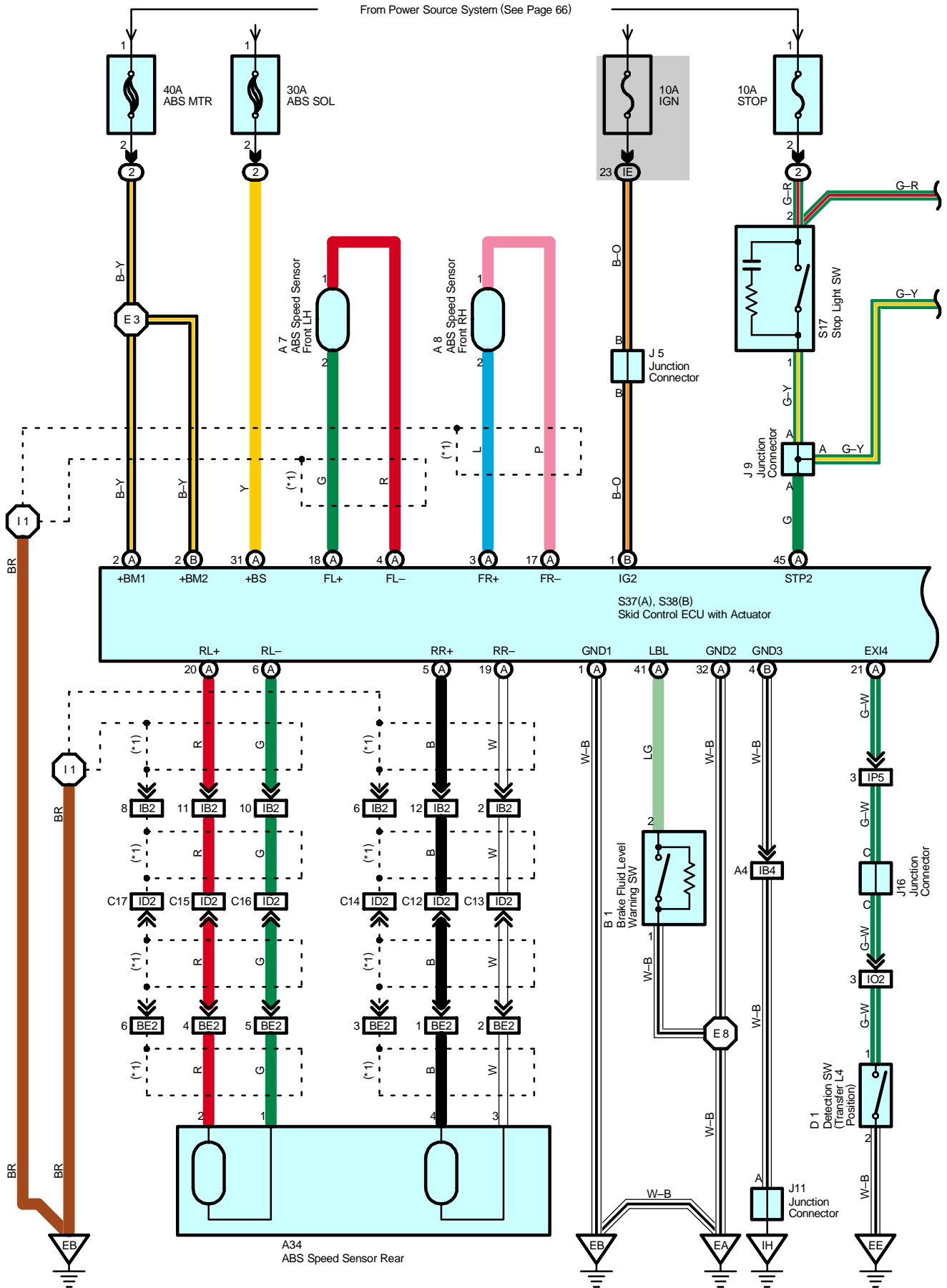
