

42

Service-Information



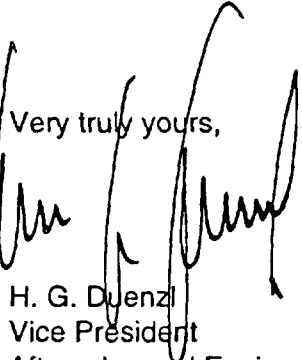
Group 54	Bulletin Number 54 05 92 (3614) Page 1 of 1	Woodcliff Lake, NJ August 1992 Product Engineering
Special Roofs		

SUBJECT: Updated Repair Instructions

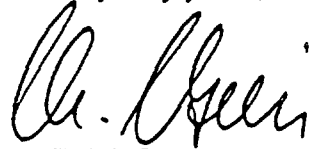
MODELS: E34 Touring

Situation: Expanded repair instructions have been prepared for the double panel sun roof (DSHD) in the E34 Touring.

Please use the attached pages until E34 Repair Manual No. 5 is received.

Very truly yours,


H. G. Duenzl
Vice President
- Aftersales and Engineering

Very truly yours,


Ralph Beier
Manager
Product Engineering

Index # **031397**

Please initial and route to the following for information before filing										
X	Service Manager		X	Warranty Mgr.		X Service Technicians - Initial Below				
X	Service Advisor			Parts Mgr.						
X	Service Advisor			Body Shop Mgr.						
X	Shop Foreman			PDI Dept.						

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Dual Lid Sun Roof – E34/2

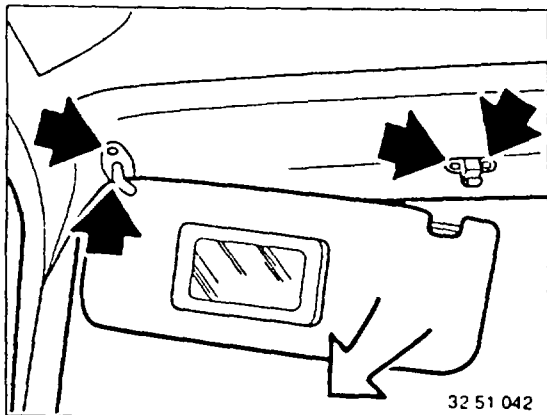
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51 44 011 REMOVING AND INSTALLING
OR REPLACING COMPLETE
ROOF LINER
(Version with Sun Roof)

Important!
Wash hands before working on interior
equipment.

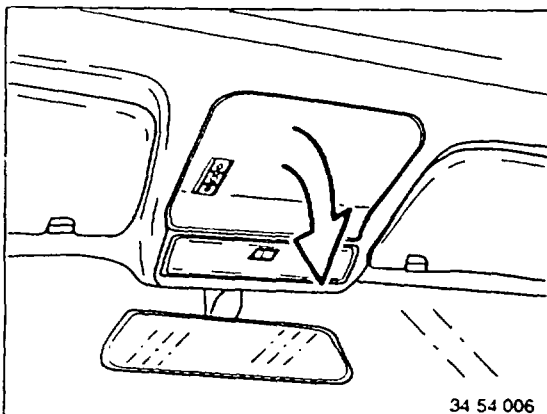
Remove sun visors and holders on left and
right sides.

If applicable, disconnect plug of inside light
for mirror.



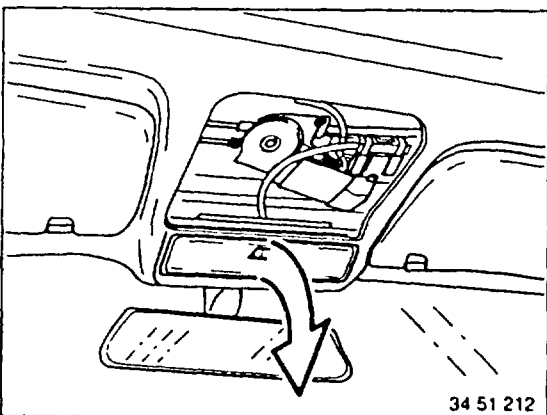
32 51 042

Unclip panel downwards and disconnect plug.



34 54 006

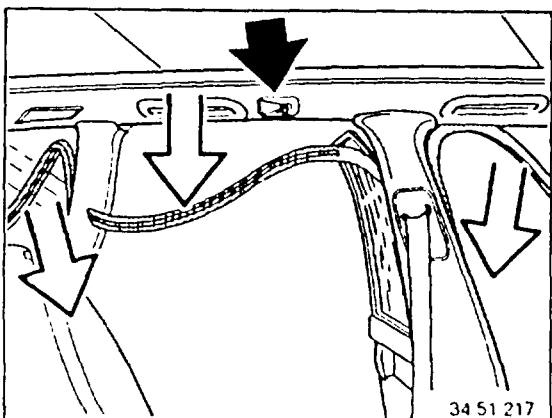
Unclip inside light and disconnect plug.



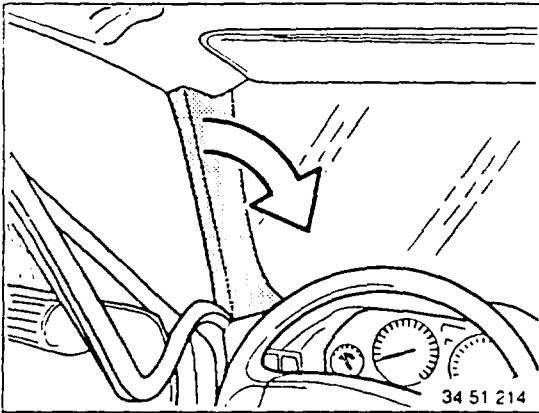
34 51 212

Pull off edge guards in openings of front door,
rear door and rear side window partially on
left and right sides.

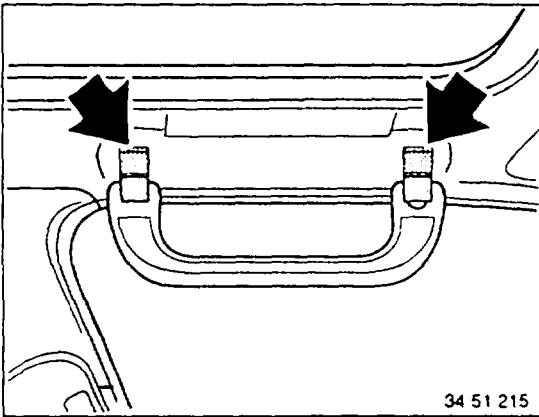
If necessary, remove bracket for
luggage compartment net.



34 51 217



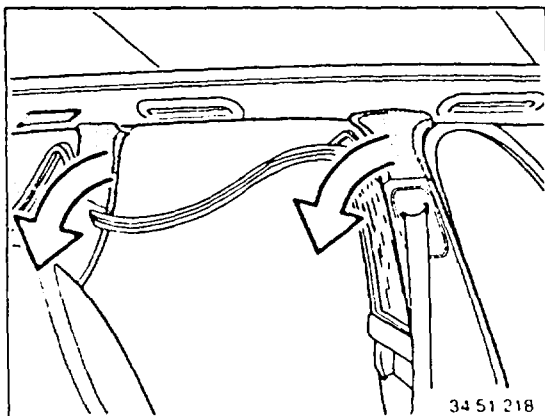
Unclip trim panels on left and right A-pillars.



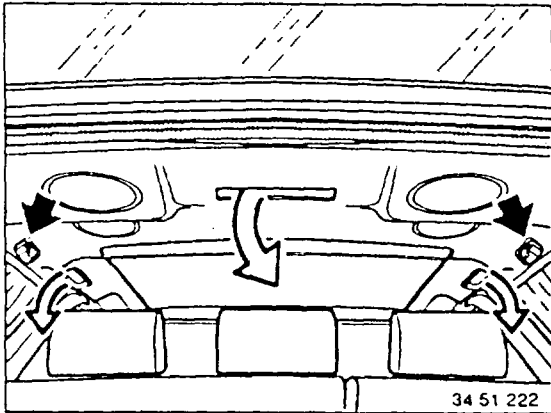
Unclip covers, unscrew bolts and remove all grab handles.

Pull edge guard off of sun roof completely.

Remove front section of roof liner.

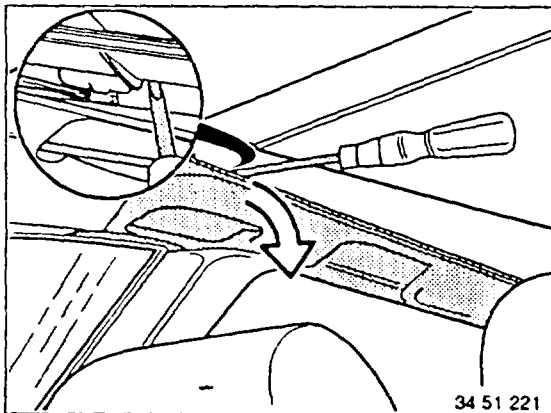


Unclip trim panels at top of B and C-pillars partially.



Unclip left and right rear inside lights and disconnect plugs.

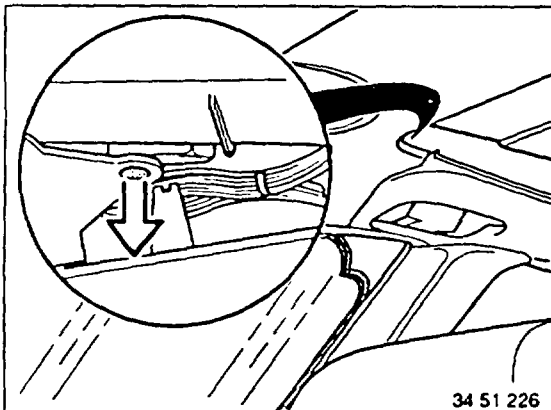
If necessary, remove left and right brackets for luggage compartment net.



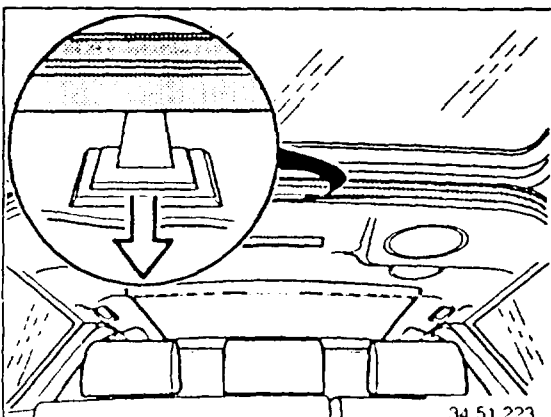
Important!

Unclip carefully as otherwise the sun roof cassette will be damaged.

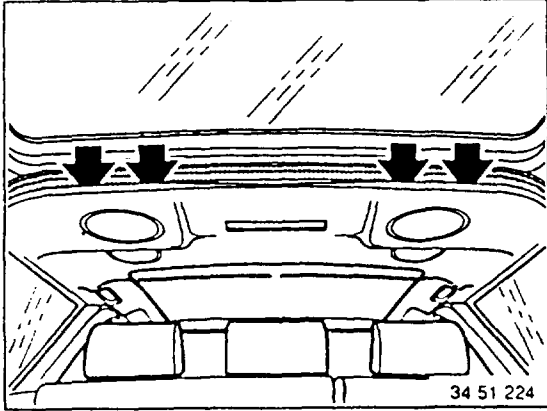
Unclip and remove left and right side sections of the roof liner.



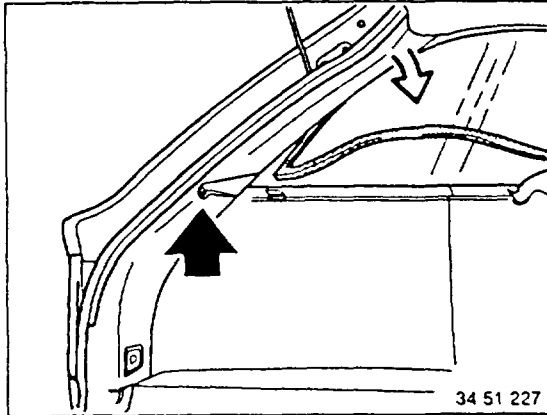
Remove rivets at left and right.



Press down on rear section of roof liner slightly and unclip.

