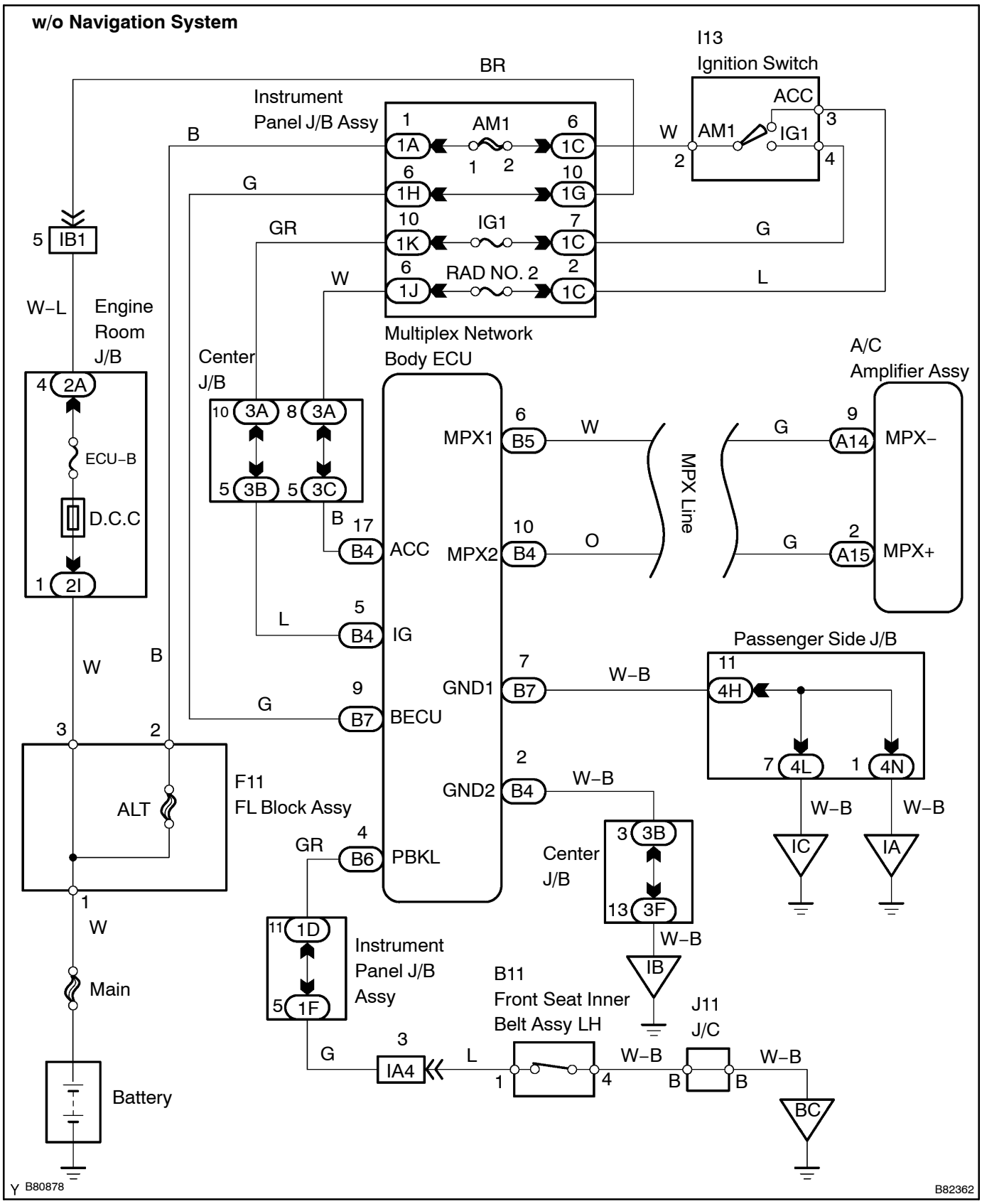
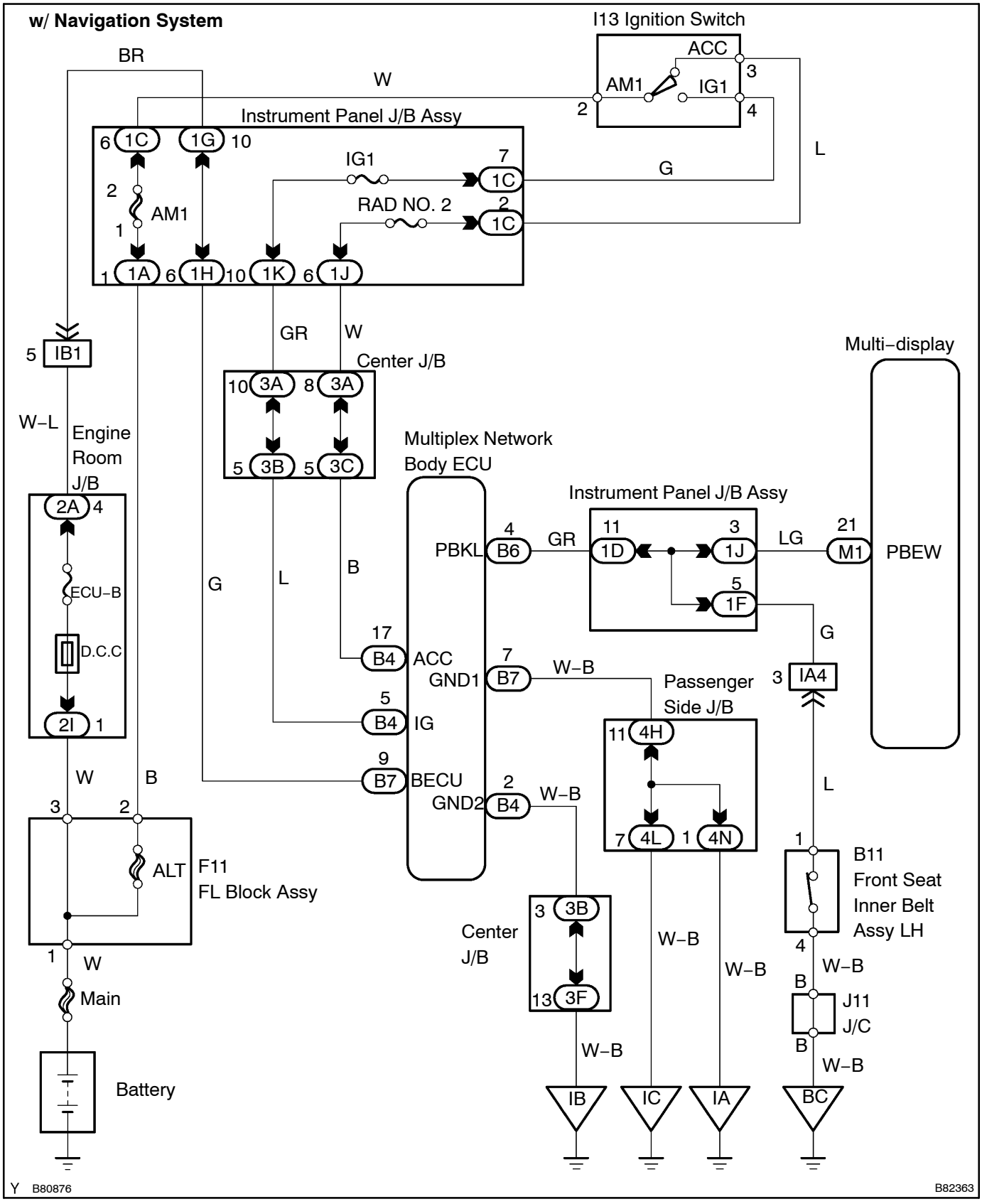
SEAT BELT WARNING LAMP FOR PASSENGER SEAT DOES NOT OPERATE

