Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002B6IE
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: NETWORKING: CAN COMMUNICATION SYSTEM (for PHEV Model): U01BD87,...,U117B87; Lost Communication with DC/DC Converter Control Module "C" Missing Message; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**U01BD87**	**Lost Communication with DC/DC Converter Control Module "C" Missing Message**

DTC	**U029100**	**Lost Communication with Gear Shift Control Module "B" (System 2) Missing Message**

DTC	**U029187**	**Lost Communication with Gear Shift Control Module "B" Missing Message**

DTC	**U113A87**	**Lost Communication with Solar Charging Control Module Missing Message**

DTC	**U115087**	**Lost Communication with Hybrid Powertrain Control Module (ch2) Missing Message**

DTC	**U115187**	**Lost Communication with Hybrid/EV Powertrain Control Module (ch3) Missing Message**

DTC	**U115387**	**Lost Communication with Battery Charger Control Module "A" (ch2) Missing Message**

DTC	**U117687**	**Lost Communication with Gear Shift Control Module "A" (Powertrain Bus) Missing Message**

DTC	**U117B87**	**Lost Communication with Hybrid/EV Battery Energy Control Module "A" (ch2) Missing Message**

DESCRIPTION

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	NOTE
U01BD87	Lost Communication with DC/DC Converter	Communication stops between the hybrid vehicle	• CAN main/branch	DTC Output from

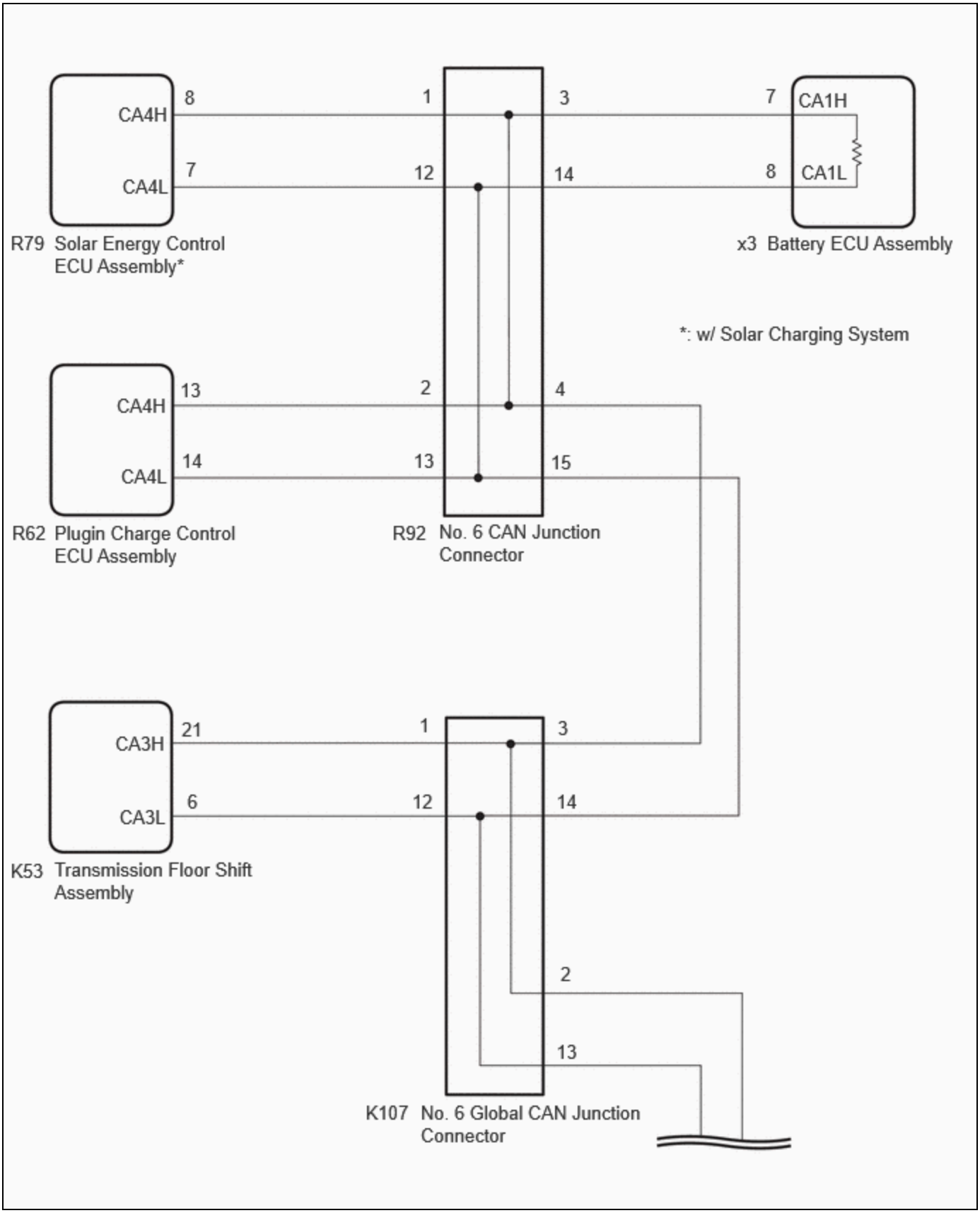
DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	NOTE
	Control Module "C" Missing Message	control ECU and the inverter with converter assembly.	bus lines or connector • Hybrid vehicle control ECU • Inverter with converter assembly • No. 2 junction connector	• Hybrid vehicle control ECU
U029100	Lost Communication with Gear Shift Control Module "B" (System 2) Missing Message	Communication stops between the transmission floor shift assembly and the shift control actuator assembly.	• CAN main/branch bus lines or connector • Transmission floor shift assembly • Shift control actuator assembly • No. 6 global CAN junction connector • No. 2 junction connector	DTC Output from • Transmission floor shift assembly
U029187	Lost Communication with Gear Shift Control Module "B" Missing Message	Communication stops between the hybrid vehicle control ECU and the shift control actuator assembly.	• CAN main/branch bus lines or connector • Hybrid vehicle control ECU • Shift control actuator assembly • No. 2 junction connector	DTC Output from • Hybrid vehicle control ECU
U113A87	Lost Communication with Solar Charging Control Module Missing Message	Communication stops between the plugin charge control ECU assembly and the solar energy control ECU assembly.	• CAN main/branch bus lines or connector • Plugin charge control ECU assembly • Solar energy control ECU assembly • No. 6 CAN junction connector	DTC Output from • Plugin charge control ECU assembly

