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1.Introduction

1.System name.

2.Harness connector naming.

In this manual, the harness connector naming is based on harness. For example, I/P connector is named as I23. I is the harness code, 23 is the connector number.

The table below lists all harness:

Code	Harness
U	Engine compartment harness
U--	Engine compartment harness connector
E	Engine harness
E--	Engine harness connector
I	Instrument panel harness
I--	Instrument panel harness connector
B	Body harness
B--	Body harness connector
D	Door harness
D--	Door harness connector
S	Airbag harness
S--	Airbag harness connector
R	Roof harness
R--	Roof harness connector
M	Rear Bumper harness
M--	Rear Bumper harness connector
T	Tail gate harness
T--	Tail gate harness connector

 Note:

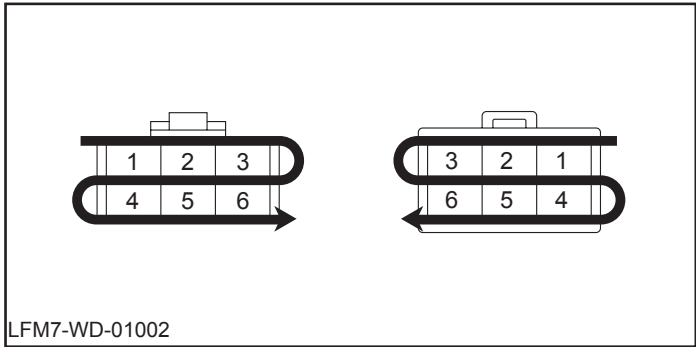
- 1.Door harness includes four door harness.
- 2.For hareness connector details, please refer to connector location views.
- 3.Component name.
- 4.System information.
- 5.Harness to harness connector.The character in the box is the connector code.
- 6.Wire color and diameter. The following table showes the color code.

Color Code	Wire Coloe	Legend
B	Black	
Br	Brown	
Bl	Blue	
G	Green	
Gr	Grey	
O	Orange	
P	Pink	
R	Red	
V	Purple	
W	White	
Y	Yellow	

If a wire has two colors, the first character shows the background color and the second shows the stripe color, divided by “/”.

For example,Y/W means yellow background color with white stripe.

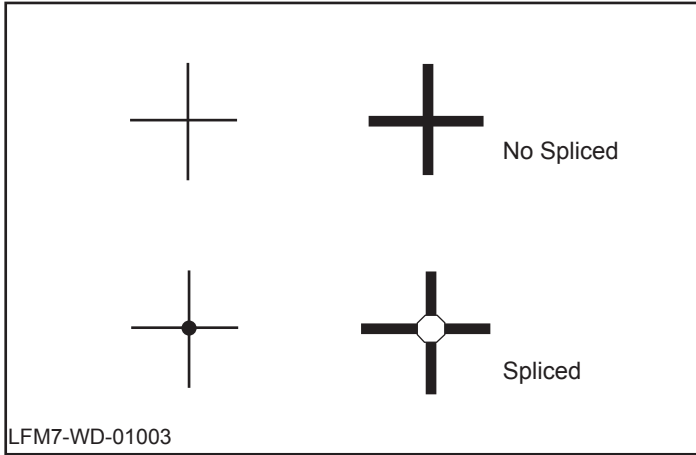
7.Pin number. The connector pin numbers are mirrored to the ones that connect to them, as shown below:



8.Ground number. The ground number starts with G. For ground details, please refer to ground location views.

9.Fuse supply. +B represents battery power supply. ACC represents power supply when ignition switch is at “ACC” position. IG2 represents power supply from terminal 4 when ignition switch is at “ON” position. IG1 represents power supply from terminal 2 when ignition switch is at “ON” position.

10.Splice



2.Circuit Diagnostic Procedure

Refer to the following procedure for the circuit diagnosis:

1. Confirm the Fault

To do the proper repair, confirm the fault described by the customer firstly. Inspect the relevant component carefully and make record. DO NOT disassemble the component before confirmation of the fault scope and causes.

2. Read the Wiring Diagram and Analyze the Causes.

Make a complete analysis on the faultycomponents from power supply to ground according to the sub-system wiring diagram and determine the repair solution. If can not determine the repair solution, please read the system description in the “Description and Operation” in the workshop manual to clear the working principle. And inspect other circuits that has common part with the faulty circuits that has common part with the faulty circuit, for example, the fuse, ground, switch,etc. Inspect the circuit not covered in step 1. If other components on the common circuit work properly, it means the fault exists in its own circuit. Otherwise, the fuse or ground might has faults.

3. Inspect the Circuits and Components.

Always use the wiring diagram together with workshop manual and refer to the diagnostic procedure for the relevant circuits or components in the workshop manual. For the circuit with a control module, fully use diagnostic tools to do the test. Effective diagnosis should be a logical and reasonable operation. Fully use the diagnoistic procedures in the workshop manual and start the inspection from the most likely causes and the compents be easiest to inspect.

4. Repair

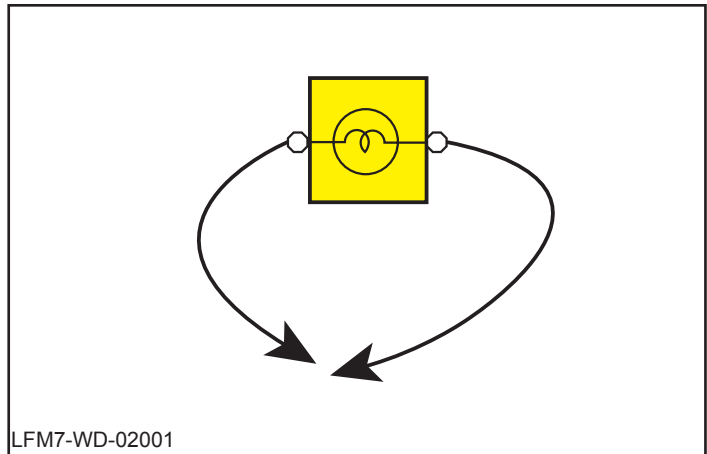
Repair the faulty circuit. Refer to the wiring diagram and workshop manual for fault treatment. For example, the treatment on bad connection to ground and the harness connector.

5. Confirm the Fault Removed.

After repair, confirm the fault removed and all functions work properly. For the fuse blown fault, check all the relevant circuits.

Circuit Diagnostic Device

1.Voltmeter and Test Light



Use test light or voltmeter to check the circuit status.

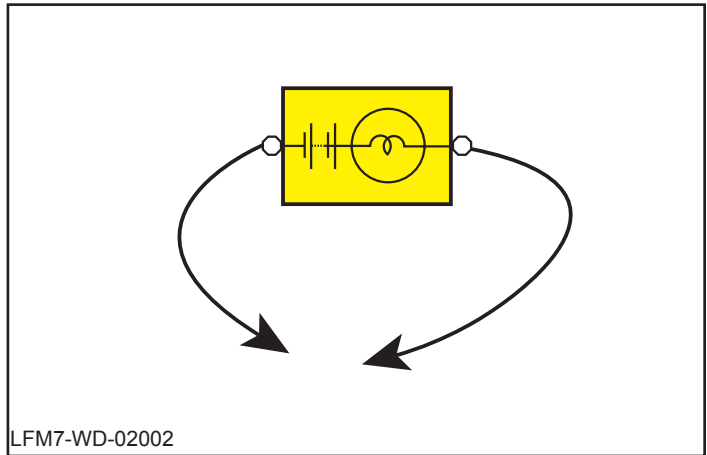
Test light comprises a pair of wires and a 12V bulb. When

inspecting, connect one wire to the ground and the other one to the measurement point. If the bulb is lit, it means the measurement point has power supply.

