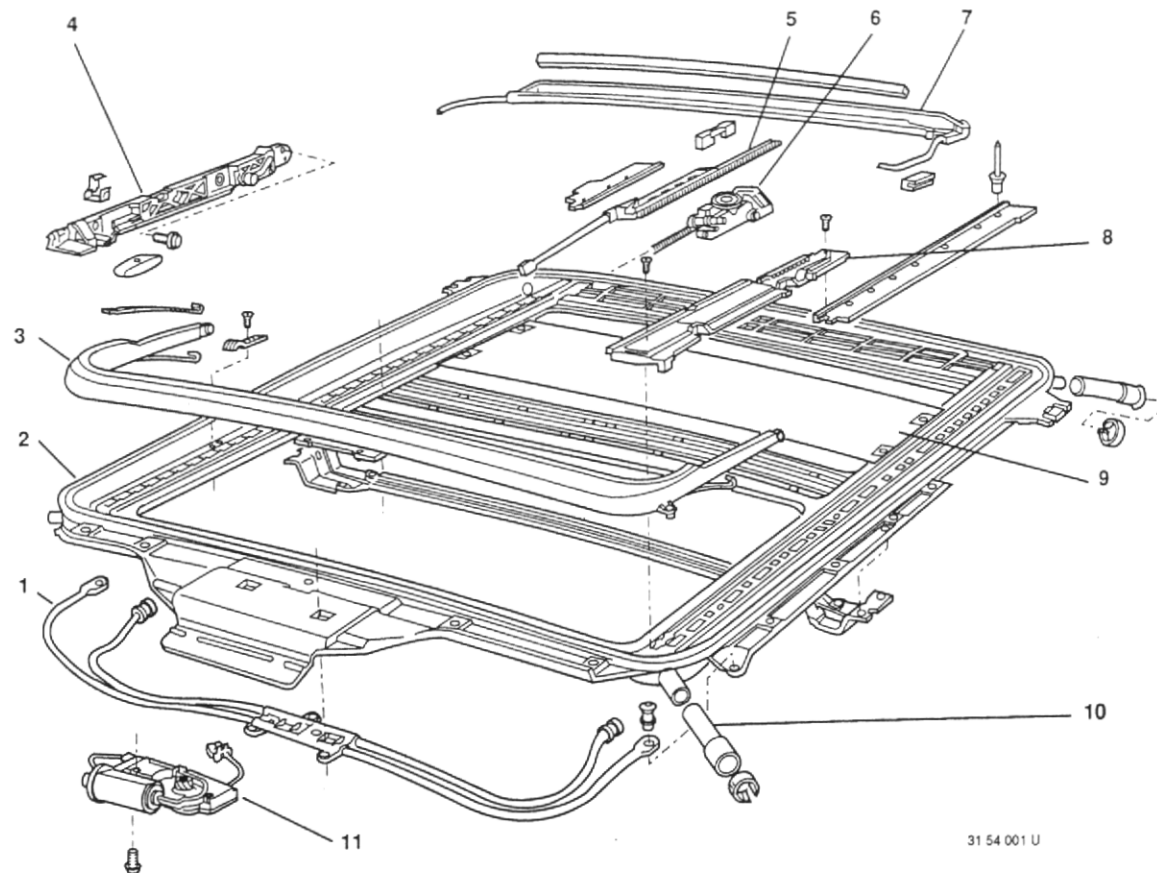


54 Hood, Sun Roof

	Sun roof layout	54-12/1
54 12 004	Sun roof – adjust	54-12/2
100	Sun roof lid – remove and install	54-12/3
130	Sun roof lid liner frame – remove and install	54-12/4
135	Water drain – remove and install	54-12/5
210	Sun roof assembly – remove and install	54-12/5
241	Sun roof drive cables – remove and install	54-12/6
54 13 010	Motor and gearbox unit for sun roof – remove and install	54-13/1
015	Module for sun roof – remove and install or replace	54-13/1

