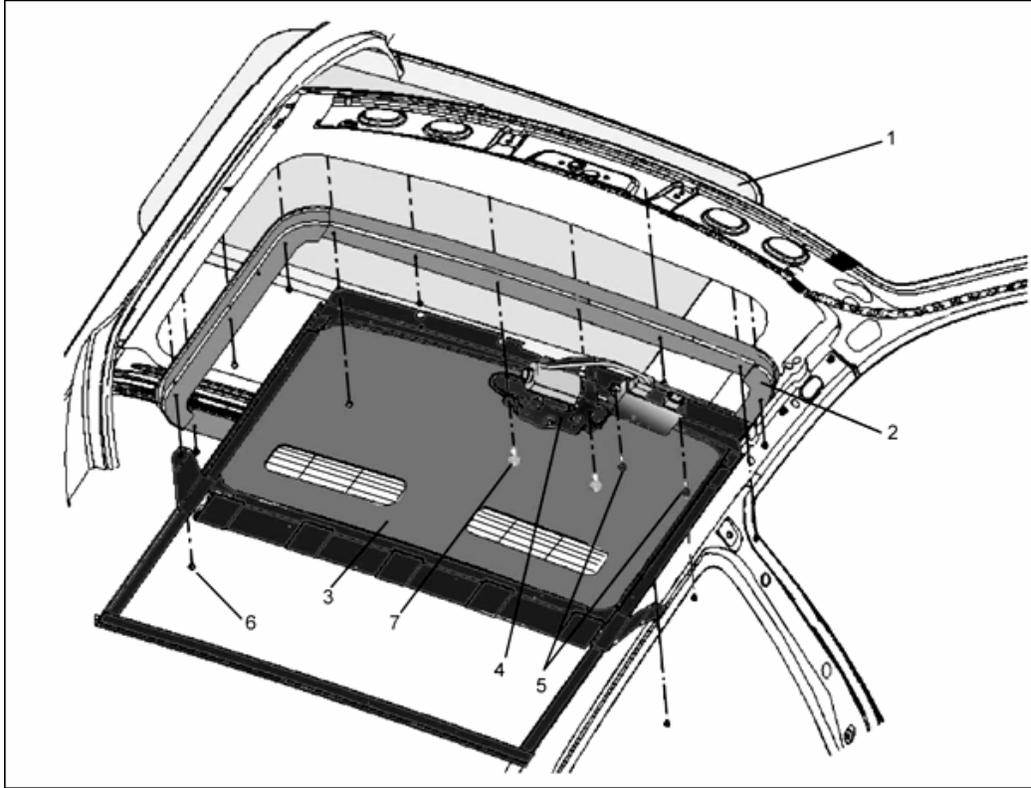


Sunroof

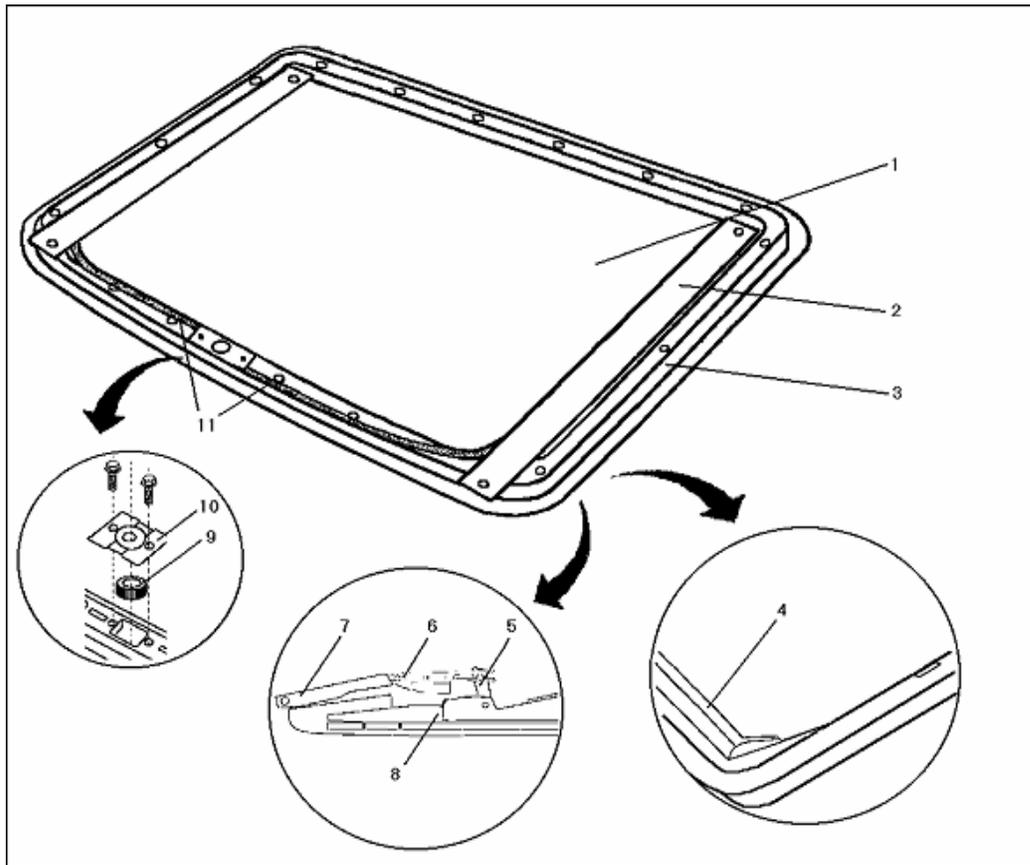
Exploded View of Power sunroof System	XII-2
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Exploded View of Power sunroof System



- 1 Sunroof upper frame and glass assembly
- 2 Sunroof inner fixing frame assembly
- 3 Sunroof lower frame and sun visor assembly
- 4 Sunroof motor and control module assembly
- 5 Cross recessed pan-head screw, spring washer and flat washer assembly
- 6 Sunroof fixing bolt
- 7 Sunroof motor fixing bolt

Sunroof Upper Frame Assembly



1. Sunroof glass plate;
2. Sunroof glass guide ×2;
3. Sunroof upper frame,
4. Sunroof air deflector;
5. Glass lift rod ×2;
6. Rail slider ×2;
7. Glass connector ×2;

8. Glass support seat ×2;
9. Gear;
10. Chain press plate;
11. Flexible drive shaft ×2;
12. Lock-up slide seat ×2;
13. Upper frame rubber strip

Among them, 2, 5, 6, 7 and 12 are called mechanical assembly.

