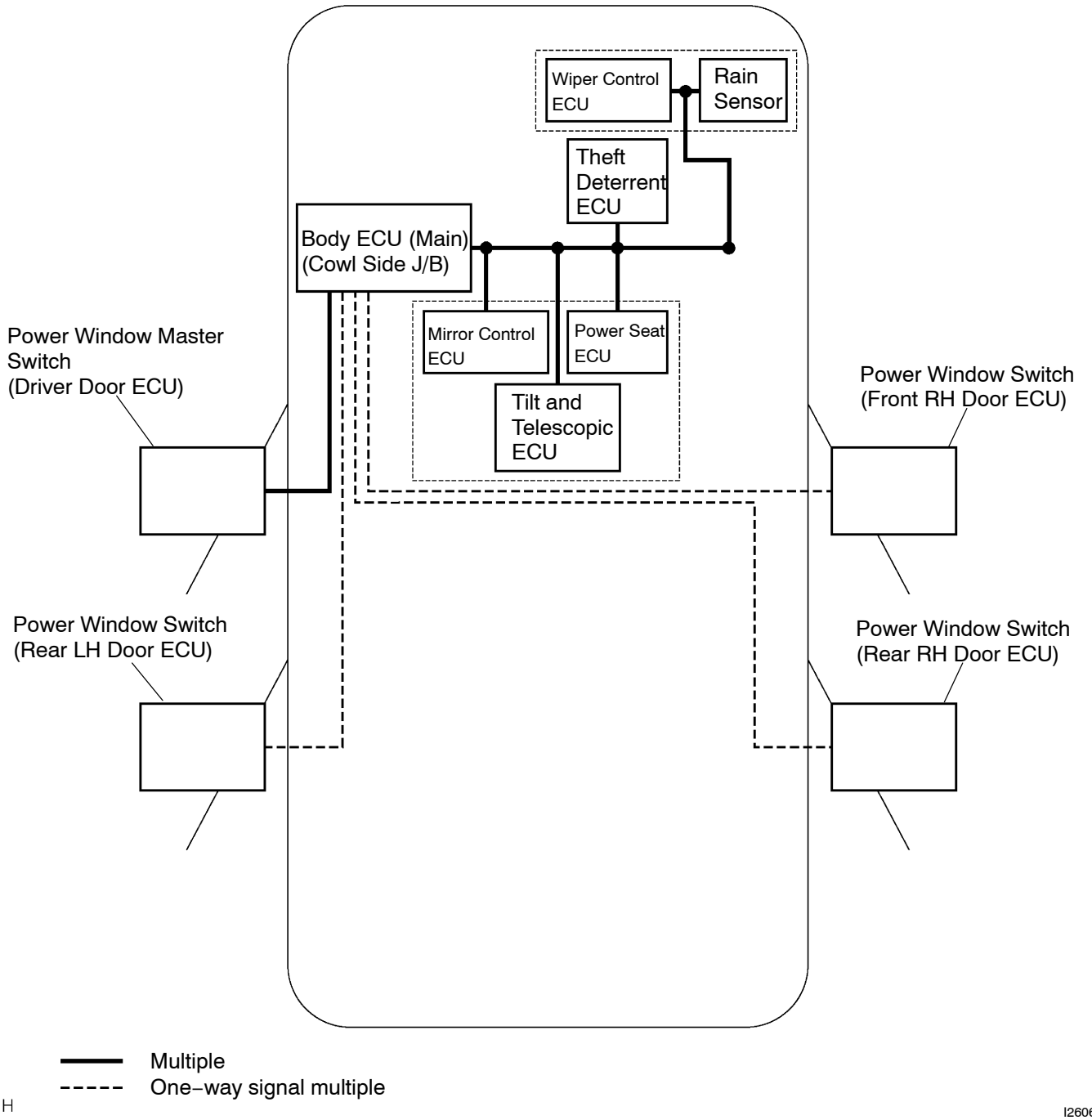
DIAWW–01

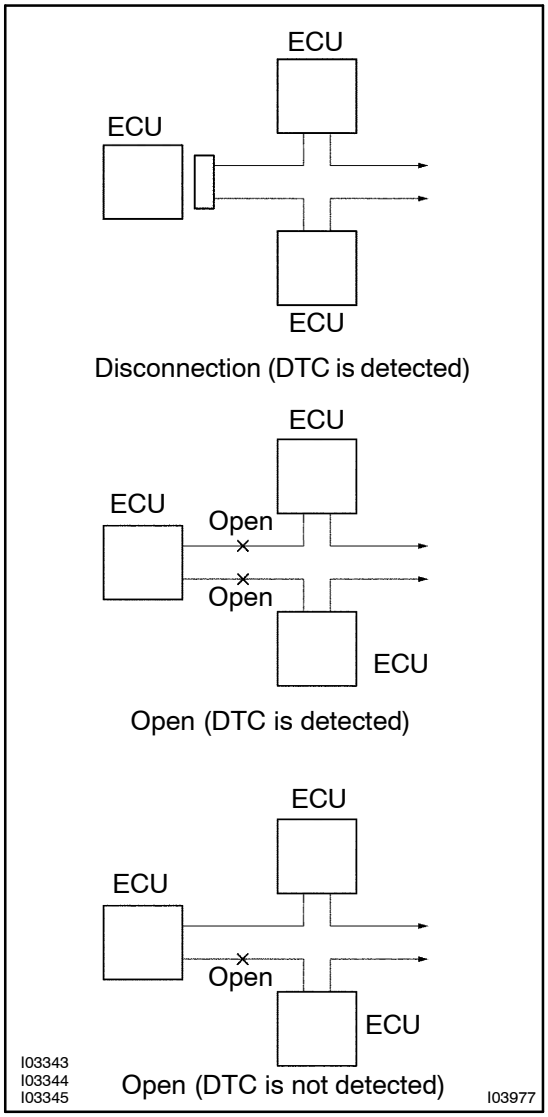
PRE–CHECK

1. DIAGNOSIS SYSTEM

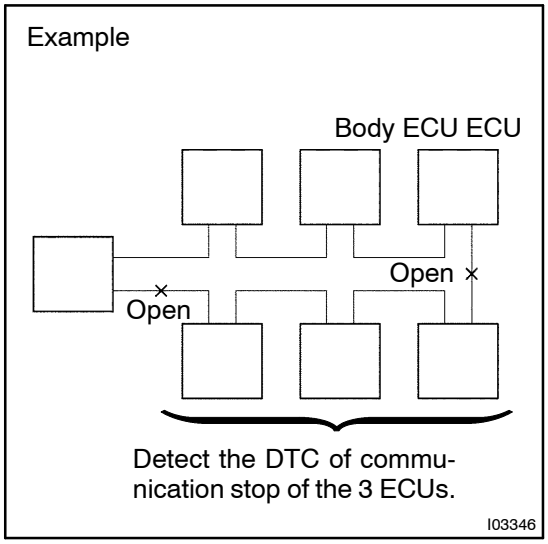
(a) As shown in the following diagram, ECUs of this vehicle are connected each other by communication buses through which various signals are transmitted. These communication buses are diagnosed by the Body ECU. When the Body ECU detects a communication error between ECUs, or B+ short or GND short of a communication bus, a DTC is output and memorized. The Body ECU cannot diagnose accurately unless it can function normally. Therefore, first confirm the normal condition by performing a ”BASIC INSPECTION” described later and then, troubleshoot against each DTC.

