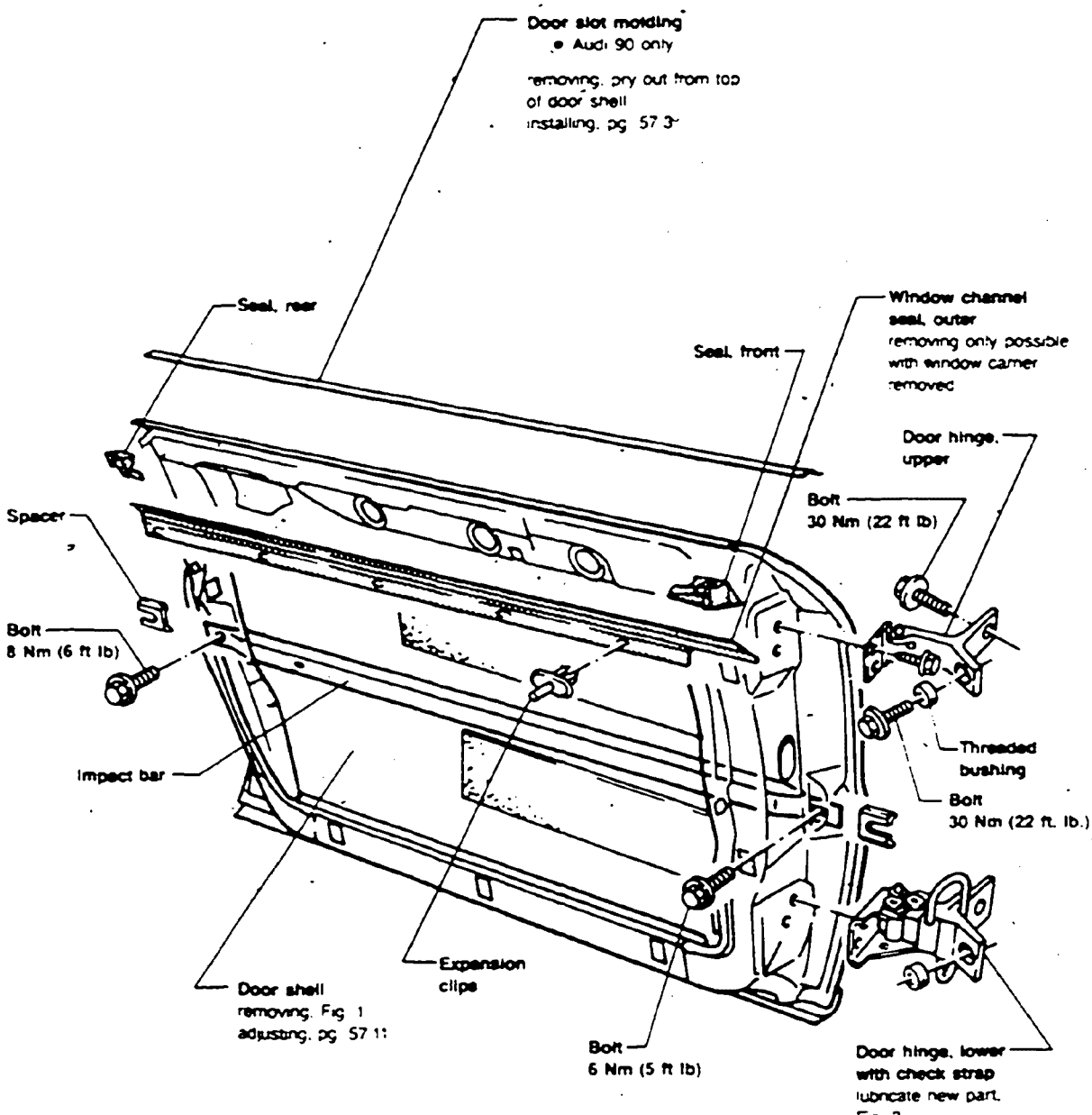
Index

★ NEW INFORMATION since last filming


Door slot molding
• Audi 90 only
removing, pry out from top of door shell
installing, pg 57-3
Seal, rear
Seal, front
Window channel seal, outer
removing only possible with window carrier removed
Door hinge, upper
Bolt
30 Nm (22 ft lb)
Spacer
Bolt
8 Nm (6 ft lb)
Impact bar
Threaded bushing
Bolt
30 Nm (22 ft. lb.)
Door shell
removing, Fig. 1
adjusting, pg 57-11
Expansion clips
Bolt
6 Nm (5 ft lb)
Door hinge, lower with check strap
lubricate new part
Fig. 2

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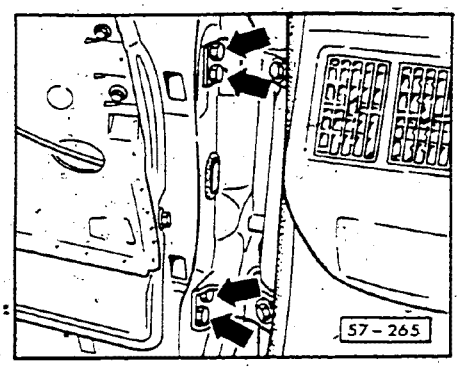


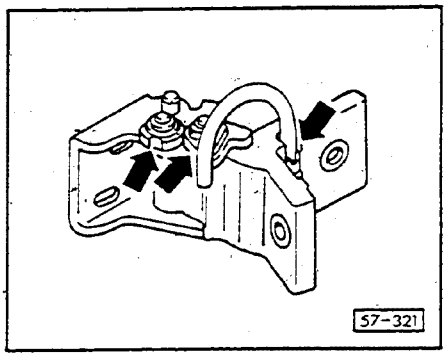
▶ **Fig. 1 Front door, removing/installing**

Removing

- remove hex head bolts (**arrows**)

Installing

Install in reverse order, note the following:
- install hex head bolts, see page 57.15



▶ **Fig. 2 Lower door hinge, lubrication**

- apply lubricant **AOS 126 000 05** or equivalent to points shown

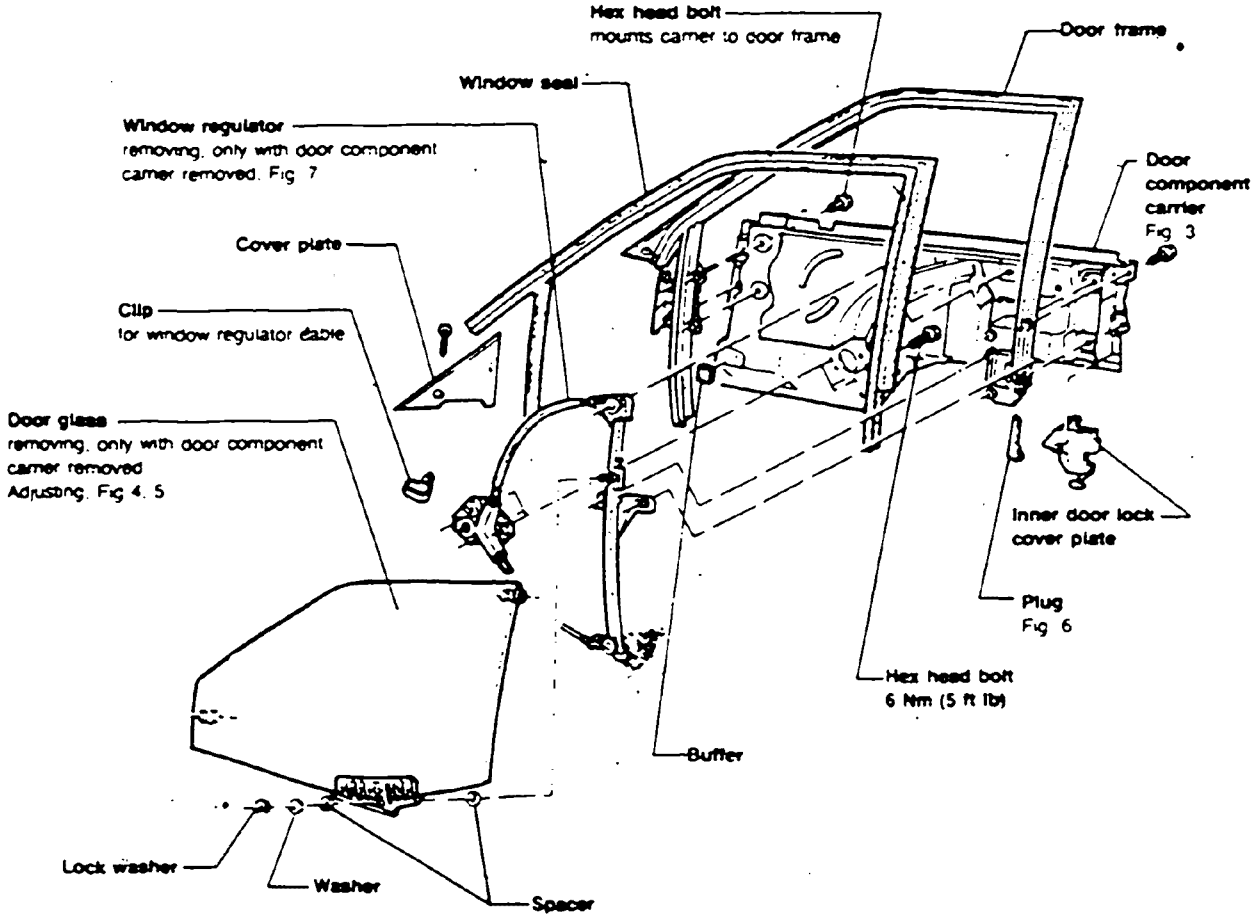
Door slot molding, removing/installi

Removing

- pry out from top of door shell

Installing

- clean molding channel with 3M® General Purpose Adhesive Cleaner or equivalent
- place 3.0 mm (1/8 in.) bead of **AKD 476 KD 505** into molding channel
- position molding onto door shell
- press molding into place


Hex head bolt
mounts carrier to door frame
Door frame
Window seal
Window regulator
removing, only with door component carrier removed. Fig 7
Door component carrier
Fig 3
Cover plate
Clip
for window regulator cable
Door glass
removing, only with door component carrier removed
Adjusting, Fig 4, 5
Inner door lock cover plate
Plug
Fig 6
Hex head bolt
6 Nm (5 ft lb)
Buffer
Lock washer
Washer
Spacer

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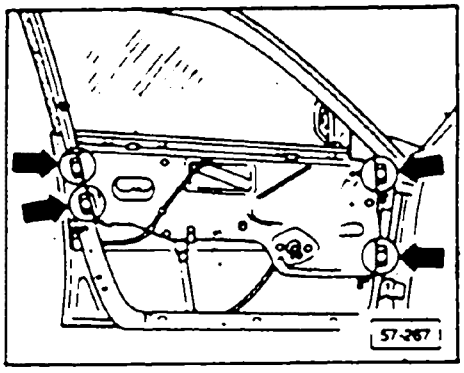


▶ Fig. 3 **Carrier for door components, removing/ installing**

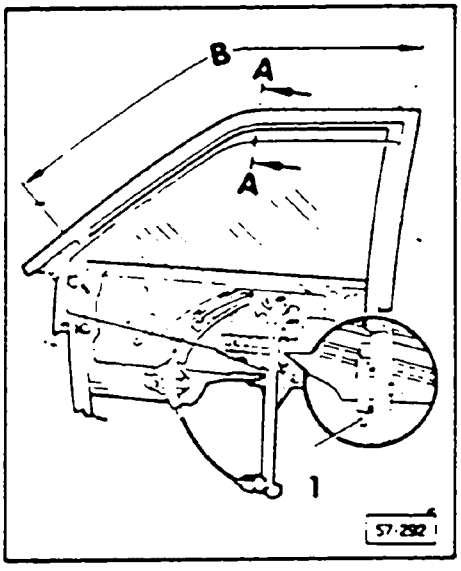
Removing

- remove front door trim panel (see Repair Group 70)
- remove Bowden cable from inner door opening mechanism

Installing

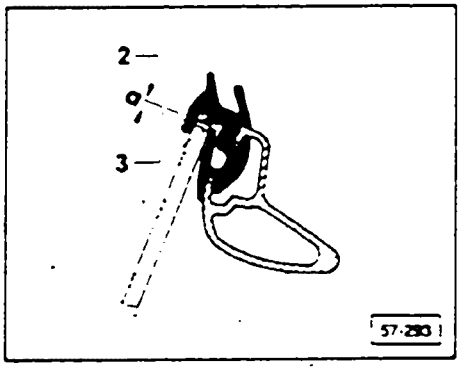
Install in reverse order, note the following:

- check door shell adjustment, adjusting page 57.15
- adjust door component carrier support, page 57.15
- torque hex head screws (**arrows**) 20 Nm (15 ft lb)



▶ Fig. 4 **Adjusting window in carrier**

- section A-A
- adjust window stop from window lifter **1**
- contact area **B** of window to inner window weatherstrip

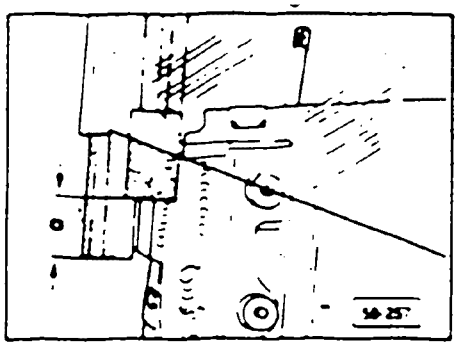


▶ Fig. 5 **Adjusting window glass**

- adjust window glass with door closed
- adjust upper stop of window regulator so inner sealing lip **2** in area **B** (see Fig. 4) contacts upper edge of window
  a = 0.5 mm (1/32 in.)

Note

A minimum pre-load of 0.5 mm (1/32 in.) when sealing lip **2** contacts window will eliminate leaks.

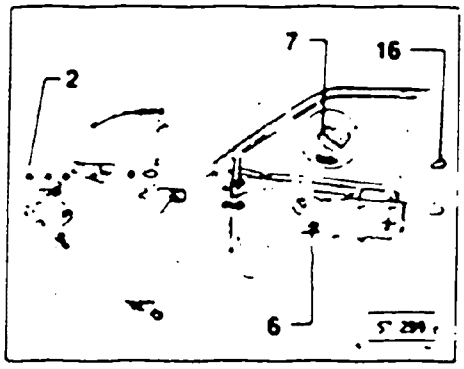


▶ Fig. 6 **Plugs**

- insert into window guide from below
  - a = 65 mm (2.6 in.)
  - measured from end of window channel

Note

The plug is used as a seal and an anti-noise measure



▶ Fig. 7 **Window regulator, removing/installing**

Removing

- remove carrier for door components Fig. 3
- remove lock washer 2
- remove mounting washer, buffer
- pull out window from window lifter bolt
- bend clip 7 in direction of arrow and press Bowden cable out of clip
- unscrew hex. head nuts 6
- unscrew hex. head bolts 16

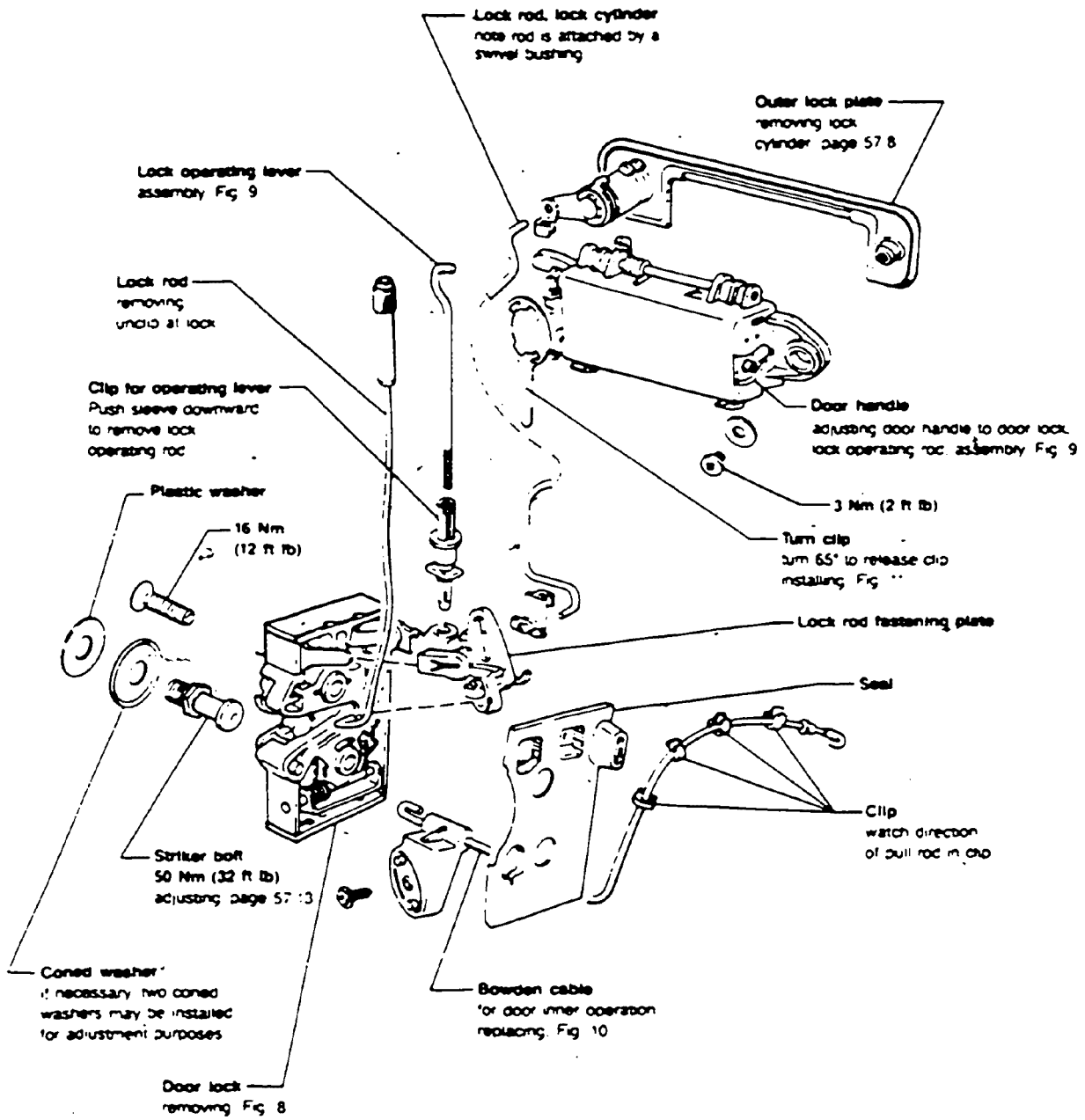
Installing

Install in reverse order, note the following

- install hex. head bolts
  - 6 Nm (5 ft lb)
- place buffers between window and carrier
- check and adjust window if necessary. Fig. 4, 5

