■ FUNCTION

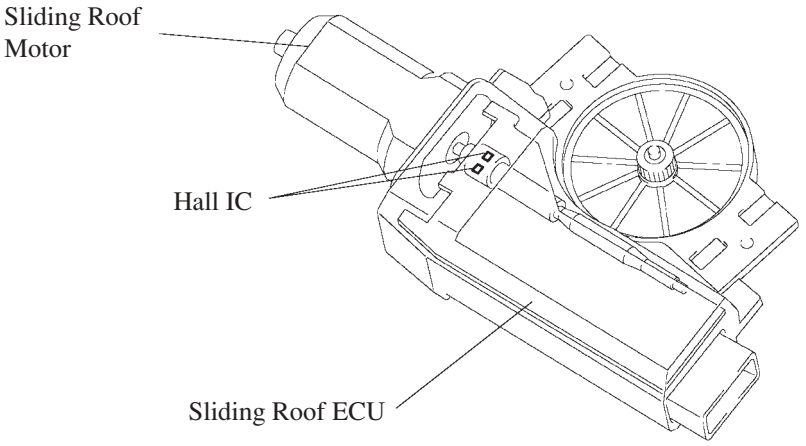
1. General

The moon roof has following functions:

Function	Outline
Manual open-and-close	This function causes the moon roof to open (or close) when the "SLIDE OPEN" side of the control switch (or "TILT UP" side of the control switch) is pressed for a maximum of 0.3 seconds. The moon roof stops as soon as the switch is released.
One-touch auto open-and-close	This function causes the moon roof to be fully opened (or closed) when the "SLIDE OPEN" side of the control switch (or "TILT UP" side of the control switch) is pressed for a minimum of 0.3 seconds.
Manual tilt up-and-down	This function causes the moon roof to tilt up (or tilt down) when the "TILT UP" side of the control switch (or "SLIDE OPEN" side of the control switch) is pressed for a maximum of 0.3 seconds. The moon roof stops as soon as the switch is released.
One-touch auto tilt up	This function enables the moon roof to be fully tilted up when the "TILT UP" side of the control switch is pressed for a minimum of 0.3 seconds.
Jam protection	This function automatically stops the moon roof and moves it open half way (or fully tilt up) if a foreign object gets jammed in the moon roof during close operation (or tilt down operation).
Key-off operation	This function makes it possible to operate the moon roof for approx. 43 seconds after the ignition switch is turned to the ACC or LOCK position, if the front doors are not opened.

2. Jam Protection Function

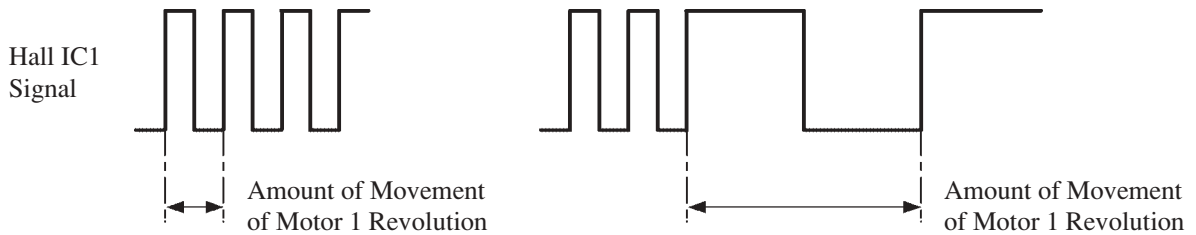
- The Hall IC converts the changes in the magnetic flux that occur through the rotation of the worm gear into pulse signals and outputs them to the ECU.



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

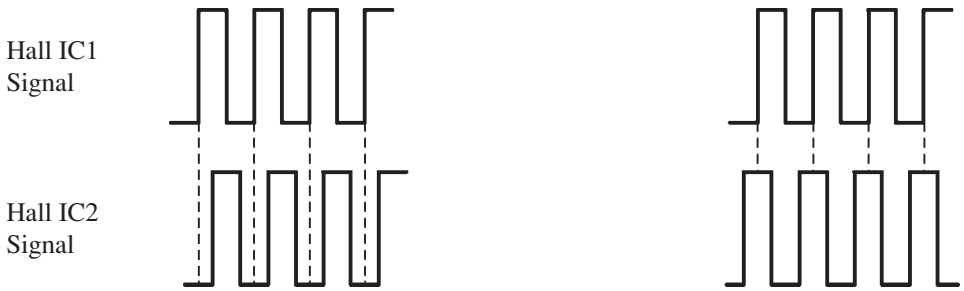
▶ Judgment of Amount of Movement and Jamming ◀



Normal **Jammed**

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▶ Judgment of Moving Direction ◀



OPEN/TILT UP **CLOSE/TILT DOWN**

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– MEMO –