Connection between each terminal and bus





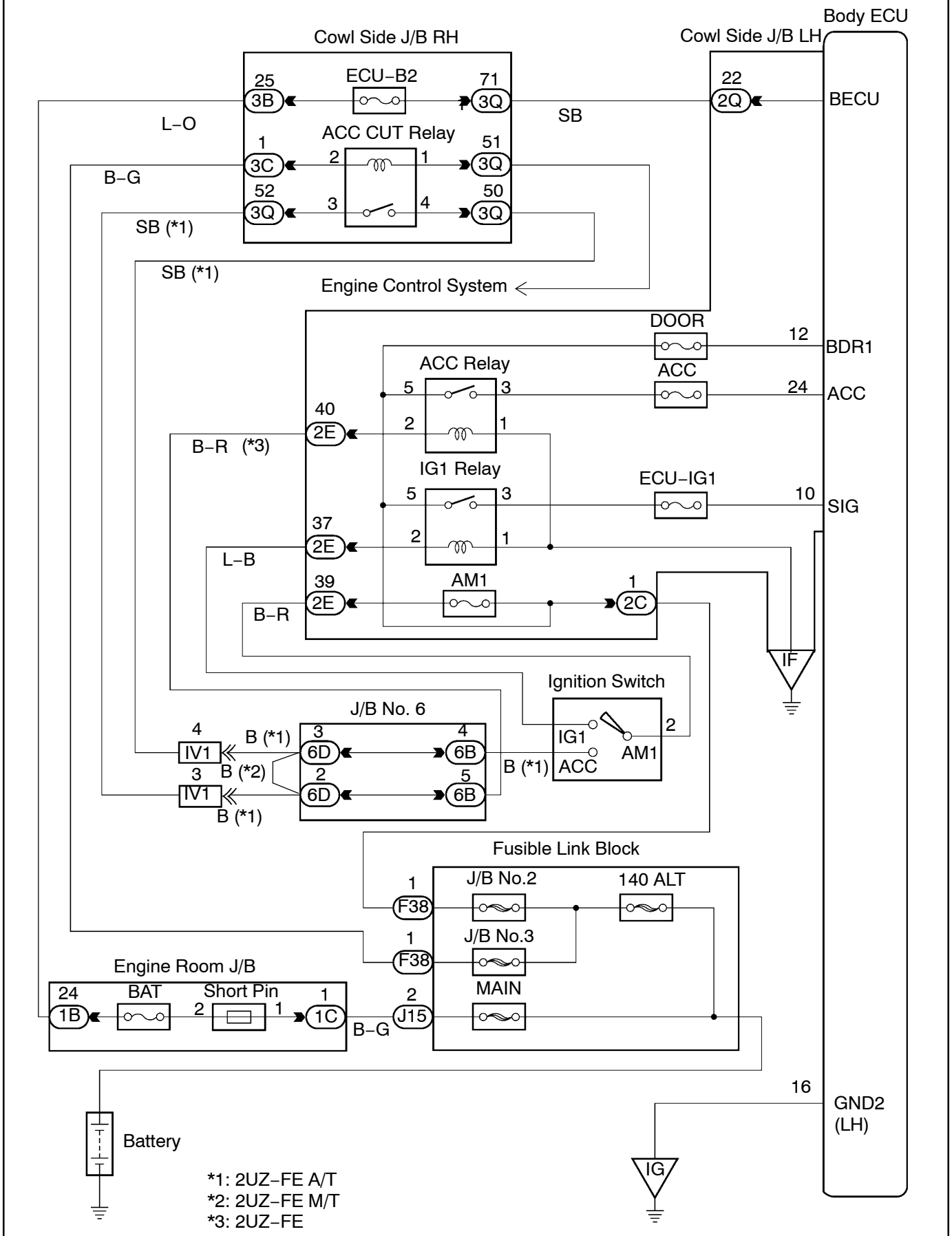
(b) If DTC of ECU communication stop is output, connectors may be disconnected, or communication buses may be open at 2 points. It will not become abnormal with only 1 communication bus open.