THIS FRAME INTENTIONALLY LEFT

BLANK


Lock rod, lock cylinder
note rod is attached by a
swivel bushing
Outer lock plate
removing lock
cylinder page 57 8
Lock operating lever
assembly Fig 9
Lock rod
removing
undo at lock
Clip for operating lever
Push sleeve downward
to remove lock
operating rod
Door handle
adjusting door handle to door lock
lock operating rod assembly Fig 9
3 Nm (2 ft lb)
Turn clip
turn 65° to release clip
installing Fig
Plastic washer
16 Nm
(12 ft lb)
Lock rod fastening plate
Seal
Clip
watch direction
of pull rod in clip
Striker bolt
50 Nm (32 ft lb)
adjusting page 57 13
Coned washer
if necessary two coned
washers may be installed
for adjustment purposes
Bowden cable
for door inner operation
replacing Fig 10
Door lock
removing Fig 8
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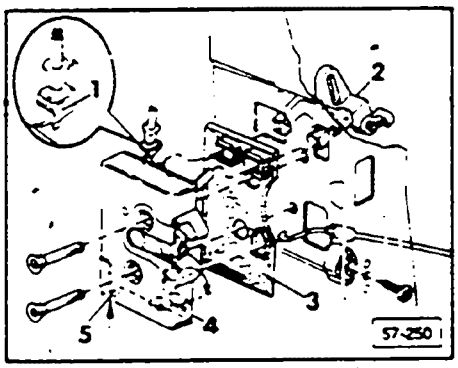


▶ **Fig. 8 Door lock, removing/installing**

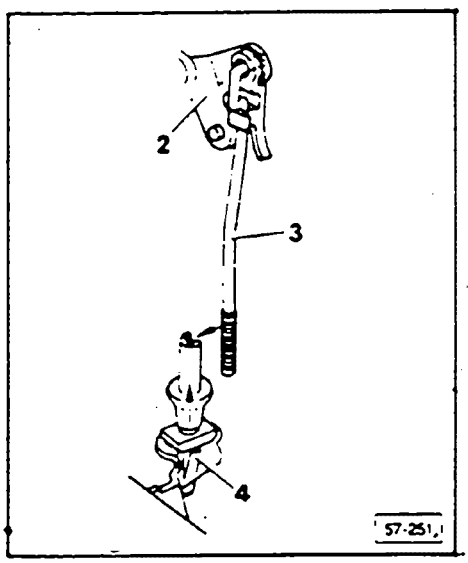
Removing

- remove front door trim (see Repair Group 70)
- release operating rod clip and pull out operating rod
- unhook bowden cable
- pull out door lock from part 2
- remove seal 3

Installing

Install in reverse order. Note the following: To re-hook bowden cable, pull lever 4 in direction of **arrow**. Insert screwdriver into hole 5 to lock cable into place.

- torque all bolts to 16 Nm (12 ft lb)



▶ **Fig. 9 Lock operating rod, removing/installing**

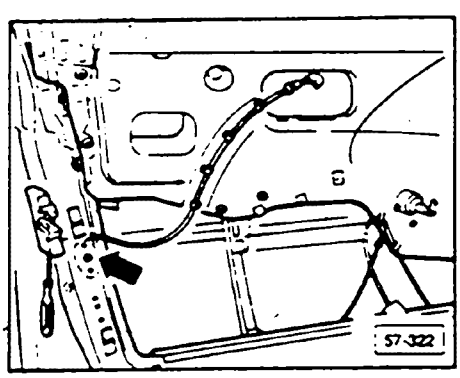
Removing

- place bushing into operating rod 2
- put operating rod 3 into lever
- insert mounting clip 4 into door lock release lever
- check operating rod free play in clip 4, without putting undue strain on the door lock release lever
  - 1.0 mm (3/64 in.) maximum free play

Installing

Install in reverse order.

- to adjust move sleeve upwards on operating clip 4



▶ **Fig. 10 Replacing inner door lock bowden cable**

Removing

- remove door trim (see Repair Group 70)
- unclip bowden cable
- pull bowden cable and lock door lock with screwdriver, Fig. 8
- unhook bowden cable (**arrow**)

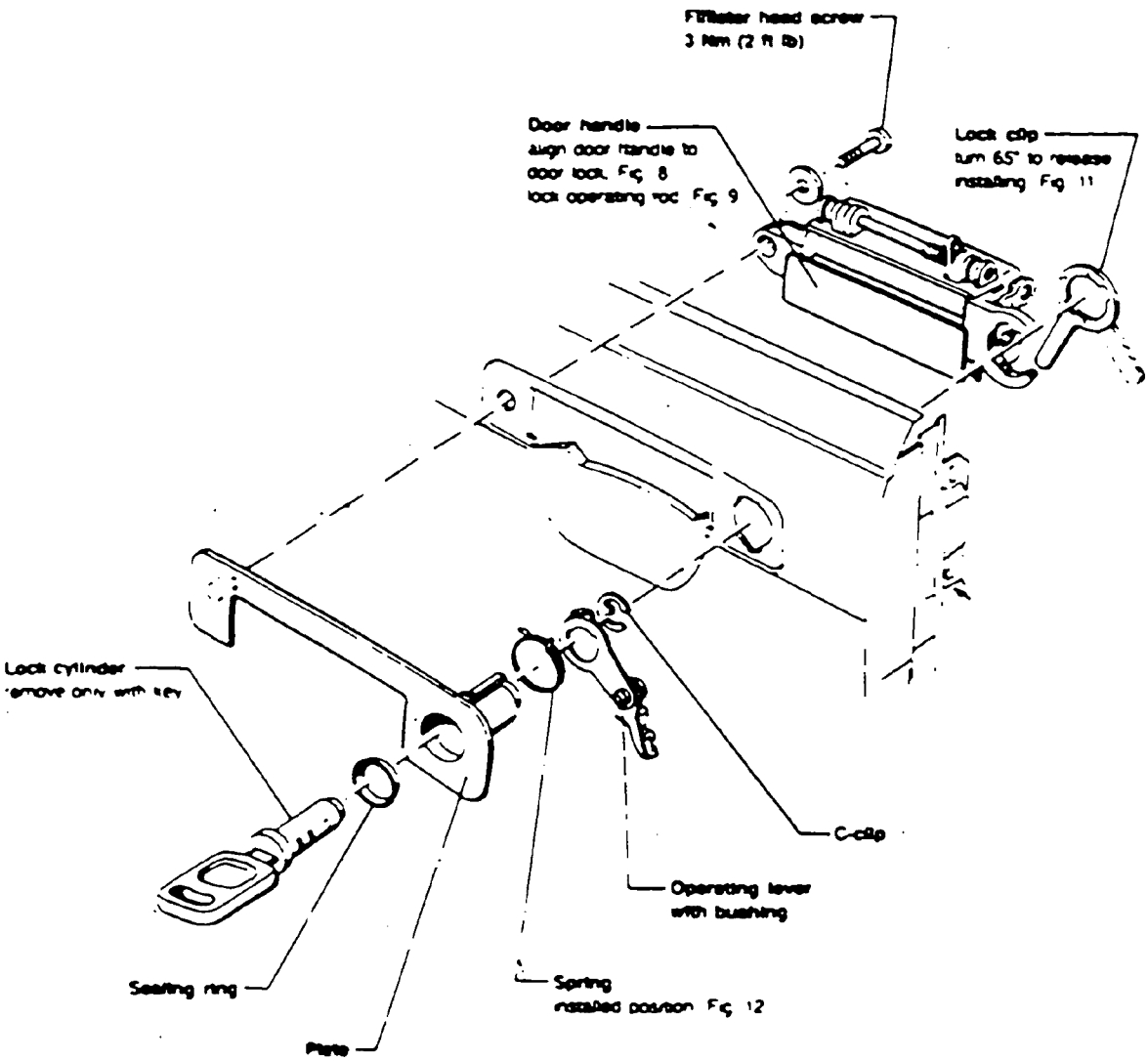
Installing

Install in reverse order.

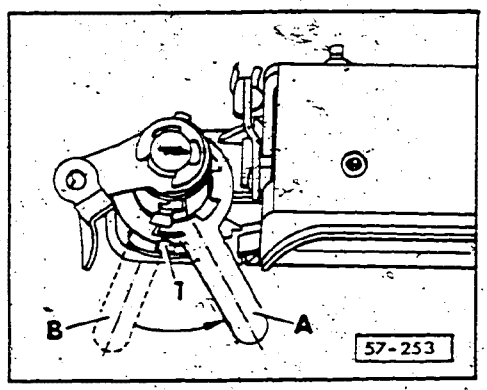
- note how bowden cable is place

Note

- door component carrier is installed
- door trim panel removed
- operating rod is detached at operating lever



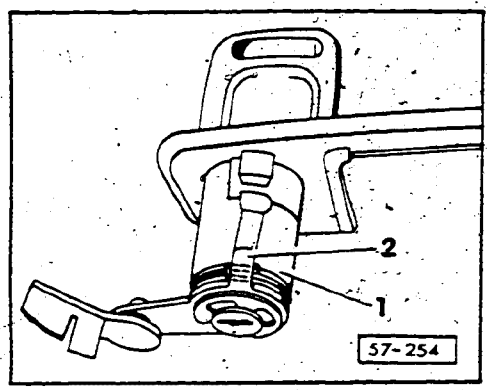
ST-300



▶ **Fig. 11 Turn clip, installing**

A = lock clip tight in locked position
B = lock clip released

■ indentation **1** in lock clip must line up

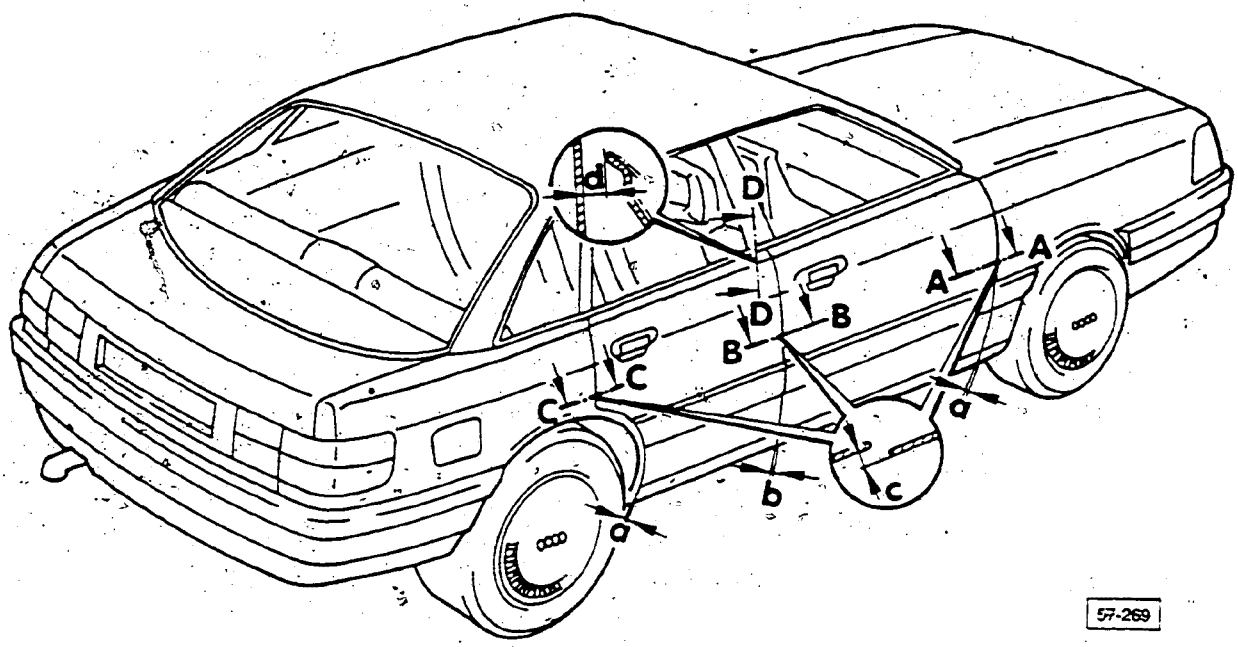


▶ **Fig. 12 Position spring, installing**

Note

When tensioned, the ends of the spring **1** must be positioned to left and right of operating lever **2**.

Pre-tensioning always pushes the operating lever and lock cylinder into center position.



Doors, adjusting

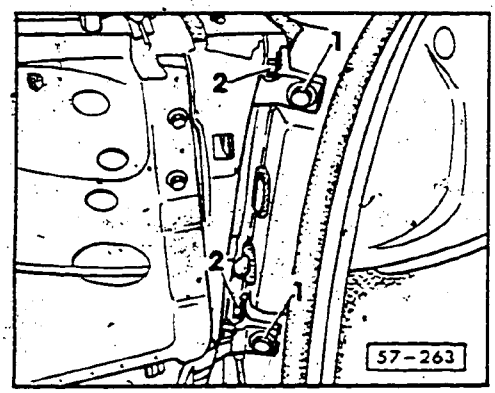
- adjust gap by moving doors with hinges — Fig. 13, 14

  a = 5 + 1 mm (13/64 + 3/64 in.)
  b = 5.5 + 1 mm (7/32 + 3/64 in.)

- align height with contour of body
  Adjust at hinges (extra-large holes in hinge at the point where hinge fastens to A/B pillar) Fig. 15
- to prevent to wind noises, adjust at door mounting hinges or in rear of doors at striker pin, Fig. 16, 17

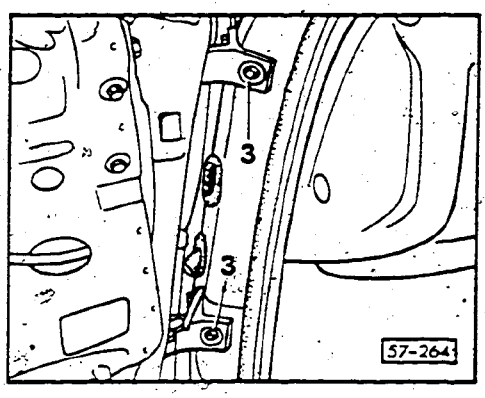
  Section A-A, B-B, C-C:
  c = 0.5 + 0.5 mm (1/64 + 1/64 in.)

  Section D-D:
  d = 14.5 mm (9/16 in.)



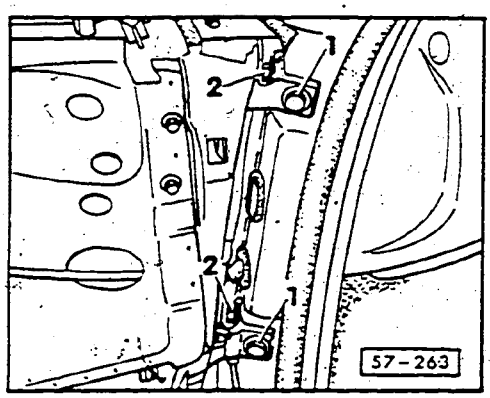
▶ Fig. 13 Door gap, adjusting

- with bolts **1** removed, screw out threaded bushing behind until it no longer contacts A-pillar
- loosen bolts **2**, close door and adjust gap by moving the door
  - **a** = 5 + 1 mm (13/64 + 3/64 in.)
- loosen or tighten with angle wrench **US 2598**



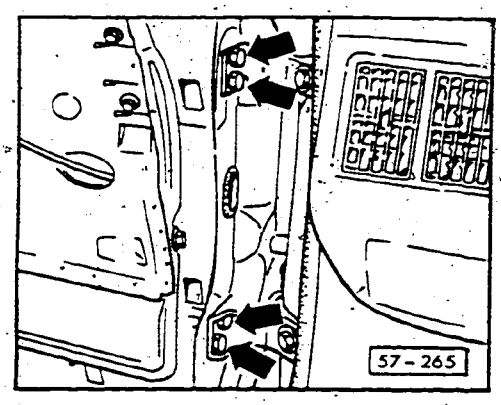
▶ Fig. 14

- screw in threaded bushing **3** until it makes contact with A-pillar
- screw in bolts and tighten to 30 Nm (22 ft lb)
- check gap



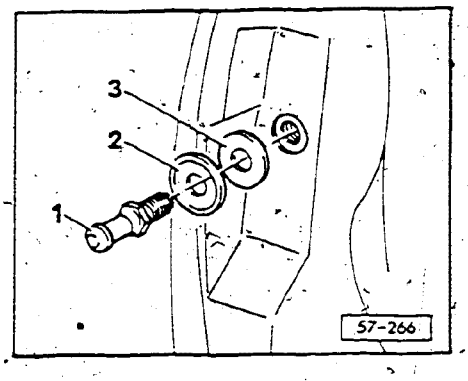
▶ Fig. 15 Height adjustment

- loosen bolts **1**, **2**
- loosen or tighten with angle wrench **US 2598**
- move door with hinge
- tighten bolts
  - 30 Nm (22 ft lb)



▶ Fig. 16

- loosen bolts (**arrows**), move door as required
- tighten bolts
  - 30 Nm (22 ft lb)



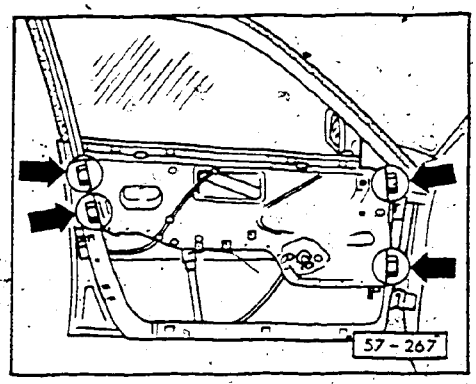
▶ **Fig. 17 Prevention of wind noises**

- adjust the striker pins at the rear of the door
  - striker pin 50 Nm (37 ft lb)

1 = striker pin
2 = dished washer
3 = washer

Note

If necessary, two dished washers can be used.



