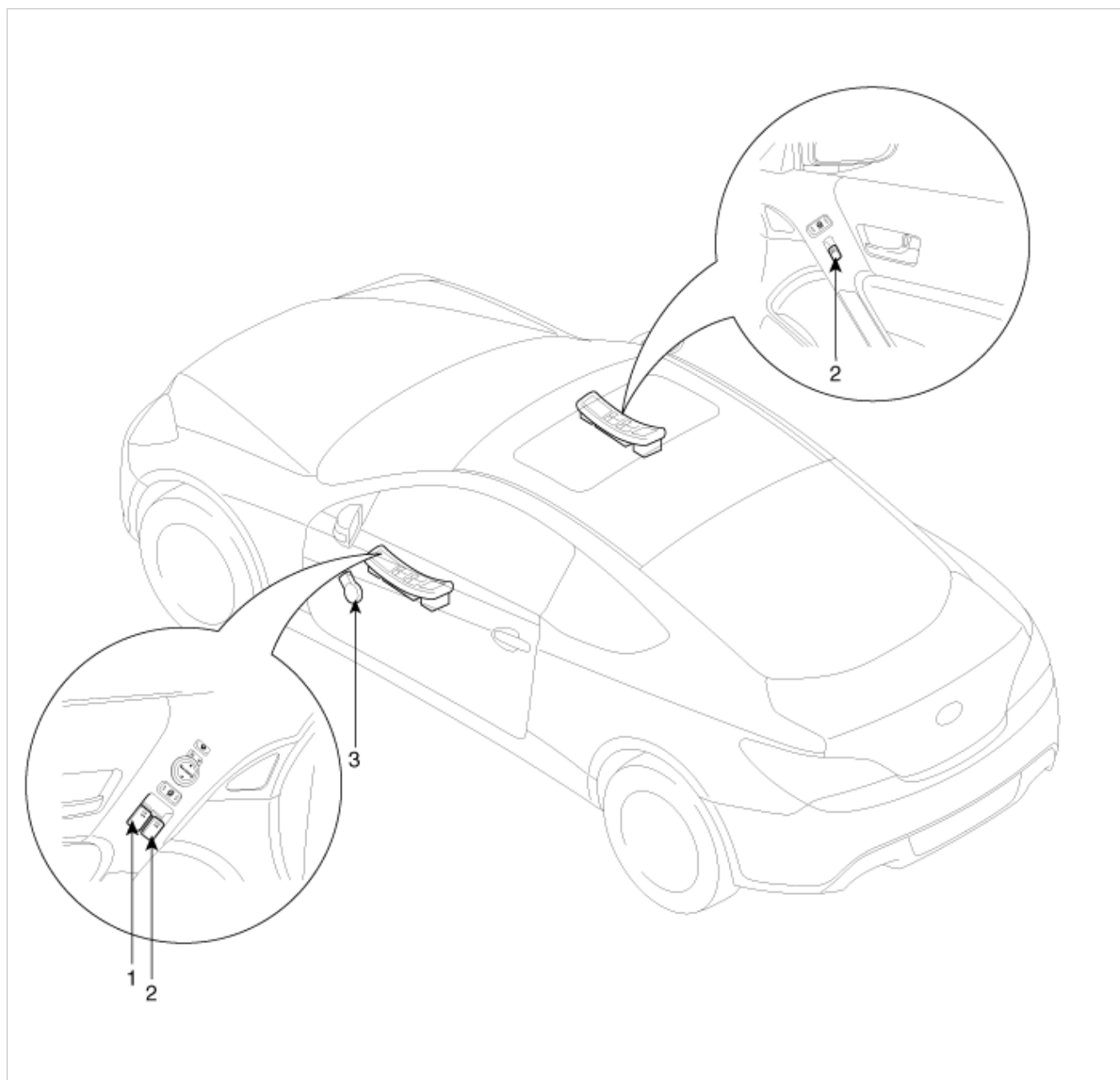


Component Location



- 1. Driver power window main switch
- 2. Passenger power window switch

- 3. Front window motor (Safety window)

Function Of Safety Power Window

When driver door power window auto-up switch is operated, safety function is activated.

