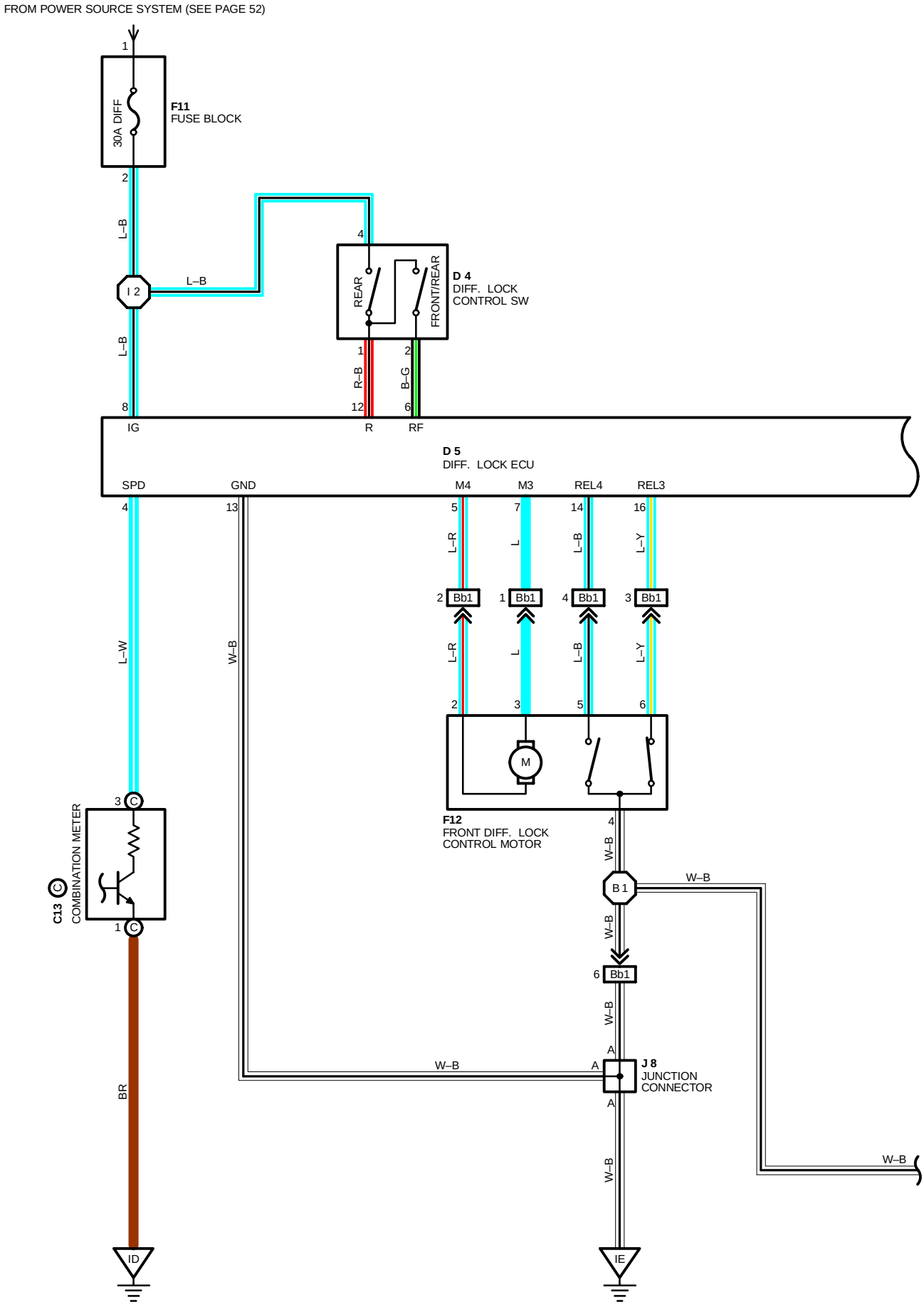