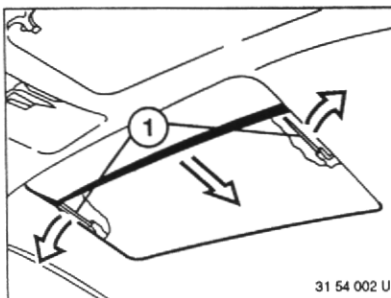
54-12/1

SUN ROOF LAYOUT DRAWING



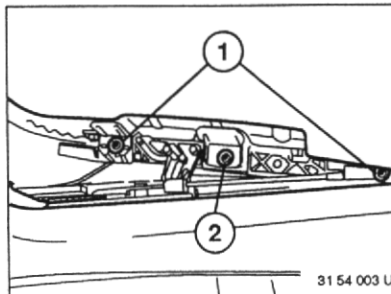
31 54 001 U

54-12/2

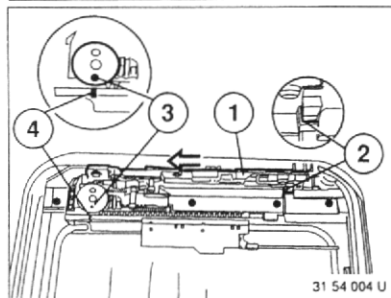


54 12 004 ADJUSTING SUN ROOF

Open sun roof to lifted position.
Press locking lever (1) out and push back the floating roof liner.

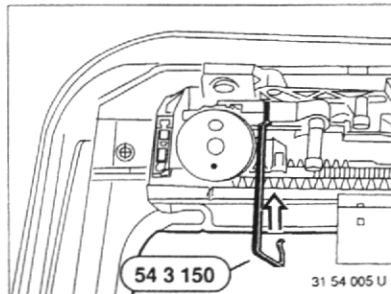


Loosen screws (1 and 2) on left and right sides.
Close sun roof.



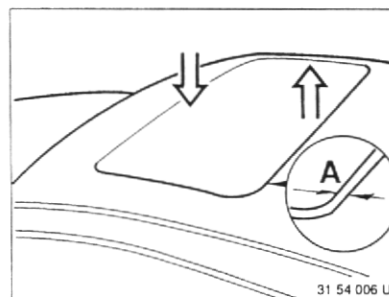
Press back gate (1) against stop (2) on left and right sides.
Bore (3) and notch (4) must be opposite each other on left and right sides.

Note:
Sun roof lid was removed in picture for better illustration.



Insert Special Tool 54 3 150 on left and right sides to lock the gate.

Note:
Sun roof lid was removed in picture for better understanding.

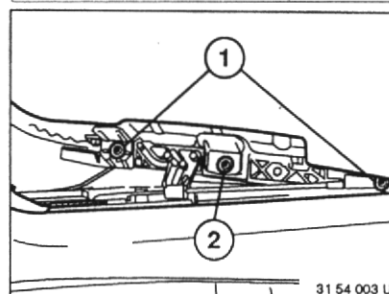


Ideal Adjustment:

Uniform distance (A) of lid to roof at front and rear.

Height:

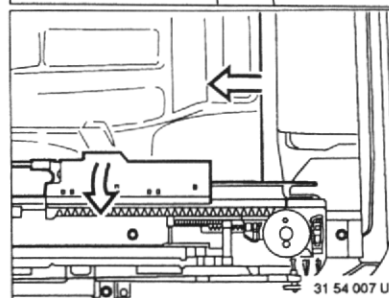
Front: flush to 1 mm (0.039") deeper
Rear: flush to 1 mm (0.039") higher



Tighten screws (1) on left and right sides.

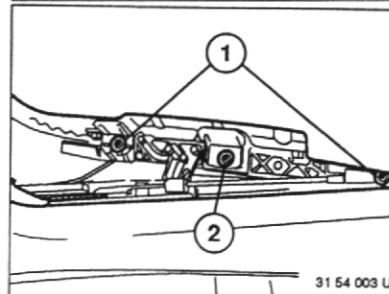
Installation:
Tightening torque*.

Remove special Tool 54 3 150.



