■ FUNCTION

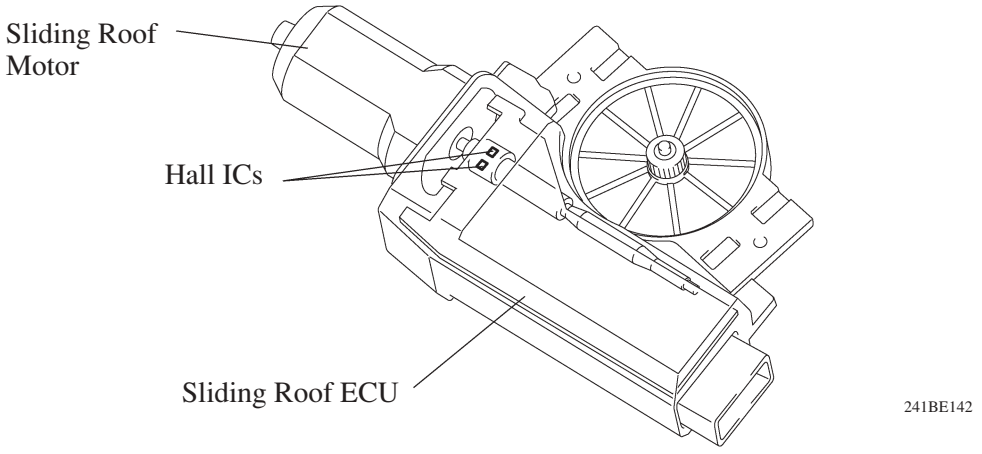
1. General

The sliding roof has following functions:

Function	Outline
Manual Open-and-close	This function causes the sliding roof to open (or close) when the SLIDE OPEN switch (or SLIDE CLOSE switch) is pressed for a maximum of 0.3 seconds. The sliding roof stops as soon as the switch is released.
One-touch Auto Open-and-close	This function causes the sliding roof to be fully opened (or closed) when the SLIDE OPEN switch (or SLIDE CLOSE switch) is pressed for a minimum of 0.3 seconds.
Manual Tilt Up-and- down	This function causes the sliding roof to tilt up (or tilt down) when the TILT UP switch (or TILT DOWN switch) is pressed for a maximum of 0.3 seconds. The sliding roof stops as soon as the switch is released.
One-touch Auto Tilt Up-and-down	This function enables the sliding roof to be fully tilted up (or down) when the TILT UP switch (or TILT DOWN switch) is pressed for a minimum of 0.3 seconds.
Jam Protection	This function automatically stops the sliding roof and moves it open half way (or fully tilt up) if a foreign object gets jammed in the sliding roof during one-touch auto-close operation (or one-touch auto tilt down operation).
Key-off Operation	This function makes it possible to operate the sliding roof for approx. 43 seconds after the power source mode is turned to the ACC or OFF, if the front doors are not opened.

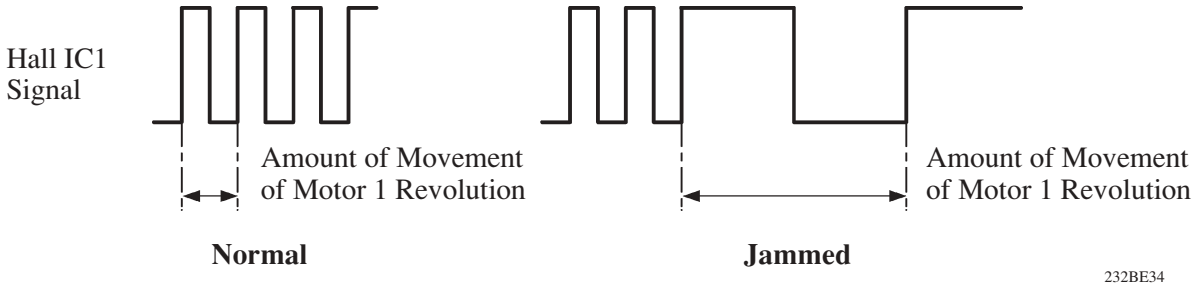
2. Jam Protection Function

- The Hall IC converts the changes in the magnetic flux that occur through the rotation of the worm gear into pulse signals and outputs them to the ECU.

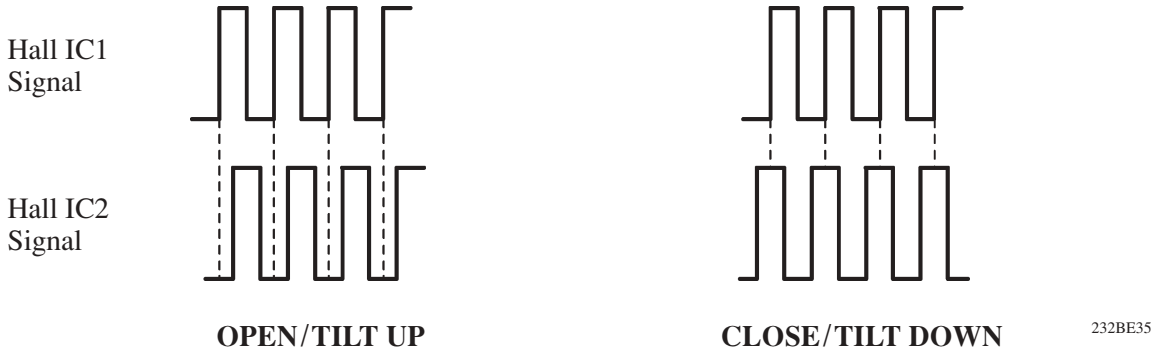


- To control the jam protection function, the ECU determines the amount of movement and the jamming of the sliding roof from the pulse signals from the Hall IC1, and the moving direction of the sliding roof from the phase difference between the pulses from the Hall IC1 and Hall IC2.

▶ Judgment of Amount of Movement and Jamming ◀



▶ Judgment of Moving Direction ◀



BE