

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM100000028ZUJ
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for M20A-FXS): U010087,...,U117B87; 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	U010387	Lost Communication with Gear Shift Control Module "A" Missing Message
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DTC	U011087	Lost Communication with Drive Motor Control Module "A" Missing Message
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DTC	U012687	Lost Communication with Steering Angle Sensor Module Missing Message
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DTC	U012987	Lost Communication with Brake System Control Module Missing Message
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DTC	U013187	Lost Communication With Power Steering Control Module Missing Message
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DTC	U014087	Lost Communication with Body Control Module Missing Message
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DTC	U015187	Lost Communication with Restraints Control Module Missing Message
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DTC	U015500	Lost Communication with Instrument Panel Cluster (IPC) Control Module
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DTC	U016487	Lost Communication with HVAC Control Module Missing Message
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DTC	U110787	Lost Communication with Power Management Module Missing Message
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DTC	U111A87	Lost Communication with ECM/PCM "A" (ch2) Missing Message
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DTC	U115487	Lost Communication with Drive Motor Control Module "A" (ch2) Missing Message
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DTC	U117087	Lost Communication with Brake System Control Module (Secondary CAN Line) Missing Message
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DTC	U117B87	Lost Communication with Hybrid/EV Battery Energy Control Module "A" (ch2) Missing Message
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DESCRIPTION

The hybrid vehicle control ECU transmits and receives signals via CAN communication to and from the ECM, shift control ECU, MG ECU, skid control ECU, main body ECU, airbag ECU assembly, steering angle sensor, certification ECU (smart key ECU assembly), air conditioning amplifier assembly and battery ECU assembly.

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 hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Comes on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U0100
U010387	Lost Communication with Gear Shift Control Module "A" Missing Message	A CAN communication error between the shift control ECU and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Does not come on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U0103
U011087	Lost Communication with Drive Motor Control Module "A" Missing Message	A CAN communication error between the MG ECU and hybrid vehicle control ECU (CAN communication system malfunction) occurs	CAN communication system	Comes on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U0110

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
		(1 trip detection logic)						
U012687	Lost Communication with Steering Angle Sensor Module Missing Message	A CAN communication error between the steering angle sensor and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Does not come on	Master Warning: Does not come on	Hybrid Control	B	SAE Code: U0126
U012987	Lost Communication with Brake System Control Module Missing Message	A CAN communication error (V BUS) between the skid control ECU and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Comes on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U0129
U013187	Lost Communication With Power Steering Control Module Missing Message	A CAN communication error between the power steering ECU and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Does not come on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U01131
U014087	Lost Communication with Body Control Module Missing Message	A CAN communication error between the main body ECU and hybrid vehicle control ECU (CAN communication	CAN communication system	Does not come on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U0140

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
		system malfunction) occurs (1 trip detection logic)						
U015187	Lost Communication with Restraints Control Module Missing Message	A CAN communication error between the airbag ECU assembly and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Does not come on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U0151
U015500	Lost Communication with Instrument Panel Cluster (IPC) Control Module	A CAN communication error between the combination meter assembly and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Does not come on	Master Warning: Does not come on	Hybrid Control	B	SAE Code: U0155
U016487	Lost Communication with HVAC Control Module Missing Message	A CAN communication error between the air conditioning amplifier assembly and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Does not come on	Master Warning: Does not come on	Hybrid Control	B	SAE Code: U0164

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
U110787	Lost Communication with Power Management Module Missing Message	A CAN communication error between the certification ECU (smart key ECU assembly) and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Does not come on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U1107
U111A87	Lost Communication with ECM/PCM "A" (ch2) Missing Message	A CAN communication error between the ECM and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Comes on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U111A
U115487	Lost Communication with Drive Motor Control Module "A" (ch2) Missing Message	A CAN communication error between the MG ECU and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Comes on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U1154
U117087	Lost Communication with Brake System Control Module (Secondary CAN Line) Missing Message	A CAN communication error between the skid control ECU and hybrid vehicle control ECU (CAN communication system malfunction) occurs	CAN communication system	Comes on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U1170

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
		(1 trip detection logic)						
U117B87	Lost Communication with Hybrid/EV Battery Energy Control Module "A" (ch2) Missing Message	A CAN communication error between the battery ECU assembly and hybrid vehicle control ECU (CAN communication system malfunction) occurs (1 trip detection logic)	CAN communication system	Comes on	Master Warning: Comes on	Hybrid Control	B	SAE Code: U117B

MONITOR DESCRIPTION

If the hybrid vehicle control ECU detects a problem with CAN communication with the ECU, it will illuminate the MIL and store a DTC.

MONITOR STRATEGY

Related DTCs	U0100 (INF U010087): Lost communication with ECM/PCM verify communication U0110 (INF U011087): Lost communication with drive motor "A" control module verify communication U0129 (INF U012987): Lost communication with brake system control module verify communication U111A (INF U111A87): Lost communication with ECM/PCM verify communication U1154 (INF U115487): Lost communication with MG ECU verify communication U1170 (INF U117087): Lost communication with skid control ECU verify communication U117B (INF U117B87): Lost communication with brake system control module verify communication
Required sensors/components	Main: Hybrid vehicle control ECU Sub: CAN bus line
Frequency of operation	Continuous
Duration	TMC's intellectual property
MIL operation	Immediately
Sequence of operation	None

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

Hybrid vehicle control ECU	<p>DTC U0100 (INF U010087) is not detected</p> <p>DTC U0110 (INF U011087) is not detected</p> <p>DTC U0129 (INF U012987) is not detected</p> <p>DTC U111A (INF U111A87) is not detected</p> <p>DTC U1154 (INF U115487) is not detected</p> <p>DTC U1170 (INF U117087) is not detected</p> <p>DTC U117B (INF U117B87) is not detected</p>
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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 (READY) 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 / Hybrid Control / 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 (HEALTH CHECK)
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Pre-procedure1

(a) According to the display on the GTS, select "Health Check".

Procedure1

(b) Check for DTCs.

RESULT	PROCEED TO
Hybrid vehicle control ECU outputs P253012.	A
Hybrid vehicle control ECU does not output P253012.	B

Post-procedure1

(c) Turn the ignition switch off.

A ► [GO TO DTC CHART \(P253012\)](#)

B ► [GO TO CAN COMMUNICATION SYSTEM](#)