 Warning:Do not use test light to test the control module voltage. To do so, it could damage the circuit inside the control module. Please use a voltmeter with 10M Ω or higher internal impedance (e.g. to test the ECM voltage).

Voltmeter has the same connection method as the test light, but voltmeter can display the voltage value of the circuit. Use a voltmeter with high impedance to test the voltage. If the circuit has poor connection, the voltmeter may show the normal value, but the voltage can not drive the load successfully.

2. Test Light with Self-supply and Ohmmeter



Use test light with own 12V power supply or ohmmeter to test the circuit continuity. Test light comprises a bulb, battery and a pair of wires. The bulb will be lit when the two wires contacted. Before test, disconnect the battery negative and pull out the fuse of the circuit to be tested. To test the circuit continuity, contact two wires to the two measurement points. If the bulb is lit, it means the circuit is continuous.

Circuit Diagnostic Procedure

Refer to the following procedure for the circuit diagnosis:

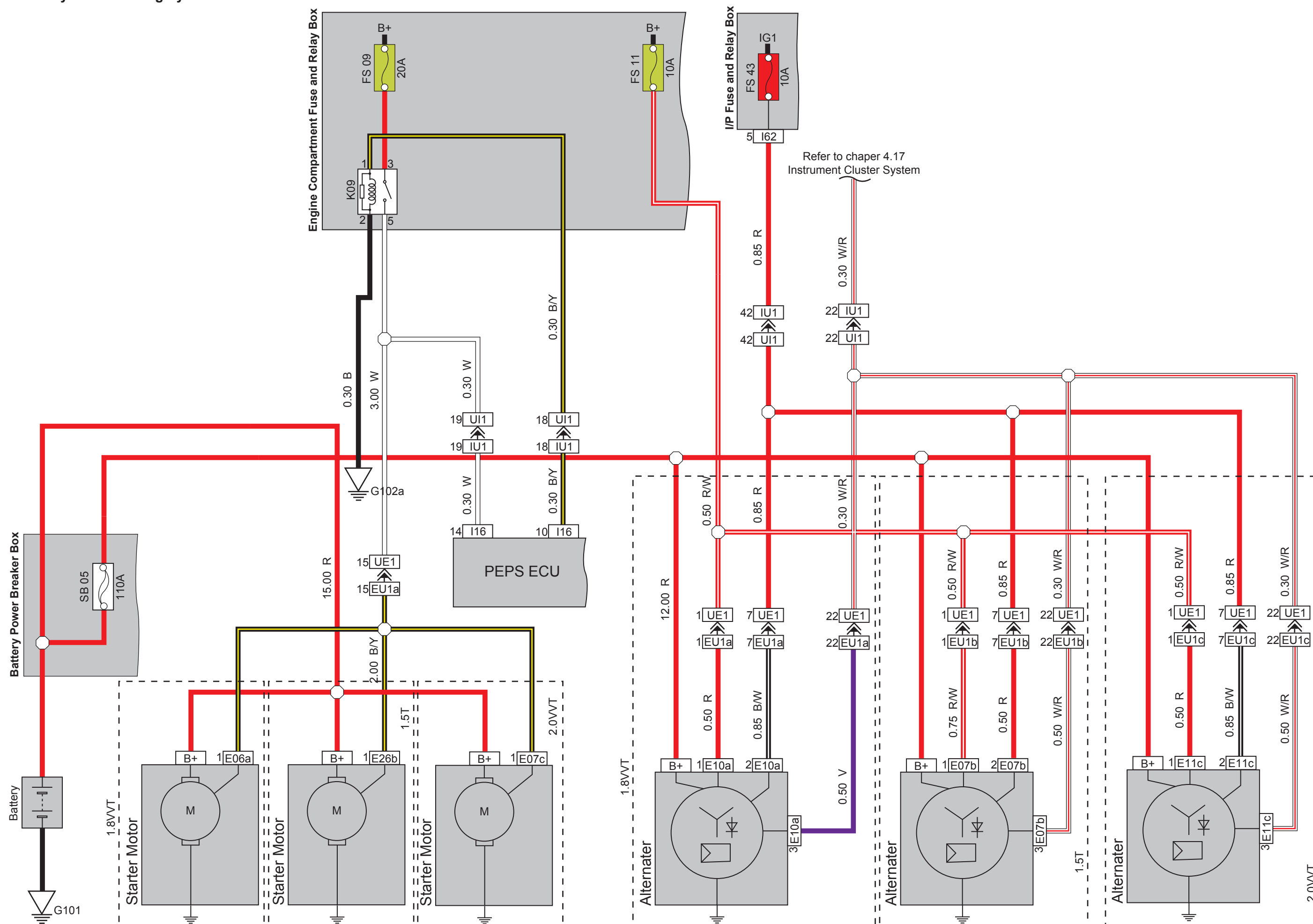
1. Confirm the Fault

To do the proper repair, confirm the fault described by the customer firstly. Inspect the relevant component carefully and make record. DO NOT disassemble the component before confirmation of the fault scope and causes.

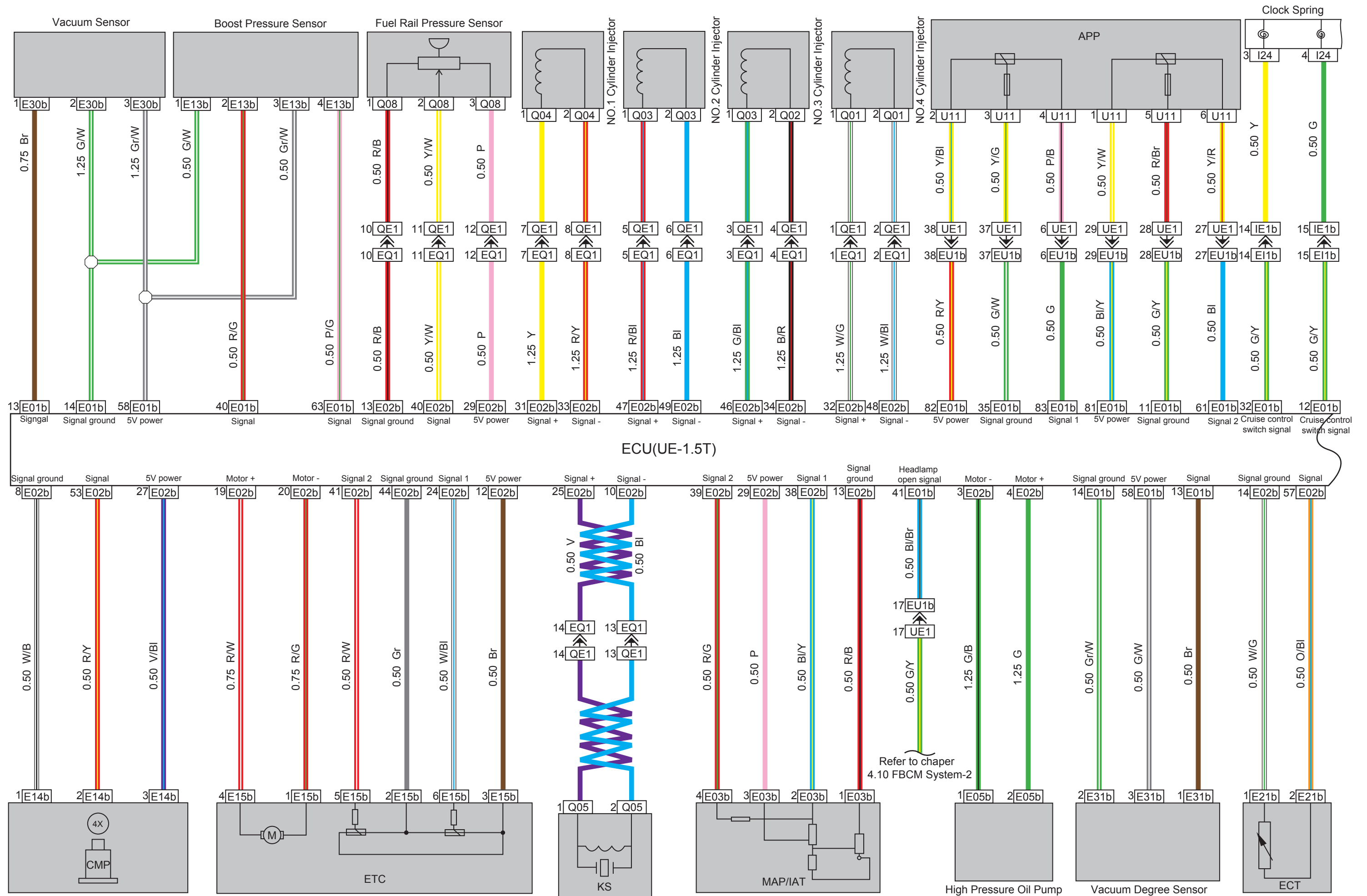
2. Read the Wiring Diagram and Analyze the Causes.