CIRCUIT DESCRIPTION

- w/o Navigation system:
  When the ignition switch is ON and the passenger seat is occupied, the multiplex network body ECU communicates the status of the front seat inner belt LH (passenger side) status to the air conditioner amplifier assy using the MPX line. When the seat belt is unfastened, the air conditioner amplifier assy flashes the passenger side seat belt warning lamp on the integration control and panel assy. When the seat belt is fastened, the air conditioner amplifier assy stops flashing the passenger side seat belt warning lamp.
- w/ Navigation system:
  When the ignition switch is ON and the passenger seat is occupied, the multiplex network body ECU and multi–display monitor the status of the front seat inner belt LH (passenger side) status. When the seat belt is unfastened, the passenger side seat belt warning lamp on the multi–display is caused to flash continuously. When the seat belt is fastened, the passenger side seat belt warning lamp is caused to stop flashing.

WIRING DIAGRAM




w/ Navigation System
I13 Ignition Switch
ACC
AM1
IG1
BR
W
Instrument Panel J/B Assy
1C
1G
IG1
RAD NO. 2
AM1
1A
1H
1K
1J
L
G
GR
W
Center J/B
3A
3B
3C
IB1
W–L
Engine Room J/B
2A
ECU–B
D.C.C
2I
Multiplex Network Body ECU
PBKL
B6
GR
1D
1J
1F
LG
M1
PBEW
Multi–display
B
L
G
B4
ACC
IG
B7
BECU
GND1
GND2
W–B
Passenger Side J/B
IA4
4H
4L
4N
W
B
ALT
F11
FL Block Assy
Main
Battery
Center J/B
3B
3F
IB
IC
IA
BC
B11
Front Seat Inner Belt Assy LH
J11
J/C
Y B80876
B82363

INSPECTION PROCEDURE

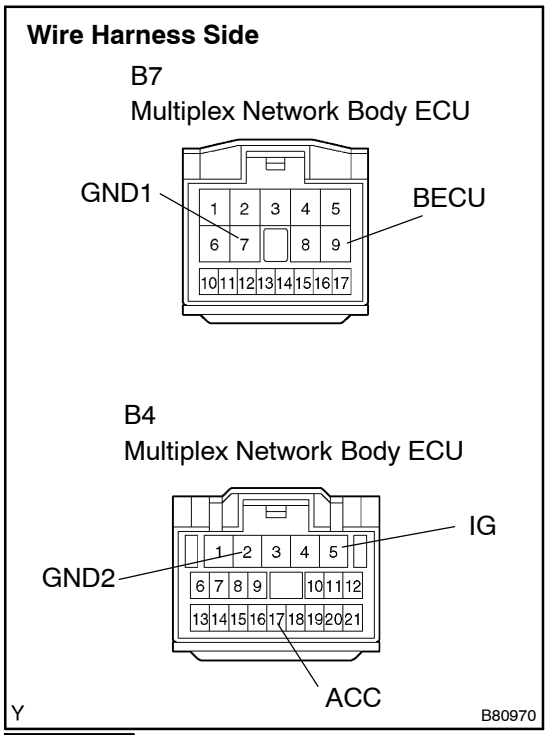
1	CHECK FUSE (ECU–B, IG1, RAD NO. 2, AM1)

(a) Remove the ECU–B fuse from the engine room J/B.
(b) Remove the IG1, RAD NO. 2 and AM1 fuses from the instrument panel J/B.
(c) Measure the resistance.
Standard: Below 1 Ω

NG → **REPLACE FUSE**

OK

2	CHECK WIRE HARNESS (MULTIPLEX NETWORK BODY ECU – BODY GROUND)



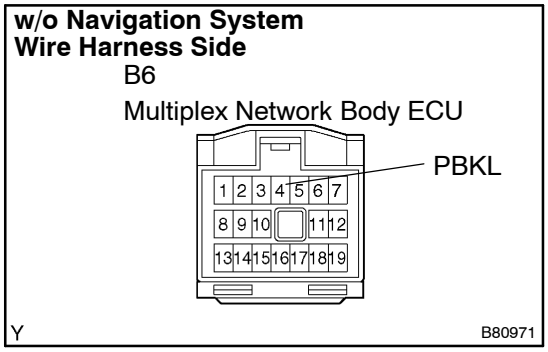
(a) Disconnect the B4 and B7 ECU connectors.
(b) Measure the voltage and resistance of the wire harness side connectors.
Standard:

Tester Connection	Condition	Specified Condition
B7–9 (BECU) – Body ground	Constant	10 to 14 V
B4–5 (IG) – Body ground	Ignition switch OFF → ON	0 V → 10 to 14 V
B4–17 (ACC) – Body ground	Ignition switch OFF → ON	0 V → 10 to 14 V
B7–7 (GND1) – Body ground	Constant	Below 1 Ω
B4–2 (GND2) – Body ground	Constant	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