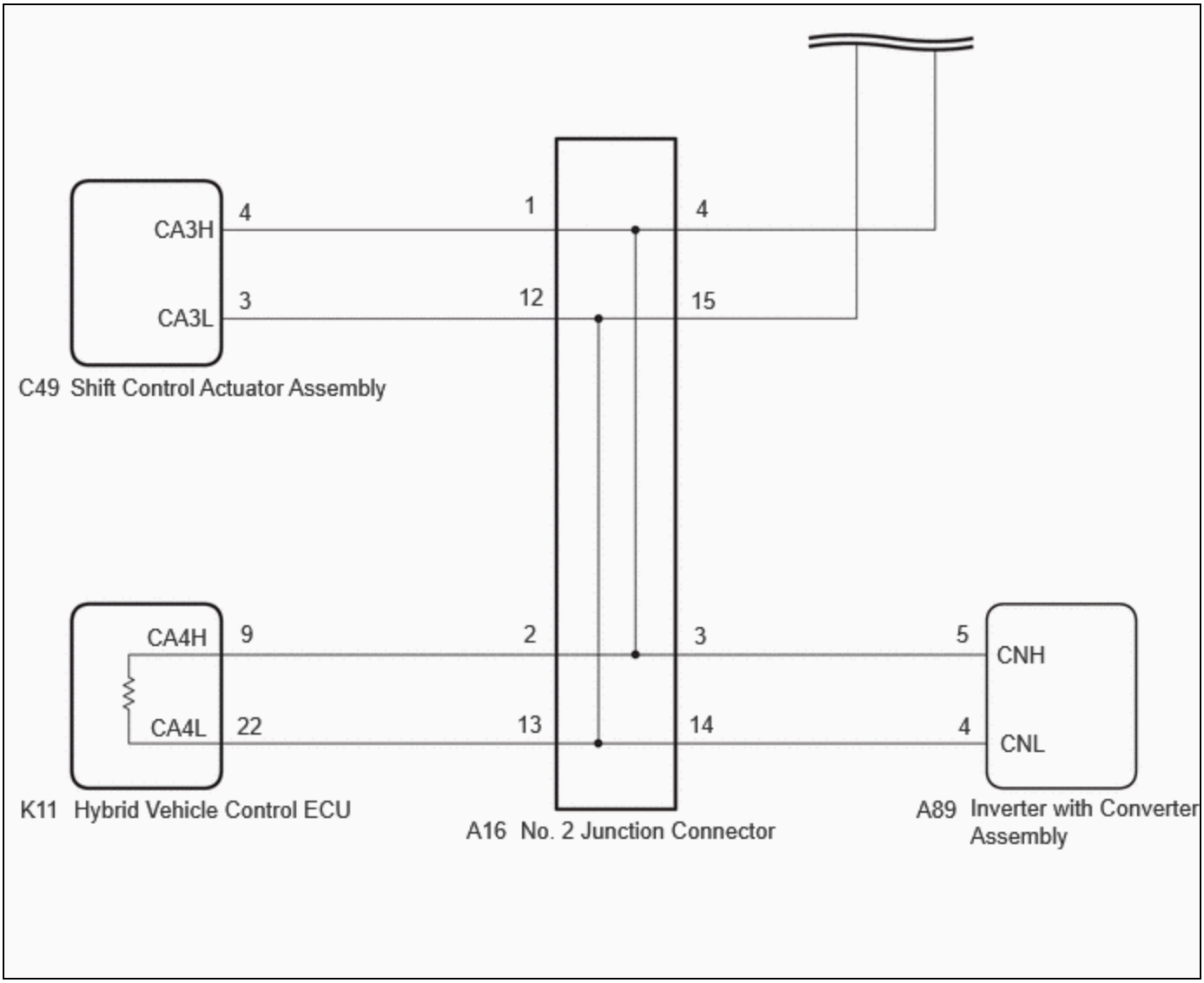
DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	NOTE
			• No. 6 global CAN junction connector • No. 2 junction connector	
U115087	Lost Communication with Hybrid Powertrain Control Module (ch2) Missing Message	Communication stops between the battery ECU assembly or solar energy control ECU assembly and the hybrid vehicle control ECU.	• CAN main/branch bus lines or connector • Battery ECU assembly • Hybrid vehicle control ECU • Solar energy control ECU assembly • No. 6 CAN junction connector • No. 6 global CAN junction connector • No. 2 junction connector	DTC Output from • Battery ECU assembly • Solar energy control ECU assembly
U115187	Lost Communication with Hybrid/EV Powertrain Control Module (ch3) Missing Message	Communication stops between the plugin charge control ECU assembly and the hybrid vehicle control ECU.	• CAN main/branch bus lines or connector • Hybrid vehicle control ECU • Plugin charge control ECU assembly • No. 6 CAN junction connector • No. 6 global CAN junction connector • No. 2 junction connector	DTC Output from • Plugin charge control ECU assembly
U115387	Lost Communication with Hybrid/EV Battery Charger Control Module "A" (ch2) Missing Message	Communication stops between the battery ECU assembly or hybrid vehicle control ECU or solar energy control ECU assembly and	• CAN main/branch bus lines or connector • Battery ECU assembly	DTC Output from • Battery ECU assembly • Hybrid vehicle control ECU

