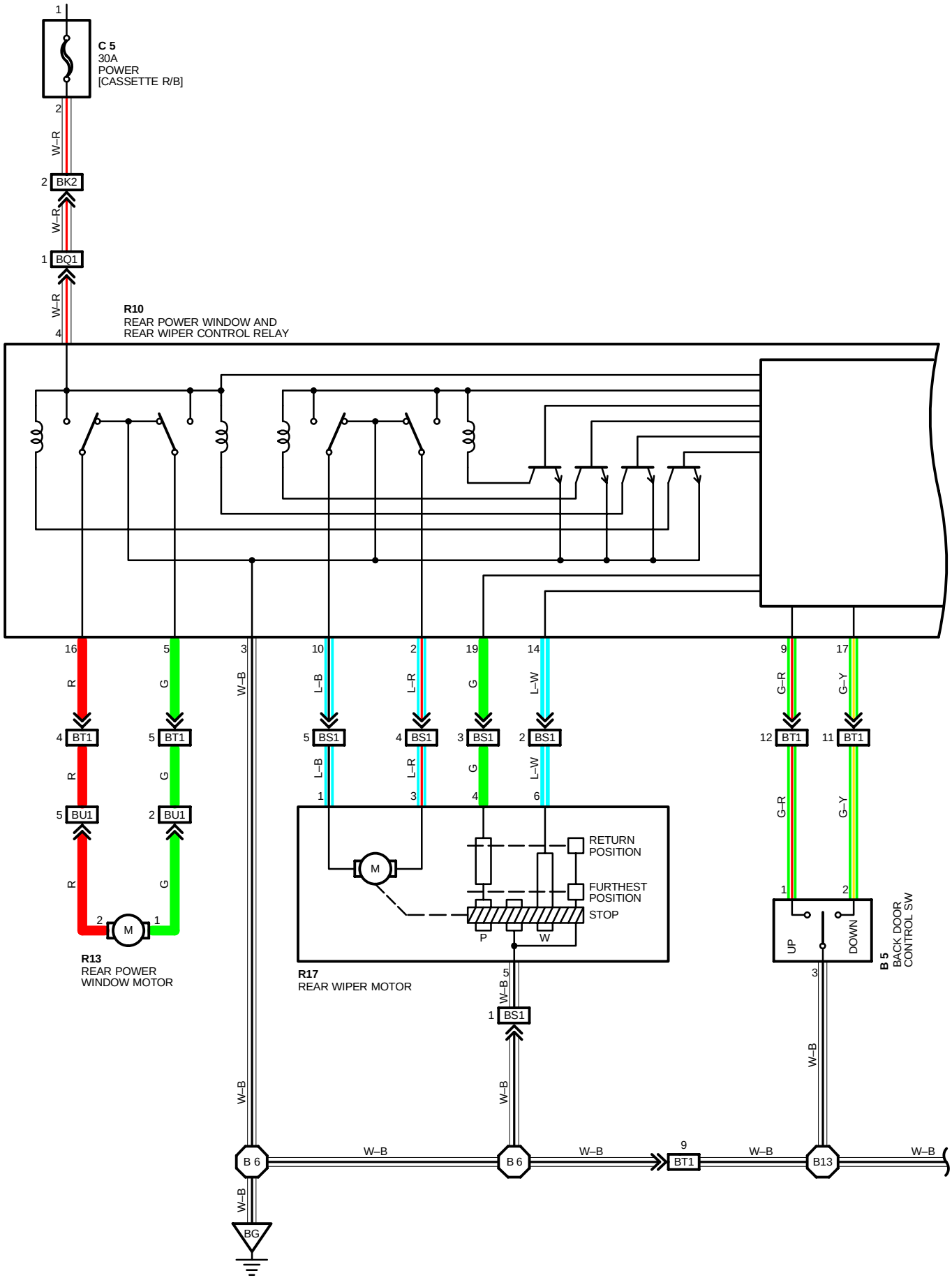
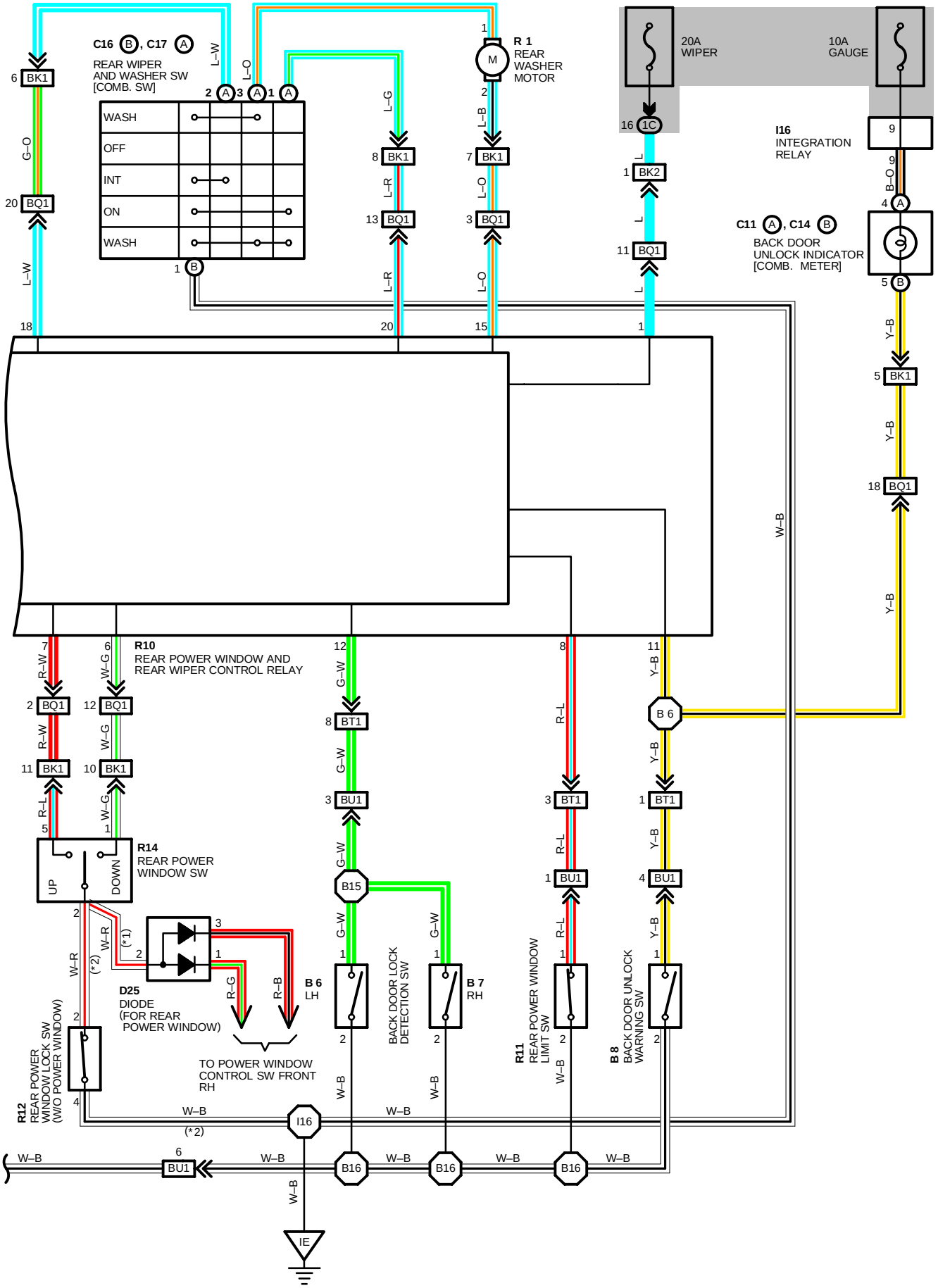
REAR WIPER, WASHER AND POWER WINDOW (REAR)