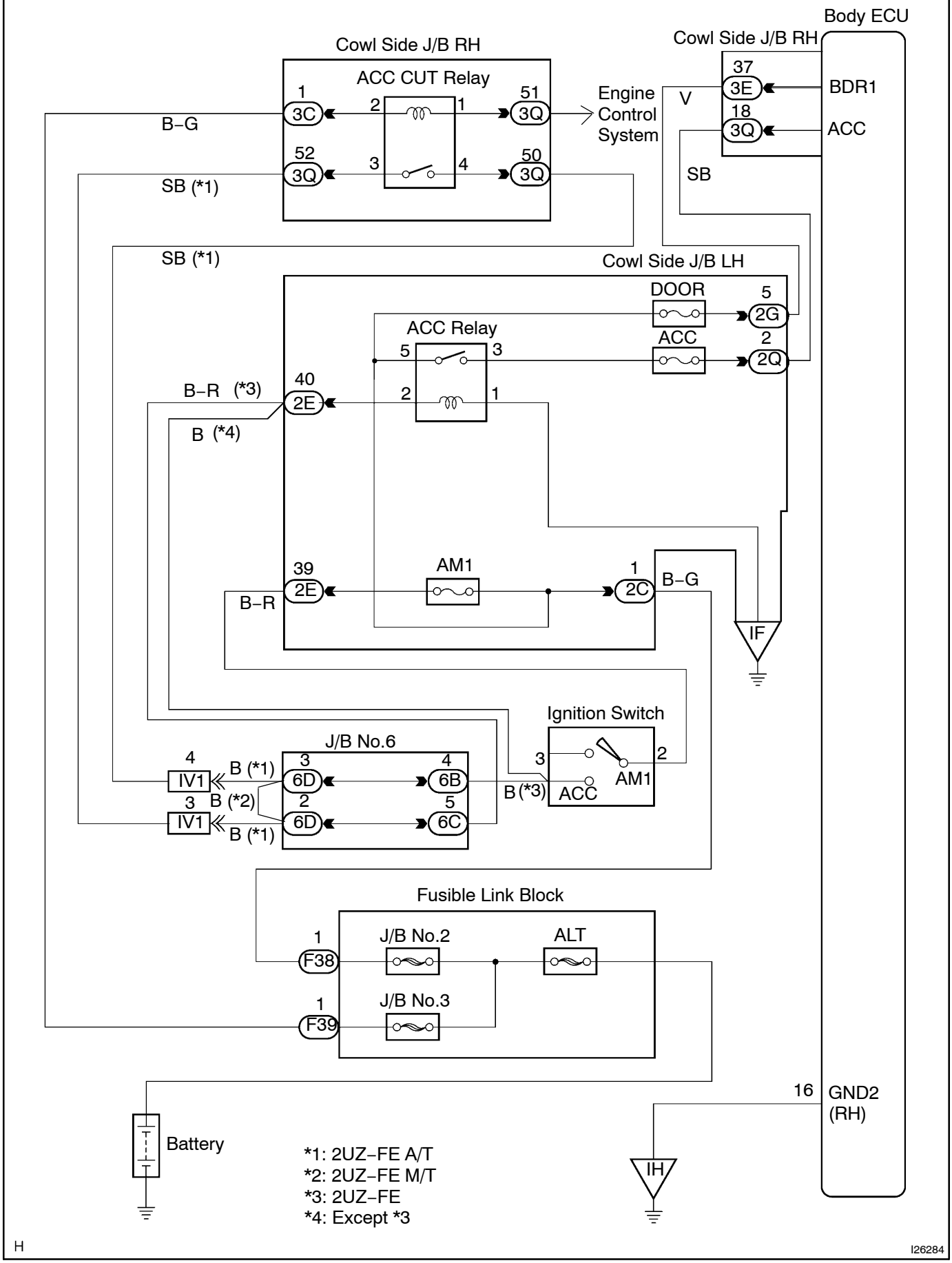
(c) If 2 communication buses are open at the position as shown in the illustration, DTC of ECU communication stop between those 2 buses is output.

