12/15/24, 11:43 AM

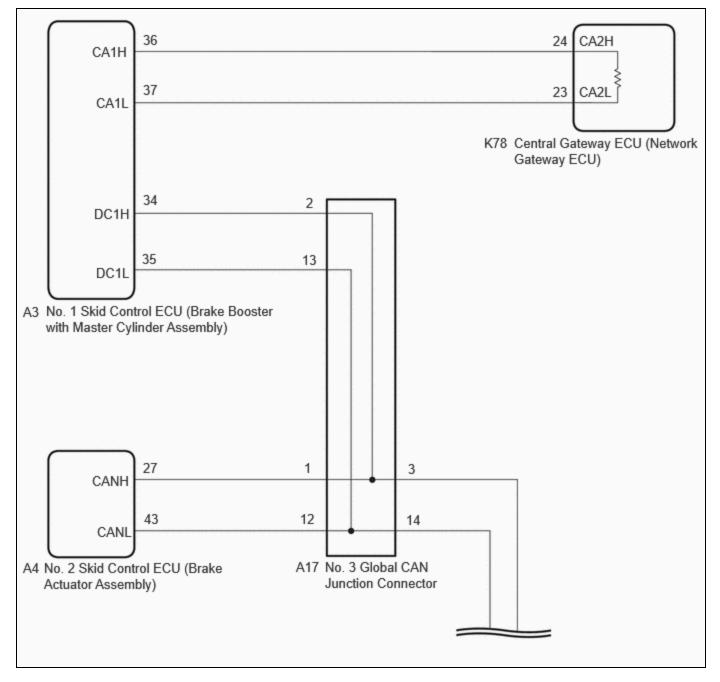
Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM10000002B6JE	
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: NETWORKING: CAN COMMUNICATION SYSTEM (for PHEV Model): Check Bus 4 Line; 2023 - 2024 MY Prius Prime [03/2023 -]			
Prime [03/2023 -]			

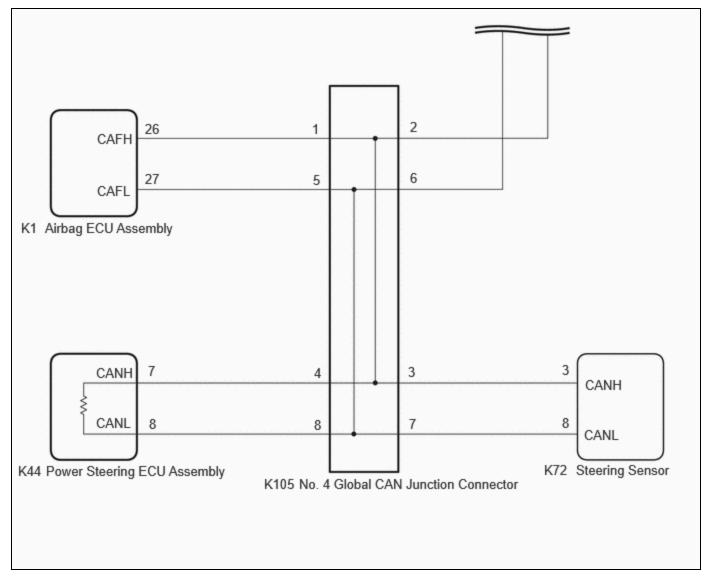
Check Bus 4 Line

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) Airbag ECU assembly No. 1 skid control ECU (brake booster with master cylinder assembly) No. 2 skid control ECU (brake actuator assembly) Steering sensor Power steering ECU assembly No. 3 global CAN junction connector No. 4 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

- 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

• 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.

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Click here

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

Click here

• 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.



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

Ш

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

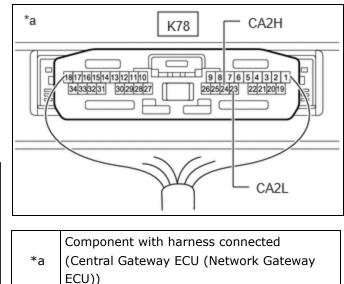
- (a) Disconnect the cable from the negative (-) auxiliary battery terminal.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



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

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K78-24 (CA2H) - K78-23 (CA2L)	Cable disconnected from negative (-) auxiliary battery terminal	Below 70 Ω







- 2. CHECK FOR SHORT IN CAN BUS LINES
- (a) Measure the resistance according to the value(s) in the table below.