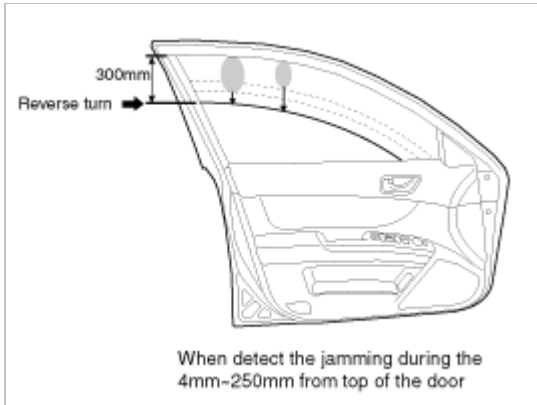
1. Safety function condition

When detect the force of 100N (using the 10N/mm spring) during the window rising, window is reversed.

2. Length of window reversing (except holding the auto-up switch)

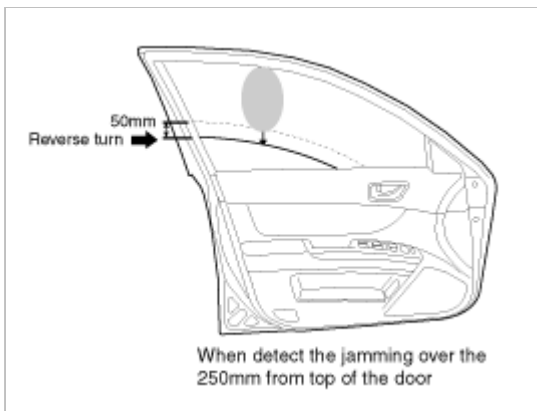
A. When detect the jamming during the 4mm ~ 250mm from top of the door.

→ Window is reversed until 300mm from top of the door.



B. When detect the jamming over the 250mm from top of the door.

→ Window is reversed until 20mm from jamming position.



3. Length of window reversing (holding the auto-up switch)

A. When detect the jamming during holding the auto-up switch.

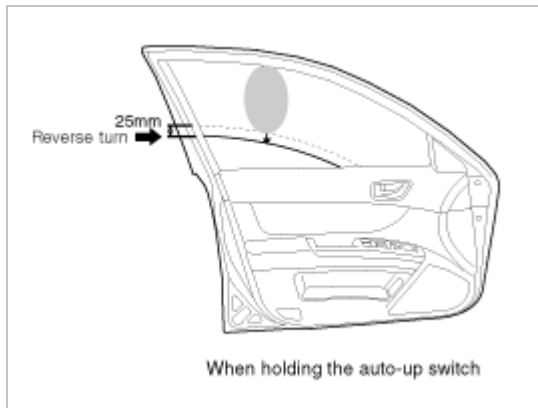
→ Window is reverse until 25mm from jamming position.

B. Auto-up function is not available during the 5 seconds from above condition.

→ When holding the auto-up switch, window is operated as a manual-up function. (Safety function is not activated.)

C. When holding the auto-up switch after 5 seconds from above condition.

→ Window is reverse until 25mm from jamming position.



4. Safety function is not available area
Safety function is not available during the 4mm from top of the door.

Initializing Method Of The Safety Power Window

1. Initializing of Battery Connection

When the window cannot be properly closed or opened, safety power window switch needs initializing.

(1) Power window operation before initializing

A. Manual-Down function is not available

(2) Turn the ignition switch to the ON position.

(3) Push down the power window switch until the window glass is entirely down.

(4) Turn the ignition switch from OFF to ON within 2 sec.

(5) Push down the power window switch three times continuously within 5 sec.