2. BASIC INSPECTION

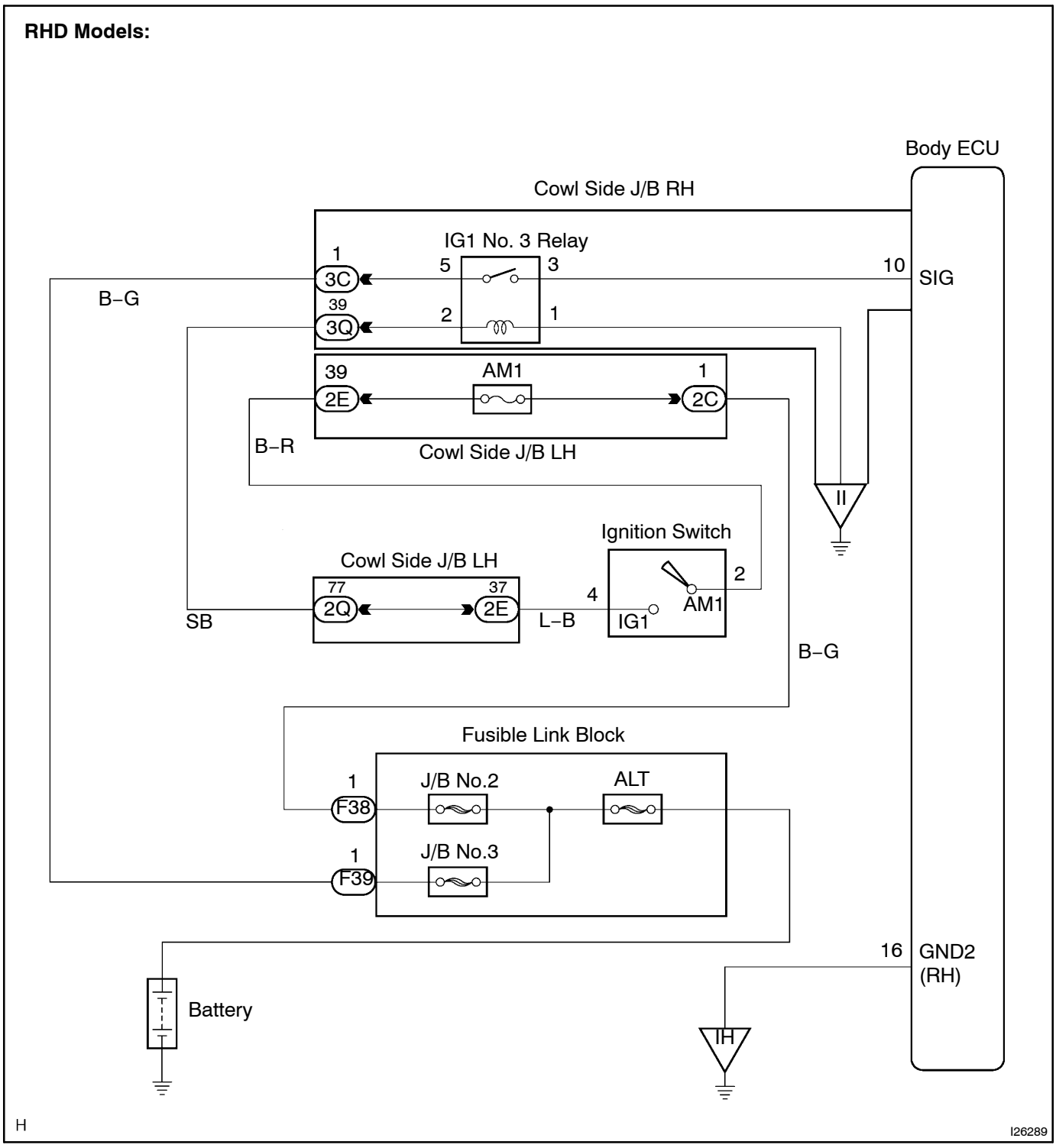
LHD Models:



RHD Models:


Body ECU
Cowl Side J/B RH
ACC CUT Relay
1
3C
2
1
51
3Q
B–G
52
3Q
3
4
50
3Q
SB (*1)
Engine Control System
V
Cowl Side J/B RH
37
3E
BDR1
18
3Q
ACC
SB
SB (*1)
Cowl Side J/B LH
DOOR
5
2G
ACC Relay
5
3
ACC
2
2Q
40
2E
B–R (*3)
2
1
B (*4)
39
2E
AM1
1
2C
B–G
B–R
IF
Ignition Switch
J/B No.6
4
IV1
B (*1)
3
6D
4
6B
3
2
B (*3)
ACC
AM1
3
IV1
B (*2)
B (*1)
2
6D
5
6C
Fusible Link Block
1
F38
J/B No.2
ALT
1
F39
J/B No.3
16
GND2
(RH)
Battery
IH
*1: 2UZ–FE A/T
*2: 2UZ–FE M/T
*3: 2UZ–FE
*4: Except *3
H
I26284

