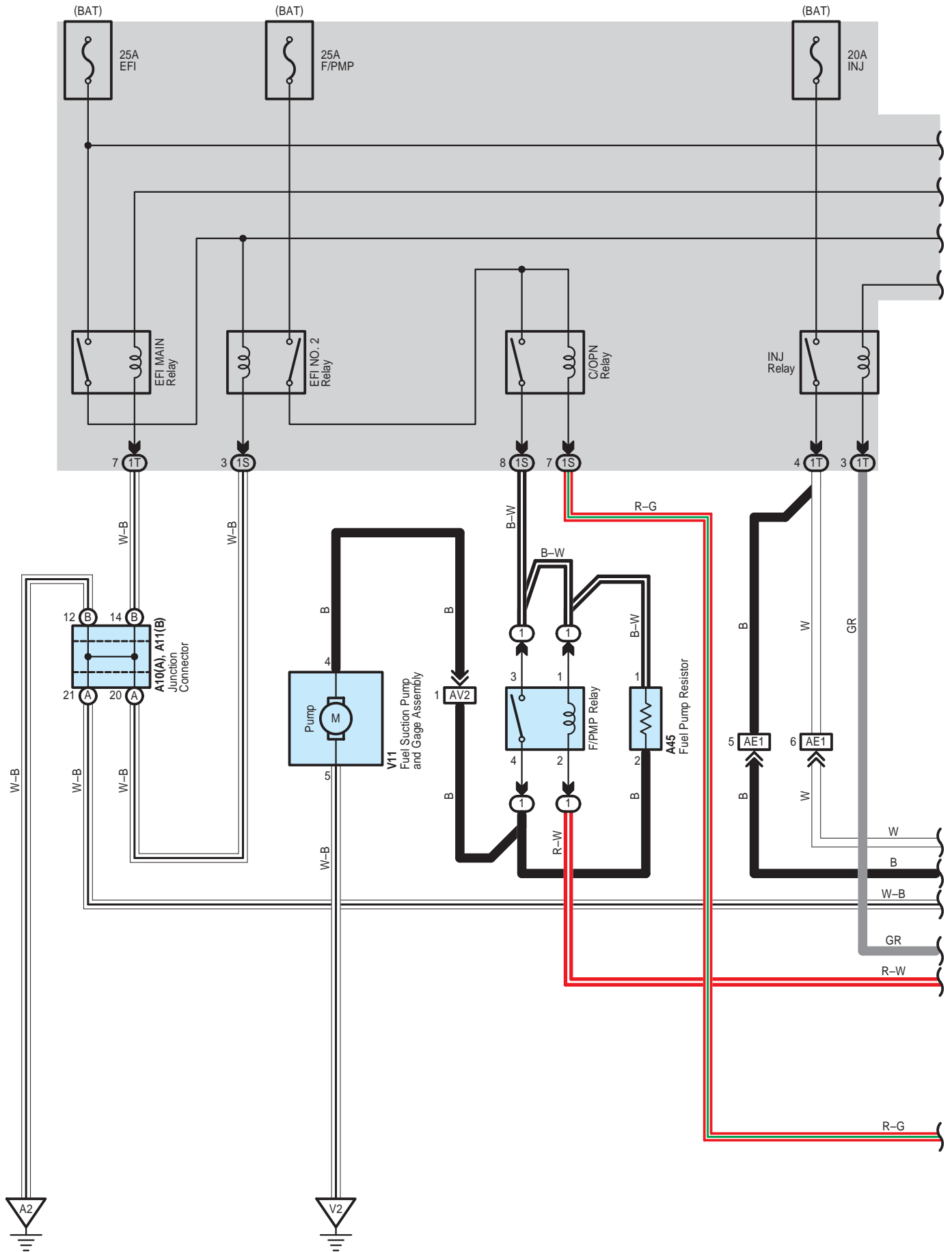
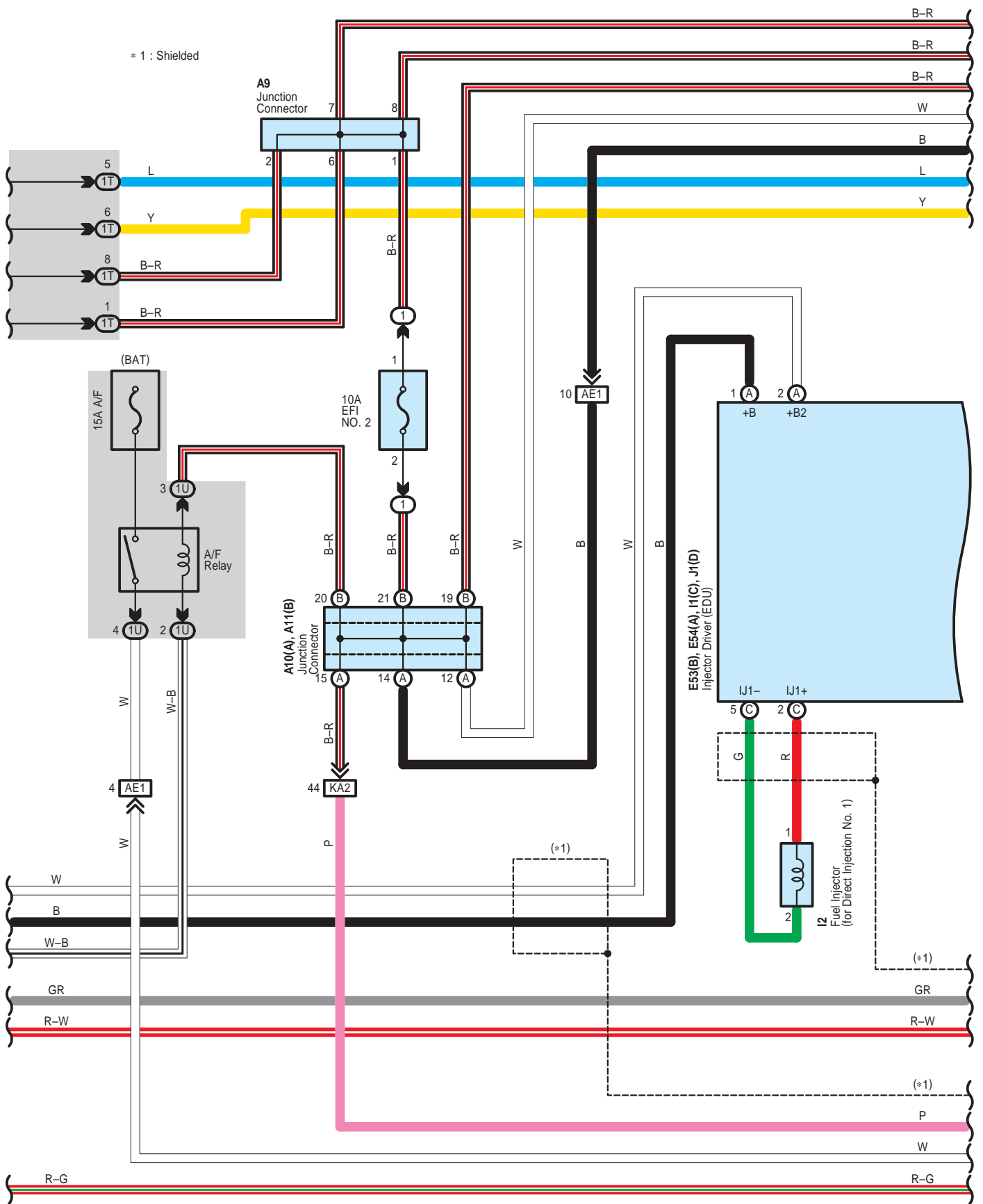


