

DTC	P0A72/326	GENERATOR PHASE V CURRENT
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DTC	P0A72/328	GENERATOR PHASE V CURRENT
DTC	P0A72/330	GENERATOR PHASE V CURRENT
DTC	P0A72/333	GENERATOR PHASE V CURRENT
DTC	P0A72/515	GENERATOR PHASE V CURRENT
DTC	P0A75/334	GENERATOR PHASE W CURRENT
DTC	P0A75/335	GENERATOR PHASE W CURRENT
DTC	P0A75/336	GENERATOR PHASE W CURRENT
DTC	P0A75/338	GENERATOR PHASE W CURRENT
DTC	P0A75/341	GENERATOR PHASE W CURRENT
DTC	P0A75/516	GENERATOR PHASE W CURRENT

CIRCUIT DESCRIPTION

Refer to DTC P0A60 (INF 288) on page 05–552.

DTC No.	INF Code	DTC Detection Condition	Trouble Area
P0A72	326	Phase V current sub sensor of generator inverter current sensor malfunction	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A72	327	Open in phase V current sub sensor circuit of generator inverter current sensor	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A72	328	Phase V current main sensor of generator inverter current sensor malfunction	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A72	330	Open in phase V current main sensor circuit of generator inverter current sensor	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A72	333	Phase V current main and sub sensors of generator inverter current sensor performance problem	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A72	515	Phase V current main and sub sensors of generator inverter current sensor offset malfunction	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A75	334	Phase W current sub sensor of generator inverter current sensor malfunction	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A75	335	Open in phase W current sub sensor circuit of generator inverter current sensor	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A75	336	Phase W current main sensor of generator inverter current sensor malfunction	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A75	338	Open in phase W current main sensor circuit of generator inverter current sensor	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A75	341	Phase W current main and sub sensors of generator inverter current sensor performance problem	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly
P0A75	516	Phase W current main and sub sensors of generator inverter current sensor offset malfunction	<ul style="list-style-type: none"> • Wire harness or connector • w/ converter inverter assembly

MONITOR DESCRIPTION

The HV control ECU monitors the generator inverter current sensor. If the HV control ECU detects a fault, it will illuminate the MIL and set a DTC.

MONITOR STRATEGY

Related DTCs	P0A72 (INF 326/327/328/330/333/515): Generator inverter current sensor / Phase V current sensor malfunction P0A75 (INF 334/335/336/338/341/516): Generator inverter current sensor / Phase W current sensor malfunction
Required sensor/components	Generator inverter current sensor, generator resolver
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

Generator inverter current sensor	Abnormal
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COMPONENT OPERATING RANGE

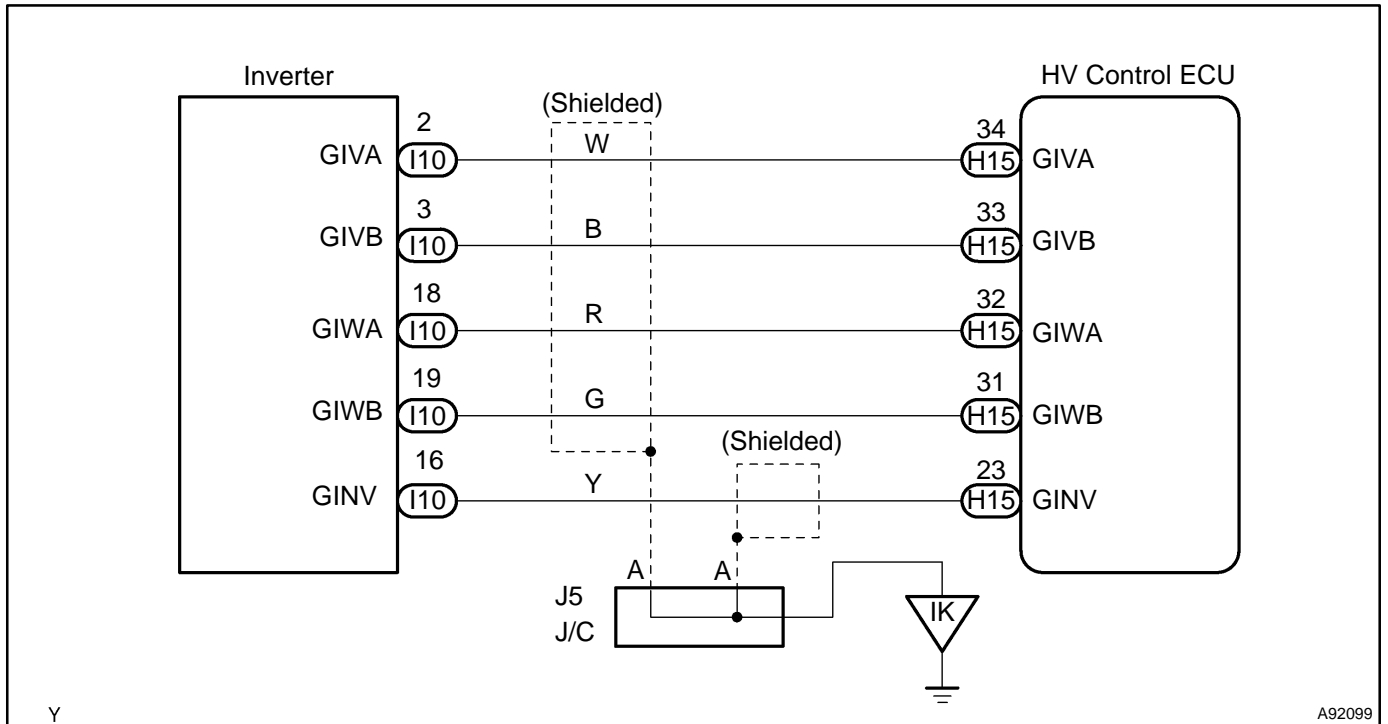
P0A72 (INF 326/327/328/330/333/515):