▶ **Fig. 18 Door component carrier, adjusting**

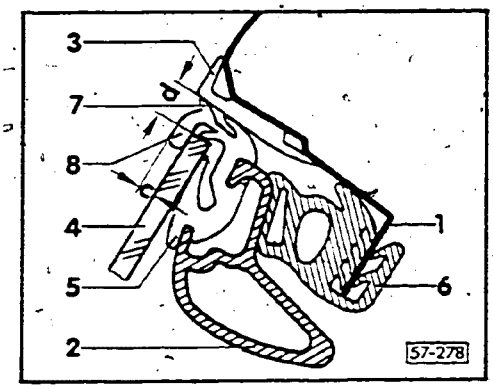
Note

Window and door shell must be adjusted first.

- loosen bolts (**arrows**)
- close door

Two technicians will be required. **Do not** press door shell inwards while performing adjustment.

- press carrier tightly against roof and pillar
  - exert slightly more force than required. Rubber seal will return carrier to proper position
- have second technician (from inside vehicle) tighten first upper then lower bolts
  - 20 Nm (15 ft lb)



▶ **Fig. 19 Door component carrier dimensions**

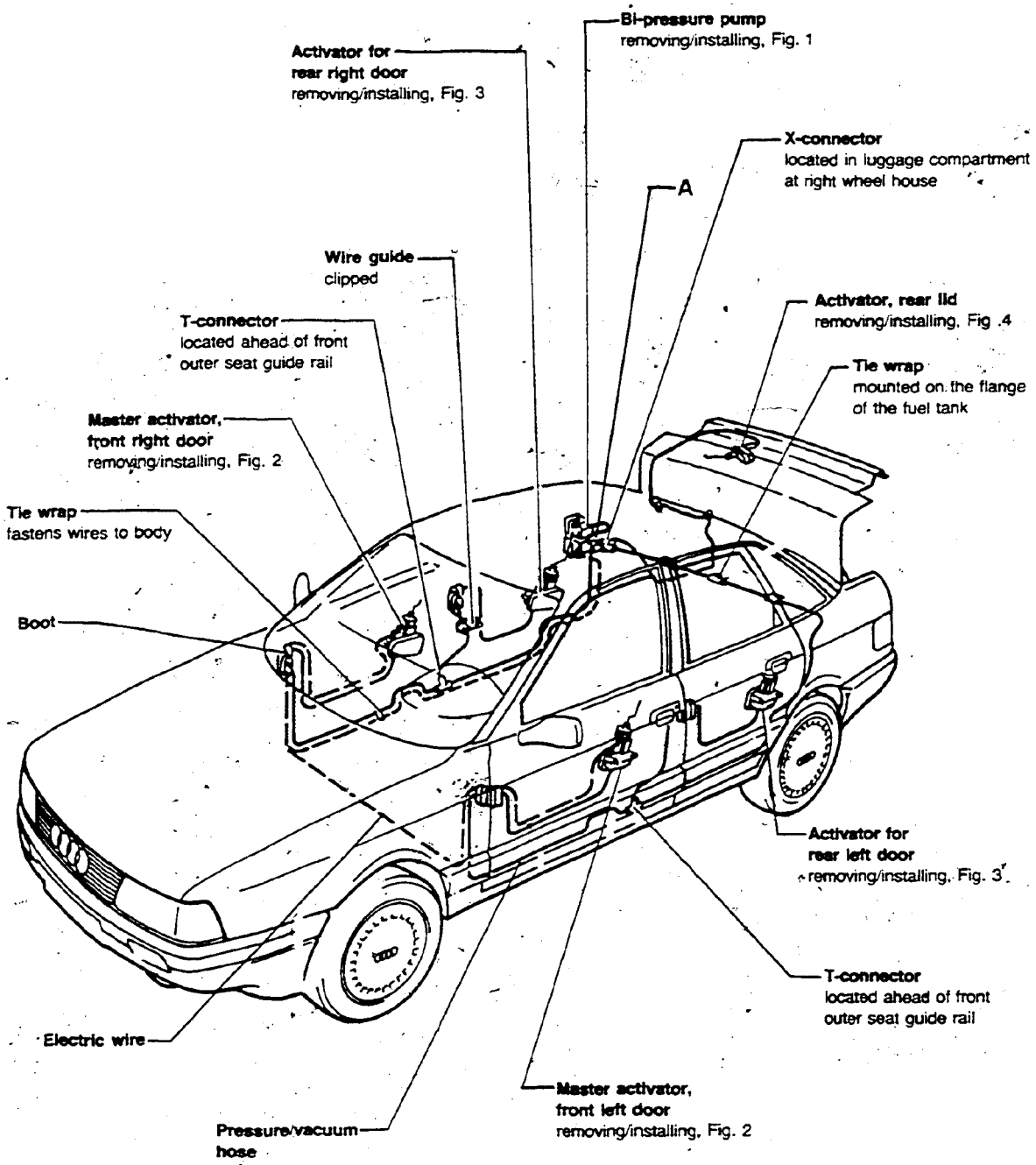
- left door cross section shown

■ the outer sealing lip 7 must make contact along the contour of the pillar and roof trim moulding 3

■ the outer window sealing lip 8 must not project outwards above the roof trim moulding 3

c = 3.5 + 1 mm (9/64 + 3/64 in)
d = 8.1 + 1 mm (5/16 + 3/64 in)

1 — sealing flange
2 — door frame
3 — roof trim moulding
4 — window
5 — window seal
6 — inner door seal
7 — sealing lip
8 — sealing lip on window


Bi-pressure pump
removing/installing, Fig. 1
Activator for
rear right door
removing/installing, Fig. 3
X-connector
located in luggage compartment
at right wheel house
A
Wire guide
clipped
Activator, rear lid
removing/installing, Fig .4
T-connector
located ahead of front
outer seat guide rail
Tie wrap
mounted on the flange
of the fuel tank
Master activator,
front right door
removing/installing, Fig. 2
Tie wrap
fastens wires to body
Boot
Activator for
rear left door
removing/installing, Fig. 3
T-connector
located ahead of front
outer seat guide rail
Electric wire
Master activator,
front left door
removing/installing, Fig. 2
Pressure/vacuum
hose

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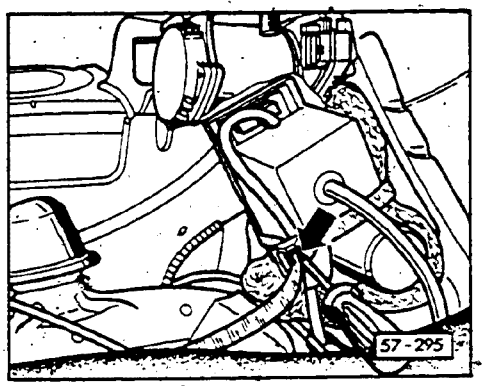
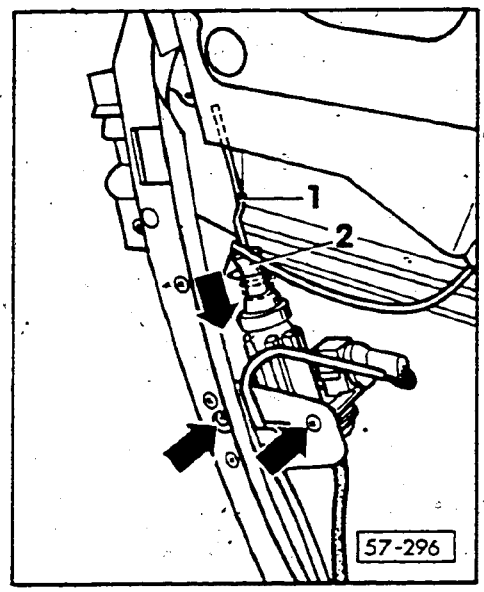


▶ **Fig. 1 Bi-pressure pump removing/installing**

- unscrew bolt for luggage compartment trim right
- press trim downward
- open retaining strap (**arrow**) by pressing the retaining tab back with screwdriver
- pull out connector wires



▶ **Fig. 2 Master activator, removing/installing**

Removing

- remove door trim (see Repair Group 70)

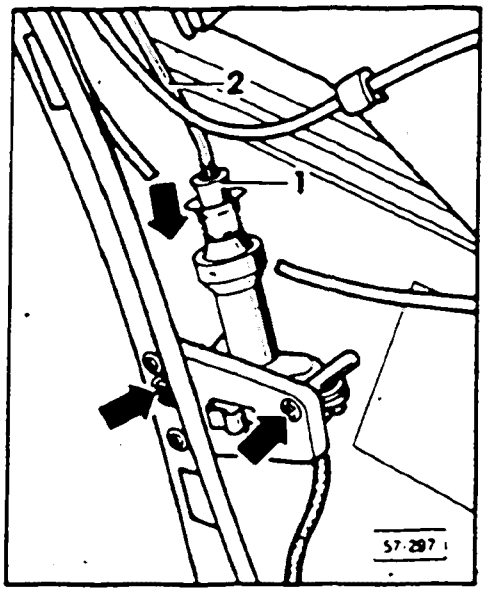
Operating rod **1** and master activator must be in **door open** position to loosen the locking ring.

- push locking ring **2** downward while holding operating rod **1**
- pull operating rod out of activator
- remove pressure/vacuum hose and unscrew mounting bolts
- remove multi-terminal connector

Installing

Install in reverse order, note the following:

- put operating rod **1**, lock and master activator in **door open** position
- press operating rod **1** in while pushing the locking ring **2** upwards



▶ Fig. 3 **Activator for rear doors, removing/installing**

Removing

- remove door trim (see Repair Group 70)

Note

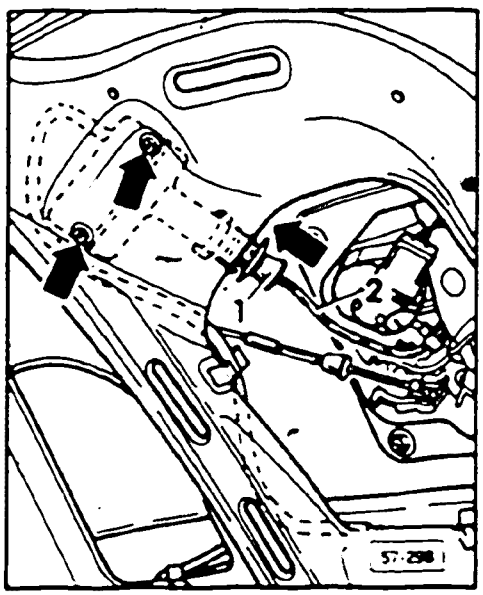
Operating rod **2** and activator must be in **door open** position to loosen the lock ring.

- push locking ring **1** downward, while holding operating rod **2** securely
- pull operating rod out of activator
- remove pressure/vacuum hose and mounting bolts

Installing

Install in reverse order, note the following:

- put operating rod **2**, lock and activator in **door open** position
- push the operating rod **2** in while pulling the locking ring **1** upwards



▶ Fig. 4 **Activator for rear lid, removing/installing**

Removing

- remove trim for right rear taillamp

Note

Activator must be in **door open** position, in order to loosen the locking ring.

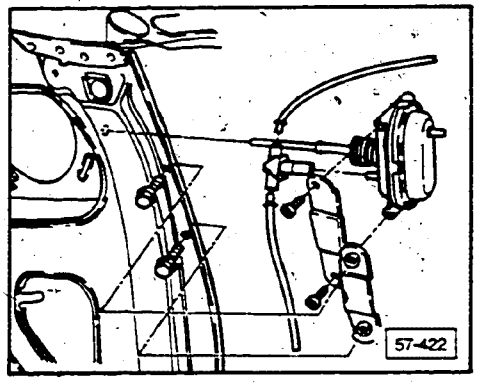
- push locking ring **1** downward, while holding operating rod **2** securely
- pull operating rod out of activator
- unscrew mounting bolts and remove pressure/vacuum hose

Installing

Install in reverse order, noting the following:

- pressure/vacuum hose must be **between** lock operating rod, and inner part of hatch
- to assemble operating rod **2**, both lock and activator must be in open position
- push operating rod **2** while pulling lock pin **1** upwards

Fuel tank flap activator, removing/ installing



Removing

- open trunk
- pull back luggage compartment trim from around fuel filler neck
- remove hex screws, disconnect pressure/ vacuum hose from activator
- remove activator toward rear

Installing

Reinstall in reverse order noting the following:

- torque hex screws 4.0 Nm (35 in lb)

Central locking system, troubleshooting

Electrical

Refer to appropriate wiring diagram.

Test conditions

- fuse 19 **OK**
- battery **OK**

- open rear lid
  - bi-pressure pump located on right side of luggage compartment
- pull insulating material away from pump
- pull off plug connector from pump

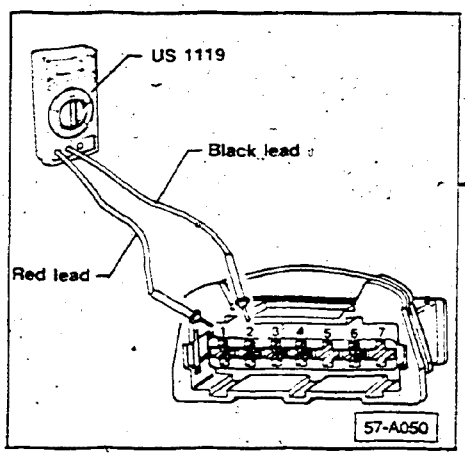
Tools required

Use multimeter **US 1119** for all testing.

Note

As you look at the end of the plug connector, the cavities are numbered **one** through **seven** starting from the left. Cavities **five** and **seven** are **blank.**

Bi-pressure pumps are supplied by different vendors. Disregard pin positions in pumps.