Engine Control

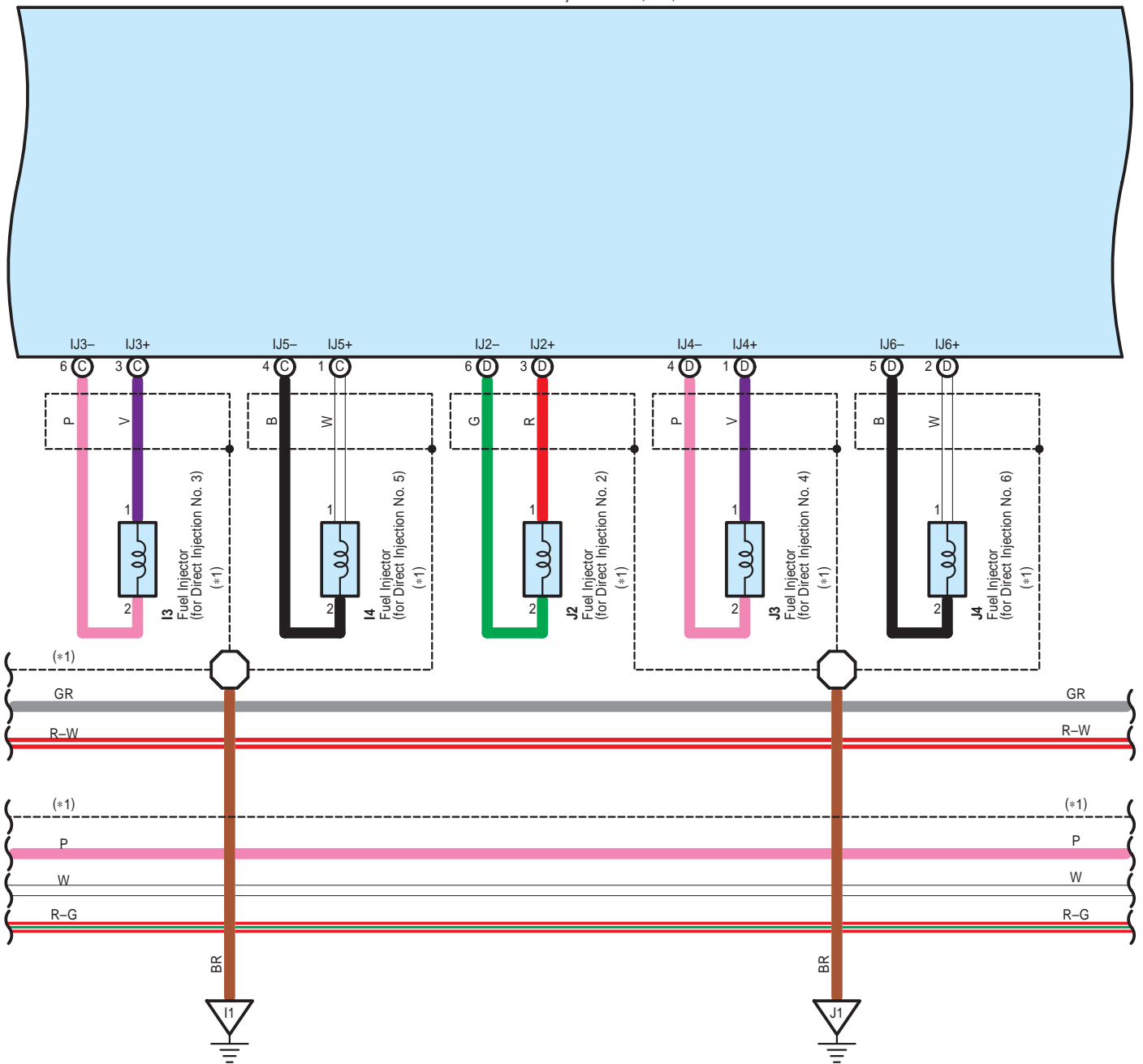


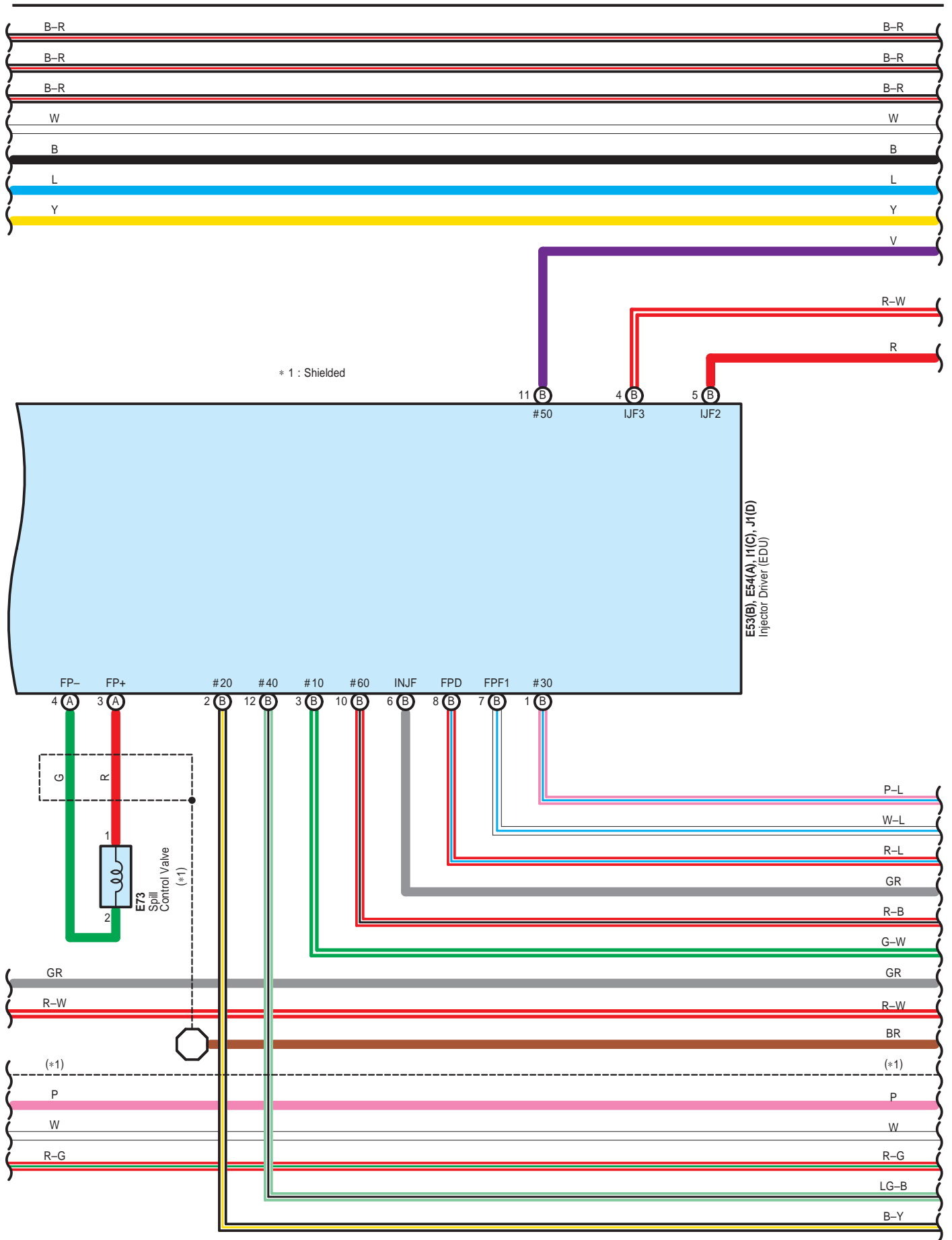


Engine Control