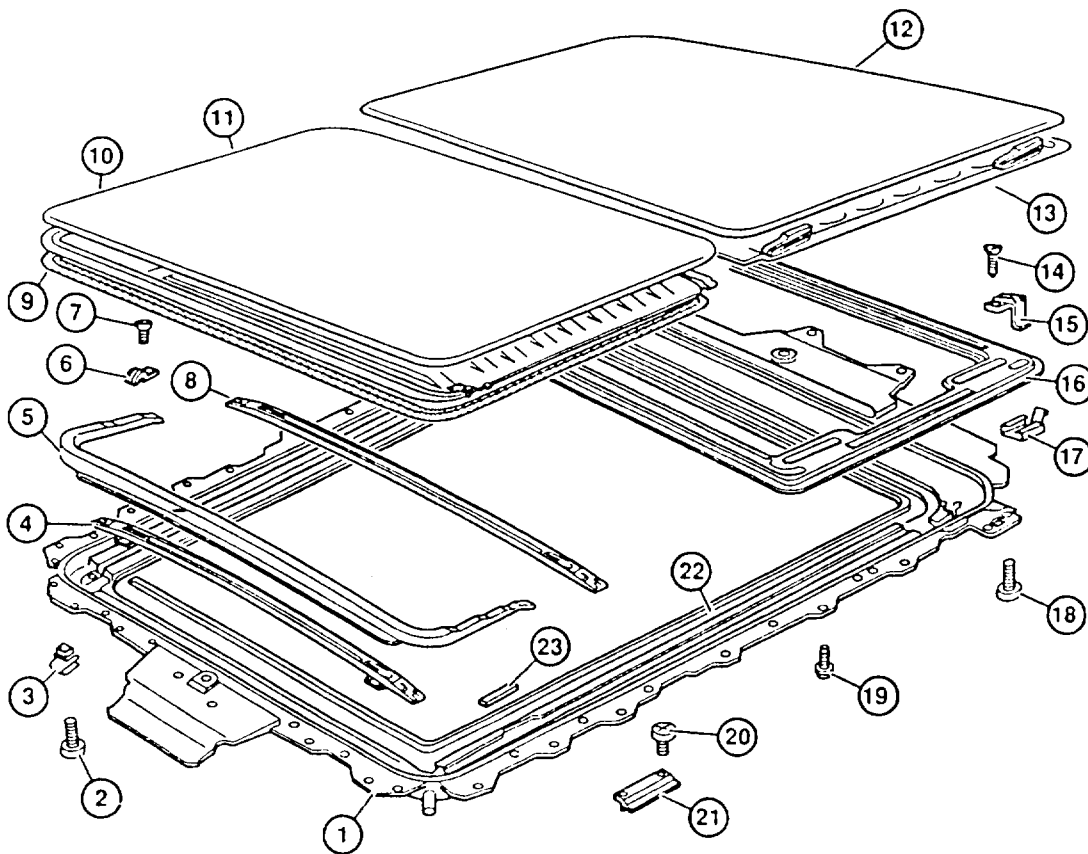


If applicable, unclip left and right loudspeaker masks.



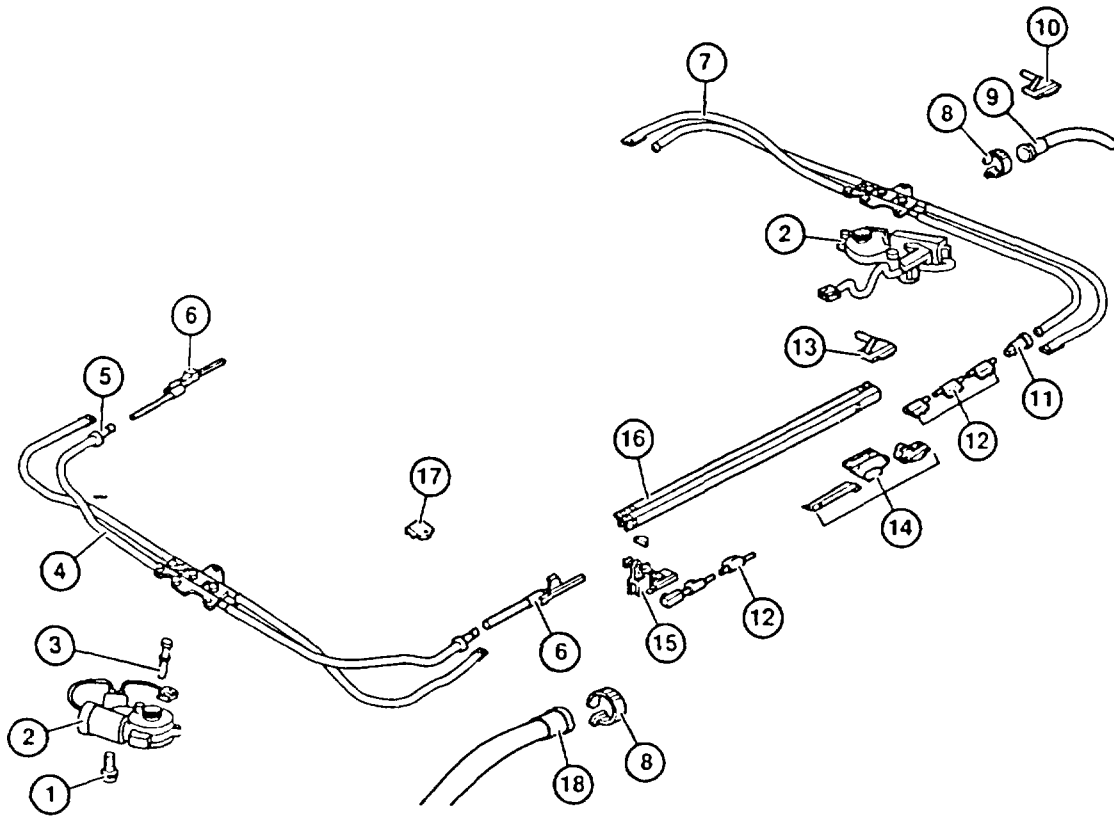
Unscrew left and right screws.
Unclip D-pillar trim panels partially and remove rear section of the roof liner.

54 00 ... DUAL LID SUN ROOF ASSEMBLY DRAWING



- | | | | | | |
|---|-----------------------|----|------------------------------|----|-----------------------|
| 1 | Frame lower section | 9 | Gasket | 17 | Fastener |
| 2 | Screw | 10 | Front roof liner frame | 18 | Oval head screw |
| 3 | Nut holder | 11 | Front lid | 19 | Self-tapping screw |
| 4 | Front cross member | 12 | Rear lid | 20 | Countersunk screw |
| 5 | Wind deflector | 13 | Rear roof liner frame | 21 | Cover |
| 6 | Wind deflector mount | 14 | Oval head self-tapping screw | 22 | Sun roof opening seal |
| 7 | Oval head ctsk. screw | 15 | Clamp | 23 | Threaded plate |
| 8 | Cross member | 16 | Lid frame | | |

54 00 ... DUAL LID SUN ROOF ASSEMBLY DRAWING



- | | | | |
|---|-------------------|----|----------------------|
| 1 | Countersunk screw | 10 | Rear slide |
| 2 | Drive | 11 | Rear pipe seal |
| 3 | Rivet | 12 | Right drive cable |
| 4 | Front guide pipe | 13 | Center slide |
| 5 | Front pipe seal | 14 | Operating unit L / R |
| 6 | Left drive cable | 15 | Slide |
| 7 | Rear guide pipe | 16 | Guide rail |
| 8 | Hose clamp | 17 | Pipe clamp |
| 9 | Water hose | 18 | Water hose |

54 00 . . . DESCRIPTION OF DUAL LID SUN ROOF (TOURING) OPERATION

The dual lid sun roof is capable of diagnosis.

Operation Logic (Tip Operation: "one-touch function")

The lids can be automatically run to the following positions by touching the operation switch briefly (tip operation):

- Front ventilation position (final lifted position)
- Front final open position
- Rear final open position (in block position)
- Comfort ventilation – both lids opened (middle block position)
- Comfort closing from every position of lids

Running to the various positions (including comfort closing) can be stopped by tipping the selected function again or by tipping upwards.

Manual running to all positions is also possible.

Squeeze Protection

Squeeze protection is activated:

- via the operation switch or door lock during comfort closing,
- tip-operation closing of front and rear lids, and
- while moving the assembly forward and back.

Squeeze protection is not activated:

- as of 4 mm before reaching the final position,
- during automatic opening tip-operation,
- during initialization,
- during manual opening and closing operation, and
- while closing the ventilation position (front lifted position).

Emergency (Manual) Closing

In case of electric drive failure the sun roof can be closed manually with help of a winder (hexagon socket key is provided in the front panel of the operation switch).

Note:

The sun roof must be initialized after completion of repairs.

Equipment Shutoff

All sun roof operations are interrupted while starting the engine. The interrupted operations are not continued after the engine has started.

Initiallization

Initialization must be carried out after emergency (manual) operation, completion of sun roof repairs or interruption of power supply.

Initialization is carried out in absolute zero position (both lids against the mech. final stops and roof liner frame closed).

Caution!

Squeeze protection is not activated and automatic tip operations cannot be carried out during initialization.

Comfort Closing

Comfort Closing via Door Lock:

In cars with power windows all windows will be closed first.

The sun roof lids are closed from every position so long as the key is turned in "lock and double-lock" direction.

Comfort Closing via Operation Switch:

The sun roof lids are closed from every position if the operation switch is briefly tipped upwards.

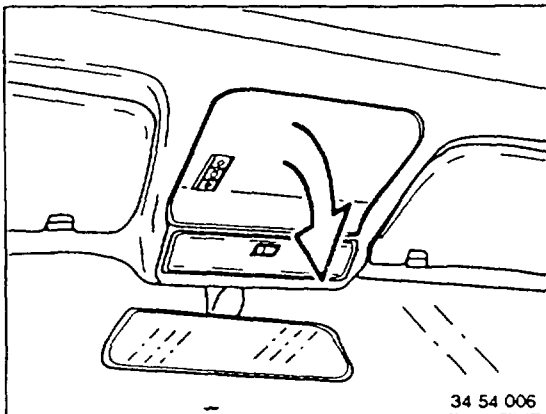
Enclosure for S.I. 54 05 92 (3614)

54 00 . . . EMERGENCY (MANUAL) CLOSING DUAL LID SUN ROOF (Touring)

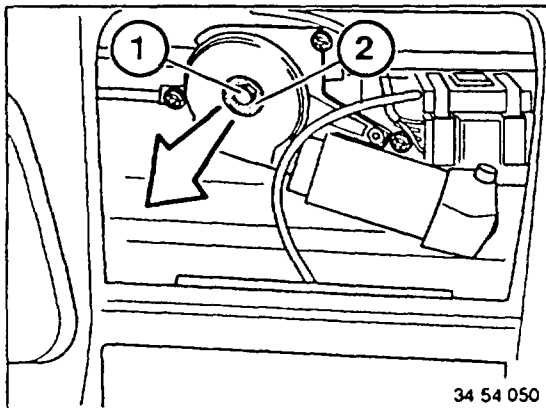
The sun roof can be closed manually in case of electric drive failure.

Installation:

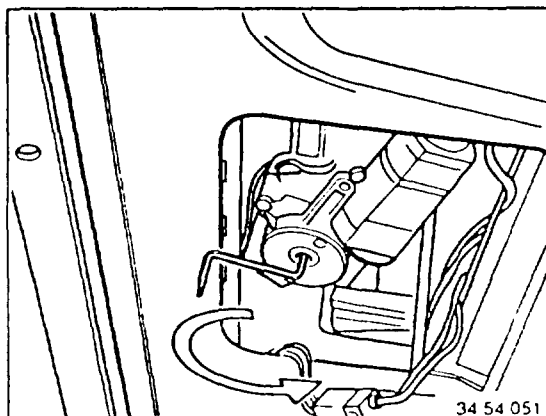
Initialization must be carried out after working on the sun roof – refer to 54 00 . . .



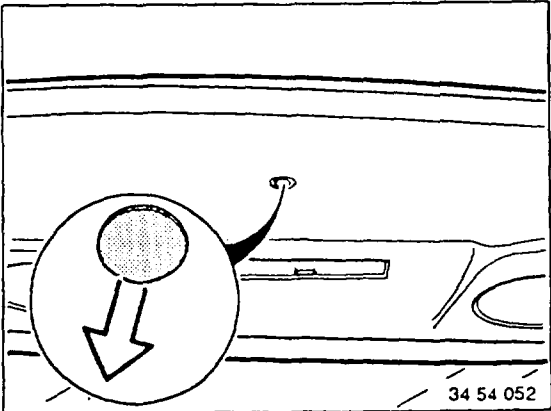
Lift out panel.



