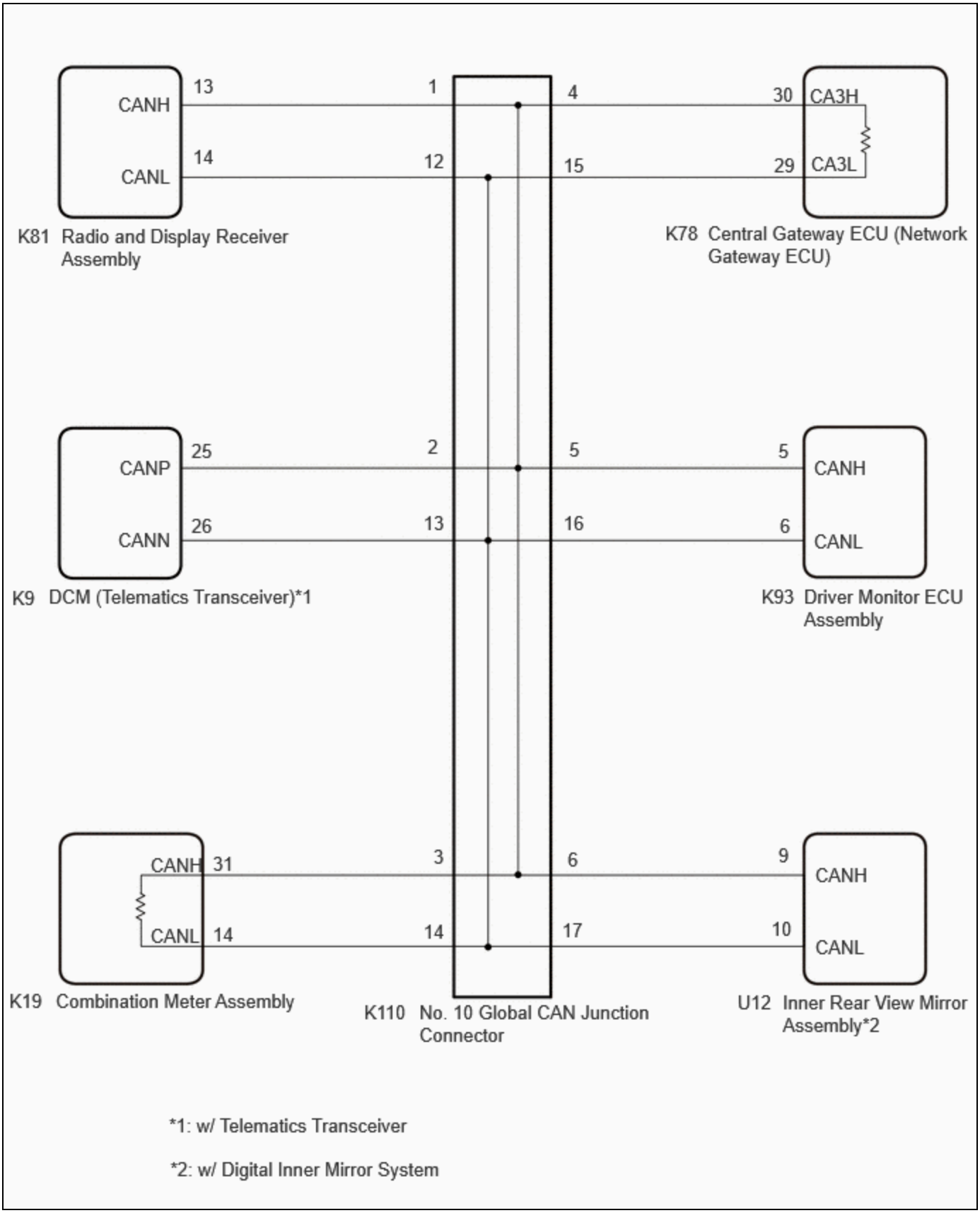
Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002B6JD
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: NETWORKING: CAN COMMUNICATION SYSTEM (for PHEV Model): Check Bus 3 Line; 2023 - 2024 MY Prius Prime [03/2023 -]		

Check Bus 3 Line

DESCRIPTION

SYMPTOM	TROUBLE AREA
There are ECUs or sensors that display a communication stop on the bus diagnostic screen. Or, there are ECUs or sensors that display communication stop history on the "Detail" screen.	• CAN main bus line, CAN branch line or connector • Central gateway ECU (network gateway ECU) • DCM (telematics transceiver) (w/ Telematics Transceiver) • Inner rear view mirror assembly (w/ Digital Inner Mirror System) • Radio and display receiver assembly • Combination meter assembly • Driver monitor ECU assembly • No. 10 global CAN junction connector

WIRING DIAGRAM



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 DCM (telematics transceiver), 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.