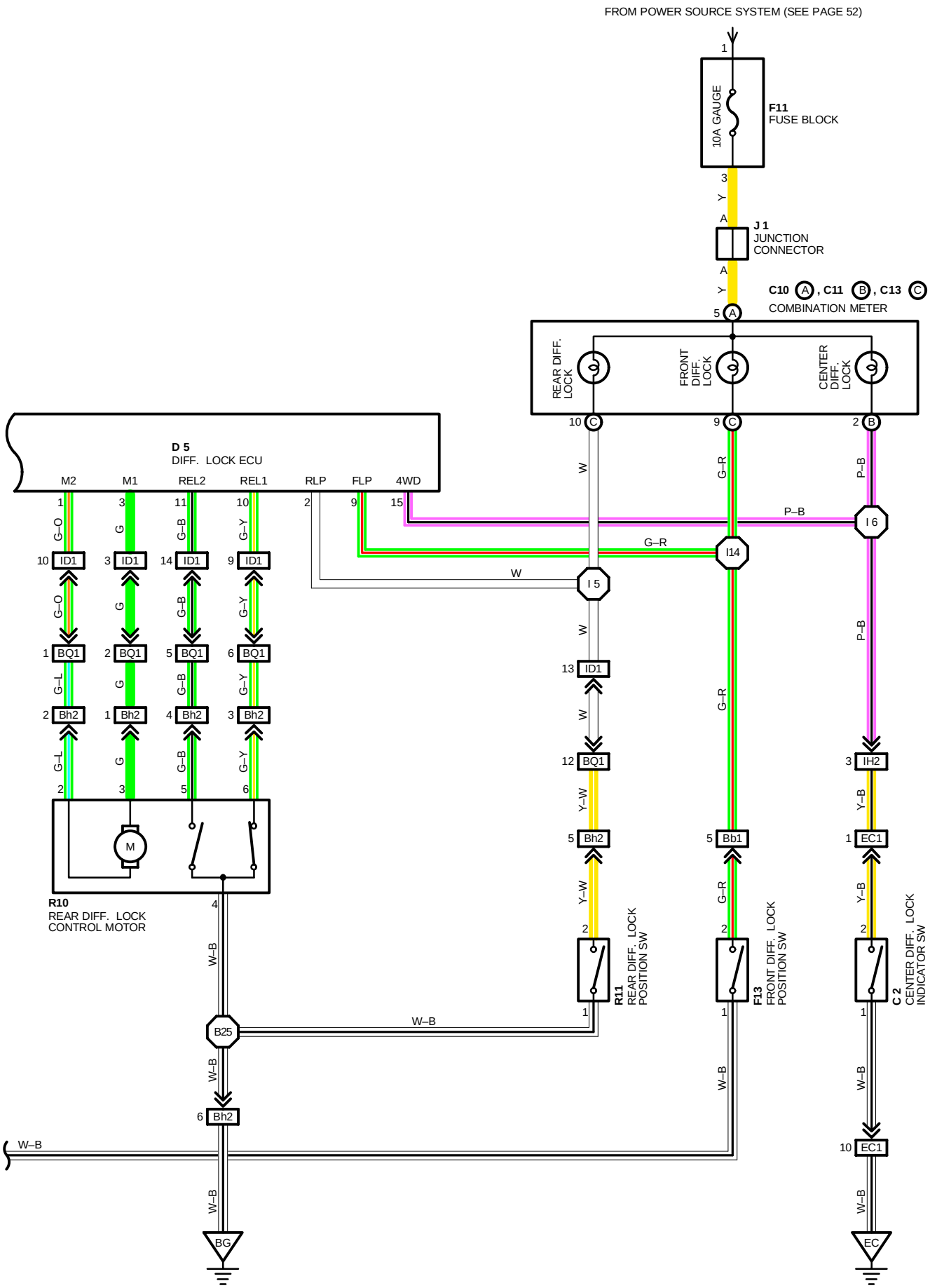
FRONT/REAR DIFFERENTIAL LOCK