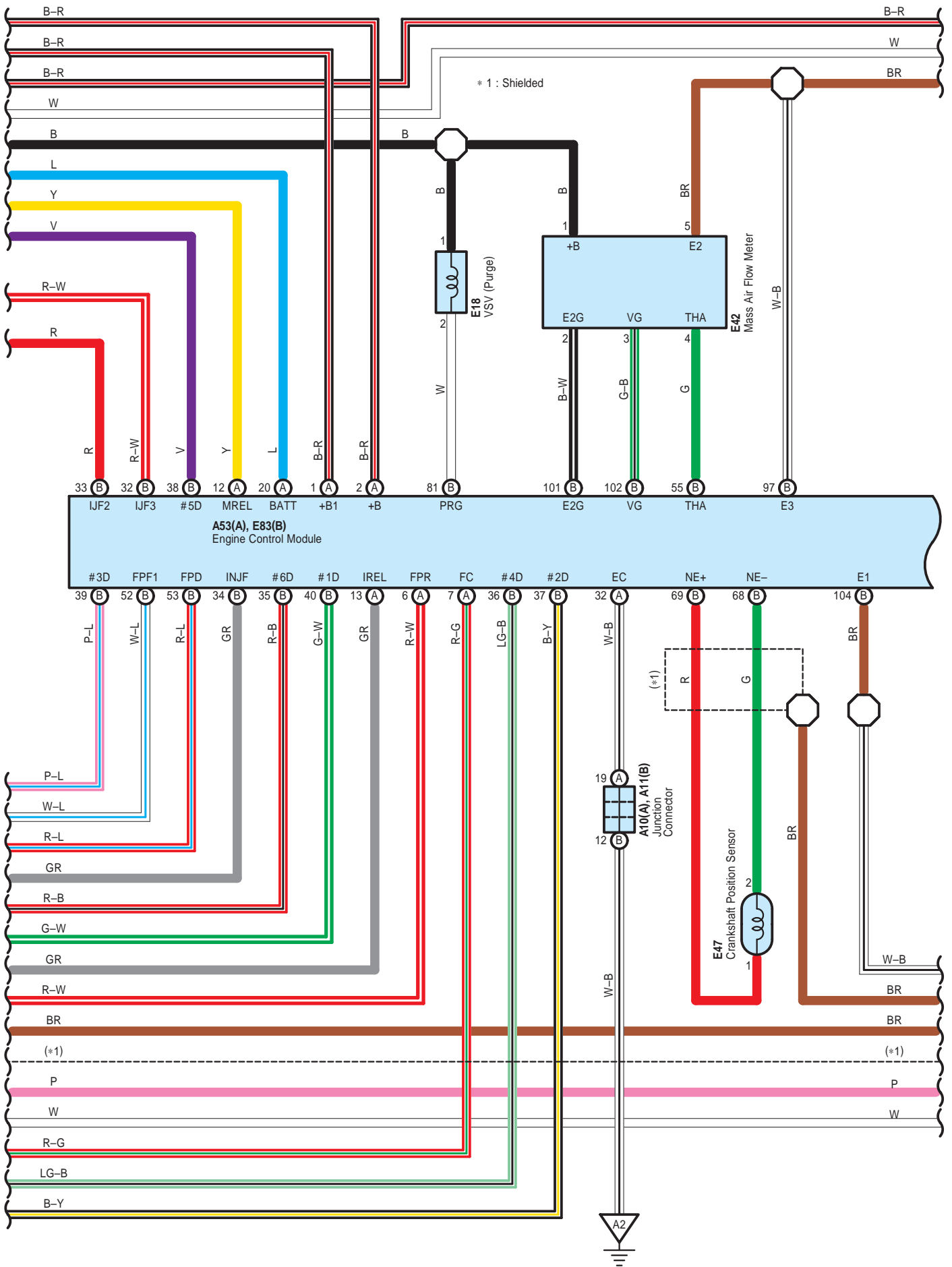


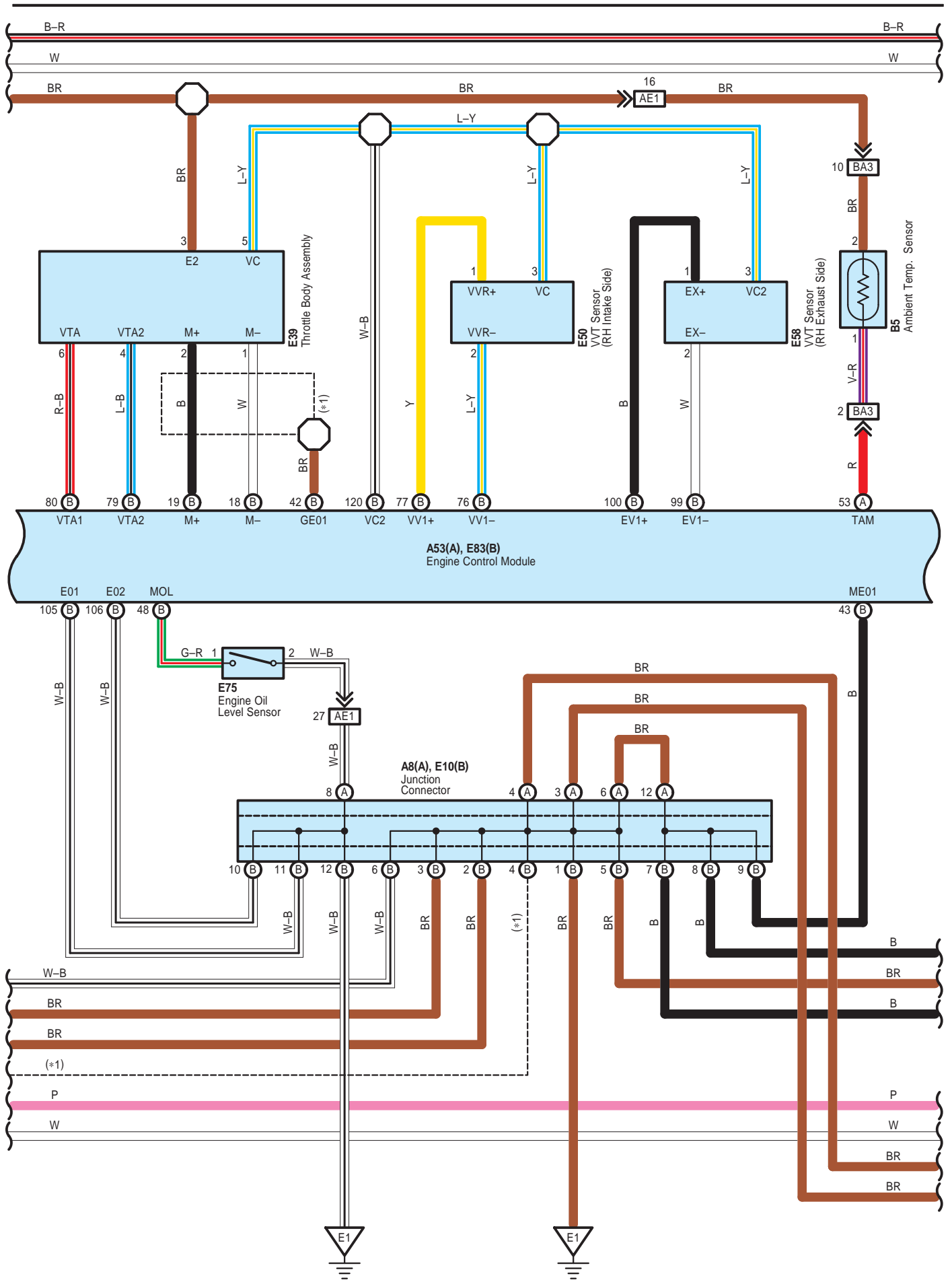
E53(B), E54(A), I1(C), J1(D)
Injector Driver (EDU)



