DTC P0A7A/324 GENERATOR INVERTER PERFORMANCE

CIRCUIT DESCRIPTION

See the description of the inverter on page 05–365.
If the generator inverter has a circuit malfunction, internal short, or overheats, the inverter transmits that information to the GFIV terminal of HV control ECU via generator inverter fail signal line.

DTC No.	INF Code	DTC Detection Condition	Trouble Area
P0A7A	324	Generator inverter fail (GFIV) signal detection (circuit malfunction)	• Wire harness or connector • w/ converter inverter assembly

WIRING DIAGRAM

Refer to DTC P0A78 (INF 282) on page 05–387.

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	READ OUTPUT DTC (HYBRID CONTROL)

(a) Connect the intelligent tester II to the DLC3.
(b) Turn the power switch ON (IG).
(c) Turn the intelligent tester II ON.
(d) On the intelligent tester II, enter the following menus: Powertrain / Hybrid Control / DTC.
(e) Read DTCs.
Result: DTC listed in the table below is output

DTC No.	INF Code	Detection Item	See Page
P0A7A	321 or 323	Generator Inverter Performance	05–426

YES → **GO TO THE PAGE NUMBER SHOWN IN THE TABLE ABOVE**

NO

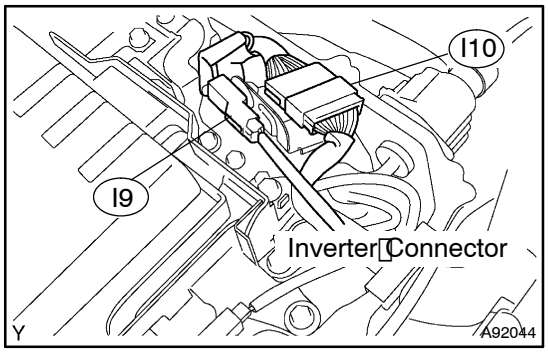
2	CHECK CONNECTION CONDITION OF INVERTER CONNECTOR(LOOSENESS AND POOR CONTACT)

CAUTION:
Wear insulated gloves before performing the following operation.

(a) Turn the power switch OFF.
(b) Remove the service plug grip (see page 21–120).

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) Remove the inverter cover (see page 21–25).
(d) Check the connection condition of the I9 and I10 inverter connectors.
OK: Connectors have been connected securely and there is no poor connection.
(e) Reinstall the inverter cover (see page 21–25).
(f) Reinstall the service plug grip (see page 21–120).



NG → CONNECT SECURELY

OK

3	READ OUTPUT DTC(HYBRID CONTROL)

(a) Connect the intelligent tester II to the DLC3.
(b) 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.

(c) Turn the intelligent tester II ON.
(d) On the intelligent tester II, enter the following menus: Powertrain / Hybrid Control / DTC.
(e) Read DTCs.
Result: DTCs P0A78 (INF 282, 286) and P0A7A (INF 324) (inverter circuit malfunction) are output

NO → REPLACE W/CONVERTER INVERTER ASSY (See page 21–25)

YES

4	INSPECT W/CONVERTER INVERTER ASSY(IGCT VOLTAGE)

CAUTION:
Wear insulated gloves before performing the following operation.

(a) Turn the power switch OFF.

(b) Remove the service plug grip (see page 21–120).

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) Remove the inverter cover (see page 21–25).

(d) 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.

(e) Measure the voltage between the terminals of the inverter connector.

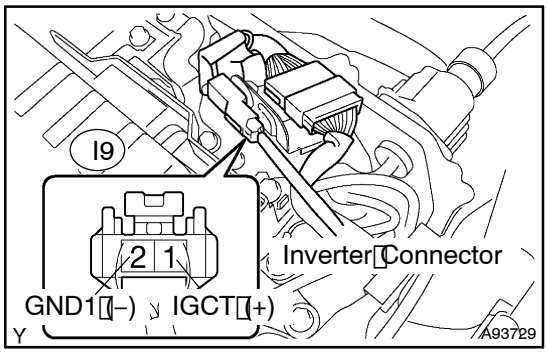
Standard:

Tester Connection	Specified Condition
IGCT (I9–1) – GND1 (I9–2)	8 V or more

(f) Turn the power switch OFF.

(g) Reinstall the inverter cover (see page 21–25).

(h) Reinstall the service plug grip (see page 21–120).



NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE W/CONVERTER INVERTER ASSY (See page 21–25)