CONDITION

Cable disconnected

from negative (-)

auxiliary battery

terminal

Standard Resistance:



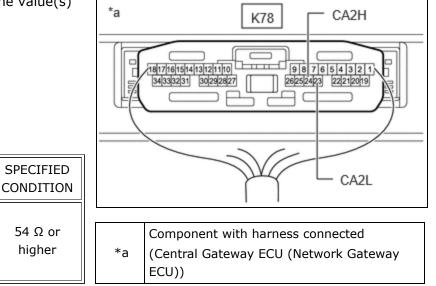
TESTER

CONNECTION

K78-24 (CA2H) -

K78-23 (CA2L)

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



NG GO TO STEP 33

SPECIFIED

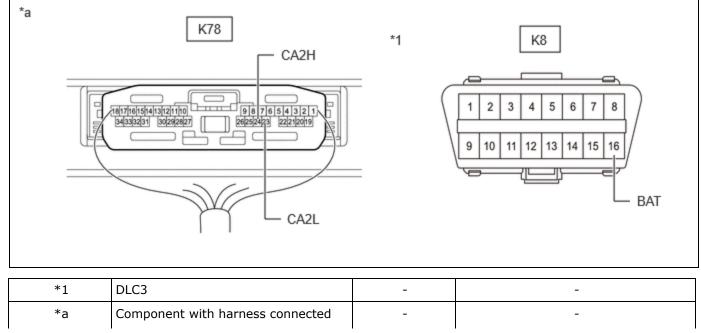
54 Ω or

higher

OK

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

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



NETWORKING: CAN COMMUNICATION SYSTEM (for PHEV Model): Check Bus 4 Line; 2023 - 2024 MY Prius Prime [03/2023 ...

	 - ,	
(Central Gateway ECU (Network		
Gateway ECU))		

Standard Resistance:



<u>Click Location & Routing(K78,K8)</u> <u>Click Connector(K78)</u> <u>Click Connector(K8)</u>

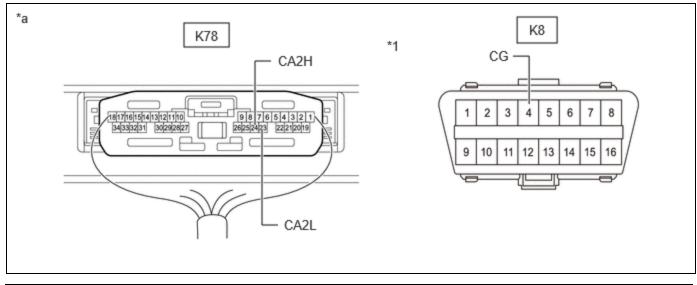
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K78-24 (CA2H) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 k Ω or higher
K78-23 (CA2L) - K8-16 (BAT)		

NG GO TO STEP 19



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:



<u>Click Location & Routing(K78,K8)</u> <u>Click Connector(K78)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K78-24 (CA2H) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K78-23 (CA2L) - K8-4 (CG)		



NG

CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 1 SKID CONTROL ECU (BRAKE 5. BOOSTER WITH MASTER CYLINDER ASSEMBLY) - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))

(a) Disconnect the A3 No. 1 skid control ECU (brake booster with master cylinder assembly) connector.

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

Standard Resistance:

EWD INFO

<u>Click Location & Routing(A3,K8)</u> <u>Click Connector(A3)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-36 (CA1H) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
A3-37 (CA1L) - K8-4 (CG)		

NG GO TO STEP 7



CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY) - NO. 3 GLOBAL CAN JUNCTION CONNECTOR)

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

Standard Resistance:



<u>Click Location & Routing(A3,K8)</u> <u>Click Connector(A3)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-34 (DC1H) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
A3-35 (DC1L) - K8-4 (CG)		

OK REPLACE NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY)

NG GO TO STEP 8

CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 1 SKID CONTROL ECU (BRAKE 7. BOOSTER WITH MASTER CYLINDER ASSEMBLY) - 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:



<u>Click Location & Routing(A3,K8)</u> <u>Click Connector(A3)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-36 (CA1H) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
A3-37 (CA1L) - K8-4 (CG)		



NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY) -CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))

8.

CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY))

- (a) Disconnect the A17 No. 3 global CAN junction connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



<u>Click Location & Routing(A17,K8)</u> <u>Click Connector(A17)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-2 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery	
A17-13 (CANL) - K8-4 (CG)	terminal	200 Ω or higher

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY))



9.

CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 4 GLOBAL CAN JUNCTION CONNECTOR)

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

Standard Resistance:



<u>Click Location & Routing(A17,K8)</u> <u>Click Connector(A17)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-3 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery	
A17-14 (CANL) - K8-4 (CG)	terminal	200 Ω or higher

NG GO TO STEP 12



10.CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 3 GLOBAL CAN JUNCTION
CONNECTOR - NO. 2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY))

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

Standard Resistance:



<u>Click Location & Routing(A17,K8)</u> <u>Click Connector(A17)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery	
A17-12 (CANL) - K8-4 (CG)	terminal	200 Ω or higher

OK REPLACE NO. 3 GLOBAL CAN JUNCTION CONNECTOR

NG

11. CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY))

(a) Disconnect the A4 No. 2 skid control ECU (brake actuator assembly) connector.

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

Standard Resistance:



<u>Click Location & Routing(A17,K8)</u> <u>Click Connector(A17)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery	
A17-12 (CANL) - K8-4 (CG)	terminal	200 Ω or higher

OK REPLACE NO. 2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY)

NG REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY))

12. CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - NO. 3 GLOBAL CAN JUNCTION CONNECTOR)

(a) Disconnect the K105 No. 4 global CAN junction connector.

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

Standard Resistance:



<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-2 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K105-6 (CANL) - K8-4 (CG)		

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - NO. 3 GLOBAL CAN JUNCTION CONNECTOR)



13.

CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - POWER STEERING ECU ASSEMBLY)

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

Standard Resistance:



<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-4 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K105-8 (CANL) - K8-4 (CG)		

NG GO TO STEP 16



14. CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - AIRBAG ECU ASSEMBLY)

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

Standard Resistance:



<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K105-5 (CANL) - K8-4 (CG)		

NG GO TO STEP 17



15. CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - STEERING SENSOR)

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

Standard Resistance:



<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-3 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K105-7 (CANL) - K8-4 (CG)		

OK REPLACE NO. 4 GLOBAL CAN JUNCTION CONNECTOR

NG GO TO STEP 18

16.

CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - POWER STEERING ECU ASSEMBLY)

(a) Disconnect the K44 power steering ECU assembly connector.

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

Standard Resistance:



<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-4 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

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TESTER CONNECTION	CONDITION	SPECIFIED
		CONDITION
K105-8 (CANL) - K8-4 (CG)		

OK REPLACE POWER STEERING ECU ASSEMBLY

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - POWER STEERING ECU ASSEMBLY)

17. CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - AIRBAG ECU ASSEMBLY)

(a) Disconnect the K1 airbag ECU assembly connector.

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

Standard Resistance:



Click Location & Routing(K105,K8) Click Connector(K105) Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-1 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K105-5 (CANL) - K8-4 (CG)		

OK REPLACE AIRBAG ECU ASSEMBLY

NG REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - AIRBAG ECU ASSEMBLY)

18.

CHECK FOR SHORT TO GND IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - STEERING SENSOR)

(a) Disconnect the K72 steering sensor connector.

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

Standard Resistance:



<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-3 (CANH) - K8-4 (CG)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher
K105-7 (CANL) - K8-4 (CG)		

OK PEPLACE STEERING SENSOR

NG REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - STEERING SENSOR)

CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 1 SKID CONTROL ECU (BRAKE 19. BOOSTER WITH MASTER CYLINDER ASSEMBLY) - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))

(a) Disconnect the A3 No. 1 skid control ECU (brake booster with master cylinder assembly) connector.

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

Standard Resistance:

EWD INFO

<u>Click Location & Routing(A3,K8)</u> <u>Click Connector(A3)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-36 (CA1H) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	6 k0 or higher
A3-37 (CA1L) - K8-16 (BAT)	terminal	6 kΩ or higher





CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY) - NO. 3 GLOBAL CAN JUNCTION CONNECTOR)

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

Standard Resistance:



<u>Click Location & Routing(A3,K8)</u> <u>Click Connector(A3)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-34 (DC1H) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	6 kΩ or higher
A3-35 (DC1L) - K8-16 (BAT)	terminal	o ksz or higher

OK REPLACE NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY)

NG GO TO STEP 22

CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 1 SKID CONTROL ECU (BRAKE 21. BOOSTER WITH MASTER CYLINDER ASSEMBLY) - 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:



<u>Click Location & Routing(A3,K8)</u> <u>Click Connector(A3)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-36 (CA1H) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	6 kΩ or higher
A3-37 (CA1L) - K8-16 (BAT)	terminal	o ksz or higher

OK REPLACE CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU)

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY) -CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))

22. CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY))

- (a) Disconnect the A17 No. 3 global CAN junction connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



<u>Click Location & Routing(A17,K8)</u> <u>Click Connector(A17)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-2 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	
A17-13 (CANL) - K8-16 (BAT)	terminal	6 k Ω or higher

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY))



23. CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 4 GLOBAL CAN JUNCTION CONNECTOR)

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

Standard Resistance:



Click Location & Routing(A17,K8)

Click Connector(A17) Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-3 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	
A17-14 (CANL) - K8-16 (BAT)	terminal	6 k Ω or higher

NG GO TO STEP 26





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

Standard Resistance:



<u>Click Location & Routing(A17,K8)</u> <u>Click Connector(A17)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	
A17-12 (CANL) - K8-16 (BAT)	terminal	6 k Ω or higher

OK REPLACE NO. 3 GLOBAL CAN JUNCTION CONNECTOR



25. CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY))

(a) Disconnect the A4 No. 2 skid control ECU (brake actuator assembly) connector.

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

Standard Resistance:



<u>Click Location & Routing(A17,K8)</u> <u>Click Connector(A17)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	
A17-12 (CANL) - K8-16 (BAT)	terminal	6 k Ω or higher

OK REPLACE NO. 2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY)

NG REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY))

26.

CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - NO. 3 GLOBAL CAN JUNCTION CONNECTOR)

- (a) Disconnect the K105 No. 4 global CAN junction connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-2 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	6 kΩ or higher
K105-6 (CANL) - K8-16 (BAT)	terminal	o Ksz or higher

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - NO. 3 GLOBAL CAN JUNCTION CONNECTOR)



27. CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - POWER STEERING ECU ASSEMBLY)

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

Standard Resistance:



Click Location & Routing(K105,K8) Click Connector(K105) Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-4 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	6 k0 or higher
K105-8 (CANL) - K8-16 (BAT)	terminal	6 kΩ or higher

NG GO TO STEP 30

ок

28.

CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - AIRBAG ECU ASSEMBLY)

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

Standard Resistance:



<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery terminal	6 kΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-5 (CANL) - K8-16 (BAT)		

NG GO TO STEP 31

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29. CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - STEERING SENSOR)

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

Standard Resistance:



<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-3 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	6 k0 or higher
K105-7 (CANL) - K8-16 (BAT)	terminal	6 kΩ or higher

OK REPLACE NO. 4 GLOBAL CAN JUNCTION CONNECTOR

NG GO TO STEP 32

30. CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - POWER STEERING ECU ASSEMBLY)

(a) Disconnect the K44 power steering ECU assembly connector.

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

Standard Resistance:



Click Location & Routing(K105,K8)

Click Connector(K105) Click Connector(K8)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-4 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	6 kΩ or higher
K105-8 (CANL) - K8-16 (BAT)	terminal	o ksz or higher

OK REPLACE POWER STEERING ECU ASSEMBLY

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - POWER STEERING ECU ASSEMBLY)



- (a) Disconnect the K1 airbag ECU assembly connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-1 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	6 kΩ or higher
K105-5 (CANL) - K8-16 (BAT)	terminal	o ksz or higher

OK REPLACE AIRBAG ECU ASSEMBLY

NG REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - AIRBAG ECU ASSEMBLY)

32. CHECK FOR SHORT TO +B IN CAN BUS LINE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - STEERING SENSOR) 12/15/24, 11:43 AM

NETWORKING: CAN COMMUNICATION SYSTEM (for PHEV Model): Check Bus 4 Line; 2023 - 2024 MY Prius Prime [03/2023 ...

(a) Disconnect the K72 steering sensor connector.

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

Standard Resistance:



<u>Click Location & Routing(K105,K8)</u> <u>Click Connector(K105)</u> <u>Click Connector(K8)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-3 (CANH) - K8-16 (BAT)	Cable disconnected from negative (-) auxiliary battery	6 kΩ or higher
K105-7 (CANL) - K8-16 (BAT)	terminal	o ksz or nigher

OK PREPLACE STEERING SENSOR

NG REPAIR OR REPLACE CAN BRANCH LINE OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - STEERING SENSOR)



CHECK FOR SHORT IN CAN BUS LINES (NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY) - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))

(a) Disconnect the A3 No. 1 skid control ECU (brake booster with master cylinder assembly) connector.