Check current supply to bi-pressure pump

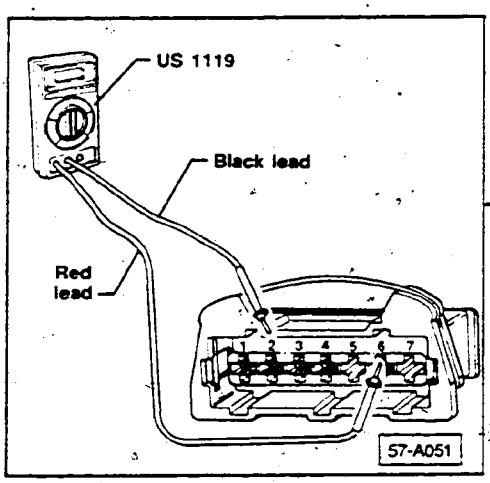
- connect red lead of **US 1119** to cavity 1 of plug connector
- connect black lead of **US 1119** to cavity 2 of plug connector

US 1119 registers approx. 12.0 Volts	**US 1119 does not** register 12.0 Volts

→ check electrical wiring for break in continuity

→ End

→ Go to (B) page 57.19



Ⓑ

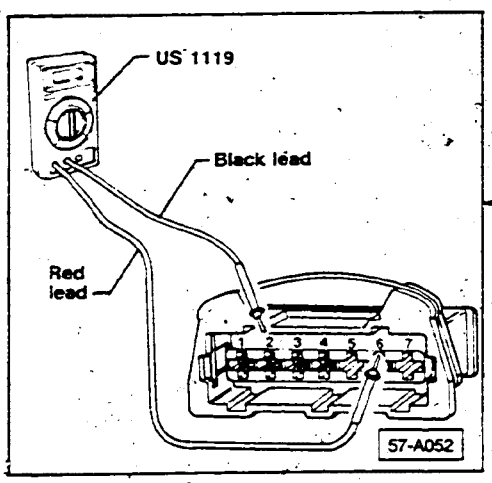
Check current supply from ignition lock to bi-pressure pump

- insert key into ignition starter lock **do not turn key**
- connect red lead of **US 1119** to cavity **6** of plug connector
- connect black lead of **US 1119** to cavity **2**

US 1119 registers approximately 12.0 Volts	**US 1119 does not** register 12.0 Volts

Check electrical wiring for break in continuity
or
replace ignition starter lock

End



Check ignition starter lock

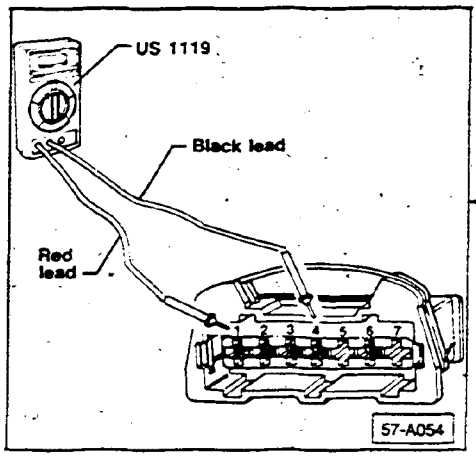
- remove ignition key
- connect red lead of **US 1119** to cavity **6** of plug connector
- connect black lead of **US 1119** to cavity **2** of plug connector

US 1119 registers 0.0 Volts	**US 1119** registers **more than** register 0.0 Volts

Replace ignition starter lock

End

Go to Ⓒ on page 57.20



Ⓒ

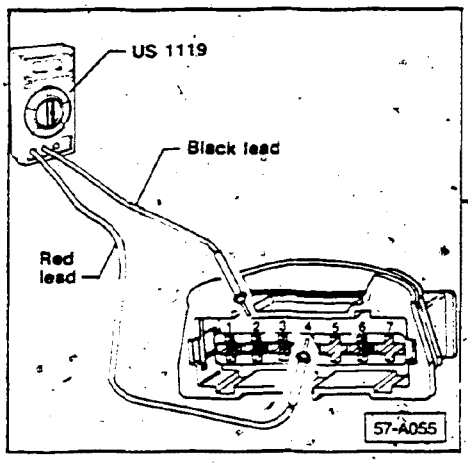
Check driver's door master activator switch **to lock door**

- connect red lead of **US 1119** to cavity **1** of plug connector
- connect black lead of **US 1119** to cavity **4** of plug connector
- push down driver's door locking button (**locked position**)

US 1119 registers approximately 12.0 Volts	**US 1110 does not** register 12.0 Volts

Check electical wiring for break in continuity or replace driver's door master activator switch

End



Check driver's door master activator switch **to open door**

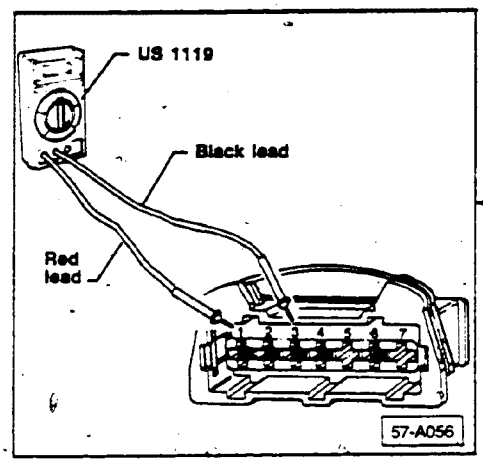
- connect red lead of **US 1119** to cavity **4** of plug connector
- connect black lead of **US 1119** to cavity **2** of plug connector
- pull up driver's door locking button (**open position**)

US 1119 registers approximately 12.0 Volts	**US 1119 does not** register 12.0 Volts

Check electrical wiring for break in continuity or replace driver's door master activator switch

Go to Ⓓ on page 57.21

End



Ⓓ

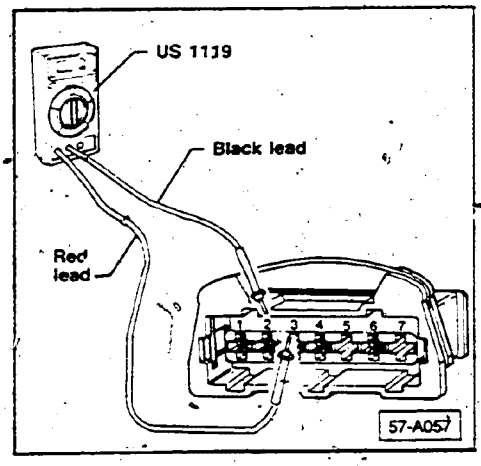
Check right front door master activator switch **to lock door**

- connect red lead of **US 1119** to cavity 1 of plug connector
- connect black lead of **US 1119** to cavity 3 of plug connector
- push down right front door locking bottom (**locked position**)

US 1119 registers approximately 12.0 Volts	**US 1119 does not** register 12.0 Volts

Check electrical wiring for break in continuity or replace right front door master activator switch

End



Check right front door master activator switch **to open door**

- connect red lead of **US 1119** to cavity 3 of plug connector
- connect black lead of **US 1119** to cavity 2 of plug connector
- pull up right front door locking button (**open position**)

US 1119 registers approximately 12.0 Volts	**US 1119 does not** register 12.0 Volts

Replace defective bi-pressure pump

End

Check electrical wiring for break in continuity or replace right front door master activator switch

End

Troubleshooting — bi-pressure system

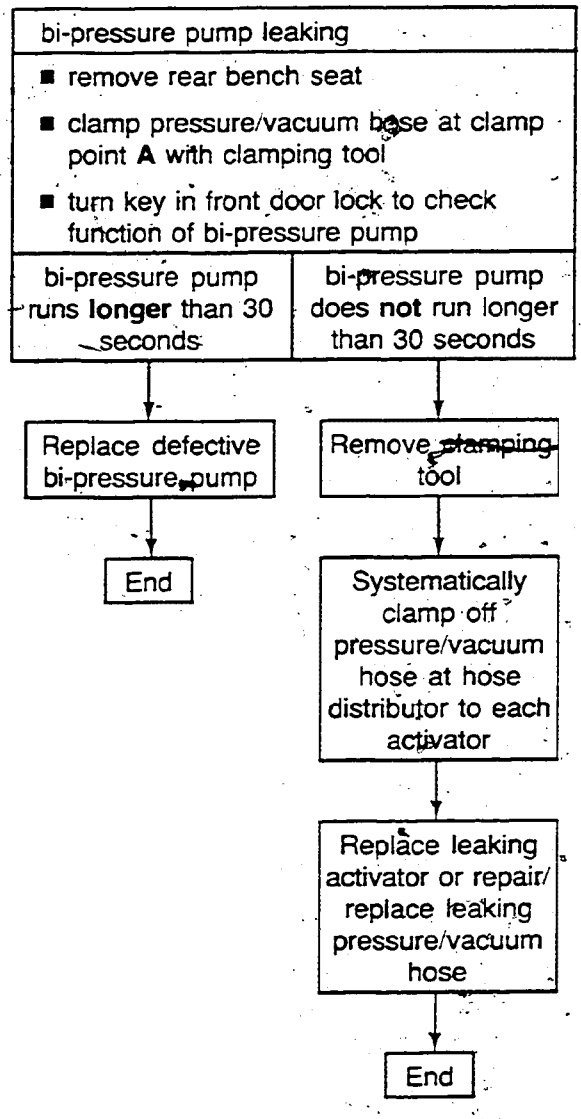
Test condition

- electrical system **OK**

Note

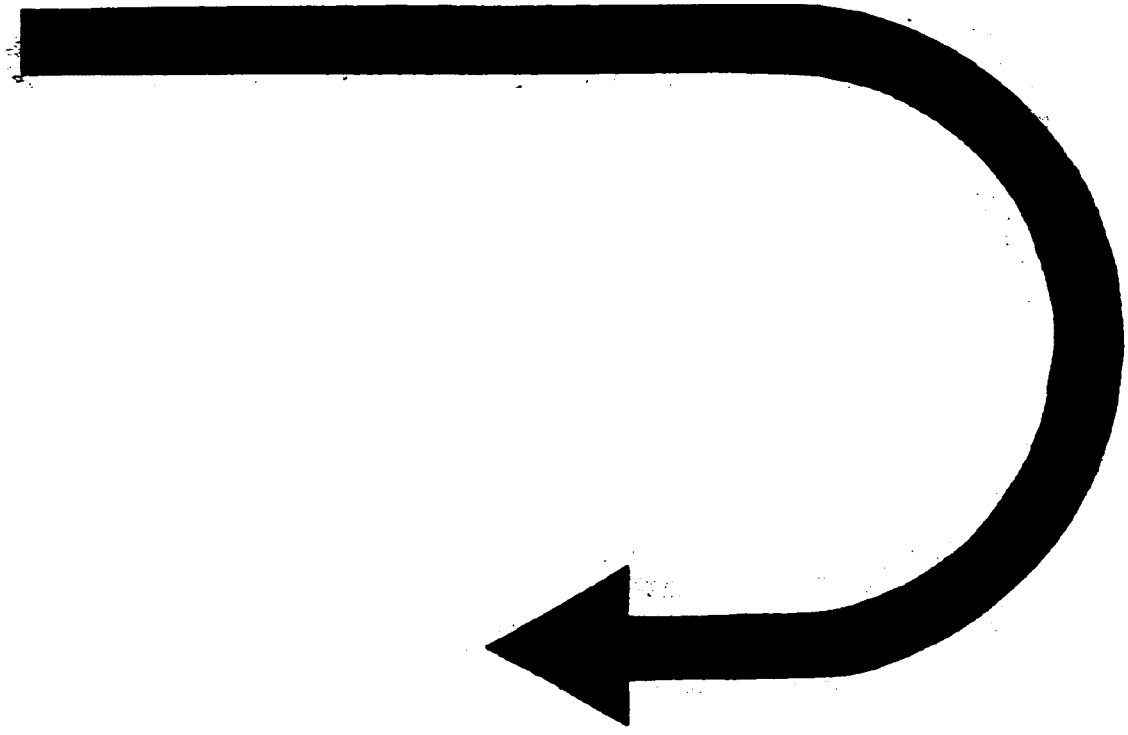
If central locking system has not been activated for an extended period, key must be turned in lock several times to activate system.

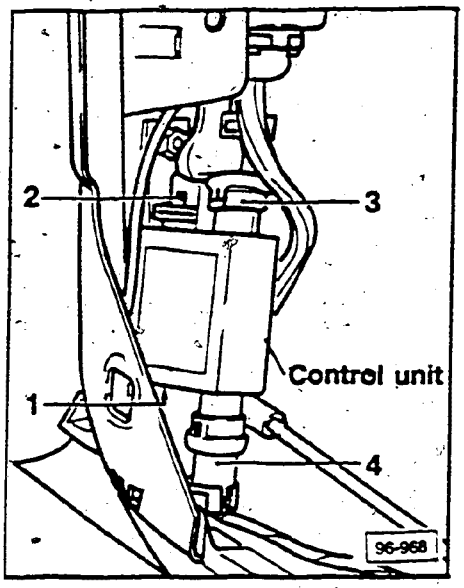
When properly functioning, all locks must close within three to seven seconds.



CONTINUED IN THE

BEGINNING OF NEXT ROW





Heated lock cylinders, troubleshooting

Electrical

Note

Refer to appropriate wiring diagram.

1. test button
2. connector for microswitch
3. connector for heating element
4. connector voltage supply line

Test conditions

- battery **OK**
- fuse **19 OK**

Tools required

- multimeter **US 1119**

Checking voltage at cavities **30 (+), 31 (−)**	
■ pull off plug connector **4** to control unit ■ set **US 1119** to voltage scale ■ connect tester **US 1119** to cavities **30 (+), 31 (−)** of plug connector **4** ■ measure voltage • 12.0V	
NOT OK	**OK**