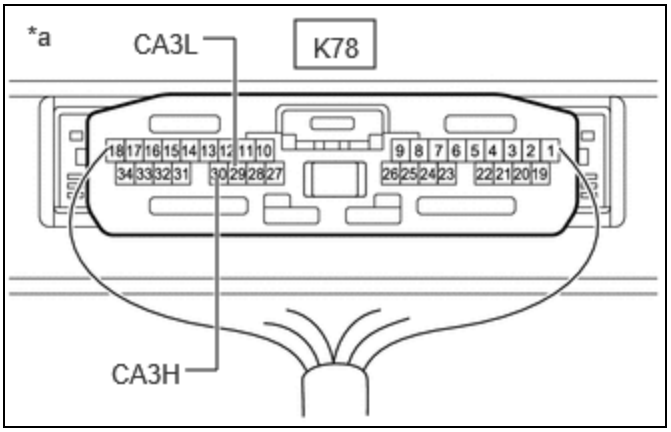
(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K78)
Click Connector(K78)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K78-30 (CA3H) - K78-29 (CA3L)	Cable disconnected from negative (-) auxiliary battery terminal	Below 70 Ω



*a	Component with harness connected (Central Gateway ECU (Network Gateway ECU))

NG ▶ **GO TO STEP 47**

OK ▼

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

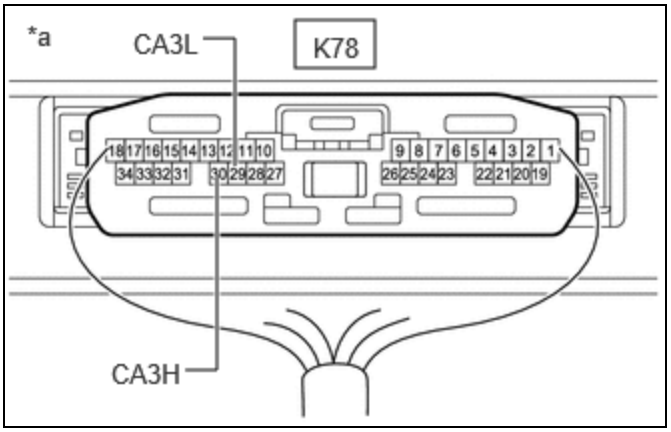
(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K78)
Click Connector(K78)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K78-30 (CA3H) - K78-29 (CA3L)	Cable disconnected from negative (-) auxiliary battery terminal	54 Ω or higher



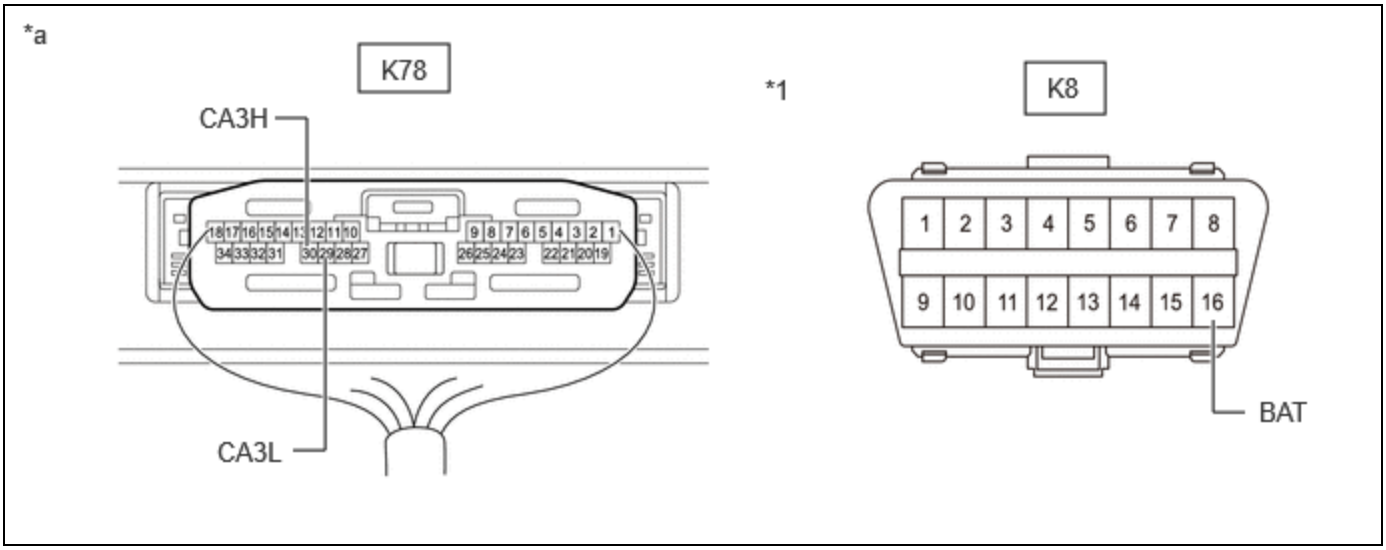
*a	Component with harness connected (Central Gateway ECU (Network Gateway ECU))