Generator inverter current sensor	DTC P0A72 (INF 326/327/328/330/333/515) is not detected
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P0A75 (INF 334/335/336/338/341/516):

Generator inverter current sensor	DTC P0A75 (INF 334/335/336/338/341/516) is not detected
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WIRING DIAGRAM



INSPECTION PROCEDURE

CAUTION:

- Before inspecting the high-voltage system, take safety precautions to prevent electrical shocks, such as wearing insulated gloves and removing the service plug grip. After removing the service plug grip, put it in your pocket to prevent other technicians from reconnecting it while you are servicing the high-voltage system.
- After disconnecting the service plug grip, wait at least for 5 minutes before touching any of the high-voltage connectors or terminals.

HINT:

At least 5 minutes is required to discharge the high-voltage condenser inside the inverter.

1 CHECK HARNESS AND CONNECTOR(HYBRID VEHICLE CONTROL ECU - INVERTER)

CAUTION:

Wear insulated gloves before performing the following operation.

- (a) Turn the power switch OFF.
- (b) Remove the service plug grip (see page 21-116).

NOTICE:

Turning the power switch ON (READY) with the service plug grip removed could cause malfunction. Therefore, never turn the power switch ON (READY) in this state.

- (c) Disconnect the H15 HV control ECU connector.
- (d) Remove the inverter cover (see page 21-23).
- (e) Disconnect the I10 inverter connector.
- (f) Turn the power switch ON (IG).

HINT:

DTCs for the interlock switch system are output when turning the power switch ON (IG) with both service plug grip and inverter cover removed.

- (g) Measure the voltage between the terminals of the HV control ECU connector and body ground.

Standard:

Tester Connection	Specified Condition
GIVA (H15-34) – Body ground	Below 1 V
GIVB (H15-33) – Body ground	Below 1 V
GIWA (H15-32) – Body ground	Below 1 V
GIWB (H15-31) – Body ground	Below 1 V
GINV (H15-23) – Body ground	Below 1 V

- (h) Turn the power switch OFF.
- (i) Check the resistance between the wire harness side connectors.

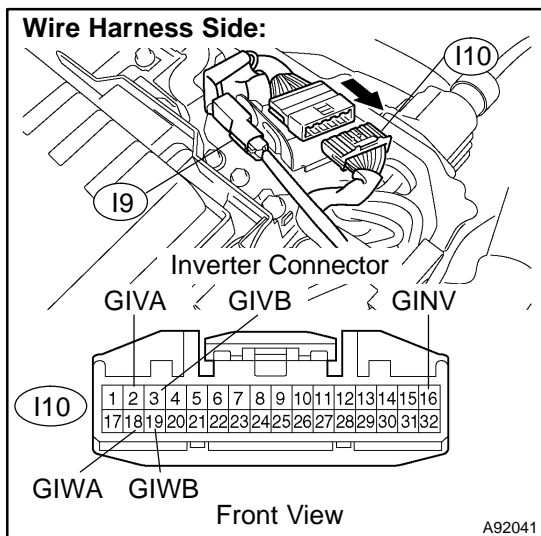
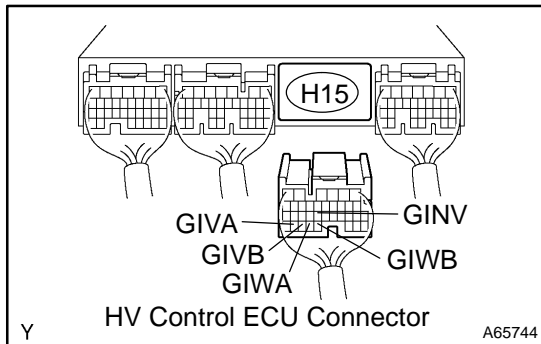
Standard (Check for open):

Tester Connection	Specified Condition
GIVA (H15-34) – GIVA (I10-2)	Below 1 Ω
GIVB (H15-33) – GIVB (I10-3)	Below 1 Ω
GIWA (H15-32) – GIWA (I10-18)	Below 1 Ω
GIWB (H15-31) – GIWB (I10-19)	Below 1 Ω
GINV (H15-23) – GINV (I10-16)	Below 1 Ω

Standard (Check for short):

Tester Connection	Specified Condition
GIVA (H15-34) or GIVA (I10-2) – Body ground	10 kΩ or higher
GIVB (H15-33) or GIVB (I10-3) – Body ground	10 kΩ or higher
GIWA (H15-32) or GIWA (I10-18) – Body ground	10 kΩ or higher
GIWB (H15-31) or GIWB (I10-19) – Body ground	10 kΩ or higher
GINV (H15-23) or GINV (I10-16) – Body ground	10 kΩ or higher

- (j) Reconnect the inverter connector.
- (k) Reconnect the HV control ECU connector.
- (l) Reinstall the inverter cover (see page 21-23).
- (m) Reinstall the service plug grip (see page 21-116).



NG **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE W/CONVERTER INVERTER ASSY (See page 21-23)