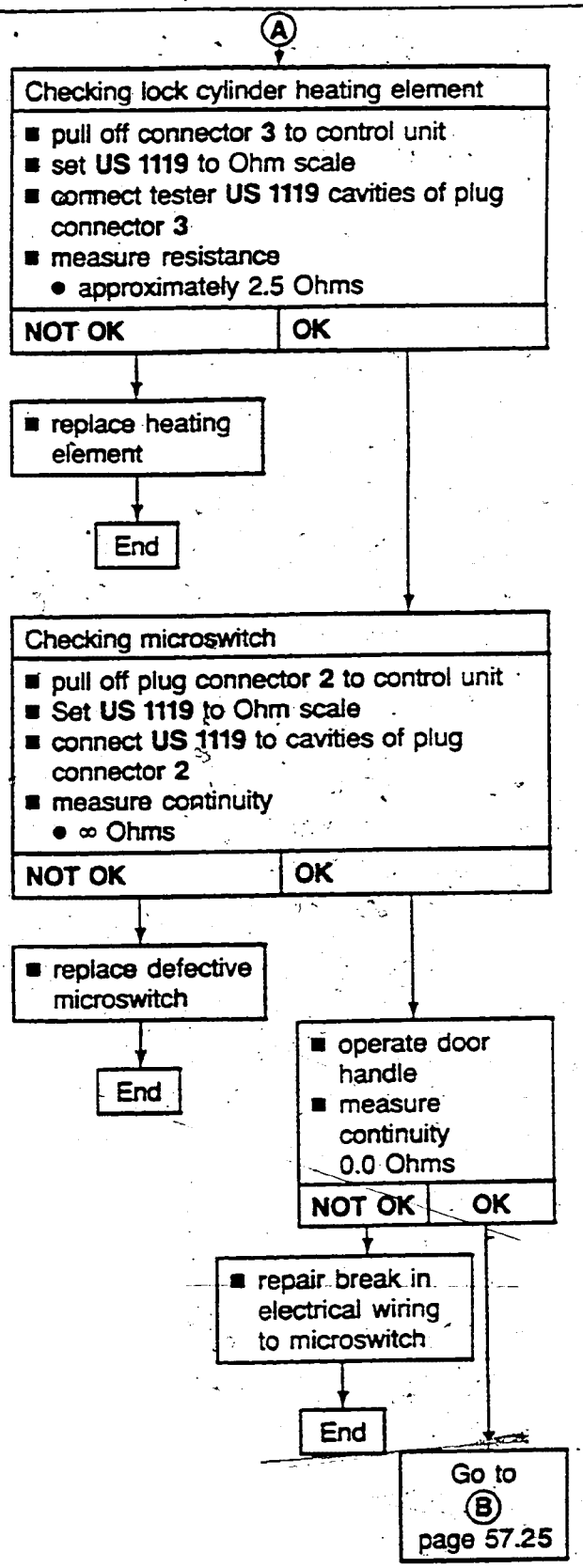
NOT OK

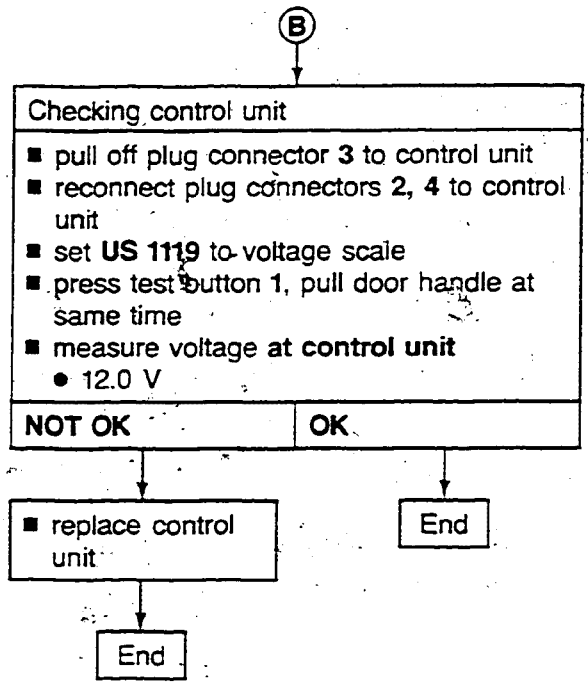
■ repair break in electrical wiring

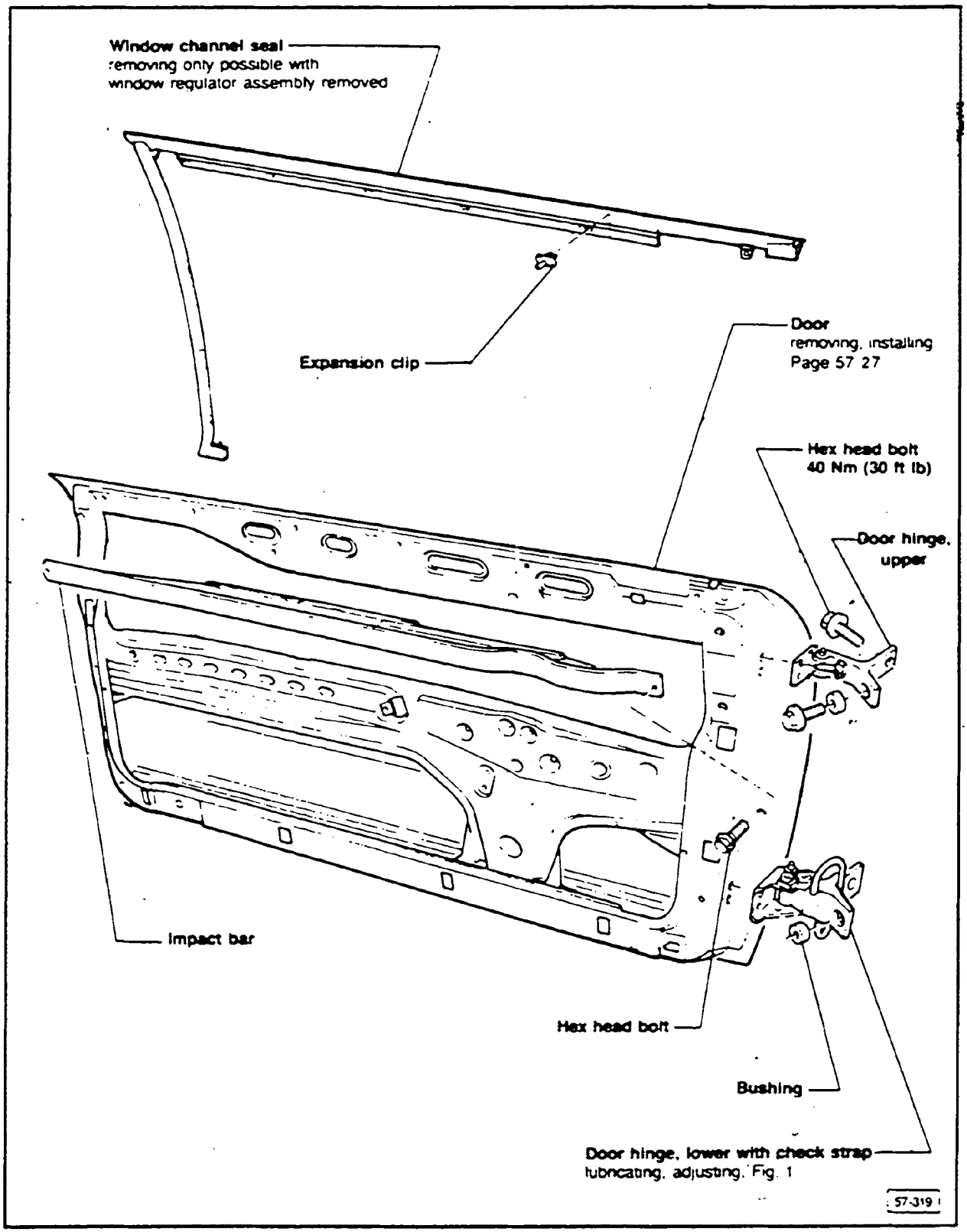
End

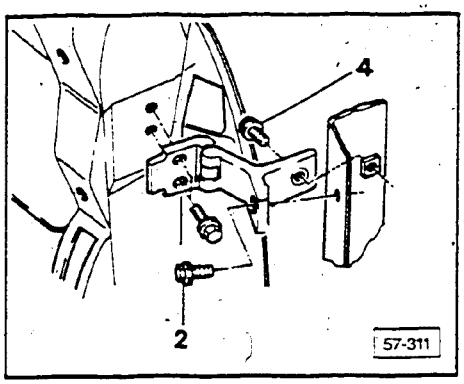
OK

Go to Ⓐ page 57.24


A
Checking lock cylinder heating element
■ pull off connector 3 to control unit
■ set US 1119 to Ohm scale
■ connect tester US 1119 cavities of plug connector 3
■ measure resistance
● approximately 2.5 Ohms
NOT OK
OK
■ replace heating element
End
Checking microswitch
■ pull off plug connector 2 to control unit
■ Set US 1119 to Ohm scale
■ connect US 1119 to cavities of plug connector 2
■ measure continuity
● ∞ Ohms
NOT OK
OK
■ replace defective microswitch
End
■ operate door handle
■ measure continuity
0.0 Ohms
NOT OK
OK
■ repair break in electrical wiring to microswitch
End
Go to
B
page 57.25

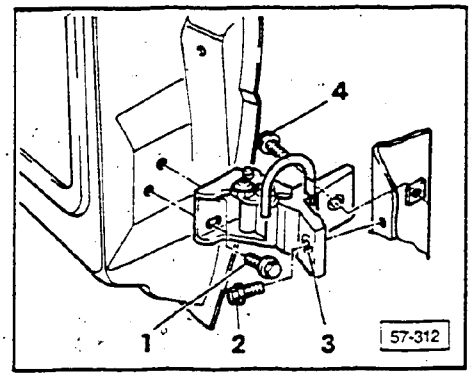

B
Checking control unit
■ pull off plug connector 3 to control unit
■ reconnect plug connectors 2, 4 to control unit
■ set US 1119 to voltage scale
■ press test button 1, pull door handle at same time
■ measure voltage at control unit
● 12.0 V
NOT OK
OK
■ replace control unit
End
End


Window channel seal
removing only possible with
window regulator assembly removed
Expansion clip
Door
removing, installing
Page 57 27
Hex head bolt
40 Nm (30 ft lb)
Door hinge,
upper
Impact bar
Hex head bolt
Bushing
Door hinge, lower with check strap
lubricating, adjusting, Fig. 1
57-319



Front door, removing

▶
- remove door trim panel, see Repair Group 70
- disconnect electrical wiring to power window regulator, door locks and mirror
- remove hex head bolts **2,4** from upper hinge with angle wrench **US 2598** or equivalent

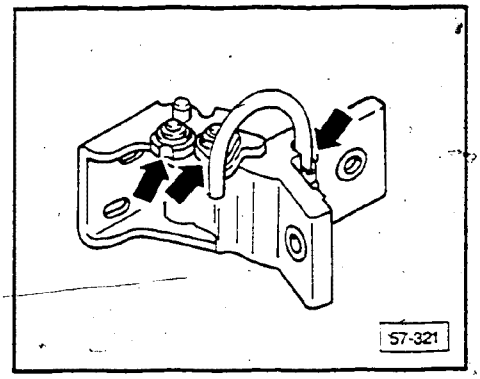


▶
- remove hex head bolts **2,4** from lower hinge with angled wrench **US 2598** or equivalent

Front door, installing

Reinstall all components in reverse order of removal, noting the following:

- align and adjust door, see page 57.33
- check and adjust the window regulator as required
- reconnect all electrical connectors
- check all power window, mirrors and door locks for proper function



▶ **Fig. 1 Lower door hinge, lubrication**

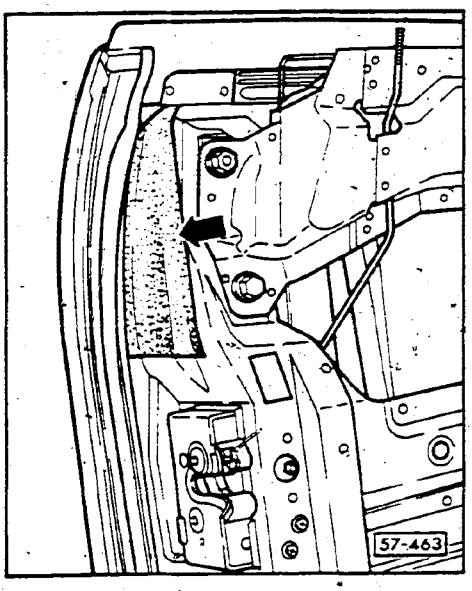
- apply lubricant **AOS 126 000 05** or equivalent to points shown (**arrows**)

Front door, replacing

Note

From VIN 8B MA 008 401, the door shell has been changed. Only the new style door will be available as a replacement part. When installing a new style door to an older vehicle, the following parts must also be installed/ replaced:

1 – door trim panel, see Repair Group 70
2 – window regulator
3 – outside door seal
4 – flat nut/washer, page 57.28, callout 16
5 – mounting trim cover, Fig. 2
6 – outside mirror mount base, Fig. 3

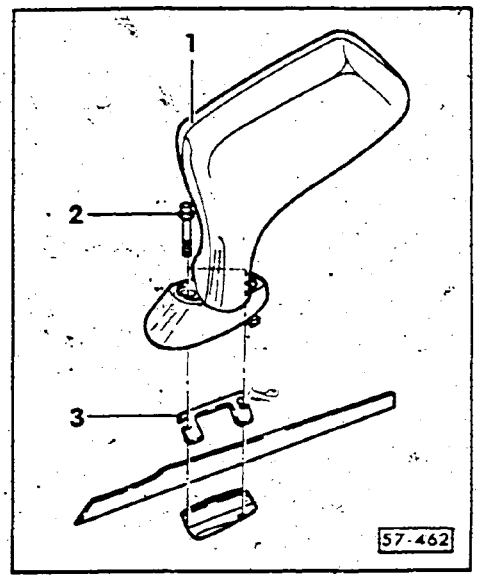


▶ Fig. 2 **Mounting trim cover, installing**

Note

Door surface must be free of dirt or grease for good seal. Install wrinkle free.

- glue cover (**arrow**) to door shell as shown

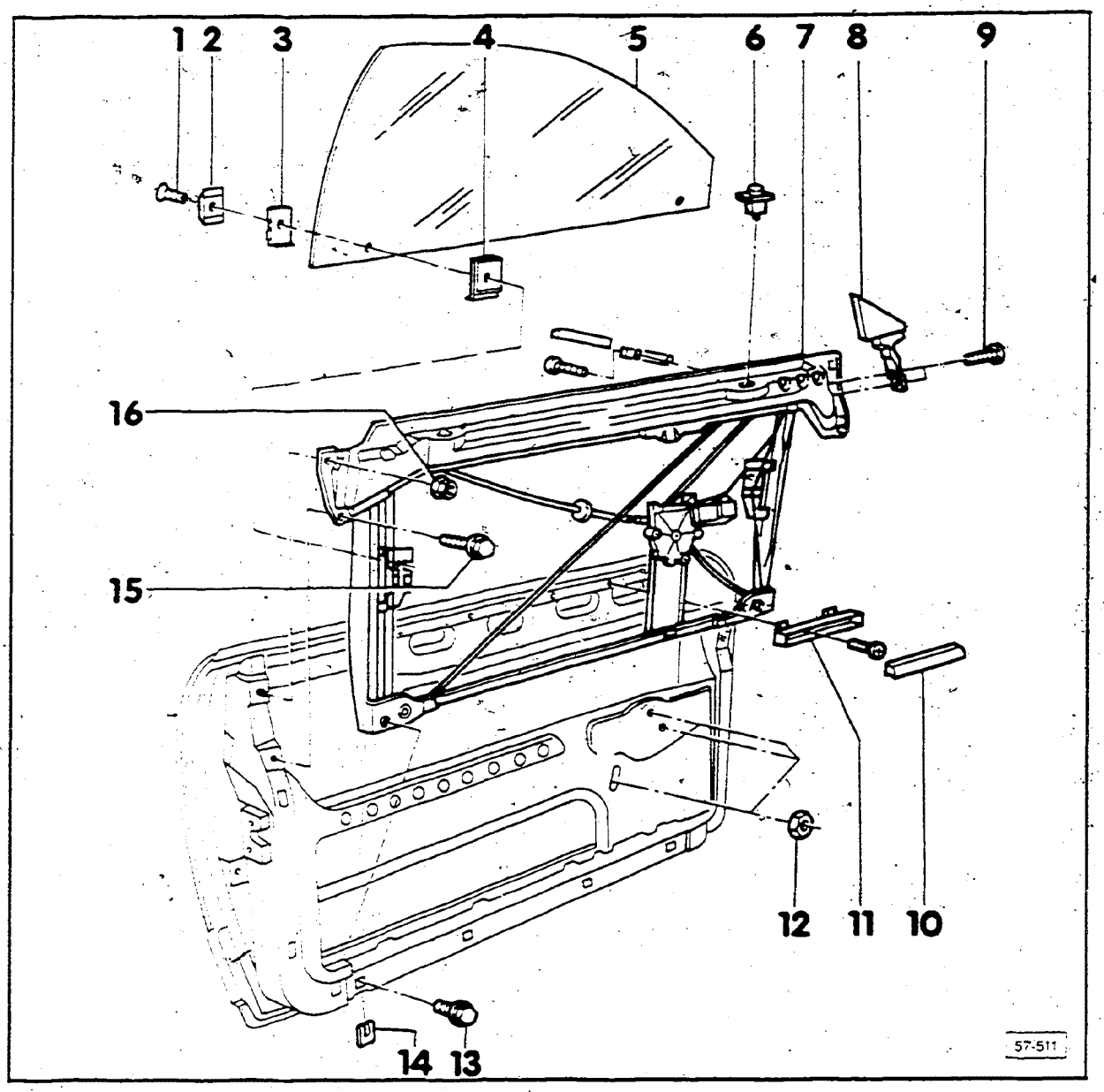


▶ Fig. 3 **Outside mirror mount base, installing**

Note

Only install mirror base **3** if old outside mirror assembly is being reused.

- glue mirror base **3** to mirror bracket
- install mirror assembly **1** with bolts **2**
  - 4 Nm (35 in. lb)



1 – **Torx screw – 20 Nm (15 ft lb)**

2 – **Aluminum clamping piece**

3 – **Fastener, outside**

4 – **Fastener, inside**

5 – **Door glass**
removing/installing, page 57.31

6 – **Adjusting clip**
for height adjustment, see Repair Group 70

7 – **Window regulator**
- removing/installing, page 57.29
- adjusting, page 57.32

8 – **Cover plate**
adjusting, 57.32

9 – **Torx screw – 20 Nm (15 ft lb)**

10 – **Buffer**

11 – **Bracket**

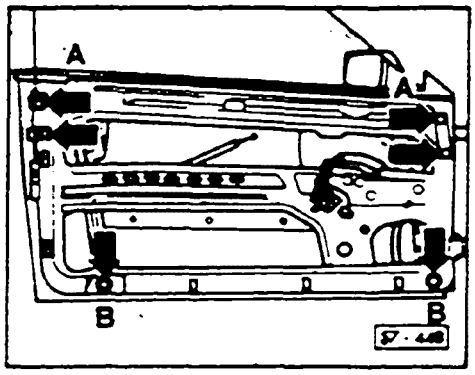
12 – **Nut – 6 Nm (53 in. lb)**

13 – **Bolt – 15 Nm (11 ft lb)**

14 – **Adjustment shim**
install as required

15 – **Bolt – 15 Nm (11 ft lb)**

16 – **Flat nut/washer – 15 Nm (11 ft lb)**



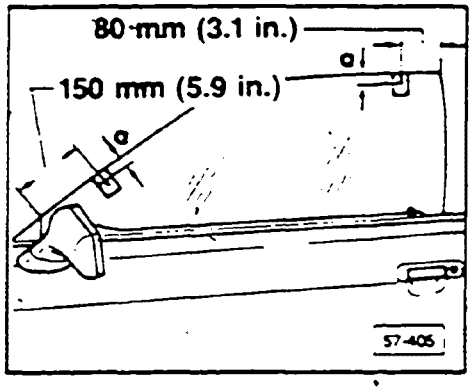
Window regulator, removing

- remove door trim panel, see Repair Group 70
- mark location of four upper window regulator bolts (**arrows A**)
- unbolt window regulator motor

Note

Location of spacers must be marked prior to removal of window regulator assembly. Spacers must be reinstalled at same location.

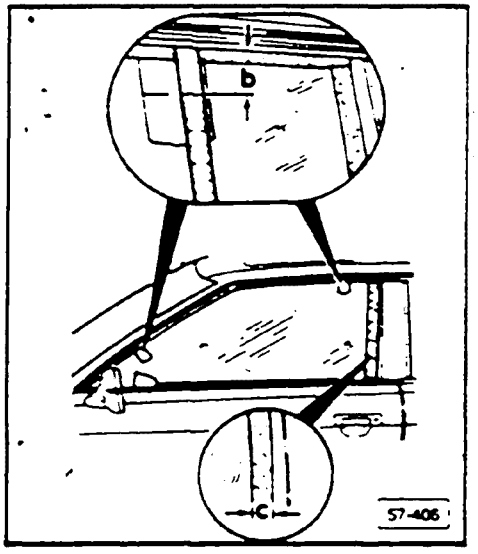
- loosen lower window regulator bolts (**arrows B**)
- remove spacers
- remove all six window regulator bolts
- remove window regulator from door



Window regulator, installing

- glue adhesive strips, as shown, to glass
  - mark dimension **a** = 20 mm (25/32 in.) with pencil
- reinstall window regulator into door shell
- insert lock rod with lock button
- install all window regulator bolts, and hand tighten
  - note position of upper bolts as marked
- close door, check dimensions:
  b = 19.5-21.00 mm (49/64-53/64 in.)
  c = 12.0-15.0 mm (15/32-19/32 in.)
  - 15.0 mm is standard

  If **not**: move window regulator in door shell until dimensions are attained.



Note

If window regulator cannot be positioned with the aid of oversized holes, the glass must be pushed into corners, see installing glass, page 57.31

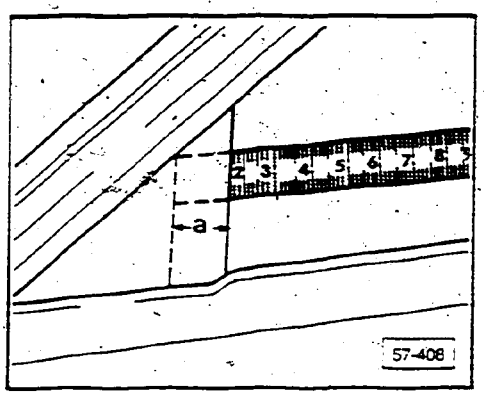
- insert spacers under bolts
- close door, check tension of glass to body
  - door must close easily

CAUTION

Uneven pressure of glass in area of B-pillar or not achieving dimensions **b** or **c** will cause wind noises and leaks.