Important!
Lift left and right racks and pull floating roof liner forward half the distance (if not retainers on the racks would break off when operating the sun roof).

Note:
Sun roof lid was removed in picture for better illustration.



Open sun roof to lifted position.
Tighten screws (2) on left and right sides.

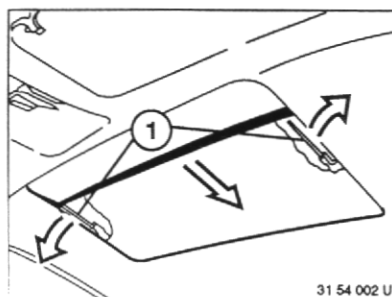
Installation:
Tightening torque*.

* See Specifications

54-12/3

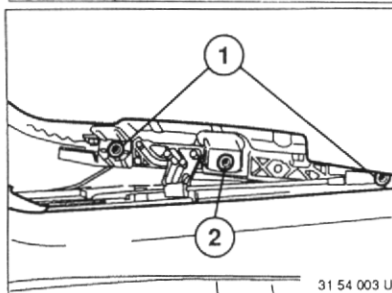
54 12 100 REMOVING AND INSTALLING SUN ROOF LID

Removing:
Open sun roof to lifted position.
Press locking lever out and push back
the floating roof liner.



31 54 002 U

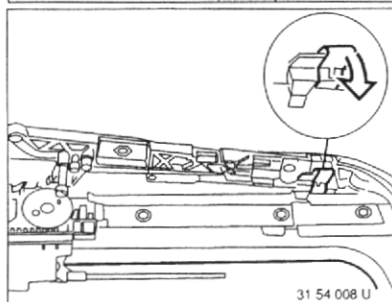
Loosen screws (1) on left and right
sides.
Unscrew screws (2) on left and right
sides.



31 54 003 U

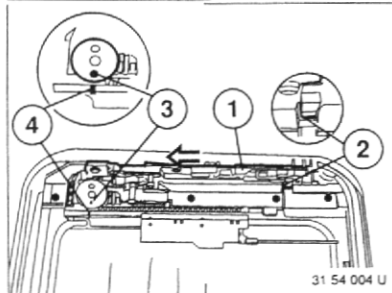
Press in retainers on left and right
sides with a screwdriver and take off
sun roof lid from above.

Note:
Sun roof lid was removed in picture for
better understanding.

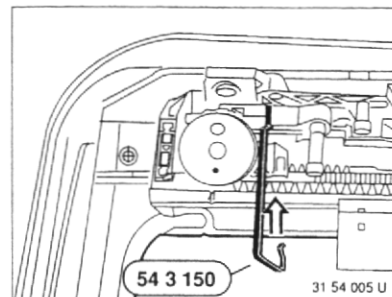


31 54 008 U

Installing:
Move sun roof lid or gates to "closed"
position.
Press back gate (1) against stop (2).
Bore (3) and notch (4) must be opposite
each other.



31 54 004 U



31 54 005 U

Insert Special Tool 54 3 150 on left and
right sides to lock the gate.

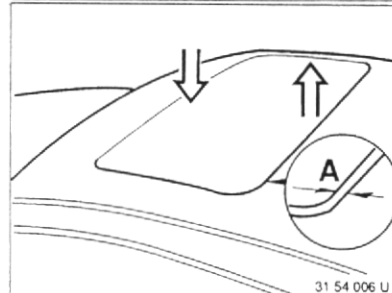
Mount and adjust lid.

Ideal Adjustment:

Uniform distance (A) of lid to roof at
front and rear.

Height:

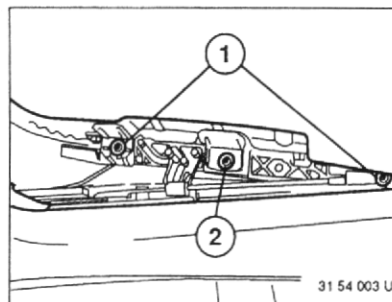
Front: flush to 1 mm (0.039") deeper
Rear: flush to 1 mm (0.039") higher



31 54 006 U

Tighten screws (1).
Tightening torque*.

