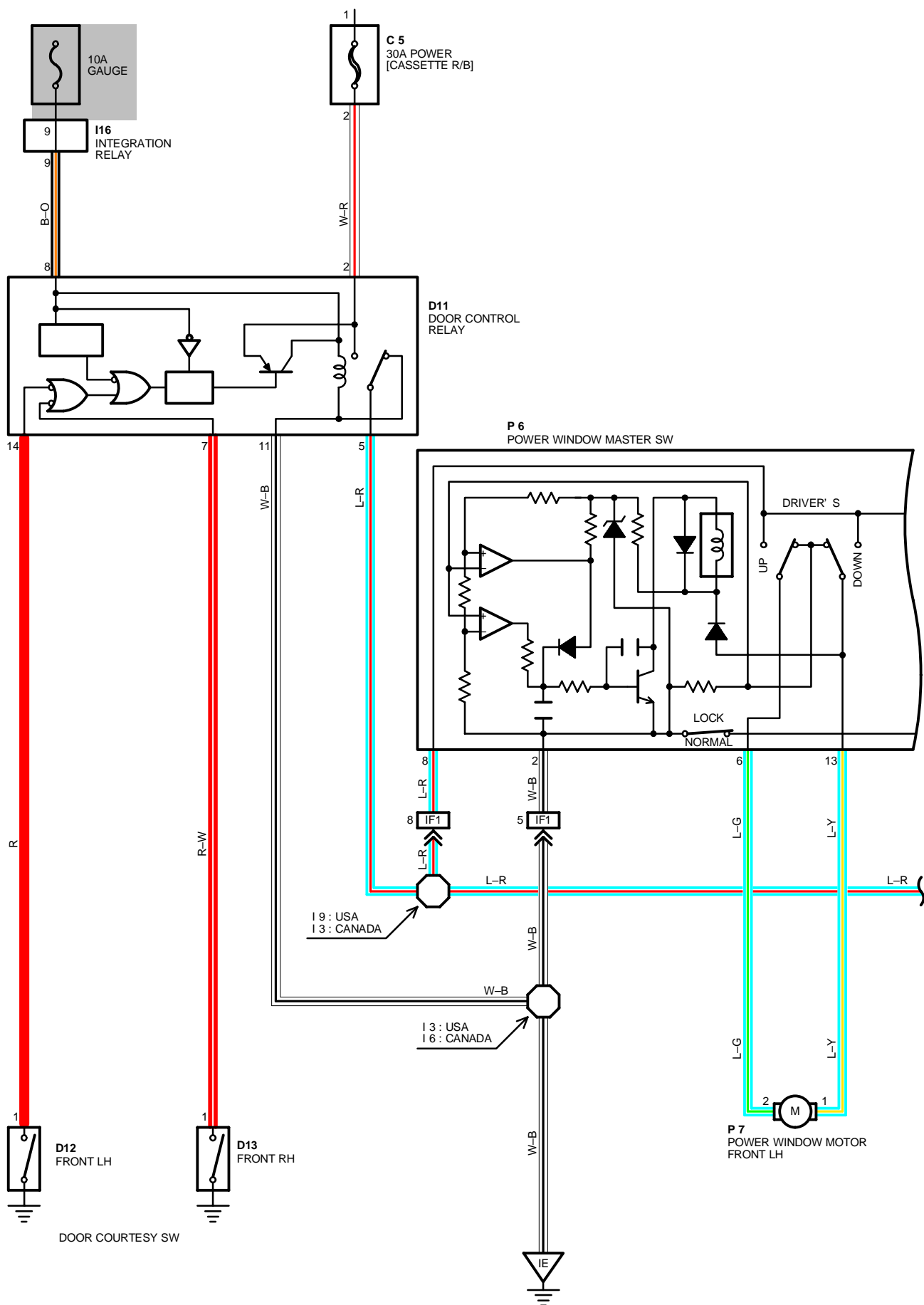
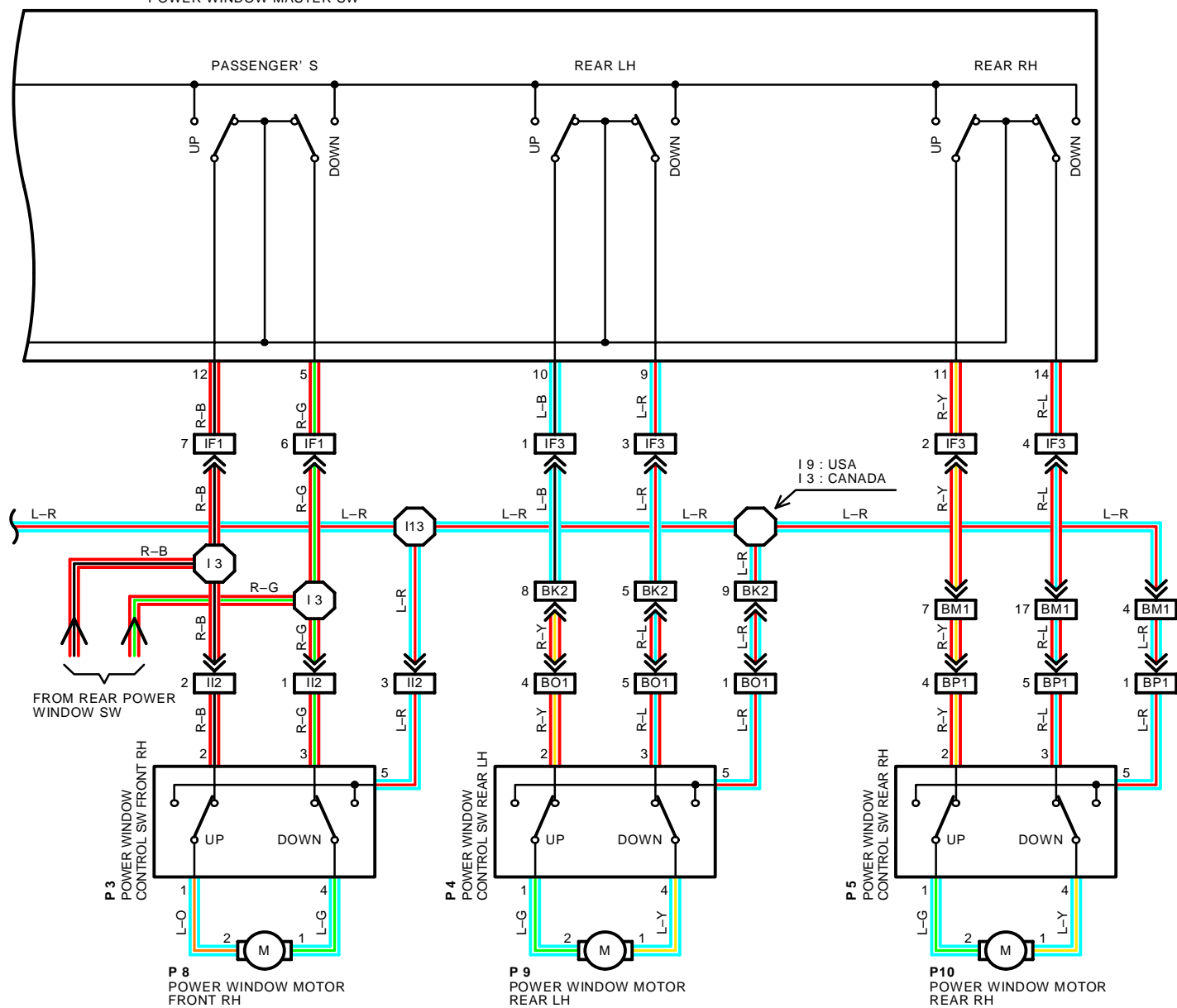


