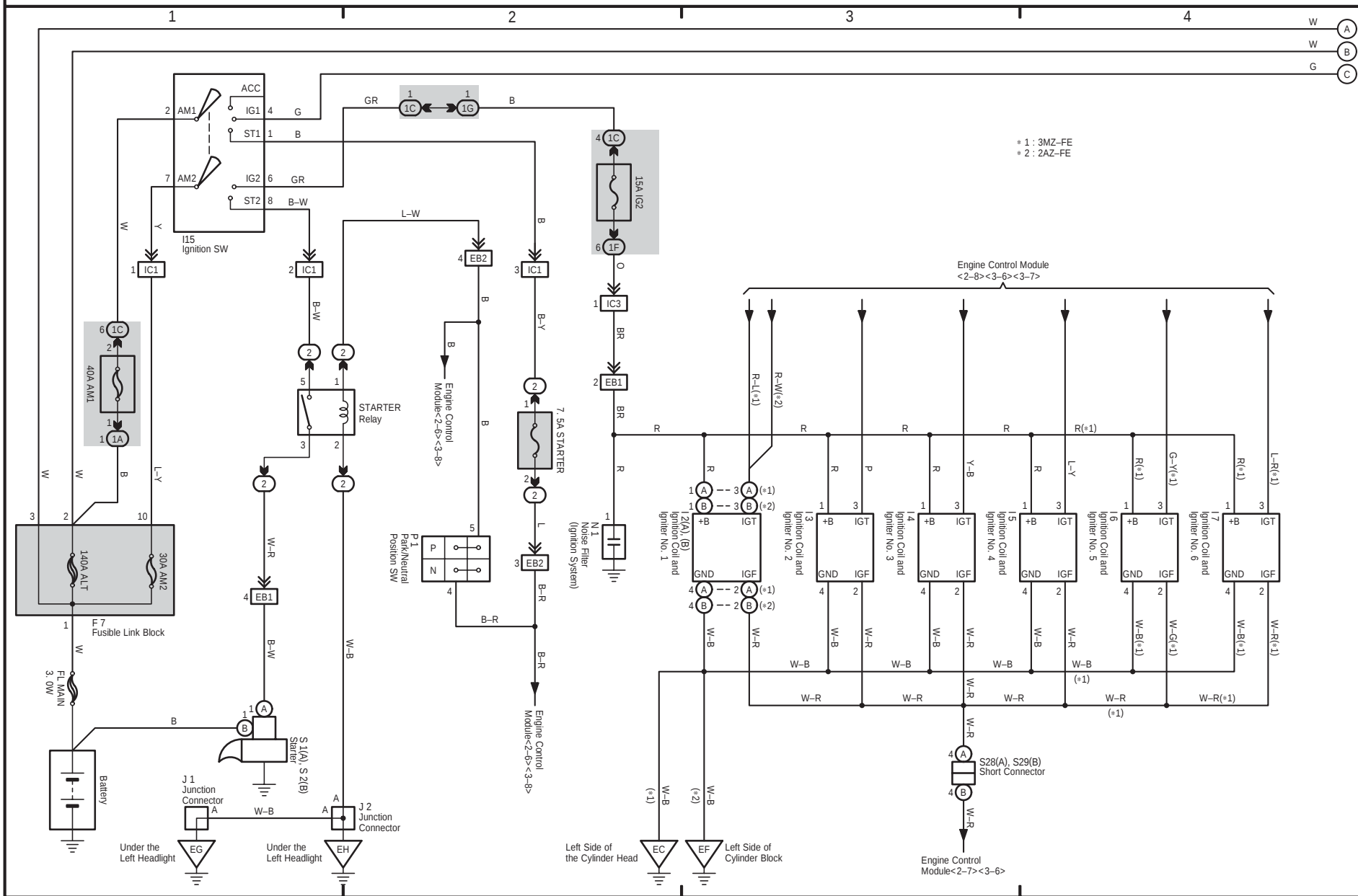


(Cont. next page)

1 HIGHLANDER

Power Source

Starting and Ignition

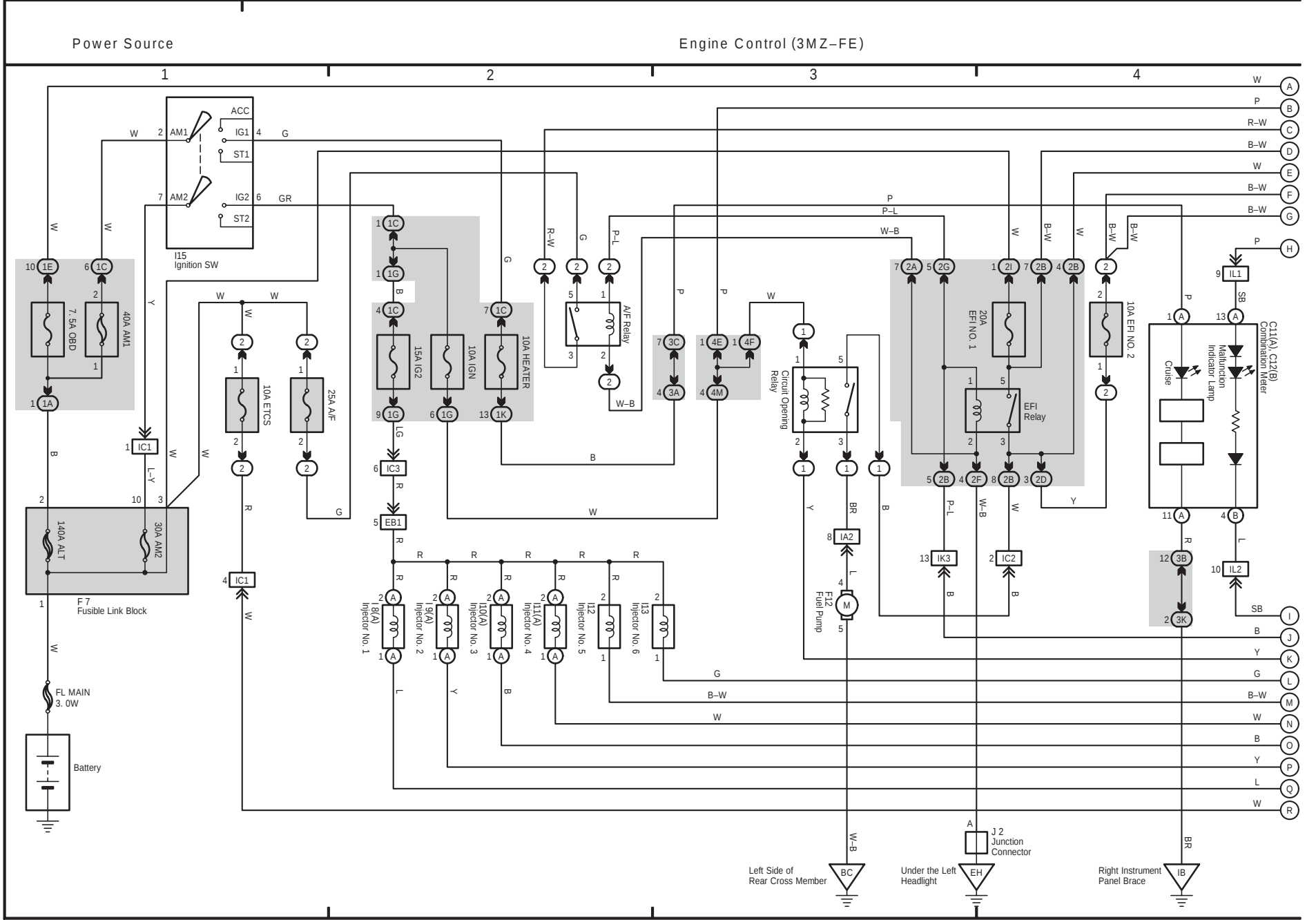




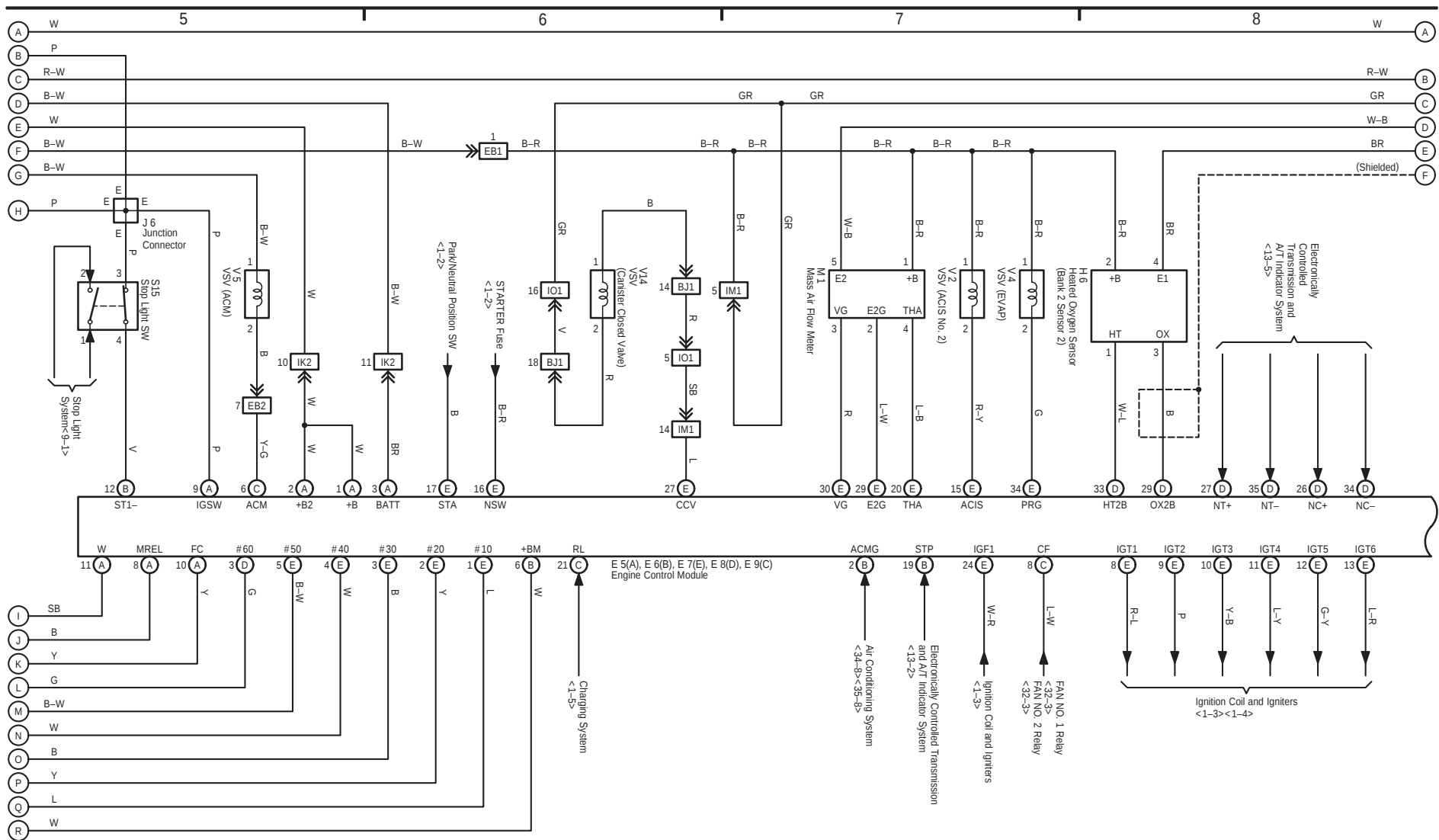
2 HIGHLANDER

(Cont. next page)

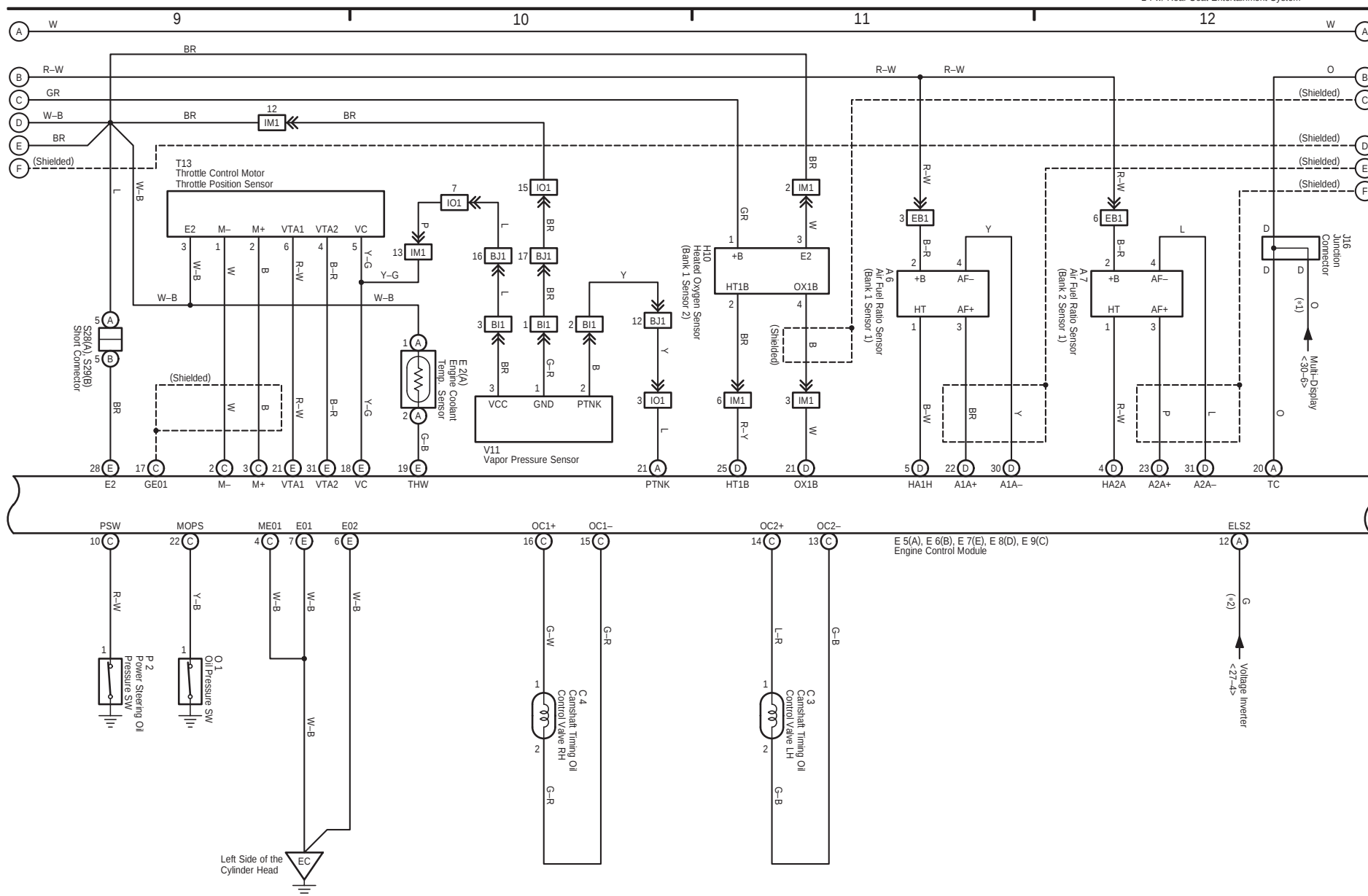
OVERALL ELECTRICAL WIRING DIAGRAM

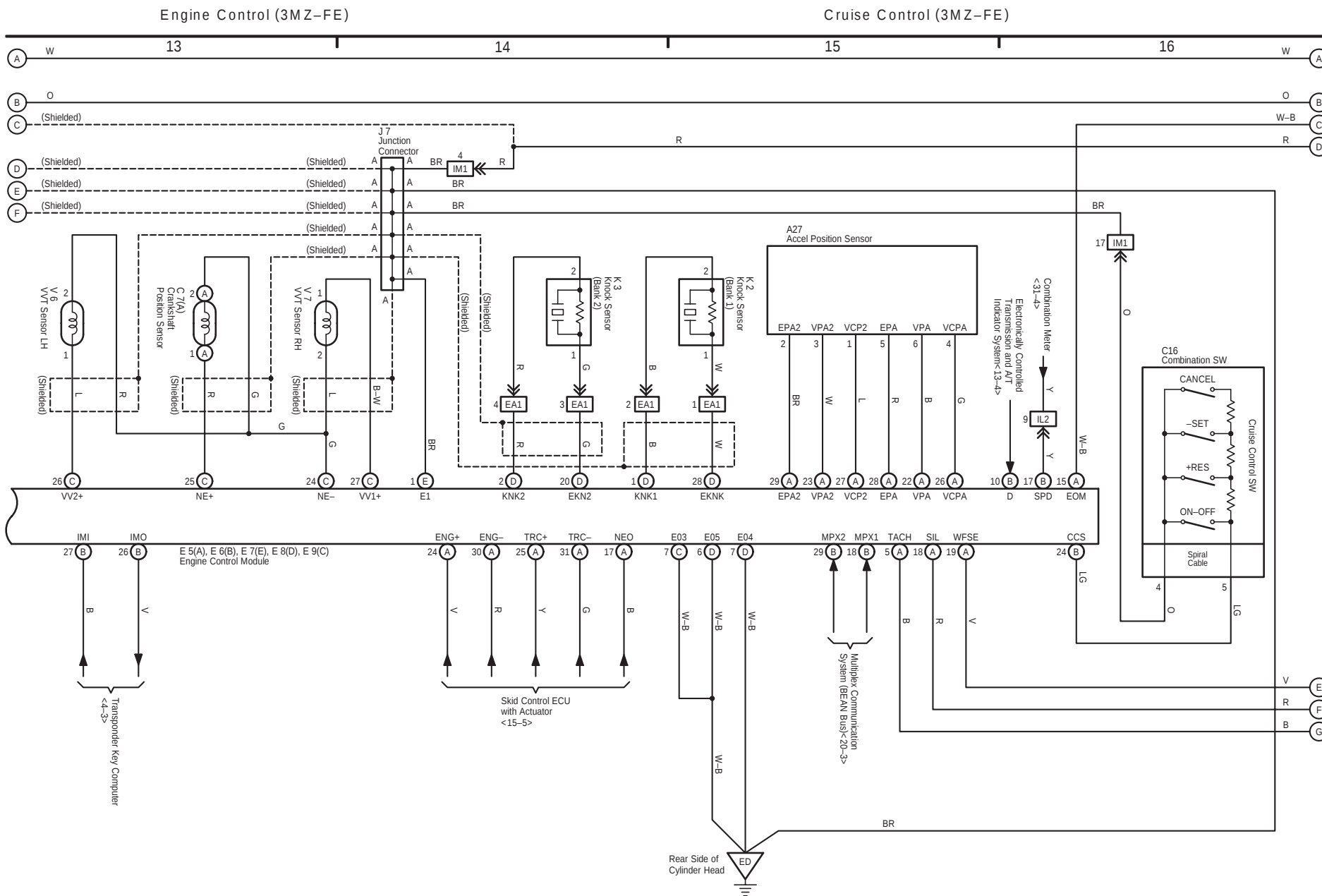


Engine Control (3MZ-FE)

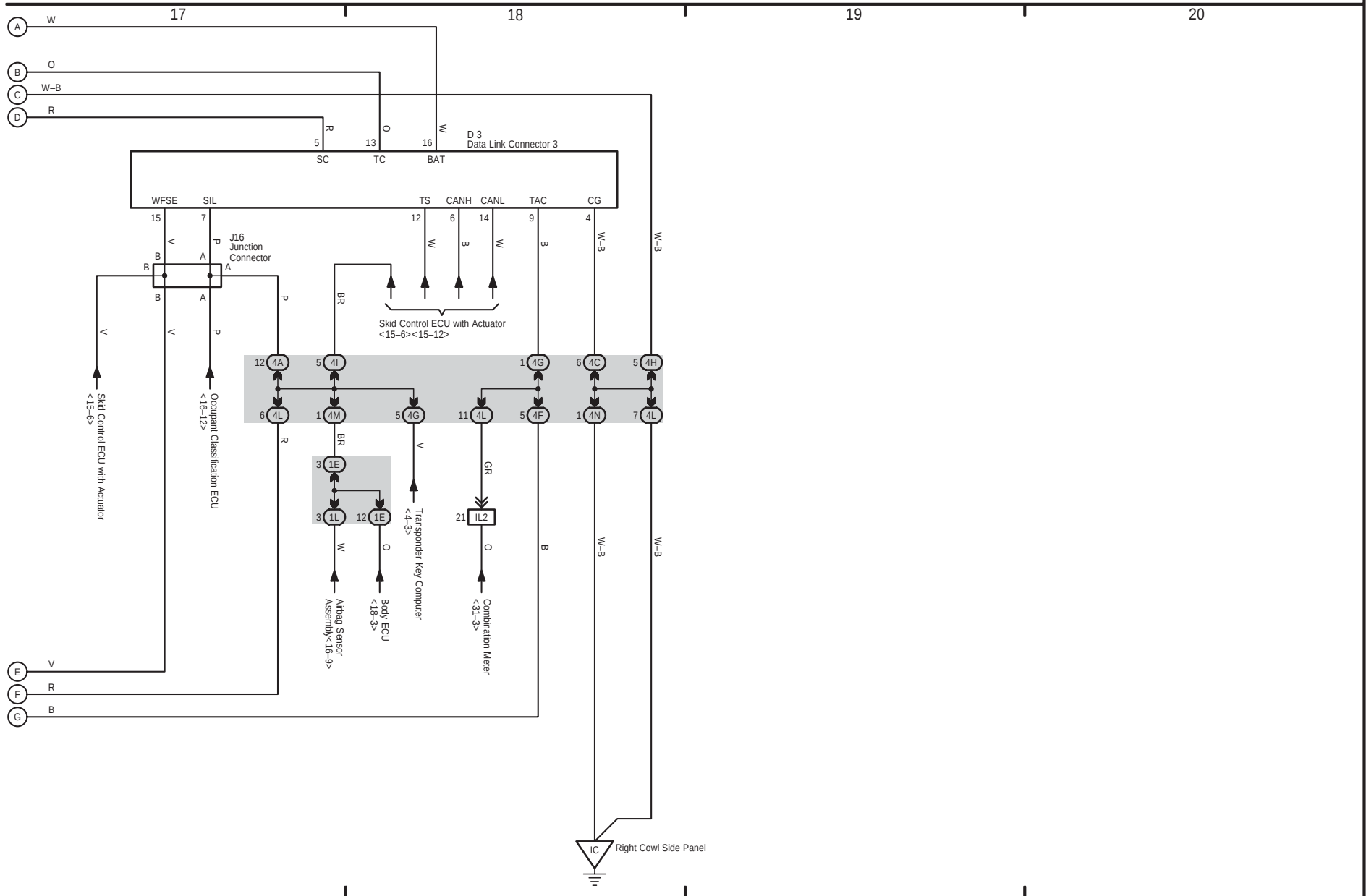


* 1 : w/ Navigation System
* 2 : w/ Rear Seat Entertainment System



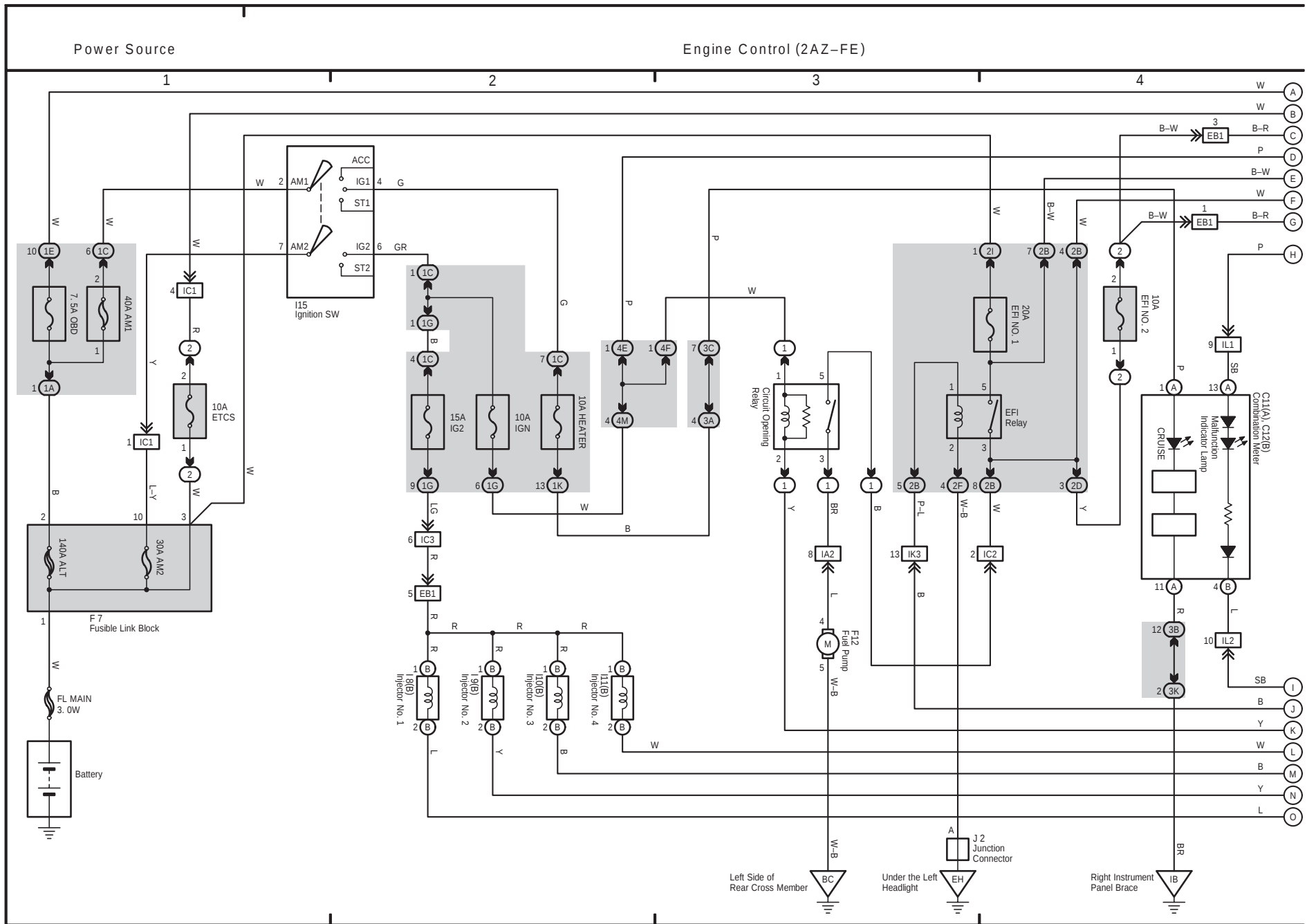


Cruise Control (3MZ-FE)

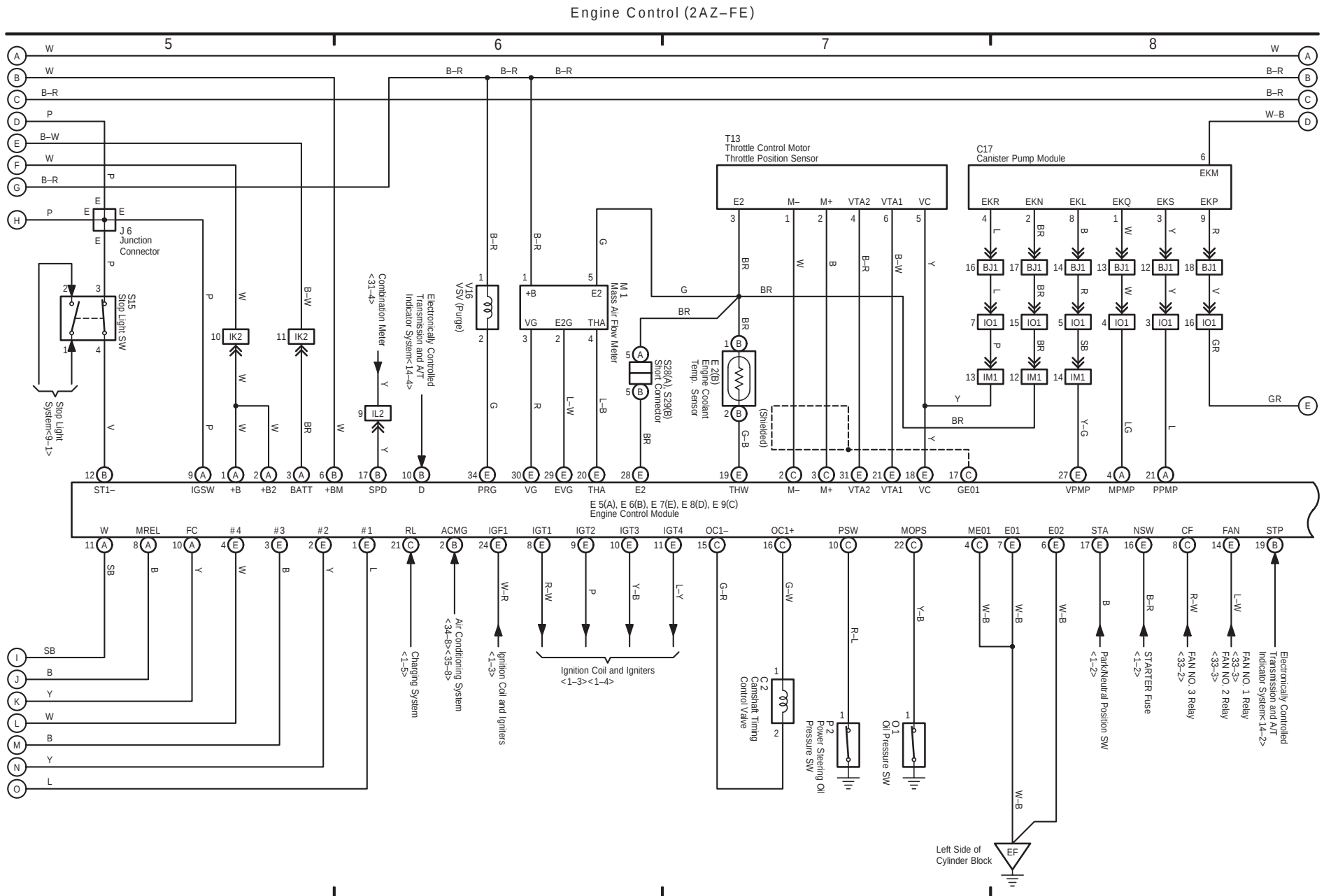


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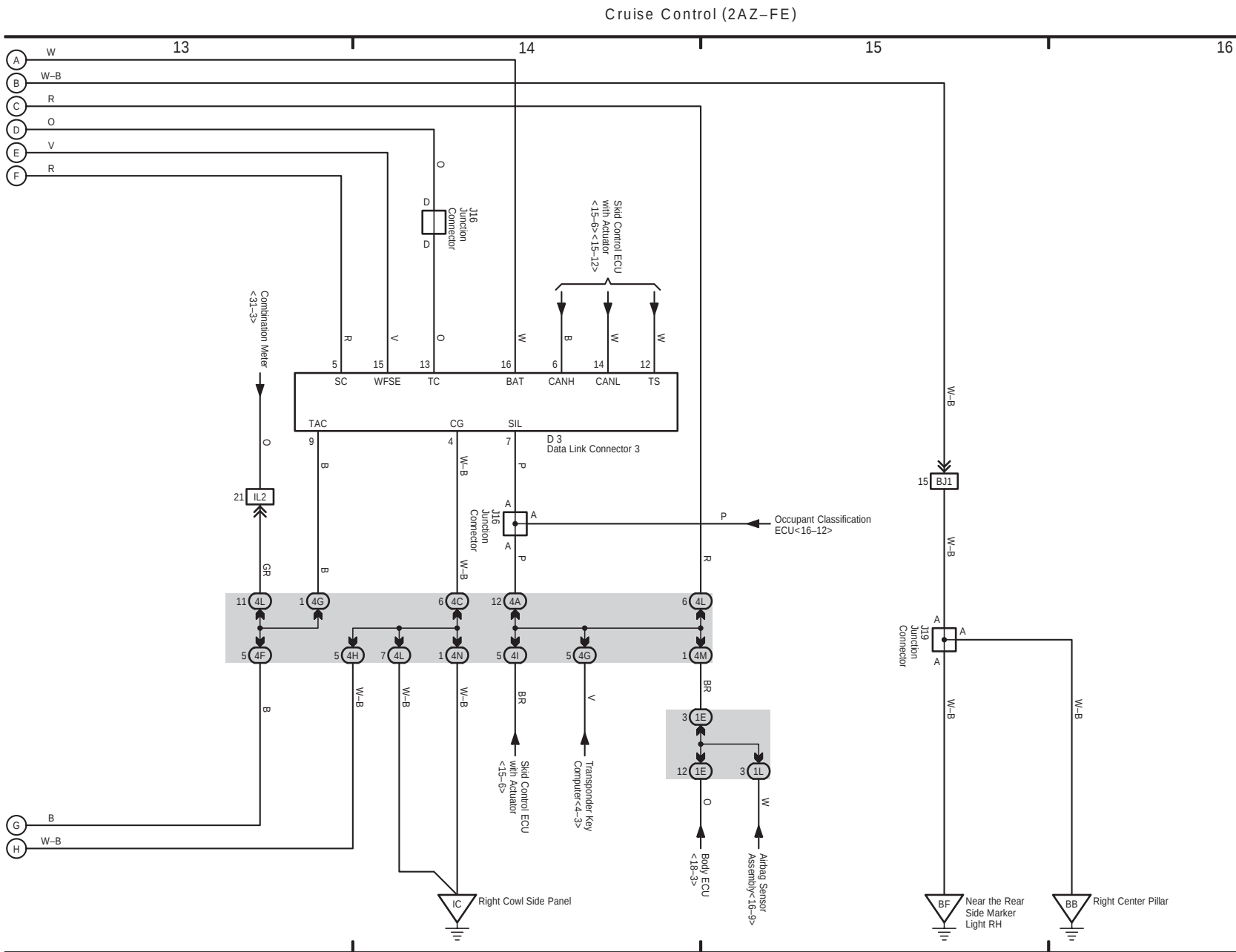
3 HIGHLANDER



HIGHLANDER (EM0120U)



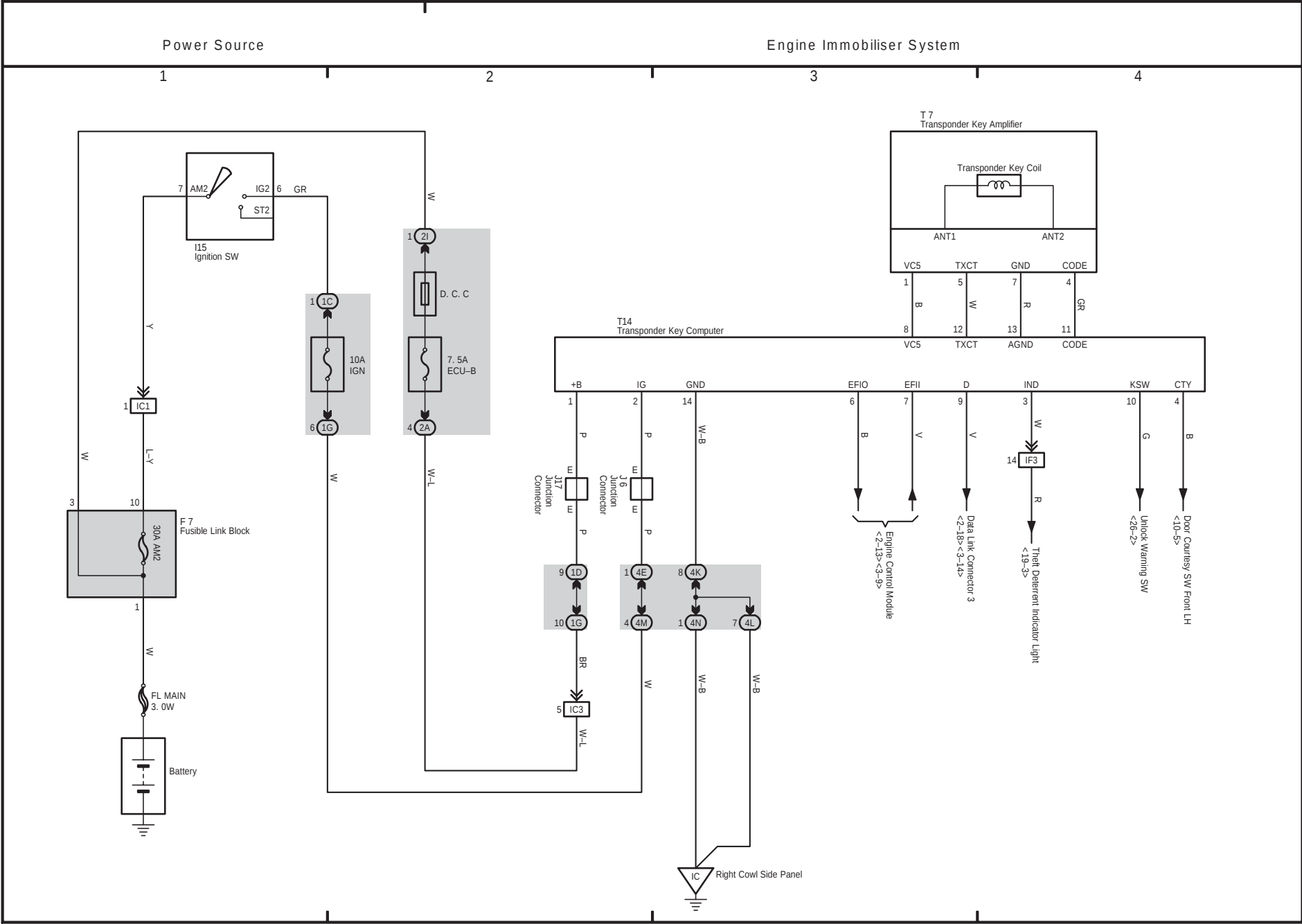
3 HIGHLANDER (Cont' d)



4 HIGHLANDER

346

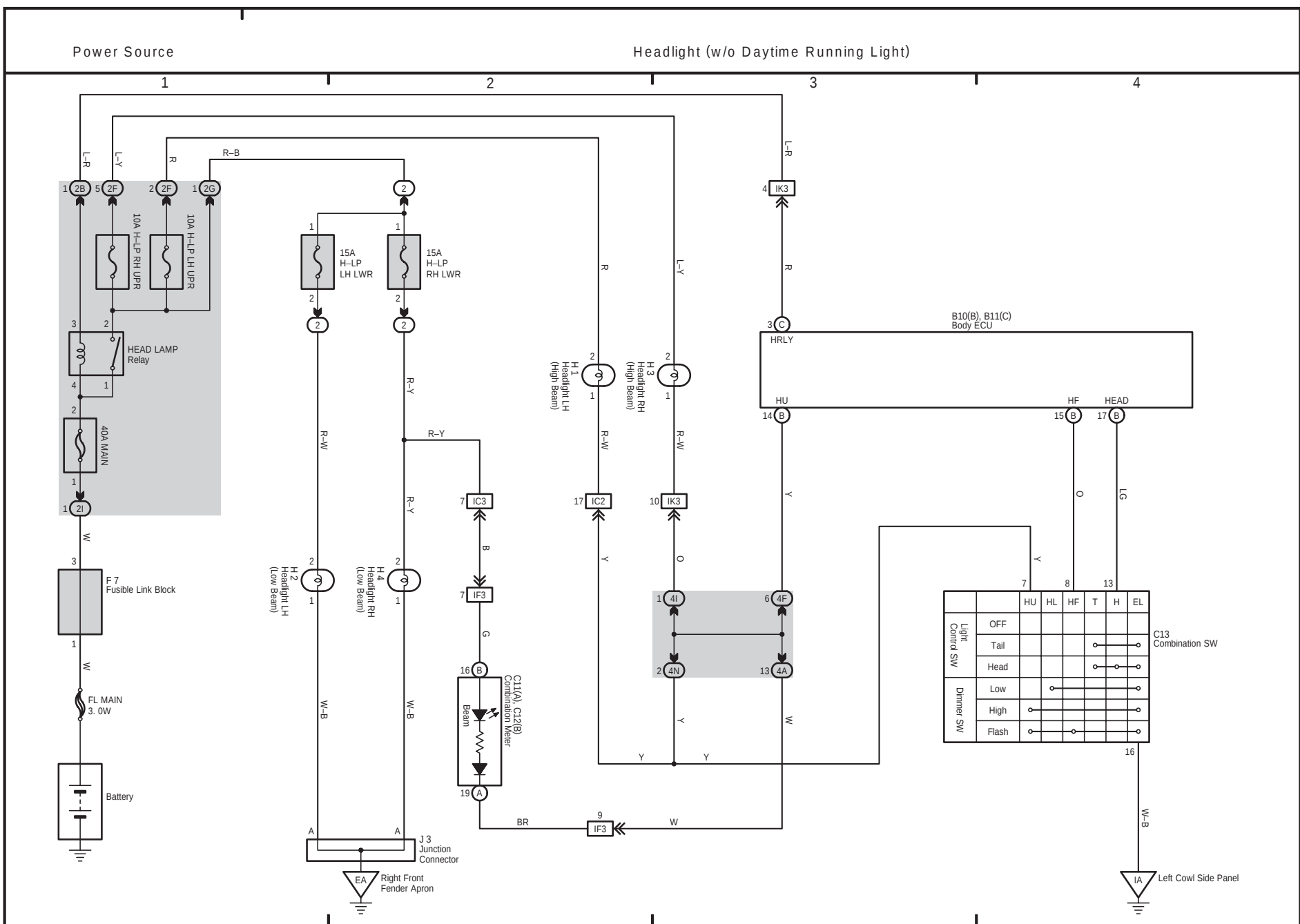
HIGHLANDER (EM0120U)



HIGHLANDER (EM0120U)



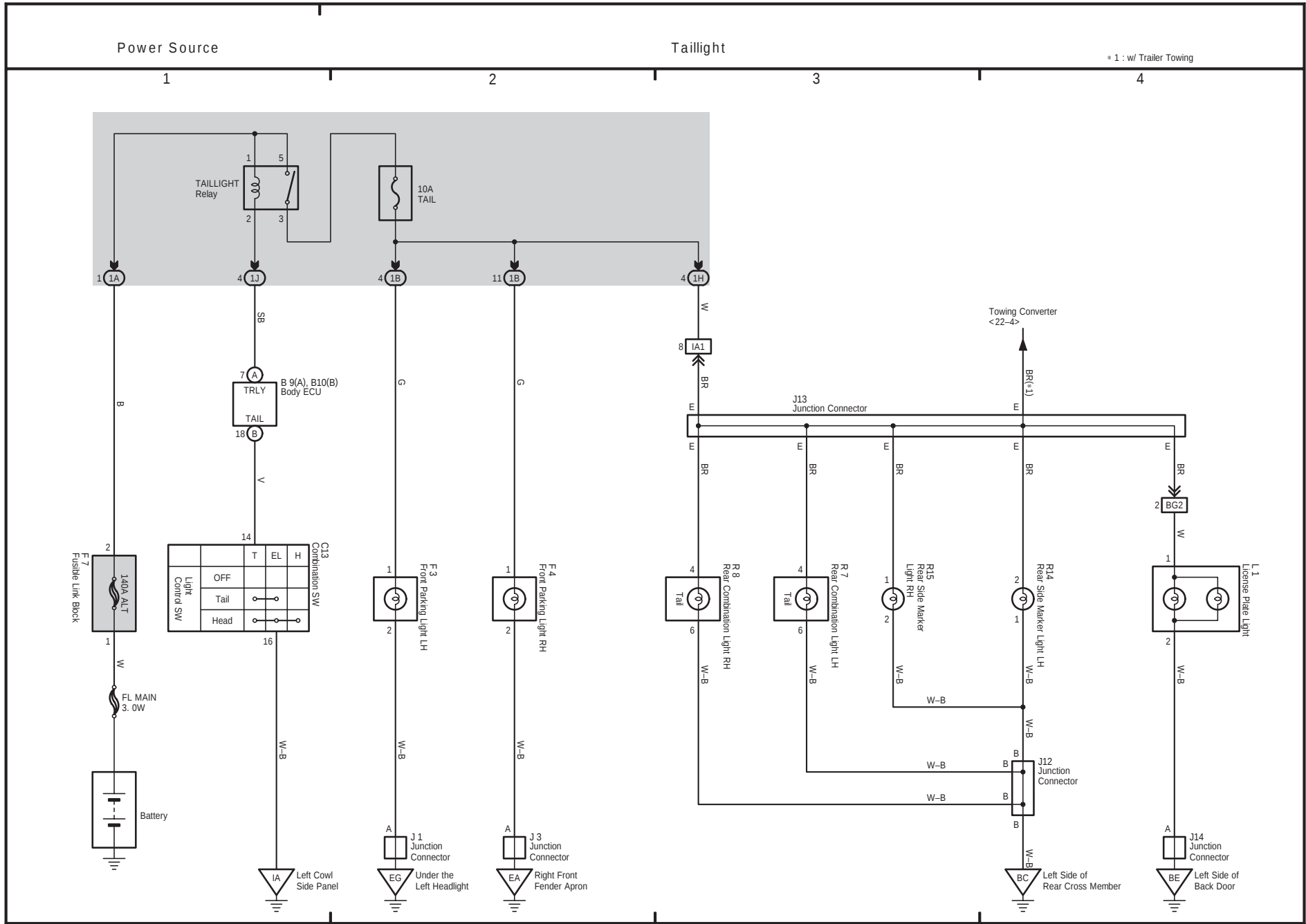
HIGHLANDER (EM0120U)



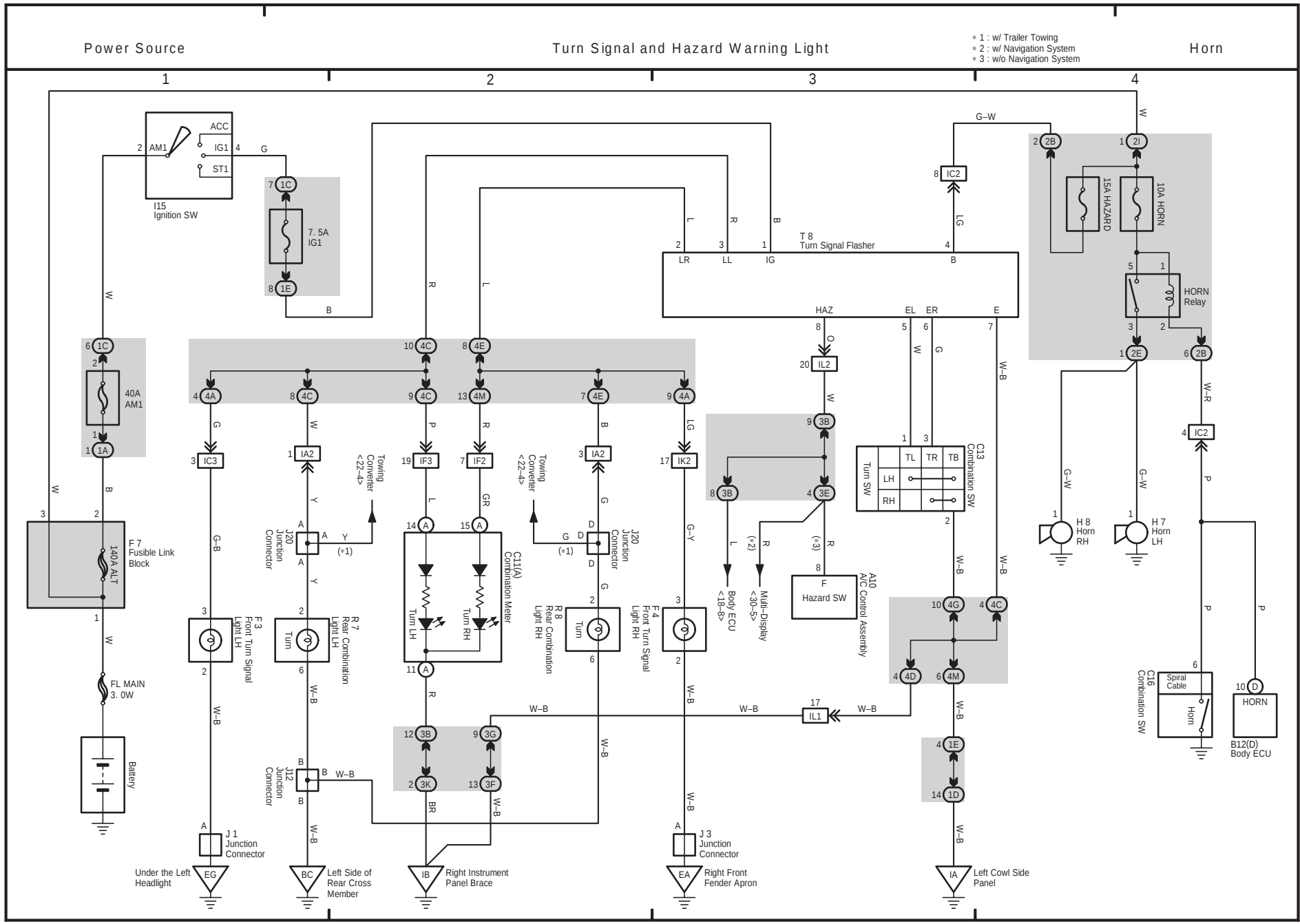
7 HIGHLANDER

HIGHLANDER (EM0120U)

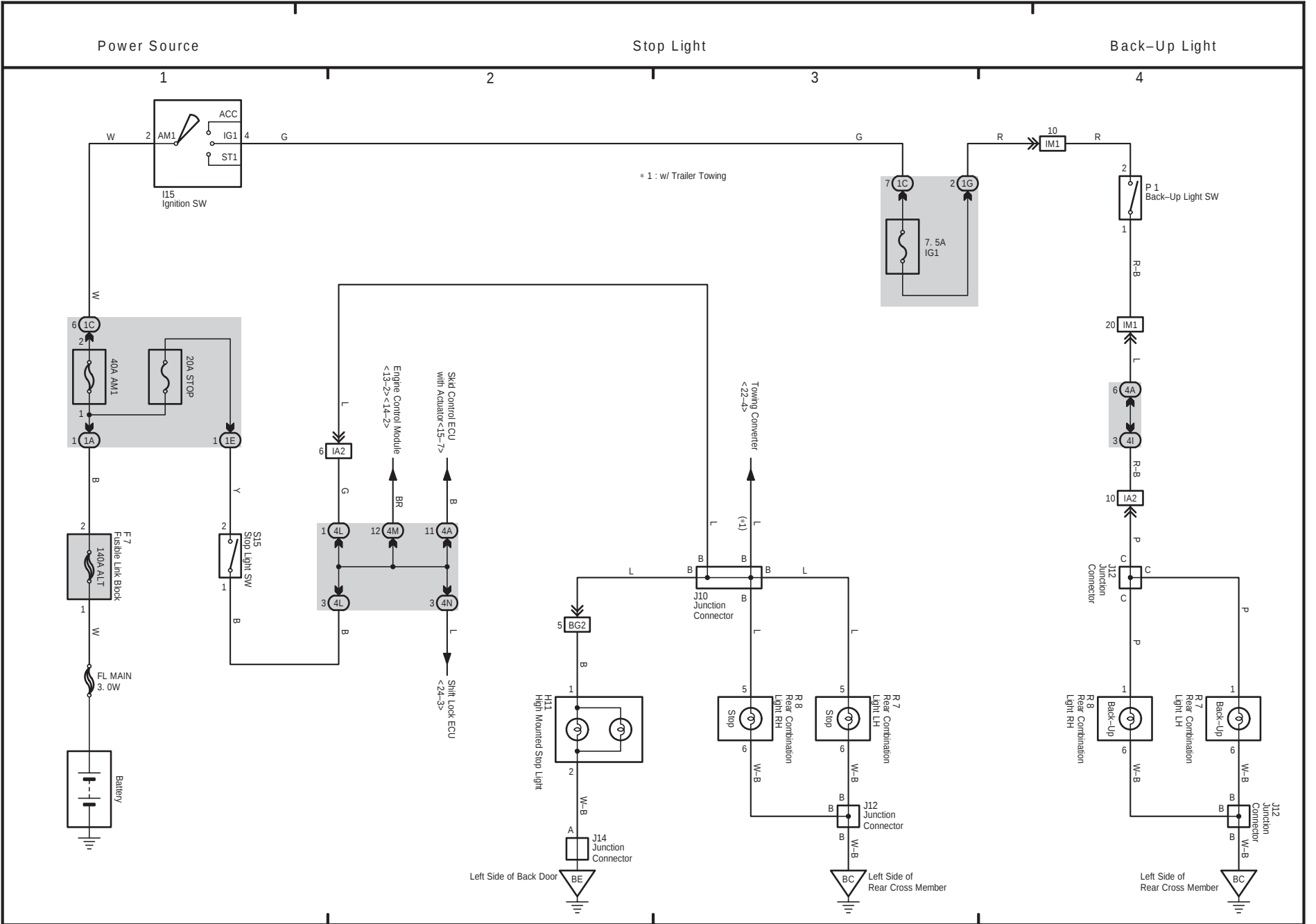
349



8 HIGHLANDER



9 HIGHLANDER



HIGHLANDER (EM0120U)

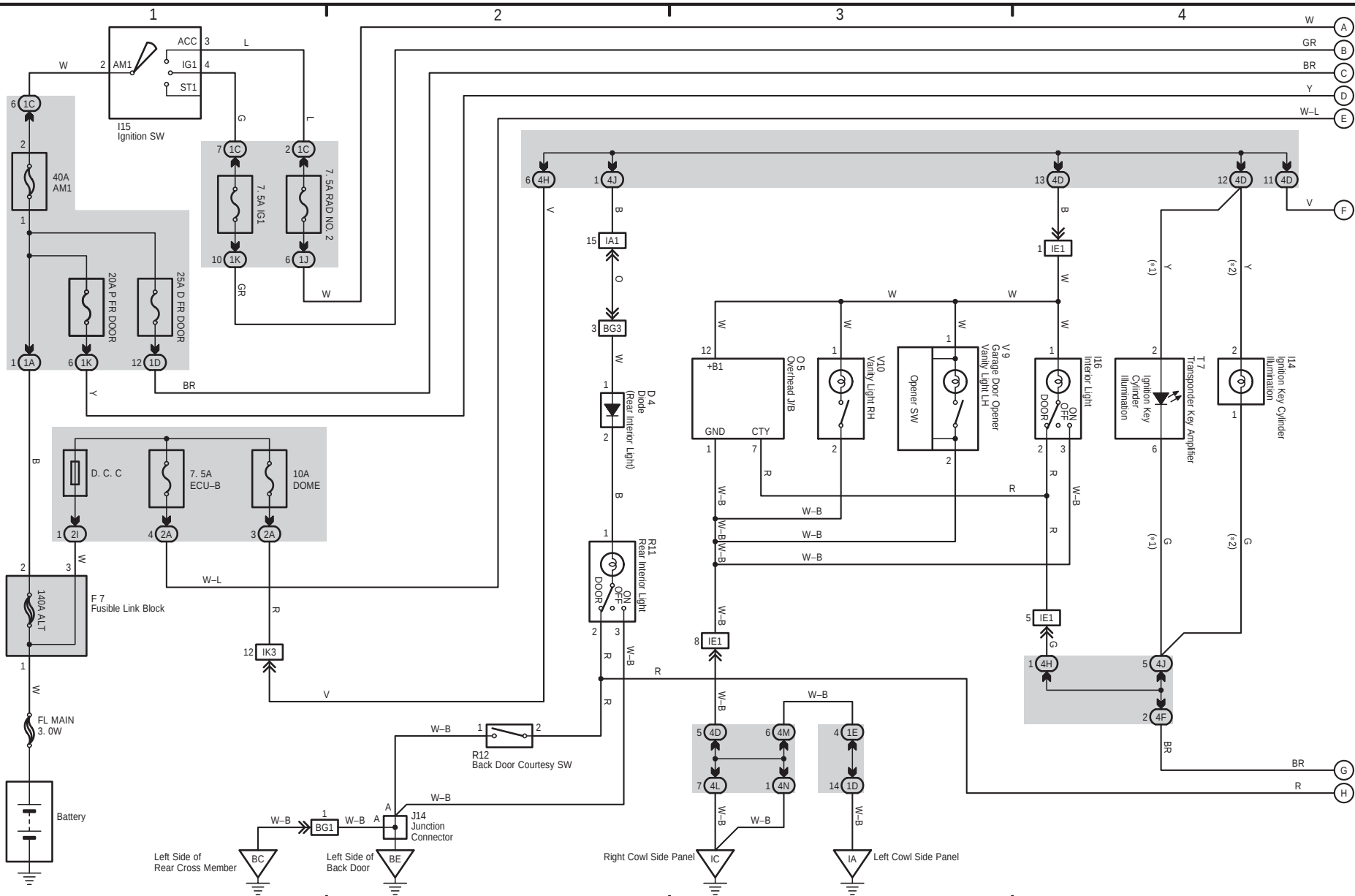
(Cont. next page)

10 HIGHLANDER

Power Source

Interior Light and Garage Door Opener

* 1 : w/ Engine Immobiliser System
 * 2 : w/o Engine Immobiliser System



* 3 : w/ Navigation System

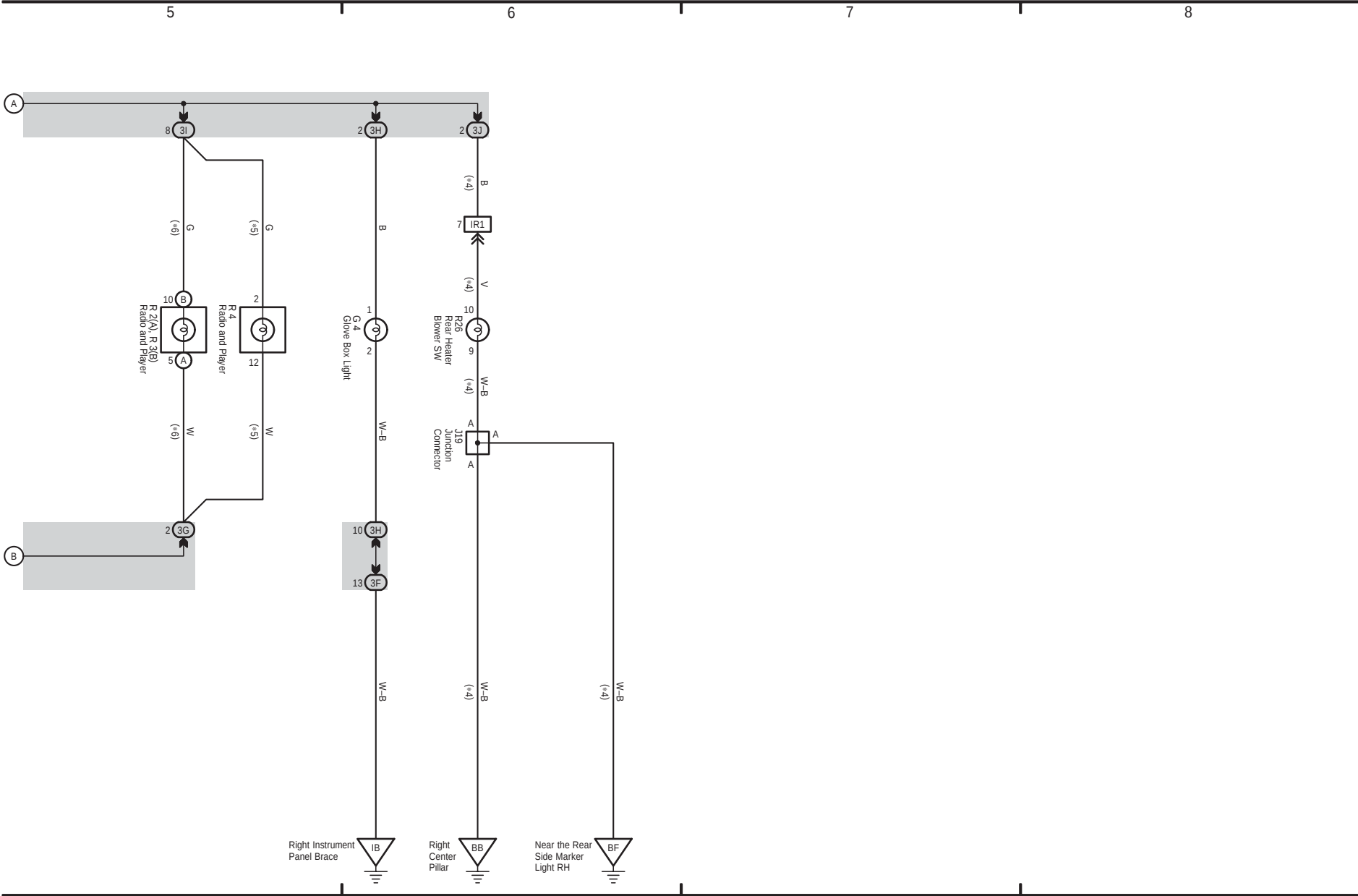




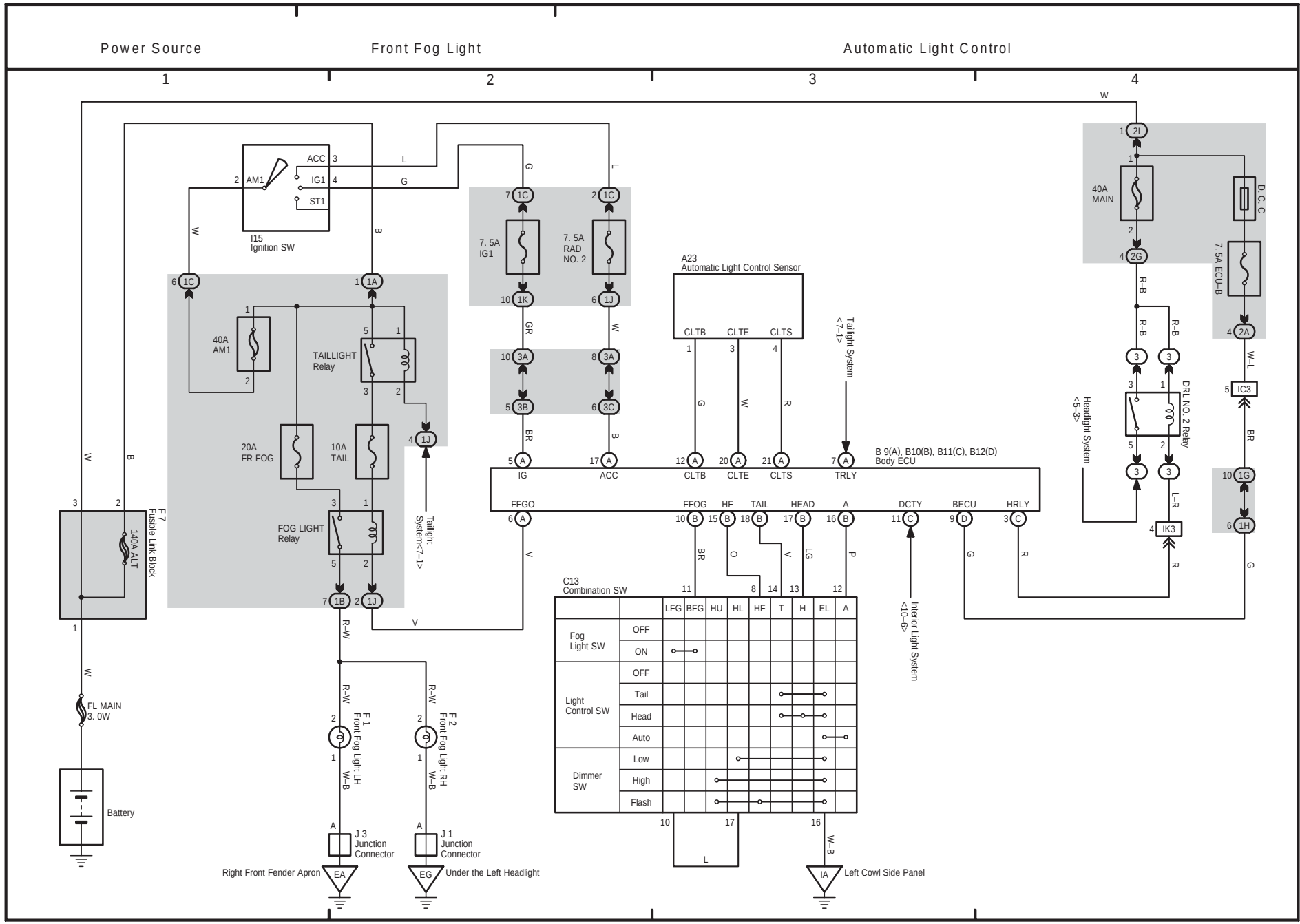
11 HIGHLANDER (Cont' d)

Illumination

- * 4 : w/ Rear Heater System
- * 5 : 8 Speaker
- * 6 : 6 Speaker



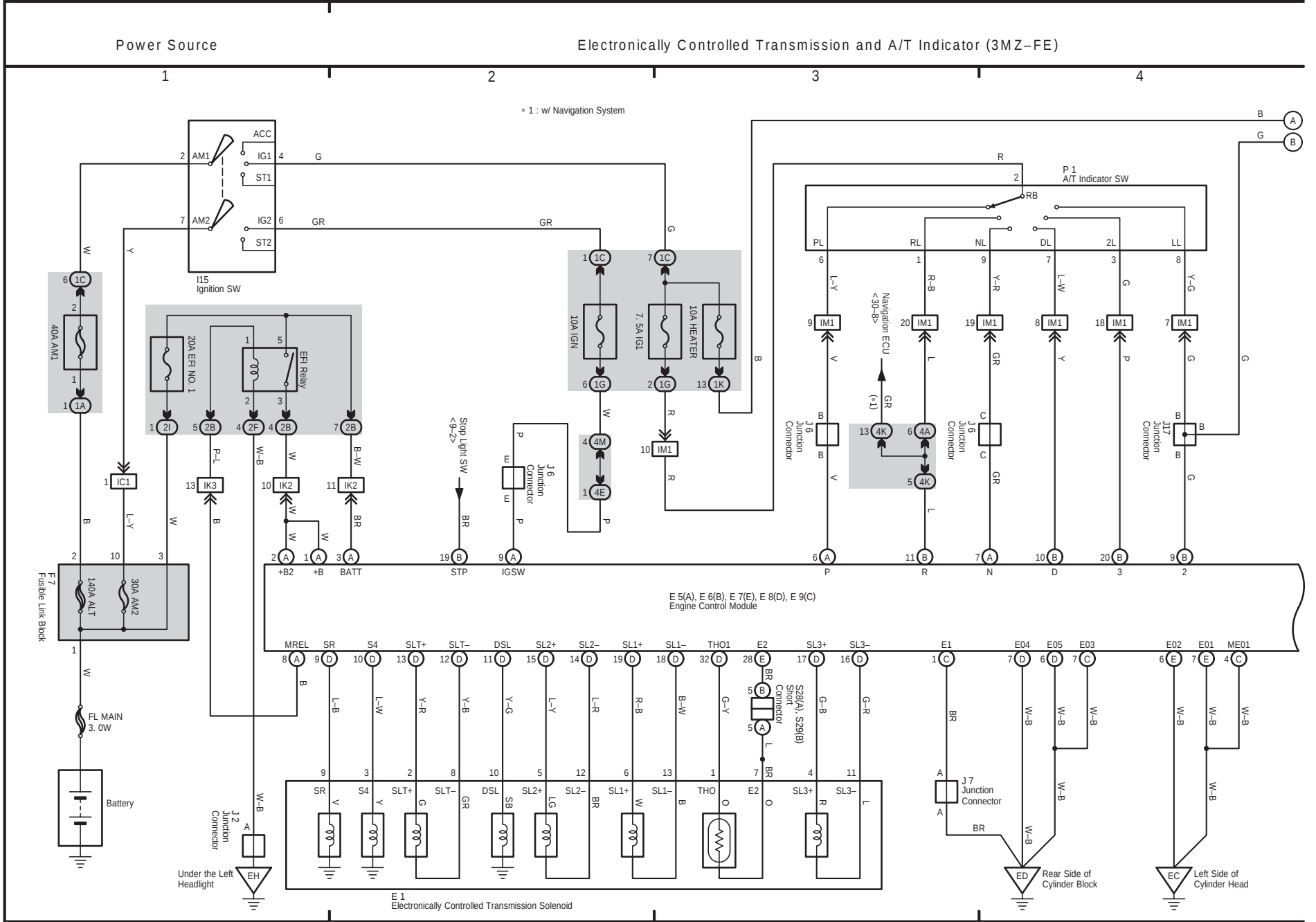
12 HIGHLANDER



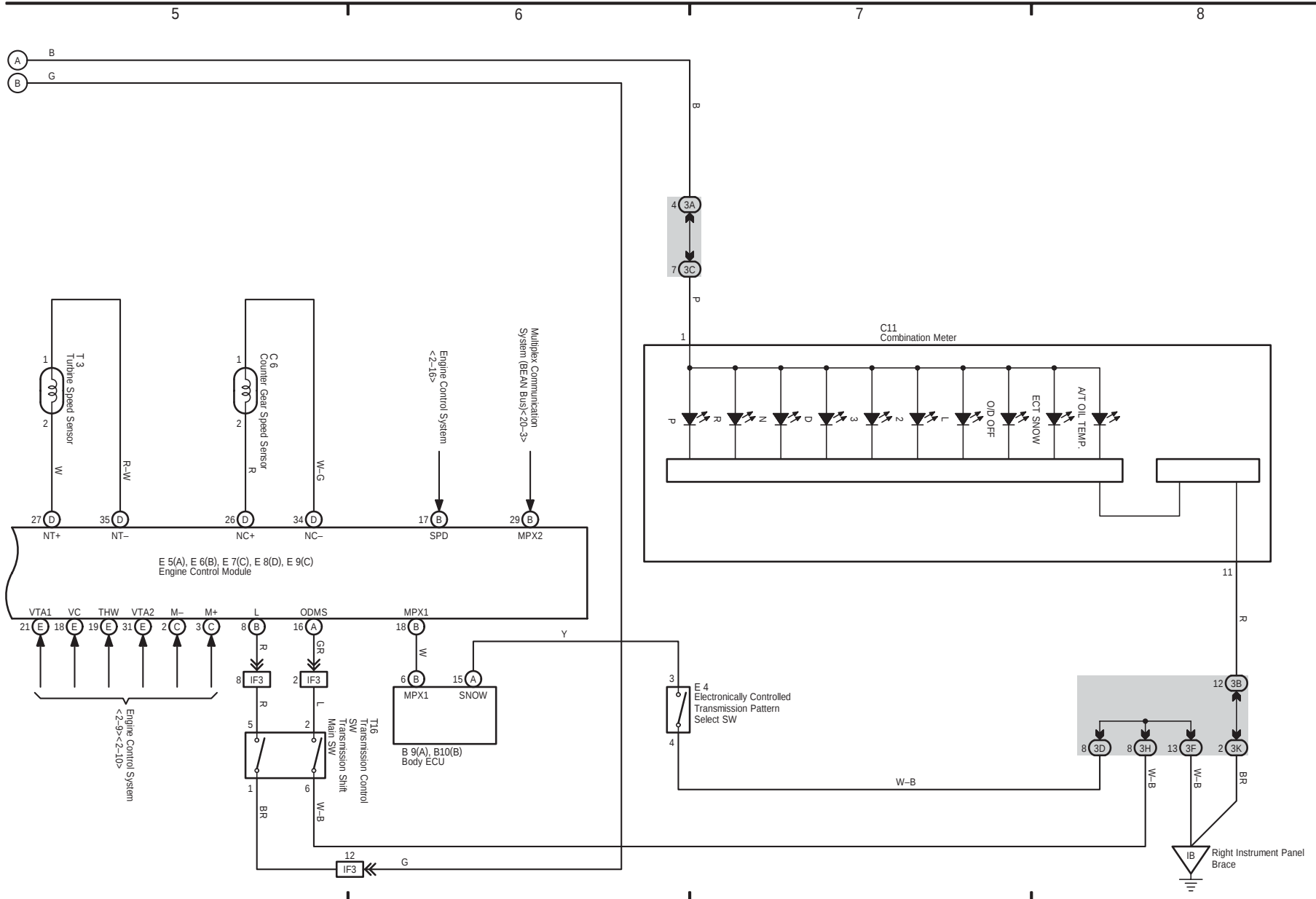
13 HIGHLANDER

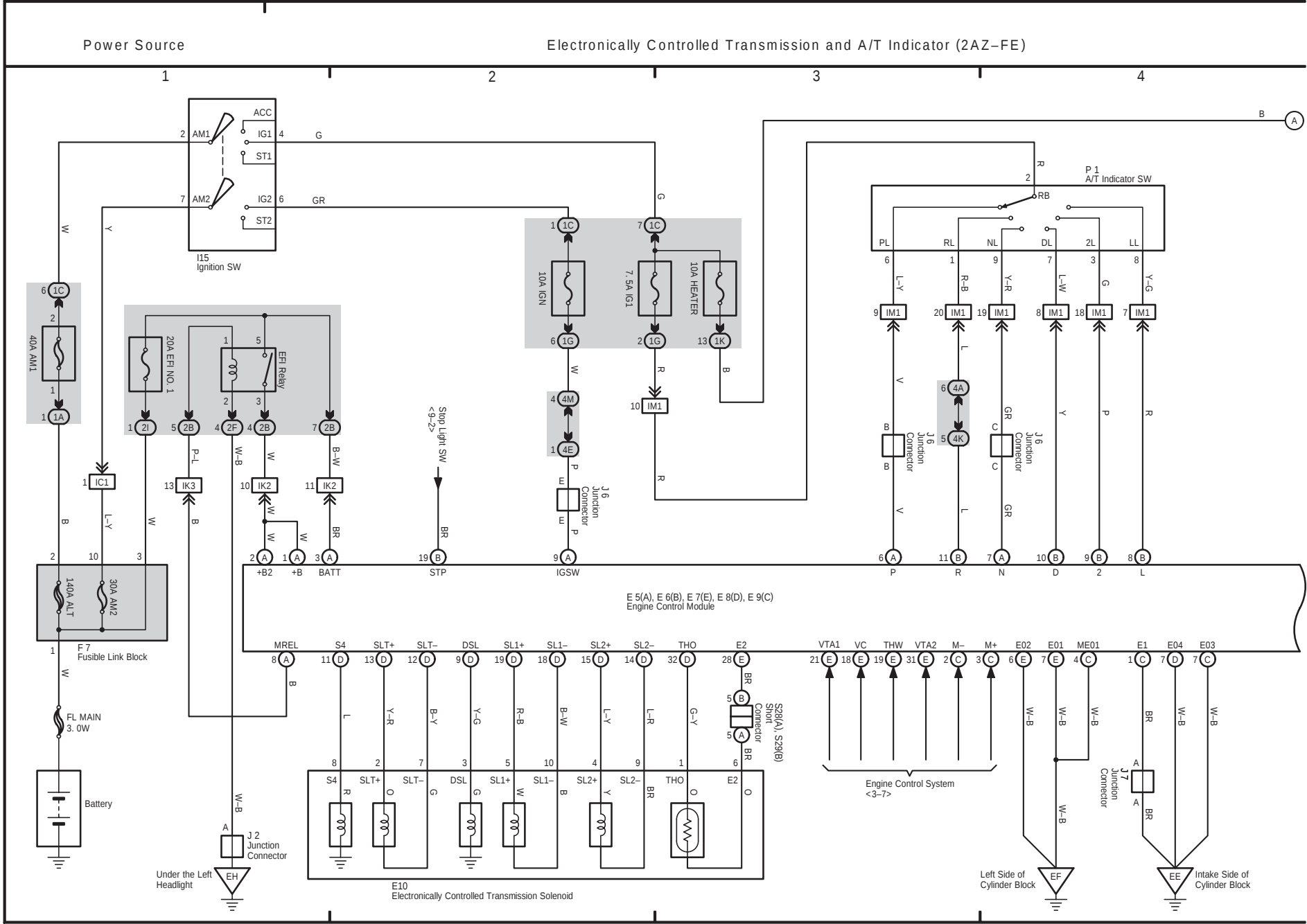
(Cont. next page)

M OVERALL ELECTRICAL WIRING DIAGRAM

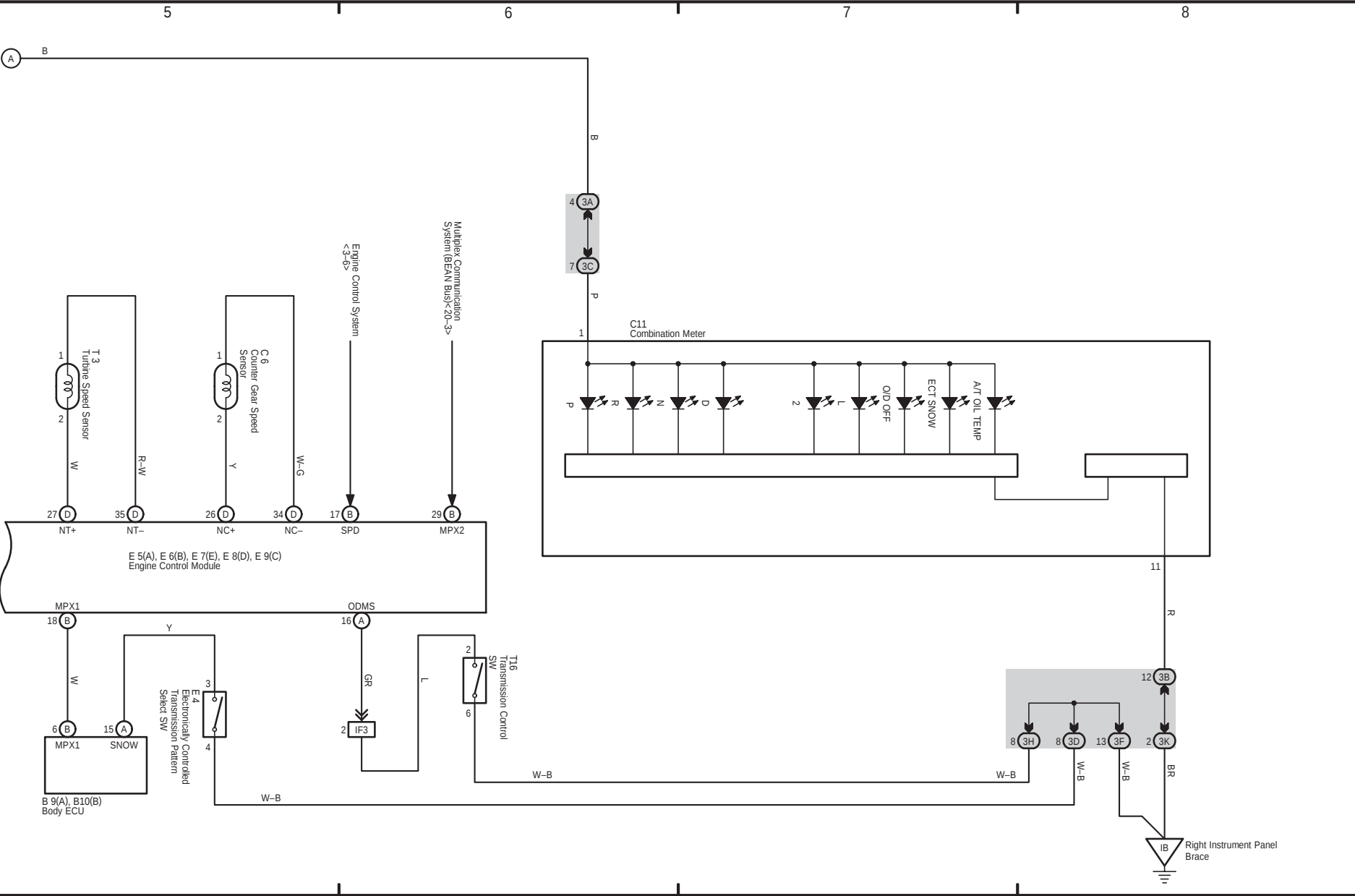


Electronically Controlled Transmission and A/T Indicator (3MZ-FE)



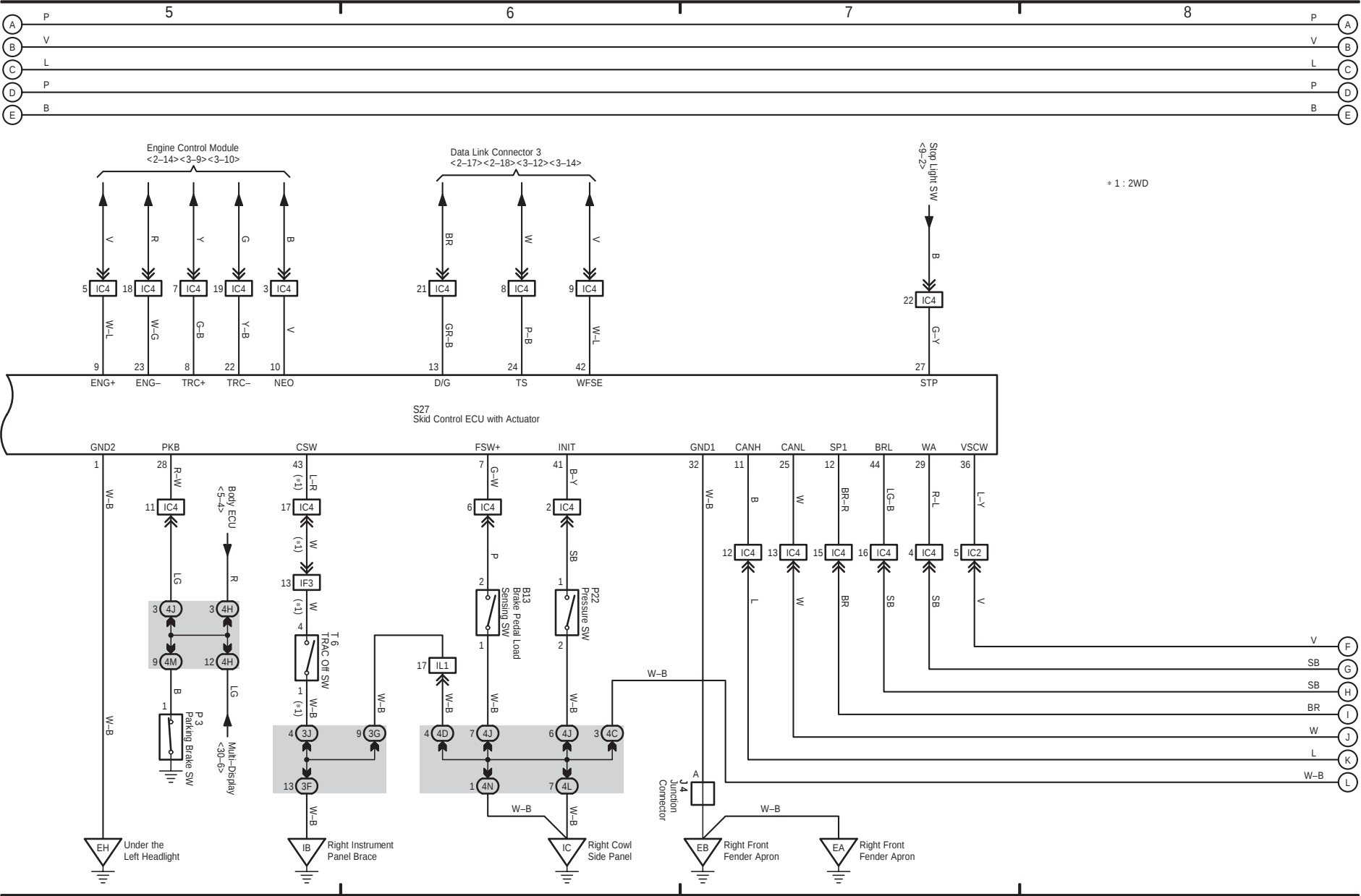


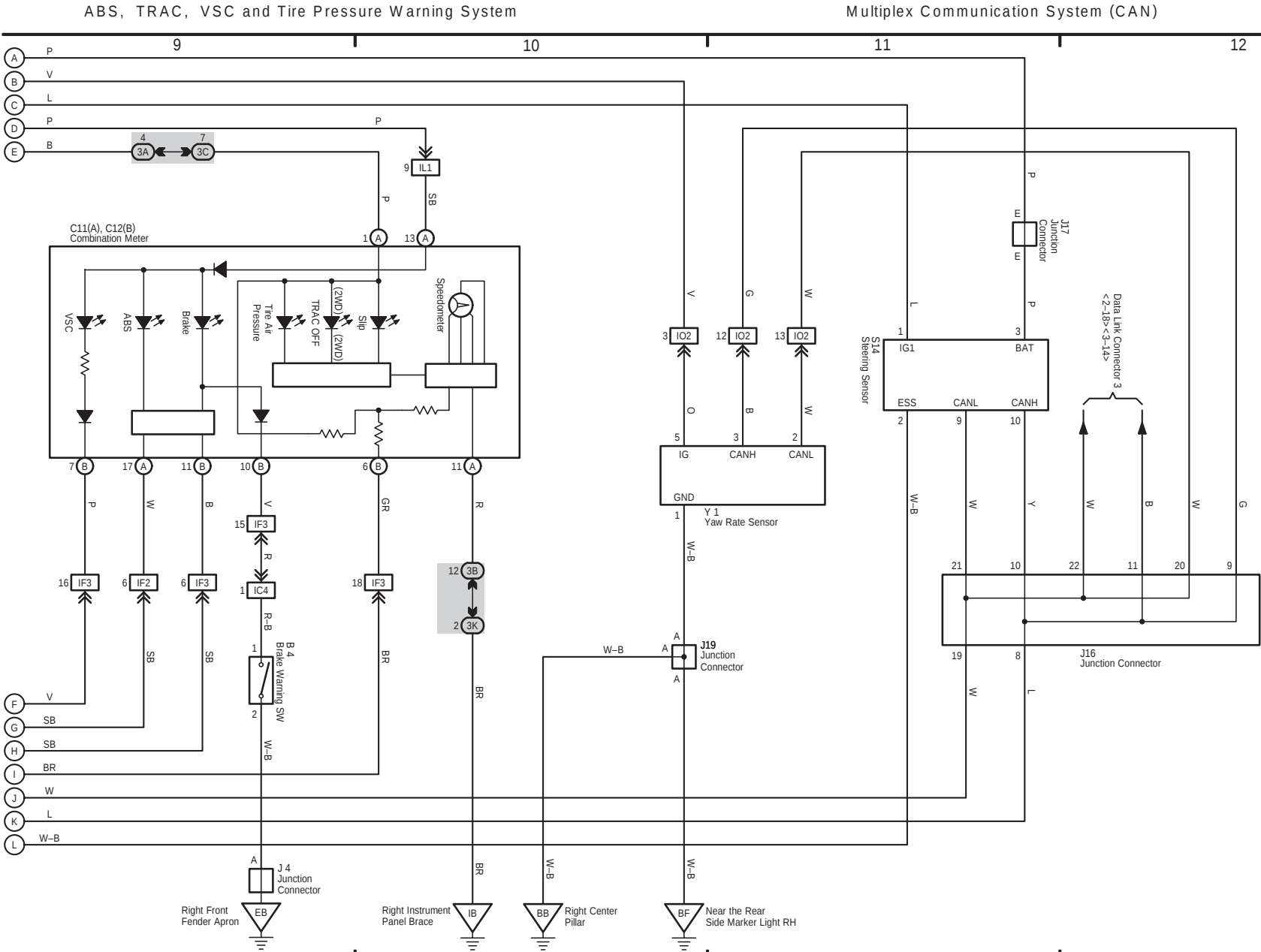
Electronically Controlled Transmission and A/T Indicator (2AZ-FE)

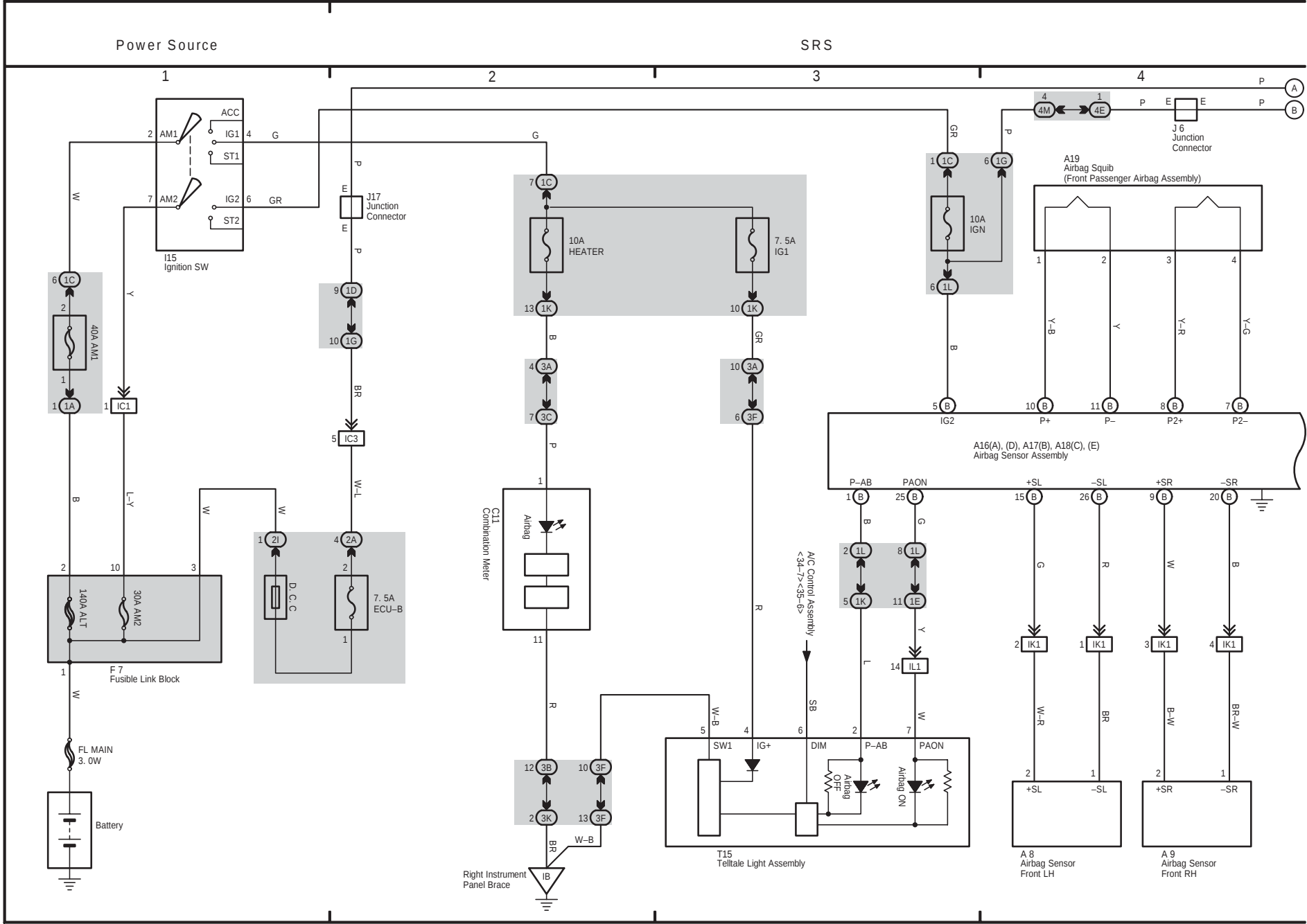


HIGHLANDER (EM0120U)

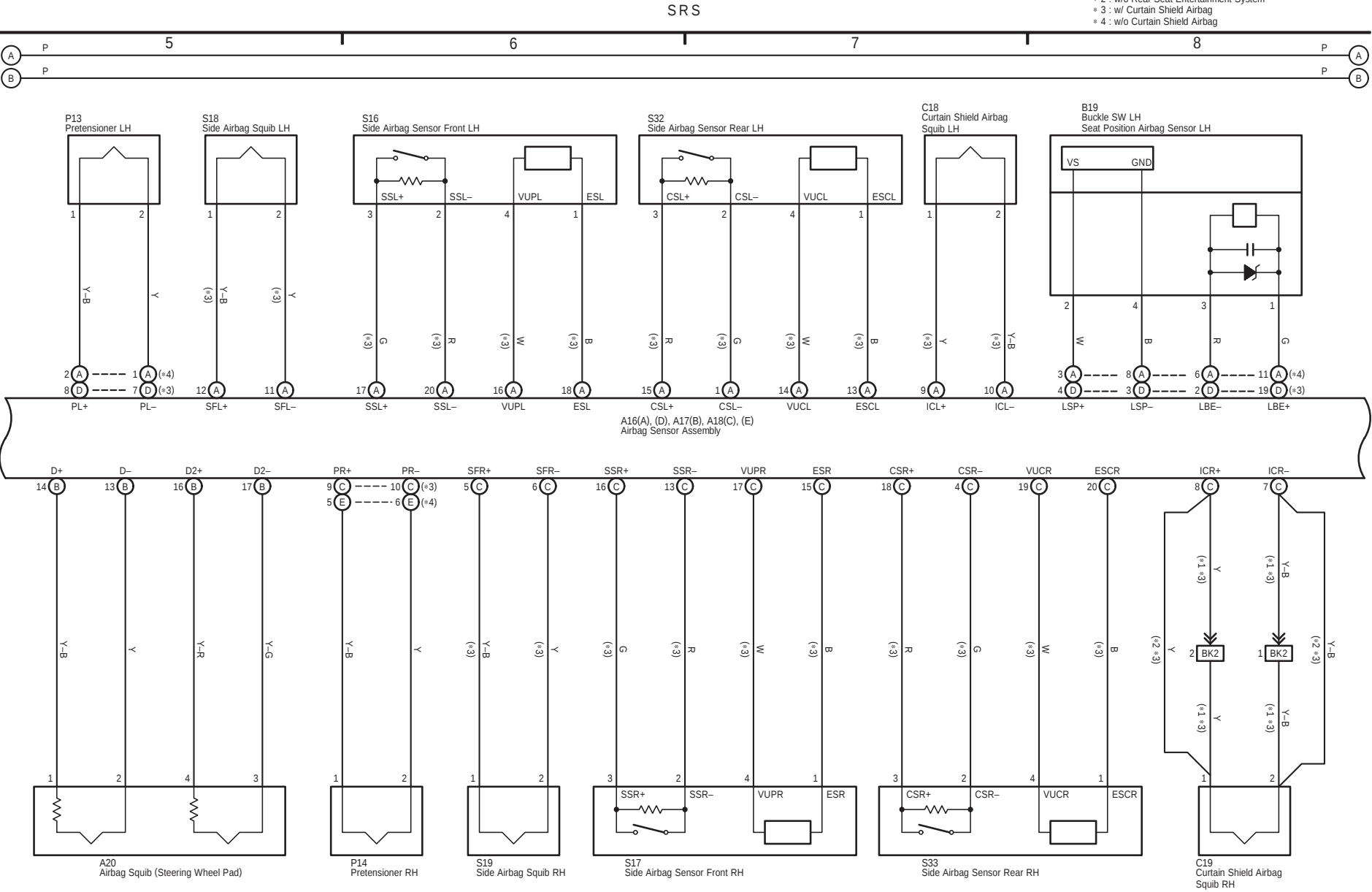
ABS, TRAC, VSC and Tire Pressure Warning System



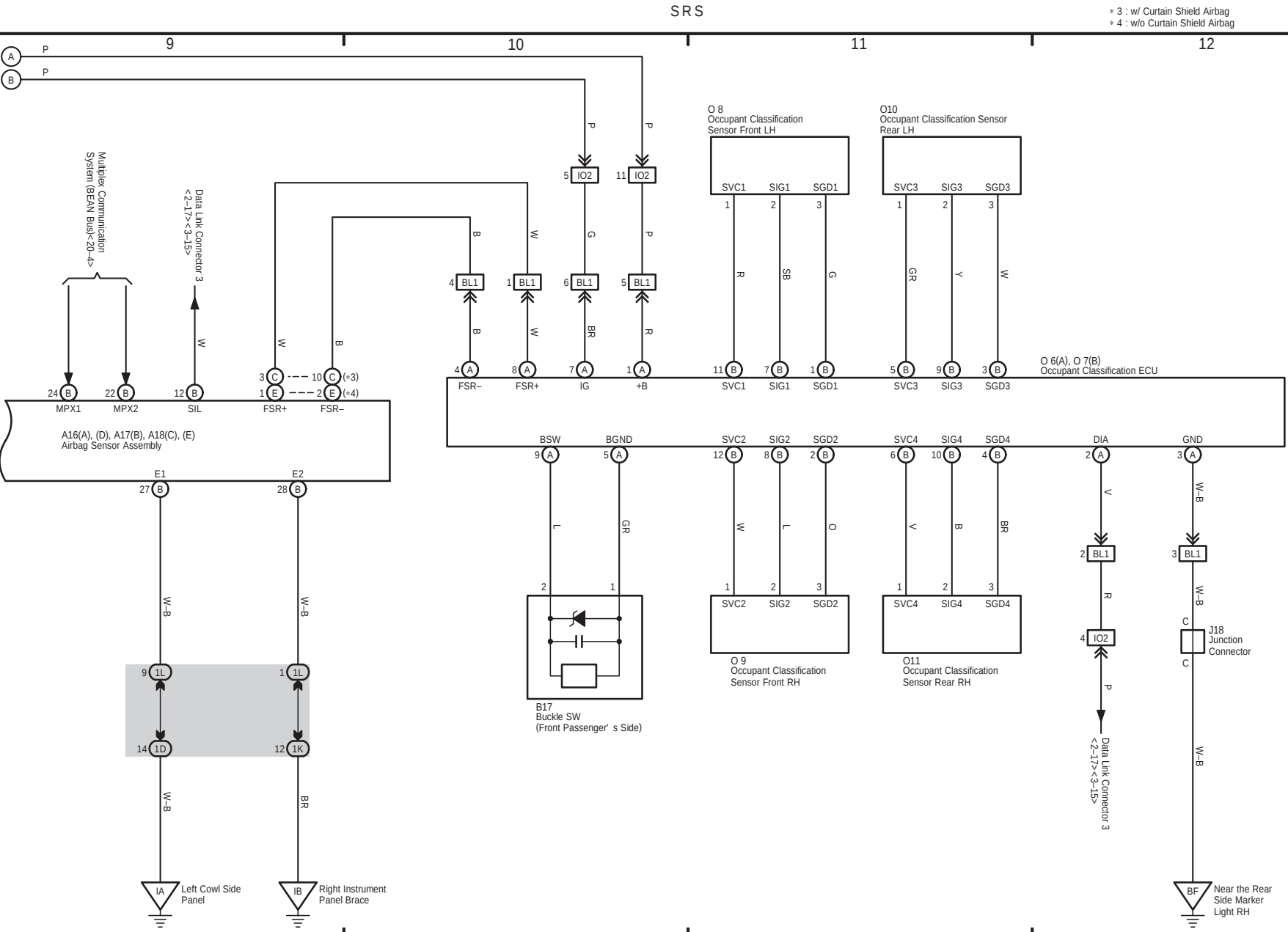


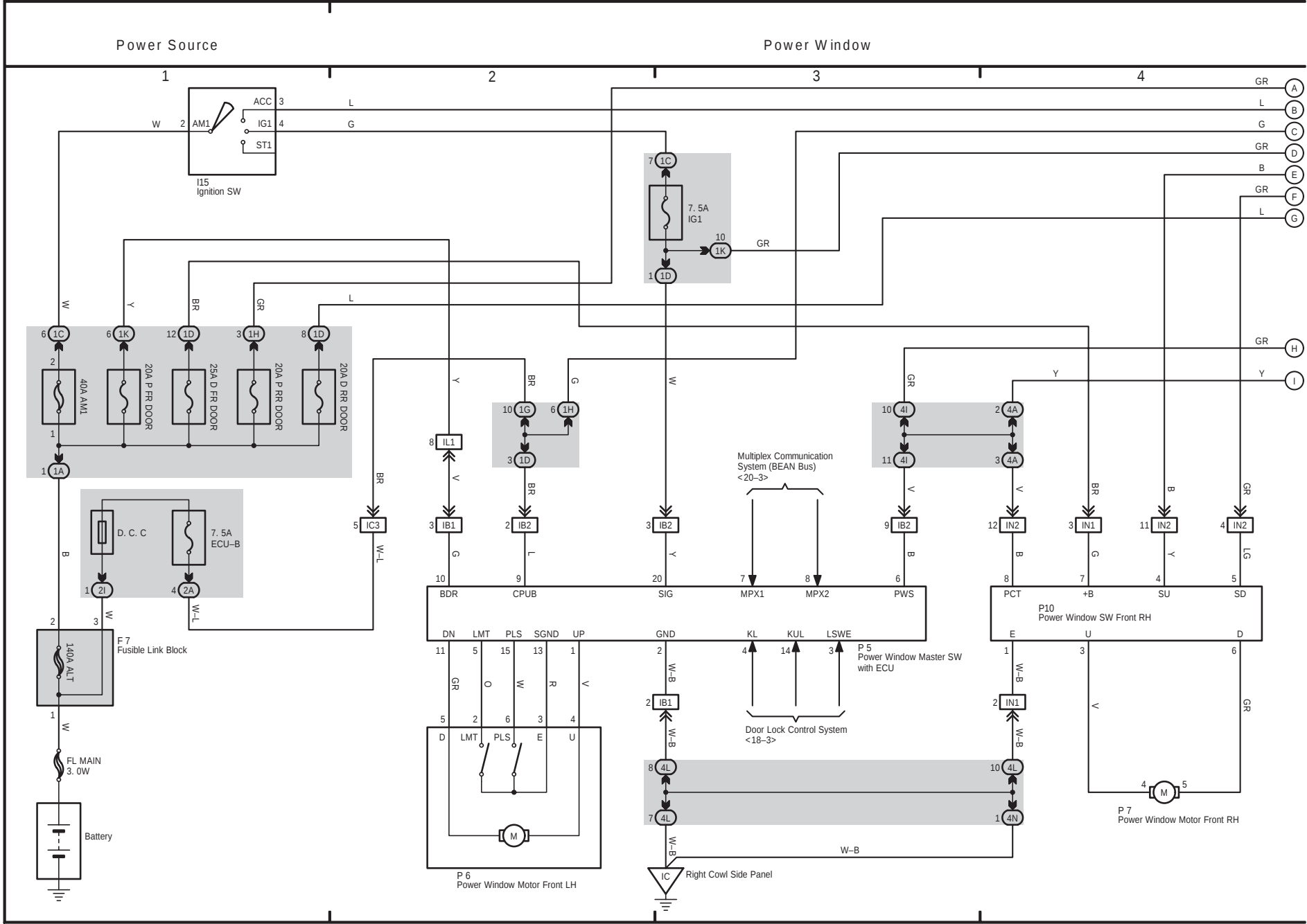


- * 1 : w/ Rear Seat Entertainment System
- * 2 : w/o Rear Seat Entertainment System
- * 3 : w/ Curtain Shield Airbag
- * 4 : w/o Curtain Shield Airbag

