

SERVICE HINTS

D6 DOOR CONTROL RELAY

- 2-GROUND : ALWAYS APPROX. 12 VOLTS
- 10-GROUND : ALWAYS CONTINUITY
- 8-GROUND : APPROX. 12 VOLTS WITH THE IGNITION SW AT **ON** POSITION
- 7, 13-GROUND : CONTINUITY WITH DOOR OPENED
- 5-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON AND STAYS AT 12 VOLTS FOR 60 SECONDS AFTER THE IGNITION SW IS TURNED OFF, BUT IF A DOOR IS OPENED IN THIS 60 SECONDS PERIOD, VOLTAGE WILL DROP TO 0 VOLTS

D7, D8 DOOR COURTESY SW

- 1-GROUND : CONTINUITY WITH DOOR OPENED

P4 POWER WINDOW CONTROL SW (PASSENGER'S)

- 4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON AND STAYS AT 12 VOLTS FOR 60 SECONDS AFTER THE IGNITION SW IS TURNED OFF, BUT IF A DOOR IS OPENED IN THIS 60 SECONDS PERIOD, VOLTAGE WILL DROP TO 0 VOLTS

P5 POWER WINDOW MASTER SW

- 6-GROUND : ALWAYS CONTINUITY
- 9-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON AND STAYS AT 12 VOLTS FOR 60 SECONDS AFTER THE IGNITION SW IS TURNED OFF, BUT IF A DOOR IS OPENED IN THIS 60 SECONDS PERIOD, VOLTAGE WILL DROP TO 0 VOLTS
- 3-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND MASTER SW AT **UP** POSITION
- 4-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND MASTER SW AT **DOWN** OR **AUTO DOWN** POSITION

WINDOW LOCK SW

OPEN WITH WINDOW LOCK SW AT **LOCK** POSITION

: PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
D3	24	D7	24	P5	25
D5	24	D8	24	P6	25
D6	24	P4	25	P7	25

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1D	18	COWL WIRE AND J/B NO.1 (LEFT KICK PANEL)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
F1	32	DOOR LEFT WIRE AND COWL WIRE (LEFT KICK PANEL)
G2	32	DOOR RIGHT WIRE AND COWL WIRE (RIGHT KICK PANEL)

: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
E	32	LEFT KICK PANEL

: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I1	32	COWL WIRE	I9	32	COWL WIRE
I2					

SYSTEM OUTLINE

WITH THE IGNITION SW TURNED ON, CURRENT FLOWS THROUGH THE GAUGE FUSE TO TERMINAL 8 OF THE DOOR CONTROL RELAY → TERMINAL 10 → TO GROUND. THIS ACTIVATES THE RELAY AND THE CURRENT FLOWING TO TERMINAL 2 OF THE RELAY FROM POWER CB FLOWS TO TERMINAL 5 OF THE RELAY → TERMINAL 9 OF THE POWER WINDOW MASTER SW → TO TERMINAL 5 OF THE POWER WINDOW SW.

1. MANUAL UP OPERATION (DRIVER'S WINDOW)

WITH THE IGNITION SW TURNED ON AND WITH THE POWER WINDOW MASTER SW (MANUAL SW) IN UP POSITION, THE CURRENT FLOWING TO TERMINAL 9 OF THE POWER WINDOW MASTER SW FLOWS TO TERMINAL 3 OF THE MASTER SW → TERMINAL 2 OF THE POWER WINDOW MOTOR → TERMINAL 1 → TERMINAL 4 OF THE MASTER SW → TERMINAL 6 → 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 FLOW OF CURRENT FROM TERMINAL 9 OF THE POWER WINDOW MASTER SW TO TERMINAL 4 OF THE MASTER SW CAUSES THE FLOW OF CURRENT FROM TERMINAL 1 OF THE MOTOR → TERMINAL 2 → TERMINAL 3 OF THE MASTER SW → TERMINAL 6 → 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

WITH THE IGNITION SW ON AND WITH THE AUTO SW OF THE POWER WINDOW MASTER SW IN DOWN POSITION, CURRENT FLOWING TO TERMINAL 9 OF THE MASTER SW FLOWS TO TERMINAL 4 OF THE MASTER SW → TERMINAL 1 OF THE POWER WINDOW MOTOR → TERMINAL 3 → TERMINAL 2 OF THE MASTER SW → TERMINAL 6 → TO GROUND, CAUSING THE MOTOR TO ROTATE TOWARDS THE DOWN SIDE.