*1 : W/ POWER WINDOW
*2 : W/O POWER WINDOW



REAR WIPER, WASHER AND POWER WINDOW (REAR)

SYSTEM OUTLINE

CURRENT ALWAYS FLOWS THROUTH **POWER** FUSE TO **TERMINAL 4** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY. WITH THE IGNITION SW TURNED ON. THE CURRENT FLOWS THROUGH THE **GAUGE** FUSE TO **TERMINAL (A) 4** OF BACK DOOR UNLOCK INDICATOR [COMB. METER] AND THROUGH THE **WIPER** FUSE TO **TERMINAL 1** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY.

1. BACK DOOR WARNING

WITH THE IGNITION SW TURNED ON AND THE BACK DOOR WINDOW COMPLETELY OPEN, WHEN THE BACK DOOR IS OPENED, THE BACK DOOR LOCK DETECTION SW IS TURNED ON, CAUSING THE CURRENT TO **TERMINAL (A) 4** OF BACK DOOR UNLOCK INDICATOR [COMB. METER] TO FLOW FROM **TERMINAL (B) 5** → **TERMINAL 11** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY → **TERMINAL 12** → BACK DOOR LOCK DETECTION SW TO **GROUND**, TURNING THE BACK DOOR UNLOCK INDICATOR ON.

IF THE DRIVER TO CLOSE THE REAR POWER WINDOW AT THIS TIME, THE DRIVER IS INFORMED THAT THE DOOR IS NOT COMPLATELY CLOSED BY THE BUZZER INSTALLED IN THE POWER WINDOW RELAY, AND THE POWER WINDOW DOES NOT ASCEND. ALSO, WHEN THE IGNITION SW IS TURNED ON AND THE BACK DOOR IS UNLOCKED, THE BACK DOOR WARNING SW CLOSES THE GROUND CIRCUIT AND TURNS THE BACK DOOR WARNING LIGHT ON.

2. REAR POWER WINDOW MANUAL OPERATION (REAR POWER WINDOW SW)

WHEN THE REAR POWER WINDOW SW IS PUSHED TO THE UP SIDE (WITH THE IGNITION SW ON AND THE BACK DOOR CLOSED), AN “ON” SIGNAL IS INPUT FROM **TERMINAL 5** OF THE WINDOW SW TO **TERMINAL 7** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY. THUS, THE RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 4** OF RELAY FLOWS **TERMINAL 3** OF RELAY TO **GROUND** SO THAT THE CURRENT TO REAR POWER WINDOW MOTOR FLOWS FROM **TERMINAL 4** OF POWER WINDOW AND REAR WIPER CONTROL RELAY → **TERMINAL 5** → **TERMINAL 1** OF REAR POWER WINDOW MOTOR → **TERMINAL 2** → **TERMINAL 16** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY → **TERMINAL 3** → TO **GROUND**. THIS CAUSES THE REAR POWER WINDOW MOTOR TO ROTATE TOWARD THE UP SIDE AND THE WINDOW ASCENDS ONLY WHILE THE REAR POWER WINDOW SW IS BEING PUSHED.

TO LOWER THE WINDOW, THE SIGNAL INPUT FROM **TERMINAL 1** OF REAR POWER WINDOW SW TO **TERMINAL 6** OF POWER WINDOW AND REAR WIPER CONTROL RELAY CAUSES CURRENT TO THE REAR POWER WINDOW MOTOR TO FLOW FROM **TERMINAL 4** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY → **TERMINAL 16** → **TERMINAL 2** OF REAR POWER WINDOW MOTOR → **TERMINAL 1** → **TERMINAL 5** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY → **TERMINAL 3** → TO **GROUND**, SO THE CURRENT FLOWS IN THE REVERS DIRECTION TO MANUAL UP OPERATION AND CAUSES THE MOTOR TO ROTATE IN THE OPPOSITE DIRECTION, THUS LOWERING THE WINDOW.

WHEN THE REAR WINDOW LOCK SW IS PUSHED THE LOCK SIDE, THE GROUND CIRCUIT OF THE REAR POWER WINDOW SW BECOMES OPEN. THUS EVEN IF THE DRIVER OPERATES THE OPEN/CLOSE FUNCTION OF THE REAR WINDOW, THE REAR WINDOW WILL NOT OPERATE BECAUSE THE REAR POWER WINDOW AND REAR WIPER CONTROL RELAY DOES NOT RECEIVE THE ON SIGNAL AND THE REAR POWER WINDOW AND REAR WIPER CONTROL RELAY DOES NOT OPERATE.