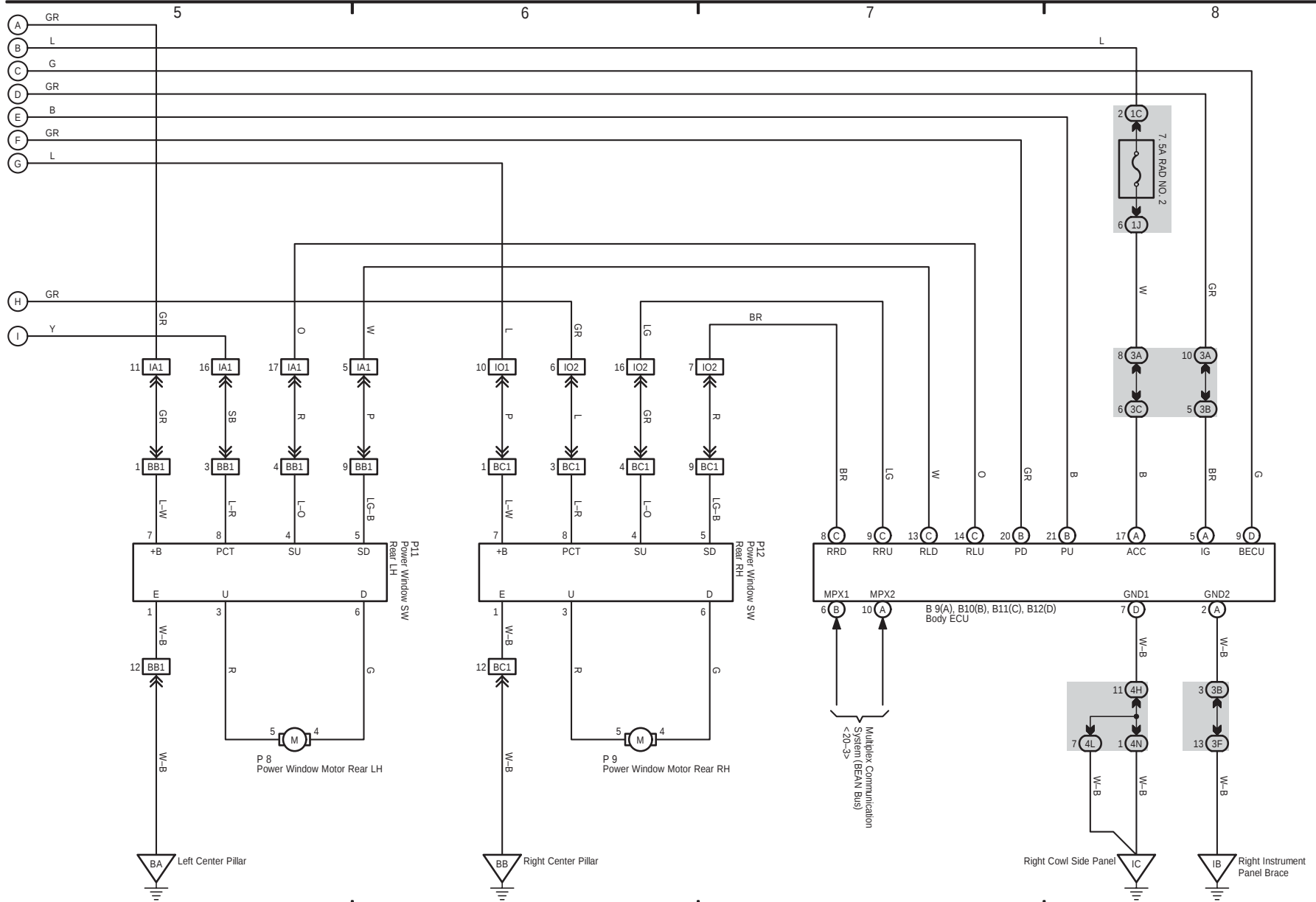


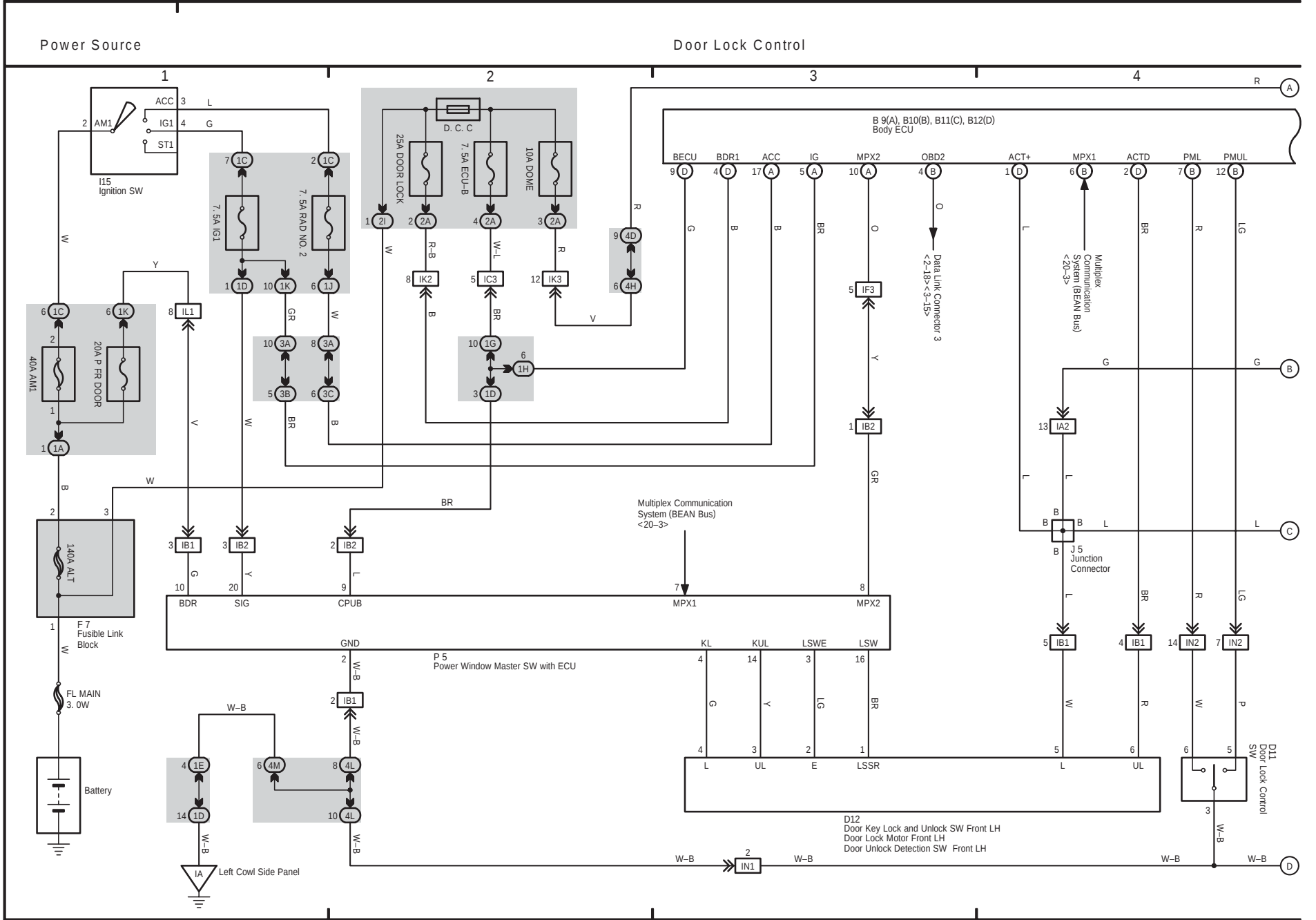
16 HIGHLANDER (Cont' d)

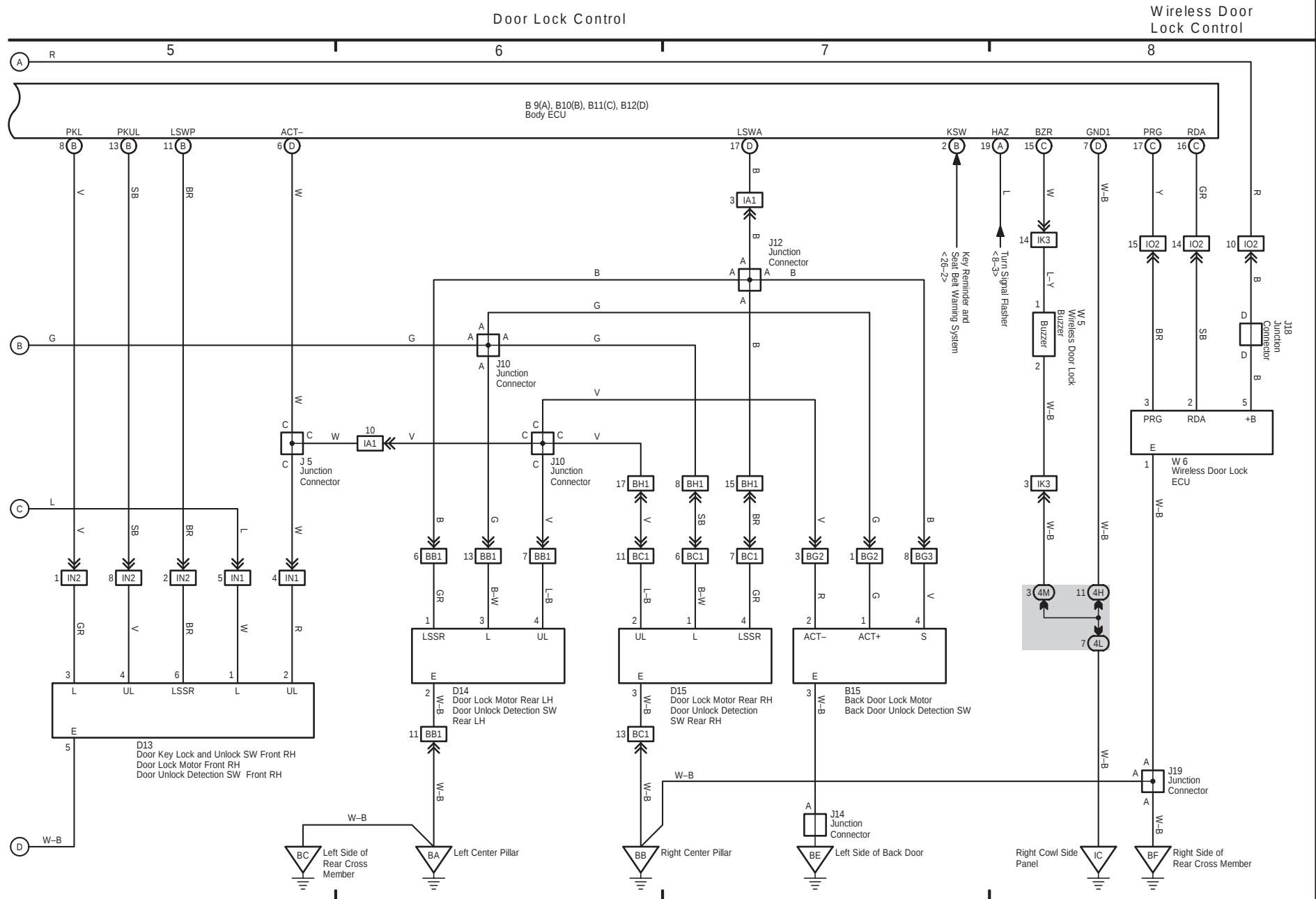




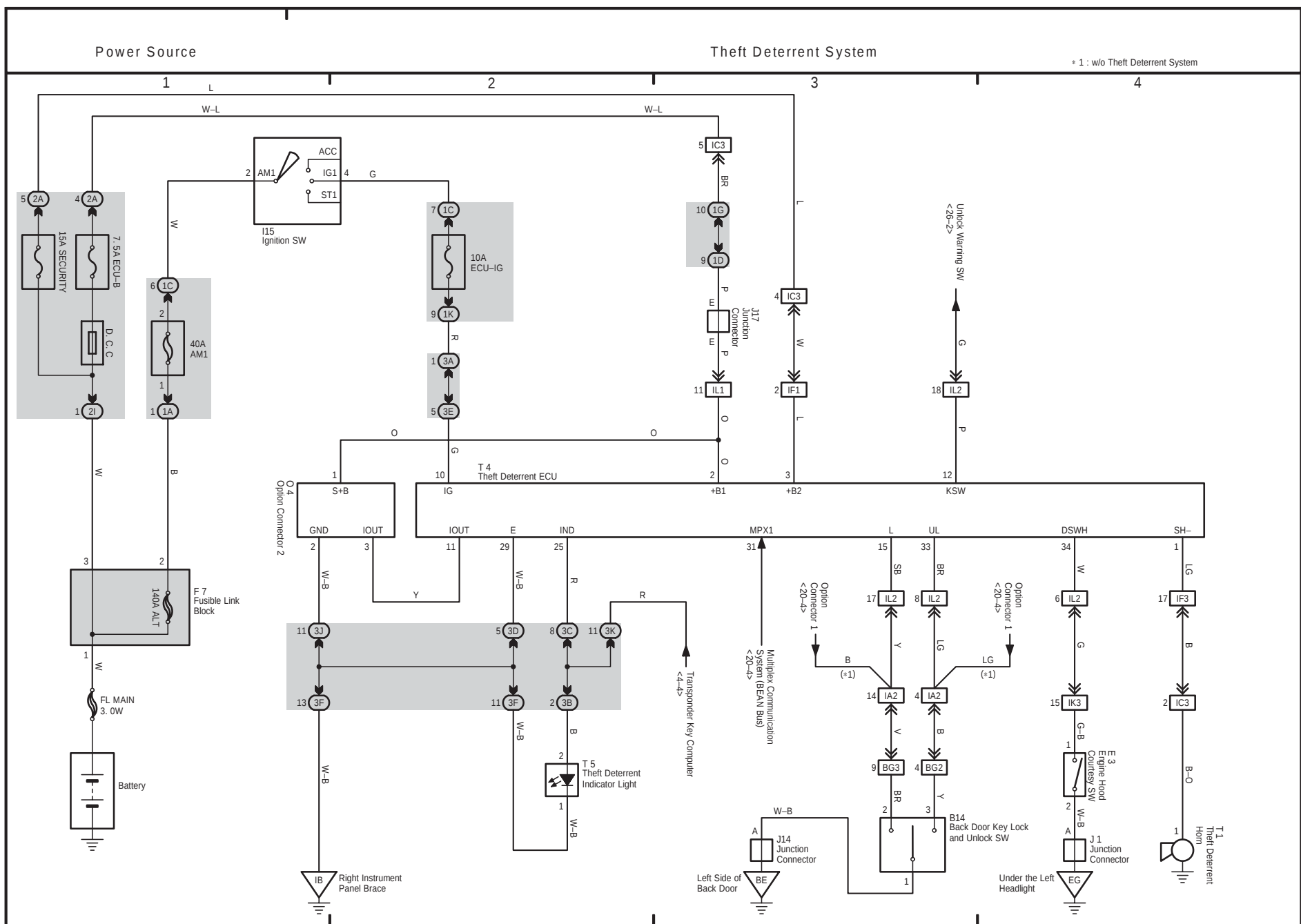
Power Window







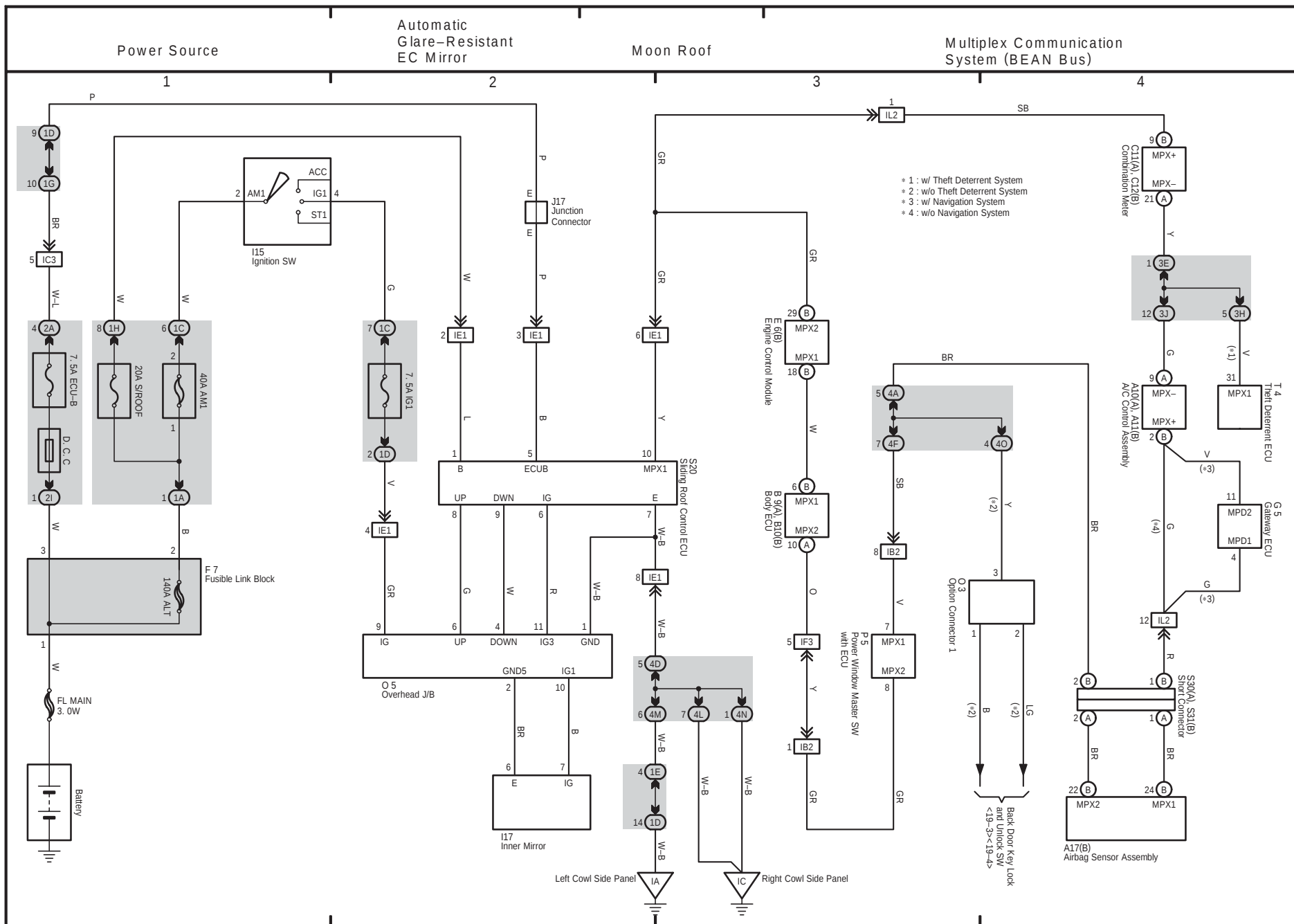
HIGHLANDER (EM0120U)



20 HIGHLANDER

HIGHLANDER (EM0120U)

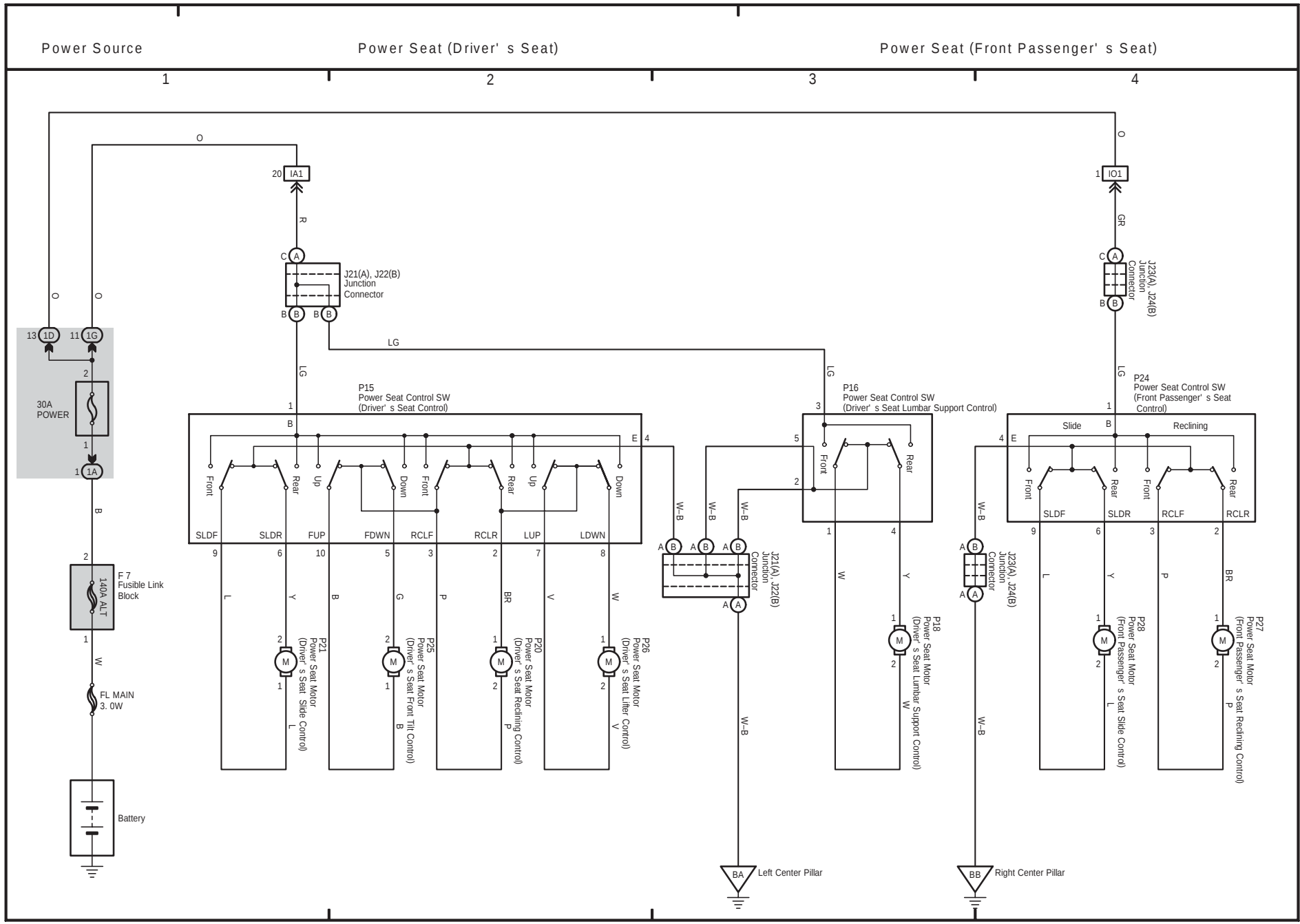
375

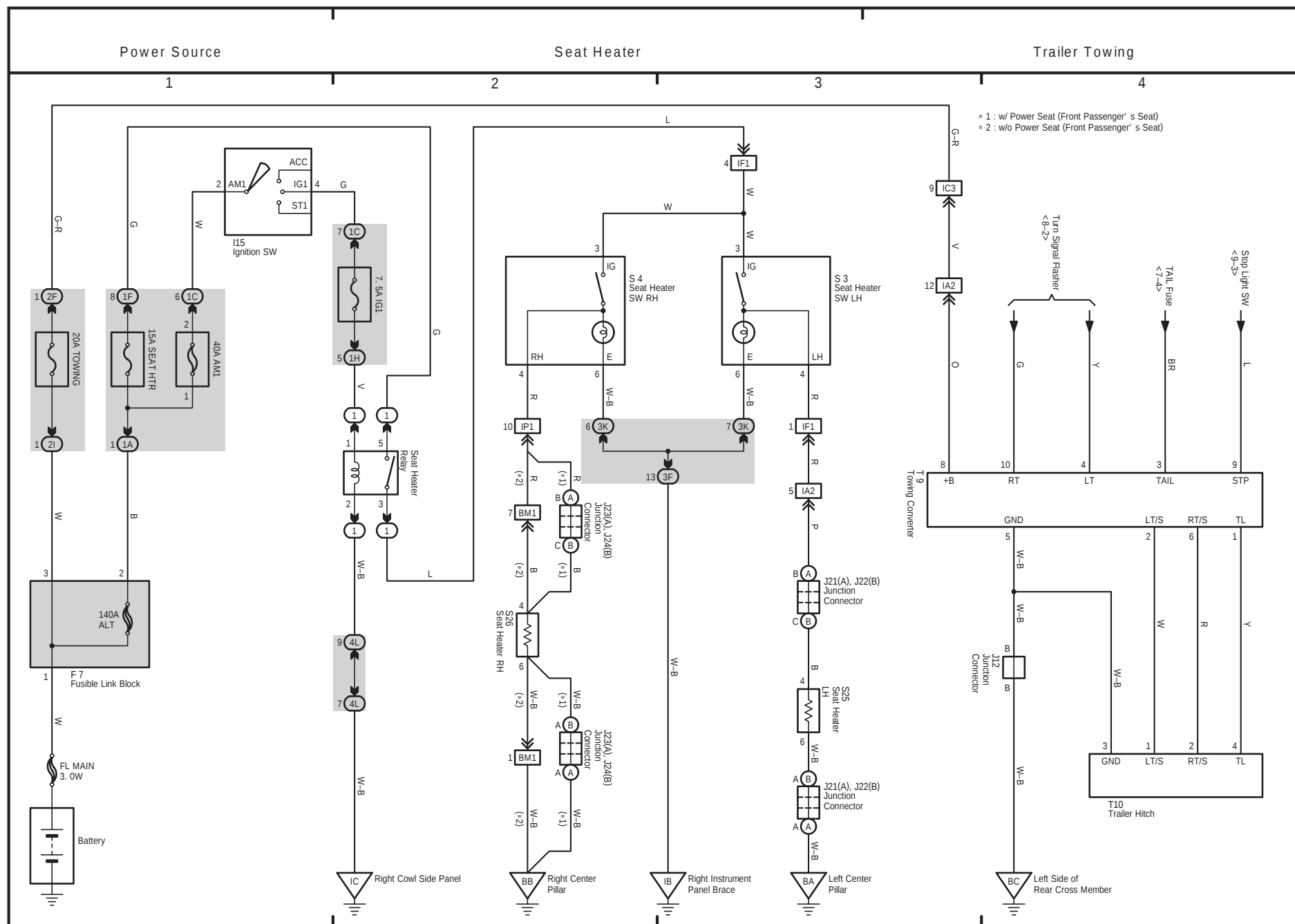


21 HIGHLANDER

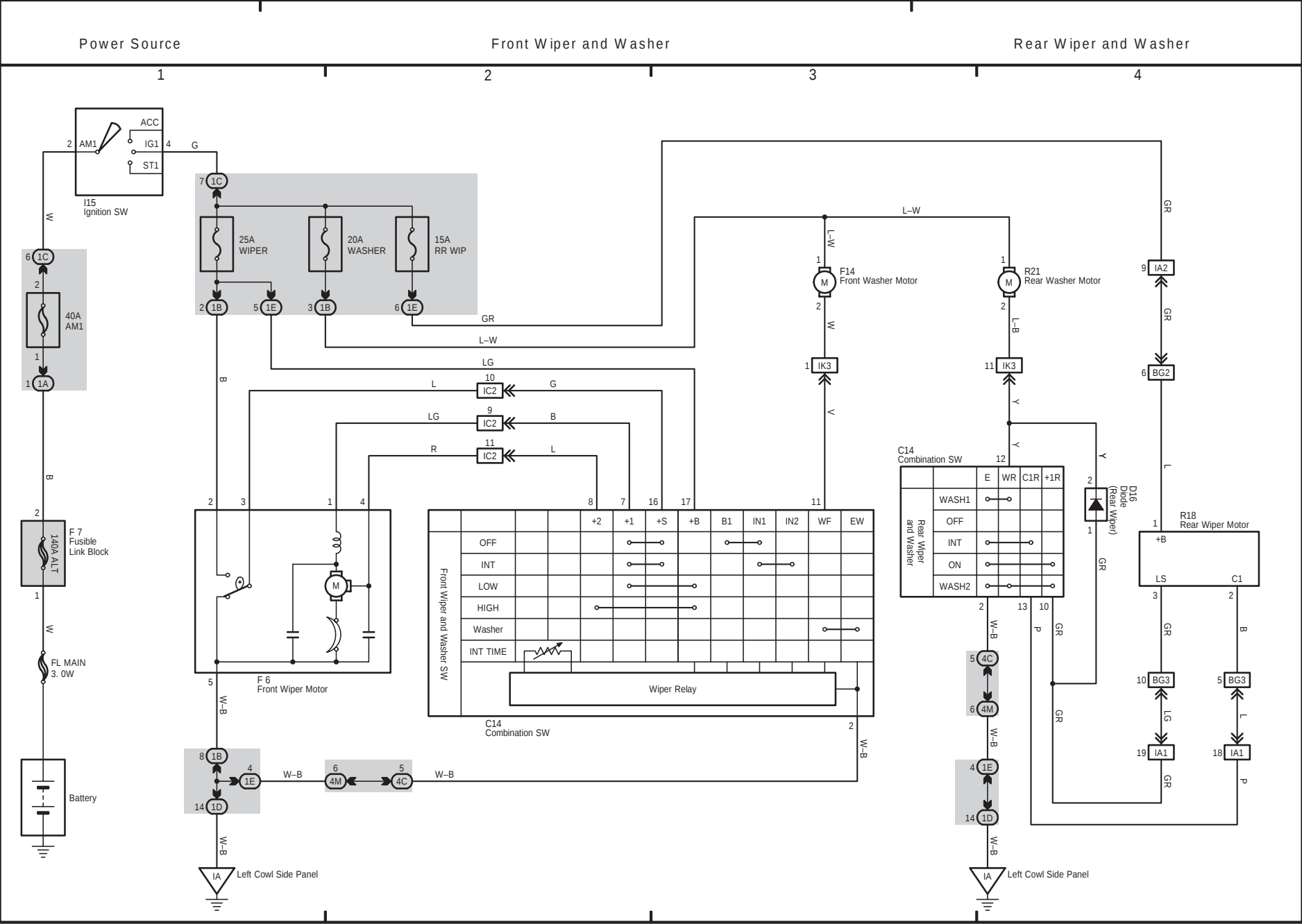
376

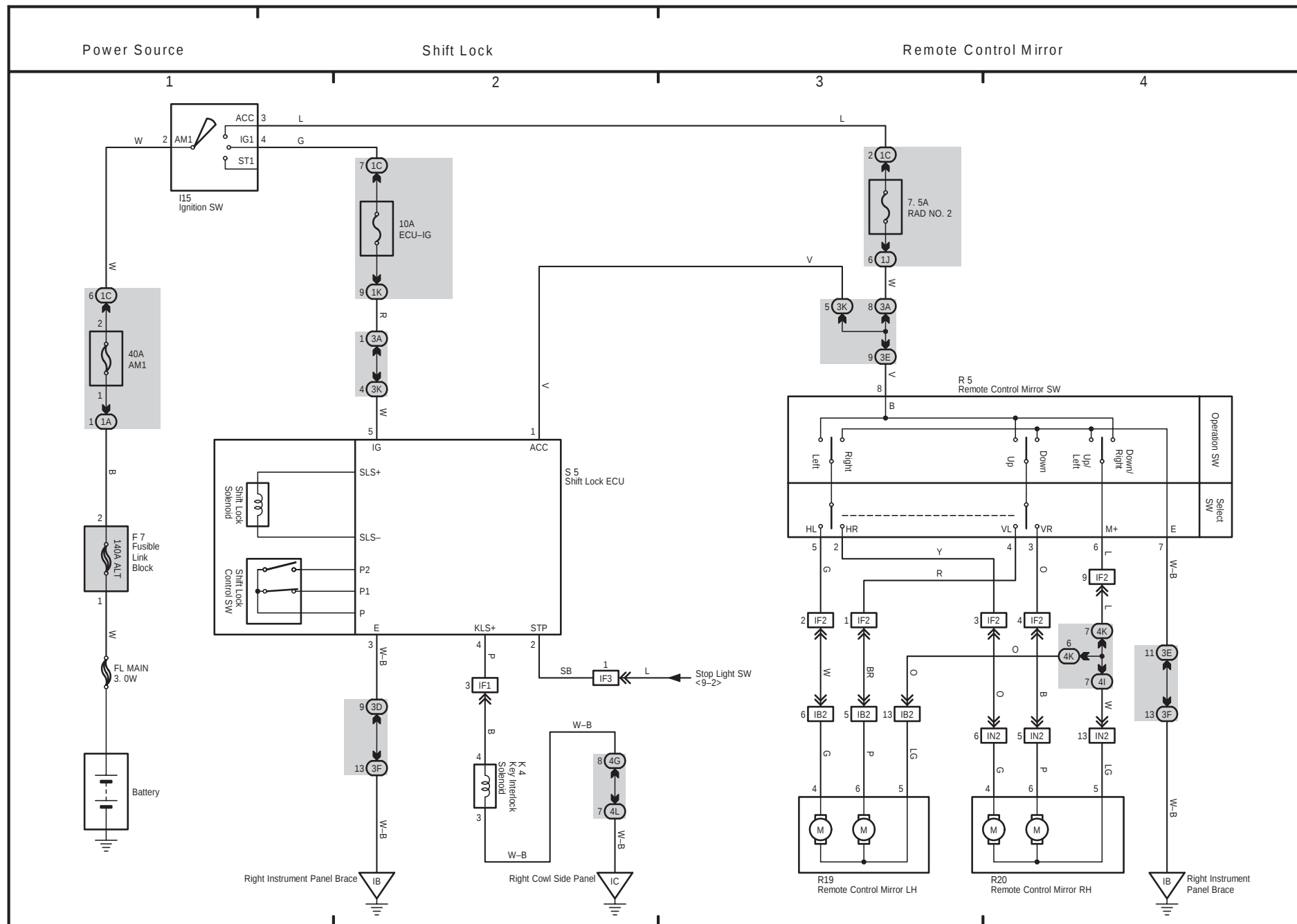
HIGHLANDER (EM0120U)



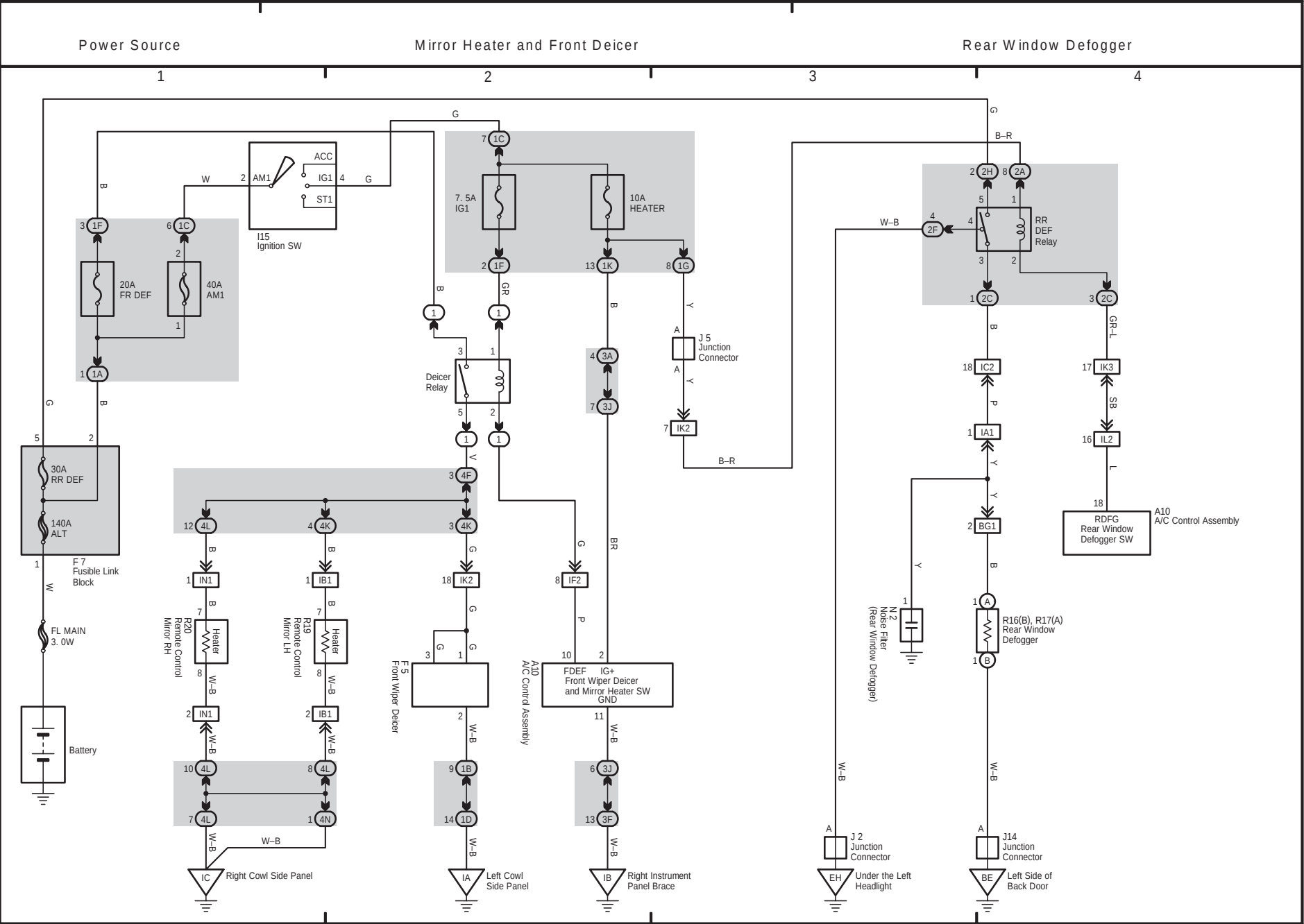


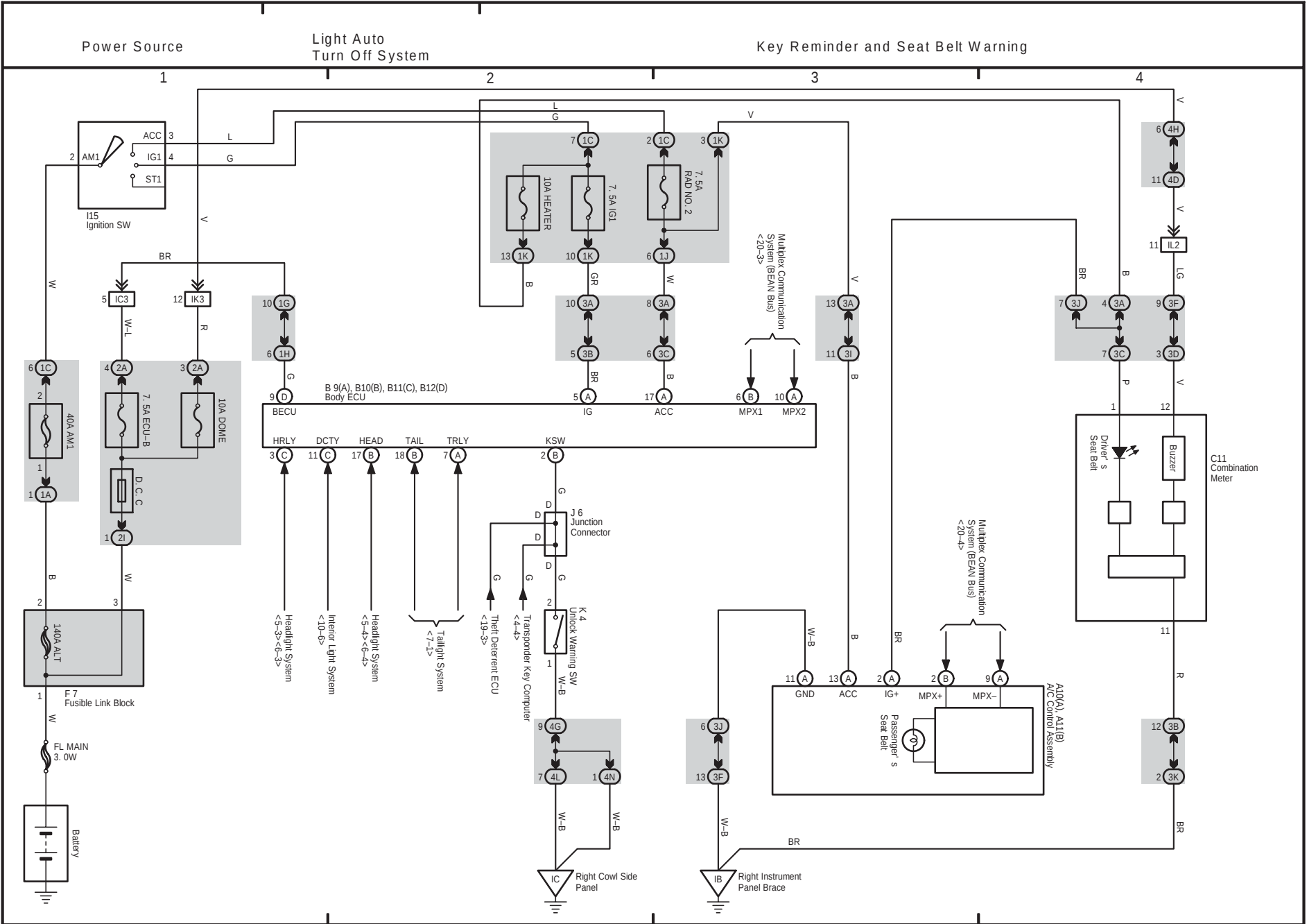
23 HIGHLANDER



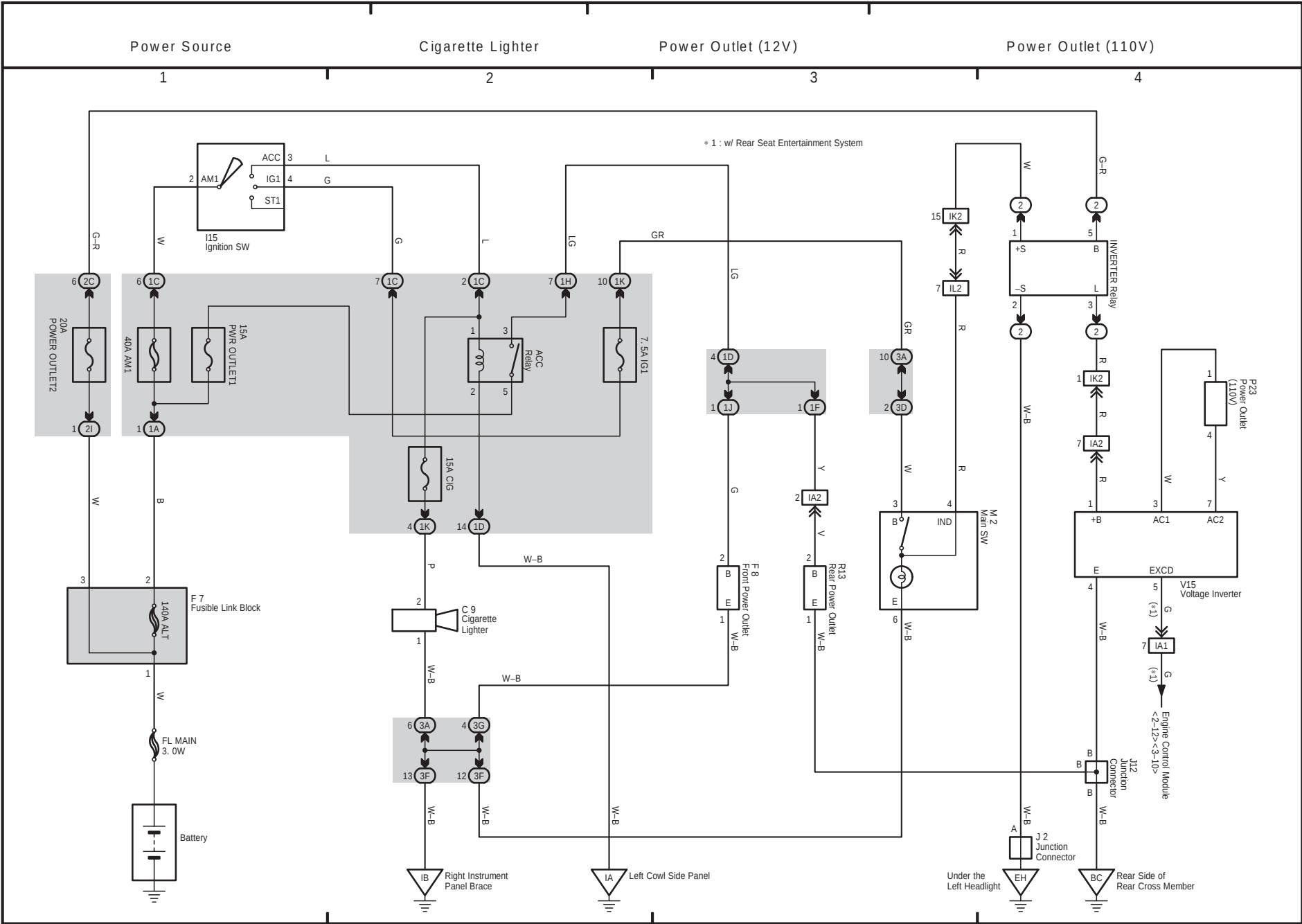


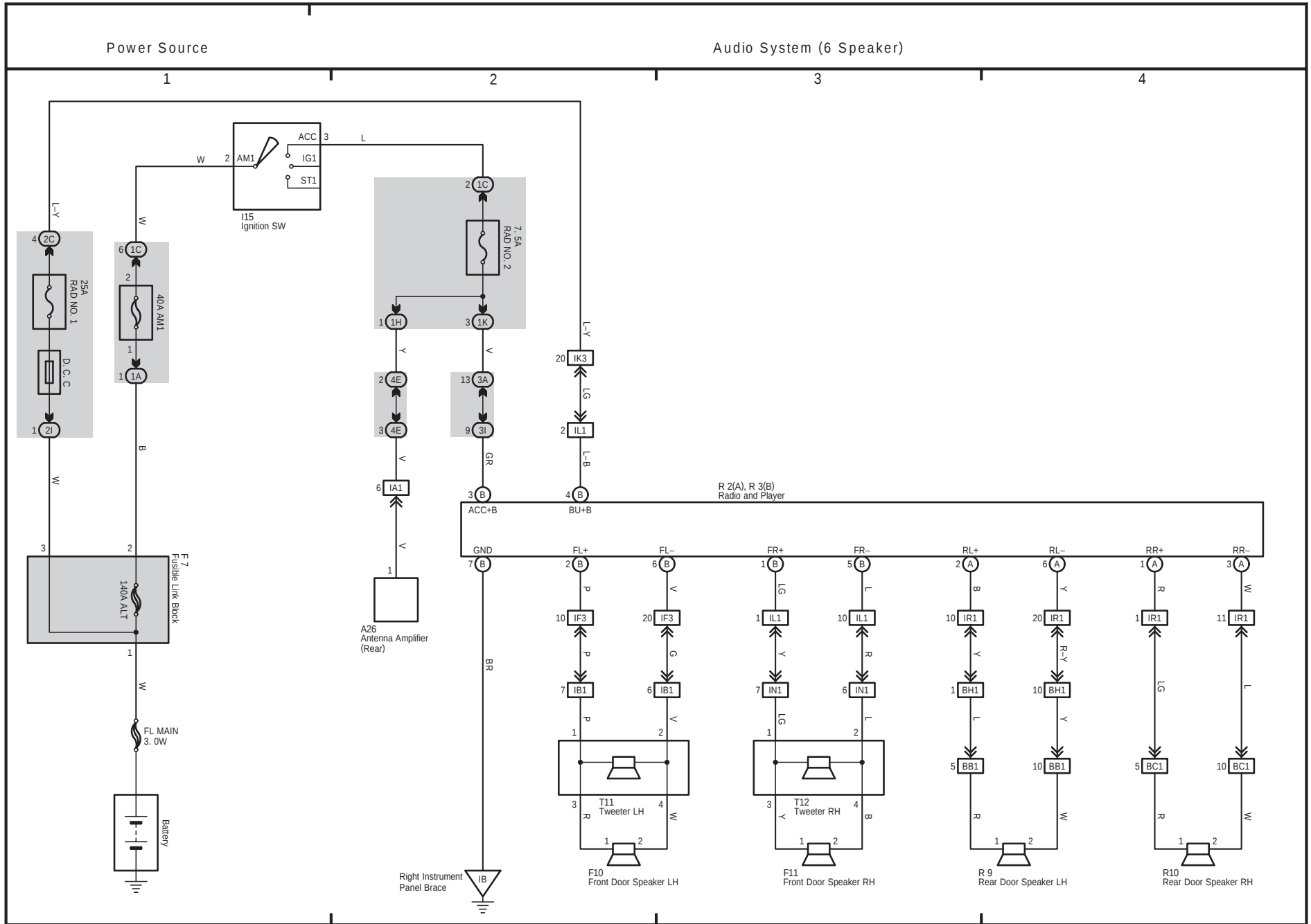
25 HIGHLANDER





27 HIGHLANDER

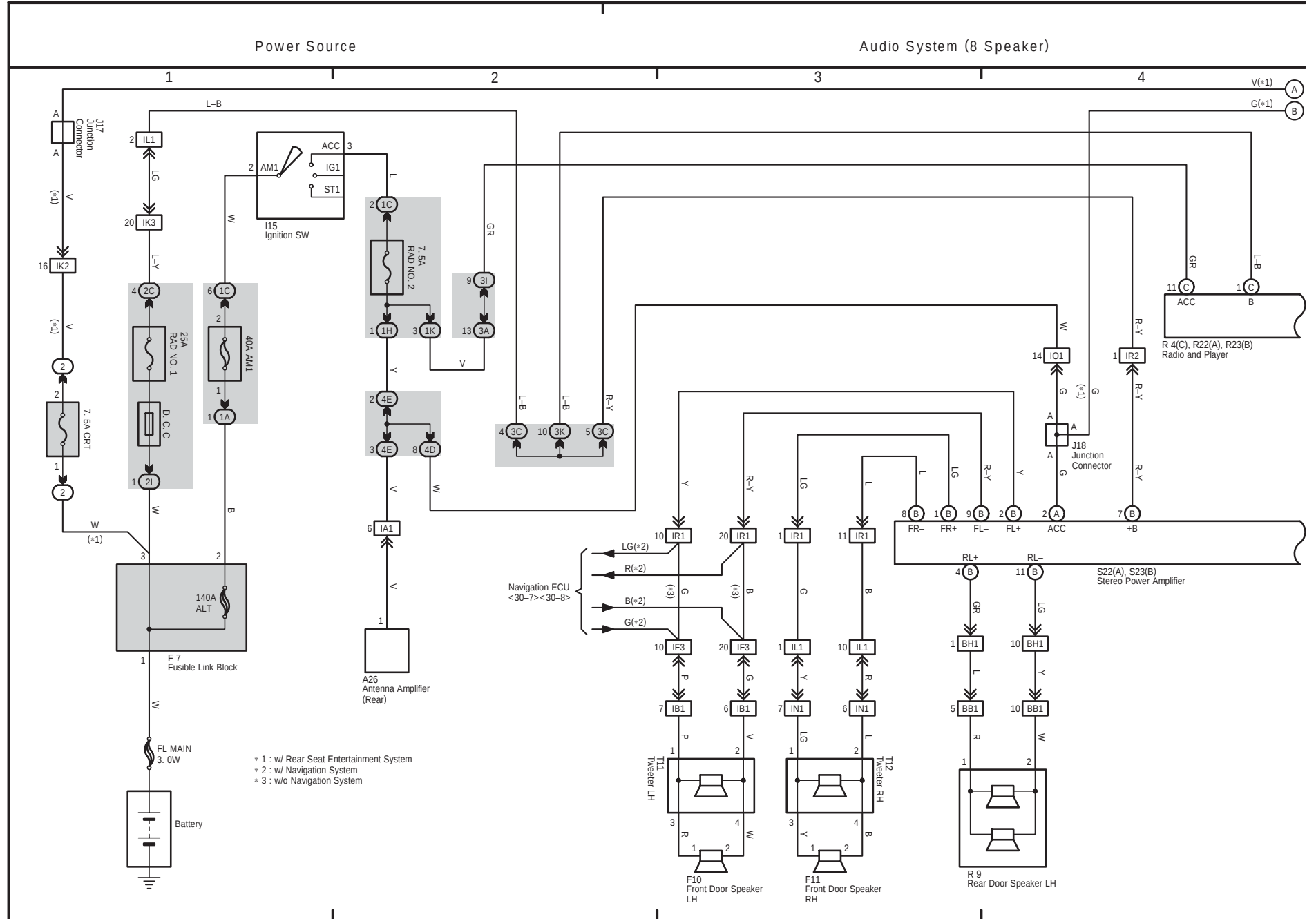


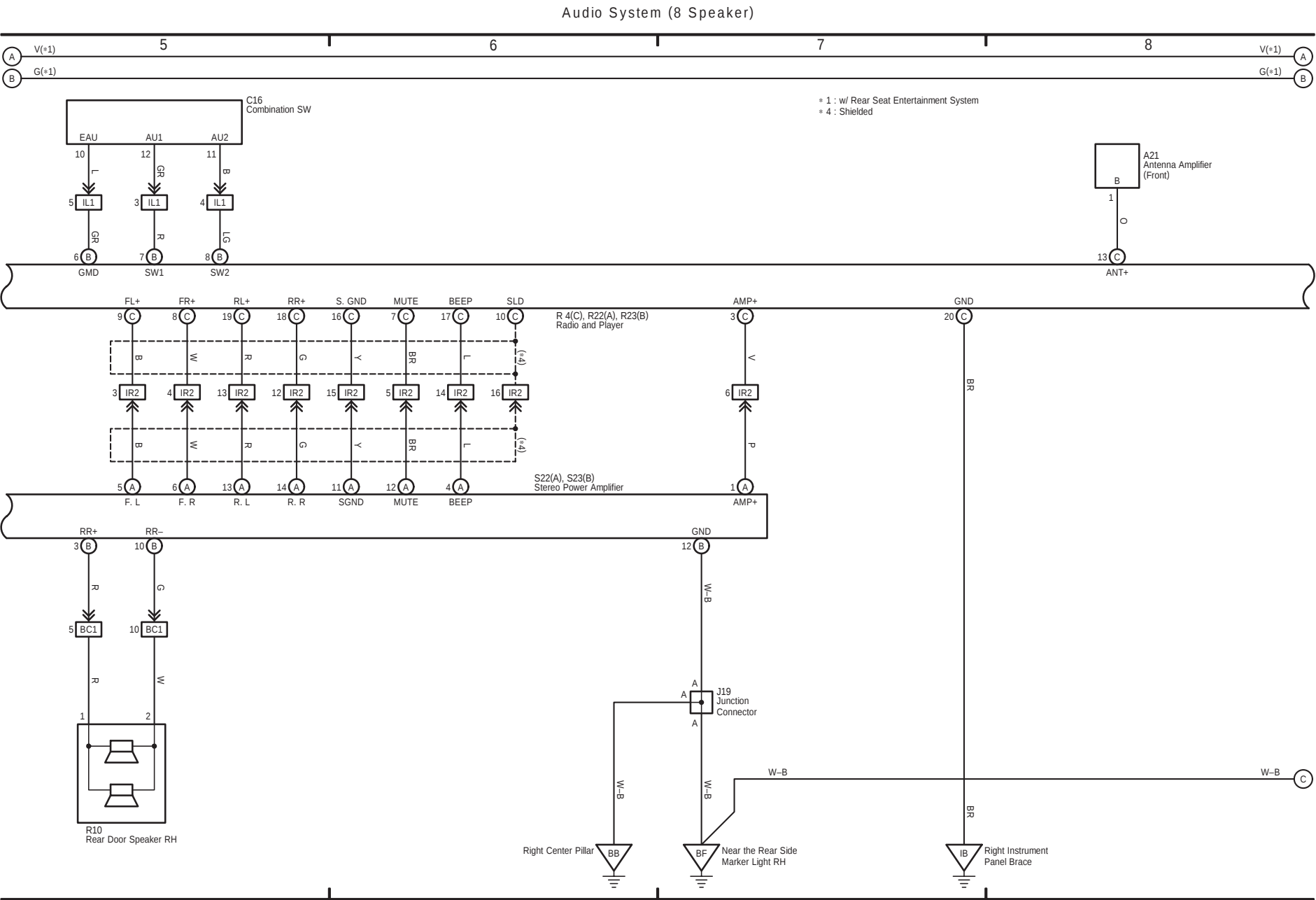


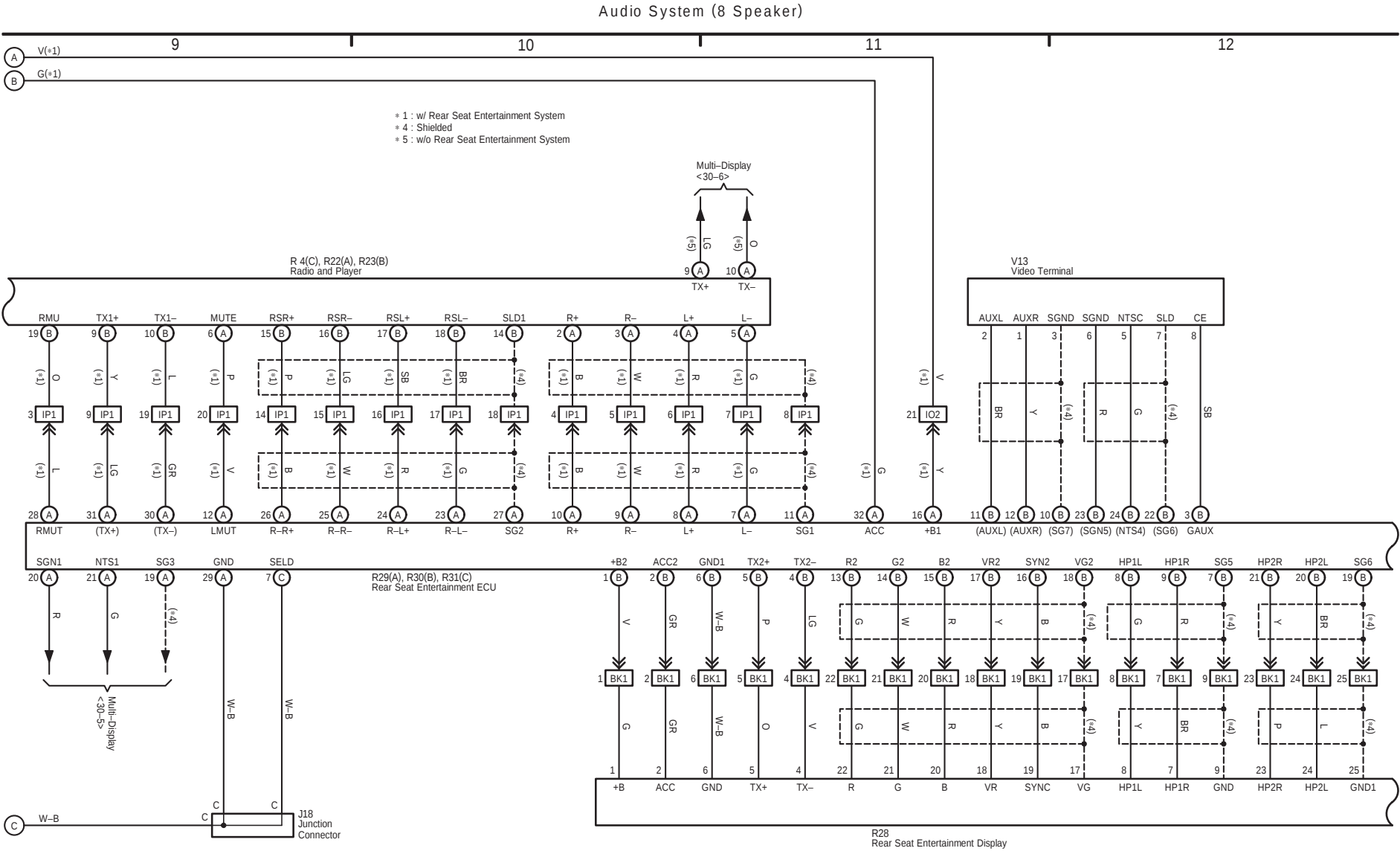
29 HIGHLANDER

(Cont. next page)

OVERALL ELECTRICAL WIRING DIAGRAM







Audio System (8 Speaker)

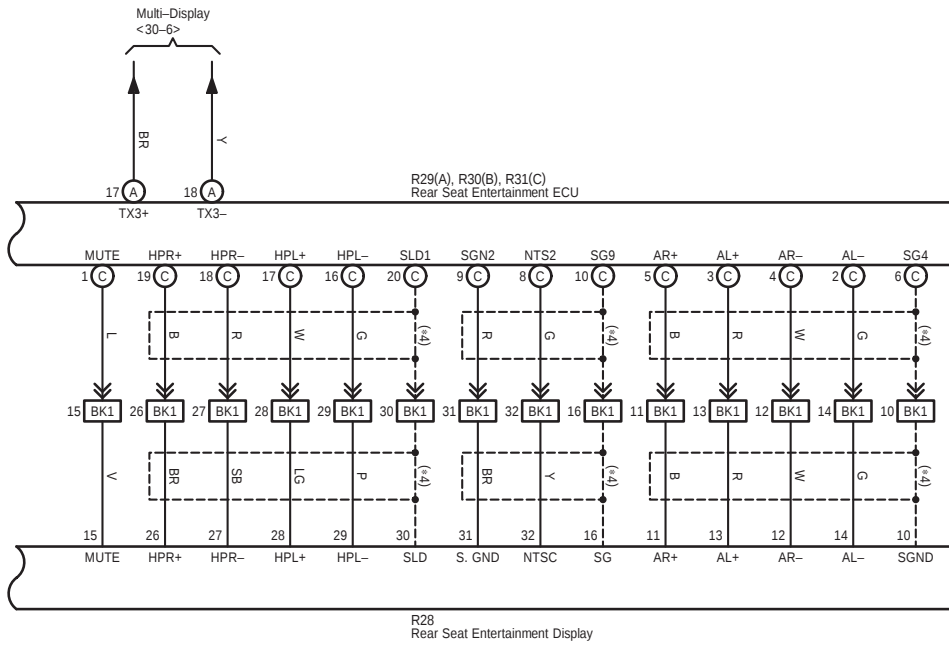
13

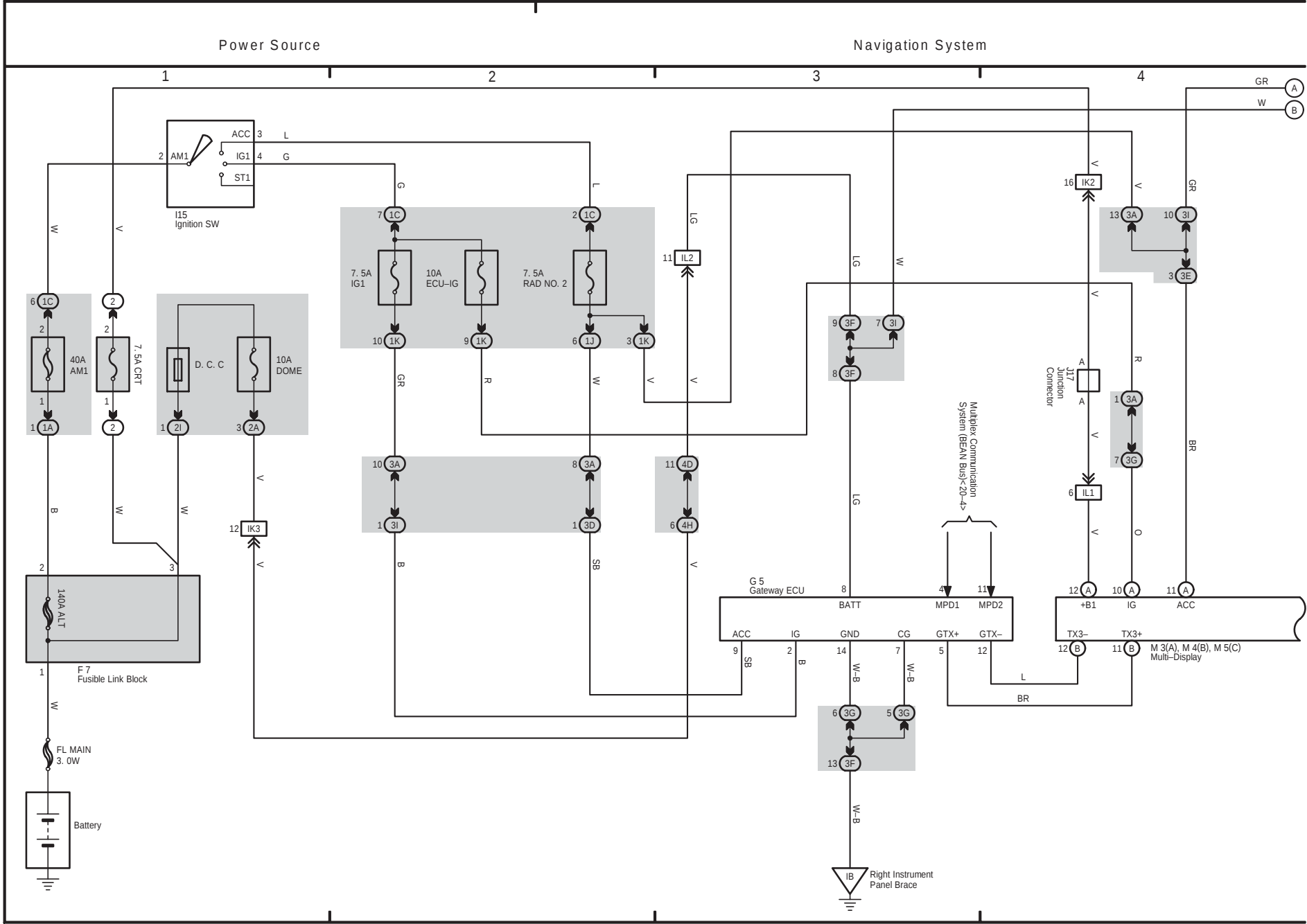
14

15

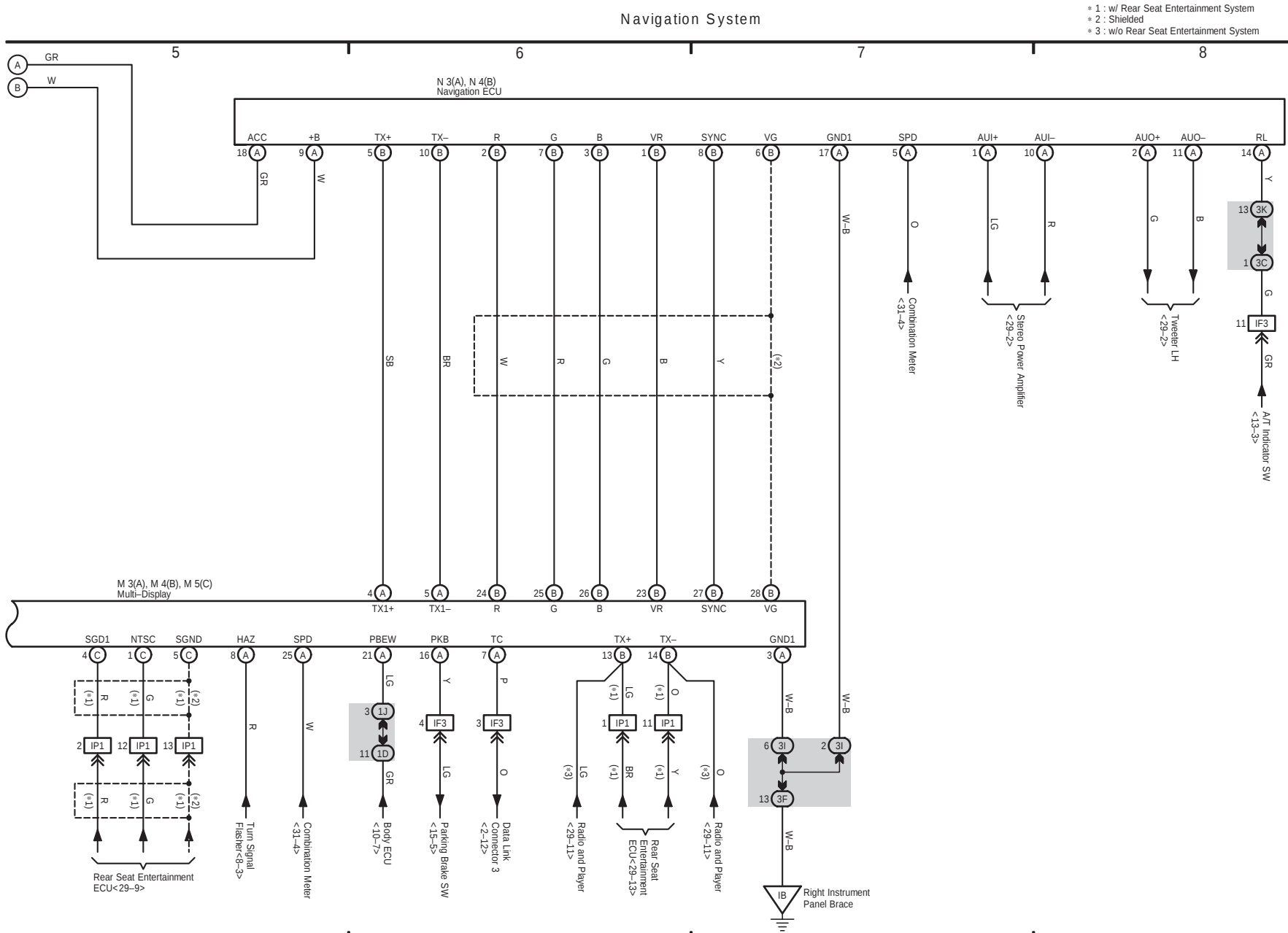
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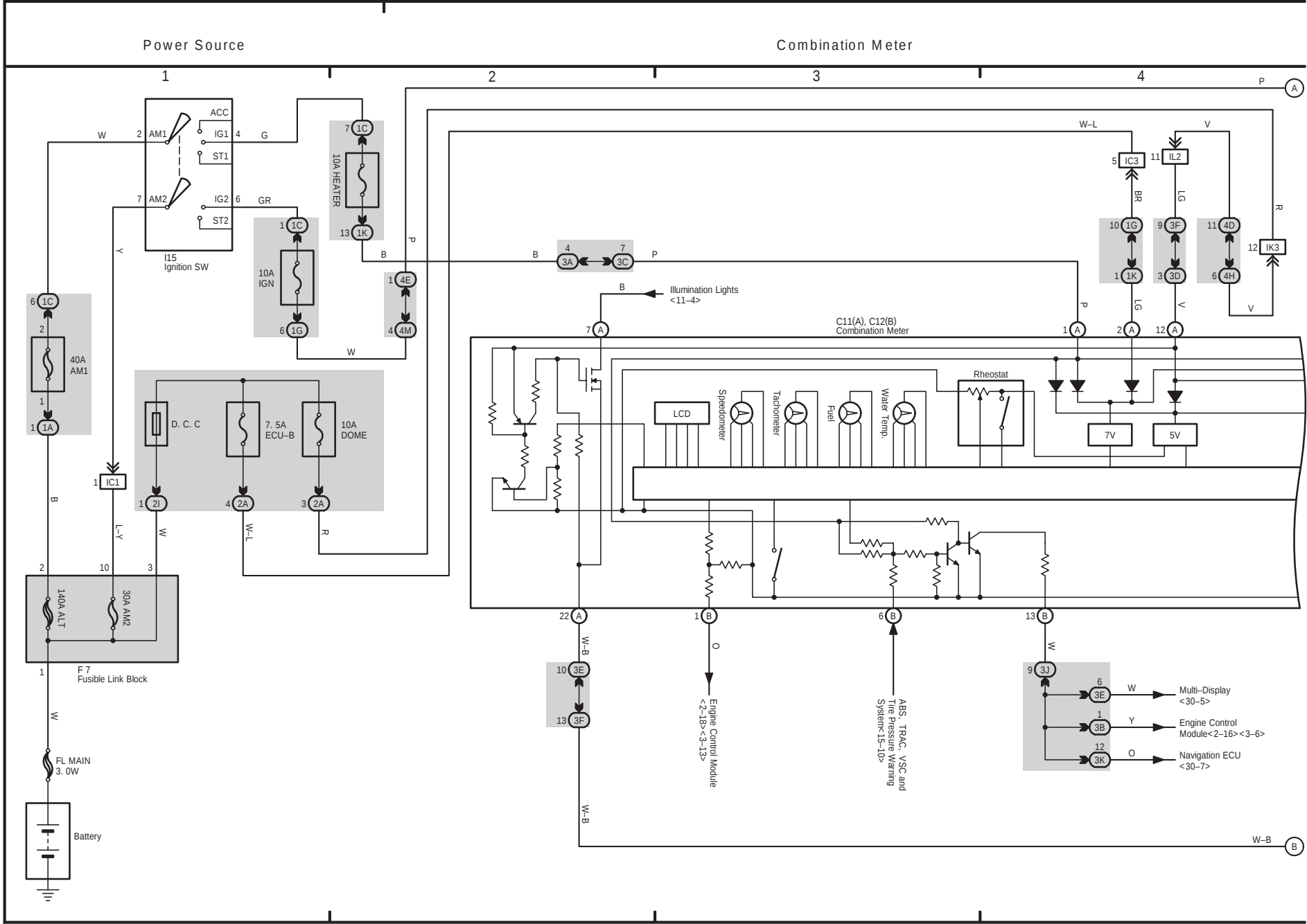
* 4 : Shielded

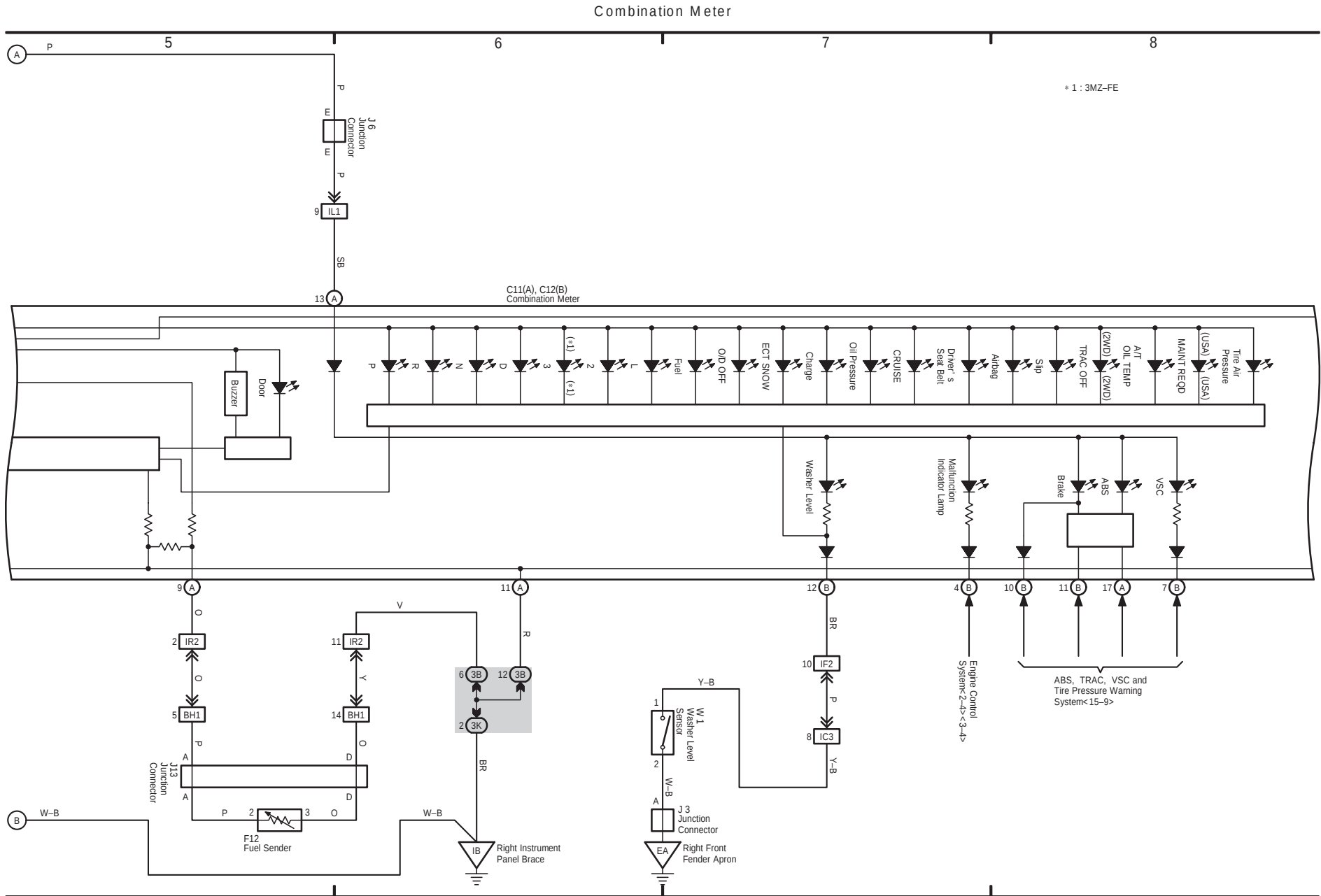


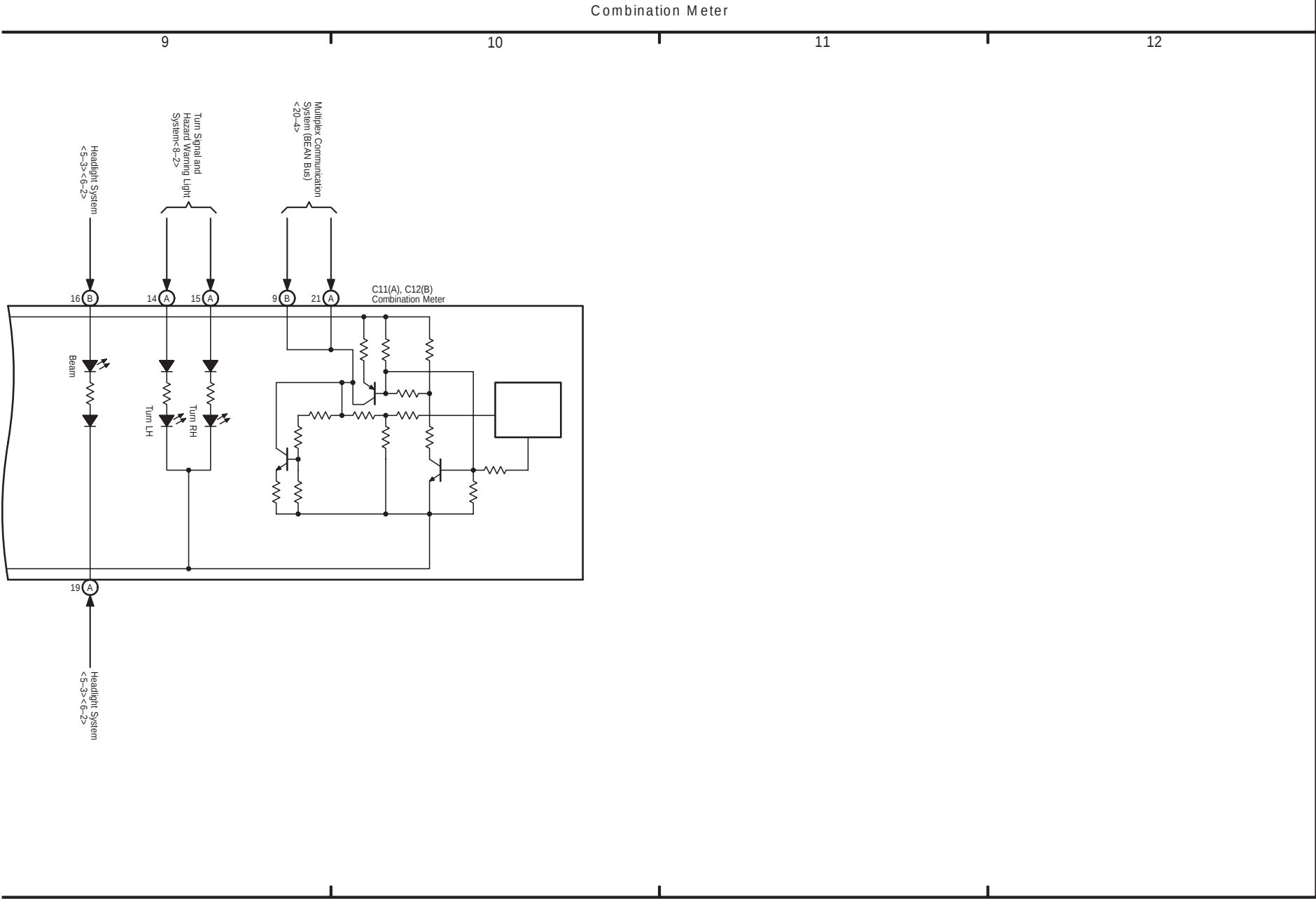


30 HIGHLANDER (Cont' d)

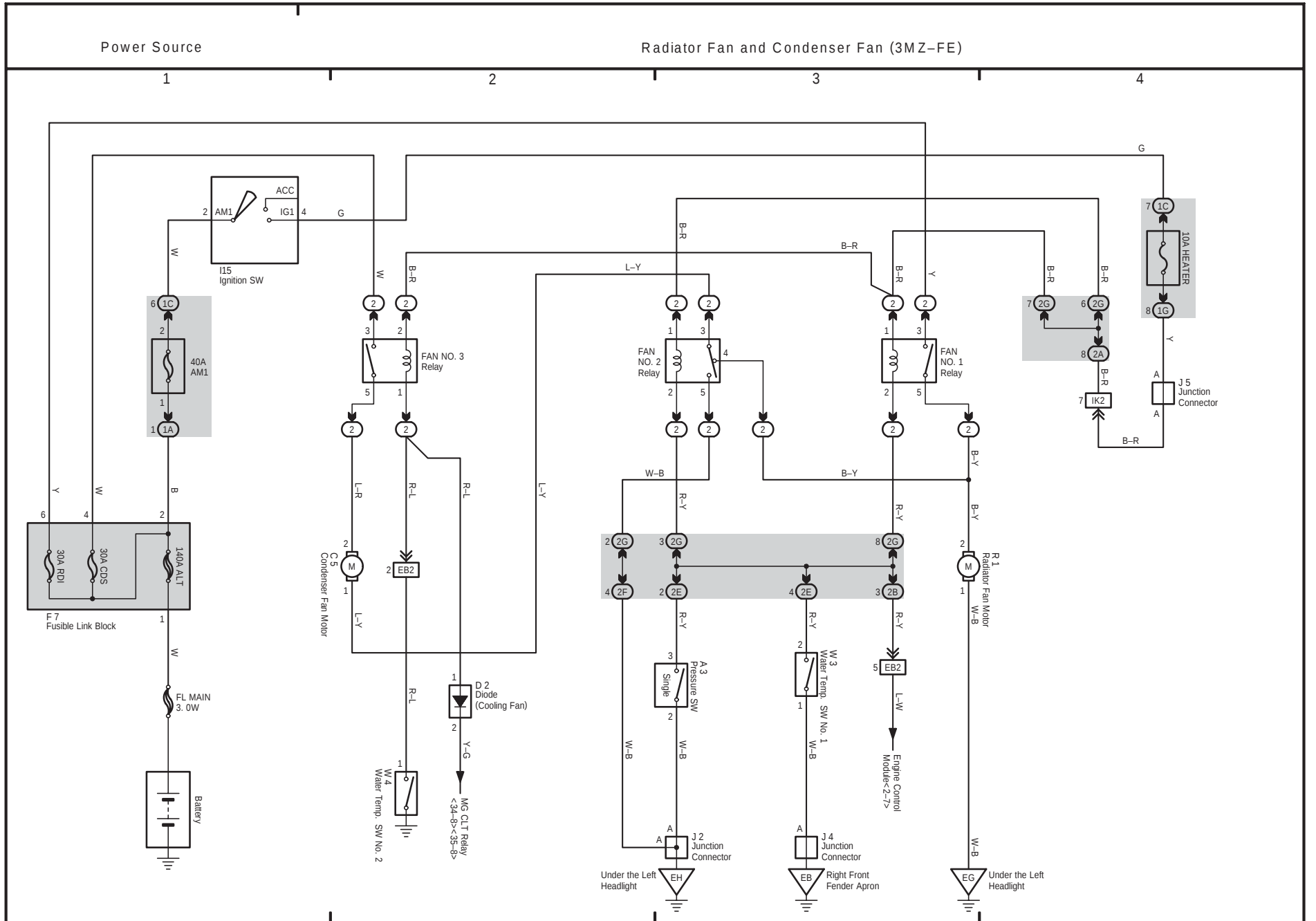


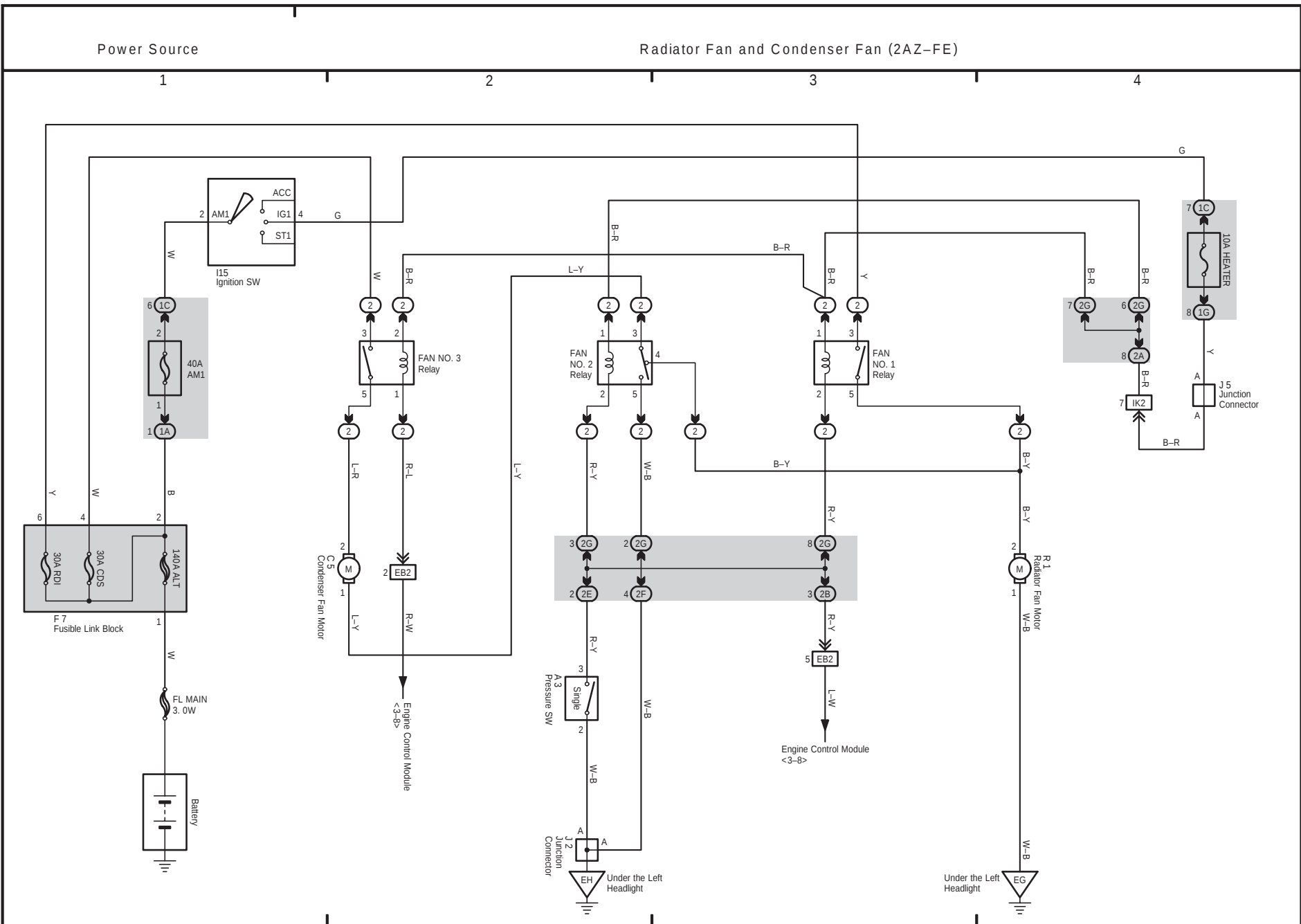


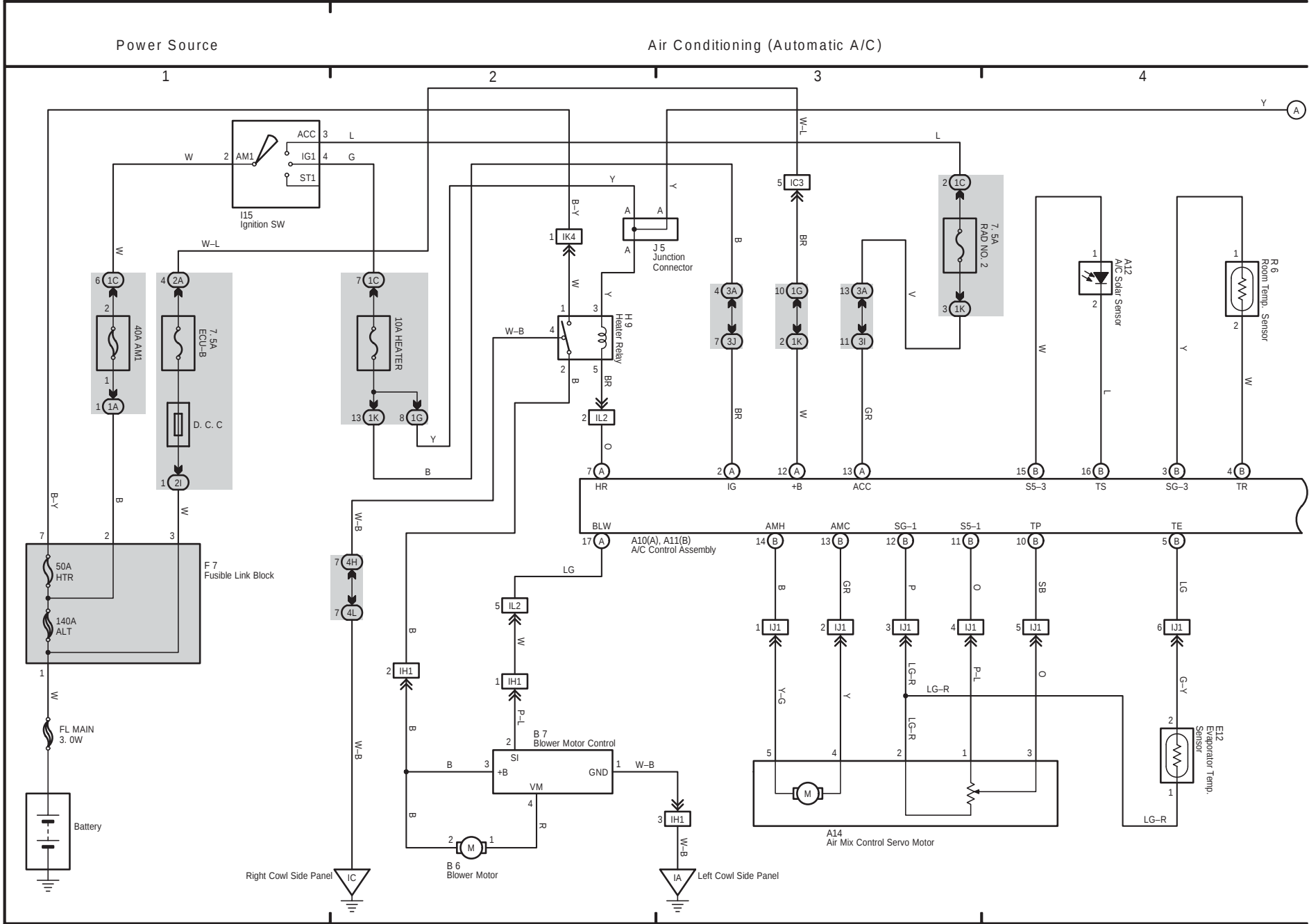




31 HIGHLANDER (Cont' d)

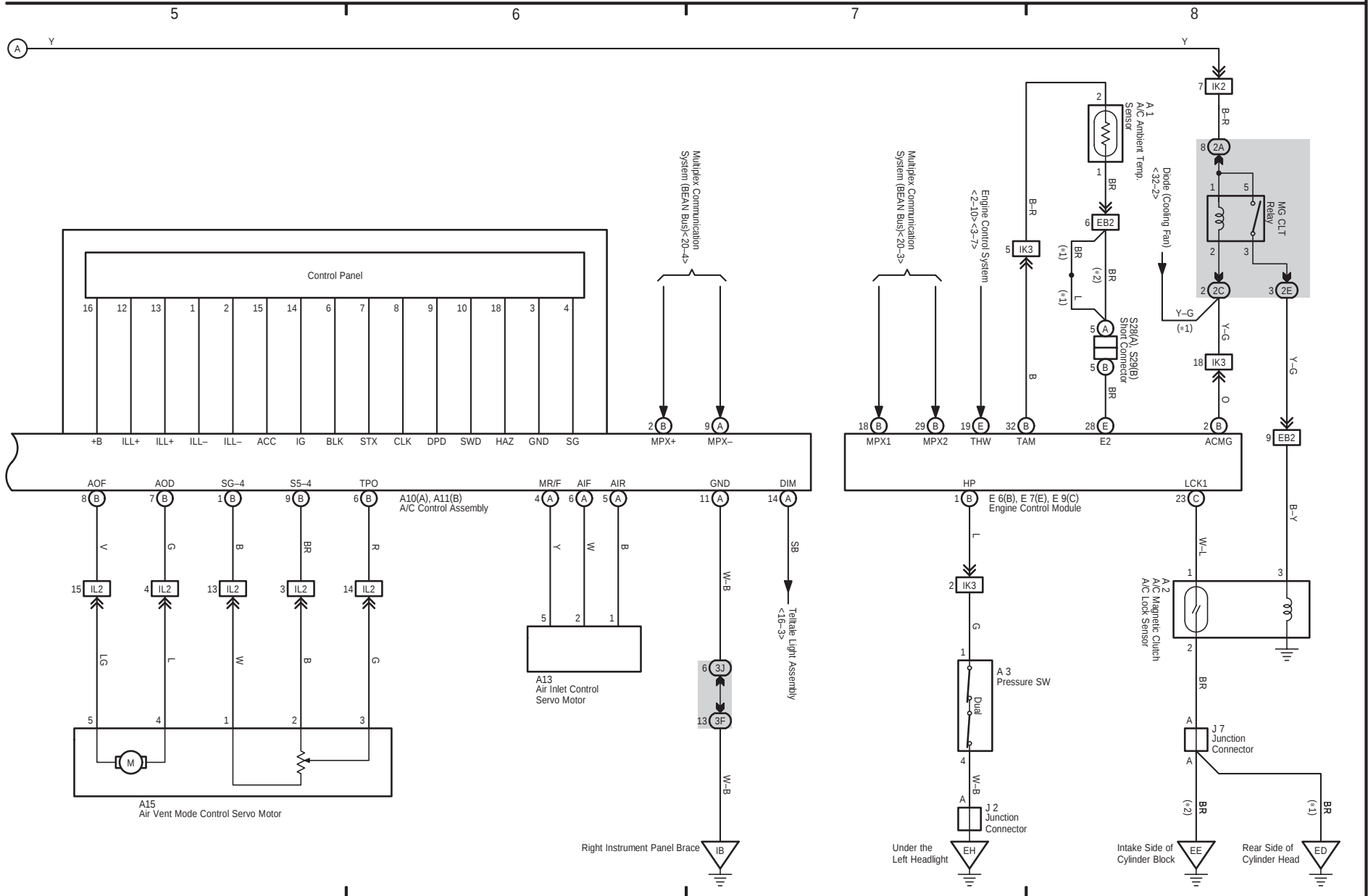


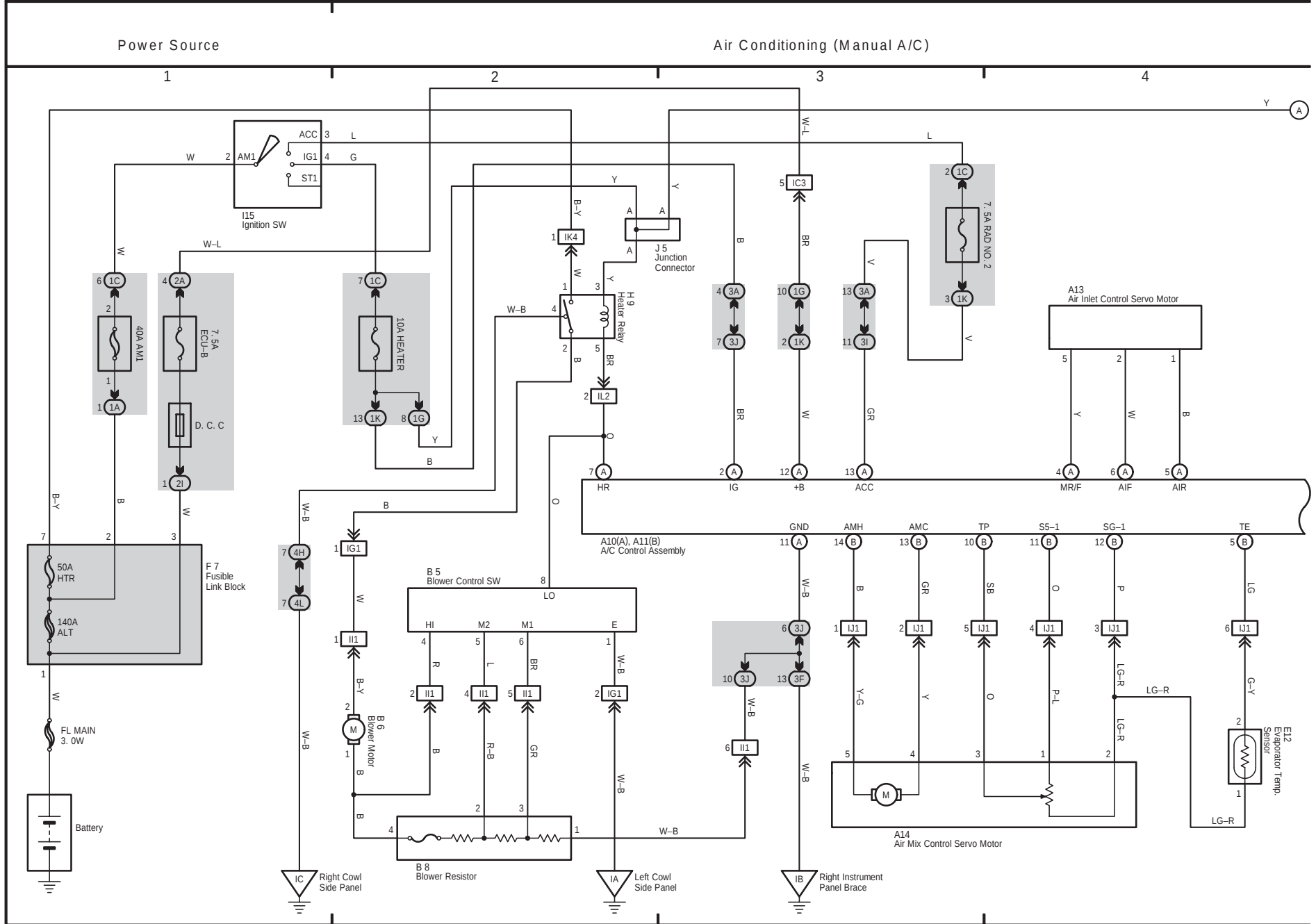




Air Conditioning (Automatic A/C)

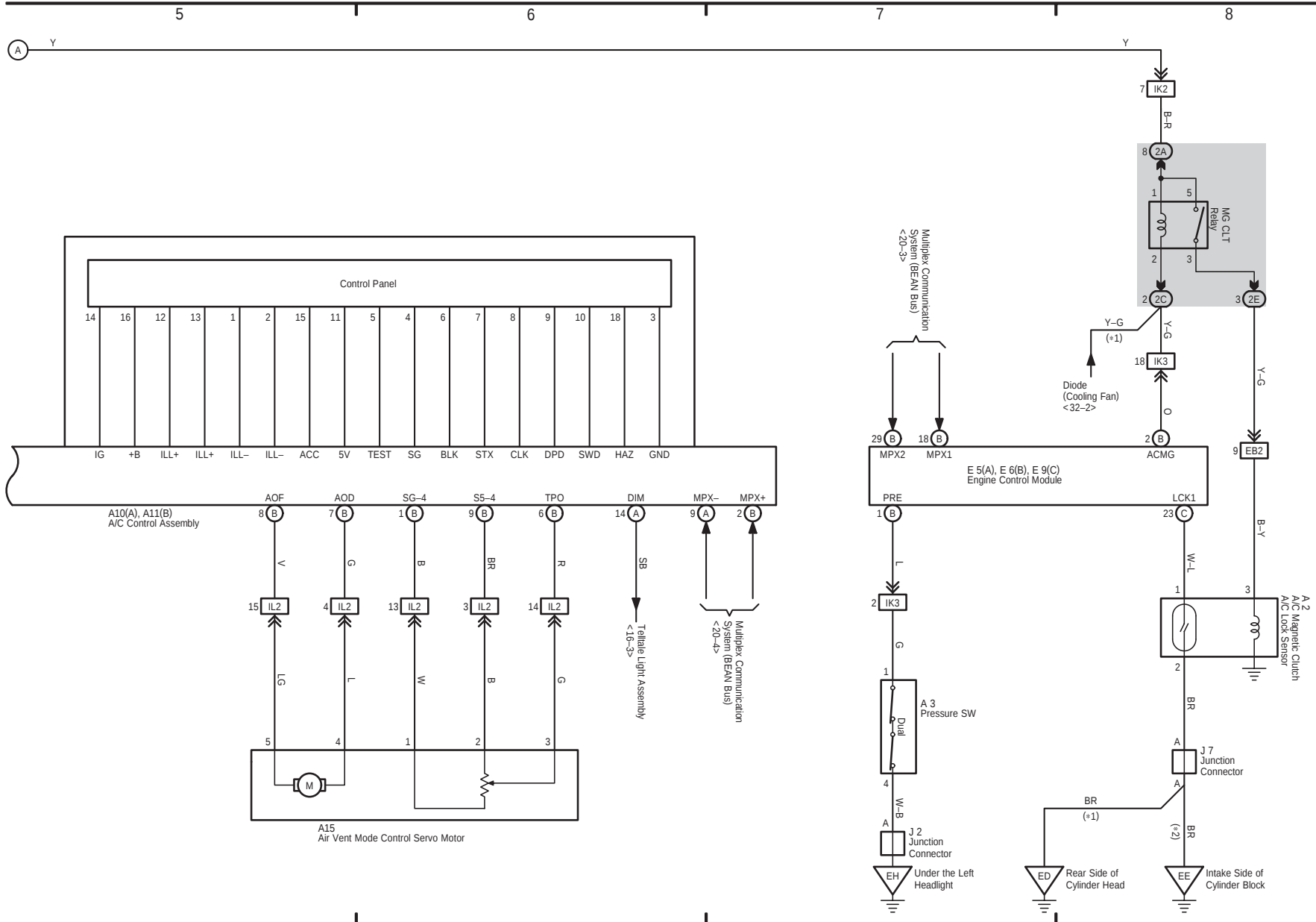
* 1 : 3MZ-FE
* 2 : 2AZ-FE





Air Conditioning (Manual A/C)

