

<b>DTC</b>	<b>U0100/211</b>	<b>LOST COMMUNICATION WITH ECM/PCM "A"</b>
<b>DTC</b>	<b>U0100/212</b>	<b>LOST COMMUNICATION WITH ECM/PCM "A"</b>
<b>DTC</b>	<b>U0100/530</b>	<b>LOST COMMUNICATION WITH ECM/PCM "A"</b>
<b>DTC</b>	<b>U0111/208</b>	<b>LOST COMMUNICATION WITH BATTERY ENERGY CONTROL MODULE "A"</b>
<b>DTC</b>	<b>U0111/531</b>	<b>LOST COMMUNICATION WITH BATTERY ENERGY CONTROL MODULE "A"</b>
<b>DTC</b>	<b>U0129/220</b>	<b>LOST COMMUNICATION WITH BRAKE SYSTEM CONTROL MODULE</b>
<b>DTC</b>	<b>U0129/222</b>	<b>LOST COMMUNICATION WITH BRAKE SYSTEM CONTROL MODULE</b>
<b>DTC</b>	<b>U0129/528</b>	<b>LOST COMMUNICATION WITH BRAKE SYSTEM CONTROL MODULE</b>
<b>DTC</b>	<b>U0129/529</b>	<b>LOST COMMUNICATION WITH BRAKE SYSTEM CONTROL MODULE</b>
<b>DTC</b>	<b>U0131/433</b>	<b>LOST COMMUNICATION WITH POWER STEERING CONTROL MODULE</b>
<b>DTC</b>	<b>U0131/434</b>	<b>LOST COMMUNICATION WITH POWER STEERING CONTROL MODULE</b>
<b>DTC</b>	<b>U0146/435</b>	<b>LOST COMMUNICATION WITH GATEWAY "A"</b>

## CIRCUIT DESCRIPTION

The HV control ECU transmits and receives signals to and from the ECM, battery ECU, skid control ECU, power steering ECU, and the gateway ECU via CAN (Controller Area Network) communication.

DTC No.	INF Code	DTC Detection Condition	Trouble Area
U0100	211	CAN communication problem between ECM and HV control ECU (no signal input)	• CAN communication system
U0100	212	CAN communication problem between ECM and HV control ECU (transmission error)	• CAN communication system
U0100	530	CAN communication problem between ECM and HV control ECU (CAN communication system malfunction)	• CAN communication system
U0111	208	CAN communication problem between battery ECU and HV control ECU (no signal input)	• CAN communication system
U0111	531	CAN communication problem between battery ECU and HV control ECU (CAN communication system malfunction)	• CAN communication system
U0129	220	CAN communication problem between skid control ECU and HV control ECU (no signal input)	• CAN communication system
U0129	222	CAN communication problem between skid control ECU and HV control ECU (CAN communication system malfunction)	• CAN communication system
U0129	528	CAN communication problem between skid control ECU and HV control ECU (transmission error)	• CAN communication system
U0129	529	CAN communication problem between skid control ECU and HV control ECU (regenerative torque malfunction)	• CAN communication system
U0131	433	CAN communication problem between power steering ECU and HV control ECU (no signal input)	• CAN communication system
U0131	434	CAN communication problem between power steering ECU and HV control ECU (CAN communication system malfunction)	• CAN communication system
U0146	435	CAN communication problem between gateway ECU and HV control ECU (no signal input)	• CAN communication system

## MONITOR DESCRIPTION

If the HV control ECU detects malfunction in CAN communication with the ECM or battery ECU, it illuminates the MIL and sets a DTC.

## MONITOR STRATEGY

### U0100:

Related DTCs	U0100 (INF 211): Communication between ECM and hybrid vehicle control ECU/Receiving check for the specific frame U0100 (INF 212): Communication between ECM and hybrid vehicle control ECU/Sending data check U0100 (INF 530): Communication between ECM and hybrid vehicle control ECU/Receiving check for the all frame
Required sensor/components	Main: ECM Sub: CAN bus line
Frequency of operation	Continuous
Duration	U0100 (INF 211, 212): 0.1 second or more U0100 (INF 530): 1.91 second or more
MIL operation	Immediately
Sequence of operation	None

**U0111:**

Related DTCs	U0111 (INF 208): Communication between battery ECU and hybrid vehicle control ECU/Receiving check for the specific frame U0111 (INF 531): Communication between battery ECU and hybrid vehicle control ECU/Receiving check for the all frame
Required sensor/components	Main: Battery ECU Sub: CAN bus line
Frequency of operation	Continuous
Duration	U0111 (INF 208): 0.1 second or more U0111 (INF 531): 1.6 second or more
MIL operation	Immediately
Sequence of operation	None