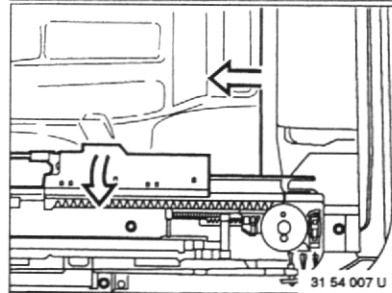
Remove Special Tool 54 3 150.



31 54 003 U

Important!
Lift left and right racks and pull floating
roof liner forward half the distance (if
not retainers on racks would break off
when operating the sun roof).

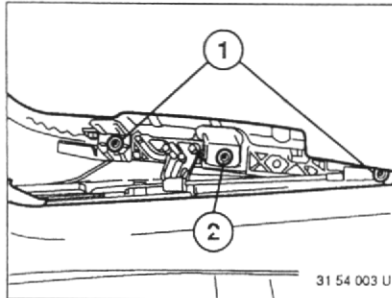
Note:
Sun roof lid was removed in picture for
better understanding.



31 54 007 U

* See Specifications

54-12/4

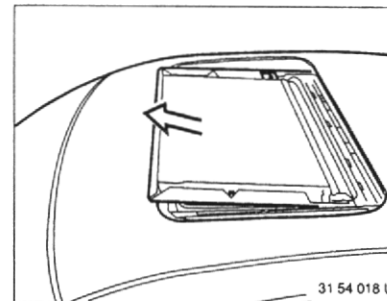


Open sun roof to lifted position.
Install and tighten screw (2).
Tightening torque*.

Pull floating roof liner forward completely and engage.

54 12 130 REMOVING AND INSTALLING ROOF LINER FRAME FOR SUN ROOF LID

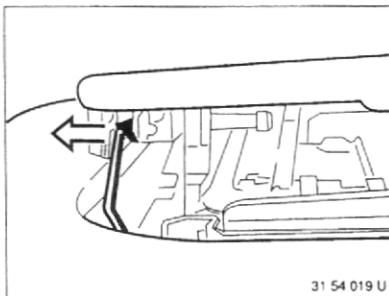
Remove both drive cables for sun roof
– see 54 12 241.



Pull floating roof liner forward completely and lift out.

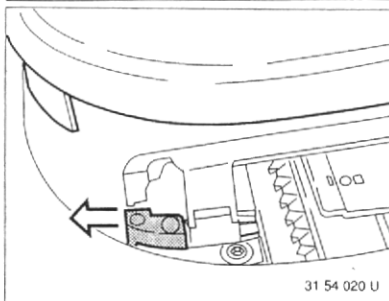
* See Specifications

54-12/5

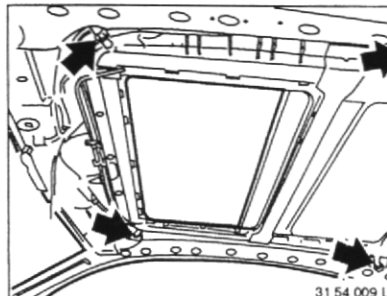


54 12 135 REMOVING AND INSTALLING WATER DRAIN

Open sun roof to lifted position.
Unclip linkage from behind on left and right sides.



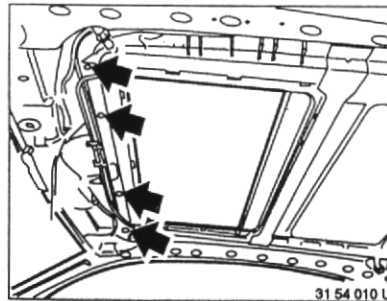
Unclip left or right slide.
Push rain molding strip aside and lift out water drain.



