DTC P0A94/588 DC/DC CONVERTER PERFORMANCE

CIRCUIT DESCRIPTION

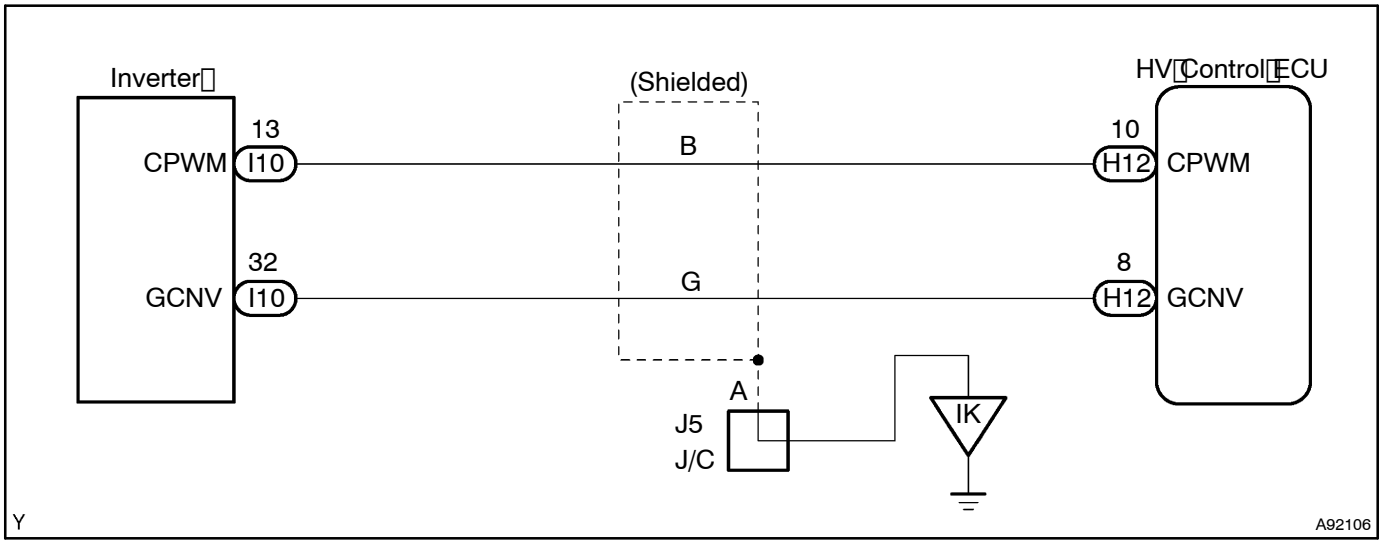
See the description of the boost converter on page 05–477.

The boost converter switches the power transistors ON and OFF in accordance with the power transistor actuation signals received from the HV control ECU, in order to change the current that flows into the reactor. Also, the boost converter regulates the duration of the switching time through PWM (Pulse Width Modulation) control, in order to control the boosting voltage.

The HV control ECU monitors the boost converter PWM circuit and detects malfunction.

DTC No.	INF Code	DTC Detection Condition	Trouble Area
P0A94	588	Abnormality in boost converter PWM circuit	• Wire harness or connector • w/ converter inverter assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

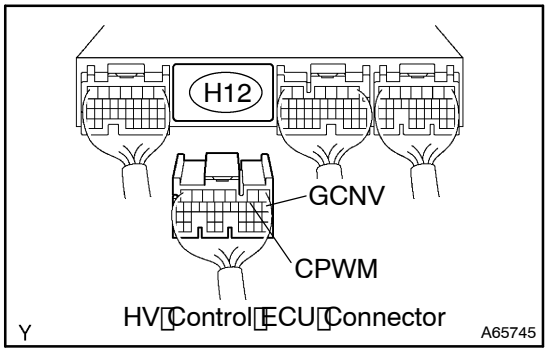
CAUTION:

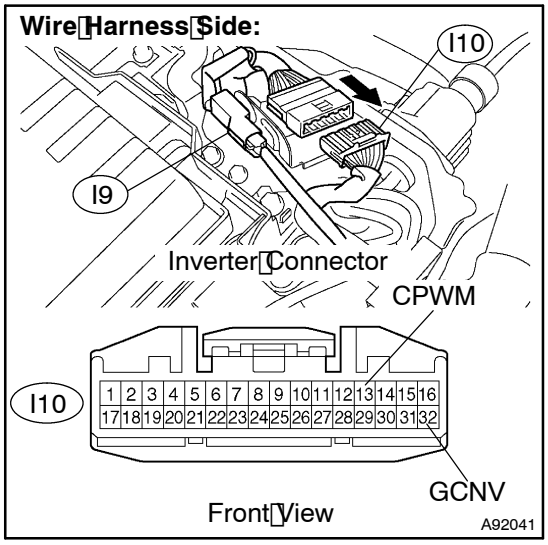
- **Before inspecting the high–voltage system, take safety precautions to prevent electrical shocks, such as wearing insulated gloves and removing the service plug grip. After removing the service plug grip, put it in your pocket to prevent other technicians from reconnecting it while you are servicing 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 21–120).

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) Disconnect the H12 HV control ECU connector.

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

(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 terminal of the HV control ECU connector and body ground.

Standard:

Tester Connection	Specified Condition
CPWM (H12–10) – Body ground	Below 1 V
GCNV (H12–8) – 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
CPWM (H12–10) – CPWM (I10–13)	Below 1 Ω
GCNV (H12–8) – GCNV (I10–32)	Below 1 Ω

Standard (Check for short):

Tester Connection	Specified Condition
CPWM (H12–10) or CPWM (I10–13) – Body ground	10 kΩ or higher
GCNV (H12–8) or GCNV (I10–32) – 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 21–25).

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

NG	REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE W/CONVERTER INVERTER ASSY (See page 21–120)