Diagnostic message and program

1 Inspection of power sunroof system

Step	Operation	Normal result	Abnormal result
1	① Make sure that Sunroof is closed ② Depress opening push button (rear part of switch) for less than 0.3 sec.	Sunroof glass plate tilts, and automatically slides rearward to full open position. During the process of movement, if any one of the following conditions occurs, Sunroof will stop moving: <ul style="list-style-type: none"> • Sunroof switch is depressed 	Refer to "Power sunroof is faulty"
2	① Make sure that Sunroof is in full open position ② Depress closing push button (front part of switch) for less than 0.3 sec.	Sunroof glass plate slides to close (forward) and automatically slides rearward to fully closed position. During the process of movement, if any one of the following conditions occurs, Sunroof will stop moving: <ul style="list-style-type: none"> • Sunroof switch is depressed If Sunroof glass plate is obstructed, Sunroof will automatically moves in opposite direction, until Sunroof reaches full open position, and then automatically moves forward to close. (If obstacle still exists, Sunroof will move reciprocatingly until the obstacle is removed)	
3	① Make sure that Sunroof is in fully closed position ② Depress and hold opening push button (rear part of switch) for more than 0.3 sec.	Rear of glass plate lifts up and opens. During the process of movement, if any one of the following conditions occurs, Sunroof will stop moving: <ul style="list-style-type: none"> • Sunroof switch is released • Glass plate is opened to fully tilt ventilation position 	Refer to "Power sunroof is faulty"
4	① Make sure that Sunroof is in fully tilt ventilation position ② Depress and hold opening push button (rear part of switch) for more than 0.3 sec.	Glass plate slides rearward. During the process of movement, if any one of the following conditions occurs, Sunroof will stop moving: <ul style="list-style-type: none"> • Sunroof switch is released • Sunroof glass plate reaches full open position 	Refer to "Power sunroof is faulty"
5	① Make sure that Sunroof is in full open position ② Depress and hold closing push button (front part of switch) for more than 0.3 sec.	Sunroof glass plate slides forward. During the process of movement, if any one of the following conditions occurs, Sunroof will stop moving: <ul style="list-style-type: none"> • Sunroof switch is released • Sunroof glass plate reaches tilt ventilation position 	Refer to "Power sunroof is faulty"
6	① Make sure that Sunroof is in tilt ventilation position ② Depress and hold closing push button (front part of switch) for more than 0.3 sec.	Rear of Sunroof glass plate lowers to respectively to 5 opening angles until Sunroof is fully closed, (as for detail, see "Tilt ventilation") or until any one of the following conditions occurs: <ul style="list-style-type: none"> • Sunroof switch is released 	Refer to "Power sunroof is faulty"
7	① Open Sunroof glass plate to any position ② Turn off switch	After about 4 sec., Sunroof glass plate automatically closes (forward). During the process of movement, if any one of the following conditions occurs, Sunroof will stop moving: <ul style="list-style-type: none"> • Sunroof switch is depressed (either direction) • Sunroof glass plate is obstructed • Further depressing closing push button can fully close Sunroof. During the whole process, Sunroof is unable to make opening movement 	Refer to "When ignition switch is turned off, power sunroof failed to close automatically"
8	① Make sure that vehicle ignition switch is at "OFF" position, and Sunroof glass plate stays at open position ② Depress closing push button (front part of switch) for less than 0.3 sec., or depress and hold closing push button to slide the glass to tilt ventilation position, release push button, and re-depress and hold closing push button	Sunroof glass plate moves forward to fully closed position	

2 Diagnosis of mechanical faults of power sunroof

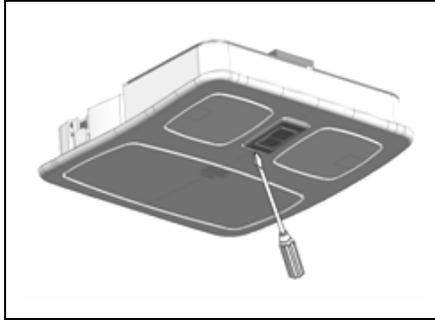
Trouble phenomena	Causes	Remedy
Sunroof glass plate can not be closed and is difficult to open	Lock-up slide seat is damaged	Replace lock-up slide seat
When open or close Sunroof glass plate, the left and right sides of glass plate are asymmetrical.	The relative position of gear and flexible drive shaft is incorrect	Re-position gear and flexible drive shaft to correct position
Sunroof glass plate slides lowly	Mechanical device is dirty or needs lubrication	Clean mechanical device or use engine oil to lubricate mechanical device
	Vehicle voltage is too low to support normal operation of Sunroof motor	Check vehicle power supply and circuit
	Motor drive shaft is damaged	Replace motor
Motor runs, but Sunroof glass plate does not move	Distance between motor drive shaft and gear is improper	Re-install motor, and adjust drive shaft to correct position
Sunroof operates, but no response	Distance between motor drive shaft and gear is improper	Re-install motor, and adjust drive shaft to correct position
	Computer box is in wrong memory or damaged	Disconnect computer box normally-connected power supply to clear wrong memory or replace computer box
	Motor or switch is damaged	Replace

