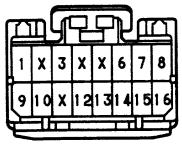
A 5 (A) BLACK

A 6 (B) GRAY

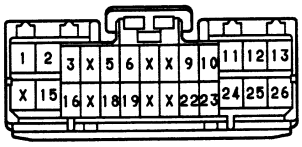
A 7 (A) GRAY

A 8 (B) GRAY

A20 (A) DARK GRAY



A21 (B) DARK GRAY



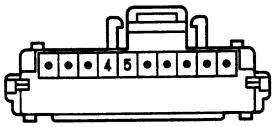
A31 GRAY

A32, A33 GRAY

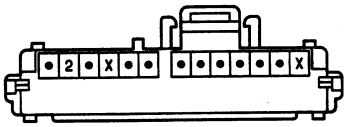
A34, A35 GRAY

B 1 GRAY

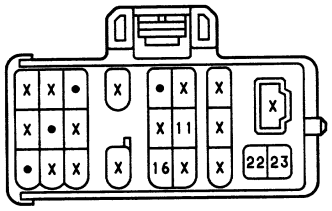
C10 (A) GRAY



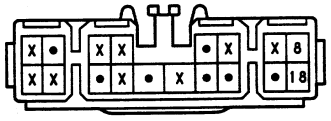
C11 (B) BLUE



D 1 BLACK



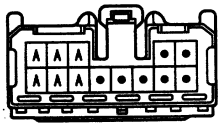
D31 GRAY



F11

(SEE PAGE 20)

J 1

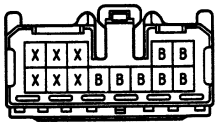


(HINT:SEE PAGE 7)

J 2 BLUE

(HINT:SEE PAGE 7)