3. REAR POWER WINDOW MANUAL OPERATION (BACK DOOR CONTROL SW)

WHEN THE BACK DOOR CONTROL SW IS PUSHED TO THE UP SIDE A SIGNAL IS INPUT TO **TERMINAL 9** OF THE REAR POWER WINDOW AND REAR WIPER CONTROL RELAY FROM **TERMINAL 1** OF THE SW. THIS ACTIVATES THE RELAY REGARDLESS OF WHETHER THE IGNITION SW IS ON OR OFF, AND THE CURRENT FLOWS FROM **TERMINAL 4** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY TO **TERMINAL 3**. SO THE CURRENT TO THE REAR POWER WINDOW MOTOR FLOWS TO **TERMINAL 4** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY → **TERMINAL 5** → **TERMINAL 1** OF REAR POWER WINDOW MOTOR → **TERMINAL 2** → **TERMINAL 16** OF REAR POWER WINDOW CONTROL RELAY → **TERMINAL 3** → TO **GROUND** AND CAUSES THE REAR POWER MOTOR TO ROTATE IN THE UP DIRECTION SO THE WINDOW ASCENDS ONLY WHILE THE BACK DOOR CONTROL SW IS BEING PUSHED TO LOWER THE WINDOW. THE ON SIGNAL OF THE CONTROL SW (ROTATE TO DOWN SIDE) IS INPUT TO **TERMINAL 17**, CAUSING THE CURRENT TO THE MOTOR TO FLOW TO **TERMINAL 4** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY → **TERMINAL 16** → **TERMINAL 2** OF REAR POWER WINDOW MOTOR → **TERMINAL 1** → **TERMINAL 5** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY → **TERMINAL 3** → TO **GROUND**. THIS FLOW IS THE REVERSE OF MANUAL UP, SO THE MOTOR ROTATES IN THE REVERSE DIRECTION AND THE WINDOW IS LOWERED.

4. REAR WIPER OPERATION

CURRENT ALWAYS FLOWS THROUGH **POWER** FUSE TO **TERMINAL 4** OF REAR POWER WINDOW AND REAR WIPER CONTROL RELAY. WITH THE IGNITION SW TURNED ON AND THE BACK DOOR WINDOW COMPLETERY CLOSED (REAR POWER WINDOW LIMIT SW ON), WHEN THE REAR WIPER AND WASHER SW [COMB. SW] IS TURNED ON, THE CURRENT TO **TERMINAL 4** OF THE REAR POWER WINDOW AND REAR WIPER CONTROL RELAY FLOWS FROM **TERMINAL 20** OF RELAY → **TERMINA (A)1** OF REAR WIPER AND WASHER SW [COMB. SW] → **TERMINAL (B)1** → TO **GROUND**. THUS THE RELAY ACTIVATES AND THE CURRENT FLOWS FROM **TERMINAL 4** OF RELAY → **TERMINAL 2** → **TERMINAL 3** OF REAR WIPER MOTOR → **TERMINAL 1** → **TERMINAL 10** OF RELAY → **TERMINAL 3** → TO **GROUND** AND OPERATES THE WIPER TO THE UPPER LIMIT OF THE WIPING AREA. WHEN THE UPPER LIMIT OF THE WIPING AREA IS REACHED, THE POINT (CAN PLATE "P" POINT) ON THE WIPER MOTOR IS TURNED ON (IN THE CASE, "W" POINT OF CAM PLATE IS OFF), AND THE SIGNAL TO REVERSE THE MOTOR IS INPUT TO **TERMINAL 19** OF RELAY. THE RELAY STOPS THE WIPER MOTOR FOR ABOUT **0.1**SECONDS AND THE CURRENT FLOWS FROM **TERMINAL 10** OF RELAY → **TERMINAL 1** OF MOTOR → **TERMINAL 3** → **TERMINAL 2** OF RELAY → **TERMINAL 3** → TO **GROUND**. AS A RESULT, THE WIPER MOTOR REVERSES AND STOPS THE WIPER BEFORE THE RETRACTION POSITION. AT THAT TIME, THE POINT (CAM PLATE "W" POINT) ON THE WIPER MOTOR IS TURNED ON (IN THIS CASE, "P" POINT OF CAM PLATE IS OFF), AND THE SIGNAL TO ROTATE THE MOTOR IS INPUT TO **TERMINAL 2** OF RELAY → **TERMINAL 3** OF WIPER MOTOR → **TERMINAL 1** → **TERMINAL 10** OF RELAY → **TERMINAL 3** → TO **GROUND** AND THE WIPER SW OFF, THE SIGNAL TO **TERMINAL 14** OF RELAY FROM "W" POINT OF CAM PLATE IS CANCELLED AND THE WIPING FUNCTION IS CONTINUED WHEN "P" POINT IS TURNED ON. THE WIPER CONTINUES BEYOND THE WIPER AREA TO THE RETRACTION POSITION. AT THAT TIME, "P" AND "W" POINTS ARE TURNED ON, THE RELAY STOPS OPERATING, AND THE CURRENT TO THE WIPER IS CUT OFF TO CAM PLATE WIPER OPERATION.