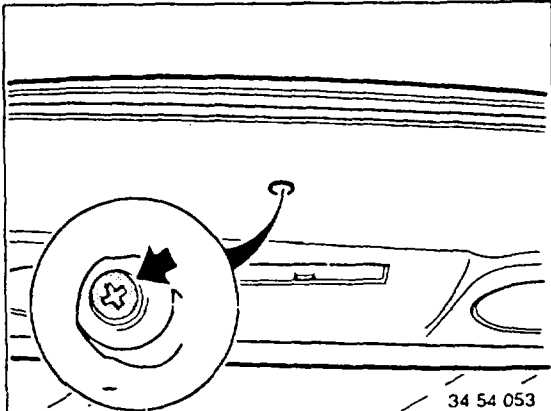
Unscrew screw (1) and pull out clutch (2) downwards.



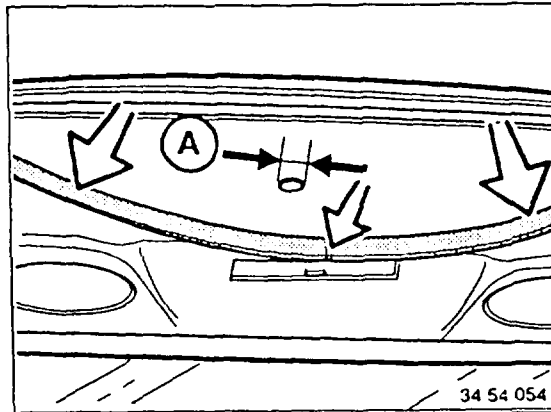
Insert winder (hexagon socket key) and close the front lid (until lifted position is reached) by turning the winder counterclockwise.



Remove the plug at rear downwards.

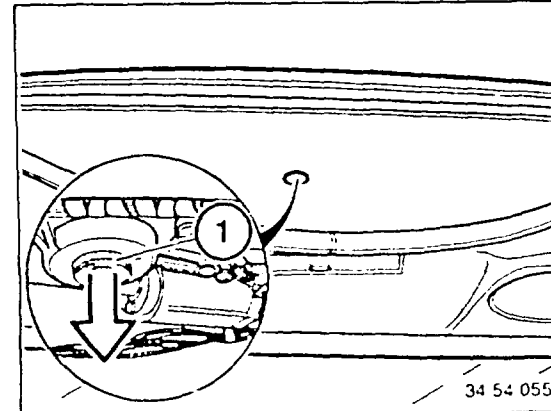


Unscrew screw.

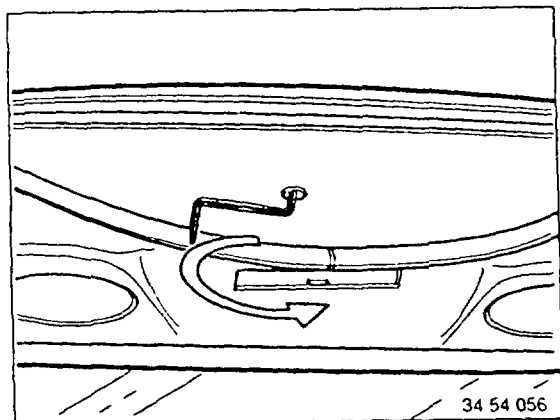


Pull off the edge guard partially if the plug diameter is greater than (A).

(A) = 20 mm



Pull out clutch downwards.



Insert winder (hexagon socket key) and close the rear lid by turning the winder counter-clockwise.

54 00 . . . INITIALIZING DUAL LID SUN ROOF (Touring)

Initialization must be carried out after emergency (manual) operation, completion of sun roof repairs or interruption of power supply.

Initialization is carried out in absolute zero position (both lids against the mech. final stops).

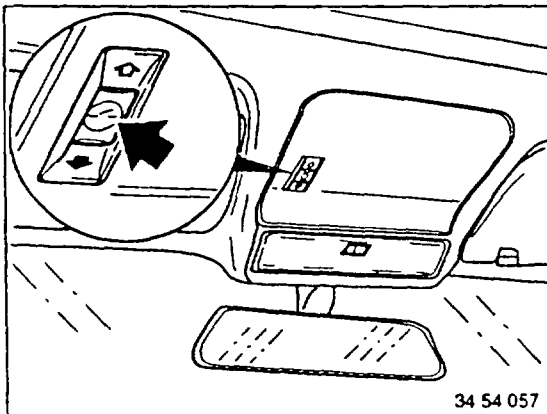
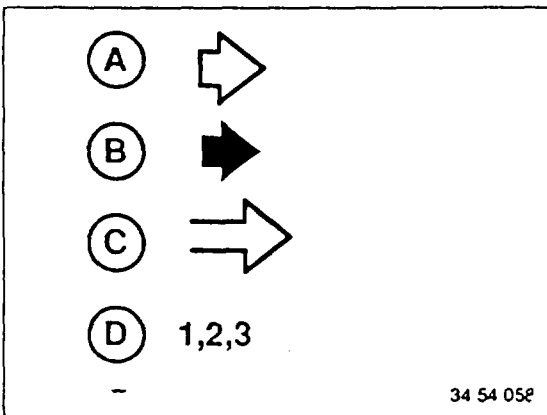
Caution!

Squeeze protection is not activated during initialization - danger of squeezing hands.

Tip-operation is not possible during initialization.

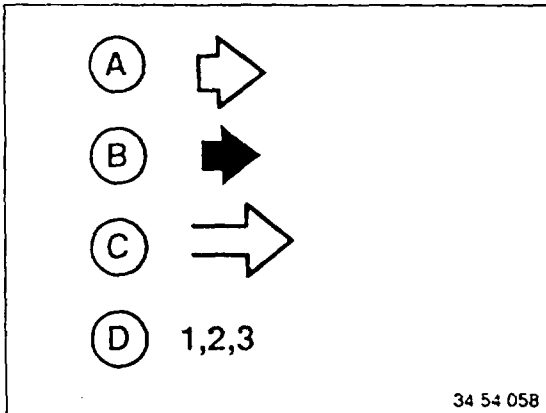
Operating Symbols:

- (A) Tipped briefly
- (B) Pressed continuously
- (C) Movement of lids
- (D) Sequence of (A) and (B)



Close the sun roof completely. Remain in closing position approx. 20 seconds after both lids and the roof liner frame are closed; initialization is then carried out.

54 00 . . . DUAL LID SUN ROOF OPERATION LOGIC (Touring)



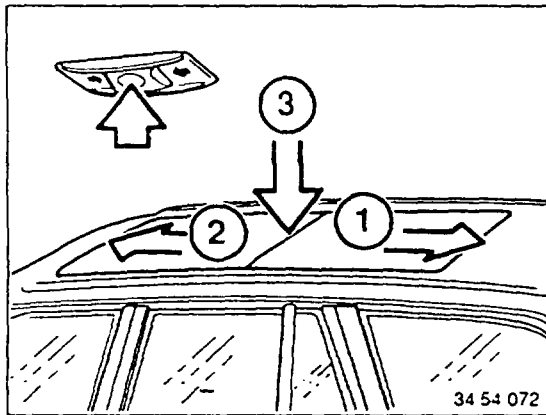
Operating Symbols:

- (A) Tipped briefly (automatic function)
- (B) Pressed continuously (manual function)
- (C) Movement of lids
- (D) Sequence of (A) and (B)

Note:

All lid positions described below can also be run manually (B) until the desired position is reached.

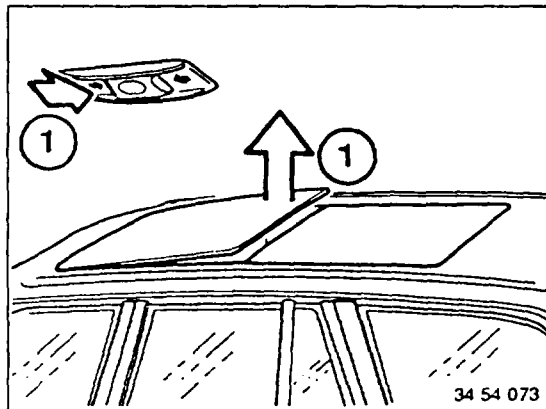
All tip operations can also be stopped by tipping the selected operation again or by tipping upwards.



Both lids can be closed completely from every position (comfort closing).

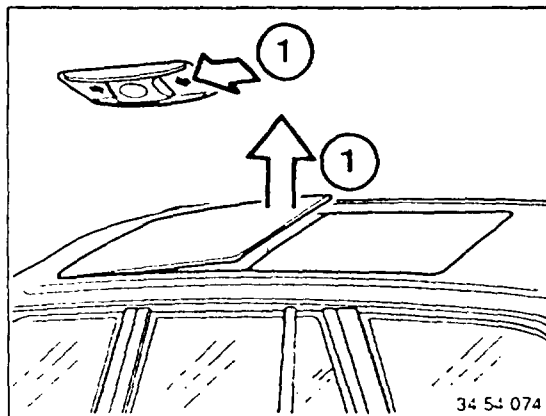
Note:

During comfort closing squeeze protection is activated and switched off 4 mm before the final position (zero position).

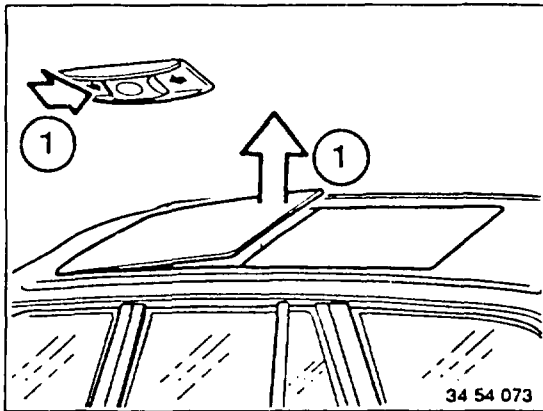


Front Lid Ventilation Position (Final Lifted Position):

- (1) Final lifted position (can also be pressed from the other side - see next picture)

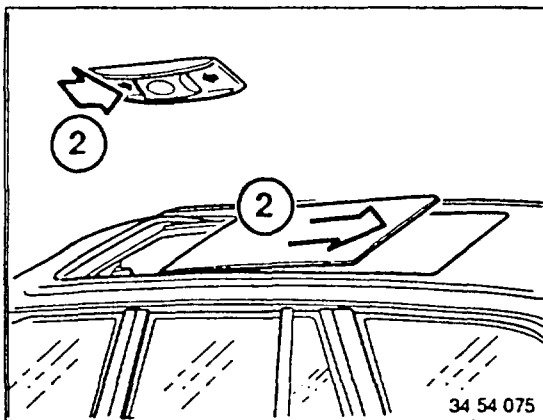


- (1) Final lifted position

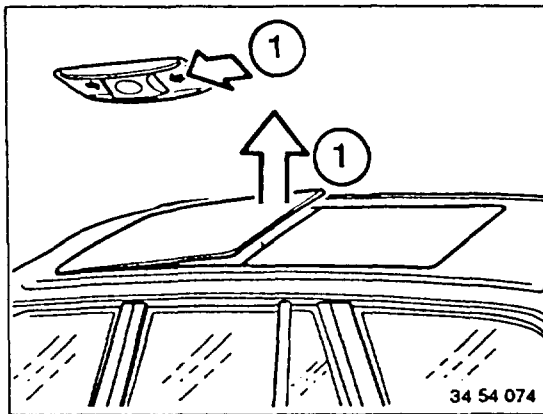


Opening Front Lid (Final Position):

(1) Final lifted position

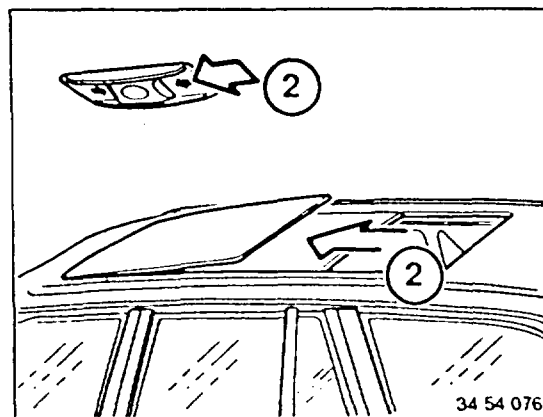


(2) Opening front lid (final position)