3 Diagnosis of water leakage of Sunroof

Trouble phenomena	Causes	Remedy
Water leakage (general)	Sealing strip is dirty or damaged	Wash or replace sealing strip, and inform the customer of the causes
	There are dust particles under Sunroof glass plate	Wash lower side of glass plate, and inform the customer of the causes
	Sunroof is opened when there is still water on the vehicle roof	Remove accumulated water, and inform the customer of the causes
	Sunroof is not closed properly in rainy or snow days	Remove accumulated water, and inform the customer of the causes
Water leakage from rear corners of Sunroof glass plate	Lock-up slide seat is damaged	Replace lock-up slide seat
	Limiter is damaged	Replace
	Lifter is damaged	Replace

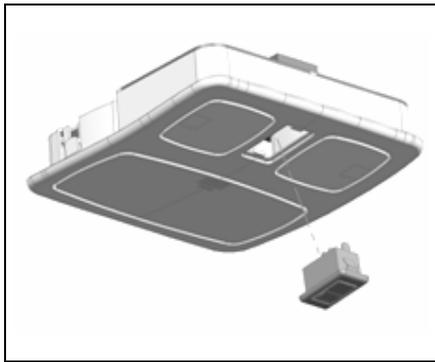
Maintenance guide

1 Replacement of power sunroof switch and its base



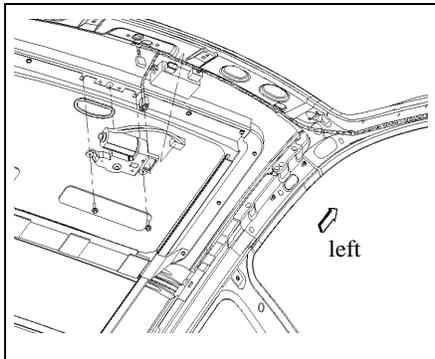
(1) Removal (refer to diagram)

- ① Insert small screwdriver below one side power sunroof switch, and gently pry up the power sunroof switch;
- ② Disconnect the electrical connector from the switch, and remove the power sunroof switch.



(2) Installation (refer to diagram)

- ① **Connect** the connector to the switch;
- ② Push the switch fully into mounting hole of power sunroof switch on reading lamp.



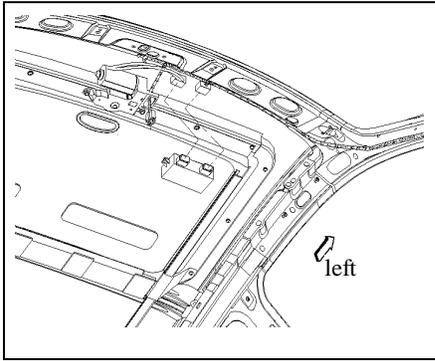
2 Replacement of Sunroof motor (refer to diagram)

(1) Removal

- ① Remove interior trim of the roof. Refer to **“Section 39 of Parts Manual”**.
- ② Disconnect the white connector, and separate motor and control module.
- ③ **Remove 2 screws fixing Sunroof motor to Sunroof upper frame.**
- ④ Pull the motor downward, and remove the motor from Sunroof.

(2) Installation

- ① Insert output shaft of the sunroof motor into the gear of Sunroof upper frame.
- ② Install 2 screws fixing Sunroof motor to Sunroof upper frame, and tighten them to 3.5N•m (30lb•inch).
- ③ Connect the white connector of motor and control module.
- ④ Insert the Sunroof switch connector into the switch bracket square hole on the motor.
- ⑤ Connect Sunroof switch to switch connector, and start the engine to check if Sunroof can operate normally.



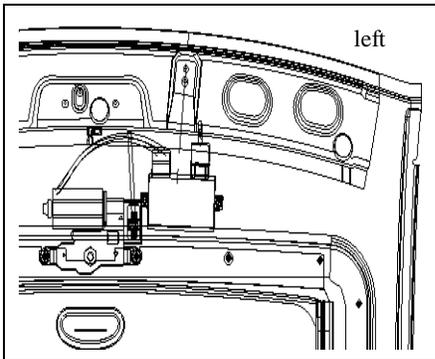
3 Replacement of Sunroof control module (refer to diagram)

(1) Removal

- ① Remove roof interior trim. Refer to “Section 39 of Parts Manual”.
- ② Disconnect control module from vehicle wire bundle.
- ③ Disconnect white motor and control module connector.
- ④ Pull control module downward by force to separate it from vehicle roof.

(2) Installation

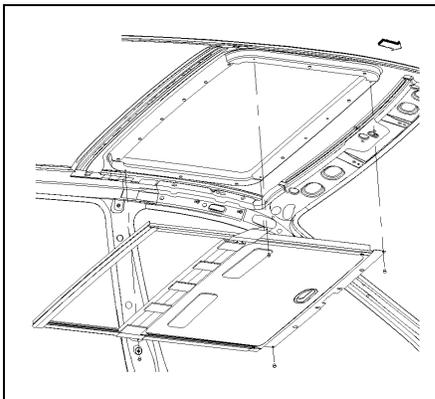
- ① Connect white motor and control module connector.
- ② Tear off protective adhesive paper from control module. (Refer to diagram)
- ③ Stick the control module the surface of roof bracket at the right side (forward direction) of the vehicle, and secure it by means of screws.
- ④ Connect Sunroof switch to switch connector, and start the engine to check if Sunroof can operate normally.



4 Replacement of Sunroof sun visor and fixing frame assembly (refer to diagram)

(1) Removal

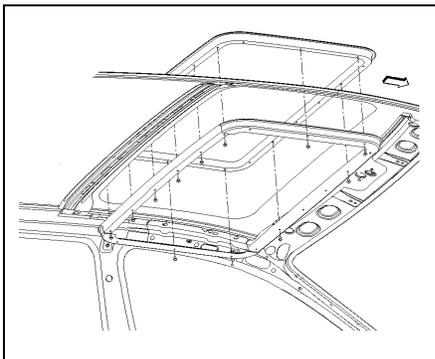
- ① Remove Sunroof motor. Refer to “Replacement of Sunroof motor”.
- ② Remove 4 screws securing Sunroof sun visor fixing frame onto Sunroof upper frame.
- ③ Remove Sunroof sun visor and fixing frame assembly from the vehicle through vehicle door opening.