FROM POWER SOURCE SYSTEM (SEE PAGE 52)
10A GAUGE
F11
FUSE BLOCK
J 1
JUNCTION
CONNECTOR
C10 A , C11 B , C13 C
COMBINATION METER
REAR DIFF. LOCK
FRONT DIFF. LOCK
CENTER DIFF. LOCK
D 5
DIFF. LOCK ECU
M2
M1
REL2
REL1
RLP
FLP
4WD
ID1
BQ1
Bh2
M
R10
REAR DIFF. LOCK
CONTROL MOTOR
I 5
I14
I 6
IH2
Bb1
EC1
R11
REAR DIFF. LOCK
POSITION SW
F13
FRONT DIFF. LOCK
POSITION SW
C 2
CENTER DIFF. LOCK
INDICATOR SW
B25
BG
EC
W
G–R
P–B
G–O
G
G–B
G–Y
G–L
Y–W
Y–B
W–B
Y

FRONT/REAR DIFFERENTIAL LOCK

SYSTEM OUTLINE

THIS SYSTEM FREES OR LOCKS THE FRONT AND REAR DIFFERENTIALS ACCORDING TO THE POSITION OF THE DIFF. LOCK CONTROL SW. THE DIFFERENTIAL WILL LOCK ONLY WHEN THE CENTER DIFF. LOCK INDICATOR SW IS ON AND THE VEHICLE SPEED IS AT **8** KM/H (**5** MPH) OR LESS.

WHEN THE CENTER DIFF. LOCK INDICATOR SW IS OFF, DIFFERENTIAL LOCK DOES NOT OCCUR EVEN IF THE DIFF. LOCK CONTROL SW IS IN **RR** POSITION OR **FR•RR** POSITION.

WHEN THE DIFF. LOCK CONTROL SW IS SWITCHED FROM **OFF** POSITION TO **RR** POSITION, THE CURRENT FLOWS TO **TERMINAL 12** OF THE DIFF. LOCK ECU. IF THE LIMIT SW ON THE LOCK SIDE INSIDE THE REAR DIFF. LOCK CONTROL MOTOR IS ON AT THIS TIME, UNTIL THE LIMIT SW IS TURNED OFF, THE CURRENT FLOWS FROM THE **DIFF** FUSE TO **TERMINAL 8** OF THE DIFF. LOCK ECU → **TERMINAL 3** → **TERMINAL 3** OF THE REAR DIFF. LOCK CONTROL MOTOR → **TERMINAL 2** → **TERMINAL 1** OF THE DIFF. LOCK ECU → **TERMINAL 13** → **GROUND**. THIS DRIVES THE REAR DIFF. LOCK CONTROL MOTOR AND LOCKS THE REAR DIFFERENTIAL. WHEN THE REAR DIFFERENTIAL LOCKS, THE REAR DIFF. LOCK POSITION SW TURNS ON, LIGHTING UP THE REAR DIFF. LOCK INDICATOR LIGHT IN THE COMBINATION METER.

WHEN THE DIFF. LOCK CONTROL SW IS SWITCHED FROM **RR** POSITION TO **FR•RR** POSITION, THE CURRENT FLOWS TO **TERMINAL 6** OF THE DIFF. LOCK ECU. IF THE LIMIT SW ON THE LOCK SIDE INSIDE THE FRONT DIFF. LOCK CONTROL MOTOR IS ON AT THIS TIME, UNTIL THE LIMIT SW IS TURNED OFF, THE CURRENT FLOWS FROM THE **DIFF** FUSE TO **TERMINAL 8** OF THE DIFF. LOCK ECU → **TERMINAL 7** → **TERMINAL 3** OF THE FRONT DIFF. LOCK CONTROL MOTOR → **TERMINAL 2** → **TERMINAL 5** OF THE DIFF. LOCK ECU → **TERMINAL 13** → **GROUND**. THIS DRIVES THE FRONT DIFF. LOCK CONTROL MOTOR AND LOCKS THE FRONT DIFFERENTIAL. WHEN THE FRONT DIFFERENTIAL LOCKS, THE FRONT DIFF. LOCK POSITION SW TURNS ON, LIGHTING UP THE FRONT DIFF. LOCK INDICATOR LIGHT IN THE COMBINATION METER.