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	NOTE
		the plugin charge control ECU assembly.	• Hybrid vehicle control ECU • Plugin charge control ECU assembly • Solar energy control ECU assembly • No. 6 CAN junction connector • No. 6 global CAN junction connector • No. 2 junction connector	• Solar energy control ECU assembly
U117687	Lost Communication with Gear Shift Control Module "A" (Powertrain Bus) Missing Message	Communication stops between the hybrid vehicle control ECU and the transmission floor shift assembly.	• CAN main/branch bus lines or connector • Hybrid vehicle control ECU • Transmission floor shift assembly • No. 6 Global CAN junction connector • No. 2 junction connector	DTC Output from • Hybrid vehicle control ECU
U117B87	Lost Communication with Hybrid/EV Battery Energy Control Module "A" (ch2) Missing Message	Communication stops between the hybrid vehicle control ECU or plugin charge control ECU assembly or solar energy control ECU assembly and the battery ECU assembly.	• CAN main/branch bus lines or connector • Hybrid vehicle control ECU • Battery ECU assembly • Solar energy control ECU assembly • Plugin charge control ECU assembly • No. 6 CAN junction connector • No. 6 global CAN junction	DTC Output from • Hybrid vehicle control ECU • Solar energy control ECU assembly • Plugin charge control ECU assembly

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	NOTE
			connector • No. 2 junction connector	

WIRING DIAGRAM


CA4H
8
CA4L
7
R79 Solar Energy Control ECU Assembly*
1
12
3
14
7
CA1H
8
CA1L
x3 Battery ECU Assembly
*: w/ Solar Charging System
CA4H
13
CA4L
14
R62 Plugin Charge Control ECU Assembly
2
13
4
15
R92 No. 6 CAN Junction Connector
CA3H
21
CA3L
6
K53 Transmission Floor Shift Assembly
1
12
3
14
2
13
K107 No. 6 Global CAN Junction Connector



CAUTION / NOTICE / HINT

CAUTION:

When performing the confirmation driving pattern, obey all speed limits and traffic laws.

NOTICE:

- Because the order of diagnosis is important to allow correct diagnosis, make sure to begin troubleshooting using How to Proceed with Troubleshooting when CAN communication system related DTCs are output.

  Click here INFO
- Before measuring the resistance of the CAN bus, turn the ignition switch off and leave the vehicle for 1 minute or more without operating the key or any switches, or opening or closing the doors. After that, disconnect the cable from the negative (-) auxiliary battery terminal and leave the vehicle for 10 minutes or more before measuring the resistance.
- After the ignition switch is turned off, there may be a waiting time before disconnecting the negative (-) auxiliary battery terminal.

  Click here INFO
- When disconnecting and reconnecting the auxiliary battery.

HINT:

When disconnecting and reconnecting the auxiliary battery, there is an automatic learning function that completes learning when the respective system is used.

Click here INFO

- Some parts must be initialized and set when replacing or removing and installing parts.

Click here INFO

- After performing repairs, perform the DTC check procedure and confirm that the DTCs are not output again.

  DTC check procedure: Turn the ignition switch to ON and wait for 1 minute or more. Then operate the suspected malfunctioning system and drive the vehicle at 60 km/h (37 mph) or more for 5 minutes or more.

- After the repair, perform the CAN bus check and check that all the ECUs and sensors connected to the CAN communication system are displayed as normal.

Click here INFO

- Before replacing the hybrid vehicle control ECU, refer to Registration.