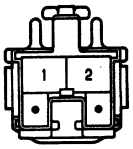
J 6

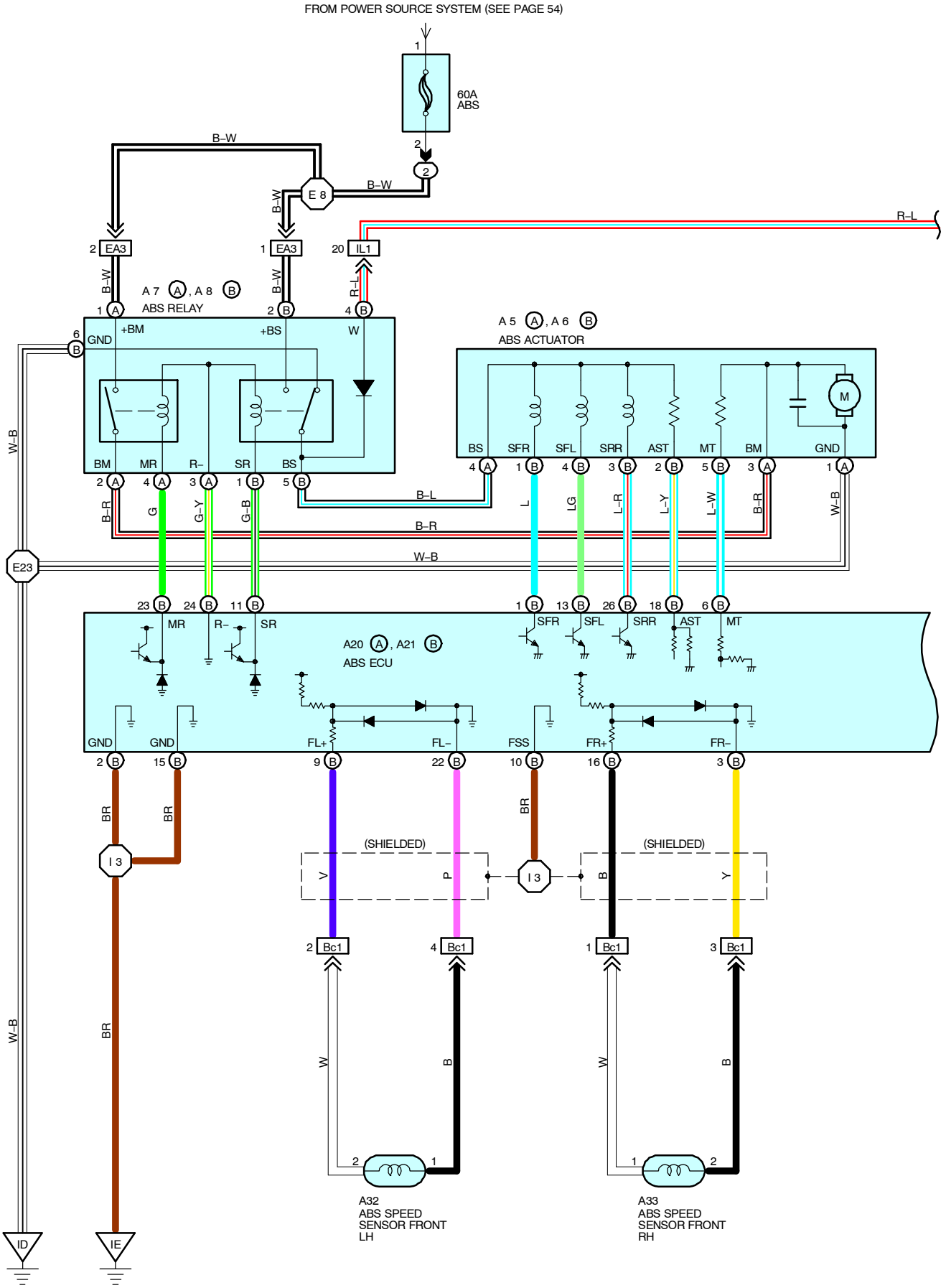


(HINT:SEE PAGE 7)