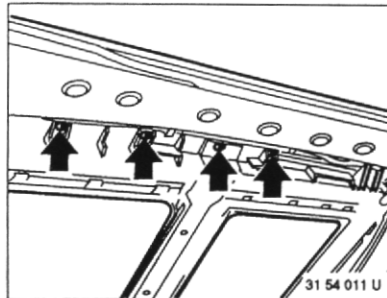
54 12 210 REMOVING AND INSTALLING SUN ROOF ASSEMBLY

Open sun roof and lower side windows.
Remove roof liner – see Group 51.
Remove motor and gearbox unit for sun roof – see 54 13 010.
Loosen clamps at front and rear on left and right sides.
Pull off water drain hoses.

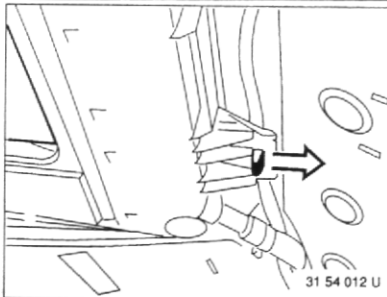
Installation:
Replace clamps.



Unscrew screws on left and right sides.



Unscrew screws on left and right sides.



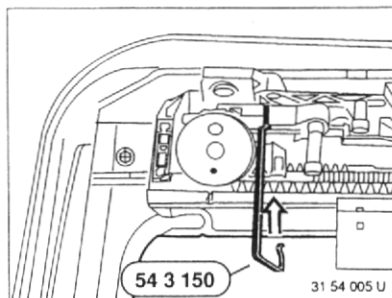
Press out retainers on left and right sides.
Lower rear end of sun roof cassette slightly and then pull back.

Installation:
Hook in sun roof cassette.

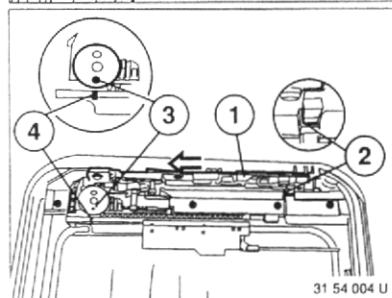
* See Specifications

54 12 241 REMOVING AND INSTALLING BOTH DRIVE CABLES FOR SUN ROOF

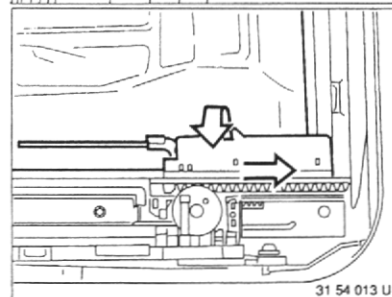
Remove sun roof lid – see 54 12 100.
Remove motor/gearbox unit – see
54 13 010.



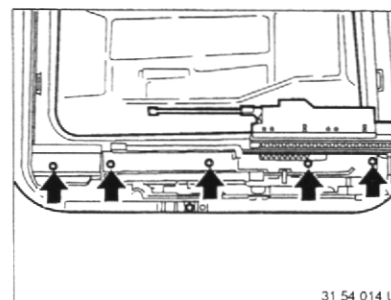
Installation:
Insert Special Tool 54 3 150 on left and
right sides to lock the gates.



Installation:
Push drive cable with gate forward uni-
formly to "closed sun roof position" on
left and right sides.
Then press back gate (1) against stop
(2) on left and right sides.
Bore (3) and notch (4) must be opposite
each other on left and right sides.

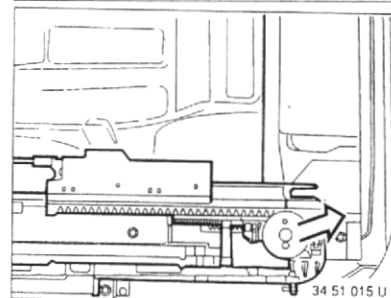


Push back drive cable with gate uni-
formly on left and right sides, while lift-
ing the rack (if not, clips would break
off).



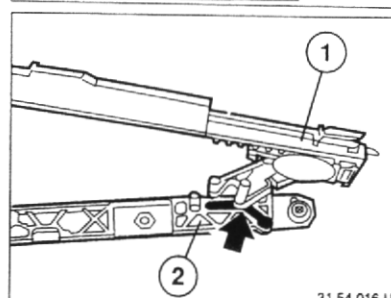
Unscrew screws and take off sliding
rails.