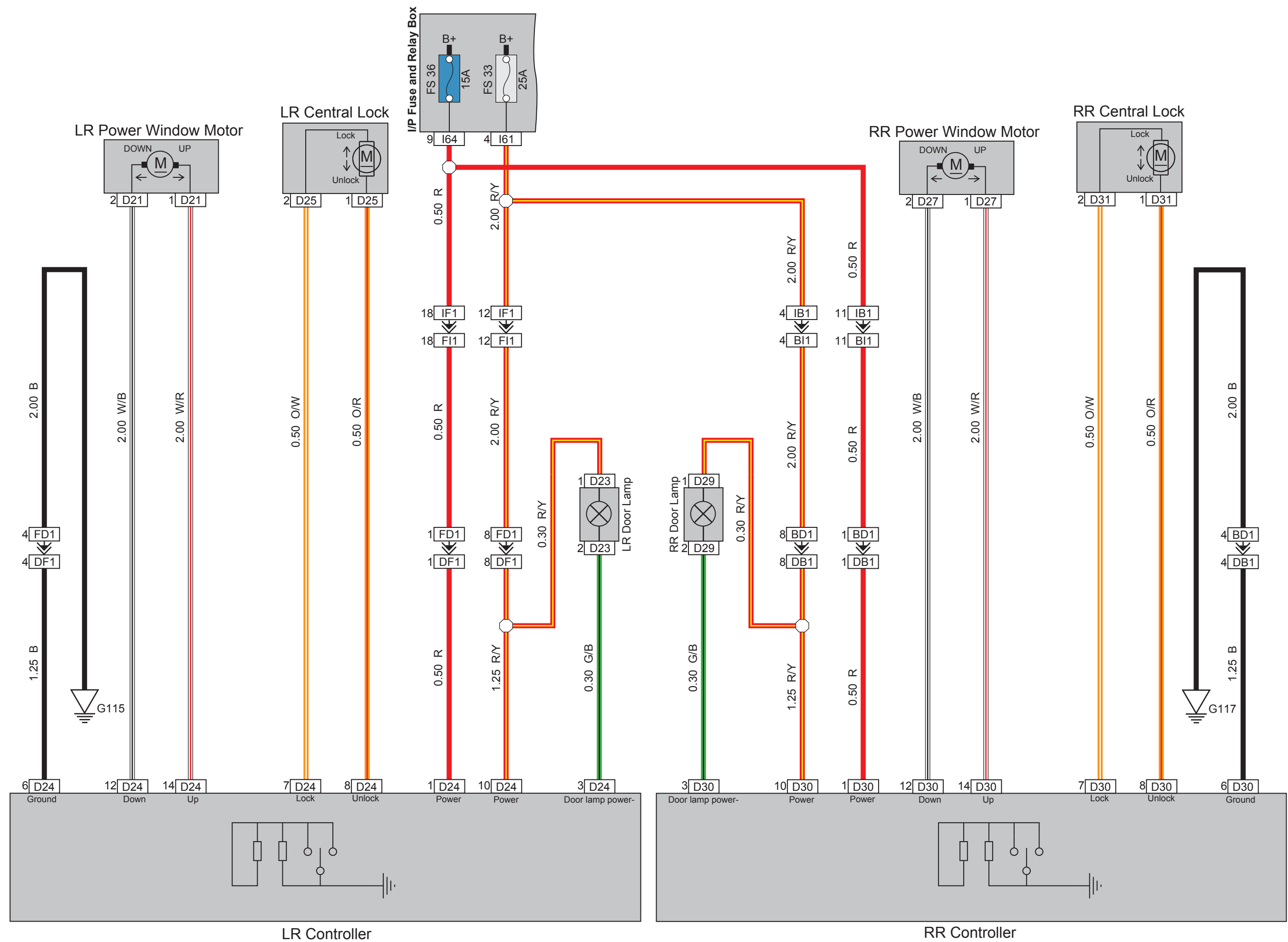
Make a complete analysis on the faultycomponents from power supply to ground according to the sub-system wiring diagram and determine the repair solution. If can not determine the repair solution, please read the system description in the “Description and Operation” in the workshop manual to clear the working principle. And inspect other circuits that has common part with the faulty circuits that has common part with the faulty circuit, for example, the fuse, ground, switch,etc. Inspect the circuit not covered in step 1. If other components on the common circuit work properly, it means the fault exists in its own circuit. Otherwise, the fuse or ground might has faults.