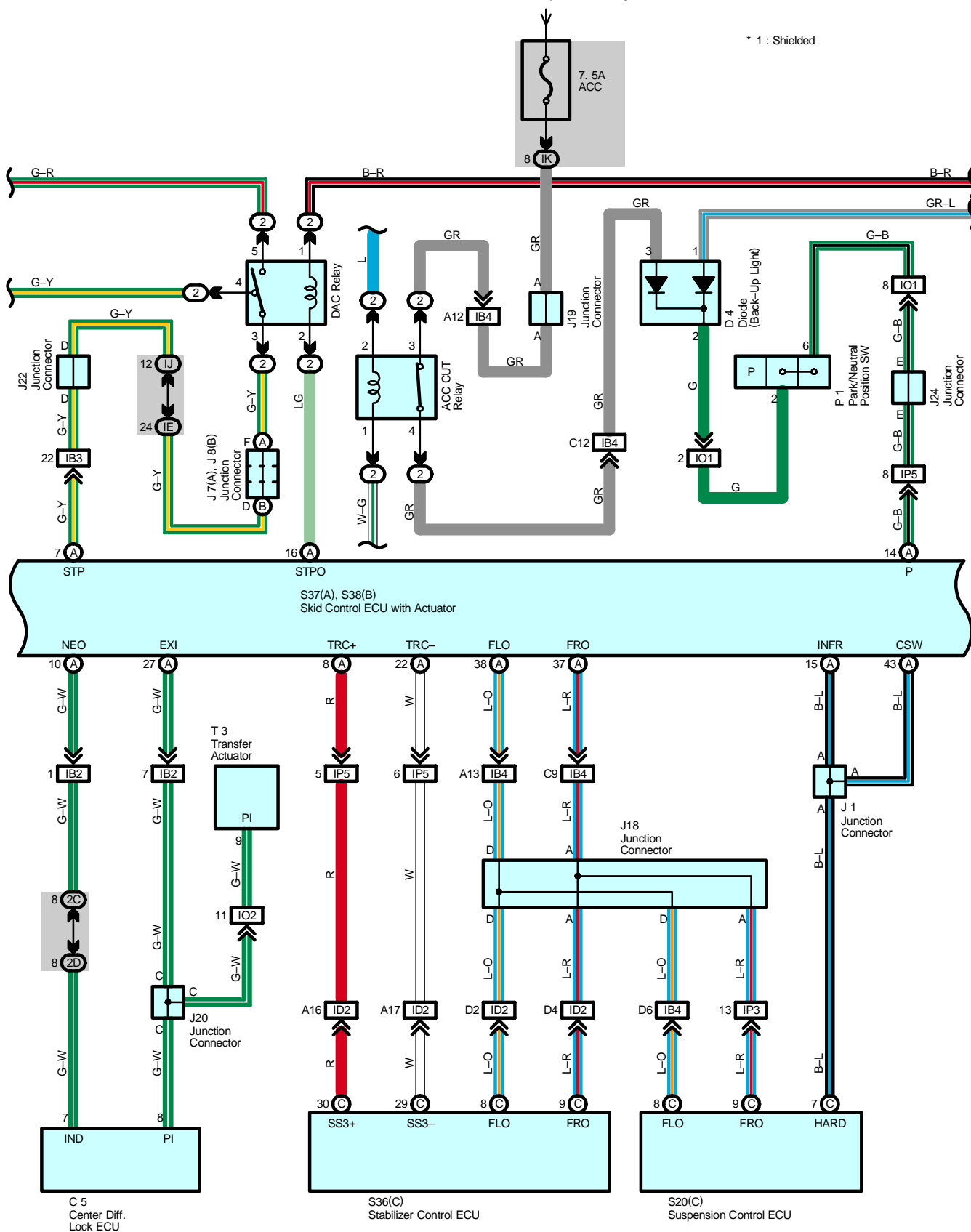


