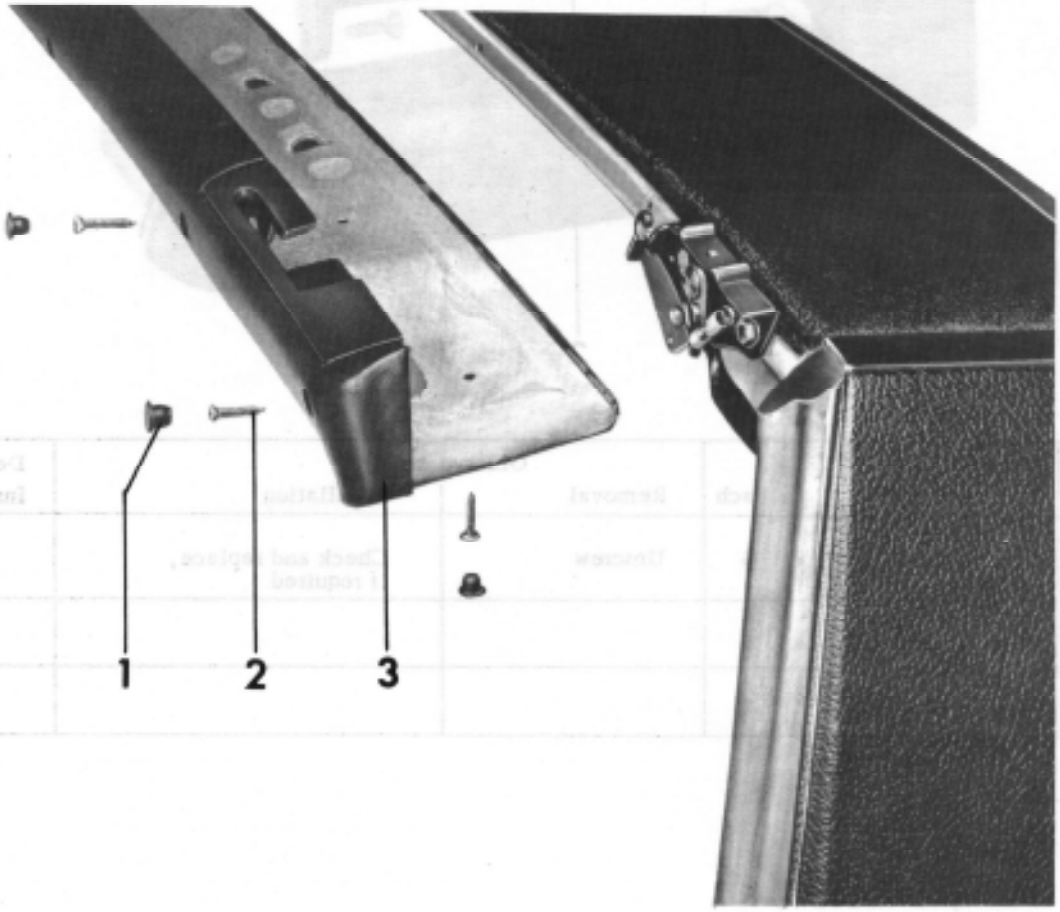
For installation of lock observe the following:

1 - Set lock into opened closing position.

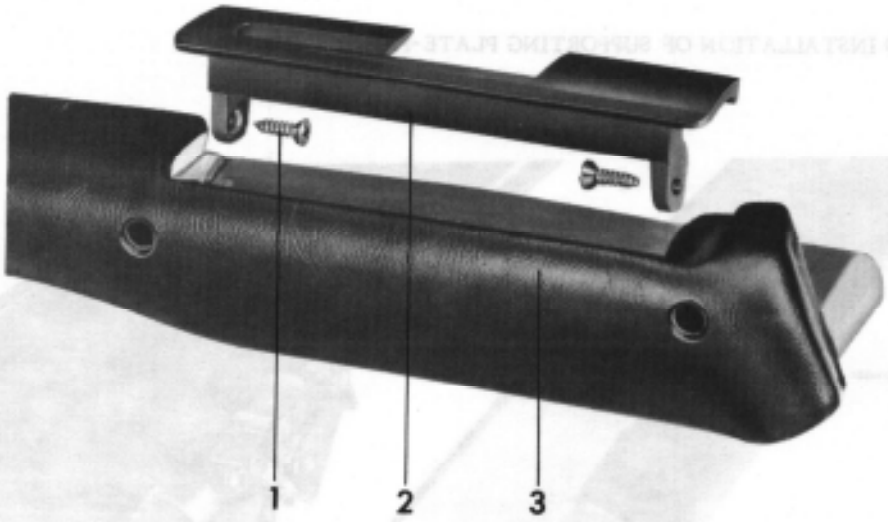
2 - Insert lock with lugs into grooves in supporting plate.



REMOVAL AND INSTALLATION OF SUPPORTING PLATE-PADDING STRIP



No.	Designation	Each	Observe during		Detailed Instr.
			Removal	Installation	
1	Closing cap	12	Remove seven caps from face end and five from bottom of padding strip	Check and replace, if required	
2	Cross-slotted screw	12	Unscrew seven screws from face end and five from bottom of padding strip	Check and replace, if required	
3	Safety plate - padding strip	1		During installation, place closing hook of roof lock up	
	Safety plate	1			



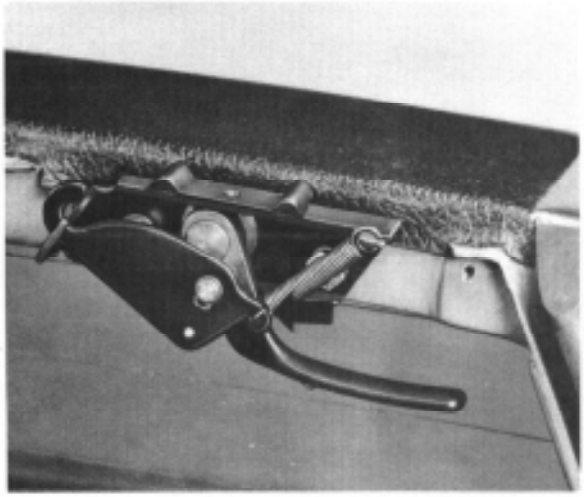
No.	Designation	Each	Observe during Removal	Observe during Installation	Detailed Instr.
1	Cross-slotted screw	4	Unscrew	Check and replace, if required	
2	Padding strip cover	2			
3	Padding strip	1			

REMOVAL AND INSTALLATION OF ROOF LOCK

Removal:

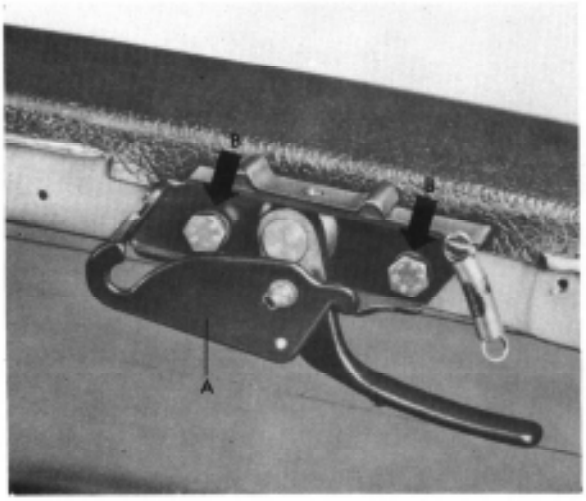
1 - Remove supporting plate padding strip.

2 - Disconnect spring.



3 - Move closing hook - A - to downward position.

4 - Remove roof lock after unscrewing two hex. screws - arrows B -.



Installation:

Replace roof lock, if required, or grease with "Lubricant for Doors and Locks G 4".

1 - Screw on roof lock.

2 - Connect spring.

3 - Screw on supporting plate-padding strip.

4 - Check function of roof lock several times.

REMOVING AND INSTALLING INERTIA REEL SAFETY BELT WITH AUTOMATIC RETRACTOR AND ELECTRIC WARNING DEVICE

Removing

1. Detach electrical connector from seat contact under the seat (passenger seat only) and remove seats (also see Group 9, page 6.4-1/1).

2. Remove storage box from center console.

3. Remove engine compartment lid control knob and support bushing.

4. Remove sheetmetal screws from rear wall lining assembly. Pull the lining down and out of the fasteners.

5. Detach safety belt mount from rocker panel.

6. Detach safety belt buckle from center tunnel and disconnect wire connector (also see Group 9, page 6.4-1/1).

7. Remove cover from belt yoke on roll bar. Remove yoke retaining bolt and withdraw yoke and washers.

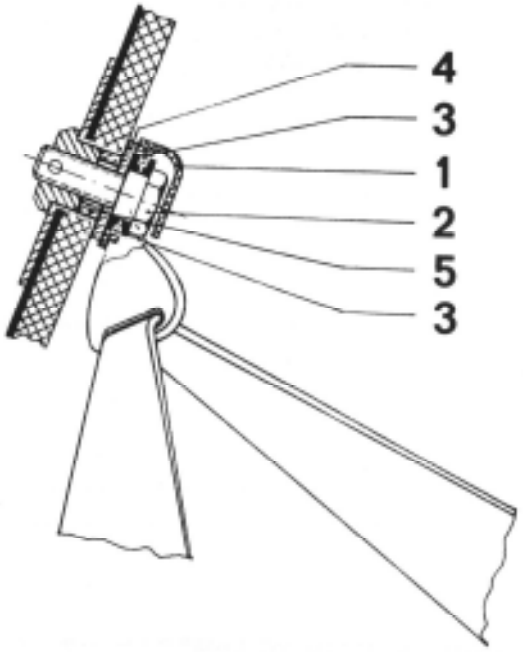
8. Unscrew automatic retractor assembly from the rear wall.

Installing

CAUTION When installing the seat belt note on which side they belong since the belts are different for each side.

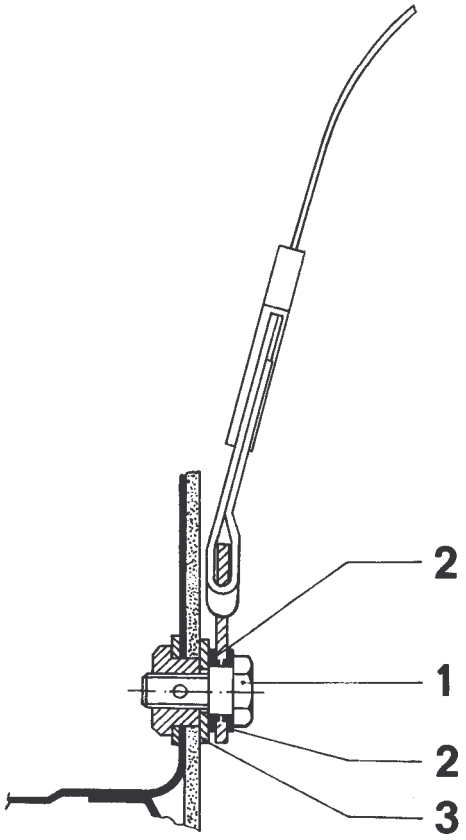
1. Press the automatic retractor and belt guide assembly against the rear wall in such way that the aligning dowel seats properly. Tighten retaining bolt and safety washer.

2. Install yoke and washers on roll bar; see sketch for location of washers.



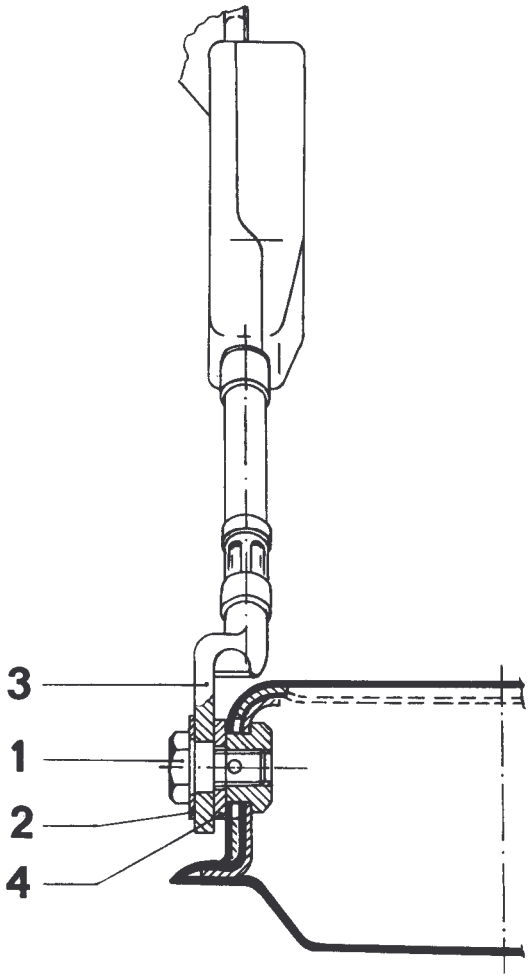
1 = Cover
2 = Retaining bolt
3 = Flanged discs
4 = Spacer
5 = Spacer bushing

3. Attach safety belt mounting and washers to rocker panel. See sketch for location of washers.



1 = Retaining bolt
2 = Flanged washers
3 = Spacer

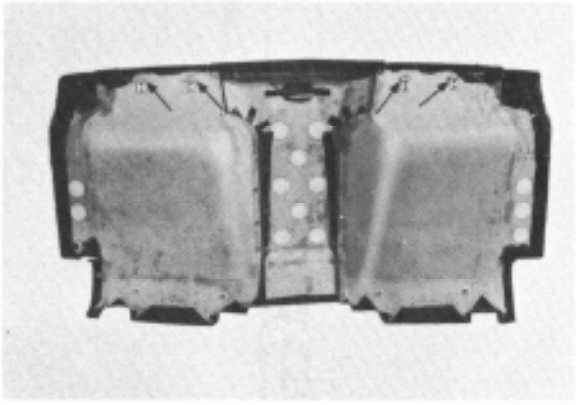
4. Attach safety belt mount and washers to center tunnel. See sketch for location of washers. Reconnect wire connector for safety belt buckle.



1 = Retaining bolt
2 = Spring washer
3 = Safety belt buckle mount
4 = Spacer

5. Check safety belt for proper operation. The belt must roll off easily when pulled slowly, and must lock when moved forward suddenly.

6. Hook rear wall lining into retainers, then push up and secure.



7. Reconnect seat contact connector when installing of the passenger seat.

INSTALLING INSIDE MIRROR

1. Remove screw from mirror arm and take off mirror base.

2. Remove adhesive plate and clean burr, if any, from the mirror base collar.

3. Carefully clean and degrease windshield and mirror base (use alcohol, acetone, etc.)

4. Mark mounting surface for mirror base. Upper edge of mirror base must be in windshield center, 100 mm (4 in.) below windshield seal. Mark location on outside of windshield.

5. Heat mirror base on hot plate to approximately 200°F.

6. Remove backing (white or beige) from adhesive plate and place on mirror mounting base.

   NOTE
   Do not use adhesive plates on which the backing was already partially removed or plates from which the backing cannot be fully removed. These conditions will cause faulty bonding.

7. Seal all sides of adhesive plate with a bead of weatherstrip adhesive (3 M Nr. 8011 or similar adhesive).

8. Place mounting base on windshield.

9. Attach extension US 8015 to the wheel tensioner (Bosch part Nr. 2 688 190 000) and install mirror mounting base. Apply a pressure of 12 kp (26.5 lbs) for 15 minutes.

   CAUTION

   To prevent damage to windshield, compress the wheel tensioner against the floor tunnel. Do not compress against windshield.

   NOTE

   The adhesive area should be a shiny black and without dull black spots.

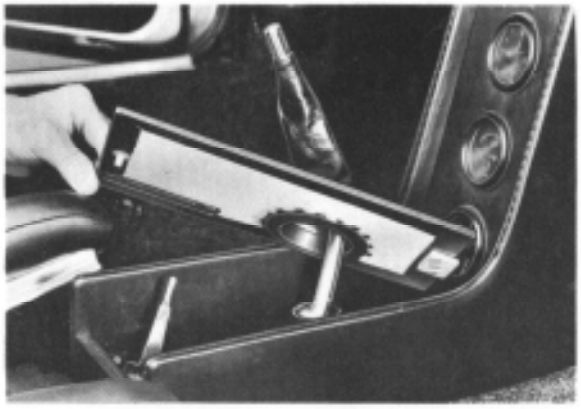
10. Remove tool and attach mirror to base.

REMOVING AND INSTALLING CENTER CONSOLE

General

Beginning with 1973 models, the Comfort Group will include a center console with a clock, oil temperature gauge, voltmeter, and storage compartment. The console is installed forward of the seats.

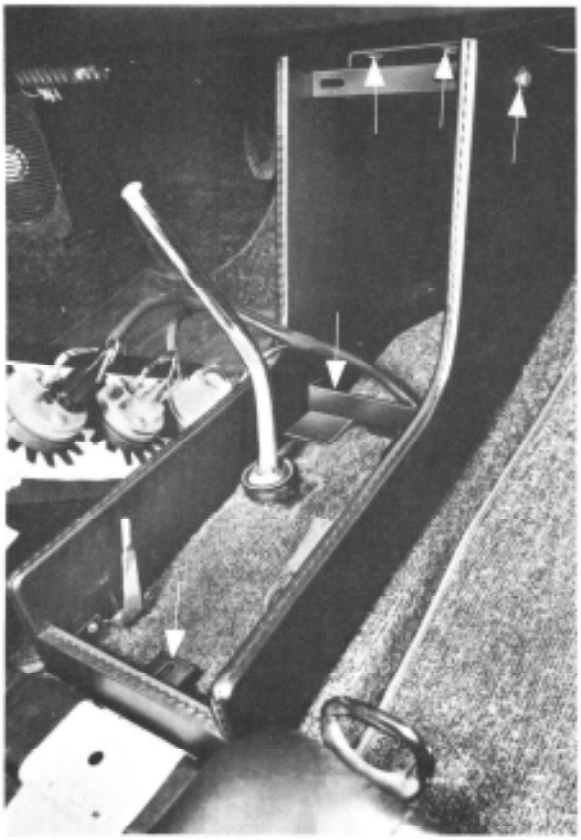
Removal



1. Remove knob from heater control lever.

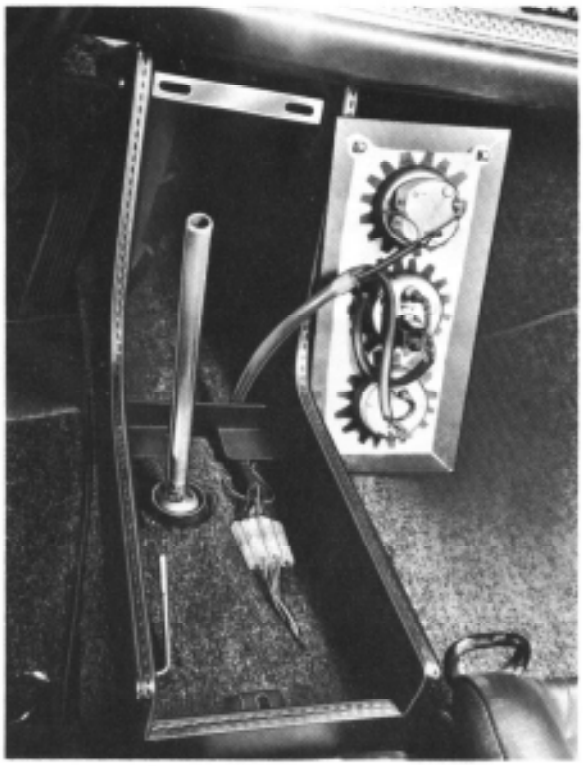
2. Inserting a hook into the heater control lever slot, catch the back of the cover and pull it up.

3. Pull the instrument mounting plate out of the retaining clips by holding the lower part of it.



4. Disconnect electrical wires under the mounting plate. The instruments can be removed, when necessary, by pushing from the rear.

5. Remove console retaining screws (see arrows) and take the console out.



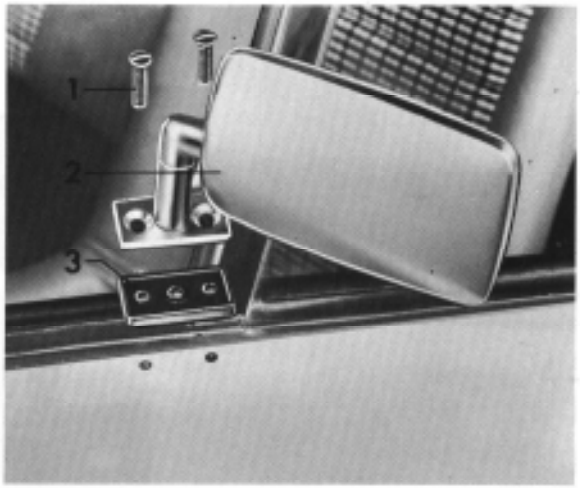
Installation

1. Place console on center tunnel and fasten.

2. Push instruments into the mounting plate and connect wires (see wiring diagram, Group 9, 0.1-2/15).
   Instrument arrangement, from top: clock, oil temperature gauge, voltmeter.
   Install mounting plate.

3. Push console cover into place. Install knob on heater control lever.

REMOVING AND INSTALLING OUTSIDE REAR VIEW MIRROR

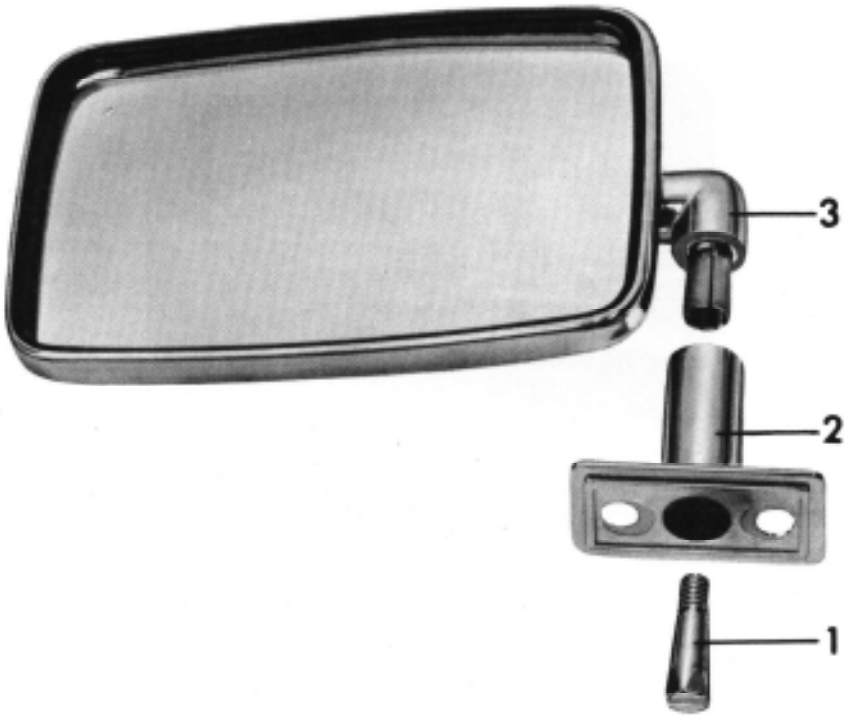


No.	Description	Qty.	Note when Removing	Note when Installing	Detailed Instr.
1	Flat head machine screw	2			
2	Outside rear view mirror	1		Check, replace if necessary	
3	Shim Outside door panel	1			

Special Instructions:

The outside rear view mirror is adjustable at two joints. The tightness of the joints can be adjusted by tightening the tapered threaded pin in the mirror base. Before installation, check joints for easy operation. If necessary, disassemble mirror, clean and lubricate.

DISASSEMBLING OUTSIDE REAR VIEW MIRROR



No.	Description	Qty.	Note when Removing	Note when Installing	Detailed Instr.
1	Tapered threaded pin	1			
2	Mirror base	1		See special instructions	
3	Mirror	1			

GENERAL INFORMATION

The basic dimensions for body and underbody repairs on pages 18.1-1/1 to 18.1-2/8 were obtained in a series of measurements made with a 2 meter (78 in.) long caliper gauge, an internal measuring rod with ball or pointed ends and an adjustable measuring device.

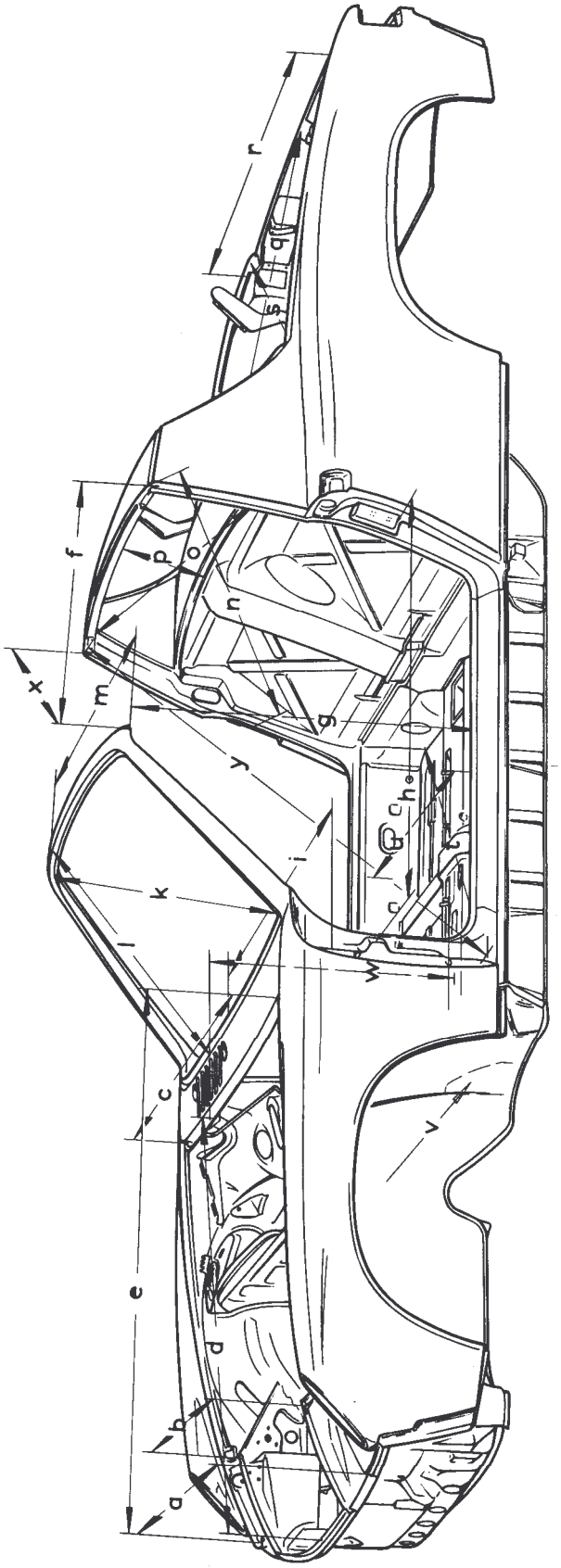
The tolerance is ± 2 mm (1/16 in.).