Click here INFO

HINT:

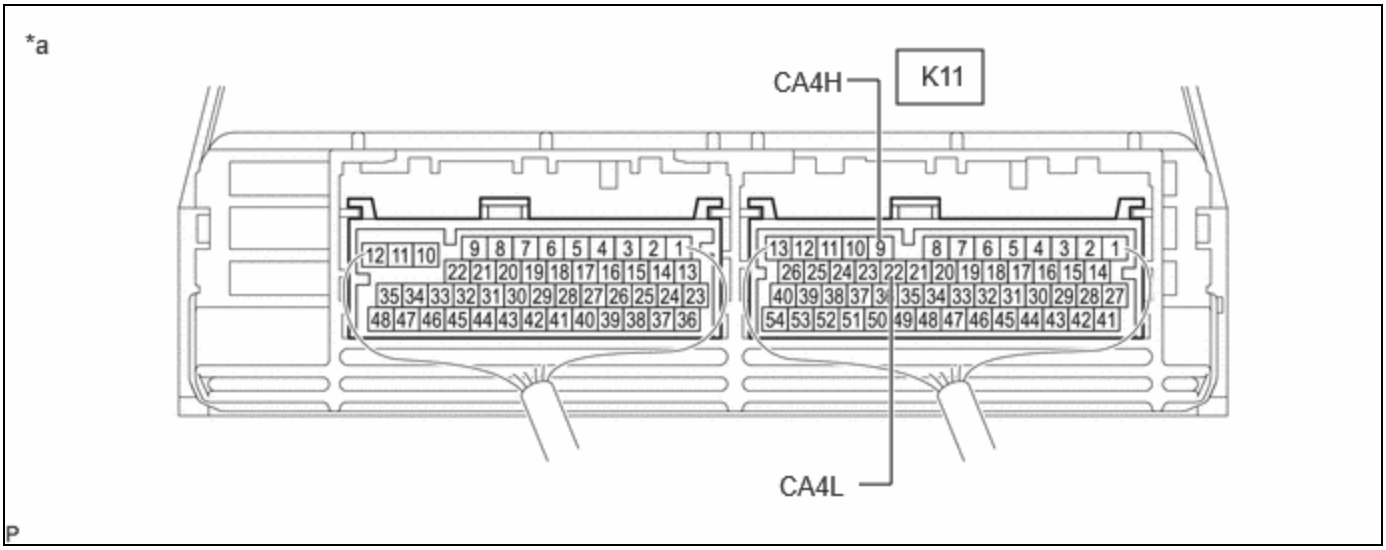
- Before disconnecting related connectors for inspection, push in on each connector body to check that the connector is not loose or disconnected.
- When a connector is disconnected, check that the terminals and connector body are not cracked, deformed or corroded.

PROCEDURE

1.	**CHECK FOR OPEN IN CAN MAIN BUS LINES**

(a) Disconnect the cable from the negative (-) auxiliary battery terminal.

(b) Measure the resistance according to the value(s) in the table below.



*a	Component with harness connected (Hybrid Vehicle Control ECU)	-	-

Standard Resistance:

EWD INFO

Click Location & Routing(K11)
Click Connector(K11)

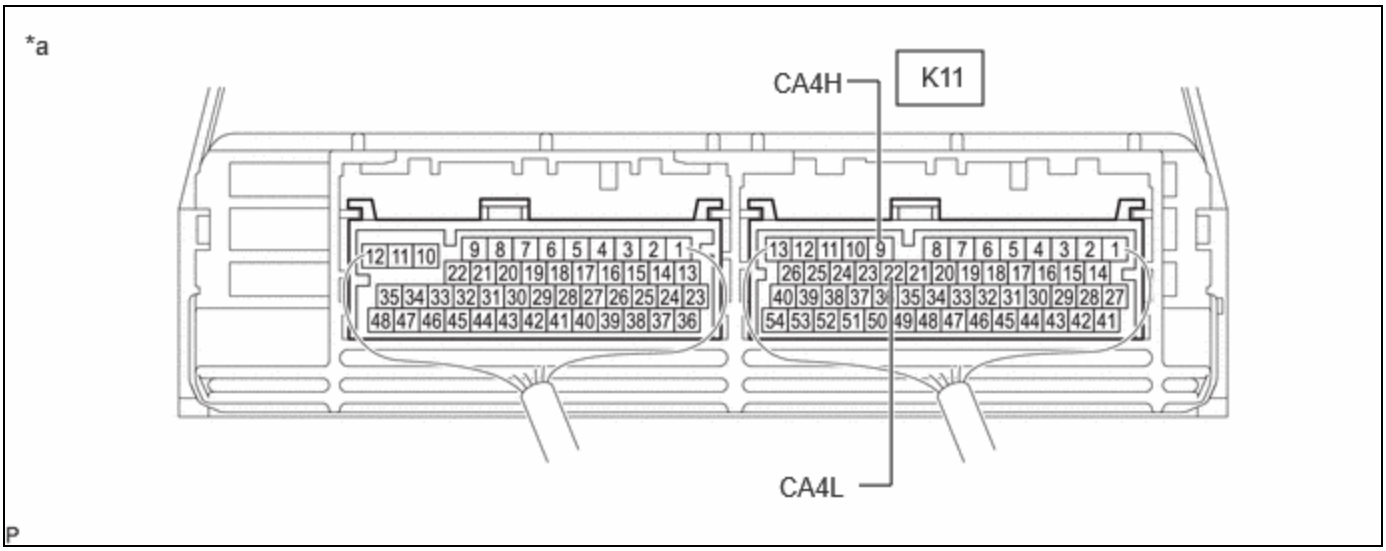
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K11-9 (CA4H) - K11-22 (CA4L)	Cable disconnected from negative (-) auxiliary battery terminal	Below 70 Ω

NG ▶ **GO TO STEP 62**

OK ▼

2.	**CHECK FOR SHORT IN CAN BUS LINES**

(a) Measure the resistance according to the value(s) in the table below.