THEN THE SOLENOID IN THE MASTER SW IS ACTIVATED AND IT LOCKS THE AUTO SW BEING PUSHED, CAUSING THE MOTOR TO CONTINUE TO ROTATE IN AUTO DOWN OPERATION.

WHEN THE WINDOW HAS COMPLETELY DESCENDED, THE CURRENT FLOW BETWEEN TERMINAL 3 OF THE MASTER SW AND TERMINAL 6 INCREASES. AS A RESULT, THE SOLENOID STOPS OPERATING, THE AUTO SW TURNS OFF AND FLOW FROM TERMINAL 9 OF THE MASTER SW TO TERMINAL 4 IS CUT OFF, STOPPING THE MOTOR SO THAT AUTO STOP OCCURS.

3. STOPPING OF AUTO DOWN AT DRIVER'S WINDOW

WHEN THE MANUAL SW (DRIVER'S) IS PUSHED TO THE UP SIDE DURING AUTO DOWN OPERATION, A GROUND CIRCUIT OPENS IN THE MASTER SW AND CURRENT DOES NOT FLOW FROM TERMINAL 3 OF THE MASTER SW → TO TERMINAL 6, SO THE MOTOR STOPS, CAUSING AUTO DOWN OPERATION TO STOP. IF THE MANUAL SW IS PUSHED CONTINUOUSLY, THE MOTOR ROTATES IN THE UP DIRECTION IN MANUAL UP OPERATION.

4. MANUAL OPERATION BY POWER WINDOW CONTROL SW (PASSENGER'S)

WITH POWER WINDOW SW (PASSENGER'S) PUSHED TO THE UP SIDE, CURRENT FLOWING FROM TERMINAL 5 OF THE POWER WINDOW SW FLOWS TO TERMINAL 1 OF THE POWER WINDOW SW → TERMINAL 2 OF THE POWER WINDOW MOTOR → TERMINAL 1 → TERMINAL 4 OF THE POWER WINDOW SW → TERMINAL 3 → TERMINAL 7 OF THE MASTER SW → TERMINAL 6 → TO GROUND AND CAUSES THE POWER WINDOW MOTOR (PASSENGER'S) TO ROTATE IN THE UP DIRECTION. UP OPERATIONS ONLY WHILE THE POWER WINDOW SW IS PUSHED TO THE UP SIDE. WHEN THE WINDOW DESCENDS, THE CURRENT FLOWING TO THE MOTOR FLOWS IN THE OPPOSITE DIRECTION, FROM TERMINAL 1 TO TERMINAL 2, AND THE MOTOR ROTATES IN REVERSE. WHEN THE 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 6 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.

5. KEY OFF POWER WINDOW OPERATION

WITH THE IGNITION SW TURNED FROM ON TO OFF, THE RELAY OPERATES AND CURRENT FLOWS FROM TERMINAL 2 → TERMINAL 10 → TO GROUND FOR ABOUT 60 SECONDS. THE SAME AS NORMAL OPERATION, THE CURRENT FLOWS FROM TERMINAL 2 OF THE DOOR CONTROL RELAY → TERMINAL 5 → TERMINAL 9 OF THE POWER WINDOW MASTER SW AND TERMINAL 5 OF THE DOOR CONTROL RELAY → TO TERMINAL 5 OF POWER WINDOW SW. AS A RESULT, FOR ABOUT 60 SECONDS AFTER THE IGNITION SW IS TURNED OFF, IT IS POSSIBLE TO RAISE AND LOWER THE POWER WINDOW BY THE FUNCTIONING OF THIS RELAY. ALSO, BY OPENING THE DOOR (DOOR COURTESY SW ON) WITHIN ABOUT 60 SECONDS AFTER TURNING THE IGNITION SW TO OFF, A SIGNAL IS INPUT TO TERMINAL 13 OR 7 OF DOOR CONTROL RELAY. AS A RESULT, THE RELAY TURNS OFF AND UP AND DOWN MOVEMENT OF THE WINDOW STOPS.