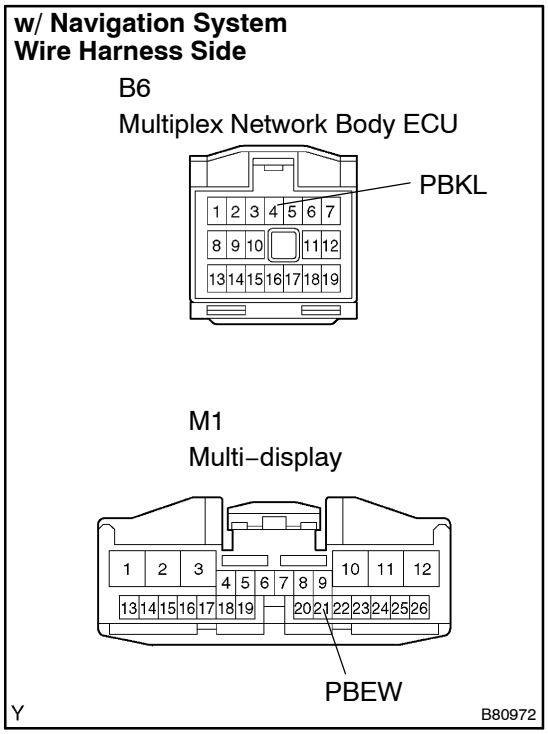
3 CHECK WIRE HARNESS (MULTIPLEX NETWORK BODY ECU OR MULTI–DISPLAY – BODY GROUND)



(a) w/o Navigation system:
Check the wire harness between the multiplex network body ECU and body ground.
(1) Disconnect the B6 ECU connector.
(2) Measure the resistance of the wire harness side connector.

Standard:

Tester Connection	Condition	Specified Condition
B6–4 (PBKL) – Body ground	Seat belt is unfastened Seat is not occupied	10 kΩ or higher
B6–4 (PBKL) – Body ground	Seat belt is unfastened Seat is occupied	Below 1 Ω
B6–4 (PBKL) – Body ground	Seat belt is fastened Seat is occupied	10 kΩ or higher



(b) w/ Navigation system:
Check the wire harness between the multiplex network body ECU or multi–display and body ground.
(1) Disconnect the B6 ECU connector.
(2) Disconnect the M1 multi–display connector.
(3) Measure the resistance of the wire harness side connectors.

Standard:

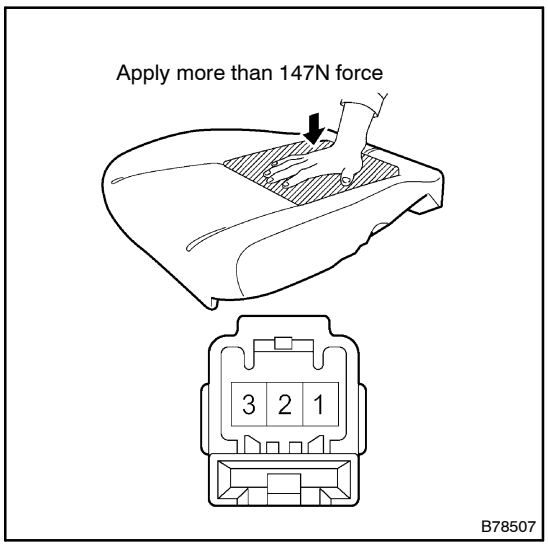
Tester Connection	Switch Condition	Specified Condition
B6–4 (PBKL) – Body ground	Seat belt is unfastened Seat is not occupied	10 kΩ or higher
B6–4 (PBKL) – Body ground	Seat belt is unfastened Seat is occupied	Below 1 Ω
B6–4 (PBKL) – Body ground	Seat belt is fastened Seat is occupied	10 kΩ or higher
M1–21 (PBEW) – Body ground	Seat belt is unfastened Seat is not occupied	10 kΩ or higher
M1–21 (PBEW) – Body ground	Seat belt is unfastened Seat is occupied	Below 1 Ω
M1–21 (PBEW) – Body ground	Seat belt is fastened Seat is occupied	10 kΩ or higher

NG → **Go to step 4**

OK

Go to step 7

4 CHECK OCCUPANT DETECTION SENSOR



(a) Disconnect the occupant detection sensor connector.
(b) Measure the resistance of the wire harness side connector.