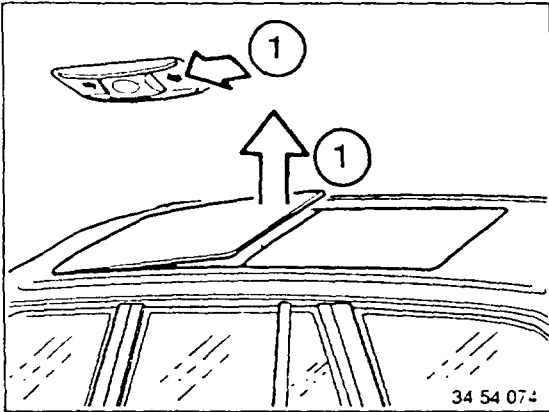


Opening Rear Lid (Final Position, Block Formation):

(1) Final lifted position

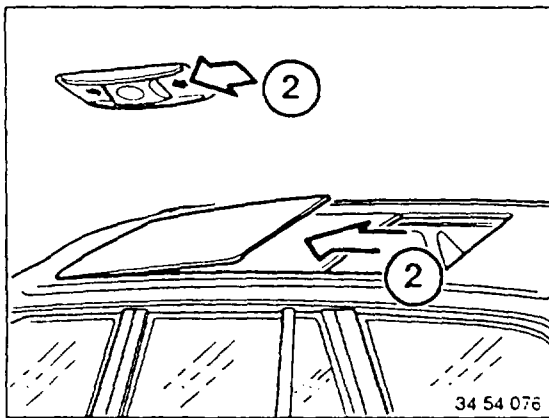


(2) Opening rear lid (final position)

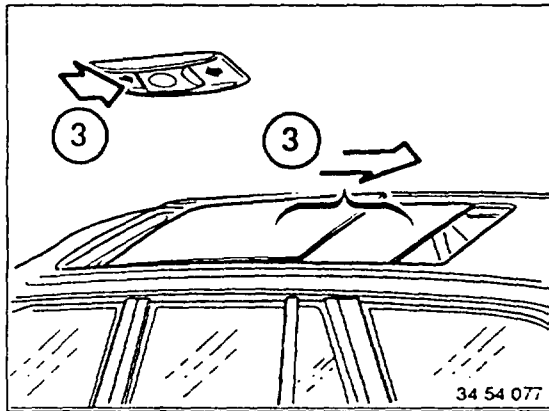


Comfort Ventilation (Opening Both Lids):

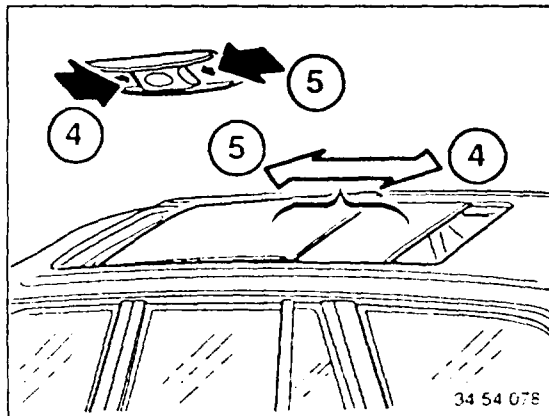
(1) Front lid in final lifted position



(2) Open rear lid (final position)



(3) Open both lids (block) (final position)



(4) Move block back (variable)

(5) Move block forward (variable)

54 00 . . . INSTRUCTIONS FOR REPAIRING CEMENTED SEALS ON DUAL LID SUN ROOF

1. Damage Cases

- 1.1 Partially loosened seals
 - up to 120 mm correction by hand
 - up to 200 mm correction on straight surfaces with help of contact pressure
- 1.2 Greater damage (mechanical injuries, seriously loosened seals)

2. Possible Repairs

- 2.1 Partially loosened rubber/adhesive tape or adhesive tape/paint seal connections can be repaired with cyanacrylate cement (Loctite No. 380*).

Procedures:

- a) Clean damaged surfaces.
 - Remove grease and other residue from the cement surface.
 - Use cotton or lintless paper towels (use only once).
- b) If a solvent is used allow the damaged surface at least 2 minutes air dry time.
- c) Apply a very thin bead of cyanacrylate cement on the adhesive tape using a fine nozzle.
 - Avoid contact with skin!
 - Keep cement off of visible painted surfaces.
- d) Press on rubber seal for at least 30 seconds. Only contact pressure is necessary, which must be maintained over the full time of 30 seconds. The cemented connection may be subjected to loads after two minutes. It is absolutely essential to keep to this time.

- 2.2 The entire rubber seal must be replaced in case of more seriously loosened seals and/or damage to the rubber profile – refer to 54 12 121 and 54 12 122.

Procedures:

- a) Peel off the damaged rubber seal.
 - Pull off rubber seal slowly at an angle of 15 to 25°, ensuring that the doubling (connection between adhesive tape and seal) is maintained.
 - If the doubling itself has become loose, pull the adhesive tape off of the roof opening edges and/or lids carefully and slowly at an angle of 15 to 25°.
 - Peel off older seals if necessary with help of a hot air blower (don't damage the paint finish); the rubber seal/adhesive tape connection should not be loosened in this operation.
- b) Pull the liner (protective sheet on cemented surface) off of the rubber seal section by section. Take hold of tab!

* Source of Supply: BMW Parts

- c) Install rubber seal in roof opening beginning at rear center. Use the upper lip as an alignment edge. Press on seal all around by hand. Unwind and press on seal in radii carefully and without tension (critical zones). If the seal is not positioned correctly, it can be pulled off, repositioned and pressed on again.
- d) Mark the butt joint position by pressing the loose end of the seal on the flock of the already cemented end (small particles of the flock will stick on the adhesive tape), then cut off straight and press on the loose end in the same height.
- e) Press on seal using a roller. Contact pressure: approx. 30 N.
- f) Tear off the tear-off lip at rear and sides in area of the narrow flange.

Important!

If the liner has been pulled off, never grab hold of the uncovered cement surface.

3. Checking Rubber Seals:

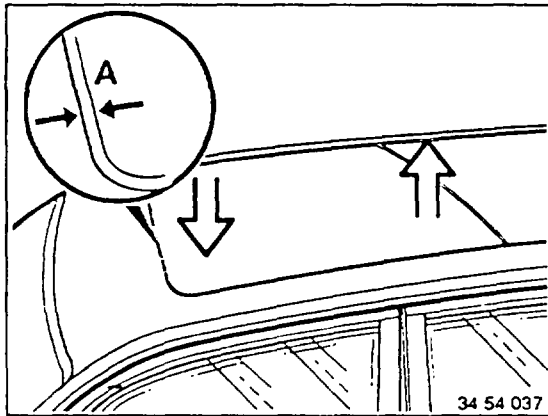
- The cemented seals must be checked for correct positioning and perfect adhesion. The cement can be seen after pushing the sealing lip back. The peeling-off force of the seal must be greater than 10 N/cm immediately after cementing.

4. General Information About Rubber Seals:

- Seals, which are delivered with partially loosened liners, must not be cemented.
- Seals must be stored at 15 to 25° C.
- If the liner becomes loose during handling prior to cementing, the seal can still be cemented.
- Cementing at room and object temperature of > 18° C.
Temperatures between 40 and 50° C will considerably improve initial adhesion.
- Seals, which are subjected to temperatures higher than 80° C after cementing, will be very difficult to remove.

54 12 005 ADJUSTING FRONT SUN
ROOF LID

Removing and installing front
roof liner frame
- refer to 54 12 132



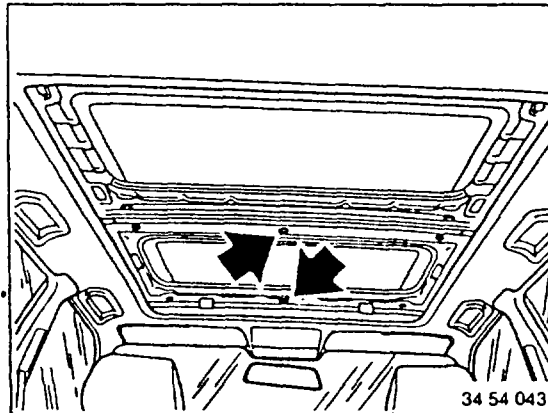
Ideal Adjustment:

Equal distance (A) of lid to front roof edge
and rear lid.

Height:

Front: flush to 1.5 mm deeper

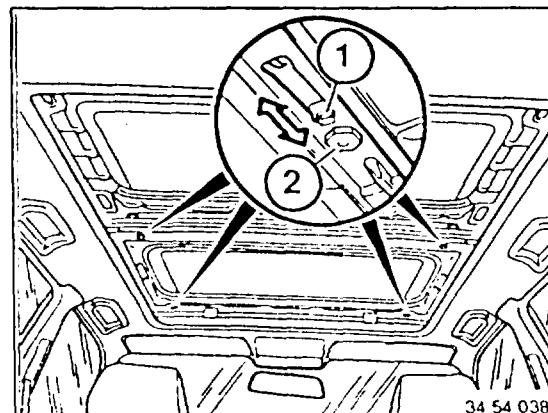
Rear: flush to 1.5 mm higher



Loosen screws.

Installation:

Tightening torque = 5 Nm



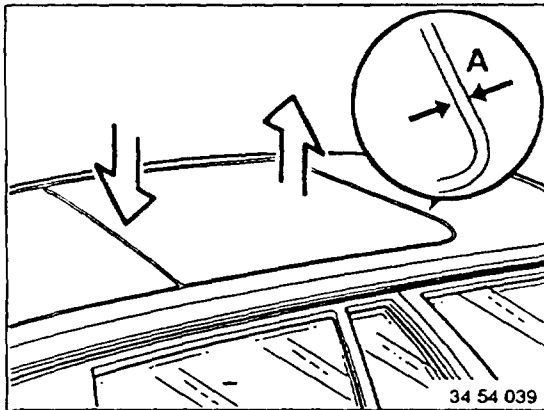
Loosen all four nuts (2) and push the four
adjusting wedges (1) in or out far enough to
reach the ideal adjustment.

Installation:

Tightening torque = 5 Nm

54 12 006 ADJUSTING REAR SUN ROOF LID

Removing and installing front and rear roof liner frames
- refer to 54 12 132 and 54 12 133.

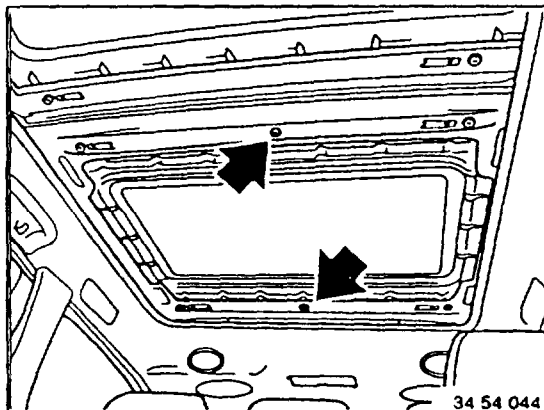


Ideal Adjustment:

Equal distance (A) of lid to front lid and rear edge of roof.

Height:

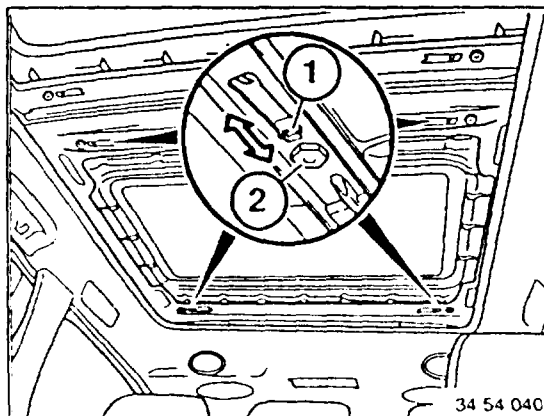
Front: flush to 1.5 mm deeper
Rear: flush to 1.5 mm higher



Loosen screws.