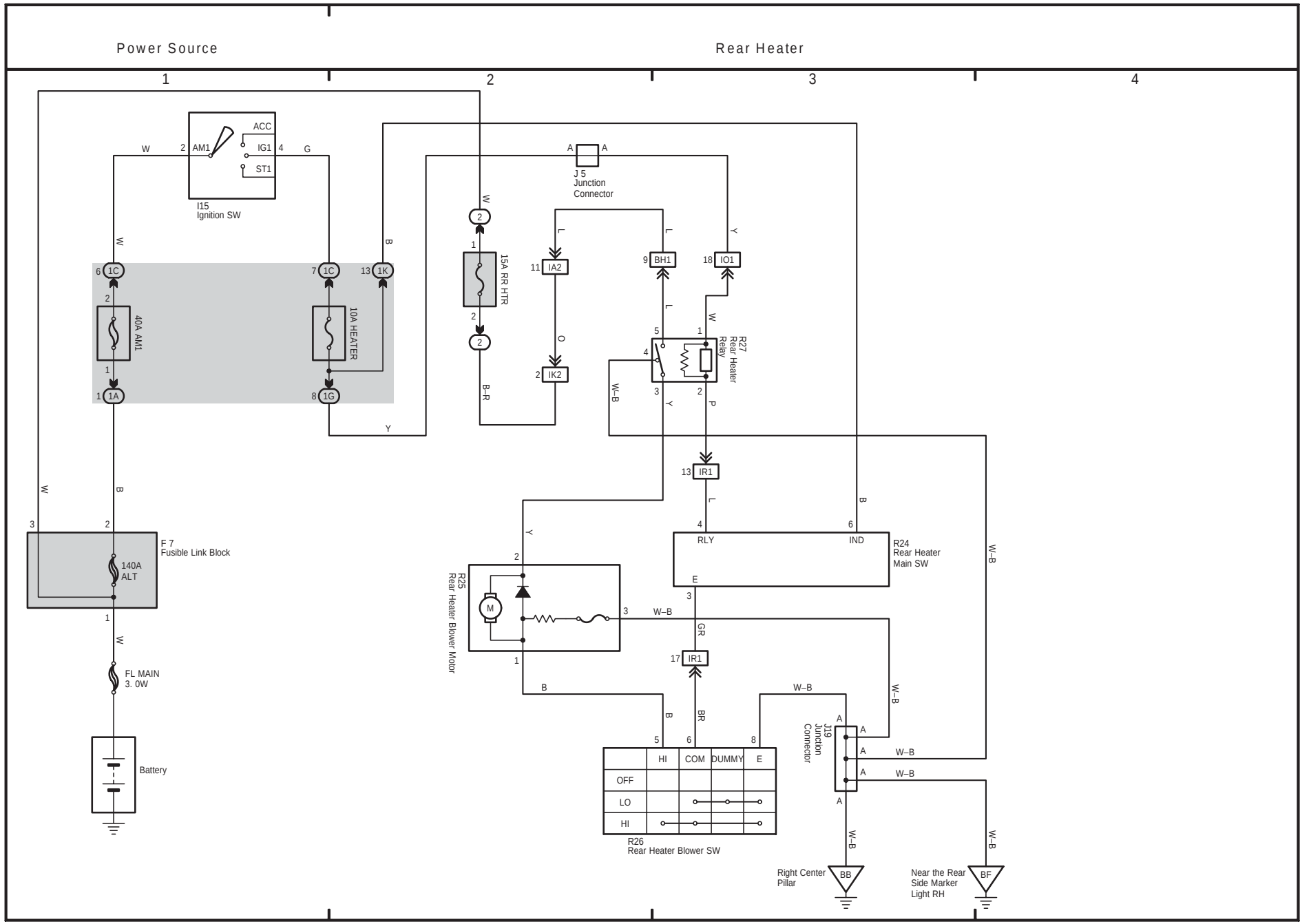
* 1 : 3MZ-FE
* 2 : 2AZ-FE



36 HIGHLANDER

400

HIGHLANDER (EM0120U)



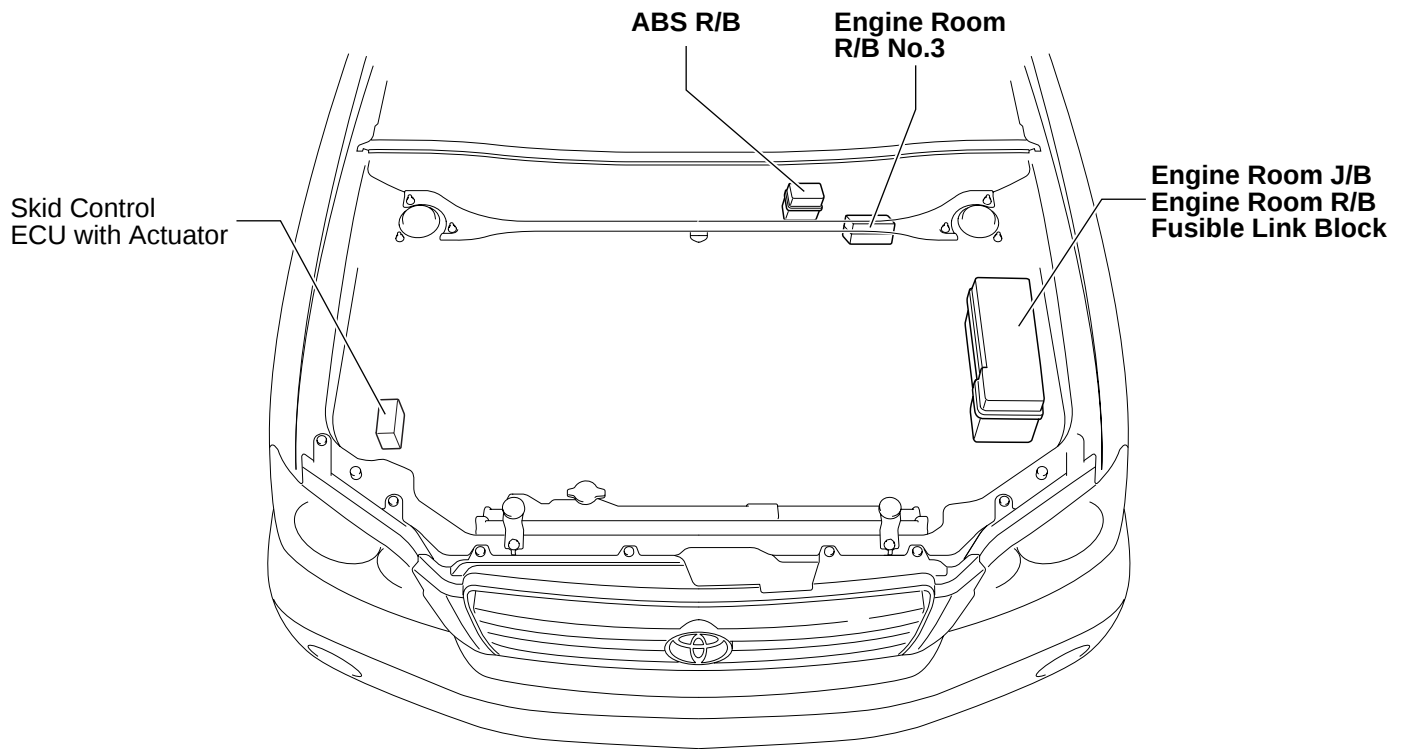
2006 HIGHLANDER ELECTRICAL WIRING DIAGRAM SYSTEM CIRCUITS

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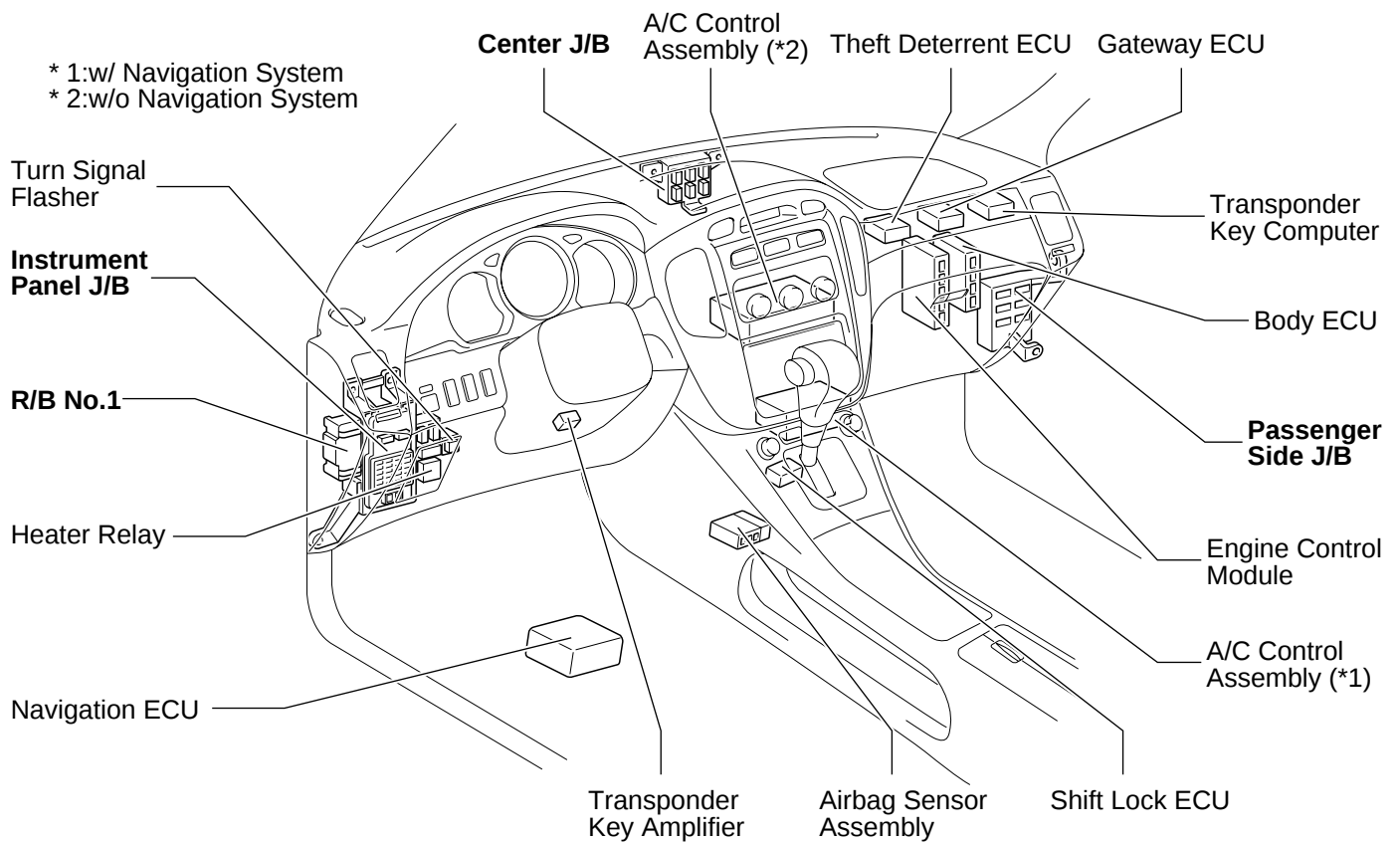
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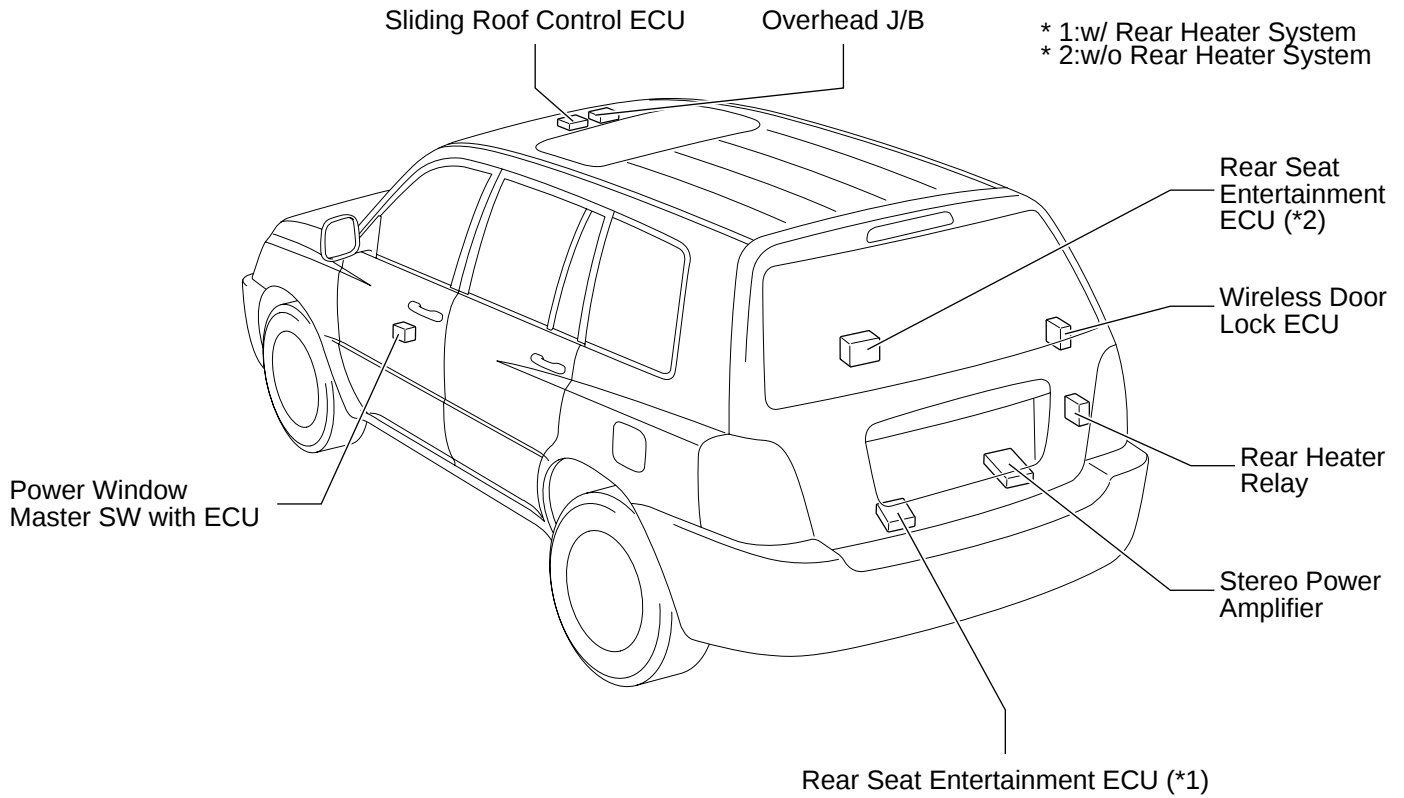
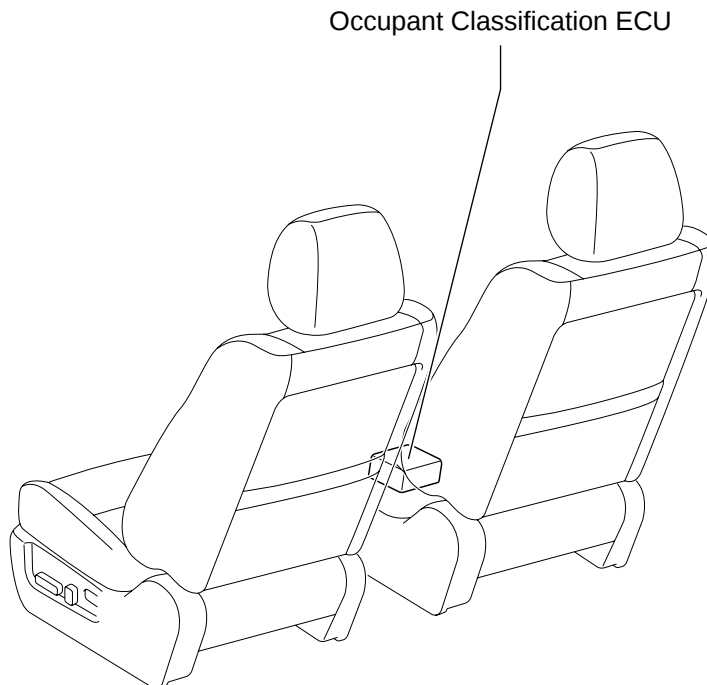
F RELAY LOCATIONS

[Engine Compartment]



[Instrument Panel]



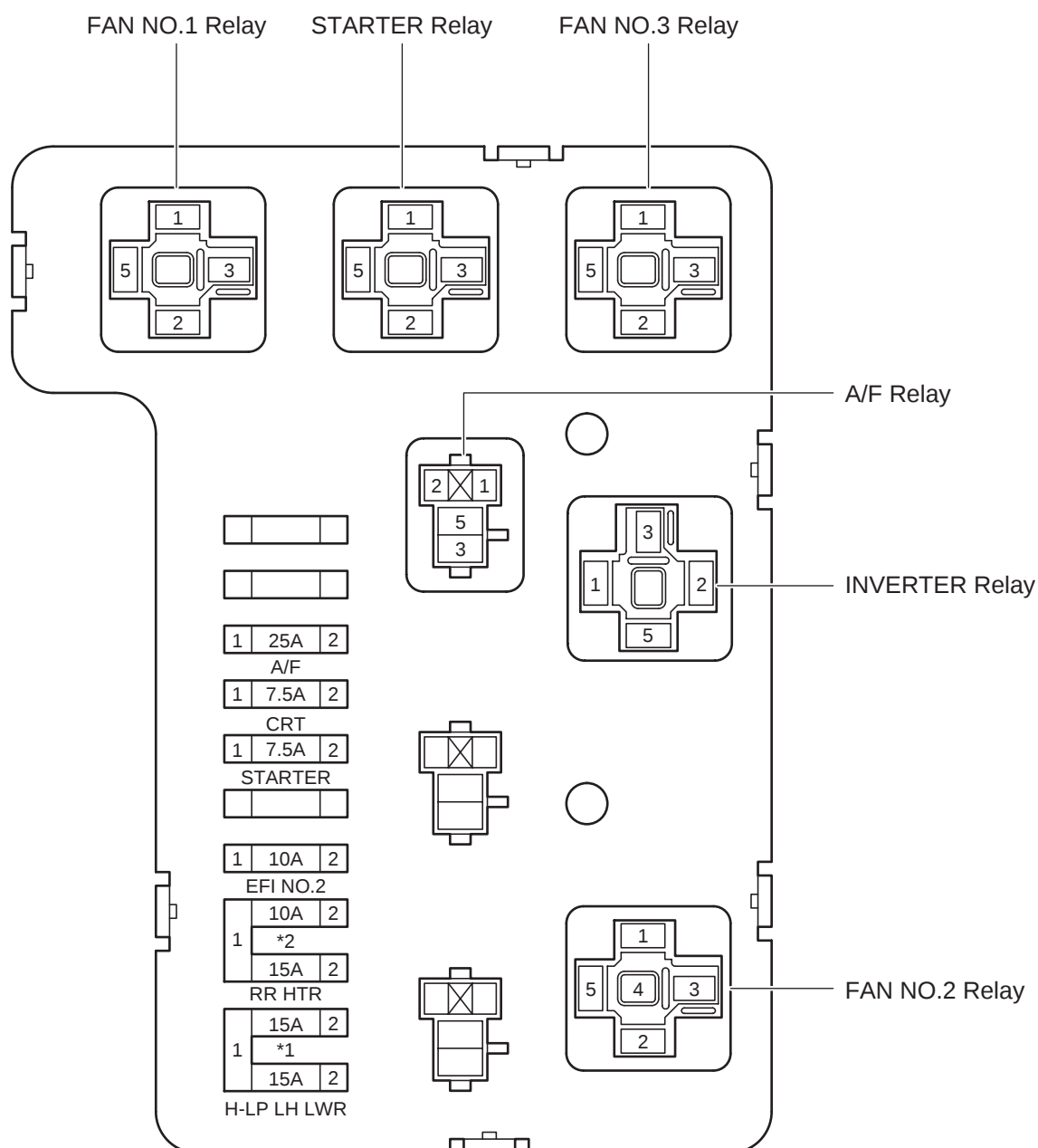
[Body]**[Seat]**

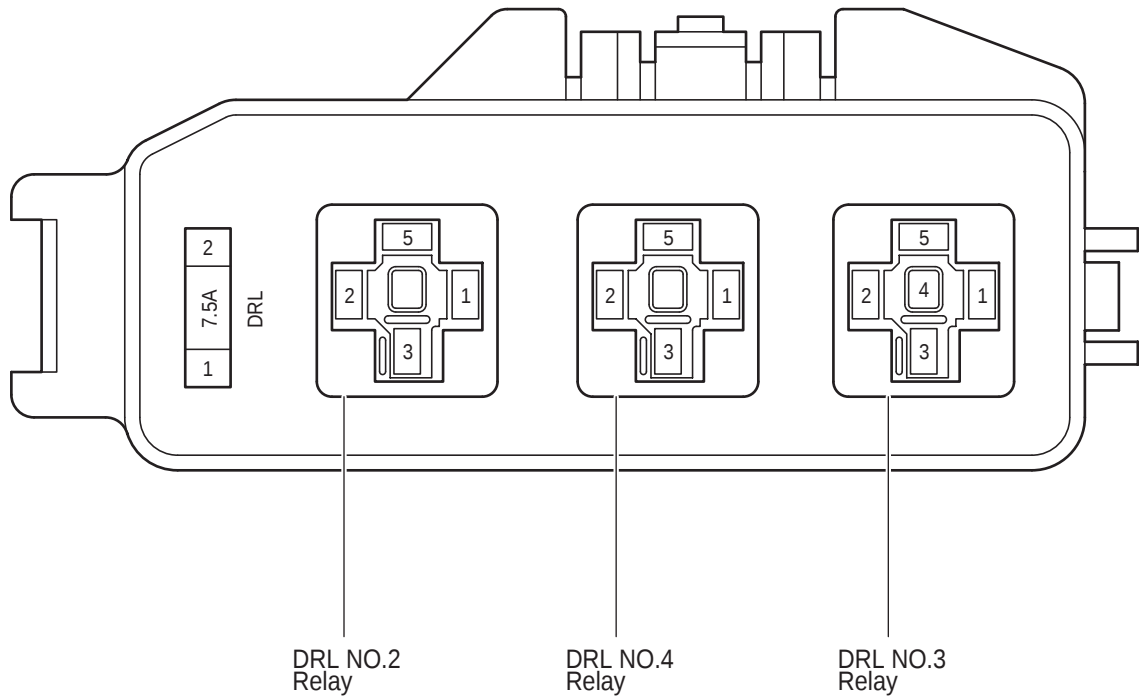
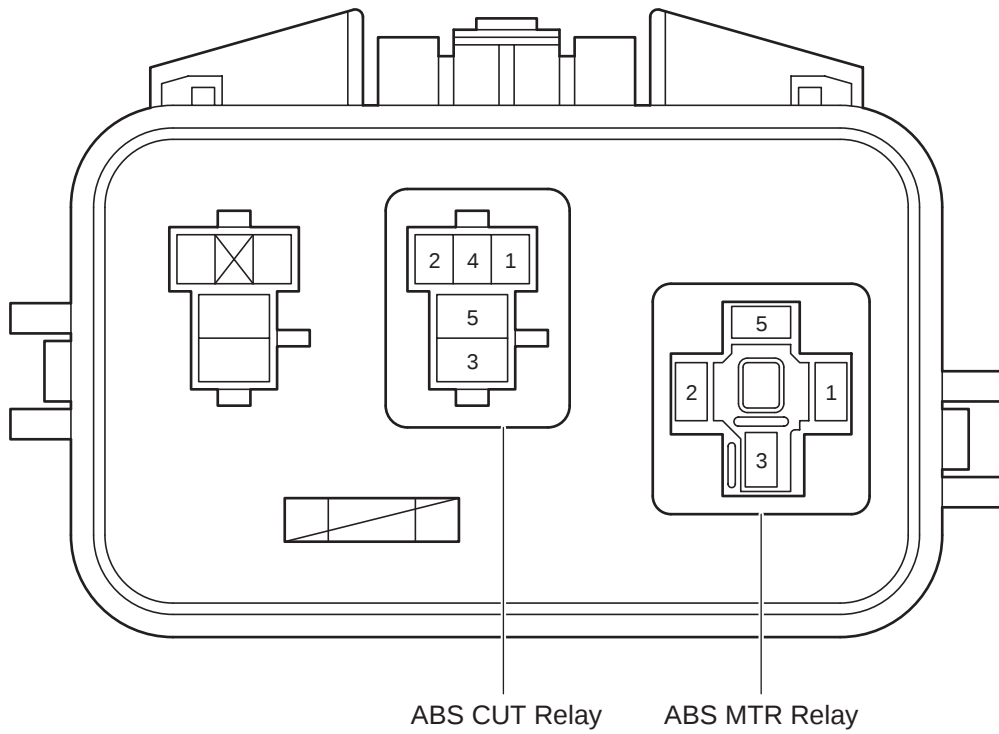
F RELAY LOCATIONS

② : Engine Room R/B

Engine Compartment Left
[Inside Engine Room J/B] (See Page 20)

* 1:H-LP RH LWR
* 2:ETCS

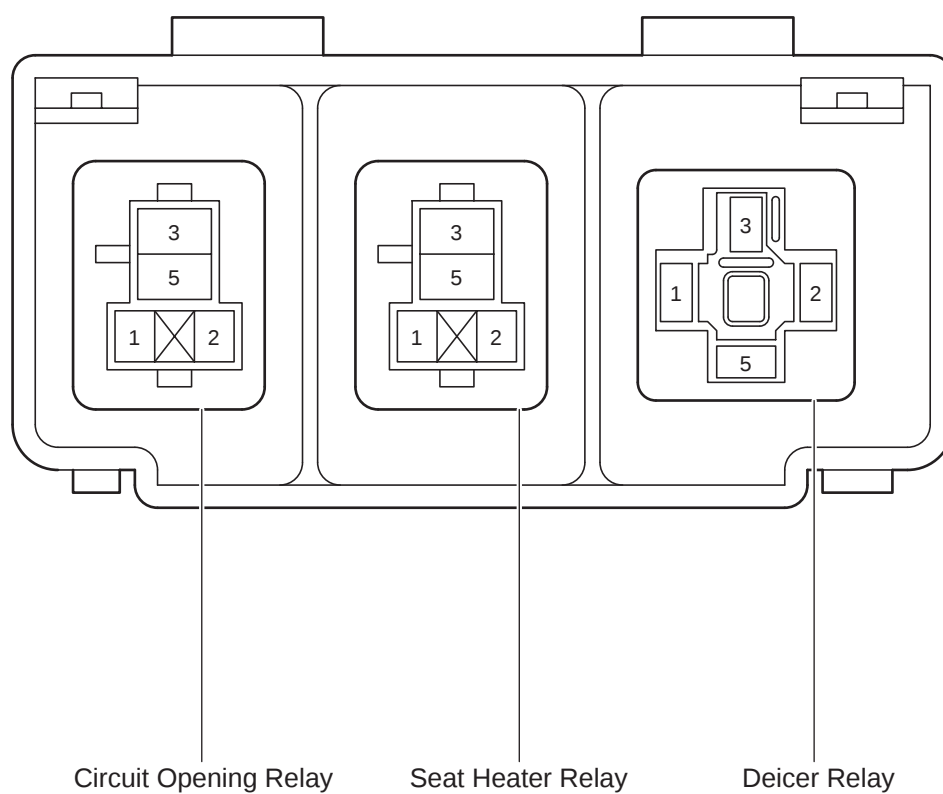


③ : Engine Room R/B No.3 Engine Compartment Rear Left (See Page 20)

⑤ : ABS R/B Engine Compartment Rear Left (See Page 20)


F RELAY LOCATIONS

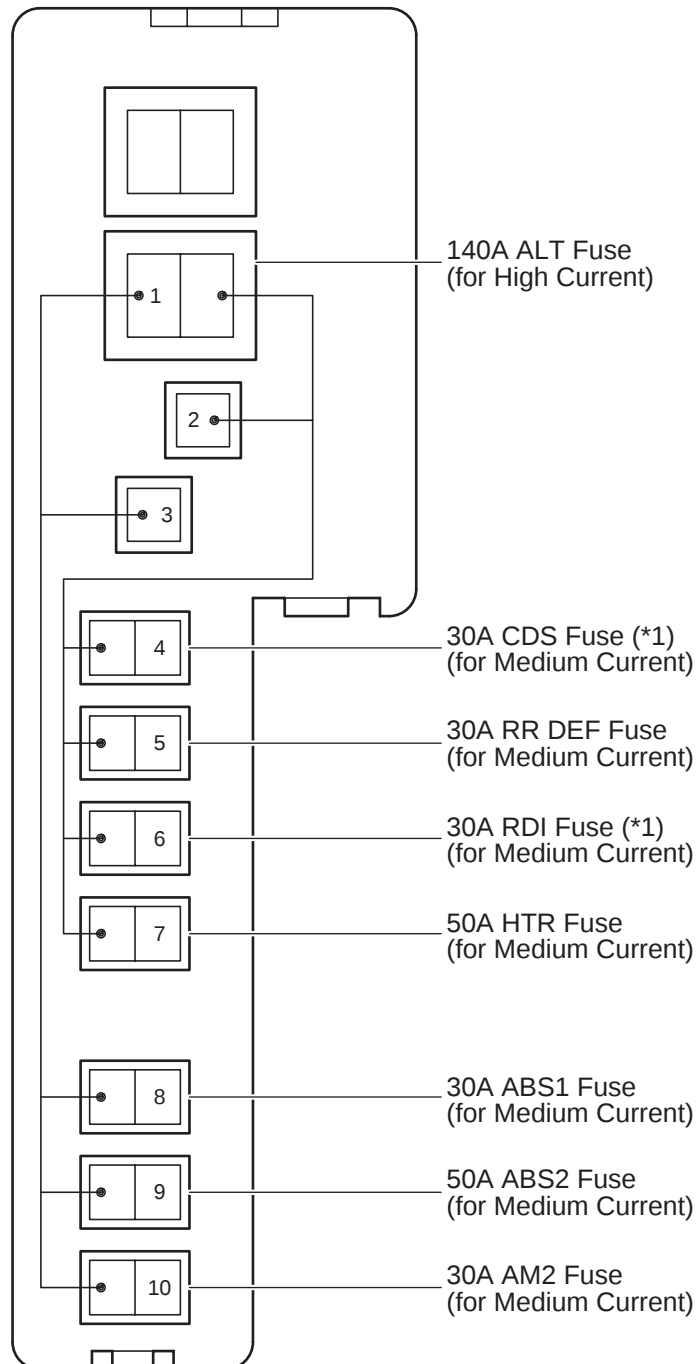
① : R/B No.1

Lower Finish Panel (See Page 20)



Fusible Link Block**Engine Compartment Left
[Inside Engine Room J/B] (See Page 20)**

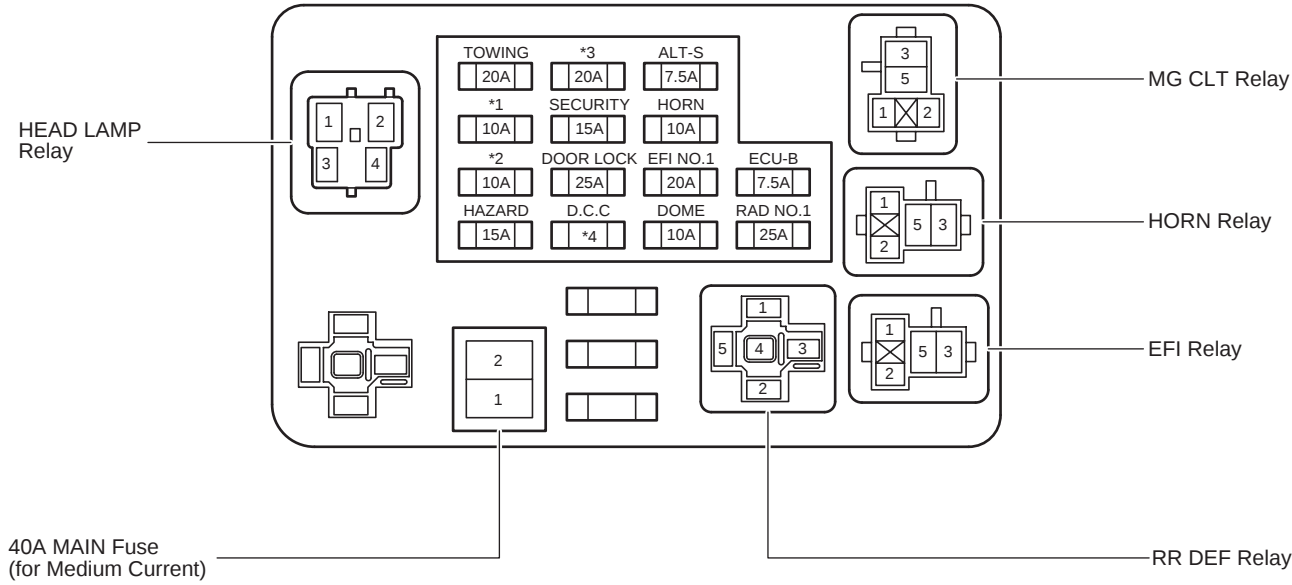
* 1:3MZ-FE



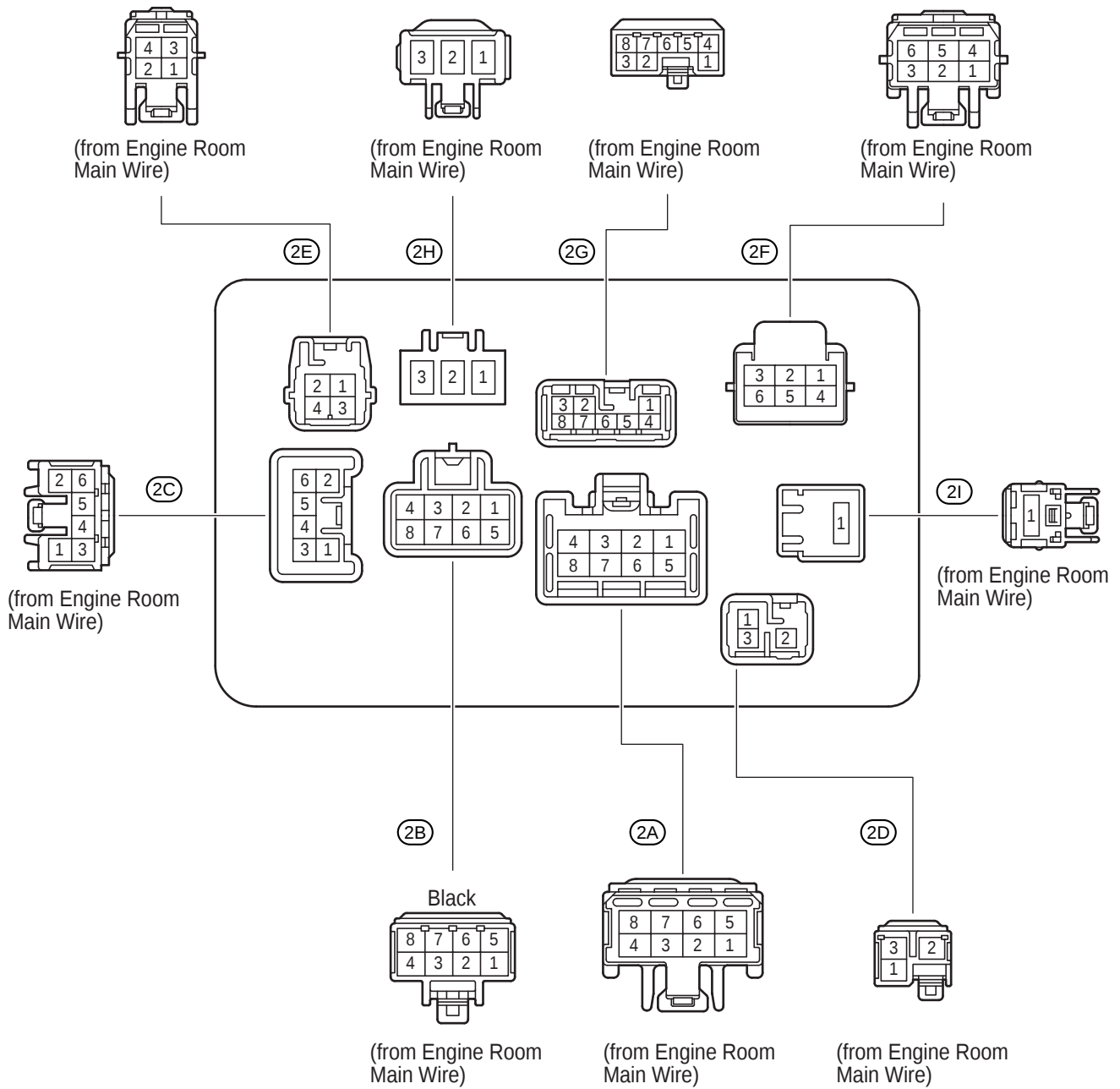
F RELAY LOCATIONS

 : Engine Room J/B	Engine Compartment Left (See Page 20)
---	---------------------------------------

- * 1:H-LP RH UPR
- * 2:H-LP LH UPR
- * 3:POWER OUTLET2
- * 4:SHORT



(Inner Circuit : See Page 34)

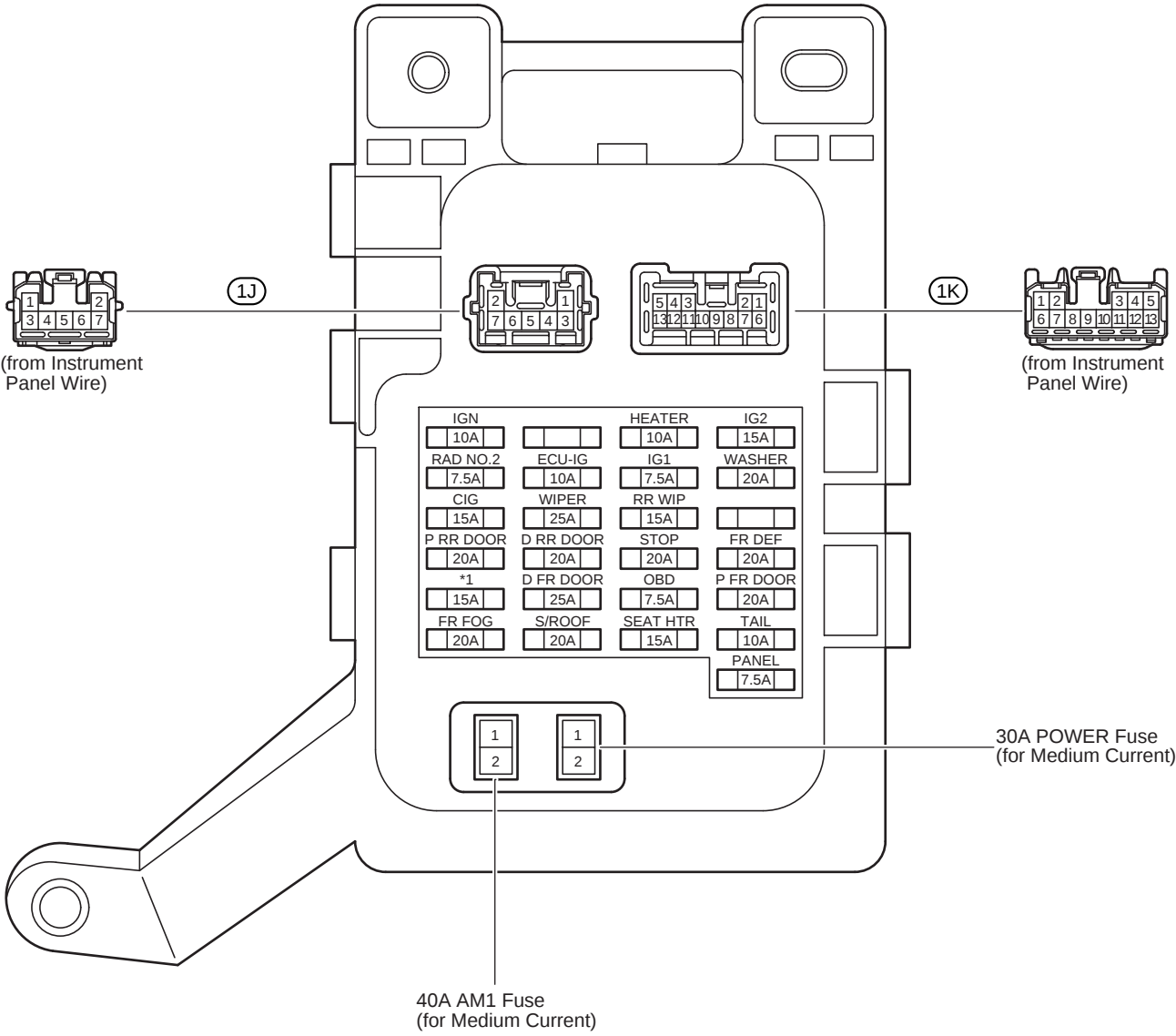


F RELAY LOCATIONS

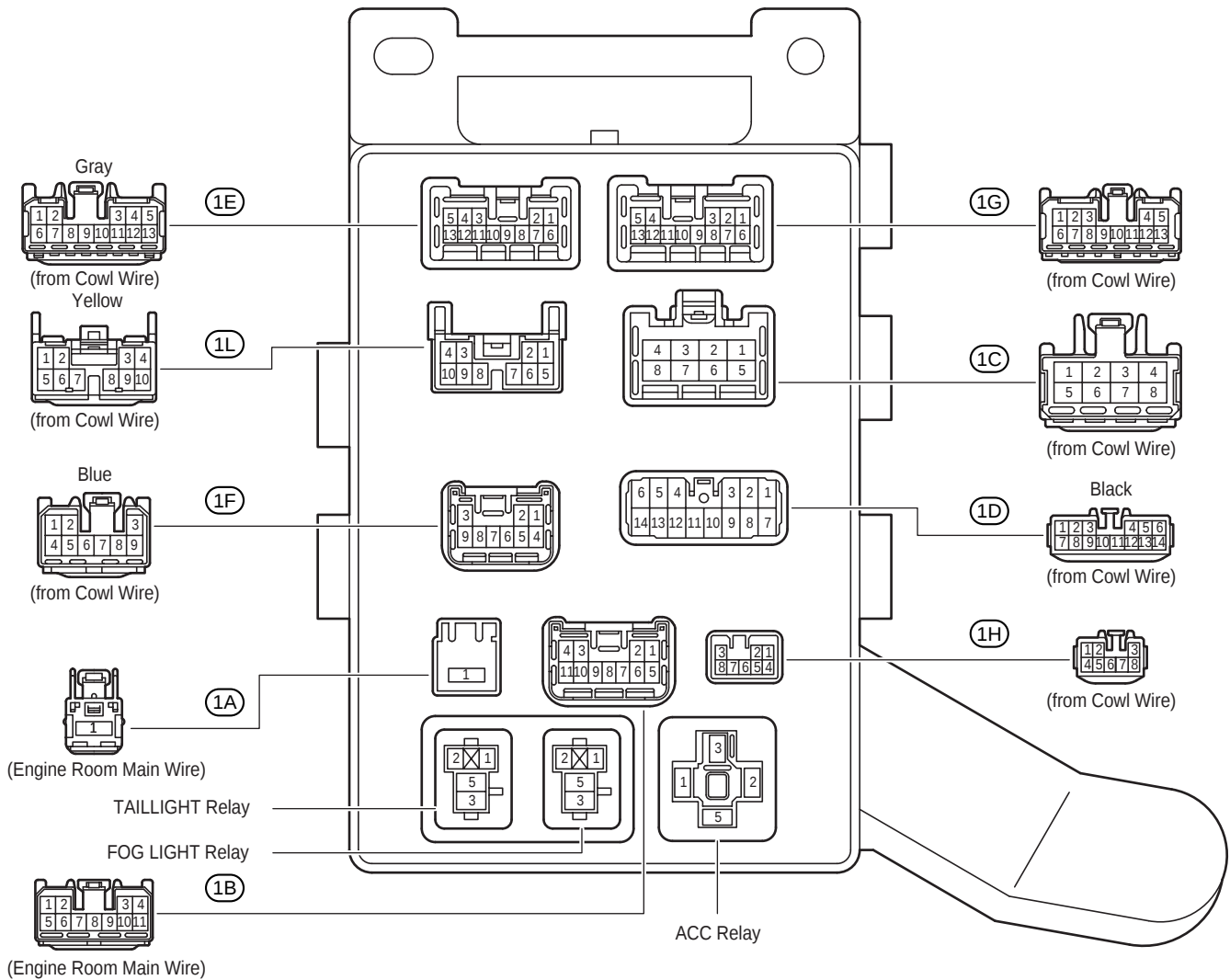
 : Instrument Panel J/B

Lower Finish Panel (See Page 20)

* 1:PWR OUTLET1



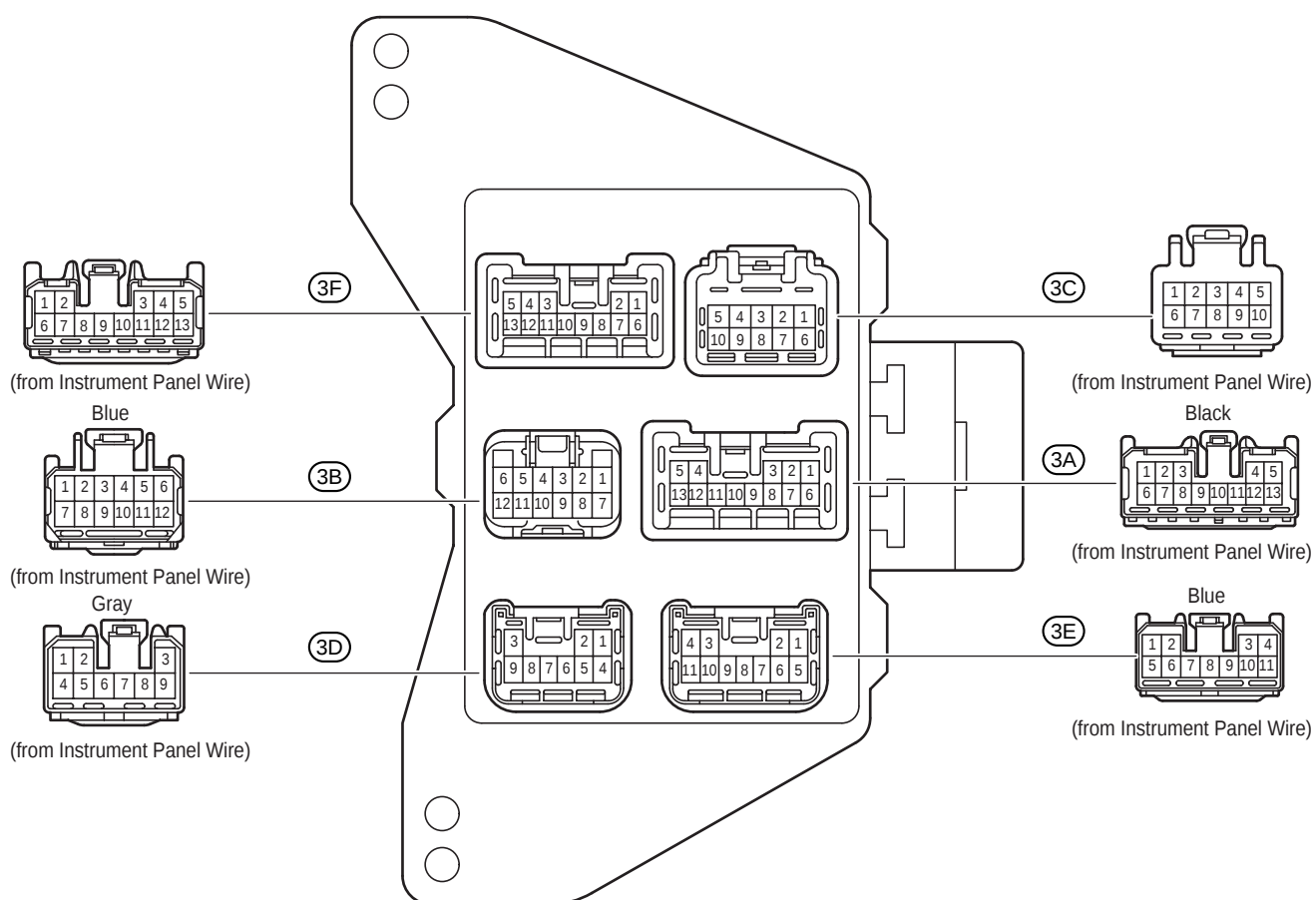
(Inner Circuit : See Page 35)

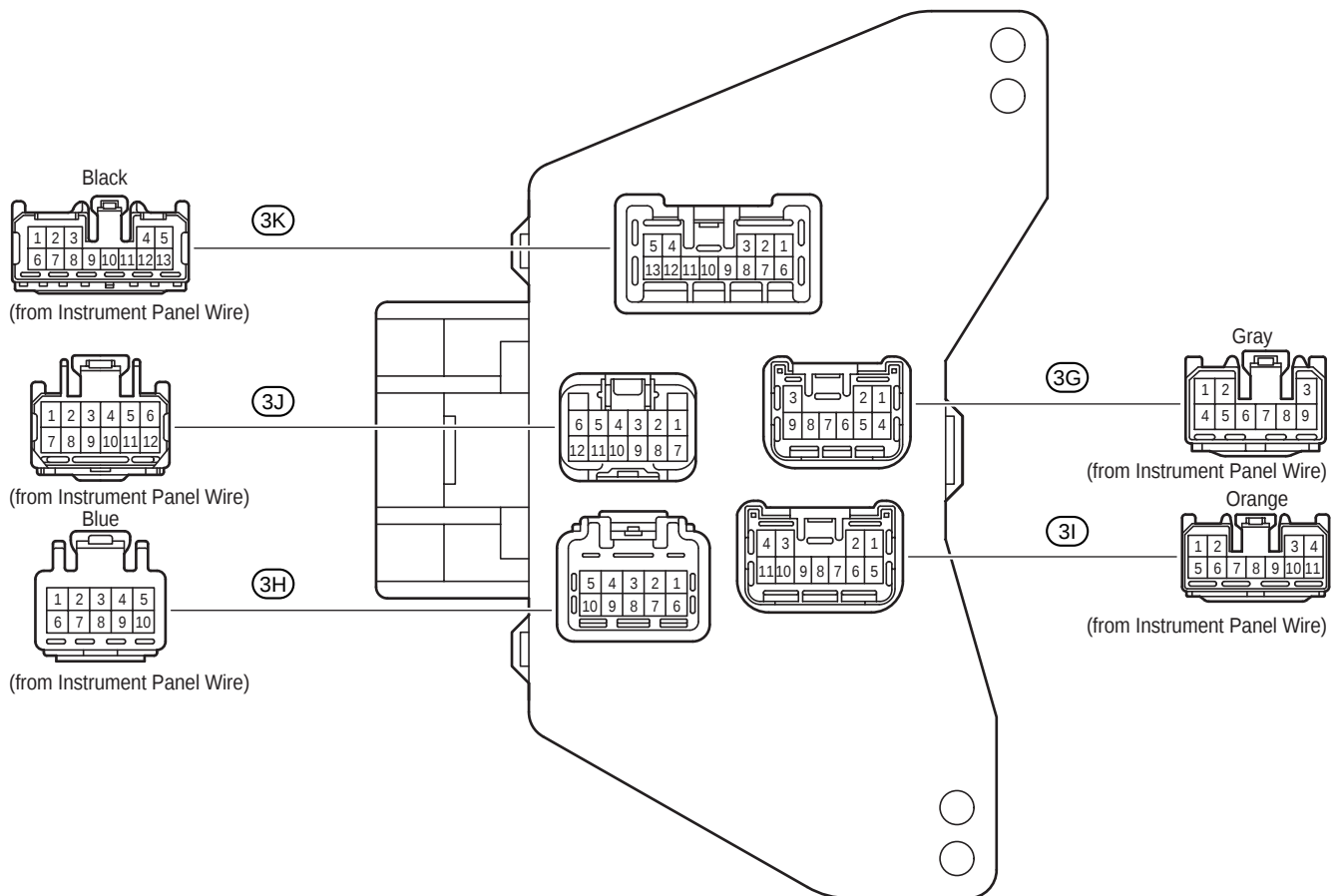


F RELAY LOCATIONS

 : Center J/B

Behind the Instrument Panel Center (See Page 20)

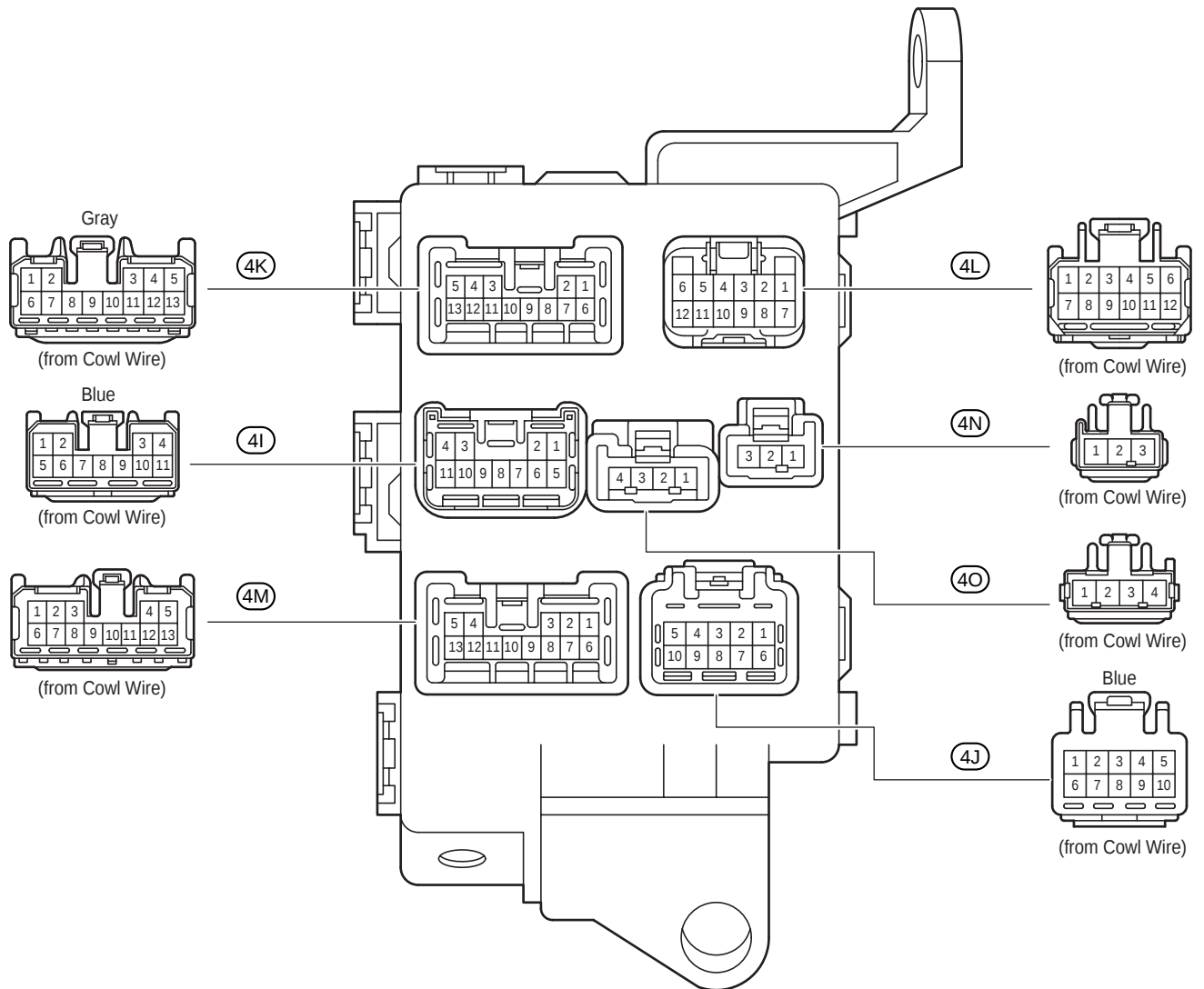




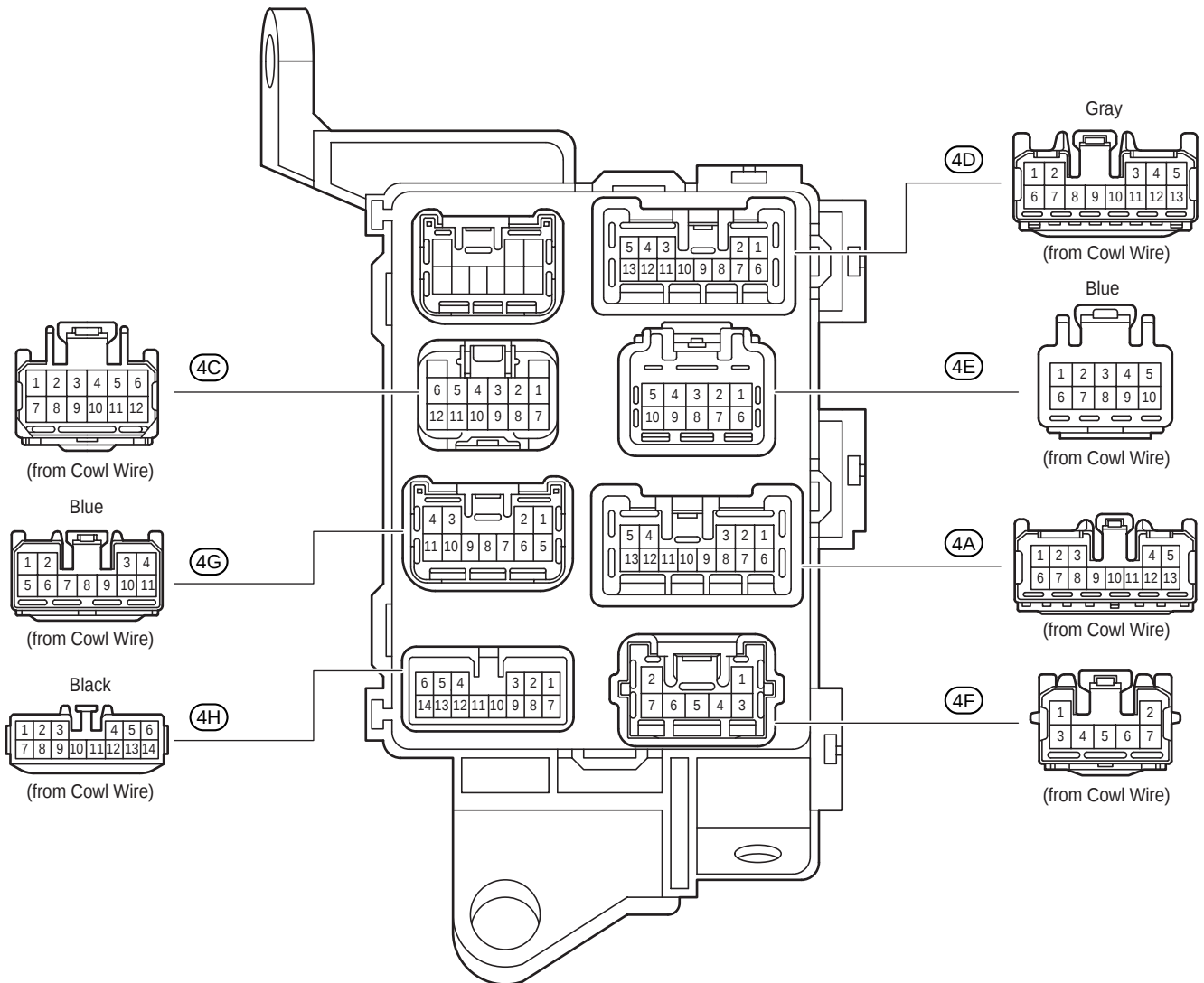
F RELAY LOCATIONS

 : Passenger Side J/B

Right Side of Glove Box (See Page 20)



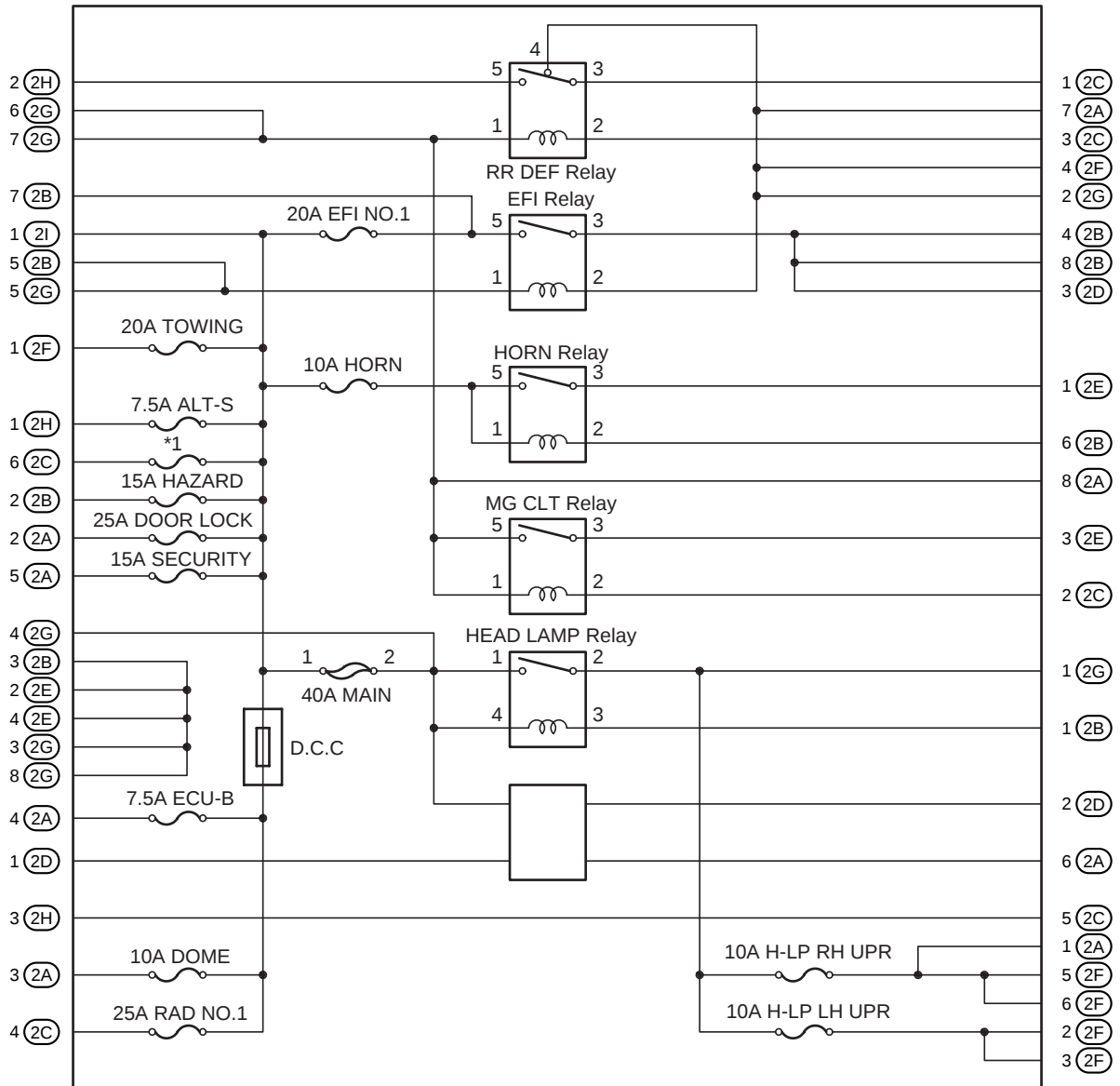
(Inner Circuit : See Page 37)



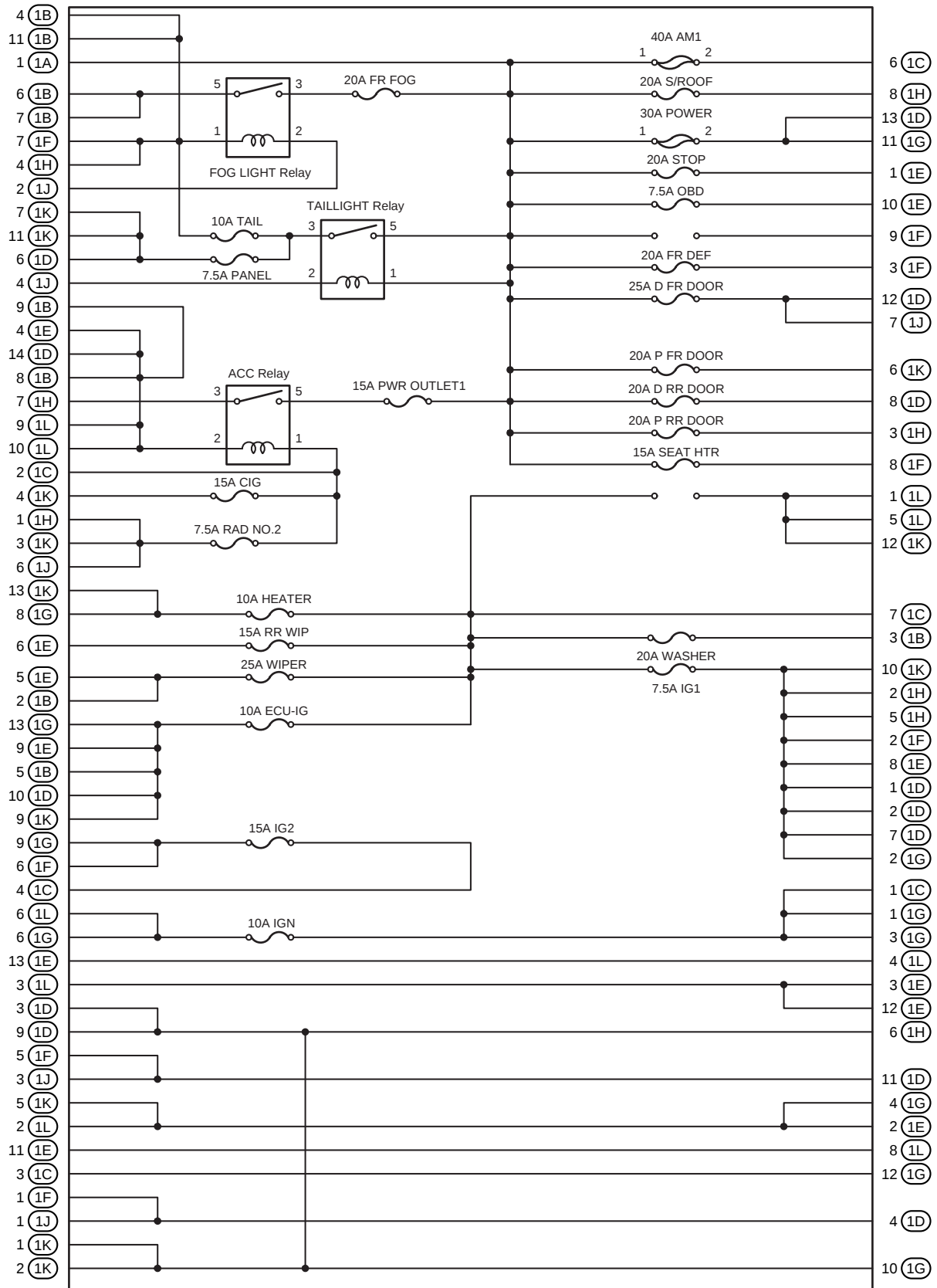
F RELAY LOCATIONS

[Engine Room J/B Inner Circuit]

* 1:20A POWER OUTLET2

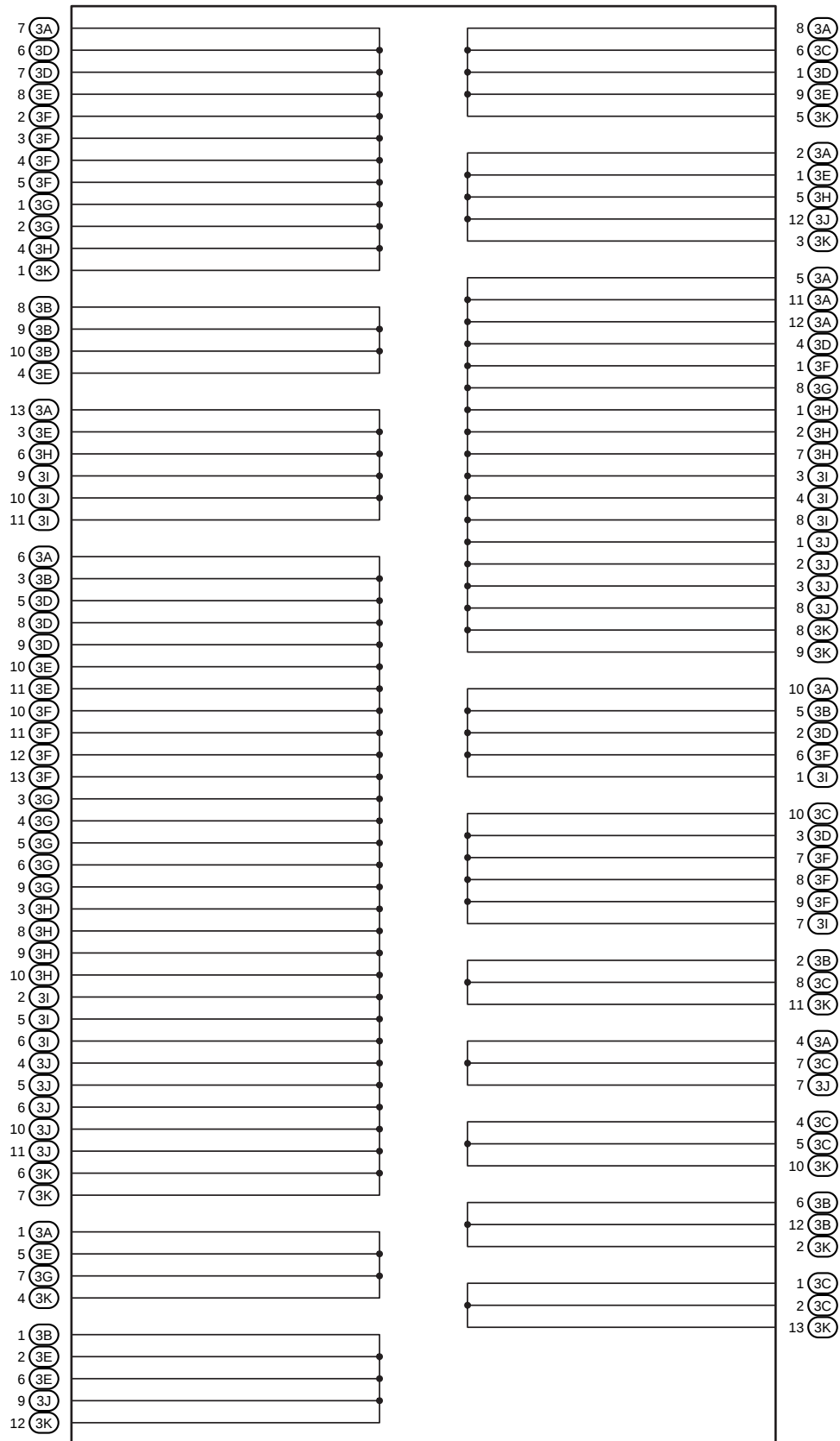


[Instrument Panel J/B Inner Circuit]

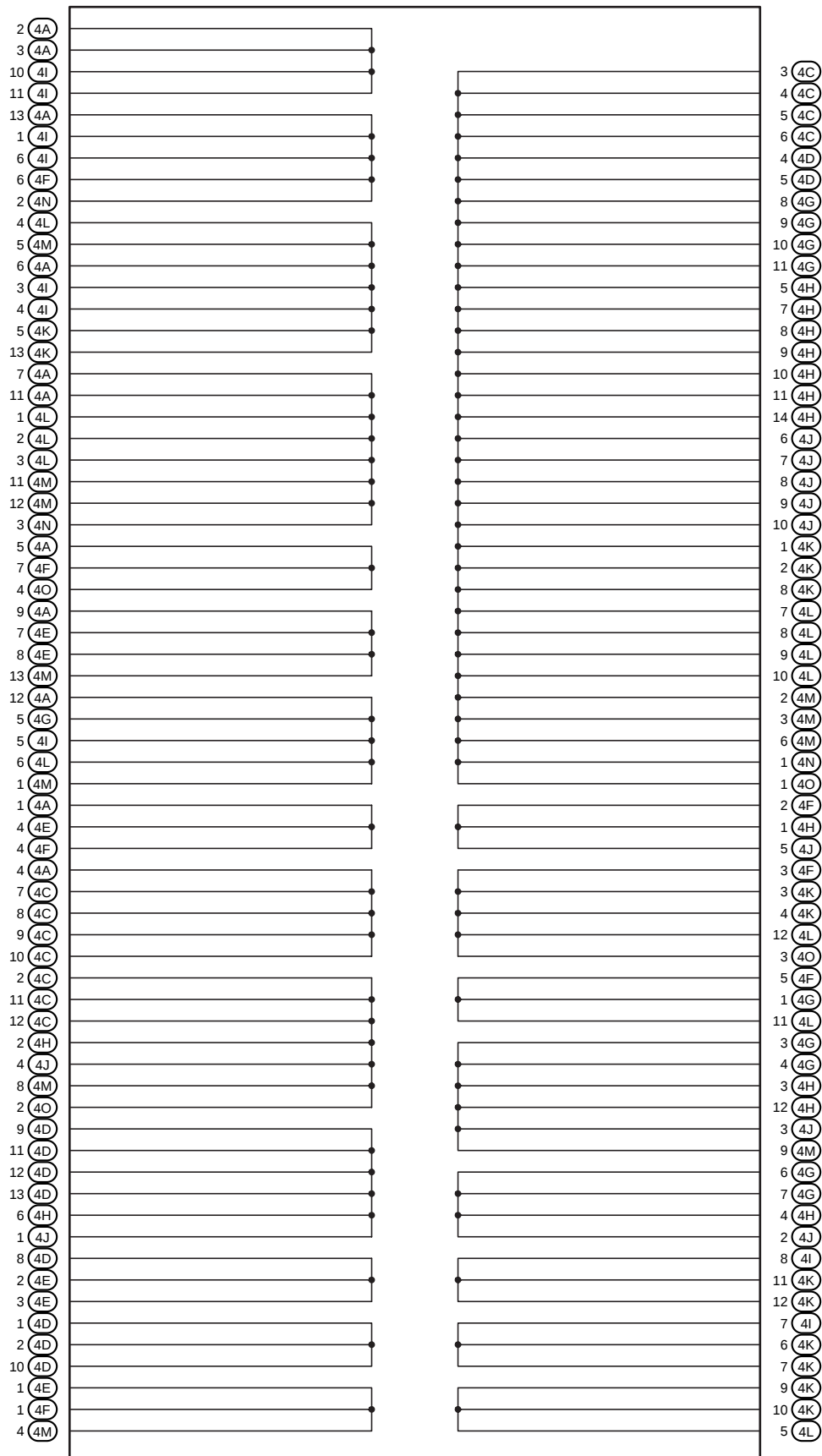


F RELAY LOCATIONS

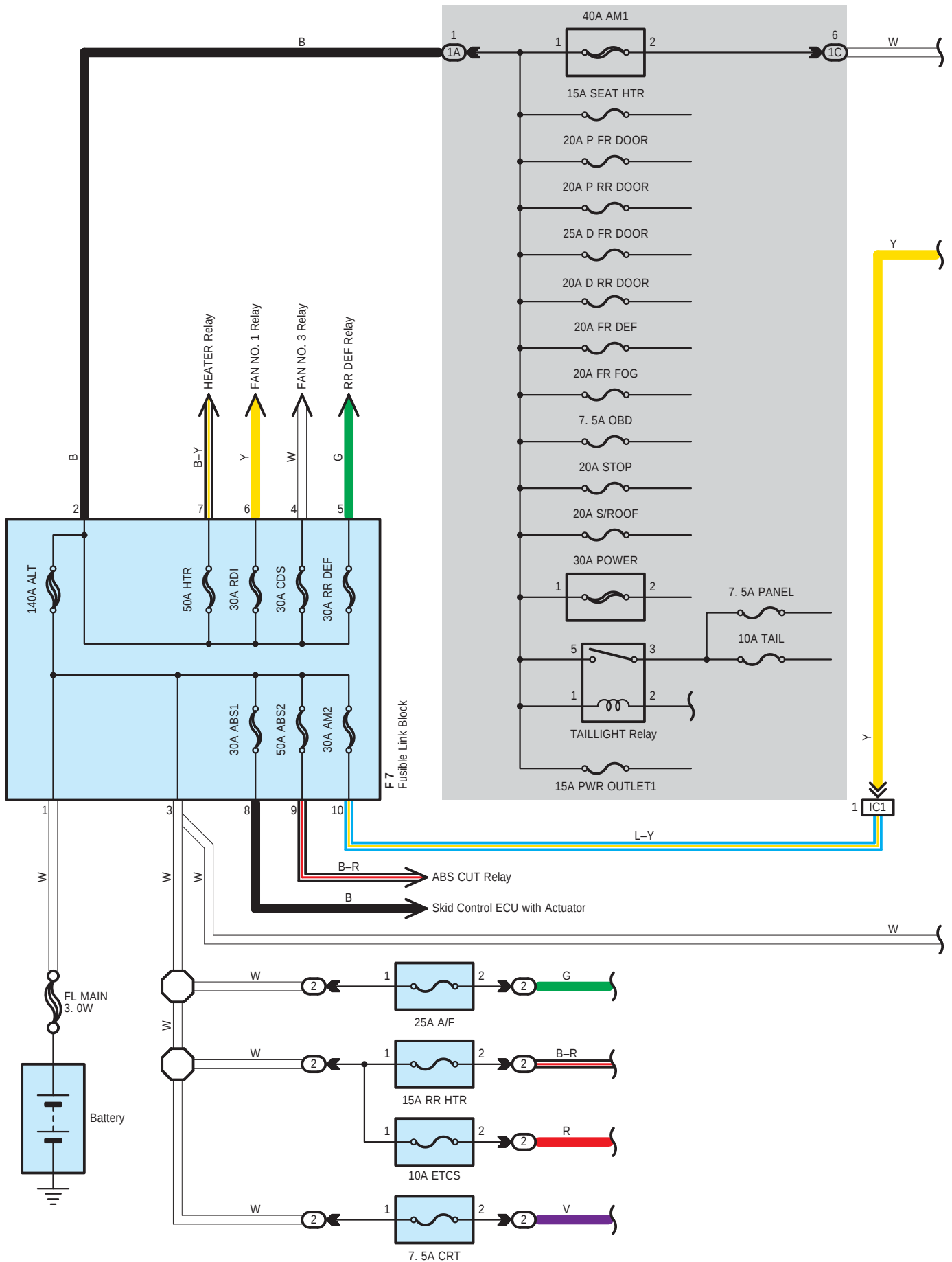
[Center J/B Inner Circuit]

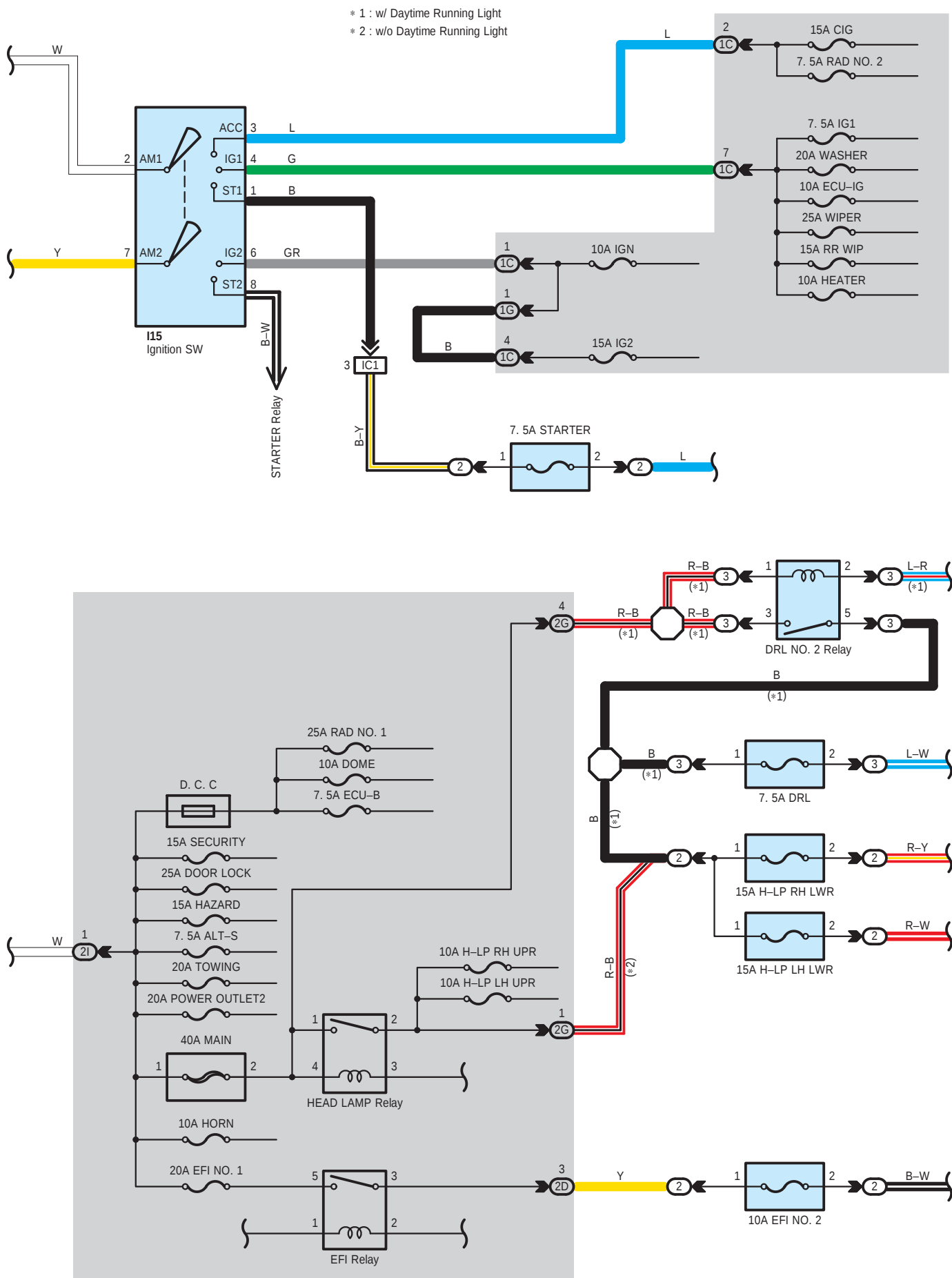


[Passenger Side J/B Inner Circuit]



Power Source





Power Source

: Parts Location

Code	See Page	Code	See Page	Code	See Page
F7	38 (3MZ-FE)	F7	40 (2AZ-FE)	I15	43

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	22	Engine Room R/B (Engine Compartment Left)
3	23	Engine Room R/B No.3 (Engine Compartment Rear Left)

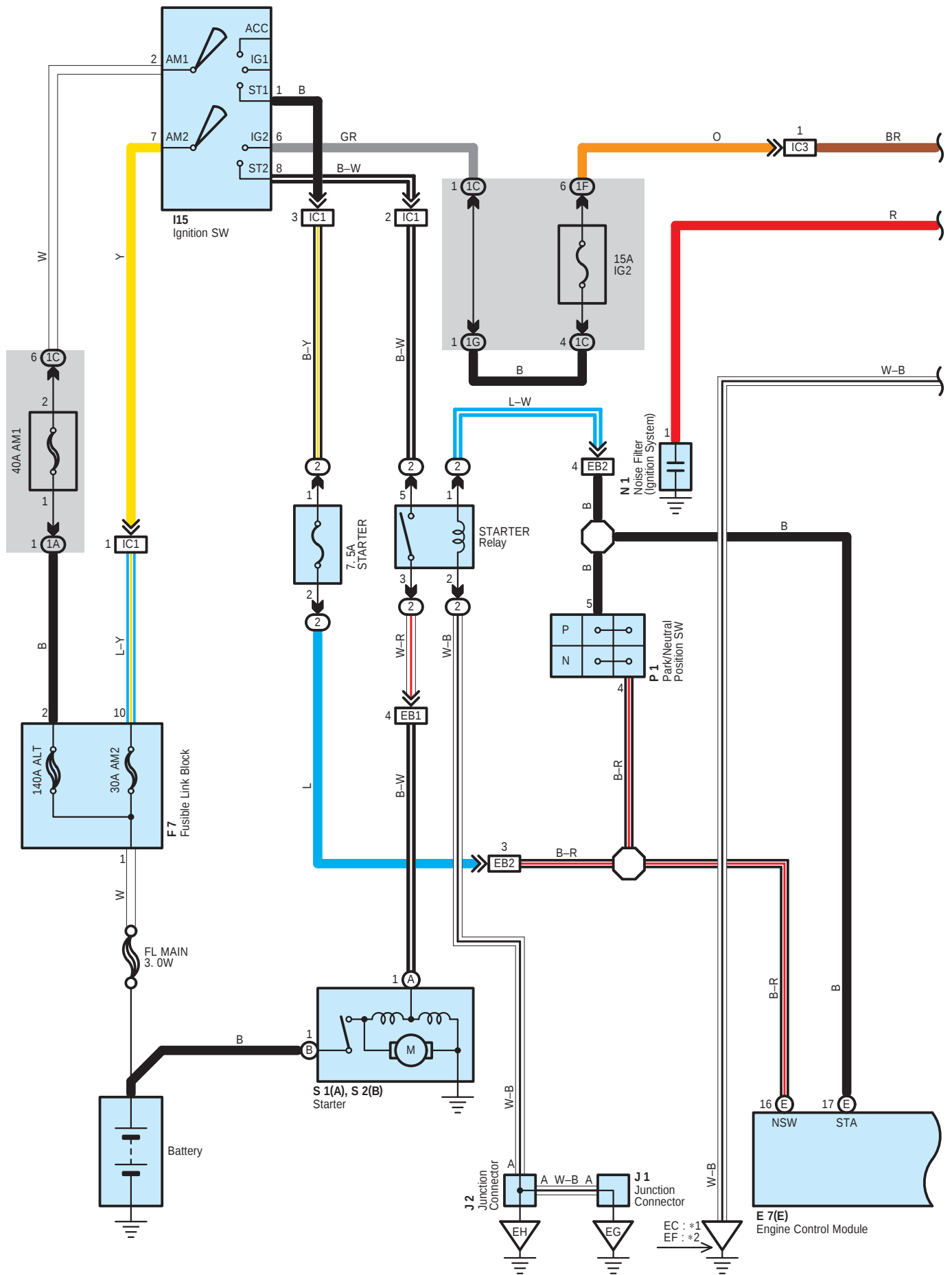
: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1C	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
2D	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2I		

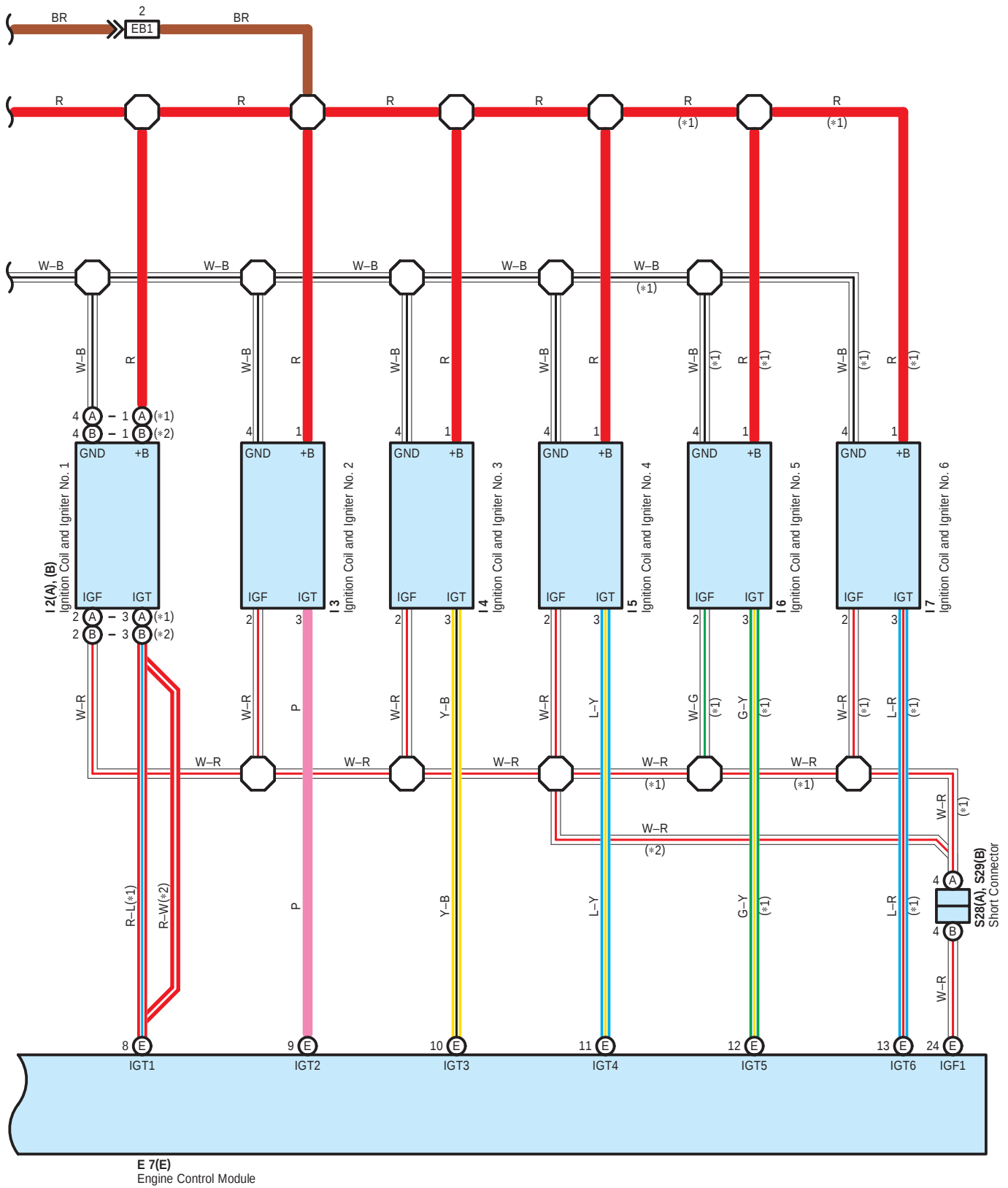
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC1	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)

Starting and Ignition



* 1 : 3MZ-FE
* 2 : 2AZ-FE



Starting and Ignition

: Parts Location

Code		See Page	Code	See Page	Code		See Page
E7	E	42	I4	41 (2AZ-FE)	N1	39 (3MZ-FE)	
F7		38 (3MZ-FE)	I5	39 (3MZ-FE)		41 (2AZ-FE)	
		40 (2AZ-FE)		41 (2AZ-FE)	P1	39 (3MZ-FE)	
I2	A	39 (3MZ-FE)	I6	39 (3MZ-FE)		41 (2AZ-FE)	
		41 (2AZ-FE)	I7	39 (3MZ-FE)	S1	A	39 (3MZ-FE)
	B	39 (3MZ-FE)	I15	43			41 (2AZ-FE)
		41 (2AZ-FE)	J1	39 (3MZ-FE)	S2	B	39 (3MZ-FE)
I3		39 (3MZ-FE)		41 (2AZ-FE)			41 (2AZ-FE)
		41 (2AZ-FE)	J2	39 (3MZ-FE)	S28	A	43
I4		39 (3MZ-FE)		41 (2AZ-FE)	S29	B	43

: 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)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1C	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1F		
1G		

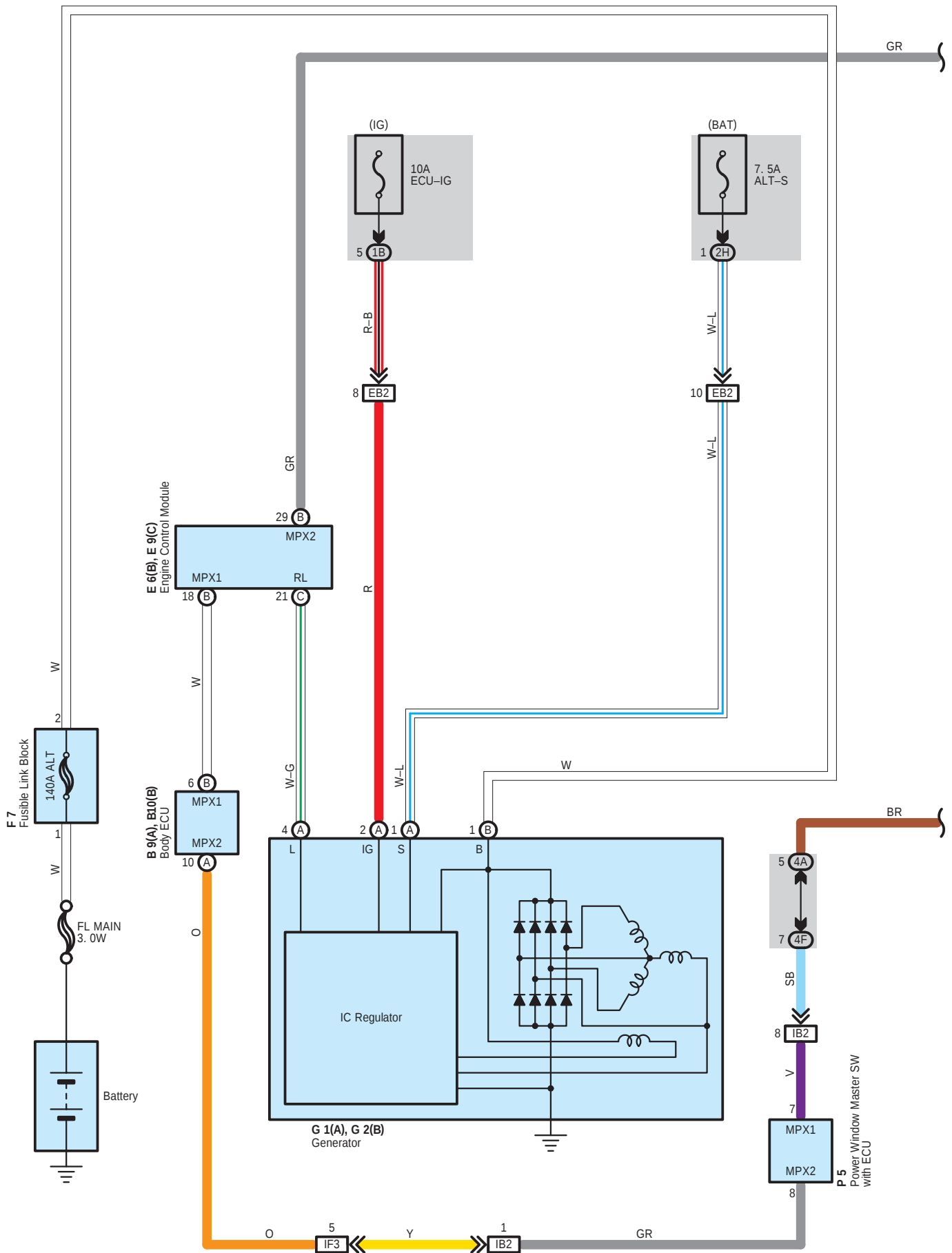
: Connector Joining Wire Harness and Wire Harness

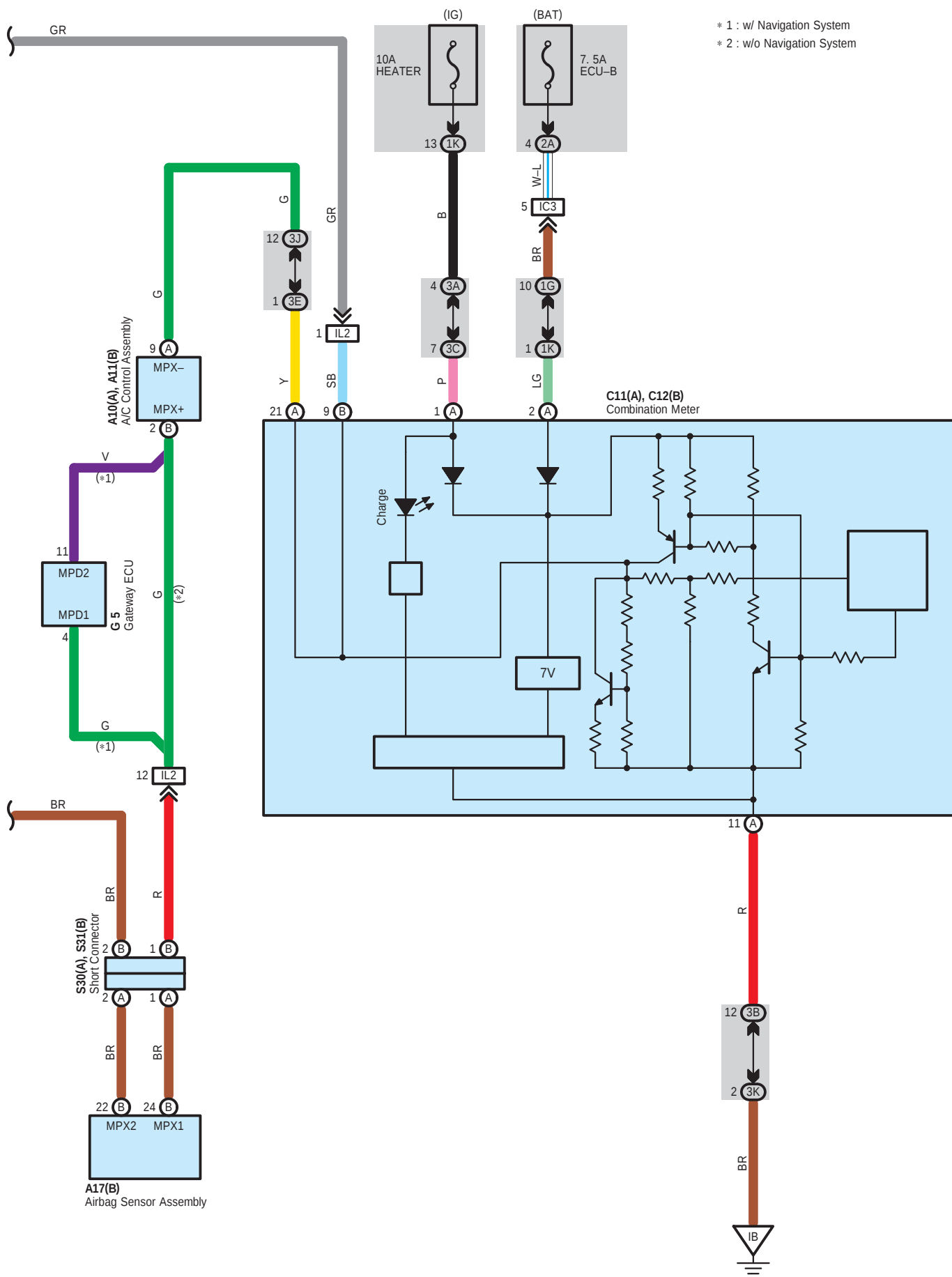
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	48 (3MZ-FE)	Engine Wire and Engine Room Main Wire (Front Side of Engine Room R/B)
	49 (2AZ-FE)	
EB2	48 (3MZ-FE)	
	49 (2AZ-FE)	
IC1	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC3		

: Ground Points

Code	See Page	Ground Points Location
EC	48 (3MZ-FE)	Left Side of Cylinder Head
EF	49 (2AZ-FE)	Left Side of Cylinder Block
EG	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
EH	48 (3MZ-FE)	
	49 (2AZ-FE)	

Charging





Charging

: Parts Location

Code		See Page	Code		See Page	Code		See Page
A10	A	42	E6	B	42	G2	B	40 (2AZ-FE)
A11	B	42	E9	C	42	G5		43
A17	B	42	F7		38 (3MZ-FE)	P5		44
B9	A	42			40 (2AZ-FE)	S30	A	43
B10	B	42	G1	A	38 (3MZ-FE)	S31	B	43
C11	A	42			40 (2AZ-FE)			
C12	B	42	G2	B	38 (3MZ-FE)			

: Junction Block and Wire Harness Connector

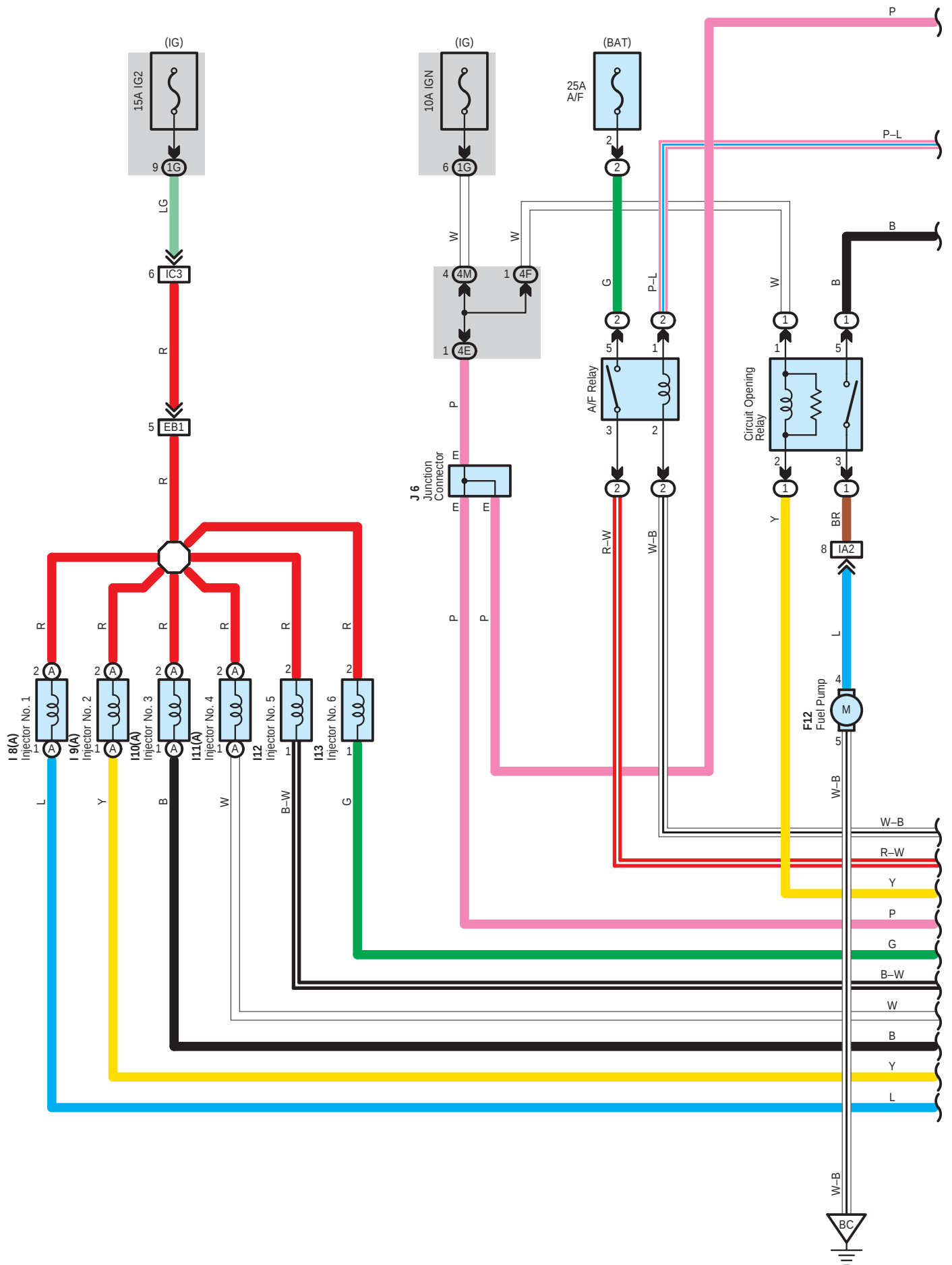
Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2H		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3E		
3J	31	
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4F		

