

INTRODUCTION

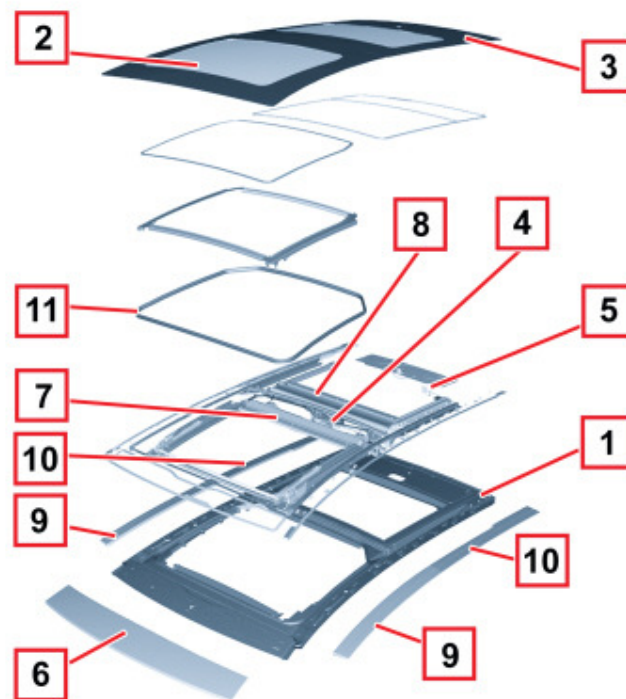
The vehicle may be equipped with an exclusive sun roof, comprising two glass panels, one fixed, the rear one and one moving, which is electrically operated. There are two manual sun blinds on the inside of the roof that slide independently towards the front of the vehicle.

This sun roof system therefore provides the opportunity of various permutations and it is possible to travel with the roof open or let light into the passenger compartment even with the roof closed.

The front blind opens together with the glass. It is closed manually.

Composition

The diagram illustrates the sun roof components.



1. Chassis
2. Sliding front glass
3. Fixed rear glass
4. Electric motor
5. Wiring
6. Deflector
7. Front blind
8. Rear blind
9. Front moulding
10. Rear moulding
11. Seal

The sun roof comprises an internal structure with various components.

The glazed surface is divided into two panels, the rear one is fixed in heat-proof glass like the front sliding panel activated by a dual switch located next to the centre courtesy light assembly.

A sealing strip to protect against infiltration around the edges of the sliding section opening is in contact with the front sliding panel profile.

The control system is composed of an electric motor with an integrated electronic control unit located on the central part of the roof. The movement takes place by means of the motor pinion that drives two flexible racks (bowden).

The front and rear blinds used to protect against sunlight are sliding roller blinds. They slide along guides supported by teflon slide pads with rubber bearings between pad and guide.

The blinds are moved manually.

The blind is accompanied and stops in every position of its travel.

The main sun roof sub-assemblies are:

- Single frame.
- A system of right and left mechanisms, inserted in the aluminium guides, for moving the front glass panel, operated by the electric motor by means of a metal spiral cable.
- 2 aluminium front guides for the sliding function: for the front pulley, the metal spiral cable and the front blind.
- 2 aluminium rear guides covered by the mouldings and the rear glass for the rear pulley sliding function.
- 2 rear guides for the sliding of the rear blind.
- Polyester front blind, retained at the sides, which, on opening, wraps around the centre section of the roof allowing full visibility outside the vehicle.
- Rear polyester curtain retained at the sides, which, whilst opening, wraps around the centre section of the roof allowing full visibility outside the vehicle.
- 2 glass panels 5 mm thick with a brightness transmission TL of 5.6 % +/-3% and an energy transmission TE of 5.2% +/- 3%.
- Aluminium deflector with retractable plastic corners to avoid the effects produced by aerodynamic turbulence (buffeting and passenger comfort) in all driving conditions.
- Plastic side moulding
- Motor activating front glass panel with control unit for anti-crush safety function.

Functional characteristics

The water drainage function is produced by channels on the roof.

The positioning of the assembly on the bodyshell is guaranteed by references on the sun roof frame and by drillings in the bodyshell.

The bonding to the bodyshell guarantees the water tightness (before and after fatigue/ageing) and is resistant to a vertical force equal to that produced by a pressure of 6000 N/m² applied to the perimeter of the bonded frame.

Whilst opening, the front glass panel slides horizontally above the rear panel sliding along outer side guides.

The colour of the glass used for the panels is grey and the light transmission is TL 5.6 % +/-3% and the energy transmission is TE 5.2% +/- 3%.