Standard:

Tester Connection	Condition	Specified Condition
1 – 3	Apply more than 147N force to occupant detection sensor	Below 1 Ω
1 – 3	Free	10 kΩ or higher

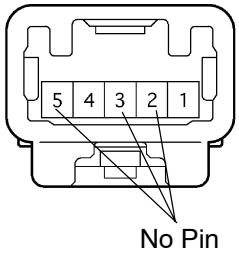
NG → **REPLACE SEPARATE TYPE FRONT SEAT CUSHION PAD**

OK

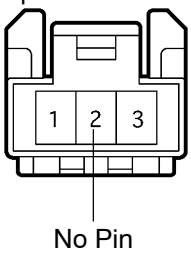
5 CHECK FRONT SEAT INNER BELT ASSY LH

Wire Harness Side

B11
Front Seat Inner Belt Assy LH



Connector A
Occupant Detection Sensor



B78508

(a) Disconnect the B11 belt connector.
(b) Disconnect the occupant detection sensor connector.
(c) Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Switch Condition	Specified Condition
B11–4 – A–3	Seat belt is fastened	10 kΩ or higher
B11–4 – A–3	Seat belt is unfastened	Below 1 Ω

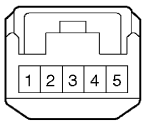
NG → **REPLACE FRONT SEAT INNER BELT ASSY LH**

OK

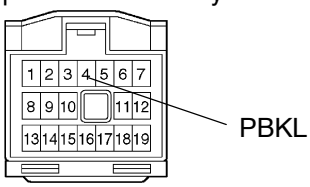
6	CHECK WIRE HARNESS (FRONT SEAT INNER BELT ASSY LH – MULTIPLEX NETWORK BODY ECU, MULTI–DISPLAY AND BODY GROUND)

w/o Navigation System
Wire Harness Side

B11
Front Seat Inner
Belt Assy LH



B6
Multiplex Network Body ECU



B80973 B81431

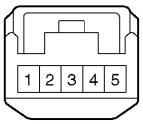
(a) w/o Navigation system:
Check the wire harness between the front seat inner belt and multiplex network body ECU or body ground.
(1) Disconnect the B11 belt connector.
(2) Disconnect the B6 ECU connector.
(3) Measure the resistance of the wire harness side connectors.

Standard:

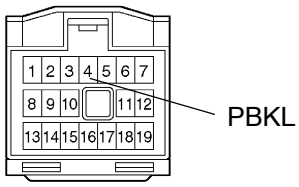
Tester Connection	Specified Condition
B11–1 – B6–4 (PBKL)	Below 1 Ω
B11–4 – Body ground	Below 1 Ω

w/ Navigation System
Wire Harness Side

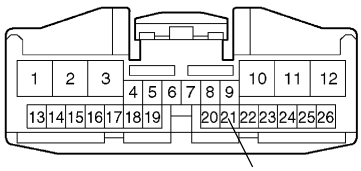
B11
Front Seat Inner
Belt Assy LH



B6
Multiplex Network Body ECU



M1
Multi–display



Y B80974 B81432

(b) w/ Navigation system:
Check the wire harness between the front seat inner belt and multiplex network body ECU, multi–display or body ground.
(1) Disconnect the B11 belt connector.
(2) Disconnect the B6 ECU connector.
(3) Disconnect the M1 multi–display connector.
(4) Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
B11–1 – B6–4 (PBKL)	Below 1 Ω
B11–1 – M1–21 (PBEW)	Below 1 Ω
B11–4 – Body ground	Below 1 Ω

OK	REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

END

7	CHECK MULTIPLEX NETWORK BODY ECU

(a) Replace the multiplex network body ECU with a normally functioning ECU and turn the ignition switch ON. When the passenger seat is occupied, check that the passenger side seat belt warning lamp starts flashing and that fastening the seat belt stops flashing the seat belt warning lamp.
OK:
When the passenger seat is occupied, the passenger side seat belt warning lamp starts flashing, and fastening the seat belt stops flashing the seat belt warning lamp.
(1) If the result is as specified, proceed to A.
(2) For the vehicle without the navigation system, if the result is not as specified, proceed to B.
(3) For the vehicle with the navigation system, if the result is not as specified, proceed to C.

B	Go to step 8
C	Go to step 9

A

REPLACE MULTIPLEX NETWORK BODY ECU

8	CHECK INTEGRATION CONTROL & PANEL ASSY (A/C AMPLIFIER ASSY)

(a) Check that the air conditioning system operates.
OK: The system operates normally.

NG	Go to AIR CONDITIONING SYSTEM (See page 05–420)

OK

REPLACE INTEGRATION CONTROL & PANEL ASSY

9	CHECK MULTI–DISPLAY

(a) Check that graphics are displayed on the multi–display.
OK: Graphics are displayed on the multi–display normally.

NG	Go to NAVIGATION SYSTEM (See page 05–851)

OK

REPLACE MULTI–DISPLAY