(2) Installation (refer to diagram)

- ① Put Sunroof sun visor and fixing frame inside the vehicle and push them up.
- ② Install 4 screw securing Sunroof sun visor fixing frame onto Sunroof upper frame.

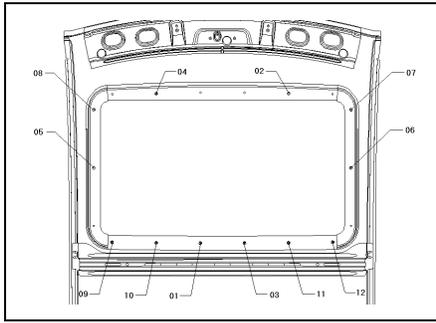
Tighten screws to 3.5N•m (30lbf•in).



5 Replacement of Sunroof inner fixing frame

(1) Removal (refer to diagram)

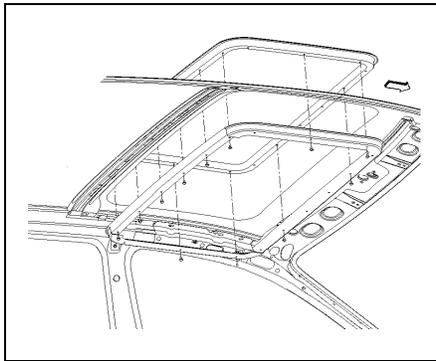
- ① Remove Sunroof sun visor and fixing frame assembly. Refer to “Replacement of Sunroof sun visor and fixing frame assembly”.
- ② Remove 12 screws securing Sunroof inner fixing frame to Sunroof upper frame.
- ③ Remove Sunroof inner fixing frame from the vehicle through vehicle door opening.



(2) Installation

- ① Press Sunroof upper frame assembly to locate it to the mid position of the opening in vehicle roof panel.
- ② Press Sunroof upper frame assembly to deform vehicle roof panel, so as to make their contacting surfaces fit to each other.
- ③ Put Sunroof sun visor fixing frame inside the vehicle and push it up.
- ④ Install (in the sequence as shown in the diagram) 12 screws securing Sunroof inner fixing frame onto Sunroof upper frame. (refer to diagram)

Tighten screws to 3.5N•m (30lb•in).

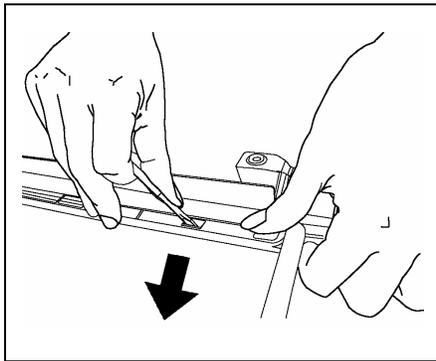
**6 Replacement of Sunroof upper frame assembly**

(1) Removal (refer to diagram)

- ① Remove Sunroof inner fixing frame. Refer to “Replacement of Sunroof inner fixing frame”.
- ② Remove Sunroof upper frame assembly from the opening in vehicle roof panel.

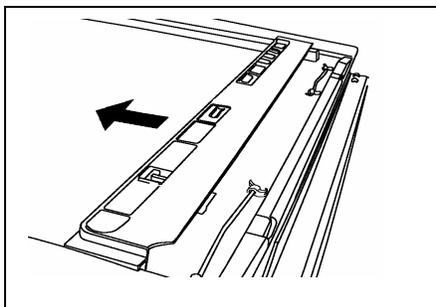
(2) Installation

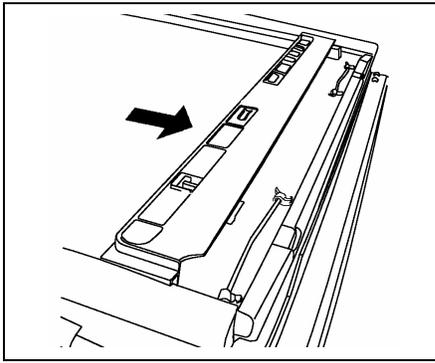
Refer to installation procedures in “Replacement of Sunroof inner fixing frame”.

**7 Replacement of Sunroof sun visor**

(1) Removal

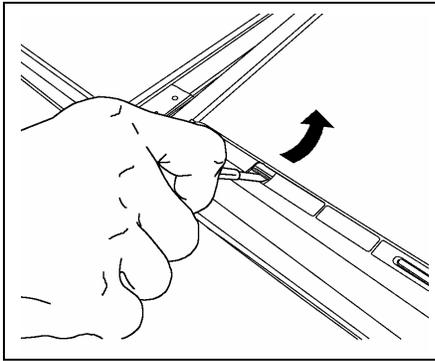
- ① Remove Sunroof sun visor and fixing frame assembly. Refer to “Replacement of Sunroof sun visor and fixing frame assembly”. (refer to diagram)
- ② Use a flat-tip screwdriver to move 4 iron wires on both sides at the back of Sunroof sun visor, making them disengage from the block
- ③ Remove 2 Sunroof sun visor fastening strips from Sunroof sun visor (refer to diagram).
- ④ Remove Sunroof sun visor.