Installation:

Tightening torque = 5 Nm



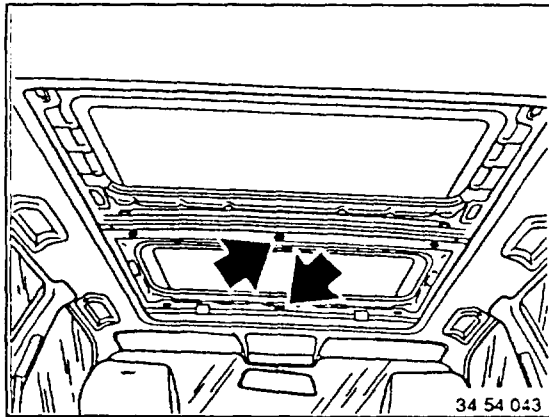
Loosen all four nuts (2) and push the four adjusting wedges (1) in or out far enough to reach the ideal adjustment.

Installation:

Tightening torque = 5 Nm

54 12 102 REMOVING AND INSTALLING
FRONT SUN ROOF LID
(Touring)

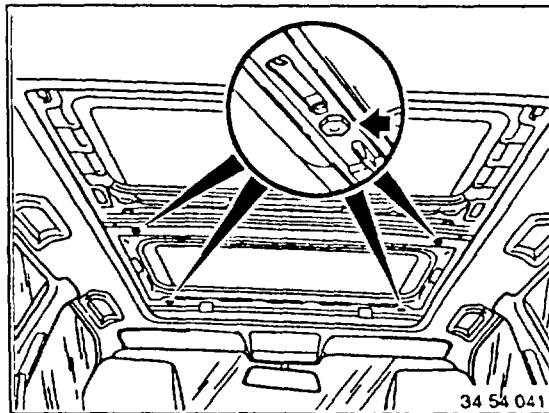
Removing and installing front
roof liner frame
- refer to 54 12 132
Switch off ignition.



Unscrew screws.

Installation:
Refer to "Installation" on page 23.
Replace screws (micro-encapsulated).

Tightening torque = 5 Nm



Unscrew nuts and remove sun roof lid
upwards.

Installation:
Adjust front sun roof lid - refer to 54 12 005.
Replace nuts (micro-encapsulated).

Tightening torque = 5 Nm

Enclosure for S.I. 54 05 92 (3614)

54 12 103 REPLACING FRONT SUN ROOF LID (Touring)

Removing and installing front sun roof frame
- refer to 54 12 132.

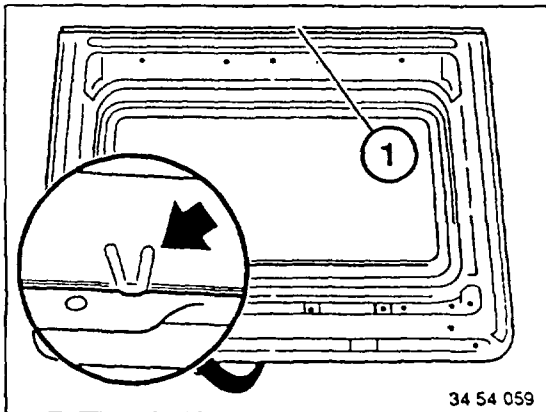
Switch off ignition.

Removing and installing front sun roof lid
- refer to 54 12 102.

Installation:

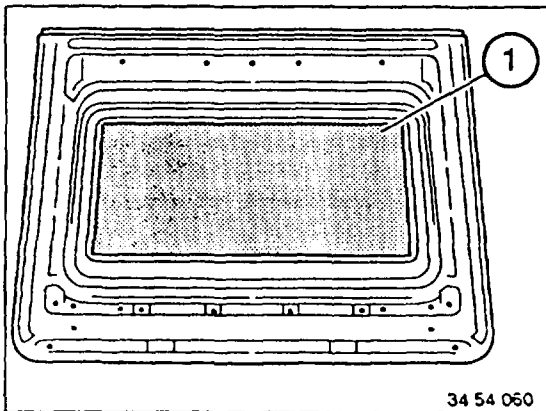
Adjust front sun roof lid - refer to 54 12 005.

(Remove front rain channel, not installed.)



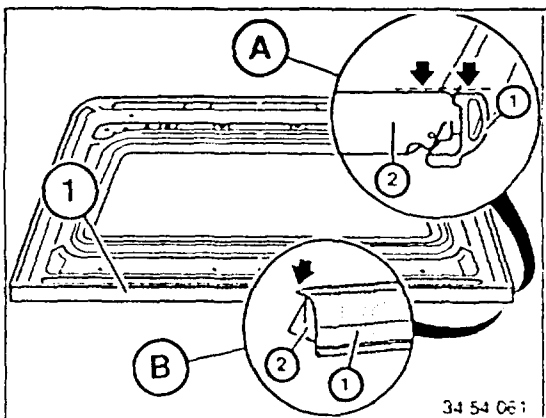
Note:

A "V" is stamped in the face of the front lid, which has seal (1) at the rear.



Installation:

Clean the cement surface and cement insulation sheet (1).



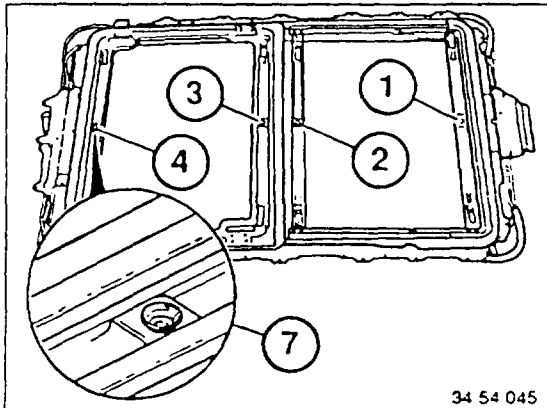
Installation:

Refer to next page for installing procedures. Refer to 54 00 . . . for information about repairing cemented seals on the dual lid sun roof.

Clean the cement surface.

A: Cement seal (1) level to the lid's upper edge (2).

B: Seal (1) must slightly protrude on lid (2) at left outside and right top.



Installation:

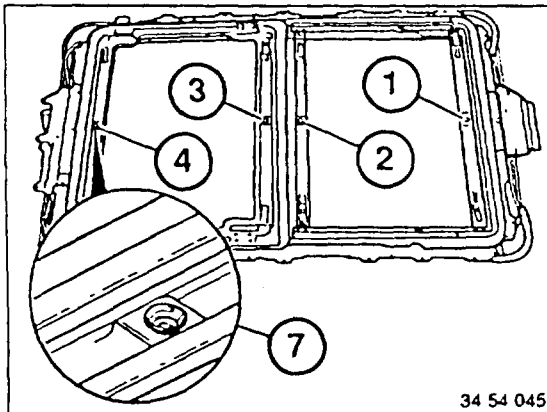
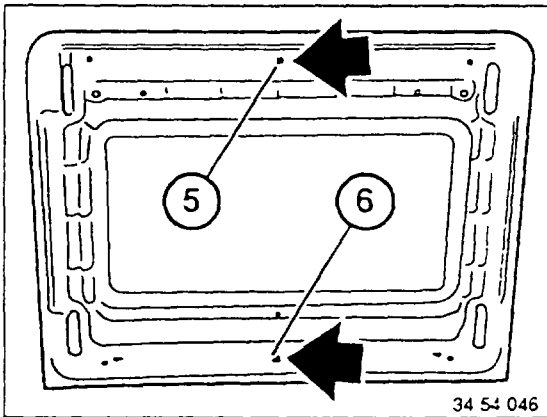
1. Sun roof cassette without embossments (1 ... 4) on cross members and welded nuts (5 and 6) on both lids:

⇒ four shaped washers on cross members.

a) Sun roof cassette without embossments (1 ... 4) on cross members and welded studs (5 and 6) on both lids:

⇒ Cannot be installed.

⇒ Exchange the cassette.



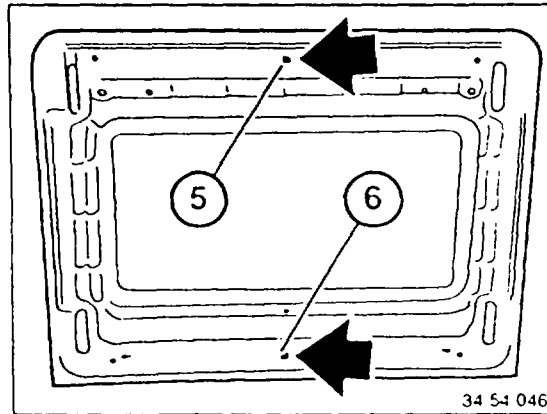
2. Sun roof cassette with embossments (1 ... 4) on cross members and one welded stud on rear lid (5) through cross member (4):

⇒ three washers (1 ... 3) cemented, cement one pot washer (7) on cross member (4).

Install M 6 nut for welded stud (5) with Loctite No. 270*.

a) Sun roof cassette with embossments (1 ... 4) on cross members and welded nuts (5 and 6) on both lids:

⇒ Remove old washers (cemented) and use four shaped washers (7) on cross members.



* Source of Supply: BMW Parts

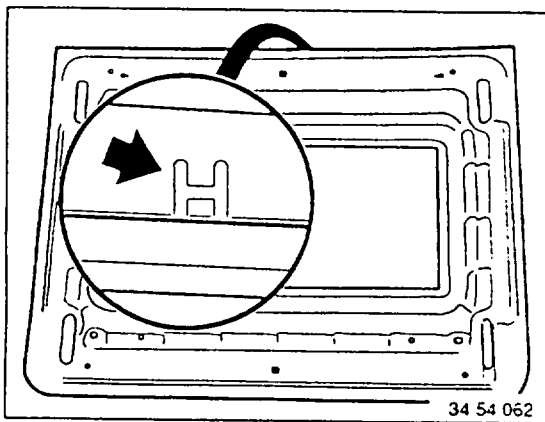
Enclosure for S.I. 54 05 92 (3614)

54 12 104 REPLACING REAR SUN ROOF LID (Touring)

Removing and installing front and rear roof liner frames
- refer to 54 12 132 and 54 12 133.
Switch off ignition.
Removing and installing rear sun roof lid
- refer to 54 12 106.

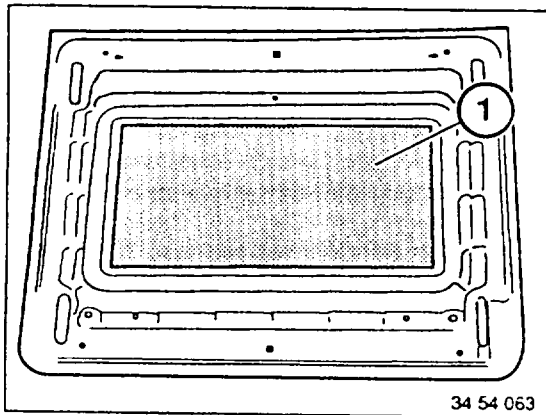
Installation:

Refer to page 25 for installing procedures.
Adjust front and rear sun roof lids
- refer to 54 12 005 and 54 12 006.



