

<b>DTC</b>	<b>P0A1D/159</b>	<b>HYBRID POWERTRAIN CONTROL MODULE</b>
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<b>DTC</b>	<b>P0A1D/160</b>	<b>HYBRID POWERTRAIN CONTROL MODULE</b>
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## CIRCUIT DESCRIPTION

The HV control ECU performs self-checks to detect an internal operating malfunction in the ECU.

DTC No.	INF Code	DTC Detection Condition	Trouble Area
P0A1D	159 160	HV control ECU internal error	•HV control ECU

## MONITOR DESCRIPTION

The HV control ECU performs many diagnostic tests to verify proper operation of internal and external ECU systems. In one of these monitors, the HV control ECU checks the motor main CPU serial communication link.

If the HV control ECU detects a failure, it will conclude that there is an internal malfunction involving the HV control ECU to motor main CPU communication link. The HV control ECU will illuminate the MIL and set a DTC.

## MONITOR STRATEGY

Related DTCs	P0A1D (INF 159/160): Hybrid vehicle control ECU/Motor CPU serial communication error
Required sensor/components	Hybrid vehicle control ECU
Frequency of operation	Continuous
Duration	TOYOTA's intellectual property
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

Hybrid vehicle control ECU	Internal error
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## COMPONENT OPERATING RANGE

Hybrid vehicle control ECU	DTC P0A1D (INF 159/160) is not detected
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## INSPECTION PROCEDURE

If any of the above information (INF) codes is present, replace the HV control ECU.

<b>REPLACE HYBRID VEHICLE CONTROL ECU (See page <a href="#">21-124</a>)</b>
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