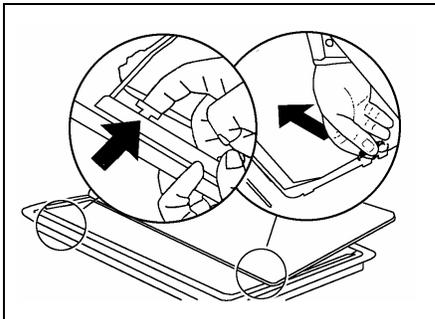


(2) Installation

- ① Place Sunroof sun visor on the guide rail of Sunroof sun visor frame (refer to diagram).
- ② Engage 2 Sunroof sun visor fastening strips on both sides of Sunroof sun visor, allowing the sliders on the fastening strips to enter into the guide rail of Sunroof sun visor through Sunroof sun visor.

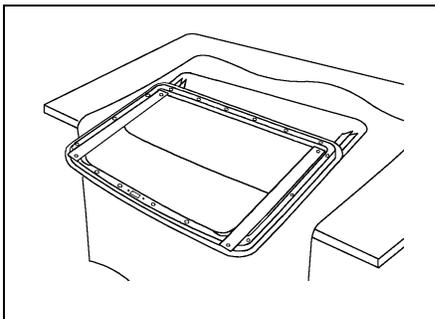


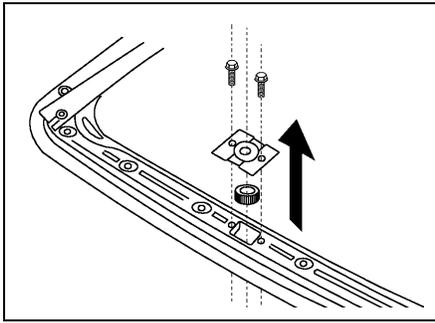
- ③ Use a flat-tip screwdriver to pry up 4 iron wires on Sunroof sun visor, allowing them to catch on the top of the block (refer to diagram).
- ④ Slide Sunroof sun visor fore and back to check for correct installation.

**8 Replacement of Sunroof glass plate assembly**

(1) Removal

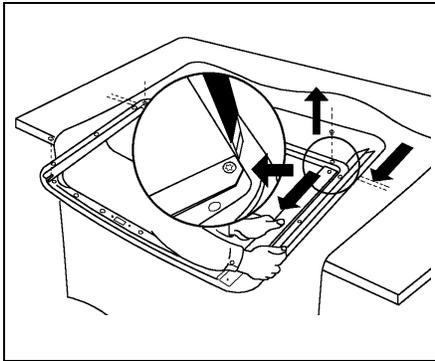
- ① Open Sunroof glass until about 1cm before full open position is reached (refer to diagram).
- ② Remove Sunroof upper frame assembly. Refer to “Replacement of Sunroof upper frame assembly” in “External trimmings”.
- ③ Disengage sliding block at the front of air deflector from Sunroof upper frame, pull the mounting block of air deflector out from glass guide, and remove Sunroof air deflector.
- ④ Place the Sunroof upper frame assembly upside down on a piece of soft cloth, with its front end facing the operator (refer to diagram).





- ⑤ Remove 2 screws securing Sunroof chain press plate onto Sunroof upper frame, and remove chain press plate and gear (refer to diagram).

- ⑥ Remove flexible drive shaft from inside the groove of Sunroof upper frame, and remove the black tube.



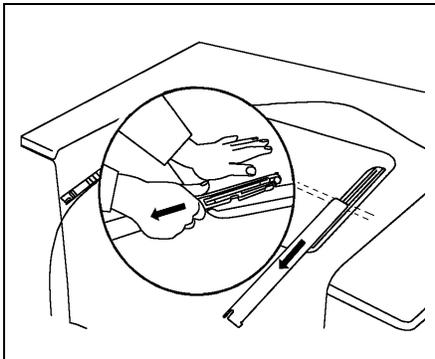
- ⑦ Mark the relative position between glass guide and Sunroof upper frame (refer to diagram).

- ⑧ Remove 4 screws at the corners securing Sunroof glass guide onto the Sunroof upper frame.

- ⑨ Move glass guide forward by about 1cm, and pry up the tail of glass guide to separate it from the Sunroof upper frame.

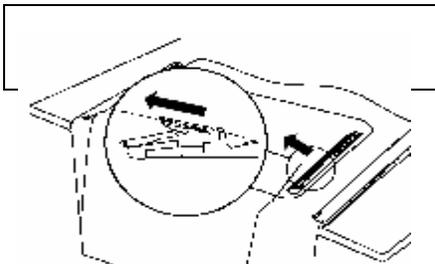
Caution: Support the Sunroof upper frame reliably during the process of removal.

- ⑩ Rotate the Sunroof upper frame to lower front direction, and slide it forward to remove it.

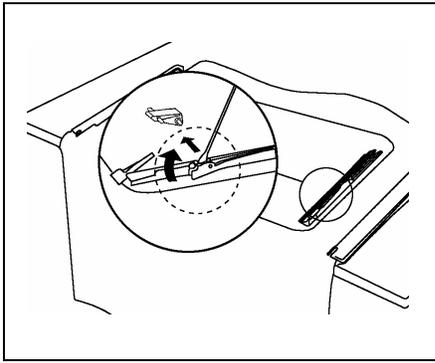


- ⑪ Pull glass guide, and separate it from rotary connecting rod of glass support seat (refer to diagram).

Caution: Do not bend the glass guide downward during the process of pulling.

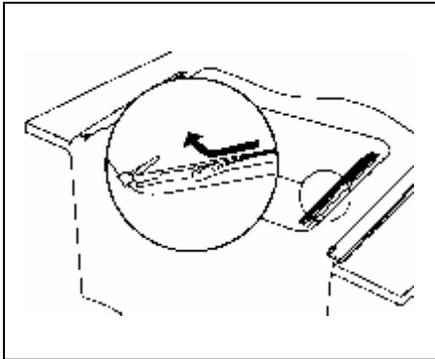


- ⑫ Remove flexible drive shaft from rail slider. Then remove the rail slider from glass lift rod and glass connector (refer to diagram).