# ABS, TRAC, VSC, DAC and HAC

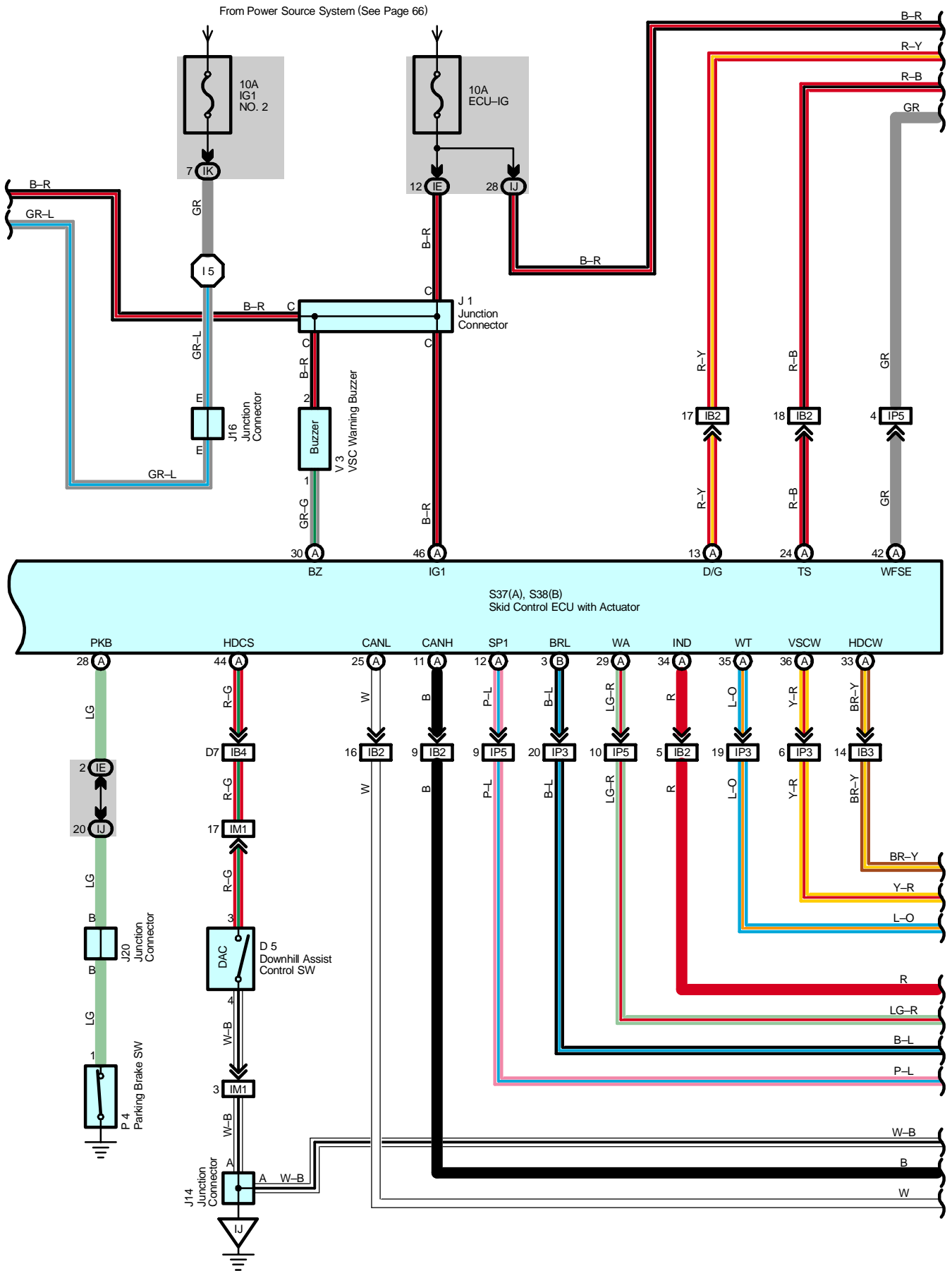