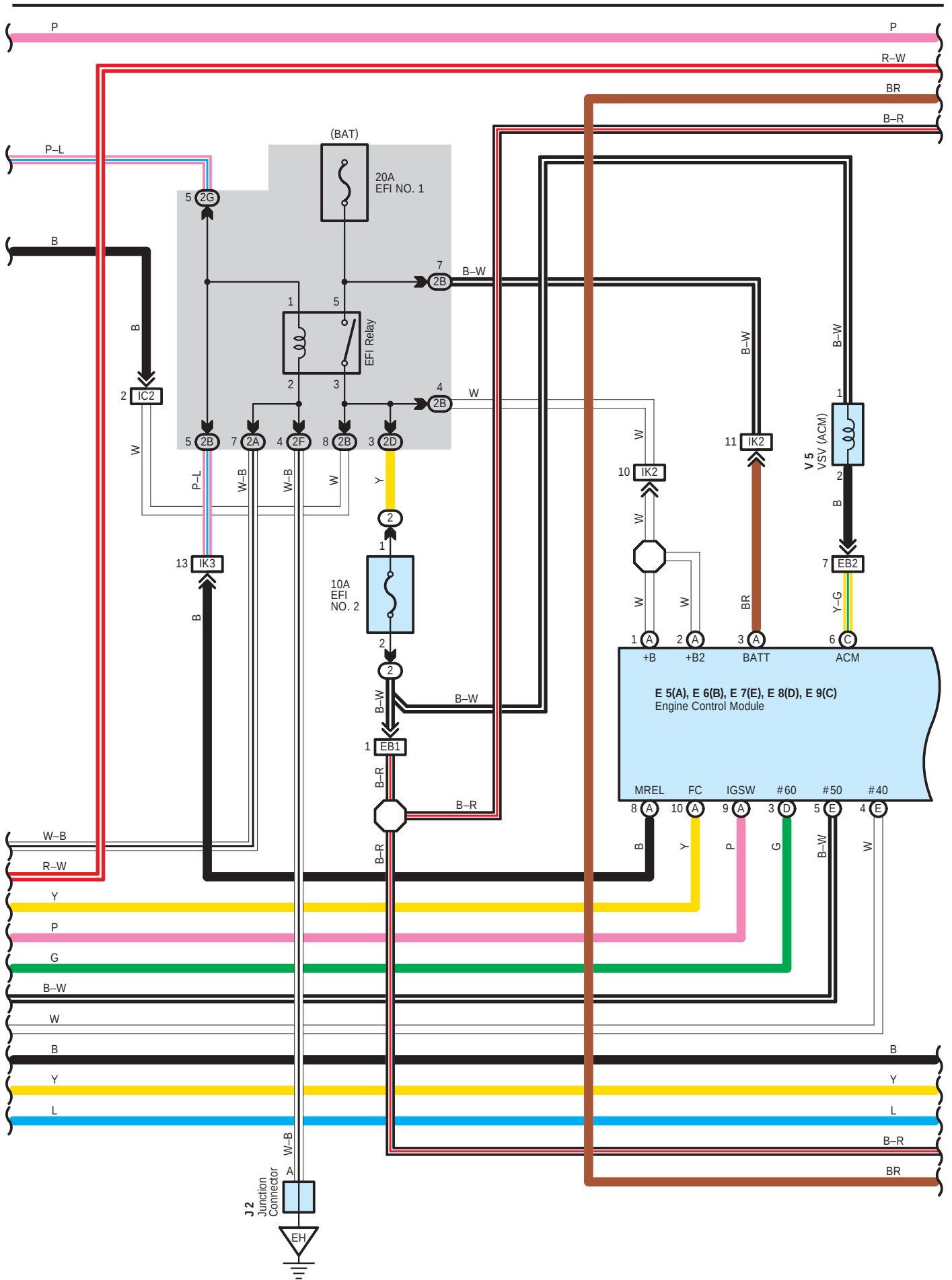
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB2	48 (3MZ-FE)	Engine Wire and Engine Room Main Wire (Front Side of Engine Room R/B)
	49 (2AZ-FE)	
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)

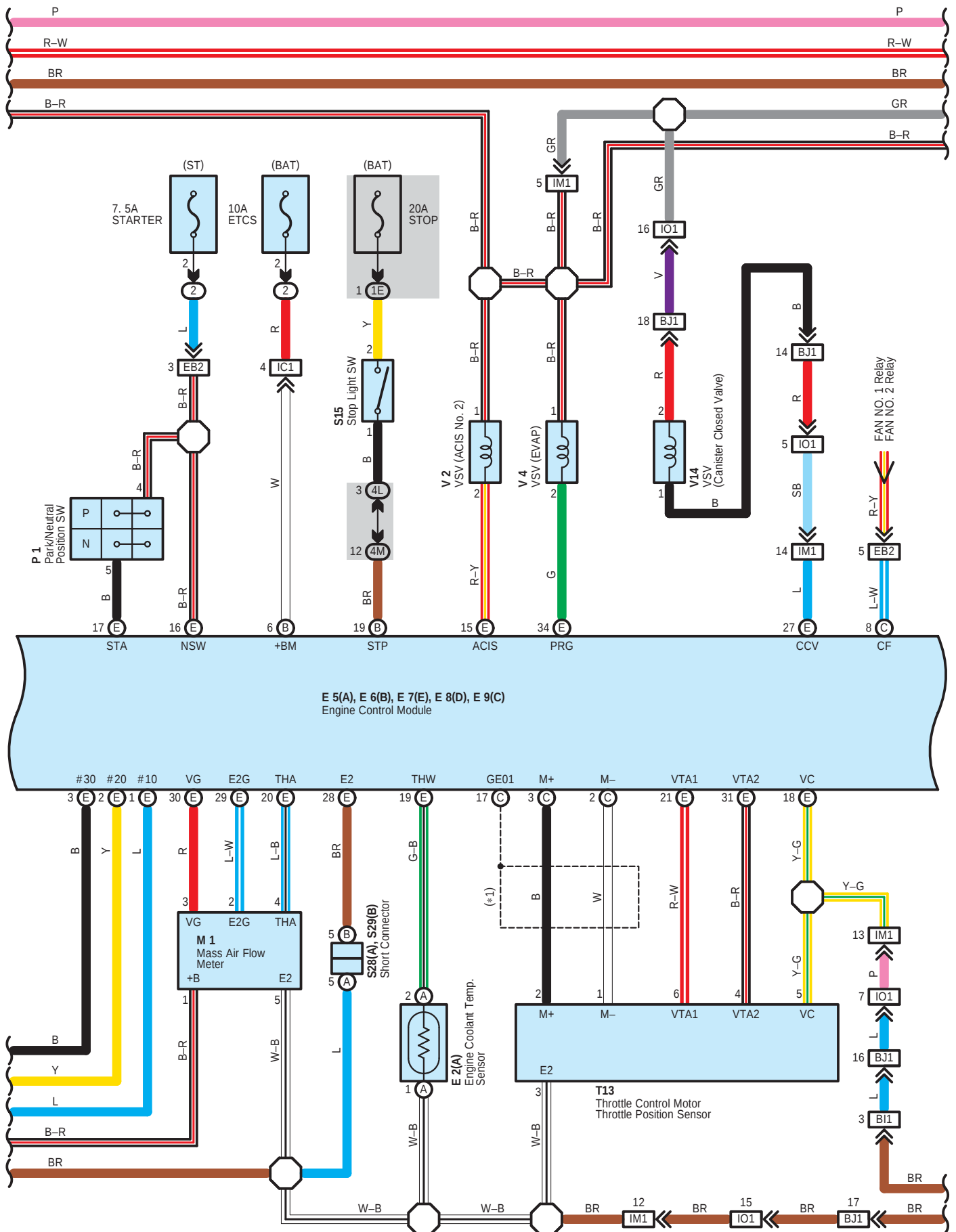
: Ground Points

Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace

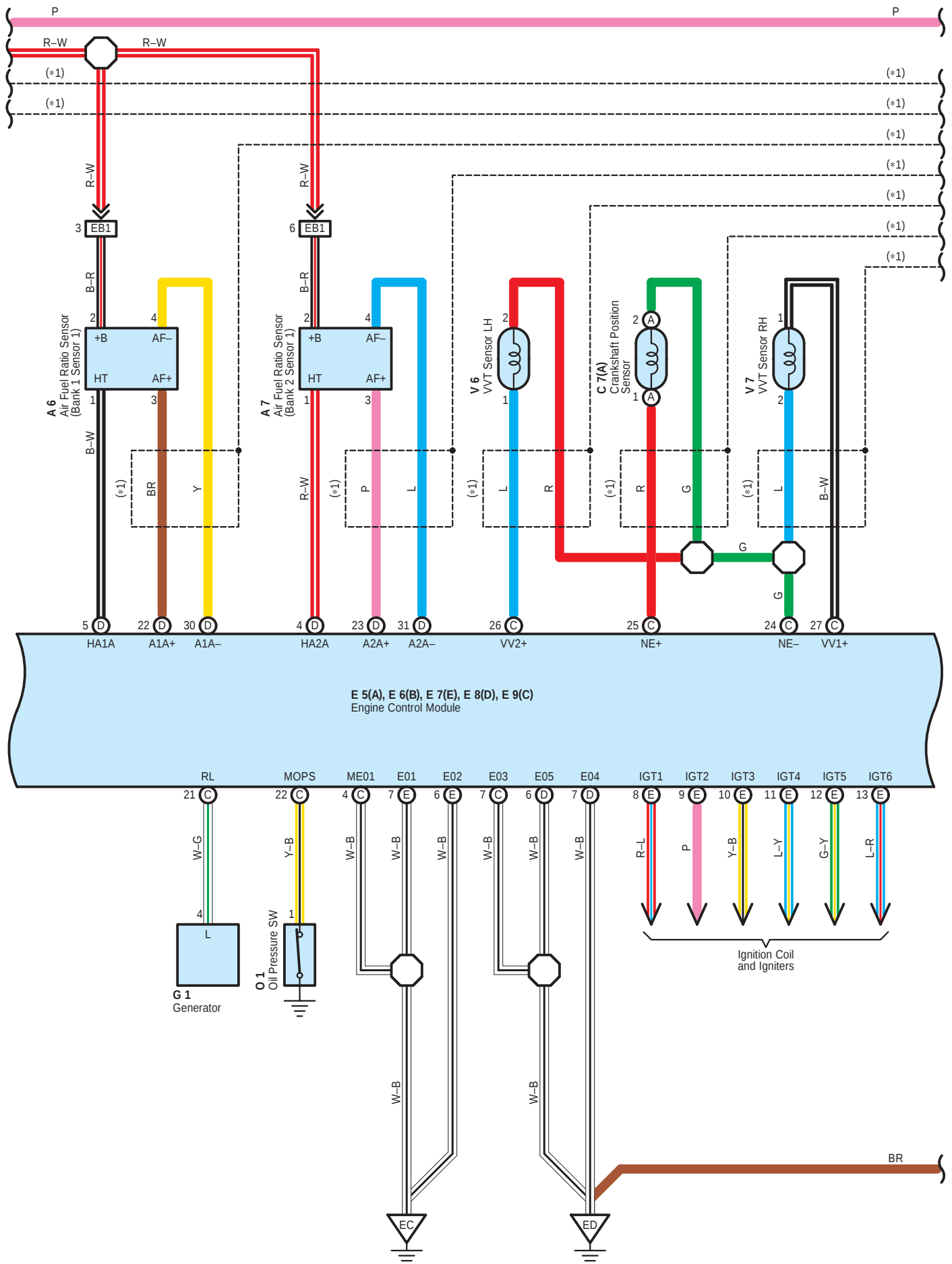


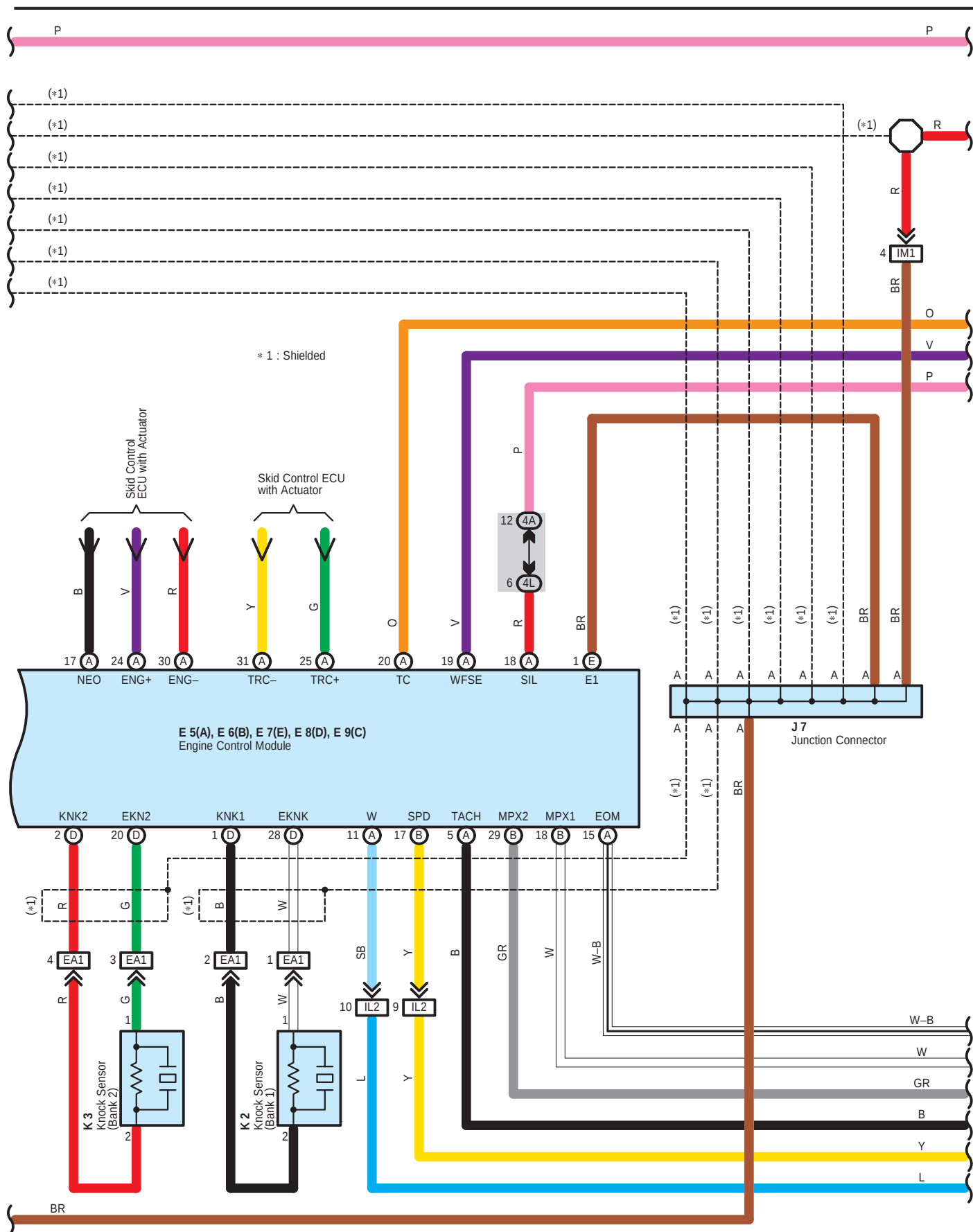


Engine Control for 3MZ-FE

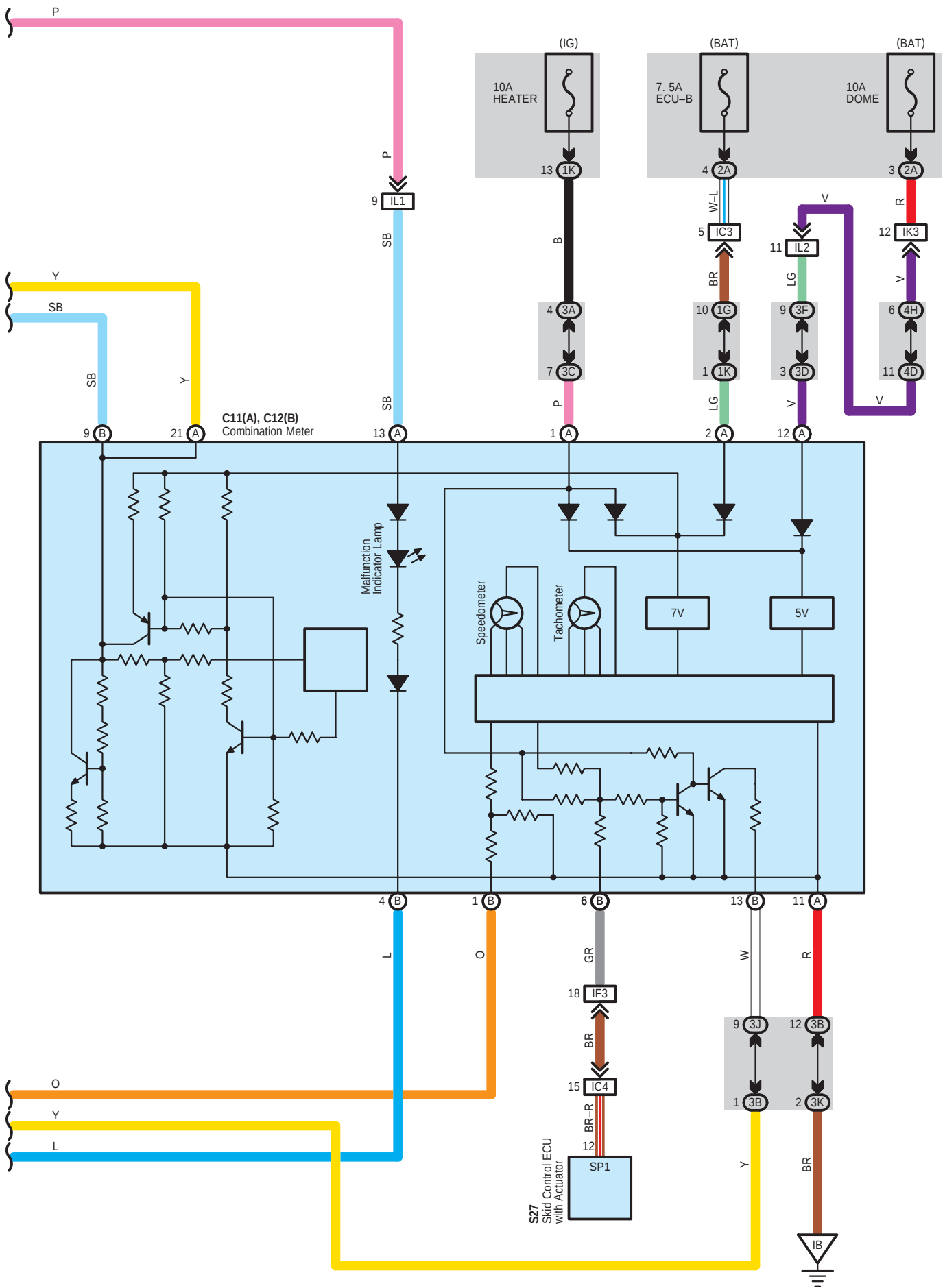


Engine Control for 3MZ-FE





[illegible]



System Outline

The engine control system utilizes a microcomputer and maintains overall control of the engine, transmission etc. An outline of the engine control is given here.

1. Input Signals

(1) Engine coolant temp. signal circuit

The engine coolant temp. sensor detects the engine coolant temp. and has a built-in thermistor with a resistance, which varies according to the engine coolant temp. The engine coolant temp. which is input into TERMINAL THW of the engine control module as a control signal.

(2) Intake air temp. signal circuit

The intake air temp. sensor is installed in the mass air flow meter and detects the intake air temp. which is input as a control signal to TERMINAL THA of the engine control module.

(3) Vehicle speed signal circuit

The vehicle speed signal is input from the ABS speed sensor to skid control ECU with actuator, and are sent to the engine control module through communication control.

(4) RPM signal circuit

Camshaft position is detected by the VVT sensors and its signal is input to TERMINALS VV1+ and VV2+ of the engine control module as a control signal. Also, engine RPM is detected by the crankshaft position sensor and is input as a control signal to TERMINAL NE+.

(5) Throttle position signal circuit

The throttle control motor and sensor detects the throttle valve opening angle as a control signal, which is input into TERMINALS VTA1 and VTA2 of the engine control module.

(6) Battery signal circuit

Voltage is constantly applied to TERMINAL BATT of the engine control module. With the ignition SW turned on, the voltage for engine control module start-up power supply is applied to TERMINALS +B and +B2 of the engine control module via the EFI relay.

The current flowing through the IGN fuse flows to TERMINAL IGSW of the engine control module.

(7) Intake air volume signal circuit

Intake air volume is detected by the mass air flow meter and the signal is input to TERMINAL VG of the engine control module as a control signal.

(8) Stop light SW signal circuit

The stop light SW is used to detect whether the vehicle is braking or not and the signal is input into TERMINAL STP of the engine control module as a control signal.

(9) Starter signal circuit

To confirm whether the engine is cranking, the voltage is applied to the starter motor during cranking is detected and the signal is input into TERMINAL STA of the engine control module as a control signal.

(10) Engine knock signal circuit

Engine knocking is detected by knock sensors and the signal is input into TERMINALS KNK1 and KNK2 as a control signal.

(11) Air fuel ration signal circuit

The air fuel ration is detected and input as a control signal into TERMINALS A1A+ and A2A+ of the engine control module.

(12) Oxygen sensor signal circuit

The oxygen density in the exhaust gases is detected and input as a control signal into TERMINALS OX1B and OX2B of the engine control module.

To maintain stable detection performance by the heated oxygen sensor, a heater is used for warming the sensor. The heater is also controlled by the engine control module (HT1B and HT2B).

(13) Fuel cut in a collision

The system receives the collision signal from airbag sensor assembly in the vehicle has a collision and stops the fuel pump operation on the side of the engine control module.

2. Control System

* SFI system

The SFI system monitors the engine condition through the signals input from each sensor (Input signals from (1) to (12) etc.) to the engine control module. And the control signal is output to TERMINALS #10, #20, #30, #40, #50 and #60 of the engine control module to operate the injector (Inject the fuel). The SFI system controls the fuel injection operation by the engine control module in response to the driving conditions.

* ESA system

The ESA system monitors the engine condition through the signals input to the engine control module from each sensor (Input signals from (1) to (12) etc.). The best ignition timing is decided according to this data and the memorized data in the engine control module and the control signal is output to TERMINALS IGT1, IGT2, IGT3, IGT4, IGT5 and IGT6. This signal controls the igniter to provide the best ignition timing for the driving conditions.

* ACIS

The ACIS includes a valve in the bulkhead separating the surge tank into two parts. This valve is opened or closed according to the driving conditions to control the intake manifold length in three stages, for increased engine output in all ranges from low to high speeds, when idling.

3. Diagnosis System

With the diagnosis system, when there is a malfunction in the engine control module signal system, the malfunctioning system is recorded in the memory. The malfunctioning system can be found by reading the code displayed by the malfunction indicator lamp.

4. Fail-Safe System

When a malfunction has occurred in any system, if there is a possibility of engine trouble being caused by continued control based on the signals from that system, the fail-safe system either controls the system by using data (Standard values) recorded in the engine control module memory or else stops the engine.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A6	38 (3MZ-FE)	E9	C	42	P1
A7	38 (3MZ-FE)	F12		44	P2
A10	A	G1	38 (3MZ-FE)	P5	44
A11	B	G5	43	S15	43
A17	B	H6	38 (3MZ-FE)	S27	39 (3MZ-FE)
A27	42	H10	43	S28	A
B9	A	I8	A	S29	B
B10	B	I9	A	S30	A
C3	38 (3MZ-FE)	I10	A	S31	B
C4	38 (3MZ-FE)	I11	A	T3	39 (3MZ-FE)
C6	38 (3MZ-FE)	I12	39 (3MZ-FE)	T13	39 (3MZ-FE)
C7	A	I13	39 (3MZ-FE)	T14	43
C11	A	J2	39 (3MZ-FE)	V2	39 (3MZ-FE)
C12	B	J6	43	V4	39 (3MZ-FE)
D3	42	J7	43	V5	39 (3MZ-FE)
E2	A	J16	43	V6	39 (3MZ-FE)
E5	A	K2	39 (3MZ-FE)	V7	39 (3MZ-FE)
E6	B	K3	39 (3MZ-FE)	V11	45
E7	E	M1	39 (3MZ-FE)	V14	45
E8	D	O1	39 (3MZ-FE)	V15	45

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	24	R/B No.1 (Lower Finish Panel)
2	22	Engine Room R/B (Engine Compartment Left)

Engine Control for 3MZ-FE



: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2D		
2F		
2G		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F	31	
3J		
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4C		
4D		
4E		
4F		
4G		
4H		
4L	32	
4M		
4N		



: Connector Joining Wire Harness and Wire Harness

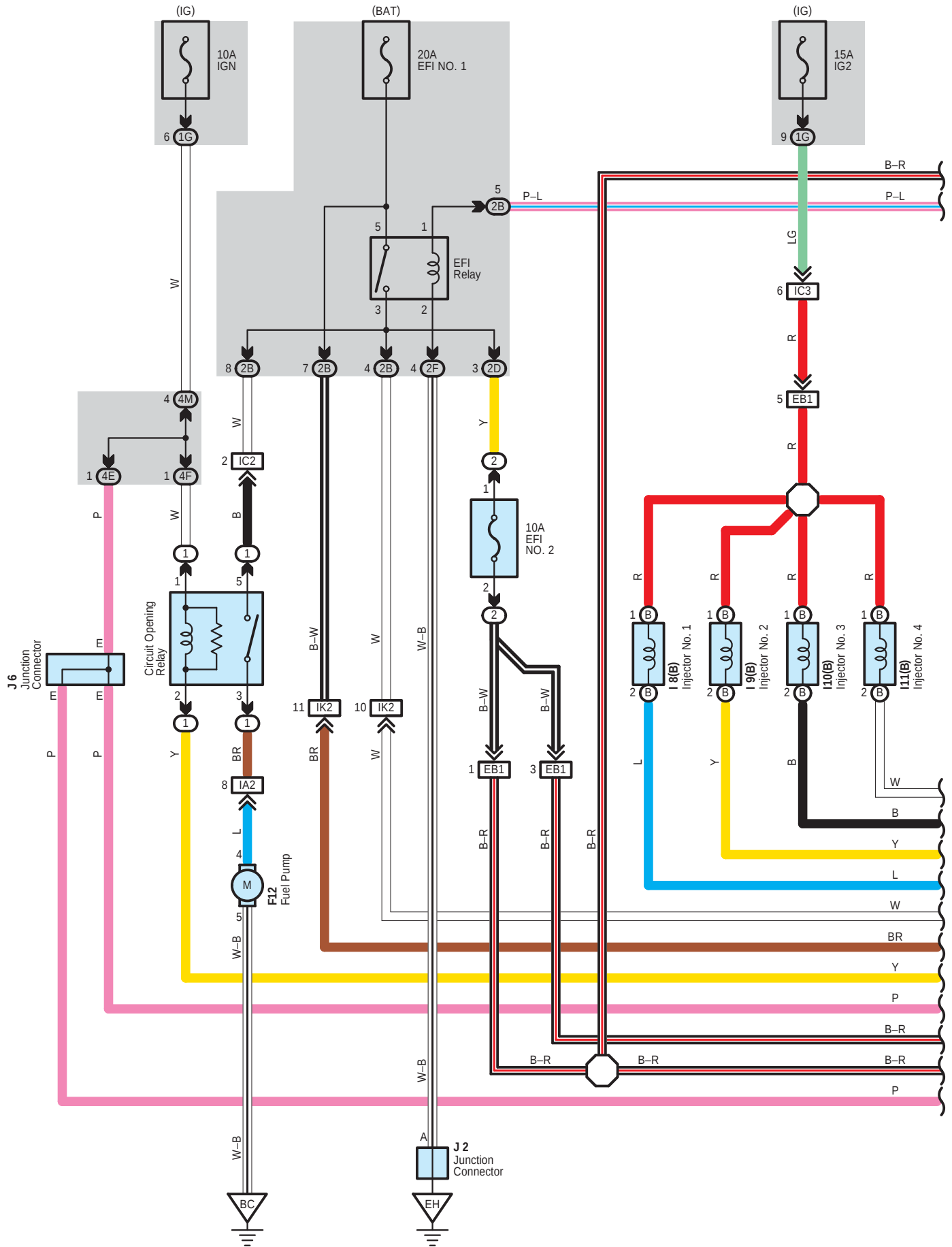
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EA1	48 (3MZ-FE)	Engine Wire and Sensor Wire (Right Side of Cylinder Head)
EB1	48 (3MZ-FE)	Engine Wire and Engine Room Main Wire (Front Side of Engine Room R/B)
EB2		
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IA2		
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC1	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC2		
IC3		
IC4		
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IM1	51	Engine Wire and Cowl Wire (Right Kick Panel)
IO1	51	Cowl Wire and Floor Wire (Right Kick Panel)
BI1	52	Floor No.4 Wire and Fuel Tank Wire (Right Side of Rear Floor Crossmember)
BJ1	52	Floor Wire and Floor No.4 Wire (Right Side of Rear Floor Crossmember)

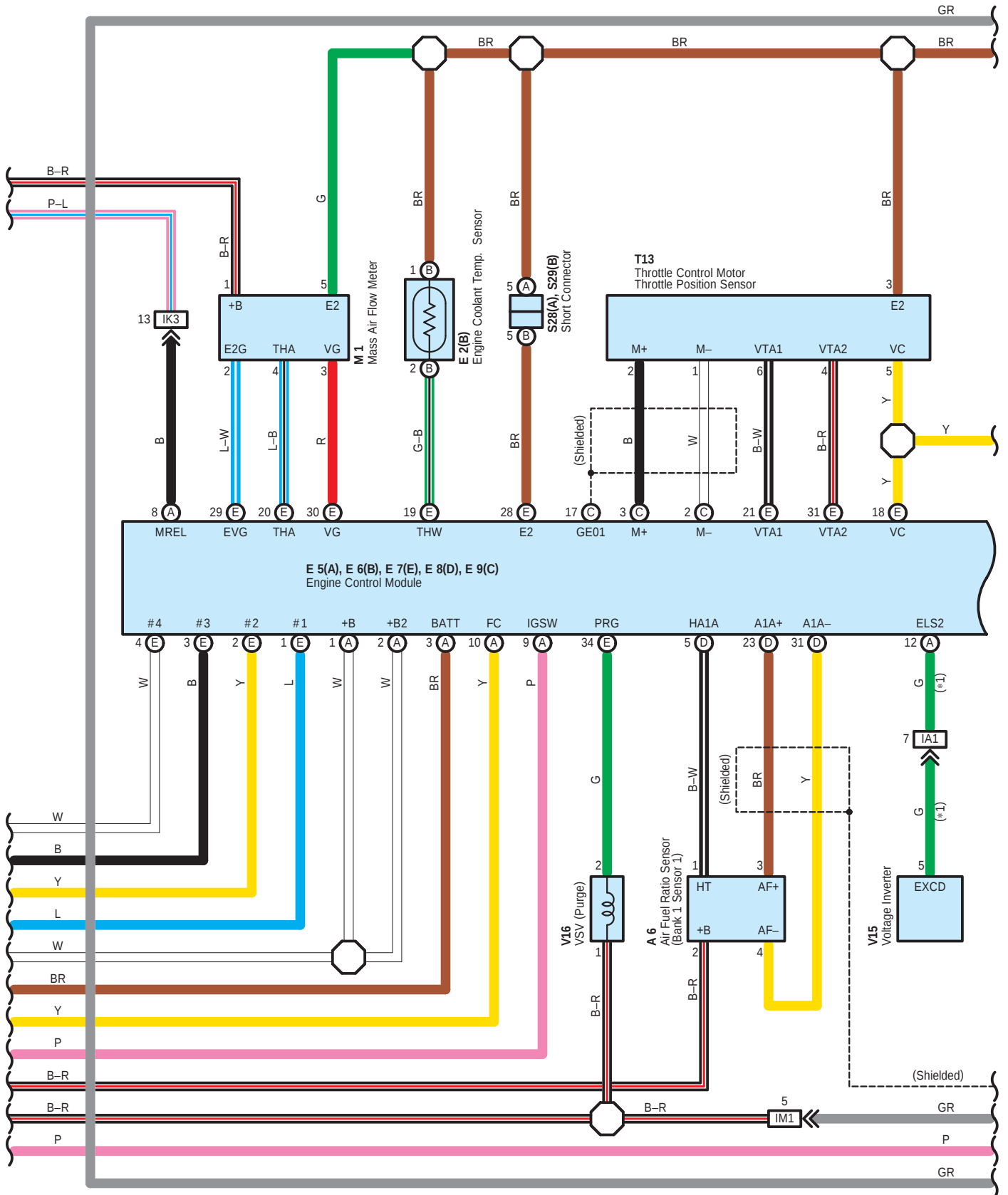


: Ground Points

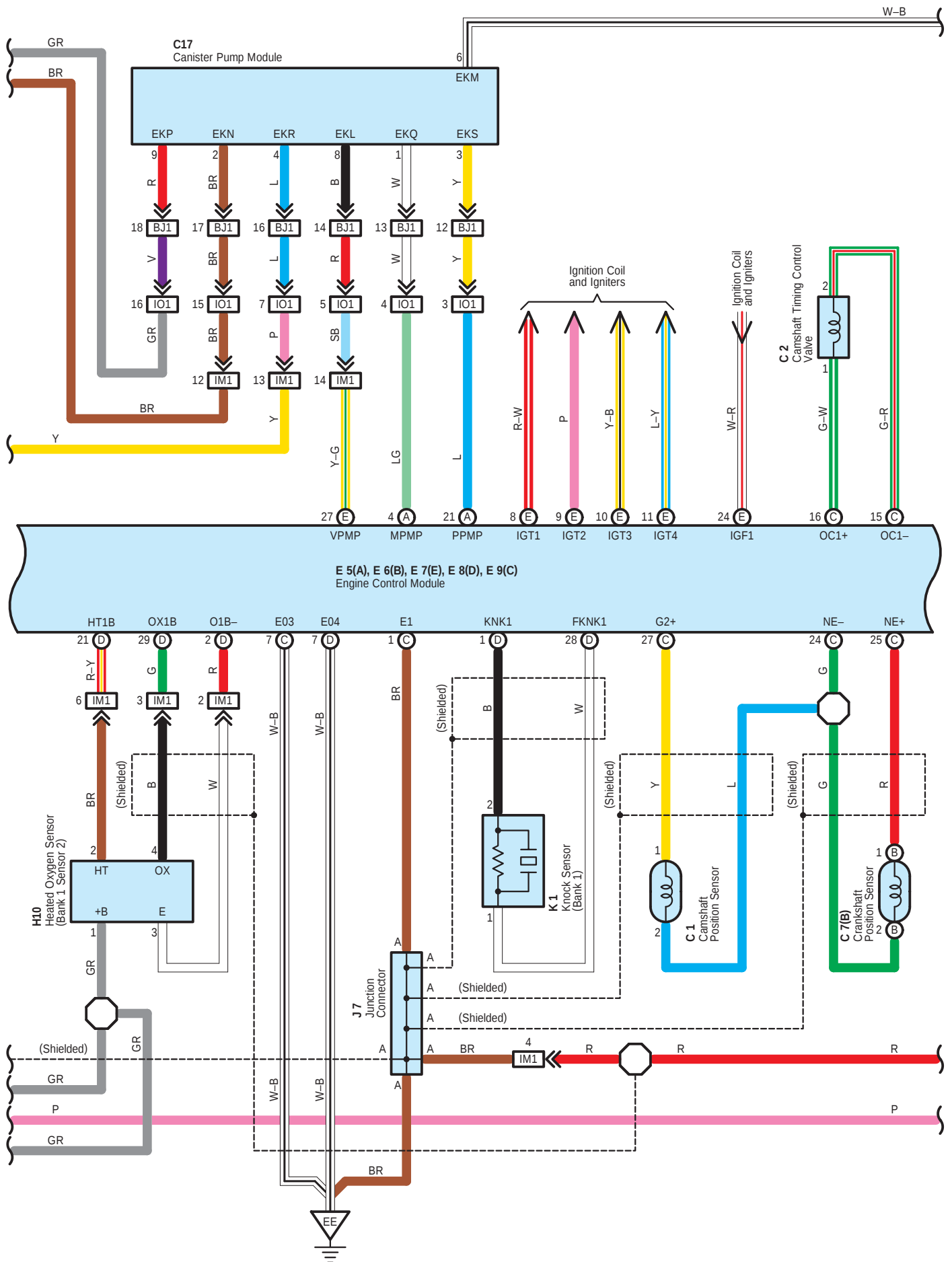
Code	See Page	Ground Points Location
EC	48 (3MZ-FE)	Left Side of Cylinder Head
ED	48 (3MZ-FE)	Rear Side of Cylinder Head
EH	48 (3MZ-FE)	Under the Left Headlight
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel
BC	52	Left Side of Rear Cross Member

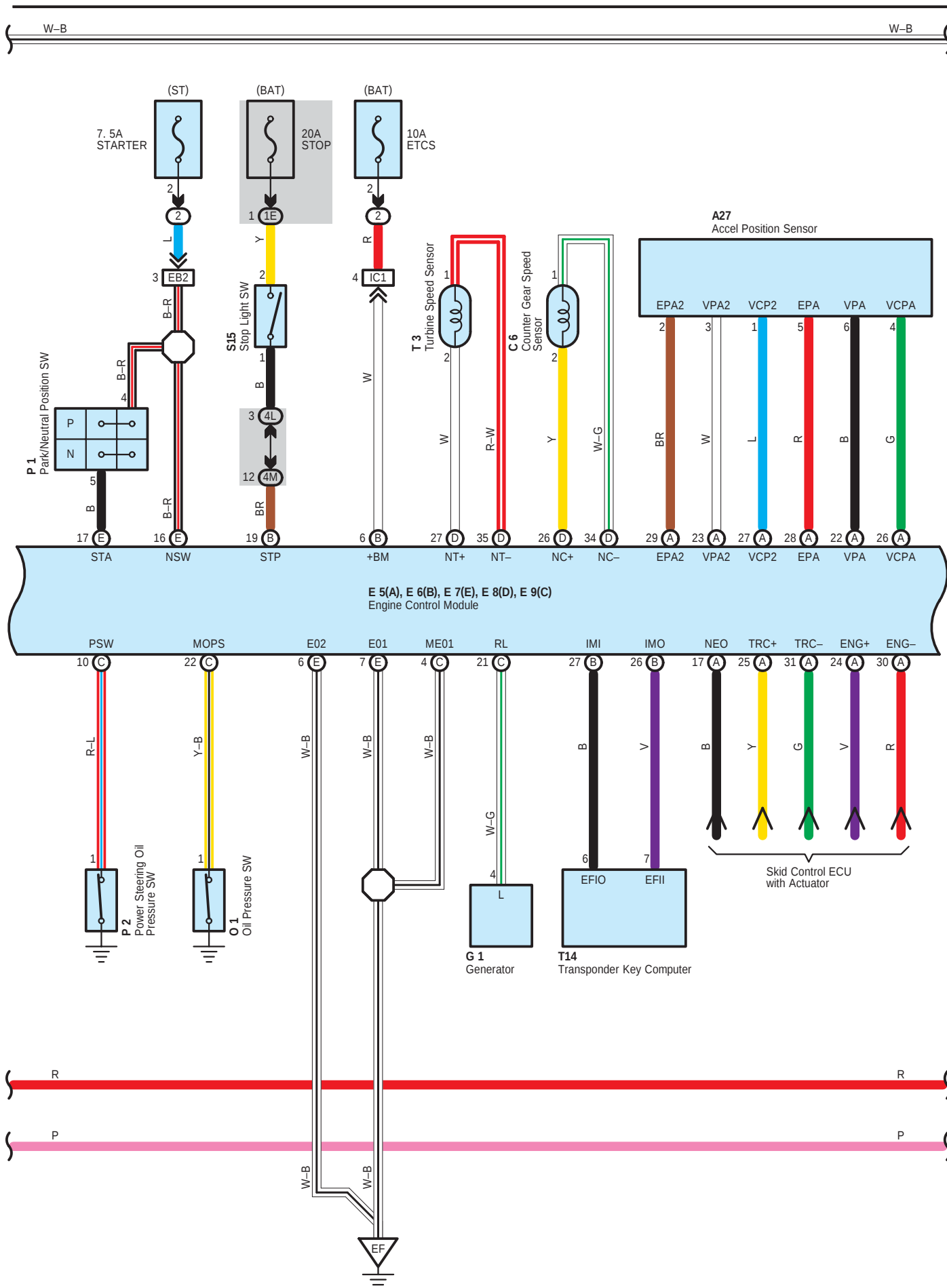
Engine Control for 2AZ-FE



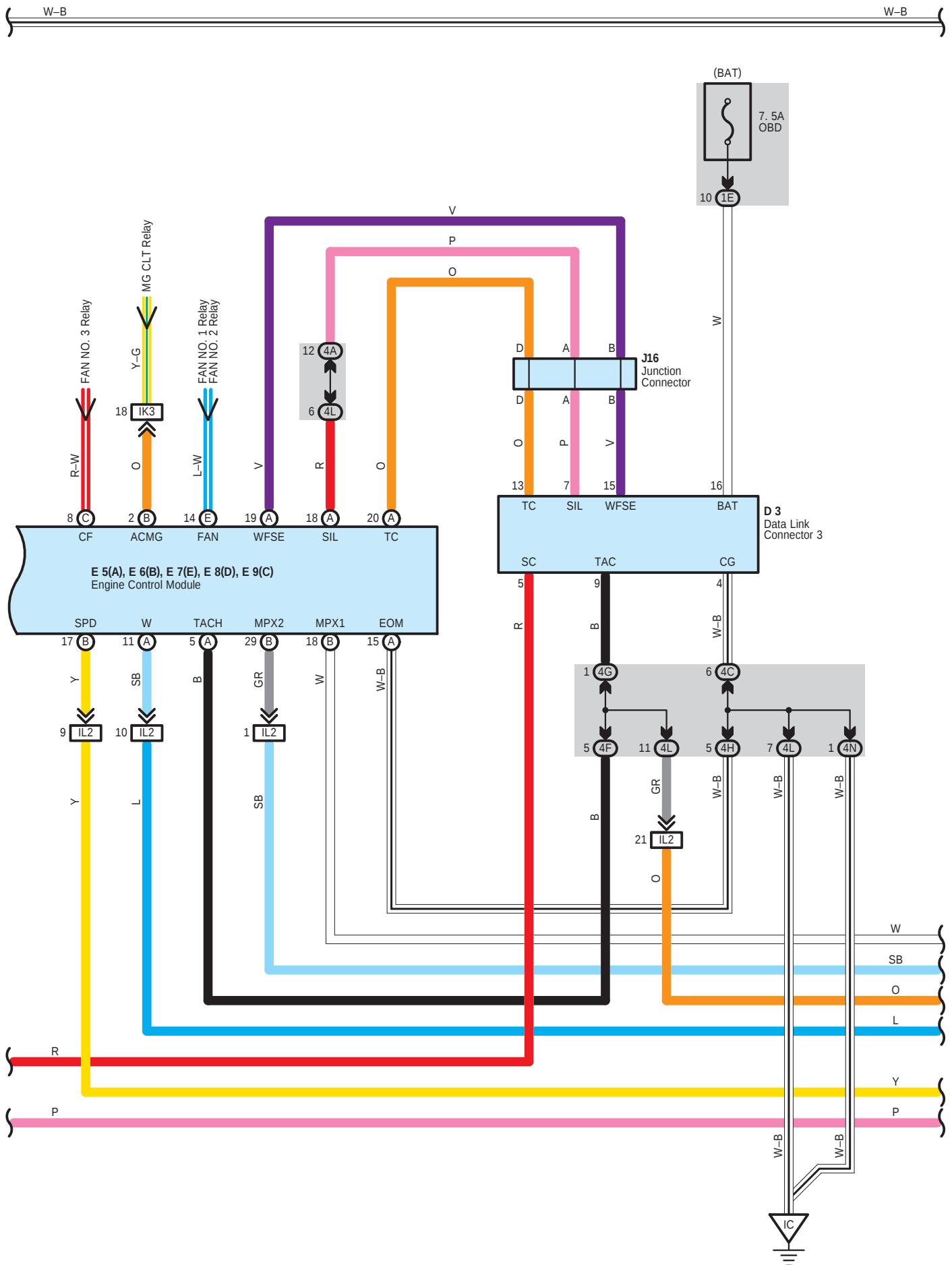


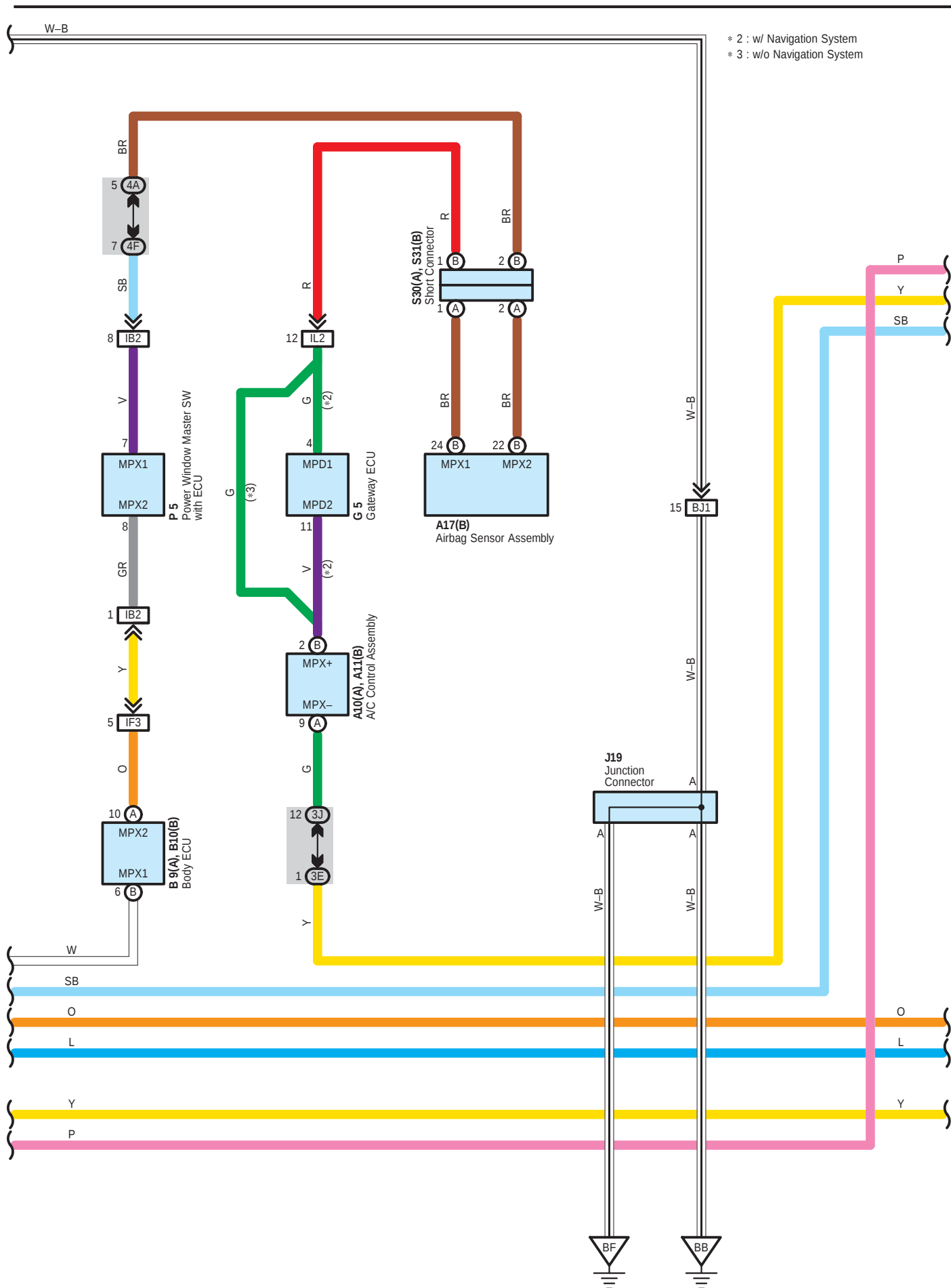
Engine Control for 2AZ-FE





Engine Control for 2AZ-FE





System Outline

The engine control system utilizes a microcomputer and maintains overall control of the engine, transmission etc. An outline of the engine control is given here.

1. Input Signals

- (1) Engine coolant temp. signal circuit
The engine coolant temp. sensor detects the engine coolant temp. and has a built-in thermistor with a resistance, which varies according to the engine coolant temp.. The engine coolant temp. which is input into TERMINAL THW of the engine control module as a control signal.
- (2) Intake air temp. signal circuit
The intake air temp. sensor is installed in the mass air flow meter and detects the intake air temp. which is input as a control signal to TERMINAL THA of the engine control module.
- (3) Vehicle speed signal circuit
The vehicle speed signal is input from the ABS speed sensor to skid control ECU with actuator, and are sent to the engine control module through communication control.
- (4) RPM signal circuit
Camshaft position and crankshaft position are detected by the camshaft position sensor and crankshaft position sensor. Camshaft position is input as a control signal to TERMINAL G2+ of the engine control module, and engine RPM is input into TERMINAL NE+.
- (5) Throttle position signal circuit
The throttle position sensor detects the throttle valve opening angle as a control signal, which is input into TERMINALS VTA1 and VTA2 of the engine control module.
- (6) Battery signal circuit
Voltage is constantly applied to TERMINAL BATT of the engine control module. With the ignition SW turned on, the voltage for engine control module start-up power supply is applied to TERMINALS +B and +B2 of the engine control module via the EFI relay.
The current flowing through the IGN fuse flows to TERMINAL IGSW of the engine control module.
- (7) Intake air volume signal circuit
Intake air volume is detected by the mass air flow meter and the signal is input to TERMINAL VG of the engine control module as a control signal.
- (8) Stop light SW signal circuit
The stop light SW is used to detect whether the vehicle is braking or not and the signal is input into TERMINAL STP of the engine control module as a control signal.
- (9) Starter signal circuit
To confirm whether the engine is cranking, the voltage is applied to the starter motor during cranking is detected and the signal is input into TERMINAL STA of the engine control module as a control signal.
- (10) Engine knock signal circuit
Engine knocking is detected by knock sensor and the signal is input into TERMINAL KNK1 as a control signal.
- (11) Air fuel ratio signal system
The air fuel ratio is detected and input as a control signal into TERMINAL A1A+ of the engine control module.
- (12) Oxygen sensor signal circuit
The oxygen density in the exhaust gases is detected and input as a control signal into TERMINAL OX1B of the engine control module. To maintain stable detection performance by the heated oxygen sensor, a heater is used for warming the sensor. The heater is also controlled by engine control module (O1B-).
- (13) Fuel cut in a collision
The system receives the collision signal from center airbag sensor assembly in the vehicle has a collision and stops the fuel pump operation on the side of the engine control module.

Engine Control for 2AZ-FE

2. Control System

* SFI system

The SFI system monitors the engine condition through the signals input from each sensor (Input signals from (1) to (12) etc.) to the engine control module. And the control signal is output to TERMINALS #1, #2, #3 and #4 of the engine control module to operate the injector (Inject the fuel). The SFI system controls the fuel injection operation by the engine control module in response to the driving conditions.

* ESA system

The ESA system monitors the engine condition through the signals input to the engine control module from each sensor (Input signals from (1) to (12) etc.). The best ignition timing is decided according to this data and the memorized data in the engine control module and the control signal is output to TERMINALS IGT1, IGT2, IGT3 and IGT4. This signal controls the igniter to provide the best ignition timing for the driving conditions.

3. Diagnosis System

With the diagnosis system, when there is a malfunction in the engine control module signal system, the malfunctioning system is recorded in the memory. The malfunctioning system can be found by reading the code displayed by the malfunction indicator lamp.

4. Fail-safe System

When a malfunction has occurred in any system, if there is a possibility of engine trouble being caused by continued control based on the signals from that system, the fail-safe system either controls the system by using data (Standard values) recorded in the engine control module memory or else stops the engine.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A6	40 (2AZ-FE)	E6	B 42	K1	41 (2AZ-FE)
A10	A 42	E7	E 42	M1	41 (2AZ-FE)
A11	B 42	E8	D 42	O1	41 (2AZ-FE)
A17	B 42	E9	C 42	P1	41 (2AZ-FE)
A27	42	F12	44	P2	41 (2AZ-FE)
B9	A 42	G1	40 (2AZ-FE)	P5	44
B10	B 42	G5	43	S15	43
C1	40 (2AZ-FE)	H10	43	S27	41 (2AZ-FE)
C2	40 (2AZ-FE)	I8	B 41 (2AZ-FE)	S28	A 43
C6	40 (2AZ-FE)	I9	B 41 (2AZ-FE)	S29	B 43
C7	B 40 (2AZ-FE)	I10	B 41 (2AZ-FE)	S30	A 43
C11	A 42	I11	B 41 (2AZ-FE)	S31	B 43
C12	B 42	J2	41 (2AZ-FE)	T3	41 (2AZ-FE)
C17	44	J6	43	T13	41 (2AZ-FE)
D3	42	J7	43	T14	43
E2	B 40 (2AZ-FE)	J16	43	V16	41 (2AZ-FE)
E5	A 42	J19	44	V15	45

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	24	R/B No.1 (Lower Finish Panel)
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)
1E	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2D		
2F		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F		
3J	31	
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4C		
4D		
4E		
4F		
4G		
4H		
4L		
4M	32	
4N		



: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	49 (2AZ–FE)	Engine Wire and Engine Room Main Wire (Front Side of Engine Room R/B)
EB2		
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IA2		
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC1	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC2		
IC3		
IC4		
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IM1	51	Engine Wire and Cowl Wire (Right Kick Panel)
IO1	51	Cowl Wire and Floor Wire (Right Kick Panel)
BJ1	52	Floor Wire and Floor No.4 Wire (Right Side of Rear Floor Crossmember)

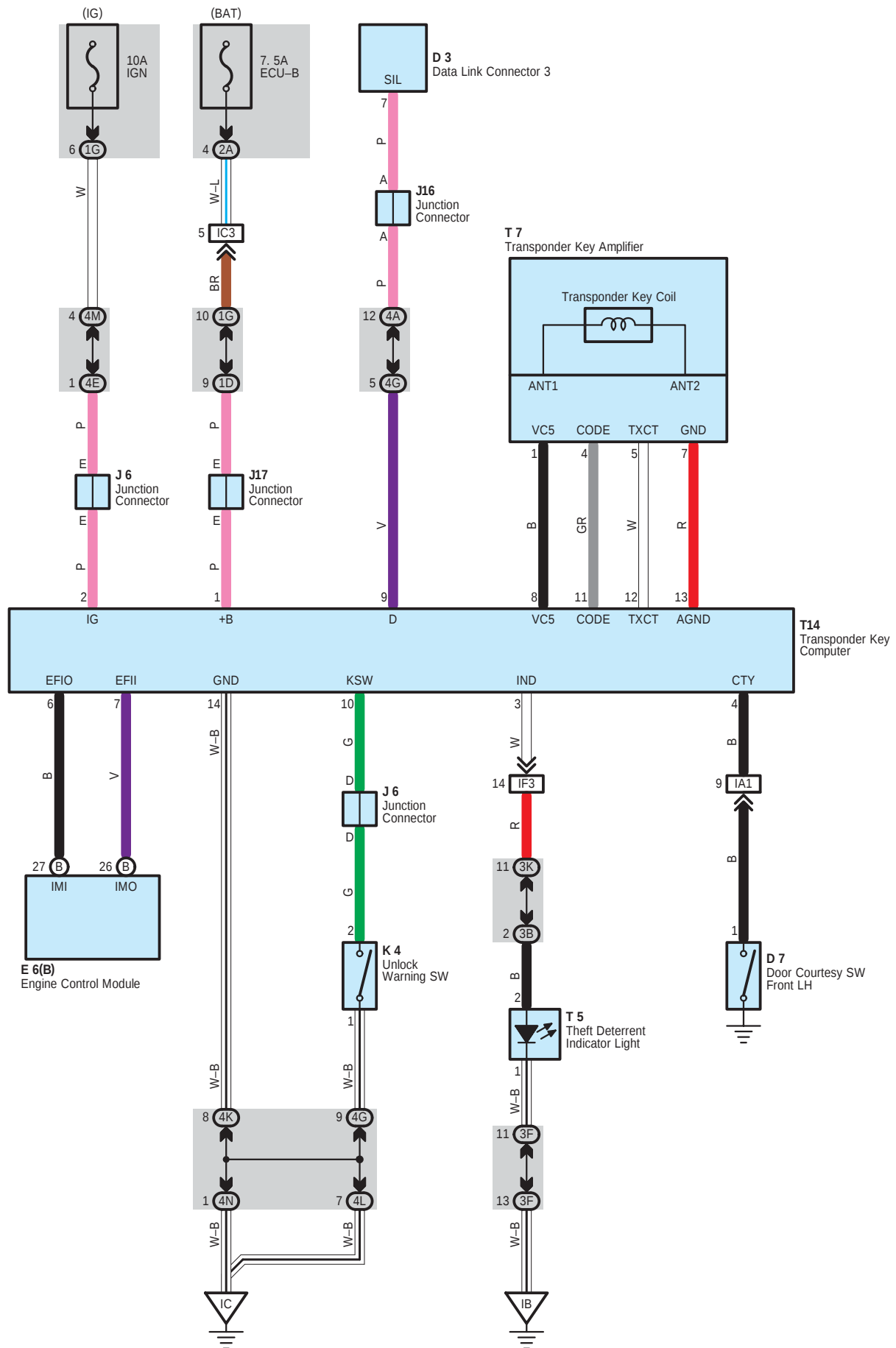
Engine Control for 2AZ-FE



: Ground Points

Code	See Page	Ground Points Location
EE	49 (2AZ-FE)	Intake Side of Cylinder Block
EF	49 (2AZ-FE)	Left Side of Cylinder Block
EH	49 (2AZ-FE)	Under the Left Headlight
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel
BB	52	Right Center Pillar
BC	52	Left Side of Rear Cross Member
BF	52	Near the Rear Side Marker Light RH

Engine Immobiliser System



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
D3	42	J16	43	T7	43
D7	44	J17	43	T14	43
E6	B	K4	43		
J6	43	T5	43		

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3B	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3F		
3K	31	
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4E		
4G		
4K	32	
4L		
4M		
4N		

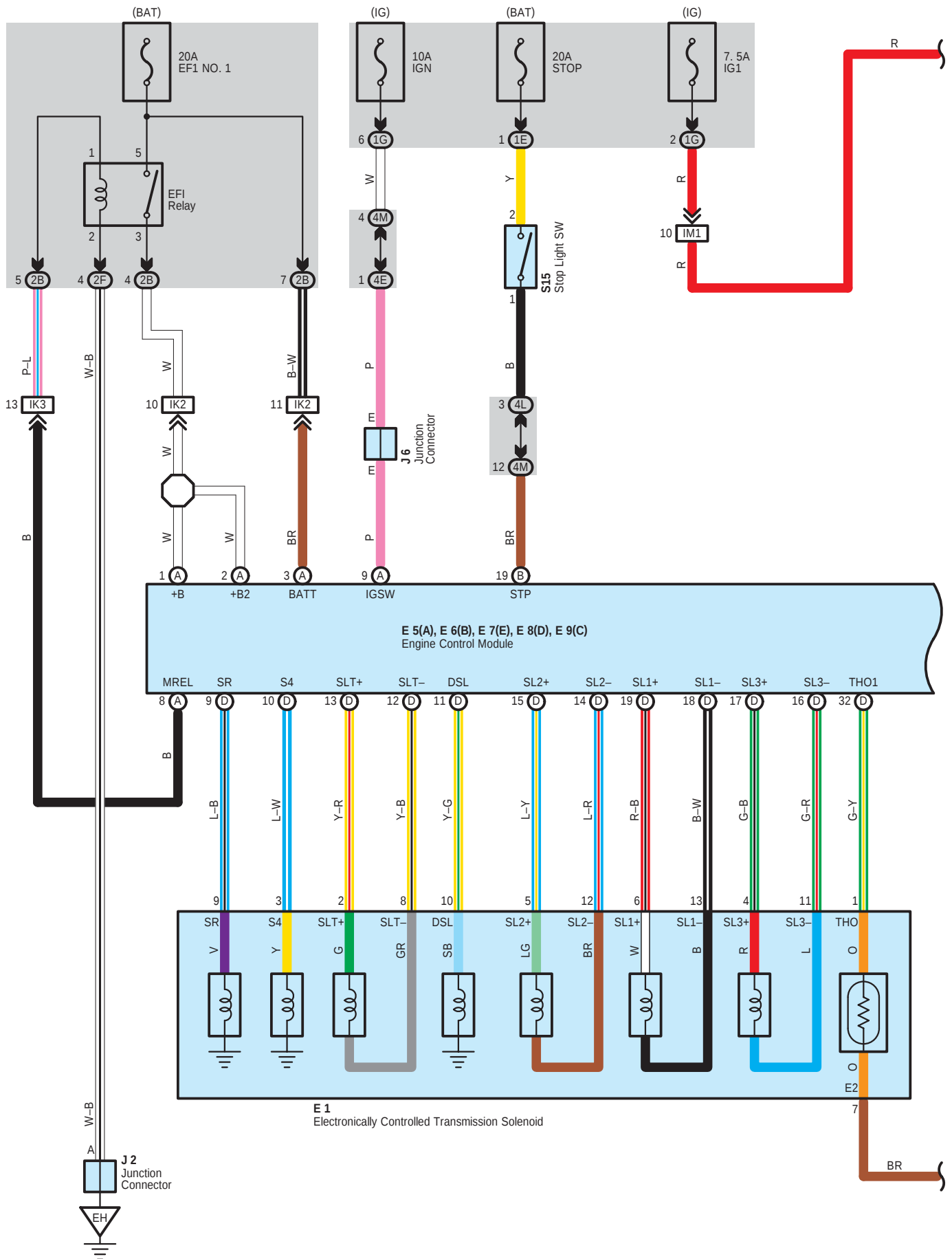
 : Connector Joining Wire Harness and Wire Harness

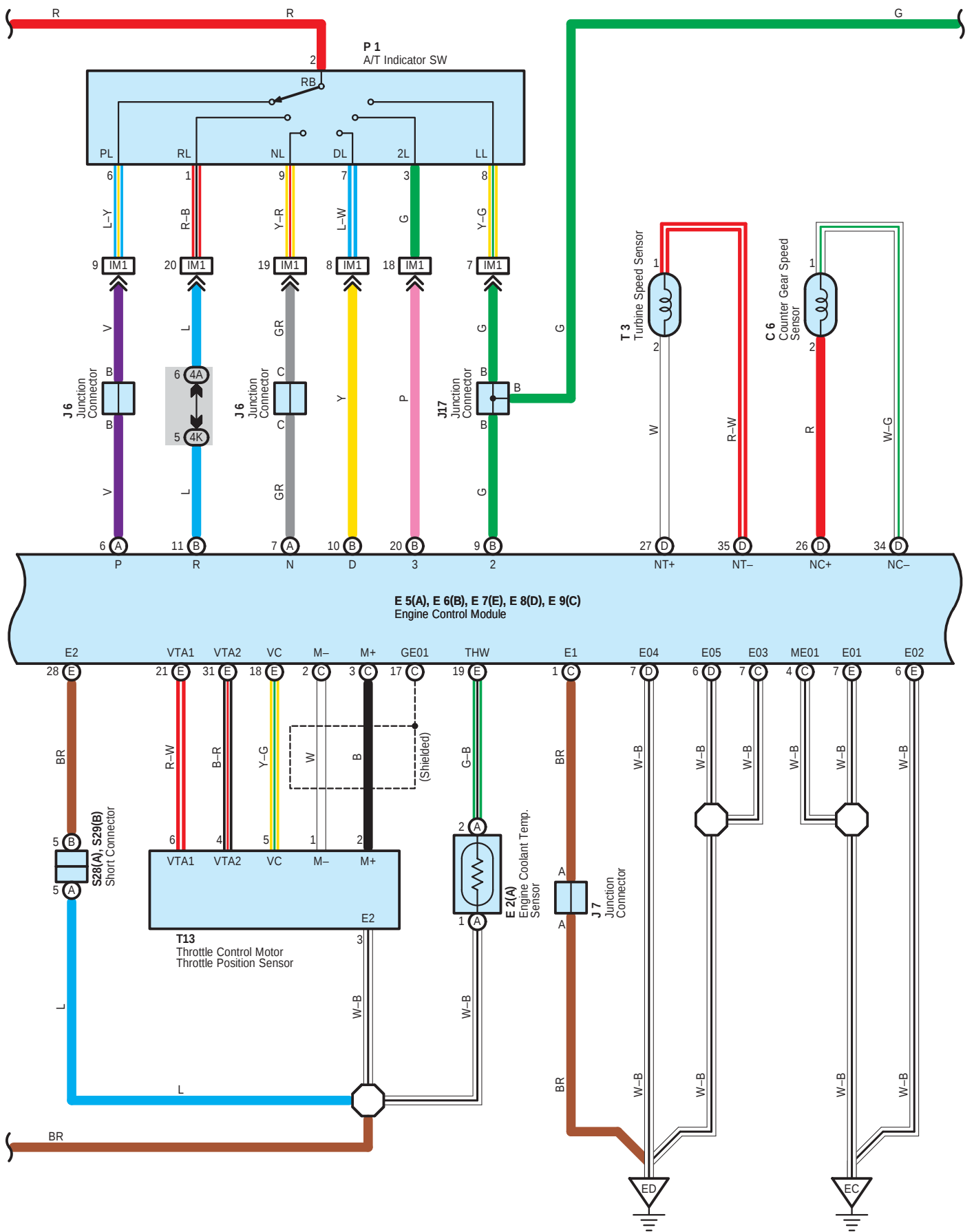
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)

 : Ground Points

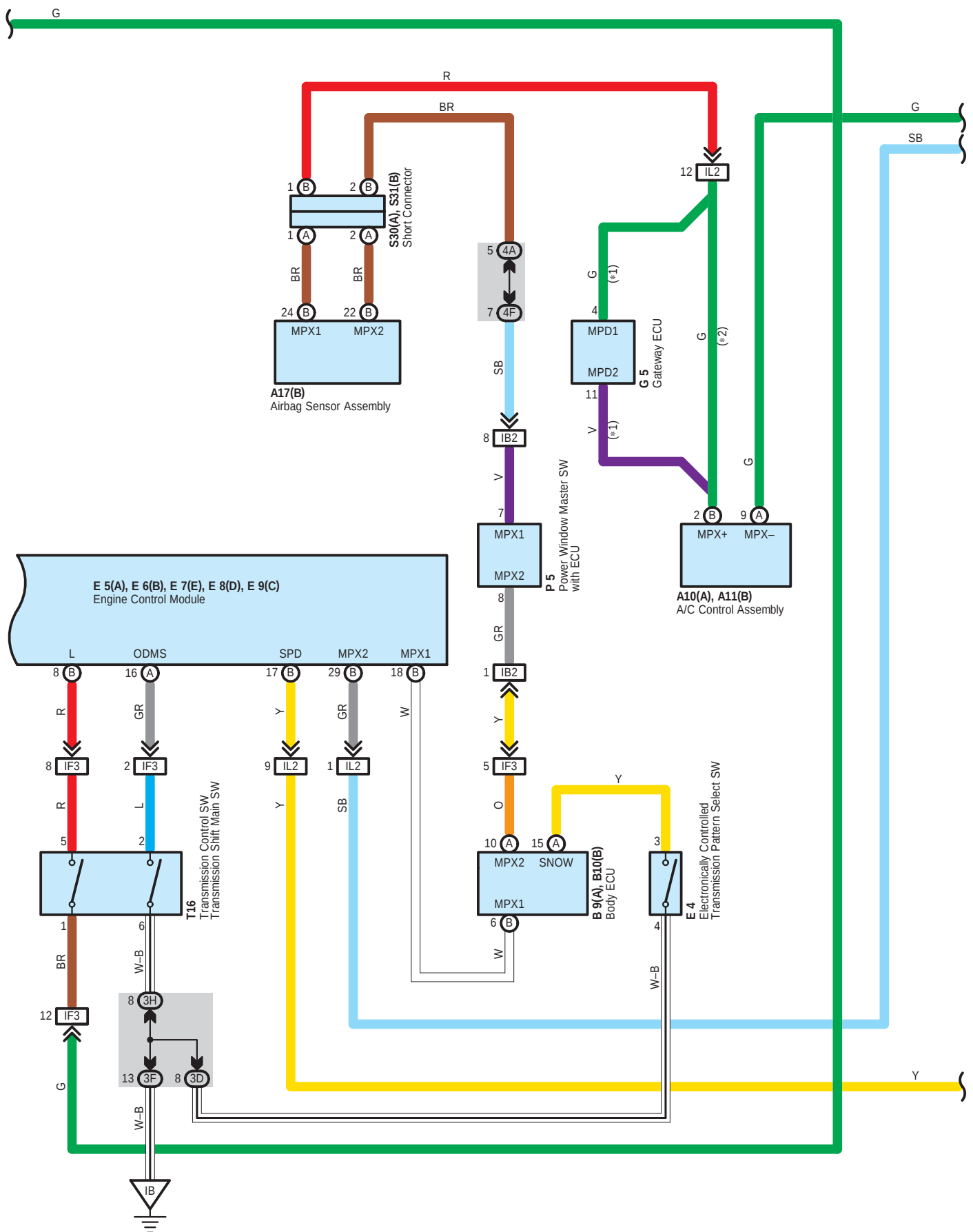
Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel

ECT and A/T Indicator for 3MZ-FE

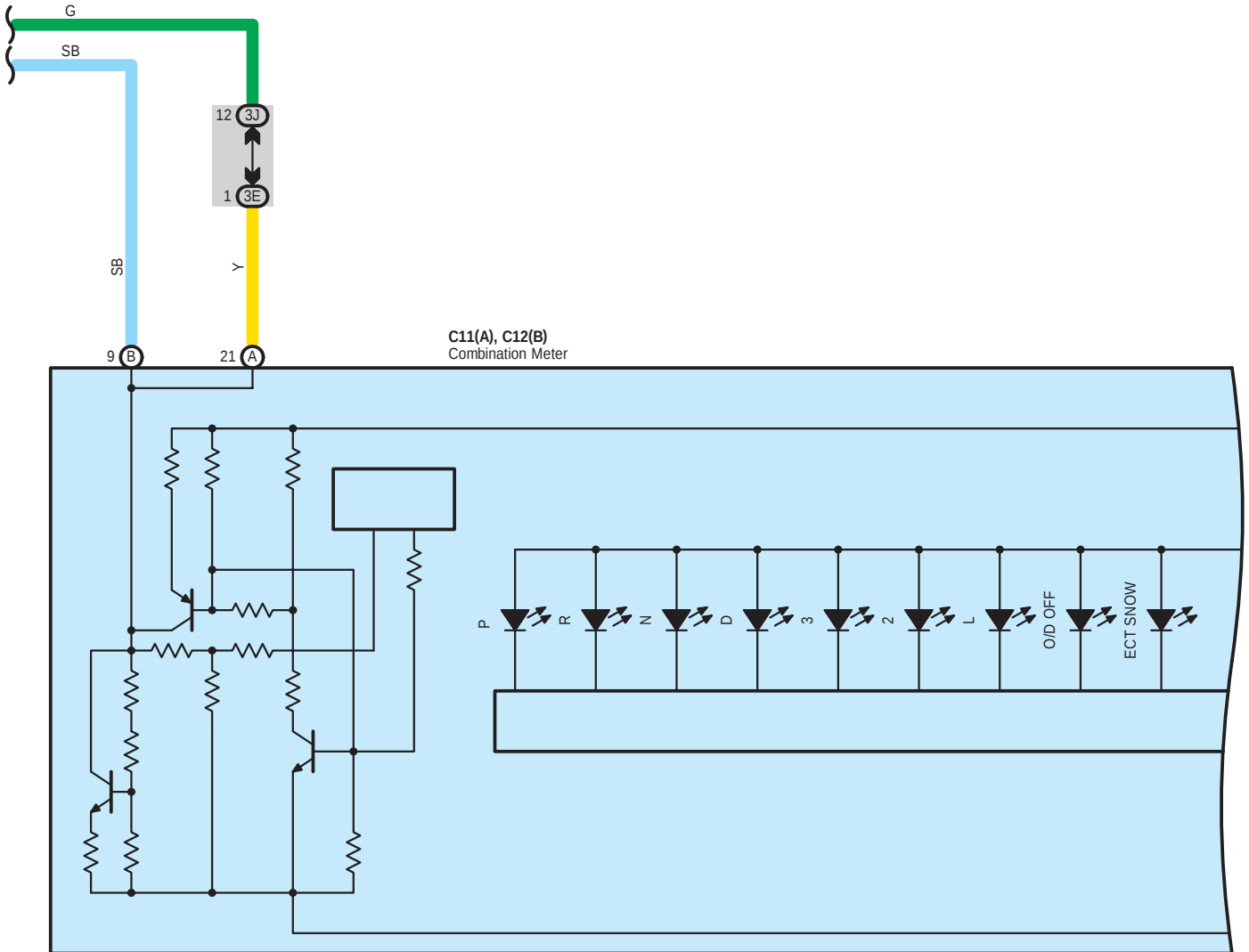




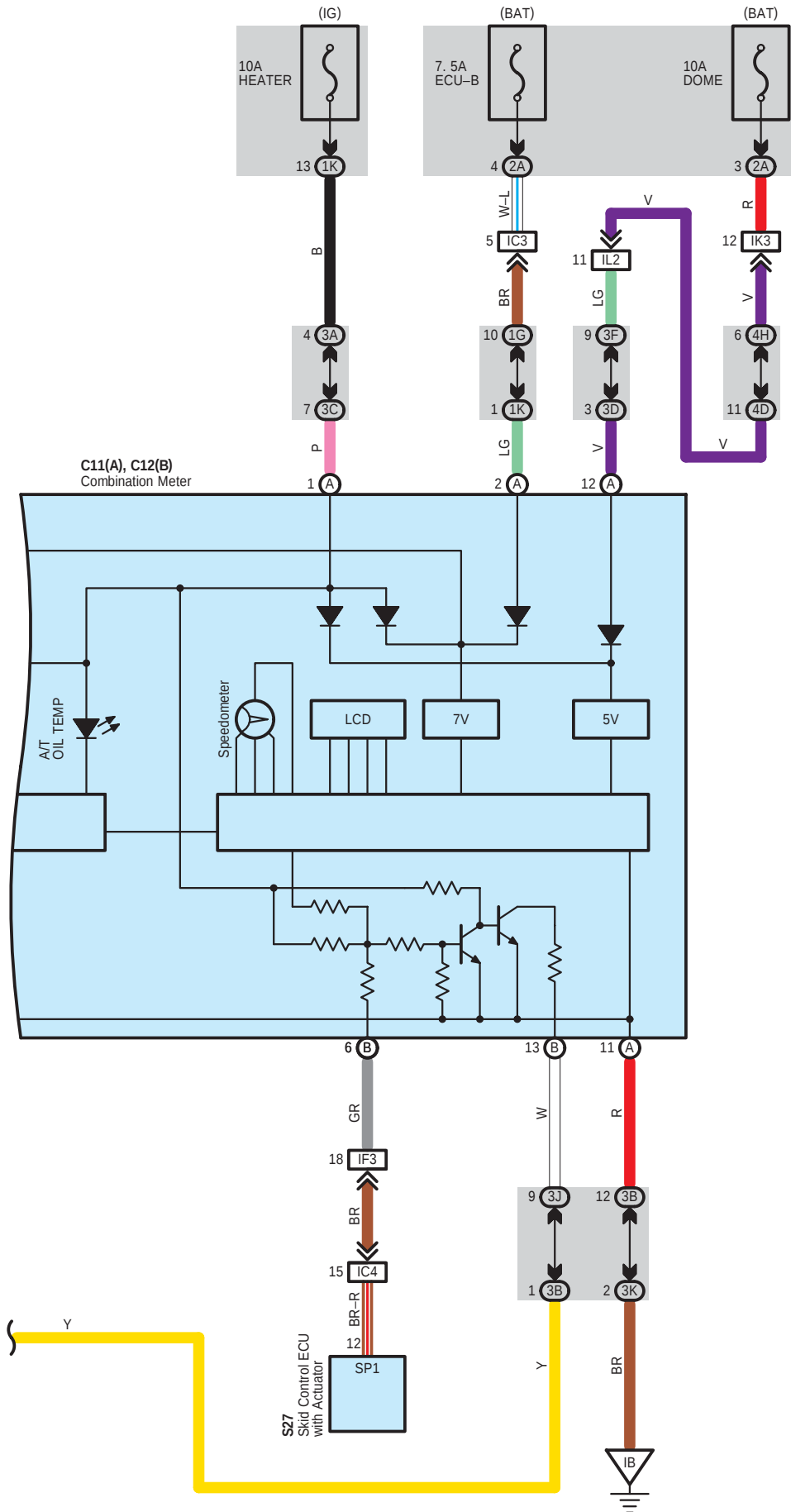
ECT and A/T Indicator for 3MZ-FE



- * 1 : w/ Navigation System
- * 2 : w/o Navigation System



ECT and A/T Indicator for 3MZ-FE



System Outline

Previous automatic transaxle have selected each gear shift using mechanically controlled throttle hydraulic pressure, governor hydraulic pressure and lock-up hydraulic pressure. The electronically controlled transmission, however, electrically controls the line pressure, throttle pressure, lock-up pressure and accumulator pressure etc. through the solenoid valve. The electronically controlled transmission is a system which precisely controls gear shift timing and lock-up timing in response to the vehicle's driving conditions and the engine condition detected by various sensors. It makes smooth driving possible by shift selection for each gear which is the most appropriate to the driving conditions at that time, and by preventing downing, squat and gear shift shock when starting off.

1. Gear Shift Operation

During driving the engine warm up condition signal is input from engine coolant temp. sensor to TERMINAL THW of the engine control module, and the vehicle speed signal is input from the ABS speed sensor to skid control ECU, and are sent to the engine control module through communication control. At the same time, the throttle valve opening signal is sent from the throttle position sensor to the TERMINALS VTA1 and VTA2 of the engine control module, as the throttle angle signal.

2. Lock-Up Operation

When the engine control module decides based on each signal that the lock-up condition has been met, the current flows through TERMINAL DSL of the engine control module to TERMINAL 10 of the electronically controlled transmission solenoid to GROUND.

3. Stop Light SW Circuit

If the brake pedal is depressed (Stop light SW on) when driving in lock-up condition, a signal is input to TERMINAL STP of the engine control module. The engine control module operates and cuts the current to the solenoid to release lock-up.

4. Overdrive Circuit

* O/D main SW on

When the O/D main SW is turned on, a signal is input to TERMINAL ODMS of the engine control module and engine control module operation causes gear shift when the conditions for overdrive are met.

* O/D main SW off

When the O/D main SW is turned off, a signal is input into TERMINAL ODMS of the engine control module, and turns on the O/D off indicator light. This activates the ECU, and the transmission system is controlled not to shift to overdrive.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A10	A	42	E5	A	42	P5		44
A11	B	42	E6	B	42	S15		43
A17	B	42	E7	E	42	S27		39 (3MZ-FE)
B9	A	42	E8	D	42	S28	A	43
B10	B	42	E9	C	42	S29	B	43
C6		38 (3MZ-FE)	G5		43	S30	A	43
C11	A	42	J2		39 (3MZ-FE)	S31	B	43
C12	B	42	J6		43	T3		39 (3MZ-FE)
E1		38 (3MZ-FE)	J7		43	T13		39 (3MZ-FE)
E2	A	38 (3MZ-FE)	J17		43	T16		43
E4		42	P1		39 (3MZ-FE)			

ECT and A/T Indicator for 3MZ-FE



: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2F		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F		
3H	31	
3J		
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4D		
4E		
4F		
4H		
4K	32	
4L		
4M		



: Connector Joining Wire Harness and Wire Harness

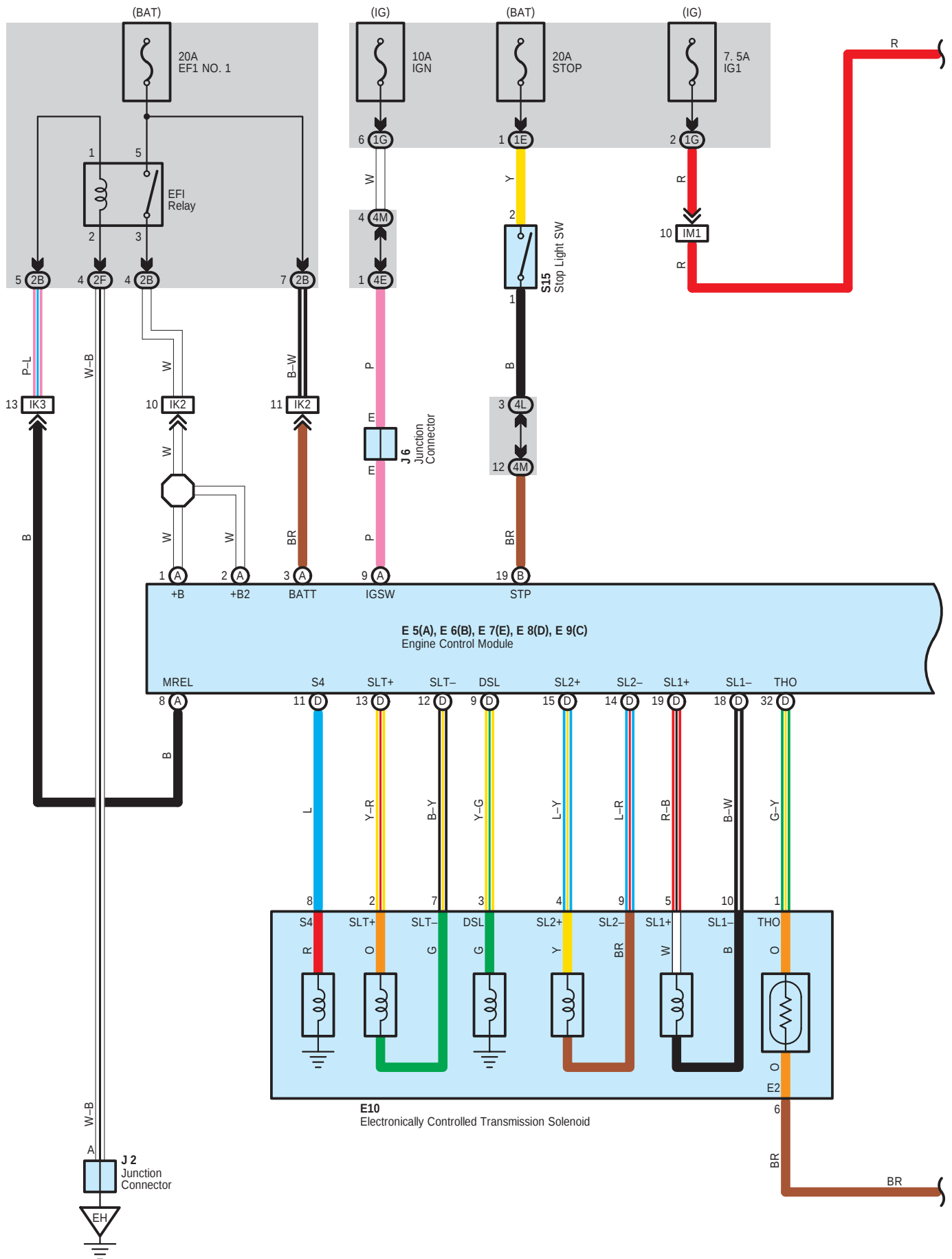
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC4		
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IM1	51	Engine Wire and Cowl Wire (Right Kick Panel)

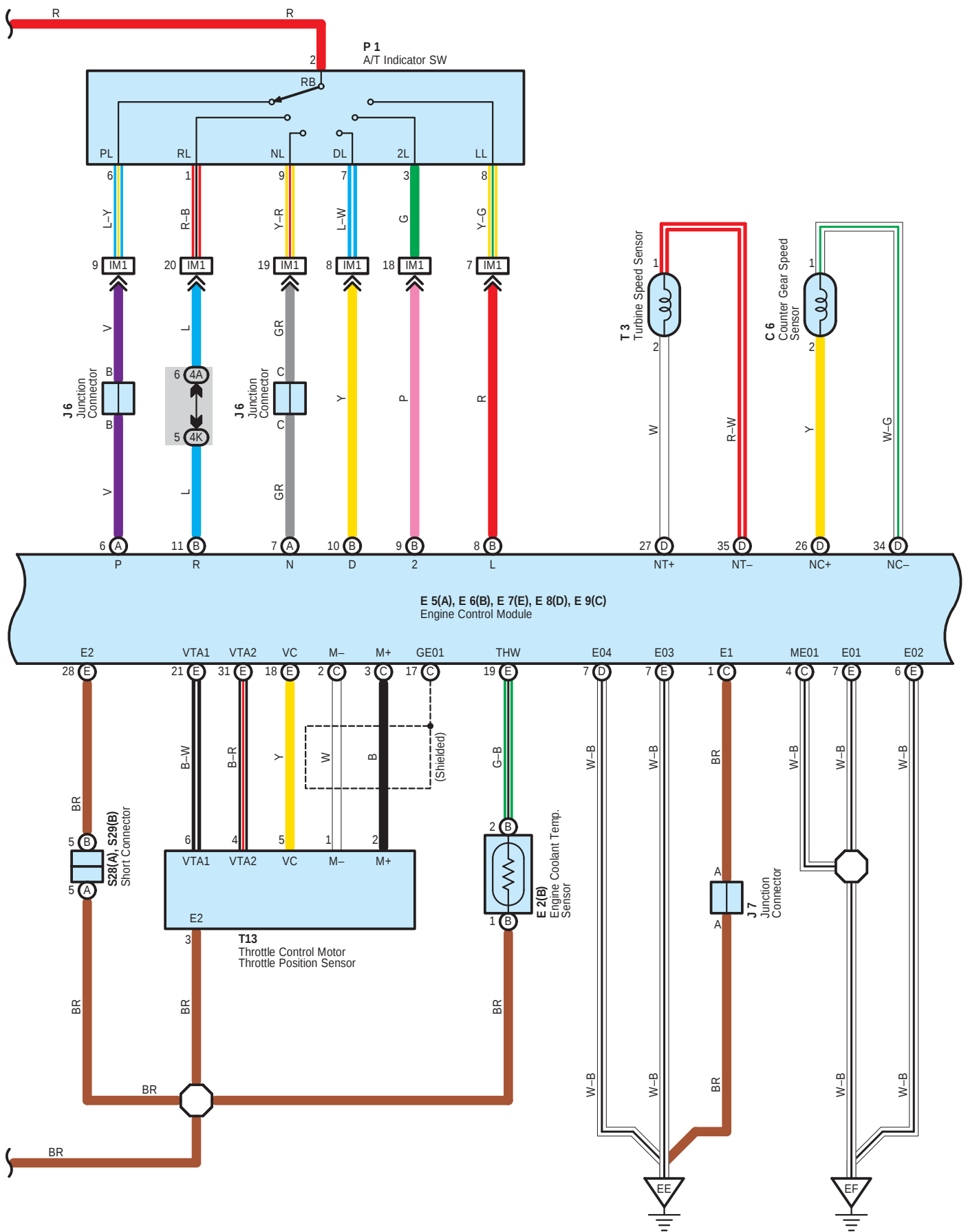


: Ground Points

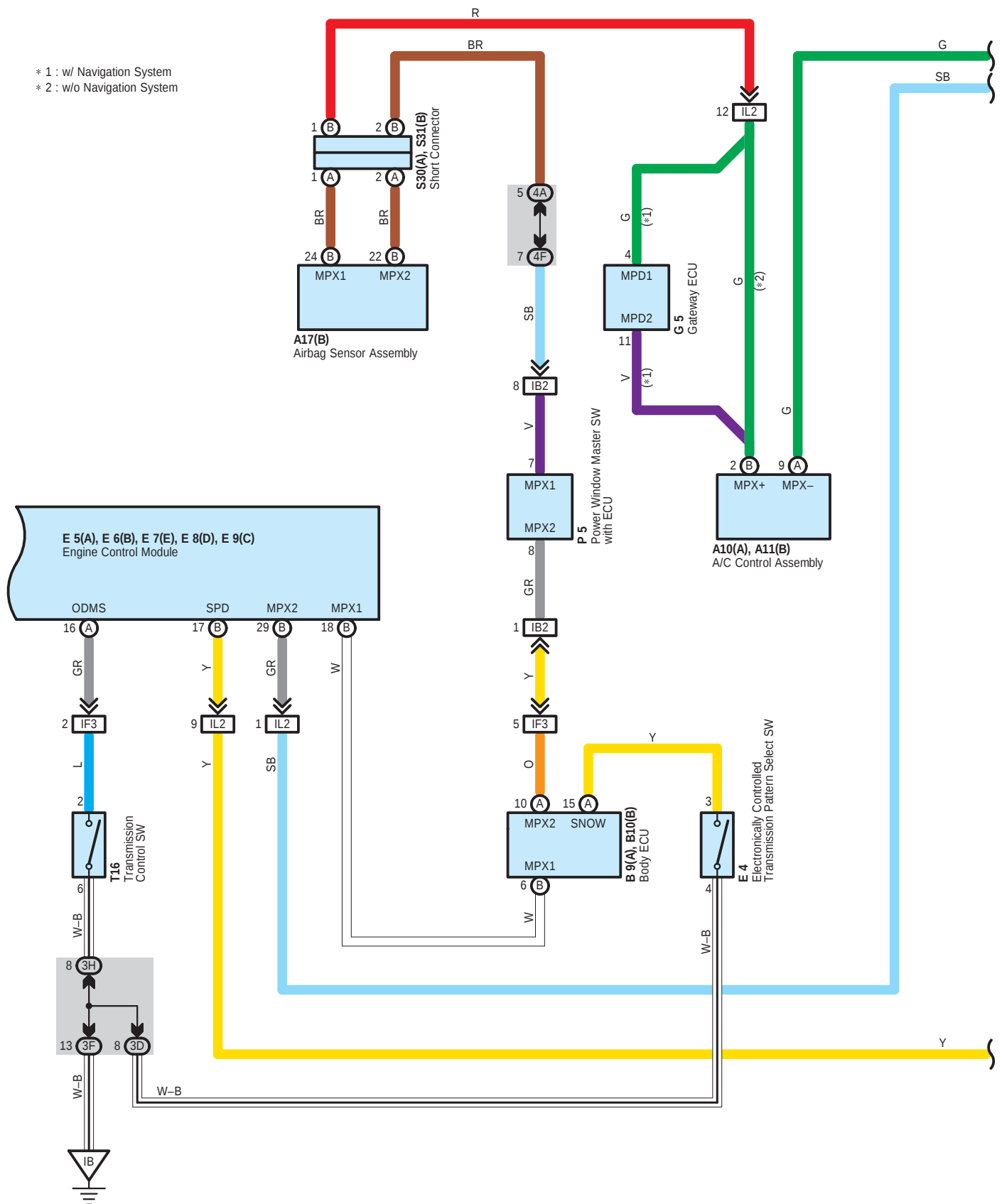
Code	See Page	Ground Points Location
EC	48 (3MZ-FE)	Left Side of Cylinder Head
ED	48 (3MZ-FE)	Rear Side of Cylinder Head
EH	48 (3MZ-FE)	Under the Left Headlight
IB	50	Right Instrument Panel Brace

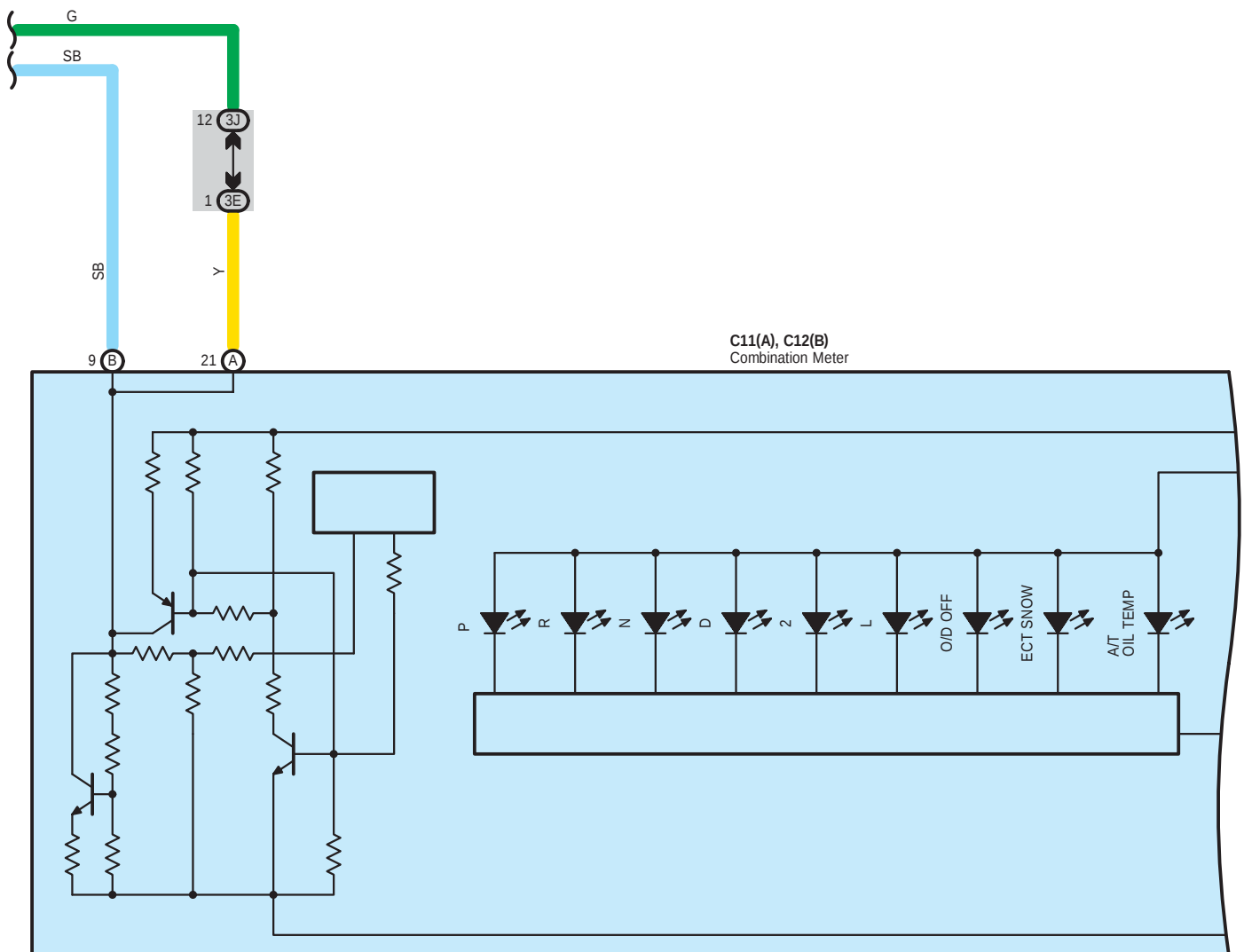
ECT and A/T Indicator for 2AZ-FE



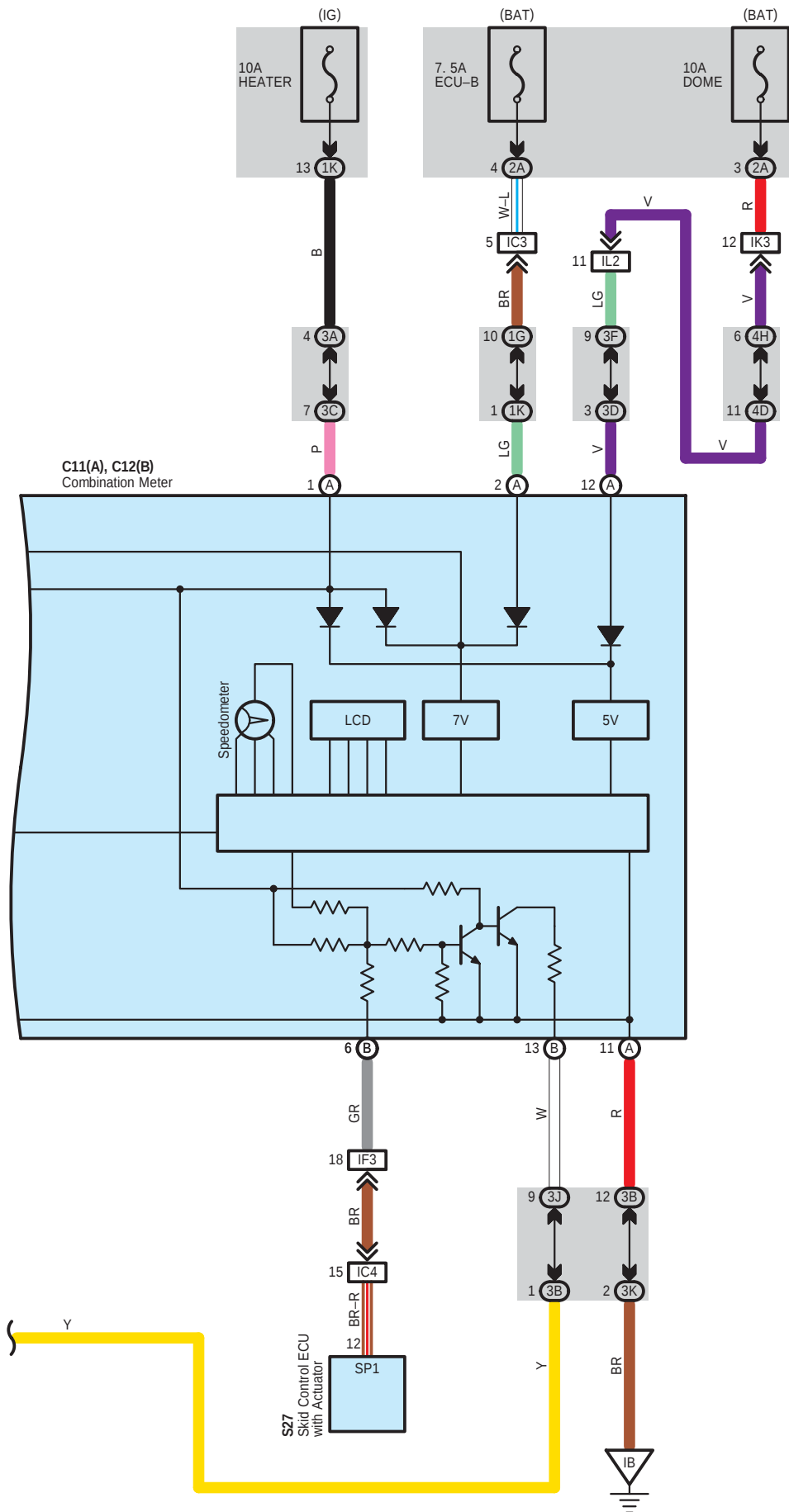


ECT and A/T Indicator for 2AZ-FE





ECT and A/T Indicator for 2AZ-FE



System Outline

Previous automatic transaxle have selected each gear shift using mechanically controlled throttle hydraulic pressure, governor hydraulic pressure and lock-up hydraulic pressure. The electronically controlled transmission, however, electrically controls the line pressure, throttle pressure, lock-up pressure and accumulator pressure etc. through the solenoid valve. The electronically controlled transmission is a system which precisely controls gear shift timing and lock-up timing in response to the vehicle's driving conditions and the engine condition detected by various sensors. It makes smooth driving possible by shift selection for each gear which is the most appropriate to the driving conditions at that time, and by preventing downing, squat and gear shift shock when starting off.

1. Gear Shift Operation

During driving the engine warm up condition signal is input from engine coolant temp. sensor to TERMINAL THW of the engine control module, and the vehicle speed signal is input from the ABS speed sensor to skid control ECU, and are sent to the engine control module through communication control. At the same time, the throttle valve opening signal is sent from the throttle position sensor to the TERMINALS VTA1 and VTA2 of the engine control module, as the throttle angle signal.

2. Lock-Up Operation

When the engine control module decides based on each signal that the lock-up condition has been met, the current flows through TERMINAL DSL of the engine control module to TERMINAL 3 of the electronically controlled transmission solenoid to GROUND.

3. Stop Light SW Circuit

If the brake pedal is depressed (Stop light SW on) when driving in lock-up condition, a signal is input to TERMINAL STP of the engine control module. The engine control module operates and cuts the current to the solenoid to release lock-up.

4. Overdrive Circuit

* O/D main SW on

When the O/D main SW is turned on, a signal is input to TERMINAL ODMS of the engine control module and engine control module operation causes gear shift when the conditions for overdrive are met.