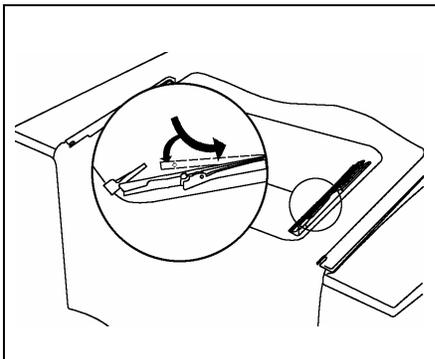
⑬ Rotate the glass lift rod in forward direction, and pull the glass lift rod together with lock-up slide seat to the extreme front position (refer to diagram).

⑭ Carefully insert a flat-tip screwdriver in between the lock-up slide seat and the glass support seat, forcing the front end of lock-up slide seat to deform, so as to disengage the pin on the glass lift rod out from the hole in the lock-up slide seat. Remove the left and right glass lift rod.



⑮ Keep lock-up slide seat in deformed state made in the last Step, pull up the front end of the lock-up slide seat to slide it forward, and remove 2 lock-up slide seats (refer to diagram).

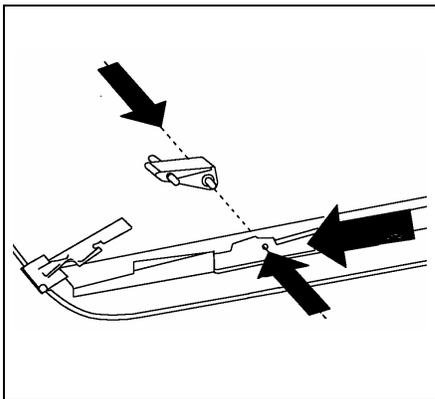
⑯ Remove glass plate assembly (only including the glass plate and the left and right glass support seats).



(2) Installation

① Use Teflon (i.e. polytetrafluoroethylene) lubricating oil to lubricate glass guide, flexible drive shaft, glass lift rod, lock-up slide seat and glass support seat (refer to diagram).

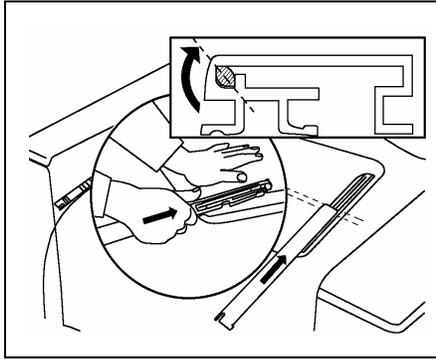
② Place the lock-up slide seat on the glass support seat with its front end facing outward, and slide it rearward to engage it on the glass support seat.



③ Slide the lock-up slide seat to the extreme forward position, and then carefully insert the pin of glass lift rod through slide groove in glass support seat into the hole in lock-up slide seat (refer to diagram).

④ Slide the glass lift rod and lock-up slide seat to the rearward extreme position, and rotate the glass lift rod backward.

- ⑤ Engage the rail slider with the pin on the glass lift rod, and locate the pin on the glass connector at the end of the slide groove of the rail slider.

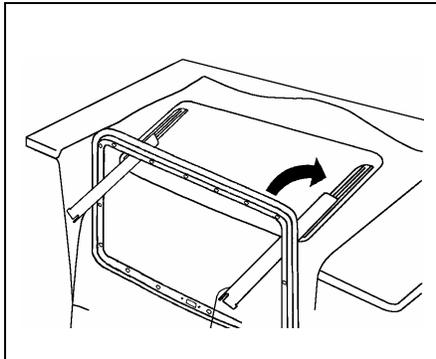


- ⑥ Align the glass connector with the rail slider (refer to diagram).

- ⑦ Carefully slide glass guide to sleeve the glass connector and rail slider into the guide rail until rail slider is retained outside the glass guide for 4-5cm.

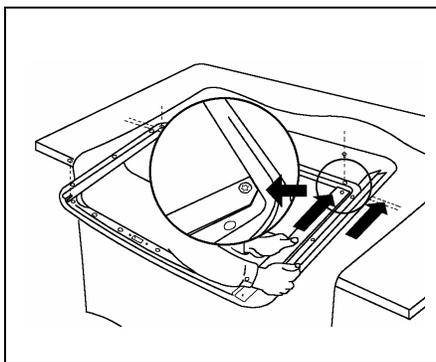
Caution: During the process of installation, does not use too much force, or parts might be damaged.

- ⑧ Insert the flexible drive shaft into glass guide, and engage the end with metal rod into the rail slider, allowing the other end to protrude out from a hole in the narrow recess close to the front end of the glass guide.



- ⑨ Slide the glass guide rearward until the rail slider is 1cm in the glass guide.

- ⑩ Sleeve 2 glass guides into Sunroof upper frame, and guide the rear end of the Sunroof upper frame in between the glass guide and the glass support seat. Pull the Sunroof upper frame forward to install it on the glass assembly (refer to diagram).

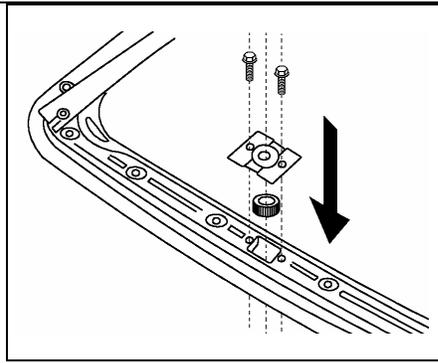


- ⑪ Sleeve the black tube over the flexible drive shaft, and push it together with flexible drive shaft into the recess in the Sunroof upper frame.

- ⑫ Sleeve 2 glass guides into Sunroof upper frame, and guide the rear end of the Sunroof upper frame in between the glass guide and the glass support sea. Pull the Sunroof upper frame forward to install it on the glass assembly (refer to diagram).