Other instruments with the same degree of accuracy can naturally be used when checking the dimensions in workshops.

Important !

The dimensions for the front and rear axle mountings should be kept as accurate as possible as these points have a considerable influence on handling characteristics.

BODY DIMENSIONS



Dimension	Location	Measure-ment	Remarks	Figure
a	Between fenders	1277 mm (50 9/32 in.)	Measured in front area of flange inner edges.	1
b	Between headlight compartments	776 mm (30 9/16 in.)	Measured at outer edges of weather-strip seat flanges	1
c	Width of front luggage compartment	1380 mm (54 11/32 in.)	Horizontal distance to outer edge of lid weatherstrip seat	2
d	Length of front body assembly	1074 mm (42 9/32 in.)	Through vehicle center, from forward ward edge of body to inner flange of lid weatherstrip seat	3
e	Diagonally in front luggage compartment	1724 mm (67 7/8 in.)	Measured between forward edge of fender and outer corner edge of lid weatherstrip seat	3
f	Between roll bar and windshield flange	638 mm (25 1/8 in.)		4
g	Windshield flange height	788 mm (31 1/32 in.)	Measured between lower edge of windshield flange and upper edge of flange and door rocker panel	5
h	Between hinge and door lock pillars	1039 mm (40 29/32 in.)	Measured between bulge for door contact switch and depression for door lock plate	6
i	Between hinge pillars	1503 mm (59 3/16 in.)	Horizontal distance between hole centers on left and right sides	7
k	Diagonally across wind-shield frame	1373 mm (54 1/16 in.)	Measured at upper edge of wind-shield frame	8
l	Vertical windshield opening	689 mm (27 1/8 in.)	Measured in upper part of wind-shield frame in center of vehicle	9
m	Windshield frame width	1171 mm (46 3/32 in.)	Horizontal distance between inner left and right roof edges	10

Dimension	Location	Measurement	Remarks	Figure
n	Diagonal distance between roll bar and door lock plate	1433 mm (56 13/32 in.)	Measured from corner of roll bar to top of inner hole of door lock plate on opposite side	11, 12
o	Diagonal distance across rear window	1280 mm (50 13/32 in.)	Measured between corners of window seating surface	13, 14
p	Vertical opening in rear window frame	243 mm (9 9/16 in.)	Measured through vehicle center between upper and lower edges of window seating surfaces	15
q	Length of rear body assembly	778 mm (30 5/8 in.)	Distance between flange inner edge of rear panel and vertical part of rear floor panel through center of vehicle	16
r	Width of opening for rear luggage compartment lid	1359 mm (53 1/2 in.)	Distance between left and right fender flange. Dimensions are constant through the compartment area to tail light assemblies	16
s	Diagonal distance across rear luggage compartment	1588 mm (62 17/32 in.)	Measured between inner corners of the lid weatherstrip seat	17, 18
t	Diagonal distance across passenger compartment	1642 mm (64 21/32 in.)	Measured between corner of longitudinal member inner wall and crease in transverse member at wheelhousing	19, 20
u	Passenger compartment width	1228 mm (48 11/32 in.)	Measured between inner walls of longitudinal members; dimension is constant across entire passenger compartment	21
v	Passenger compartment width	717 mm (28 7/32 in.)	Distance between front left and right longitudinal member	22
w	Body height to windshield flange	578 mm (22 3/4 in.)	Measured at distance A = 400 mm from firewall in center of vehicle	23
x	Diagonal distance across roof opening	1337 mm (52 5/8 in.)	Measured between outer corner of roll bar and inner edge of roof on opposite side	24
y	Diagonal distance across passenger compartment	1976 mm (77 25/32 in.)	Measured between outer corner of roll bar and outer edge of lower hole for hinge	15, 26

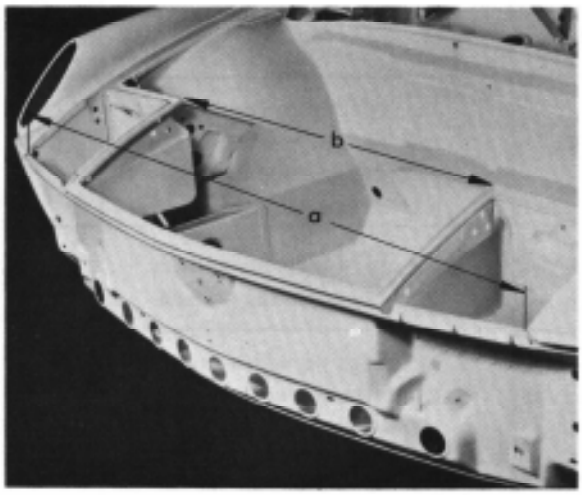


Fig. 1

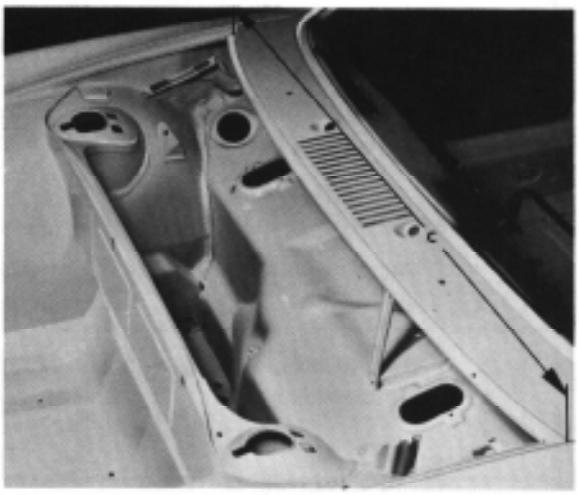
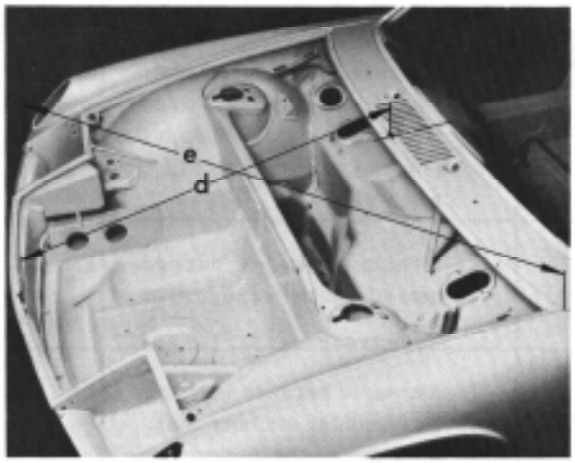


Fig. 2



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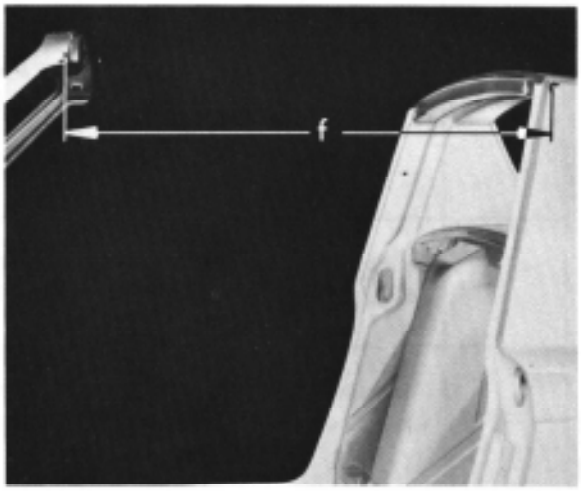


Fig. 4

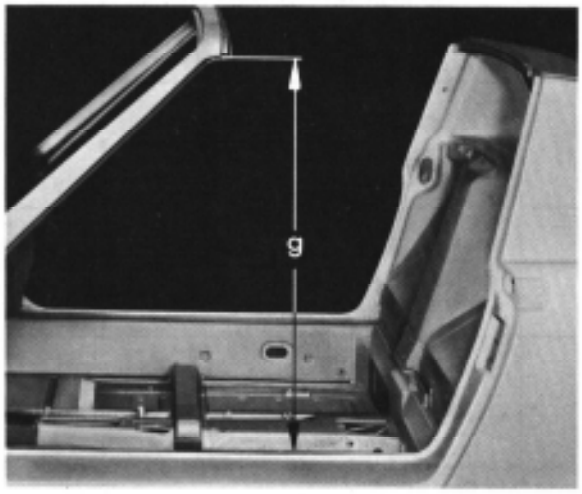


Fig. 5

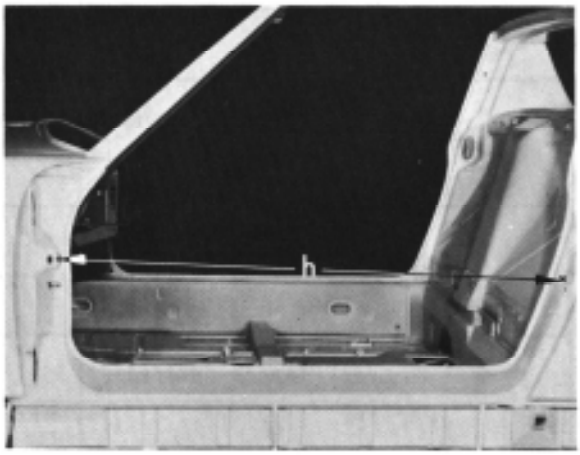


Fig. 6

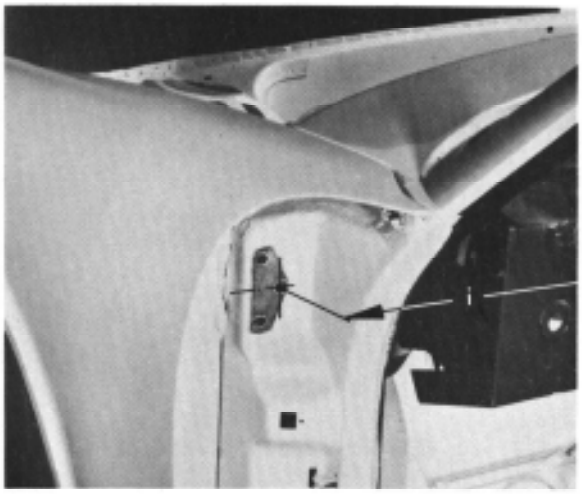


Fig. 7

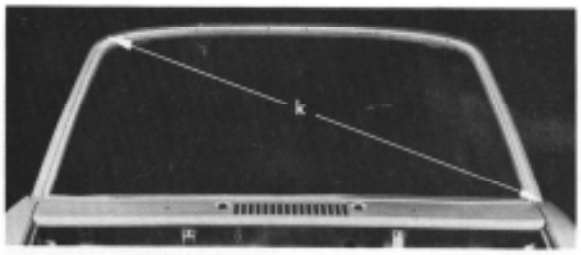


Fig. 8

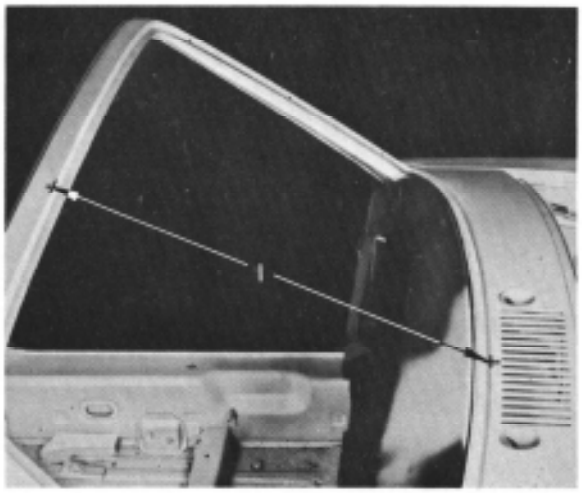


Fig. 9

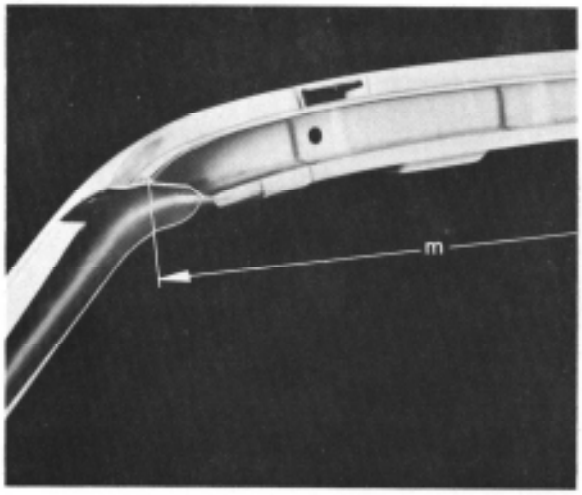


Fig. 10

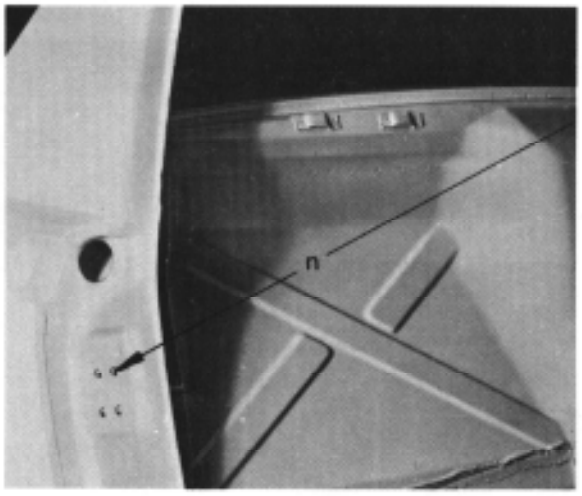


Fig. 11

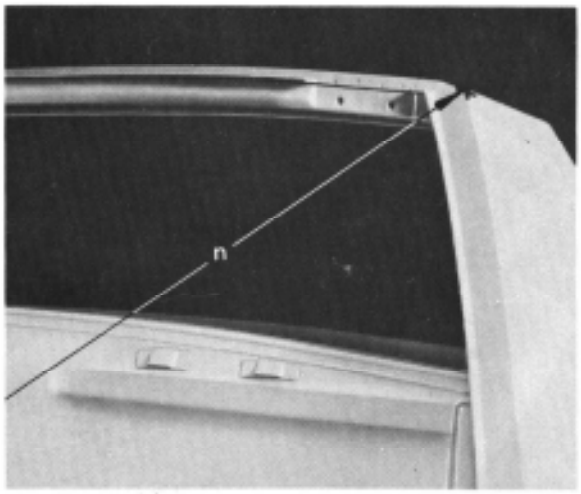


Fig. 12

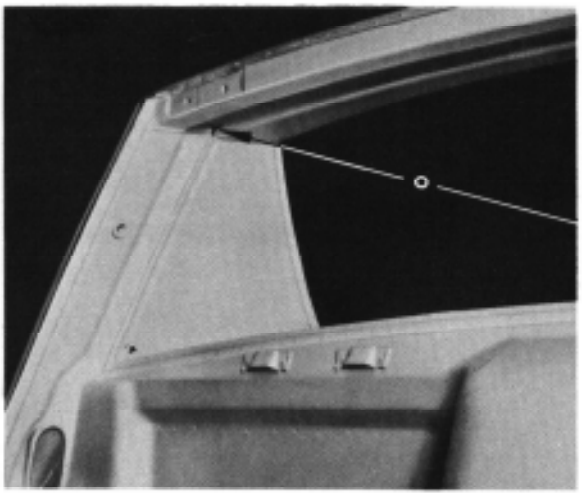


Fig. 13

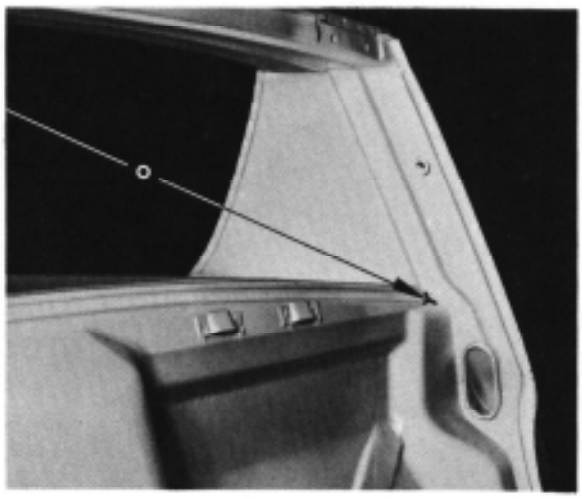


Fig. 14

Fig. 15

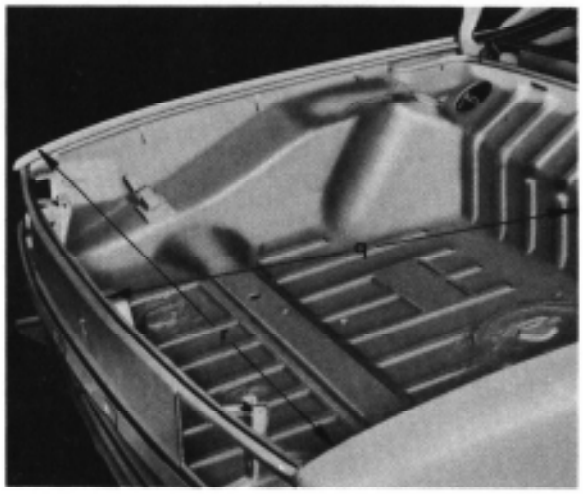


Fig. 16

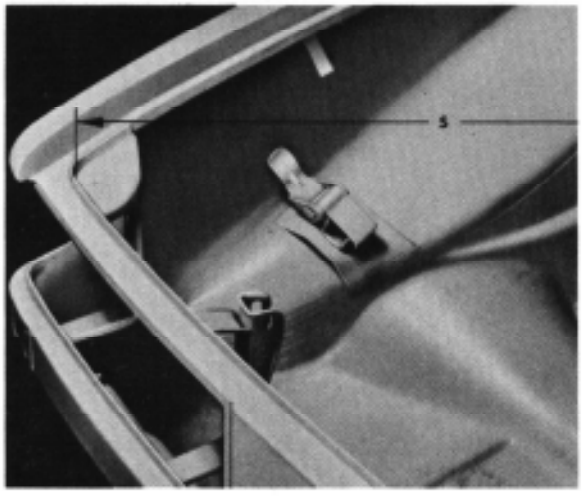


Fig. 17

Fig. 18

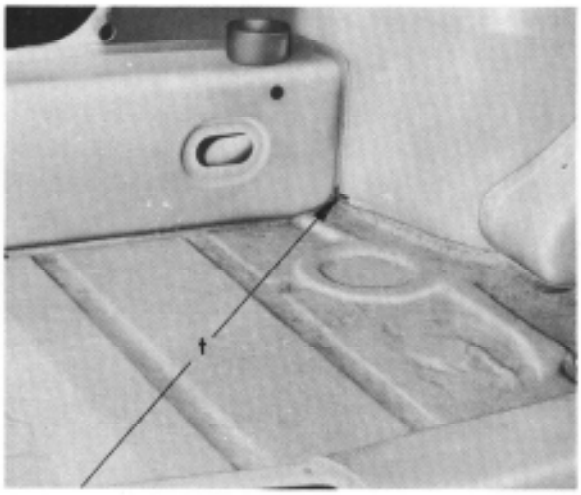


Fig. 19

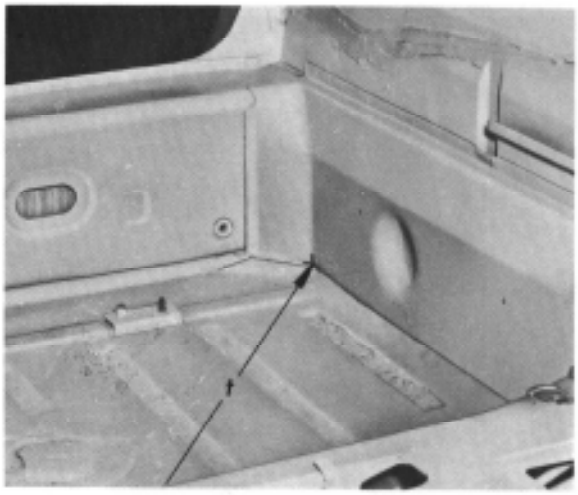


Fig. 20

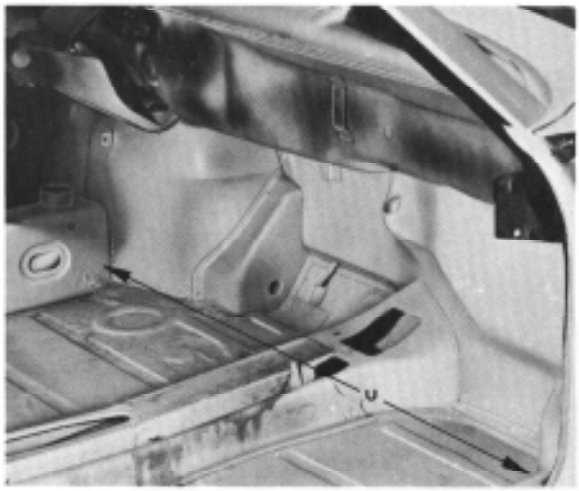


Fig. 21

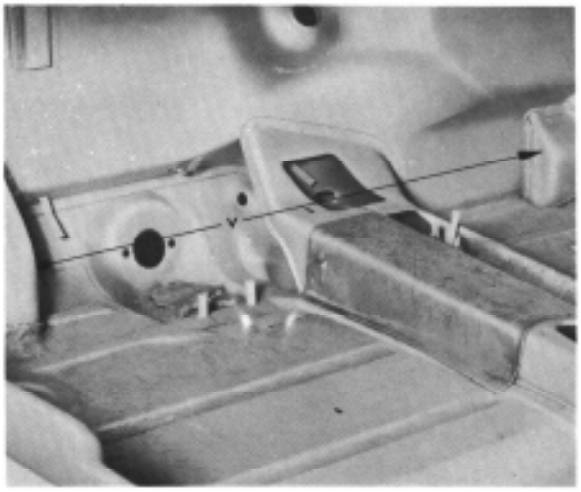


Fig. 22

Fig. 23

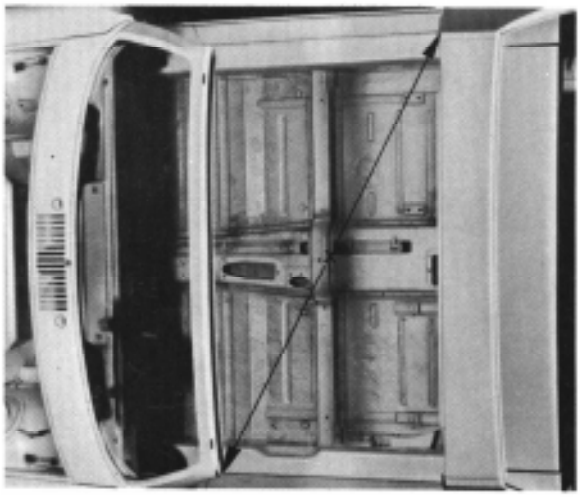


Fig. 24

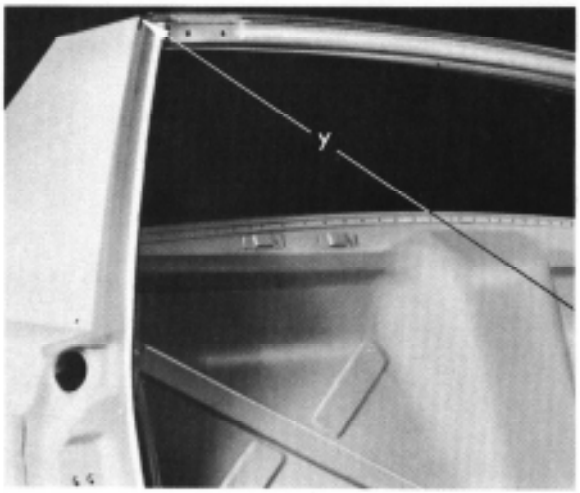


Fig. 25

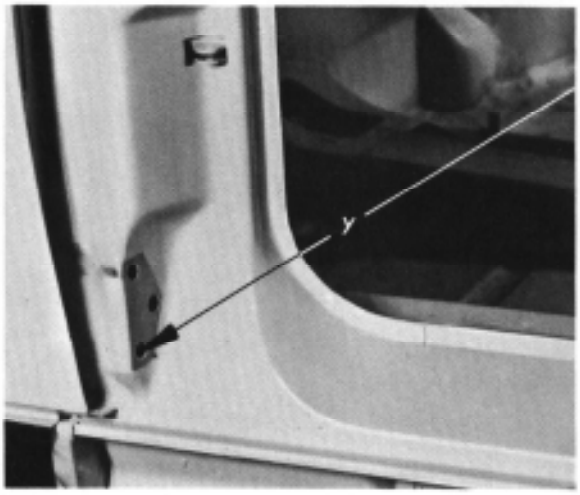
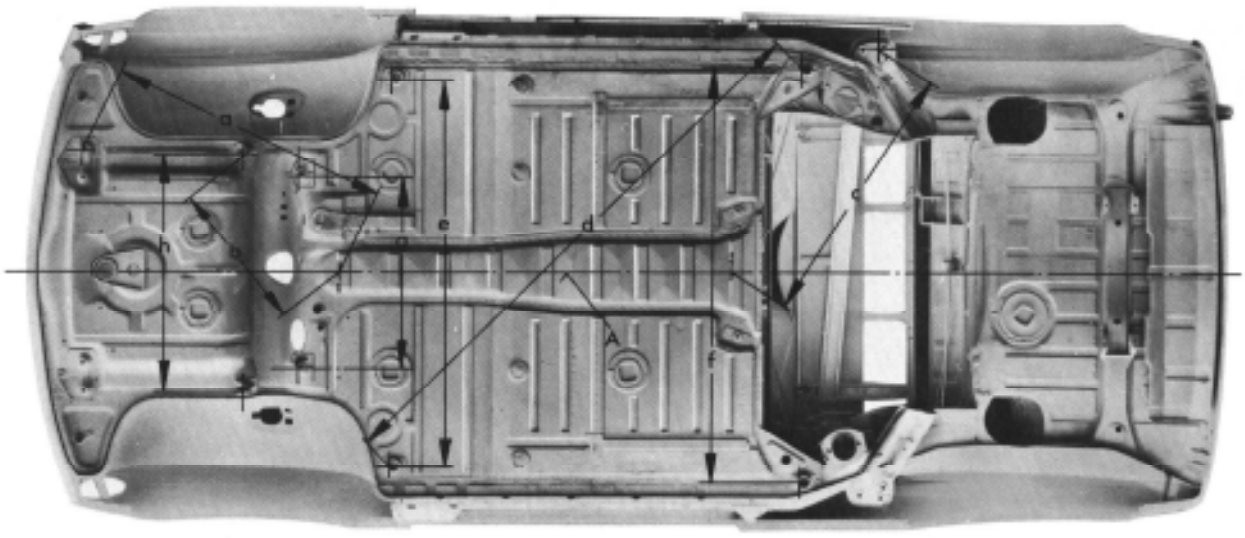


Fig. 26

UNDERBODY DIMENSIONS



Dimension	Location	Measurement	Remarks
a	Distance from form bead center to outer hole of front reinforcement for suspension seat.	895 mm (35 1/4 in.)	Fasten an approximately 125 mm (5 in.) long M 10 bolt into the outside threaded hole of the suspension seat. Bolt protrusion (to top of bolt head) should be 104 mm (4 3/32 in.). The measure from center of form bead to center of bolt head.
b	Distance between form bead center and seat of transverse front suspension tube	473 mm (18 5/8 in.)	Measured directly between hole center and form bead center.
c	Distance between form bead center and the rear outer hole of the suspension arm attachment	846 mm (33 5/16 in.)	Fasten an approximately 230 mm (9 in.) long M 10 bolt into the suspension seat. Bolt protrusion (to top of bolt head) should be 182 mm (7 5/23 in.). Then measure from center of form bead to center of bolt head.
d	Diagonal distance across floor between front and rear locating recesses	1760 mm (69 9/32 in.)	Measured between hole centers
e	Distance between front locating recesses	1184 mm (46 5/8 in.)	Measured between hole centers
f	Distance between rear locating recesses	1272 mm (50 3/32 in.)	Measured between hole centers
g	Distance between the rear reinforcements for suspension seat	590 mm (23 7/32 in.)	Measured between hole centers
h	Distance between attaching points of front transverse suspension tube	726 mm (28 19/32 in.)	Measured between hole centers

General Information

The instructions for the replacement of individual body and frame parts are intended to serve as a guide and should only be carried out by a skilled man in this type of work.