RHD Models:


Body ECU
Cowl Side J/B RH
IG1 No. 3 Relay
1
3C
5
3
10
SIG
B–G
39
3Q
2
1
39
AM1
1
2E
2C
B–R
Cowl Side J/B LH
II
Ignition Switch
Cowl Side J/B LH
77
37
2
2Q
2E
4
AM1
SB
L–B
IG1
B–G
Fusible Link Block
1
J/B No.2
ALT
F38
1
J/B No.3
F39
16
GND2
(RH)
Battery
IH
H
I26289

Inspect Body ECU.

1	**Check that the DTC can be read from Body ECU using hand–held tester.**

OK → **Go to step 3 ”DTC check”.**

NG

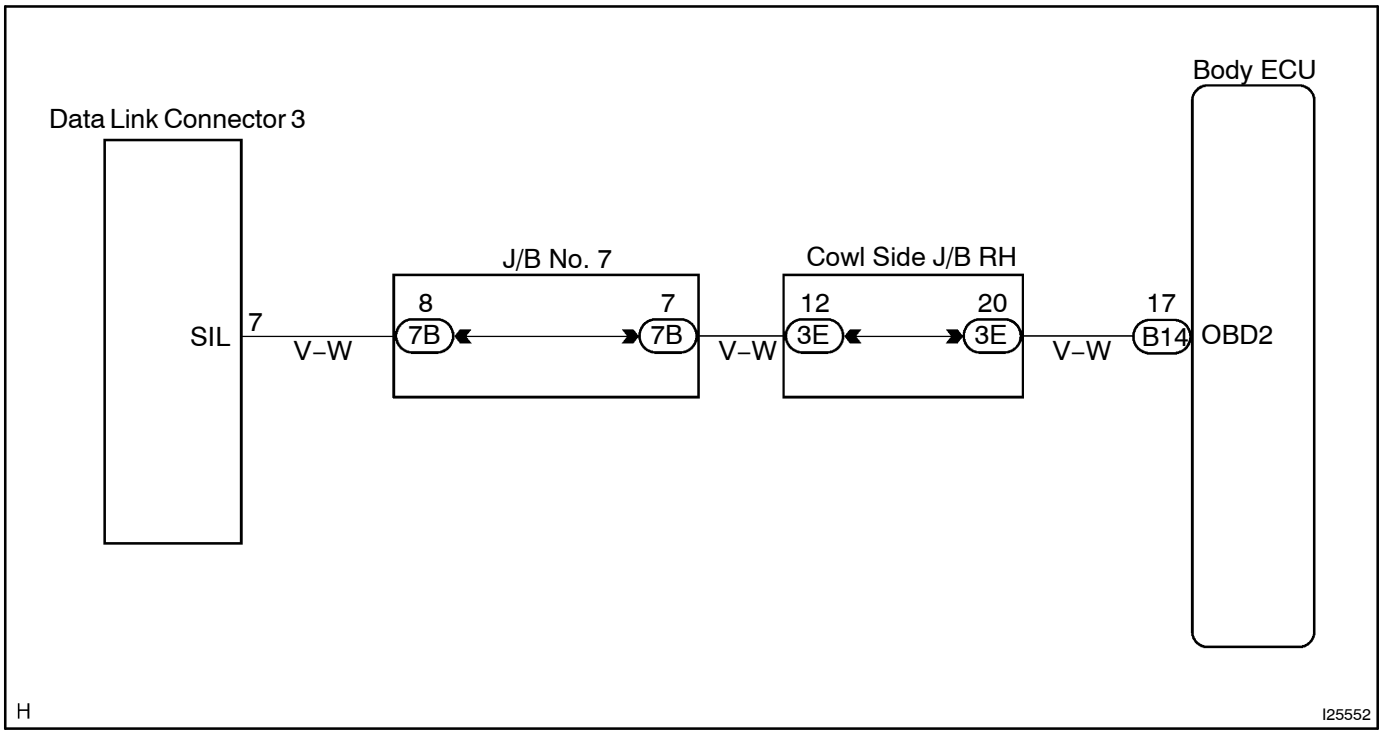
2	**Check the Body ECU power source circuit.**