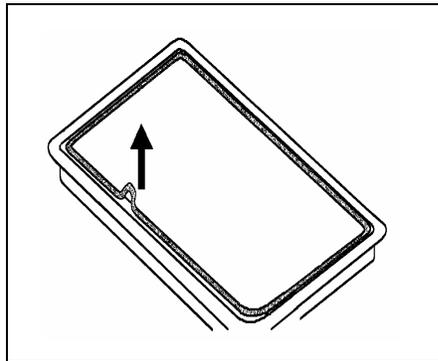
- ⑬ Sleeve the black tube over the flexible drive shaft, and push it together with flexible drive shaft into the recess in the Sunroof upper frame.

Caution: During the process of installation, always make sure that the position of the flexible drive shaft is correct.



the air deflector into the glass guide, and hook the sliding block at the front end of the air deflector on the Sunroof upper frame (refer to diagram).

- ⑮ Push the Sunroof glass plate open to its possible maximum position.



- ⑯ Place the gear on the bearing in the Sunroof upper frame, and engage it with the flexible drive shafts facing each other (refer to diagram).

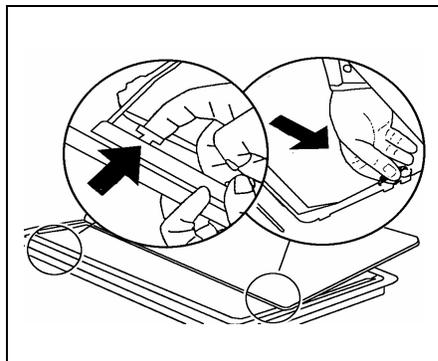
- ⑰ Use 2 screws to install the Sunroof chain press plate onto the Sunroof upper frame.

Tighten: Tighten the screws to 3.5N•m (30lbf•in).

- ⑱ Connect the Sunroof upper frame assembly to the motor, the Sunroof control module and the switch, and connect the Sunroof control module to vehicle wire bundle. Start the engine and check if the Sunroof can operate normally.

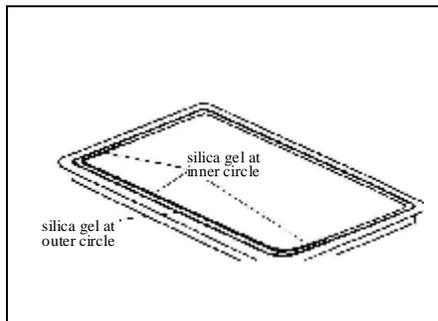
- ⑲ Remove motor, control module and switch.

9 Replacement of Sunroof sealing strip



- (1) Removal (refer to diagram)

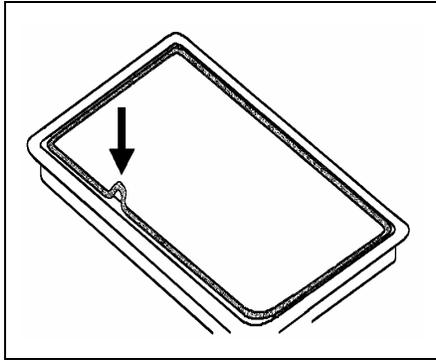
- ① Remove Sunroof upper frame. Refer to Steps 1 to 10 in “Replacement of Sunroof glass assembly” of “External trimmings”.
- ② Partially pull up the Sunroof sealing strip out from the Sunroof upper frame, and then remove the entire piece of sealing strip from the Sunroof upper frame.
- ③ Use banana water to soak the sealing strip groove of the Sunroof upper frame for 4-5min, and then wipe off the banana water, and use a flat-tip screwdriver to remove the residual adhesive left by the old sealing strip.
- ④ Wipe the sealing strip mounting groove of the Sunroof upper frame clean.



- (2) Installation

- ① Coat the outer circle of the bottom of the sealing strip mounting groove in the Sunroof upper frame with acid silica gel in diameter of 2-3mm (refer to diagram).
- ② Coat the entire inner circle at the front of the bottom of the mounting groove and 1/3 inner circle at the front on both sides with acid silica gel in diameter of 2-3mm.

- ⑭ Install the Sunroof air deflector.
Engage the mounting block of



- ③ Press the sealing strip into the mounting groove in the Sunroof upper frame. Make sure that the whole sealing strip is fit completely into the mounting groove, so as to guarantee that the glass and the sealing strip can contract uniformly in the future (refer to diagram).

Important:

When installing sealing strip, do not let silica gel overflow. Sunroof upper frame with sealing strip installed must be kept under room temperature for 8 hours, and subsequent installation of glass plate, etc. can be made.

Description and Operation

1 Description of power sunroof

The power sunroof possesses the following features:

- (1) Manual Sunroof sun visor. There is a handle at front end of the sun visor. The handle is used to open and close the sun visor.
- (2) The control module at the front part of the Sunroof can keep the Sunroof glass at fully closed, tilt ventilation or outward-tilt open position. It provides the Sunroof with automatic closing and anti-clamping functions.
- (3) There is an air deflector in the Sunroof upper frame. When the Sunroof glass moves from tilt ventilation position to open position, the air deflector automatically rises, and then automatically lowers when the glass approaches the closed position. The function of the air deflector is to slow down the speed of airflow through Sunroof opening when glass is open under any vehicle speeds.
- (4) There is a temperature sensor in the Sunroof motor. When the movement of Sunroof is excessively resisted or overload condition exists, the temperature sensor would automatically cutoff power supply within 6sec, so as to protect all parts and assemblies. After this function is initiated, the Sunroof will be stopped completely. The Sunroof will be stopped at any position. When operating push button is pressed, the Sunroof does not react or moves slightly. Now, one should switch off power supply, and keep it at power-off state for 2min, and re-connect the power supply, the Sunroof will resume normal operation.
- (5) Depress the Sunroof two-position toggle switch, and the Sunroof can be operated electrically. This switch is located at the roof interior trimming at the front of the Sunroof. Customers may use the following control modes to operate the Sunroof:
 - ① Manual operation: After the ignition switch is turned on, depress and hold opening push button (rear part of switch) for more than 0.3 sec., the rear end of the glass plate will rise and open. When the push button is released or glass plate is opened to fully tilt ventilation position, its movement stops. After the glass plate moves to fully tilt ventilation position, release push button, and re-depress and hold opening push button for more than 0.3 sec., the glass plate will move backward. When the push button is released or the glass plate has opened its maximum opening position, its movement stops. When operating in the opposite direction, depress and hold closing push button (front part of switch), after the glass plate to fully tilt ventilation position, it stops. After releasing the push button, and re-depress and hold closing push button, the glass plate will move fully closed position.
 - ② Full automatic operation: After the ignition switch is turned on, depress the opening push button (rear part of switch) for less than 0.3 sec., the glass plate will tilt, and automatically open to the maximum opening position. Similarly, depress the closing push button (front part of switch) for less than 0.3 sec.; the glass plate would automatically close fully. When depressing the push button (in any direction) during the process of the movement of the Sunroof, the glass plate would stop immediately at any position. Manual or full automatic operation can be made with the glass plate stopped at any position.

XII Sunroof

- ③ Automatic closing function: After the ignition switch is turned off for about 4sec, the Sunroof will automatically begin to close. If the push button is depressed (in any direction) before Sunroof is fully closed, automatic closing function would be cancelled, and the glass will stop at open position. To close the Sunroof, it is not necessary to turn on the ignition switch, just depressing the closing push button (front part of switch) will do. Operating mode can be manual or fully automatic.
- ④ Anti-clamping function: During the process of full automatic closing, if the Sunroof is obstructed, it would move back automatically until the obstacle is removed. After the ignition switch is turned off, this function is still effective during the process of automatic closing of the Sunroof.

Caution: Do not put your head or hand(s) out while the Sunroof glass is moving.

- (6) Whenever the Sunroof is re-installed or fuse is replaced, the Sunroof must re-programmed, otherwise, the full automatic operation, automatic closing and anti-clamping functions of the Sunroof would be lost temporarily, and the Sunroof can only be operated manually.

Procedures of programming: Depress and hold opening push button (rear part of switch), manually operate the Sunroof glass plate to move it to fully tilt ventilation position, release push button, depress and hold opening push button, and manually operate the glass plate to fully open position. Re-depress and hold closing push button (front part of switch), manually operate the Sunroof glass plate to tilt ventilation position, release push button, re-depress and hold closing push button until the glass plate is fully closed, and the programming is completed. All functions of the Sunroof will be resumed.

- (7) Sealing strip is fit at the inner side of the upper frame near the glass plate. It is used to seal the gap between the glass plate and Sunroof upper frame.
- (8) The groove in the curled edge of the Sunroof upper frame is filled with sealant which is used to seal the gap between the Sunroof upper frame and the roof panel.

Service of Sunroof

- (1) Use cleaning cloth soaked with GM window cleaning agent GM P/N 10500427 or its equivalent to wipe the glass of the Sunroof clean.
- (2) Service the rubber strips.
 - ① Often use talcum to slow down the speed of aging of the strips. It would improve the sealing performance of the sealing strips and prolong their service life.
 - ② As for vehicles frequently used in sandy or dusty environment, clean the sealing strips often, so as to prevent wear of rubber strips and their sealing performance. The method is to use a screwdriver with its tip wrapped with cloth and insert it below the strips to do the cleaning.
 - ③ When it is raining or the vehicle is being washed, make sure that the Sunroof glass is fully closed. Do not open the Sunroof immediately after raining or vehicle washing. Usually wait until water is dried off (about 10 min in traveling). It is better to wipe dry the glass and the outer frame by using dry cloth. By doing so, leakage can be avoided.

2 Operation of power sunroof

The power sunroof (CF5 optional) possesses the following features:

Outward opening type Sunroof glass plate

Manual Sunroof sun visor

Power sunroof is operated with the ignition switch is set at positions of ACCY and ON. Power sunroof is controlled electrically by a two-position toggle switch. The toggle switch is located at the front of the Sunroof. The Sunroof possesses function of tilting and sliding the glass plate. By using the switch, the Sunroof glass can be moved to any one of the following positions:

Tilt ventilation

Outward open

Fully closed

Tilt ventilation

When the Sunroof is in fully closed position, depress and hold opening push button (rear part of switch) for more than 0.3 sec., glass plate will be opened to and stop at the fully tilt ventilation position. During this process, if the push button is released, the glass plate stops. When the Sunroof glass is in open position, depress and hold closing push button (front part of switch), glass plate will tilt move to and stop at the ventilation position.

When the Sunroof is in tilt opening position, depress and hold the Sunroof closing push button, the Sunroof may automatically move to and stop at four positions of different tilting angles (releasing the push button may select any stop position).

Outward tilt opening

To open the power sunroof, depress the opening push button (rear part of switch) for less than 0.3 sec., the glass plate will move from any position automatically to full open position. When the push button is depressed during this process, the glass plate may stop at any position. Or by depressing and holding opening push button (rear part of switch), the Sunroof glass plate can be manually opened to fully tilt ventilation position. After the push button is released, re-depress the opening push button, the glass plate will move to any open position.

Fully closed

To fully close the power sunroof, depress the closing push button (front part of switch) for less than 0.3 sec., the Sunroof will automatically move from any position to closed position. Or one depress and hold the closing push button to the tilt ventilation position, release push button, release and re-depress and hold closing push button or depress the closing push button for less than 0.3 sec., the Sunroof glass plate will be fully closed.

To close the Sunroof sun visor, one must manually move it to the closed position.