NG ▶ **GO TO STEP 33**

OK

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

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



*1	DLC3	-	-
*a	Component with harness connected (Central Gateway ECU (Network Gateway ECU))	-	-

Standard Resistance:

EWD INFO

Click Location & Routing(K78,K8)
Click Connector(K78)
Click Connector(K8)

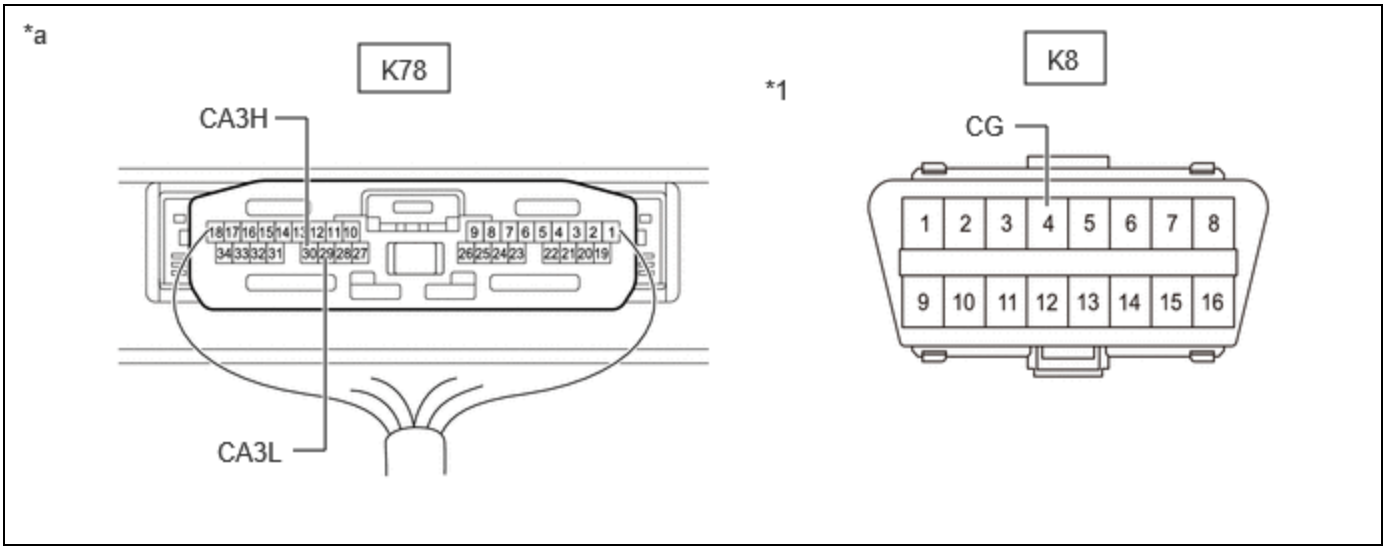
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K78-30 (CA3H) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K78-29 (CA3L) - K8-16 (BAT)		

NG ▶ **GO TO STEP 19**

OK

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

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



*1	DLC3	-	-
*a	Component with harness connected (Central Gateway ECU (Network Gateway ECU))	-	-

Standard Resistance:

EWD INFO

Click Location & Routing(K78,K8)
Click Connector(K78)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K78-30 (CA3H) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K78-29 (CA3L) - K8-4 (CG)		

OK ▶ **REPLACE CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU)**

NG ▼

5.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

(a) Disconnect the K110 No. 10 global CAN junction connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-4 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-15 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 13**

OK ▼

6.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - COMBINATION METER ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-3 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-14 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 14**

OK ▼

7.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - RADIO AND DISPLAY RECEIVER ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-12 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 15**

OK ▼

8.	**CHECK VEHICLE TYPE**

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Telematics Transceiver	A
w/o Telematics Transceiver	B