* O/D main SW off

When the O/D main SW is turned off, a signal is input into TERMINAL ODMS of the engine control module, and turns on the O/D off indicator light. This activates the ECU, and the transmission system is controlled not to shift to overdrive.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A10	A	42	E6	B	42	S15		43
A11	B	42	E7	E	42	S27		41 (2AZ-FE)
A17	B	42	E8	D	42	S28	A	43
B9	A	42	E9	C	42	S29	B	43
B10	B	42	E10		40 (2AZ-FE)	S30	A	43
C6		40 (2AZ-FE)	G5		43	S31	B	43
C11	A	42	J2		41 (2AZ-FE)	T3		41 (2AZ-FE)
C12	B	42	J6		43	T13		41 (2AZ-FE)
E2	B	40 (2AZ-FE)	J7		43	T16		43
E4		42	P1		41 (2AZ-FE)			
E5	A	42	P5		44			

ECT and A/T Indicator for 2AZ-FE



: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2F		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F		
3H	31	
3J		
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4D		
4E		
4F		
4H		
4K	32	
4L		
4M		



: Connector Joining Wire Harness and Wire Harness

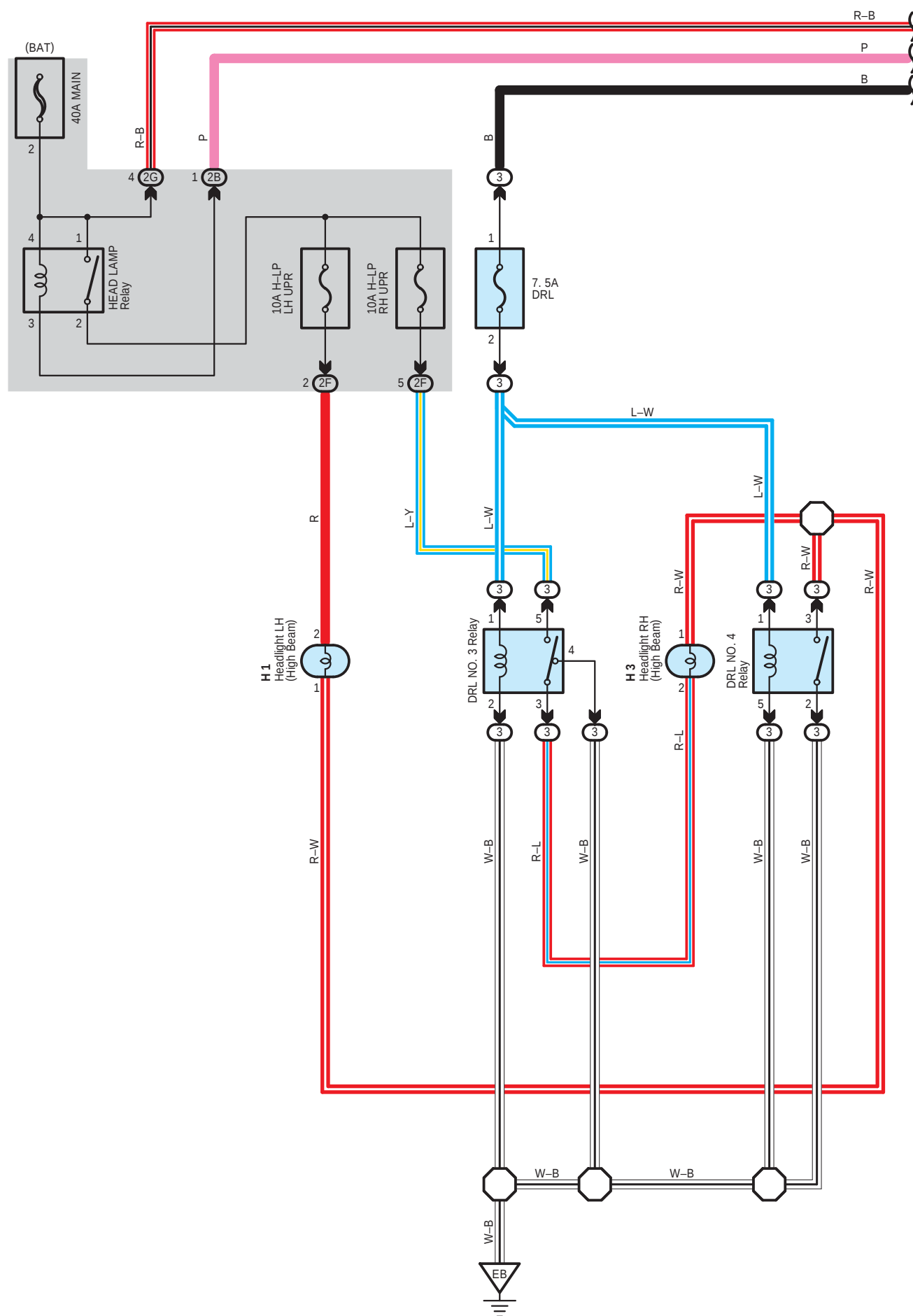
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC4		
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IM1	51	Engine Wire and Cowl Wire (Right Kick Panel)

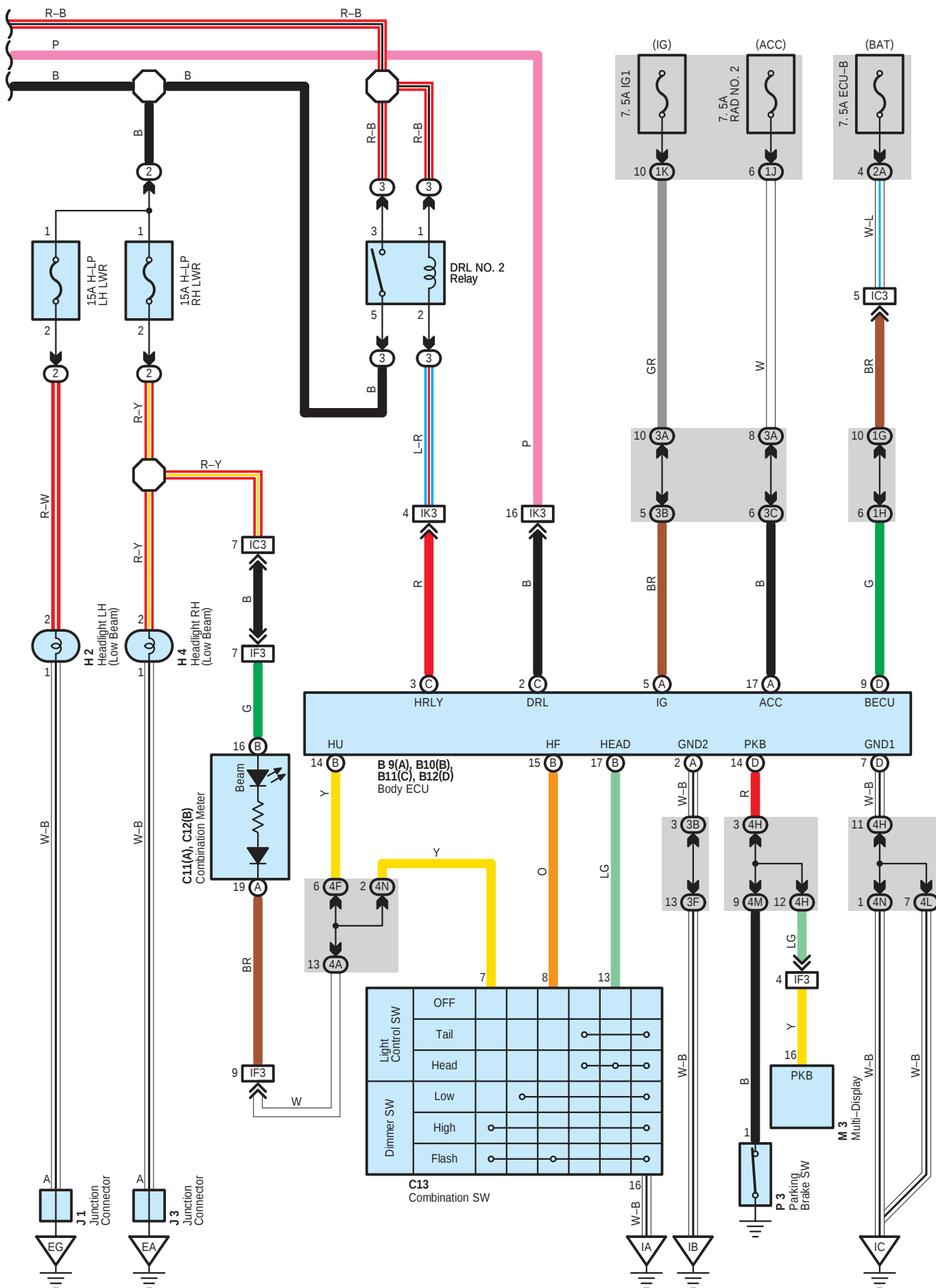


: Ground Points

Code	See Page	Ground Points Location
EE	49 (2AZ-FE)	Intake Side of Cylinder Block
EF	49 (2AZ-FE)	Left Side of Cylinder Block
EH	49 (2AZ-FE)	Under the Left Headlight
IB	50	Right Instrument Panel Brace

Headlight with Daytime Running Light





Headlight with Daytime Running Light

System Outline

1. Daytime Running Light Operation

The headlight is turned on when all the following conditions are satisfied

- * When the ignition switch is ON position
- * When the generator is generating electricity
- * When the light control SW is OFF position
- * When the parking brake SW is OFF position

2. Headlight Operation

- * The headlight comes on at the LOW position when the dimmer SW is turned to the low beam position with the light control SW being HEAD position.
- * If the dimmer SW is turned to the HIGH position with the light control SW being HEAD position, the headlight comes on at the high beam position. Moreover, the high beam indicator light appears on the combination meter.
- * Regardless of the light control SW positions, the headlight comes on at the low beam position when the dimmer SW is turned to FLASH position. Moreover, the high beam indicator light appears on the combination meter.

○ : Parts Location

Code		See Page	Code	See Page	Code	See Page
B9	A	42	H1	38 (3MZ–FE)	H4	40 (2AZ–FE)
B10	B	42		40 (2AZ–FE)	J1	39 (3MZ–FE)
B11	C	42	H2	38 (3MZ–FE)		
B12	D	42		40 (2AZ–FE)	J3	39 (3MZ–FE)
C11	A	42	H3	38 (3MZ–FE)		
C12	B	42		40 (2AZ–FE)	M3	43
C13		42	H4	38 (3MZ–FE)	P3	43

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	22	Engine Room R/B (Engine Compartment Left)
3	23	Engine Room R/B No.3 (Engine Compartment Rear Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2F		
2G		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3F		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4F		
4H		
4L	32	
4M		
4N		

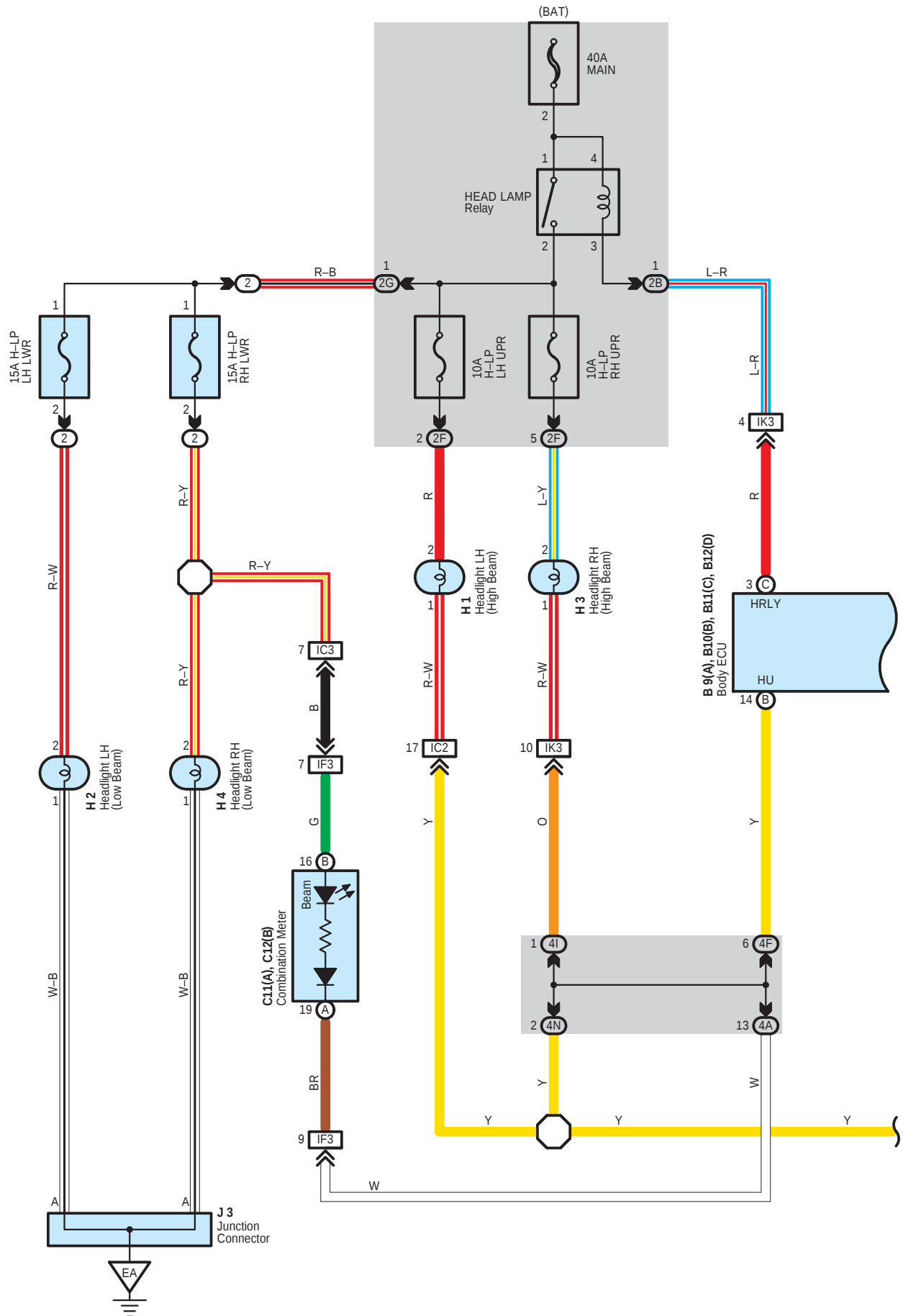
 : Connector Joining Wire Harness and Wire Harness

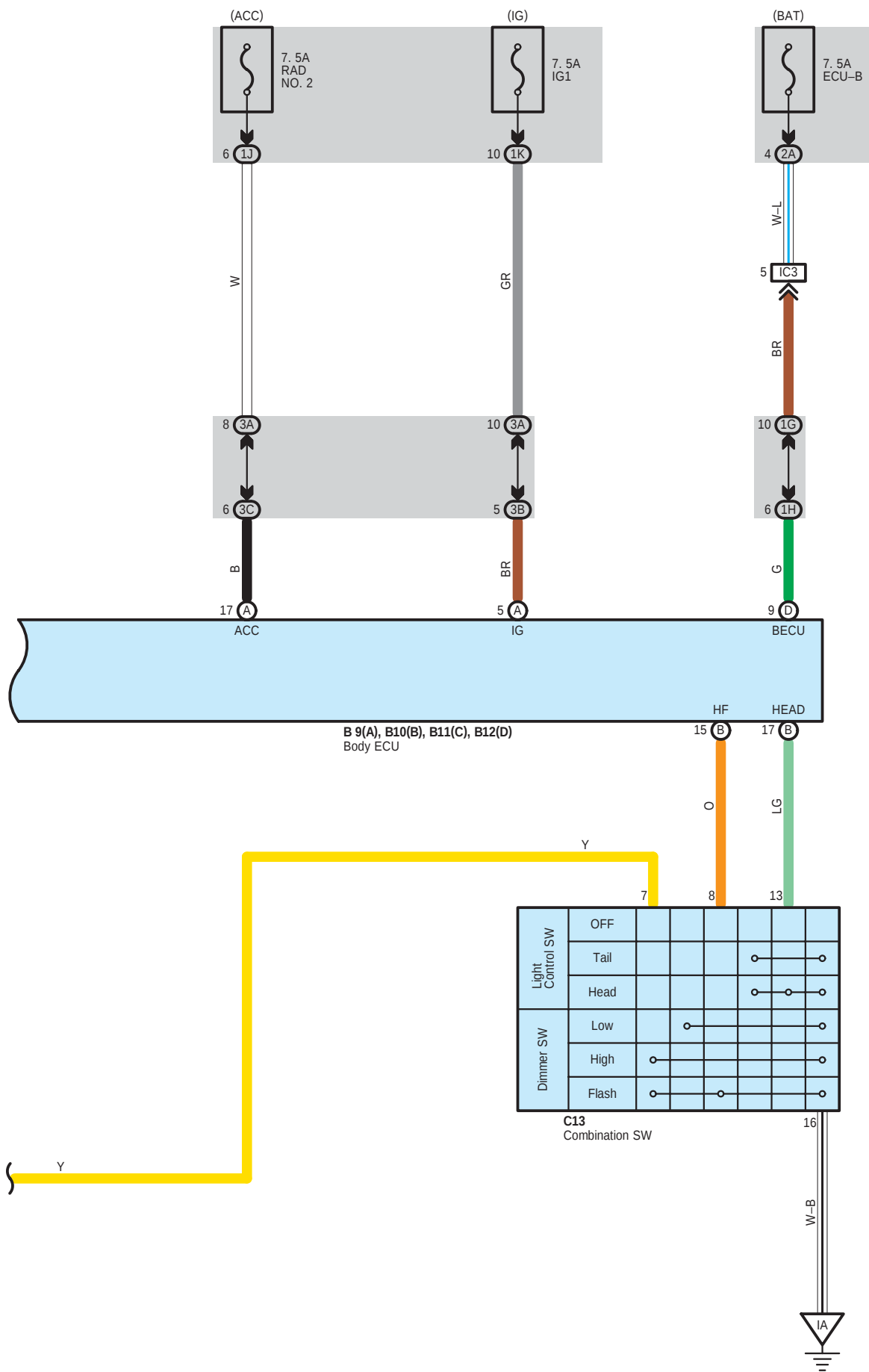
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)

 : Ground Points

Code	See Page	Ground Points Location
EA	48 (3MZ-FE)	Right Front Fender Apron
	49 (2AZ-FE)	
EB	48 (3MZ-FE)	
	49 (2AZ-FE)	
EG	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
IA	50	Left Cowl Side Panel
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel

Headlight without Daytime Running Light





Headlight without Daytime Running Light

: Parts Location

Code		See Page	Code	See Page	Code	See Page
B9	A	42	C13	42	H3	40 (2AZ-FE)
B10	B	42	H1	38 (3MZ-FE)	H4	38 (3MZ-FE)
B11	C	42		40 (2AZ-FE)		40 (2AZ-FE)
B12	D	42	H2	38 (3MZ-FE)	J3	39 (3MZ-FE)
C11	A	42		40 (2AZ-FE)		41 (2AZ-FE)
C12	B	42	H3	38 (3MZ-FE)		

: 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)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2F		
2G		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4F		
4I	32	
4N		

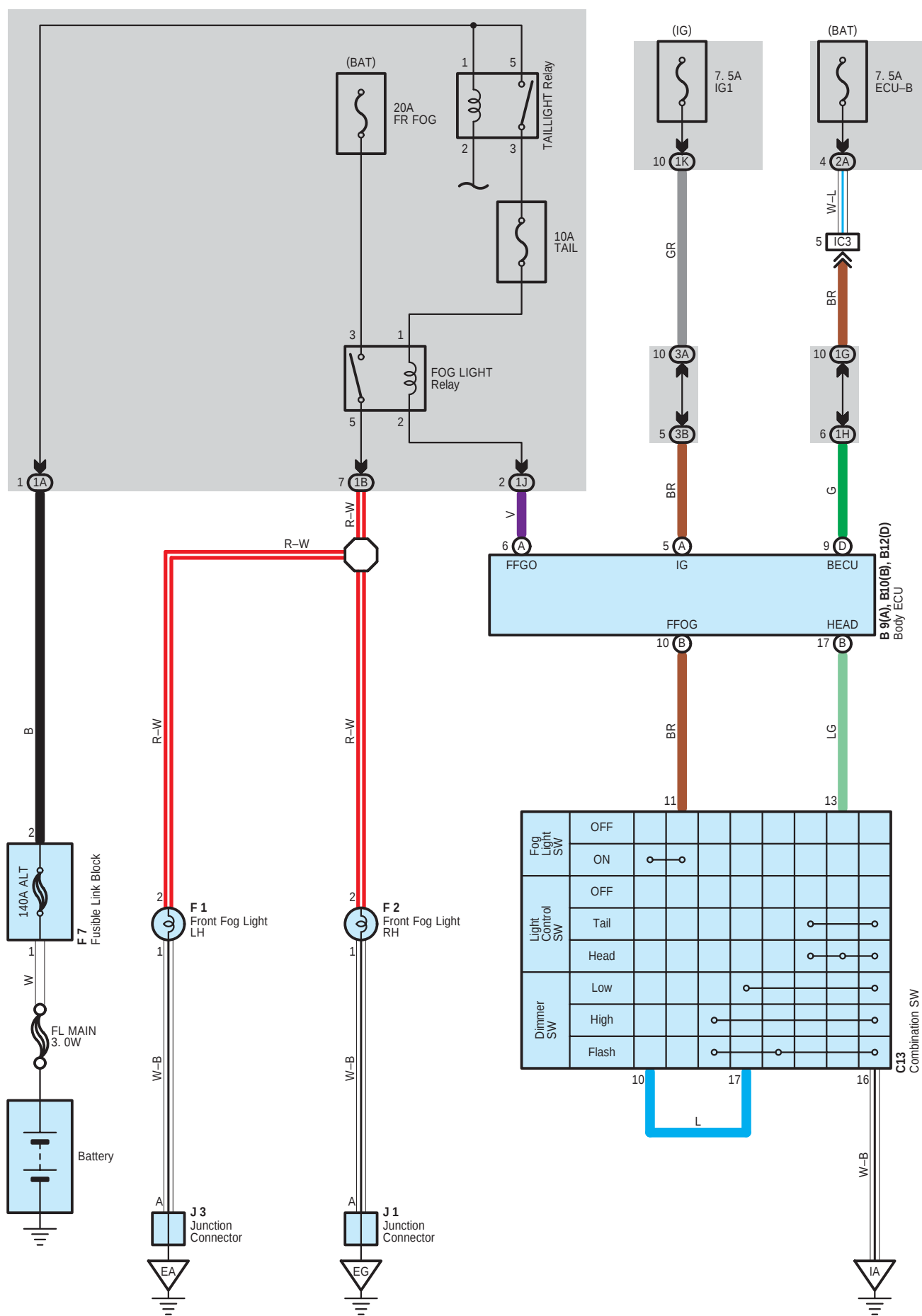
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC3		
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)

: Ground Points

Code	See Page	Ground Points Location
EA	48 (3MZ-FE)	Right Front Fender Apron
	49 (2AZ-FE)	
IA	50	Left Cowl Side Panel

Front Fog Light



 : Parts Location

Code		See Page	Code	See Page	Code	See Page
B9	A	42	F1	40 (2AZ-FE)	J1	39 (3MZ-FE)
B10	B	42	F2	38 (3MZ-FE)		41 (2AZ-FE)
B12	D	42		40 (2AZ-FE)	J3	39 (3MZ-FE)
C13		42	F7	38 (3MZ-FE)		41 (2AZ-FE)
F1		38 (3MZ-FE)		40 (2AZ-FE)		

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1B		
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		

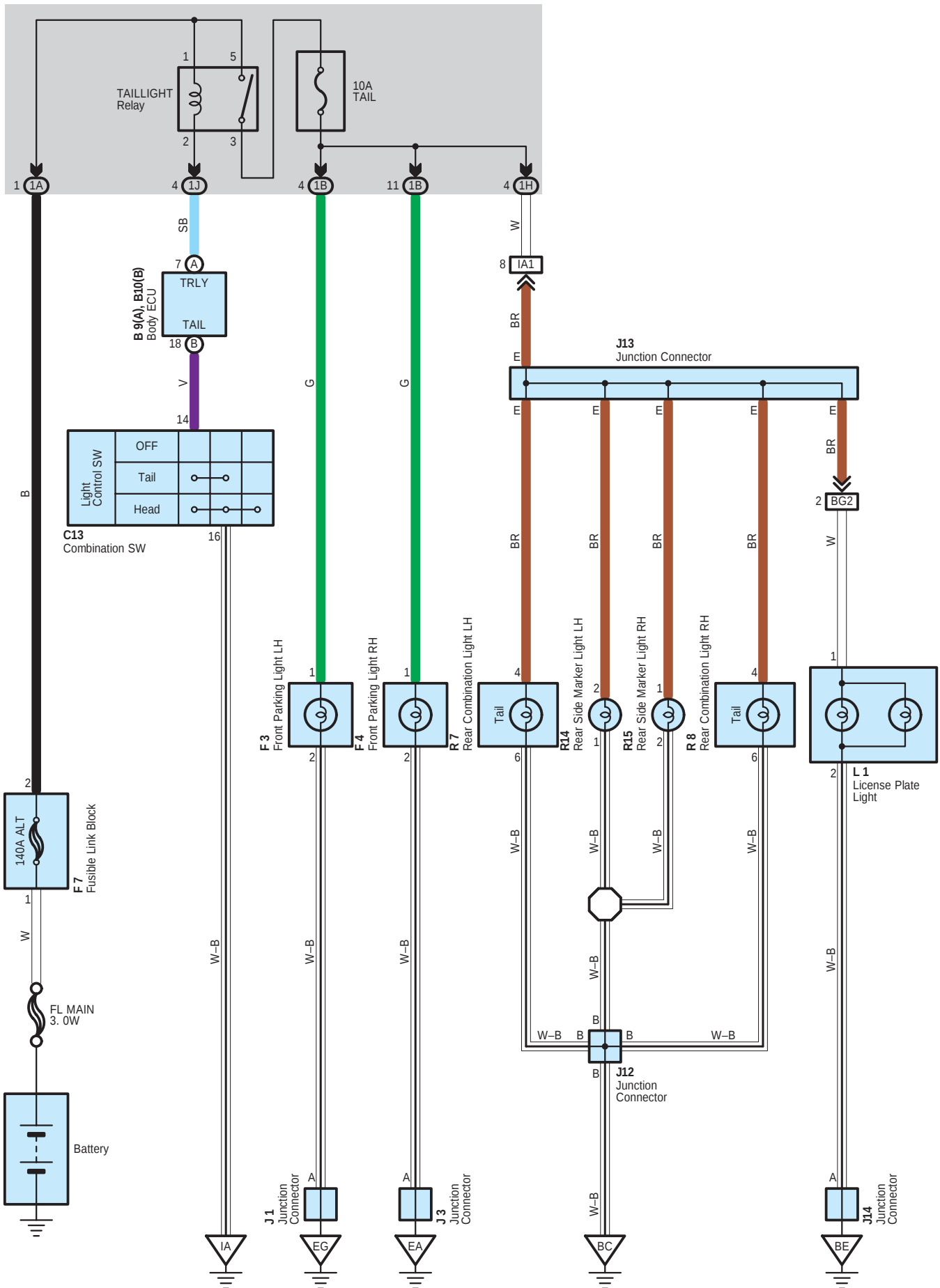
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)

 : Ground Points

Code	See Page	Ground Points Location
EA	48 (3MZ-FE)	Right Front Fender Apron
	49 (2AZ-FE)	
EG	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
IA	50	Left Cowl Side Panel

Taillight



 : Parts Location

Code		See Page	Code	See Page	Code	See Page
B9	A	42	F7	38 (3MZ–FE)	J13	44
B10	B	42		40 (2AZ–FE)	J14	44
C13		42	J1	39 (3MZ–FE)	L1	44
F3	38 (3MZ–FE)			41 (2AZ–FE)	R7	45
	40 (2AZ–FE)		J3	39 (3MZ–FE)	R8	45
F4	38 (3MZ–FE)			41 (2AZ–FE)	R14	45
	40 (2AZ–FE)		J12	44	R15	45

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1B		
1H	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

 : Connector Joining Wire Harness and Wire Harness

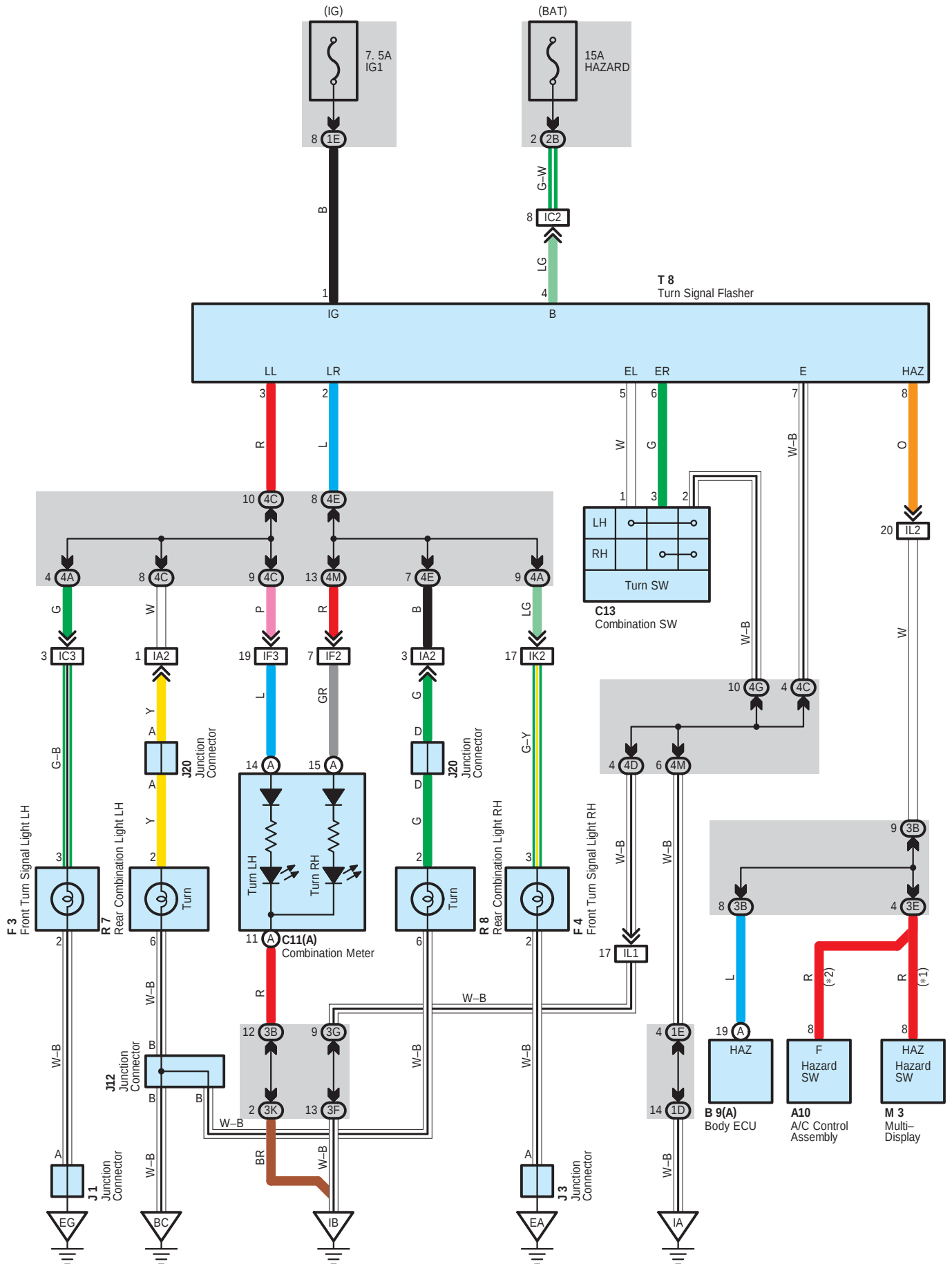
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
BG2	52	Back Door No.1 Wire and Floor No.2 Wire (Rear Left of the Roof)

 : Ground Points

Code	See Page	Ground Points Location
EA	48 (3MZ-FE)	Right Front Fender Apron
	49 (2AZ-FE)	
EG	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
IA	50	Left Cowl Side Panel
BC	52	Left Side of Rear Cross Member
BE	52	Left Side of Back Door

Turn Signal and Hazard Warning Light

* 1 : w/ Navigation System
 * 2 : w/o Navigation System



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
A10	42	F4	38 (3MZ-FE)	J12	44
B9	A 42		40 (2AZ-FE)	J20	43
C11	A 42	J1	39 (3MZ-FE)	M3	43
C13	42		41 (2AZ-FE)	R7	45
F3	38 (3MZ-FE)	J3	39 (3MZ-FE)	R8	45
	40 (2AZ-FE)		41 (2AZ-FE)	T8	43

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
2B	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3B	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3E		
3F		
3G	31	
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4C		
4D		
4E		
4G		
4M	32	

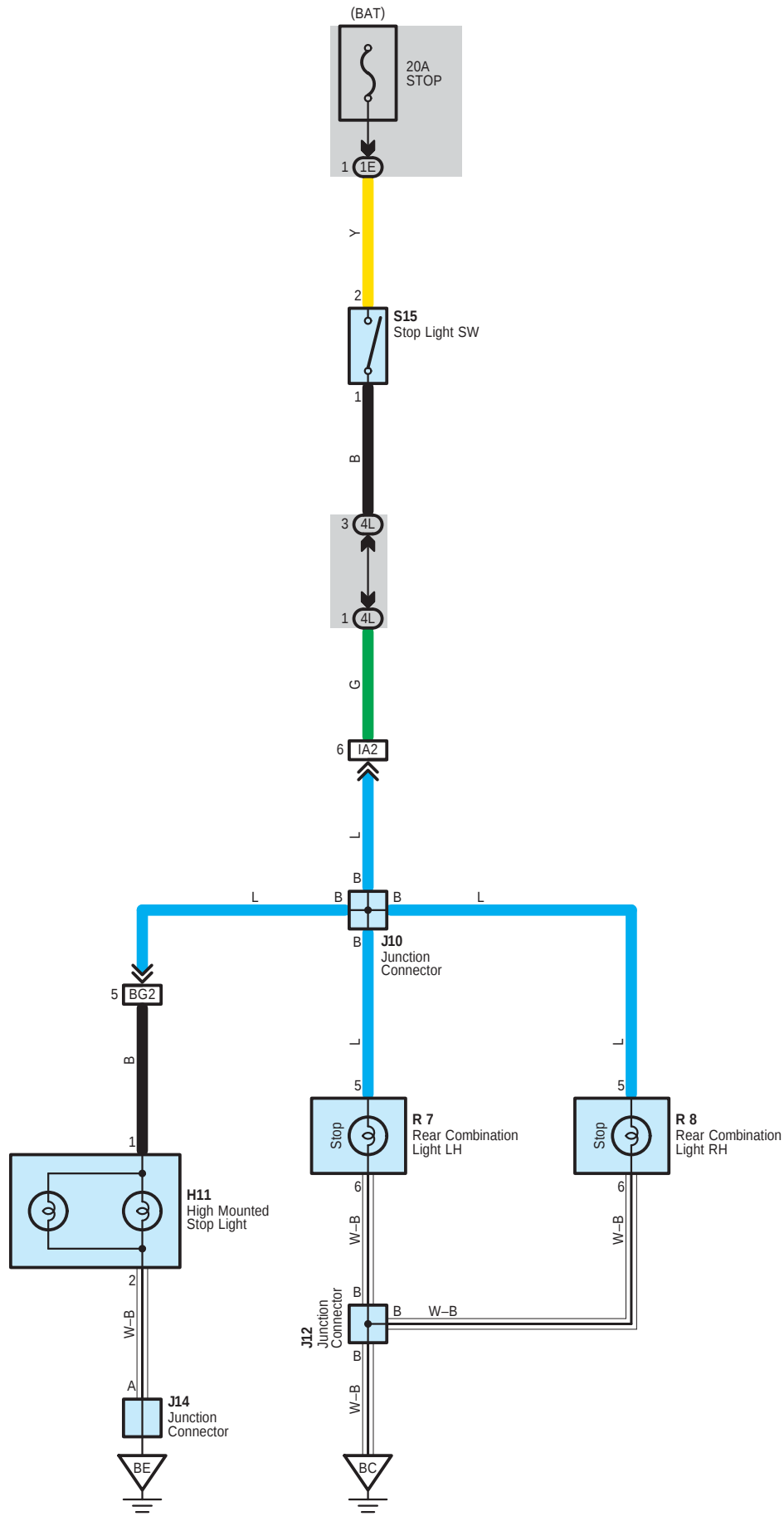
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IC2	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC3		
IF2	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IF3		
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		

 : Ground Points

Code	See Page	Ground Points Location
EA	48 (3MZ-FE)	Right Front Fender Apron
	49 (2AZ-FE)	
EG	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
IA	50	Left Cowl Side Panel
IB	50	Right Instrument Panel Brace
BC	52	Left Side of Rear Cross Member

Stop Light



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
H11	44	J14	44	S15	43
J10	44	R7	45		
J12	44	R8	45		

 : Junction Block and Wire Harness Connector

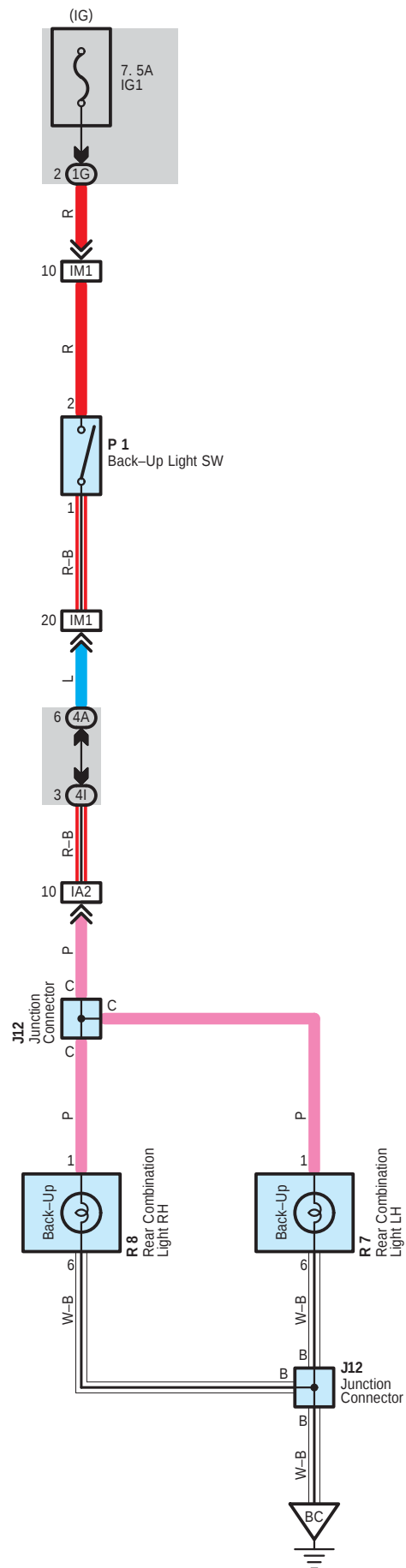
Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
4L	32	Cowl Wire and Passenger Side J/B (Right Side of Groove Box)

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
BG2	52	Back Door No.1 Wire and Floor No.2 Wire (Rear Left of the Roof)

 : Ground Points

Code	See Page	Ground Points Location
BC	52	Left Side of Rear Cross Member
BE	52	Left Side of Back Door



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
J12	44	P1	41 (2AZ-FE)	R8	45
P1	39 (3MZ-FE)	R7	45		

 : Junction Block and Wire Harness Connector

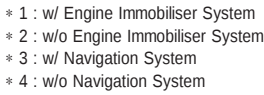
Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4I	32	

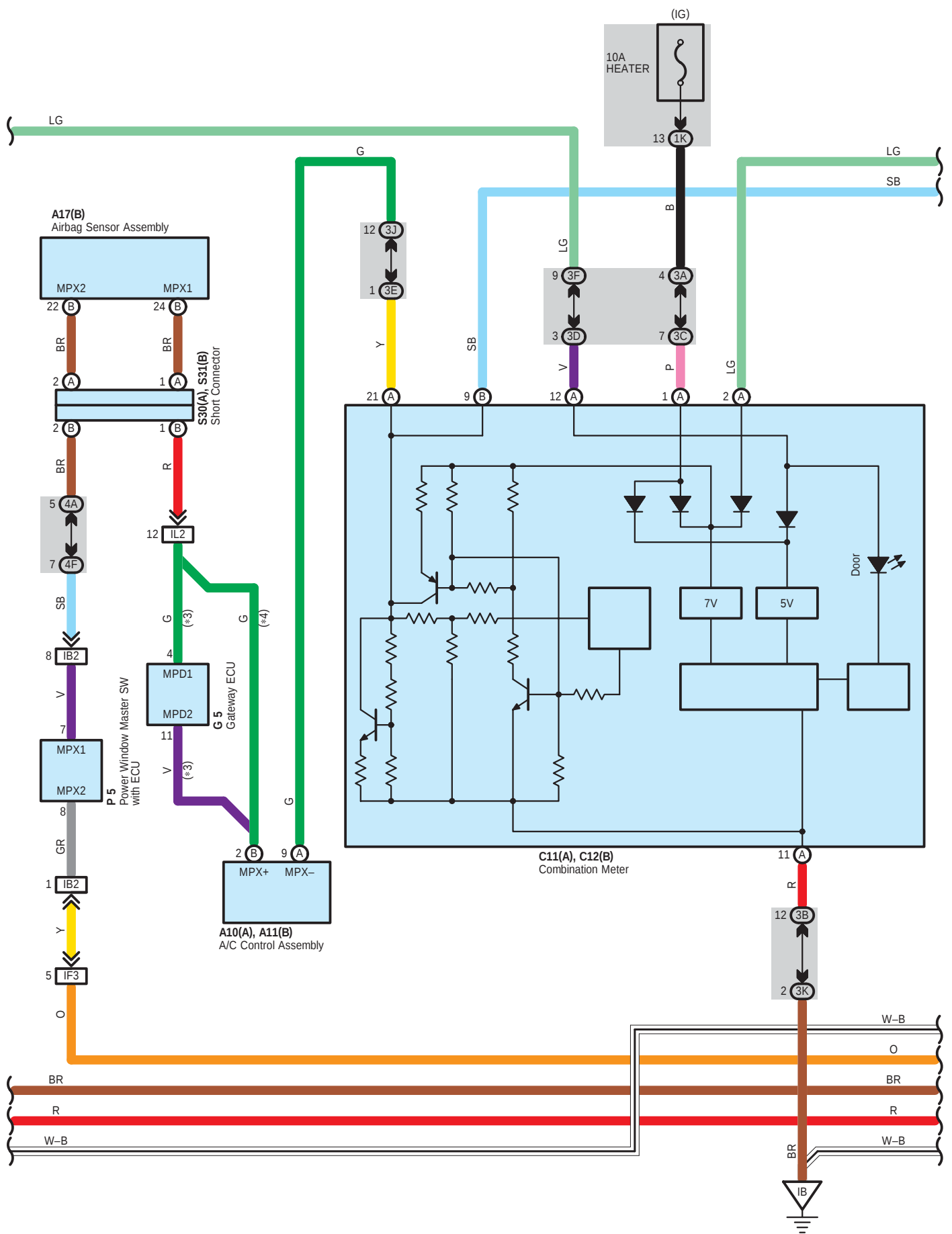
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IM1	51	Engine Wire and Cowl Wire (Right Kick Panel)

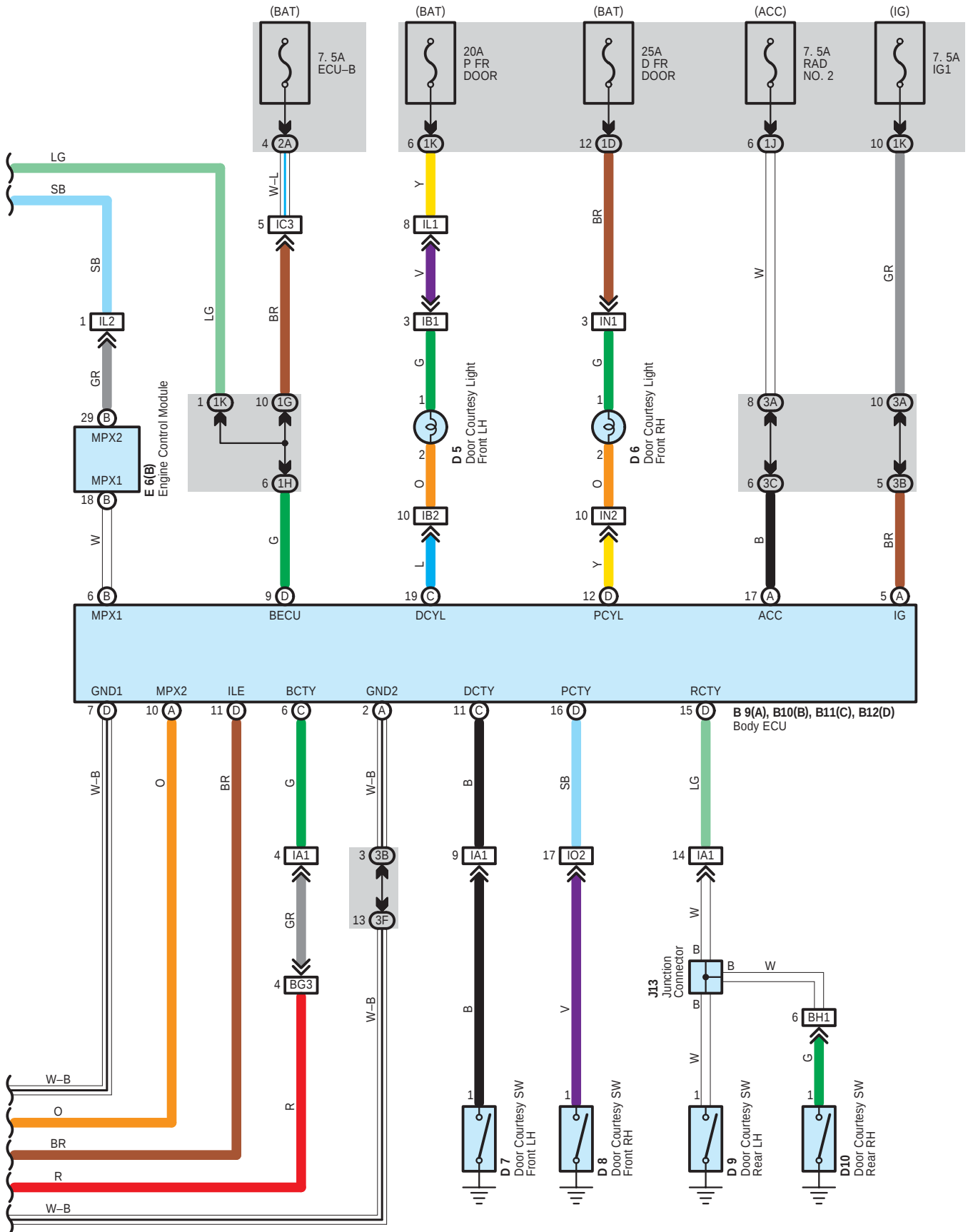
 : Ground Points

Code	See Page	Ground Points Location
BC	52	Left Side of Rear Cross Member





Interior Light



System Outline

Illuminated Entry System

This system provides various functions listed below through communication control of the body ECU etc.

- * Each relevant light lights up if any door is opened.
- * If all the doors are closed with the ignition SW set at OFF after any door is opened, each light lights up for 15 sec., and then fades out when the time set on the timer has elapsed.
- * If any door is unlocked from the driver or passenger side or if any door is unlocked with the unlock SW on the transmitter after all the doors are closed and locked, each light lights up for 15 sec., and then fades out when the time set on the timer has elapsed.
- * If the ignition SW is turned to the ACC or ON position while each light is being lit by the timer, the timer lighting is cancelled and the light fades out.
- * If all the doors are closed with the ignition SW set at ACC or ON after any door is opened, the timer lighting is cancelled and the light fades out.
- * Each light above is the interior light, ignition key cylinder light, and door courtesy lights.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A10	A	42	D6		44	O5		44
A11	B	42	D7		44	P5		44
A17	B	42	D8		44	R11		45
B9	A	42	D9		44	R12		45
B10	B	42	D10		44	S30	A	43
B11	C	42	E6	B	42	S31	B	43
B12	D	42	G5		43	T7		43
C11	A	42	I14		43	V9		45
C12	B	42	I16		44	V10		45
D4		44	J13		44			
D5		44	J14		44			

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
1G		
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F		
3J	31	
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4D		
4F		
4H		
4J	32	
4L		
4M		
4N		

Interior Light

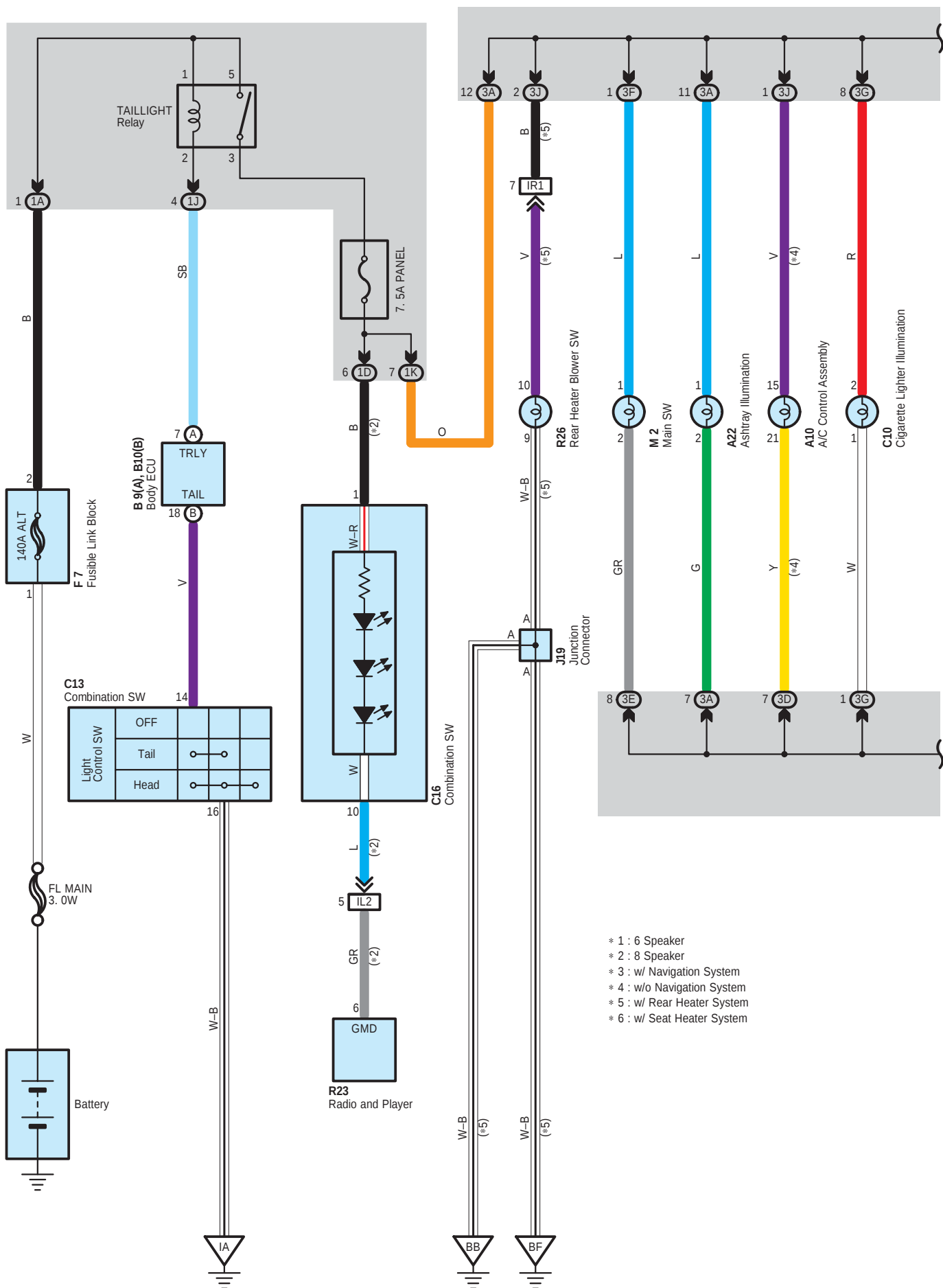
: Connector Joining Wire Harness and Wire Harness

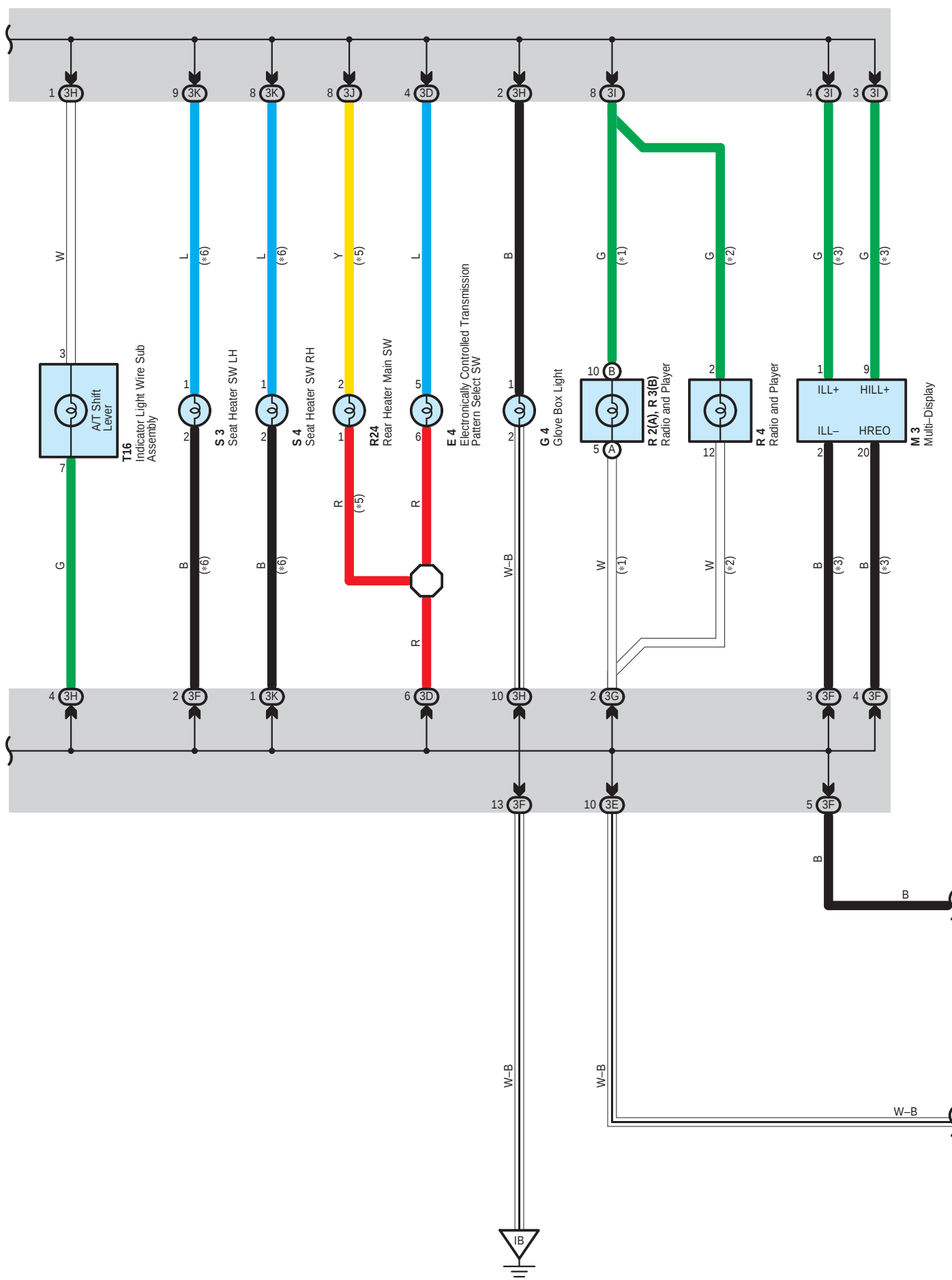
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IB1	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IB2		
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IE1	50	Roof Wire and Cowl Wire (Near the Bottom of Left Front Pillar)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IN1	51	Front Door RH Wire and Cowl Wire (Right Kick Panel)
IN2		
IO2	51	Cowl Wire and Floor Wire (Right Kick Panel)
BG1	52	Back Door No.1 Wire and Floor No.2 Wire (Rear Left of the Roof)
BG3		
BH1	52	Floor No.2 Wire and Floor Wire (Near the Rear Side Marker Light RH)

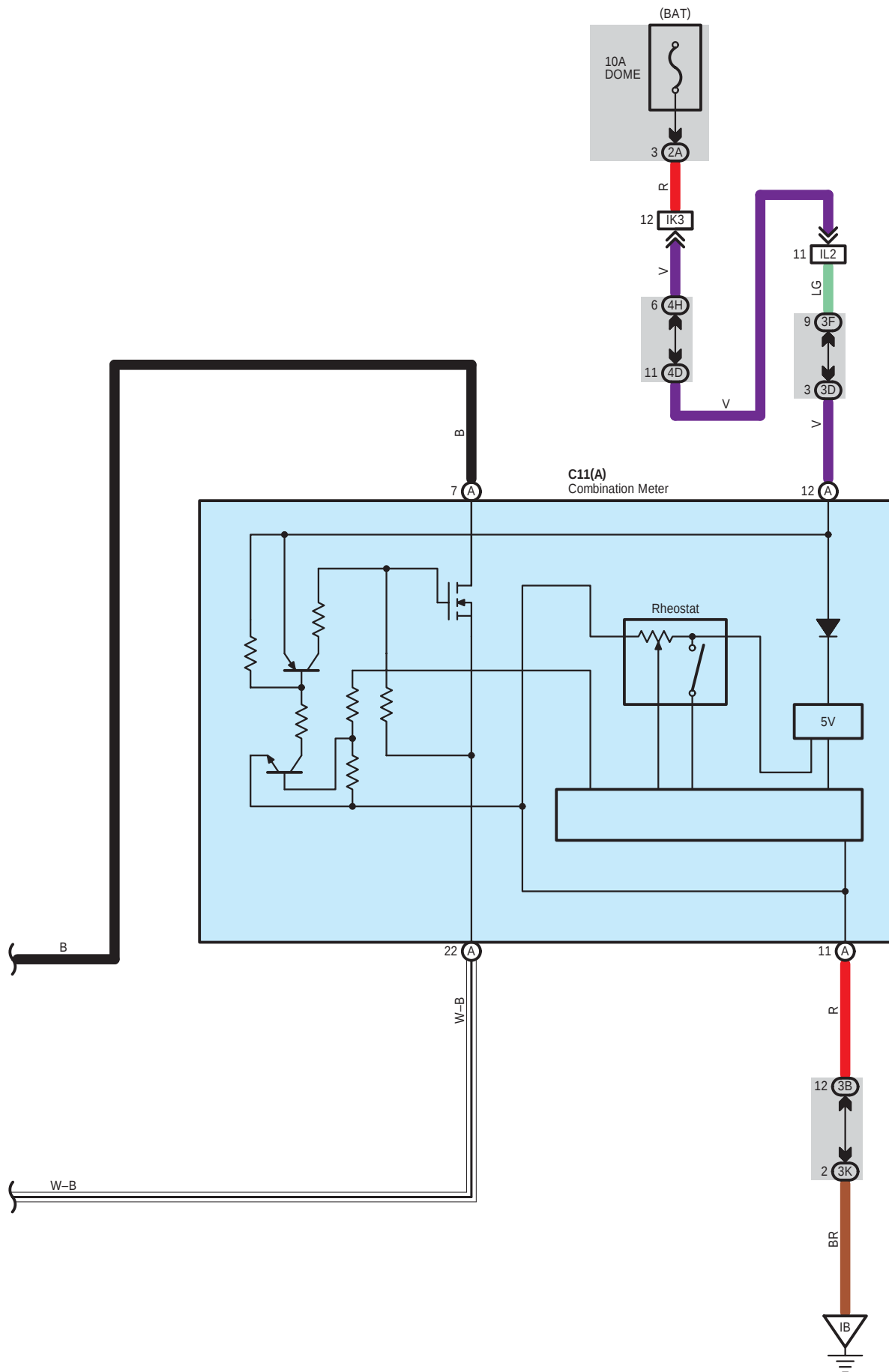
: Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel
BC	52	Left Side of Rear Cross Member
BE	52	Left Side of Back Door

Illumination







 : Parts Location

Code	See Page	Code	See Page	Code	See Page
A10	42	E4	42	R3	B 43
A22	42	F7	38 (3MZ-FE)	R4	43
B9	A 42		40 (2AZ-FE)	R23	43
B10	B 42	G4	43	R24	43
C10	42	J19	44	R26	45
C11	A 42	M2	43	S3	43
C13	42	M3	43	S4	43
C16	42	R2	A 43	T16	43

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3D		
3E		
3F		
3G	31	
3H		
3I		
3J		
3K		
4D	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4H		

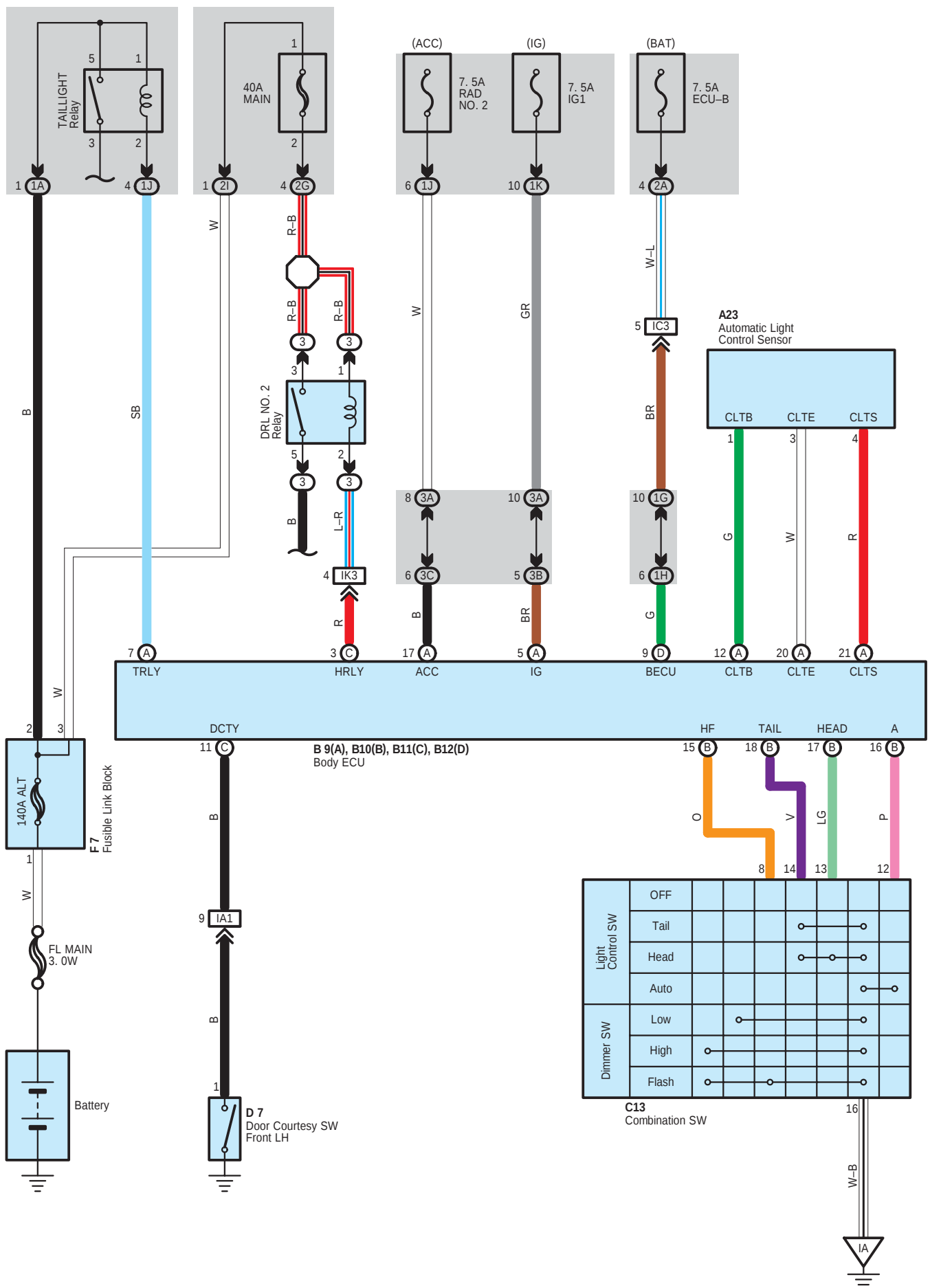
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IR1	51	Instrument Panel Wire and Floor Wire (Under the Shift Lever)

 : Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
IB	50	Right Instrument Panel Brace
BB	52	Right Center Pillar
BF	52	Near the Rear Side Marker Light RH

Automatic Light Control



System Outline

Automatic light control is designed for turning taillights and headlights on/off automatically according to the surroundings brightness when the light control SW is on AUTO position under the condition that the ignition SW is on.

Automatic Light Control Operation

When the surrounding darkens (Darker than the value set for taillight lightning), taillight is automatically turned on under the condition that the ignition SW is on with the light control SW being on AUTO position. When further darkens (Darker than the value set for headlight lightning), the headlight is automatically turned on.

In addition, if the brightness reaches the value set for turning the each light off, each light is turned off.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A23	42	B11	C	D7	44
B9	A	B12	D	F7	38 (3MZ-FE)
B10	B	C13	42		40 (2AZ-FE)

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	23	Engine Room R/B No.3 (Engine Compartment Rear Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
2I		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		

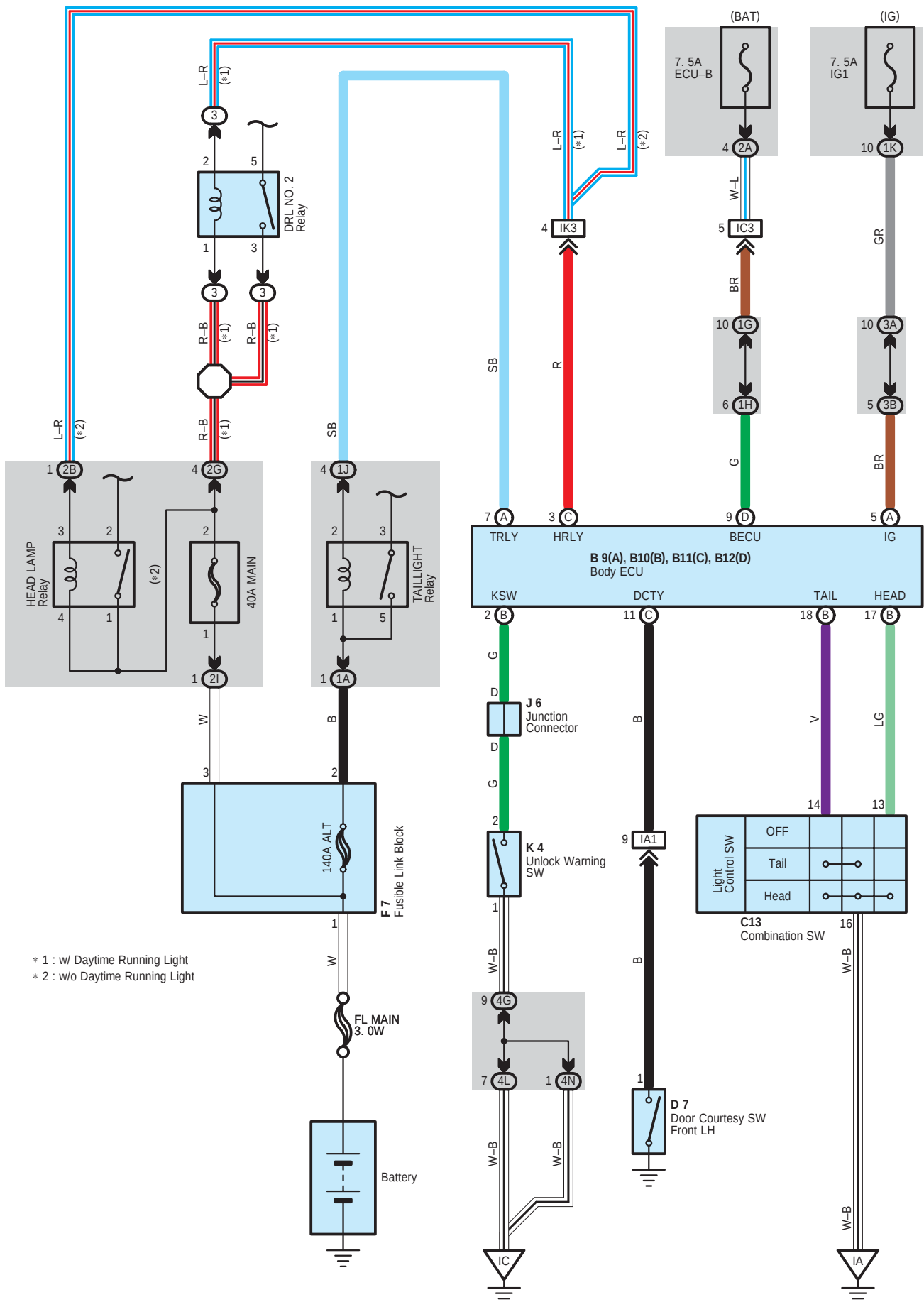
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel

Light Auto Turn Off System



System Outline

With the ignition SW turned on, the current flows to TERMINAL (A) 5 of the body ECU through IG1 fuse. Voltage is applied at all times to TERMINAL (A) 7 of the body ECU through the TAILLIGHT relay. Coil side, and to TERMINAL (C) 3 through the HEAD LAMP relay coil side (w/o daytime running light) or through the DRL NO.2 relay (w/ daytime running light).

1. Normal Lighting Operation

<Turn taillight on>

With the light control SW turned to TAIL position, a signal is input into TERMINAL (B) 18 of the body ECU. Due to this signal, the current flowing to TERMINAL (A) 7 of the body ECU flows to TERMINAL (B) 18 to TERMINAL 14 of the light control SW to TERMINAL 16 to GROUND, and TAILLIGHT relay causes taillights to turn on.

<Turn headlight on>

With the light control SW turned to HEAD position, a signal is input into TERMINALS (B) 17 and (B) 18 of the body ECU. Due to this signal, the current flowing to TERMINAL (C) 3 of the body ECU flows to TERMINAL (B) 17 to TERMINAL 13 of the light control SW to TERMINAL 16 to GROUND in the headlight circuit, and causes TAILLIGHT and HEAD LAMP (w/o daytime running light) or DRL NO.2 relay (w/ daytime running light) to turn the lights on. The taillight circuit is same as above.

2. Light Auto Turn Off Operation

With light on and ignition SW turned off (Input signal goes to TERMINAL (A) 5 of the body ECU), when the driver's door is opened (Input signal goes to TERMINAL (C) 11 of the body ECU), the ECU operates and the current is cut off which flows from TERMINAL (A) 7 of the body ECU to TERMINAL (B) 18 in taillight circuit and from TERMINAL (C) 3 to TERMINAL (B) 17 in headlight circuit.

As a result, all lights are turned off automatically.

○ : Parts Location

Code		See Page	Code	See Page	Code	See Page
B9	A	42	C13	42	J6	43
B10	B	42	D7	44	K4	43
B11	C	42	F7	38 (3MZ–FE)		
B12	D	42		40 (2AZ–FE)		

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	23	Engine Room R/B No.3 (Engine Compartment Rear Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2G		
2I		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
4G	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4L	32	
4N		

□ : Connector Joining Wire Harness and Wire Harness

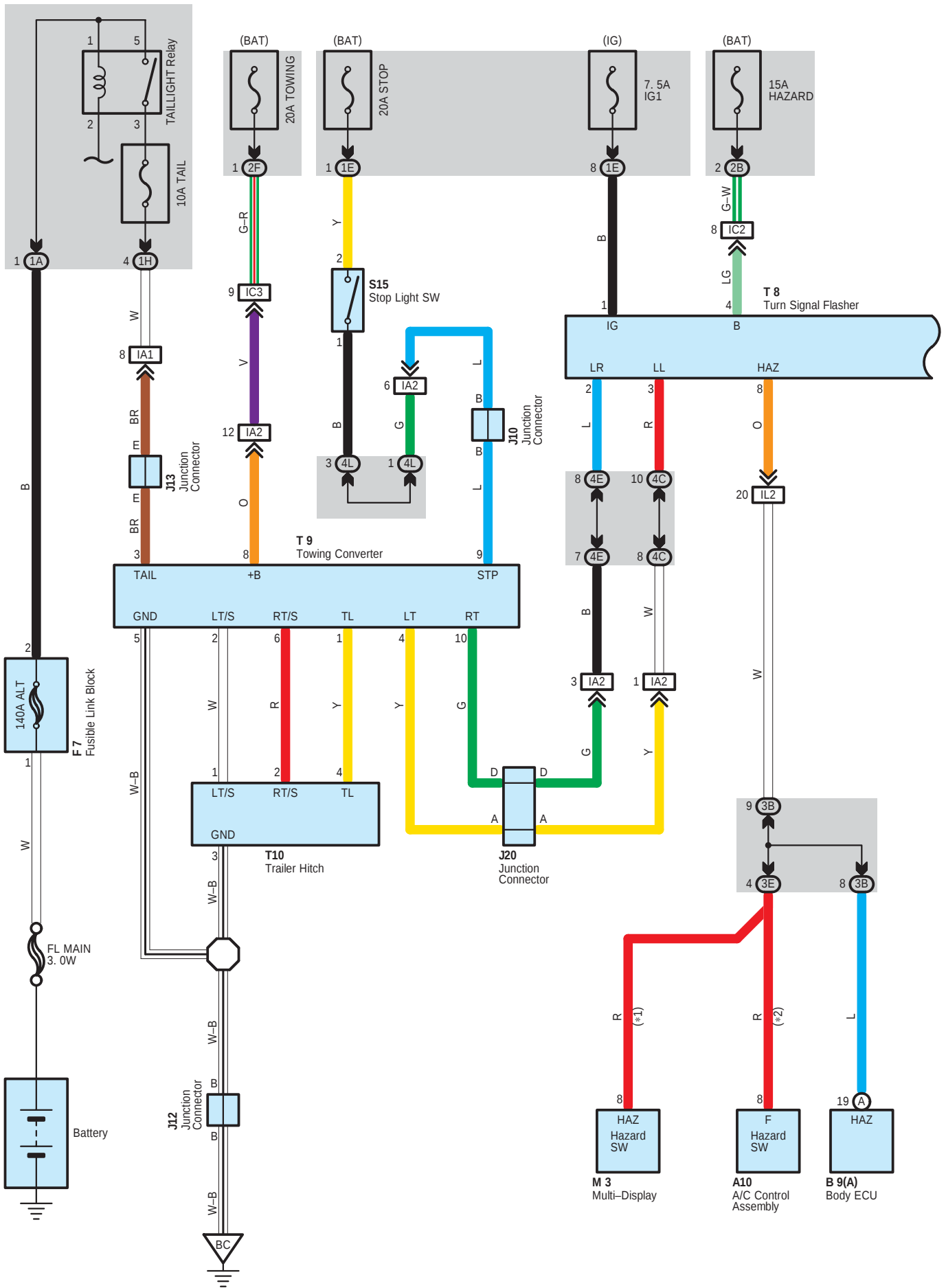
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)

Light Auto Turn Off System

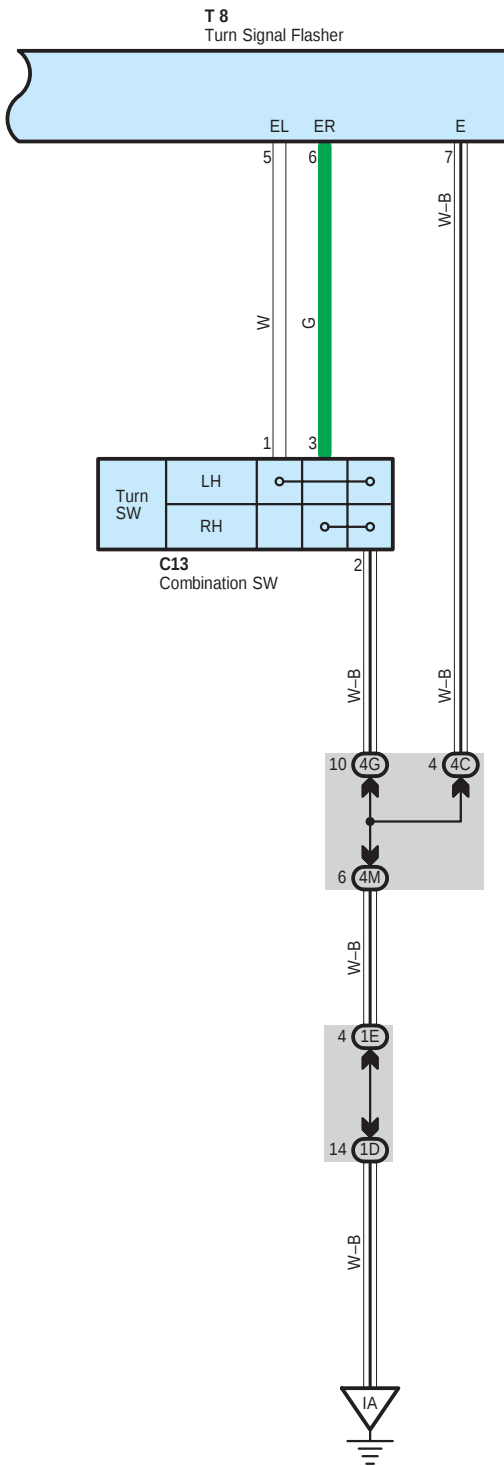


: Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
IC	50	Right Cowl Side Panel



- * 1 : w/ Navigation System
- * 2 : w/o Navigation System



Trailer Towing

: Parts Location

Code	See Page	Code	See Page	Code	See Page
A10	42	J10	44	S15	43
B9	A	J12	44	T8	43
C13	42	J13	44	T9	45
F7	38 (3MZ-FE)	J20	43	T10	45
	40 (2AZ-FE)	M3	43		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
1H		
2B	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2F		
3B	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3E		
4C	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4E		
4G		
4L	32	
4M		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IA2		
IC2	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC3		
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)

: Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
BC	52	Left Side of Rear Cross Member

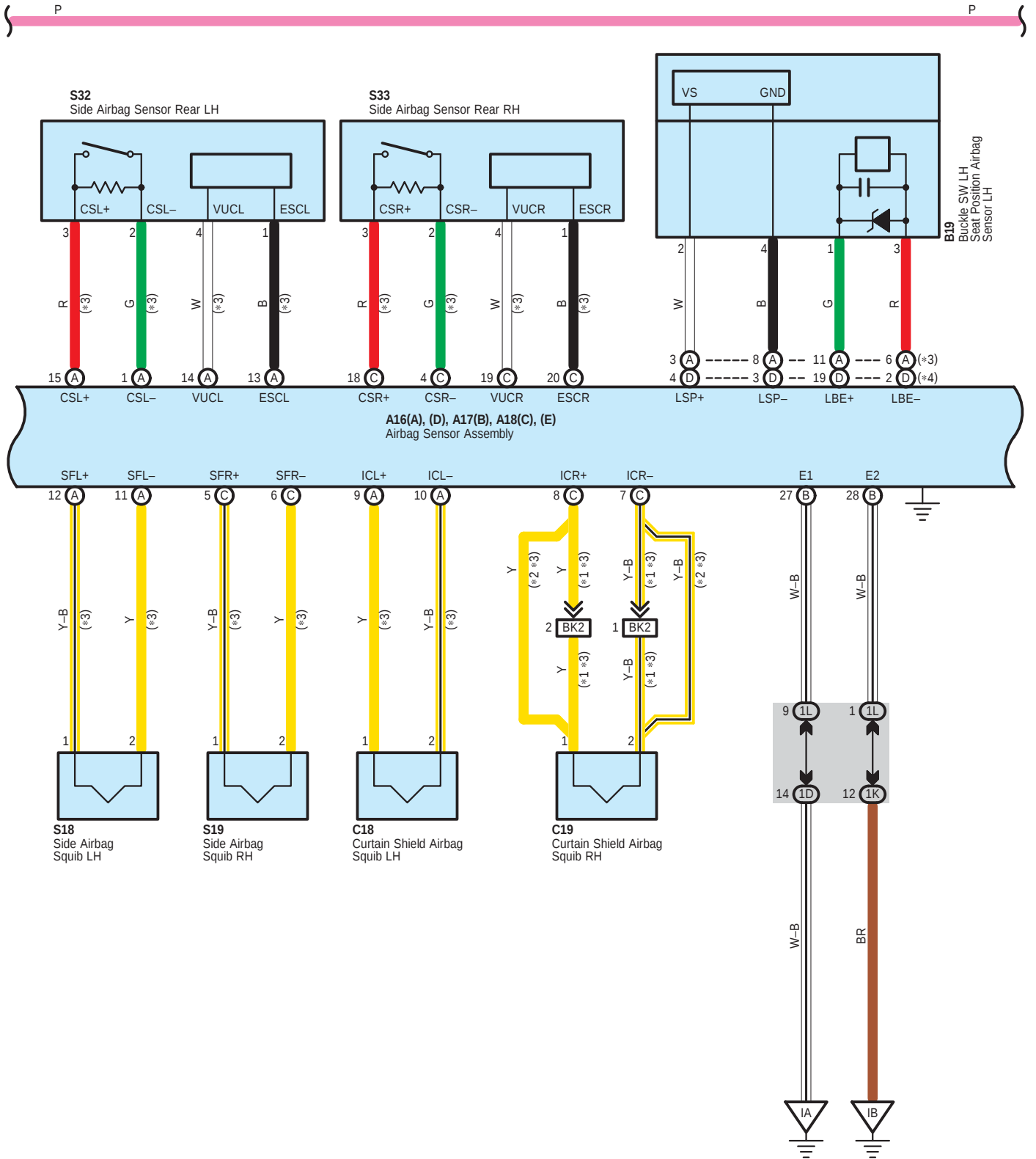
NOTICE: When inspecting or repairing the SRS, perform service in accordance with the following precautionary instructions and the procedure, and precautions in the Repair Manual applicable for the model year.

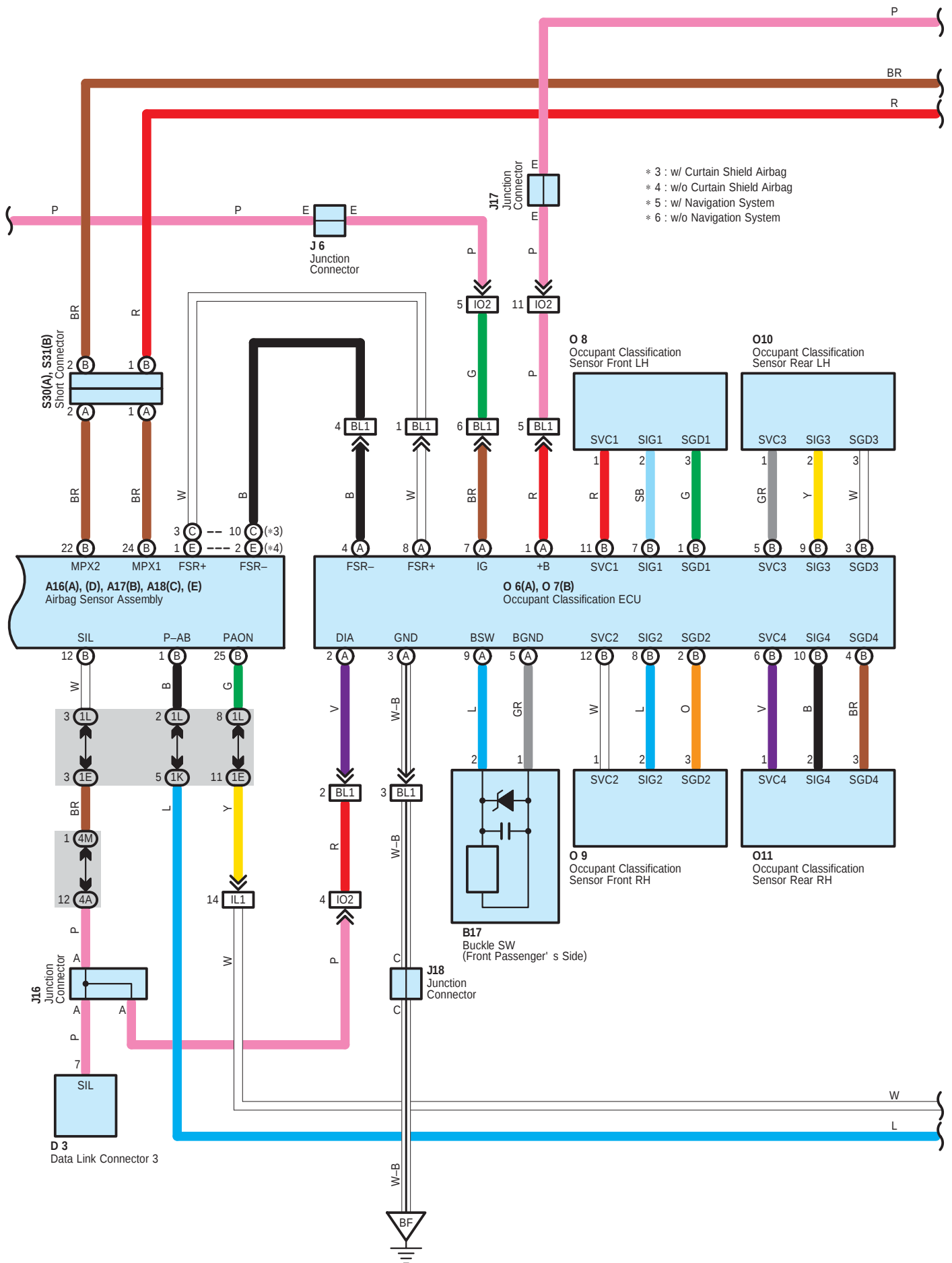
- Malfunction symptoms of the SRS are difficult to confirm, so the DTCs become the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect the DTCs before disconnecting the battery.
- **Work must be started more than 90 seconds after the ignition SW is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.**
(The SRS is equipped with a back-up power source so that if work is started within 90 seconds from disconnecting the negative (-) terminal cable of the battery, the SRS may deploy.)
- When the negative (-) terminal cable is disconnected from the battery, the memory of the clock and audio system will be cleared. So before starting work, make a record of the contents in the audio memory system. When work is finished, reset the audio systems as they were before and adjust the clock. Some vehicles have power tilt steering, power telescopic steering, power seat and power outside rear view mirror which are all equipped with memory function. However, it is not possible to make a record of these memory contents. So when the work is finished, it will be necessary to explain it to your customer, and ask the customer to adjust the features and reset the memory. To avoid erasing the memory in each system, never use a back-up power supply from outside the vehicle.
- Before repair, remove the airbag sensor if shocks are likely to be applied to the sensor during repair.
- Do not expose the following parts directly to hot air or flame;
- Even in cases of a minor collision where the SRS does not deploy, the following parts should be inspected;
- Never use SRS parts from another vehicle. When replacing parts, replace with new parts.
- For the purpose of reuse, never disassemble and repair the following parts.
- If the following parts have been dropped, or have cracks, dents and other defects in their case, bracket, and connector, replace with new one.
- Use a volt/ohmmeter with high impedance (10 k Ω /V minimum) for troubleshooting electrical circuits of the system.
- Information labels are attached to the periphery of the SRS components. Follow the instructions of the notice.
- After work on the SRS is completed, check the SRS warning light.
- If the vehicle is equipped with a mobile communication system, refer to the precaution in the IN section of the Repair Manual.

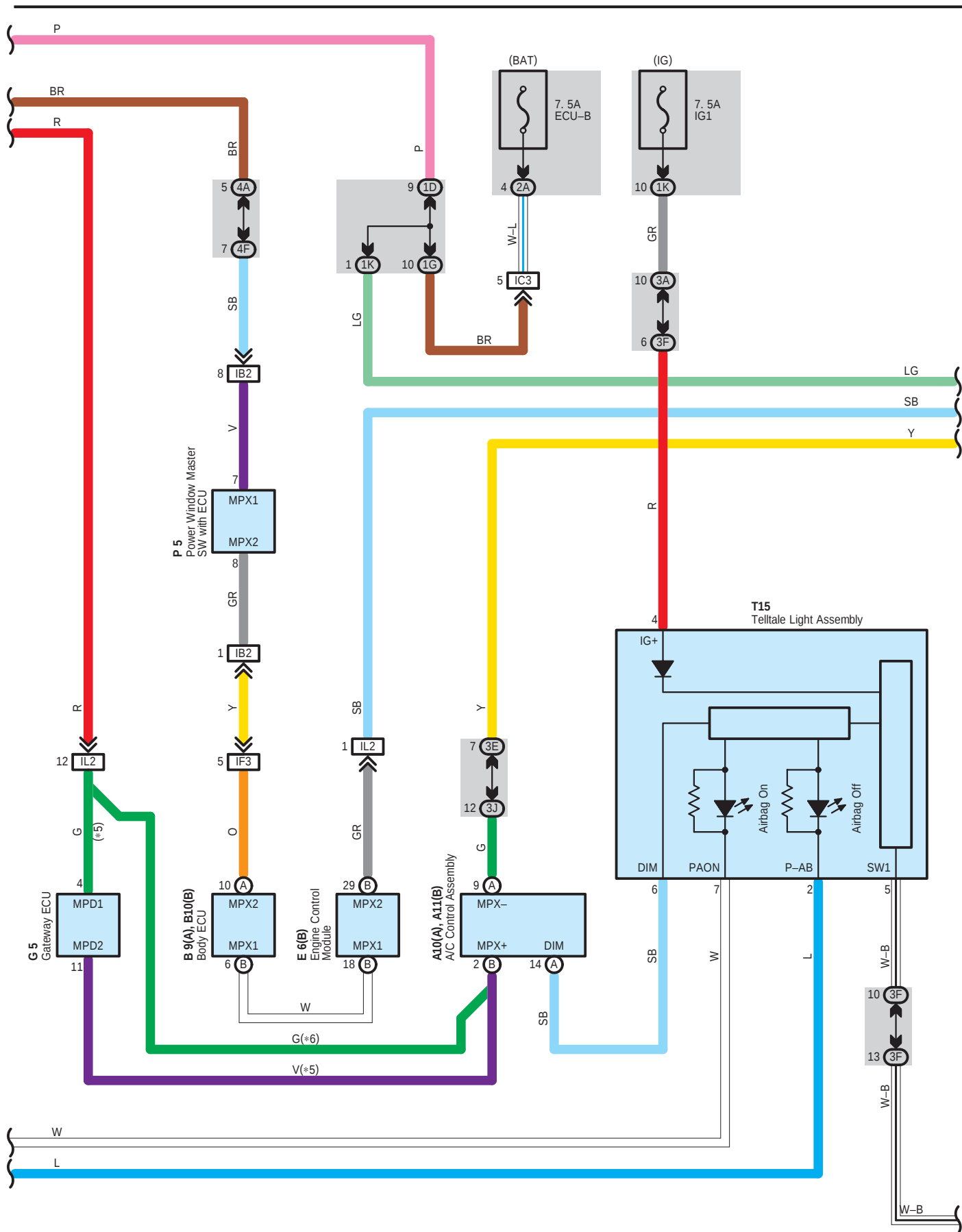
- * Steering wheel pad
- * Front passenger airbag assembly
- * Side airbag assembly
- * Curtain shield airbag assembly
- * Seat belt pretensioner
- * Center airbag sensor assembly
- * Front airbag sensor assembly
- * Side airbag sensor assembly
- * Rear airbag sensor assembly

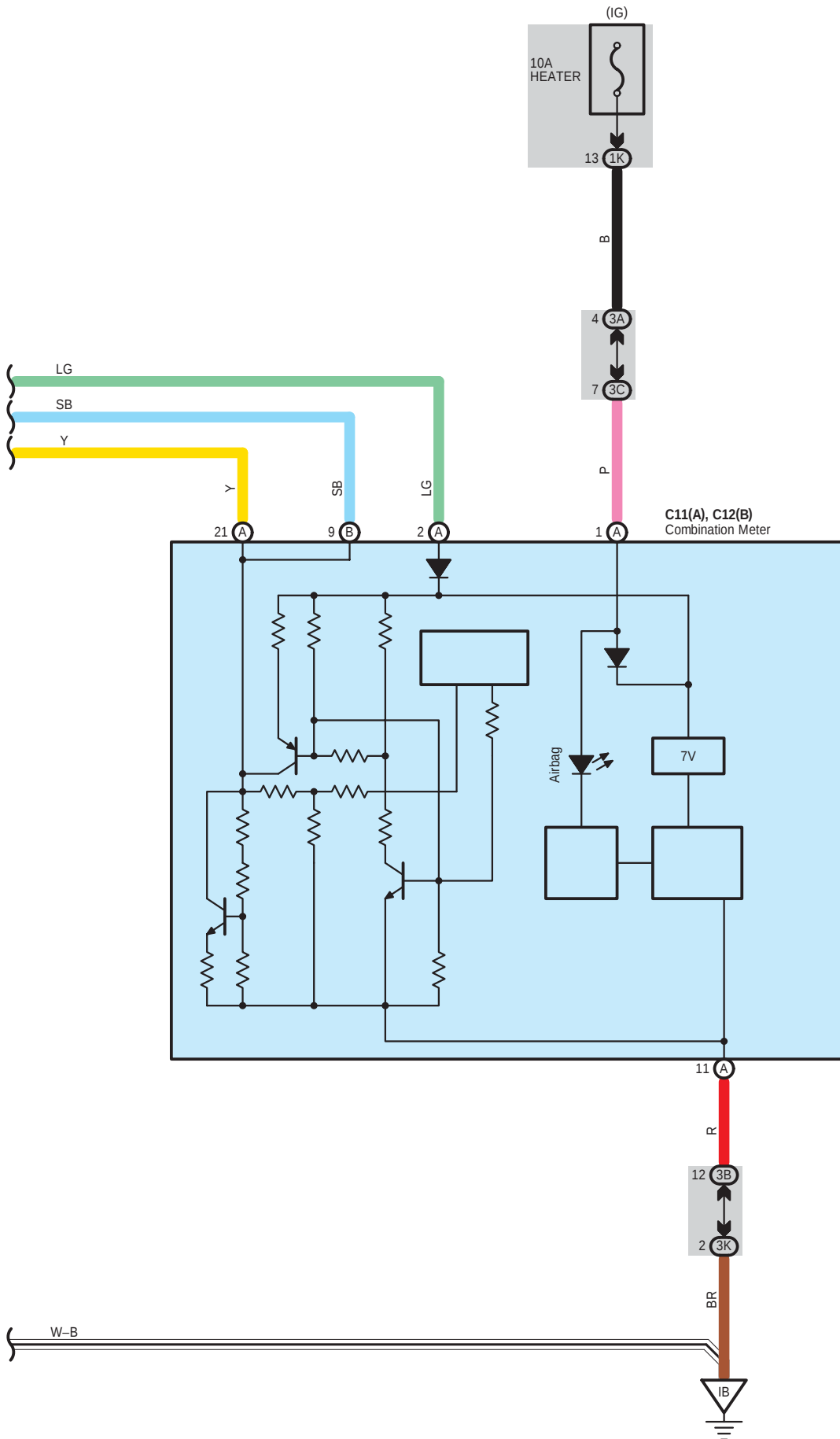


- * 1 : w/ Rear Seat Entertainment System
- * 2 : w/o Rear Seat Entertainment System
- * 3 : w/ Curtain Shield Airbag
- * 4 : w/o Curtain Shield Airbag









System Outline

The SRS is a driver and front passenger protection device which has a supplemental role to the seat belts.

When the ignition SW is turned to ON, the current from the IGN fuse flows to TERMINAL (B) 5 of the airbag sensor assembly.

If an accident occurs while driving, when the frontal impact exceeds a set level, the current from the IGN fuse flows to TERMINALS (B) 14, (B) 16, (B) 10, (B) 8, (A) 8 (w/ curtain shield airbag), or (A) 2 (w/o curtain shield airbag) and (C) 9 (w/ curtain shield airbag), or (C) 5 (w/o curtain shield airbag) of the airbag sensor assembly to the airbag squibs and the pretensioners to TERMINALS (B) 13, (B) 17, (B) 11, (B) 7, (A) 7 (w/ curtain shield airbag), or (A) 1 (w/o curtain shield airbag) and (C) 10 (w/ curtain shield airbag), or (C) 6 (w/o curtain shield airbag) of the airbag sensor assembly to TERMINAL (B) 27, (B) 28 or BODY GROUND to GROUND, so that current flows to the airbag squibs and the pretensioners and causes them to operate.

When the side impact also exceeds a set level, the current from the IGN fuse flows to TERMINALS (A) 12, (C) 5, (A) 9 and (C) 8 of the airbag sensor assembly to the side airbag squibs and the curtain shield airbag squibs TERMINALS (A) 11, (C) 6, (A) 10 and (C) 7 of the airbag sensor assembly to TERMINAL (B) 27, (B) 28 or BODY GROUND to GROUND, causing side airbag squibs and curtain shield airbag squibs to operate.

The airbag stored inside the steering wheel pad is instantaneously expanded to soften the shock to the driver.

The airbag stored inside the passenger's instrument panel is instantaneously expanded to soften the shock to the front passenger.

Side airbags are instantaneously expanded to soften the shock of side to the driver and front passenger.

The curtain shield airbag can ease an impact on the head of the front and rear passengers and reduce risks of injury.

In a head-on crash, the driver moves forward and may strike his/her lower limbs against the instrument panel, the key cylinder, etc.