Reinitializing Method

1. Close the power window.

2. Push up the power window switch to the close position for 1 sec.

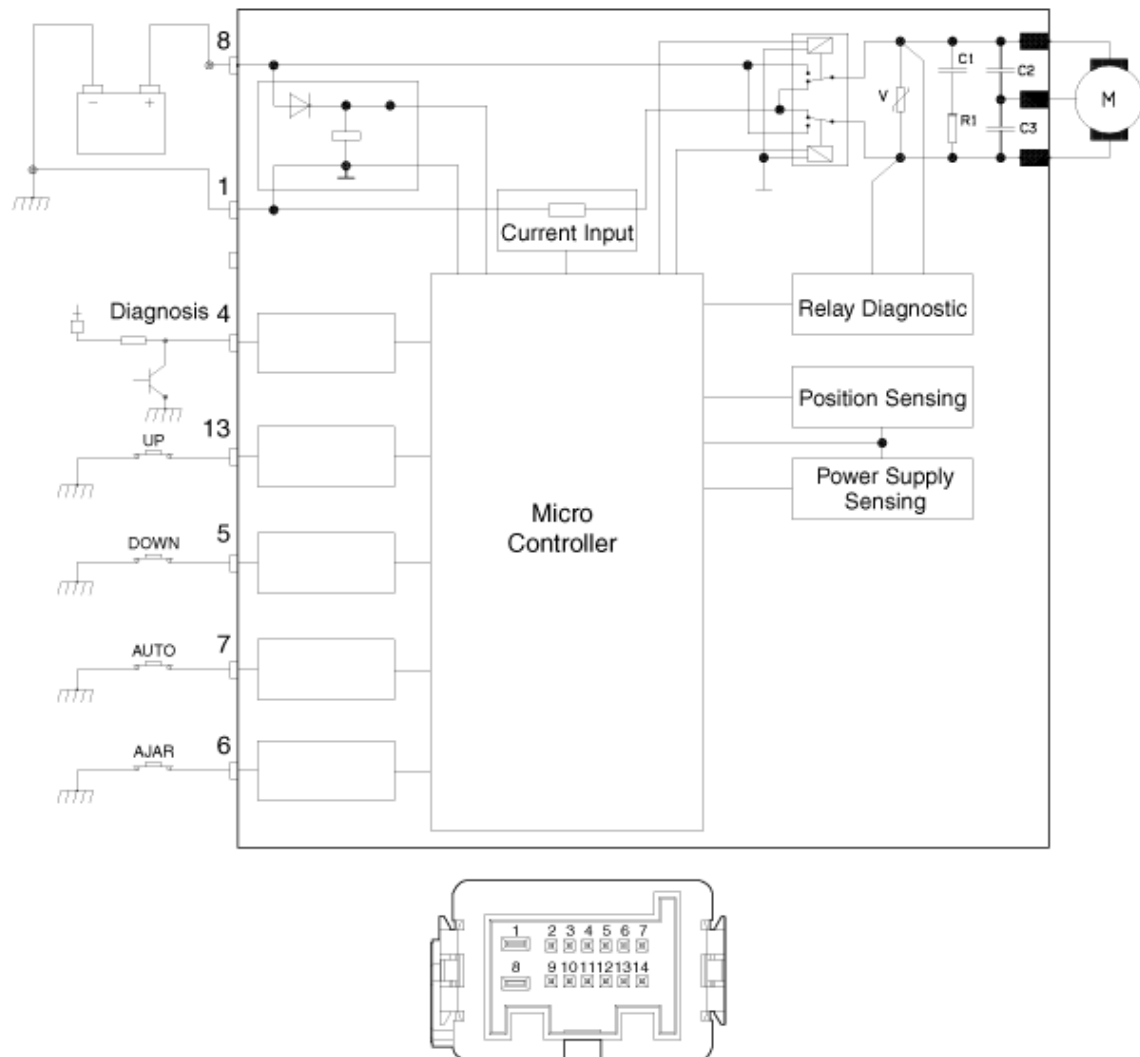
Short Drop

The short drop (SD) functionality is linked to the door ajar signal. In case of door opened, the door ajar signal (low level) will be received by the ECU. As a result the upper stop position will be changed from upper mechanical block position to the short drop position (EEPROM parameter). Short drop commands will be executed independent of multi function line state.