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

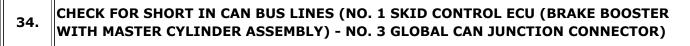
Standard Resistance:

EWD INFO

Click Location & Routing(A3) Click Connector(A3)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-36 (CA1H) - A3-37 (CA1L)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG GO TO STEP 35



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

Standard Resistance:

EWD INFO

Click Location & Routing(A3) Click Connector(A3)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-34 (DC1H) - A3-35 (DC1L)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK REPLACE NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY)

NG GO TO STEP 36

CHECK FOR SHORT IN CAN BUS LINES (NO. 1 SKID CONTROL ECU (BRAKE BOOSTER 35. WITH MASTER CYLINDER ASSEMBLY) - 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:



Click Location & Routing(A3) Click Connector(A3)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-36 (CA1H) - A3-37 (CA1L)	Cable disconnected from negative (-) auxiliary battery terminal	$1~\text{M}\Omega$ or higher

OK REPLACE CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU)

NG REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY) -CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))

36. CHECK FOR SHORT IN CAN BUS LINES (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY))

- (a) Reconnect the A3 No. 1 skid control ECU (brake booster with master cylinder assembly) connector.
- (b) Disconnect the A17 No. 3 global CAN junction connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A17) Click Connector(A17)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-2 (CANH) - A17-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY))

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37.CHECK FOR SHORT IN CAN BUS LINES (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO.4 GLOBAL CAN JUNCTION CONNECTOR)

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

Standard Resistance:



Click Location & Routing(A17) Click Connector(A17)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-3 (CANH) - A17-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω





38.CHECK FOR SHORT IN CAN BUS LINES (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO.2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY))

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

Standard Resistance:



Click Location & Routing(A17) Click Connector(A17)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-1 (CANH) - A17-12 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

OK REPLACE NO. 3 GLOBAL CAN JUNCTION CONNECTOR

NG

39.CHECK FOR SHORT IN CAN BUS LINES (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO.2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY))

- (a) Disconnect the A4 No. 2 skid control ECU (brake actuator assembly) connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



Click Location & Routing(A17) Click Connector(A17)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-1 (CANH) - A17-12 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 M Ω or higher

OK REPLACE NO. 2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY)

NG REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 2 SKID CONTROL ECU (BRAKE ACTUATOR ASSEMBLY))

40.

CHECK FOR SHORT IN CAN BUS LINES (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - NO. 3 GLOBAL CAN JUNCTION CONNECTOR)

- (a) Reconnect the A17 No. 3 global CAN junction connector.
- (b) Disconnect the K105 No. 4 global CAN junction connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



<u>Click Location & Routing(K105)</u> <u>Click Connector(K105)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-2 (CANH) - K105-6 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - NO. 3 GLOBAL CAN JUNCTION CONNECTOR)



41. CHECK FOR SHORT IN CAN BUS LINES (NO. 4 GLOBAL CAN JUNCTION CONNECTOR -POWER STEERING ECU ASSEMBLY)

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

Standard Resistance:



Click Location & Routing(K105) Click Connector(K105)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-4 (CANH) - K105-8 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG GO TO STEP 44

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42. CHECK FOR SHORT IN CAN BUS LINES (NO. 4 GLOBAL CAN JUNCTION CONNECTOR -AIRBAG ECU ASSEMBLY)

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

Standard Resistance:

EWD INFO

Click Location & Routing(K105) Click Connector(K105)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-1 (CANH) - K105-5 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher



OK

43. CHECK FOR SHORT IN CAN BUS LINES (NO. 4 GLOBAL CAN JUNCTION CONNECTOR -STEERING SENSOR)

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

Standard Resistance:



Click Location & Routing(K105) Click Connector(K105) 12/15/24, 11:43 AM

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-3 (CANH) - K105-7 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	200 Ω or higher

