

Roof Opening Panel - System Operation and Component Description

System Operation

Sunroof System Function

The roof opening panel motor is hard wired to both the BCM and the roof opening panel control switch. The only function of the BCM is to provide battery voltage and accessory delay voltage to the roof opening panel motor. The roof opening panel control switch is hard wired to the roof opening panel motor with a sunroof open circuit, sunroof close circuit and a tilt/vent switch circuit. When the roof opening panel control switches are pressed, a ground signal is sent to the roof opening panel motor to activate the respective switch request.

Switch Operation

The sunroof opening panel switches are located in the overhead console in the center of the switch bank. The forward switch is the close switch, the center switch is the vent switch, and the rear switch is the open switch. The switches are single position switches that can achieve one touch operation in either direction by pressing the switch for less than 1 second. For manual operation, simply press and hold the switch until the roof opening panel is in the desired position and release the switch. When the roof opening panel is in the fully closed or between fully closed and full vent position the vent switch operates in either manual or one touch operation similar to the roof opening panel open and close switches. One touch operation can be cancelled anytime by pressing any roof opening panel switches during operation.

Roof Opening Panel Operation

When the roof opening panel open switch is pressed and released (one touch operation) the roof opening panel will automatically open and stop at a predetermined position before the fully open position (comfort stop position). Pressing the roof opening panel open switch again for one touch operation (after the initial stop), the roof opening panel will open the full open position. Pressing the roof opening panel close switch for one touch operation will fully close the roof opening panel. The vent position can only be requested when the roof opening panel is in the fully closed position or between fully closed and full vent positions. To open to the full vent position, press and release the vent switch for one touch

operation. Manual operation for the roof opening panel vent (between closed and full vent) is similar to the roof opening panel manual open operation.

No Stop Region - Front Sliding Glass Panel

Manual closing or one touch closing of the roof opening panel cannot be stopped in a small range very close to the fully closed position. This feature is to make sure that the occupant does not leave the roof opening panel in this position because it looks fully closed allowing water intrusion.

Bounce Back - Front Sliding Glass Panel And Shield

The roof opening panel has a bounce back feature. If an obstacle has been detected as the roof opening panel is closing, operation will automatically reverse and stop at a predetermined position.

Security Override

To override a bounce back condition (to overcome the resistance of ice on the roof opening panel seal for example), within 2 seconds of a bounce back event, press and hold the roof opening panel close switch. The roof opening panel will operate in manual mode with bounce back detection disabled until the switch is released.

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