

DTC	P0A1D/165	HYBRID POWERTRAIN CONTROL MODULE
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DTC	P0A1D/168	HYBRID POWERTRAIN CONTROL MODULE
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DTC	P0A1D/198	HYBRID POWERTRAIN CONTROL MODULE
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DTC	P0A1D/199	HYBRID POWERTRAIN CONTROL MODULE
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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	165 168 198 199	HV control ECU internal error	• HV control ECU

MONITOR DESCRIPTION

The HV control ECU performs diagnostic monitoring to verify proper operation of internal and external ECU systems. In this diagnostic monitor, the HV control ECU checks for an R/D (Resolver/Digital Converter) malfunction involving the motor resolver.

If the HV control ECU detects an R/D error, it will conclude that there is an internal malfunction involving the motor resolver. The HV control ECU will illuminate the MIL and set a DTC.

MONITOR STRATEGY

Related DTCs	P0A1D (INF 165/168/198/199): Hybrid vehicle control ECU/Motor R/D 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 165/168/198/199) is not detected
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INSPECTION PROCEDURE

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

REPLACE HYBRID VEHICLE CONTROL ECU (See page 21-124)