OK REPLACE NO. 4 GLOBAL CAN JUNCTION CONNECTOR

NG GO TO STEP 46

44. CHECK FOR SHORT IN CAN BUS LINES (NO. 4 GLOBAL CAN JUNCTION CONNECTOR -POWER STEERING ECU ASSEMBLY)

- (a) Disconnect the K44 power steering ECU assembly connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



Click Location & Routing(K105) Click Connector(K105)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-4 (CANH) - K105-8 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	$1~\text{M}\Omega$ or higher

OK REPLACE POWER STEERING ECU ASSEMBLY

NG REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - POWER STEERING ECU ASSEMBLY)

45. CHECK FOR SHORT IN CAN BUS LINES (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - AIRBAG ECU ASSEMBLY)

- (a) Disconnect the K1 airbag ECU assembly connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



<u>Click Location & Routing(K105)</u> <u>Click Connector(K105)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-1 (CANH) - K105-5 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 M Ω or higher

OK REPLACE AIRBAG ECU ASSEMBLY

NG REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - AIRBAG ECU ASSEMBLY)

46. CHECK FOR SHORT IN CAN BUS LINES (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - STEERING SENSOR)

(a) Disconnect the K72 steering sensor connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K105) Click Connector(K105)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-3 (CANH) - K105-7 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	1 M Ω or higher

OK PEPLACE STEERING SENSOR

NG REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - STEERING SENSOR)

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:



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

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K78-24 (CA2H) - K78-23 (CA2L)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK REPLACE CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU)



48. CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY) - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))

- (a) Reconnect the K78 central gateway ECU (network gateway ECU) connector.
- (b) Disconnect the A3 No. 1 skid control ECU (brake booster with master cylinder assembly) connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



Click Location & Routing(A3) Click Connector(A3)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-36 (CA1H) - A3-37 (CA1L)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY) -CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))



49. CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY) - NO. 3 GLOBAL CAN JUNCTION CONNECTOR)

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

Standard Resistance:



Click Location & Routing(A3) Click Connector(A3)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A3-34 (DC1H) - A3-35 (DC1L)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK REPLACE NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY)

NG

50. CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 3 GLOBAL CAN JUNCTION CONNECTOR -NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY))

- (a) Reconnect the A3 No. 1 skid control ECU (brake booster with master cylinder assembly) connector.
- (b) Disconnect the A17 No. 3 global CAN junction connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

<u>Click Location & Routing(A17)</u> <u>Click Connector(A17)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-2 (CANH) - A17-13 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 3 GLOBAL CAN JUNCTION CONNECTOR - NO. 1 SKID CONTROL ECU (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY))



51. CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 3 GLOBAL CAN JUNCTION CONNECTOR -NO. 4 GLOBAL CAN JUNCTION CONNECTOR)

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

Standard Resistance:

EWD INFO

Click Location & Routing(A17) Click Connector(A17)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-3 (CANH) - A17-14 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK REPLACE NO. 3 GLOBAL CAN JUNCTION CONNECTOR





CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 4 GLOBAL CAN JUNCTION CONNECTOR -NO. 3 GLOBAL CAN JUNCTION CONNECTOR)

(a) Reconnect the A17 No. 3 global CAN junction connector.

(b) Disconnect the K105 No. 4 global CAN junction connector.

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

Standard Resistance:



Click Location & Routing(K105) Click Connector(K105)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-2 (CANH) - K105-6 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - NO. 3 GLOBAL CAN JUNCTION CONNECTOR)



53. CHECK FOR OPEN IN CAN MAIN BUS LINES (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - POWER STEERING ECU ASSEMBLY)

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

Standard Resistance:



<u>Click Location & Routing(K105)</u> <u>Click Connector(K105)</u>

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K105-4 (CANH) - K105-8 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK REPLACE NO. 4 GLOBAL CAN JUNCTION CONNECTOR

NG

54. CHECK FOR OPEN IN CAN MAIN BUS LINES (POWER STEERING ECU ASSEMBLY)

- (a) Reconnect the K105 No. 4 global CAN junction connector.
- (b) Disconnect the K44 power steering ECU assembly connector.
- (c) Measure the resistance according to the value(s) in the table below. Standard Resistance:

EWD INFO

Click Location & Routing(K44) Click Connector(K44)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K44-7 (CANH) - K44-8 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

OK REPLACE POWER STEERING ECU ASSEMBLY

NG REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (POWER STEERING ECU ASSEMBLY - NO. 4 GLOBAL CAN JUNCTION CONNECTOR)