Before cutting out parts of the body and frame, it is essential to plan the individual cuts to be made. Refer to the cutting lines in the respective sections of the workshop manuals.

For the sake of clarity, the work procedures described in this manual were performed on a bare body shell.

All joining surfaces which will become inaccessible after spot welding should be painted before assembly, with the exception of surfaces which will later be brazed.

NOTE

When spot welding is described, it can be electric or gas.

After the completion of each body repair, all seams and welds must be sealed with VW D 17 sealing compound.

CELETTE Universal Assembly and Alignment Frame

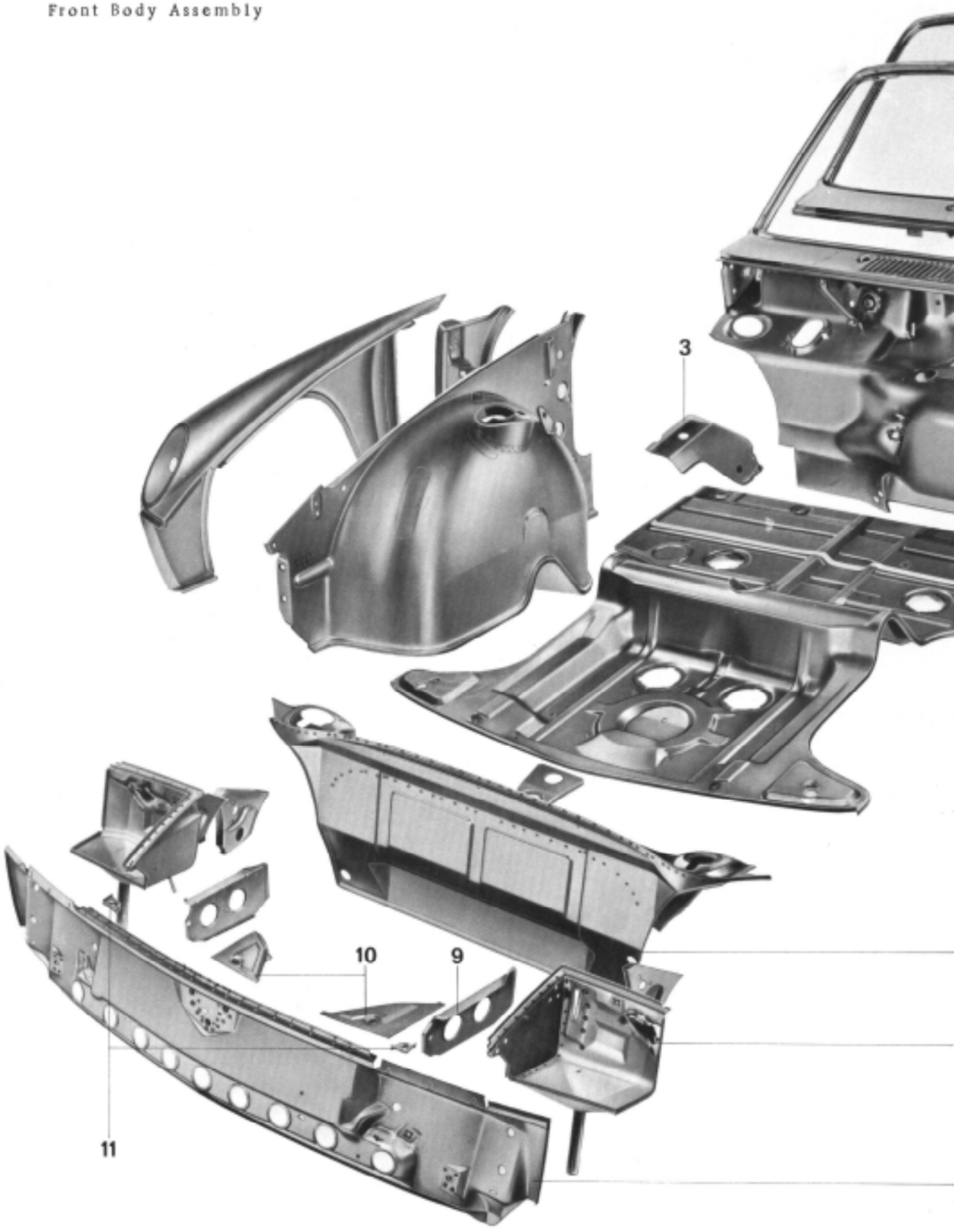
The CELETTE Universal Assembly and Alignment Frame, Model MUF 5 or MUF 5 R with ENS 153 adapter kit, is available for use on more extensive repair projects.

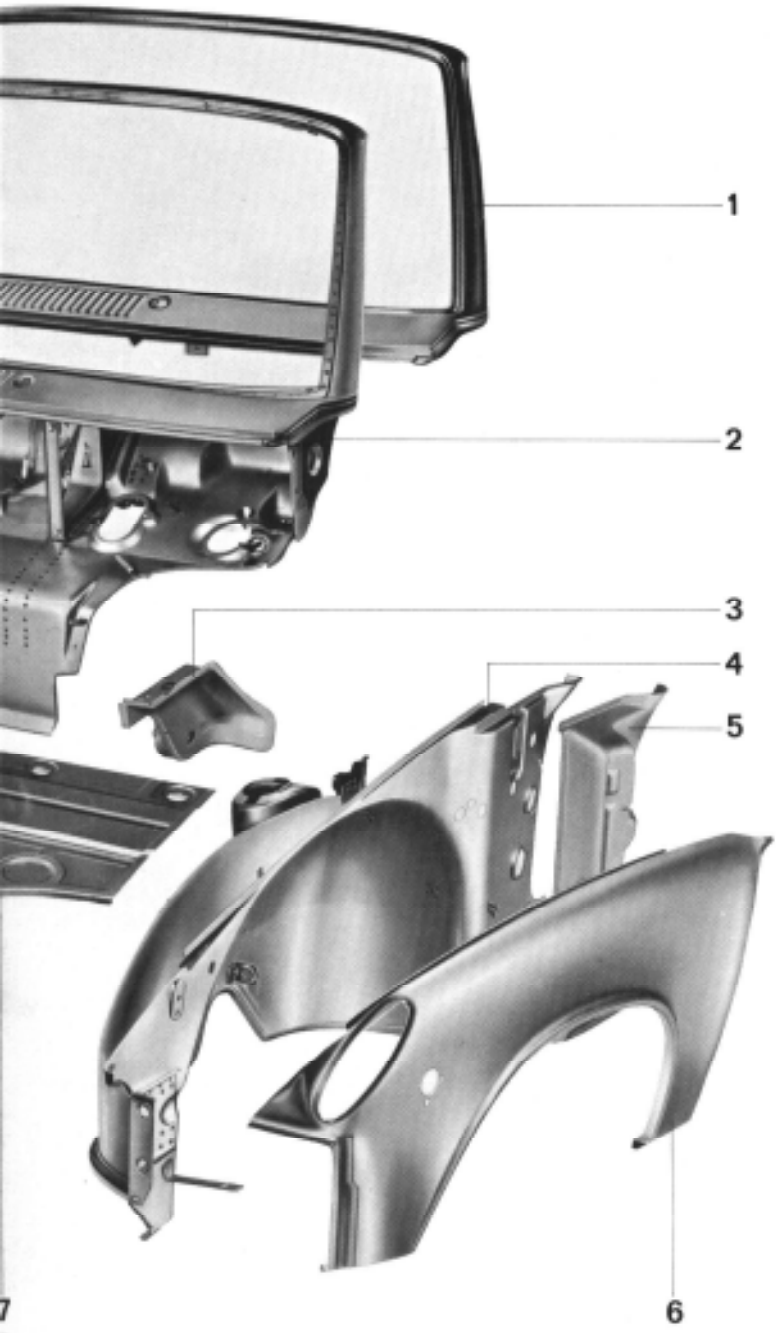
Whenever the rear axle mounting points or several alignment reference points are damaged, the repairs can no longer be accomplished in a professional manner without the use of such assembly and alignment frame.

We recommend, however, comparing the cost of a new body with that of the repair prior to initiation of the repair.

The procedure applicable to work performed with the aid of the assembly and alignment frame is not outlined separately, but is to be applied according to the outline dealing with the repair work.

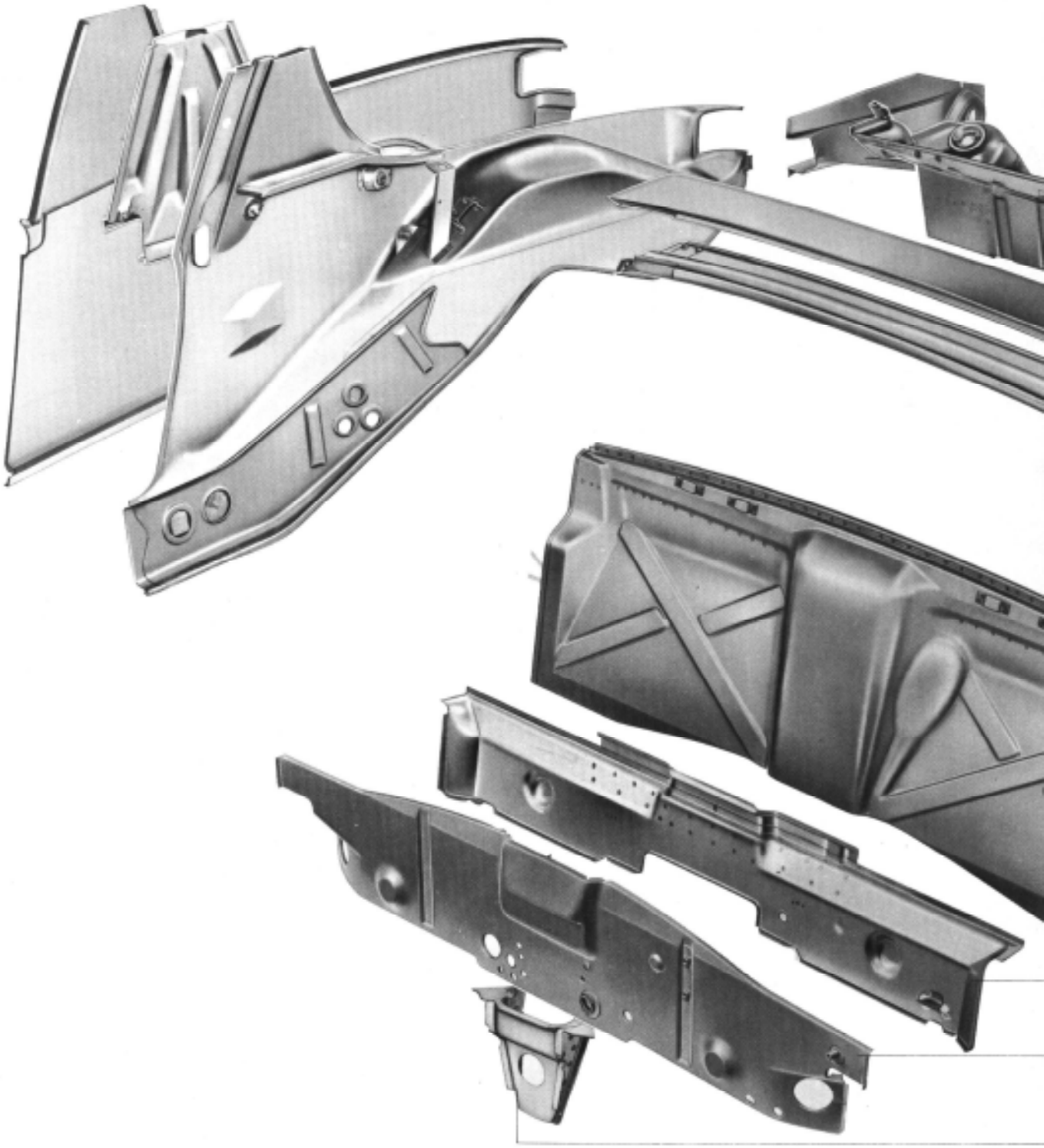
Front Body Assembly



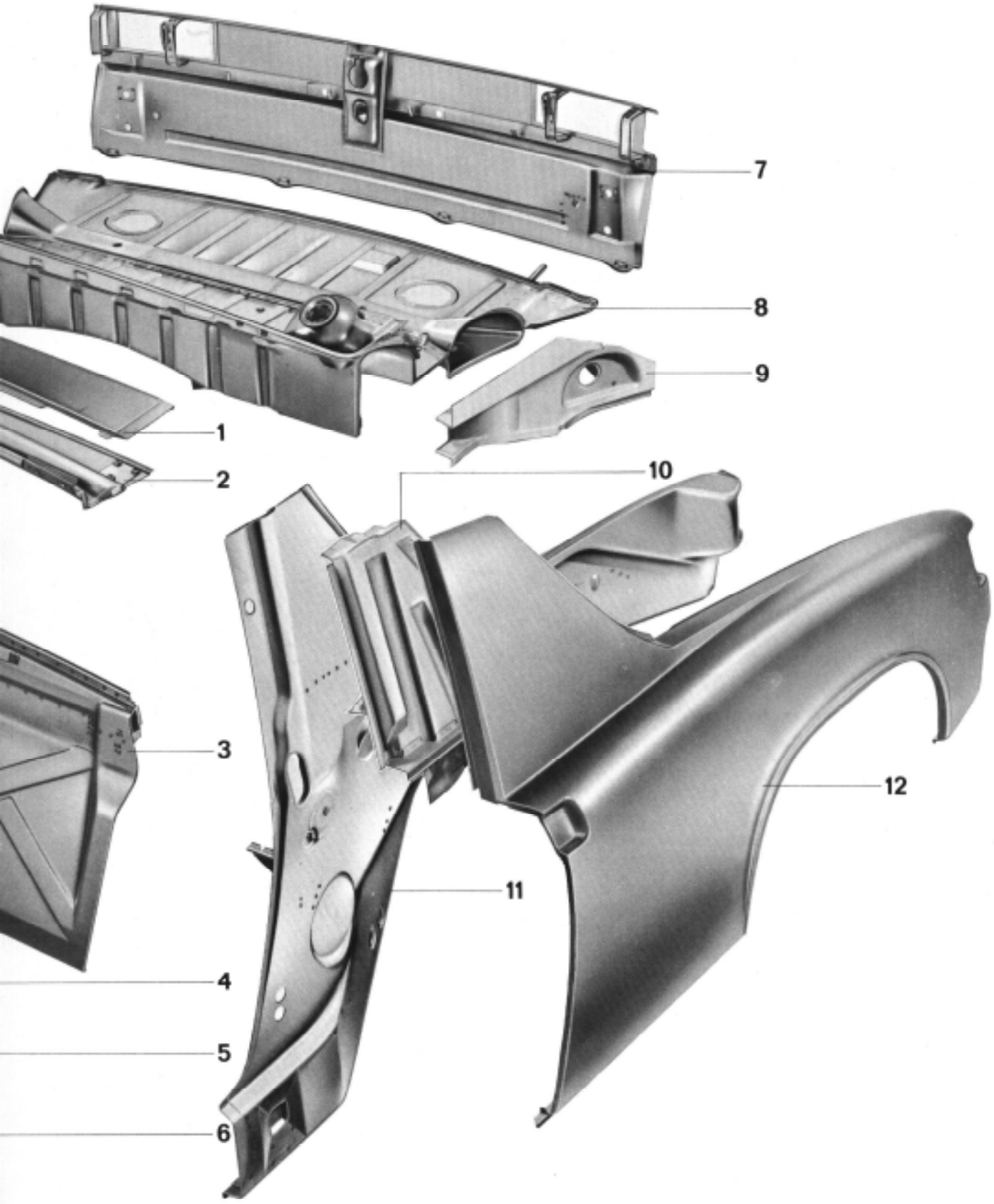


1. Windshield Frame
2. Crosswall with Windshield Frame
3. Front Reinforcements
4. Wheel Housing
5. Hinge Pillar
6. Fender
7. Floor Plate, Front
8. Inner Reinforcement Panel
9. Reinforcement
10. Lower Reinforcement Plates
11. Hood Stops
12. Headlight Housing
13. Front Cross Panel

Rear Body Assembly



1. Roll Bar, Outer
2. Roll Bar, Inner
3. Rear Reinforcement Plate
4. Connecting Plate
5. Backwall
6. Backwall Reinforcement
7. Rear Cross Panel
8. Rear Floor Plate
9. Rear Reinforcement Member
10. Roll Bar Support Reinforcement
11. Inner Fender with Roll Bar Support
12. Fender with Roll Bar Support


7
8
9
1
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6

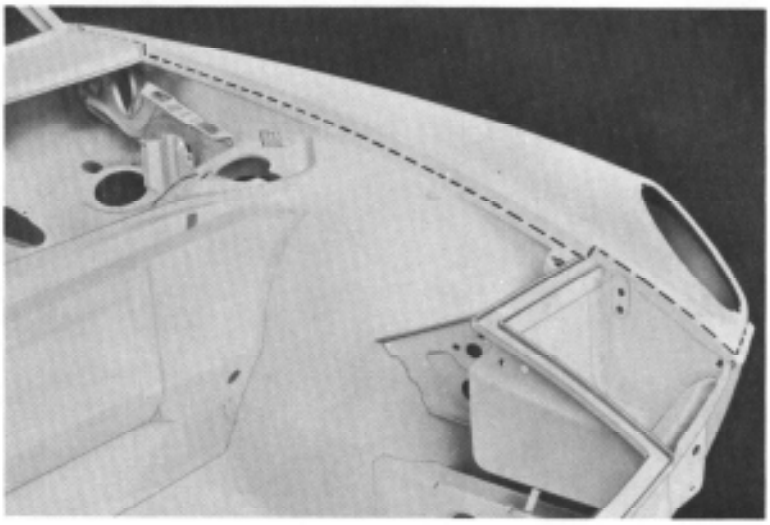
Replacing Front Fender

The following parts should be removed:

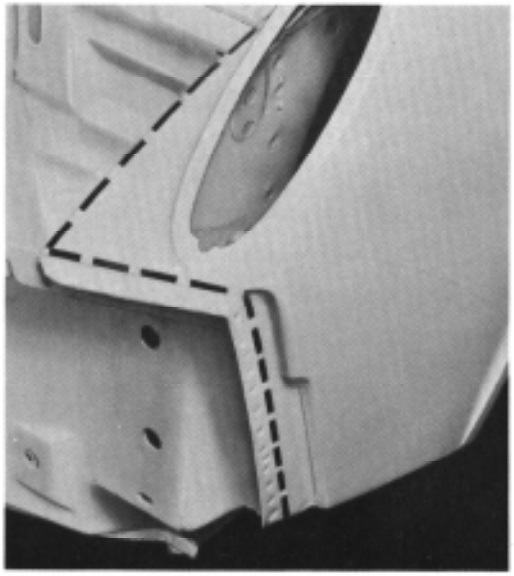
Nr.	Description	Qty	Special instructions see
1	Wheel, front	1	
2	Bumper, front (*)	1	1.1-1/1
3	Turn signal light, front (*)	1	
4	Headlamp assembly, front (*)	1	
5	Door	1	4.1-1/1

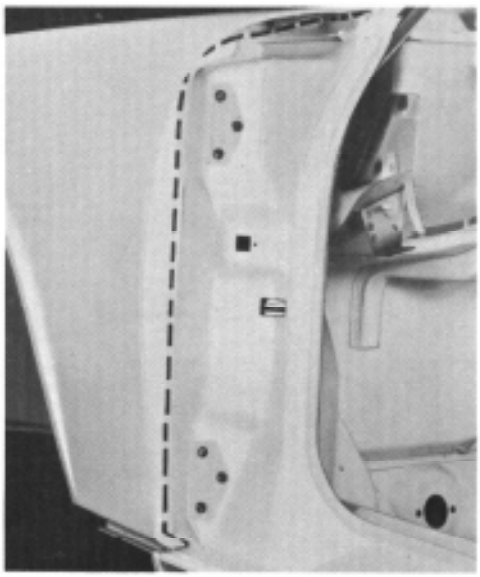
(*) If the parts are badly damaged, they may not have to be individually removed, simplifying the disassembly procedure.

Cutting off Front Fender



Cut fender along cutting lines as shown in the illustrations, and remove metal scraps.





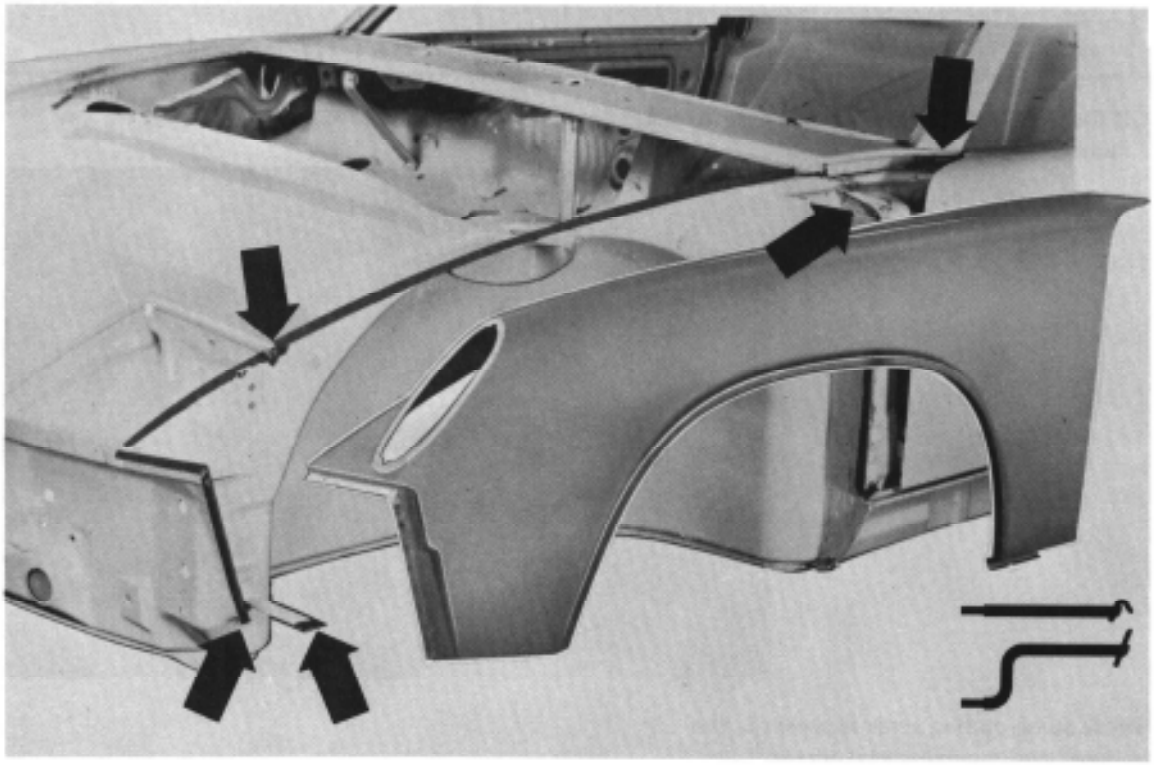
Welding-in the fender

1 - Sand all joining surfaces on body and fender.