- open door
- rub B-pillar edge of glass with chalk
- close and reopen door
- check impression left by chalk on door seal
  - if impression is full length of seal, door glass is properly adjusted

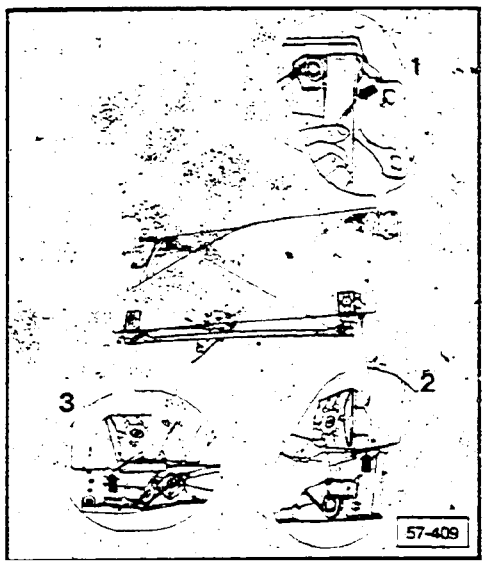
    If not, add or remove spacers, as required, and recheck



- close door, window
- insert steel ruler from outside as shown
  - **a** = 17-18 mm (43/64-45/64 in.)

Cover plate can be adjusted to achieve dimension **a**

- reinstall door trim panel, see Repair Group 70
- check vehicle for wind noise and leaks



Door glass, removing

- fully lower window glass
- mark position of glass to frame and carrier as shown (**insets**)

1 — B-pillar, upper
2 — B-pillar, position on carrier
3 — A-pillar, position on carrier

- raise window halfway
- loosen torx bolts on carrier
- remove aluminum clamping pieces with gaskets
- remove door glass

Door glass, installing

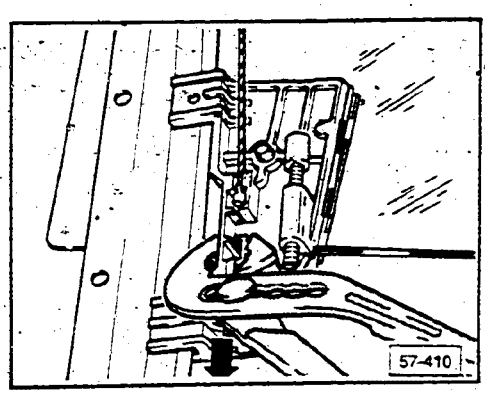
Note

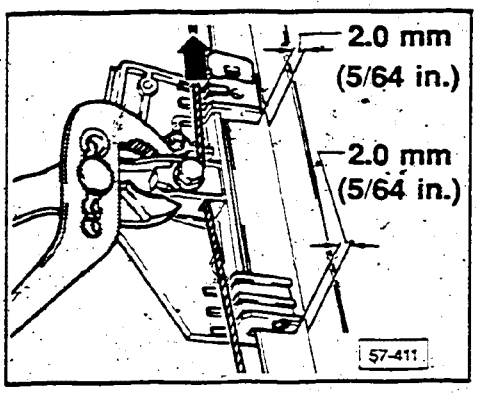
On vehicles up to **VIN 8BKA 008300** **black** plastic base must be replaced with **white** plastic base.

- position plastic base
- position glass and align to marks on frame and carrier

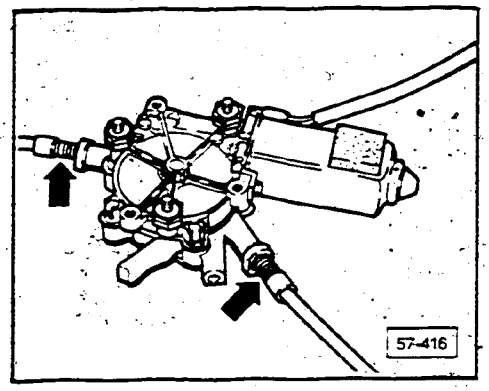
If original glass was missing (broken) initially place glass between threaded holes.

- carefully press glass onto carrier, front and rear
- install plastic base
- install aluminum clamping pieces
- hand tighten torx head screws
- align rear carrier (B-pillar side) parallel to guide rail
- press downward with wrench (**arrow**) until spring in cable is completely compressed
- fully tighten torx bolts
  - 20 Nm (15 ft lb)

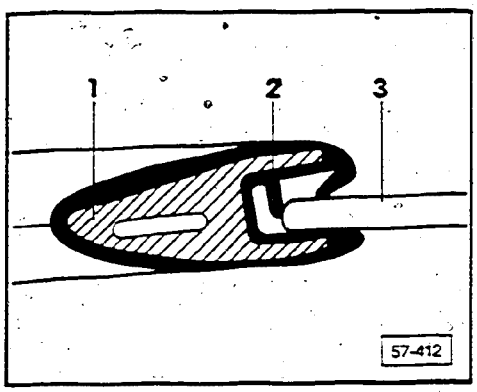




- align front carrier (A-pillar side) parallel to guide rail
- adjust gap between carrier and rail to 2.0 mm (5/64 in.), and push carrier upwards



- second spring in cable (**arrows**) must be completely compressed
  - maximum play 4.0 mm (5/32 in.)



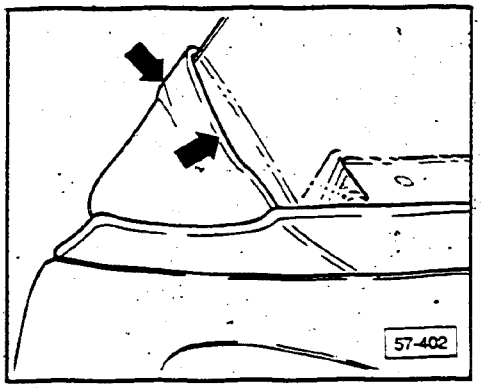
- tighten torx screw
  - 20 Nm (15 ft lb)
- raise glass fully
- front edge of glass **3** must touch the inner sealing lip **2** of cover plate **1**
  If **Not:** move glass forward
  1.0 mm (3/64 in.), realign carrier

Note

Cover plate must be replaced if glass still cannot be made to contact sealing lip **2**.

- install and adjust window regulator

Cover plate, adjusting



- fully raise door glass
- upper edge of glass and cover trim must form one line
- outside of glass must not cause buckling
- rubber must have smooth contact with glass (**arrows**)

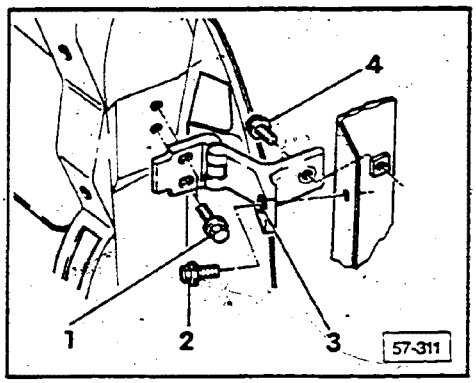
Note

Elongated holes allow for range of adjustment of cover plate.

- check and adjust, see Page 57.30

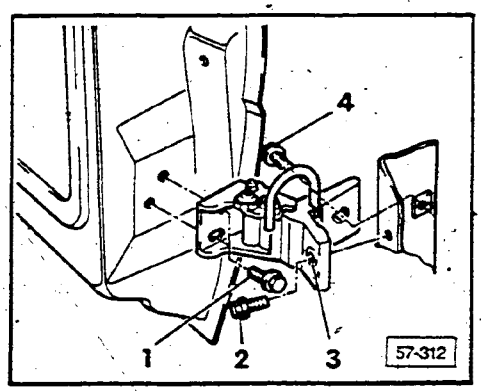
Doors, adjusting

- adjust door gap by moving doors with hinges, Fig. 1
- align door height (contour of body) Adjust at hinges (extra-large holes in hinge at the point where hinge fastens to A-pillar, Fig. 2
- to prevent wind noises, adjust at door mounting hinges or in rear of doors at striker plate, Figs. 3, 4
- adjusting window regulator assembly, Fig. 5



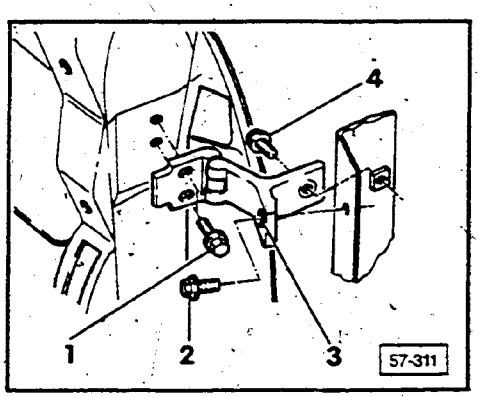
▶ **Fig. 1 Door gap, adjusting**

- loosen bolts **2, 4** with angle wrench **US 2598** or equivalent
- unscrew threaded bushing on bolts **2** away from A-pillar
- close door, move door to adjust gap



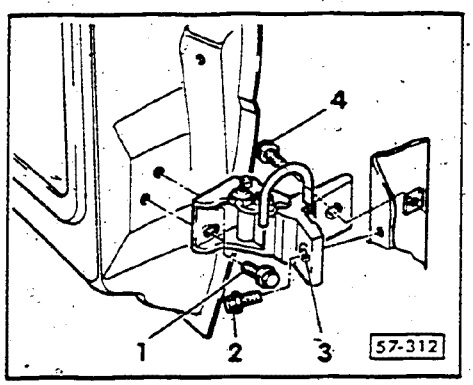
▶

- screw in threaded bushing **3** until it makes contact with A-pillar
- screw in bolts and tighten to 30 Nm (22 ft lb)
- recheck gap



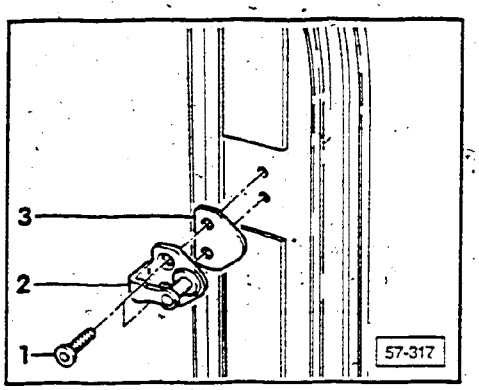
▶ **Fig. 2 Height adjustment**

- loosen bolts **2, 4** with angled wrench **US 2598** or equivalent
- unscrew threaded bushing on bolts **2** away from A-Pillar
- close door
- move door with hinge
- tighten bolts to 40 Nm (30 ft lb)



▶ **Fig. 3 Front of door wind noises, prevention**

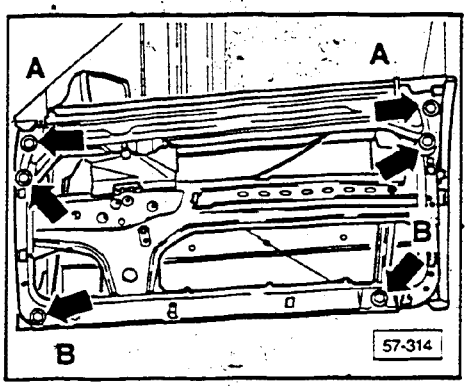
- loosen bolts 1
- move door as required
- tighten bolts 30 Nm (22 ft lb)



▶ **Fig. 4 Striker plate wind noises, prevention**

- adjust the striker pins at the rear of door
  - striker pin 16 Nm (12 ft lb)

1 — striker pin
2 — striker plate
3 — base plate
- more than one may be used to achieve proper adjustment



▶ **Fig. 5 Window regulator, adjusting**

Note

Window and door shell must be adjusted first.

- loosen bolts (**arrows**)
- close door

Two technicians will be required.

- press carrier tightly against roof and pillar
  - exert slightly more force than required. Rubber seal will return assembly to proper position
- have second technician (from inside vehicle) place spacers between door shell and window regulator
- install bolts from below and tighten
  - 15 Nm (11 ft lb)

THIS FRAME INTENTIONALLY LEFT

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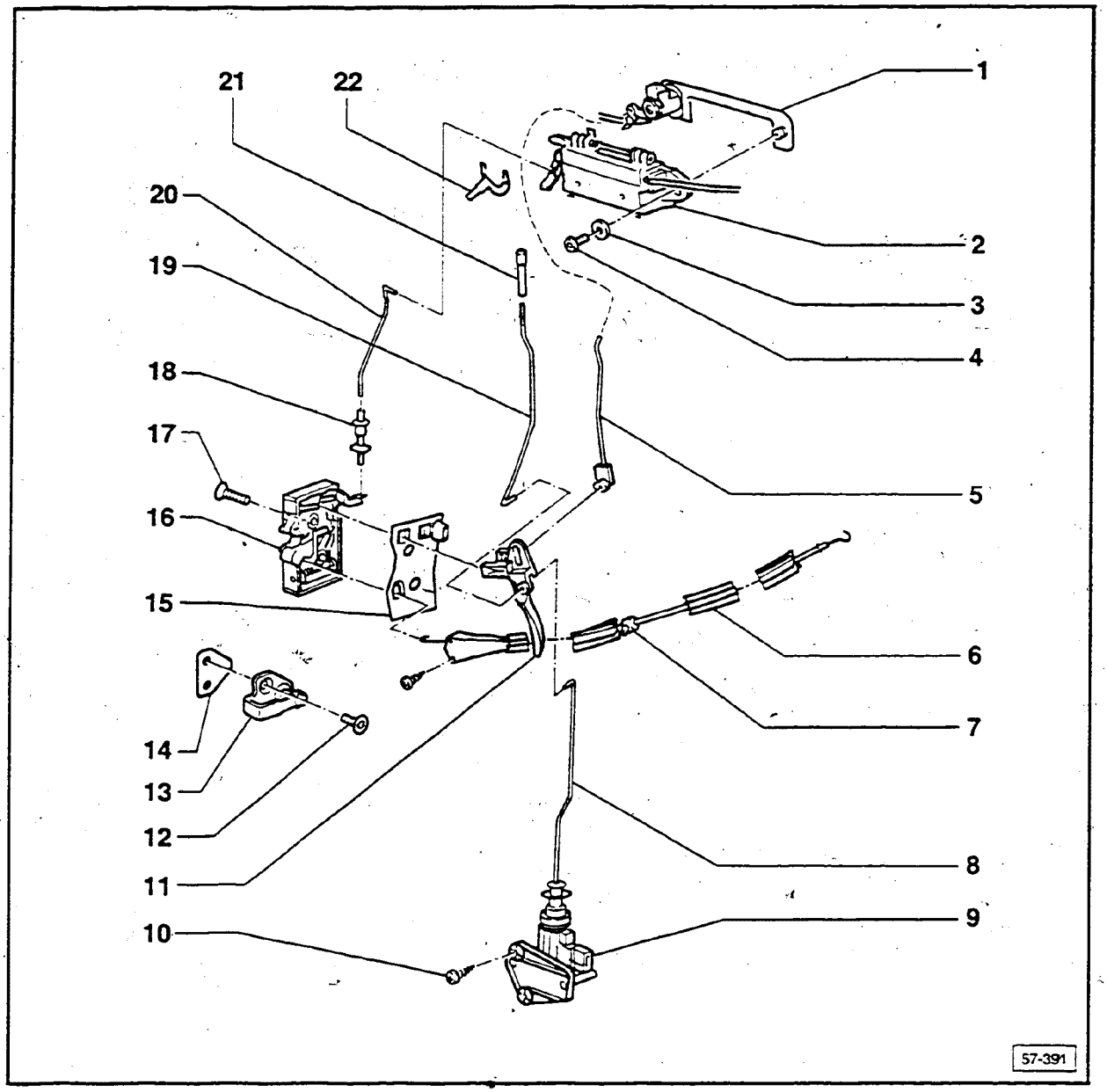


1 — **Outer lock plate**
removing lock cylinder, Fig. 1

2 — **Door handle**
adjusting lock operating rod, Fig. 3

3 — **Washer**

4 — **Torx head screw**
5 Nm (3.7 ft lb)

5 — **Lock rod — lock cylinder**
removing, move swivel bushing

6 — **Bowden cable**
for door inner opening mechanism

7 — **Clip**
note proper installation of pull rod in clip

8 — **Lock rod**
removing, Fig. 3

9 — **Door lock**
removing, Fig. 1

10 — **Phillips head screw**

11 — **Lock rod fastening plate**

12 — **Screw**
16 Nm (12 ft lb)

13 — **Striker**
adjusting, Page 57.34

14 — **Striker base plate**
more than one may be used

15 — **Seal**

16 — **Door lock**
removing, Fig. 1

17 — **Pan head tapping screw**
16 Nm (12 ft lb)

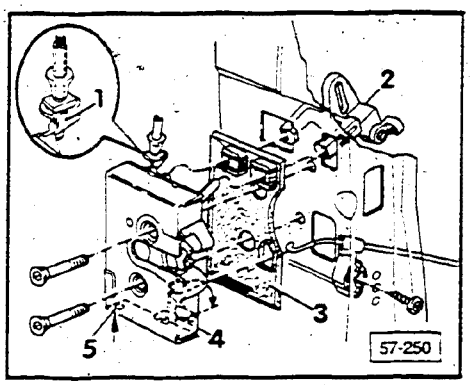
18 — **Clip for operating lever**
push sleeve downward to remove lock operating rod

19 — **Lock rod**
removing, unclip at lock

20 — **Lock operating lever rod**
assembly, Fig. 3

21 — **Locking knob**
removing, see Repair Group 70

22 — **Turn clip**
loosen/installing, Page 57.40



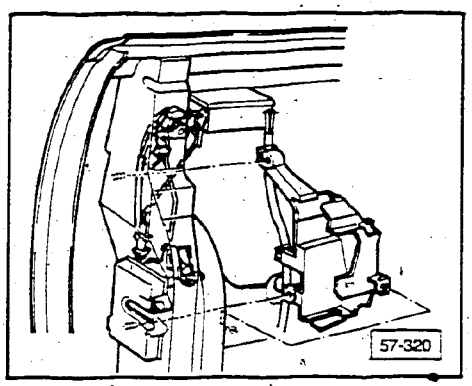
▶ **Fig. 1 Door lock, removing**

- remove front door trim panel, see Repair Group 70
- release operating rod clip and pull out operating rod
- unhook bowden cable
- pull out door lock from part **2**

Door lock, installing

Install all components in reverse order, noting the following:

- re-hook the bowden cable by pulling lever **4** in direction of **arrow**
- insert screwdriver into hole **5** to lock bowden cable into place
- torque all bolts to 16 Nm (12 ft lb)

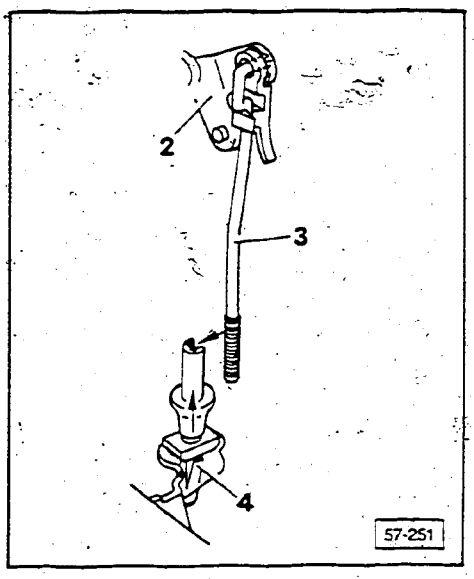


▶ **Fig. 2 Door lock covering, removing**

- unclip covering from door shell
- pry covering off with screwdriver from bolt

Door lock covering, installing

Install in reverse order of removal.