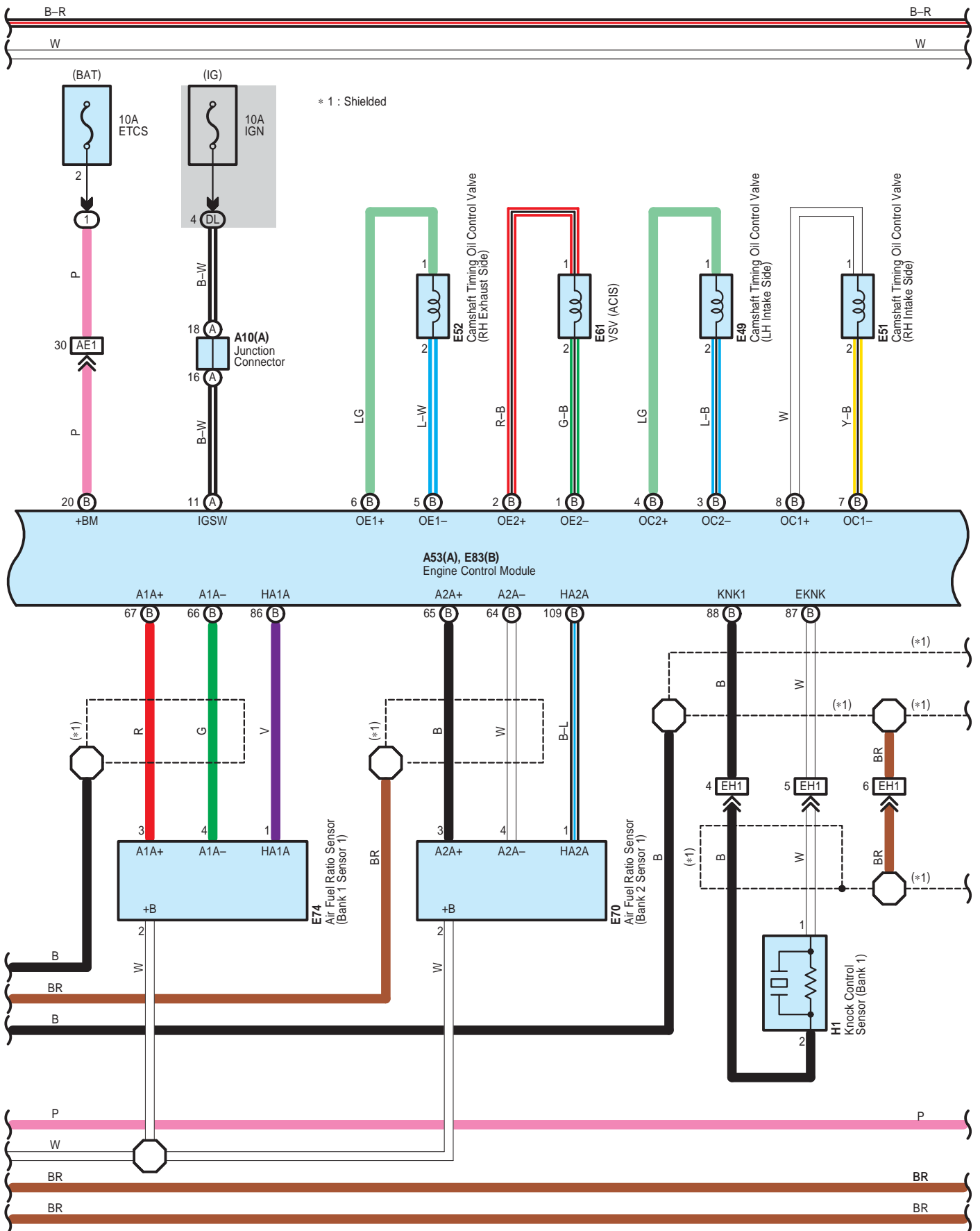


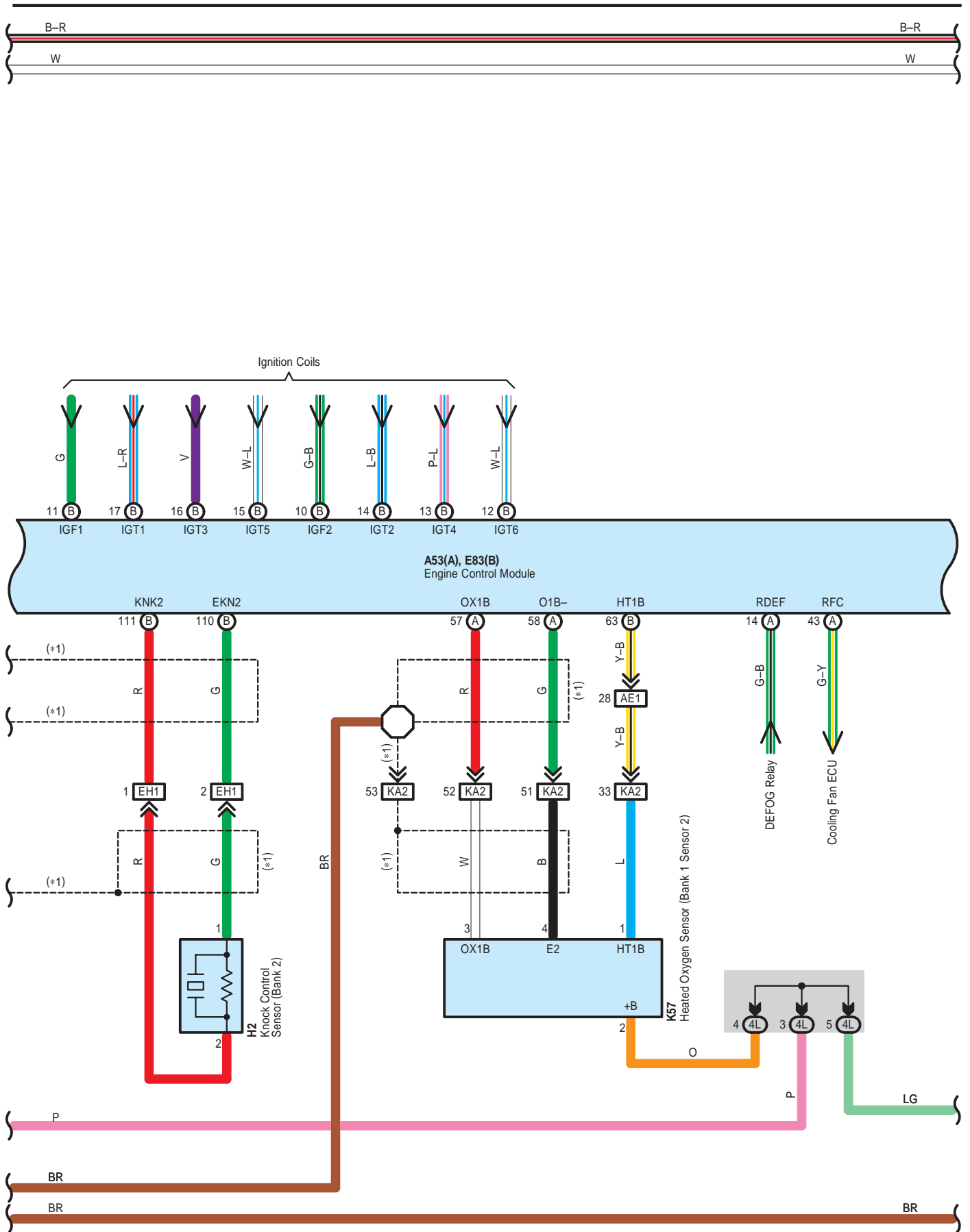
Engine Control



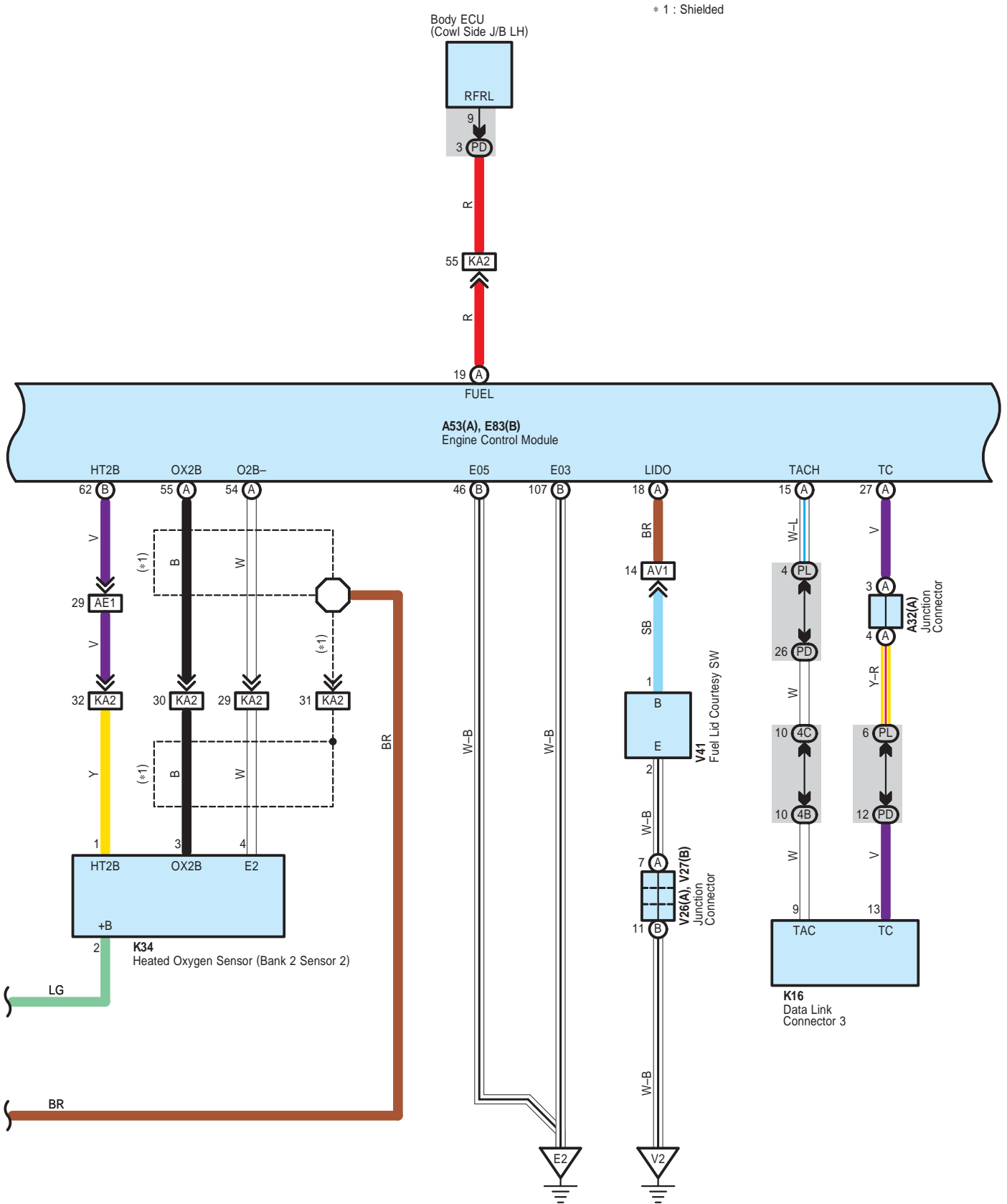