*a	Component with harness connected (Hybrid Vehicle Control ECU)	-	-

Standard Resistance:

EWD INFO

Click Location & Routing(K11)
Click Connector(K11)

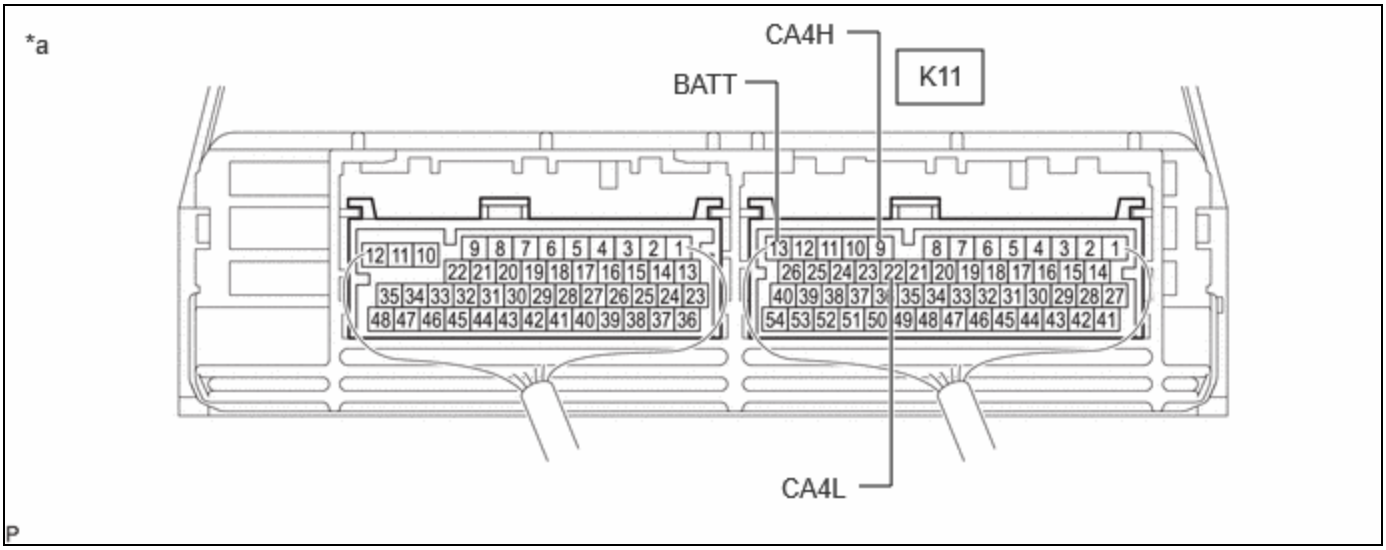
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K11-9 (CA4H) - K11-22 (CA4L)	Cable disconnected from negative (-) auxiliary battery terminal	54 Ω or higher

NG ▶ **GO TO STEP 43**

OK

3.	**CHECK FOR SHORT TO +B IN CAN BUS LINE**

(a) Measure the resistance according to the value(s) in the table below.



*a	Component with harness connected (Hybrid Vehicle Control ECU)	-	-

Standard Resistance:

EWD INFO

Click Location & Routing(K11)
Click Connector(K11)

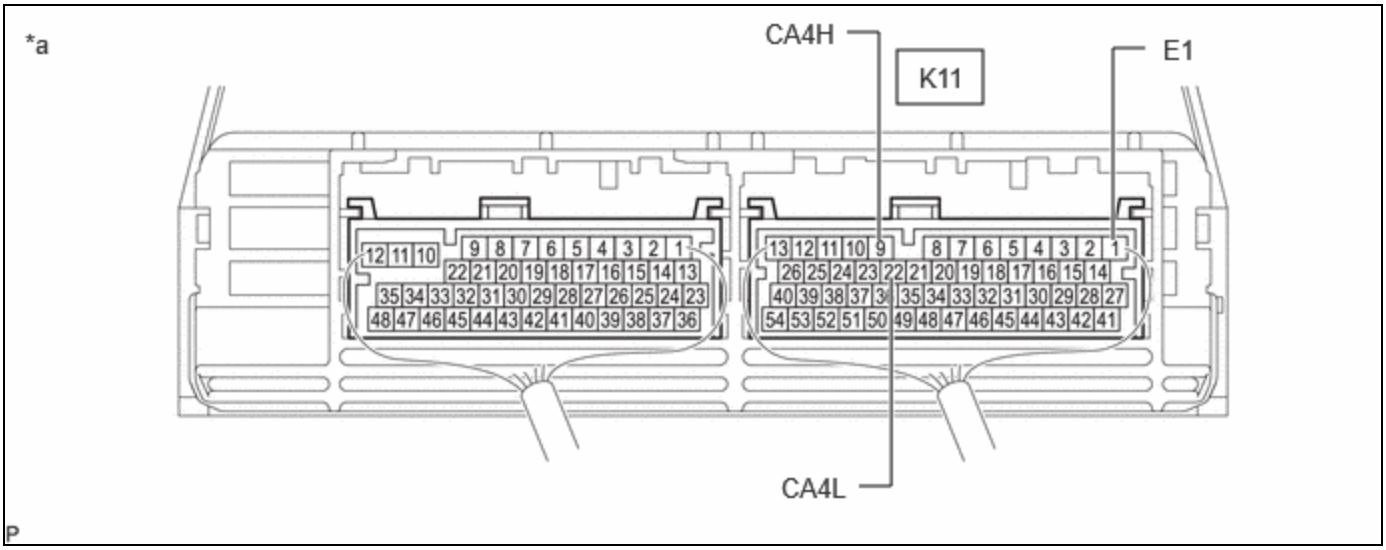
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K11-9 (CA4H) - K11-13 (BATT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K11-22 (CA4L) - K11-13 (BATT)		

NG ▶ **GO TO STEP 24**

OK

4.	**CHECK FOR SHORT TO GND IN CAN BUS LINE**

(a) Measure the resistance according to the value(s) in the table below.