Window lifter behavior due to door ajar signal:

Window	Event	Action
Closed	Door opened → Short drop active	Glass moves down to SD position
Over SD position	Door opened → Short drop active	Glass moves down to SD position
Below SD position	Door opened → Short drop active	Glass will not move, but upper stop position will be changed to SD position
SD position	Door opened → Short drop active	Glass will not move, but upper stop position will be changed to SD position
SD position	Door closed → Short drop inactive	Glass will move to upper block position, upper stop position is equal to mechanical stop SD position
Below SD position	Door closed → Short drop inactive	Glass will not move, but upper stop position will change to mechanical stop position

Circuit Diagram

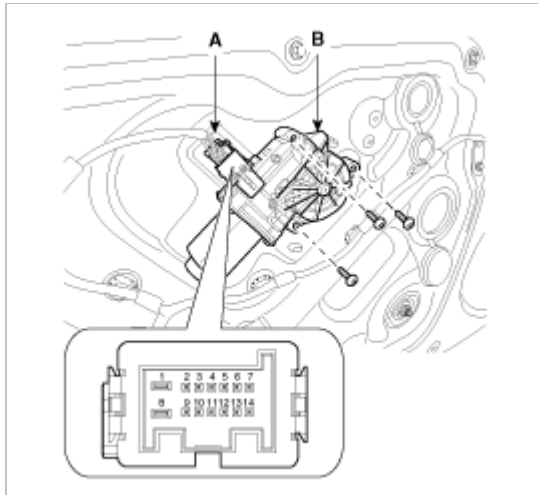


Pin No.	Name
1	Battery GND
4	Diagnostic Line
5	Down Switch
6	AJAR Switch
7	Auto Switch
8	Battery
13	Up Switch

Inspection

Front Power Window Motor

1. Remove the front door trim panel.
(Refer to the Body group - "Front door")
2. Disconnect the connector from the motor.