2 - Align fender with door and lid.

3 - Fasten fender with clamps.

4 - Spot-weld the fender. Weld sections shown in illustrations with gas or mig welder.



Replacing Sections of Front Wheel Housing, Front Cross Panel, Floor Plate, Headlight Housing and Inner Reinforcement Panel.

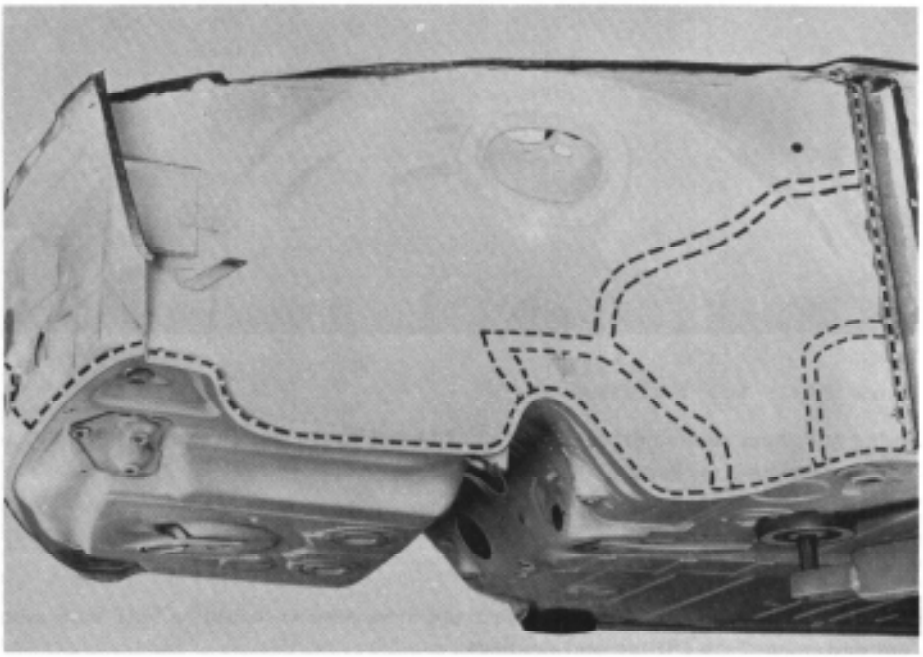
The alignment and welding jig P 863 should be used for welding the floor plate into place. If this tool is not available, refer to Body Dimensions.

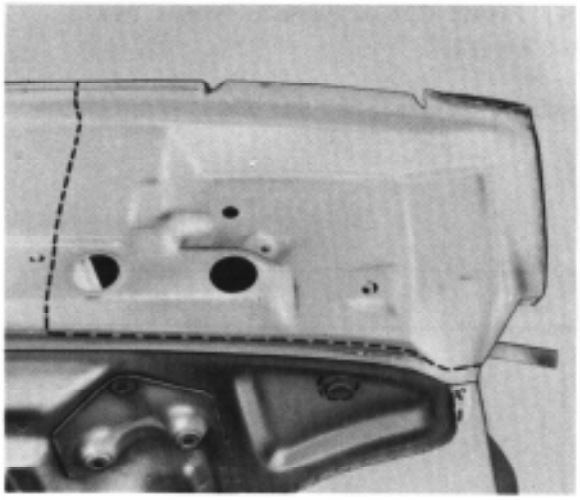
The following parts are available for the repair:

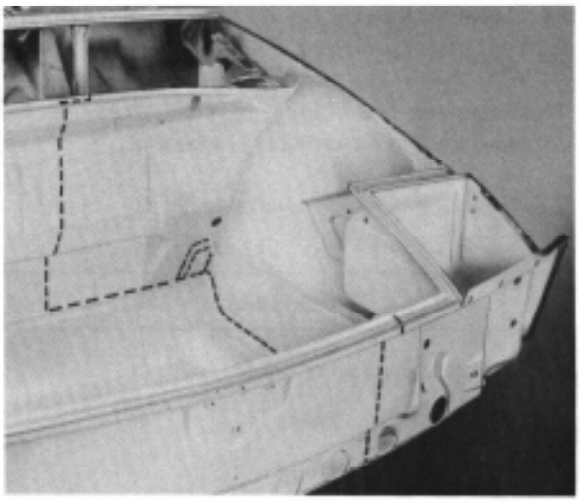
Nr.	Description	Qty	How Installed
1	Wheel Housing, front	1/1	Cut to fit
2	Front Cross Panel	1	Cut to fit
3	Floor plate, front		
4	Inner Reinforcement Panel	1	Cut to fit
5	Headlight Housing	1/1	Complete
6	Reinforcement	1/1	Complete
7	Lower Reinforcement Plates	1/1	Complete
8	Hood stops	1/1	Complete

Cutting Out Damaged Sections

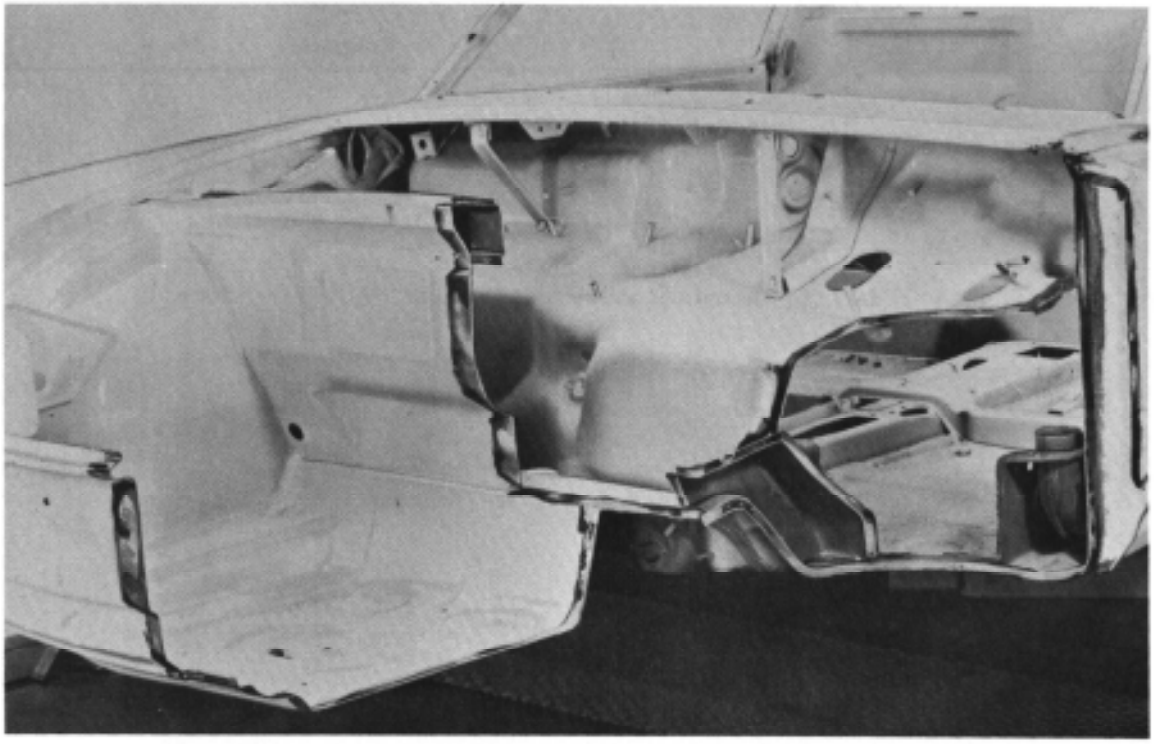
Cut parts along cutting lines shown in illustrations and remove remnants.







Align and sand all surfaces which are to be spot-welded.



Preparing New Parts for Welding

New wheel housing and inner reinforcement panel must be cut to the dimensions "x" and "y" shown in the section entitled "Welding in New Parts".

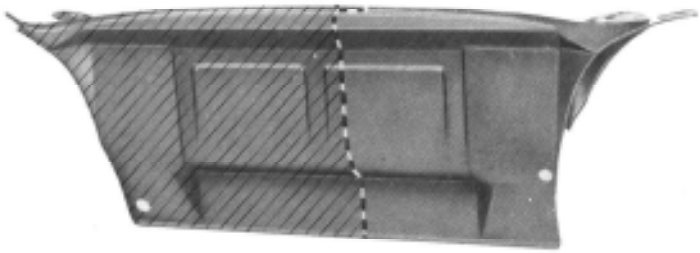
Note

Parts which will be lap-welded (such as hinge pillars and cross panels) should be held with asbestos clamps for better fit and easier finishing (filling and sanding).

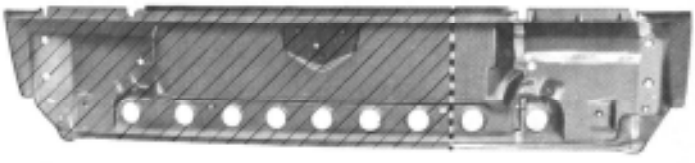
Cutting Lines for Sectional Repairs

Floor Plate, front

Wheel housing



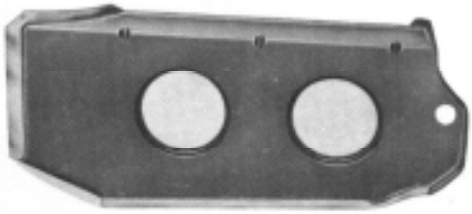
Inner Reinforcement Panel



Cross Panel

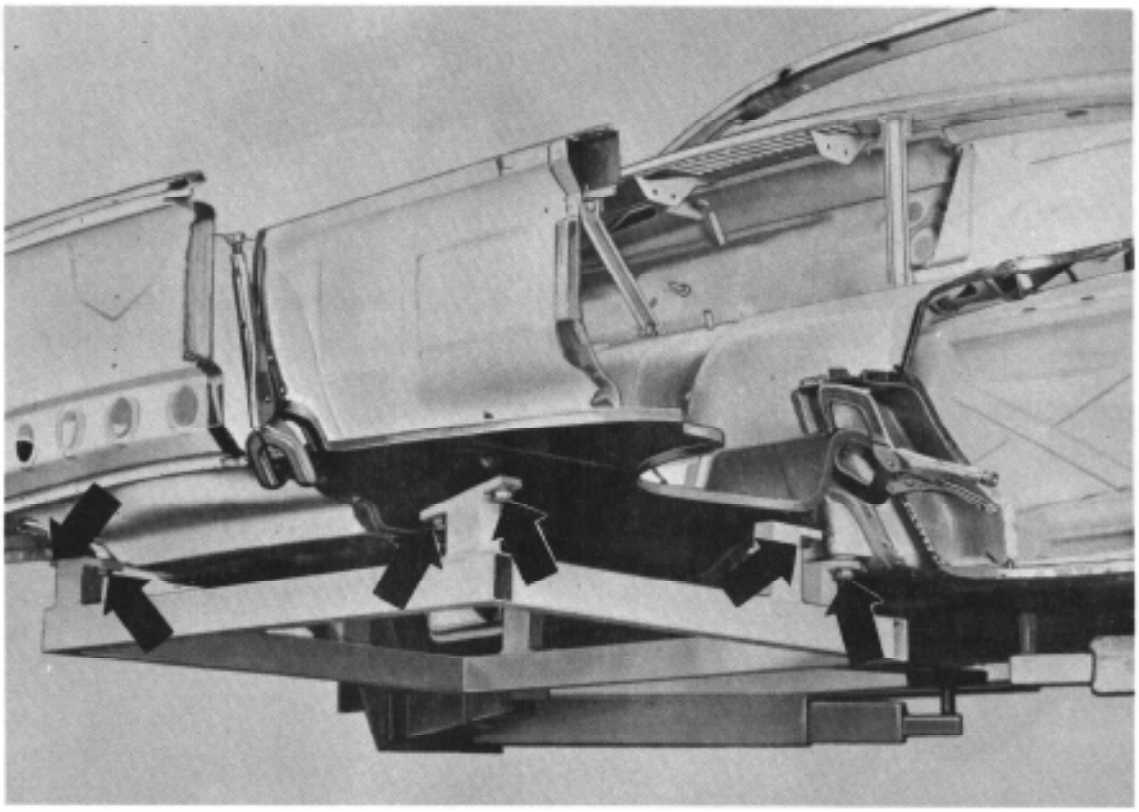
Reinforcement

Headlight housing

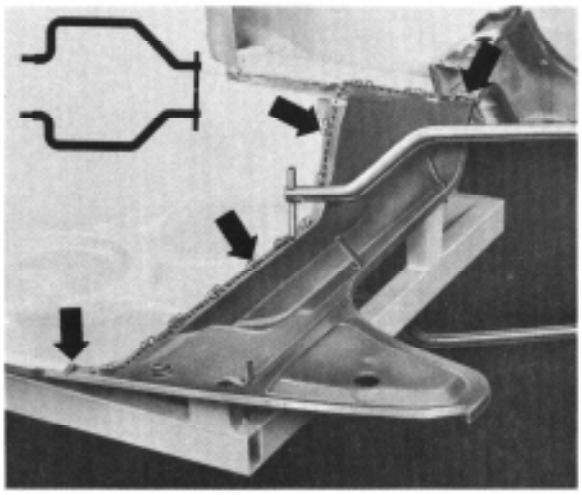


Welding-in New Sections

1 - Attach alignment and welding jig P 863 to mounting points in floor plate (see arrow). Also refer to body dimensions.



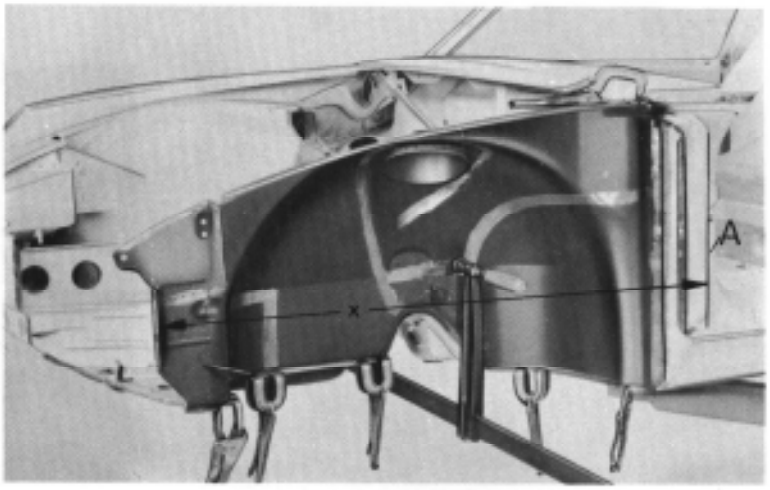
2 - Attach floor plate section to mounting points in jig, align, and spot-weld.



3 - In addition, make weld beads with gas or MIG welder in offset sequence on both sides of the floor plate (see arrow); the beads should be spaced about 50 mm (2 in.) apart.

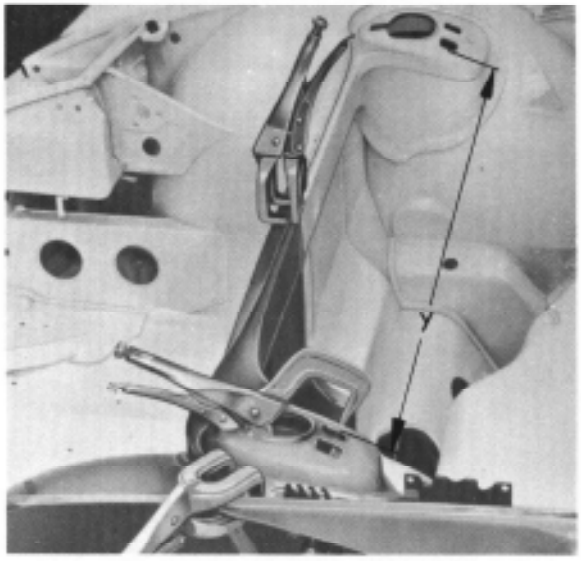
4 - Attach floor plate lower reinforcement plates in the area in front of the front axle mounting point and spot-weld.

5 - Carefully align wheel housing and inner reinforcement panel to coincide with dimensions "x" and "y".



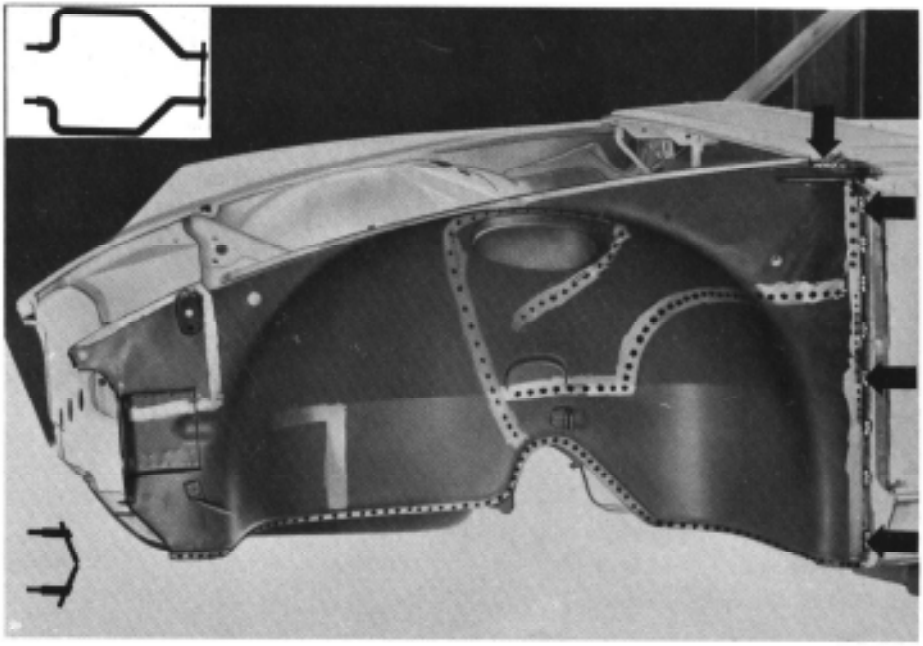
Dimension x = 1091 ± 2 mm
(43 ± 1/16 in.)

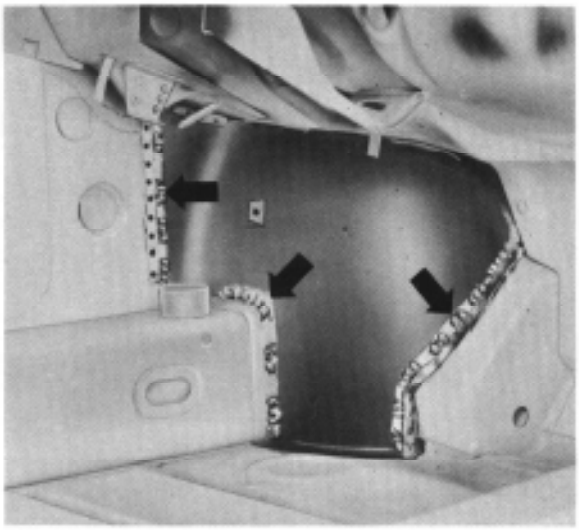
A = Hinge pillar base
(Dimension x = Measured between hinge pillar base and flange for the bumper mounting point.)

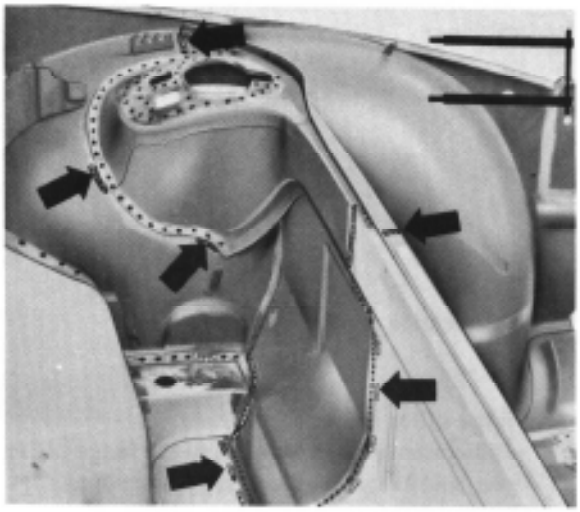


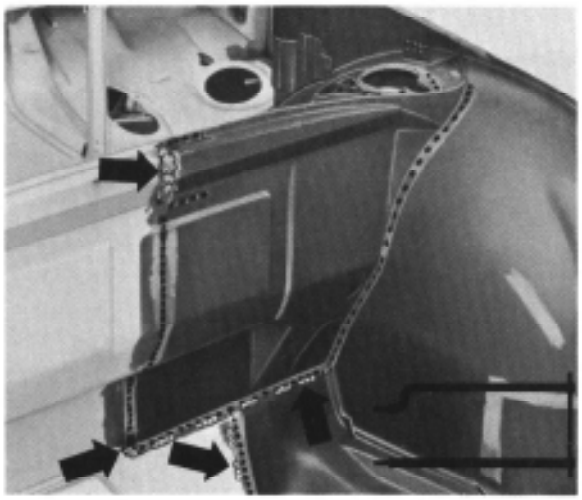
Dimension y = 935 ± 2 mm
(36 13/16 ± 1/16 in.)

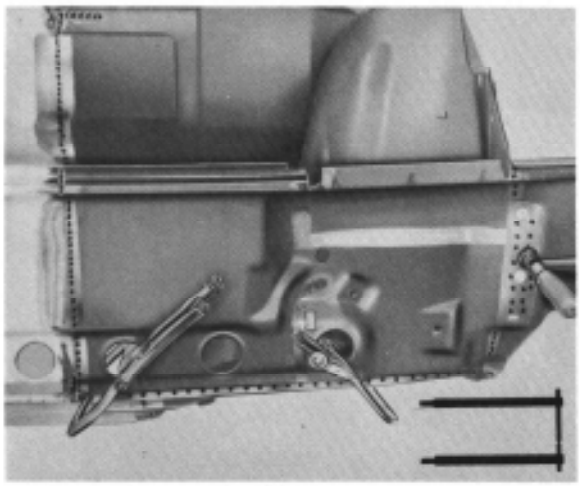
6 - Spot-weld wheel housing and inner reinforcement panel and additionally gar or MIG weld in places shown in the illustrations by arrows.









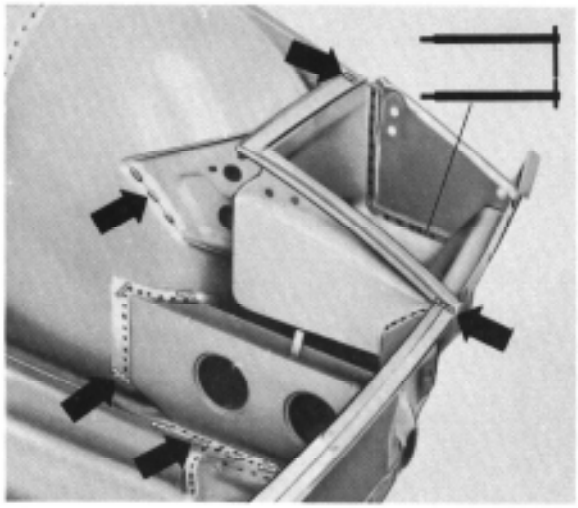


7 - Install front lid.

8 - Align section of front cross panel and wheel housing with front of lid, then clamp and spot-weld.

9 - Spot-weld headlight housing; gas or MIG weld in the area of the front cross panel and wheel housing (see upper arrows).

10 - Spot-weld the reinforcement to wheel housing, floor plate and front cross panel. Make additional weld beads as shown by arrows (gas or MIG welded).



11 - Spot-weld lower reinforcement plate to wheel housing and headlight compartment.

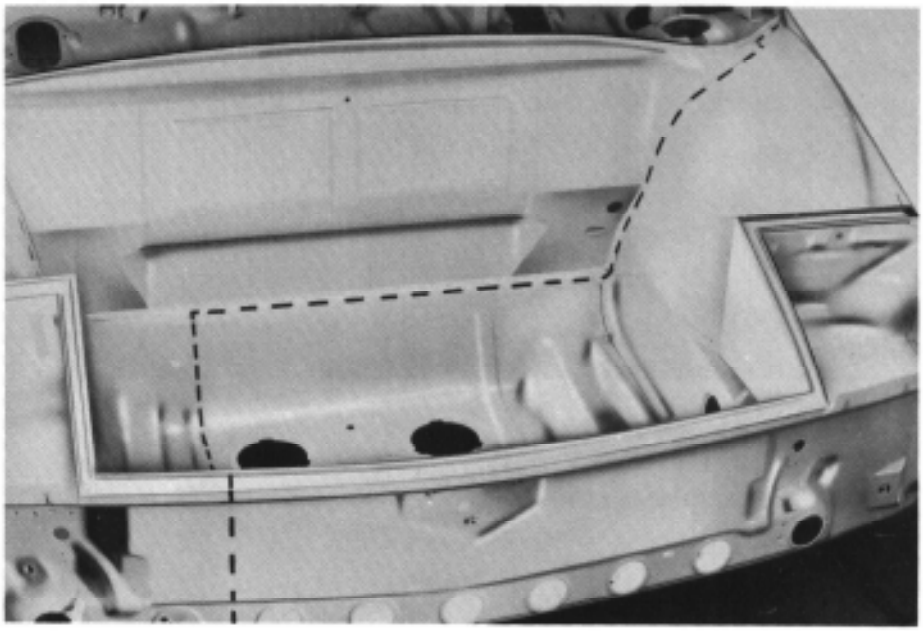
12 - Seal all weld seams with VW D 17 sealing compound.