*a	Component with harness connected (Hybrid Vehicle Control ECU)	-	-

Standard Resistance:

EWD INFO

Click Location & Routing(K11)
Click Connector(K11)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K11-9 (CA4H) - K11-1 (E1)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K11-22 (CA4L) - K11-1 (E1)		

OK ▶ **INSPECT FOR INTERMITTENT PROBLEMS**

NG ▼

5.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

(a) Disconnect the A16 No. 2 junction connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)

Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-2 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
A16-13 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 9**

OK ▼

6.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-4 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
A16-15 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 12**

OK ▼

7.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - SHIFT CONTROL ACTUATOR ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
A16-12 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 10**

OK ▼

8.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - INVERTER WITH CONVERTER ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-3 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
A16-14 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE NO. 2 JUNCTION CONNECTOR**

NG ▶ **GO TO STEP 11**

9.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

(a) Disconnect the K11 hybrid vehicle control ECU connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-2 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
A16-13 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE HYBRID VEHICLE CONTROL ECU**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

10.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - SHIFT CONTROL ACTUATOR ASSEMBLY)**

(a) Disconnect the C49 shift control actuator assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
A16-12 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE SHIFT CONTROL ACTUATOR ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 2 JUNCTION CONNECTOR - SHIFT CONTROL ACTUATOR ASSEMBLY)**

11.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - INVERTER WITH CONVERTER ASSEMBLY)**

(a) Disconnect the A89 inverter with converter assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-3 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
A16-14 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE INVERTER WITH CONVERTER ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 2 JUNCTION CONNECTOR - INVERTER WITH CONVERTER ASSEMBLY)**

12.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 JUNCTION CONNECTOR)**

(a) Disconnect the K107 No. 6 global CAN junction connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107,K8)
Click Connector(K107)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-2 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K107-13 (CANL) - K8-4 (CG)		

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 JUNCTION CONNECTOR)**

OK ▼

13.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 6 CAN JUNCTION CONNECTOR)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107,K8)
Click Connector(K107)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-3 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K107-14 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 16**

OK ▼

14.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - TRANSMISSION FLOOR SHIFT ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107,K8)
Click Connector(K107)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K107-12 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE NO. 6 GLOBAL CAN JUNCTION CONNECTOR**

NG ▼

15.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - TRANSMISSION FLOOR SHIFT ASSEMBLY)**

(a) Disconnect the K53 transmission floor shift assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107,K8)
Click Connector(K107)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K107-12 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE TRANSMISSION FLOOR SHIFT ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - TRANSMISSION FLOOR SHIFT ASSEMBLY)**

16.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

(a) Disconnect the R92 No. 6 CAN junction connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-4 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
R92-15 (CANL) - K8-4 (CG)		

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

OK ▼

17.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - BATTERY ECU ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-3 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
R92-14 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 21**

OK ▼

18.	**CHECK VEHICLE TYPE**

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Solar Charging System	A
w/o Solar Charging System	B

B ▶ **GO TO STEP 20**

A

19.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - SOLAR ENERGY CONTROL ECU ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
R92-12 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 22**

OK

20.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - PLUGIN CHARGE CONTROL ECU ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-2 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
R92-13 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE NO. 6 CAN JUNCTION CONNECTOR**

NG ▶ **GO TO STEP 23**

21.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - BATTERY ECU ASSEMBLY)**

(a) Disconnect the x3 battery ECU assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-3 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
R92-14 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE BATTERY ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - BATTERY ECU ASSEMBLY)**

22.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - SOLAR ENERGY CONTROL ECU ASSEMBLY)**

(a) Disconnect the R79 solar energy control ECU assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
R92-12 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE SOLAR ENERGY CONTROL ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - SOLAR ENERGY CONTROL ECU ASSEMBLY)**

23.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - PLUGIN CHARGE CONTROL ECU ASSEMBLY)**

(a) Disconnect the R62 plugin charge control ECU assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-2 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
R92-13 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE PLUGIN CHARGE CONTROL ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - PLUGIN CHARGE CONTROL ECU ASSEMBLY)**

24.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

(a) Disconnect the A16 No. 2 junction connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-2 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
A16-13 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 28**

OK ▼

25.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-4 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
A16-15 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 31**

OK ▼

26.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - SHIFT CONTROL ACTUATOR ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
A16-12 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 29**

OK ▼

27.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - INVERTER WITH CONVERTER ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-3 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
A16-14 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE NO. 2 JUNCTION CONNECTOR**

NG ▶ **GO TO STEP 30**

28.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

(a) Disconnect the K11 hybrid vehicle control ECU connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-2 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
A16-13 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE HYBRID VEHICLE CONTROL ECU**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

29.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - SHIFT CONTROL ACTUATOR ASSEMBLY)**