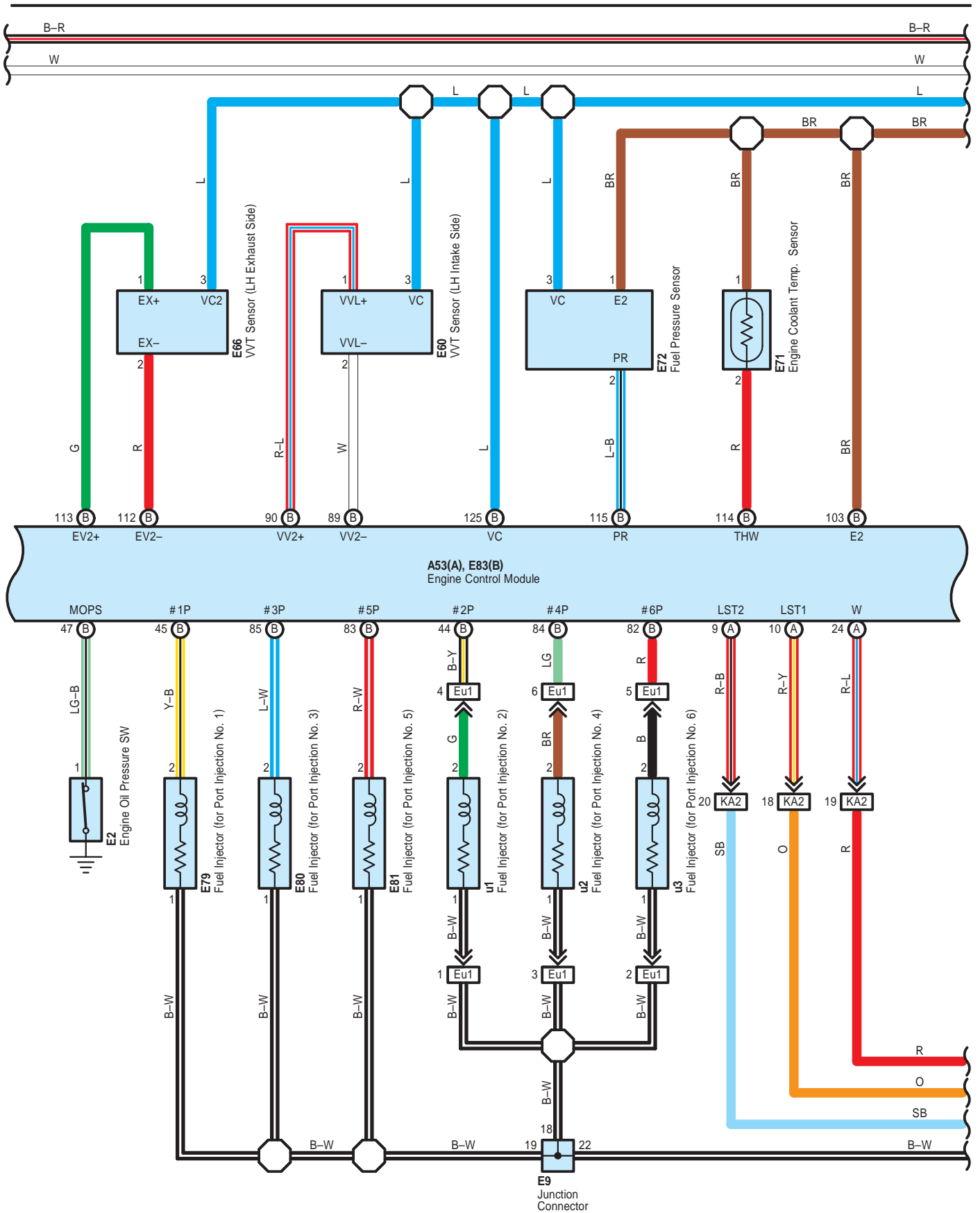
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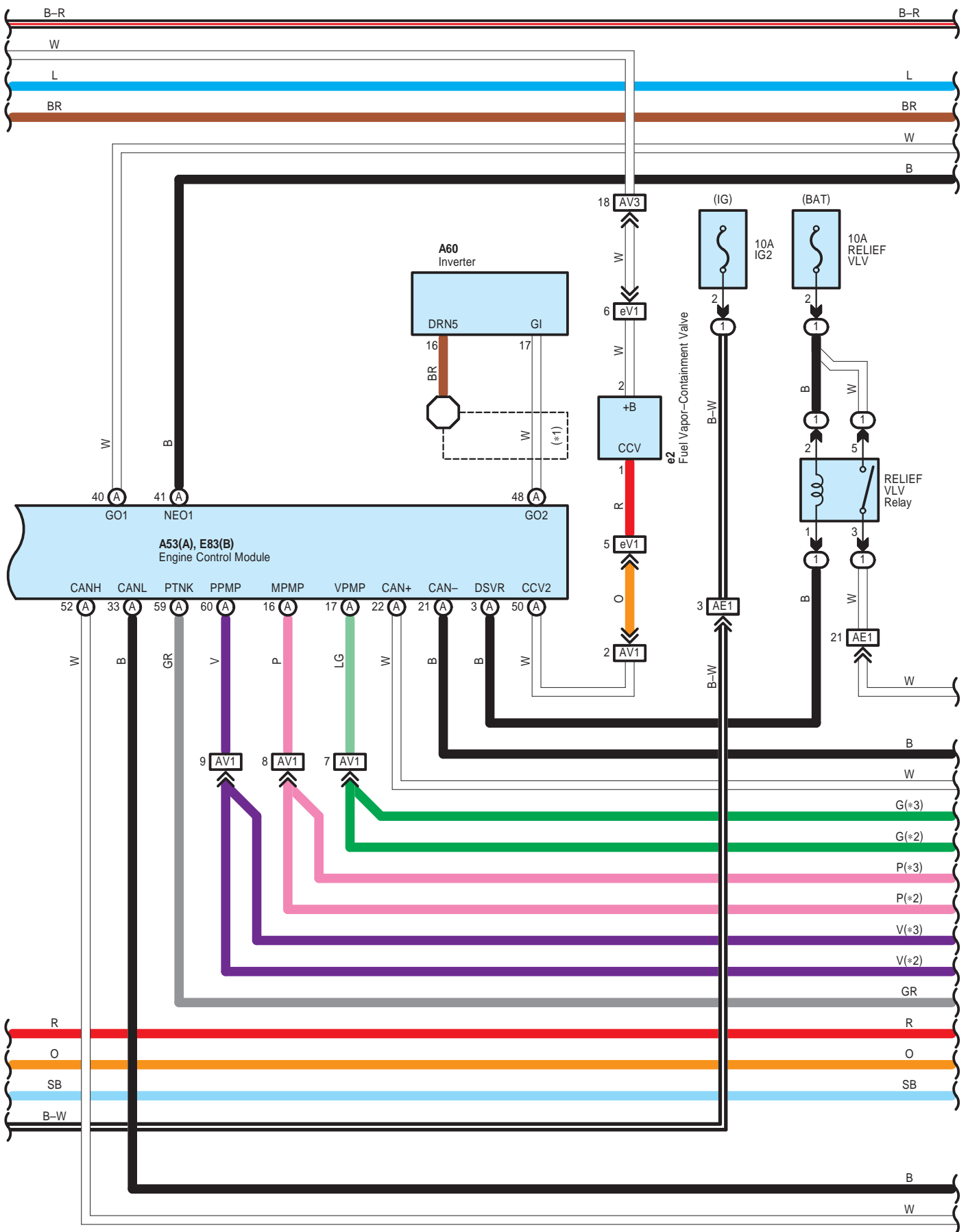