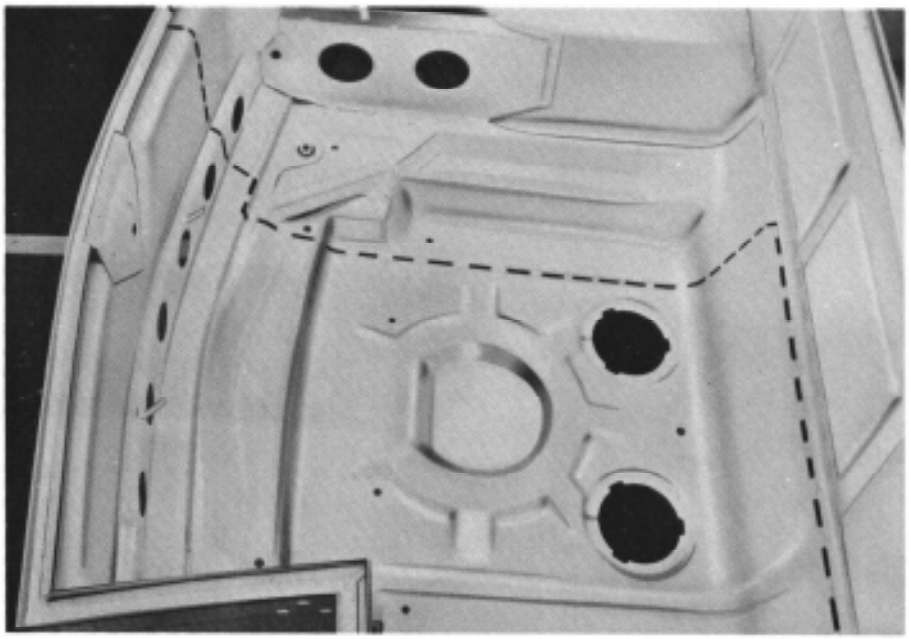
Replacing Sections of Wheel Housing, Front Cross Panel, Floor Plate and Headlight Housing.

This repair procedure can be used in cases where the inner reinforcement panel is not damaged.

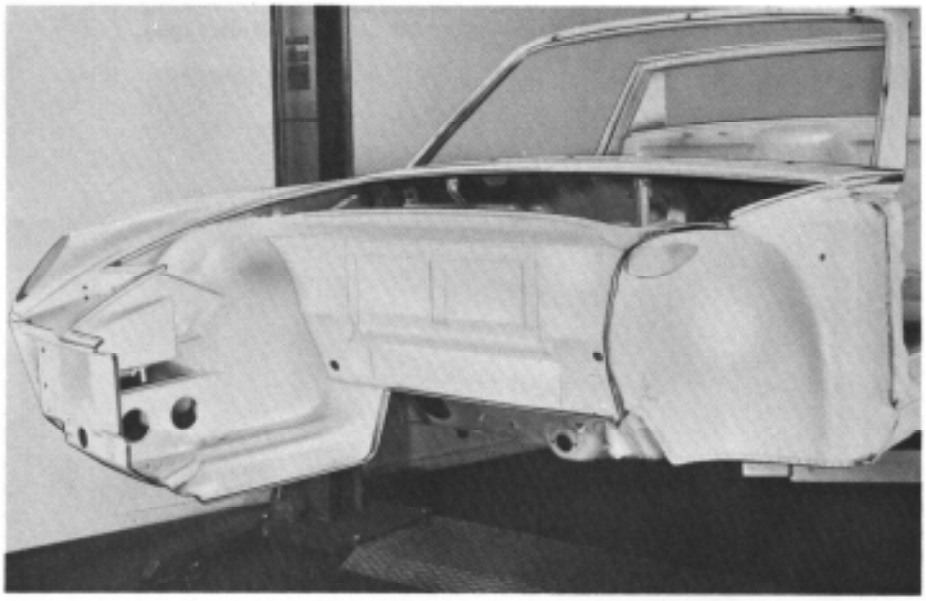
The work sequence is same as in Section 20.1-4/1.

Cutting lines:



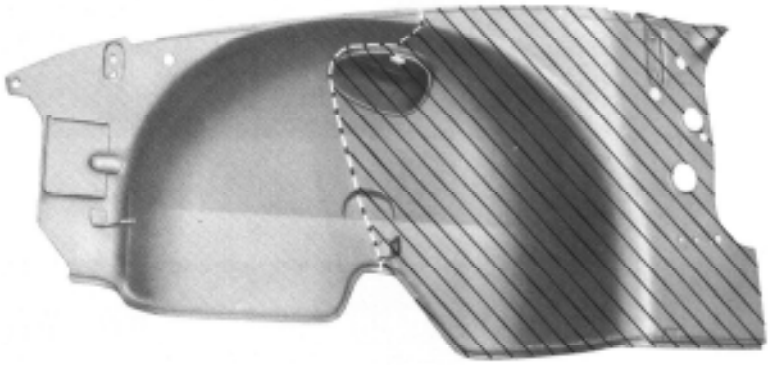


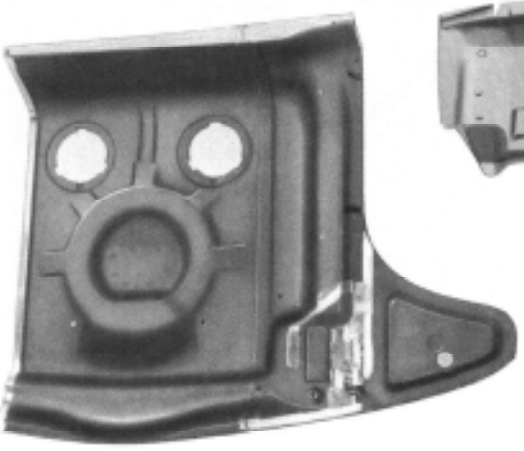
Sand contact surfaces.

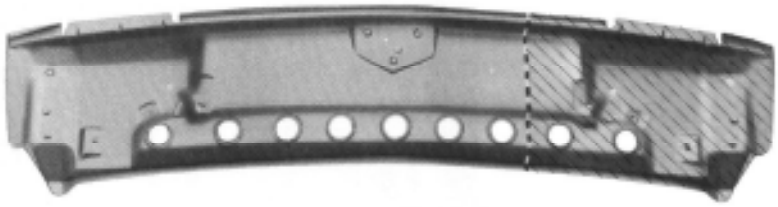


Parts which are replaced in sections:

Wheel Housing

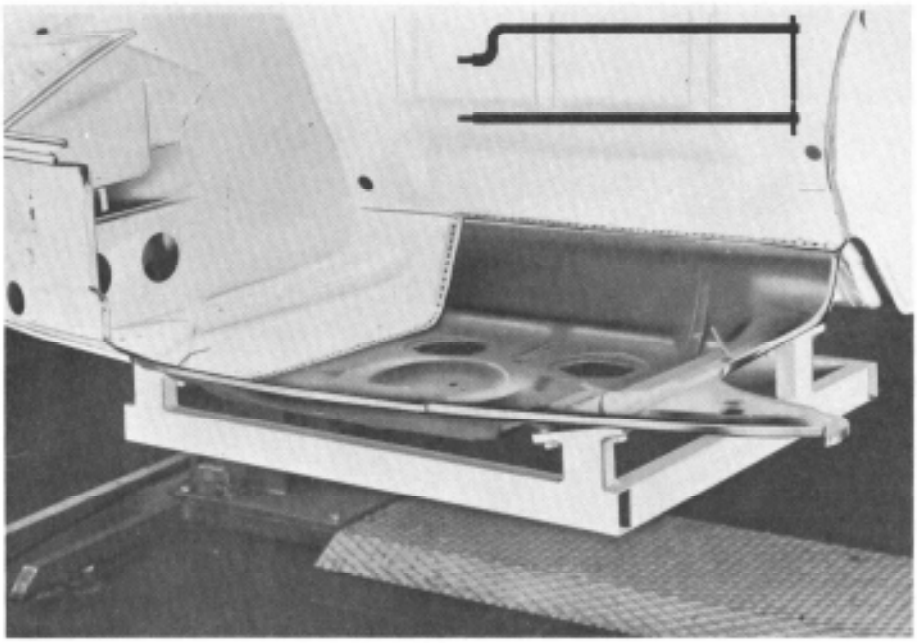


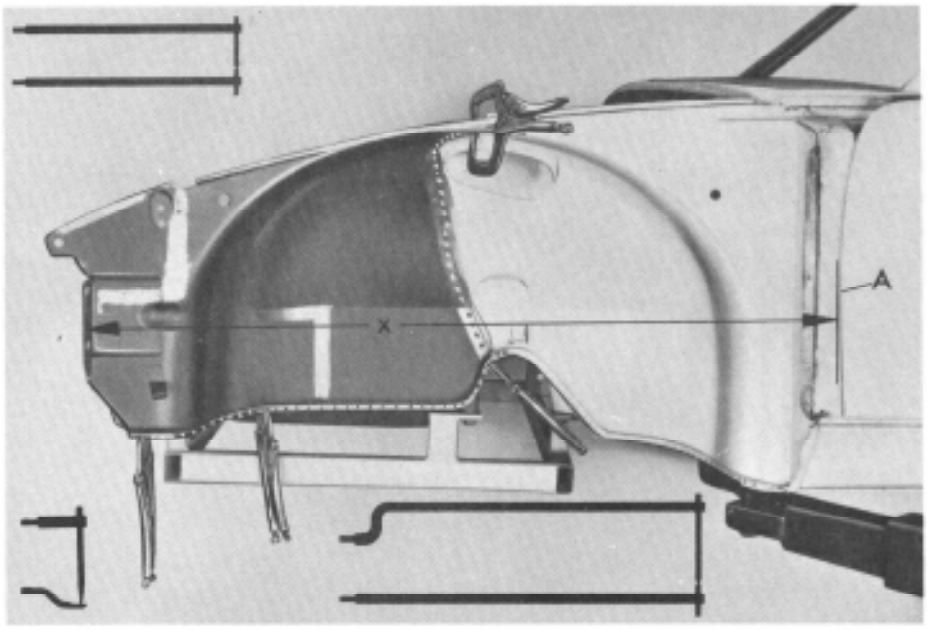


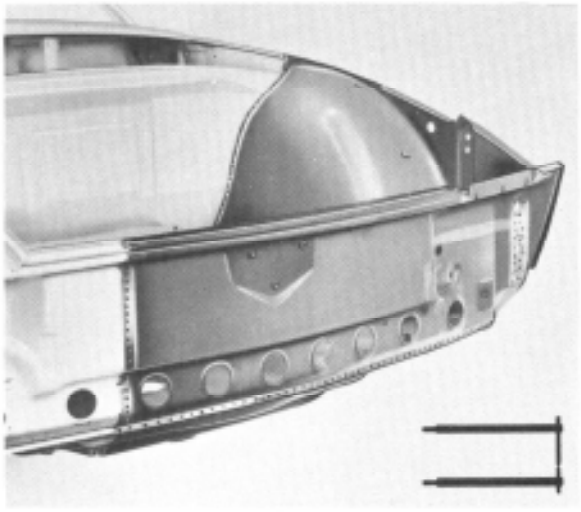


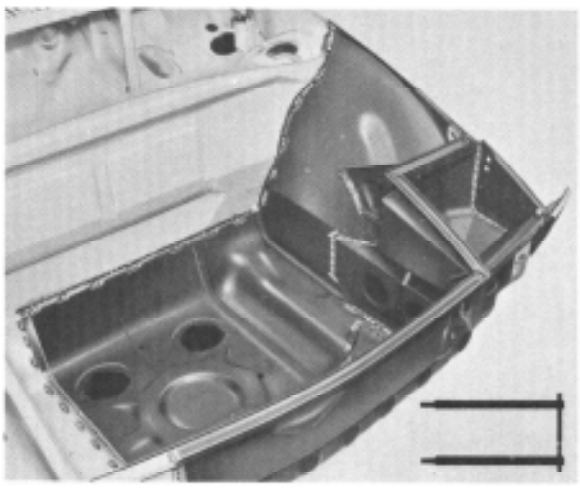
Front Cross Panel

Front Floor Plate




A
X





Replacing Wheel Housing, Hinge Pillar, Section of Windshield Frame Base and Rocker Panel.

This repair method shows mainly the work procedure in the hinge pillar area.

See section 20,1-4/1 for a more detailed procedure for replacing the wheel housing in the area of the hinge pillar and front cross panel.

Before proceeding with repairs, check the front axle mounting points with the alignment and welding jig P 863, realigning these if necessary. Refer to Body Dimensions if tool is not available.

The following templates can also be used.

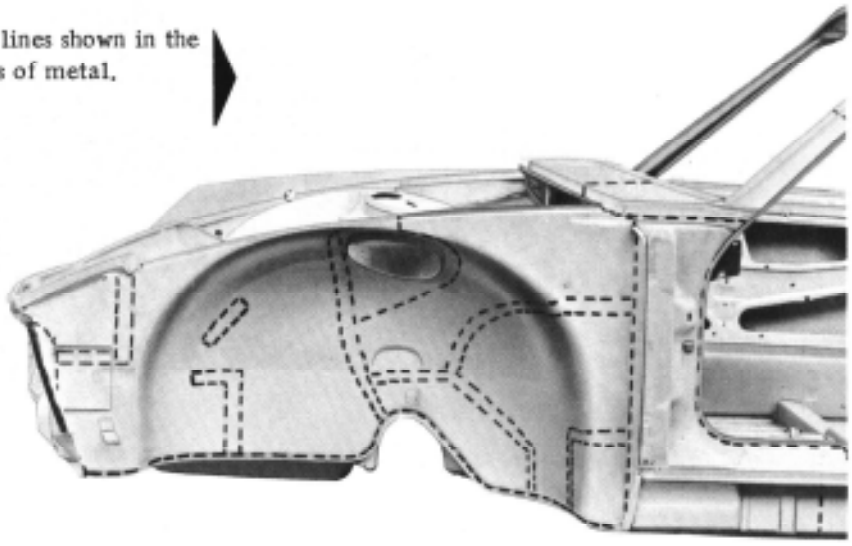
Door opening template, P 860 right side, P 861 left side (if not available, use doors).
Windshield opening template P 862 (if not available, refer to Body Dimensions).

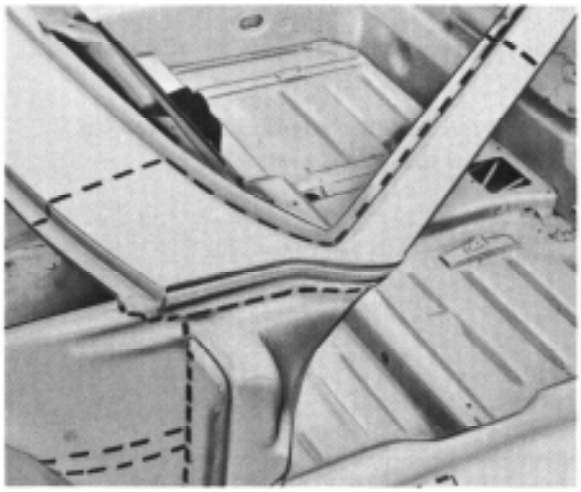
The following parts are available for accomplishing the repair:

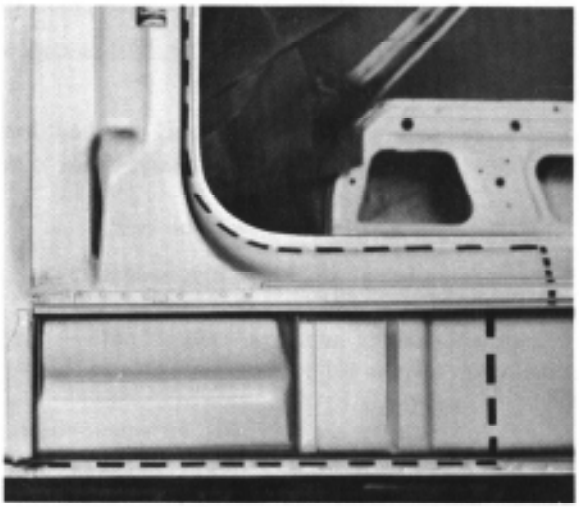
Nr.	Description	Qty	How Installed
1	Wheel house, front	1	Complete
2	Hinge pillar	1/1	Complete
3	Windshield frame base	1	Cut to fit
4	Rocker panel	1/1	Cut to fit
5	Sill for rocker panel	1/1	Cut to fit

Cutting out Damaged Parts

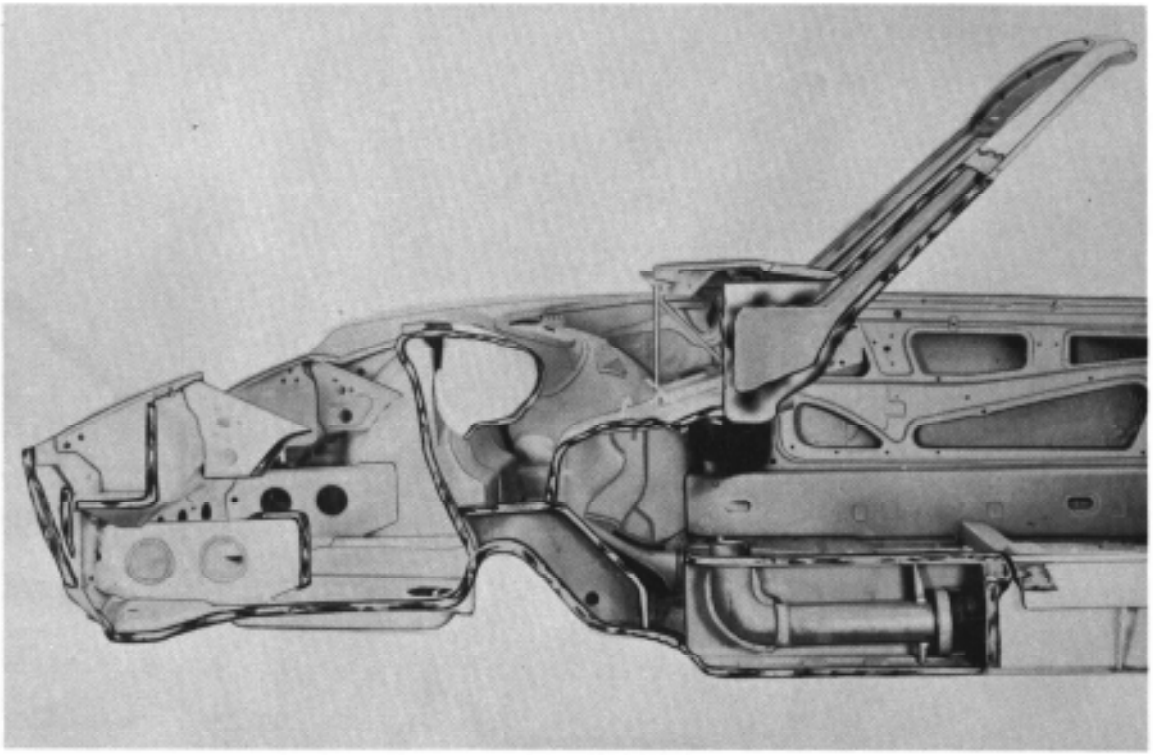
1 - Cut parts along the cutting lines shown in the illustrations. Remove scraps of metal.







2 - Align and sand all surfaces which are to be spot-welded.

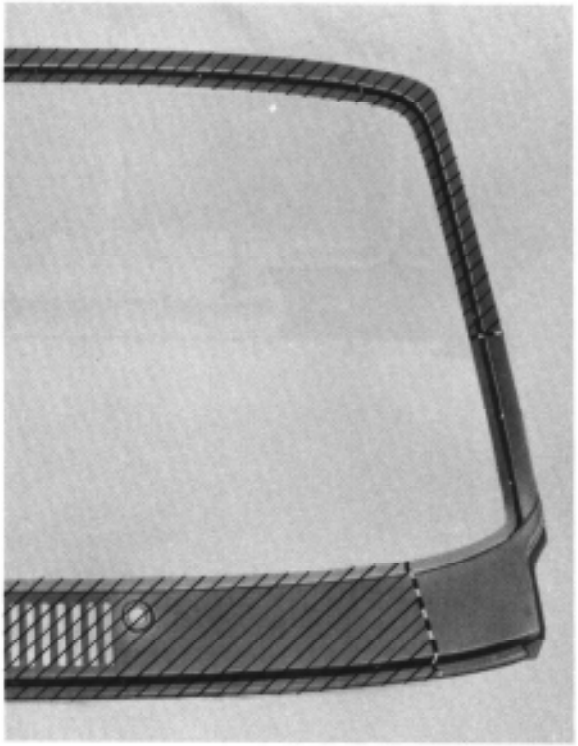


Preparing Replacement Sections

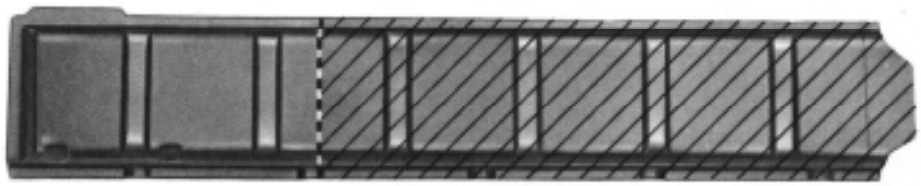
1 - Sand joining surfaces of wheel housing before spot-welding (see Section 20.1-4/1).

2 - Cut and fit windshield frame base and rocker panel components.

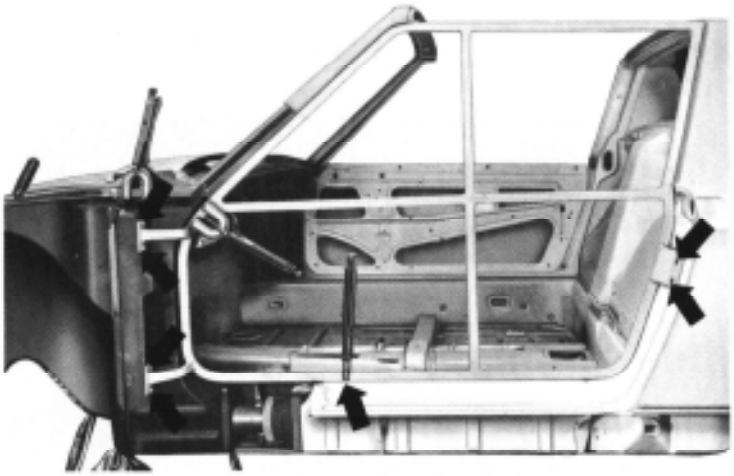
Windshield Frame Base



Rocker Panel Assembly



Welding-in Replacement Sections

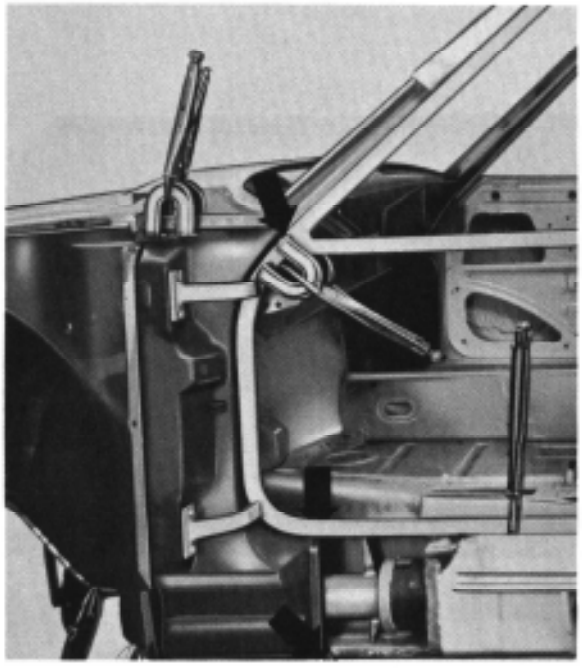


1 - If door template is used, mount as illustrated.

2 - Align wheel housing and hinge pillars with body and door hinge mounting points of the door frame template (left arrows), and secure.

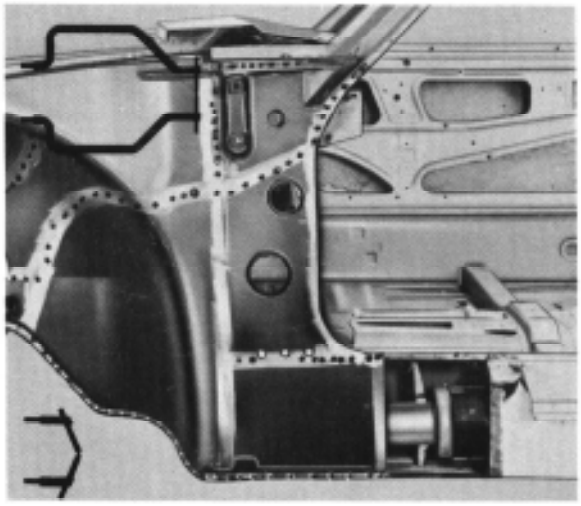
Note
The wheel housing and hinge pillar can also be aligned with the use of body dimensions and the aid of the door. The door gap should be 4 mm (5/32 in.). In this case, install door lock and striker plate.

3 - Spot-weld wheel housing to floor plate, front cross panel and inner reinforcement panel.



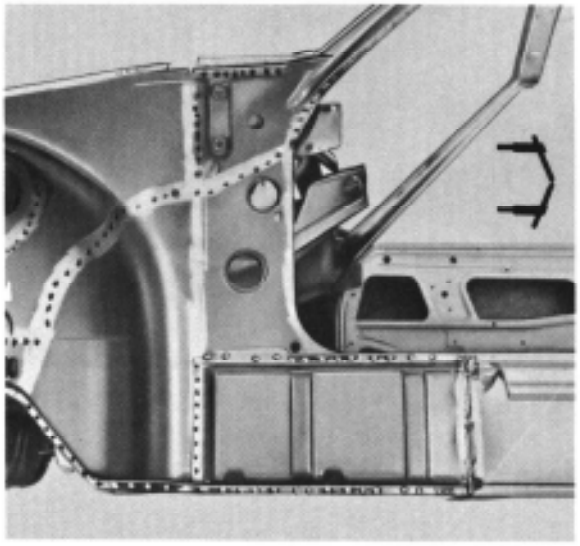
4 - Tack-weld wheel housing in the area of the windshield frame base (arrow).