The pretensioners make sure of the seat belt restrainability.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A8		38 (3MZ-FE)	C11	A	42	O10		46 (*1)
		40 (2AZ-FE)	C12	B	42			47 (*2)
A9		38 (3MZ-FE)	C18		44	O11		46 (*1)
		40 (2AZ-FE)	C19		44			47 (*2)
A10	A	42	D3		42	P5		44
A11	B	42	E6	B	42	P13		44
A16	A	42	G5		43	P14		44
	D	42	J6		43	S16		45
A17	B	42	J16		43	S17		45
A18	C	42	J17		43	S18		46 (*1)
	E	42	J18		44			47 (*2)
A19		42	O6	A	46 (*1)	S19		46 (*1)
A20		42			47 (*2)			47 (*2)
B9	A	42	O7	B	46 (*1)	S30	A	43
B10	B	42			47 (*2)	S31	B	43
B17		46 (*1)	O8		46 (*1)	S32		45
		47 (*2)			47 (*2)	S33		45
B19		46 (*1)	O9		46 (*1)	T15		43
		47 (*2)			47 (*2)			

* 1 : w/ Power Seat * 2 : w/o Power Seat



: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
1G		
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1L	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3E		
3F		
3J	31	
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4E		
4F		
4M	32	



: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK1	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IO2	51	Cowl Wire and Floor Wire (Right Kick Panel)
BK2	52	Roof No.2 Wire and Floor Wire (Right Rear Quarter Panel)
BL1	54 (*1)	Floor Wire and Front Seat RH Wire (Under the Front Passenger's Seat)
	55 (*2)	

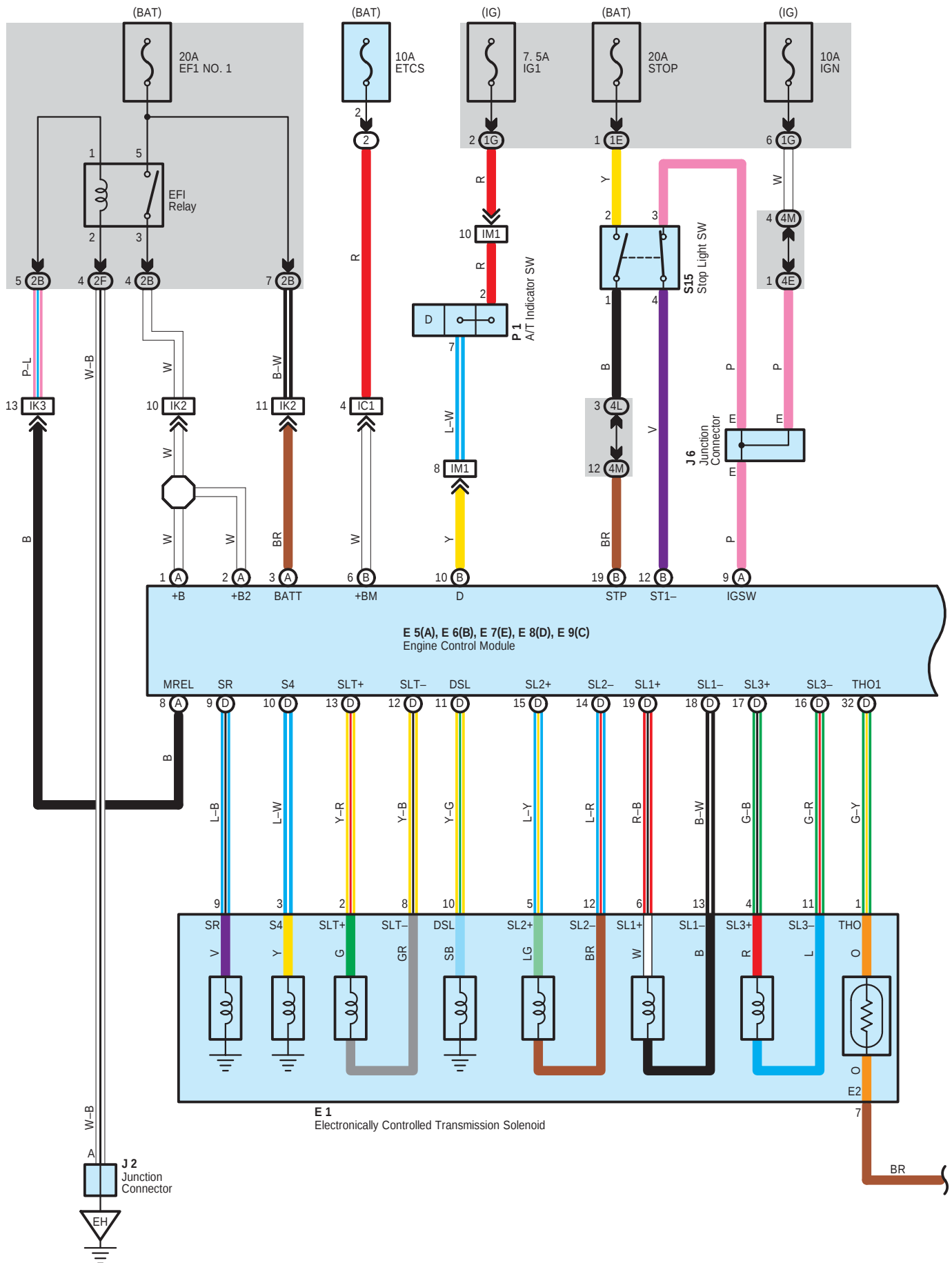


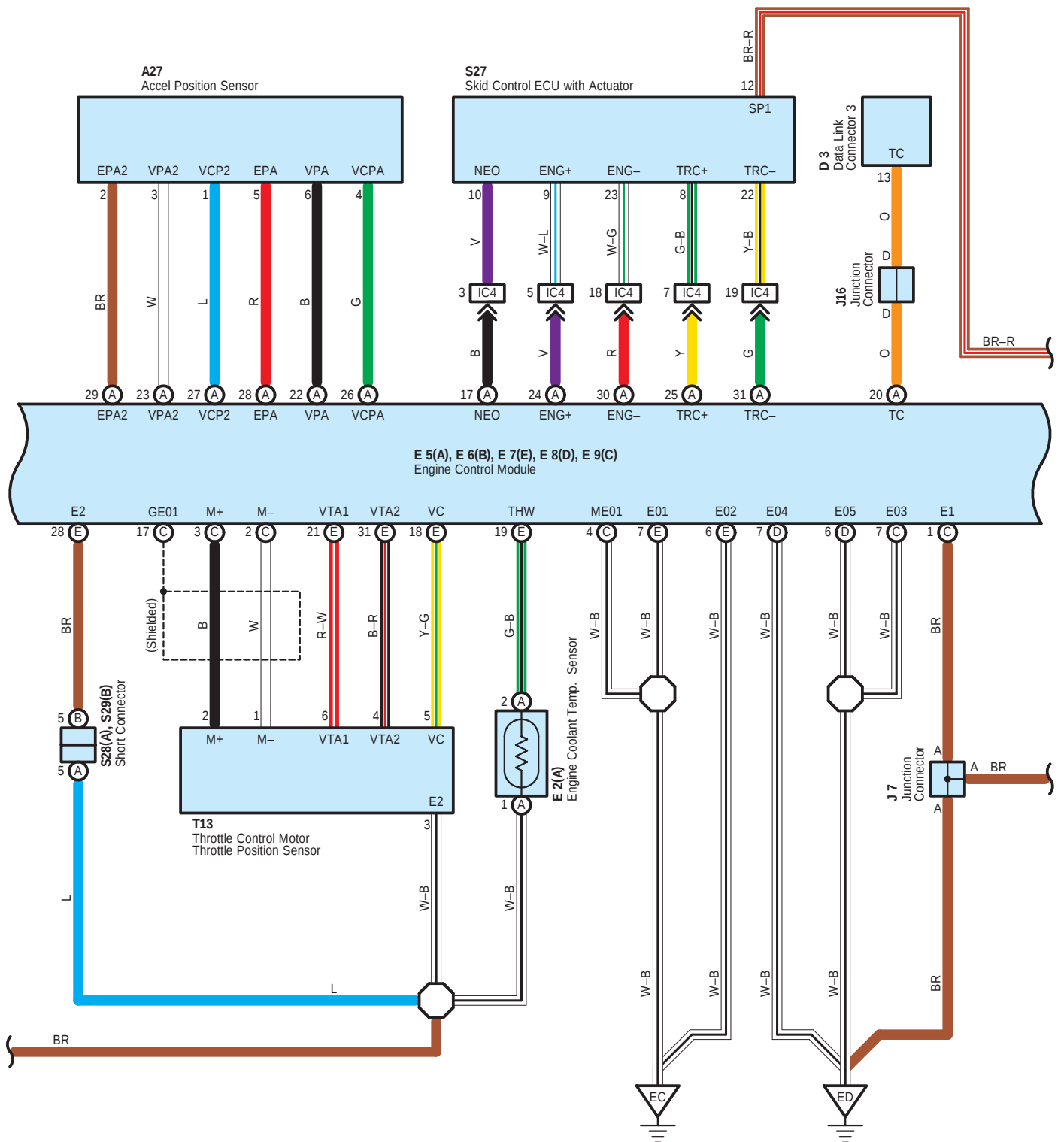
: Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
IB	50	Right Instrument Panel Brace
BF	52	Near the Rear Side Marker Light RH

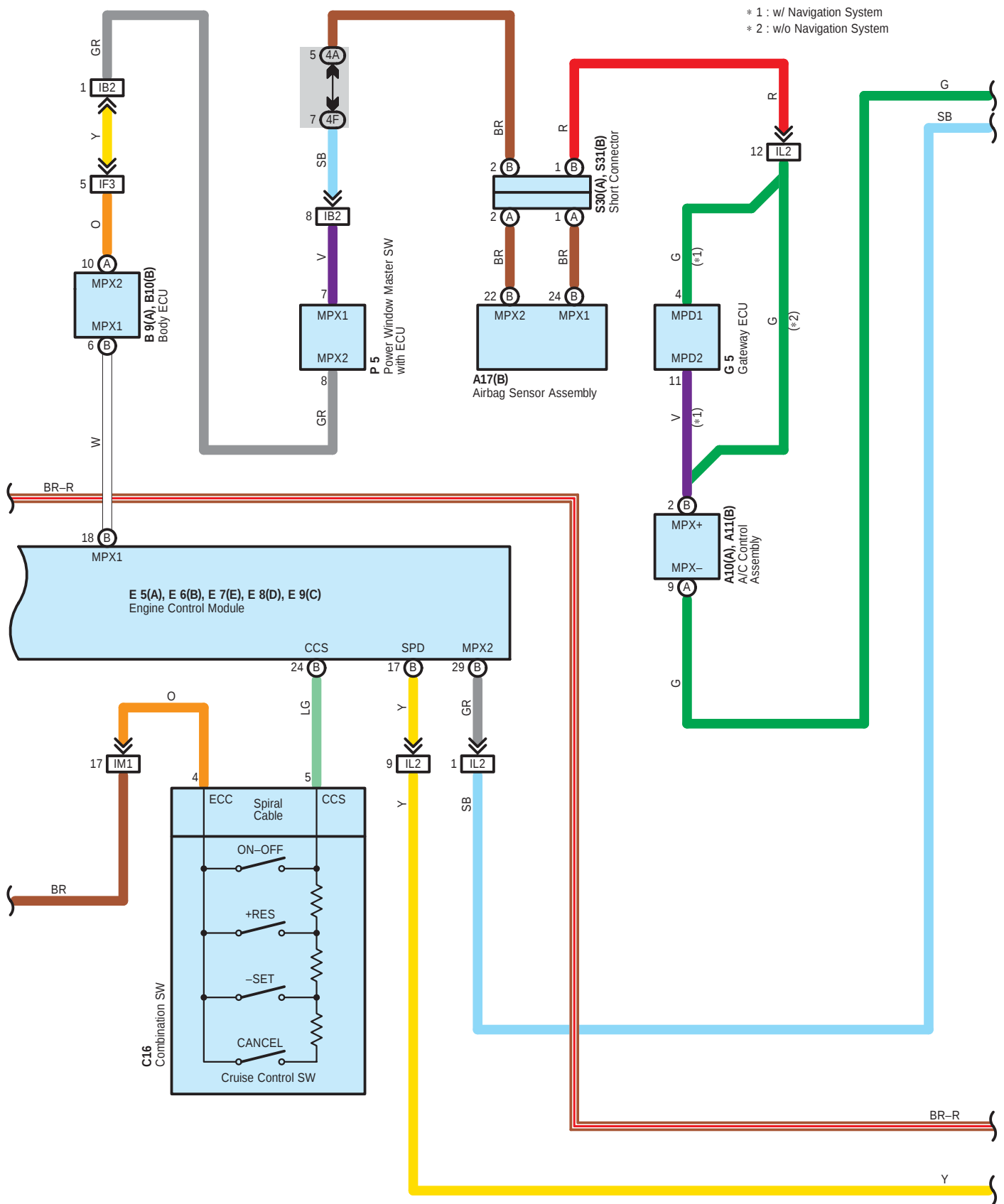
* 1 : w/ Power Seat * 2 : w/o Power Seat

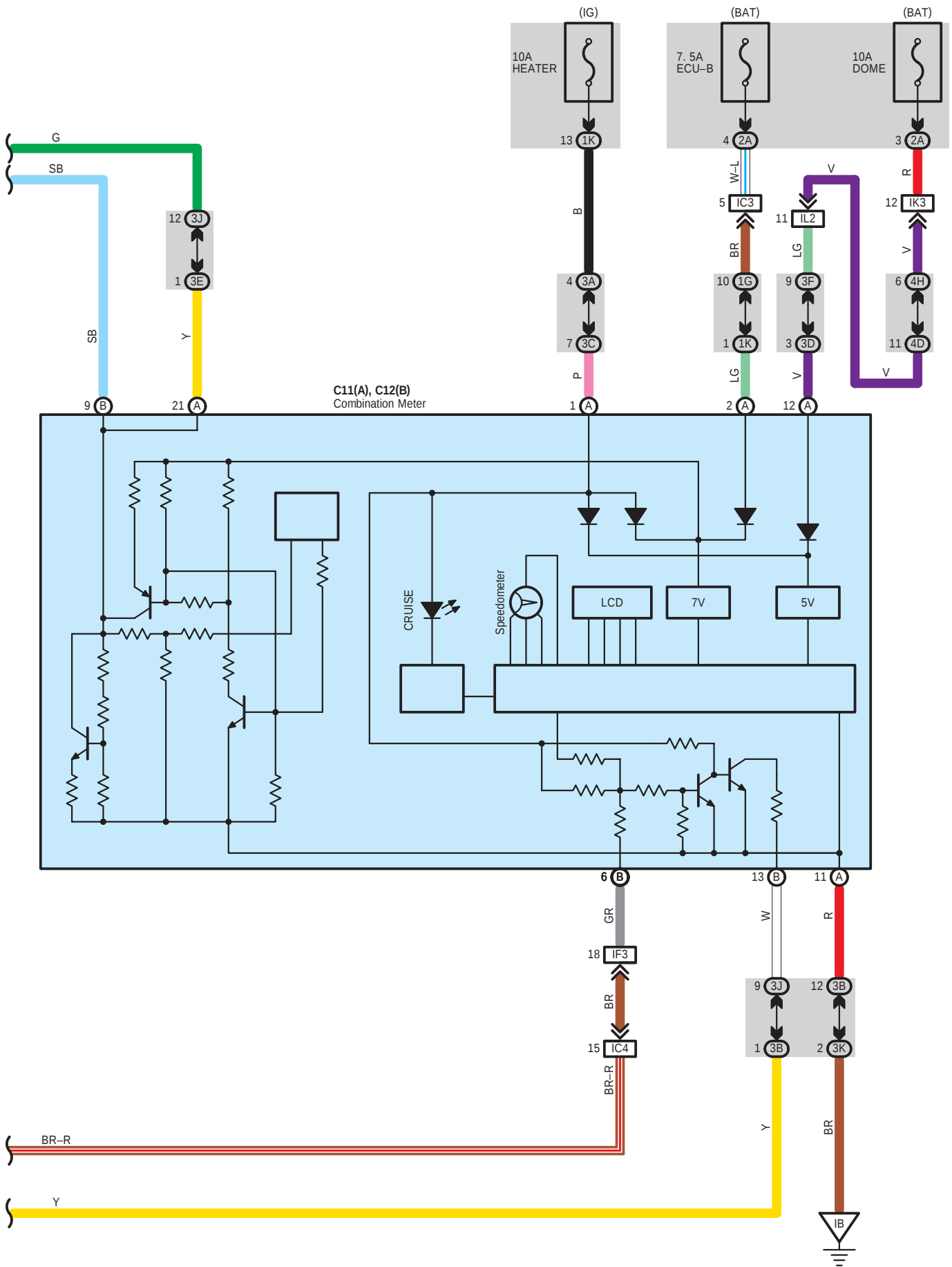
Cruise Control for 3MZ-FE





Cruise Control for 3MZ-FE





Cruise Control for 3MZ-FE

System Outline

The cruise control system is a constant vehicle speed controller in which control of the switch on the instrument panel makes it possible to automatically adjust the opening of the engine throttle valve without depressing of the accel pedal.

1. Set Operation

When the ON-OFF SW is turned on, the system starts preparations necessary for the cruise control and turns on the indicator light in the combination meter.

2. Set Speed Control

When the – SET SW is operated with the ON-OFF SW turned on during travelling, the constant vehicle speed is controlled.

3. Coast Control

When the – SET SW is kept turned on during cruise control travelling, the engine control module controls the throttle valve to decelerate the vehicle. Every time the – SET SW is turned on instantaneously, the vehicle speed is decelerated approximately 1.5 km/h.

4. Accel Control

When the + RES SW is kept turned on during cruise control travelling, the engine control module controls the throttle valve to accelerate the vehicle. Every time the + RES SW is turned on instantaneously, the vehicle speed is accelerated approximately 1.5 km/h.

5. Resume Control

When the vehicle speed is within the low speed limit (Approximately 40 km/h, 25 mph) if the cruise control is cancelled, use of the + RES SW accelerates the vehicle to the speed level used before canceling the cruise control.

6. Manual Cancel Mechanism

If any of the following signals is input during cruise control travelling, the cruise control is cancelled.

- * The stop light SW is turned on.
- * The CANCEL SW is turned on.
- * The ON-OFF SW is turned off.
- * Gear is shifted from D position to other positions than D.

7. Auto Cancel Function

If any of the following conditions is encountered, the cruise control is automatically cancelled.

- * The stop light SW wiring is faulty or short-circuited.
- * The vehicle speed signal is faulty.
- * The electronically controlled throttle malfunctions.

8. Overdrive Control Function

The overdrive control may be cancelled if the vehicle travels on the slope during cruise control travelling. After the overdrive control has been cancelled, when climbing hill is judged to finish from throttle opening information, the vehicle returns to the overdrive control mode again after the overdrive return timer is completed.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A10	A 42	E2	A 38(3MZ-FE)	P1	39(3MZ-FE)
A11	B 42	E5	A 42	P5	44
A17	B 42	E6	B 42	S15	43
A27	42	E7	E 42	S27	39(3MZ-FE)
B9	A 42	E8	D 42	S28	A 43
B10	B 42	E9	C 42	S29	B 43
C11	A 42	G5	43	S30	A 43
C12	B 42	J2	39(3MZ-FE)	S31	B 43
C16	42	J6	43	T13	39(3MZ-FE)
D3	42	J7	43		
E1	38(3MZ-FE)	J16	43		

○ : 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)
1E	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2F		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F		
3J	31	
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4D		
4E		
4F		
4H		
4L	32	
4M		

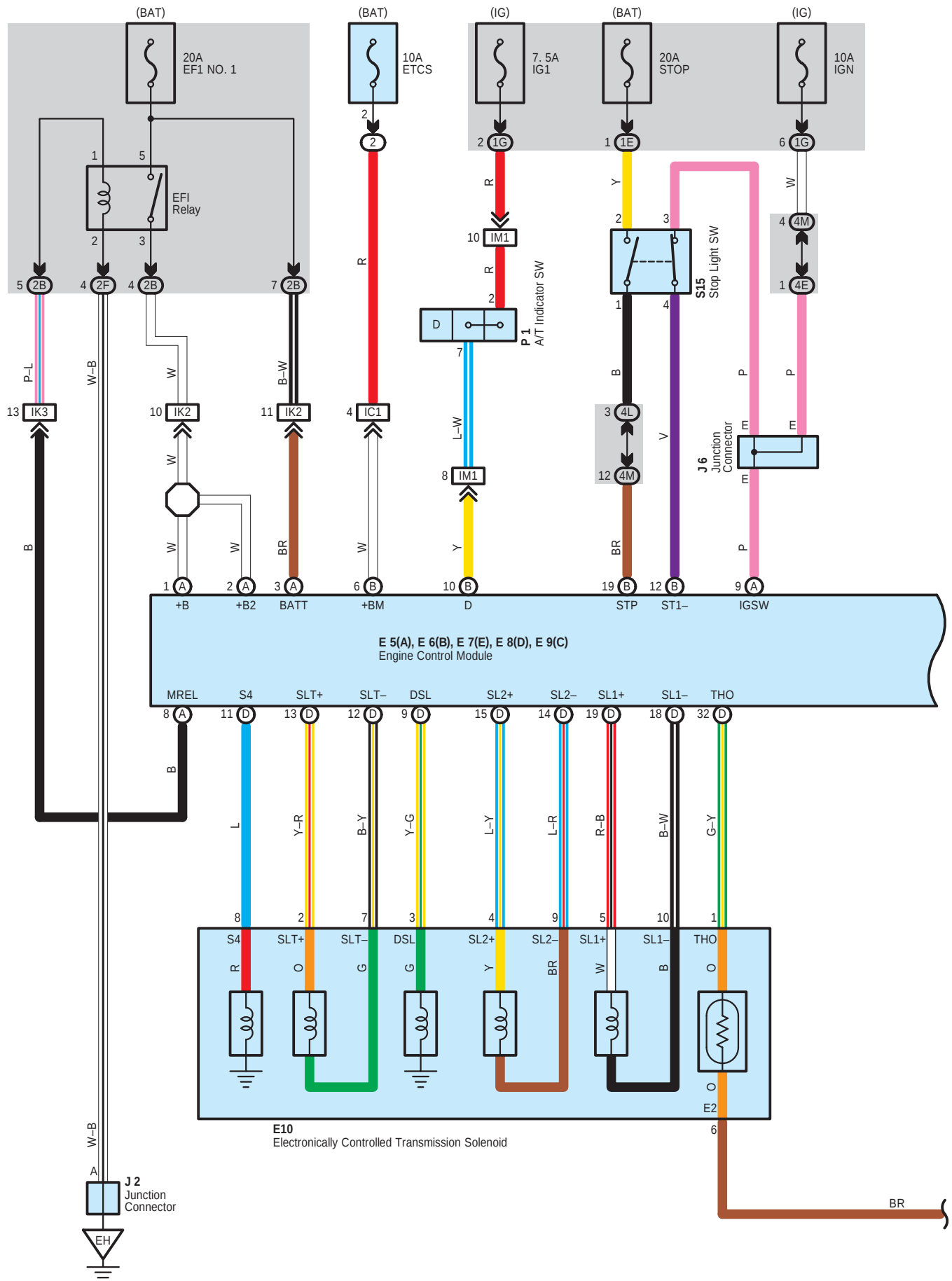
**: Connector Joining Wire Harness and Wire Harness**

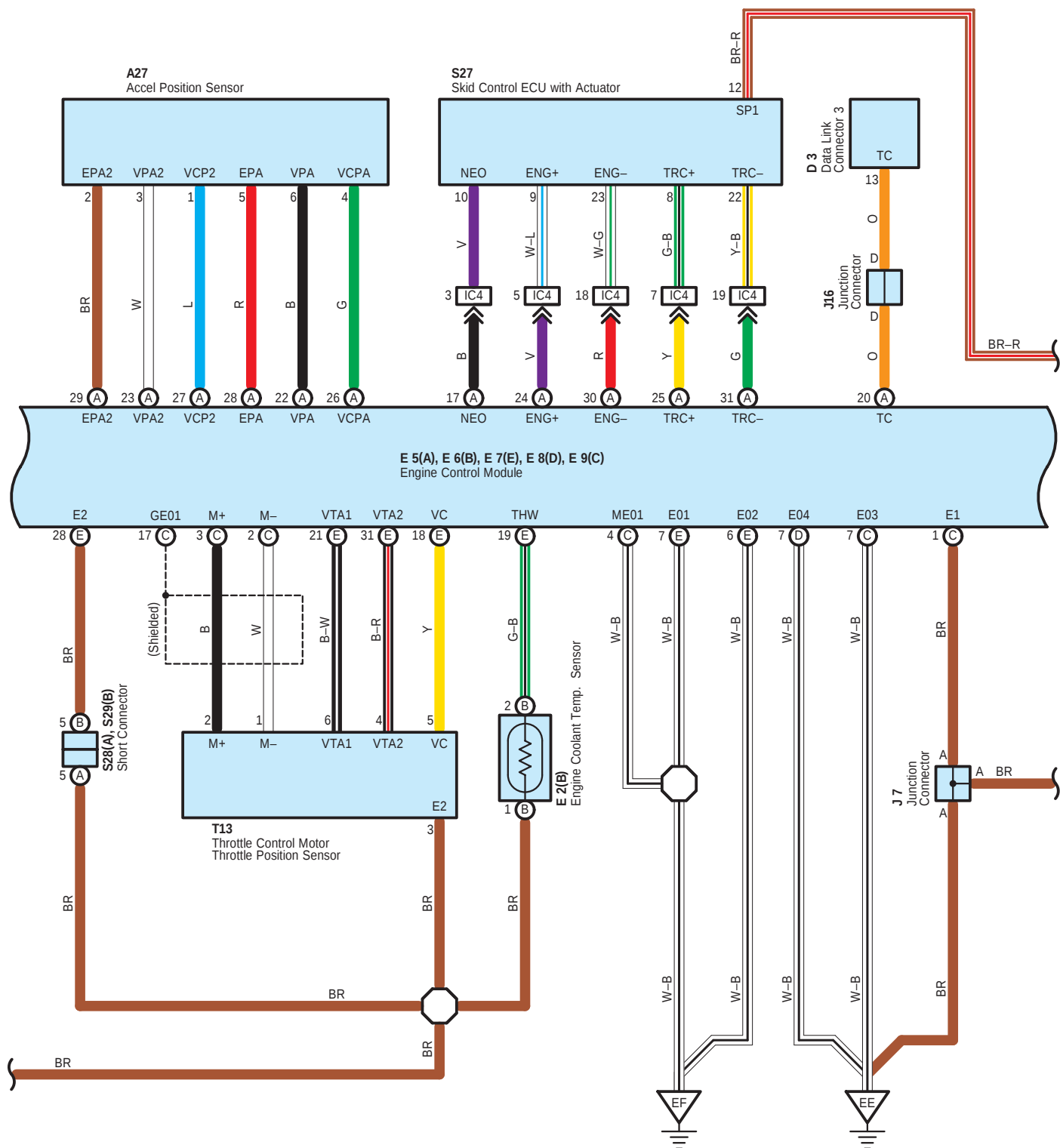
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC1	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC3		
IC4		
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IM1	51	Engine Wire and Cowl Wire (Right Kick Panel)

**: Ground Points**

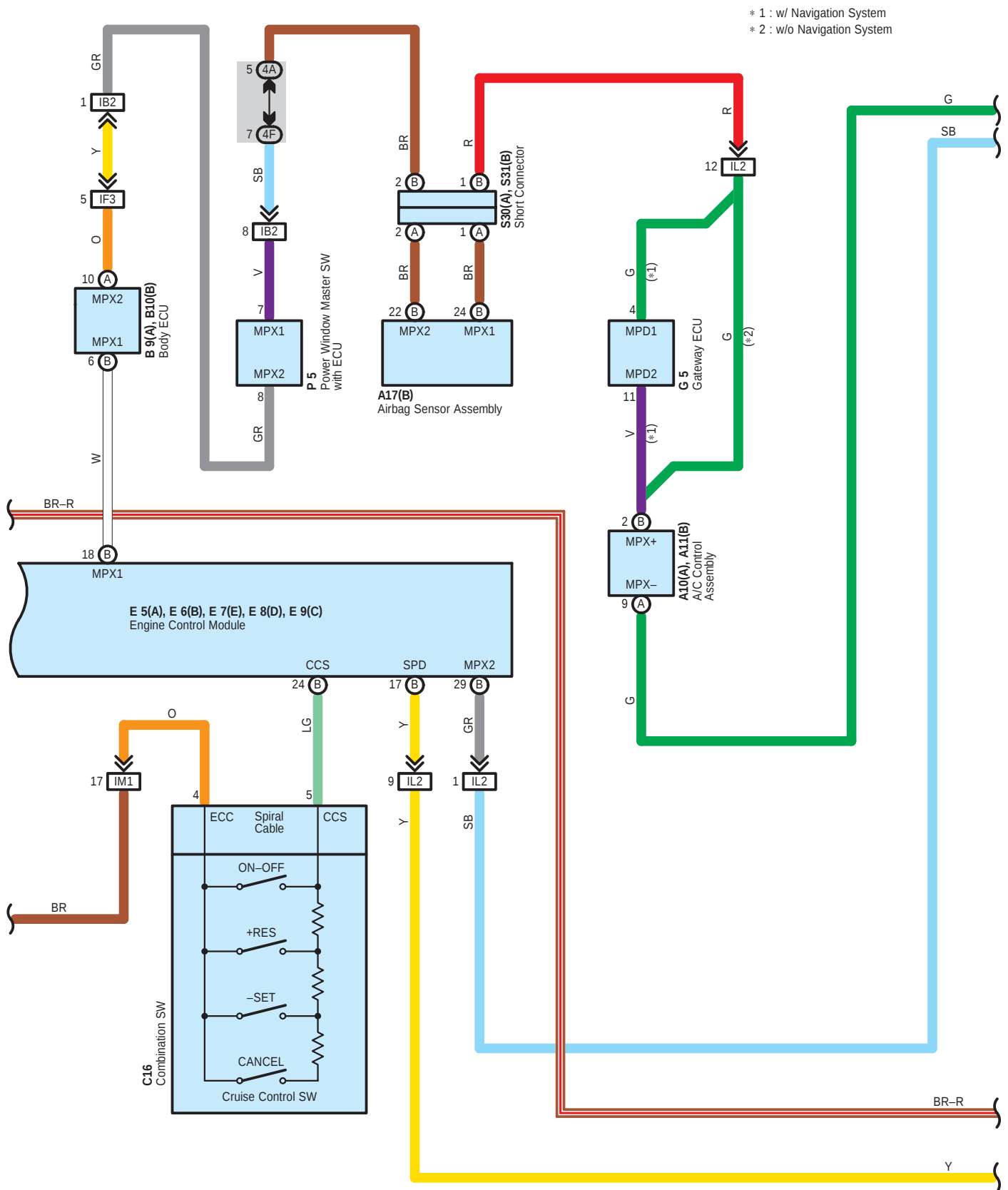
Code	See Page	Ground Points Location
EC	48 (3MZ-FE)	Left Side of Cylinder Head
ED	48 (3MZ-FE)	Rear Side of Cylinder Head
EH	48 (3MZ-FE)	Under the Left Headlight
IB	50	Right Instrument Panel Brace

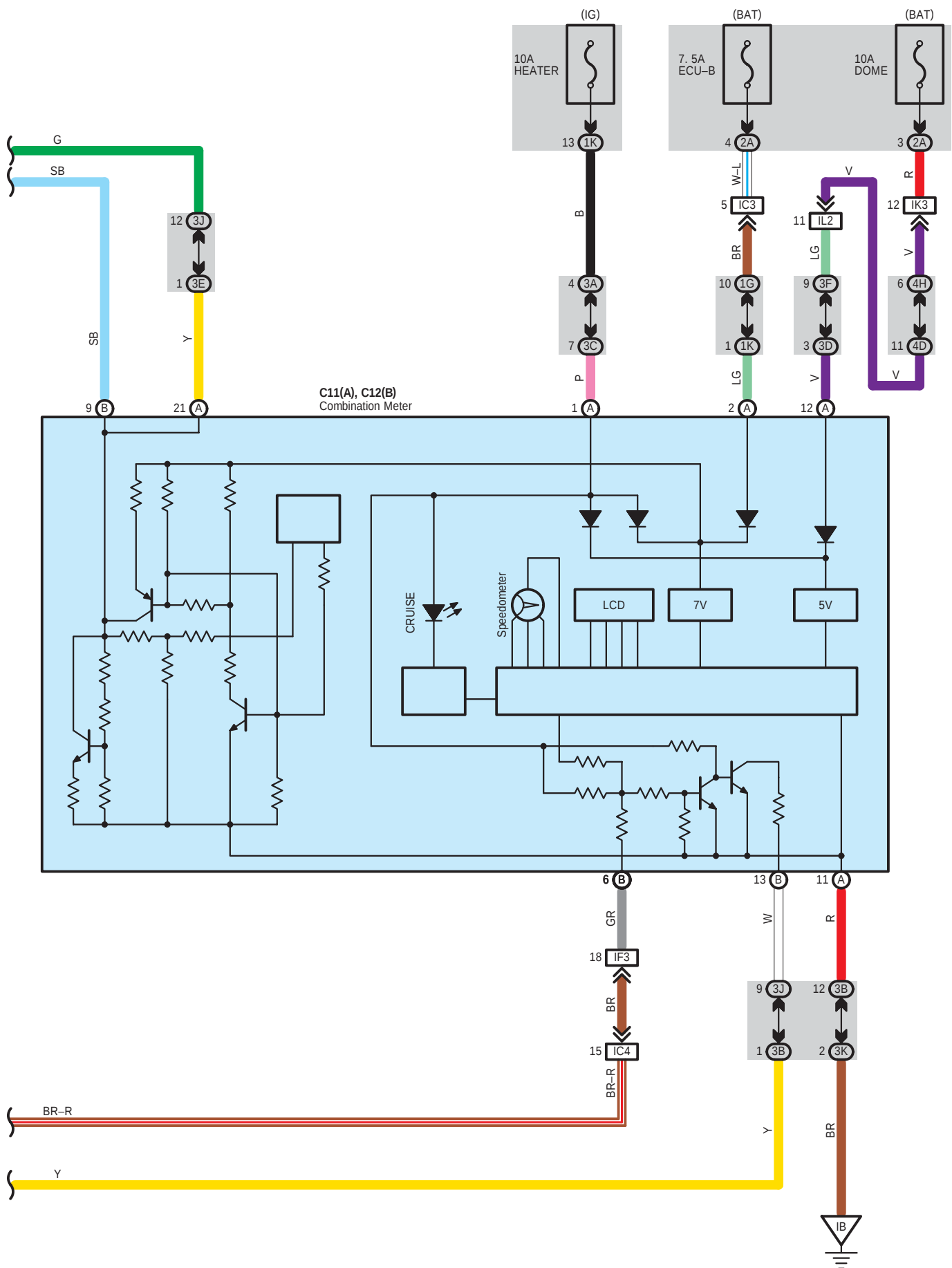
Cruise Control for 2AZ-FE





Cruise Control for 2AZ-FE





Cruise Control for 2AZ-FE

System Outline

The cruise control system is a constant vehicle speed controller in which control of the switch on the instrument panel makes it possible to automatically adjust the opening of the engine throttle valve without depressing of the accel pedal.

1. Set Operation

When the ON-OFF SW is turned on, the system starts preparations necessary for the cruise control and turns on the indicator light in the combination meter.

2. Set Speed Control

When the – SET SW is operated with the ON-OFF SW turned on during travelling, the constant vehicle speed is controlled.

3. Coast Control

When the – SET SW is kept turned on during cruise control travelling, the engine control module controls the throttle valve to decelerate the vehicle. Every time the – SET SW is turned on instantaneously, the vehicle speed is decelerated approximately 1.5 km/h.

4. Accel Control

When the + RES SW is kept turned on during cruise control travelling, the engine control module controls the throttle valve to accelerate the vehicle. Every time the + RES SW is turned on instantaneously, the vehicle speed is accelerated approximately 1.5 km/h.

5. Resume Control

When the vehicle speed is within the low speed limit (Approximately 40 km/h, 25 mph) if the cruise control is cancelled, use of the + RES SW accelerates the vehicle to the speed level used before canceling the cruise control.

6. Manual Cancel Mechanism

If any of the following signals is input during cruise control travelling, the cruise control is cancelled.

- * The stop light SW is turned on.
- * The CANCEL SW is turned on.
- * The ON-OFF SW is turned off.
- * Gear is shifted from D position to other positions than D.

7. Auto Cancel Function

If any of the following conditions is encountered, the cruise control is automatically cancelled.

- * The stop light SW wiring is faulty or short-circuited.
- * The vehicle speed signal is faulty.
- * The electronically controlled throttle malfunctions.

8. Overdrive Control Function

The overdrive control may be cancelled if the vehicle travels on the slope during cruise control travelling. After the overdrive control has been cancelled, when climbing hill is judged to finish from throttle opening information, the vehicle returns to the overdrive control mode again after the overdrive return timer is completed.

○ : Parts Location

Code			See Page			Code			See Page		
A10	A	42	E5	A	42	P1		41 (2AZ-FE)			
A11	B	42	E6	B	42	P5		44			
A17	B	42	E7	E	42	S15		43			
A27		42	E8	D	42	S27		41 (2AZ-FE)			
B9	A	42	E9	C	42	S28	A	43			
B10	B	42	E10		40 (2AZ-FE)	S29	B	43			
C11	A	42	G5		43	S30	A	43			
C12	B	42	J2		41 (2AZ-FE)	S31	B	43			
C16		42	J6		43	T13		41 (2AZ-FE)			
D3		42	J7		43						
E2	B	40 (2AZ-FE)	J16		43						

○ : 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)
1E	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2F		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F		
3J	31	
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4D		
4E		
4F		
4H		
4L	32	
4M		

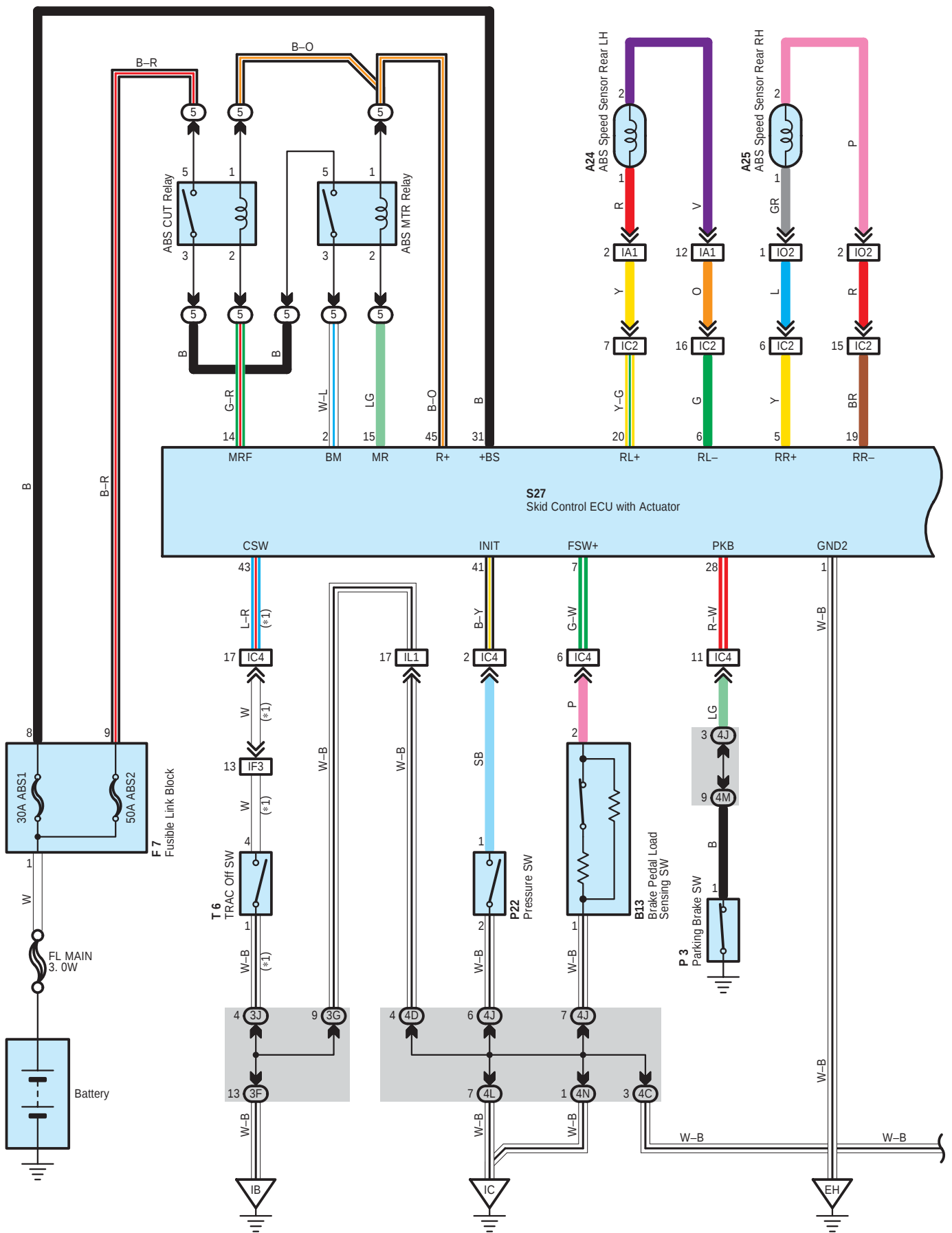
**: Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC1	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC3		
IC4		
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IM1	51	Engine Wire and Cowl Wire (Right Kick Panel)

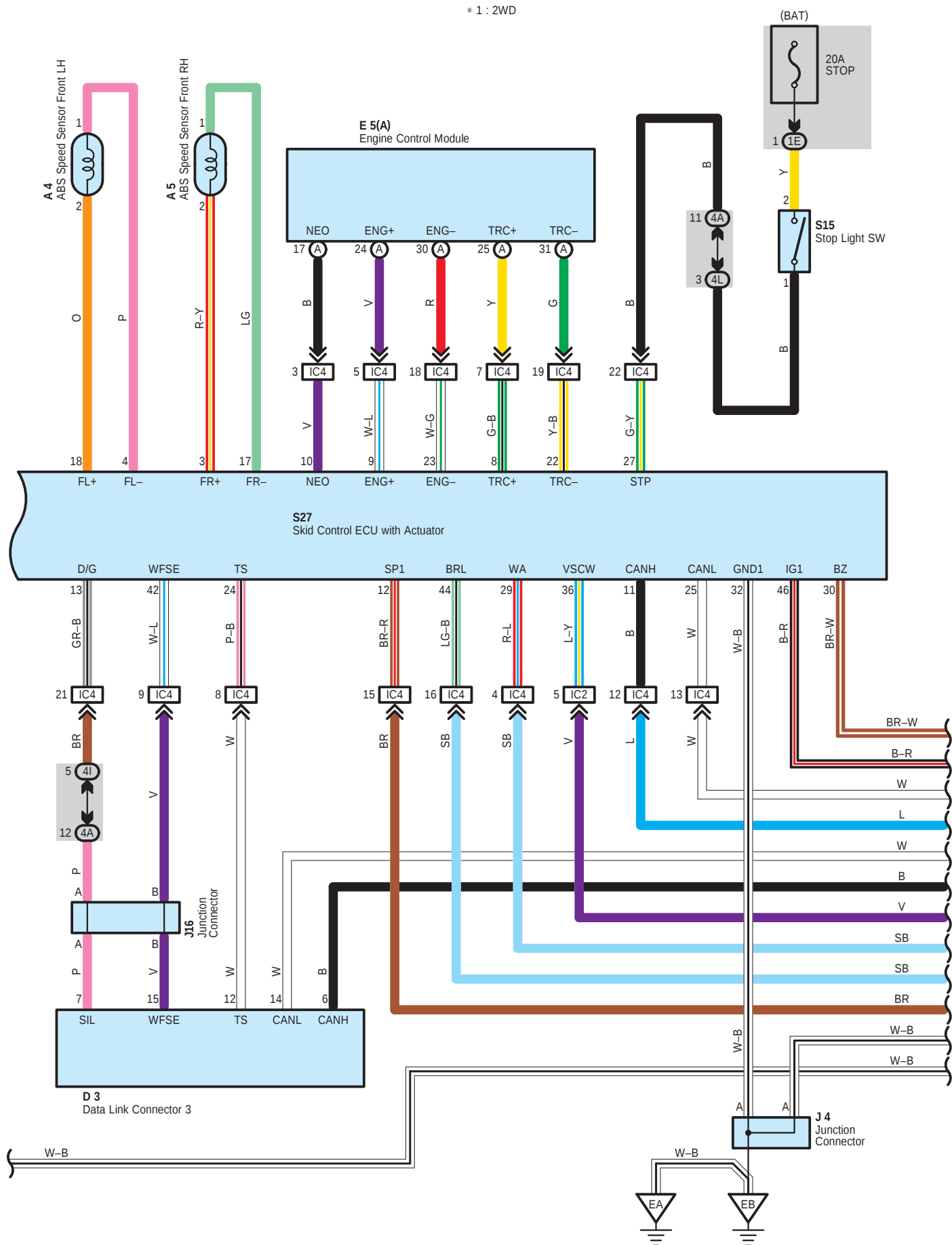
**: Ground Points**

Code	See Page	Ground Points Location
EE	49 (2AZ-FE)	Intake Side of Cylinder Block
EF	49 (2AZ-FE)	Left Side of Cylinder Block
EH	49 (2AZ-FE)	Under the Left Headlight
IB	50	Right Instrument Panel Brace

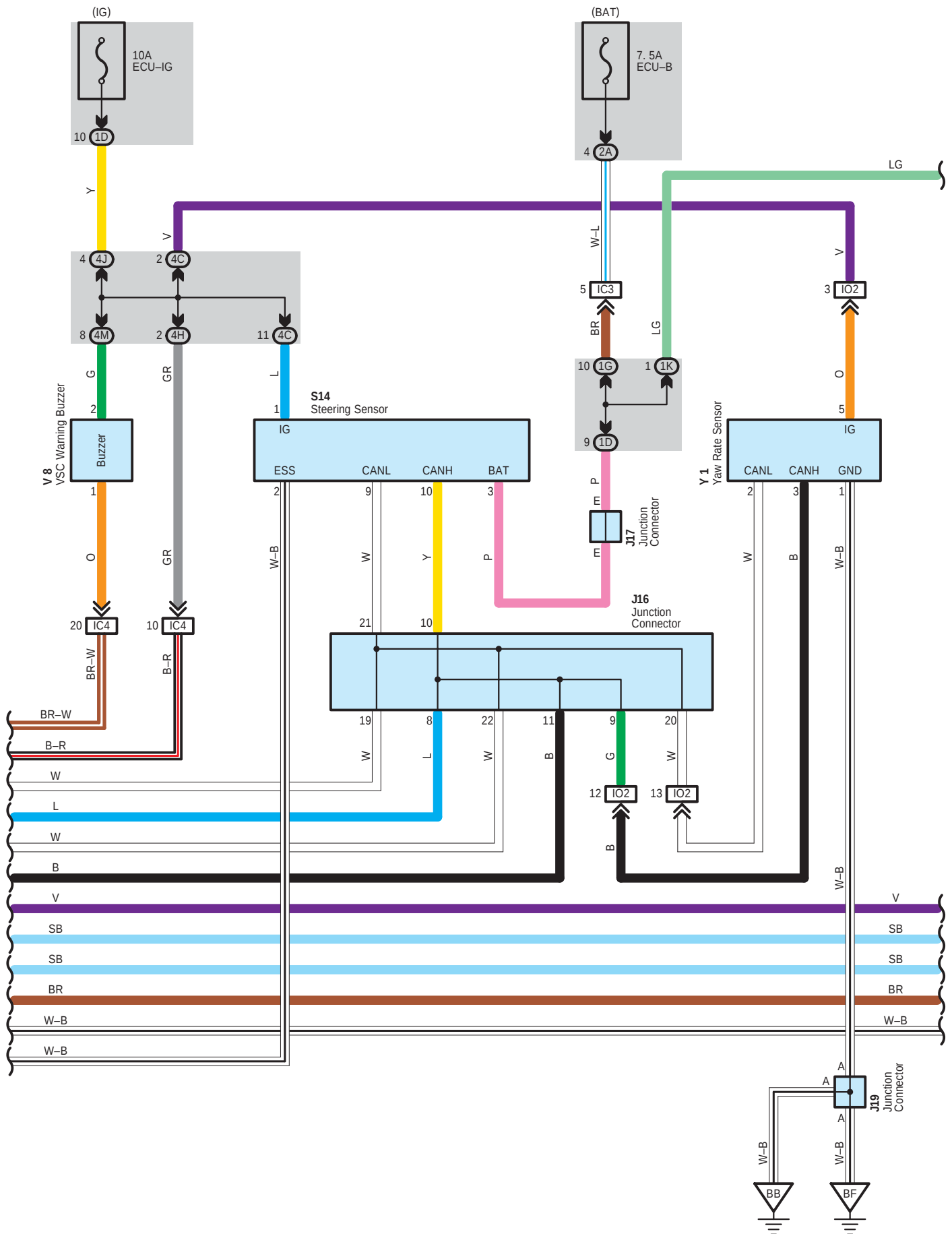
ABS, TRAC, VSC and Tire Pressure Warning System

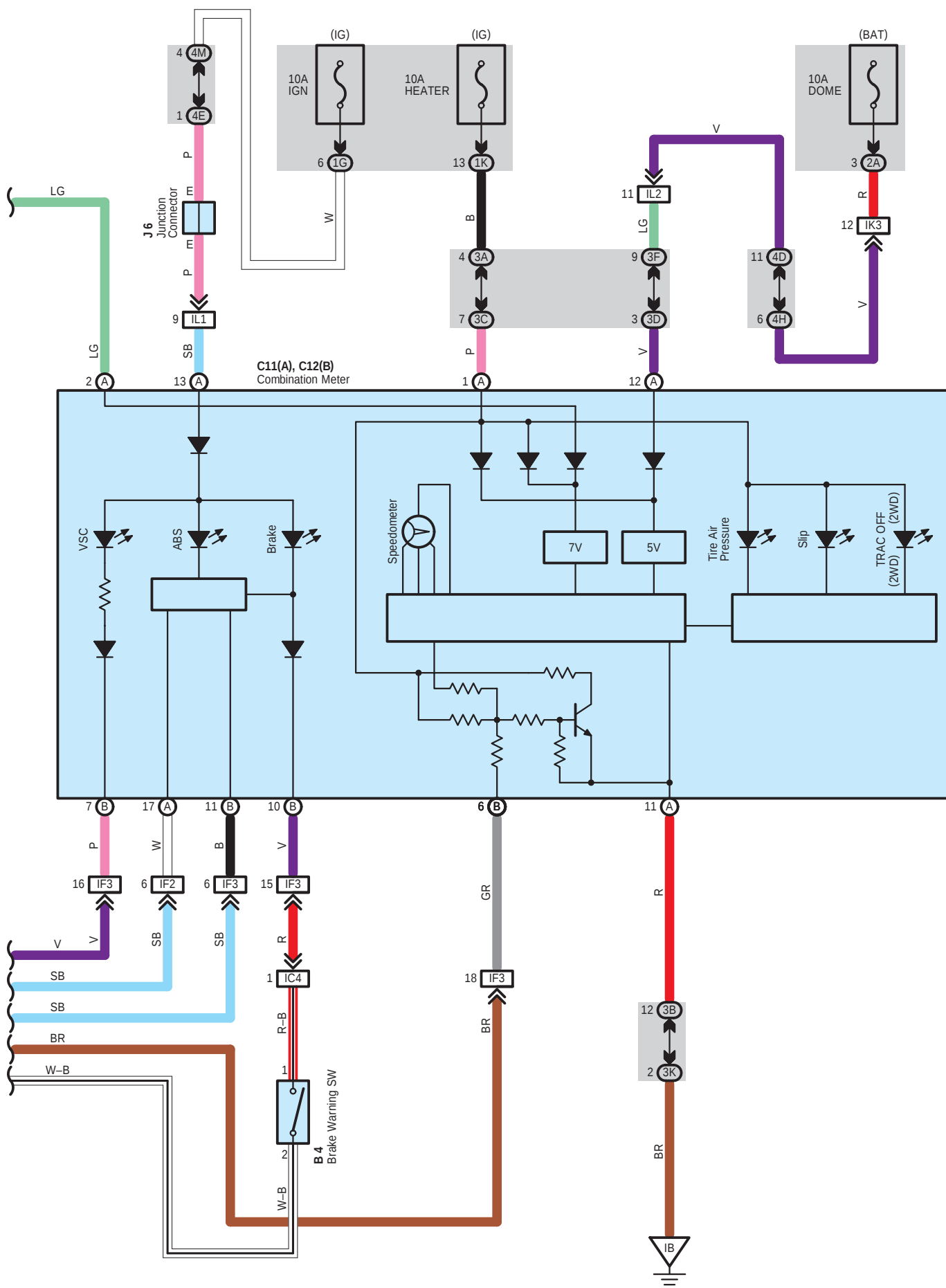


* 1 : 2WD



ABS, TRAC, VSC and Tire Pressure Warning System





ABS, TRAC, VSC and Tire Pressure Warning System

System Outline

1. ABS Operation

If the brake pedal is depressed suddenly, the ABS controls the hydraulic pressure of the wheel cylinders for all the four wheels to automatically avoid wheel locking and ensure the directional and steering stability of the vehicle. If the brake pedal is depressed suddenly, the skid control ECU with actuator controls the solenoids in the actuators using the signals from the sensors to move the brake fluid to the reservoir in order to release the braking pressure applied to the wheel cylinder. If the skid control ECU with actuator detects that the fluid pressure in the wheel cylinder is insufficient, the ECU controls the solenoids in the actuators to increase the braking pressure.

2. Traction Control Operation

The traction control system controls the engine torque, the hydraulic pressure of the driving wheel cylinders, slipping of the wheels which may occur at start or acceleration of the vehicle, to ensure an optimal driving power and vehicle stability corresponding to the road conditions.

3. VSC Operation

Unexpected road conditions, vehicle speed, emergency situation, and any other external factors may cause large under- or over-steering of the vehicle. If this occurs, the VSC system automatically controls the engine power and wheel brakes to reduce the under- or over-steering.

To reduce large over-steering :

If the VSC system determines that the over-steering is large, it activates the brakes for the outer front turning wheels depending on the degree of the over-steering to produce the moment toward the outside of the vehicle and reduce the over-steering.

To reduce large under-steering :

If the VSC system determines that the under-steering is large, it controls the engine power and activates the rear wheel brakes to reduce the under-steering.

VSC indicator light

If a malfunction occurs in the VSC system, the VSC indicator lights up to warn the driver.

4. Mutual System Control

To efficiently operate the VSC system at its optimal level, the VSC system and other control systems are mutually controlled while the VSC system is being operated.

Engine control

The engine power does not interfere with the VSC brake control by fuel cut controlling and reducing the engine output.

Engine control and electronically controlled transmission control

The strong braking force does not interfere with the braking force control of the VSC system by turning off the accel and reducing changes in the driving torque at shift-down.

VSC system operation indication

The slip indicator light flashes and the buzzer alarm intermittently to warn the driver that the current road is slippery, while the VSC system is being operated.

5. Fail Safe Function

If a malfunction occurs in the skid control ECU with actuator, sensor signals, and/or actuators, the skid control ECU with actuator inhibits the brake actuator control and inputs the malfunction signal to the engine control module. According to the malfunction signal, the brake actuator turns off the solenoid and the engine control module rejects any electronically controlled request from the VSC system. As a result, the vehicle functions without the ABS, BA, TRAC, and VSC systems.

○ : Parts Location

Code		See Page		Code		See Page		Code		See Page	
A4		38 (3MZ–FE)		C12	B	42		J19		44	
		40 (2AZ–FE)		D3		42		P3		43	
A5		38 (3MZ–FE)		E5	A	42		P22		43	
		40 (2AZ–FE)		F7		38 (3MZ–FE)		S14		43	
A24	44		40 (2AZ–FE)			S15		43			
A25		44		J4		39 (3MZ–FE)		S27		39 (3MZ–FE)	
B4		38 (3MZ–FE)				41 (2AZ–FE)				41 (2AZ–FE)	
		40 (2AZ–FE)		J6		43		T6		43	
B13		42		J16		43		V8		43	
C11	A	42		J17		43		Y1		45	

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
5	23	ABS R/B (Engine Compartment Rear Left)

**: Junction Block and Wire Harness Connector**

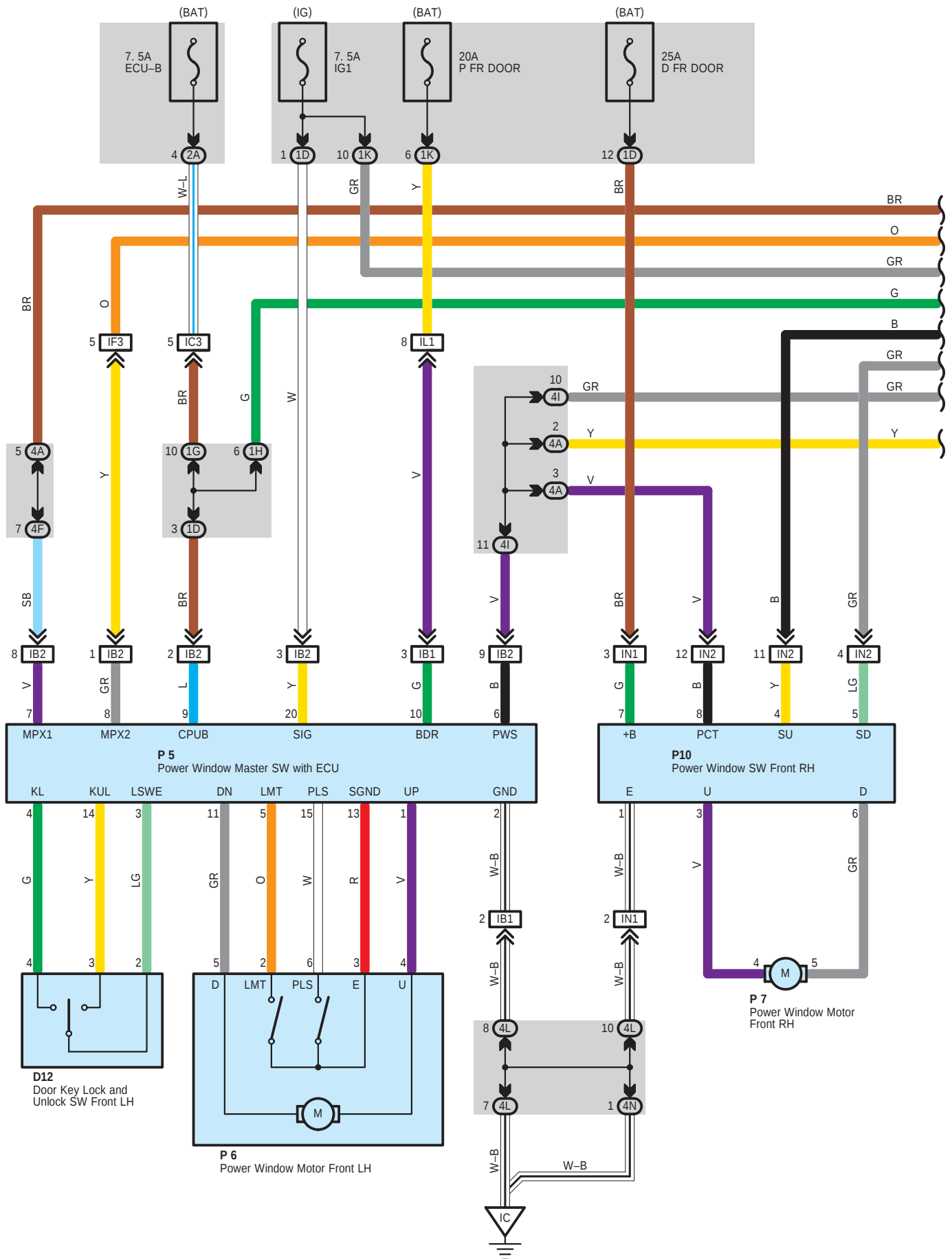
Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
1G		
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3F		
3G	31	
3J		
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4C		
4D		
4E		
4H		
4I	32	
4J		
4L		
4M		
4N		

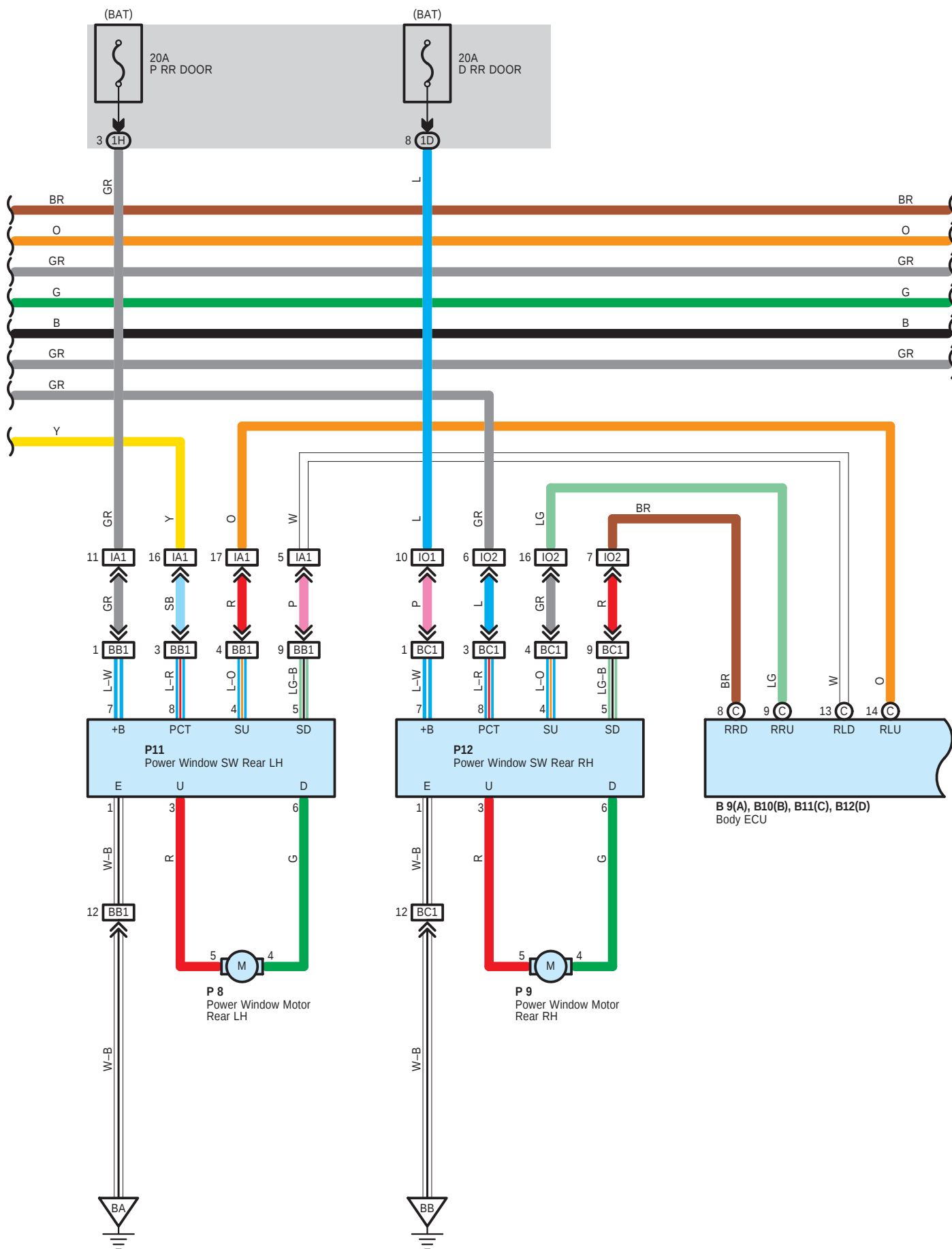
**: Connector Joining Wire Harness and Wire Harness**

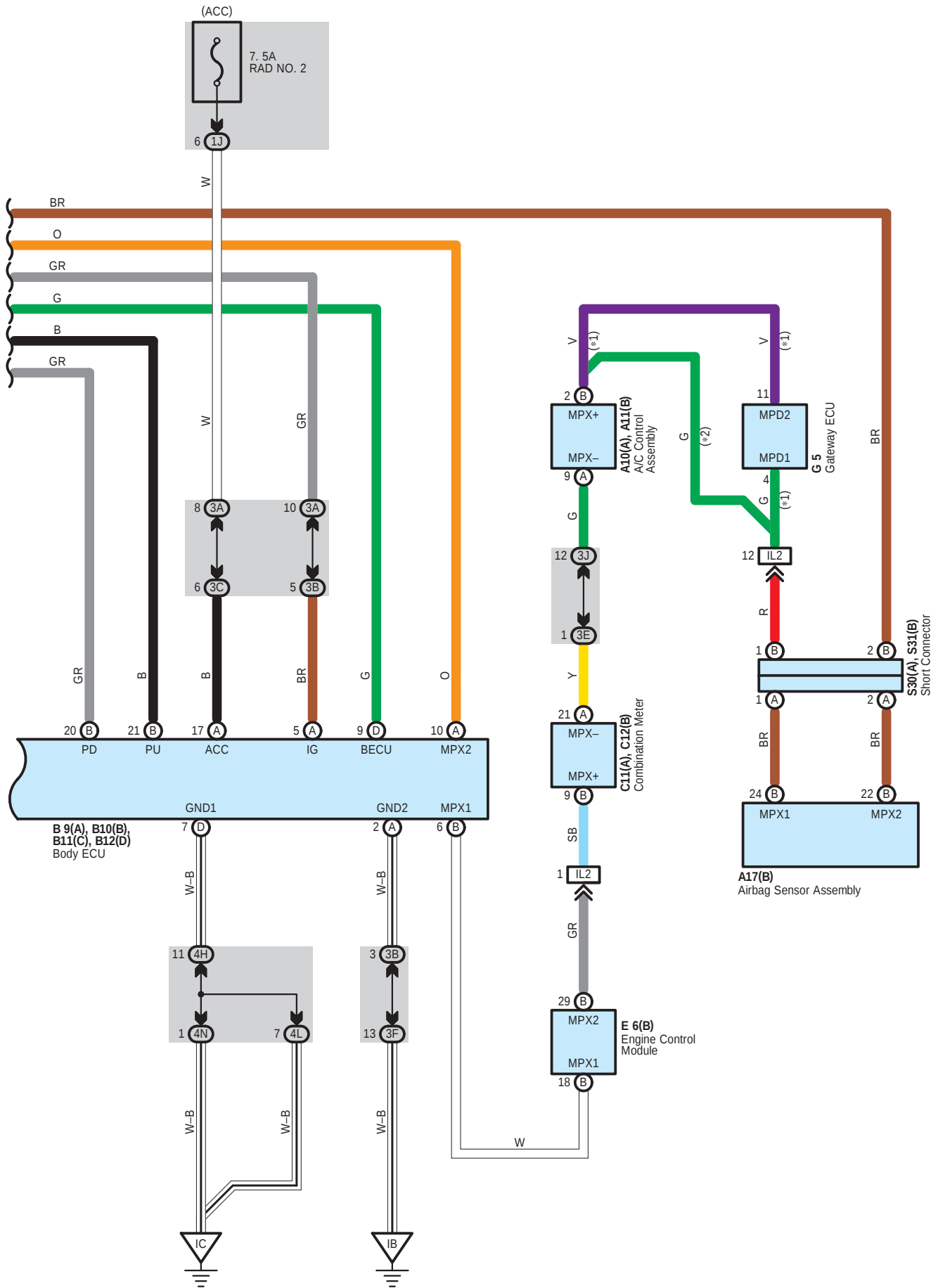
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IC2	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC3		
IC4		
IF2	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IF3		
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IO2	51	Cowl Wire and Floor Wire (Right Kick Panel)

**: Ground Points**

Code	See Page	Ground Points Location
EA	48 (3MZ-FE)	Right Front Fender Apron
	49 (2AZ-FE)	
EB	48 (3MZ-FE)	
	49 (2AZ-FE)	
EH	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel
BB	52	Right Center Pillar
BF	52	Near the Rear Side Marker Light RH







System Outline

Communication between power window master SW and body ECU is controlled and body ECU recognizes the conditions of each SW to control the operation of windows.

1. Manual Up or Down Operation (Driver's Window, Passenger's Window)

During you are pushing power window master SW (Driver side) halfway down, the motor operates and the window on the driver's side opens. During you are pulling power window master SW (Driver side) halfway up, the motor operates and the windows on the driver's side closes. The window on the passenger's side opens or closes by pushing down or pulling up power window master SW (Front passenger, rear passenger) or power window SW front RH, rear LH, RH.

2. Auto Up or Down Operation (Driver's Window)

When the power window master SW (Driver side) is fully pushed down, the motor operates and the window on the driver's side automatically opens. When the power window master SW (Driver side) is fully pulled up, the motor operates and the window on the driver's side automatically closes.

3. Stopping Automatic Window Operation

If you push the power window master SW (Driver side) halfway down during the window on the driver's side is raising automatically, the motor's operation stops. And if you pull the power window master SW (Driver side) halfway up during the window on the driver's side is lowering automatically, the motor's operation stops.

4. Key Off Power Window Operation

After the ignition SW is turned off, the windows can be operated for about 43 seconds. However, the window operation stops when either front doors opens.

5. Jam Protection Function (Driver's Window)

When any foreign object gets caught during power window UP operation, the motor rotates in the opposite direction to open the window.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A10	A	42	C12	B	42
A11	B	42	D12		44
A17	B	42	E6	B	42
B9	A	42	G5		43
B10	B	42	P5		44
B11	C	42	P6		44
B12	D	42	P7		44
C11	A	42	P8		44
				P9	44
				P10	44
				P11	44
				P12	44
				S30	A
				S31	B
					43
					43

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3E		
3F		
3J	31	
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4F		
4H		
4I	32	
4L		
4N		

Power Window



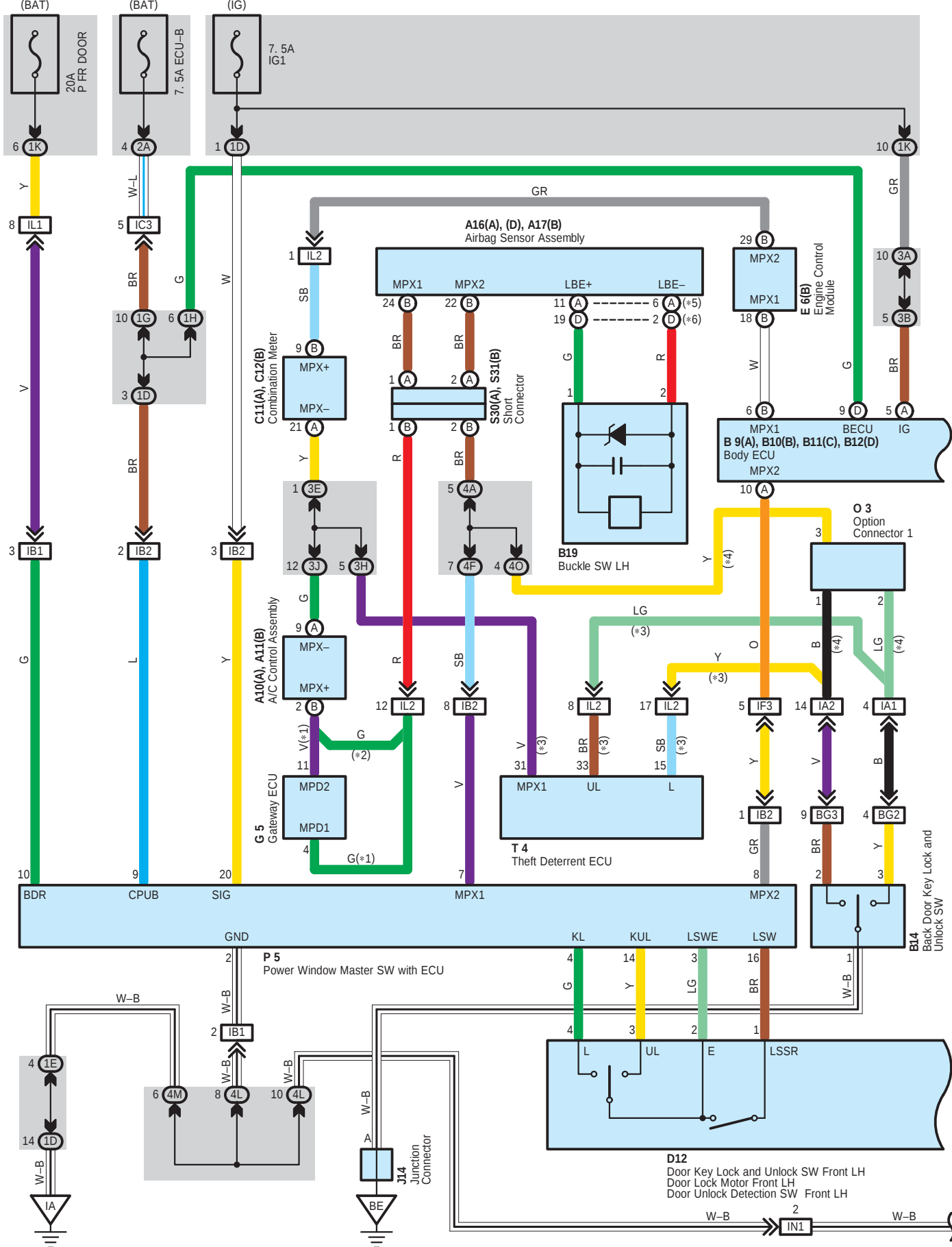
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IB1	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IB2		
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IN1	51	Front Door RH Wire and Cowl Wire (Right Kick Panel)
IN2		
IO1	51	Cowl Wire and Floor Wire (Right Kick Panel)
IO2		
BB1	52	Rear Door No.1 LH Wire and Floor No.2 Wire (Left Center Pillar)
BC1	52	Rear Door No.1 RH Wire and Floor Wire (Right Center Pillar)

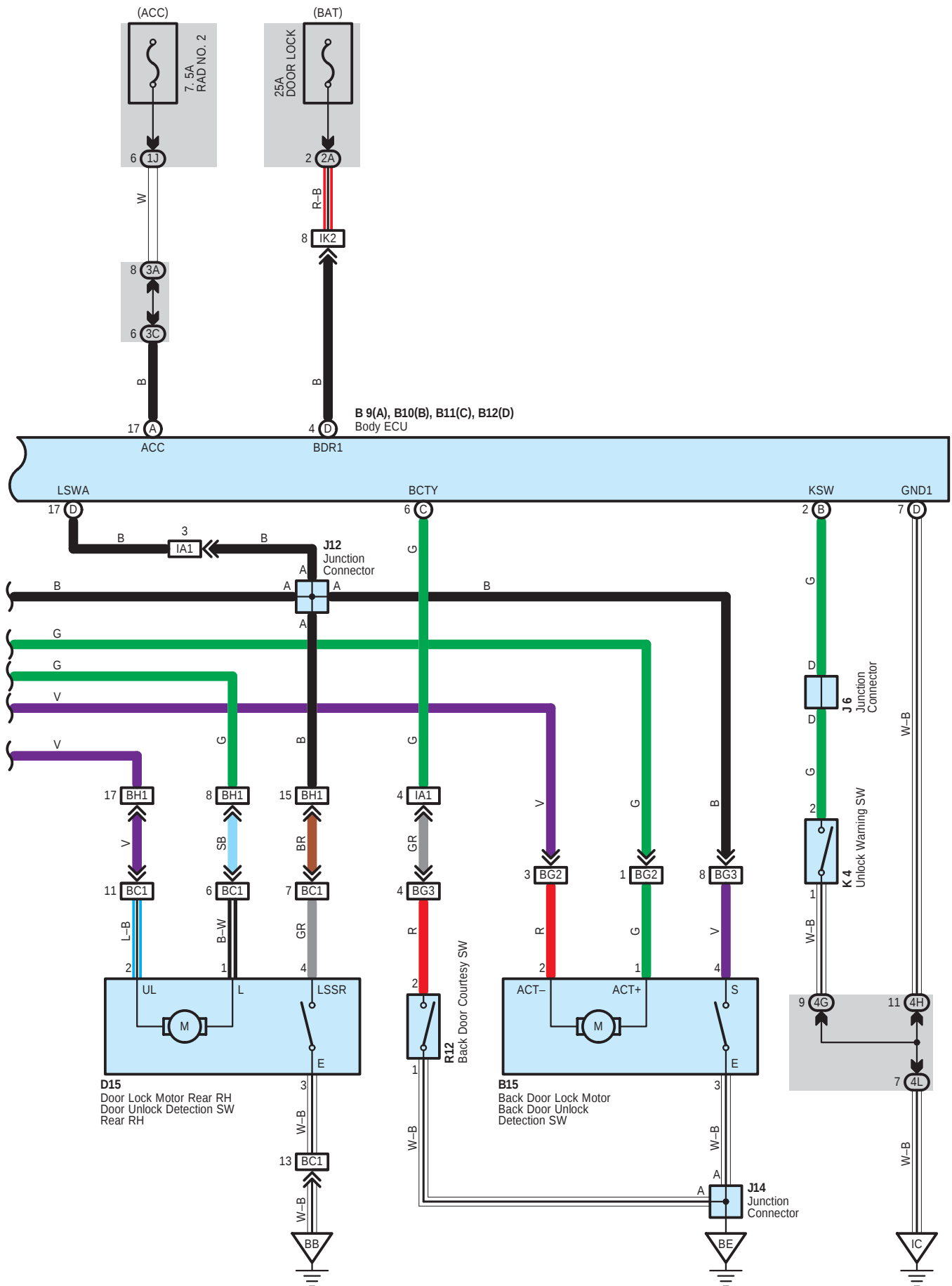


: Ground Points

Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel
BA	52	Left Center Pillar
BB	52	Right Center Pillar



Door Lock Control



System Outline

The door lock control is controlled through the various signals input into the body ECU through communication control of the body ECU etc.

1. Manual Operation

All doors can be Locked/Unlocked through the operation of the driver and passenger side door lock control SW.

2. Double Operation Unlock Operation

When the door key lock and unlock SW front LH is turned to the unlock side, only the driver's door is unlocked. And if the door key lock and unlock SW front LH is turned to the unlock side again within 3 seconds, all the doors to unlock.

3. Manual Unlock Protection

Once the doors are locked by the door knob (Key less operation), the door key or the transmitter, they can not be unlocked by the door lock control SW. The protection is canceled when the ignition SW is turned on or unlock operation is made by the door key or the transmitter.

4. Ignition Key Reminder Operation

When the door lock operation is made using the door knob with the ignition key remained inserted in the key cylinder and the door open, unlock operation is automatically made. Additionally, if lock operation is made with the door lock control SW or door key lock and unlock SW, unlock operation is automatically made after the lock operation has been completed.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A10	A	42	C12	B	42	J6		43
A11	B	42		D3	42	J10		44
A16	A	42		D7	44	J12		44
	D	42		D8	44	J13		44
A17	B	42		D9	44	J14		44
B9	A	42		D10	44	J16		43
B10	B	42		D11	44	K4		43
B11	C	42		D12	44	O3		43
B12	D	42		D13	44	P5		44
B14		44		D14	44	R12		45
B15		44		D15	44	S30	A	43
B19		46 (*1)	E6	B	42	S31	B	43
		47 (*2)		G5	43	T4		43
C11	A	42		J5	43			

* 1 : w/ Power Seat * 2 : w/o Power Seat

Door Lock Control



: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
1G		
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3E		
3H	31	
3J		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4F		
4G		
4H		
4L	32	
4M		
4O		



: Connector Joining Wire Harness and Wire Harness

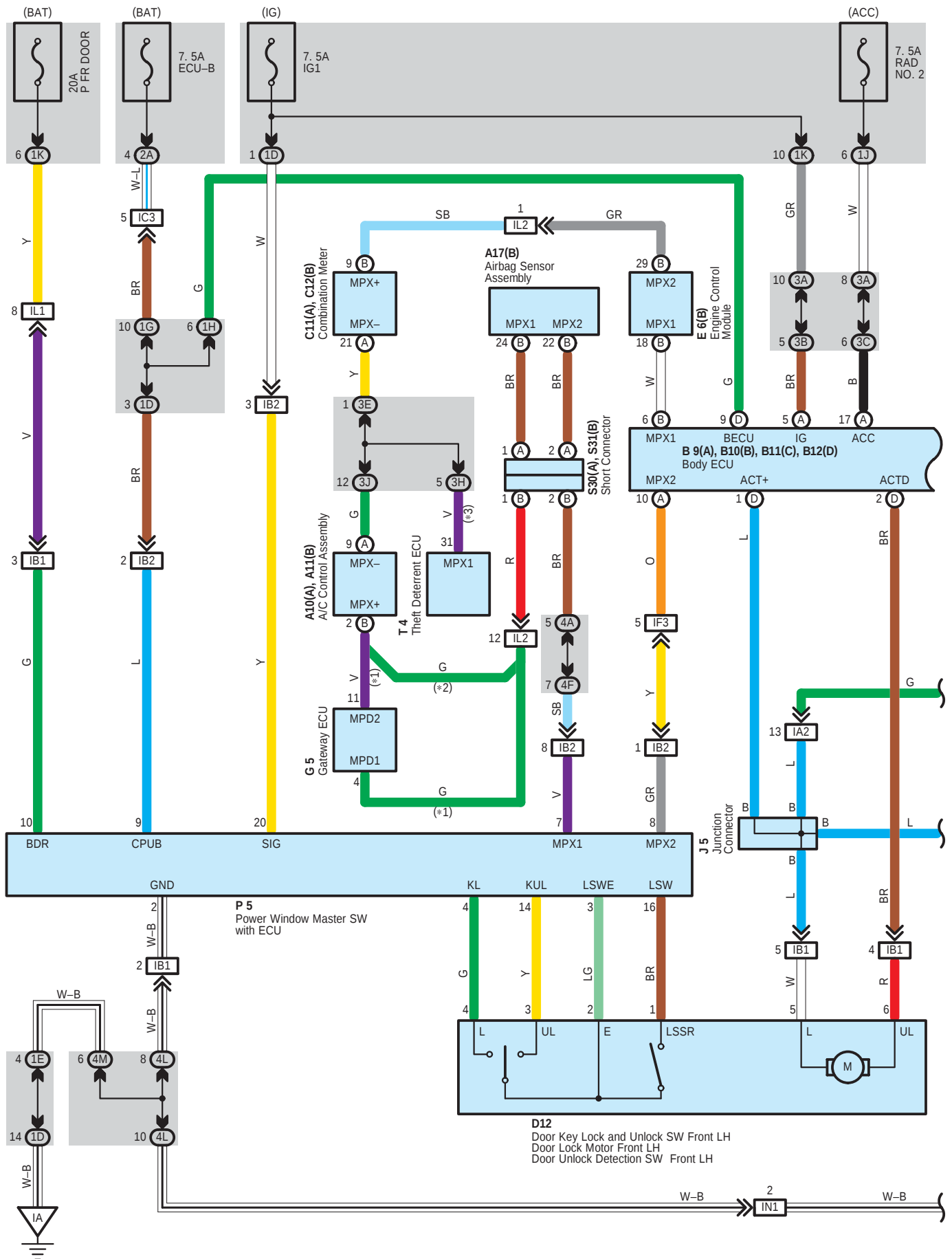
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IA2		
IB1	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IB2		
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IN1	51	Front Door RH Wire and Cowl Wire (Right Kick Panel)
IN2		
IO2	51	Cowl Wire and Floor Wire (Right Kick Panel)
BB1	52	Rear Door No.1 LH Wire and Floor No.2 Wire (Left Center Pillar)
BC1	52	Rear Door No.1 RH Wire and Floor Wire (Right Center Pillar)
BG2	52	Back Door No.1 Wire and Floor No.2 Wire (Rear Left of the Roof)
BG3		
BH1	52	Floor No.2 Wire and Floor Wire (Near the Rear Side Marker Light RH)



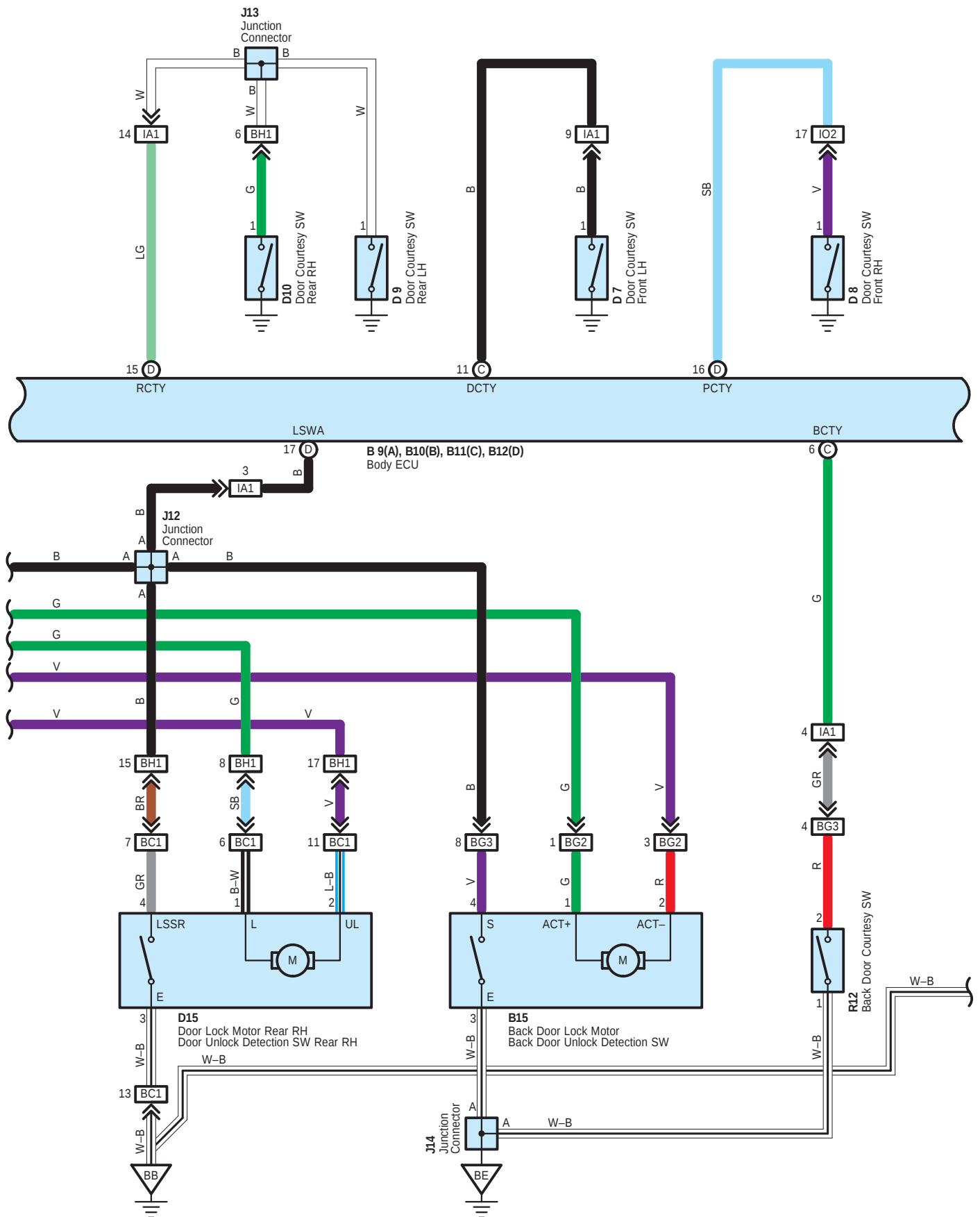
: Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
IC	50	Right Cowl Side Panel
BA	52	Left Center Pillar
BB	52	Right Center Pillar
BC	52	Left Side of Rear Cross Member
BE	52	Left Side of Back Door

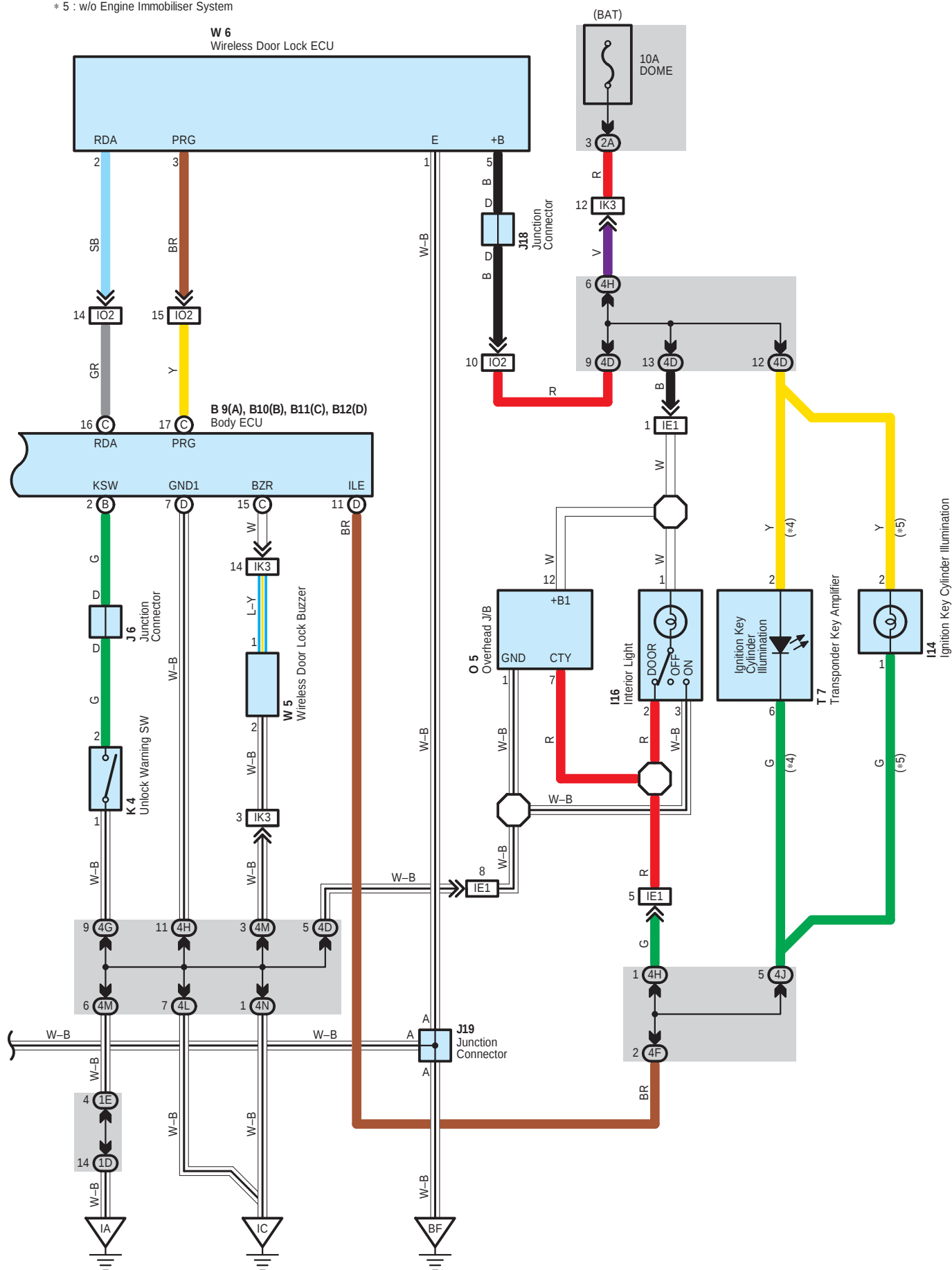
Wireless Door Lock Control



Wireless Door Lock Control



* 4 : w/ Engine Immobiliser System
* 5 : w/o Engine Immobiliser System



Wireless Door Lock Control

System Outline

In this system, the wireless door lock ECU receives weak radio wave transmitted from the transmitter and outputs a signal to the body ECU. Accordingly, all the doors are can be locked and unlocked by remote control.

1. Normal Operation

* Lock operation

When the lock SW on the transmitter is pressed, all the doors are locked.

* Unlock operation

When the unlock SW on the transmitter is pressed once, only the driver door is unlocked. When the unlock SW is pressed again within 3 seconds, all the doors are unlocked.

2. Auto Lock Function

After all the doors are unlocked by pushing the UNLOCK SW of the transmitter, unless each of the doors is opened or the ignition key is inserted, all the doors are locked again.

3. Wireless Door Lock Stop Function

If any of the following conditions are detected, the wireless door lock does not function.

Lock operation

* When any door is open (Door courtesy SW on)

* The ignition key is inserted into the ignition SW (Unlock warning SW on)

* Ignition SW is on

Unlock operation

* Ignition SW is on

4. Visual Confirmation of Lock or Unlock

When doors are locked by using the transmitter, the hazard light flashes once. When doors are unlocked by using the transmitter, the hazard light flashes twice. If UNLOCK SW of the transmitter is pushed while all the doors are locked, doors are unlocked and the interior light and ignition key cylinder light are turned on simultaneously.

5. Panic Mode Function

When the panic SW on the transmitter is pressed, the panic mode is activated. The panic mode is canceled when the unlock SW or panic SW is pressed.

6. Repeat Function

If the lock detection signal in response to the output signal is not received after the wireless door lock ECU has output the lock signal, the lock signal is output again.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A10	A	42	D11		44	J16		43
A11	B	42	D12		44	J18		44
A17	B	42	D13		44	J19		44
B9	A	42	D14		44	K4		43
B10	B	42	D15		44	O5		44
B11	C	42	E6	B	42	P5		44
B12	D	42	G5		43	R12		45
B15		44	I14		43	S30	A	43
C11	A	42	I16		44	S31	B	43
C12	B	42	J5		43	T4		43
D3		42	J6		43	T7		43
D7		44	J10		44	T8		43
D8		44	J12		44	W5		39 (3MZ–FE)
D9		44	J13		44			41 (2AZ–FE)
D10		44	J14		44	W6		45

**: Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)	
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)	
1E			
1G			
1H			
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)	
1K			
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)	
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)	
3B			
3C			
3E			
3H	31		
3J			
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)	
4D			
4F			
4G			
4H	32		
4J			
4L			
4M			
4N			

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

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IA2		
IB1	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IB2		
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IE1	50	Roof Wire and Cowl Wire (Near the Bottom of Left Front Pillar)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IN1	51	Front Door RH Wire and Cowl Wire (Right Kick Panel)
IN2		
IO2	51	Cowl Wire and Floor Wire (Right Kick Panel)
BB1	52	Rear Door No.1 LH Wire and Floor No.2 Wire (Left Center Pillar)
BC1	52	Rear Door No.1 RH Wire and Floor Wire (Right Center Pillar)
BG2	52	Back Door No.1 Wire and Floor No.2 Wire (Rear Left of the Roof)
BG3		
BH1	52	Floor No.2 Wire and Floor Wire (Near the Rear Side Marker Light RH)

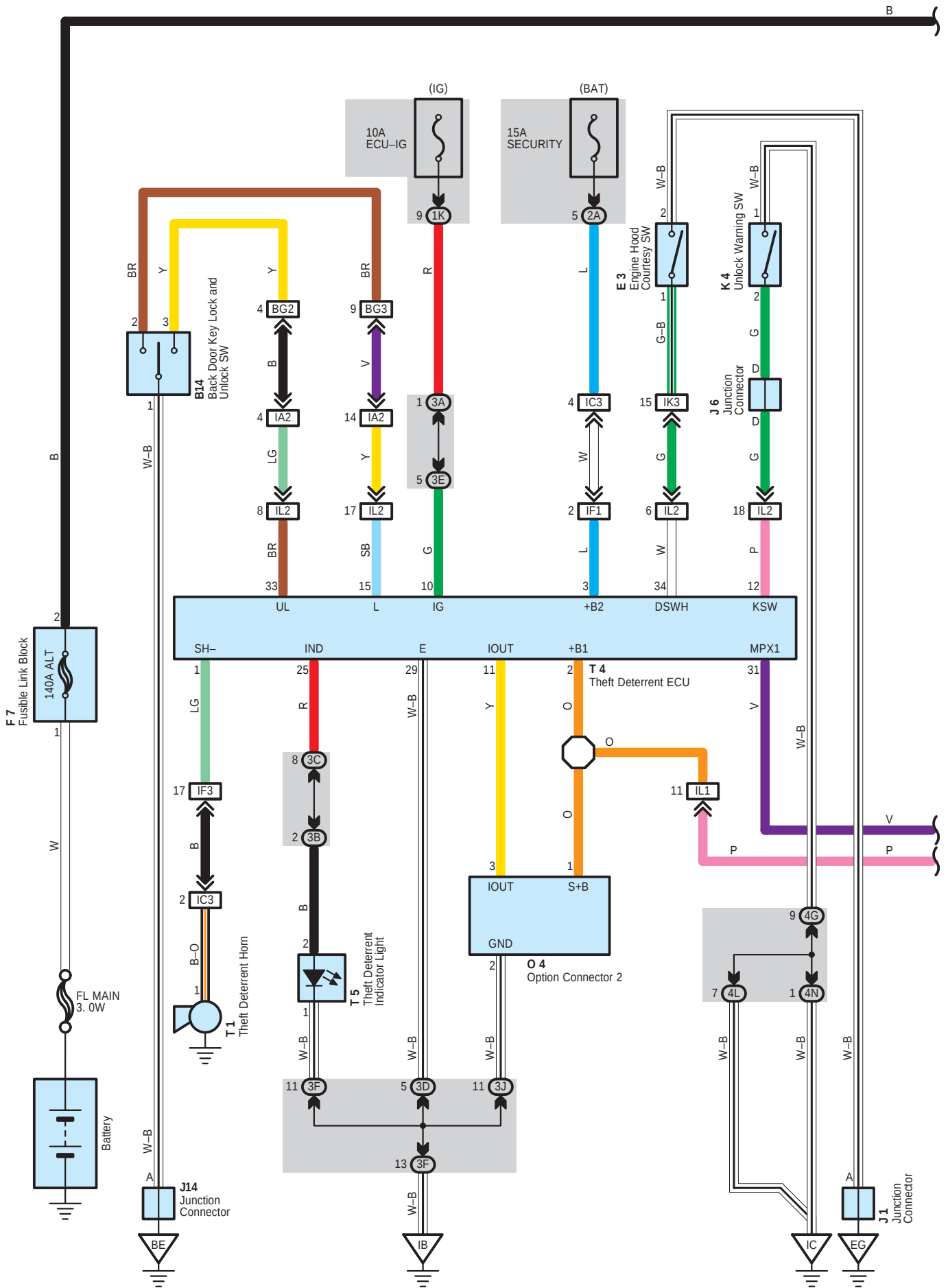
Wireless Door Lock Control



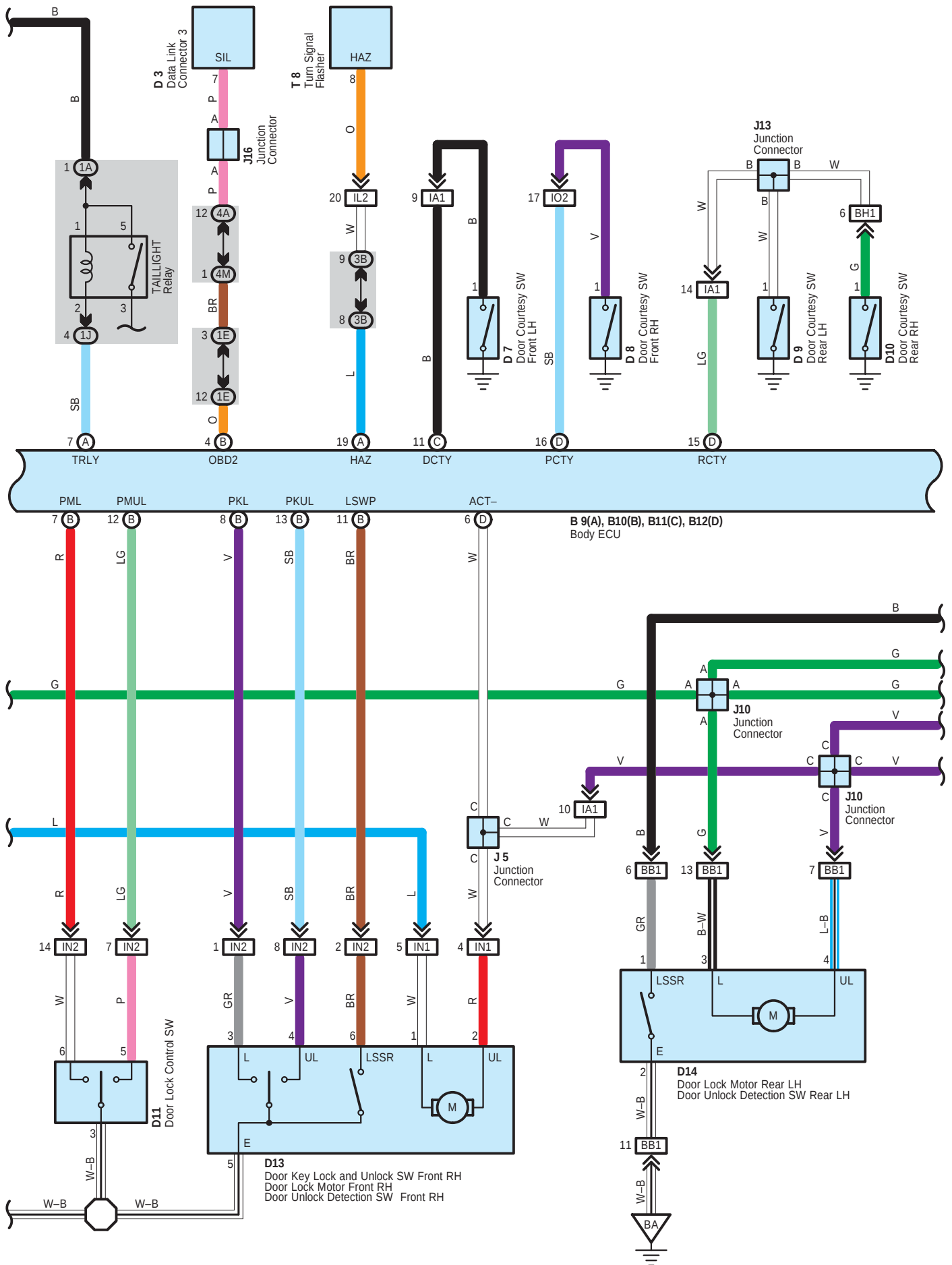
: Ground Points

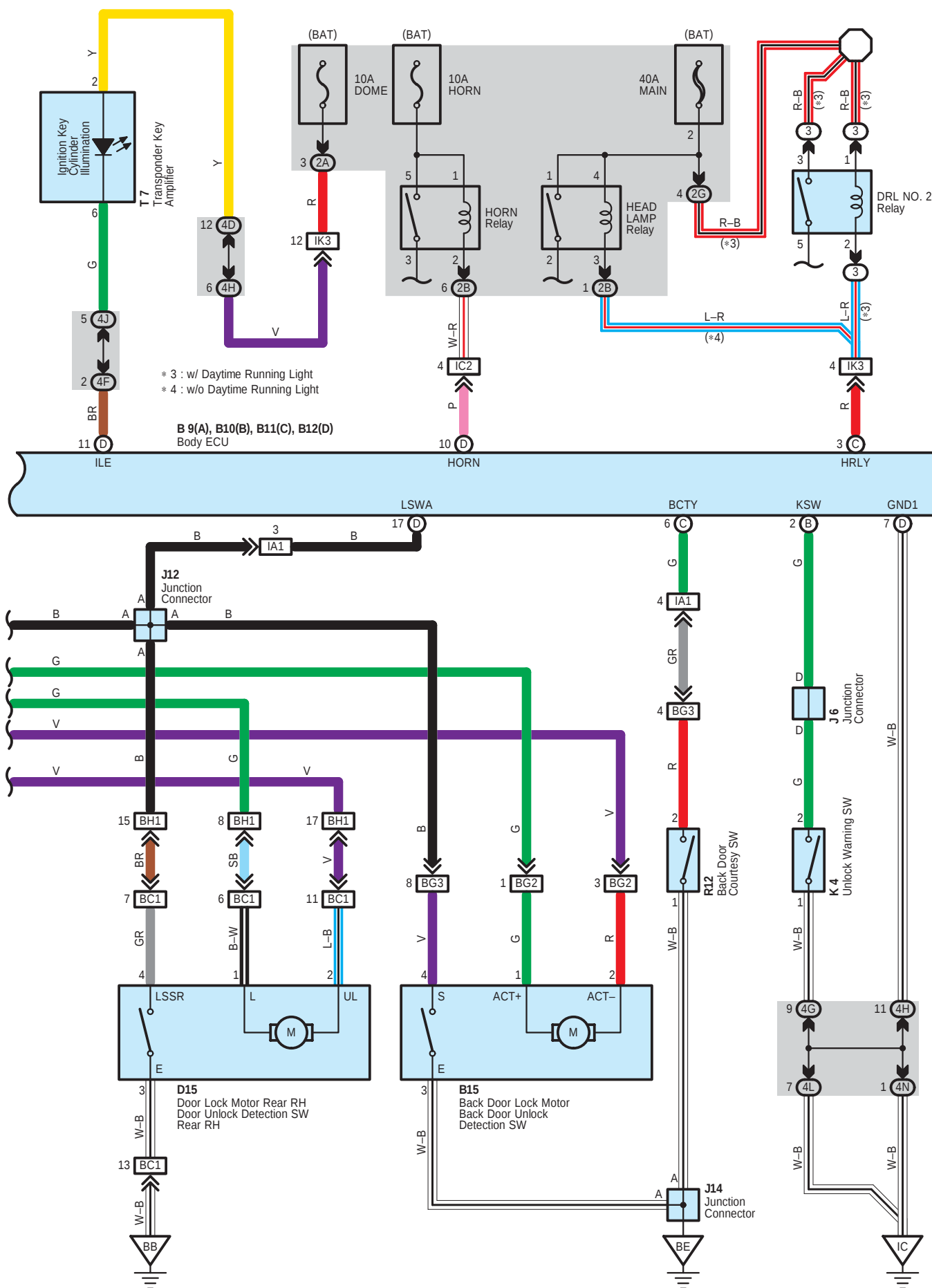
Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
IC	50	Right Cowl Side Panel
BA	52	Left Center Pillar
BB	52	Right Center Pillar
BC	52	Left Side of Rear Cross Member
BE	52	Left Side of Back Door
BF	52	Near the Rear Side Marker Light RH

Theft Deterrent System



Theft Deterrent System





Theft Deterrent System

: Parts Location

Code		See Page	Code		See Page	Code	See Page	
A10	A	42	D11		44	J13	44	
A11	B	42	D12		44	J14	44	
A17	B	42	D13		44	J16	43	
B9	A	42	D14		44	J17	43	
B10	B	42	D15		44	K4	43	
B11	C	42	E3		38 (3MZ–FE)	O4	43	
B12	D	42	E6	B	42	P5	44	
B14		44	F7		38 (3MZ–FE)	R12		45
B15		44			40 (2AZ–FE)	S30	A	43
C11	A	42	G5		43	S31	B	43
C12	B	42	J1		39 (3MZ–FE)	T1		39 (3MZ–FE)
D3		42			41 (2AZ–FE)	T4		43
D7		44	J5		43	T5		43
D8		44	J6		43	T7		43
D9		44	J10		44	T8		43
D10		44	J12		44			

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
3	23	Engine Room R/B No.3 (Engine Compartment Rear Left)

: Junction Block and Wire Harness Connector

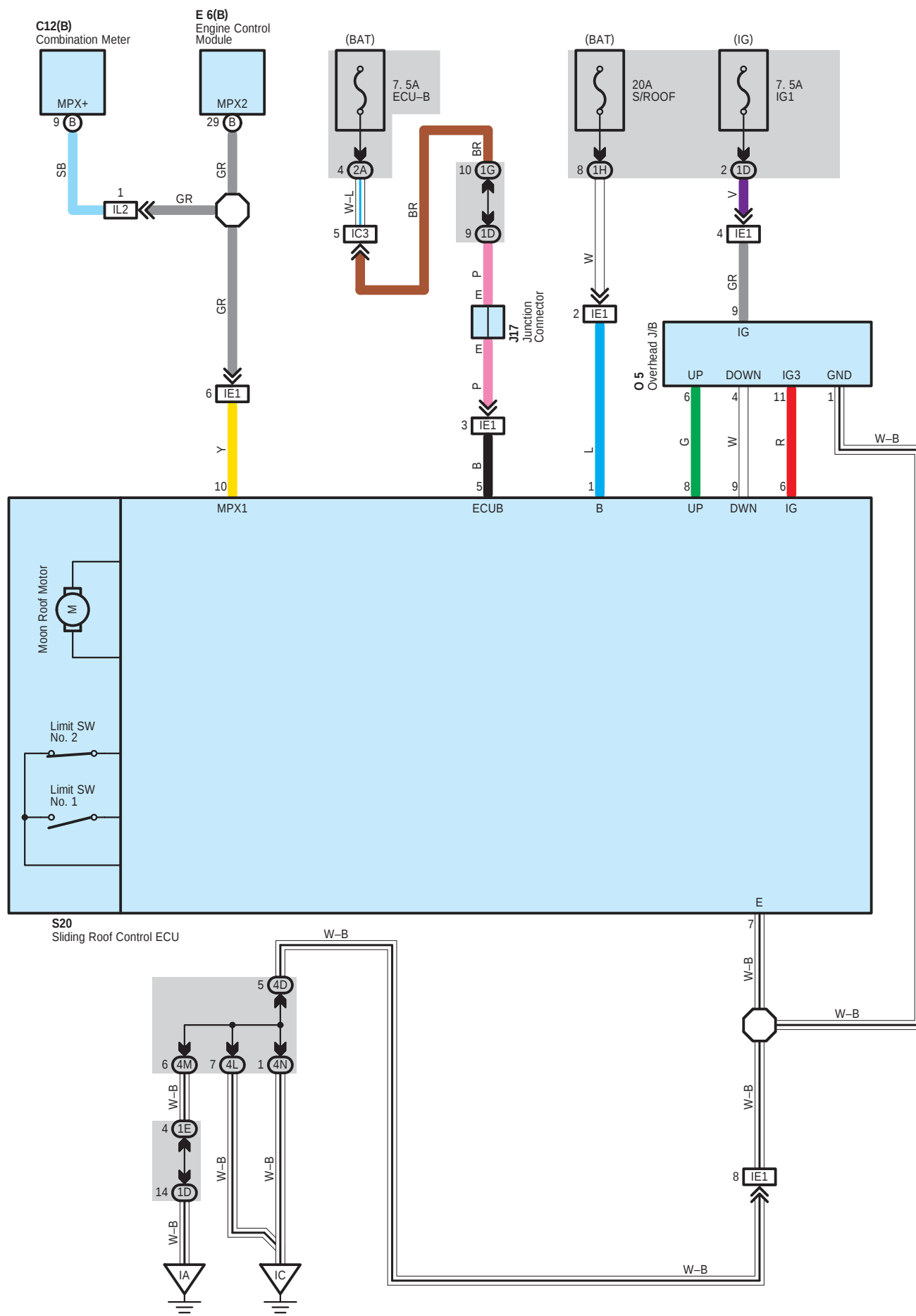
Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
1G		
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2G		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F		
3H	31	
3J		
4A	33	
4D		
4F		
4G		
4H	32	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4J		
4L		
4M		
4N		

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IA2		
IB1	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IB2		
IC2	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC3		
IF1	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IF3		
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IN1	51	Front Door RH Wire and Cowl Wire (Right Kick Panel)
IN2		
IO2	51	Cowl Wire and Floor Wire (Right Kick Panel)
BB1	52	Rear Door No.1 LH Wire and Floor No.2 Wire (Left Center Pillar)
BC1	52	Rear Door No.1 RH Wire and Floor Wire (Right Center Pillar)
BG2	52	Back Door No.1 Wire and Floor No.2 Wire (Rear Left of the Roof)
BG3		
BH1	52	Floor No.2 Wire and Floor Wire (Near the Rear Side Marker Light RH)

 : Ground Points

Code	See Page	Ground Points Location
EG	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
IA	50	Left Cowl Side Panel
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel
BA	52	Left Center Pillar
BB	52	Right Center Pillar
BE	52	Left Side of Back Door



System Outline

The moon roof can be operated when the ignition SW is turned to ON position.