3. Inspect the Circuits and Components.

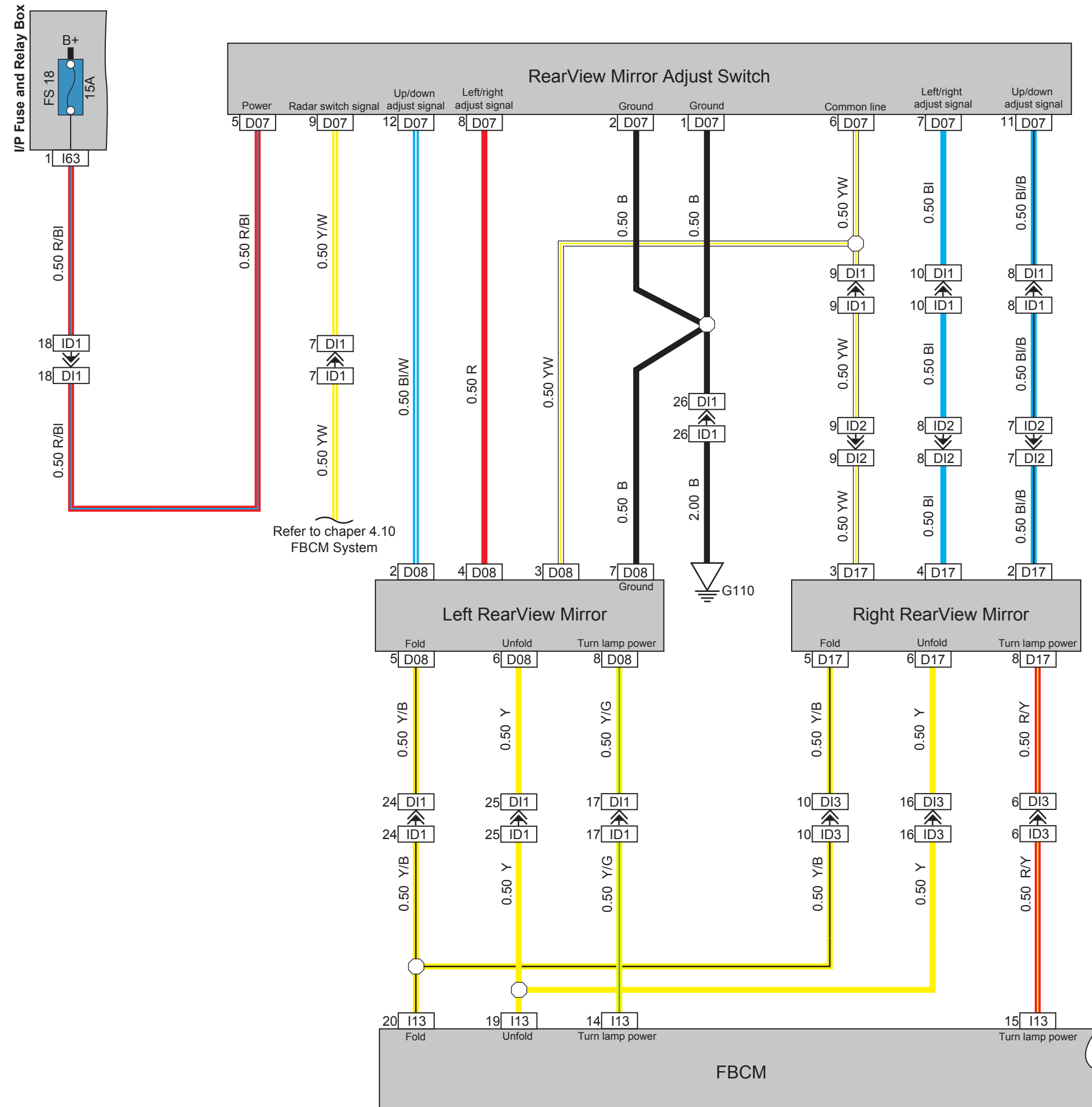


4.4B Electronic Control System(1.5T+8AT)