5 - Remove door or door frame template and hinge pillar.

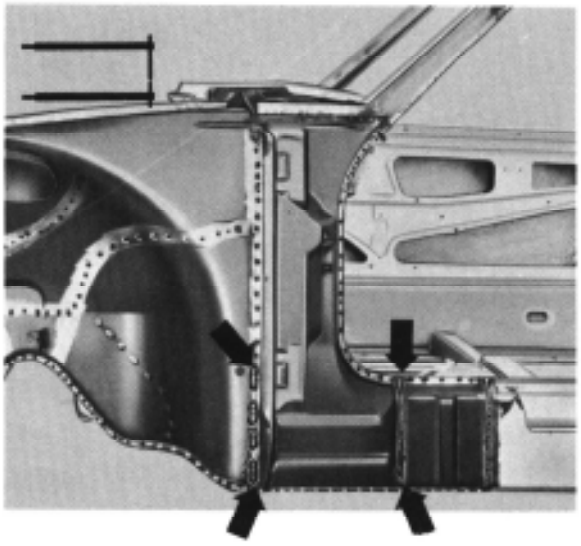


6 - Spot-weld wheel housing in the area of the hinge pillar.

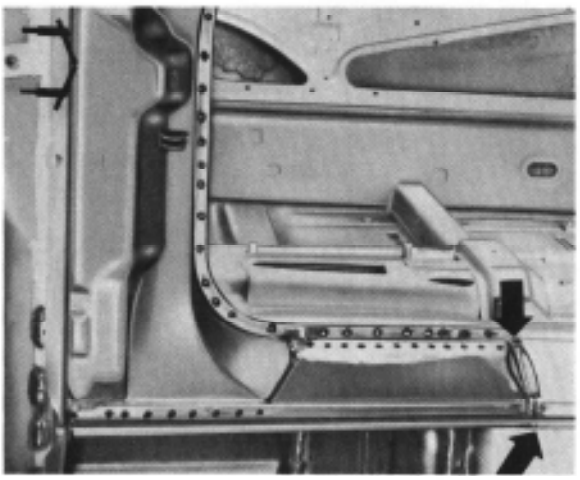
7 - Align rocker panel with hinge pillar, then spot-weld to inner section of rocker panel. Then re-weld with acetylene or MIG welder.



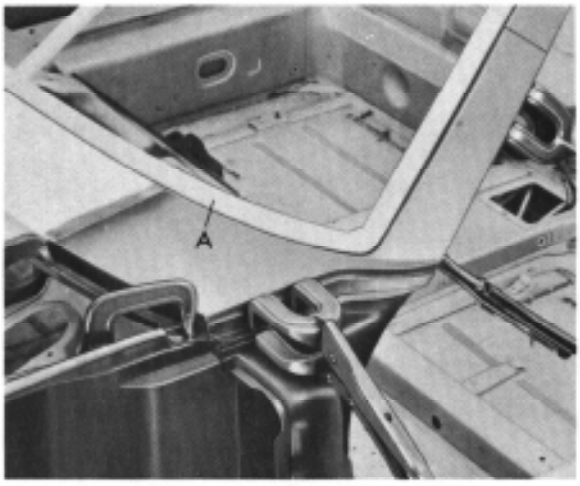
8 - Align hinge pillar with wheel housing using the door or door frame template. Fasten with clamps and spot-weld.



9 - Re-weld hinge pillar with acetylene or MIG welder (arrow).



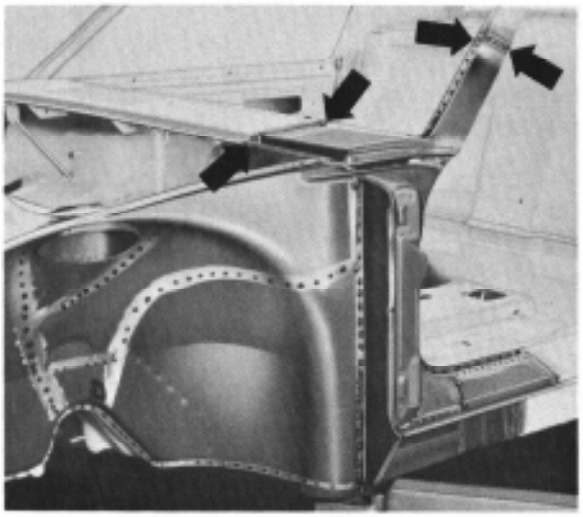
10 - Align door sill and spot-weld, then follow up with acetylene or MIG welder (arrow).



11 - Align windshield frame base section with the aid of the windshield template (A).
A = Windshield template

NOTE

The windshield frame base section can also be aligned with the aid of the windshield. Make sure that a parallel space of 4 mm 5/32 in.) is maintained between windshield and windshield frame base.
Also refer to workshop manual section "Removing and Installing Windshield", 5.1-1/1.



12 - Spot-weld windshield frame base section, then reweld with acetylene or welder (arrow).

13 - Seal all joining seams with VW D 17 sealing compound.

Replacing Windshield Frame

In applying this repair method, the damaged fender was cut away (see 20.1-2/1).

Note
Damage usually occurs to the inner section of the windshield frame base as well; therefore, the following templates should be used for straightening the components and performing repairs described below:

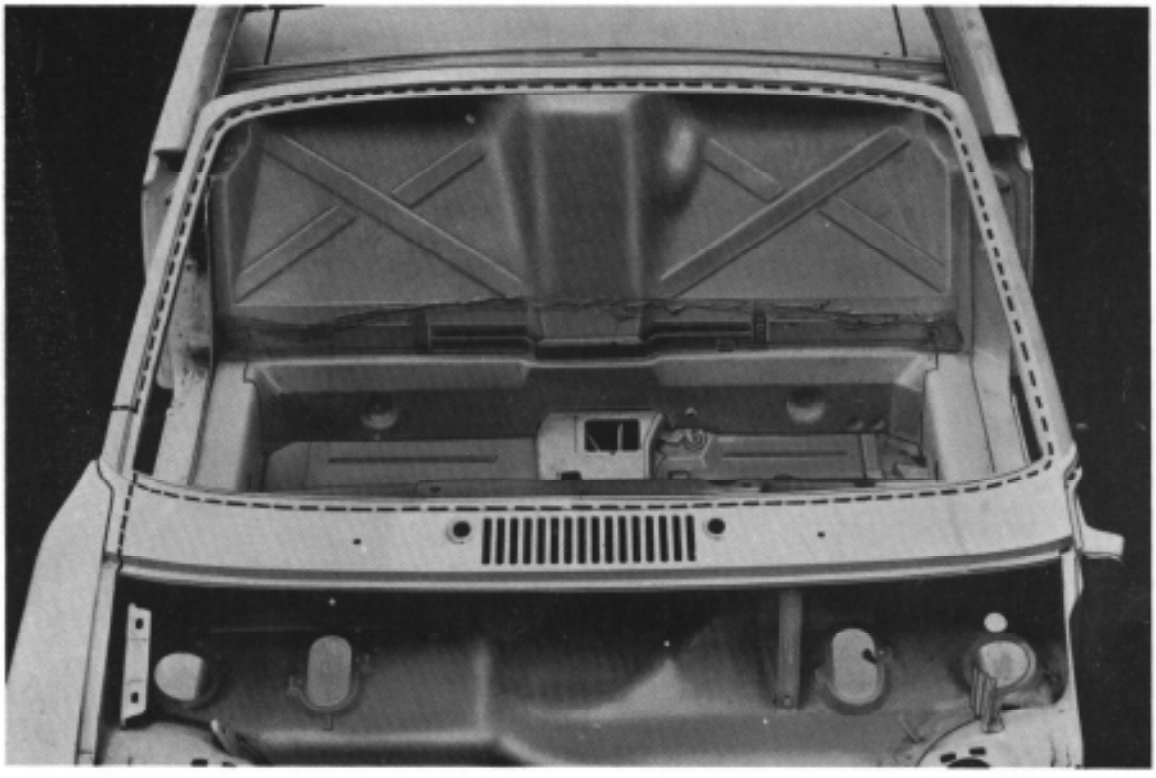
A - Windshield template P 862 (If not available, use body dimensions or windshield).

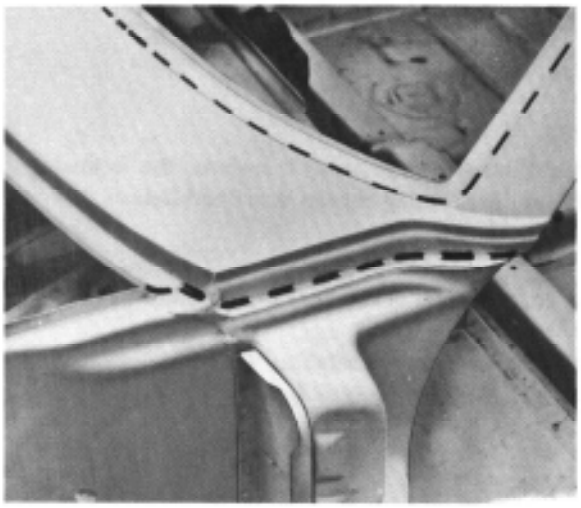
B - Door frame template, right - P 860, left - P 861 (If not available, use body dimensions or doors.)

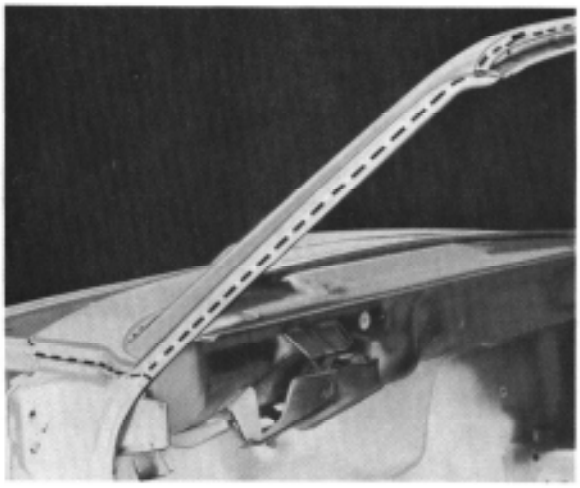
Cutting- out Windshield Frame

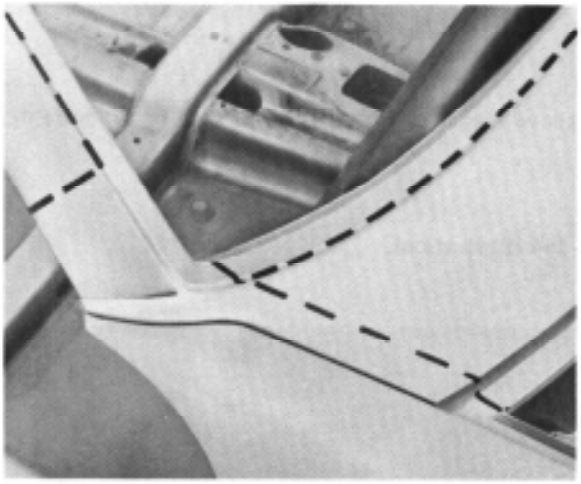
1 - Pre-align windshield frame base with the aid of the above mentioned templates (or door or windshield).

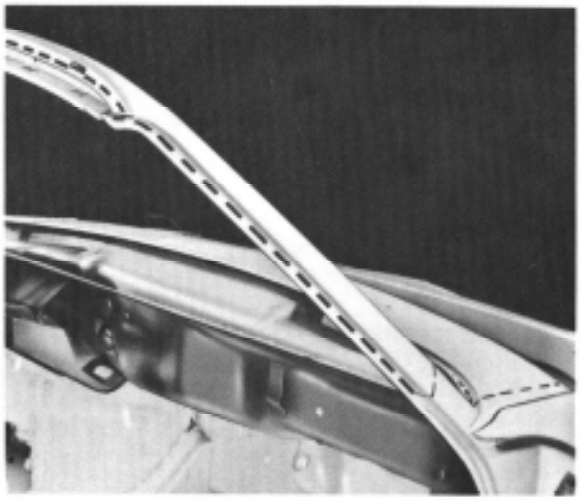
2 - Cut windshield frame along cutting lines as shown in the illustrations.



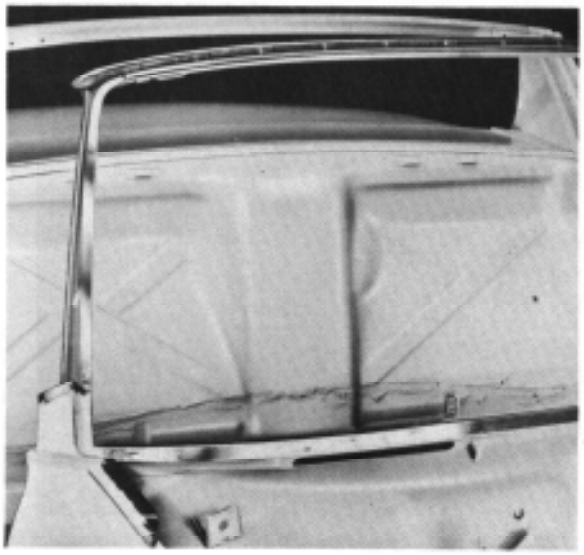


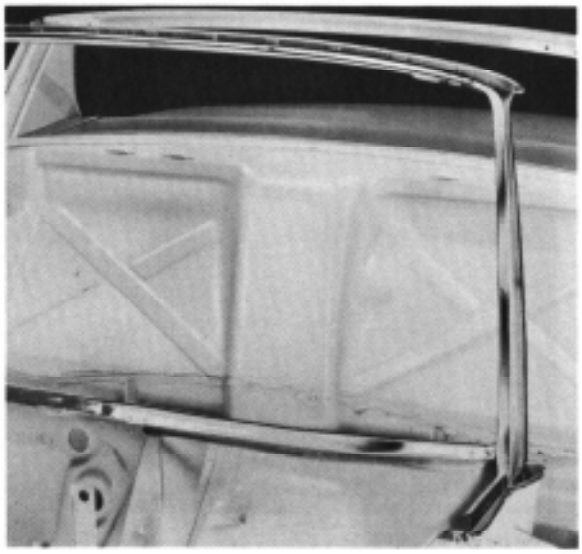




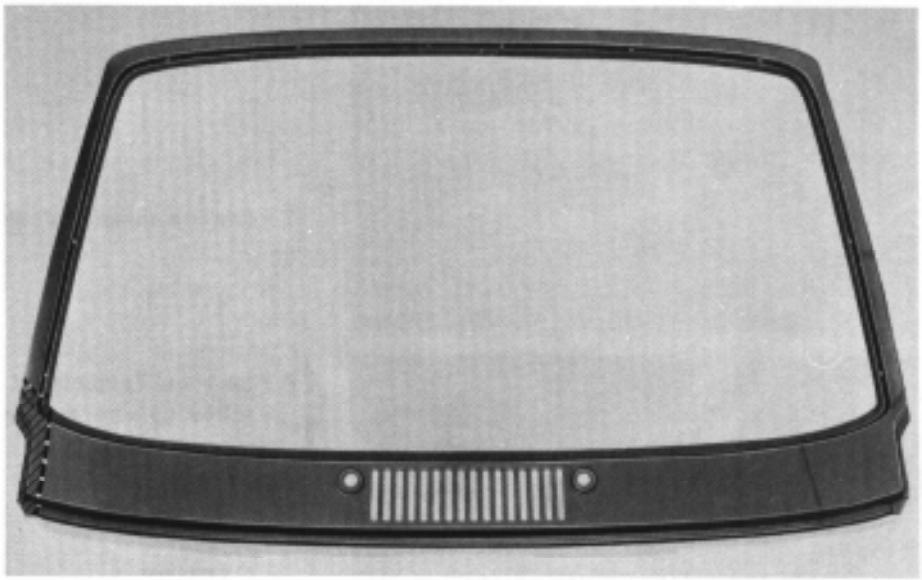


3 - Remove metal scraps and sand contact surfaces.





Preparing New Parts for Welding



Welding-in New Part

1 - Paint all areas which will be inaccessible after welding.

2 - If door frame template is used, attach template to mounting points of door hinge and striker plate.

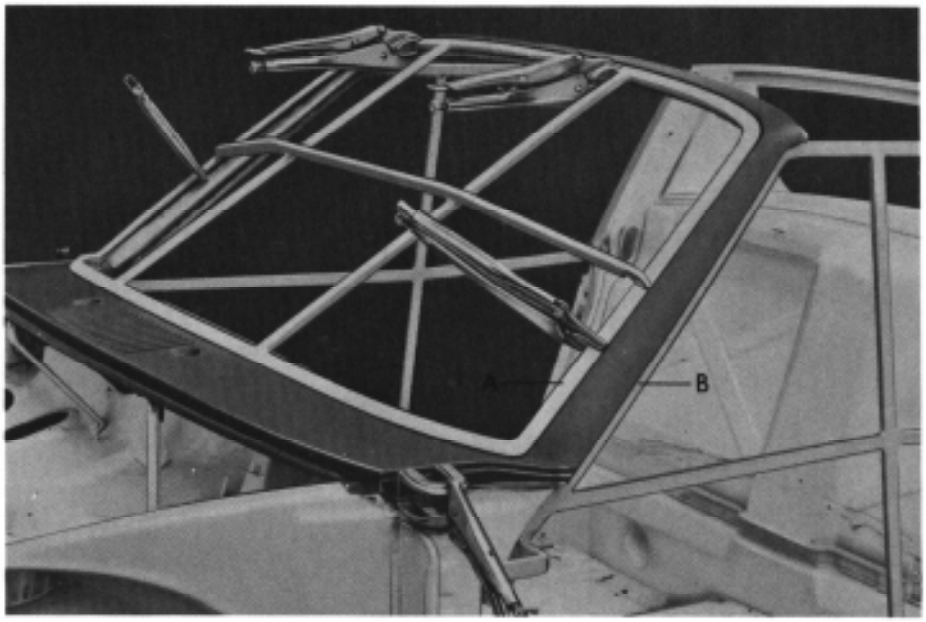
3 - Install front lid.

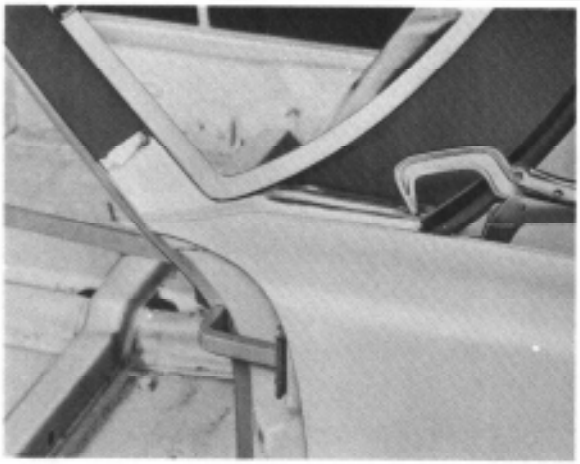
4 - Align windshield frame with door frame templates and front lid.

5 - If windshield template is used, insert template and attach windshield frame with clamps.

A - Windshield template P 862

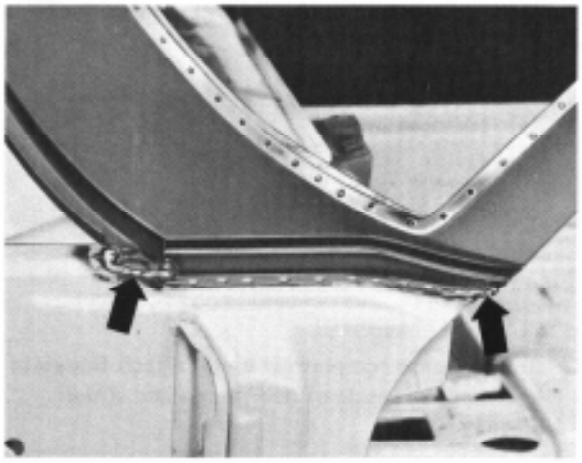
B - Door frame template P 860 or P 861





6 - Tack-weld windshield frame to inner section of windshield frame base.

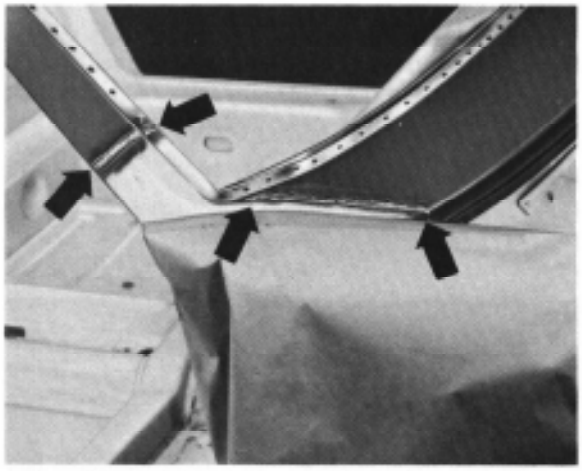
7 - Remove templates before to spot-welding.

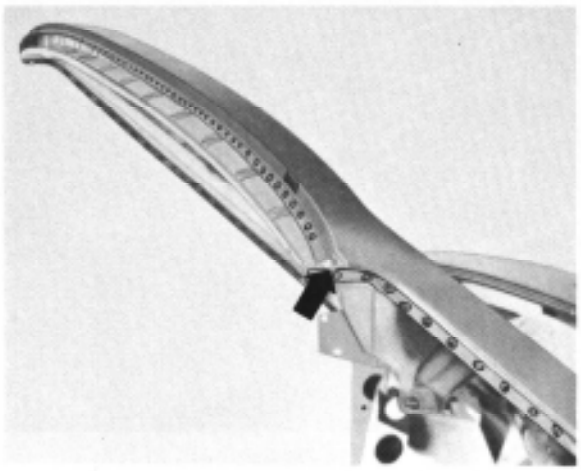


8 - Spot-weld outer sheet of windshield base frame, follow up with acetylene or arc welder (arrow).

Caution

Check alignment of the lid weather stripping against contour of lid, realign the collar where necessary.





9 - Sand, prime, and prepare for painting all repaired areas.

10 - Seal repair seams with VW D 17 sealing compound.