1. Slide Open Operation

The moon roof fully opens automatically by pressing the SLIDE OPEN button of the overhead J/B once. If the sliding roof control switch is pressed again when the moon roof is operating, the movement of the moon roof stops.

The operation of SLIDE OPEN is not worked when the moon roof at TILT UP position.

2. Slide Close Operation

If you keep pressing the TILT UP button of the overhead J/B when the moon roof is open, the moon roof closes half and stops the operation once. If you keep pressing the TILT UP once again, the moon roof fully closes.

3. Tilt Up Operation

If you press the TILT UP button of the overhead J/B, the moon roof is tilted up. However, the moon roof is not tilted up when it is open

4. Tilt Down Operation

If you press the SLIDE OPEN button when the TILT UP of the overhead J/B is pressed, the moon roof is tilted down.

5. Key Off Moon Roof Operation

When the ignition SW is turned from ON position to OFF or ACC position, the moon roof can be operated within about 40 seconds. However, even if it is within about 40 seconds, the moon roof can not be operated when each of the front doors opens.

: Parts Location

Code		See Page	Code	See Page	Code	See Page
C12	B	42	J17	43	S20	45
E6	B	42	O5	44		

: Junction Block and Wire Harness Connector

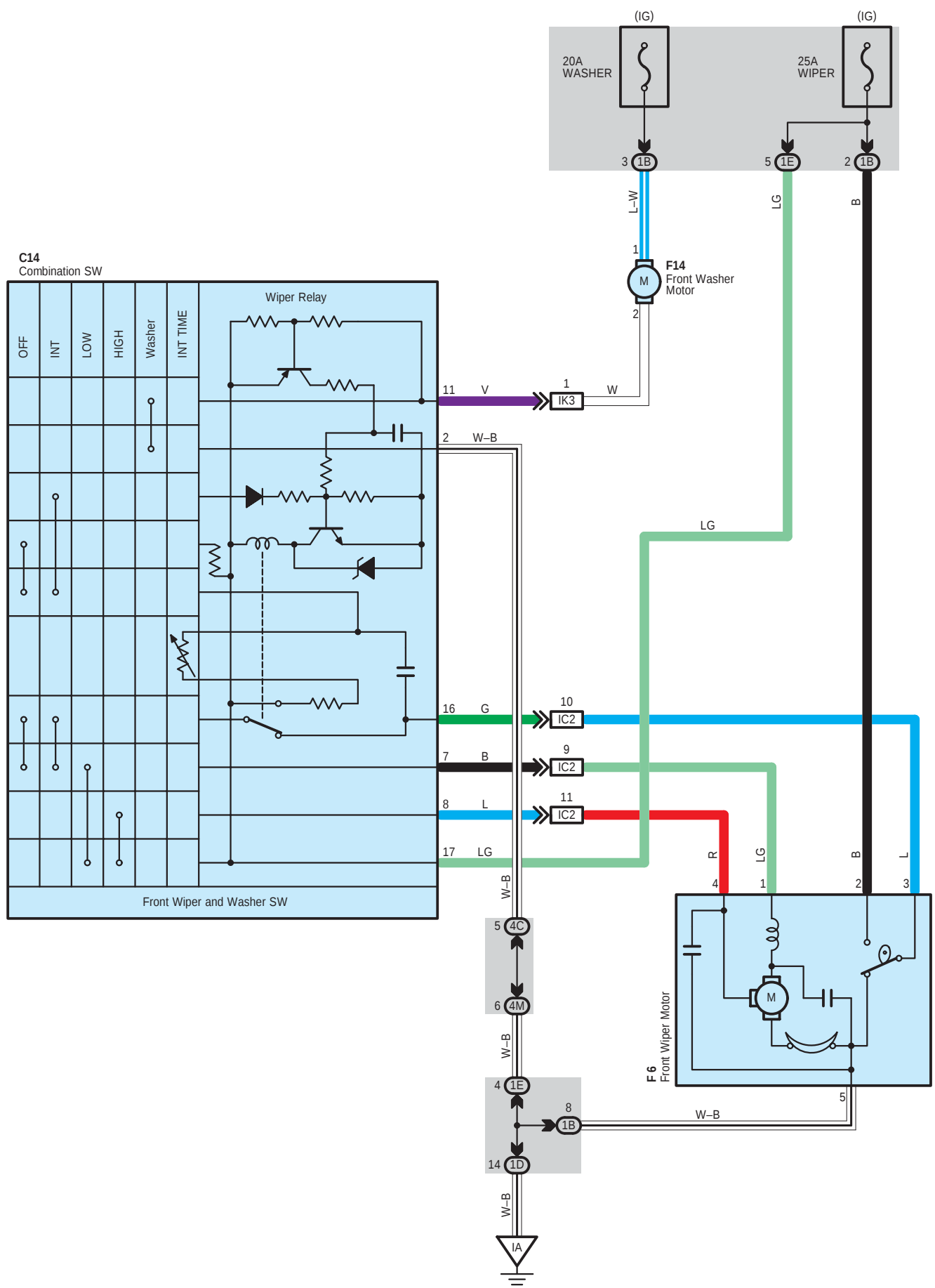
Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
1G		
1H		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
4D	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4L	32	
4M		
4N		

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IE1	50	Roof Wire and Cowl Wire (Near the Bottom of Left Front Pillar)
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)

: Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
IC	50	Right Cowl Side Panel



System Outline

With the ignition SW turned on, the current flows to TERMINAL 17 of the front wiper and washer SW, TERMINAL 2 of the front wiper motor through the WIPER fuse, the current flows to TERMINAL 1 of the washer motor through WASHER fuse.

1. Low Speed Position

With the wiper SW turned to LOW position, the current flows through TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 1 of the front wiper motor to TERMINAL 5 to GROUND and causes the wiper motor to run at low speed.

2. High Speed Position

With the wiper SW turned to HIGH position, the current flows through TERMINAL 17 of the front wiper and washer SW to TERMINAL 8 to TERMINAL 4 of the front wiper motor to TERMINAL 5 to GROUND and causes the wiper motor to run at high speed.

3. INT Position

With the wiper SW turned to INT position, the relay operates and the current which is connected by relay function flows through TERMINAL 17 of the front wiper and washer SW to TERMINAL 2 to GROUND. This flow of current operates the intermittent circuit and the current flows through TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 1 of the front wiper motor to TERMINAL 5 to GROUND and the wiper functions.

The intermittent operation is controlled by a condenser's charged and discharged function installed in the relay and the intermittent time is controlled by a time control SW to charge the charging time of condenser.

4. Washer Continuous Operation

With the washer SW pulled to on, the current flows through TERMINAL 1 of the washer motor to TERMINAL 2 to TERMINAL 11 of the front wiper and washer SW to TERMINAL 2 to GROUND and causes the washer motor to run and the window washer to jet. This causes the current to flow to washer continuous operation circuit in TERMINAL 17 of the front wiper and washer SW to TERMINAL 7 to TERMINAL 1 of the front wiper motor to TERMINAL 5 to GROUND and the wiper functions.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
C14	42	F6	40 (2AZ-FE)	F14	40 (2AZ-FE)
F6	38 (3MZ-FE)	F14	38 (3MZ-FE)		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
4C	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4M	32	

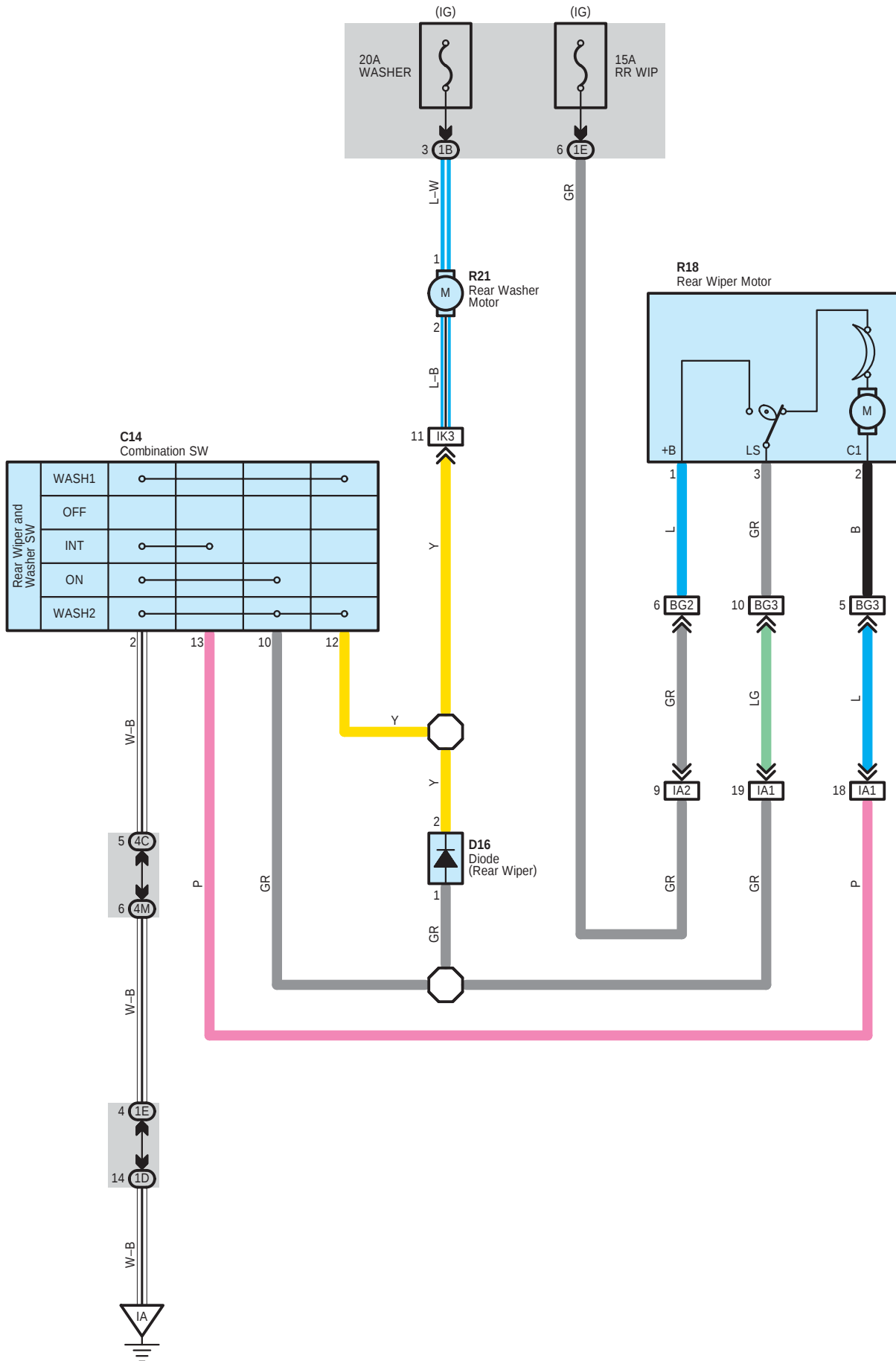
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel

Rear Wiper and Washer



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
C14	42	R18	45	R21	41 (2AZ-FE)
D16	42	R21	39 (3MZ-FE)		

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
4C	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4M	32	

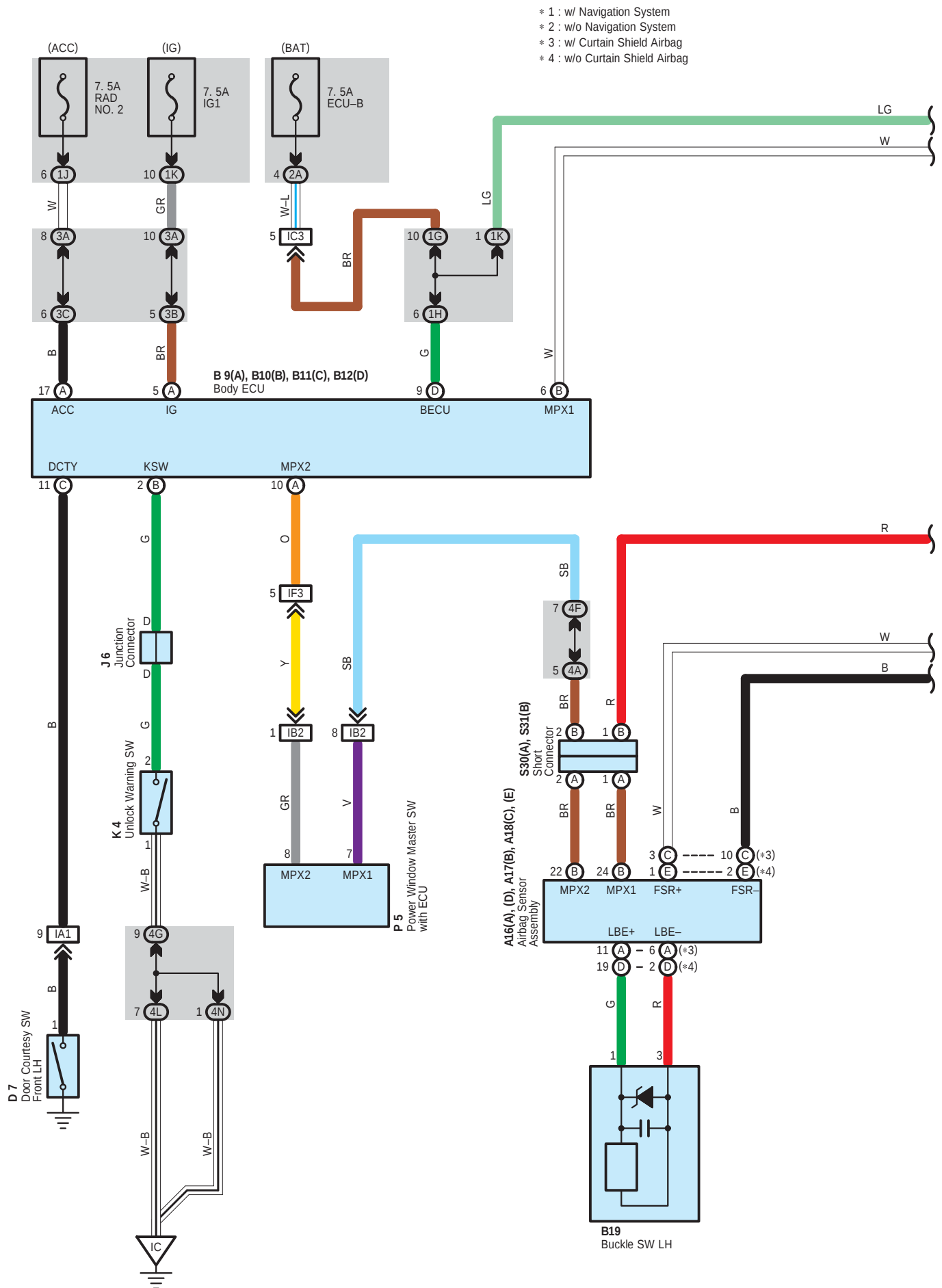
 : Connector Joining Wire Harness and Wire Harness

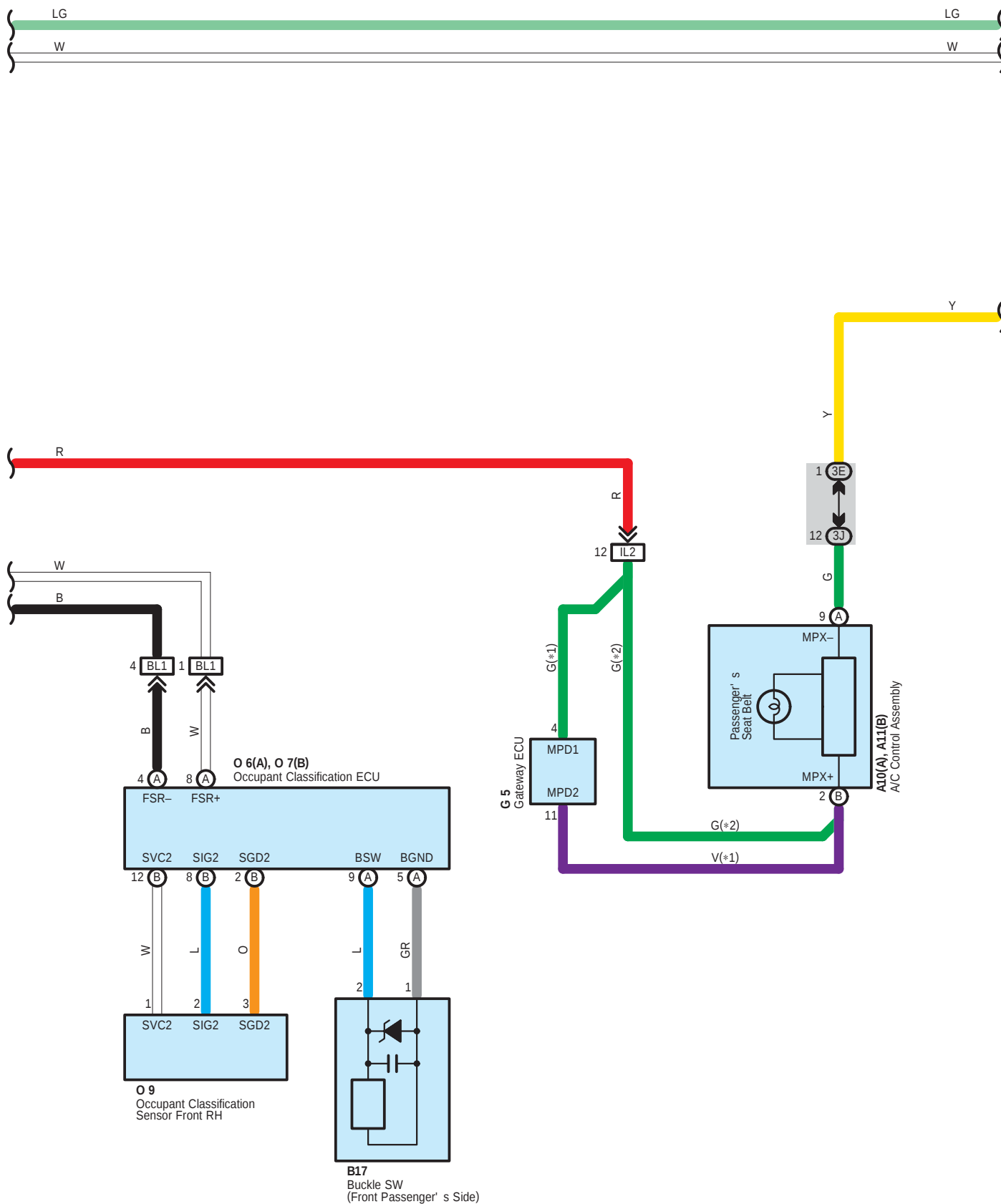
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IA2		
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
BG2	52	Back Door No.1 Wire and Floor No.2 Wire (Rear Left of the Roof)
BG3		

 : Ground Points

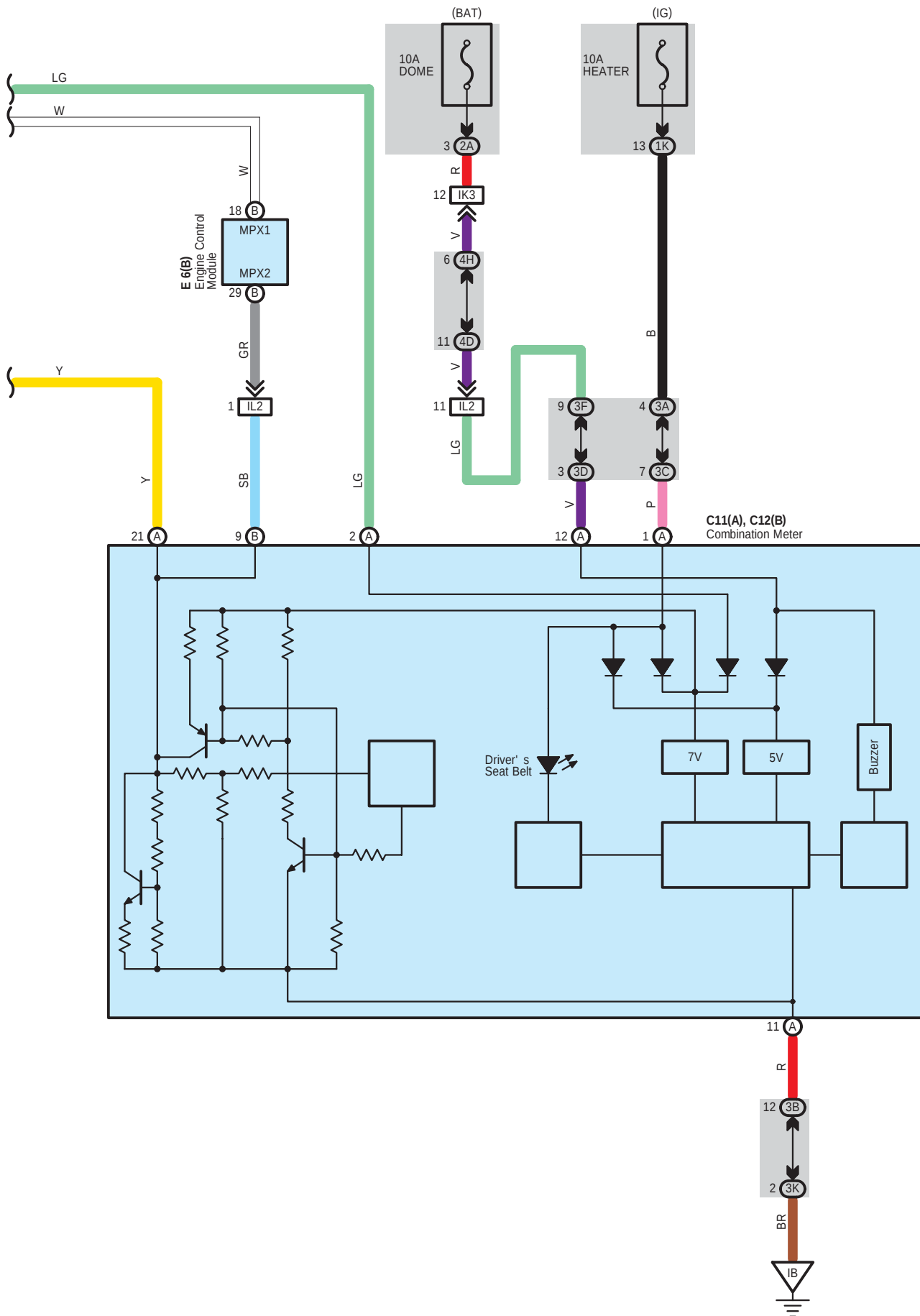
Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel

Key Reminder and Seat Belt Warning





Key Reminder and Seat Belt Warning



System Outline

1. Seat Belt Warning System

When the ignition SW is turned to the ON position, the signal is input to the body ECU. At this time, to judge whether or not the driver fastens the seat belt, the signal from the buckle SW LH is input to TERMINAL (A) 10 of the body ECU via multiplex communication system (Bean bus). If the driver does not fasten the seat belt, the seat belt warning light in the combination meter flashes and the alarm buzzer goes on, in response to the communication control of the body ECU etc.

Additionally, the sensor (Inside of buckle SW (Front passenger's side)) installed on the front passenger seat detects the passenger and determines whether or not the passenger fastens the seat belt.

If the passenger does not fasten the seat belt, the front passenger seat belt warning light is flashed.

2. Key Reminder System

If the driver door is opened with the ignition SW set at the ACC or OFF position and the ignition key remained inserted into the key cylinder (The unlock warning SW is on), the signal from the unlock warning SW is input to TERMINAL (B) 2 of the body ECU and the signal from the door courtesy SW LH is input to TERMINAL (C) 11 of body ECU. As a result, through communication control of the body ECU etc. the buzzer in the combination meter goes on to warn the driver that the ignition key is still inserted.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A10	A	42	B17	46 (*1)	O6
A11	B	42		47 (*2)	
A16	A	42	B19	46 (*1)	O7
	D	42		47 (*2)	
A17	B	42	C11	A	O9
A18	C	42	C12	B	
	E	42	D7		P5
B9	A	42	E6	B	S30
B10	B	42	G5		S31
B11	C	42	J6		
B12	D	42	K4		

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F	31	
3J		
3K	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4A		
4D		
4F		
4G		
4H	32	
4L		
4N		

* 1 : w/ Power Seat * 2 : w/o Power Seat

Key Reminder and Seat Belt Warning

: Connector Joining Wire Harness and Wire Harness

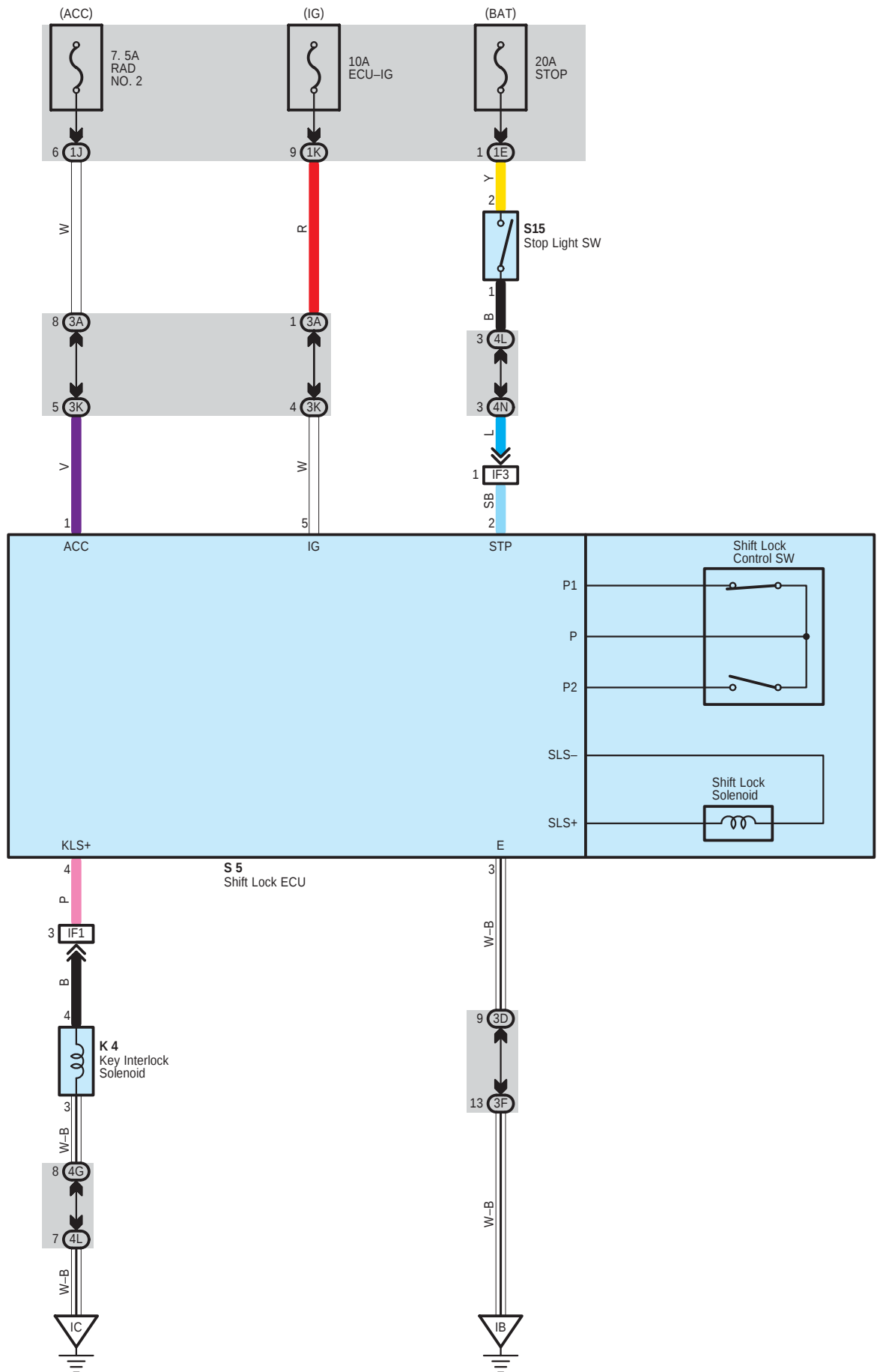
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
BL1	54 (*1)	Floor Wire and Front Seat RH Wire (Under the Front Passenger's Seat)
	55 (*2)	

: Ground Points

Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel

* 1 : w/ Power Seat * 2 : w/o Power Seat

Shift Lock



System Outline

When the ignition SW is turned to ACC position, the current from the RAD NO.2 fuse flows to TERMINAL 1 of the shift lock ECU. When the ignition SW is turned to ON position, the current from the ECU-IG fuse flows to TERMINAL 5 of the ECU.

1. Shift Lock Mechanism

With the ignition SW on, when a signal that the brake pedal is depressed (Stop light SW on) and a signal that the shift lever is put in P position (Continuity between P1 and P of the shift lock control SW) is input to the ECU, the ECU activates and the current flows from TERMINAL 5 of the ECU to TERMINAL SLS+ of the shift lock solenoid to solenoid to TERMINAL SLS- to TERMINAL 3 of the ECU to GROUND. This causes the shift lock solenoid to turn on (Lock plate disengages) and the shift lever can be shifted into other position than the P position

2. Key Inter Lock Mechanism

With the ignition SW ON or ACC position, when the shift lever is put in P position (No continuity between P2 and P of shift lock control SW), the current flowing from TERMINAL 4 of the ECU to the key interlock solenoid is cut off. This causes the key interlock solenoid to turn off (Lock plate disengages from LOCK position) and the ignition key can be turned from ACC to LOCK position.

: Parts Location

Code	See Page	Code	See Page	Code	See Page
K4	43	S5	43	S15	43

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3D		
3F		
3K	31	
4G	33	
4L	32	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4N		

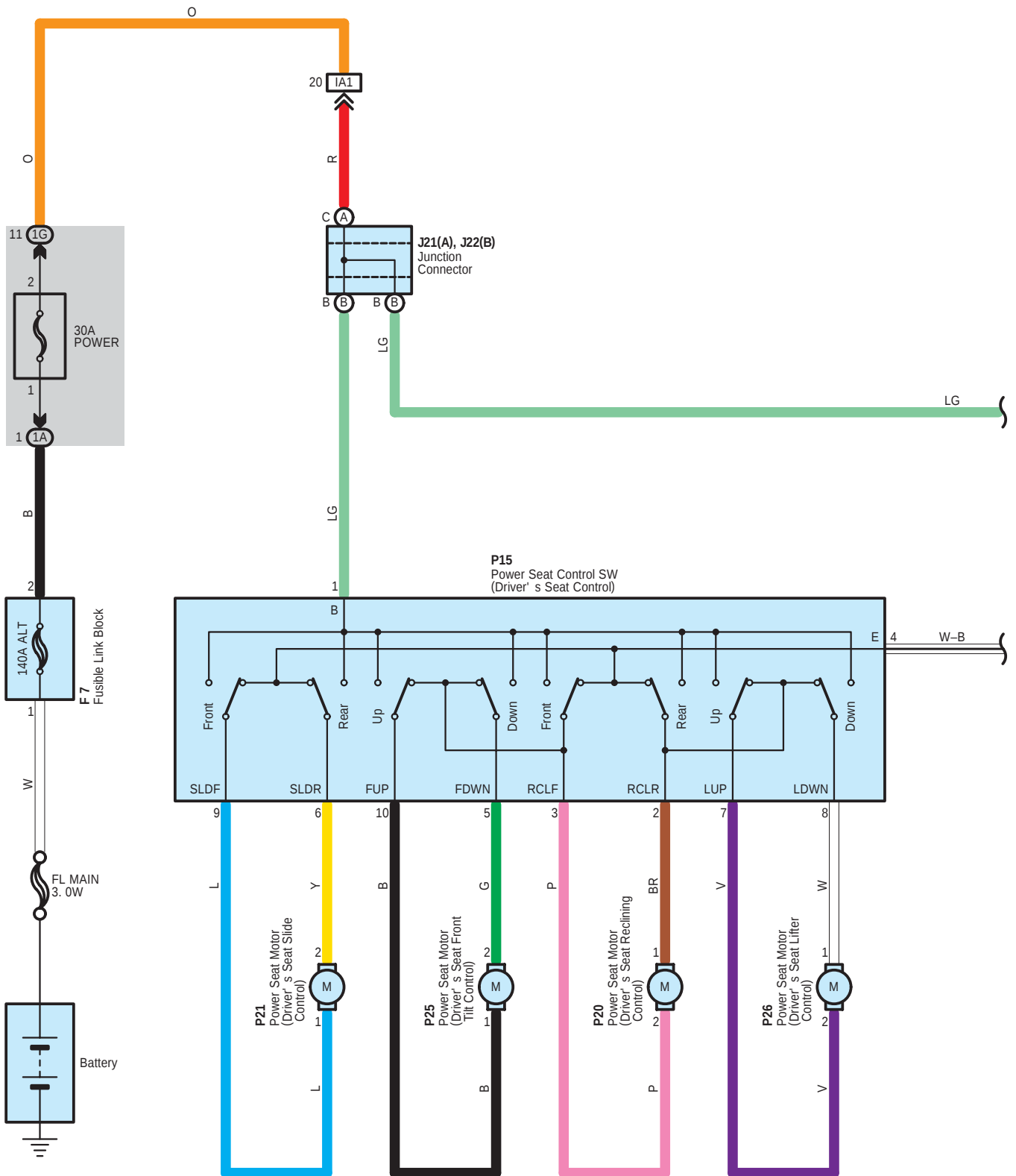
: Connector Joining Wire Harness and Wire Harness

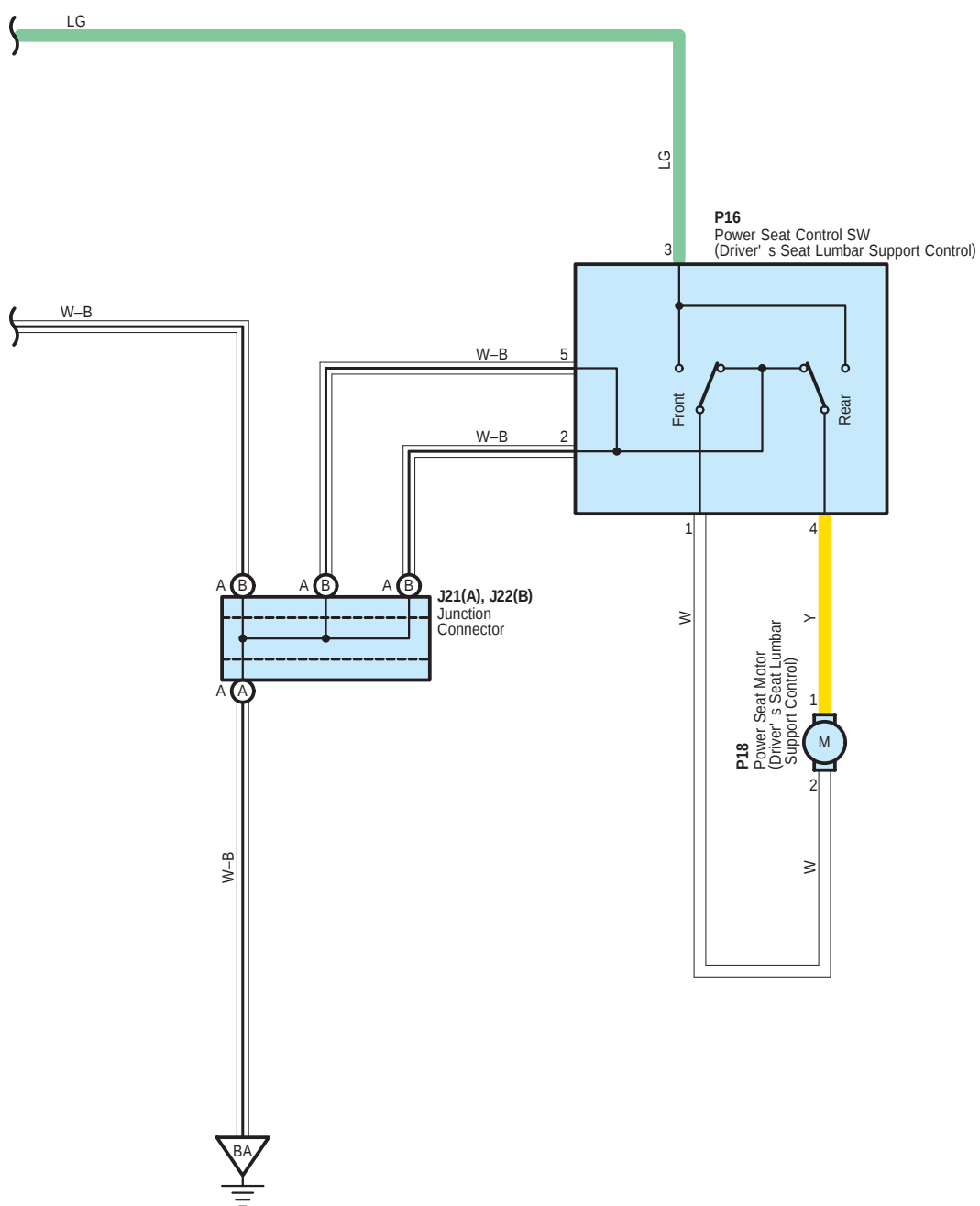
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IF3		

: Ground Points

Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel

Power Seat for Driver's Seat





Power Seat for Driver's Seat

: Parts Location

Code		See Page	Code	See Page	Code	See Page
F7		38 (3MZ-FE)	P15	46 (*1)	P21	46 (*1)
		40 (2AZ-FE)	P16	46 (*1)	P25	46 (*1)
J21	A	46 (*1)	P18	46 (*1)	P26	46 (*1)
J22	B	46 (*1)	P20	46 (*1)		

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)

: Connector Joining Wire Harness and Wire Harness

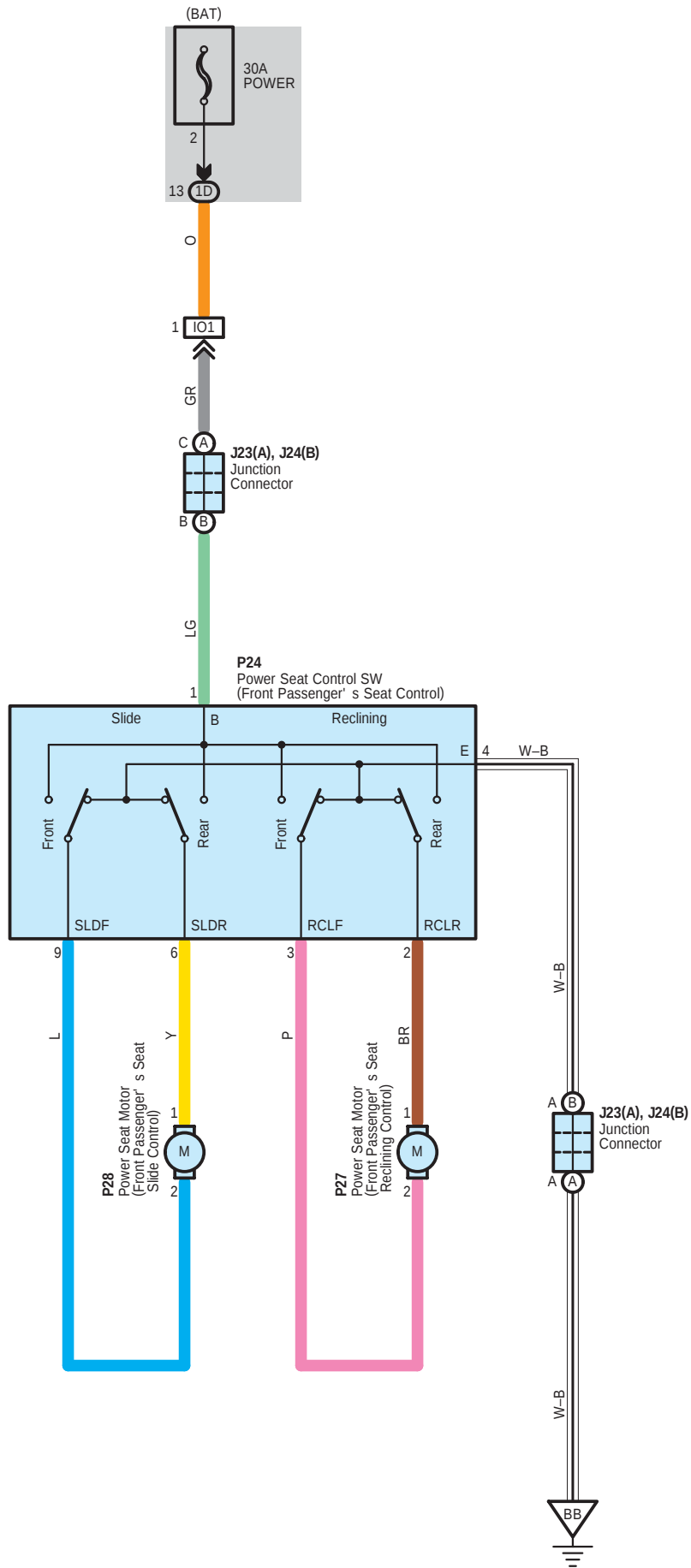
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)

: Ground Points

Code	See Page	Ground Points Location
BA	52	Left Center Pillar

* 1 : w/ Power Seat * 2 : w/o Power Seat

Power Seat for Front Passenger's Seat



 : Parts Location

Code		See Page	Code	See Page	Code	See Page
J23	A	46 (*1)	P24	46 (*1)	P28	46 (*1)
J24	B	46 (*1)	P27	46 (*1)		

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)

 : Connector Joining Wire Harness and Wire Harness

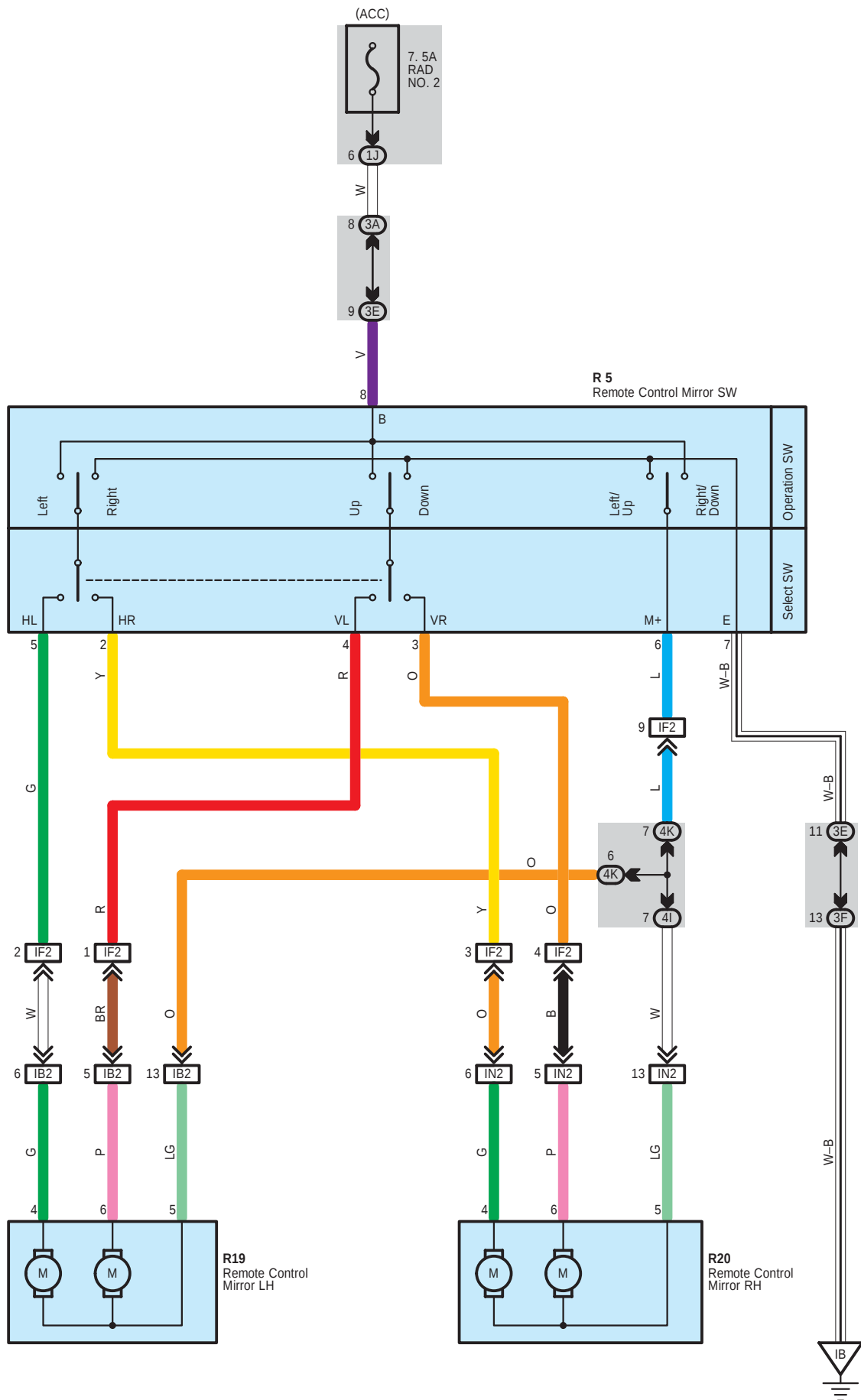
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IO1	51	Cowl Wire and Floor Wire (Right Kick Panel)

 : Ground Points

Code	See Page	Ground Points Location
BB	52	Right Center Pillar

* 1 : w/ Power Seat * 2 : w/o Power Seat

Remote Control Mirror



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
R5	43	R19	45	R20	45

 : Junction Block and Wire Harness Connector

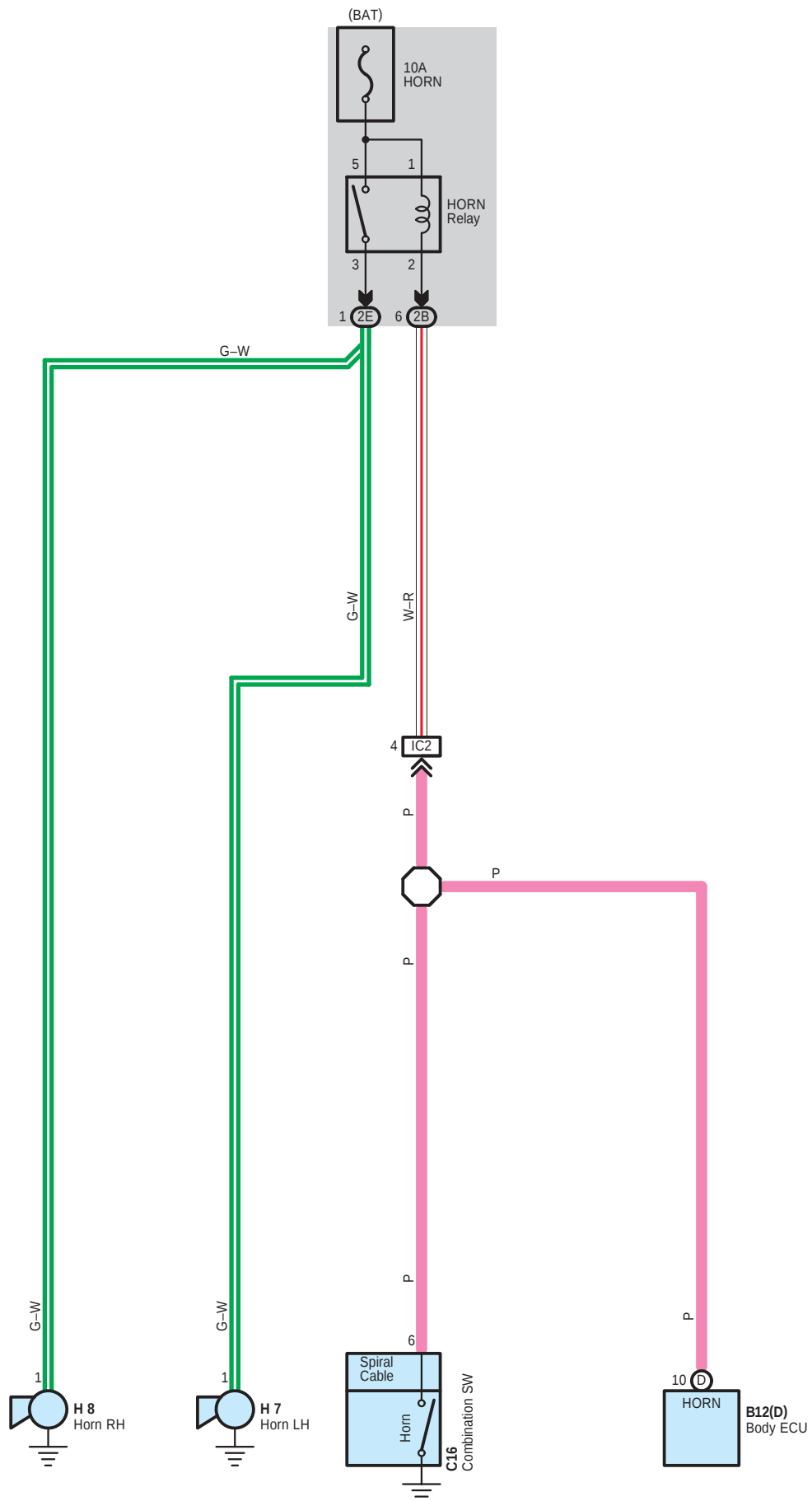
Code	See Page	Junction Block and Wire Harness (Connector Location)
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3E		
3F		
4I	32	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4K		

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IF2	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IN2	51	Front Door RH Wire and Cowl Wire (Right Kick Panel)

 : Ground Points

Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace



 : Parts Location

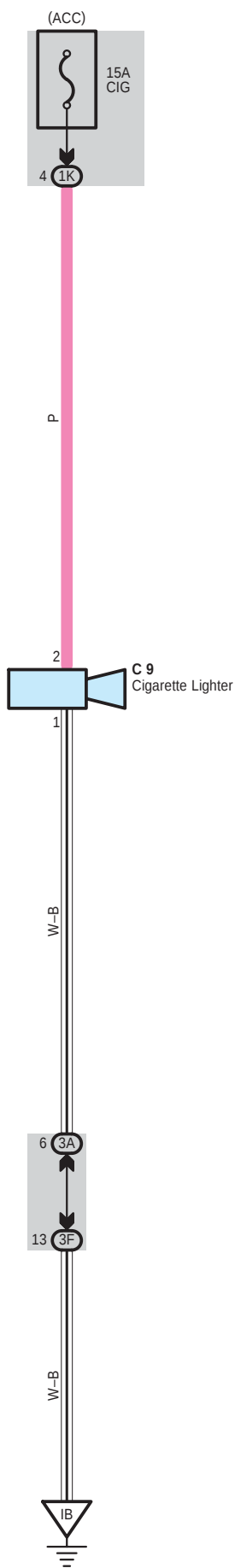
Code		See Page	Code	See Page	Code	See Page
B12	D	42	H7	38 (3MZ-FE)	H8	38 (3MZ-FE)
C16		42		40 (2AZ-FE)		40 (2AZ-FE)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
2B	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2E		

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC2	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)



 : Parts Location

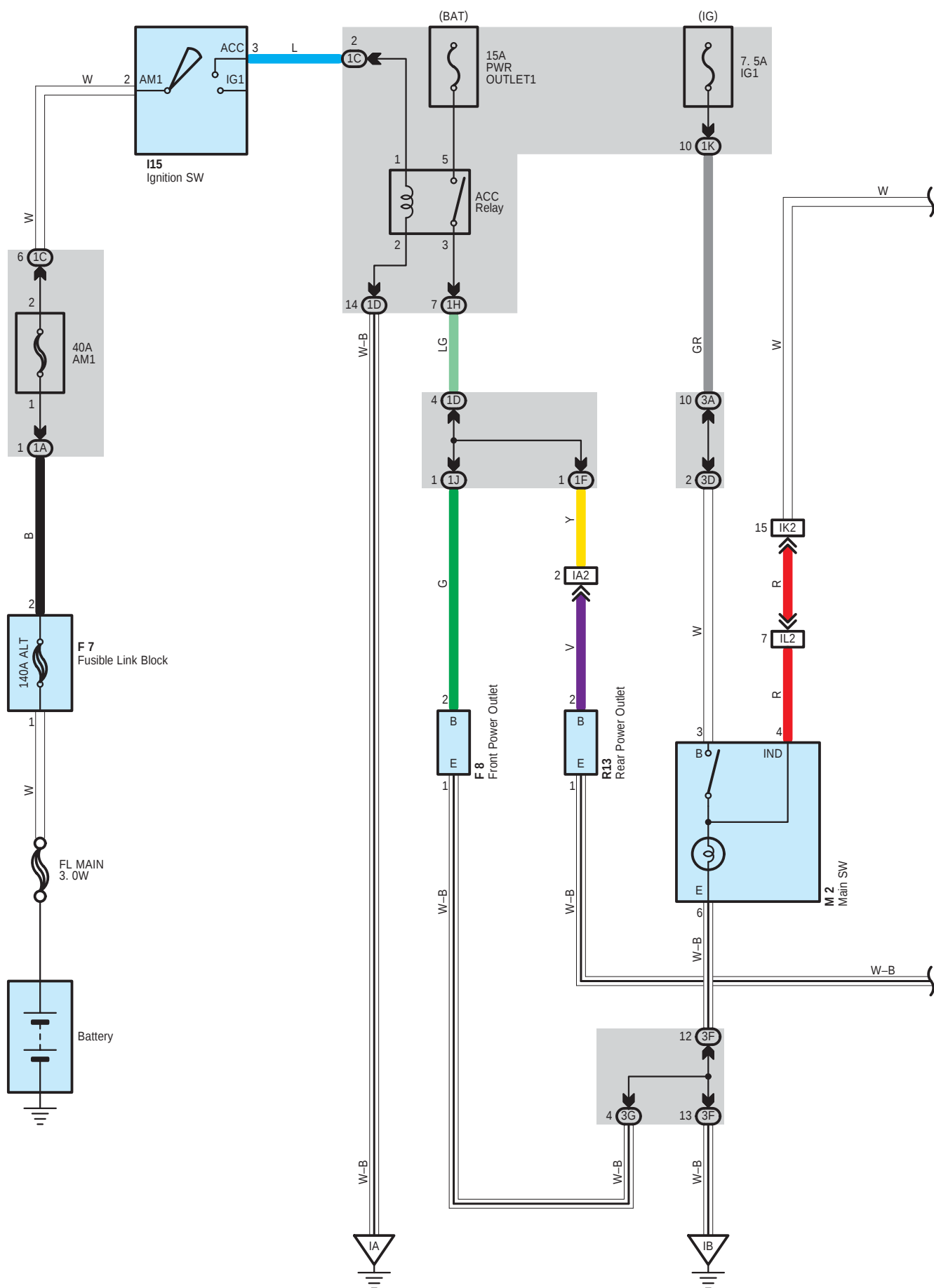
Code	See Page	Code	See Page	Code	See Page
C9	42				

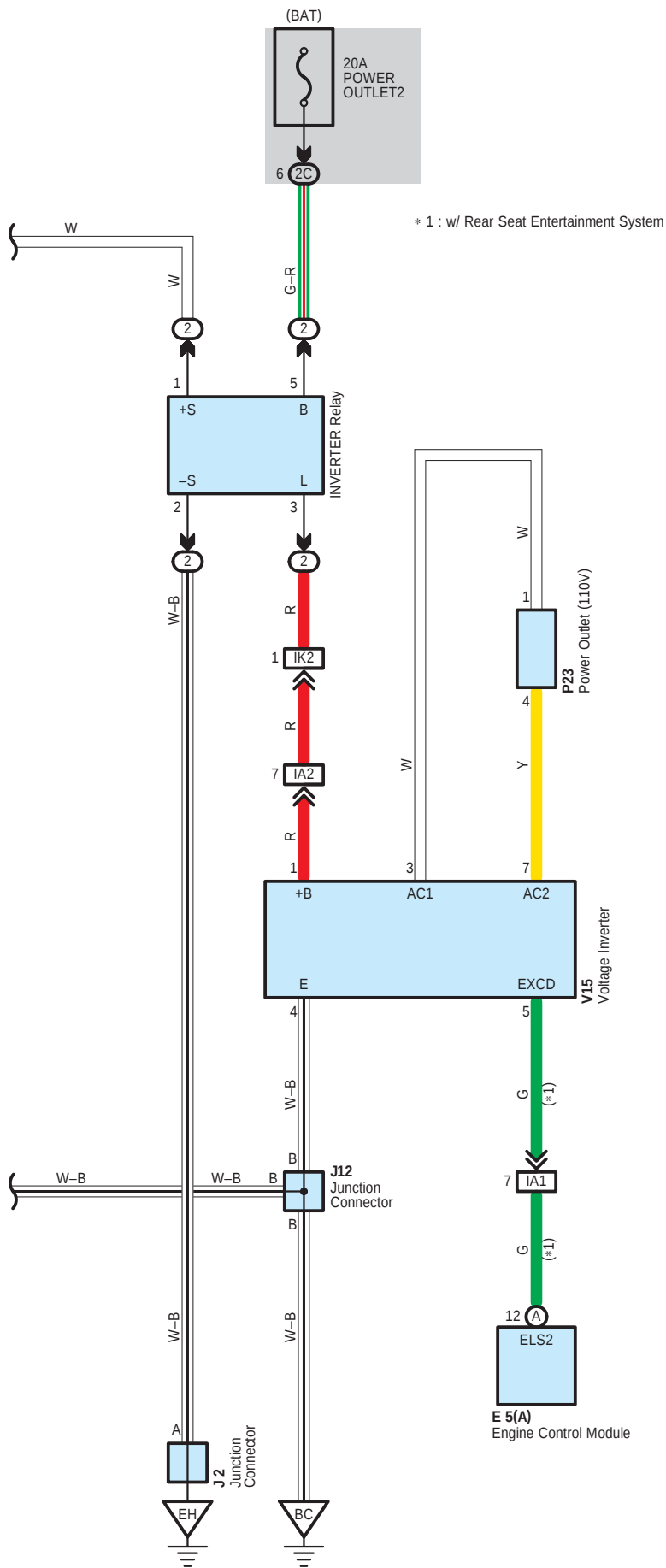
 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3F		

 : Ground Points

Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace





Power Outlet

: Parts Location

Code		See Page	Code		See Page	Code		See Page
E5	A	42	I15	43		M2	43	
F7		38 (3MZ-FE)	J2	39 (3MZ-FE)		P23	44	
		40 (2AZ-FE)		41 (2AZ-FE)		R13	45	
F8		43	J12	44		V15	45	

: 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)
1A	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1C	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1D		
1F		
1H		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2C	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3D		
3F		
3G	31	

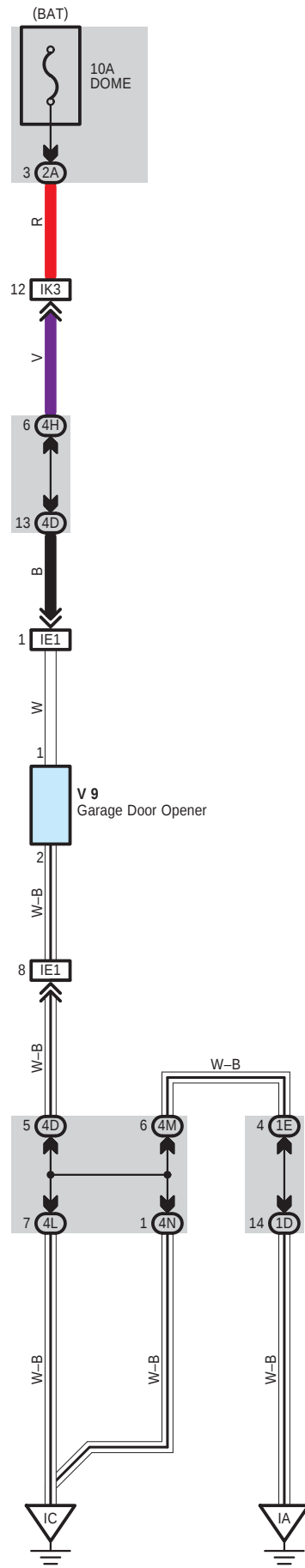
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IA2		
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)

: Ground Points

Code	See Page	Ground Points Location
EH	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
IA	50	Left Cowl Side Panel
IB	50	Right Instrument Panel Brace
BC	52	Left Side of Rear Cross Member

Garage Door Opener



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
V9	45				

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
4D	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4H		
4L	32	
4M		
4N		

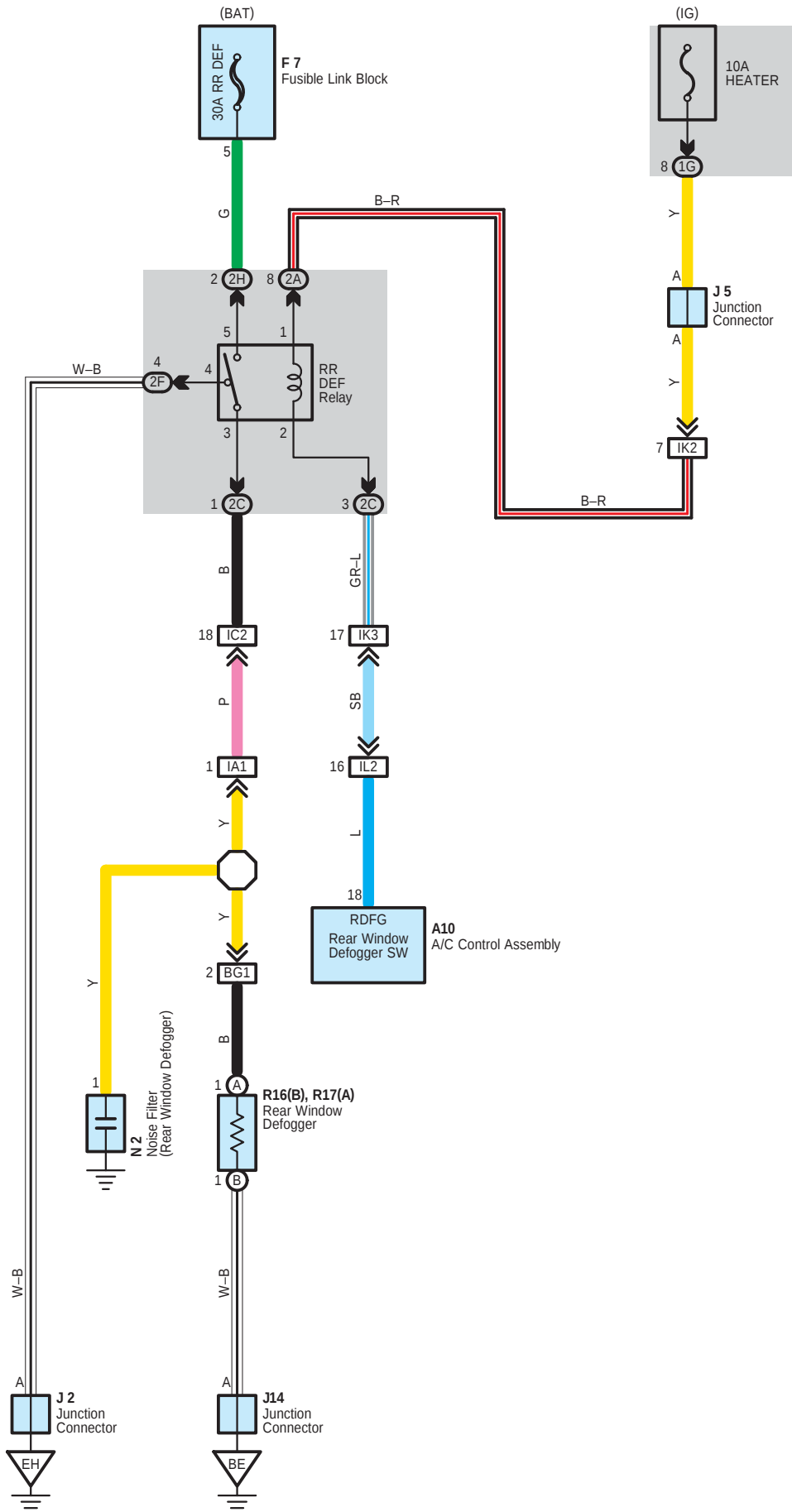
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	50	Roof Wire and Cowl Wire (Near the Bottom of Left Front Pillar)
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)

 : Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
IC	50	Right Cowl Side Panel

Rear Window Defogger



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
A10	42	J2	41 (2AZ-FE)	R16	B 45
F7	38 (3MZ-FE)	J5	43	R17	A 45
	40 (2AZ-FE)	J14	44		
J2	39 (3MZ-FE)	N2	44		

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2C		
2F		
2H		

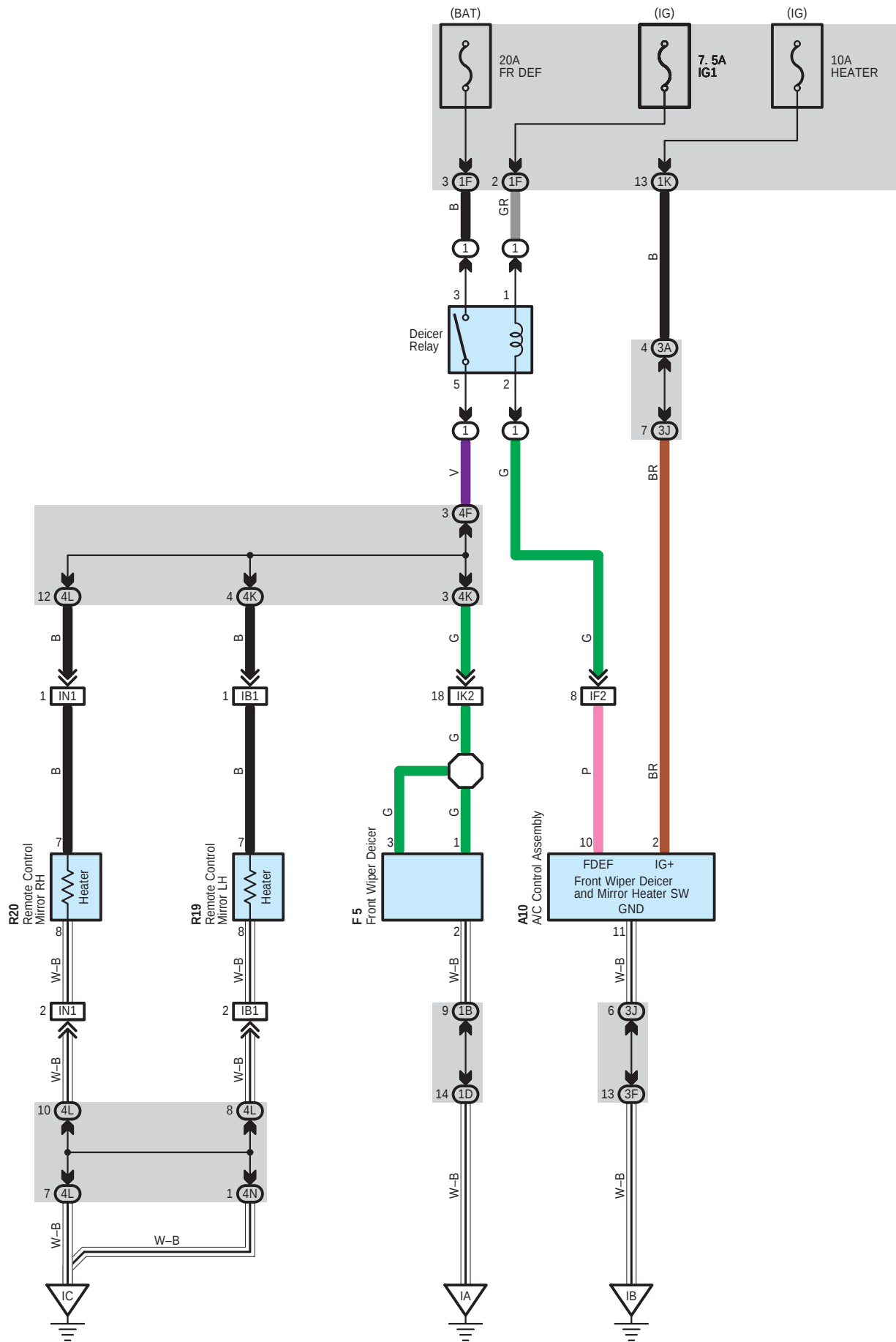
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IC2	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
BG1	52	Back Door No.1 Wire and Floor No.2 Wire (Rear Left of the Roof)

 : Ground Points

Code	See Page	Ground Points Location
EH	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
BE	52	Left Side of Back Door

Mirror Heater and Front Deicer



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
A10	42	F5	40 (2AZ-FE)	R20	45
F5	38 (3MZ-FE)	R19	45		

 : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	24	R/B No.1 (Lower Finish Panel)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1B	29	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1F		
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3F		
3J	31	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4F	33	
4K	32	
4L		
4N		

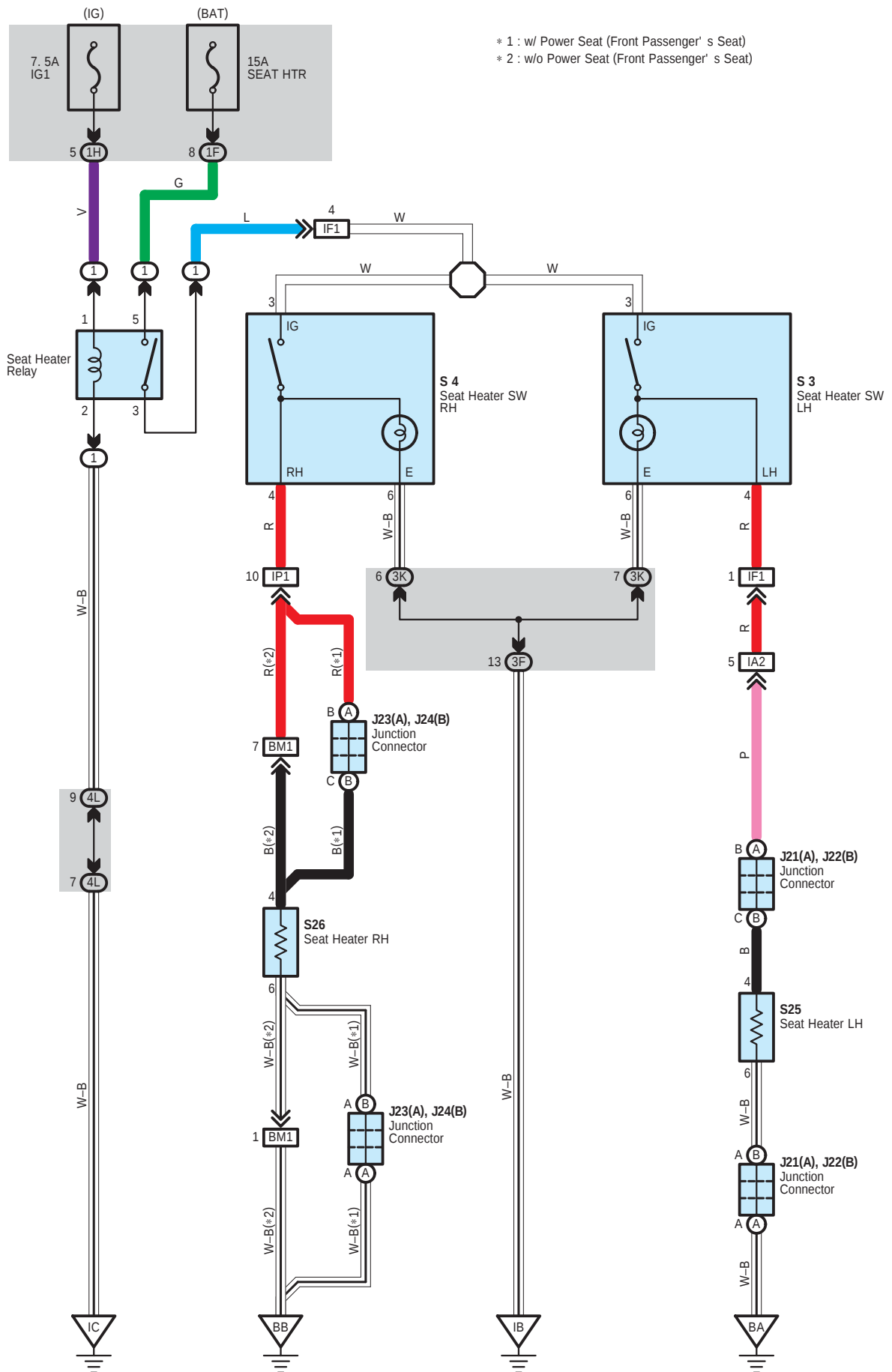
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB1	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IF2	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IN1	51	Front Door RH Wire and Cowl Wire (Right Kick Panel)

 : Ground Points

Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel

Seat Heater



 : Parts Location

Code		See Page	Code		See Page	Code	See Page
J21	A	46 (*1)	J24	B	46 (*1)	S25	46 (*1)
J22	B	46 (*1)	S3		43	S26	46 (*1)
J23	A	46 (*1)	S4		43		47 (*2)

 : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	24	R/B No.1 (Lower Finish Panel)

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1F	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1H		
3F	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3K	31	
4L	32	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IF1	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IP1	51	Instrument Panel Wire and Floor Wire (Left Side of Passenger Side J/B)
BM1	55 (*2)	Floor Wire and Front Seat RH Wire (Under the Front Passenger's Seat)

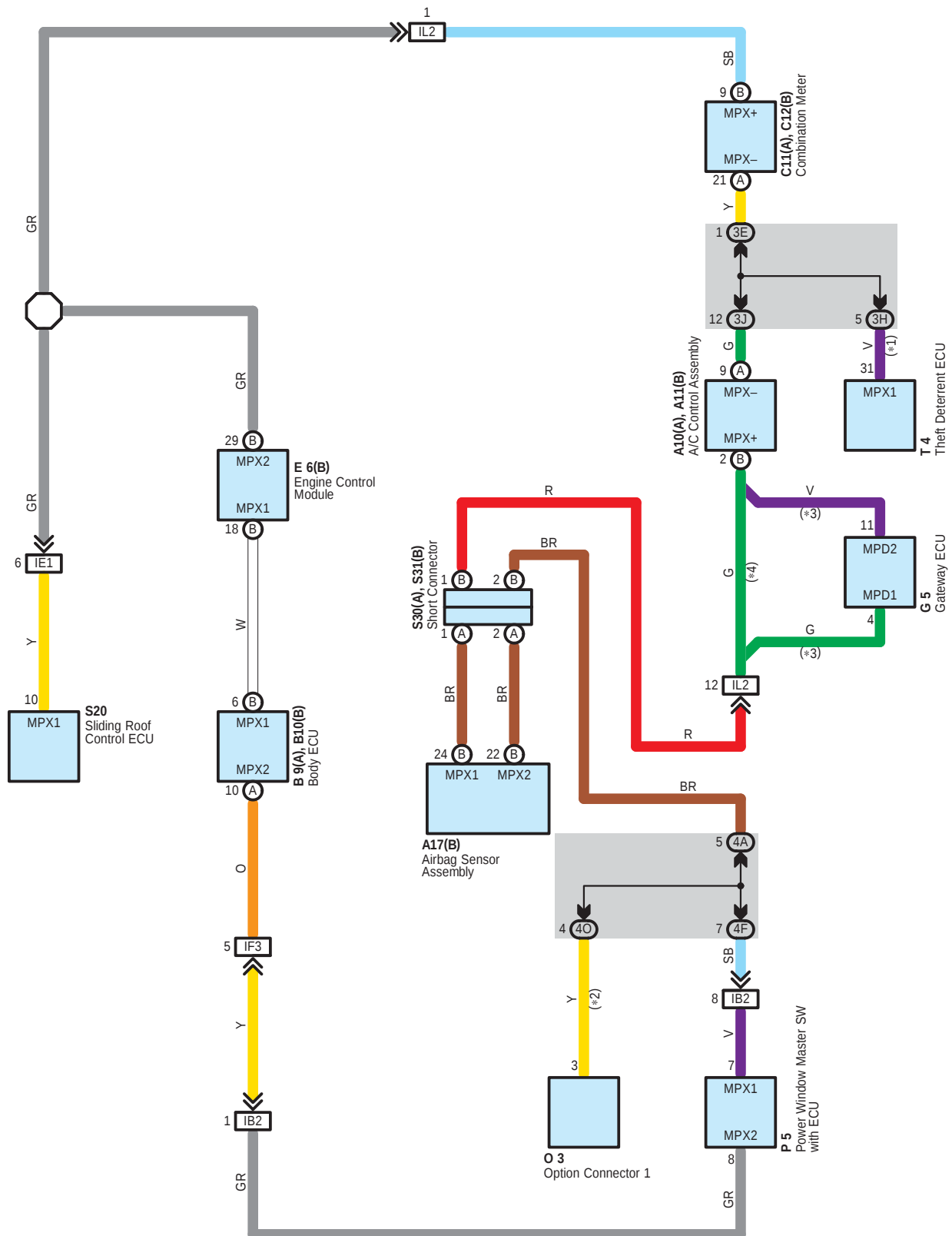
 : Ground Points

Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel
BA	52	Left Center Pillar
BB	52	Right Center Pillar

* 1 : w/ Power Seat * 2 : w/o Power Seat

Multiplex Communication System – BEAN Bus

- * 1 : w/ Theft Deterrent System
- * 2 : w/o Theft Deterrent System
- * 3 : w/ Navigation System
- * 4 : w/o Navigation System



System Outline

The multiplex communication system communicates among the A/C control assembly, body ECU, combination meter, engine control module, option connector 1, power window master SW with ECU, sliding roof control ECU and theft deterrent ECU and controls the following systems according to the signals from respective sensors or switches.

Multiplex Communication System Includes Following Systems

- * Air Conditioning (Automatic A/C)
- * Air Conditioning (Manual A/C)
- * Automatic Light Control
- * Combination Meter
- * Door Lock Control
- * Electronically Controlled Transmission and A/T Indicator (3MZ-FE)
- * Electronically Controlled Transmission and A/T Indicator (2AZ-FE)
- * Engine Control (3MZ-FE)
- * Engine Control (2AZ-FE)
- * Headlight
- * Interior Light
- * Key Reminder
- * Light Auto Turn Off System
- * Moon Roof
- * Navigation System
- * Power Window
- * Seat Belt Warning
- * Theft Deterrent System
- * Wireless Door Lock Control

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A10	A	42	C11	A	42
A11	B	42	C12	B	42
A17	B	42	E6	B	42
B9	A	42	G5		43
B10	B	42	O3		43
				P5	44
				S20	45
				S30	A
				S31	B
				T4	43

○ : Junction Block and Wire Harness Connector

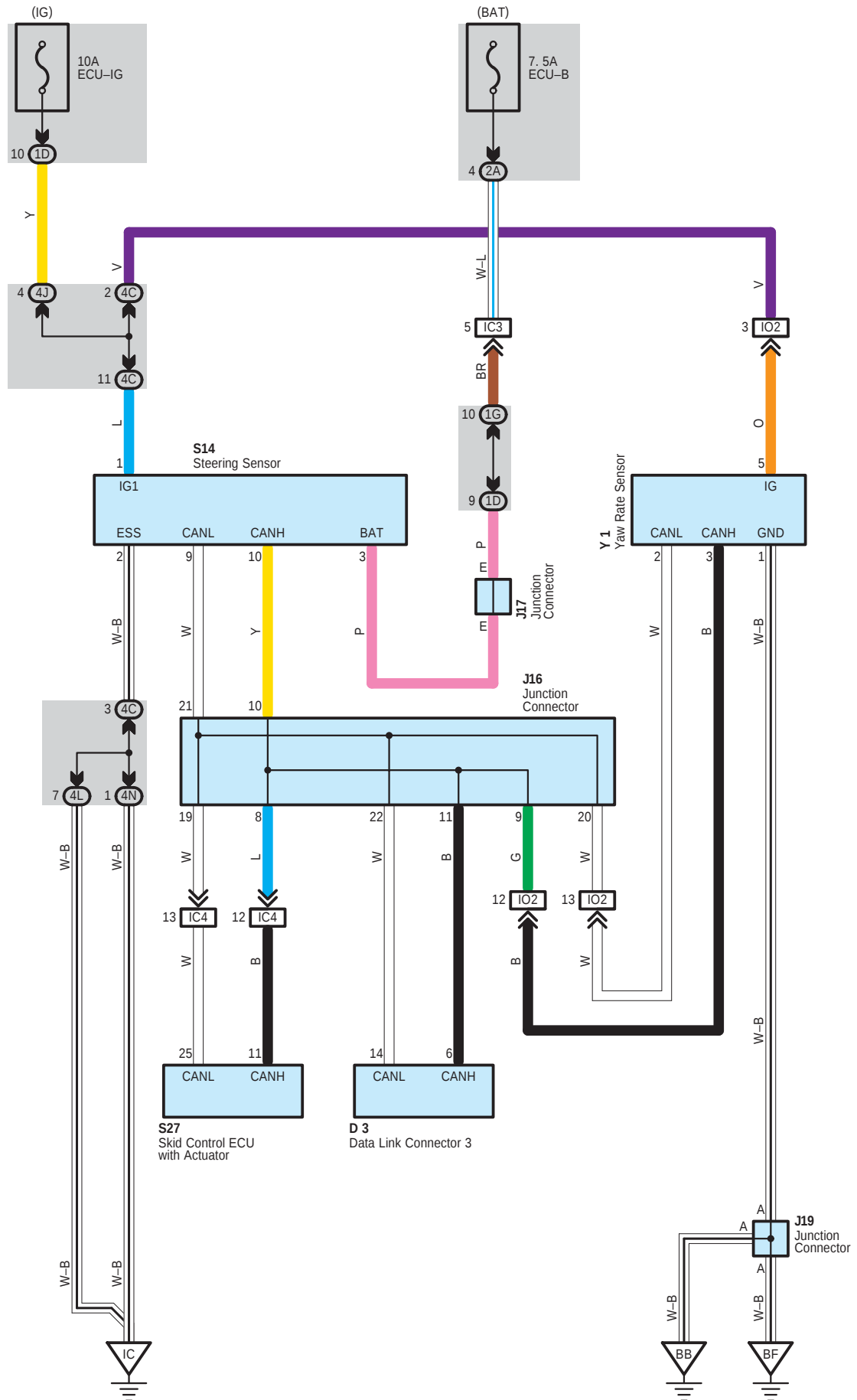
Code	See Page	Junction Block and Wire Harness (Connector Location)
3E	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3H	31	
3J		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4F		
4O	32	

Multiplex Communication System – BEAN Bus

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IE1	50	Roof Wire and Cowl Wire (Near the Bottom of Left Front Pillar)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)

Multiplex Communication System – CAN



System Outline

Multiplex communication system (CAN) uses a serial communication protocol and communicates with a differential voltage. In this network system, TERMINALS CANH and CANL are used for communication between the ECUs and sensors, and excellent data communication speed and communication error detecting facility are provided.

This system is working for the following systems:

- * ABS
- * Tire Pressure Warning System
- * TRAC
- * VSC

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
D3	42	J19	44	S27	41 (2AZ-FE)
J16	43	S14	43	Y1	45
J17	43	S27	39 (3MZ-FE)		

○ : Junction Block and Wire Harness Connector

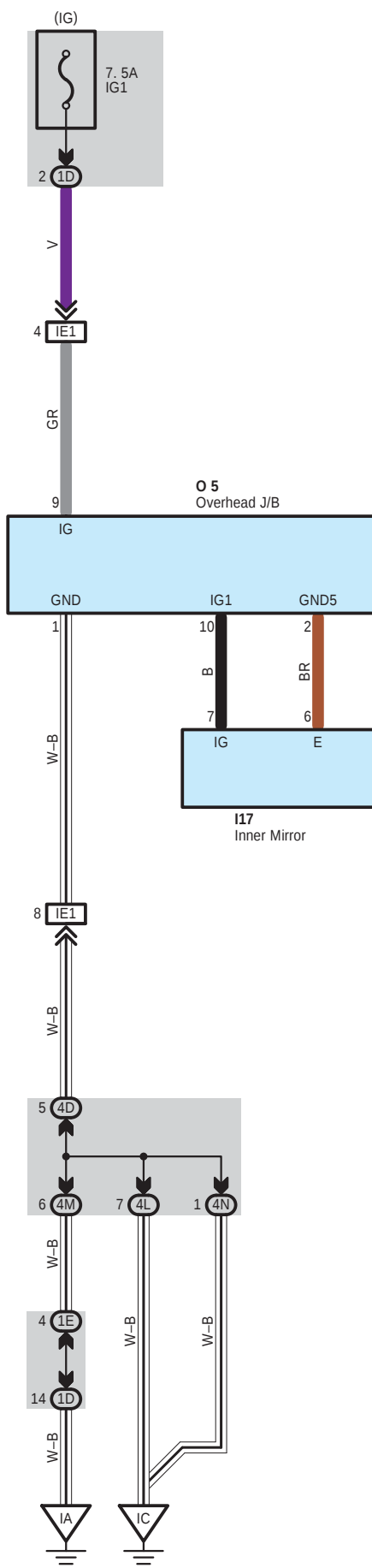
Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
4C	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4J	32	
4L		
4N		

□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC4		
IO2	51	Cowl Wire and Floor Wire (Right Kick Panel)

▽ : Ground Points

Code	See Page	Ground Points Location
IC	50	Right Cowl Side Panel
BB	52	Right Center Pillar
BF	52	Near the Rear Side Marker Light RH



 : **Parts Location**

Code	See Page	Code	See Page	Code	See Page
I17	44	O5	44		

 : **Junction Block and Wire Harness Connector**

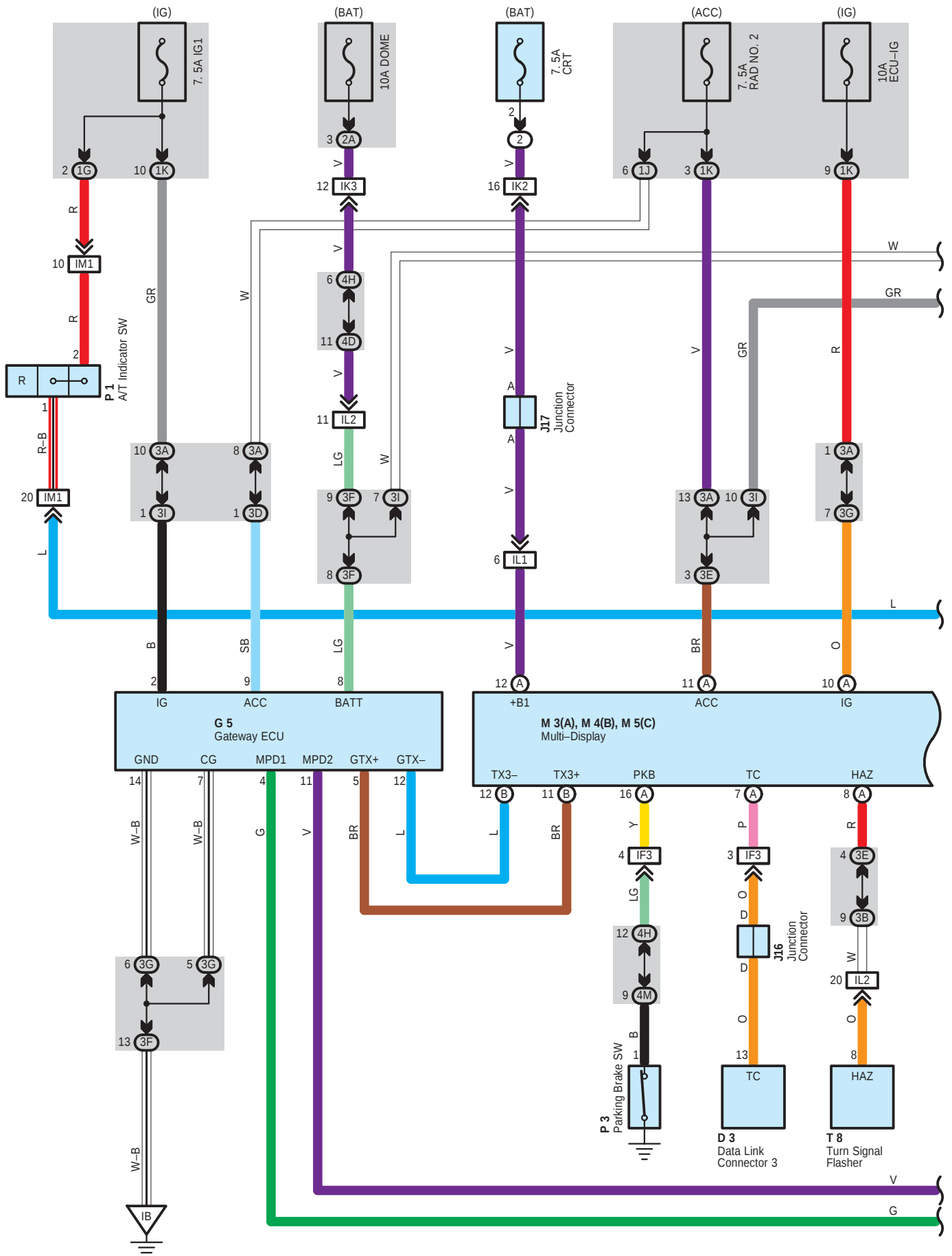
Code	See Page	Junction Block and Wire Harness (Connector Location)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1E		
4D	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4L	32	
4M		
4N		

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

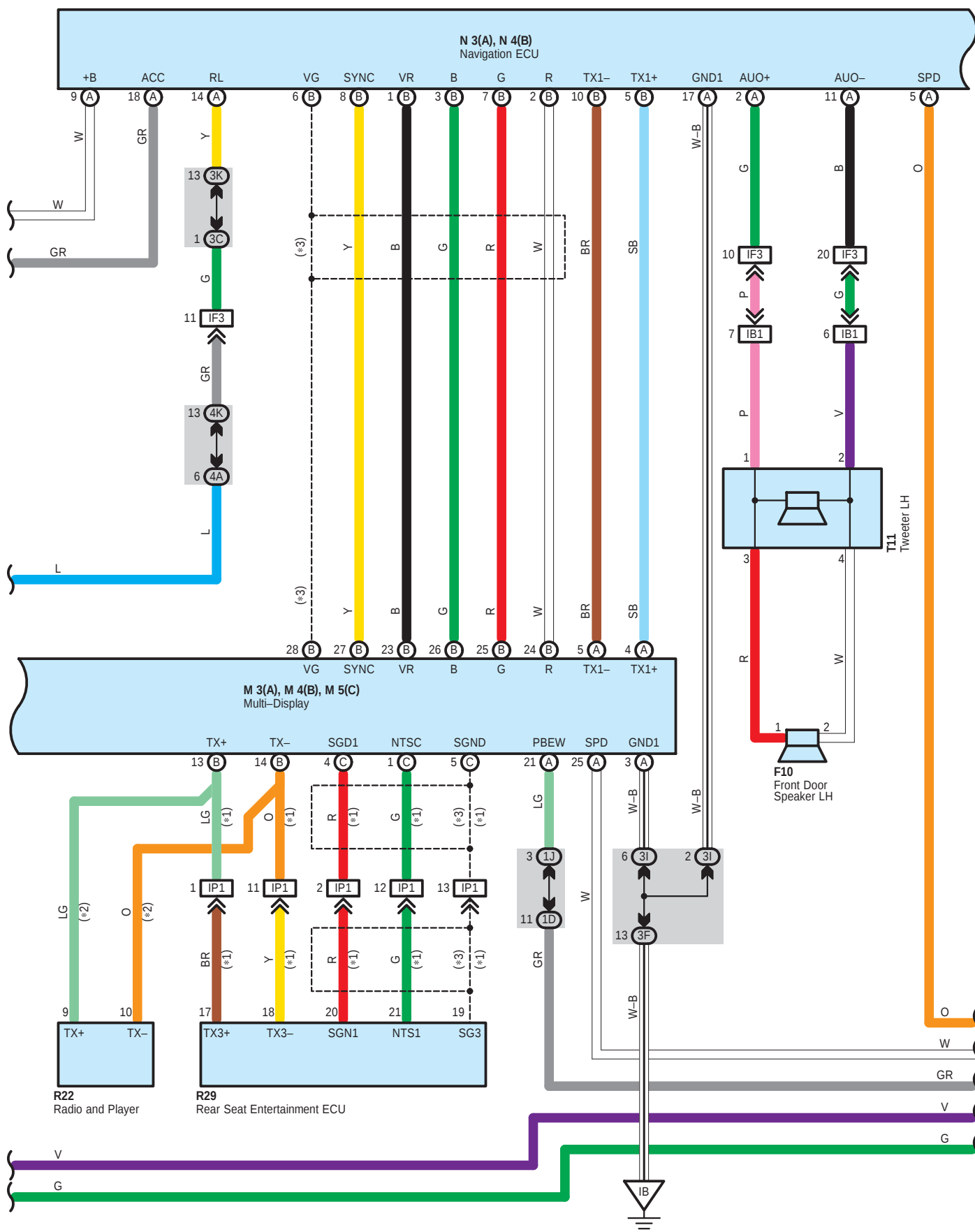
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IE1	50	Roof Wire and Cowl Wire (Near the Bottom of Left Front Pillar)

 : **Ground Points**

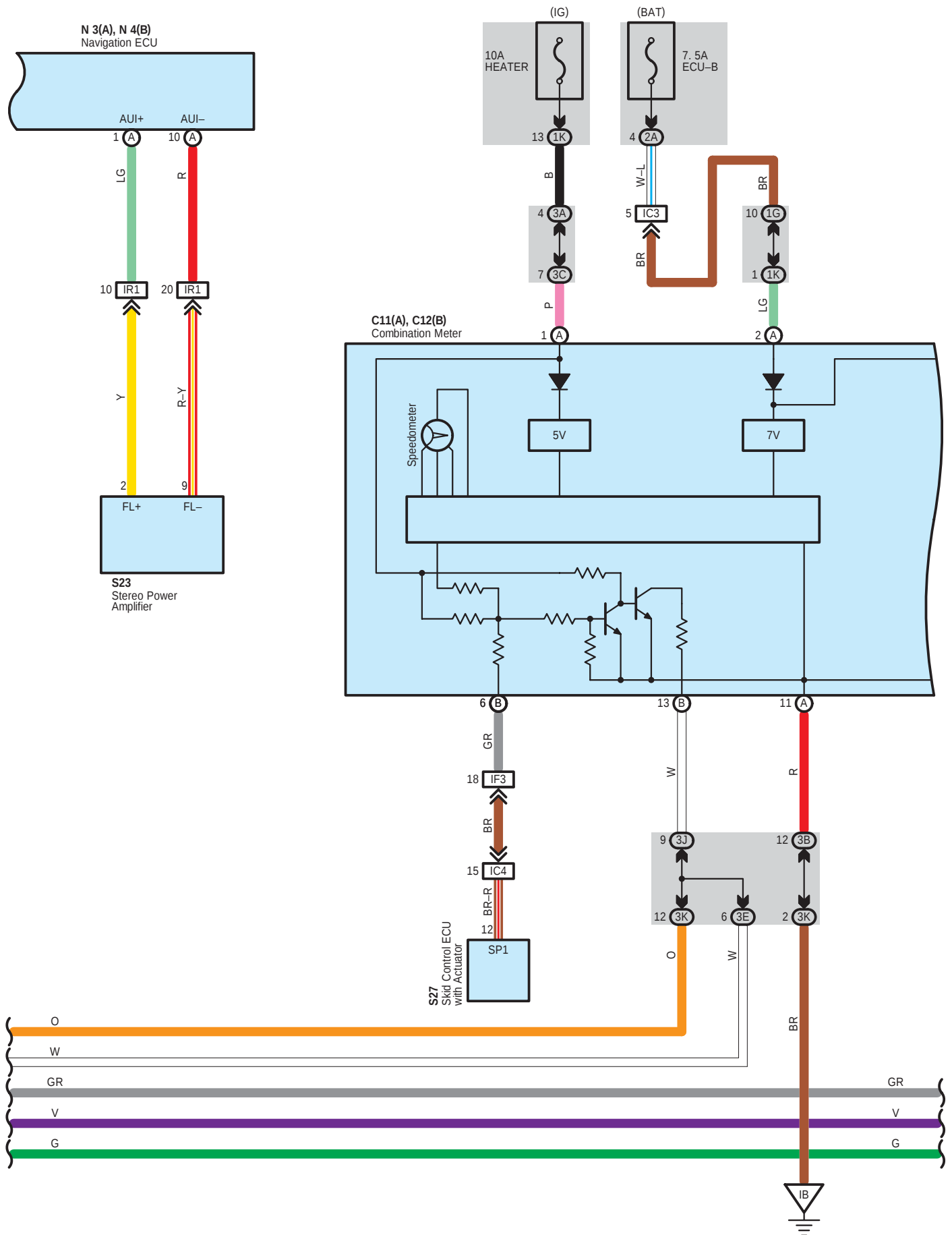
Code	See Page	Ground Points Location
IA	50	Left Cowl Side Panel
IC	50	Right Cowl Side Panel

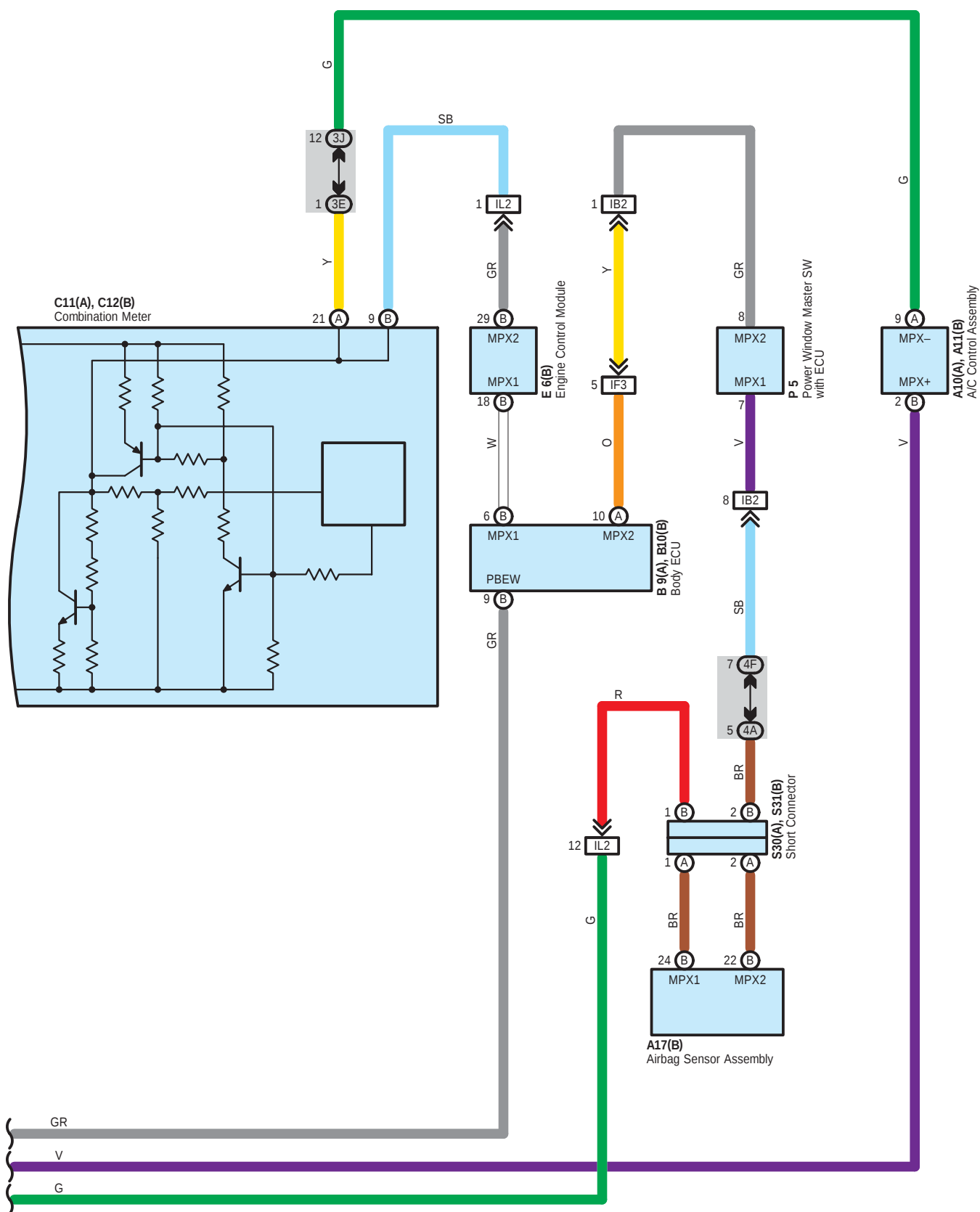


- * 1 : w/ Rear Seat Entertainment System
- * 2 : w/o Rear Seat Entertainment System
- * 3 : Shielded