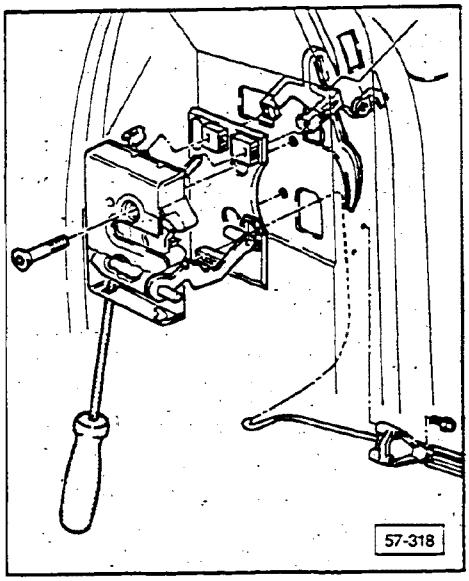
▶ **Fig. 3 Lock operating rod, removing**

- install bushing into lever **2**
- hook operating rod **3** into lever
- insert mounting clip **4** into door lock release lever
- check operating rod free play at clip **4**, without putting undue strain on the door lock release lever
  - 1.0 mm (3/64 in.) maximum free play

Lock operating rod, installing

Install all components in reverse order of removal, noting the following:

- to adjust, move sleeve upwards on operating clip **4**

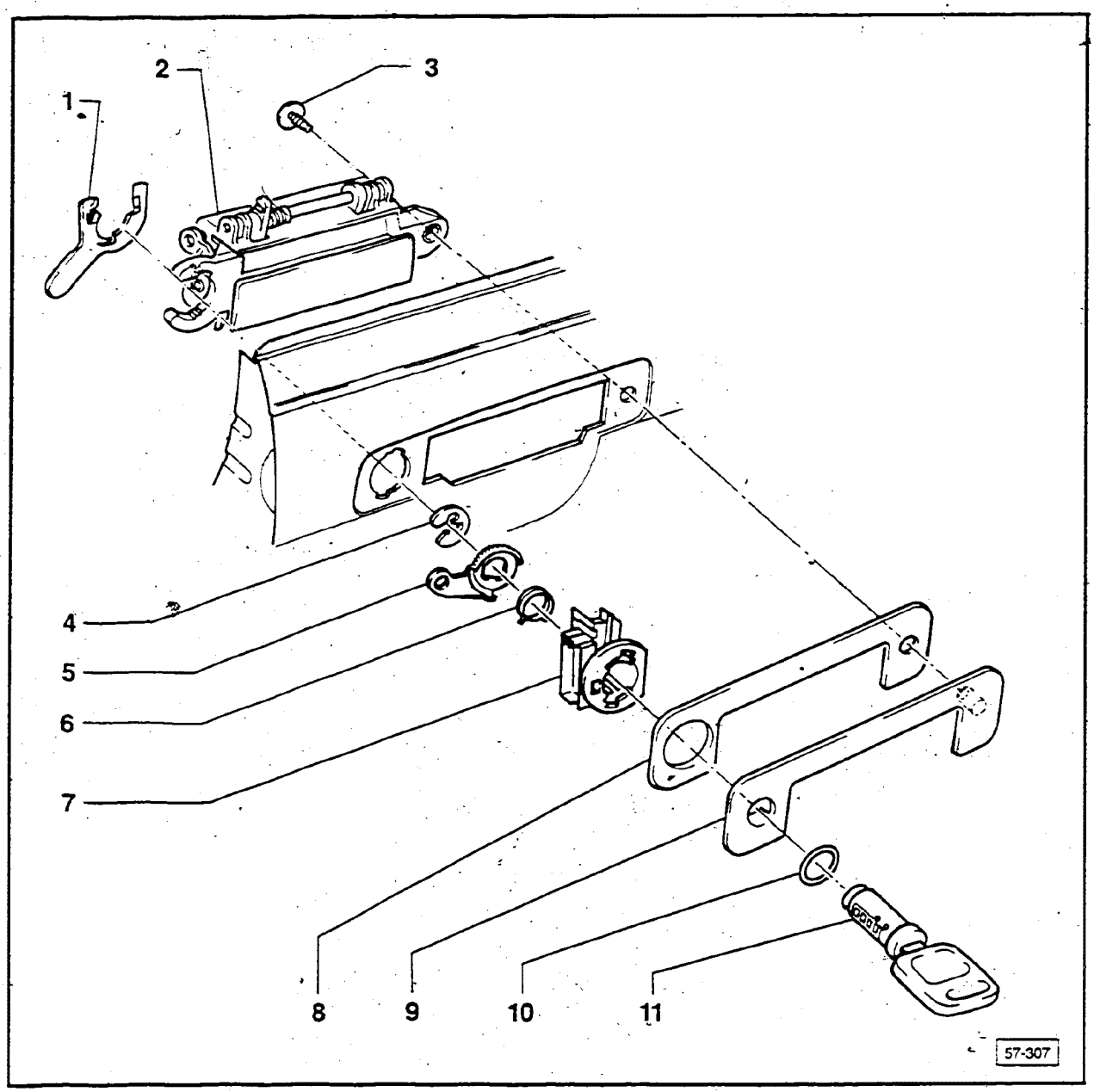


▶ Fig. 4 **Inner door lock bowden cable, removing**

- remove door trim panel, see Repair Group 70
- unclip bowden cable
- pull bowden cable and lock door lock with screwdriver, see Fig. 1
- unhook bowden cable

Inner door lock bowden cable, installing

Install in reverse order of removing, noting how bowden cable is placed in clips.



Note

Remove door trim panel before removing door handle.
Remove window regulator assembly.

1 — **Lock clip**
removing/installing, Fig. 1

2 — **Door handle**
align door handle to door lock

3 — **Torx head screw**
5 Nm (45 in. lb)

4 — **C-clip**

5 — **Operating lever**

6 — **Spring**
installed position, Fig. 2

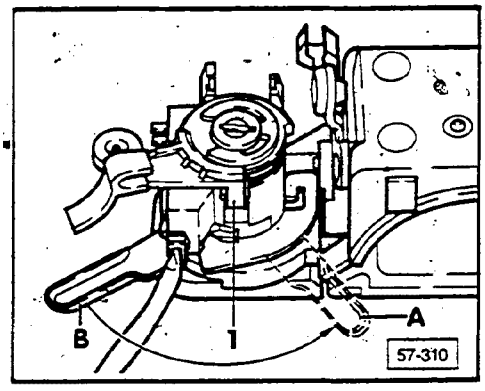
7 — **Heated lock cylinder housing**

8 — **Plate**

9 — **Trim cover**
removing, Fig. 3

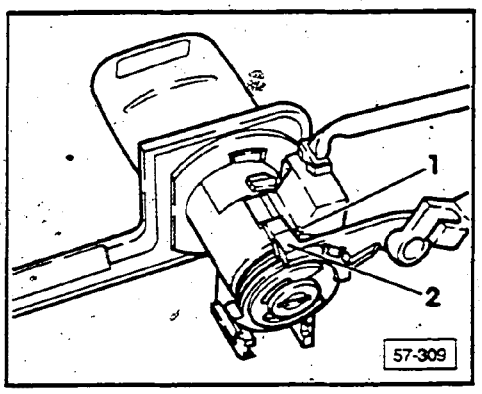
10 — **Sealing ring**

11 — **Lock cylinder**
remove only with key



▶ Fig. 1 **Turn clip, installing**

A = lock clip tight in locked position
B = lock clip released
• indentation **1** in lock clip must line up

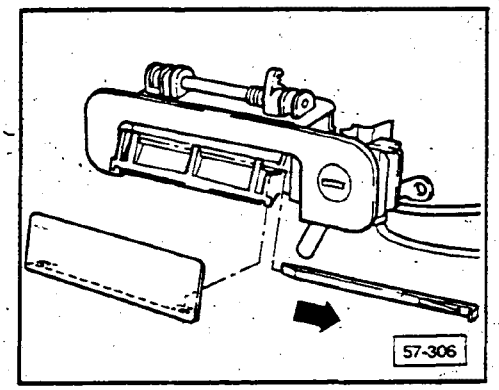


▶ Fig. 2 **Position spring, installing**

Note

When tensioned, the ends of the spring **1** must be positioned to left and right of operating lever **2.**

Pre-tensioning always pushes the operating lever and lock cylinder into center positon



▶ Fig. 3 **Door handle trim cover, removing**

Note

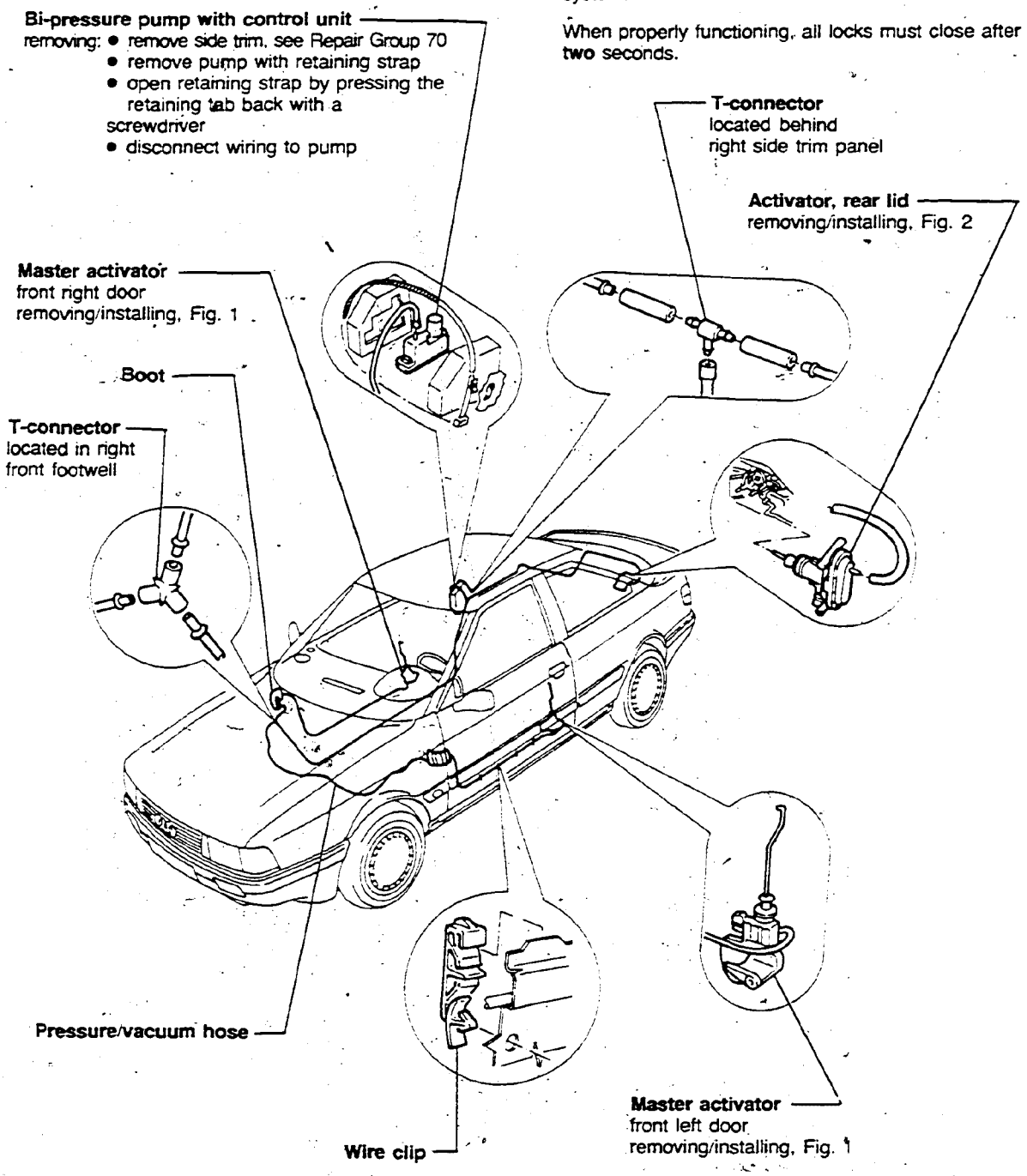
Door handle trim **must** be removed before removing door handle to prevent damage to paint on handle trim.

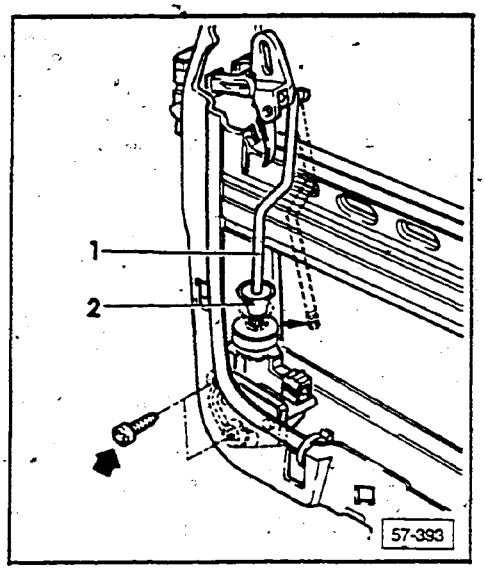
- pull up door handle
- pull out locking pin in direction of **arrow**
- remove trim cover

Note

If central locking system has not been activated for an extended period, or bi-pressure pump has been replaced, key must be turned in lock to activate system.

When properly functioning, all locks must close after **two** seconds.





▶ **Fig. 1 Master activator, removing**

- remove door trim panel, see Repair Group 70

Operating rod **1** and master activator must be in **door open** position to loosen the locking ring.

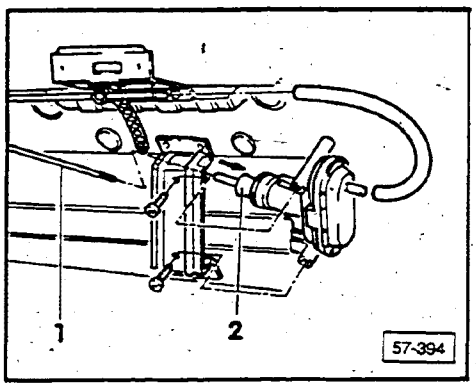
push locking ring **2** downward while holding operating rod **1**

- pull operating rod out of activator (**arrow**)
- remove pressure/vacuum hose and unscrew mounting bolts (**arrow**)
- remove multi-terminal connector

Master activator, installing

Install all components in reverse order of removal, noting the following:

- put operating rod **1**, lock and master activator in **door open** position
- press operating rod **1** in while pushing the locking ring **2** upwards



▶ **Fig. 2 Rear lid activator, removing**

- remove lid trim panel, see Repair Group 70

Operating rod must be in **door open** position to loosen the lock ring.