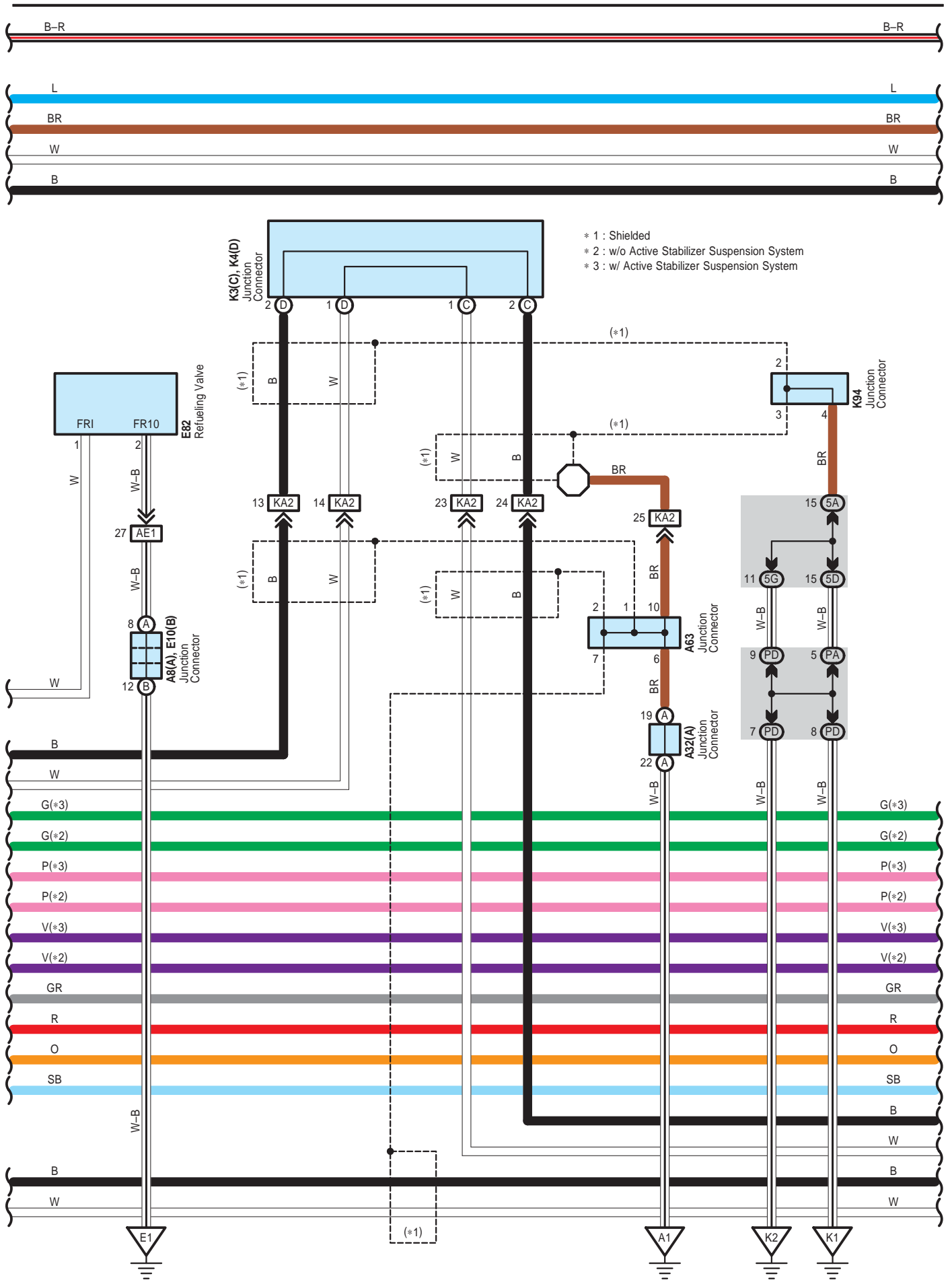
Engine Control



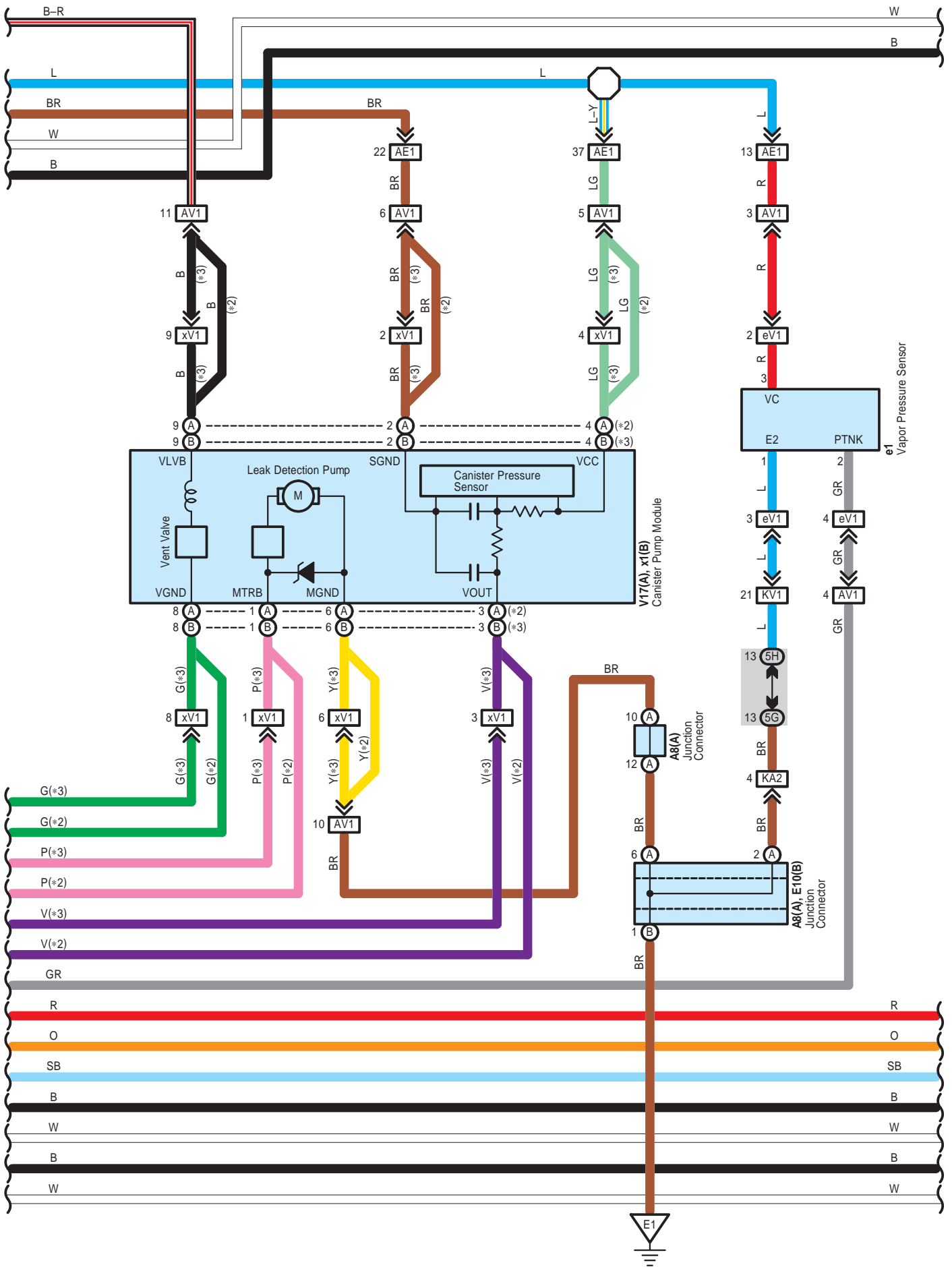


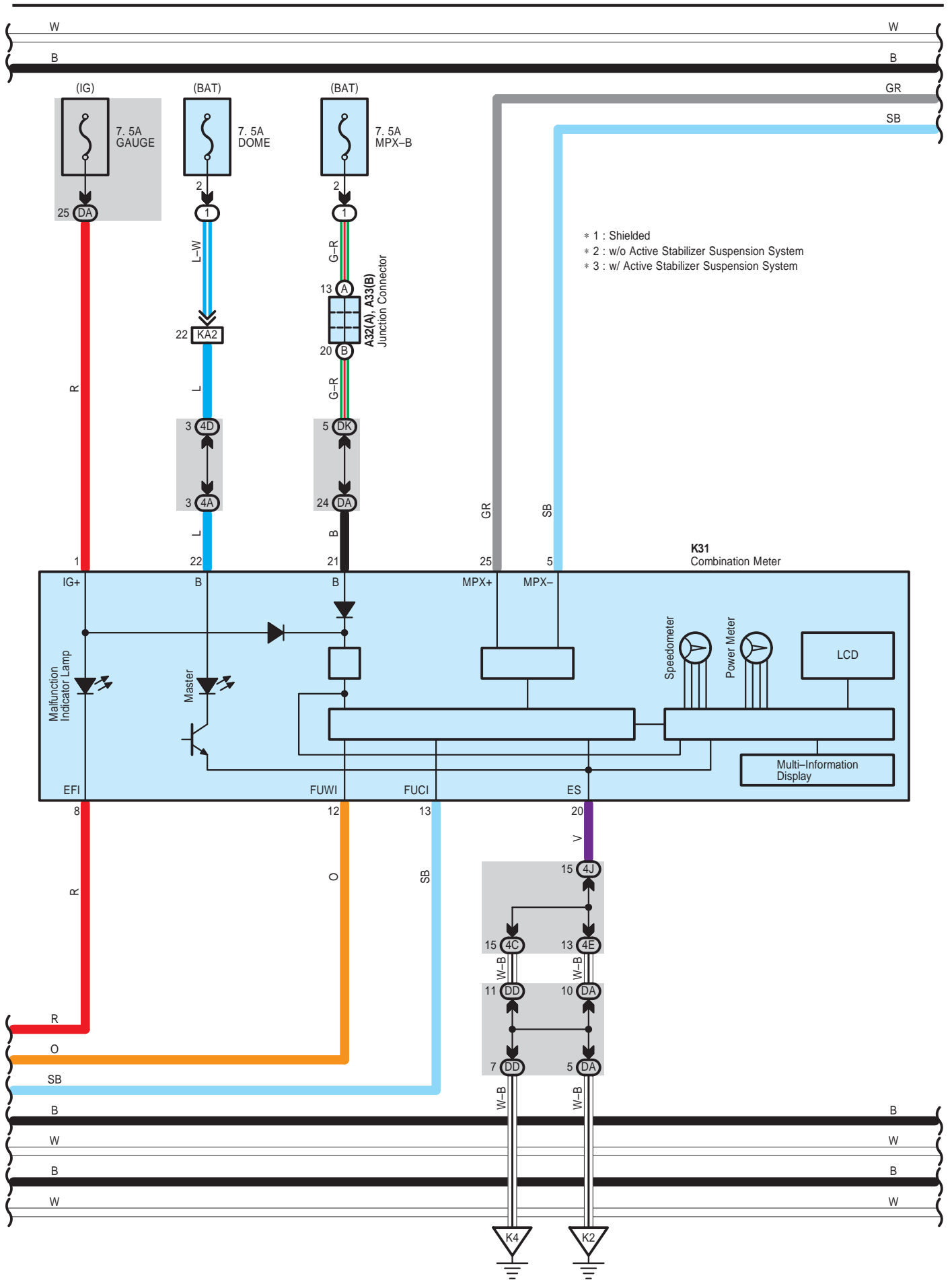
Engine Control



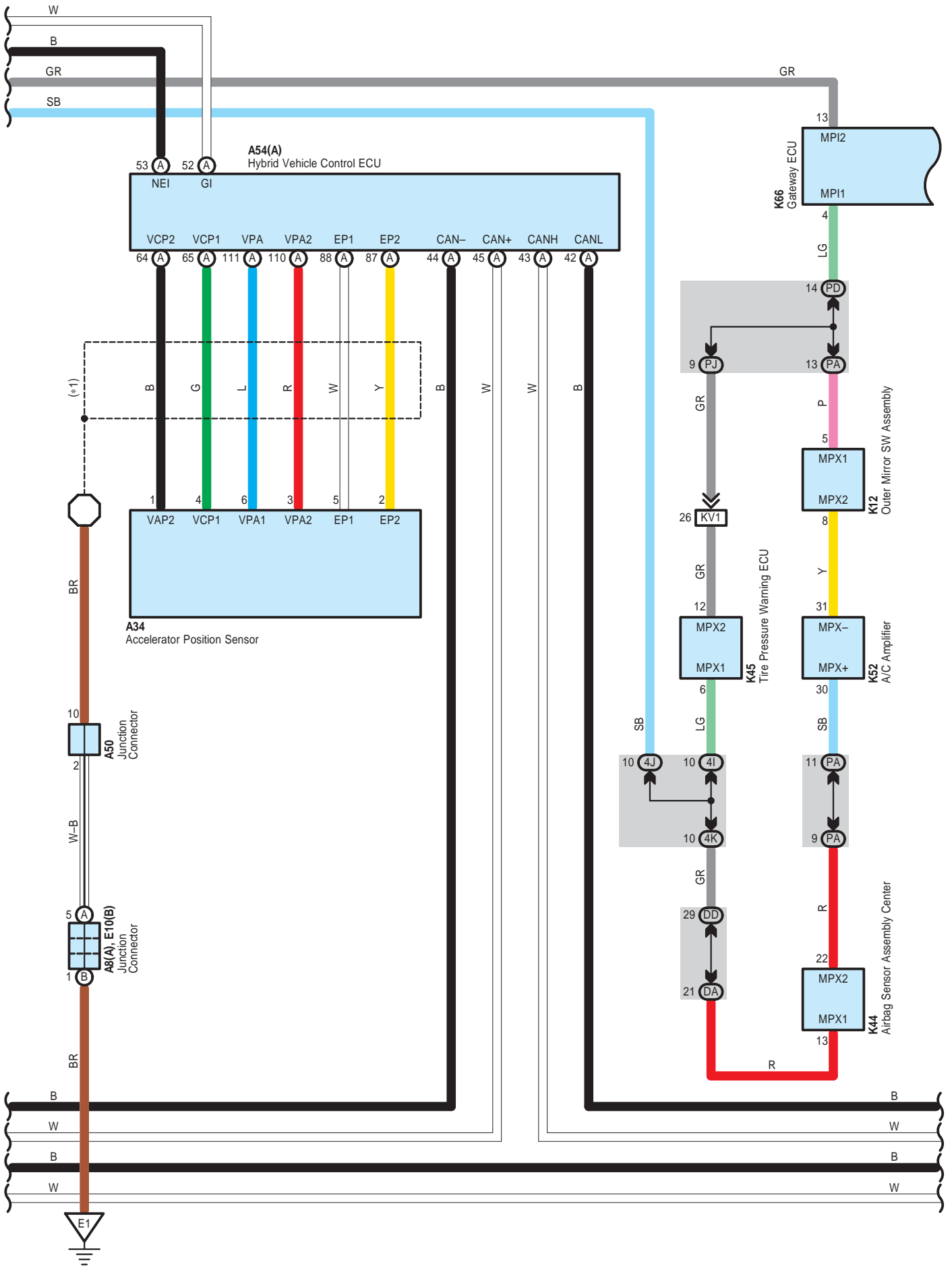


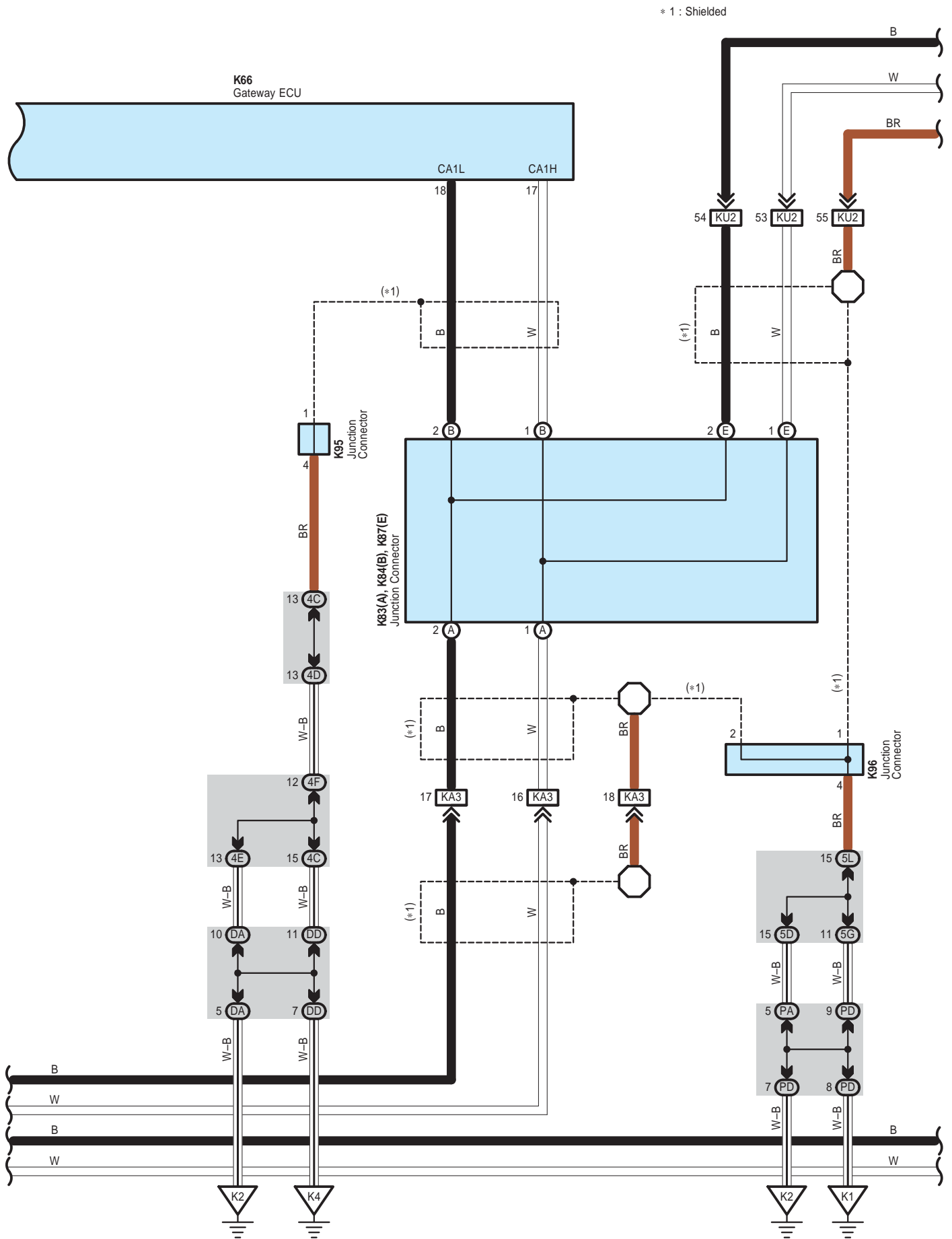
Engine Control





Engine Control

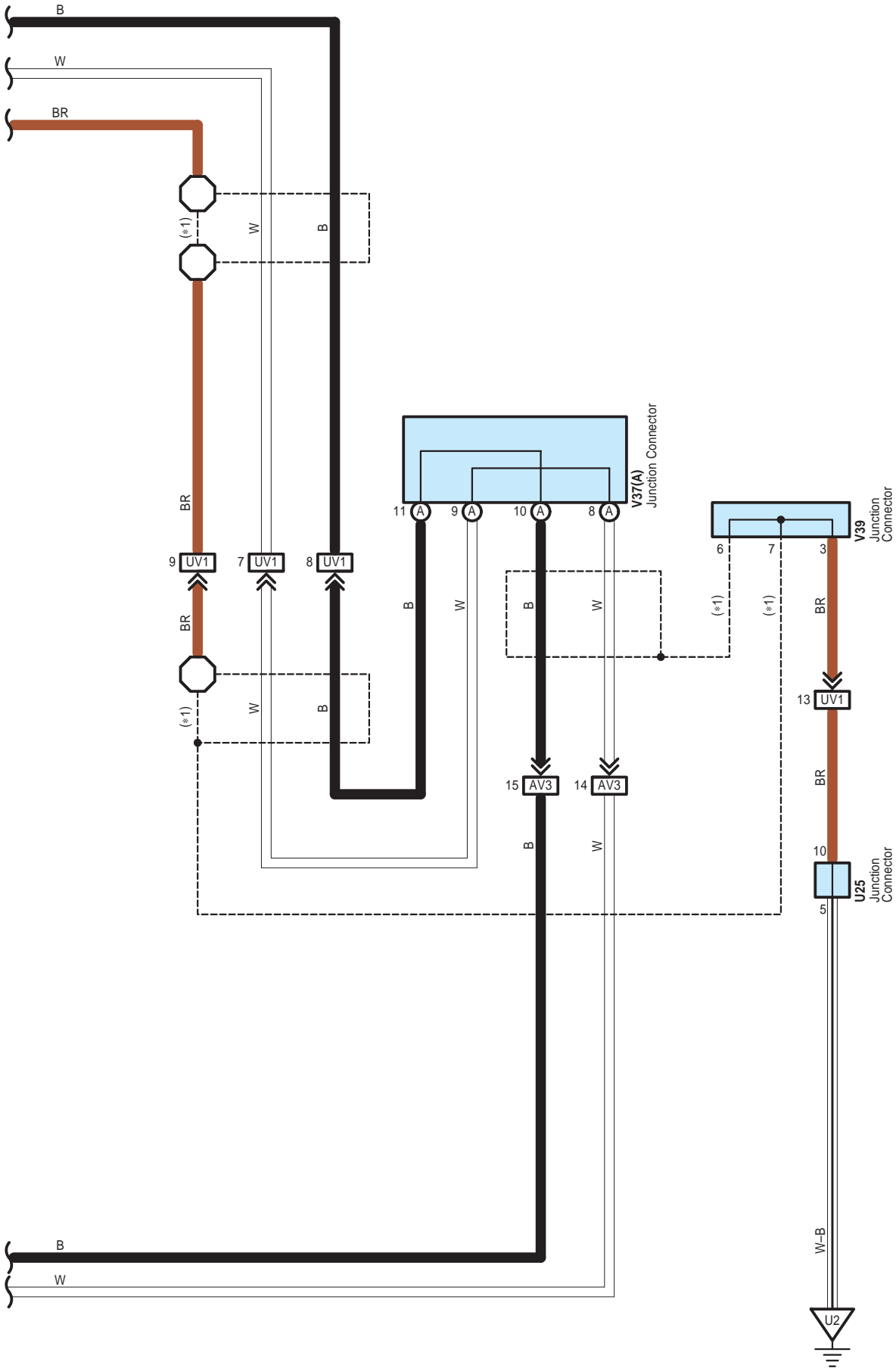




LEXUS GS 450h (EM02D0U)

Engine Control

* 1 : Shielded



System Outline

1. Fuel Injection Control (Independent Injection Type)

Engine control module outputs the injection signal to the injector after the basic injection time is calculated based on the engine condition and is corrected according to the engine coolant temperature sensor signal.

2. Ignition Control

Engine control module outputs the ignition signal to the igniter after the basic ignition time is calculated based on the engine condition and is corrected according to the engine coolant temperature sensor signal.

3. Engine Speed Control

The electronic throttle control system is adopted, which conducts first idle speed control according to the engine coolant temperature and idle speed control after warm-up.

4. Diagnosis Control

Malfunction of sensors and actuators is diagnosed, and fail-safe function is conducted, based on input and output signals of ECU.

○ : Parts Location

Code	See Page	Code	See Page	Code	See Page
A8 A	80	E60	81	K31	85
A9	80	E61	81	K34	85
A10 A	80	E66	81	K44	86