(a) Disconnect the C49 shift control actuator assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
A16-12 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE SHIFT CONTROL ACTUATOR ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 2 JUNCTION CONNECTOR - SHIFT CONTROL ACTUATOR ASSEMBLY)**

30.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 2 JUNCTION CONNECTOR - INVERTER WITH CONVERTER ASSEMBLY)**

(a) Disconnect the A89 inverter with converter assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16,K8)
Click Connector(A16)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-3 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
A16-14 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE INVERTER WITH CONVERTER ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 2 JUNCTION CONNECTOR - INVERTER WITH CONVERTER ASSEMBLY)**

31.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 JUNCTION CONNECTOR)**

(a) Disconnect the K107 No. 6 global CAN junction connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107,K8)
Click Connector(K107)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-2 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K107-13 (CANL) - K8-16 (BAT)		

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 JUNCTION CONNECTOR)**

OK ▼

32.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 6 CAN JUNCTION CONNECTOR)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107,K8)
Click Connector(K107)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-3 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-14 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 35**

OK ▼

33.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - TRANSMISSION FLOOR SHIFT ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107,K8)
Click Connector(K107)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K107-12 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE NO. 6 GLOBAL CAN JUNCTION CONNECTOR**

NG ▼

34.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - TRANSMISSION FLOOR SHIFT ASSEMBLY)**

(a) Disconnect the K53 transmission floor shift assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107,K8)
Click Connector(K107)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K107-12 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE TRANSMISSION FLOOR SHIFT ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - TRANSMISSION FLOOR SHIFT ASSEMBLY)**

35.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

(a) Disconnect the R92 No. 6 CAN junction connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-4 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
R92-15 (CANL) - K8-16 (BAT)		

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

OK

36.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - BATTERY ECU ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-3 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
R92-14 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 40**

OK

37.	**CHECK VEHICLE TYPE**

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Solar Charging System	A
w/o Solar Charging System	B

B ▶ **GO TO STEP 39**

A

38.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - SOLAR ENERGY CONTROL ECU ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
R92-12 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 41**

OK ▼

39.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - PLUGIN CHARGE CONTROL ECU ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-2 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
R92-13 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE NO. 6 CAN JUNCTION CONNECTOR**

NG ▶ **GO TO STEP 42**

40.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - BATTERY ECU ASSEMBLY)**

(a) Disconnect the x3 battery ECU assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-3 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
R92-14 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE BATTERY ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - BATTERY ECU ASSEMBLY)**

41.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - SOLAR ENERGY CONTROL ECU ASSEMBLY)**

(a) Disconnect the R79 solar energy control ECU assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
R92-12 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE SOLAR ENERGY CONTROL ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - SOLAR ENERGY CONTROL ECU ASSEMBLY)**

42.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 6 CAN JUNCTION CONNECTOR - PLUGIN CHARGE CONTROL ECU ASSEMBLY)**

(a) Disconnect the R62 plugin charge control ECU assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92,K8)
Click Connector(R92)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-2 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
R92-13 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE PLUGIN CHARGE CONTROL ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - PLUGIN CHARGE CONTROL ECU ASSEMBLY)**

43.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

(a) Disconnect the A16 No. 2 junction connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16)
Click Connector(A16)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-2 (CANH) - A16-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **GO TO STEP 47**

OK ▼

44.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 2 JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16)
Click Connector(A16)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-4 (CANH) - A16-15 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **GO TO STEP 50**

OK ▼

45.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 2 JUNCTION CONNECTOR - SHIFT CONTROL ACTUATOR ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16)
Click Connector(A16)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-1 (CANH) - A16-12 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

NG ▶ **GO TO STEP 48**

OK ▼

46.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 2 JUNCTION CONNECTOR - INVERTER WITH CONVERTER ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16)
Click Connector(A16)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-3 (CANH) - A16-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

OK ▶ **REPLACE NO. 2 JUNCTION CONNECTOR**

NG ▶ **GO TO STEP 49**

47.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

(a) Disconnect the K11 hybrid vehicle control ECU connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16)
Click Connector(A16)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-2 (CANH) - A16-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE HYBRID VEHICLE CONTROL ECU**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

48.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 2 JUNCTION CONNECTOR - SHIFT CONTROL ACTUATOR ASSEMBLY)**

(a) Disconnect the C49 shift control actuator assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16)
Click Connector(A16)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-1 (CANH) - A16-12 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE SHIFT CONTROL ACTUATOR ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 2 JUNCTION CONNECTOR - SHIFT CONTROL ACTUATOR ASSEMBLY)**

49.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 2 JUNCTION CONNECTOR - INVERTER WITH CONVERTER ASSEMBLY)**

(a) Disconnect the A89 inverter with converter assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16)
Click Connector(A16)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-3 (CANH) - A16-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE INVERTER WITH CONVERTER ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 2 JUNCTION CONNECTOR - INVERTER WITH CONVERTER ASSEMBLY)**

50.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 JUNCTION CONNECTOR)**

(a) Reconnect the A16 No. 2 junction connector.