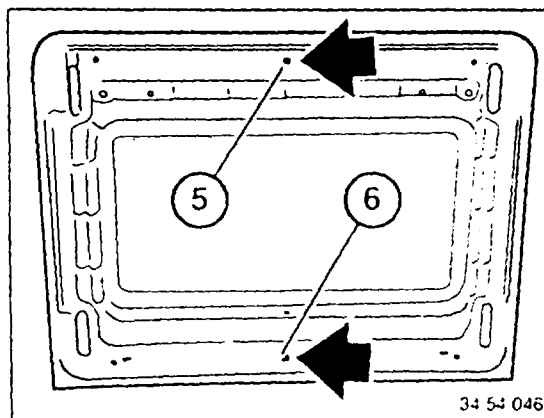
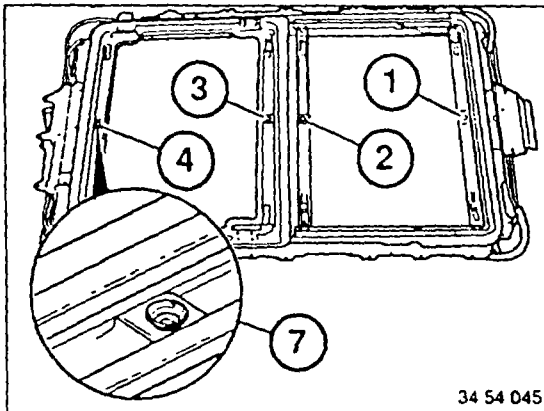
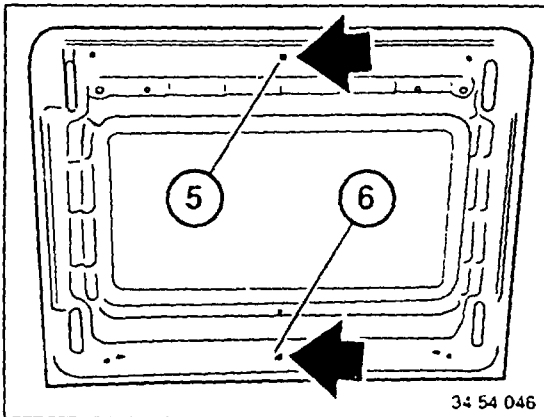
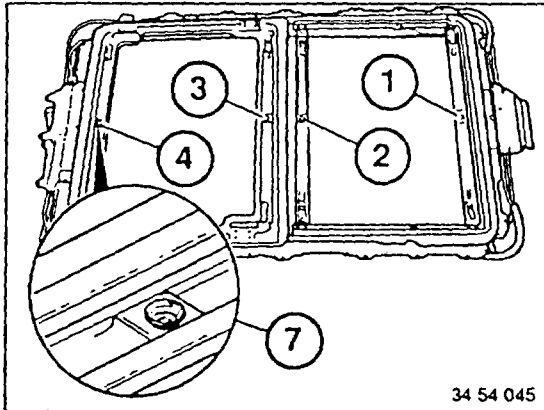
Note:

A "H" is stamped in the face of the rear lid, which does not have a seal.



Installation:

Clean the cement surface and cement insulation sheet (1).



Installation:

1. Sun roof cassette without embossments (1 ... 4) on cross members and welded nuts (5 and 6) on both lids:
 ⇒ four shaped washers on cross members.

a) Sun roof cassette without embossments (1 ... 4) on cross members and welded studs (5 and 6) on both lids:
 ⇒ Cannot be installed.
 ⇒ Exchange the cassette.

2. Sun roof cassette with embossments (1 ... 4) on cross members and one welded stud on rear lid (5) through cross member (4):
 ⇒ three washers (1 ... 3) cemented, cement one pot washer (7) on cross member (4).
 Install M 6 nut for welded stud (5) with Loctite No. 270°.

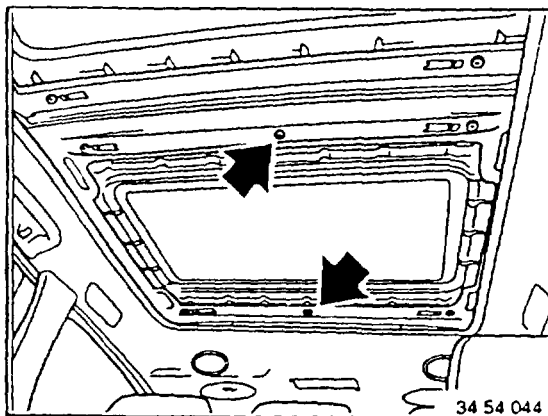
a) Sun roof cassette with embossments (1 ... 4) on cross members and welded nuts (5 and 6) on both lids:
 ⇒ Remove old washers (cemented) and use four shaped washers (7) on cross members.

Enclosure for S.I. 54 05 92 (3614)

54 12 106 REMOVING AND INSTALLING REAR SUN ROOF LID (Touring)

Removing and installing front and rear roof liner frames
- refer to 54 12 132 and 54 12 133.
Switch off ignition.

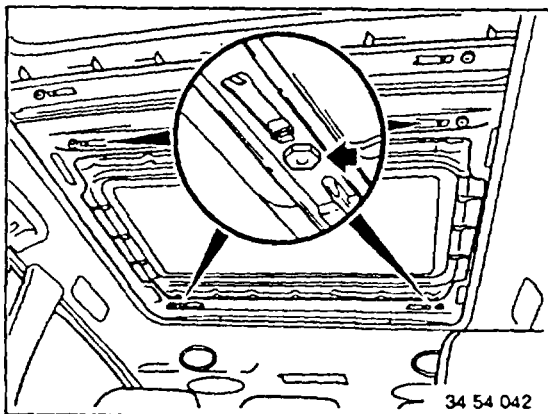
Installation:
Lubricate guide rails of the cross members
with Renax GL1 from "Fuchs".



Unscrew screws.

Installation:
Replace screws (micro-encapsulated).

Tightening torque = 5 Nm



Unscrew nuts and remove sun roof lid
upwards.

Installation:
Refer to "Installation" on page 25.
Adjust rear sun roof lid - refer to 54 12 006.
Replace nuts (micro-encapsulated).

Tightening torque = 5 Nm

54 12 121 REPLACING SEAL FOR
FRONT SUN ROOF LID
(Touring)

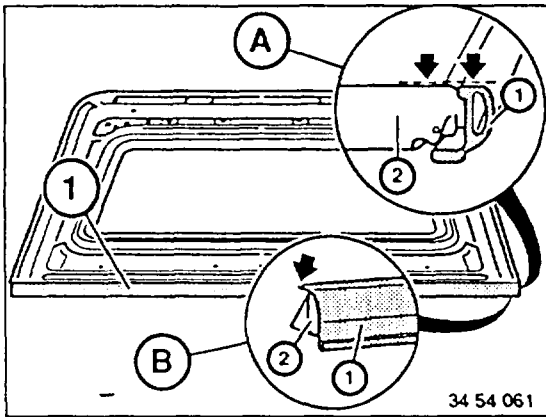
Removing and installing front roof liner frame
- refer to 54 12 132.
Remove front sun roof lid
- refer to 54 12 102.

Installation:

Adjust front sun roof lid - refer to 54 12 005.

Note:

Refer to possible repairs with cyanacrylate cement (Loctite No. 380*) on page 17, if the seal has become loose.



Pull off seal (1).

Clean the cement surface.

A: Cement seal (1) level to the lid's upper edge (2).

B: Seal (1) must slightly protrude on lid (2) at left outside and right top.

Enclosure for S.I. 54 05 92 (3614)

54 12 122 REPLACING SEAL ON EDGES OF DUAL LID SUN ROOF OPENING

Removing and installing front and rear roof liner frames
- refer to 54 12 132 and 54 12 133.

Switch off ignition.

Removing and installing front and rear sun roof lids
- refer to 54 12 102 and 54 12 106.

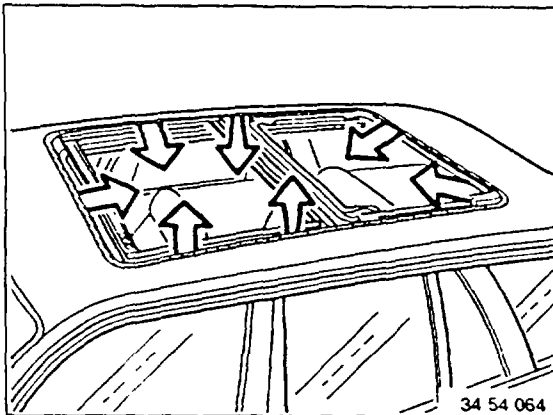
Installation:

Refer to 54 00 . . . for information about
repairing cemented seals on the dual lid sun
roof.

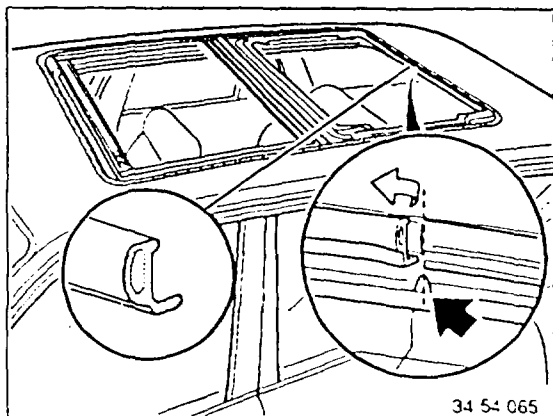
Adjust front sun roof lid - refer to 54 12 005.

Note:

Refer to possible repairs with cyanacrylate
cement (Loctite No. 380*) on page 17, if the
seal has become loose.



Pull off seal.



Begin removal and installation of seal at rear center.

* Source of Supply: BMW Parts

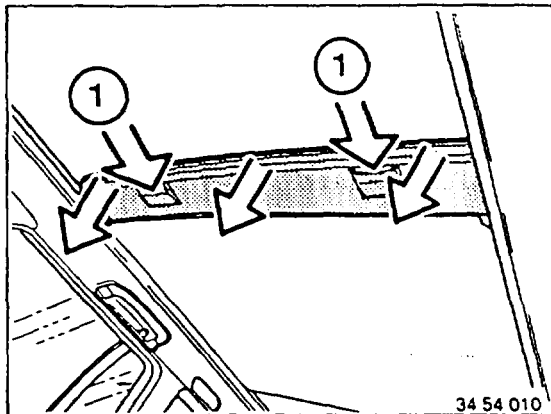
54 12 132 REMOVING AND INSTALLING
OR REPLACING ROOF LINER
FRAME FOR FRONT SUN
ROOF LID (Touring)

Open front sun roof lid.

Note:

Panels are only clipped on (similar to A-pillar trim panels) in standard production since the middle of March, 1992.

These panels cannot be installed on "old" lids.



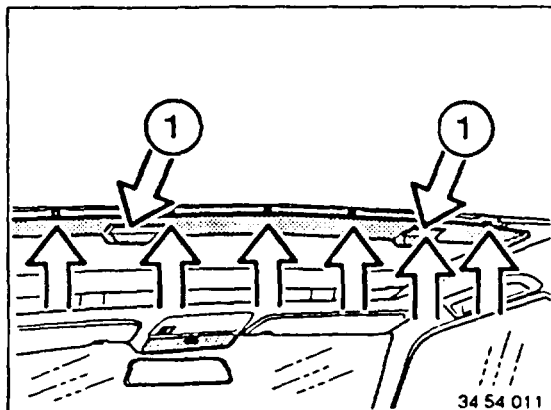
Note:

The panel need only be removed for adjustments, removal or replacement of the front lid.

Production Before Middle of March, 1992:

If applicable, unscrew front screws.

Push panel back (1) and unclip downwards.



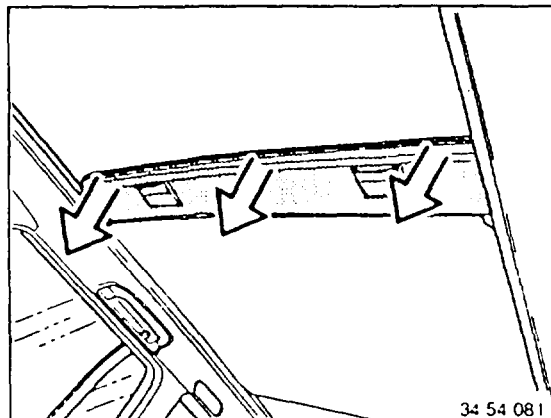
Installation:

Insert panel at front end, push forward (1) and clip in at rear end.

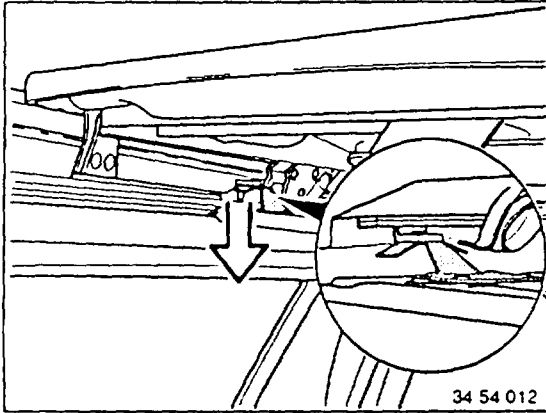
If applicable in case of damaged clips on panel and if identical panel is not available: Drill three holes through the rear end of the panel and through the lid's internal plate.

Protect the lid's internal plate against corrosion.

Screw on panel with self-tapping screws (same as front).

