

<b>DTC</b>	<b>P0A1D/139</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	139	HV control ECU internal error	• HV control ECU

## MONITOR DESCRIPTION

The HV control ECU performs diagnostic monitoring to verify proper operation of vehicle systems. One of these monitors checks the inside of the HV control ECU for a bad integrated circuit which actuates a relay. If the HV control ECU detects malfunction, it will illuminate the MIL and set a DTC.

## MONITOR STRATEGY

Related DTCs	P0A1D (INF 139): Hybrid vehicle control ECU/IG malfunction
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 139) is not detected
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## INSPECTION PROCEDURE

If the above information (INF) code is present, replace the HV control ECU.

<b>REPLACE HYBRID VEHICLE CONTROL ECU (See page 21-124)</b>
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