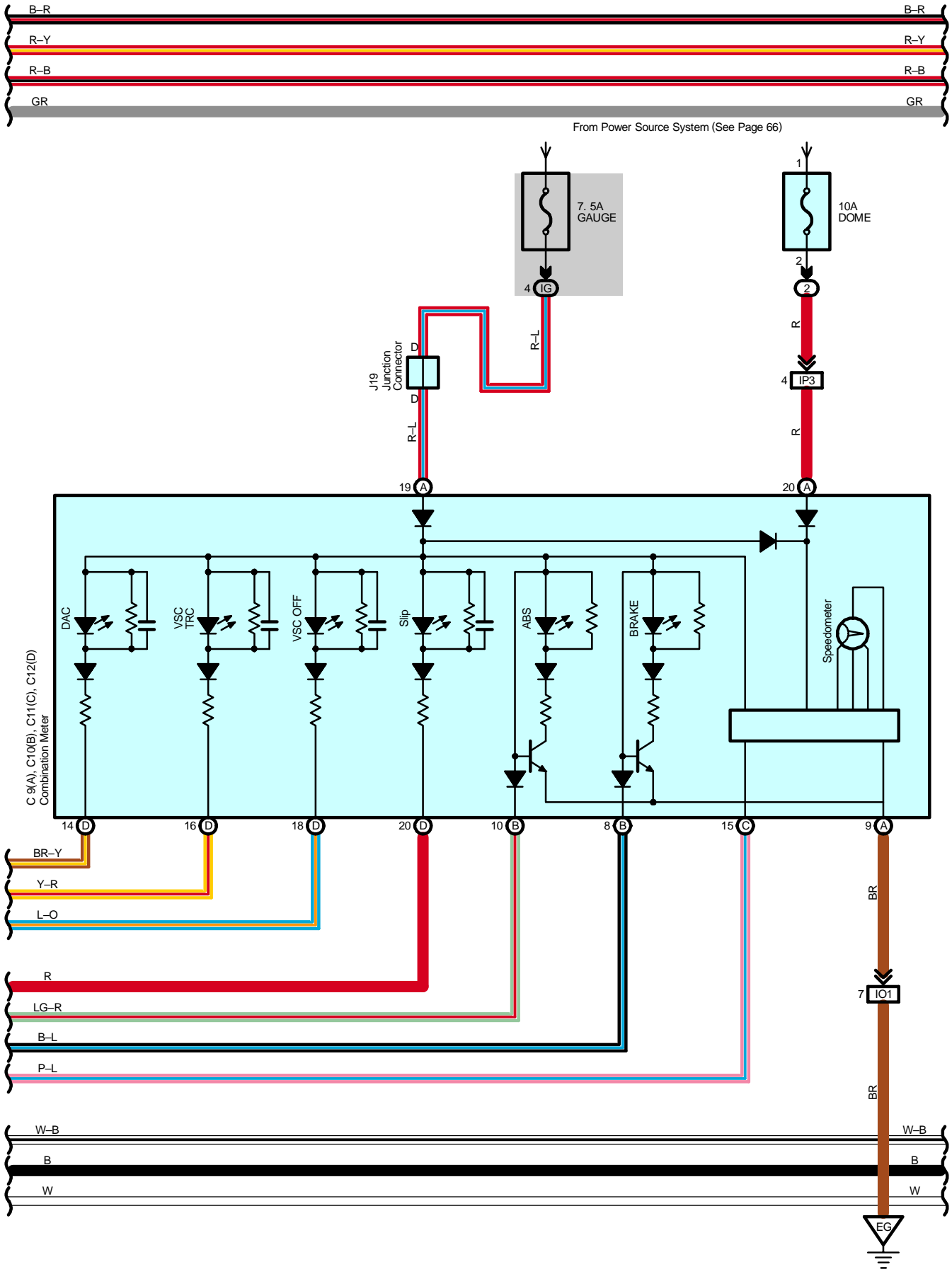
From Power Source System (See Page 66)

