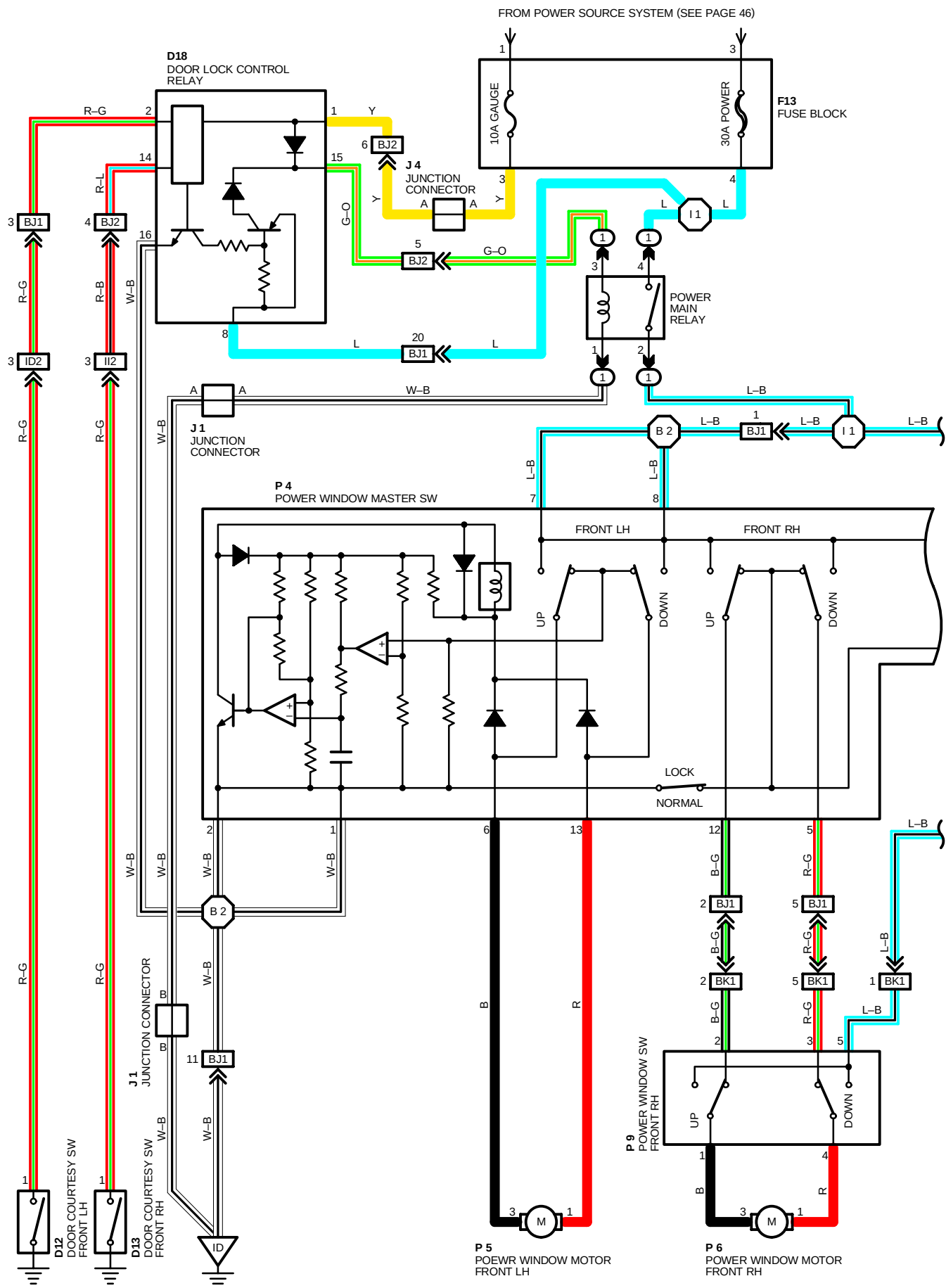
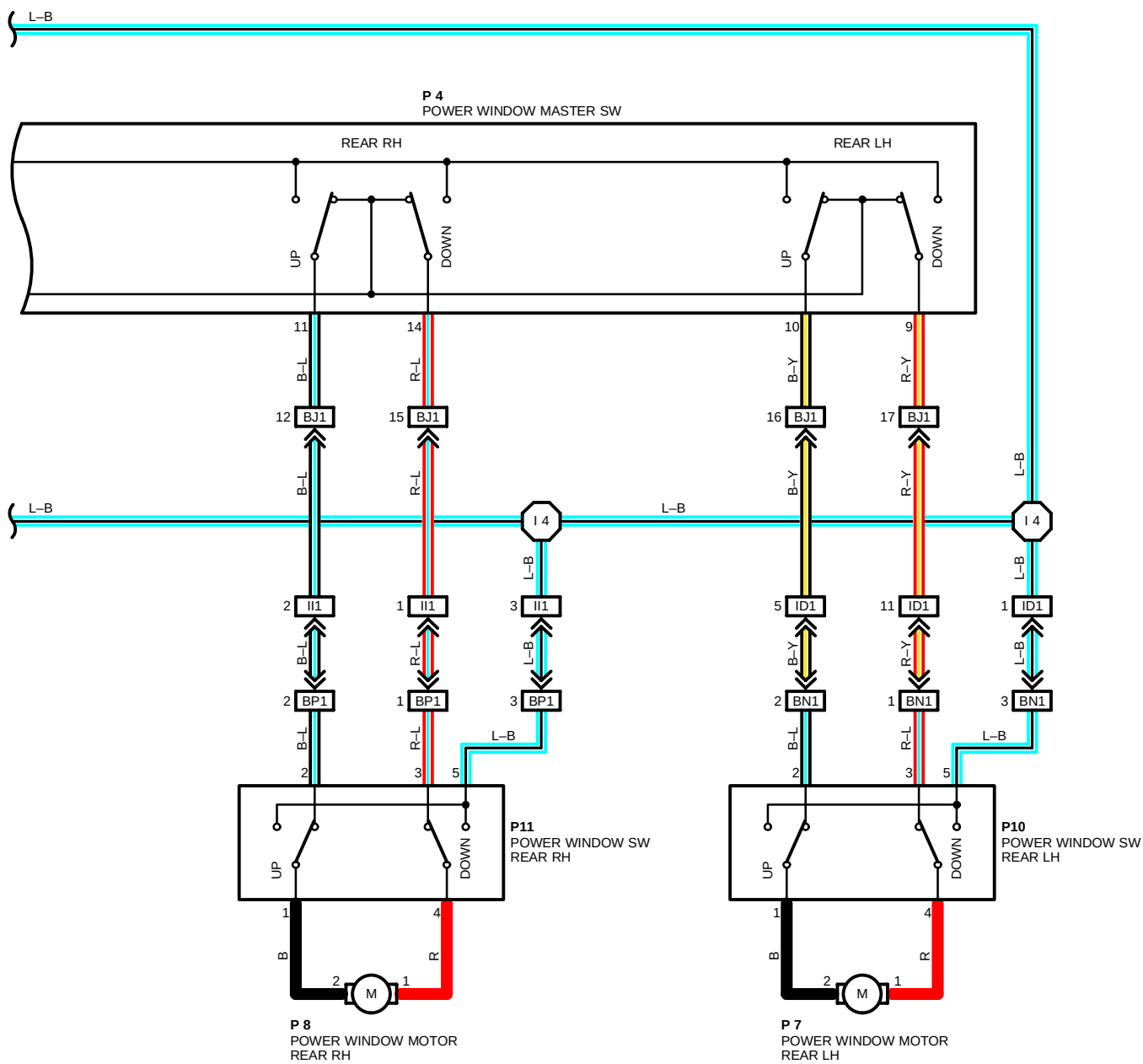