(b) Disconnect the K107 No. 6 global CAN junction connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107)
Click Connector(K107)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-2 (CANH) - K107-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 JUNCTION CONNECTOR)**

OK ▼

51.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 6 CAN JUNCTION CONNECTOR)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107)
Click Connector(K107)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-3 (CANH) - K107-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **GO TO STEP 54**

OK ▼

52.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - TRANSMISSION FLOOR SHIFT ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107)
Click Connector(K107)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-1 (CANH) - K107-12 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

OK ▶ **REPLACE NO. 6 GLOBAL CAN JUNCTION CONNECTOR**

NG ▼

53.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - TRANSMISSION FLOOR SHIFT ASSEMBLY)**

(a) Disconnect the K53 transmission floor shift assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107)
Click Connector(K107)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-1 (CANH) - K107-12 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE TRANSMISSION FLOOR SHIFT ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - TRANSMISSION FLOOR SHIFT ASSEMBLY)**

54.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 CAN JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

(a) Reconnect the K107 No. 6 global CAN junction connector.

(b) Disconnect the R92 No. 6 CAN junction connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92)
Click Connector(R92)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-4 (CANH) - R92-15 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

OK ▼

55.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 CAN JUNCTION CONNECTOR - BATTERY ECU ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92)
Click Connector(R92)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-3 (CANH) - R92-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **GO TO STEP 59**

OK ▼

56.	**CHECK VEHICLE TYPE**

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Solar Charging System	A
w/o Solar Charging System	B

B ▶ **GO TO STEP 58**

A ▼

57.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 CAN JUNCTION CONNECTOR - SOLAR ENERGY CONTROL ECU ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92)
Click Connector(R92)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-1 (CANH) - R92-12 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

NG ▶ **GO TO STEP 60**

OK ▼

58.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 CAN JUNCTION CONNECTOR - PLUGIN CHARGE CONTROL ECU ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92)
Click Connector(R92)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-2 (CANH) - R92-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

OK ▶ **REPLACE NO. 6 CAN JUNCTION CONNECTOR**

NG ▶ **GO TO STEP 61**

59.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 CAN JUNCTION CONNECTOR - BATTERY ECU ASSEMBLY)**

(a) Disconnect the x3 battery ECU assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92)
Click Connector(R92)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-3 (CANH) - R92-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE BATTERY ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - BATTERY ECU ASSEMBLY)**

60.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 CAN JUNCTION CONNECTOR - SOLAR ENERGY CONTROL ECU ASSEMBLY)**

(a) Disconnect the R79 solar energy control ECU assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92)
Click Connector(R92)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-1 (CANH) - R92-12 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE SOLAR ENERGY CONTROL ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - SOLAR ENERGY CONTROL ECU ASSEMBLY)**

61.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 6 CAN JUNCTION CONNECTOR - PLUGIN CHARGE CONTROL ECU ASSEMBLY)**

(a) Disconnect the R62 plugin charge control ECU assembly connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92)
Click Connector(R92)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-2 (CANH) - R92-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE PLUGIN CHARGE CONTROL ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - PLUGIN CHARGE CONTROL ECU ASSEMBLY)**

62.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (HYBRID VEHICLE CONTROL ECU)**

(a) Disconnect the K11 hybrid vehicle control ECU connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K11)
Click Connector(K11)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K11-9 (CA4H) - K11-22 (CA4L)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK ▶ **REPLACE HYBRID VEHICLE CONTROL ECU**

NG ▼

63.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

(a) Reconnect the K11 hybrid vehicle control ECU connector.

(b) Disconnect the A16 No. 2 junction connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16)
Click Connector(A16)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-2 (CANH) - A16-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 2 JUNCTION CONNECTOR - HYBRID VEHICLE CONTROL ECU)**

OK ▼

64.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 2 JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A16)
Click Connector(A16)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A16-4 (CANH) - A16-15 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK ▶ **REPLACE NO. 2 JUNCTION CONNECTOR**

NG ▼

65.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 JUNCTION CONNECTOR)**

(a) Reconnect the A16 No. 2 junction connector.

(b) Disconnect the K107 No. 6 global CAN junction connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107)
Click Connector(K107)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-2 (CANH) - K107-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 JUNCTION CONNECTOR)**

OK ▼

66.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 6 GLOBAL CAN JUNCTION CONNECTOR - NO. 6 CAN JUNCTION CONNECTOR)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K107)
Click Connector(K107)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K107-3 (CANH) - K107-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK ▶ **REPLACE NO. 6 GLOBAL CAN JUNCTION CONNECTOR**

NG ▼

67.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 6 CAN JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

(a) Reconnect the K107 No. 6 global CAN junction connector.

(b) Disconnect the R92 No. 6 CAN junction connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92)
Click Connector(R92)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-4 (CANH) - R92-15 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 6 CAN JUNCTION CONNECTOR - NO. 6 GLOBAL CAN JUNCTION CONNECTOR)**

OK ▼

68.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 6 CAN JUNCTION CONNECTOR - BATTERY ECU ASSEMBLY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(R92)
Click Connector(R92)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R92-3 (CANH) - R92-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK ▶ **REPLACE NO. 6 CAN JUNCTION CONNECTOR**

NG

69.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (BATTERY ECU ASSEMBLY)**

(a) Reconnect the R92 No. 6 CAN junction connector.

(b) Disconnect the x3 battery ECU assembly connector.

(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(x3)
Click Connector(x3)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
x3-7 (CA1H) - x3-8 (CA1L)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK ▶ **REPLACE BATTERY ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (BATTERY ECU ASSEMBLY - NO. 6 CAN JUNCTION CONNECTOR)**