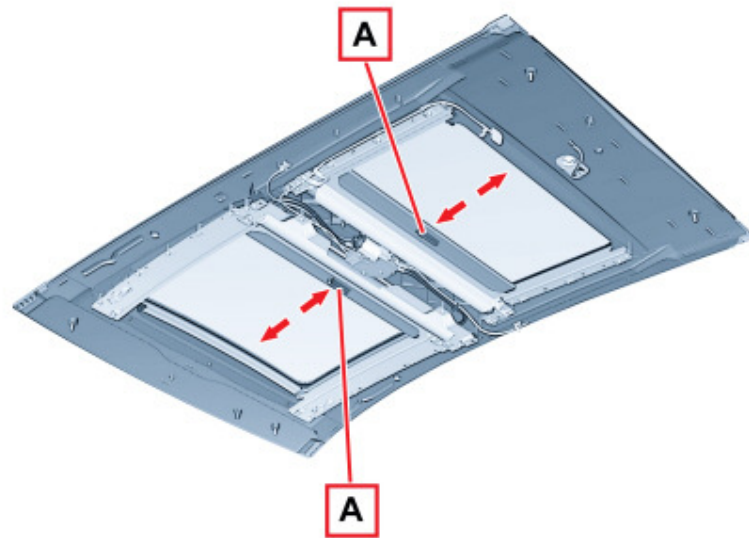
Operation

BLIND OPENING/CLOSING

To open the blinds: grab handle A and accompany it following the direction shown by the arrows until it is in the desired position. To close them, carry out the procedure in reverse.

The opening of the front blind is linked to the position of the roof. When the glass opens, the blind opens too and cannot be closed unless the glass is closed.

The front blind can be opened and closed with the roof closed.



OPENING THE ROOF

The sun roof is operated by the ignition ON.

Press button A and keep it pressed, the front glass panel will assume the spoiler position, press button A again and, operating the control for more than half a second, the roof glass will start moving and automatically assume an intermediate position (comfort position).

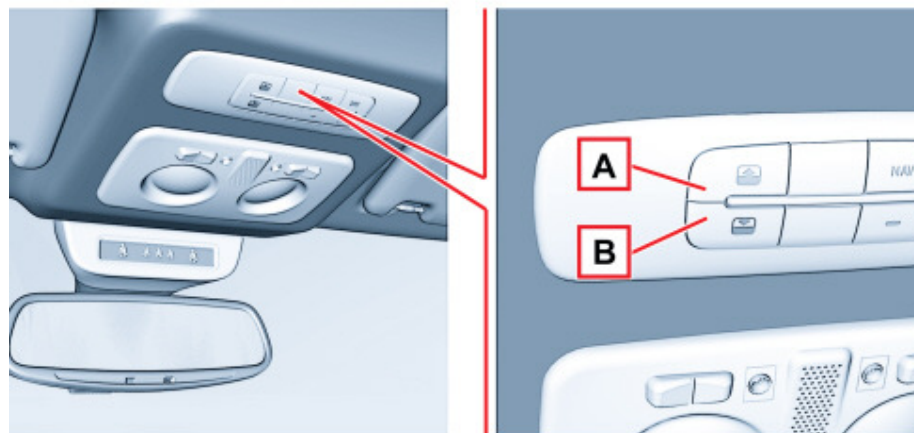
If the opening control is pressed again for more than half a second, the roof will automatically continue until it reaches the end of travel position; the roof glass can be stopped in an intermediate position by operating the button again.

CLOSING THE ROOF

With the roof in the fully open position, press button B and, if the button is operated for more than half a second, the front roof glass will automatically assume the intermediate position (comfort position).

If the button is operated again for about half a second the roof will assume the spoiler position. Lastly, if the closing button is pressed again, the roof will assume the fully closed position.

The blind is closed manually.



Anti-pinch safety function

The sunroof has an anti-pinch safety system capable of detecting the presence of an obstacle whilst the roof is closing; when this happens, the system stops and the movement of the glass is immediately reversed.

Initialisation procedure

The sunroof must be re-initialised after disconnecting the battery or if the relevant protection fuse is blown.

Proceed as follows:

- press button A until the roof is completely closed. Release the button;
- press button A and keep it pressed for at least 10 seconds and/or until the glass panel clicks forwards.

Release the button at this point;

- press button A within 5 seconds of this operation and keep it pressed: the glass panel will complete a full opening and closing cycle.

Only release the button at the end of this cycle.

Emergency operation

If the switch does not work, the sunroof can be operated manually as follows:

- remove the protective cap located on the central part of the inner trim;
- take the Allen key that comes with the vehicle located with the vehicle documentation or in the tool box in the boot;
- introduce the key provided into housing A and working on the engine B, turn clockwise to open the roof or anticlockwise to close the roof.