98





POWER WINDOW

SYSTEM OUTLINE

WITH THE IGNITION SW TURNED ON, CURRENT FLOWS THROUGH THE **GAUGE** FUSE TO **TERMINAL 3** OF THE POWER MAIN RELAY → **TERMINAL 1** → TO **GROUND**. THIS ACTIVATES THE RELAY AND THE CURRENT FLOWING TO **TERMINAL 4** OF THE RELAY FROM POWER FUSE FLOWS TO **TERMINAL 2** OF THE RELAY → **TERMINALS 7** AND **8** 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) AT **UP** POSITION, THE CURRENT FLOWING TO **TERMINALS 7** AND **8** OF THE POWER WINDOW MASTER SW FLOWS TO **TERMINAL 6** OF THE MASTER SW → **TERMINAL 3** OF THE POWER WINDOW MOTOR → **TERMINAL 1** → **TERMINAL 13** OF THE MASTER SW → **TERMINALS 2** AND **1** → 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 **TERMINALS 7** AND **8** OF THE POWER WINDOW MASTER SW TO **TERMINAL 13** OF THE MASTER SW CAUSES FLOW OF CURENT FROM **TERMINAL 1** OF THE MOTOR → **TERMINAL 3** → **TERMINAL 6** OF THE MASTER SW → **TERMINALS 2** AND **1** → 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 **TERMINALS 7** AND **8** OF THE MASTER SW FLOWS TO **TERMINAL 13** OF THE MASTER SW → **TERMINAL 1** OF THE POWER WINDOW MOTOR → **TERMINAL 3** → **TERMINAL 6** OF THE MASTER SW → **TERMINALS 1** AND **2** → 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 6** OF THE MASTER SW AND **TERMINALS 1** AND **2** INCREASES. AS A RESULT, THE SOLENOID STOPS OPERATING, THE AUTO SW TURNS OFF AND FLOW FROM **TERMINALS 7** AND **8** OF THE MASTER SW TO **TERMINAL 13** 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 6** OF THE MASTER SW → TO **GROUND**, 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 SW (PASSENGER'S WINDOW)