- push lock ring **2** in direction of arrow while holding operating rod securely
- pull operating rod out of activator
- remove pressure/vacuum hose and mounting bolts

Rear lid activator, installing

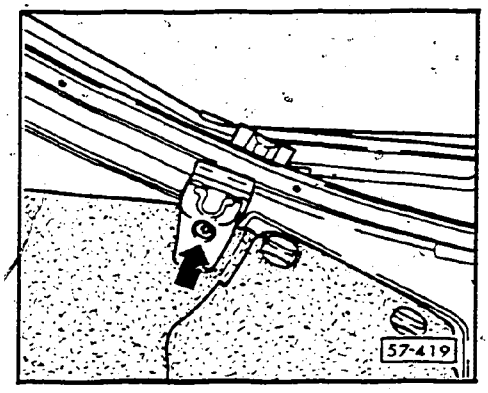
Install all components in reverse order of removal, noting the following:

- pressure/vacuum hose must be between rod, lock and lid trim panel
- to assemble operating rod **1**, lock and activator must be in **door open** position
- push in operating rod, lock ring upward
  - do not tension operating rod

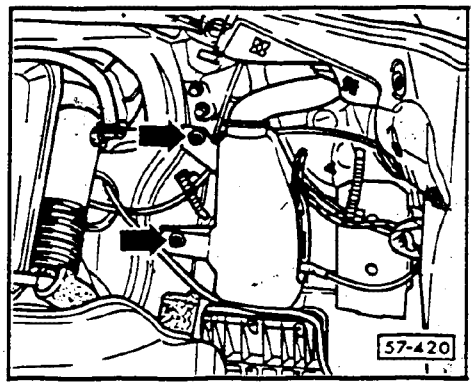
Fuel tank flap activator, removing/installing

Removing

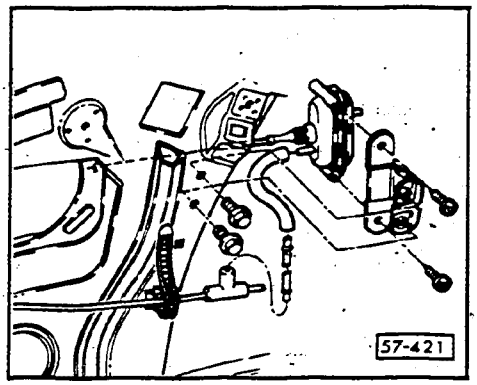
- open rear hatch, pull out rear shelf



- remove screw (**arrow**), take off right rear buffer
- pull back trim from around fuel tank filler neck



- remove screws (**arrows**), take out rear window washer fluid container toward rear



- remove activator mounting screws, pull out activator
- disconnect pressure/vacuum hose

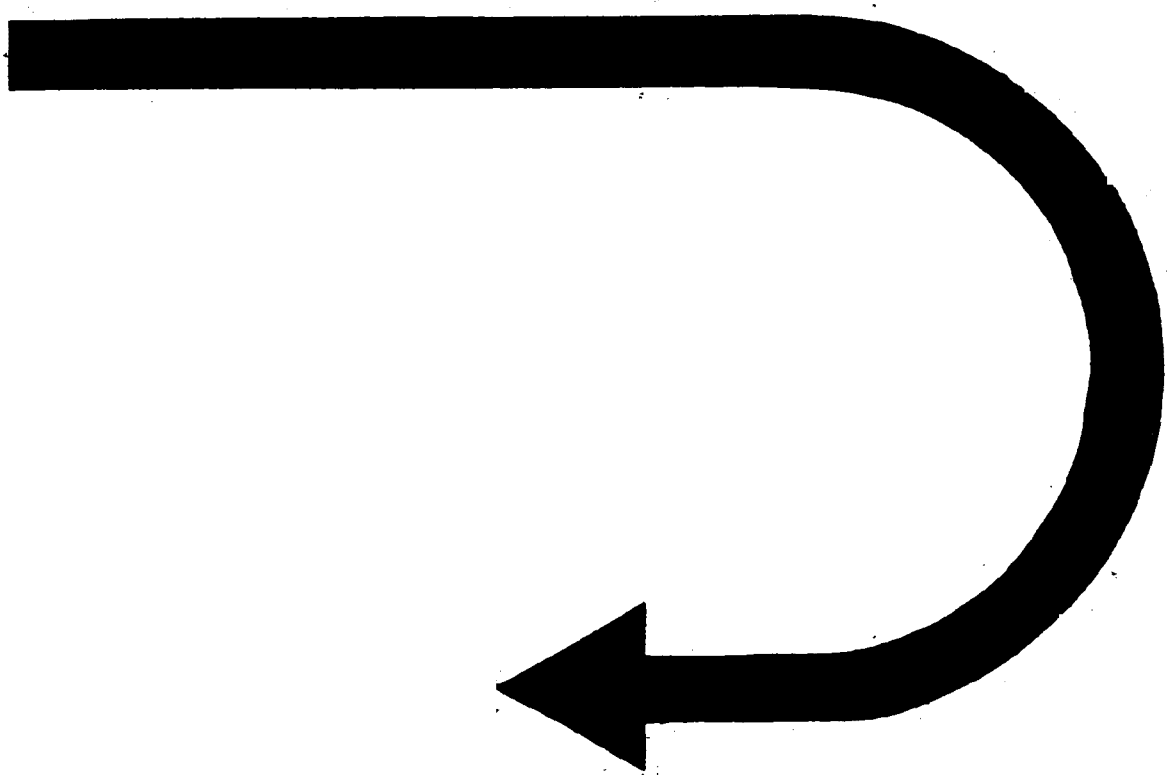
Installing

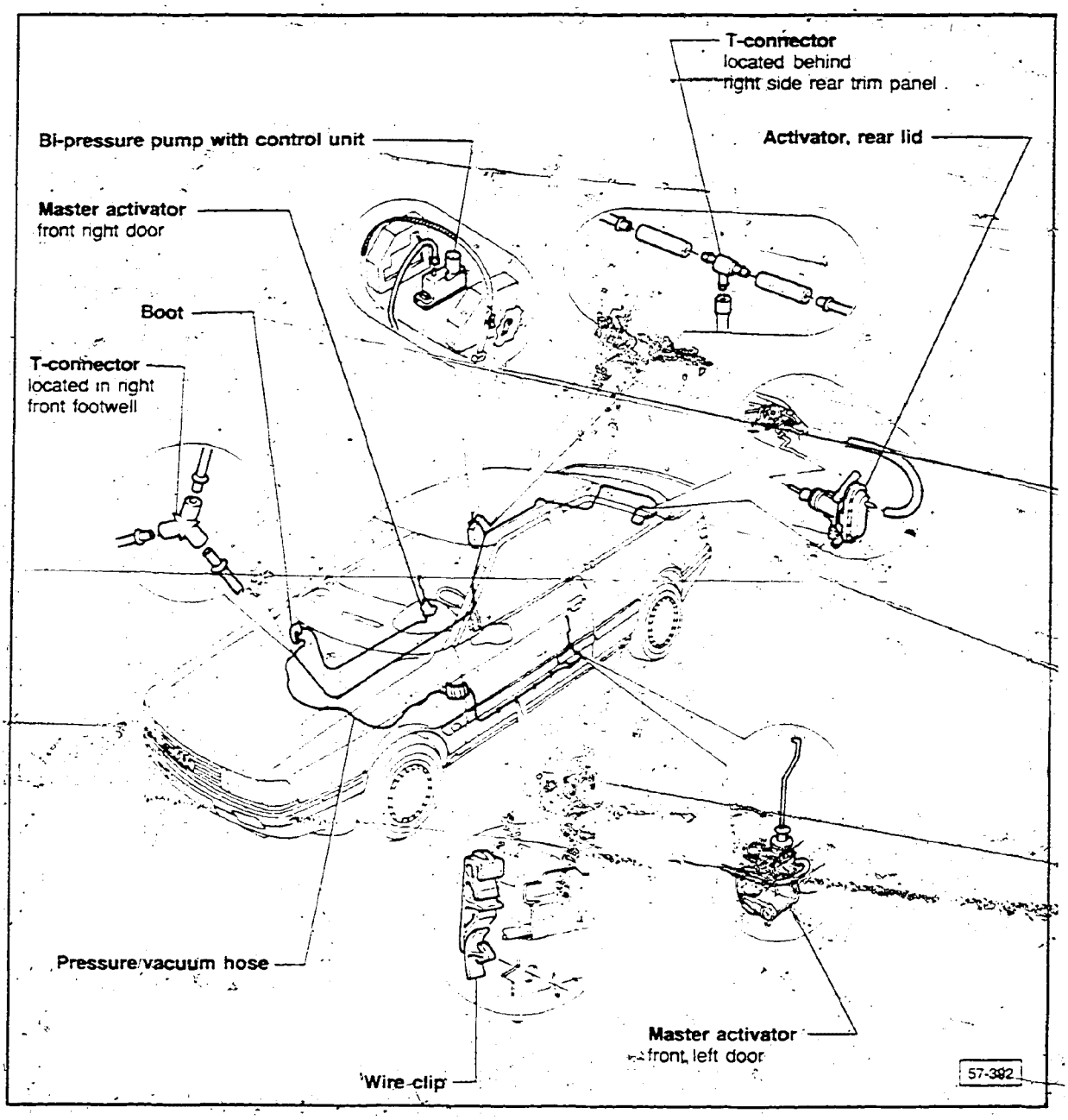
Reinstall all components in reverse order, noting the following:

- torque fuel tank flap activator mounting screws 4.0 Nm (35 in. lb.)
- check central locking system for proper function

CONTINUED IN THE

BEGINNING OF NEXT ROW




T-connector
located behind
right side rear trim panel
Bi-pressure pump with control unit
Activator, rear lid
Master activator
front right door
Boot
T-connector
located in right
front footwell
Pressure/vacuum hose
Master activator
front, left door
Wire clip
57-392

Central door locking, troubleshooting

Electrical

Refer to appropriate wiring diagram.

Test conditions

- fuse 19 **OK**
- battery **OK**

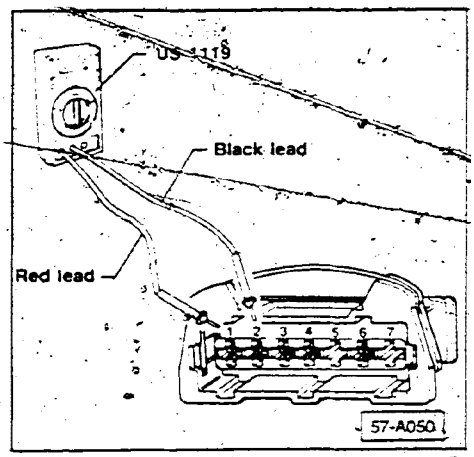
- remove right rear side trim
  - bi-pressure pump located on right side of luggage compartment
- pull insulating material away from pump
- open retaining strap by pressing the retaining tab back with a screwdriver
- pull off plug connector from pump

Tools required

Use multimeter **US 1119** for all testing.

Note

As you look at the end of the plug connector, the cavities are numbered **one** through **seven** starting from the left. Cavities **five** and **seven** are **blank.**



Check current supply to bi-pressure pump

- connect red lead of **US 1119** to cavity 1 of plug connector
- connect black lead of **US 1119** to cavity 2 of plug connector

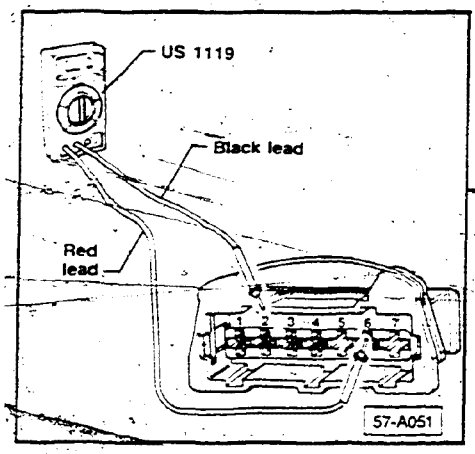
US 1119 registers approx. 12.0 Volts	**US 1119 does not** register 12.0 Volts

US 1119 does not register 12.0 Volts:

- check electrical wiring for break in continuity

End

Go to (B) next page



(B)

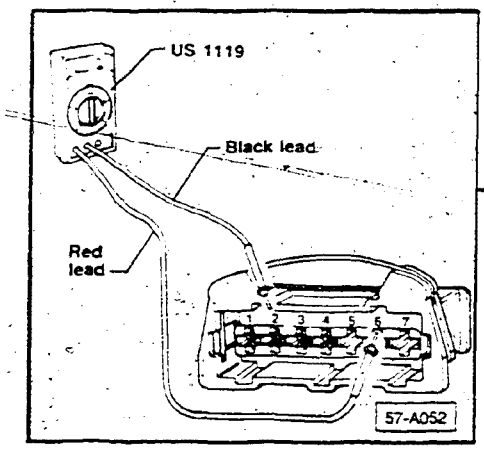
Check current supply from ignition lock to bi-pressure pump

- insert key into ignition starter lock **do not turn key**
- connect red lead of **US 1119** to cavity **6** of plug connector
- connect black lead of **US 1119** to cavity **2**

US 1119 registers approximately 12.0 Volts	**US 1119 does not** register 12.0 Volts

- check electrical wiring for break in continuity
  or
- replace ignition starter lock

End



Check ignition starter lock

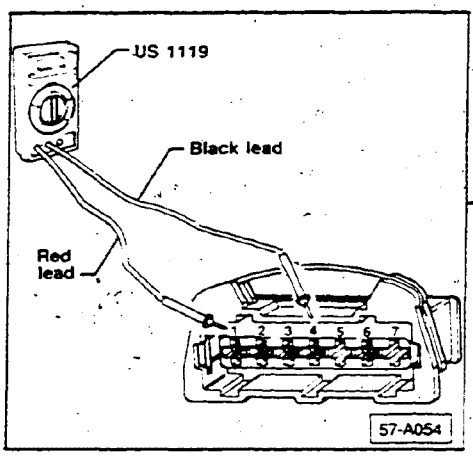
- remove ignition key
- connect red lead of **US 1119** to cavity **6** of plug connector
- connect black lead of **US 1119** to cavity **2** of plug connector

US 1119 registers 0.0 Volts	**US 1119** registers **more than** register 0.0 Volts

- replace ignition starter lock

End

Go to (C) next page



Ⓒ

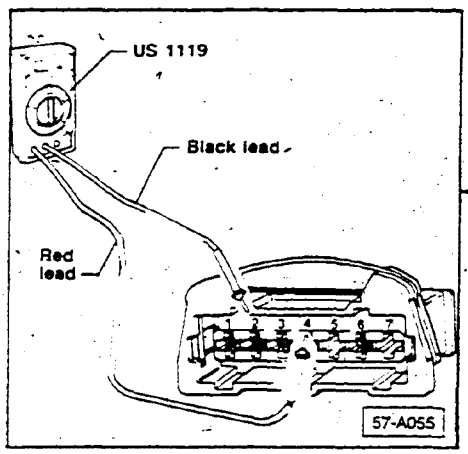
Check driver's door master activator switch **to lock door**

- connect red lead of **US 1119** to cavity **1** of plug connector
- connect black lead of **US 1119** to cavity **4** of plug connector
- push down driver's door locking button (**locked position**)

US 1119 registers approximately 12.0 Volts	**US 1110 does not** register 12.0 Volts

- check electical wiring for break in continuity
  or
- replace driver's door master activator switch

End



Check driver's door master activator switch **to open door**

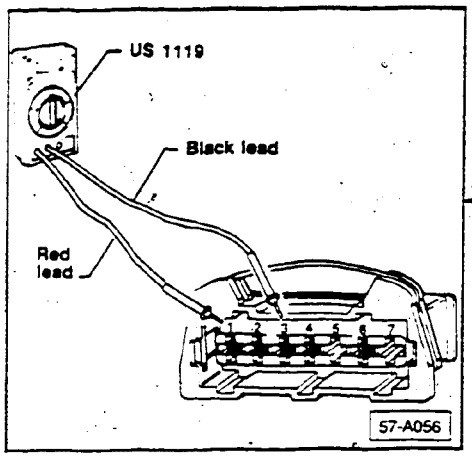
- connect red lead of **US 1119** to cavity **4** of plug connector
- connect black lead of **US 1119** to cavity **2** of plug connector
- pull up driver's door locking button (**open position**)

US 1119 registers approximately 12.0 Volts	**US 1119 does not** register 12.0 Volts

Go to Ⓓ next page

- check electrical wiring for break in continuity
  or
- replace driver's door master activator switch

End



Ⓓ

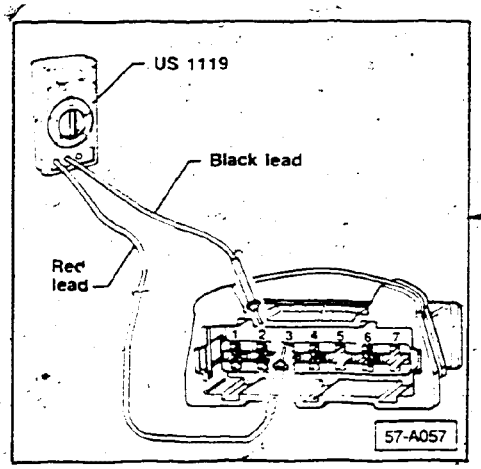
Check right front door master activator switch **to lock door**

- connect red lead of **US 1119** to cavity **1** of plug connector
- connect black lead of **US 1119** to cavity **3** of plug connector
- push down right front door locking bottom (**locked position**)

US 1119 registers approximately 12.0 Volts	**US 1119 does not** register 12.0 Volts

- check electrical wiring for break in continuity
  or
- replace right front door master activator switch

End



Check right front door master activator switch **to open door**

- connect red lead of **US 1119** to cavity **3** of plug connector
- connect black lead of **US 1119** to cavity **2** of plug connector
- pull up right front door locking button (**open position**)

US 1119 registers approximately 12.0 Volts	**US 1119 does not** register 12.0 Volts

- replace defective bi-pressure pump

End

- check electrical wiring for break in continuity
  or
- replace right front door master activator switch

End

Troubleshooting — bi-pressure system

Test condition

- electrical system **OK**

Note

If central door locking system has not been activated for an extended period, key must be turned in lock several times to activate system.

When properly functioning, all locks must close within approximately **two** seconds.

If bi-pressure pump runs longer than **five** seconds, system is leaking.