A11 B	80	E70	81	K45	86
A32 A	84	E71	81	K52	86
A33 B	84	E72	81	K57	86
A34	84	E73	81	K66	86
A45	80	E74	81	K83 A	78, 86
A50	80	E75	81	K84 B	78, 86
A53 A	80	E79	81	K87 E	78, 86
A54 A	80	E80	81	K94	86
A60	80	E81	81	K95	86
A63	84	E82	81	K96	86
B5	82	E83 B	81	U25	90
E2	81	H1	83	V11	91
E9	81	H2	83	V17 A	91
E10 B	81	I1 C	83	V26 A	91
E18	81	I2	83	V27 B	91
E39	81	I3	83	V37 A	91
E42	81	I4	83	V39	91
E47	81	J1 D	83	V41	91
E49	81	J2	83	e1	93
E50	81	J3	83	e2	93
E51	81	J4	83	u1	83
E52	81	K3 C	74, 85	u2	83
E53 B	81	K4 D	74, 85	u3	83
E54 A	81	K12	85	x1 B	93
E58	81	K16	85		

○ : Relay Blocks

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

Engine Control

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)
1S	25	Engine Room Main Wire and Engine Room J/B No.1 (Engine Compartment left)
1T		
1U	28	
4A	70	Instrument Panel Wire and Center J/B RH (Right Side of the Instrument Panel Reinforcement)
4B		
4C		
4D		
4E		
4F		
4I		
4J		
4K		
4L		
5A	66	Instrument Panel Wire and Center J/B LH (Right Side of the Instrument Panel Reinforcement)
5D		
5G		
5H		
5L		
DA	55	Instrument Panel Wire and Cowl Side J/B RH (Behind the Glove Box)
DD		
DK	56	Engine Room Main Wire and Cowl Side J/B RH (Behind the Glove Box)
DL		
PA	49	Instrument Panel Wire and Cowl Side J/B LH (Lower Finish Panel)
PD		
PJ	50	Floor No.2 Wire and Cowl Side J/B LH (Lower Finish Panel)
PL	50	Engine Room Main Wire and Cowl Side J/B LH (Lower Finish Panel)