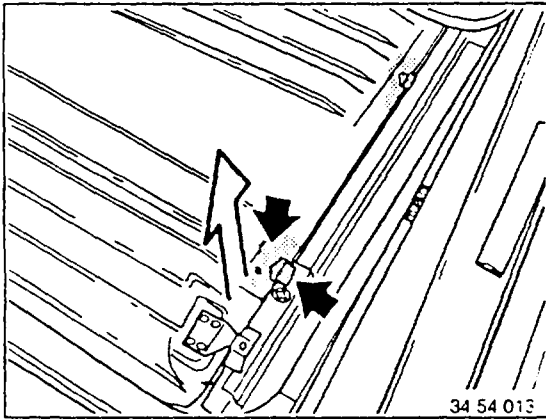


Unclip the panel towards the rear for production after the middle of March, 1992.



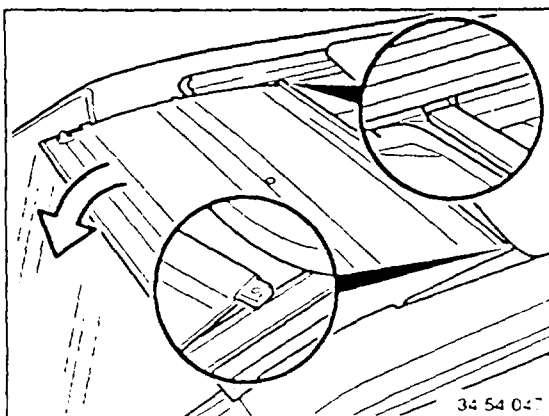
Press down on left and right springs and push the roof liner frame forward.

Installation:
Ensure that left and right springs engage correctly.



Pull the roof liner frame forward. Press the front slide out upwards through the opening and push the roof liner frame back slightly until it can be lifted over the wind deflector.

Pull the roof liner frame forward again and also press out the center slide.



Twist and remove the roof liner frame upwards.

Installation:

Check function.

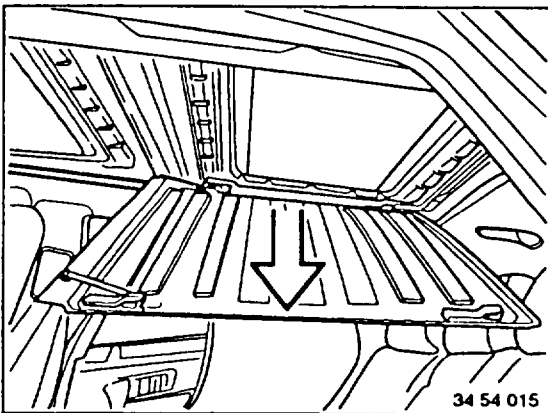
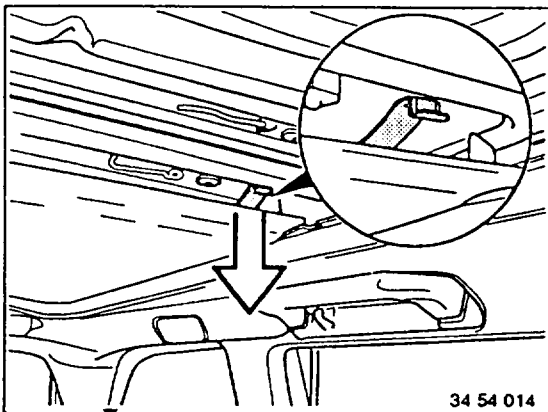
54 12 133 REMOVING AND INSTALLING
OR REPLACING ROOF LINER
FRAME FOR REAR SUN
ROOF LID (Touring)

Removing and installing front sun roof frame
- refer to 54 12 132

Close the sun roof.
Press down on left and right springs and pull
the roof liner frame forward slightly.

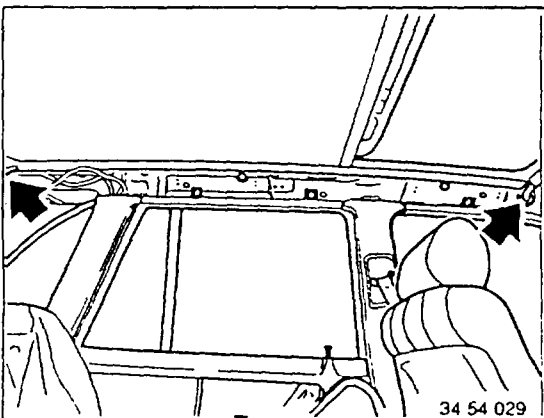
Push the roof liner frame to the right and
upwards and remove to the left and down-
wards.

Installation:
Ensure that left and right springs engage
correctly.
Check function.



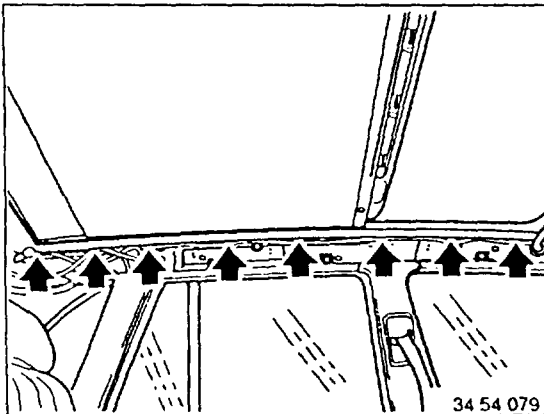
54 12 210 REMOVING AND INSTALLING
COMPLETE DUAL LID SUN
ROOF FRAME (Touring)

Switch off ignition.
Removing and installing roof liner - refer to Gr. 51.

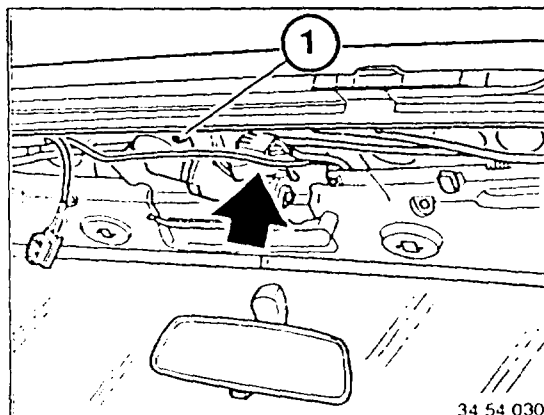


Loosen front and rear hose clamps at left and right sides. Hold the clamps tight (to prevent them from falling into the A-pillars). Disconnect water drain hoses.

Installation:
Check function and for leaks.

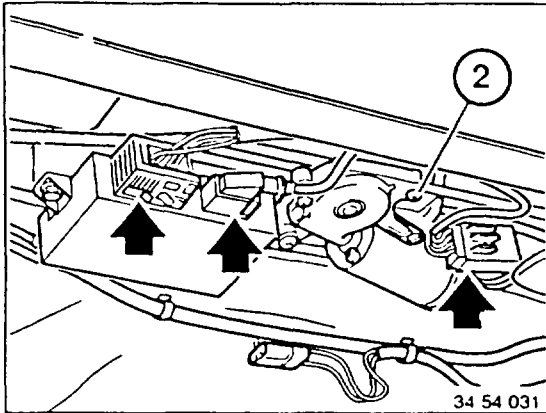


Pull complete wire harness off of the sun roof cassette.



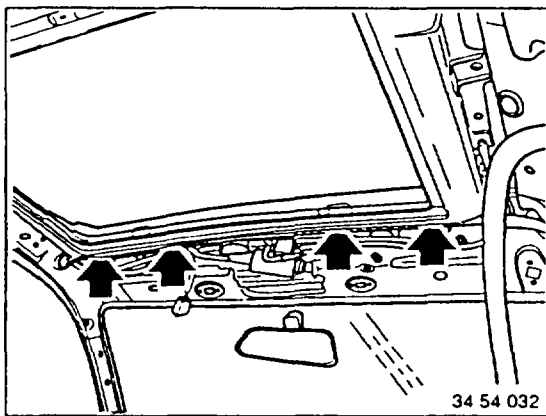
Disconnect rear plug and unscrew screw (1).

Installation:
Tightening torque = 3.5 Nm



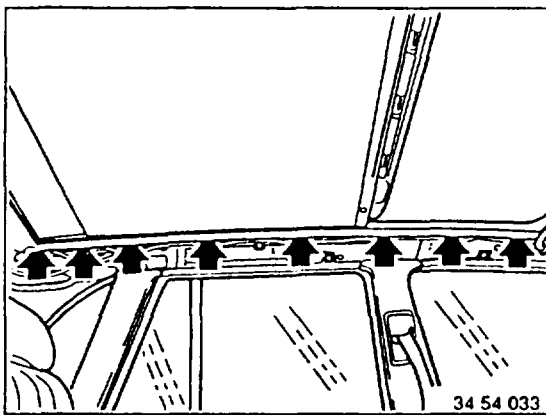
Disconnect plug (also refer to replacing module on page 40).
Unscrew screw (2).

Installation:
Tightening torque = 3.5 Nm.
The sun roof must be initialized after disconnecting the module plug - refer to 54 00 . . .



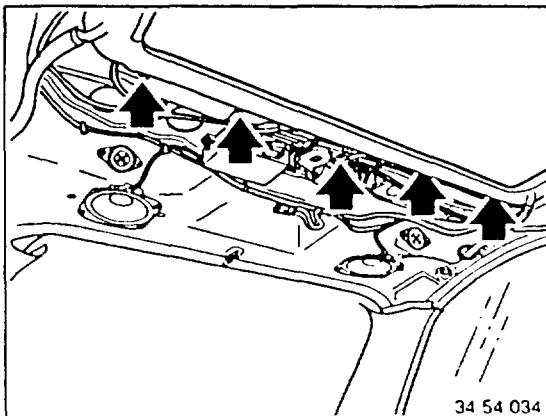
Unscrew screws.

Installation:
Tightening torque = 3.5 Nm



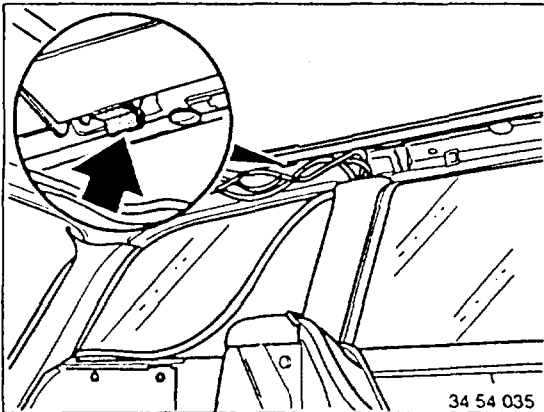
Unscrew left and right screws.

Installation:
Tightening torque = 3.5 Nm

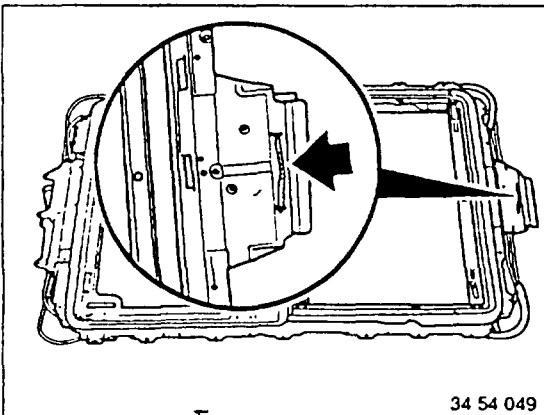


Unscrew rear screws.

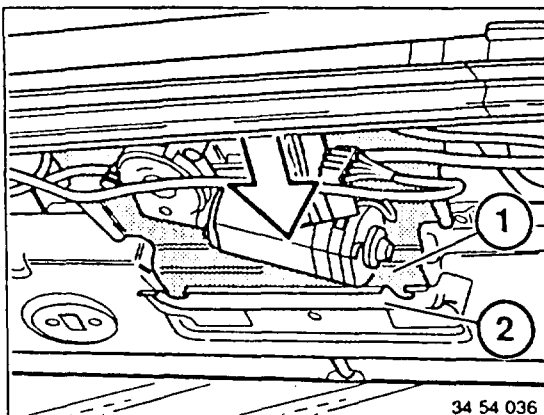
Installation:
Tightening torque = 3.5 Nm



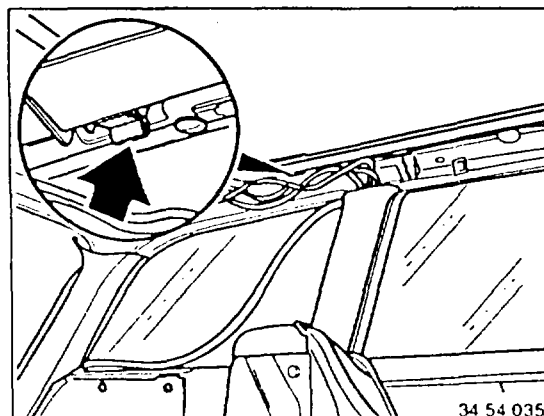
Loosen left and right clips and lift the sun roof cassette out towards the rear through the tailgate opening with help from a second person.