B ▶ **GO TO STEP 10**

A ▼

9.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DCM (TELEMATICS TRANSCEIVER))**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-2 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-13 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 16**

OK ▼

10.	**CHECK VEHICLE TYPE**

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Digital Inner Mirror System	A
w/o Digital Inner Mirror System	B

B ▶ **GO TO STEP 12**

A ▼

11.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - INNER REAR VIEW MIRROR ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-6 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-17 (CANL) - K8-4 (CG)		

NG ▶ **GO TO STEP 17**

OK ▼

12.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DRIVER MONITOR ECU ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-5 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-16 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE NO. 10 GLOBAL CAN JUNCTION CONNECTOR**

NG ▶ **GO TO STEP 18**

13.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

(a) Disconnect the K78 central gateway ECU (network gateway ECU) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-4 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-15 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU)**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

14.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - COMBINATION METER ASSEMBLY)**

(a) Disconnect the K19 combination meter assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-3 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-14 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE COMBINATION METER ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - COMBINATION METER ASSEMBLY)**

15.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - RADIO AND DISPLAY RECEIVER ASSEMBLY)**

(a) Disconnect the K81 radio and display receiver assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-12 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE RADIO AND DISPLAY RECEIVER ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - RADIO AND DISPLAY RECEIVER ASSEMBLY)**

16.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DCM (TELEMATICS TRANSCEIVER))**

(a) Disconnect the K9 DCM (telematics transceiver) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-2 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-13 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE DCM (TELEMATICS TRANSCEIVER)**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DCM (TELEMATICS TRANSCEIVER))**

17.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - INNER REAR VIEW MIRROR ASSEMBLY)**

(a) Disconnect the U12 inner rear view mirror assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-6 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-17 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE INNER REAR VIEW MIRROR ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - INNER REAR VIEW MIRROR ASSEMBLY)**

18.	**CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DRIVER MONITOR ECU ASSEMBLY)**

(a) Disconnect the K93 driver monitor ECU assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-5 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K110-16 (CANL) - K8-4 (CG)		

OK ▶ **REPLACE DRIVER MONITOR ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DRIVER MONITOR ECU ASSEMBLY)**

19.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

(a) Disconnect the K110 No. 10 global CAN junction connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-4 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-15 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 27**

OK ▼

20.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - COMBINATION METER ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-3 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-14 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 28**

OK ▼

21.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - RADIO AND DISPLAY RECEIVER ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-12 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 29**

OK ▼

22.	**CHECK VEHICLE TYPE**

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Telematics Transceiver	A
w/o Telematics Transceiver	B

B ▶ **GO TO STEP 24**

A

23.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DCM (TELEMATICS TRANSCEIVER))**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-2 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-13 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 30**

OK

24.	**CHECK VEHICLE TYPE**

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Digital Inner Mirror System	A
w/o Digital Inner Mirror System	B

B ▶ **GO TO STEP 26**

A

25.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - INNER REAR VIEW MIRROR ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-6 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-17 (CANL) - K8-16 (BAT)		

NG ▶ **GO TO STEP 31**

OK

26.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DRIVER MONITOR ECU ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-5 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-16 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE NO. 10 GLOBAL CAN JUNCTION CONNECTOR**

NG ▶ **GO TO STEP 32**

27.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

(a) Disconnect the K78 central gateway ECU (network gateway ECU) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-4 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-15 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU)**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

28.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - COMBINATION METER ASSEMBLY)**

(a) Disconnect the K19 combination meter assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-3 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-14 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE COMBINATION METER ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - COMBINATION METER ASSEMBLY)**

29.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - RADIO AND DISPLAY RECEIVER ASSEMBLY)**

(a) Disconnect the K81 radio and display receiver assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-12 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE RADIO AND DISPLAY RECEIVER ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - RADIO AND DISPLAY RECEIVER ASSEMBLY)**

30.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DCM (TELEMATICS TRANSCEIVER))**

(a) Disconnect the K9 DCM (telematics transceiver) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-2 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-13 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE DCM (TELEMATICS TRANSCEIVER)**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DCM (TELEMATICS TRANSCEIVER))**

31.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - INNER REAR VIEW MIRROR ASSEMBLY)**

(a) Disconnect the U12 inner rear view mirror assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-6 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-17 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE INNER REAR VIEW MIRROR ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - INNER REAR VIEW MIRROR ASSEMBLY)**

32.	**CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DRIVER MONITOR ECU ASSEMBLY)**