Installation:
Replace screws.
Tightening torque*.

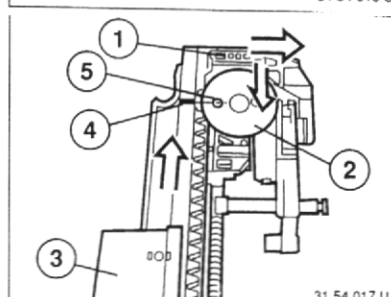


Push drive cable with gate forward
completely on left and right sides.
Lift gate and unclip linkage on left and
right sides.
Lift and pull out drive cable with gate
toward rear.

Installation:
Don't lubricate drive cables.



Press drive cable (1) off of gate (2) in
middle position.
Drive cable (1) is marked
L for left
or
R for right.

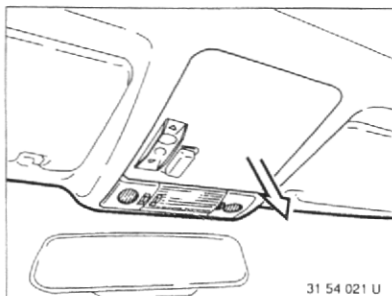


Push lock (1) aside, press on gear (2)
firmly and push rack (3) forward.

Installation:
Notch (4) and bore (5) must be aligned
with the lock engaged.
Correct the position if necessary.

* See Specifications

54-13/1



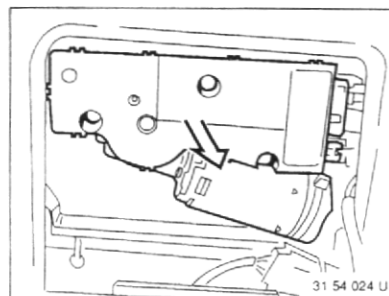
54 13 010 REMOVING AND INSTALLING OR REPLACING MOTOR AND GEARBOX UNIT FOR SUN ROOF

Lift out cover.

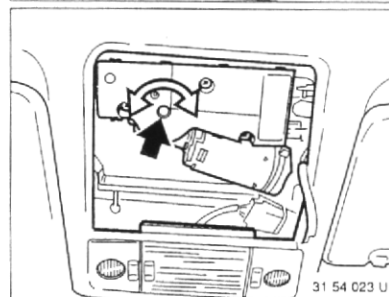
Installation:

Check function.

If applicable, Initialize the sun roof module by running the roof to lifted position and holding the switch approx. 15 seconds (plug connection on sun roof module must have been disconnected once).

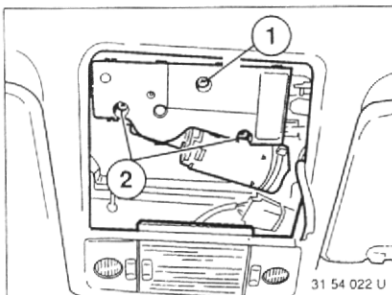


Lift sun roof module off of the motor/gearbox unit.



Installation:

Turn motor and gearbox unit with a socket wrench until the sun roof module can be installed.

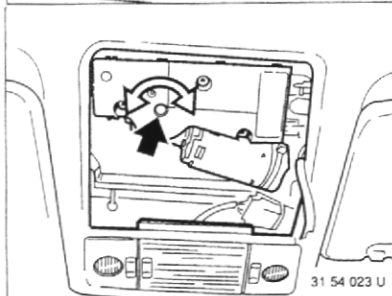


Unscrew screws (1 and 2).
Take off motor/gearbox unit and sun roof module.
Disconnect plug.

Installation:

Tightening torque*.

Screw 1 = long
Screw 2 = short



Installation:

Turn motor shaft with a socket wrench until the gearbox gear engages in the drive cables.

54 13 015 REMOVING AND INSTALLING OR REPLACING MODULE FOR SUN ROOF

Procedures are identical with those for "Removing and Installing Motor and Gearbox Unit for Sun Roof".