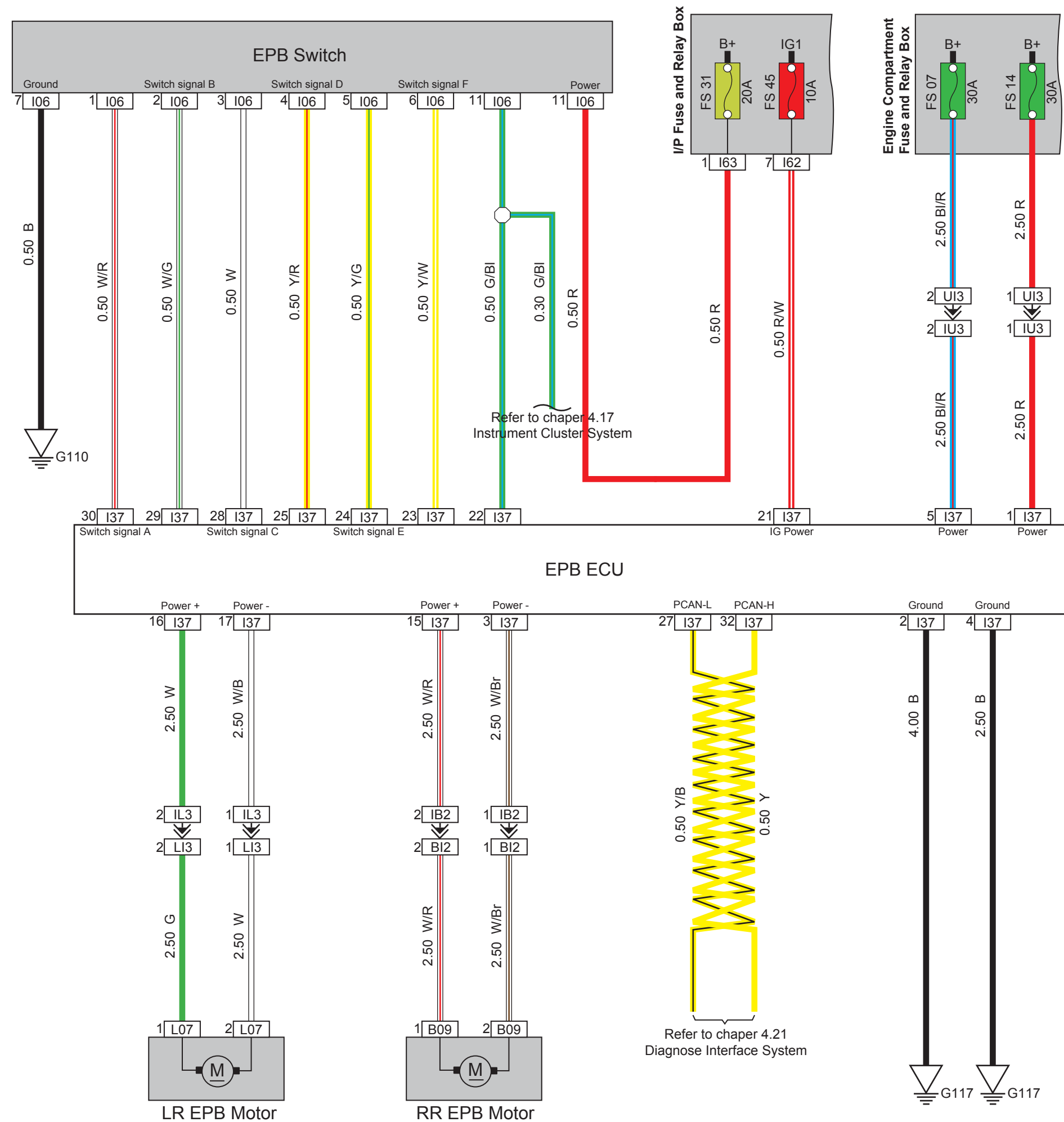




4.19 Power RearView Mirror System

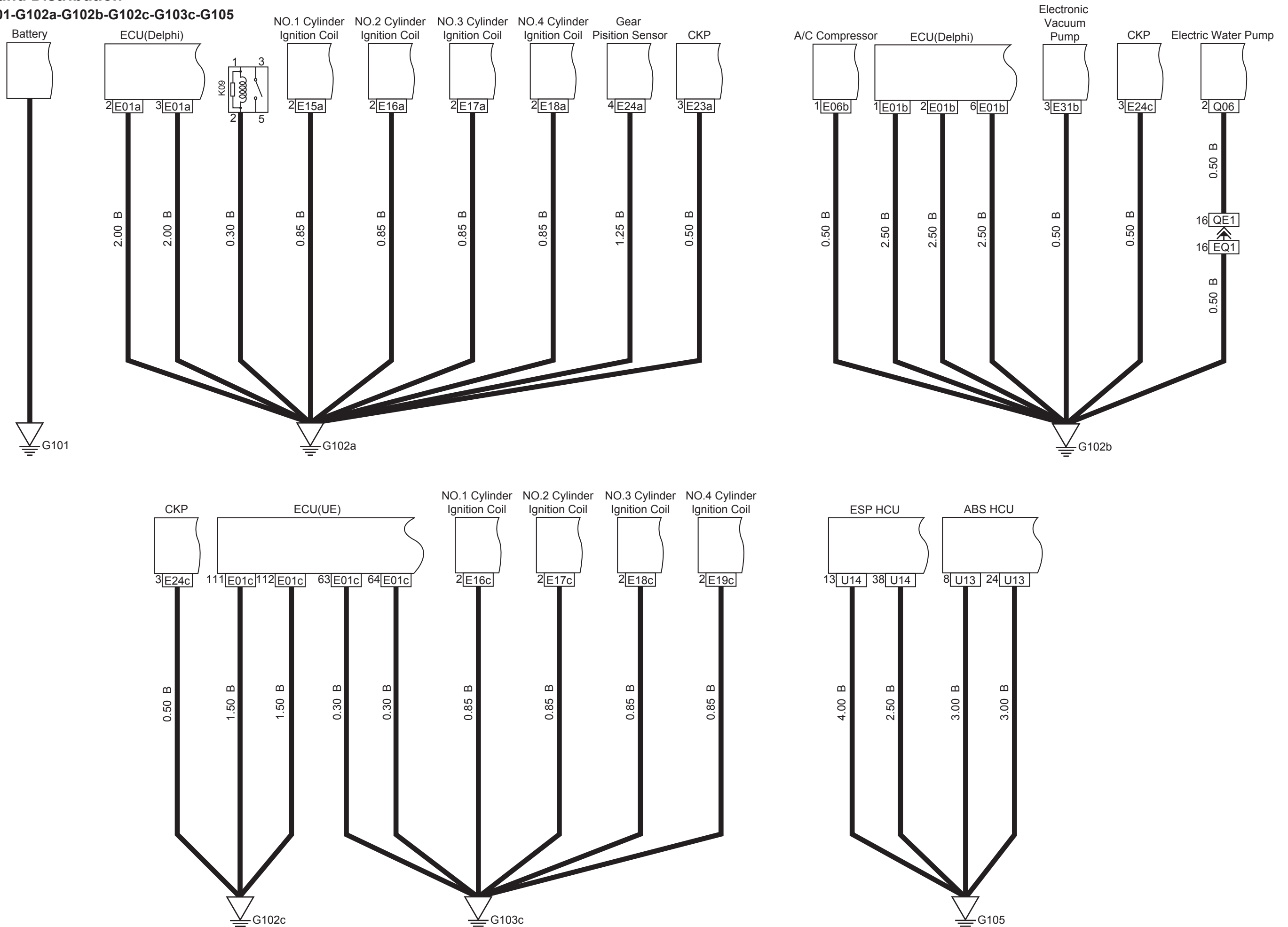


4.24 EPB System



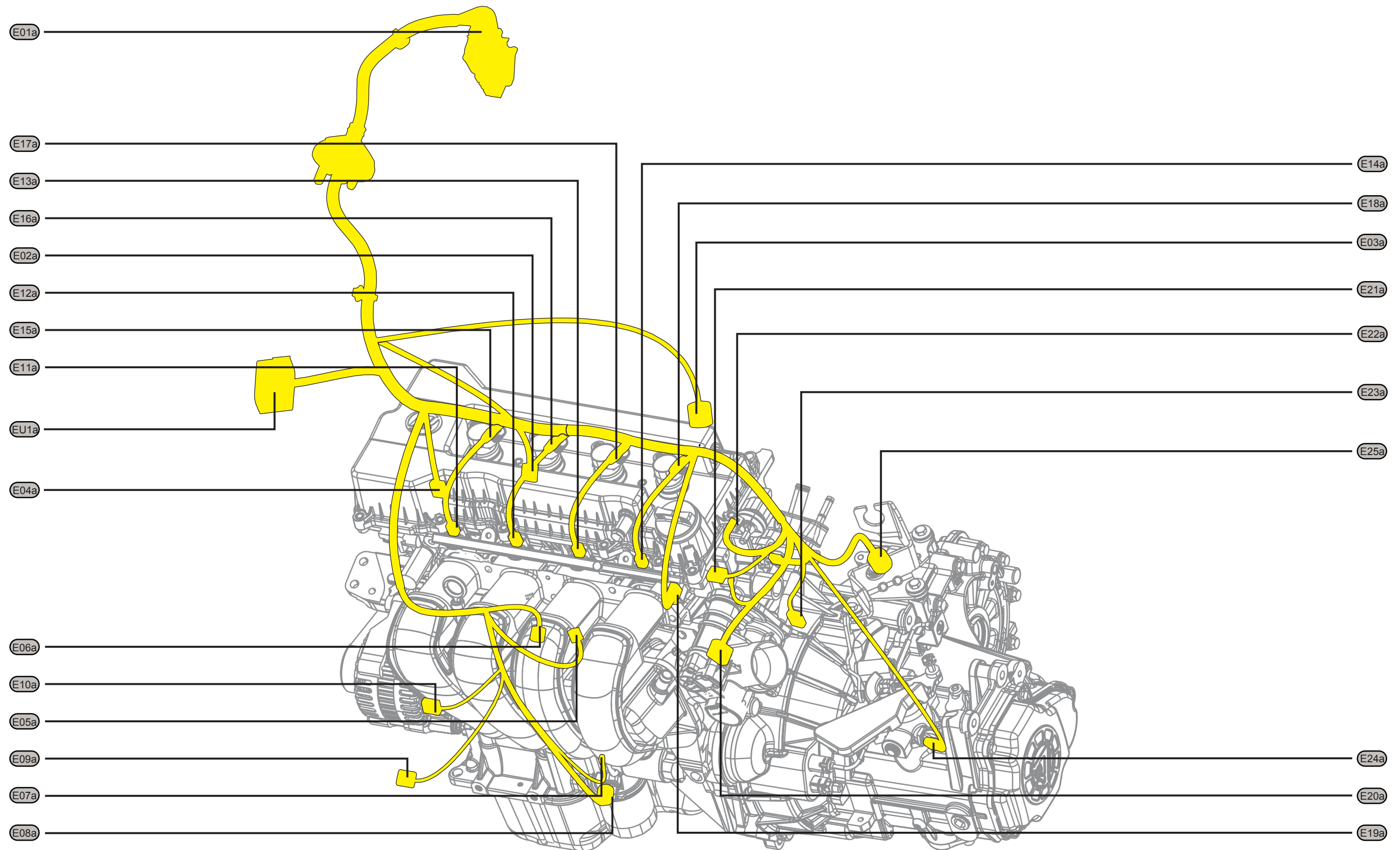
6. Ground Distribution

6.1 G101-G102a-G102b-G103c-G105

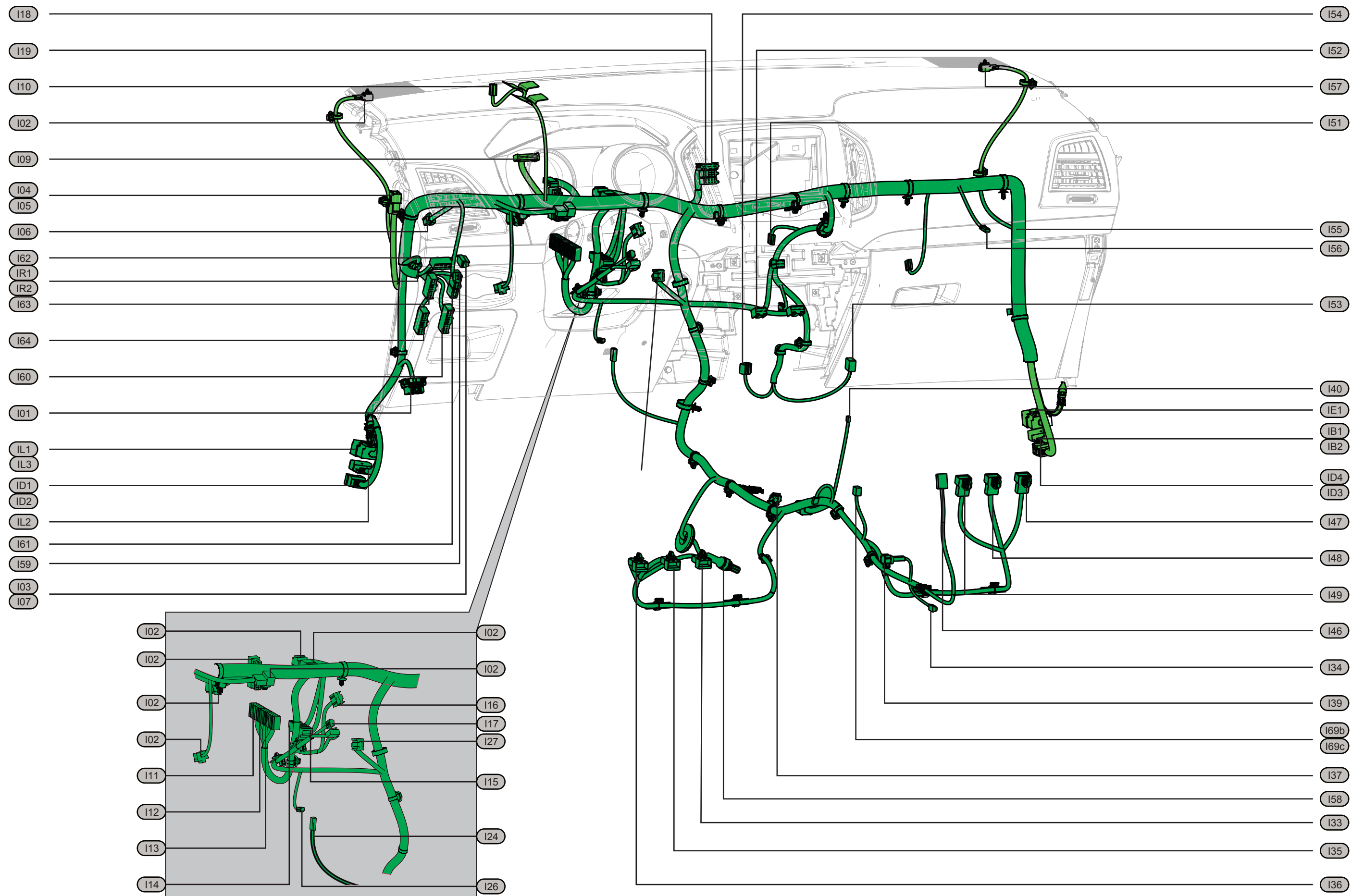


7.Harness Connector Location View

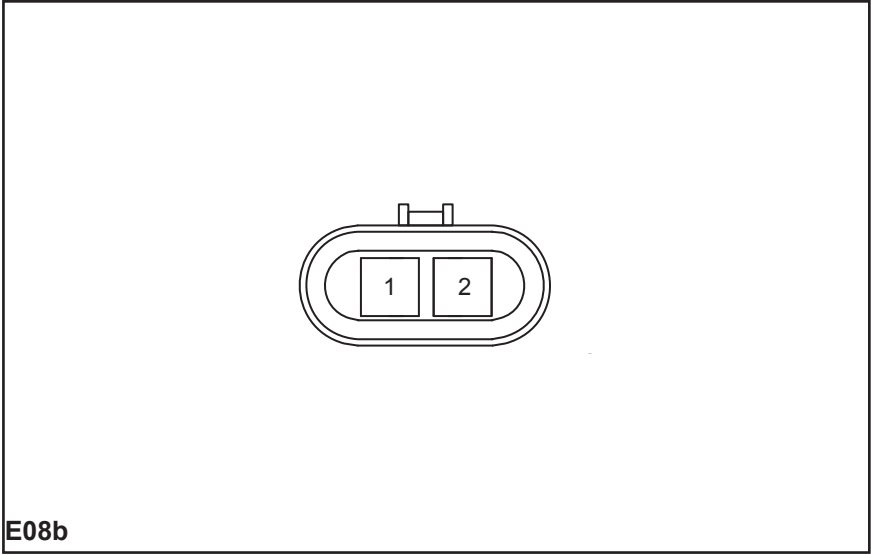
7.1A Engine Harness Connector Location View(1.8L)