POWER WINDOW (FRONT)



P 6
POWER WINDOW MASTER SW



POWER WINDOW (FRONT)

SYSTEM OUTLINE

WITH THE IGNITION SW TURNED ON, CURRENT FLOWS THROUGH THE **GAUGE** FUSE TO **TERMINAL 8** OF THE DOOR CONTROL RELAY → **TERMINAL 11** → TO **GROUND**. THIS ACTIVATES THE RELAY AND THE CURRENT FLOWING TO **TERMINAL 2** OF THE RELAY FROM **POWER** FUSE FLOWS TO **TERMINAL 5** OF THE RELAY → **TERMINAL 8** OF THE POWER WINDOW MASTER SW AND **TERMINAL 5** (FRONT RH, REAR LH, REAR RH) OF THE POWER WINDOW CONTROL 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 8** OF THE POWER WINDOW MASTER SW FLOWS TO **TERMINAL 6** OF THE MASTER SW → **TERMINAL 2** OF THE POWER WINDOW MOTOR → **TERMINAL 1** → **TERMINAL 13** OF THE MASTER SW → **TERMINAL 2** → 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 8** OF THE POWER WINDOW MASTER SW TO **TERMINAL 13** OF THE MASTER SW CAUSES THE FLOW OF CURRENT FROM **TERMINAL 1** OF THE MOTOR → **TERMINAL 2** → **TERMINAL 6** OF THE MASTER SW → **TERMINAL 2** → 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 8** OF THE MASTER SW FLOWS TO **TERMINAL 13** OF THE POWER WINDOW MASTER SW → **TERMINAL 1** OF THE POWER WINDOW MOTOR → **TERMINAL 2** → **TERMINAL 6** OF THE MASTER SW → **TERMINAL 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 **TERMINAL 2** INCREASES. AS A RESULT, THE SOLENOID STOPS OPERATING, THE AUTO SW TURNS OFF AND FLOW FROM **TERMINAL 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 PULLED 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 **TERMINAL 2**, SO THE MOTOR STOPS, CAUSING AUTO DOWN OPERATION TO STOP. IF THE MANUAL SW IS PULLED CONTINUOUSLY, THE MOTOR ROTATES IN THE UP DIRECTION IN MANUAL UP OPERATION.