\* 1 : Shielded

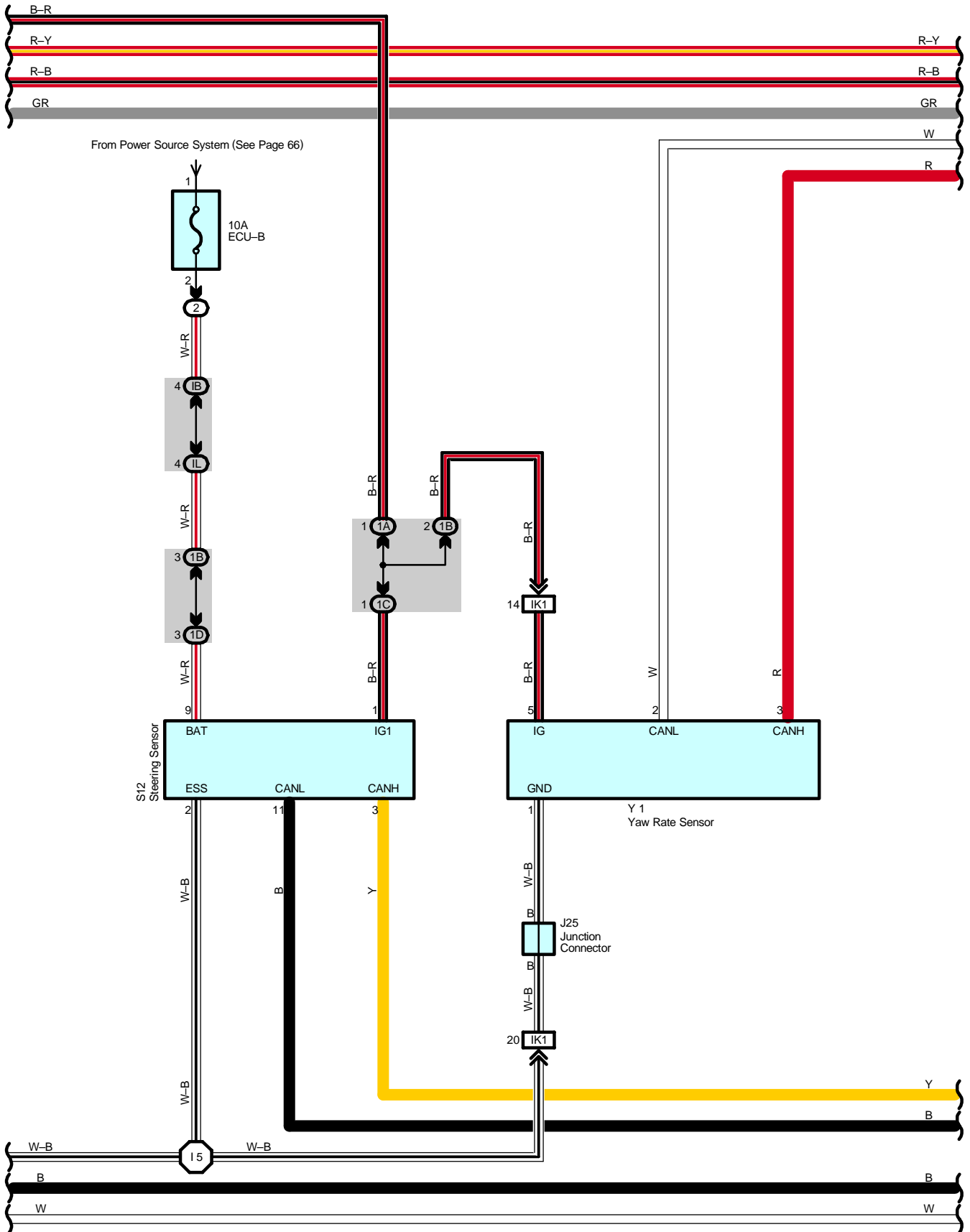


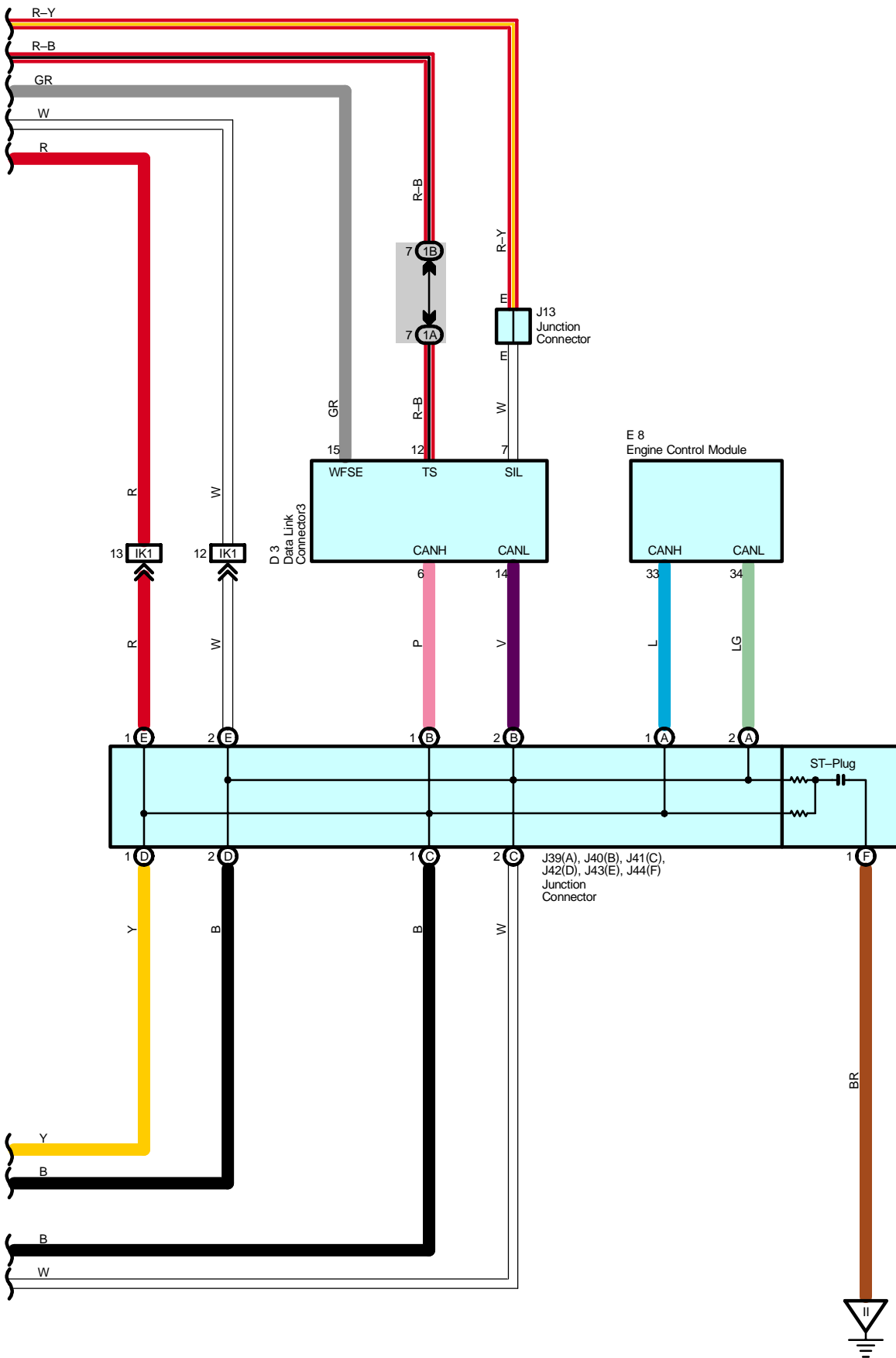
# ABS, TRAC, VSC, DAC and HAC





# ABS, TRAC, VSC, DAC and HAC





# ABS, TRAC, VSC, DAC and HAC

## System Outline

### 1. Normal Operation

The VSC system helps prevent the vehicle from slipping sideways as a result of strong front wheel skid or strong rear wheel skid during cornering.