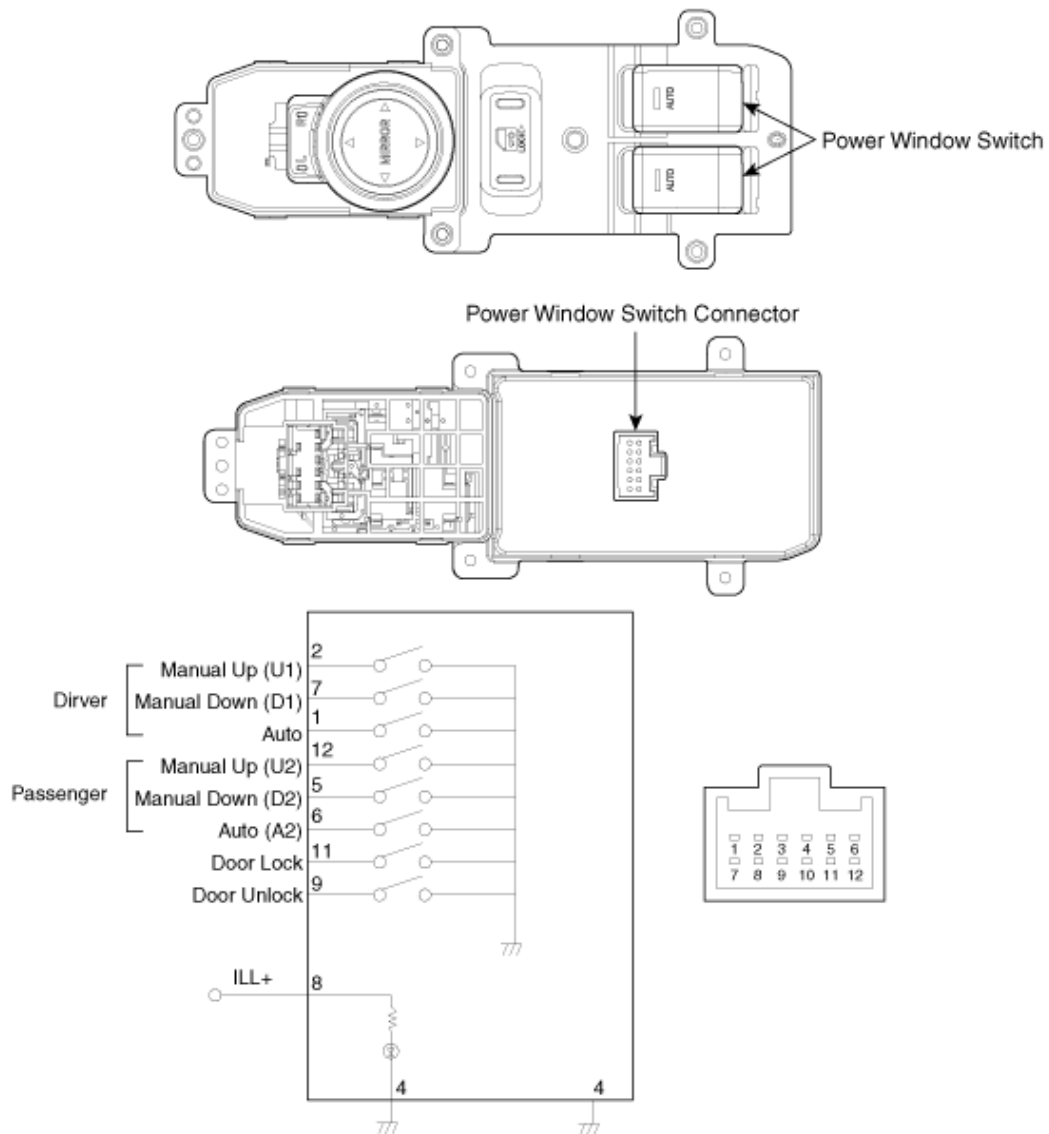


3. Connect the terminal No.4 directly to battery voltage (12V) and check that the motor operates smoothly. If the operation is abnormal, replace the motor.

Terminal Position		13	1(GND)	5
LH	UP	○ — ○	○ — ○	
	DOWN		○ — ○	○ — ○
RH	UP	○ — ○		
	DOWN		○ — ○	○ — ○

Circuit Diagram

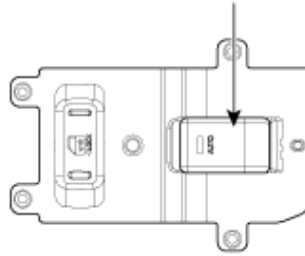
Driver Power Window Switch



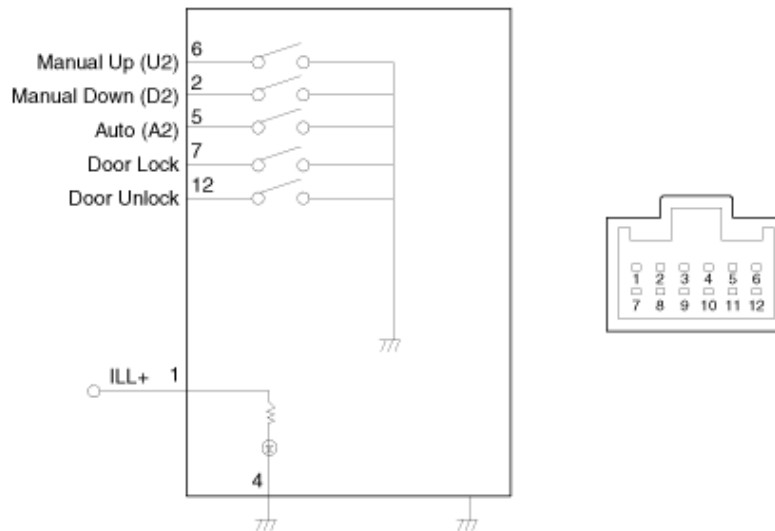
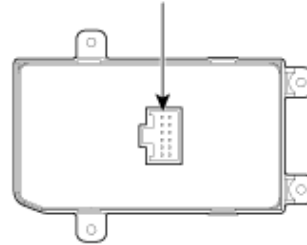
Pin No.	Name	Pin No.	Name
1	Auto (Driver)	7	Manual Down (Driver)
2	Manual Up (Driver)	8	ILL (+)
3	-	9	Door Unlock
4	GND	10	-
5	Manual Down (Passenger)	11	Door Lock
6	Auto Down (Passenger)	12	Manual Up (Passenger)