PREPARATION:
Disconnect the Body ECU connector.
CHECK:
Check voltage terminal BECU, BDR1 SIG and GND.
OK:
Voltage: 10 – 14 V
CHECK:
Check continuity terminal GND1, 2 and body ground.
OK:
Continuity
PREPARATION:
Turn the ignition switch ON.
CHECK:
Check voltage terminal ACC and GND1, 2.
OK:
Voltage: 10 – 14 V

NG → **Replace or repair wire harness or connector.**

OK

3	**Check wire harness between Body ECU and DLC3.**

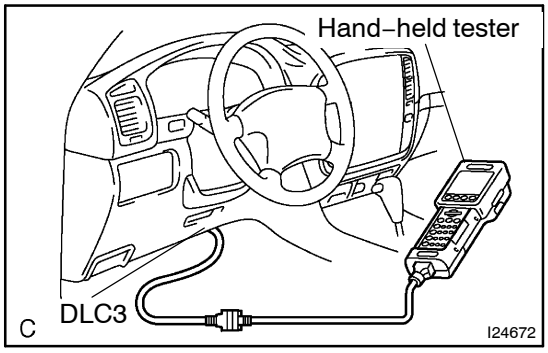


HINT:
If there is a failure on SIL line, hand–held tester cannot communicate with ECM or Airbag sensor assembly also.

NG → **Replace or repair wire harness or connector.**

OK

Replace the Body ECU.



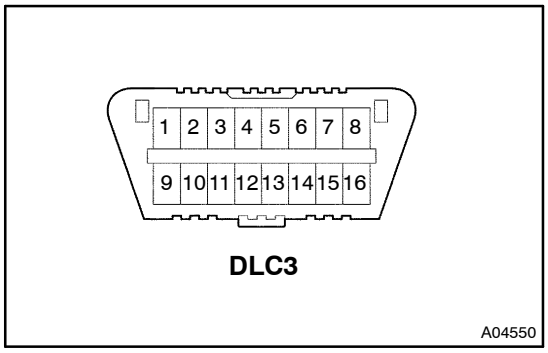
3. DTC CHECK (Using hand–held tester)

(a) Prepare a hand–held tester.

(b) Connect the hand–held tester to DLC3.

(c) Turn the ignition switch ON and switch the hand–held tester main switch ON.

(d) Use the hand–held tester to check the DTCs, and note them down. (For opening instructions, see the hand–held tester's instruction book.)



(e) Check the DLC3.
The vehicle's ECM uses ISO 9141–2 for communication. The terminal arrangement of DLC3 complies with SAE J1962 and matches the ISO 9141–2 format.

Terminal No.	Connection/Specified Condition	Condition
4 (CG)	Chassis Ground ↔ Body Ground/1 or less	Always
13 (TC)	TC ↔ Body Ground/9 – 14 V	Always

HINT:
If your display shows "UNABLE TO CONNECT TO VEHICLE" when you have connected the cable of the hand–held tester to DLC3, turned the ignition switch ON and operated the hand–held tester, there is a problem on the vehicle side or tool side.

- If communication is normal when the tool is connected to another vehicle, inspect DLC3 on the original vehicle.
- If communication is still not possible when the tool is connected to another vehicle, the problem is probably in the tool itself, so consult the Service Department listed in the tool's instruction manual.

4. DTC CLEARANCE

- PRESENT CODE:
  DTC will be cleared when the trouble output as DTC is recovered normally.
- PAST CODE:
  Clear it using the hand–held tester.