The followings are two examples that can be considered as circumstances in which the tires exceed their lateral grip limit. The VSC system is designed to help control the vehicle behavior by controlling the engine's output and the brakes at each wheel when the vehicle is under one of the conditions indicated below.

- \* When the front wheels lose grip in relation to the rear wheels (Strong front wheel skid tendency).
- \* When the rear wheels lose grip in relation to the front wheels (Strong rear wheel skid tendency).

### 2. Downhill Assist Control Operation

The downhill assist control operation controls braking action of each wheel to help prevent out-of-balance vehicle posture when descending a steep hill or traveling at a speed exceeding the threshold of wheel gripping capability. When the downhill assist control is in operation, the brake system controls vehicle speed within the range of 5 to 7 km/h.

For the downhill assist control to be operative all of the following conditions have to be met:

- \* Downhill assist control switch = ON
- \* Transfer L4 selected
- \* Vehicle speed is 5 km/h or more, but less than 25 km/h.
- \* Accelerator pedal OFF
- \* Brake pedal OFF

### 3. Hill-Start Assist Control Operation

When starting on a steep hill for ascending, the hill-start support control automatically puts the brake on momentarily – from the moment when the driver releases his foot from the brake pedal until he steps on the accelerator pedal – to help the driver start the vehicle safely and smoothly.

Please bear in mind, however, that it activates the brake system for only 3 seconds.

For the hill-start support control to be operative all of the following conditions have to be met:

- \* Shift position = D, 2, or L
- \* Vehicle not moving forward with some wheel(s) slipping
- \* Vehicle speed > 0 km/h

## Service Hints

### S37 (A), S38 (B) Skid Control ECU with Actuator

(A) 1, (A) 32, (B) 4–Ground : Always continuity

(A) 46, (B) 1–Ground : Approx. 12 volts with the ignition SW at ON position

(A) 2, (B) 2–Ground : Always approx. 12 volts

## ○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A7	36	J7   A	40	J42   D	40
A8	36	J8   B	40	J43   E	40
A34	42	J9	40	J44   F	40
B1	36	J11	40	P1	37
C5	38	J13	40	P4	40
C9   A	38	J14	40	S12	41
C10   B	38	J16	40	S17	41
C11   C	38	J18	40	S20   C	41
C12   D	38	J19	40	S36   C	45
D1	36	J20	40	S37   A	37
D3	39	J22	40	S38   B	37
D4	39	J24	40	T3	37
D5	39	J25	40	V3	41
E8	39	J39   A	40	Y1	41
J1	37	J40   B	40		
J5	37	J41   C	40		

## ○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	22	Engine Room R/B (Engine Compartment Left)

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
IB	26	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
IE		
IG	27	Instrument Panel Wire and Driver Side J/B (Lower Finish Panel)
IJ		
IK		
IL		
1A	30	Instrument Panel Wire and J/B No.1 (Instrument Panel Reinforcement Left)
1B		
1C		
1D		
2C	32	Instrument Panel Wire and J/B No.2 (Instrument Panel Reinforcement Center)
2D		

 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
IB3		
IB4		
ID2	50	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)
IK1	52	Console Box Wire and Instrument Panel Wire (Under the Instrument Panel Brace LH)
IM1	54	Instrument Panel Wire and Switch Wire (Front Side of the Console Box)
IO1	54	Engine Wire and Instrument Panel Wire (Right Side of the Blower Unit)
IO2		
IP3	54	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)
IP5		
BE2	58	Frame Wire and Floor No.2 Wire (Under the Left Side of Rear Seat Cushion)

 : **Ground Points**

Code	See Page	Ground Points Location
EA	48	Front Right Fender
EB	48	Front Left Fender
EE	48	Rear Bank of Left Cylinder Head
EG		
IH	50	Left Kick Panel
II	50	Near the Left Side of Steering Column
IJ	50	Near the Right Side of Steering Column

 : **Splice Points**

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
E3	48	Engine Room Main Wire	I1	52	Engine Room Main Wire
E8			I5	52	Instrument Panel Wire