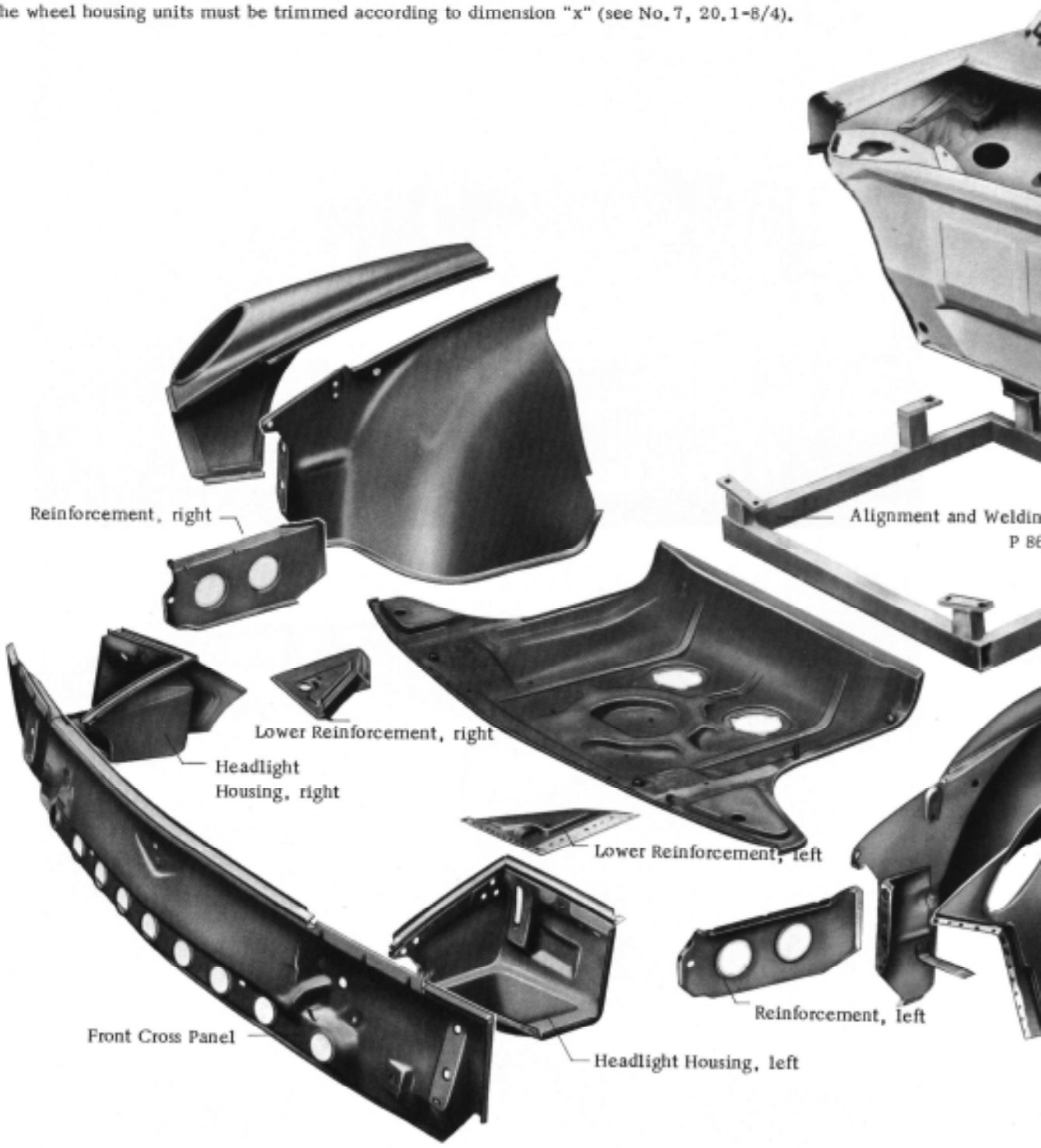
Replacing Section of Front Body Assembly

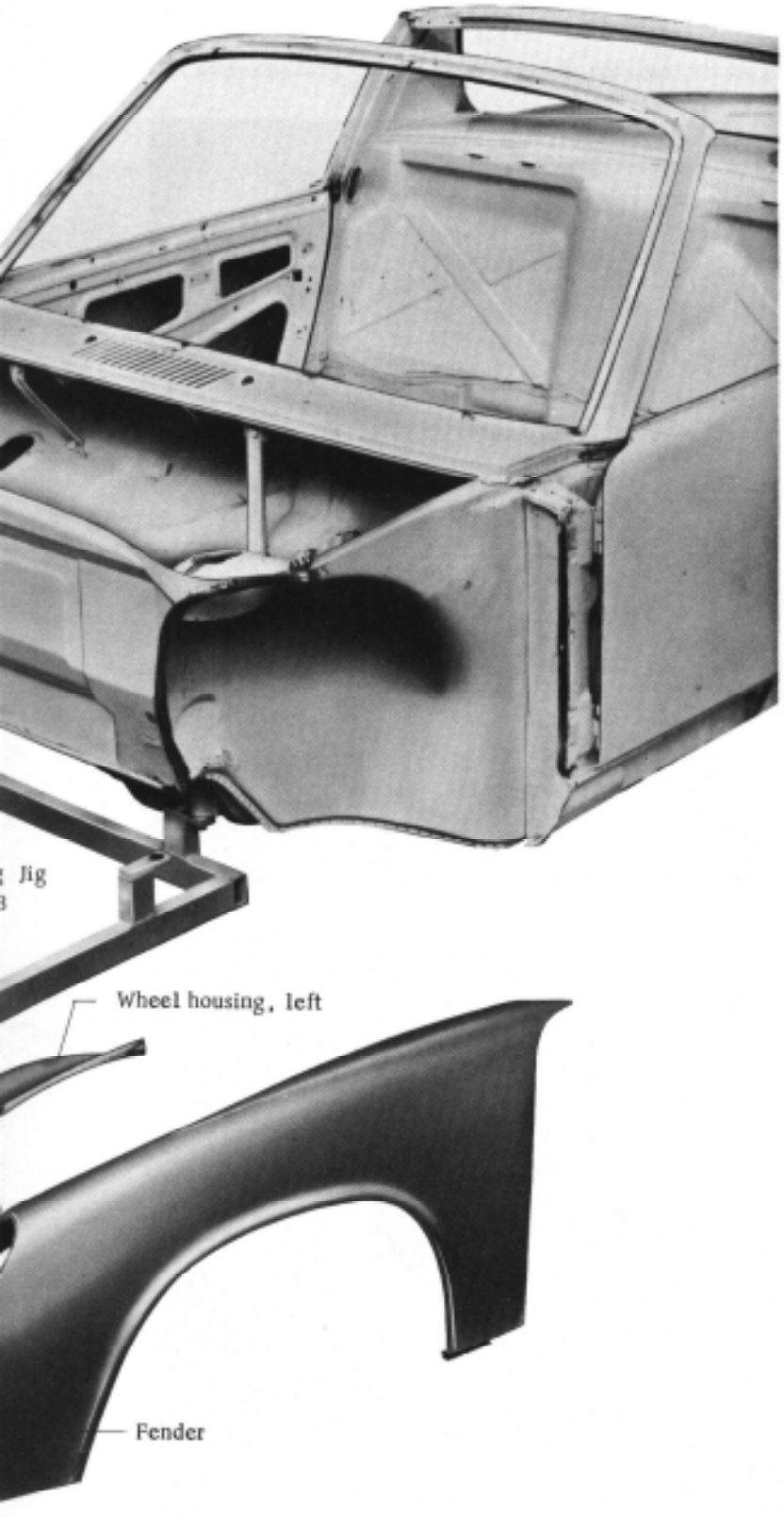
The alignment and welding jig Special Tool P 863 should be used for welding the floor plate in. If this tool is not available, refer to body dimensions.

The following parts are available for the repair:

Note

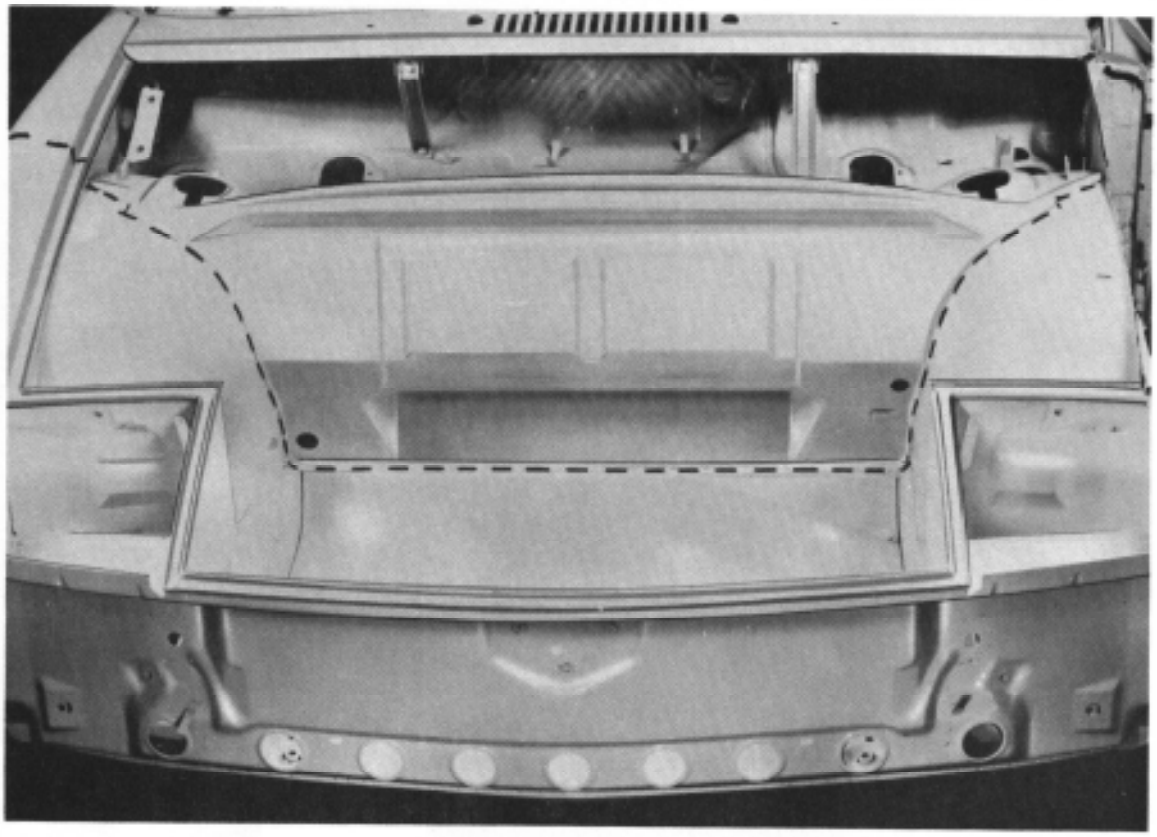
The wheel housing units must be trimmed according to dimension "x" (see No. 7, 20.1-8/4).

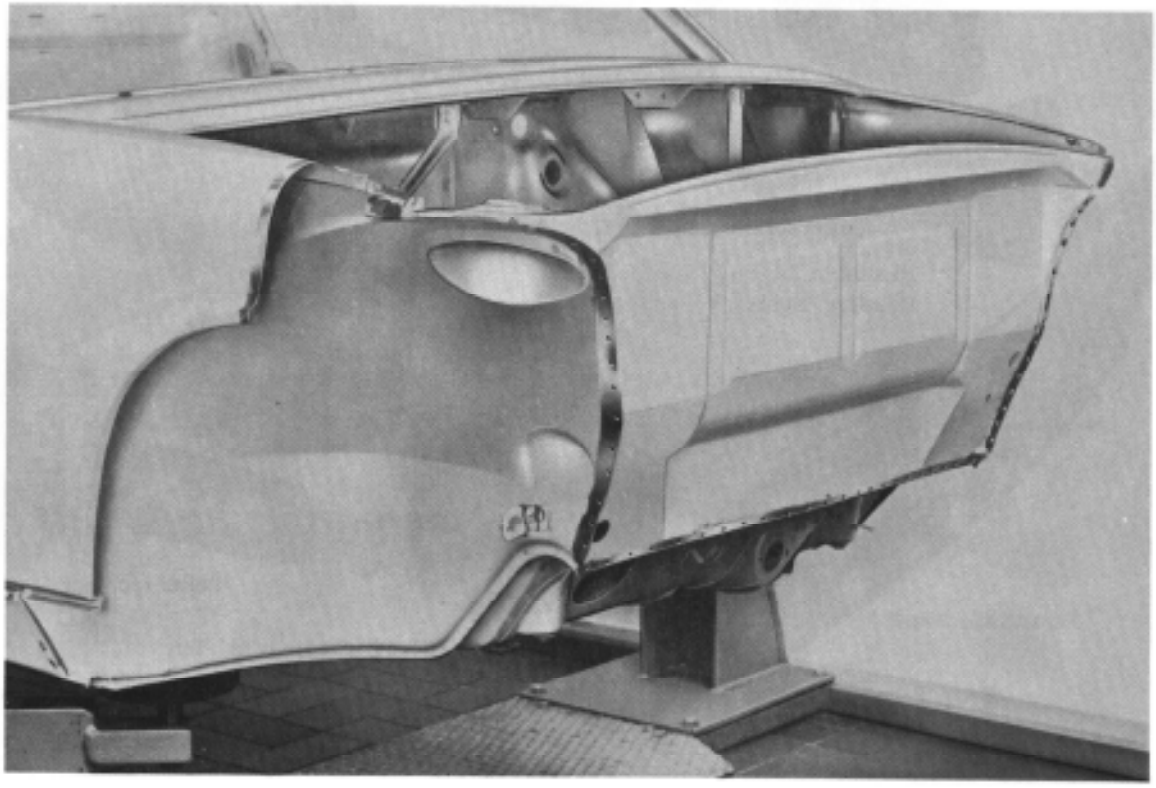



Jig
Wheel housing, left
Fender

Cutting-off Damaged Sections

Cut sections along cutting lines shown in the illustrations and remove metal scraps.





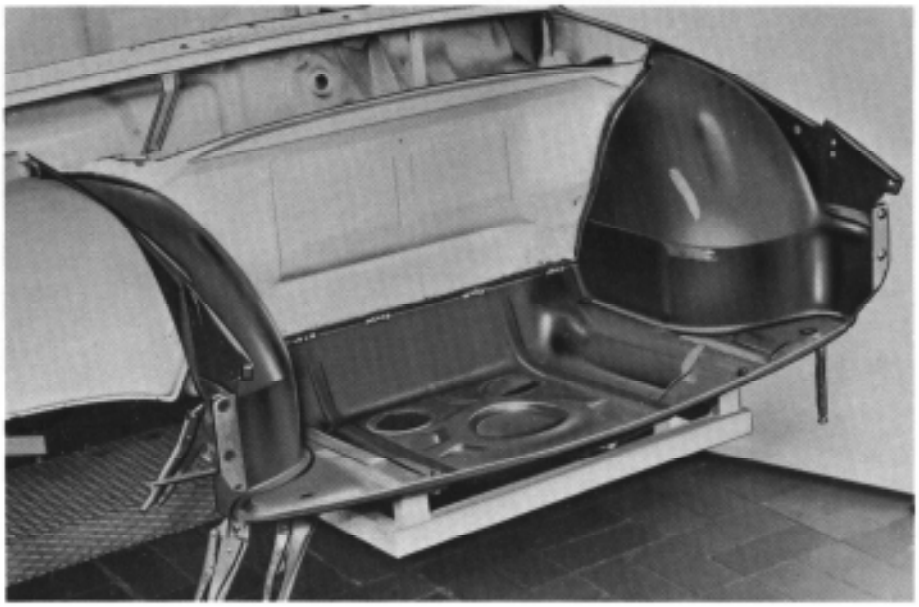
Welding-in New Sections

1 - Align the alignment and welding jig P 863 with the rear mounting points of the front axle in the floor plate.

2 - Align the floor plate section with the front mounting points of the front axle and the inner reinforcement.

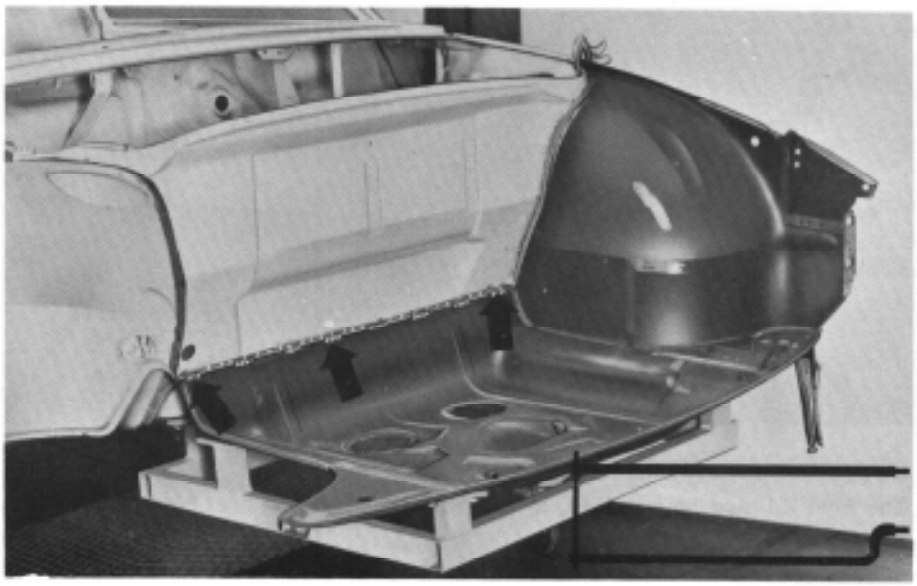
3 - Tack-weld floor plate to the inner reinforcement panel (use acetylene or MIG welder).

Note
Before welding, position and clamp the wheel housing sections in place according to dimension "x" (see Step No. 7) otherwise the floor plate will be bent downward in the forward area under its own weight and that of the jig.



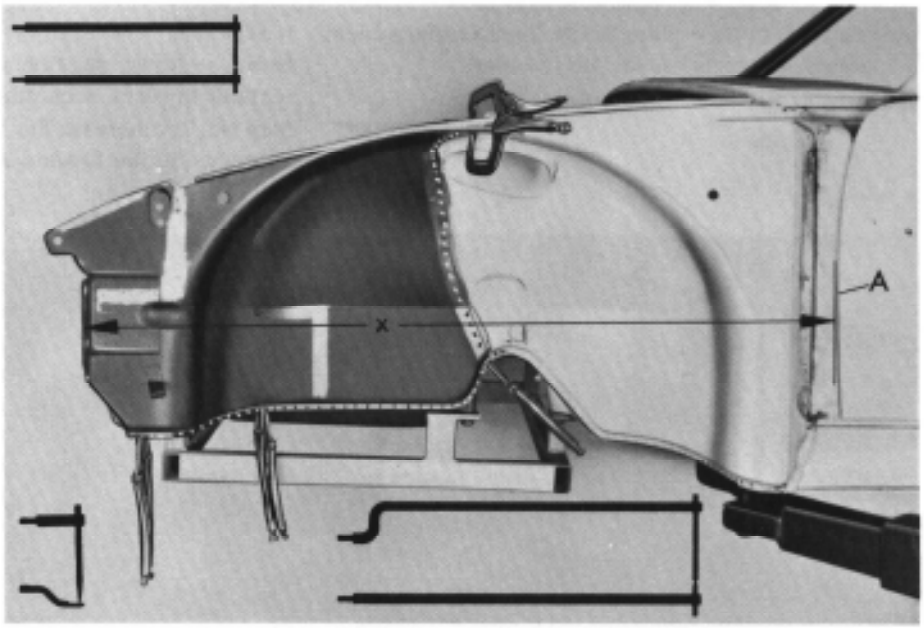
4 - Remove wheel housing sections and spot-weld floor plate to the inner reinforcement panel.

5 - Reinforce by welding additional beads (arrow) along both sides of the floor plate in offset pattern with acetylene or MIG welder. Space weld points approx. 50 mm (2 in.) apart.



6 - Position lower reinforcement plates on floor plate in the area of the front mounting point of the front axle. Spot-weld in place.

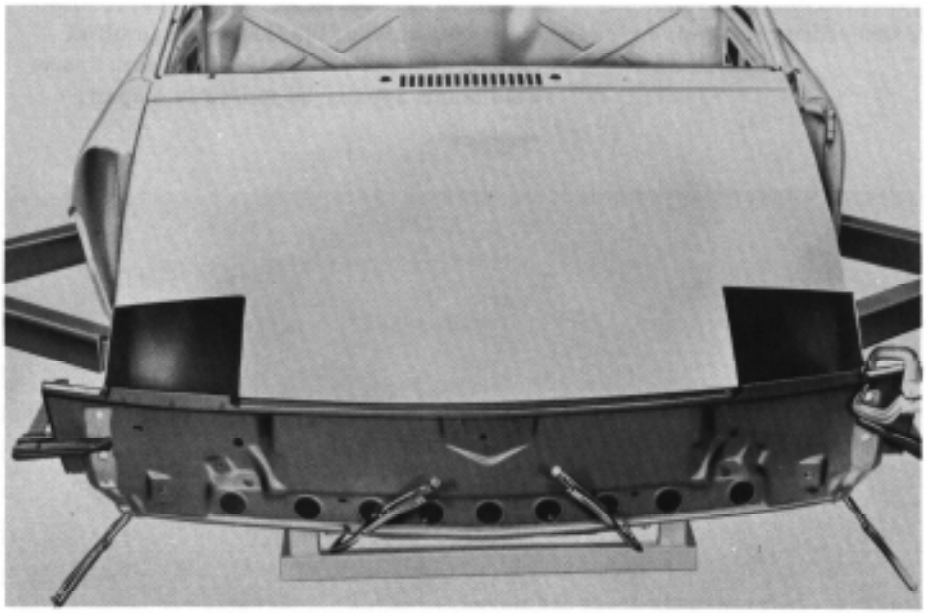
7 - Position wheel housing units according to dimension "x". Spot-weld to floor plate and inner reinforcement panel.



Dimension x = 1091 mm (42 15/16 in.)

A = Hinge pillar (Dimension x is measured from hinge pillar to the bumper mounting flange edge.)

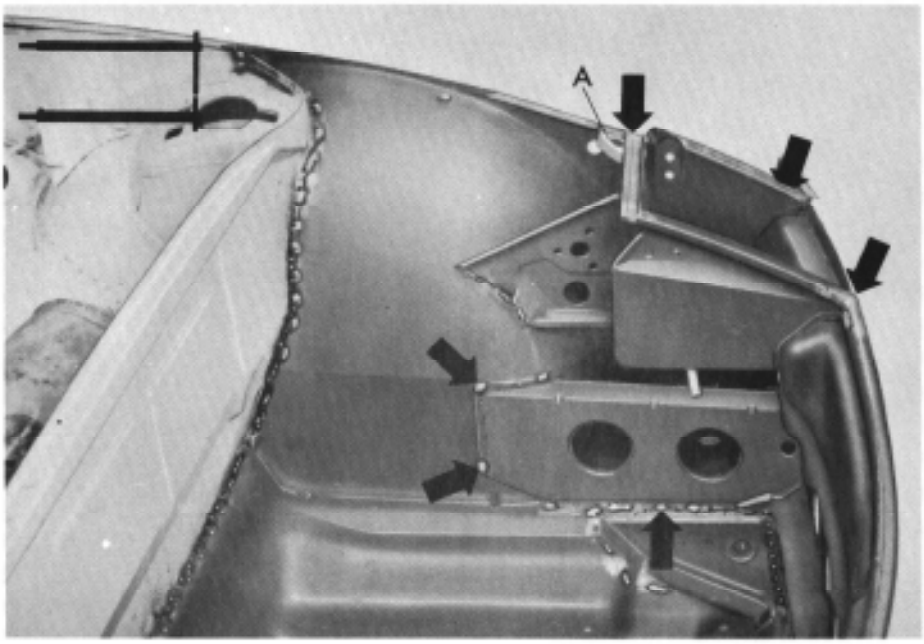
8 - Align front cross panel and spot-weld to floor plate and wheel housing sections.



Note
The front lid must be installed, as the front cross panel, wheel housings, and headlight housings must be aligned with the lid.

9 - Position headlight housing with drain tube and align with front lid.

10 - Spot-weld headlight housing. Follow up with acetylene or MIG welder in the area of the front cross panel (upper arrows).



A - Corner bracket

11 - Percussion-weld the reinforcements to the wheel housing, floor plate and front cross panel. Follow up with acetylene or MIG welder by making weld beads as shown by lower arrows.

12 - Spot-weld lid stops "A" to wheel housing and headlight housing.

Replacing Rear Fender with Roll Bar Support

Preparation

The following parts should be removed:

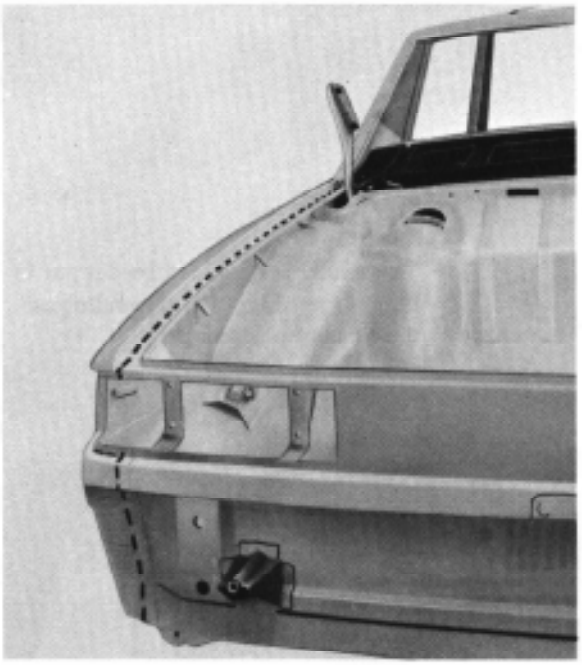
Nr.	Description	Qty	Special instructions see
1	Wheel, rear (*)	1	
2	Bumper, rear (*)	1	1,1-2/1
3	Apron, rear (*)	1	2,1-2/1
4	Rocker panel outer cover (*)	1	2,1-3/1
5	Tail light assembly (*)	1	
6	Striker plate	1	4,1-1/4

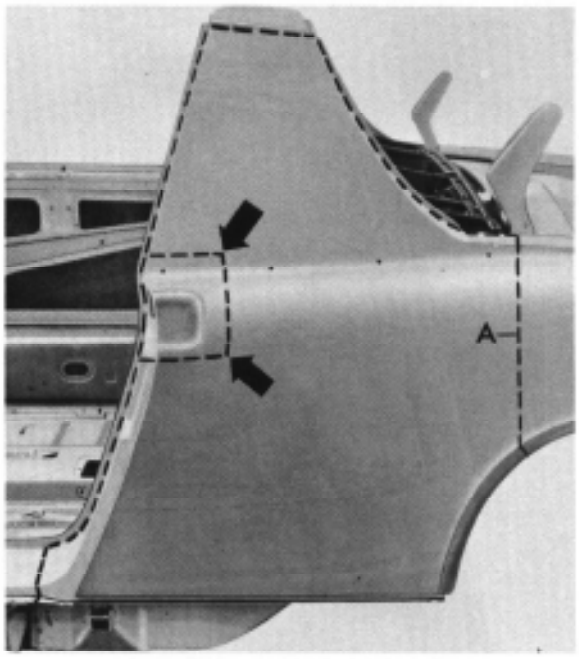
(*) If the parts are badly damaged, they may not have to be removed individually. This simplifies the disassembling procedure.

Cutting Rear Fender

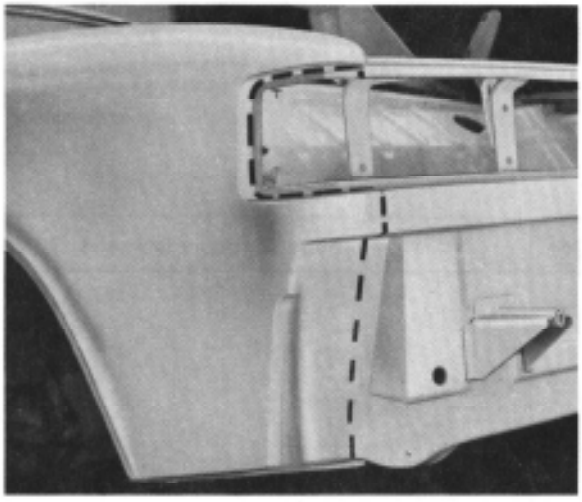
Cut fender along cutting lines shown in illustrations, and remove scrap metal.

If the damage is minor and a partial fender replacement can be made, cut the fender off up to cutting line "A".