WHEN THE DIFF. LOCK CONTROL SW IS SWITCHED FROM **FR•RR** POSITION TO **RR** POSITION, THE CURRENT TO **TERMINAL 6** OF THE DIFF. LOCK ECU IS CUT OFF. IF THE LIMIT SW ON THE FREE SIDE INSIDE THE FRONT DIFF. LOCK CONTROL MOTOR IS ON AT THIS TIME, UNTIL THE LIMIT SW IS TURNED OFF, THE CURRENT FLOWS FROM THE **DIFF** FUSE TO **TERMINAL 8** OF THE DIFF. LOCK ECU → **TERMINAL 5** → **TERMINAL 2** OF THE FRONT DIFF. LOCK CONTROL MOTOR → **TERMINAL 3** → **TERMINAL 7** OF THE DIFF. LOCK ECU → **TERMINAL 13** → **GROUND**. THIS DRIVES THE FRONT DIFF. LOCK CONTROL MOTOR AND FREE THE FRONT DIFFERENTIAL. THIS CAUSES THE FRONT DIFF. **LOCK** POSITION SW AND THE FRONT DIFF. LOCK INDICATOR LIGHT INSIDE THE COMBINATION METER TO TURN OFF.

WHEN THE DIFF. LOCK CONTROL SW IS SWITCHED FROM **RR** POSITION TO **OFF** POSITION, CURRENT TO **TERMINAL 12** OF THE DIFF. LOCK ECU IS CUT OFF. IF THE LIMIT SW ON THE FREE SIDE INSIDE THE REAR DIFF. LOCK CONTROL MOTOR IS ON, UNTIL THE LIMIT SW IS TURNED OFF, THE CURRENT FLOWS FROM THE **DIFF** FUSE TO **TERMINAL 8** OF THE DIFF. LOCK ECU → **TERMINAL 1** → **TERMINAL 2** OF THE REAR DIFF. LOCK CONTROL MOTOR → **TERMINAL 3** → **TERMINAL 3** OF THE DIFF. LOCK ECU → **TERMINAL 13** → **GROUND**. THIS DRIVES THE REAR DIFF. LOCK CONTROL MOTOR AND FREES THE REAR DIFFERENTIAL. WHEN THE REAR DIFFERENTIAL IS FREE, THE REAR DIFF. **LOCK** POSITION SW AND THE REAR DIFF. LOCK INDICATOR LIGHT IN THE COMBINATION METER ARE TURNED OFF.

THE DIFF. LOCK INDICATOR LIGHT FLASHES WHEN:

- THE DIFF. LOCK CONTROL SW IS SWITCHED TO **RR** POSITION OR **FR•RR** POSITION DURING DIFFERENTIAL LOCK PROHIBITION CONDITIONS (VEHICLE SPEED ABOVE **8** KM/H (**5** MPH) OR CENTER DIFF. LOCK INDICATOR SW OFF).
- THE DIFF. **LOCK** POSITION SW IS TURNED OFF DURING OPERATION OF THE DIFF. LOCK CONTROL MOTOR.