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

FURTHERMORE REAR LH, RH WINDOW OPERATE THE SAME AS THE ABOVE CIRCUIT.

5. KEY OFF POWER WINDOW OPERATION

WITH THE IGNITION SW TURNED FROM ON TO OFF, THE DOOR LOCK CONTROL RELAY OPERATES AND CURRENT FLOWS FROM POWER FUSE → **TERMINAL 8** OF THE DOOR LOCK CONTROL RELAY → **TERMINAL 15** → **TERMINAL 3** OF THE POWER MAIN RELAY → **TERMINAL 1** → TO **GROUND** FOR ABOUT **60** SECONDS. THE SAME AS NORMAL OPERATION, THE CURRENT FLOWS FROM POWER FUSE → **TERMINAL 4** OF THE POWER MAIN RELAY → **TERMINAL 2** → **TERMINAL 7** AND **8** OF THE POWER WINDOW MASTER SW AND **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 FRONT DOOR (DOOR COURTESY SW ON) WITHIN ABOUT **60** SECONDS AFTER TURNING THE IGNITION SW TO OFF. A SIGNAL IS INPUT TO **TERMINAL 2** OR **14** OF DOOR LOCK CONTROL RELAY. AS A RESULT, THE RELAY TURNS OFF AND UP AND DOWN OF MOVEMENT OF THE WINDOW STOPS.

SERVICE HINTS

P 4 POWER WINDOW MASTER SW

7, 8—GROUND : APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION

1, 2—GROUND : ALWAYS CONTINUITY

6—GROUND : APPROX. **12** VOLTS WITH IGNITION SW ON AND MASTER SW (DRIVER'S WINDOW) UP

13—GROUND : APPROX. **12** VOLTS WITH IGNITION SW ON AND MASTER SW (DRIVER'S WINDOW) DOWN OR DOWN HOLD

WINDOW LOCK SW

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

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
D12	24	J 4	23	P 8	24
D13	24	P 4	24	P 9	24
D18	24	P 5	24	P10	24
F13	23	P 6	24	P11	24
J 1	23	P 7	24		

○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
ID1	28	COWL WIRE AND FLOOR NO. 1 WIRE (LEFT KICK PANEL)
ID2		
II1	28	COWL WIRE AND FLOOR NO. 2 WIRE (RIGHT KICK PANEL)
II2		
BJ1	30	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
BJ2		
BK1	30	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
BN1	30	REAR DOOR LH WIRE AND FLOOR NO. 1 WIRE (LEFT CENTER PILLAR)
BP1	30	REAR DOOR RH WIRE AND FLOOR NO. 2 WIRE (RIGHT CENTER PILLAR)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
ID	28	LEFT KICK PANEL

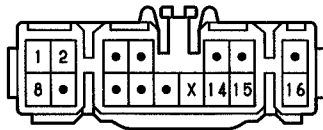
○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I1	28	COWL WIRE	B 2	32	FRONT DOOR LH WIRE
I4					

D12, D13 BLUE



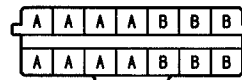
D18 GRAY



F13

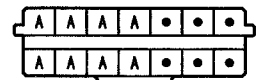
(SEE PAGE 20)

J 1 ORANGE



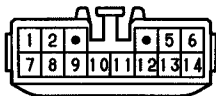
(HINT:SEE PAGE 7)

J 4 ORANGE



(HINT:SEE PAGE 7)

P 4



P 5, P 6



P 7, P 8



P 9, P10, P11