7.3 IP Harness Connector Location View



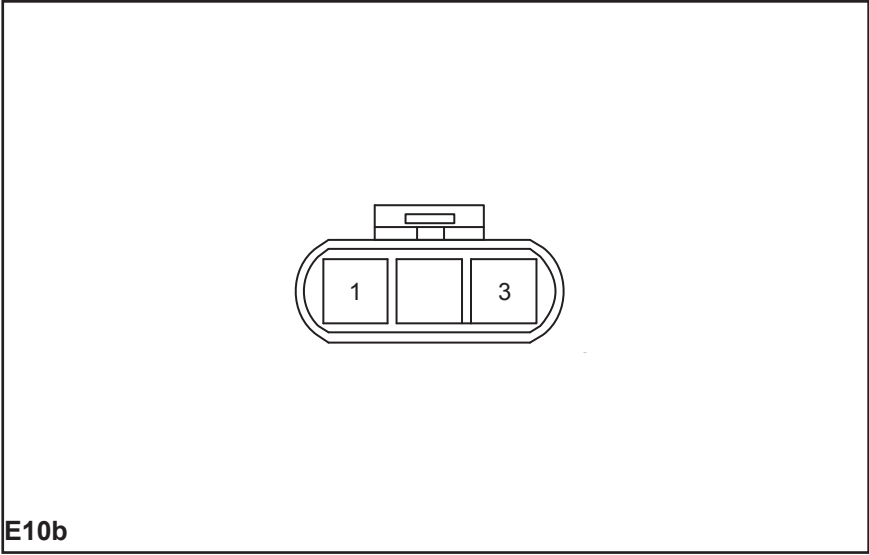
VVT Valve



E08b Pin Definition

Pin Number	Wire Width / Color	Function
1	0.85 Y/G	Signal
2	0.85 R/W	Power

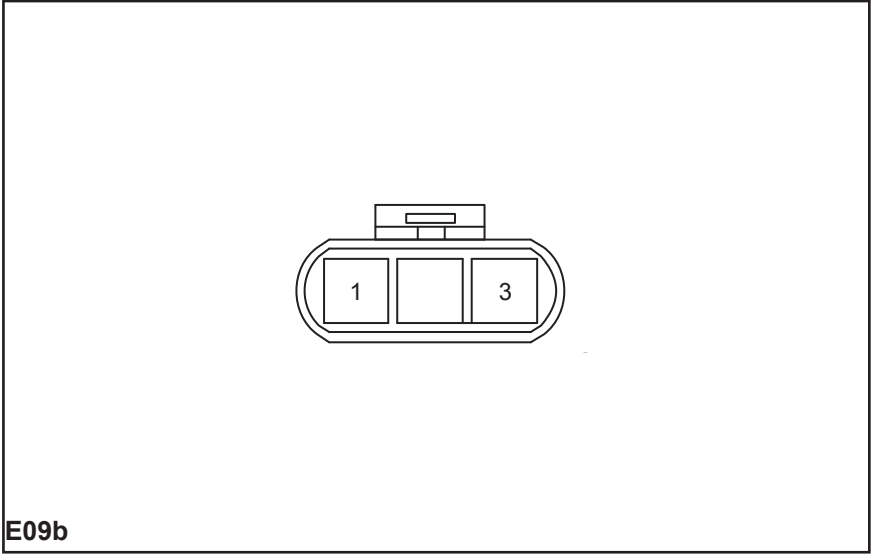
No.2 Cylinder Ignition Coil



E10b Pin Definition

Pin Number	Wire Width / Color	Function
1	0.75 BI/R	Main power
2	1.25 R/B	Power
3	0.50 B	Ground