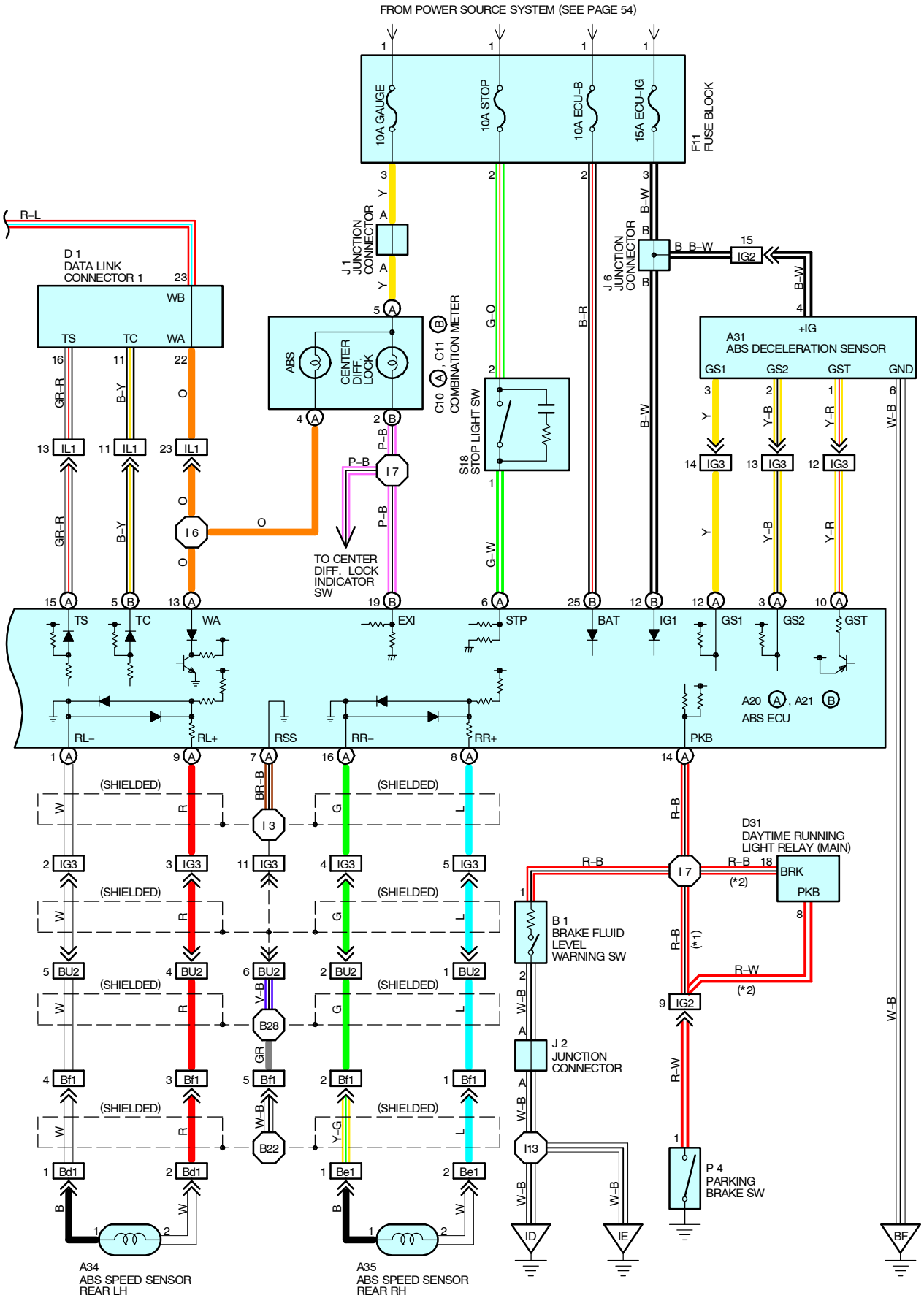
P 4

S18 BLACK




FROM POWER SOURCE SYSTEM (SEE PAGE 54)
60A ABS
B-W
E 8
R-L
2 EA3
1 EA3
20 IL1
A 7 A, A 8 B
ABS RELAY
+BM
+BS
GND
W
BM MR R- SR BS
A 5 A, A 6 B
ABS ACTUATOR
BS SFR SFL SRR AST MT BM GND
M
B-L
B-R
G
G-Y
G-B
L
LG
L-R
L-Y
L-W
W-B
E23
A20 A, A21 B
ABS ECU
GND GND FL+ FL- FSS FR+ FR-
BR
I 3
(SHIELDED)
2 Bc1
4 Bc1
1 Bc1
3 Bc1
A32
ABS SPEED SENSOR FRONT LH
A33
ABS SPEED SENSOR FRONT RH
ID
IE

* 1 : USA
* 2 : CANADA



SYSTEM OUTLINE

THIS SYSTEM CONTROLS THE RESPECTIVE BRAKE FLUID PRESSURES ACTING ON THE DISC BRAKE CYLINDERS OF THE RIGHT FRONT WHEEL, LEFT FRONT WHEEL AND REAR WHEELS WHEN THE BRAKES ARE APPLIED IN A PANIC STOP SO THAT THE WHEELS DO NOT LOCK. THIS RESULTS IN IMPROVED DIRECTIONAL STABILITY AND STEERABLITY DURING PANIC BRAKING.

1. INPUT SIGNALS

(1) SPEED SENSOR SIGNAL
THE SPEED OF THE WHEELS IS DETECTED AND INPUT TO **TERMINALS FL+, FR+, RL+** AND **RR+** OF THE ABS ECU.

(2) STOP LIGHT SW SIGNAL
A SIGNAL IS INPUT TO **TERMINAL STP** OF THE ABS ECU WHEN THE BRAKE PEDAL IS DEPRESSED.

(3) PARKING BRAKE SW SIGNAL
A SIGNAL IS INPUT TO **TERMINAL PKB** OF THE ABS ECU WHEN THE PARKING BRAKE SW IS ON.

(4) DECELERATION SENSOR SIGNAL
THE DEGREE OF VEHICLE DECELERATION IS DETECTED AND INPUT TO **TERMINAL GS1, GS2** AND **GST** OF THE ABS ECU.

(5) TRANSFER CONTROL SIGNAL
WHILE THE TRANSFER SHIFT LEVER IS IN **L4** POSITION, THE CENTER DIFF. LOCK INDICATOR SW DETECTS A SIGNAL OF THE CENTER DIFF. LOCK AND THE SIGNAL IS INPUT TO **TERMINAL EXI** OF THE ABS ECU.

2. SYSTEM OPERATION

(TRANSFER L4 POSITION)
WHEN THE TRANSFER SHIFT LEVER IS MOVED TO L4 POSITION, THE CENTER DIFF. IS LOCKED, THEN THE ABS IS NOT IN OPERATION AND THE ABS WARNING LIGHT IS LIGHTED UP.
(TRANSFER EXCEPT L4 POSITION)
DURING SUDDEN BRAKING, THE ABS ECU WHICH HAS SIGNALS INPUT FROM EACH SENSOR, CONTROLS THE CURRENT TO THE SOLENOID INSIDE THE ACTUATOR, AND CAUSES THE HYDRAULIC PRESSURE ACTING ON EACH WHEEL CYLINDER ESCAPE TO THE RESERVOIR. THE PUMP INSIDE THE ACTUATOR IS ALSO OPERATING AT THIS TIME, AND IT RETURNS THE BRAKE FLUID FROM THE RESERVOIR TO THE MASTER CYLINDER, PREVENTING LOCKING OF THE VEHICLE WHEELS. IF THE ECU JUDGES THAT THE HYDRAULIC PRESSURE ACTING ON THE WHEEL CYLINDER IS INSUFFICIENT, THE CURRENT ACTING ON THE SOLENOID IS CONTROLLED AND THE HYDRAULIC PRESSURE IS INCREASED. HOLDING OF THE HYDRAULIC PRESSURE IS ALSO CONTROLLED BY THE ECU, BY THE SAME METHOD AS ABOVE. BY REPEATED PRESSURE, REDUCTION, HOLDING AND INCREASED ARE REPEATED TO MAINTAIN VEHICLE STABILITY AND IMPROVE STEERABILITY DURING SUDDEN BRAKING.

