SHIFT CONTROL SYSTEM (PARKING LOCK CONTROL)

# DTC C2311 HV COMMUNICATION LINE MALFUNCTION

# **CIRCUIT DESCRIPTION**

The transmission control ECU receives a P position switch signal from the hybrid vehicle control ECU and activates the parking lock motor by controlling current, causing the parking lock mechanism to switch. The transmission control ECU outputs this DTC when it detects a communication error between the hybrid vehicle control ECU and the transmission control ECU.

DTC No.	DTC detecting condition	Trouble area
C2311	<ul> <li>Power switch on (IG)</li> <li>Signals from the hybrid control ECU cannot be received, or there is a problem with a pulse signal from the hybrid vehicle control ECU for 1 sec. or more.</li> </ul>	<ul> <li>Transmission control ECU assy</li> <li>Hybrid vehicle control ECU</li> <li>Wire harness or connector</li> </ul>

# **WIRING DIAGRAM**



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# **INSPECTION PROCEDURE**

#### INSPECT TRANSMISSION CONTROL ECU ASSY(P CON TERMINAL)

(a)



Check output wave form.

- (1) Turn the power switch on (IG).
- (2) Using an oscilloscope, check the output wave form between terminals PCON (7) and E1 (15) transmission control ECU assy T4 connector.

#### OK:

The output wave form appears as shown in the illustration.

Item	Contents	
Tool setting	5V / DIV, 20 ms / DIV	
Vehicle condition	Power switch on (IG)	



REPLACE TRANSMISSION CONTROL ECU

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#### CHECK HARNESS AND CONNECTOR(HYBRID VEHICLE CONTROL ECU -2 TRANSMISSION CONTROL ECU ASSY)



- Disconnect the T4 connector from the transmission con-(a) trol ECU assy.
- Disconnect the H17 connector from the hybrid vehicle (b) control ECU.
- Measure the resistance according to the value(s) in the (c) table below.

#### Standard:

Tester connection (Symbols)	Condition	Specified condition
T4–7 (PCON) – H17–9 (PCON)	Always	Below 1 $\Omega$
T4–7 (PCON) – Body ground	Always	10 k $\Omega$ or higher

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REPAIR CONNECTOR

OR

REPLACE HARNESS OR

OK

#### REPLACE HYBRID VEHICLE CONTROL ECU (SEE PAGE 21-124)