4. MANUAL OPERATION BY POWER WINDOW CONTROL SW (FRONT RH)

WITH POWER WINDOW CONTROL SW (FRONT RH) PULLED TO THE UP SIDE, CURRENT FLOWING FROM **TERMINAL 5** OF THE POWER WINDOW CONTROL SW FLOWS TO **TERMINAL 1** OF THE POWER WINDOW CONTROL SW → **TERMINAL 2** OF THE POWER WINDOW MOTOR → **TERMINAL 1** → **TERMINAL 4** OF THE POWER WINDOW CONTROL SW → **TERMINAL 3** → **TERMINAL 5** OF THE MASTER SW → **TERMINAL 2** → TO **GROUND** AND CAUSES THE POWER WINDOW MOTOR (FRONT RH) TO ROTATE IN THE OPERATING ONLY WHILE THE POWER WINDOW CONTROL 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 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 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.

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 11** → 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 8** OF THE POWER WINDOW MASTER SW AND **TERMINAL 5** OF THE DOOR CONTROL RELAY → TO **TERMINAL 5** (FRONT RH, REAR LH, REAR RH) OF THE POWER WINDOW CONTROL 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 14** OR **7** OF DOOR CONTROL RELAY. AS A RESULT, THE RELAY TURNS OFF AND UP AND DOWN MOVEMENT OF THE WINDOW STOPS.

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

SERVICE HINTS

D11 DOOR CONTROL RELAY

- 2-GROUND : ALWAYS APPROX. 12 VOLTS
- 11-GROUND : ALWAYS CONTINUOUS
- 8-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION
- 14-GROUND : CONTINUITY WITH FRONT LH 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
- 7-GROUND : CONTINUOUS WITH FRONT RH DOOR OPENED

D12, D13 DOOR COURTESY SW

- 1-GROUND : CONTINUOUS WITH DOOR OPENED

P 3 POWER WINDOW CONTROL SW FRONT RH

- 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

P 4, P 5 POWER WINDOW CONTROL SW REAR LH, RH

- 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

P 6 POWER WINDOW MASTER SW

- 2-GROUND : ALWAYS CONTINUOUS
- 8-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
- 6-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND MASTER SW AT **UP** POSITION
- 13-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION AND MASTER SW AT **DOWN** OR **AUTO DOWN** POSITION

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 5	28	P 3	29	P 7	29
D11	28	P 4	29	P 8	29
D12	28	P 5	29	P 9	29
D13	28	P 6	29	P 10	29

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IF1	34	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
IF3		
II2	34	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)
BK2	36	COWL WIRE AND FLOOR NO. 3 LH WIRE (LEFT SIDE OF FRONT LH SEAT)
BM1	36	FLOOR NO. 3 RH WIRE AND COWL WIRE (RIGHT SIDE OF FRONT RH SEAT)
BO1	36	REAR DOOR LH WIRE AND FLOOR NO. 3 LH WIRE (LEFT CENTER PILLAR)
BP1	36	REAR DOOR RH WIRE AND FLOOR NO. 3 RH WIRE (RIGHT CENTER PILLAR)

▽ : GROUND POINTS

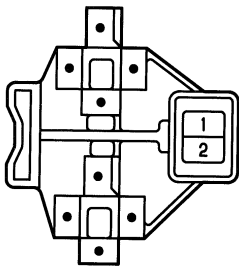
CODE	SEE PAGE	GROUND POINTS LOCATION
IE	34	LEFT KICK PANEL

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 3	34	COWL WIRE	I 9	34	COWL WIRE
I 6			I13		

POWER WINDOW (FRONT)

C 5



D11 BLUE



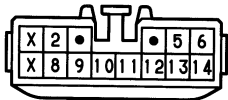
D12, D13



P 3, P 4, P 5



P 6



P 7, P 8, P 9, P10