SERVICE HINTS

D 4 DIFF. LOCK CONTROL SW

4–1 : CLOSED WITH THE DIFF. LOCK CONTROL SW AT "**RR**" POSITION OR "**FR•RR**" POSITION
4–2 : CLOSED WITH THE DIFF. LOCK CONTROL SW AT "**FR•RR**" POSITION

D 5 DIFF. LOCK ECU

(DISCONNECTED WIRING CONNECTOR FROM ECU)
13–GROUND : CONTINUITY
4–GROUND : PULSE GENERATION WITH VEHICLE MOVING
8–GROUND : **9–14** VOLTS WITH THE IGNITION SW ON
2–GROUND : ABOUT **0** VOLTS WITH THE REAR DIFF. LOCK INDICATOR LIGHT ON
: **9–14** VOLTS WITH THE REAR DIFF. LOCK INDICTOR LIGHT OFF
9–GROUND : ABOUT **0** VOLTS WITH THE FRONT DIFF. LOCK INDICATOR LIGHT ON
: **9–14** VOLTS WITH THE FRONT DIFF. LOCK INDICTOR LIGHT OFF
15–GROUND : ABOUT **0** VOLTS WITH THE CENTER DIFF. LOCK INDICATOR LIGHT ON
: **9–14** VOLTS WITH THE CENTER DIFF. LOCK INDICTOR LIGHT OFF

F12, R10 FRONT, REAR DIFF. LOCK CONTROL MOTOR

2–3 : **0.3–100** Ω

○ : PARTS LOCATION

CODE		SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 2		22	D 5	24	J 8	25
C10	A	24	F11	25	R10	27
C11	B	24	F12	26	R11	27
C13	C	24	F13	26		
D 4		24	J 1	25		

▭ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EC1	30	ENGINE WIRE AND TRANSMISSION WIRE (NEAR THE STARTER)
ID1	32	COWL WIRE AND FLOOR NO. 1 WIRE (LEFT KICK PANEL)
IH2	32	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)
BQ1	34	FLOOR NO. 3 WIRE AND FLOOR NO. 1 WIRE (LEFT QUARTER PANEL INNER)
Bb1	36	COWL WIRE AND FRAME WIRE (RIGHT FENDER)
Bh2	36	FLOOR NO. 3 WIRE AND FRAME NO. 2 WIRE (LEFT QUARTER PANEL INNER)

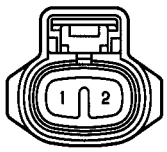
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EC	30	AIR INTAKE CHAMBER
ID	32	LEFT KICK PANEL
IE	32	RIGHT KICK PANEL
BG	34	LOWER BACK PANEL CENTER

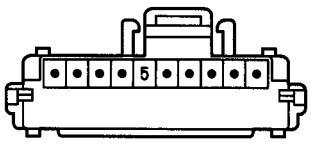
⬡ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 2	32	COWL WIRE	I14	32	COWL WIRE
I 5			B 1	36	FRAME WIRE
I 6			B25	36	FLAME NO. 2 WIRE

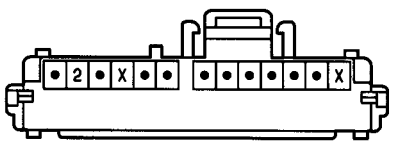
C 2, F13, R11 GRAY



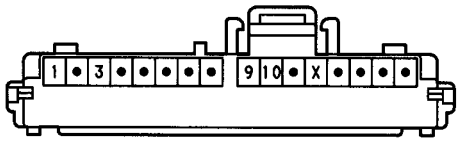
C10 (A) GRAY



C11 (B) BLUE

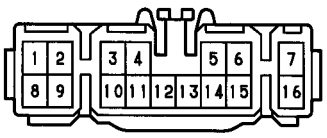


C13 (C)



D 4

D 5 GRAY

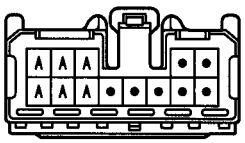


F11

(SEE PAGE 20)

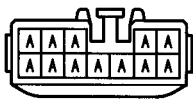
F12, R10

J 1 BLUE



(HINT:SEE PAGE 7)

J 8 BLUE



(HINT:SEE PAGE 7)