SERVICE HINTS

A20 (A), A21 (B) ABS ECU

(CONNECTOR THE ECU CONNECTOR)
(A) 15–GROUND: APPROX. **12** VOLTS WITH THE IGNITION SW AT **ON** POSITION AND THE DATA LINK CONNECTOR 1 **TS–E1** NOT CONNECTED
(B) 5–GROUND : APPROX. **12** VOLTS WITH THE IGNITION SW AT **ON** POSITION AND THE DATA LINK CONNECTOR 1 **TC–E1** NOT CONNECTED
(B) 1–GROUND : APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION AND THE ABS WARNING LIGHT GOES OFF
(B) 6–GROUND : APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION AND THE ABS WARNING LIGHT GOES OFF
(B) 18–GROUND: APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION AND THE ABS WARNING LIGHT GOES OFF
(B) 26–GROUND: APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION AND THE ABS WARNING LIGHT GOES OFF
(B) 13–GROUND: APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION AND THE ABS WARNING LIGHT GOES OFF
(B) 2–GROUND : ALWAYS CONTINUITY
(B) 15–GROUND: ALWAYS CONTINUITY
(B) 12–GROUND: APPROX. **12** VOLTS WITH THE IGNITION SW AT **O**N POSITION
(A) 6–GROUND : APPROX. **12** VOLTS WITH THE BRAKE PEDAL DEPRESSED
(B) 25–GROUND : ALWAYS APPROX. **12** VOLTS
(A) 14–GROUND : APPROX. **12** VOLTS WITH THE ENGINE RUNNING AND THE PARKING BRAKE LEVER RELEASED
OR THE BRAKE FLUID LEVEL WARNING SW ON
(DISCONNECT THE ECU CONNECTOR)
(B) 1–(B) 18 : APPROX. **6** Ω
(B) 13–(B) 18: APPROX. **6** Ω
(B) 26–(B)18 : APPROX. **6** Ω
(B) 9–(B) 22 : **0.9–1.8** KΩ
(B) 16–(B) 3 : **0.9–1.8** KΩ
(B) 11–(B) 24: **60–100** Ω
(B) 23–(B) 24: **50–80** Ω
(A) 1–(A) 9 : **0.5–1.6** KΩ
(A) 16–(A) 8 : **0.5–1.6** KΩ

: PARTS LOCATION

CODE		SEE PAGE	CODE		SEE PAGE	CODE	SEE PAGE
A5	A	22	A33		26	F11	25
A6	B	22	A34		26	J1	25
A7	A	22	A35		26	J2	25
A8	B	22	B1		22	J6	25
A20	A	24	C10	A	24	P4	27
A21	B	24	C11	B	24	S18	25
A31		26	D1		22		
A32		26	D31		24		

: RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
2	21	R/B NO. 2 (FRONT SIDE OF LEFT FENDER)

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA3	30	COWL WIRE AND ENGINE ROOM MAIN WIRE (LEFT FENDER)
IG2	32	COWL WIRE AND FLOOR WIRE (LEFT KICK PANEL)
IG3		
IL1	34	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)
BU2	36	FLOOR NO. 3 WIRE AND FLOOR WIRE (LEFT QUARTER PANEL INNER)
Bc1	38	COWL WIRE AND SKID CONTROL SENSOR WIRE NO. 1 (LEFT KICK PANEL)
Bd1	38	FRAME NO. 2 WIRE AND SKID CONTROL SENSOR WIRE NO. 2 (REAR AXLE HOUSING LH)
Be1	38	FRAME NO. 2 WIRE AND SKID CONTROL SENSOR WIRE NO. 3 (REAR AXLE HOUSING RH)
Bf1	38	FLOOR NO. 3 WIRE AND FRAME NO. 2 WIRE (LEFT QUARTER PANEL INNER)

: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
ID	32	LEFT KICK PANEL
IE	32	RIGHT KICK PANEL
BF	36	UNDER THE CENTER CONSOLE BOX

: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E8	30	ENGINE ROOM MAIN WIRE	I7	34	COWL WIRE
E23	30	COWL WIRE	I13		
I3	34		B22	38	FLAME NO. 2 WIRE
I6			B28	38	FLOOR NO. 3 WIRE