(a) Disconnect the K93 driver monitor ECU assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110,K8)
Click Connector(K110)
Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-5 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher
K110-16 (CANL) - K8-16 (BAT)		

OK ▶ **REPLACE DRIVER MONITOR ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DRIVER MONITOR ECU ASSEMBLY)**

33.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

(a) Disconnect the K110 No. 10 global CAN junction connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-4 (CANH) - K110-15 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **GO TO STEP 41**

OK ▼

34.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - COMBINATION METER ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-3 (CANH) - K110-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **GO TO STEP 42**

OK ▼

35.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - RADIO AND DISPLAY RECEIVER ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-1 (CANH) - K110-12 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

NG ▶ **GO TO STEP 43**

OK ▼

36.	**CHECK VEHICLE TYPE**

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Telematics Transceiver	A
w/o Telematics Transceiver	B

B ▶ **GO TO STEP 38**

A ▼

37.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DCM (TELEMATICS TRANSCEIVER))**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-2 (CANH) - K110-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

NG ▶ **GO TO STEP 44**

OK ▼

38.	**CHECK VEHICLE TYPE**

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Digital Inner Mirror System	A
w/o Digital Inner Mirror System	B

B ▶ **GO TO STEP 40**

A ▼

39.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - INNER REAR VIEW MIRROR ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-6 (CANH) - K110-17 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

NG ▶ **GO TO STEP 45**

OK ▼

40.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DRIVER MONITOR ECU ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-5 (CANH) - K110-16 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

OK ▶ **REPLACE NO. 10 GLOBAL CAN JUNCTION CONNECTOR**

NG ▶ **GO TO STEP 46**

41.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

(a) Disconnect the K78 central gateway ECU (network gateway ECU) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-4 (CANH) - K110-15 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU)**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

42.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - COMBINATION METER ASSEMBLY)**

(a) Disconnect the K19 combination meter assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-3 (CANH) - K110-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE COMBINATION METER ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - COMBINATION METER ASSEMBLY)**

43.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - RADIO AND DISPLAY RECEIVER ASSEMBLY)**

(a) Disconnect the K81 radio and display receiver assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-1 (CANH) - K110-12 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE RADIO AND DISPLAY RECEIVER ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - RADIO AND DISPLAY RECEIVER ASSEMBLY)**

44.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DCM (TELEMATICS TRANSCEIVER))**

(a) Disconnect the K9 DCM (telematics transceiver) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-2 (CANH) - K110-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE DCM (TELEMATICS TRANSCEIVER)**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DCM (TELEMATICS TRANSCEIVER))**

45.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - INNER REAR VIEW MIRROR ASSEMBLY)**

(a) Disconnect the U12 inner rear view mirror assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-6 (CANH) - K110-17 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE INNER REAR VIEW MIRROR ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - INNER REAR VIEW MIRROR ASSEMBLY)**

46.	**CHECK FOR SHORT IN CAN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DRIVER MONITOR ECU ASSEMBLY)**

(a) Disconnect the K93 driver monitor ECU assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-5 (CANH) - K110-16 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 MΩ or higher

OK ▶ **REPLACE DRIVER MONITOR ECU ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - DRIVER MONITOR ECU ASSEMBLY)**

47.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

(a) Disconnect the K78 central gateway ECU (network gateway ECU) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K78)

Click Connector(K78)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K78-30 (CA3H) - K78-29 (CA3L)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK ▶ **REPLACE CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU)**

NG
▼

48.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

(a) Reconnect the K78 central gateway ECU (network gateway ECU) connector.

(b) Disconnect the K110 No. 10 global CAN junction connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-4 (CANH) - K110-15 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

OK
▼

49.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - COMBINATION METER ASSEMBLY)**

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

Standard Resistance:

EWD INFO

Click Location & Routing(K110)
Click Connector(K110)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K110-3 (CANH) - K110-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK ▶ **REPLACE NO. 10 GLOBAL CAN JUNCTION CONNECTOR**

NG ▼

50.	**CHECK FOR OPEN IN CAN MAIN BUS LINES (COMBINATION METER ASSEMBLY)**

(a) Reconnect the K110 No. 10 global CAN junction connector.

(b) Disconnect the K19 combination meter assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K19)
Click Connector(K19)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K19-31 (CANH) - K19-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK ▶ **REPLACE COMBINATION METER ASSEMBLY**

NG ▶ **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (COMBINATION METER ASSEMBLY - NO. 10 GLOBAL CAN JUNCTION CONNECTOR)**