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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for PHEV Model): P160600,P160604; Collision detected or Collision Sensor Connection (Open); 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	P160600	Collision detected or Collision Sensor Connection (Open)
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DTC	P160604	Collision detected or Collision Sensor Connection (Open) System Internal Failure
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DTC SUMMARY

MALFUNCTION DESCRIPTION

The hybrid vehicle control ECU and airbag ECU detect that a collision has occurred and shut off the system main relay.

The cause of this DTC may be one of the following:

- Collision is detected
- Detection sensor system malfunction
 - Airbag system malfunction
 - Hybrid vehicle control ECU malfunction
 - Communication malfunction between airbag ECU and hybrid vehicle control ECU
 - Hybrid vehicle control ECU communication malfunction

DESCRIPTION

The hybrid vehicle control ECU receives a signal that indicates a collision from the airbag ECU assembly to detect a collision. After detecting a collision, the hybrid vehicle control ECU shuts off the high voltage systems for safety.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P160600	Collision detected or Collision Sensor Connection (Open)	Collision detection A block signal is received from the airbag ECU assembly. (1 trip detection logic)	<ul style="list-style-type: none"> • Airbag ECU assembly • Hybrid vehicle control ECU • Airbag system 	Does not come on	Master Warning: Comes on	Hybrid Control	A	SAE Code: P1606
P160604	Collision detected or Collision Sensor Connection	Collision detection Multiple wiring malfunctions occur simultaneously.	<ul style="list-style-type: none"> • Hybrid vehicle control ECU 	Does not come on	Master Warning: Comes on	Hybrid Control	A	SAE Code: P1606

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
	(Open) System Internal Failure	(1 trip detection logic)	<ul style="list-style-type: none"> Airbag system 					

HINT:

If P160600 or P160604 is output, the hybrid system cannot be started unless the DTCs are cleared using the GTS.

CONFIRMATION DRIVING PATTERN**HINT:**

After repairs have been completed, clear the DTCs and then check that the vehicle has returned to normal by performing the following All Readiness check procedure.

Click here [INFO](#)

1. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
2. Turn the ignition switch off and wait for 30 seconds or more.
3. With the ignition switch ON (READY), wait for 30 seconds or more.
4. Turn the ignition switch off and wait for 30 seconds or more.
5. Enter the following menus: Powertrain / Hybrid Control / Utility / All Readiness.
6. Check the DTC judgment result.

HINT:

- o If the judgment result shows NORMAL, the system is normal.
- o If the judgment result shows ABNORMAL, the system has a malfunction.
- o If the judgment result shows INCOMPLETE or N/A, perform driving pattern again.

CAUTION / NOTICE / HINT**HINT:**

P160600 or P160604 may be output as a result of the malfunction indicated by the DTCs in table below.

MALFUNCTION CONTENT	RELEVANT DTC	
Microcomputer malfunction	P060647	Hybrid/EV Powertrain Control Module Processor Watchdog / Safety MCU Failure
	P060687	Hybrid/EV Powertrain Control Module Processor to Monitoring Processor Missing Message
	P060A29	Hybrid/EV Powertrain Control Module Monitoring Processor Signal Invalid
	P060A44	Hybrid/EV Powertrain Control Module Monitoring Processor Data Memory Failure
	P060A45	Hybrid/EV Powertrain Control Module Monitoring Processor Program Memory Failure
	P060A47	Hybrid/EV Powertrain Control Module Monitoring Processor Watchdog / Safety MCU Failure
	P060A49	Hybrid/EV Powertrain Control Module Monitoring Processor Internal Electronic Failure
	P060A87	Hybrid/EV Powertrain Control Module Processor from Monitoring Processor Missing Message

MALFUNCTION CONTENT	RELEVANT DTC	
	P060B1C	Hybrid/EV Powertrain Control Module A/D Processing Voltage Out of Range
	P060B49	Hybrid/EV Powertrain Control Module A/D Processing Internal Electronic Failure
	P060B71	Hybrid/EV Powertrain Control Module A/D Processing Actuator Stuck
	P06881F	ECM/PCM Power Relay Sense Circuit Intermittent
	P1C9E9F	Hybrid/EV System Reset Stuck Off
	P1CE31C	Hybrid/EV Powertrain Control Module Monitoring Processor A/D Processing Voltage Out of Range
	P1CE349	Hybrid/EV Powertrain Control Module Monitoring Processor A/D Processing Internal Electronic Failure
	P1CE371	Hybrid/EV Powertrain Control Module Monitoring Processor A/D Processing Actuator Stuck

PROCEDURE

1. CHECK VEHICLE FOR COLLISION DAMAGE

(a) Check the vehicle condition.

Result	PROCEED TO
The vehicle is not damaged	A
The vehicle is damaged	B

B  **GO TO STEP 6**

A



2. INSPECT HV SUPPLY BATTERY ASSEMBLY

HINT:

Click here 

NEXT



3. CHECK DTC OUTPUT (HYBRID CONTROL)

(a) Check for DTCs.

Powertrain > Hybrid Control > Trouble Codes

Result	PROCEED TO
P160600 is output	A
P160604 is output	B

B  **GO TO STEP 7**

A



4. CLEAR DTC

Pre-procedure1

(a) Turn the ignition switch to ON and wait for 10 seconds or more.

Procedure1

(b) Clear the DTCs.

Powertrain > Hybrid Control > Clear DTCs

Post-procedure1

(c) Turn the ignition switch off and wait for 2 minutes or more.

NEXT



5. CHECK DTC OUTPUT (HEALTH CHECK)

Pre-procedure1

(a) Turn the ignition switch to ON and wait for 10 seconds or more.

Procedure1

(b) Enter the following menus: System Select / Health Check.

Result	PROCEED TO
P160600 is output	A
DTCs except P160600 are output	B

Post-procedure1

(c) Turn the ignition switch off.

A ► CHECK AIRBAG SYSTEM

B ► GO TO DTC CHART

6.	INSPECT HV SUPPLY BATTERY ASSEMBLY
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HINT:

Click here [INFO](#)

NEXT ► REPAIR VEHICLE

7.	CHECK DTC OUTPUT (HYBRID CONTROL, MOTOR GENERATOR CONTROL)
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(a) Check for DTCs.

Powertrain > Hybrid Control > Trouble Codes

Powertrain > Motor Generator > Trouble Codes

RESULT	PROCEED TO
DTCs of hybrid control system in the table below are output.	A
DTCs of motor generator control system in the table below are output.	B

SYSTEM	RELEVANT DTC	
Hybrid control system	P310711	Lost Communication with Airbag System Control Module Circuit Short to Ground
	P310715	Lost Communication with Airbag System Control Module Circuit Short to Auxiliary Battery or Open
	U015187	Lost Communication with Restraints Control Module Missing Message

SYSTEM	RELEVANT DTC	
Motor generator control system	U11B387	Lost Communication with Hybrid/EV Powertrain Control Module (ch5) Missing Message

A ► **GO TO DTC CHART (HYBRID CONTROL SYSTEM)**

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