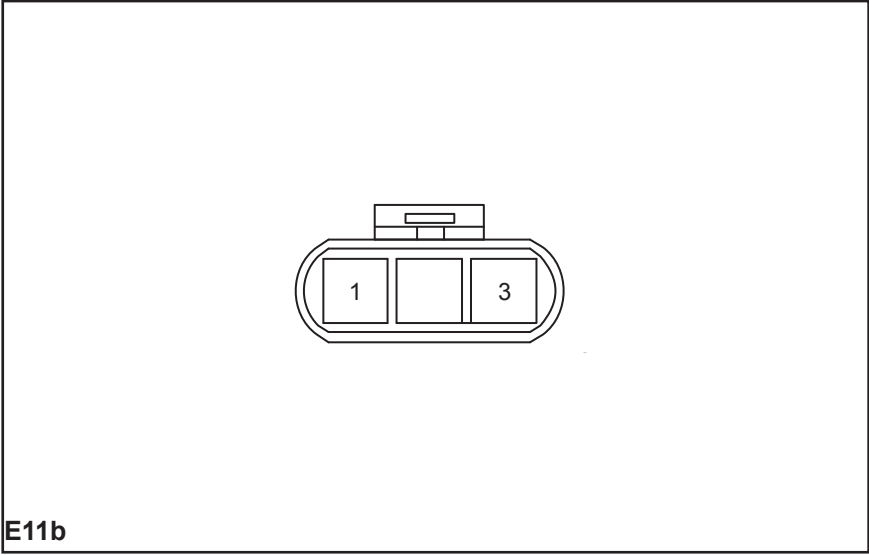
No.1 Cylinder Ignition Coil



E09b Pin Definition

Pin Number	Wire Width / Color	Function
1	0.75 BI/R	Main power
2	1.25 P	Power
3	0.50 B	Ground

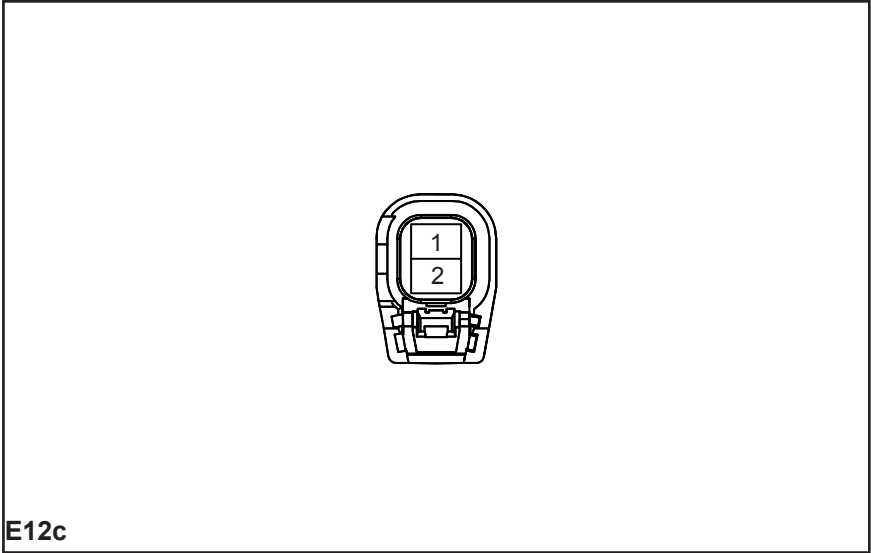
No.3 Cylinder Ignition Coil



E11b Pin Definition

Pin Number	Wire Width / Color	Function
1	0.75 BI/R	Main power
2	1.25 Y	Power
3	0.50 B	Ground

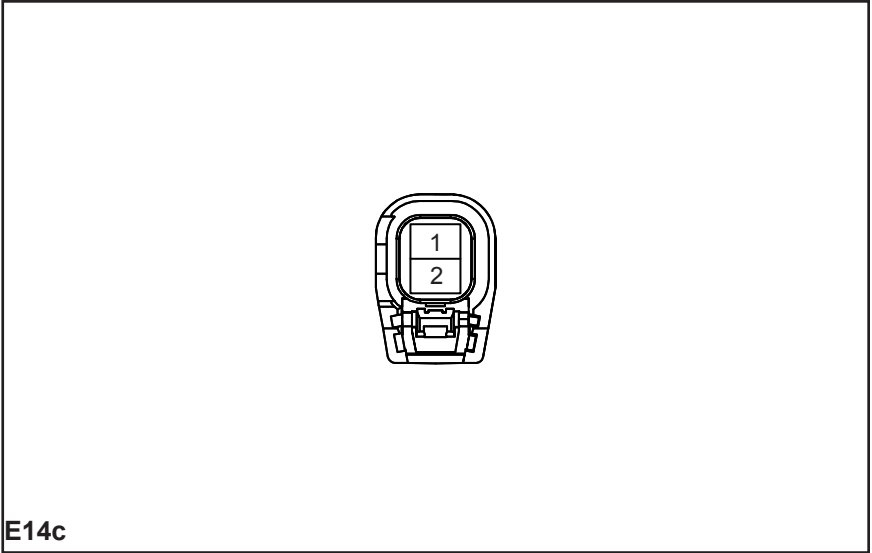
No.1 Cylinder Injector



E12c Pin Definition

Pin Number	Wire Width / Color	Function
1	0.75 BI/R	Main relay power
2	0.50 O/B	Injector signal

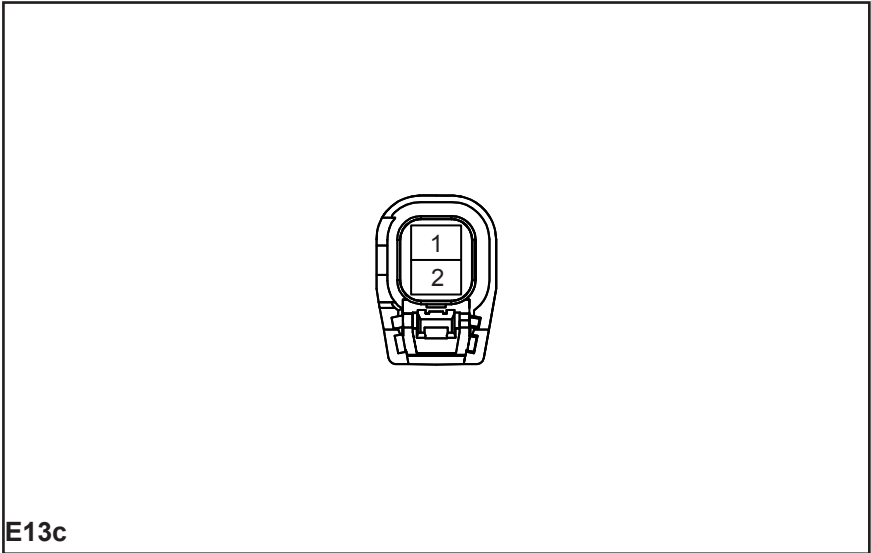
No.3 Cylinder Injector



E14c Pin Definition

Pin Number	Wire Width / Color	Function
1	0.75 BI/R	Main relay power
2	0.50 P/Y	Injector signal