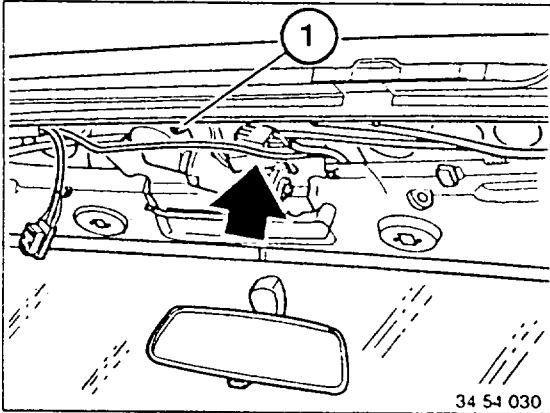
Installation:
Paste on an approx. 10 cm long strip of Norton's tape at the front end.



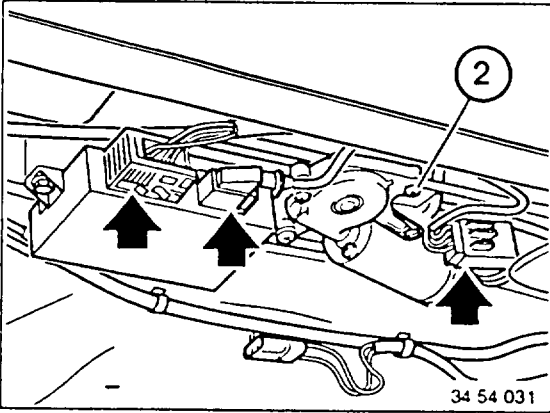
Installation:
Insert front end (1) of the sun roof cassette into sheet metal slot (2).



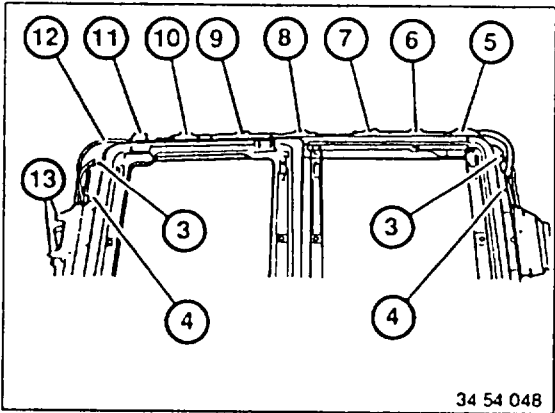
Installation:
Clip on rear end at left and right sides.



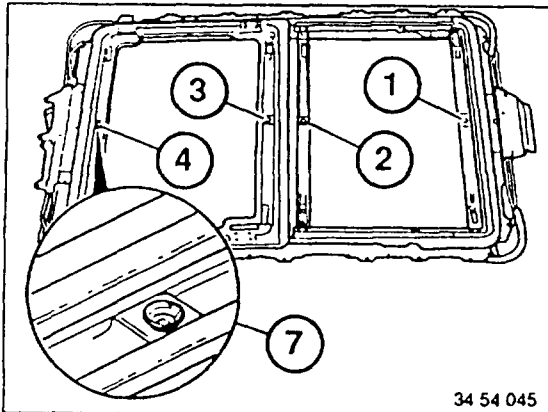
Installation:
Tighten front screw (1).
Tightening torque = 3.5 Nm



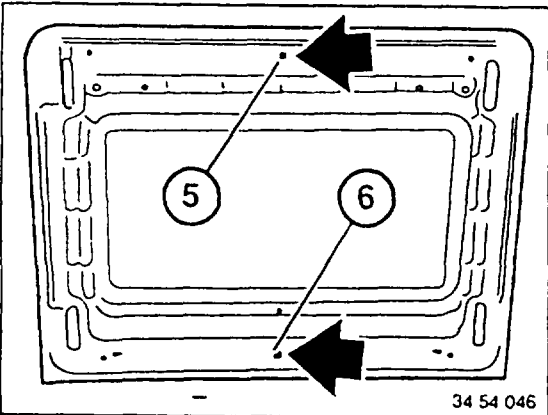
Installation:
Tighten rear screw (2).
Tightening torque = 3.5 Nm



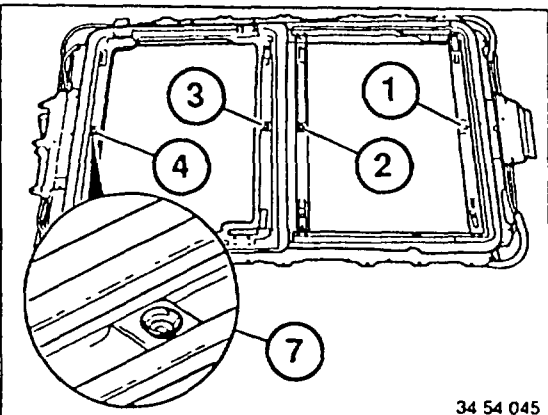
Installation:
Keep to the following screw tightening sequence:
(3) left and right front
(4) left and right front
(5 ... 12) left and right for all
Tightening torque = 3.5 Nm



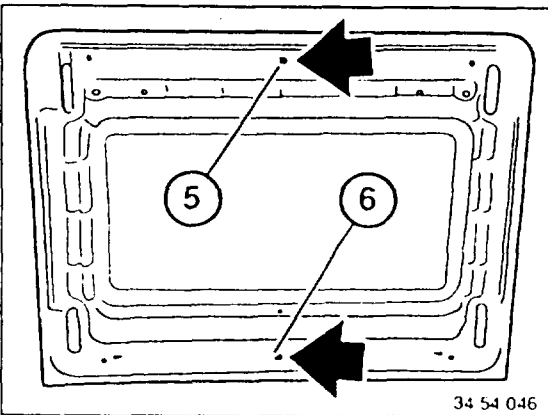
34 54 045



34 54 046



34 54 045



34 54 046

Installation:

1. Sun roof cassette without embossments
(1 ... 4) on cross members and welded
nuts (5 and 6) on both lids:
⇒ cement four shaped washers on cross members

a) Sun roof cassette without embossments
(1 ... 4) on cross members and welded
studs (5 and 6) on both lids:
⇒ Cannot be installed.
⇒ Exchange the cassette.

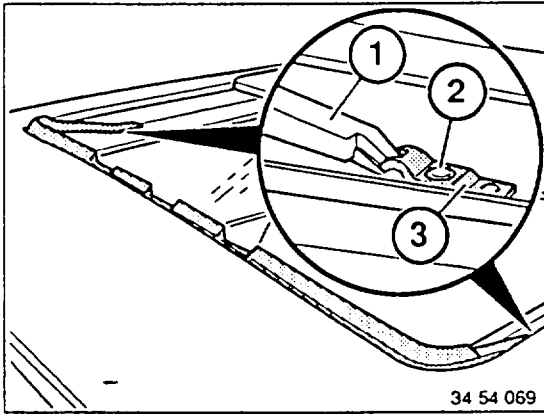
2. Sun roof cassette with embossments
(1 ... 4) on cross members and one
welded stud on rear lid (5) through cross
member (4):
⇒ three washers (1 ... 3) cemented,
cement one pot washer (7) on cross
member (4).
Install M 6 nut for welded stud (5) with
Loctite No. 270*.

a) Sun roof cassette with embossments
(1 ... 4) on cross members and welded
nuts (5 and 6) on both lids:
⇒ Remove old washers (cemented) and use
four shaped washers (7) on cross mem-
bers.

* Source of Supply: BMW Parts

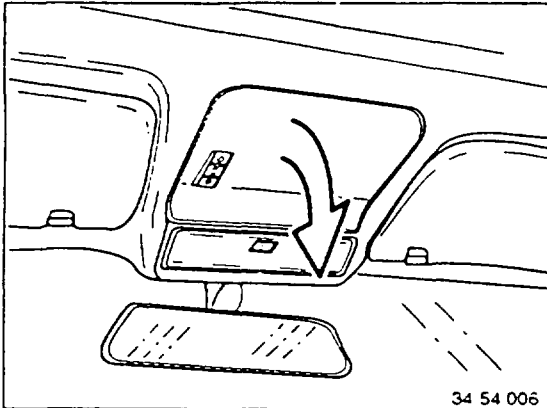
54 12 . . . REMOVING AND INSTALLING
OR REPLACING WIND DE-
FLECTOR (Touring)

Open the front sun roof lid.



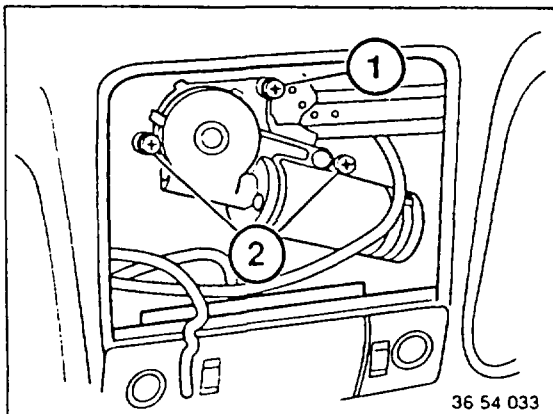
Unscrew left and right screws (2).
Remove left and right holders (3) and wind
deflector (1).

54 13 011 REMOVING AND INSTALLING
OR REPLACING FRONT SUN
ROOF LID MOTOR (Touring)



Switch off ignition.
Lift out cover using a bone folder.

Close the sun roof completely (zero position).
Close manually if necessary - refer to
54 00



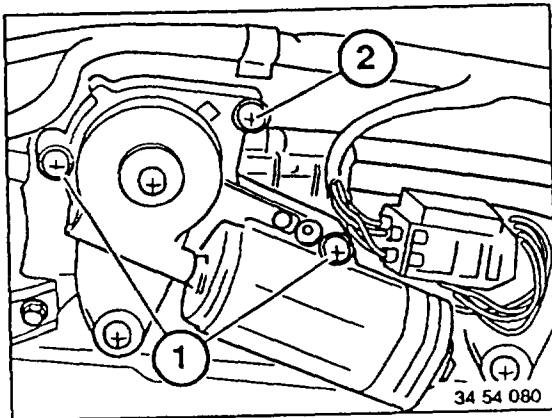
Unscrew screws.
Disconnect plug and remove motor/gearbox
unit.

Installation:
Tightening torque = 3.5 Nm

54 13 012 REMOVING AND INSTALLING
OR REPLACING REAR SUN
ROOF LID MOTOR (Touring)

Switch off ignition.
Remove rear section of roof liner - refer to
Group 51.

Close the sun roof completely (zero position).
Close manually if necessary - refer to
54 00



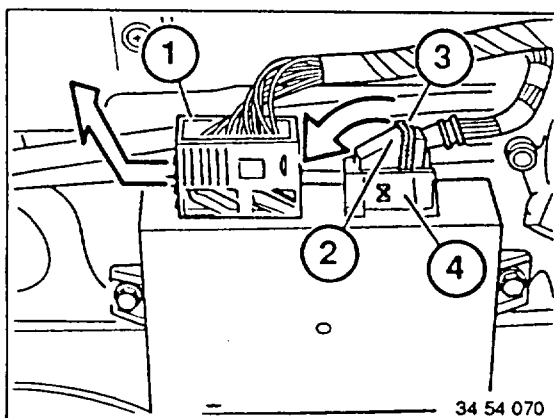
Unscrew screws (1 and 2).
Disconnect plug and remove motor/gearbox
unit.

Installation:
Screw (2) is longer.
Tightening torque = 3.5 Nm

Enclosure for S.I. 54 05 92 (3614)

54 13 015 REMOVING AND INSTALLING OR REPLACING DUAL LID SUN ROOF MODULE AT REAR (Touring)

Switch off ignition.
Remove rear section of roof liner - refer to
Group 51.
Disconnect plug (1).
Press down on lock (2) and lift out plug (4)



together with the arresting arm (3) to the left.

Installation:
Carry out initialization.

Unscrew screws and remove module.