**TYPICAL ENABLING CONDITIONS**

The monitor will run whenever the following DTCs are not present	TOYOTA's intellectual property
Other conditions belong to TOYOTA's intellectual property	–

**TYPICAL MALFUNCTION THRESHOLDS**

CAN communication	Communication failure
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**COMPONENT OPERATING RANGE**

ECM	DTC U0100 (INF 211/212/530) is not detected
Battery ECU	DTC U0111 (INF 208/531) is not detected

**INSPECTION PROCEDURE**

<b>1</b>	<b>READ OUTPUT DTC(CODES ALL)</b>
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- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the power switch ON (IG).
- (c) Turn the hand-held tester ON
- (d) On the hand-held tester, enter the following menus: DIAGNOSIS / ENHANCED OBD II / CODES ALL.
- (e) Read and record CAN communication malfunction DTCs.

**Result:**

Display (DTC Output)	Proceed to
U0100 (INF 211) or U0129 (INF 220)	A
U0100 (INF 211) and CAN communication malfunction DTCs	B
U0129 (INF 220) and CAN communication malfunction DTCs	B
P3108 (INF 594) and CAN communication malfunction DTCs	B

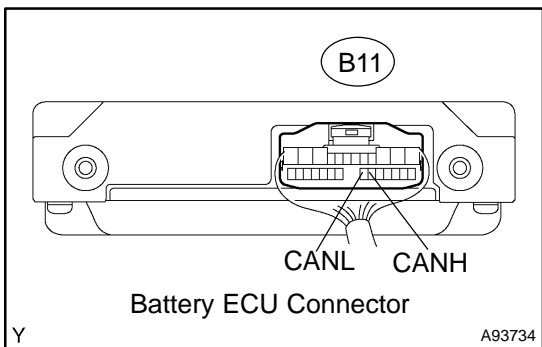
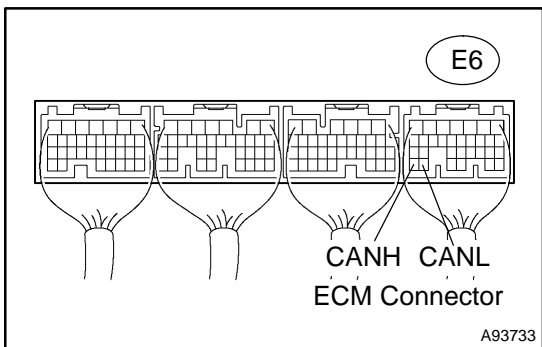
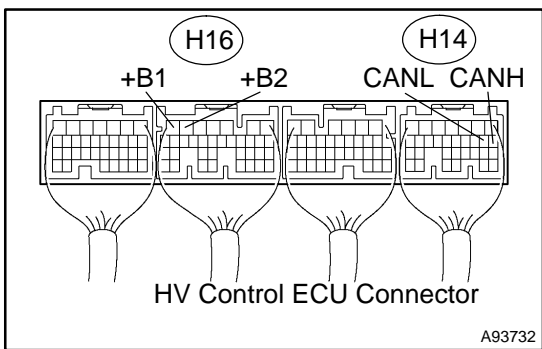
**HINT:**

- When DTCs other than CAN communication malfunction DTCs are output simultaneously, first correct the CAN communication problem, and then perform troubleshooting for other DTCs.
- DTC P3108 (INF 594) is one of the DTCs that indicates a CAN communication malfunction.

<b>B</b>	<b>GO TO CAN COMMUNICATION SYSTEM</b> (See page <a href="#">05-2602</a> )
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<b>A</b>
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**2 CHECK TERMINAL OF ECM AND ECUS(+B1, +B2, CANH AND CANL TERMINALS)**



(a) Check connection condition of each connector of the HV control ECU, ECM and battery ECU, as well as contact condition of each terminal shown in the table below.

Type of ECU	Terminal No.	Symbols
HV control ECU	H16-7	+B1
HV control ECU	H16-6	+B2
HV control ECU	H14-8	CANH
HV control ECU	H14-9	CANL
ECM	E6-31	CANH
ECM	E6-30	CANL
Battery ECU	B11-18	CANH
Battery ECU	B11-19	CANL

**OK: Connectors have been connected securely and there is no poor contact on each terminal.**

**NG** **CONNECT SECURELY**

**OK**

**CHECK FOR INTERMITTENT PROBLEMS (See page 05-407)**