5. WASHER OPERATION

WITH THE IGNITION SW TURNED ON AND REAR POWER WINDOW CLOSED COMPLETELY (REAR POWER WINDOW LIMIT SW ON), WHEN THE WIPER AND WASHER SW [COMB. SW] IS TURNED STRONGLY (WASHER SW ON), CURRENT FLOWS FROM **TERMINAL 4** OF RELAY → **TERMINAL 15** → **TERMINAL 2** OF REAR WASHER MOTOR → **TERMINAL 1** → **TERMINAL (A)3** OF REAR WIPER AND WASHER SW [COMB. SW] → **TERMINAL (B)1** → TO **GROUND** AND CAUSES THE WASHER LIQUID TO SPRAY ONLY WHILE THE WASHER SW IS TURNED. WHEN THE WIPER SW IS OFF, AND THE WIPER SW IS THEN TURNED IN THE OFF DIRECTION, WASHER LIQUID WILL ALSO SPRAY.

SERVICE HINTS

B 5 BACK DOOR CONTROL SW
- 2–3 : CONTINUOUS WITH BACK DOOR CONTROL SW AT DOWN SIDE
- 1–3 : CONTINUOUS WITH BACK DOOR CONTROL SW AT UP SIDE

B 6, B 7 BACK DOOR LOCK DFTECTION SW
- 1–2 : CONTINUOUS WITH BACK DOOR OPEN

C16(B), C17(A) REAR WIPER AND WASHER SW [COMB. SW]
- **(A)3–(B)1** : CONTINUOUS WITH REAR WIPER AND WASHER SW AT **WASHER** POSITION
- **(A)1–(B)1** : CONTINUOUS WITH REAR WIPER AND WASHER SW AT **ON** POSITION

R10 REAR POWER WINDOW AND REAR WIPER CONTROL RELAY
- 1–GROUND : APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION
- 4–GROUND : ALWAYS APPROX. **12** VOLTS
- 3–GROUND : ALWAYS CONTINUOUS
- 5–GROUND : APPROX. **12** VOLTS WITH REAR POWER WINDOW AT **UP** OPERATION
- 16–GROUND : APPROX. **12** VOLTS WITH REAR POWER WINDOW AT **DOWN** OPERATION
- 7–GROUND : CONTINUOUS WITH IGNITION SW ON AND POWER WINDOW SW AT **UP** POSITION
- 6–GROUND : CONTINUOUS WITH IGNITION SW ON AND POWER WINDOW SW AT **DOWN** POSITION
- 9–GROUND : CONTINUOUS WITH BACK DOOR CONTROL SW AT **UP** POSITION
- 17–GROUND : CONTINUOUS WITH BACK DOOR CONTROL SW AT **DOWN** POSITION