: Connector Joining Wire Harness and Wire Harness

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AE1	96	Engine Room Main Wire and Engine Wire (Inside of the ECU Box)
AV1	97	Engine Room Main Wire and Floor No.2 Wire (Cowl Side Panel LH)
AV2		
AV3		
BA3	96	Engine Room No.2 Wire and Engine Room Main Wire (Inside of the Engine Room R/B No.2)
EH1	96	Engine Wire and Engine No.5 Wire (Rear Side of the Left Cylinder Head)
Eu1	96	Engine Wire and Engine No.8 Wire (Front Side of the Surge Tank)
KA2	97	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
KA3	97	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)
KU2	97	Instrument Panel Wire and Floor No.1 Wire (Right Kick Panel)
KV1	97	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)
UV1	98	Floor No.1 Wire and Floor No.2 Wire (Center of the Rear Floor Partition Panel)
eV1	98	Fuel Tank Wire and Floor No.2 Wire (Luggage Room Left)
xV1	98	Floor No.5 Wire and Floor No.2 Wire (Luggage Room Left)



: Ground Points

Code	See Page	Ground Points Location
A1	96	Left Side of the Dash Panel
A2	96	Front Left Fender Apron
E1	96	Rear Side of the Left Cylinder Head
E2	96	Rear Side of the Right Cylinder Head
I1	96	Front Side of the Right Cylinder Head
J1		
K1	97	Left Kick Panel
K2	97	Left Side of the Shift Lever
K4	97	Right Kick Panel
U2	98	Right Side of the Rear Floor Partition Panel
V2	98	Roof Side Inner Panel LH