SYSTEM OUTLINE

1. MANUAL OPERATION (DRIVER'S WINDOW)

With the ignition SW turned on and with the power window master SW (Driver's side) in UP position, the current flowing to TERMINAL +B of the power window master SW flows to TERMINAL DU of the master SW to TERMINAL 1 of the power window motor to TERMINAL 2 to TERMINAL DD of the master SW to TERMINAL E to GROUND and causes the power window motor to rotate in the up direction. The window ascends only while the SW is being pushed. In down operation, the flows of current from to TERMINAL +B of the power window master SW to TERMINAL DD of the master SW causes the flow of current from TERMINAL 2 of the motor to TERMINAL 1 to TERMINAL DU of the master SW to TERMINAL E to GROUND, flowing in the opposite direction to manual up operation and causing the motor to rotate in reverse, lowering the window.

2. AUTO DOWN OPERATION (DRIVER'S WINDOW)

When the front LH window control SW in the power window master SW is pushed strongly on the down side, current flows from TERMINAL +B of the master SW to TERMINAL DD to TERMINAL 2 of the power window motor to TERMINAL 1 to TERMINAL DU of the master SW to TERMINAL E to GROUND. Because the hold circuit inside the master SW keeps the relay on the down side activated, the power window motor continues operating even if the power window master SW is released. When the driver's window is fully lowered, the hold circuit turns off and the relay on the down side turns off, so auto down operation stops.

3. AUTO UP OPERATION

With the ignition SW on and auto SW of the power window master SW in up side, current flowing to TERMINAL +B of the master SW flows to TERMINAL DU to TERMINAL 1 of the power window motor to TERMINAL 2 to TERMINAL DD of the master SW to TERMINAL E to GROUND, causing the power window motor to rotate towards the up side. Then the hold circuit in the master SW is activated and it locks the auto SW being pulled, causing the motor to continue to rotate in auto up operation.
when the window has completely ascended, the current flow between TERMINAL DD of the master SW and TERMINAL E increases. As a result, the hold circuit stops operating, the auto SW turns off and flow from TERMINAL +B of the master SW to TERMINAL DU is cut off, stopping the motor so that auto stop occurs.

4. STOPPING OF AUTO DOWN AT DRIVER'S WINDOW

When the master SW (Driver's side) is pulled to the up side during auto down operation, a ground circuit opens in the master SW and current does not flow from TERMINAL DU of the master SW to TERMINAL E, so the motor stops, causing auto down operation to stop. If the master SW is pulled continuous, the motor rotates in the up direction in manual up operation.

5. STOPPING OF AUTO UP AT DRIVER'S WINDOW

When the master SW (Driver's side) is pushed to down side during auto up operation, a ground circuit opens in the master SW and current does not flow from TERMINAL DD of the master SW to TERMINAL E, so the motor stops, causing auto up operation to stop. If the master SW is pulled continuous the motor rotates in the down direction in down operation.

6. MANUAL OPERATION BY POWER WINDOW SW (FRONT PASSENGER'S WINDOW)

With the power window master SW (Front passenger's side) pulled to the up side, current flowing from TERMINAL BDR of the power window master SW flows to TERMINAL PU to TERMINAL 2 of the power window motor to TERMINAL 1 to TERMINAL PD of the power window master SW to TERMINAL W/L to TERMINAL 7 of the power window lock SW to TERMINAL 10 to GROUND and causes the power window motor to rotate in the up direction. Up operation continues only while the power window master SW is pulled to the up side. When the window descends, the current flowing to the motor flows in the opposite direction, from TERMINAL 2 to TERMINAL 1, and the motor rotates in reverse. When the power window lock SW is pushed to the lock side, the ground circuit to the passenger's window becomes open. As a result, even if Open/Close operation of the passenger's window is tried, the current from TERMINAL W/L of the power window master SW is not grounded and the motor does not rotate, so the passenger's window can not be operated and window lock occurs.

7. CAUGHT PREVENTION OPERATION

At the time of one–touch automatic up operation, if foreign object is caught between a window frame and a glass, the glass rise will stop and reverse to descend.

8. KEY OFF POWER WINDOW OPERATION

Within approx. 43 sec. after the ignition SW is turned from on to off, the power window can be operated. However, if the driver or passenger door is opened during this period of time, the power window operation is stopped even through 43 sec. have not elapsed.

SERVICE HINTS

D3, D4 DOOR COURTESY SW LH, RH

1–GROUND : Closed with the door open

P4 POWER WINDOW MASTER SW

17–GROUND : Always continuity
12–GROUND : Approx. **12** volts with the ignition SW on
9–GROUND : Approx. **12** volts with the ignition SW at **ON** position and the master SW at **UP** position
18–GROUND : Approx. **12** volts with the ignition SW at **ON** position and the master SW at **DOWN** or **AUTO DOWN** position

P3 POWER WINDOW LOCK SW

7–10 : Open with the window lock SW at **LOCK** position

: PARTS LOCATION

Code		See Page	Code		See Page	Code	See Page
B6	A	90 (LHD)	D4		92 (LHD)	P4	91 (LHD)
B7	B	90 (LHD)	E3	A	88 (LHD 1ZZ–FE)	P6	93 (LHD)
C11	A	90 (LHD)	E4	B	88 (LHD 1ZZ–FE)	P7	93 (LHD)
C12	B	90 (LHD)	J3		91 (LHD)		
D3		92 (LHD)	P3		91 (LHD)		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
II	81	Instrument Panel Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IN	81	Floor Wire and Instrument Panel J/B (Instrument Panel Brace RH)
IO		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	104 (LHD)	Front Door LH Wire and Instrument Panel Wire (Left Kick Panel)
IA2		
IE4	104 (LHD)	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IE5		
IF1	106 (LHD)	Floor Wire and Instrument Panel Wire (Instrument Panel Brace LH)
IF2		
IH2	106 (LHD)	Front Door RH Wire and Instrument Panel Wire (Right Kick Panel)

: GROUND POINTS

Code	See Page	Ground Points Location
IE	104 (LHD)	Cowl Side Panel LH
IF	104 (LHD)	Instrument Panel Brace RH