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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: HYBRID / BATTERY CONTROL: MOTOR GENERATOR CONTROL SYSTEM (for M20A-FXS): U010087,U029387,U117008,U117087; Lost Communication With ECM/PCM "A" Missing Message; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	U010087	Lost Communication With ECM/PCM "A" Missing Message
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DTC	U029387	Lost Communication With Hybrid Powertrain Control Module Missing Message
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DTC	U117008	Lost Communication with Brake System Control Module (ch2) Bus Signal / Message Failure
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DTC	U117087	Lost Communication With Brake System Control Module(ch2) Missing Message
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DESCRIPTION

The motor generator control ECU communicates with the hybrid vehicle control ECU, ECM and skid control ECU assembly via CAN communication.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
U010087	Lost Communication With ECM/PCM "A" Missing Message	A CAN communication error between the ECM and motor generator control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Comes on	Master Warning: Comes on	Motor Generator	B	SAE Code: U0100
U029387	Lost Communication With Hybrid Powertrain Control Module Missing Message	A CAN communication error between the hybrid vehicle control ECU and motor generator control ECU (CAN communication	CAN communication system	Comes on	Master Warning: Comes on	Motor Generator	B	SAE Code: U0293

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
		system malfunction) occurs (1 trip detection logic)						
U117008	Lost Communication with Brake System Control Module (ch2) Bus Signal / Message Failure	A CAN communication error between the skid control ECU assembly and motor generator control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Does not come on	Master Warning: Comes on	Motor Generator	B	SAE Code: U1170
U117087	Lost Communication With Brake System Control Module(ch2) Missing Message	A CAN communication error between the skid control ECU assembly and motor generator control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Comes on	Master Warning: Comes on	Motor Generator	B	SAE Code: U1170

MONITOR DESCRIPTION

If the motor generator control ECU detect problem with CAN communication with each ECU, it will illuminate the MIL and store a DTC.

MONITOR STRATEGY

Related DTCs	U0100 (INF U010087): Lost Communication With ECM/PCM U0293 (INF U029387): Lost Communication With Hybrid Control Module U1170 (INF U117087): Lost Communication With Brake System Control Module
Required sensors/components	Motor generator control ECU
Frequency of operation	Continuous
Duration	TMC's intellectual property
MIL operation	Immediately

Sequence of operation	None
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TYPICAL ENABLING CONDITIONS

The monitor will run whenever the following DTCs are not stored	TMC's intellectual property
Other conditions belong to TMC's intellectual property	-

TYPICAL MALFUNCTION THRESHOLDS

TMC's intellectual property	-
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COMPONENT OPERATING RANGE

Motor generator control ECU	DTC U0100 (INF U010087) is not detected DTC U0293 (INF U029387) is not detected DTC U1170 (INF U117087) is not detected
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CONFIRMATION DRIVING PATTERN

HINT:

- After repair has been completed, clear the DTC and then check that the vehicle has returned to normal by performing the following All Readiness check procedure.

[Click here](#) INFO

- When clearing the permanent DTCs, refer to the "CLEAR PERMANENT DTC" procedure.

[Click here](#) INFO

- Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
- Turn the ignition switch off and wait for 2 minutes or more.
- Turn the ignition switch to ON and wait for 2 minutes or more. [*1]

HINT:

[*1]: Normal judgment procedure.

The normal judgment procedure is used to complete DTC judgment and also used when clearing permanent DTCs.

- Enter the following menus: Powertrain / Motor Generator / Utility / All Readiness.
- Check the DTC judgment result.

HINT:

- If the judgment result shows NORMAL, the system is normal.
- If the judgment result shows ABNORMAL, the system has a malfunction.
- If the judgment result shows INCOMPLETE, perform the normal judgment procedure again.

PROCEDURE

1.	CHECK DTC OUTPUT (MOTOR GENERATOR)
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Pre-procedure1

(a) None

Procedure1

(b) Check for DTCs.

Powertrain > Motor Generator > Trouble Codes

RESULT	PROCEED TO
None of the following DTCs are output.	A
Any of the following DTCs are also output.	B

RELEVANT DTC	
U11B300	Lost Communication with Hybrid/EV Powertrain Control Module (ch5) (System 2) Missing Message
U11B387	Lost Communication with Hybrid/EV Powertrain Control Module (ch5) Missing Message

HINT:

U010087, U029387, U117008 or U117087 may be stored due to a malfunction which also causes the DTCs in the preceding table to be stored. In this case, first troubleshoot the output DTCs in the preceding table. Then, perform a test to attempt to reproduce the problems, and check that no DTCs are output.

Post-procedure1

(c) Turn the ignition switch off.

A ► GO TO CAN COMMUNICATION SYSTEM**B ► GO TO DTC CHART (MOTOR GENERATOR CONTROL SYSTEM)**