Navigation System





Navigation System

: Parts Location

Code		See Page	Code		See Page	Code		See Page
A10	A	42	J16		43	R22		43
A11	B	42	J17		43	R29		45
A17	B	42	M3	A	43	S23		45
B9	A	42	M4	B	43	S27		39 (3MZ-FE)
B10	B	42	M5	C	43			41 (2AZ-FE)
C11	A	42	N3	A	43	S30	A	43
C12	B	42	N4	B	43	S31	B	43
D3		42	P1		39 (3MZ-FE)	T8		43
E6	B	42			41 (2AZ-FE)	T11		45
F10		44	P3		43			
G5		43	P5		44			

: 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)
1D	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1G		
1J	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
1K		
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F		
3G	31	
3I		
3J		
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4D		
4F		
4H		
4K	32	
4M		

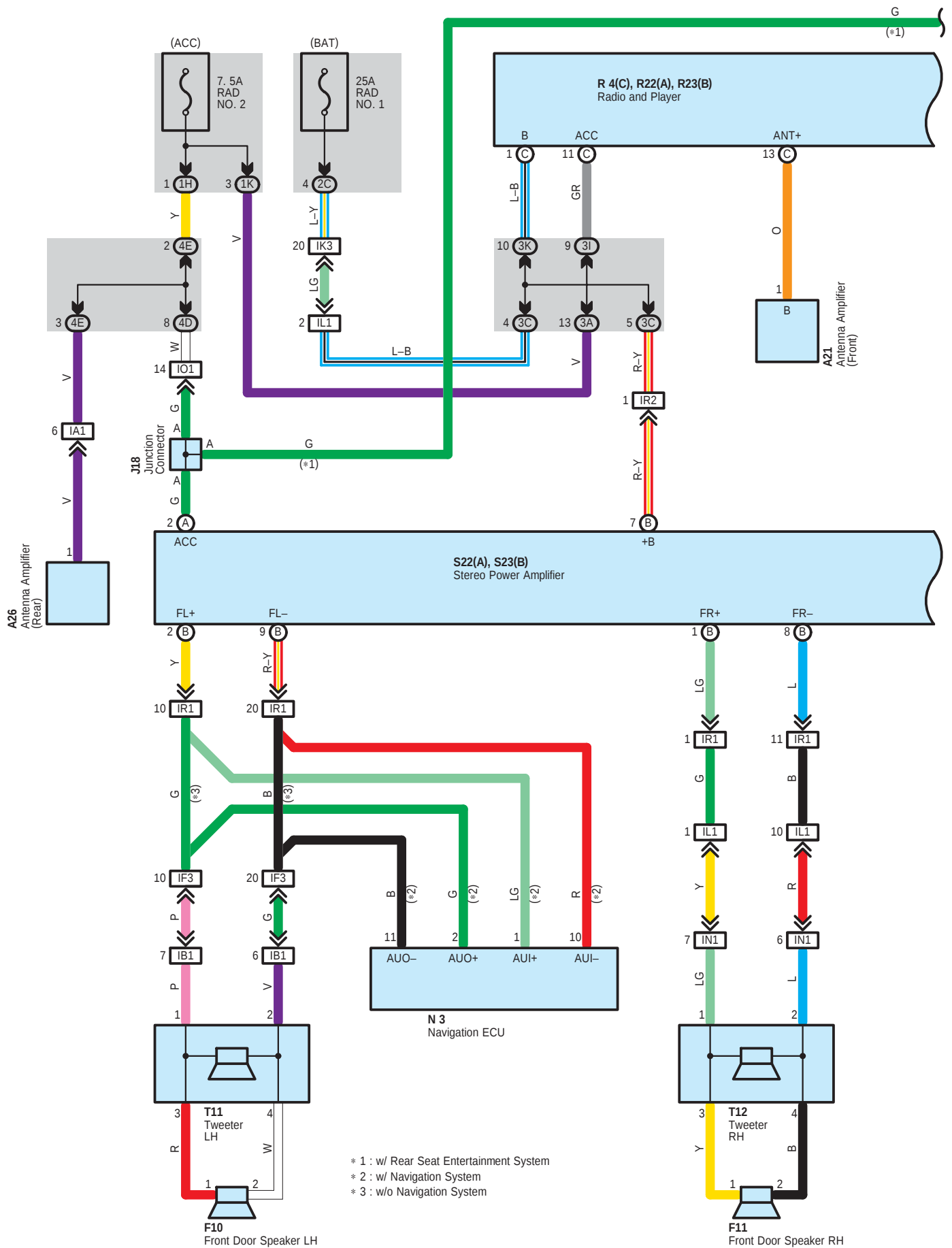
 : Connector Joining Wire Harness and Wire Harness

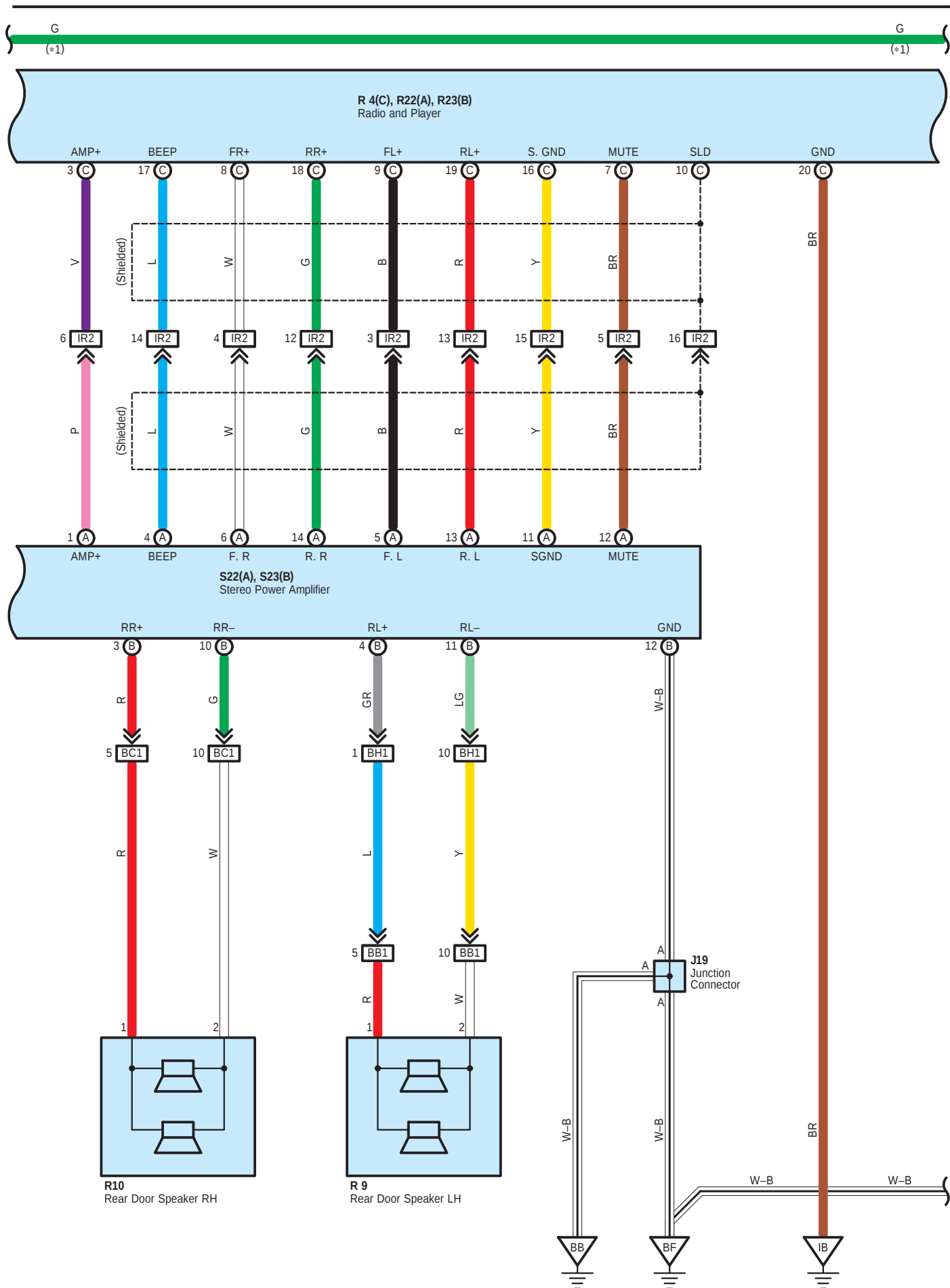
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB1	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IB2		
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC4		
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IM1	51	Engine Wire and Cowl Wire (Right Kick Panel)
IP1	51	Instrument Panel Wire and Floor Wire (Left Side of Passenger Side J/B)
IR1	51	Instrument Panel Wire and Floor Wire (Under the Shift Lever)

 : Ground Points

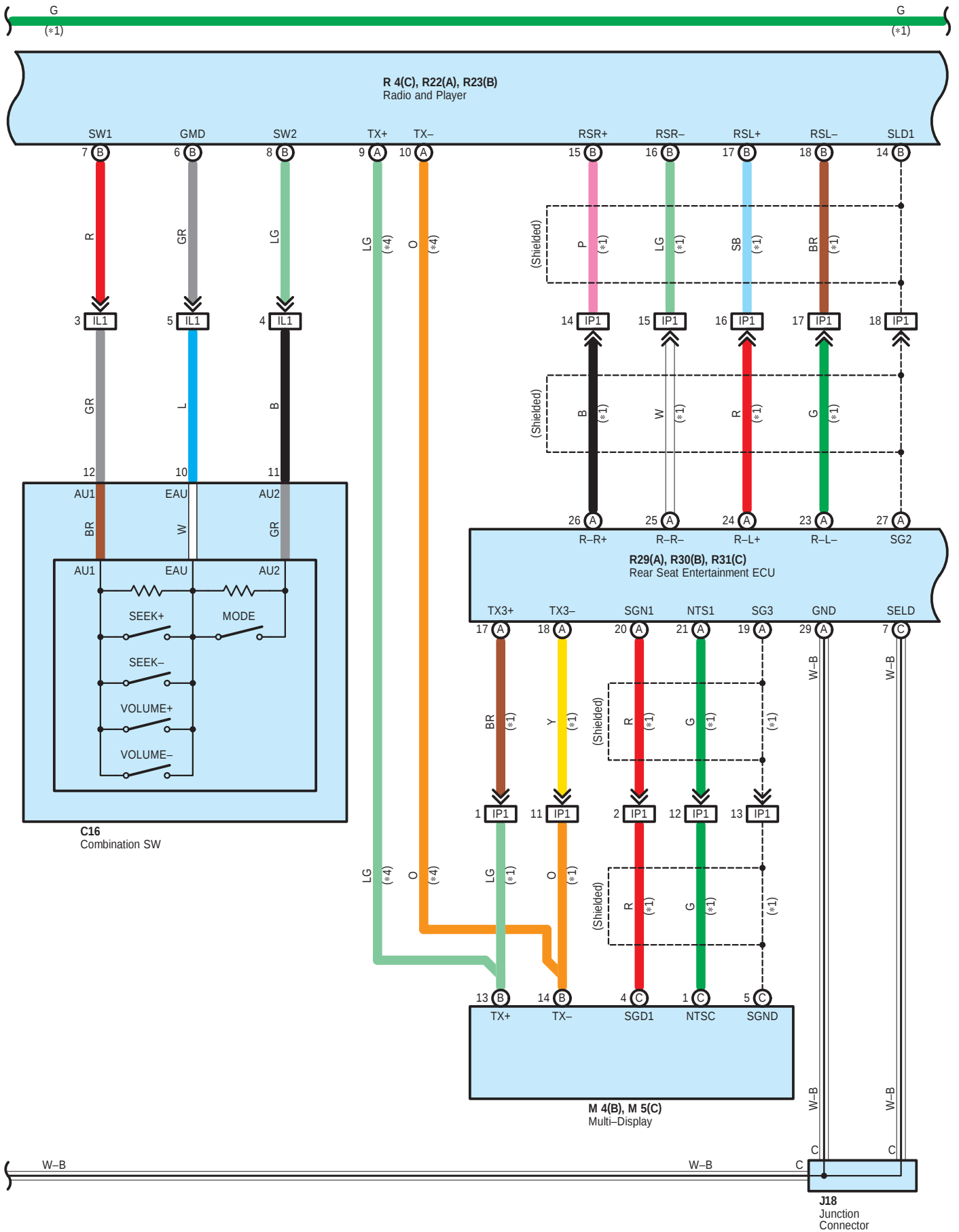
Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace

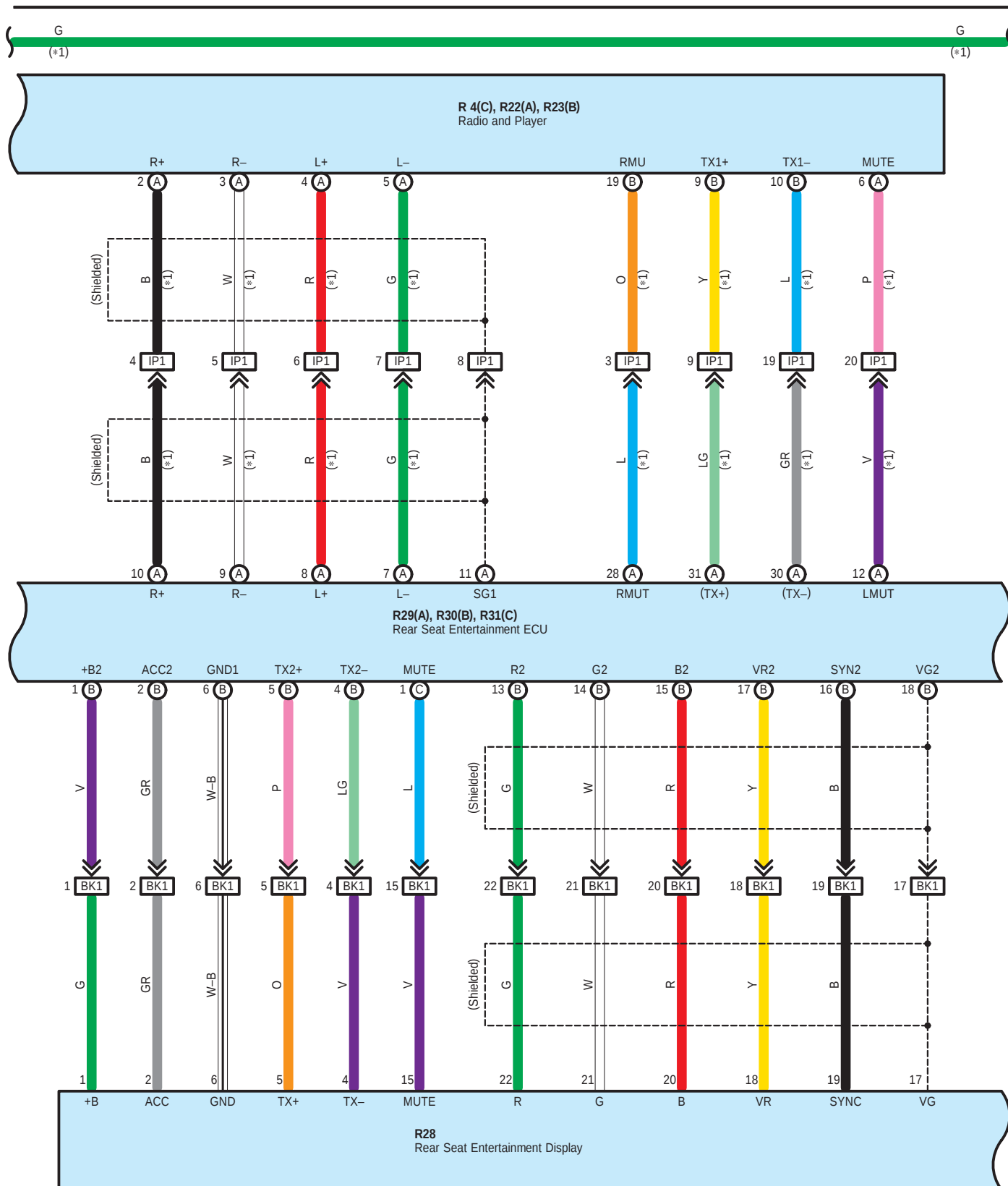
Audio System with 8 Speaker



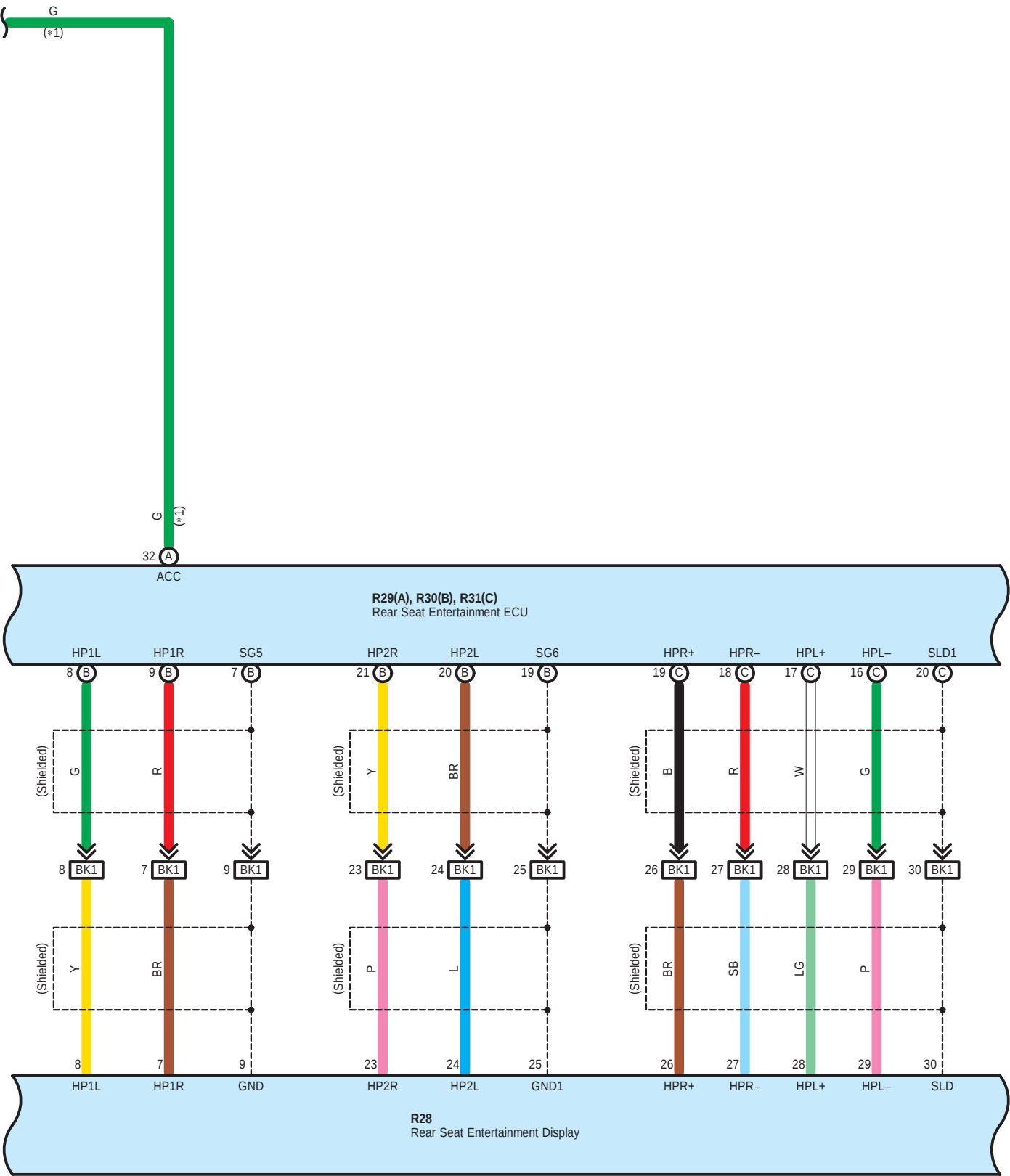


Audio System with 8 Speaker

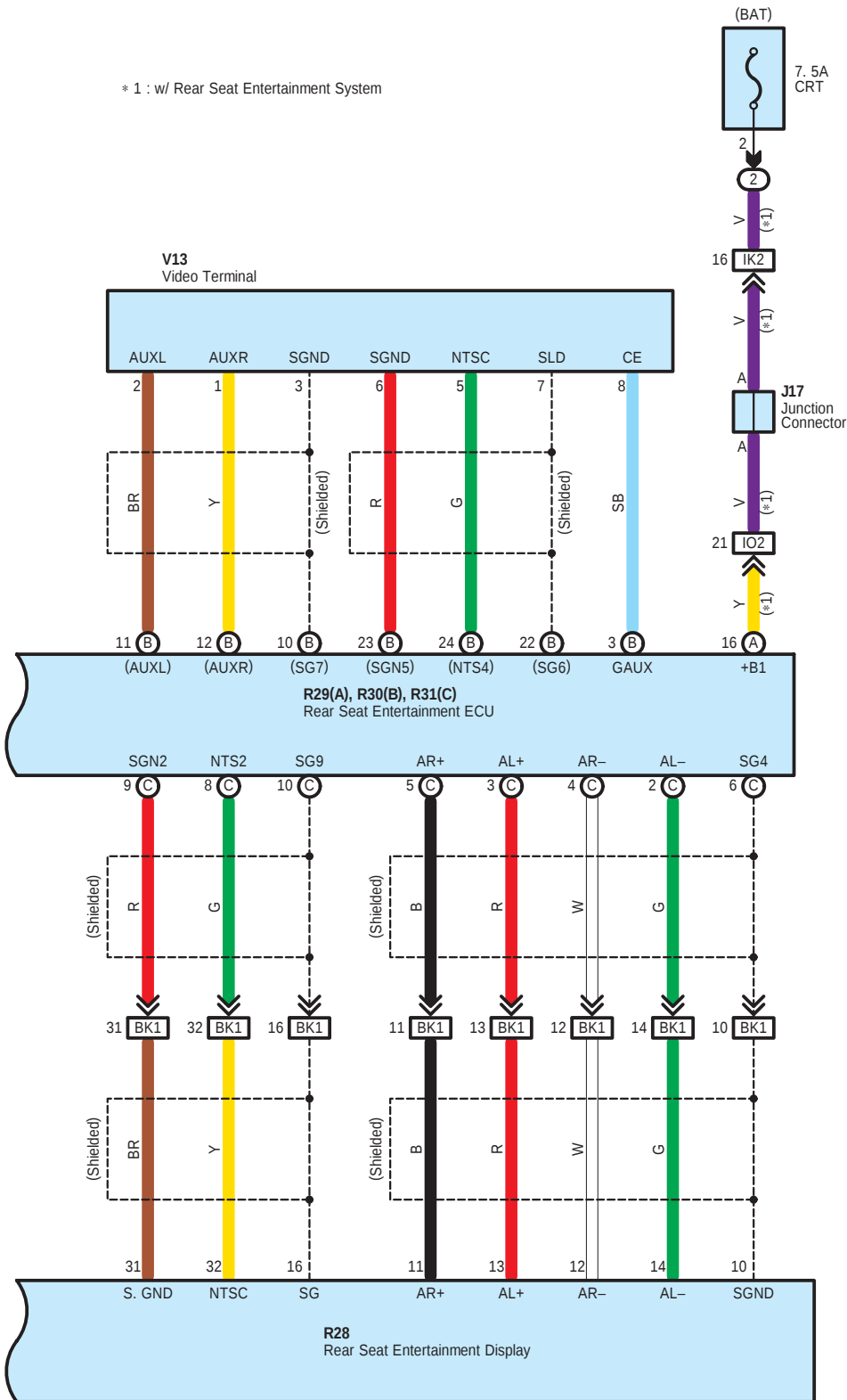




Audio System with 8 Speaker



* 1 : w/ Rear Seat Entertainment System



Audio System with 8 Speaker

: Parts Location

Code		See Page		Code		See Page		Code		See Page	
A21		42		M5 C		43		R30 B		45	
A26		44		N3		43		R31 C		45	
C16		42		R4 C		43		S22 A		45	
F10		44		R9		45		S23 B		45	
F11		44		R10		45		T11		45	
J17		43		R22 A		43		T12		45	
J18		44		R23 B		43		V13		45	
J19		44		R28		45					
M4	B	43		R29	A	45					

: 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)
1H	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2C	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3C		
3I	31	
3K		
4D	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4E		

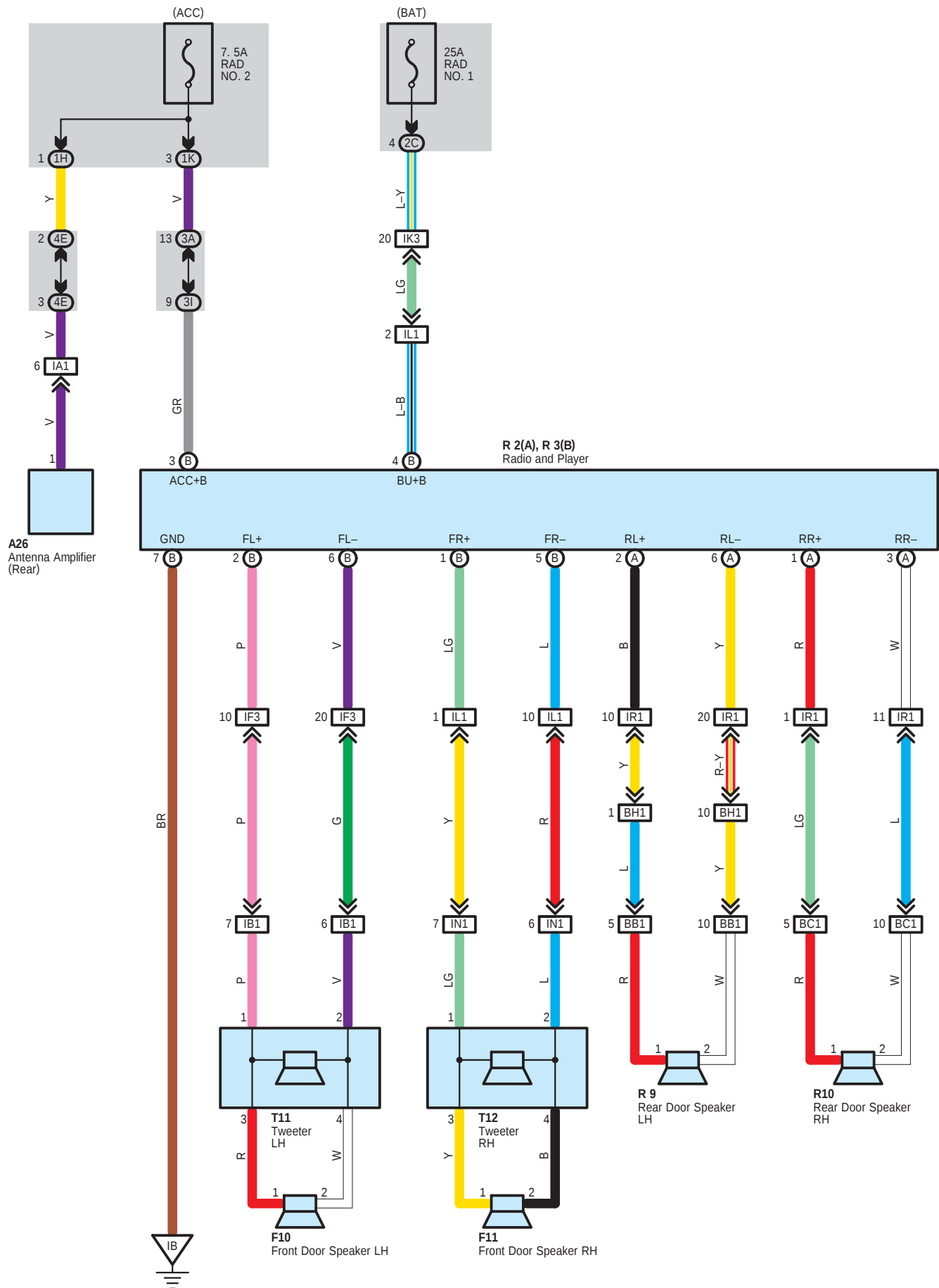
: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IB1	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IN1	51	Front Door RH Wire and Cowl Wire (Right Kick Panel)
IO1	51	Cowl Wire and Floor Wire (Right Kick Panel)
IO2		
IP1	51	Instrument Panel Wire and Floor Wire (Left Side of Passenger Side J/B)
IR1	51	Instrument Panel Wire and Floor Wire (Under the Shift Lever)
IR2		
BB1	52	Rear Door No.1 LH Wire and Floor No.2 Wire (Left Center Pillar)
BC1	52	Rear Door No.1 RH Wire and Floor Wire (Right Center Pillar)
BH1	52	Floor No.2 Wire and Floor Wire (Near the Rear Side Marker Light RH)
BK1	52	Roof No.2 Wire and Floor Wire (Right Rear Quarter Panel)

: Ground Points

Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace
BB	52	Right Center Pillar
BF	52	Near the Rear Side Marker Light RH

Audio System with 6 Speaker



 : Parts Location

Code	See Page	Code		See Page	Code	See Page
A26	44	R2	A	43	R10	45
F10	44	R3	B	43	T11	45
F11	44	R9		45	T12	45

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1H	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2C	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3I	31	
4E	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)

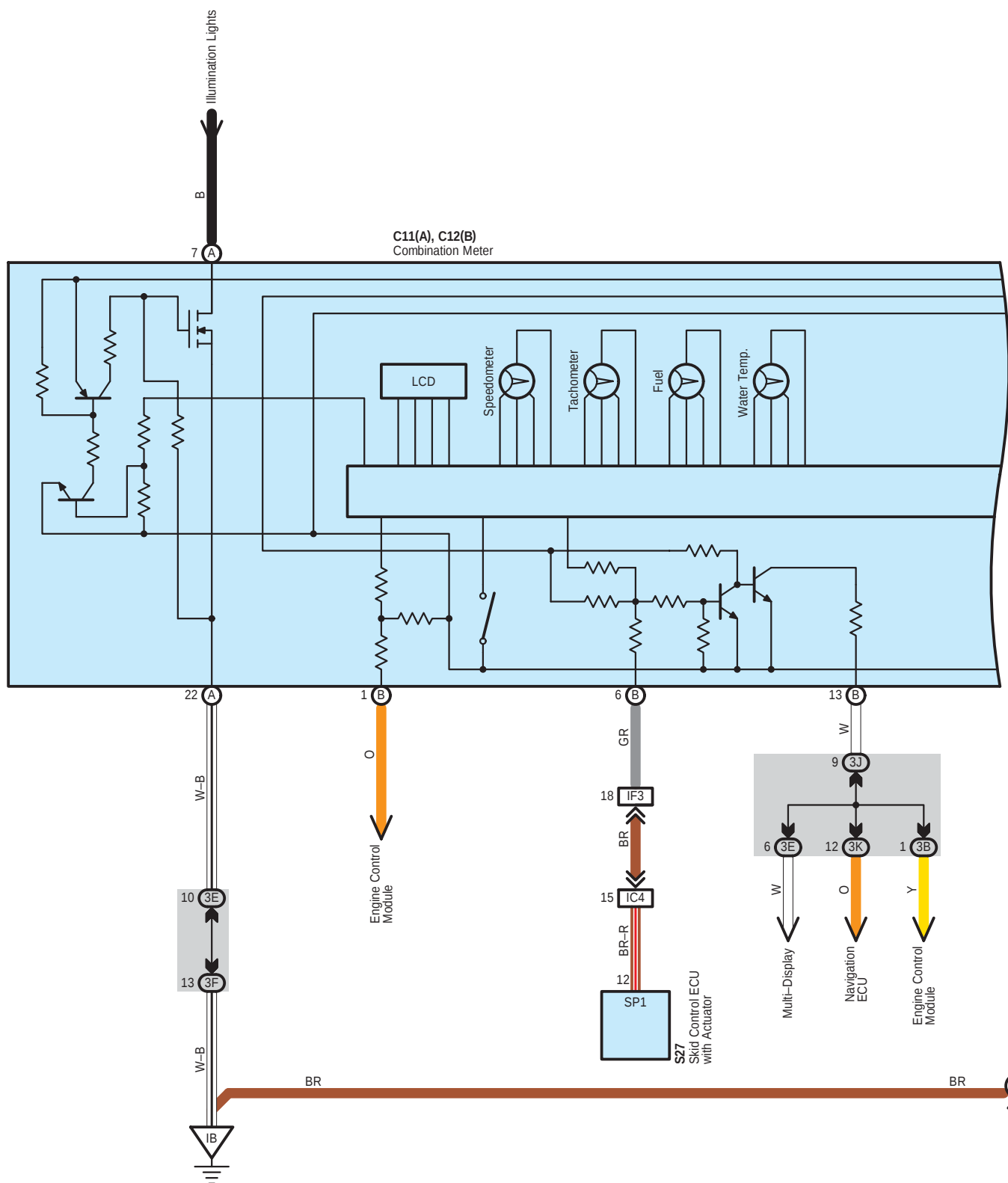
 : Connector Joining Wire Harness and Wire Harness

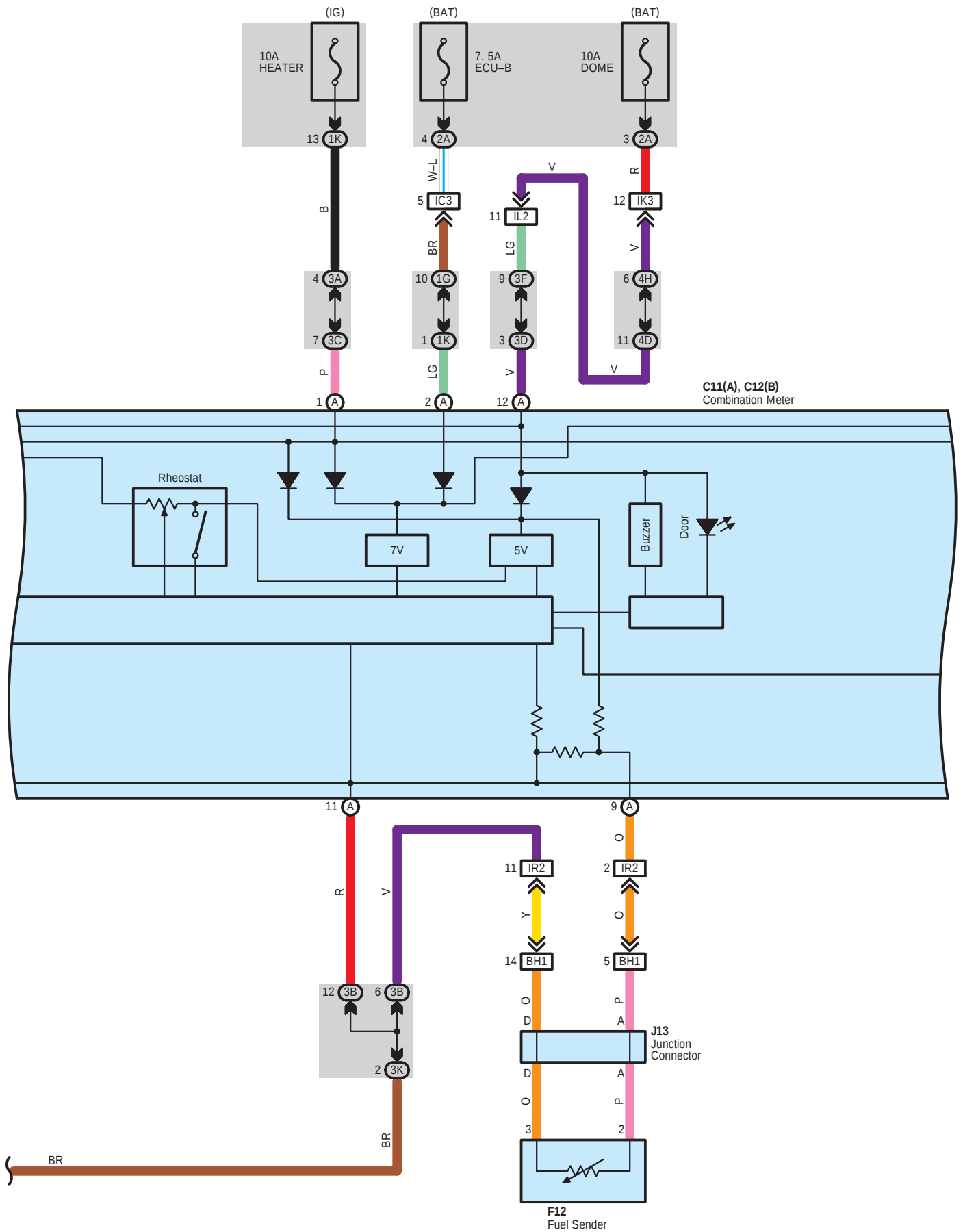
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IB1	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IN1	51	Front Door RH Wire and Cowl Wire (Right Kick Panel)
IR1	51	Instrument Panel Wire and Floor Wire (Under the Shift Lever)
BB1	52	Rear Door No.1 LH Wire and Floor No.2 Wire (Left Center Pillar)
BC1	52	Rear Door No.1 RH Wire and Floor Wire (Right Center Pillar)
BH1	52	Floor No.2 Wire and Floor Wire (Near the Rear Side Marker Light RH)

 : Ground Points

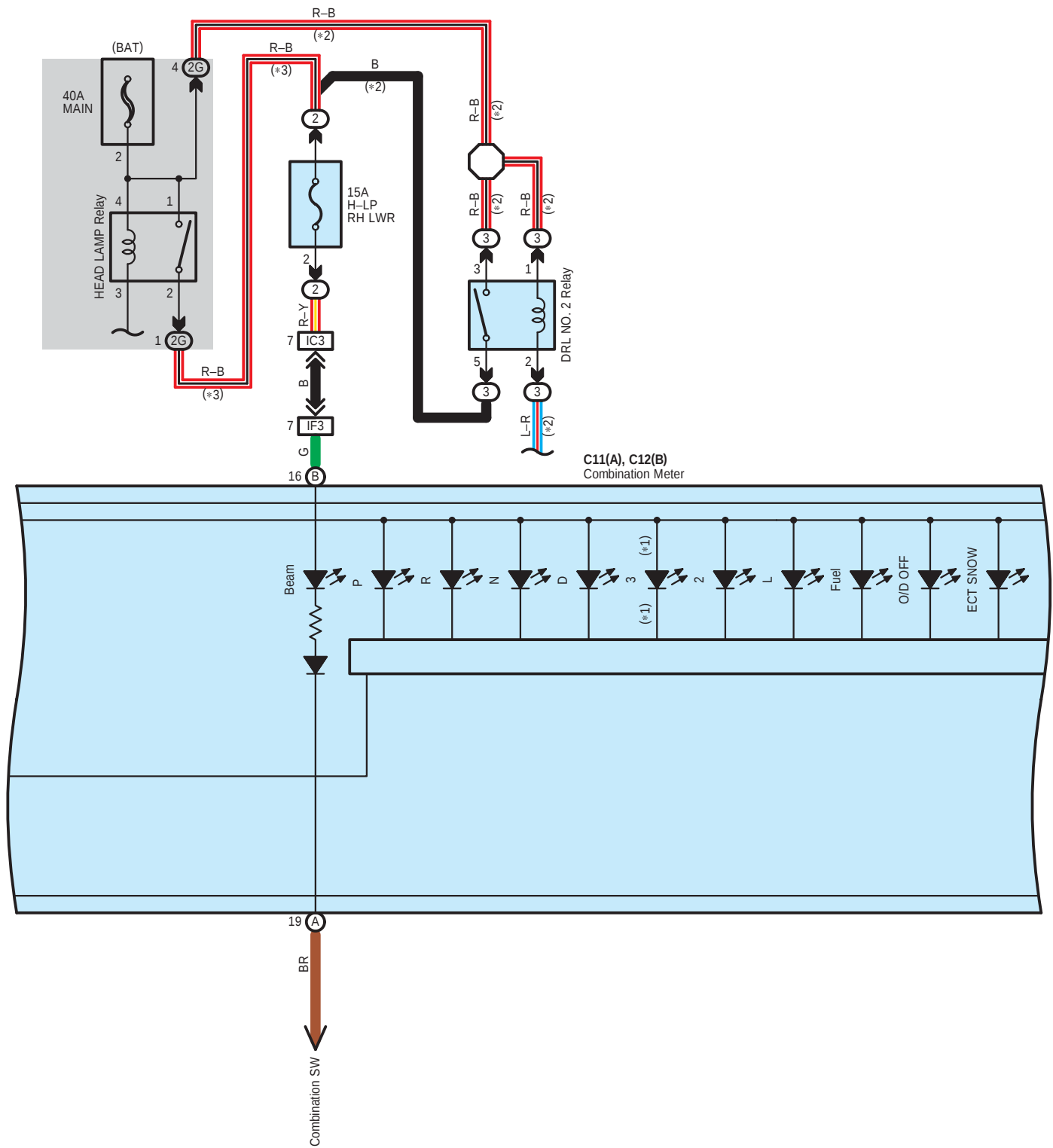
Code	See Page	Ground Points Location
IB	50	Right Instrument Panel Brace

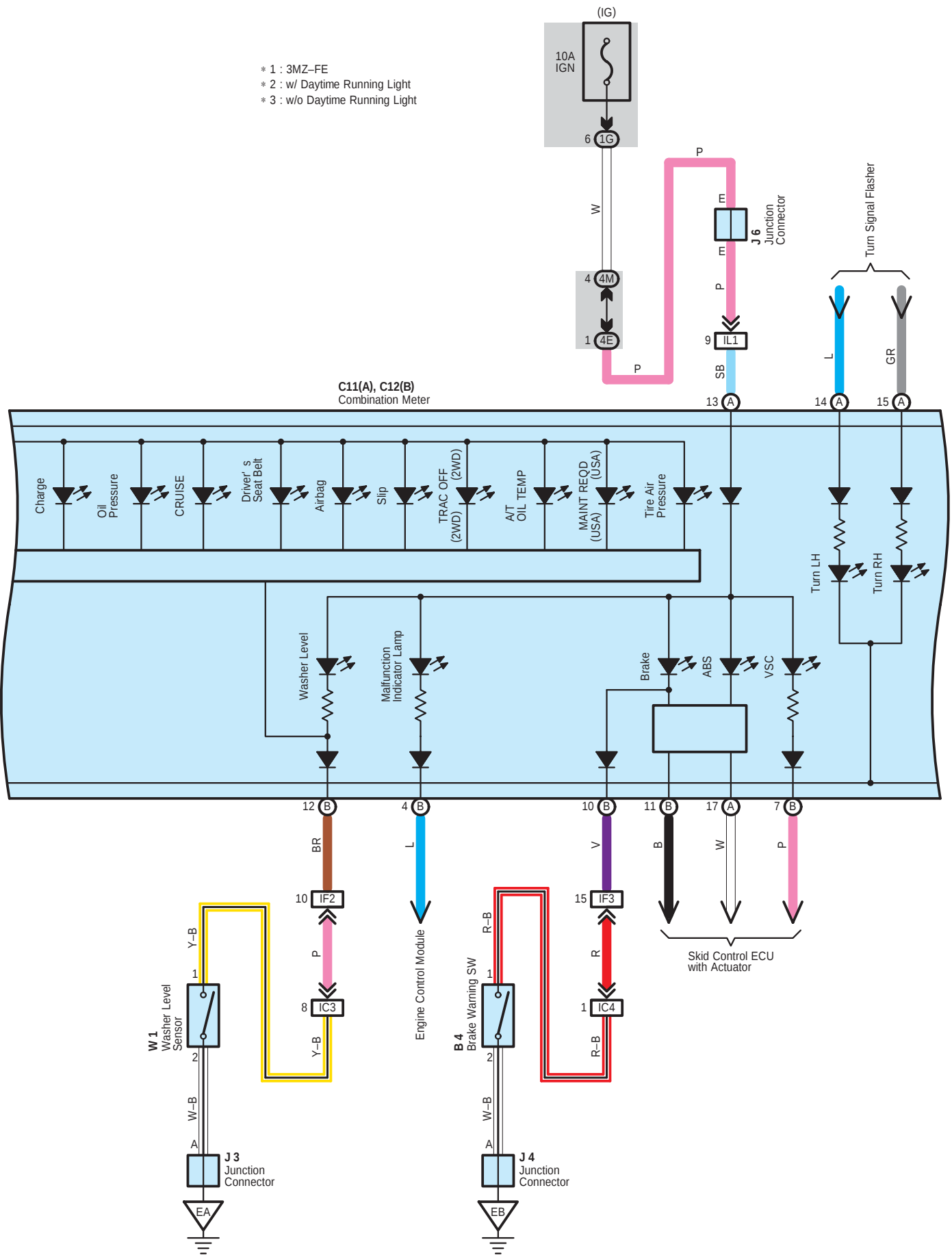
Combination Meter



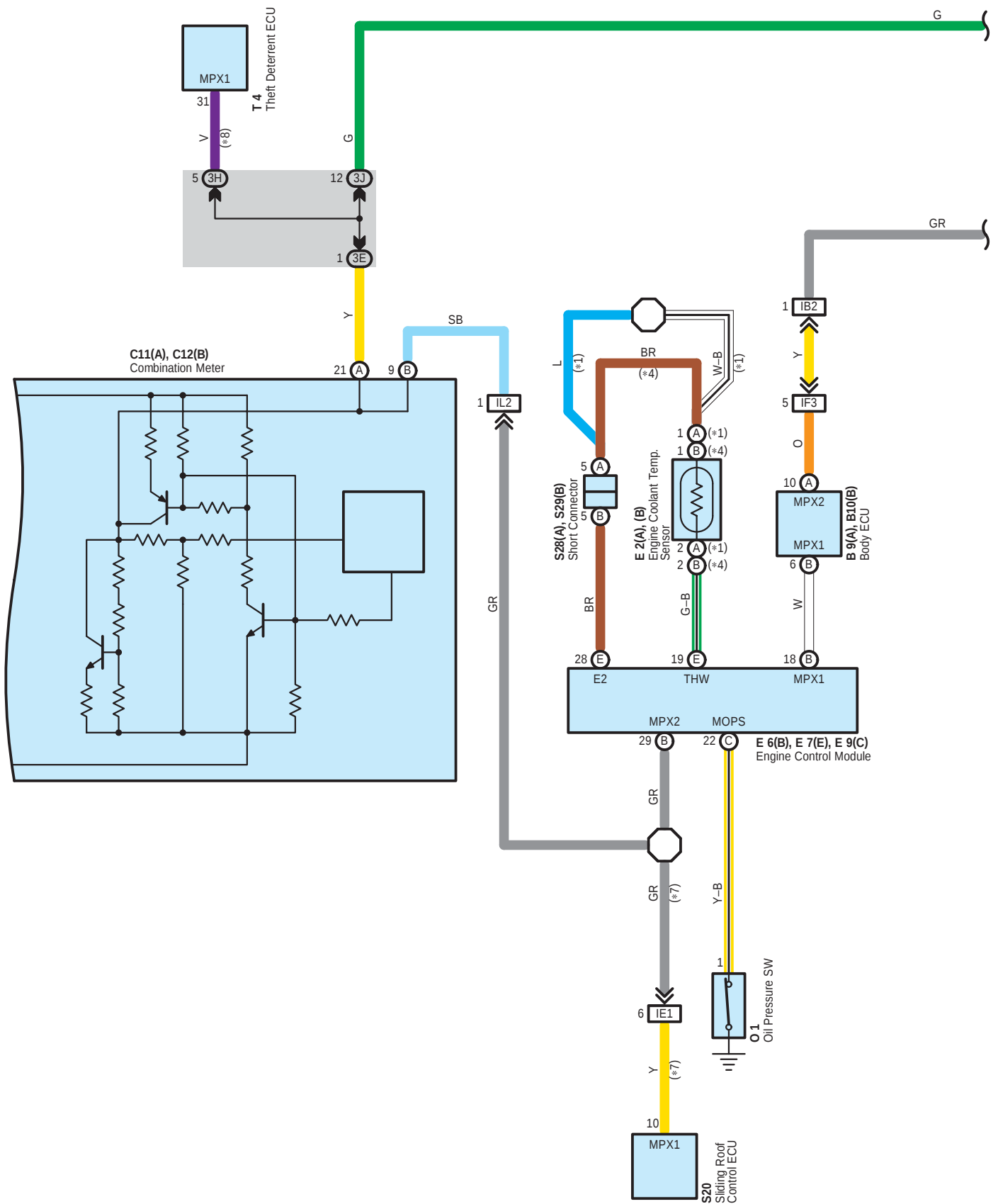


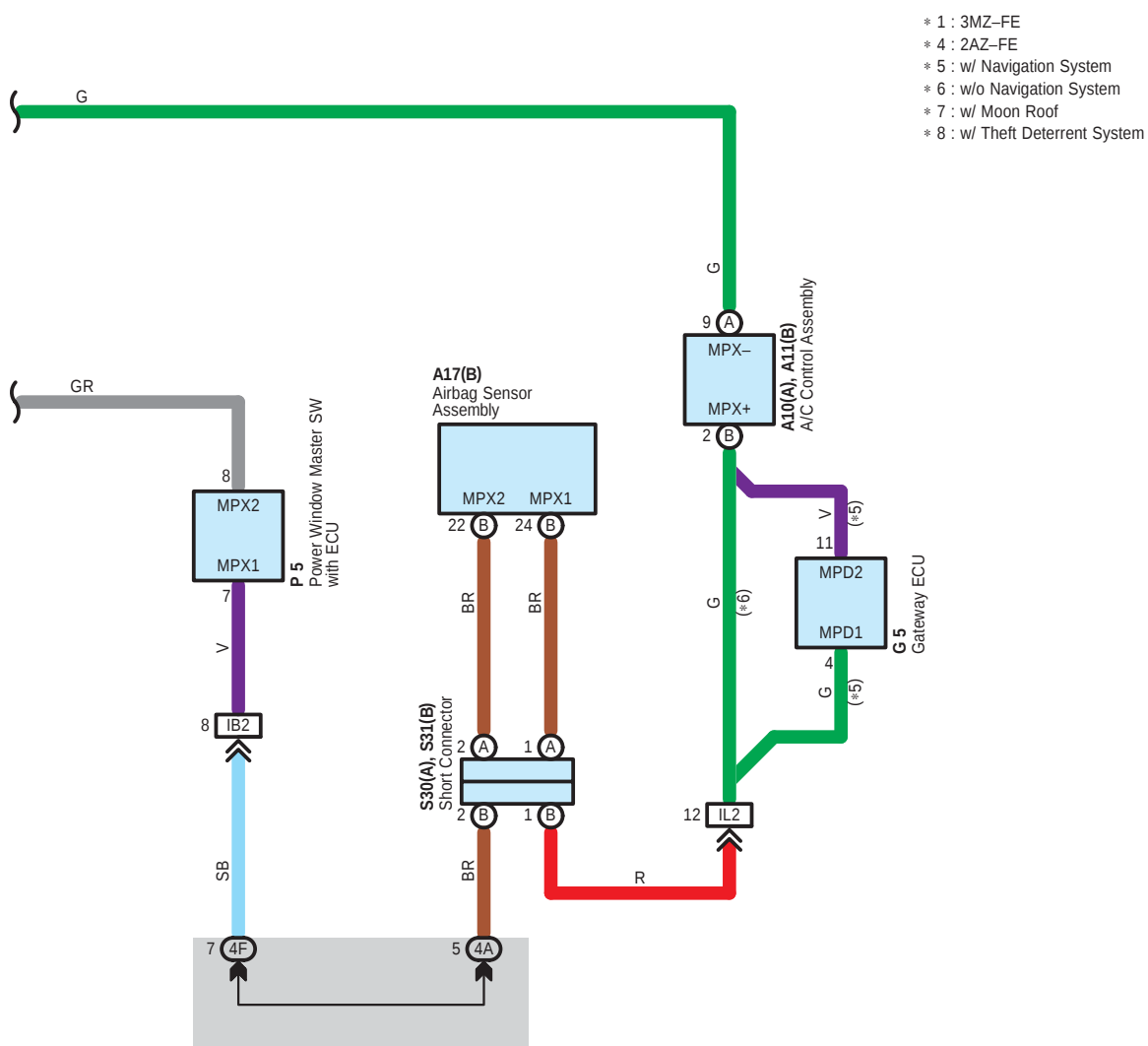
Combination Meter





Combination Meter





Combination Meter

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A10	A	42	E7	E	42	P5	44	
A11	B	42	E9	C	42	S20	45	
A17	B	42	F12		44	S27	39 (3MZ-FE)	
B4		38 (3MZ-FE)	G5		43		41 (2AZ-FE)	
		40 (2AZ-FE)	J3		39 (3MZ-FE)	S28	A	43
B9	A	42			41 (2AZ-FE)	S29	B	43
B10	B	42	J4		39 (3MZ-FE)	S30	A	43
C11	A	42			41 (2AZ-FE)	S31	B	43
C12	B	42	J6		43	T4		43
E2	A	38 (3MZ-FE)	J13		44	W1	39 (3MZ-FE)	
	B	40 (2AZ-FE)	O1		39 (3MZ-FE)		41 (2AZ-FE)	
E6	B	42			41 (2AZ-FE)			

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
2	22	Engine Room R/B (Engine Compartment Left)
3	23	Engine Room R/B No.3 (Engine Compartment Rear Left)

○ : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2G		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3B		
3C		
3D		
3E		
3F		
3H	31	
3J		
3K		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4D		
4E		
4F		
4H		
4M	32	

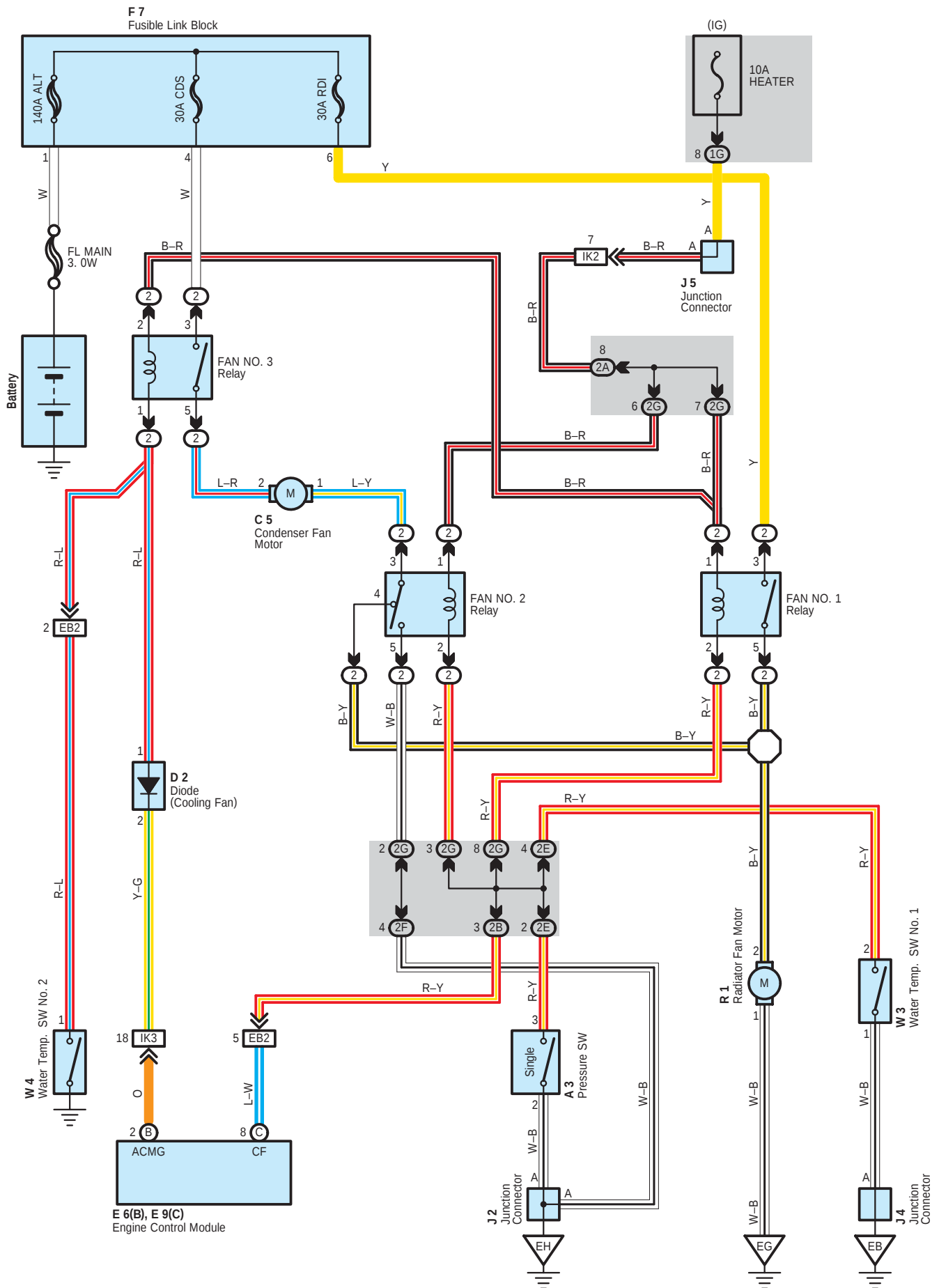
 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IC4		
IE1	50	Roof Wire and Cowl Wire (Near the Bottom of Left Front Pillar)
IF2	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IF3		
IK3	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IL1	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)
IL2		
IR2	51	Instrument Panel Wire and Floor Wire (Under the Shift Lever)
BH1	52	Floor No.2 Wire and Floor Wire (Near the Rear Side Marker Light RH)

 : Ground Points

Code	See Page	Ground Points Location
EA	48 (3MZ-FE)	Right Front Fender Apron
	49 (2AZ-FE)	
EB	48 (3MZ-FE)	
	49 (2AZ-FE)	
IB	50	Right Instrument Panel Brace

Radiator Fan and Condenser Fan for 3MZ-FE



System Outline

The radiator fan motor and condenser fan motor operates according to the water temp. SW NO.1, water temp. SW NO.2, A/C single pressure SW, and the A/C system condition. The FAN NO.1 relay, FAN NO.2 relay, FAN NO.3 relay are turned on/off, to operate the fan motors at low speed (In series), or high speed (In parallel).

Low Speed Operation

When the A/C system is operated, or the water temp. SW no.2 is turned on, the condenser fan motor and radiator fan motor rotate at low speed.

High Speed Operation

When the A/C single pressure SW is turned on, or the water temp. SW no.1 is turned on, the condenser fan motor and radiator fan motor rotate at high speed.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A3	38 (3MZ-FE)	E9 C	42	J5	43
C5	38 (3MZ-FE)	F7	38 (3MZ-FE)	R1	39 (3MZ-FE)
D2	42	J2	39 (3MZ-FE)	W3	39 (3MZ-FE)
E6 B	42	J4	39 (3MZ-FE)	W4	39 (3MZ-FE)

○ : 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)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2E		
2F		
2G		

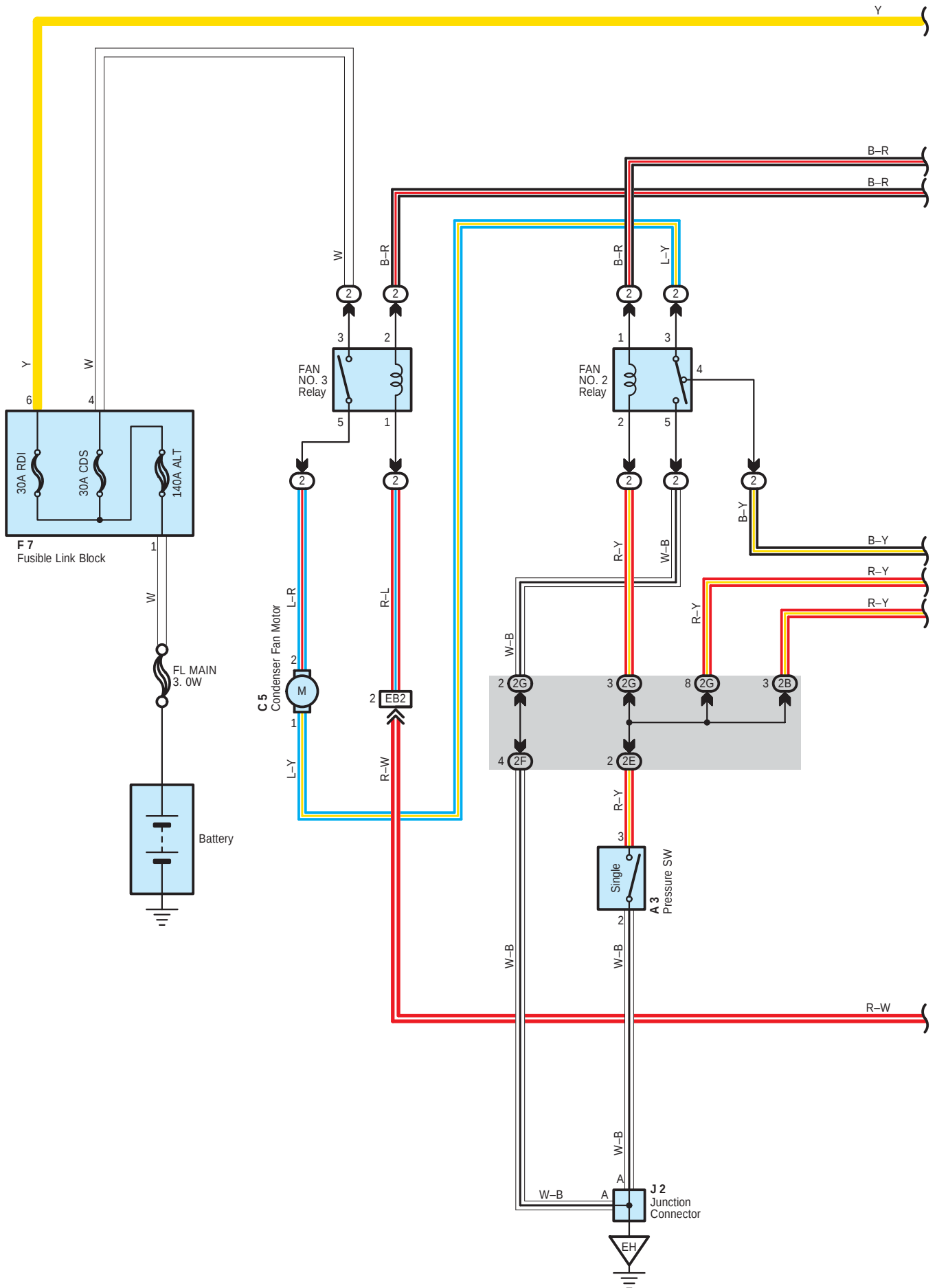
□ : Connector Joining Wire Harness and Wire Harness

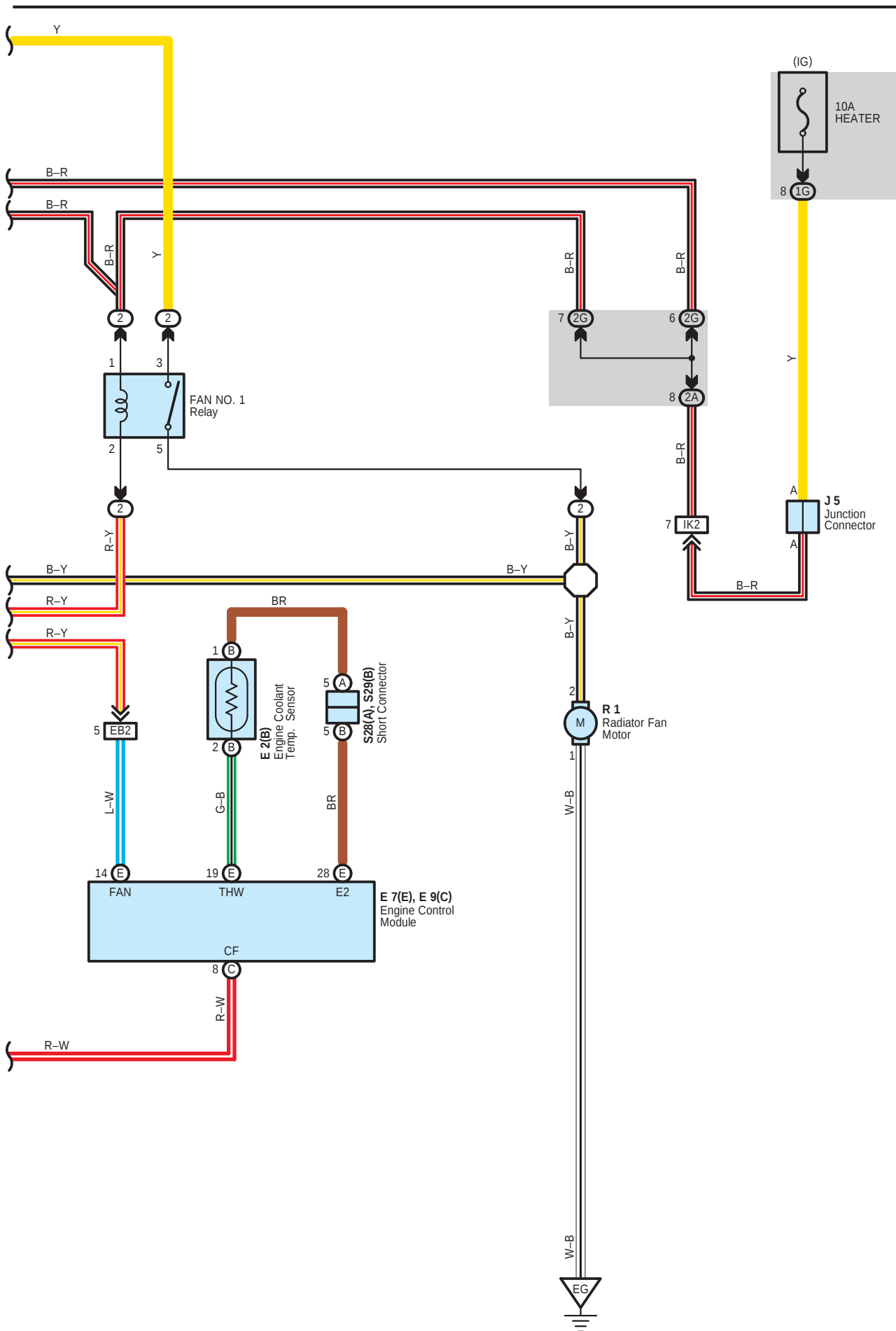
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB2	48 (3MZ-FE)	Engine Wire and Engine Room Main Wire (Front Side of Engine Room R/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		

▽ : Ground Points

Code	See Page	Ground Points Location
EB	48 (3MZ-FE)	Right Front Fender Apron
EG	48 (3MZ-FE)	Under the Left Headlight
EH		

Radiator Fan and Condenser Fan for 2AZ-FE





Radiator Fan and Condenser Fan for 2AZ-FE

System Outline

The radiator fan motor and condenser fan motor operates according to the engine coolant temp. SW, A/C single pressure SW, the engine system condition, and the A/C system condition. The FAN NO.1 relay, FAN NO.2 relay, FAN NO.3 relay are turned on/off, to operate the fan motors at low speed (In series), or high speed (In parallel).

1. Low Speed Operation

Either when the A/C system is operating, the radiator fan motor and A/C condenser fan motor operates at low speed.

2. High Speed Operation

When either the engine coolant temp. SW or A/C single pressure SW is, or both of them are turned on, the radiator fan motor and A/C condenser fan motor operate at high speed.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A3	40 (2AZ-FE)	E9	C	42	R1
C5	40 (2AZ-FE)	F7	40 (2AZ-FE)	S28	A
E2	B	J2	41 (2AZ-FE)	S29	B
E7	E	J5	43		

○ : 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)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2B		
2E		
2F		
2G		

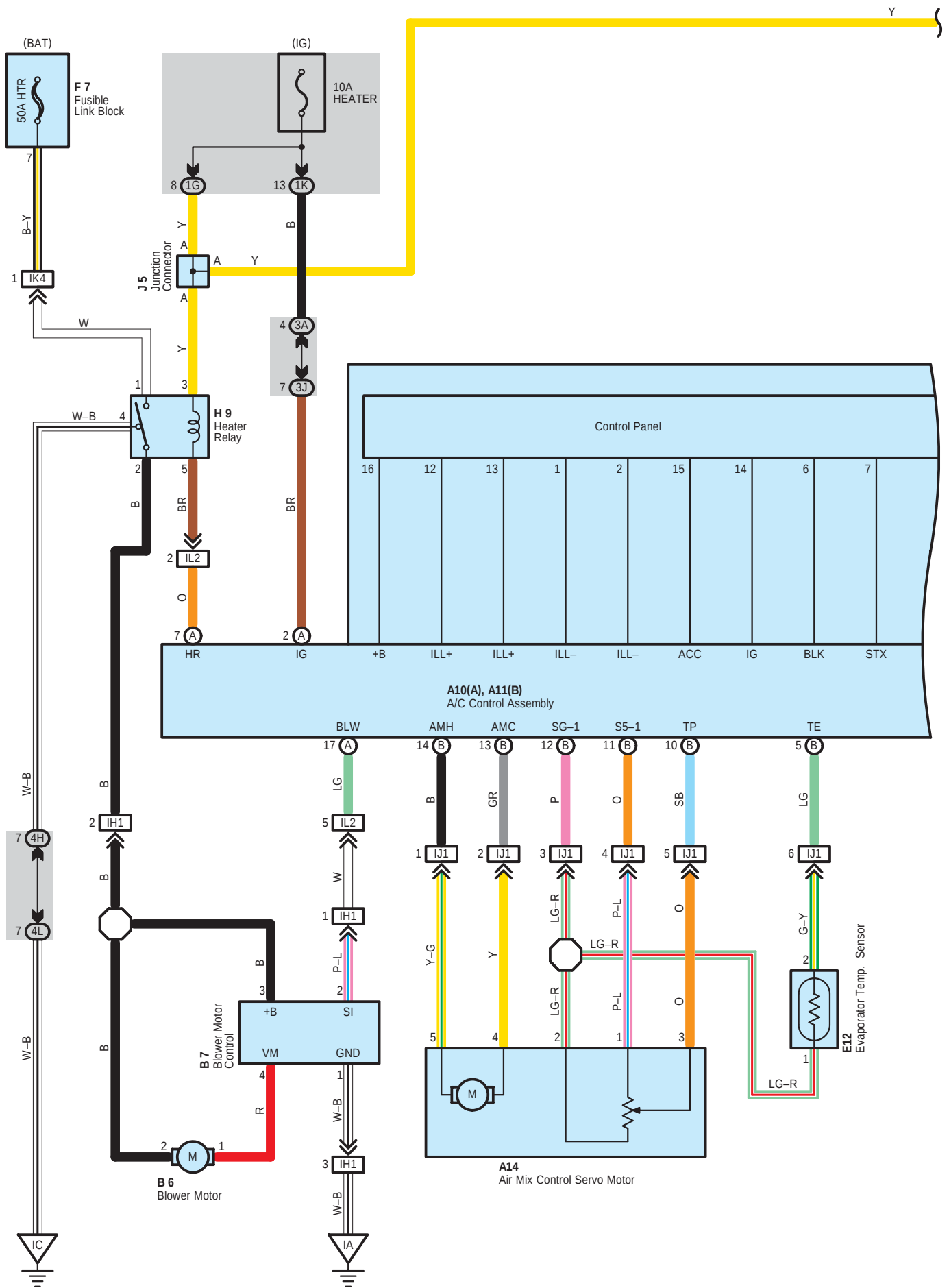
□ : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB2	49 (2AZ-FE)	Engine Wire and Engine Room Main Wire (Front Side of Engine Room R/B)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)

▽ : Ground Points

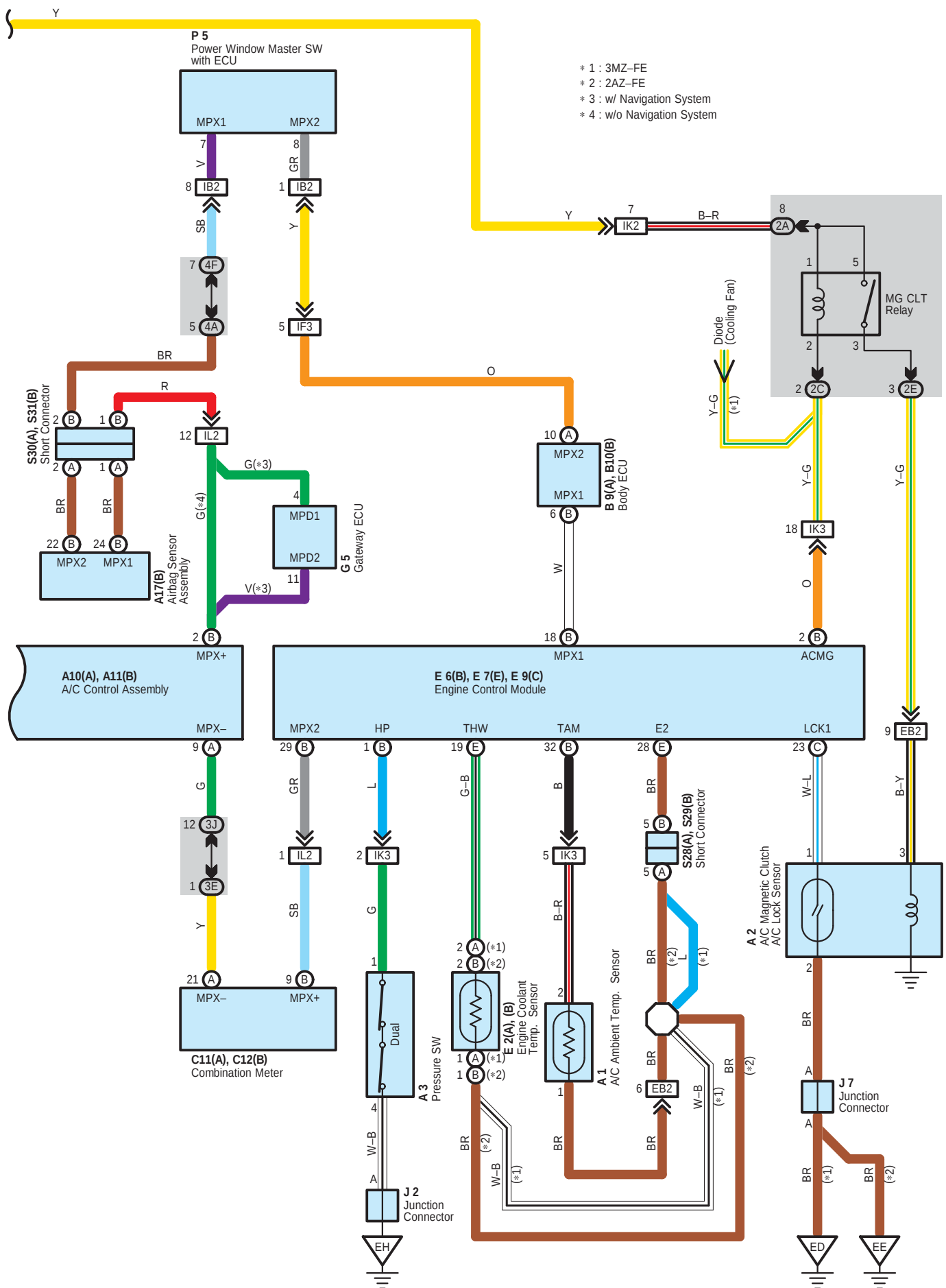
Code	See Page	Ground Points Location
EG	49 (2AZ-FE)	Under the Left Headlight
EH		

Automatic Air Conditioning





Automatic Air Conditioning



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
A1	38 (3MZ-FE)	B7		F7	40 (2AZ-FE)
	40 (2AZ-FE)	B9	A	G5	43
A2	38 (3MZ-FE)	B10	B	H9	43
	40 (2AZ-FE)	C11	A	J2	39 (3MZ-FE)
A3	38 (3MZ-FE)	C12	B		41 (2AZ-FE)
	40 (2AZ-FE)	E2	A	J5	43
A10	A			J7	43
A11	B		B	P5	44
A12	42			R6	43
A13	42	E6	B	S28	A
A14	42	E7	E	S29	B
A15	42	E9	C	S30	A
A17	B	E12		S31	B
B6	42	F7		T15	43

 : Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2C		
2E		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3E		
3F		
3I	31	
3J		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4F		
4H		
4L	32	

 : Connector Joining Wire Harness and Wire Harness

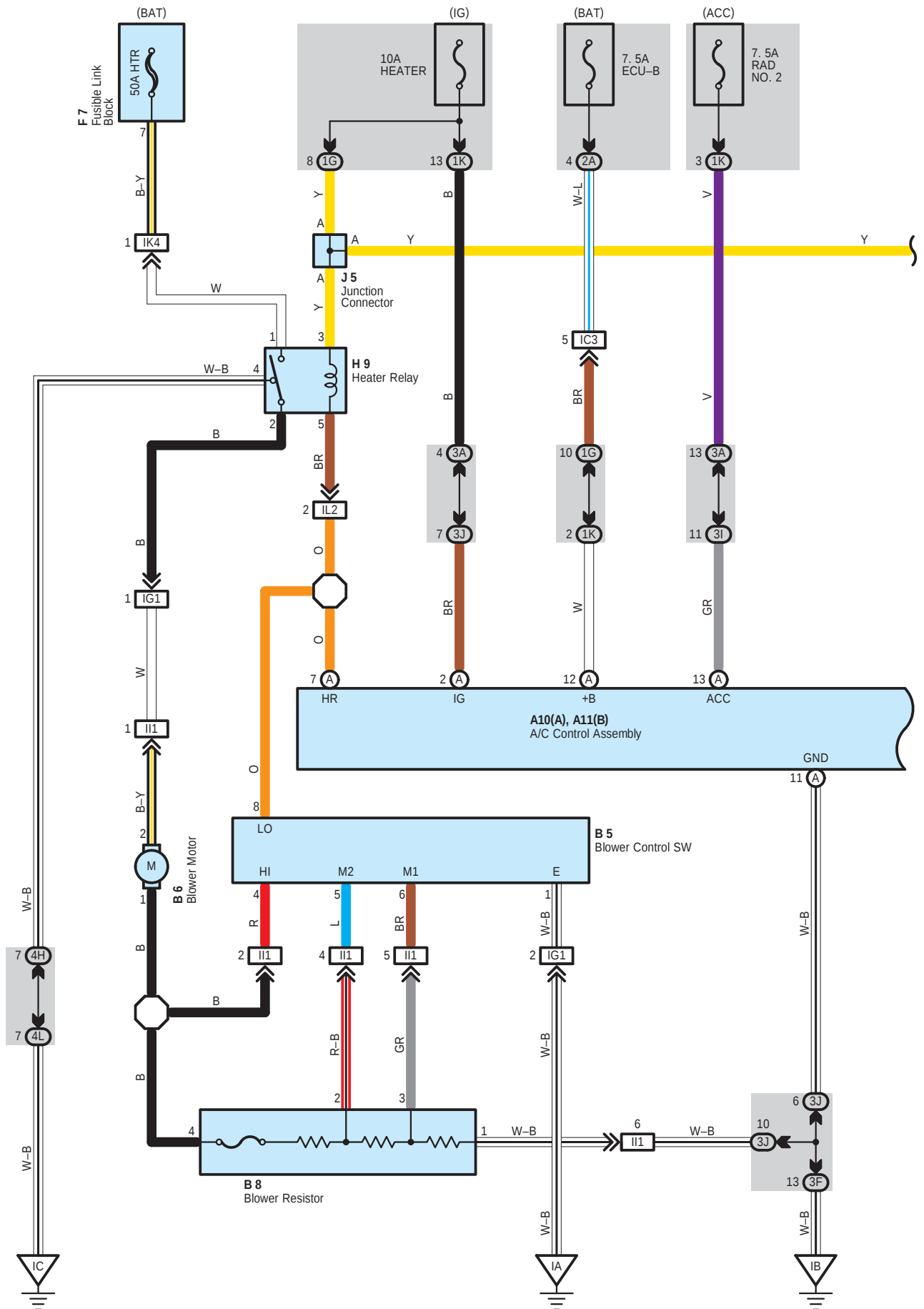
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB2	48 (3MZ-FE)	Engine Wire and Engine Room Main Wire (Front Side of Engine Room R/B)
	49 (2AZ-FE)	
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IH1	51	Cowl Wire and A/C Sub No.2 Wire (Upper Portion of Right Instrument Panel Brace)
IJ1	51	Instrument Panel Wire and A/C Sub No.3 Wire (Upper Portion of Right Instrument Panel Brace)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IK4		
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)

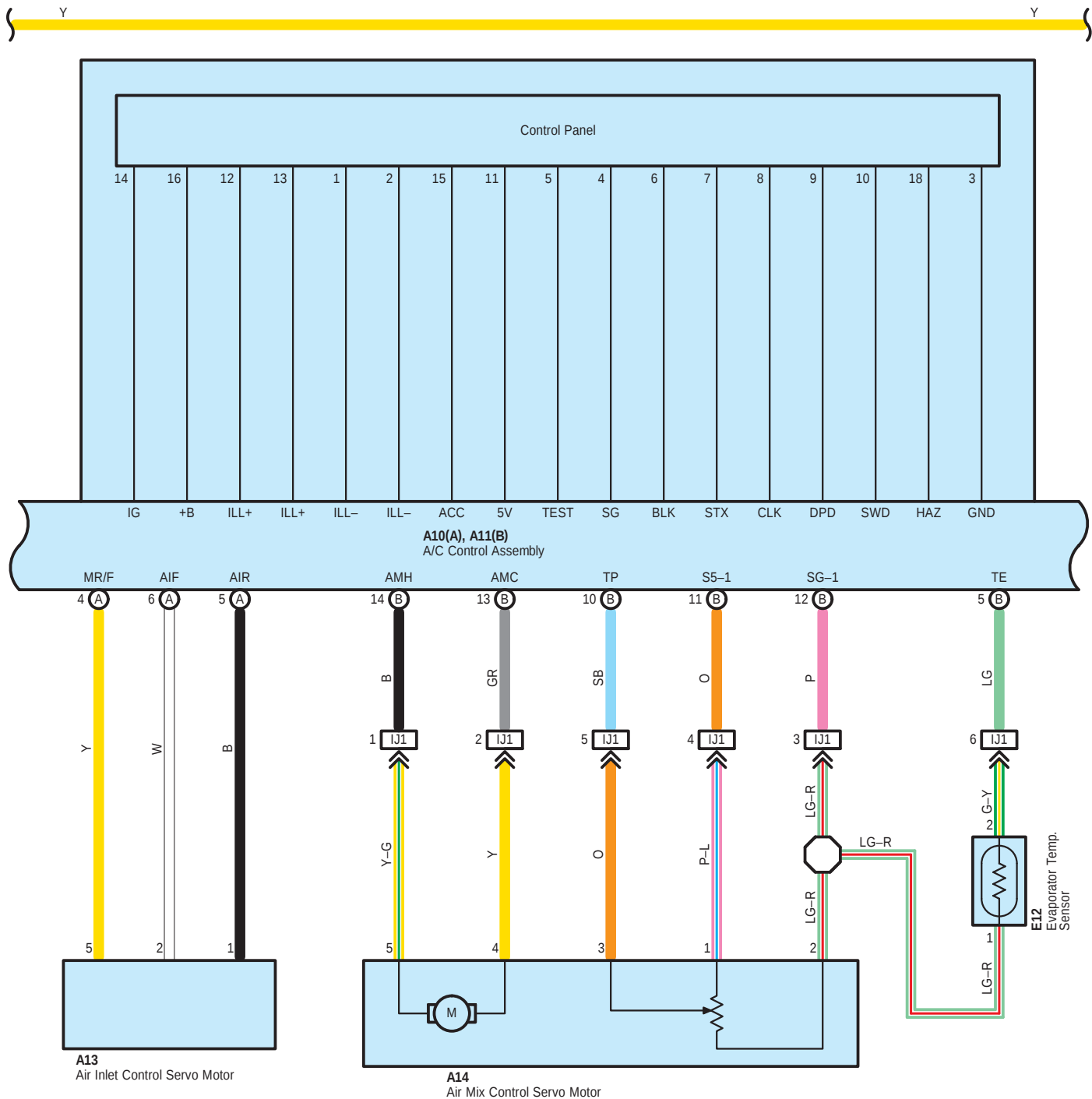
Automatic Air Conditioning

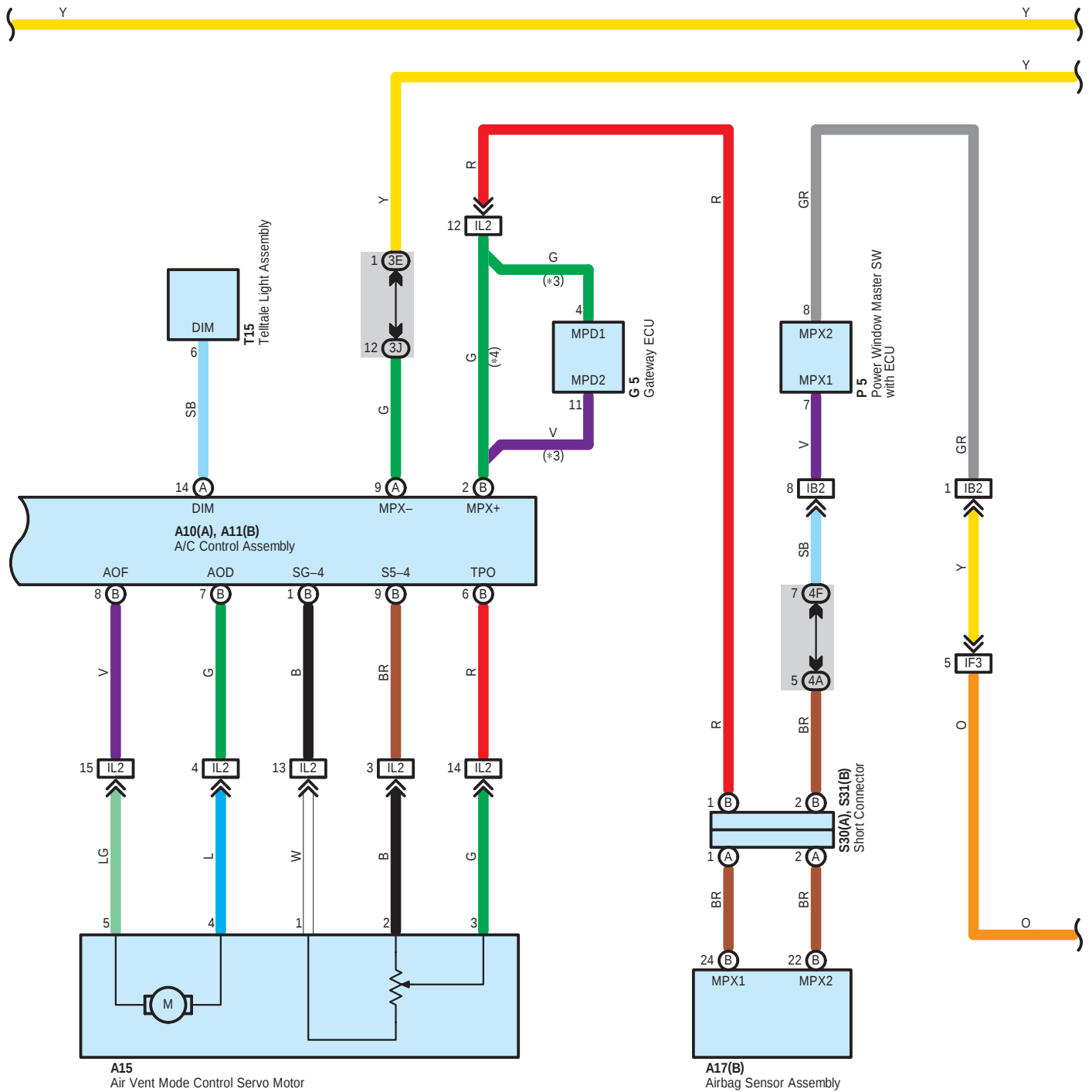


: Ground Points

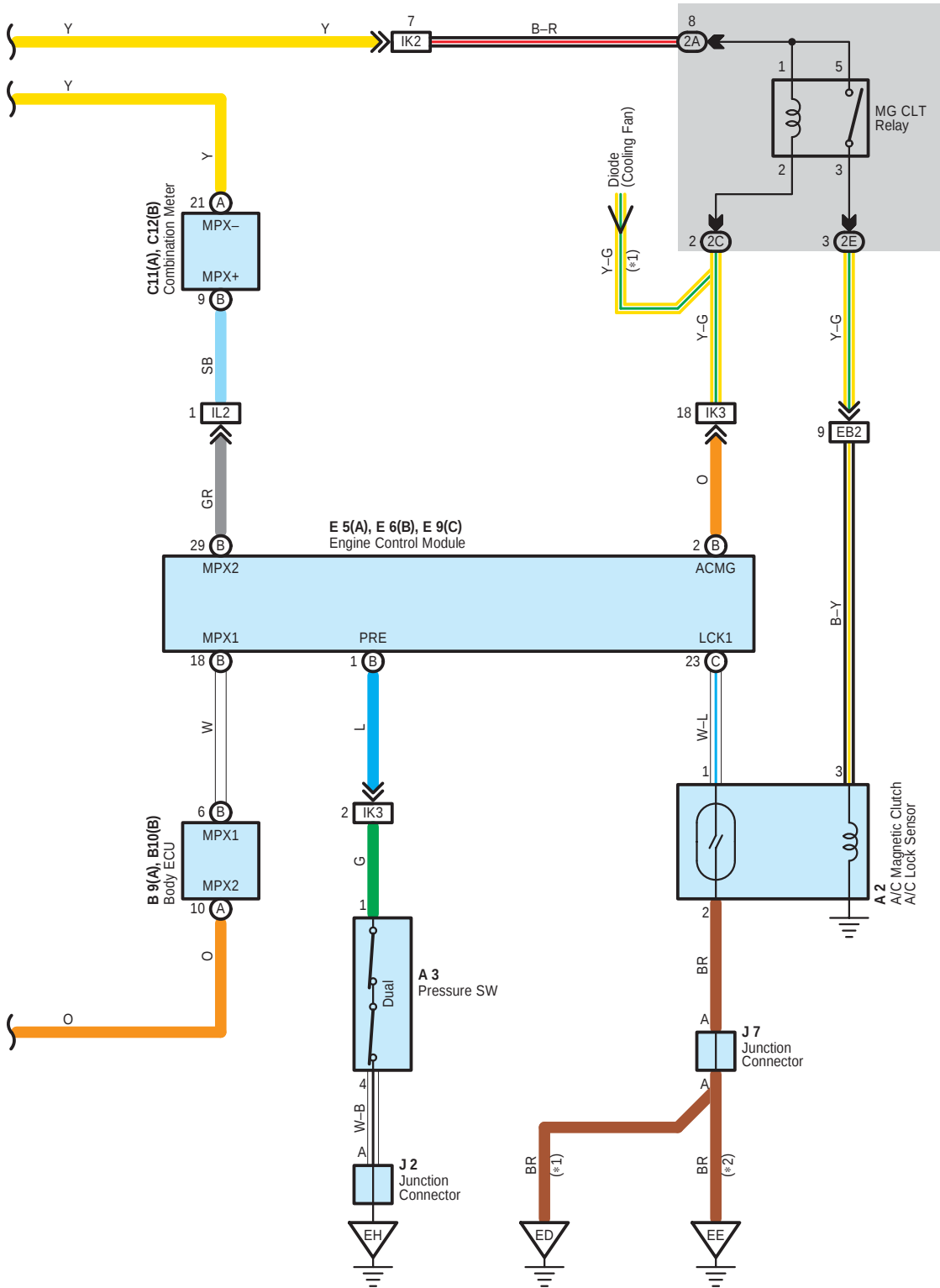
Code	See Page	Ground Points Location
ED	48 (3MZ-FE)	Rear Side of Cylinder Head
EE	49 (2AZ-FE)	Intake Side of Cylinder Block
EH	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
IA	50	Left Cowl Side Panel
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel







- * 1 : 3MZ-FE
- * 2 : 2AZ-FE
- * 3 : w/ Navigation System
- * 4 : w/o Navigation System



System Outline

1. Heater Blower Motor Operation

Current is applied at all times through the HTR fuse to TERMINAL 1 of the heater relay.

When the ignition SW is turned on, current flows through the HEATER fuse to TERMINAL 3 of the heater relay to TERMINAL 5 to TERMINAL 8 of the blower control SW.

* Low speed operation

When the blower SW is moved to LO position, the current to TERMINAL 8 of the blower control SW flows to TERMINAL 1 to GROUND, causing the heater relay is turned on. This causes the current to flow from the HTR fuse to TERMINAL 1 of the heater relay to TERMINAL 2 to TERMINAL 2 of the blower motor to TERMINAL 1 to TERMINAL 4 of the blower resistor to TERMINAL 1 to GROUND, causing the blower motor to rotate at low speed.

* Medium speed operation (Operation at M1, M2)

When the blower SW is moved to M1 position, the current to TERMINAL 8 of the blower control SW flows to TERMINAL 1 to GROUND, turns the heater relay on. This causes the current to flow from the HTR fuse to TERMINAL 1 of the heater relay to TERMINAL 2 to TERMINAL 2 of the blower motor to TERMINAL 1 to TERMINAL 4 of the blower resistor to TERMINAL 3 to TERMINAL 6 of the blower control SW to TERMINAL 1 to GROUND. At this time, the blower resistance of the blower resistor is less than at low speed, so the blower motor rotates at medium low speed.

When the blower control SW is moved to M2 position, current flowing through the motor flows from TERMINAL 4 of the blower resistor to TERMINAL 2 to TERMINAL 5 of the blower control SW to TERMINAL 1 to GROUND. At this time, resistance of the blower resistor is less than at M1 position, so the blower motor rotates at medium high speed.

* High speed operation

When the blower SW is moved to HI position, the current flows to TERMINAL 8 of the blower control SW to TERMINAL 1 to GROUND and turns the heater relay on.

This causes the current to flow from the HTR fuse to TERMINAL 1 of the heater relay to TERMINAL 2 to TERMINAL 2 of the blower motor to TERMINAL 1 to TERMINAL 4 of the blower control SW to TERMINAL 1 to GROUND, causing the blower motor to rotate at high speed.

2. Air Conditioning Operation

If the A/C control SW is turned on when the blower SW is set to on, A/C operation starts. However, when the mode SW is at DEF or FOOT/DEF position, forcibly the air intake is set to FRESH mode and the A/C operates.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A2		38 (3MZ–FE)	B6		42	F7		40 (2AZ–FE)
		40 (2AZ–FE)	B8		42	G5		43
A3		38 (3MZ–FE)	B9	A	42	H9		43
		40 (2AZ–FE)	B10	B	42	J2		39 (3MZ–FE)
A10	A	42	C11	A	42			41 (2AZ–FE)
A11	B	42	C12	B	42	J5		43
A13		42	E5	A	42	J7		43
A14		42	E6	B	42	P5		44
A15		42	E9	C	42	S30	A	43
A17	B	42	E12		42	S31	B	43
B5		42	F7		38 (3MZ–FE)	T15		43



: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)
2A	27	Engine Room Main Wire and Engine Room J/B (Engine Compartment Left)
2C		
2E		
3A	30	Instrument Panel Wire and Center J/B (Behind the Instrument Panel Center)
3E		
3F		
3I	31	
3J		
4A	33	Cowl Wire and Passenger Side J/B (Right Side of Grove Box)
4F		
4H		
4L	32	



: Connector Joining Wire Harness and Wire Harness

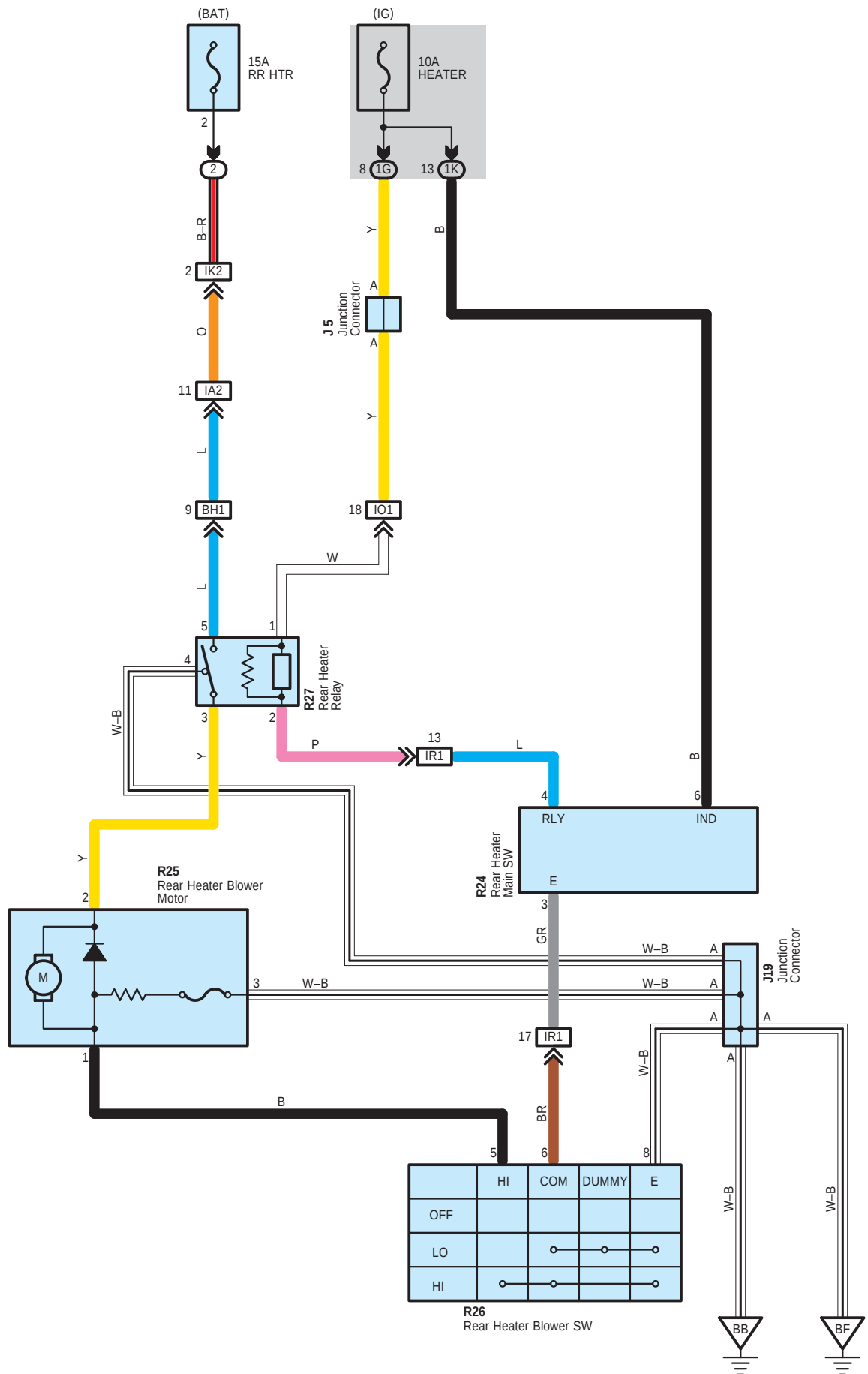
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB2	48 (3MZ-FE)	Engine Wire and Engine Room Main Wire (Front Side of Engine Room R/B)
	49 (2AZ-FE)	
IB2	50	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IC3	50	Engine Room Main Wire and Cowl Wire (Left Cowl Side Panel)
IF3	50	Instrument Panel Wire and Cowl Wire (Right Side of Instrument Panel J/B)
IG1	50	Instrument Panel Wire and Cowl Wire (Upper Portion of Right Instrument Panel Brace)
II1	51	Instrument Panel Wire and A/C Sub No.1 Wire (Upper Portion of Right Instrument Panel Brace)
IJ1	51	Instrument Panel Wire and A/C Sub No.3 Wire (Upper Portion of Right Instrument Panel Brace)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IK3		
IK4		
IL2	51	Instrument Panel Wire and Cowl Wire (Upper Side of Passenger Side J/B)



: Ground Points

Code	See Page	Ground Points Location
ED	48 (3MZ-FE)	Rear Side of Cylinder Head
EE	49 (2AZ-FE)	Intake Side of Cylinder Block
EH	48 (3MZ-FE)	Under the Left Headlight
	49 (2AZ-FE)	
IA	50	Left Cowl Side Panel
IB	50	Right Instrument Panel Brace
IC	50	Right Cowl Side Panel

Rear Heater



 : Parts Location

Code	See Page	Code	See Page	Code	See Page
J5	43	R24	43	R26	45
J19	44	R25	45	R27	45

 : 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)
1G	29	Cowl Wire and Instrument Panel J/B (Lower Finish Panel)
1K	28	Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)

 : Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA2	50	Cowl Wire and Floor No.2 Wire (Left Kick Panel)
IK2	51	Engine Room Main Wire and Cowl Wire (Right Cowl Side Panel)
IO1	51	Cowl Wire and Floor Wire (Right Kick Panel)
IR1	51	Instrument Panel Wire and Floor Wire (Under the Shift Lever)
BH1	52	Floor No.2 Wire and Floor Wire (Near the Rear Side Marker Light RH)

 : Ground Points

Code	See Page	Ground Points Location
BB	52	Right Center Pillar
BF	52	Near the Rear Side Marker Light RH

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