R12 REAR POWER WINDOW LOCK SW
- 2–4: OPEN WITH REAR POWER WINDOW LOCK SW AT **LOCK** POSITION

R11 REAR POWER WINDOW LIMIT SW
- 1–2: CLOSED WITH BACK WINDOW FULLY CLOSED

R17 REAR WIPER MOTOR
- 4, 6–5 : CONTINUOUS WITH REAR WIPER RETRACTED
- 4–5 : CONTINUOUS WITH REAR WIPER AT **RETURN** POSITION

REAR WIPER, WASHER AND POWER WINDOW (REAR)

: PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE	SEE PAGE
B 5		29	**C16**	B	28	**R11**	29
B 6		29	**C17**	A	28	**R12**	29
B 7		29	**D25**		28	**R13**	29
B 8		29	**I16**		28	**R14**	29
C 5		28	**R 1**		25 (3VZ–E)	**R17**	29
C11	A	28			27 (22R–E)		
C14	B	28	**R10**		29		

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1C	20	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)
BK1	36	FLOOR NO. 3 LH WIRE AND COWL WIRE (LEFT SIDE OF FRONT LH SEAT)
BK2	36	COWL WIRE AND FLOOR NO. 3 LH WIRE (LEFT SIDE OF FRONT LH SEAT)
BQ1	36	FLOOR NO. 3 LH WIRE AND FLOOR NO. 2 WIRE (LEFT SIDE OF REAR LH SEAT)
BS1	36	LUGGAGE ROOM WIRE AND FLOOR NO. 2 WIRE (UNDER LEFT REAR PILLAR)
BT1	36	BACK DOOR NO. 1 WIRE AND FLOOR NO. 2 WIRE (BESIDE LEFT REAR COMB. LIGHT)
BU1	36	BACK DOOR NO. 1 WIRE AND BACK DOOR NO. 2 WIRE (BACK DOOR LEFT)

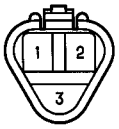
: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	34	LEFT KICK PANEL
BG	36	UNDER LEFT REAR PILLAR

: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I16	34	COWL WIRE	**B15**	36	BACK DOOR NO. 2 WIRE
B 6	36	FLOOR NO. 2 WIRE	**B16**		
B13	36	BACK DOOR NO. 1 WIRE			

B 5

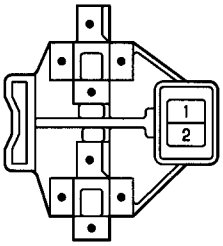


B 6

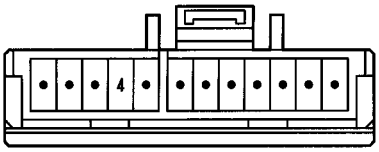
B 7

B 8 BLACK

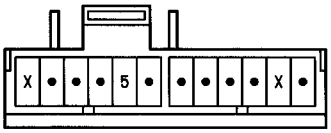
C 5



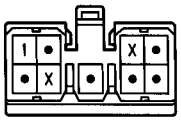
C11 (A) BLUE



C14 (B)



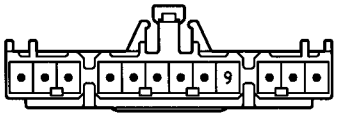
C16 (B) BLACK



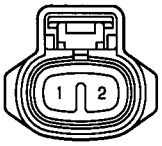
C17 (A) DARK GRAY

D25

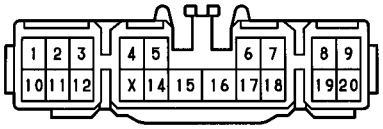
I16



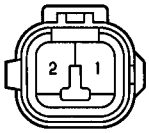
R 1 GRAY



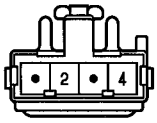
R10



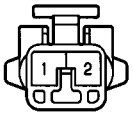
R11



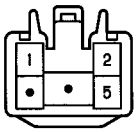
R12 GREEN



R13 BLUE



R14 BLUE



R17