Assist Power Window Switch

Power Window Switch



Connector A

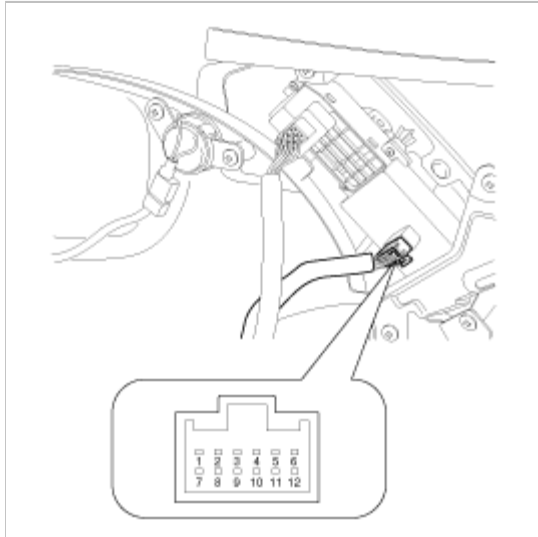


Pin No.	Name	Pin No.	Name
1	ILL (+)	7	Door Lock
2	Manual Down	8	-
3	-	9	-
4	GND	10	-
5	Auto	11	-
6	Manual Up	12	Door Unlock

Inspection

Power Window Main Switch Inspection

1. Disconnect the negative (-) battery terminal.
2. Remove the front door trim panel.
(Refer to the Body group - front door)
3. Disconnect the 12P connector from the switch.

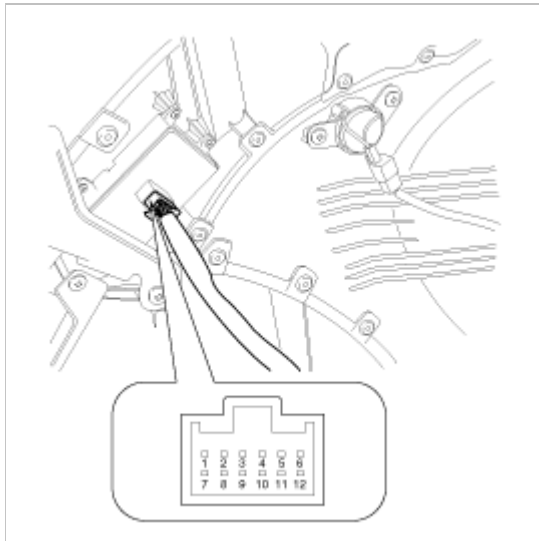


4. Check for continuity between the terminals in each switch position according to the table. If the continuity condition is not normal, replace the switch.

Position		Terminal	1	2	4 (GNB)	5	6	7	12
Driver	Manual Up			○	○				
	Manual Down				○	○	○	○	
	Auto		○	○					
Passenger	Manual Up				○	○	○	○	
	Manual Down				○	○			
	Auto				○	○			

Assist Power Window Switch Inspection

1. Disconnect the negative (-) battery terminal.
2. Remove the front door trim panel.
(Refer to the Body group - front door)
3. Disconnect the 12P connector from the switch.



4. Check for continuity between the terminals in each switch position according to the table. If the continuity condition is not normal, replace the switch.

Terminal Position	2	4 (GND)	5	6
Manual Up		○ ————— ○		
Manual Down	○ ————— ○			
Auto		○ ————— ○		