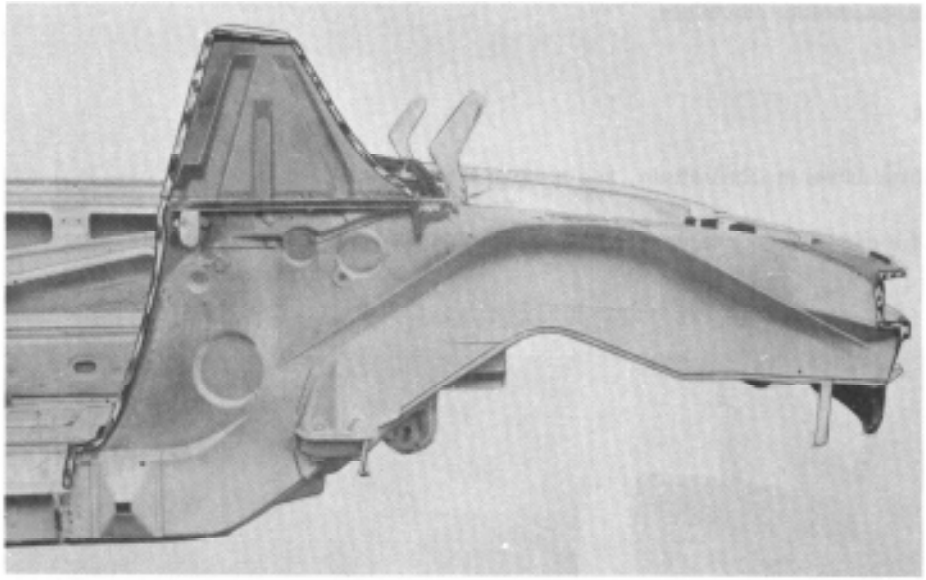


Note
After cutting out the remainder of the fender, pull out and twist the angular duct for the flow-through ventilation located in the area of the door handle depression (arrows).



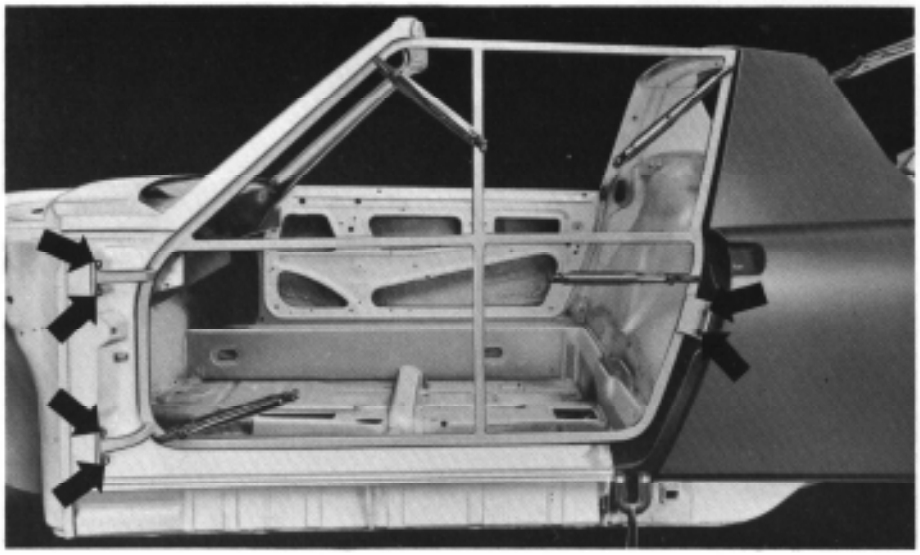
Welding-in Rear Fender with Roll Bar Support

1 - Align all joining surfaces in body and fender, and sand clean.

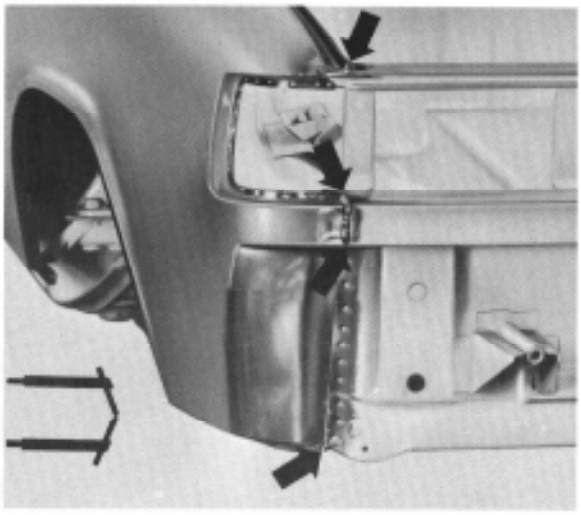


- The fender section can be cut out to the cutting line "A", depending on the amount of damage.

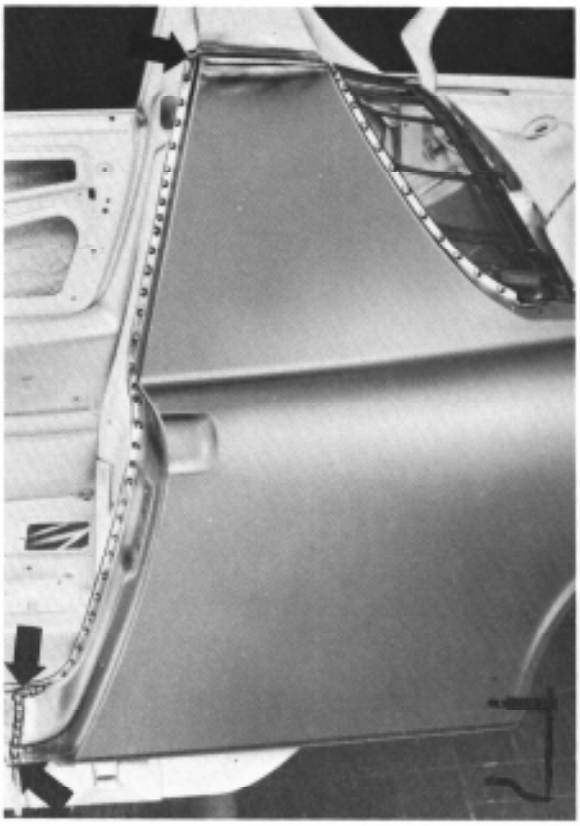
2 - Align rear fender with body using the door or door frame template, and fasten with clamps.

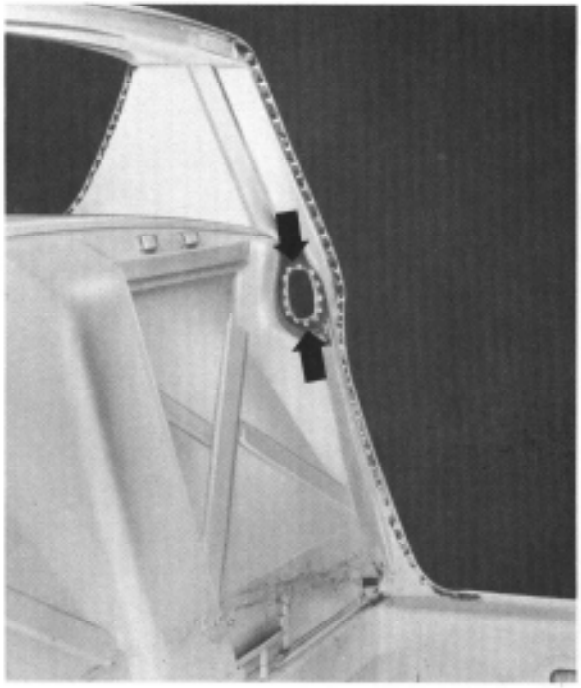


3 - Spot-weld rear fender and follow up with acetylene or MIG welder (arrow).



4 - Braze in the area of the roll bar.



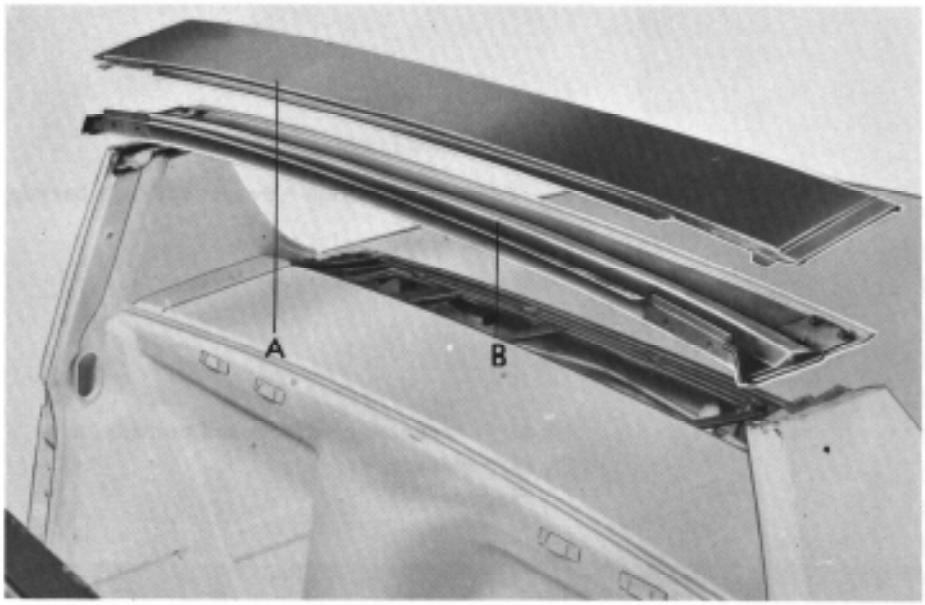


5 - Weld the angular duct of the flow-through ventilation system to the inner fender using acetylene or MIG welder (arrow).

6 - Seal all repair seams with VW D 17 sealing compound.

Replacing Inner and Outer Roll bar

Repair windshield base first if it is damaged (see Section 20.1-2/1).

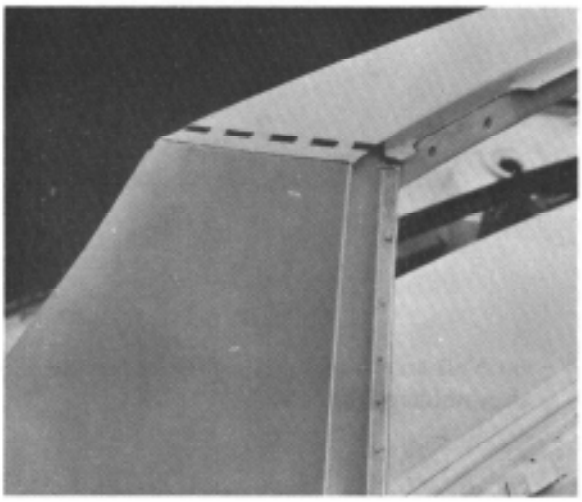


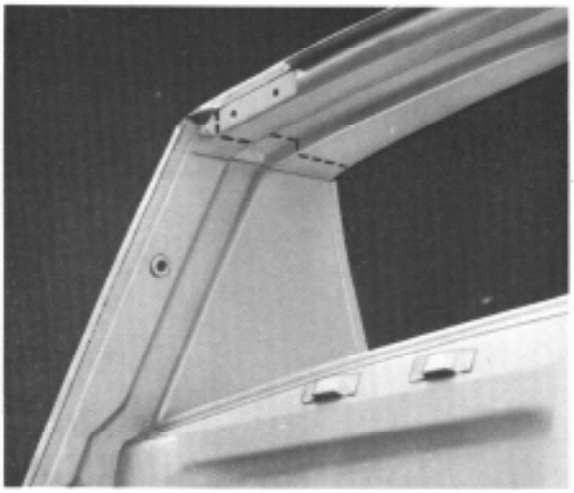
A - Roll bar outer

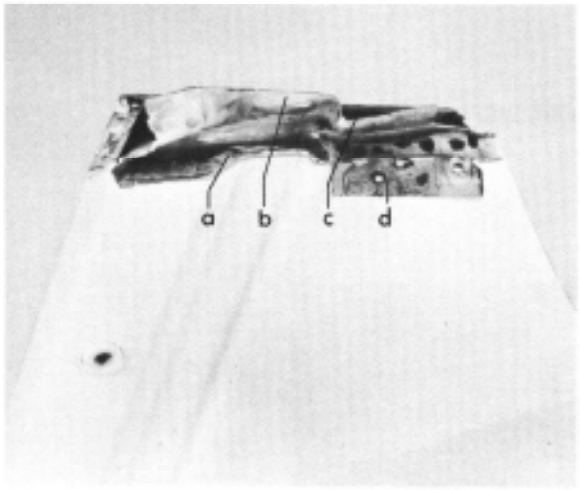
B - Roll bar inner

Cutting-out Roll Bar

1 - Cut out roll bar along the indicated cutting lines.







2 - Bend open the roll bar reinforcement. Undercut the inner roll bar with a grinder and remove metal scraps.

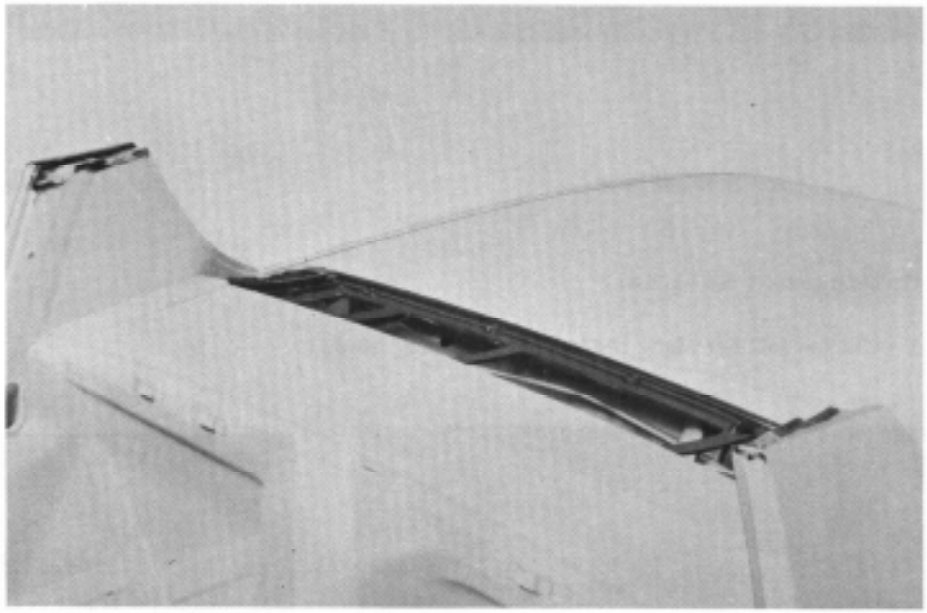
a - Inner fender

b - Roll bar reinforcement

c - Fender side section - Fender with roll bar support

d - Inner fender metal scraps

3 - Align connecting surfaces and prepare for spot-welding.

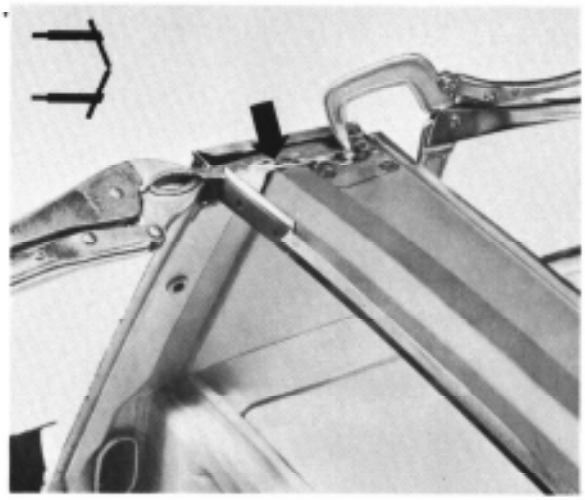


4 - Paint all areas which will not be accessible after welding.

Replacing Inner and Outer Roll Bar

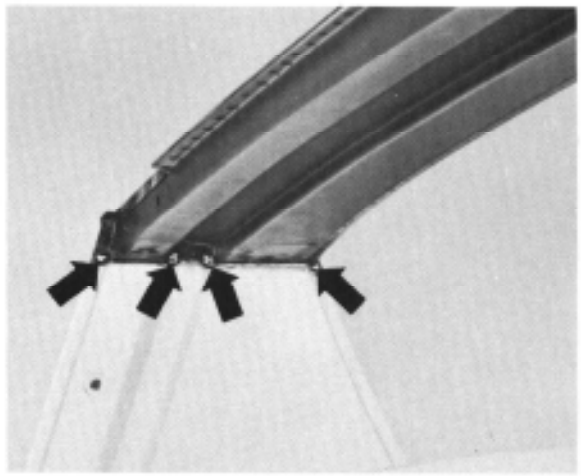
1 - Align inner roll bar with flange edge of inner fender with roll bar support. See body dimensions f, n, o, p, x, and y, Section 18.1-2/1.

2 - Drive opened flange edge back to the inner roll bar with a hammer (arrow), and secure with clamps.

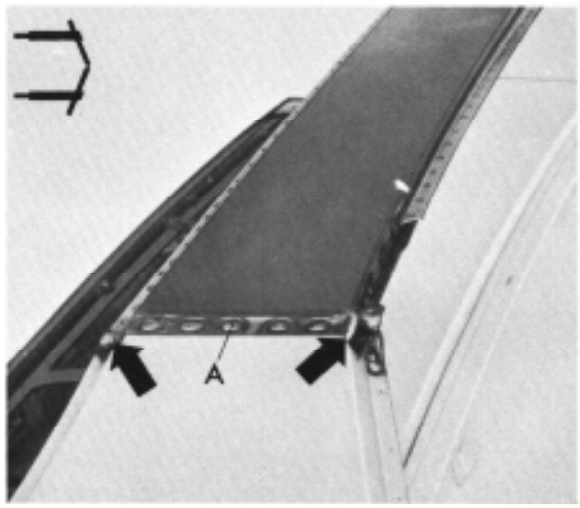


3 - Spot-weld inner roll bar.

4 - Align outer roll bar with flange edge of the inner roll bar and spot-weld.



5 - Weld outer roll bar to inner roll bar with acetylene or MIG welder (arrow); plug-weld or MIG spot-weld along the outside (see "A").



A - Plug-weld or MIG spot-weld

6 - Grind, prime, and prepare all repaired areas for painting.

Replacing Rear Cross Panel

Preparation

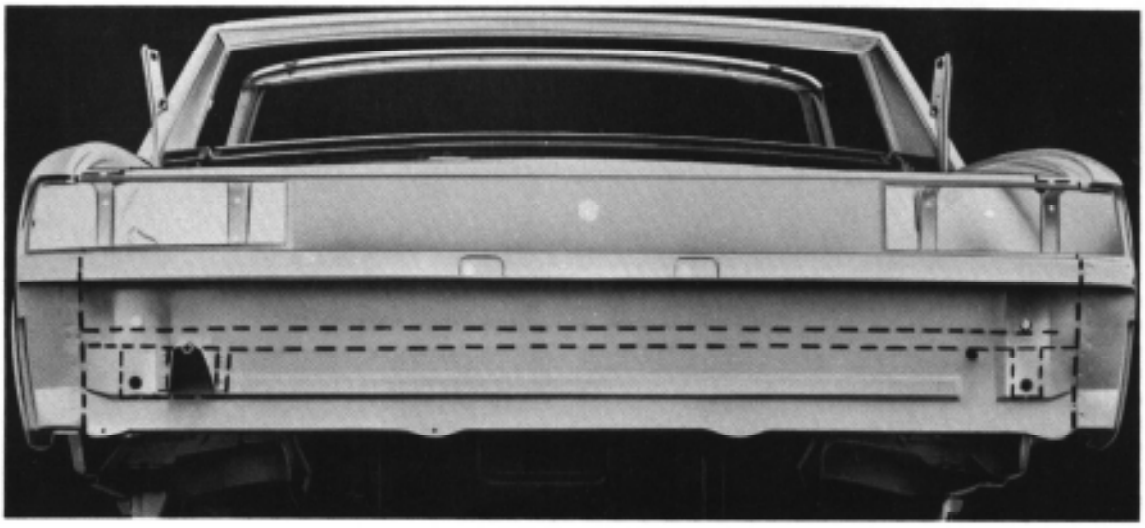
The following parts should be removed:

Nr.	Description	Qty	Special instructions see
1	Bumper, rear (*)	1	1.1-2/1
2	Apron, rear (*)	1	2.1-2/1
3	Tail light, rear (*)	2	

(*) If the parts are badly damaged, they may not have to be removed separately. This simplifies the disassembly procedure.

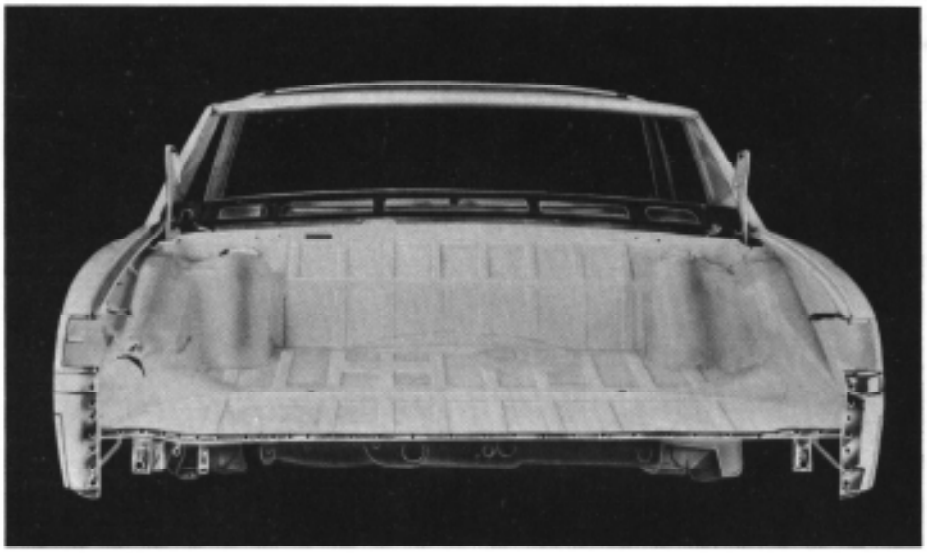
Cutting-out Rear Cross Panel

Cut rear cross panel along cutting lines shown in the illustrations, and remove all metal scraps.



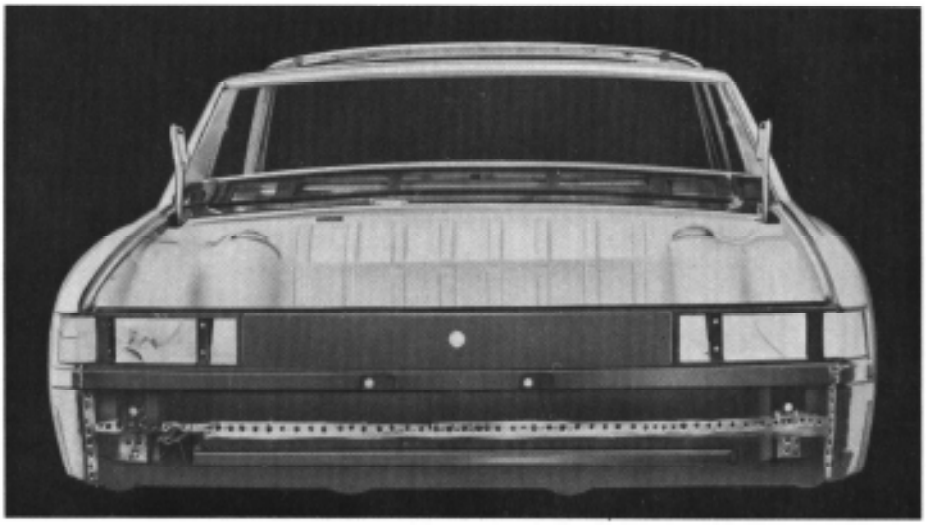
Welding-in Rear Cross Panel

1 - Align and sand all joining surfaces of body and rear cross panel.

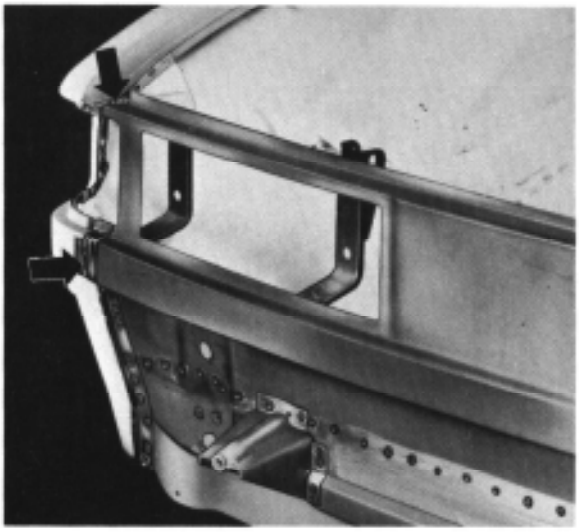


2 - Align rear cross panel with rear luggage compartment lid; fasten with clamps.

3 - Spot-weld rear cross panel to rear floor plate and both fenders.



Note
Use acetylene or MIG welder when welding cross panel to fenders (arrow).



4 - Seal all repair joints with VW D 17 sealing compound.

PAINT COLORS AND DESIGNATION

General

All Type 914 vehicles are painted by the Karmann Company of Osnabrueck, Germany, using synthetic enamel in accordance with VW-approved processing methods and materials.

The paint identification numbers on the paint nomenclature plate are therefore identical with the VW paint numbers.

The fiberglass roof, front and rear bumpers (beginning with 1973 models), front and rear panels and outer covers of the rocker panels are painted a dull black.

Nomenclature plate paint code and color identification:

Standard Colors 1973 models	
Light ivory	L 80 E
Bahia red	L 30 E
Signal orange	L 20 E
Saturn yellow	L 13 M
Ravenna green	L 65 K
Sun yellow	L 13 K
Sambesi green	L 64 K
Olympia blue	L 51 P
Phoenix red	L 32 K
Discontinued Standard Colors	
Irish green	L 60 E
Adriatic blue	L 50 E
Tangerine	L 21 E
Meadow green	L 63 K
Lemon yellow	L 11 E

Optional Colors 1973 models	
Black	L 041
Saturn yellow, metallic	L 99 A
Alaska blue, "	L 96 B
Silver, "	L 96 D
Marathon, "	L 96 M
Discontinued Optional Colors	
Silver, metallic	L 96 D
Gold, "	L 97 G
Gold, "	L 97 H
Green, "	L 97 P
Colorado, "	L 97 D
Blue, "	L 98 P

PAINTING DULL BLACK PARTS

General

The fiberglass roof, front and rear bumpers (beginning with 1973 models, except cars built to USA specifications), front and rear panels and outer covers of the rocker panels are painted a dull black.

If repainting becomes necessary use domestically supplied paints, such as Rinshed - Mason Nr. 681 Black or equivalent.