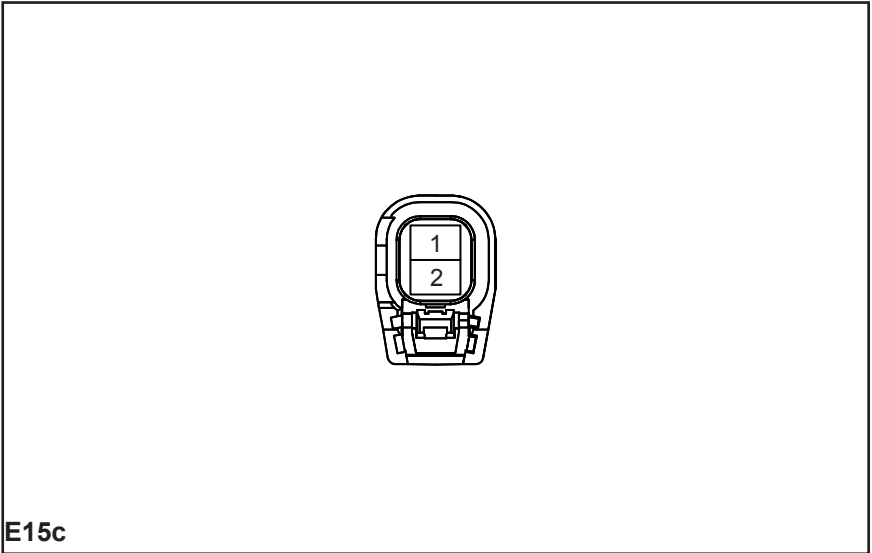
No.2 Cylinder Injector



E13c Pin Definition

Pin Number	Wire Width / Color	Function
1	0.75 BI/R	Main relay power
2	0.50 Y/R	Injector signal

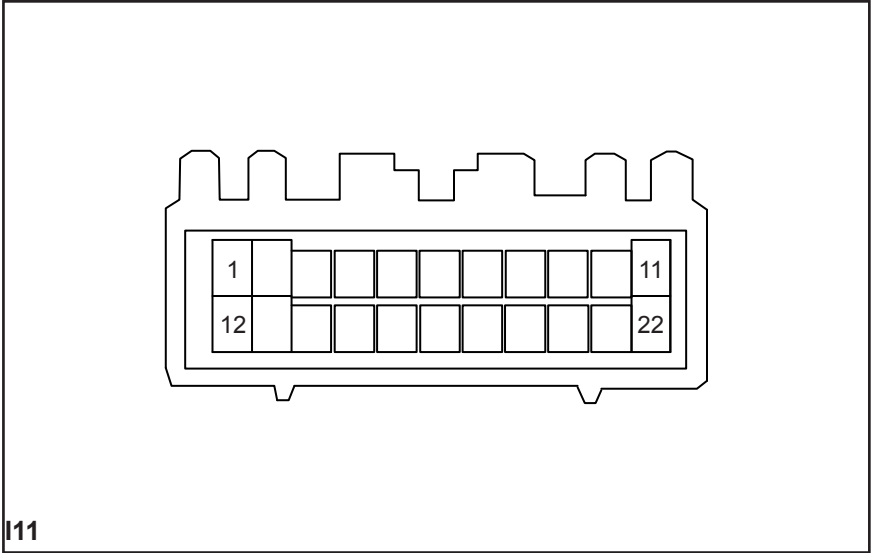
No.4 Cylinder Injector



E15c Pin Definition

Pin Number	Wire Width / Color	Function
1	0.75 BI/R	Main relay power
2	0.50 G/Y	Injector signal

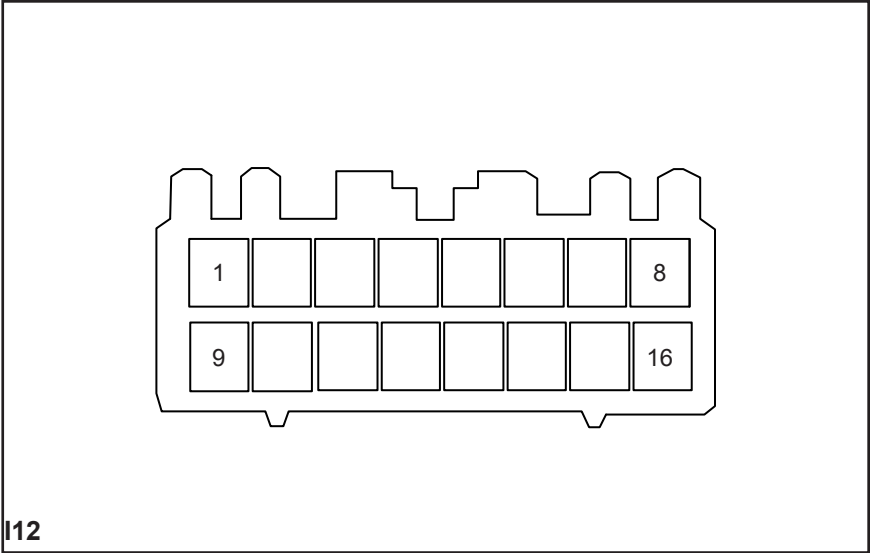
FBCM-1



I11 Pin Definition

Pin Number	Wire Width / Color	Function
1	0.85 R/G	Power
2	0.50 G/Gr	Door lamp control signal
3	0.30 G	LIN
4	0.30 W	BCAN-H
5	0.30 W/B	BCAN-L
6	0.30 Br/Y	Low effective input
6	0.30 Gr/W	Key OUT switch signal
7	0.30 Br/B	High effective input
8	0.50 R/G	Trunk unlock signal
9	-	
10	0.50 B	Ground
11	0.50 R/Y	Solenoid valve power
12	1.25 B	Ground
13	0.50 B/W	Motor enable
14	0.30 W/G	Button 2 signal
15	0.30 G/Bl	Button 1 signal
16	0.30 Br/R	
16	0.30 V/W	Tail gate microswitch status signal
17	0.50 Br	
18	0.30 B/G	IG1 power control signal
18	0.30 Gr/Bl	Antitheft identification coil signal
19	0.30 Gr/Y	Antitheft identification coil signal
20	-	
21	0.30 O	High/low beam lamp control signal

FBCM-2



I12 Pin Definition

Pin Number	Wire Width / Color	Function
1	0.30 G/B	
1	0.30 W	Start feedback
2	-	
3	-	
4	0.30 Br/Y	Reverse lamp signal
5	0.30 P	RF door lamp switch signal
6	0.30 O	LF door lamp switch signal
7	0.50 Y/W	Power rearview mirror unfold control switch signal
8	0.50 Y/Bl	Wiper return
9	-	
10	-	
11	-	
12	0.50 W/Br	Hazard warning signal
13	0.30 G/Bl	RR door lamp switch signal
14	0.30 Gr	LR door lamp switch signal
15	-	
16	0.50 Br/W	Daytime running lamp power