DTC	P0A78/283	DRIVE MOTOR "A" INVERTER PERFORMANCE

DTC	P0A78/285	DRIVE MOTOR "A" INVERTER PERFORMANCE

CIRCUIT DESCRIPTION

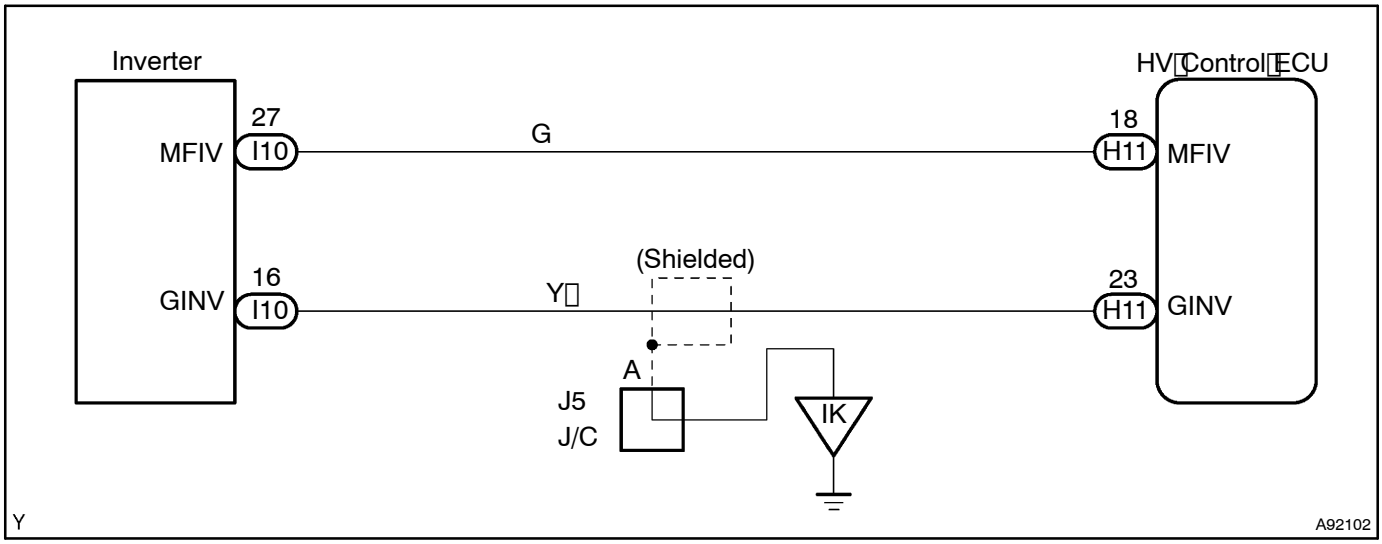
See the description of the inverter on page 05–365.

If the motor inverter has a circuit malfunction, internal short, or overheats, the inverter transmits this information to the MFIV terminal of the HV control ECU via the motor inverter fail signal line.

The HV control ECU monitors the motor inverter fail signal line and detects a malfunction.

DTC No.	INF Code	DTC Detection Condition	Trouble Area
P0A78	283	+B short in motor inverter fail (MFIV) signal circuit	• Wire harness or connector • w/ converter inverter assembly
P0A78	285	Open or GND short in motor inverter fail (MFIV) signal circuit	• Wire harness or connector • w/ converter inverter assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

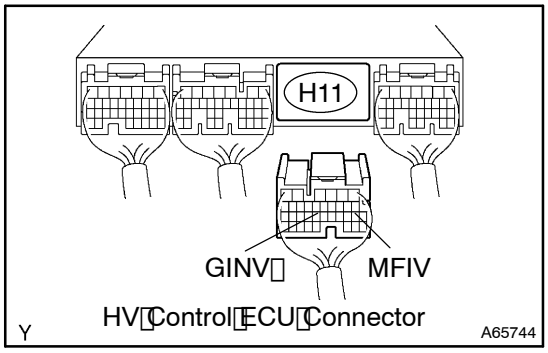
CAUTION:

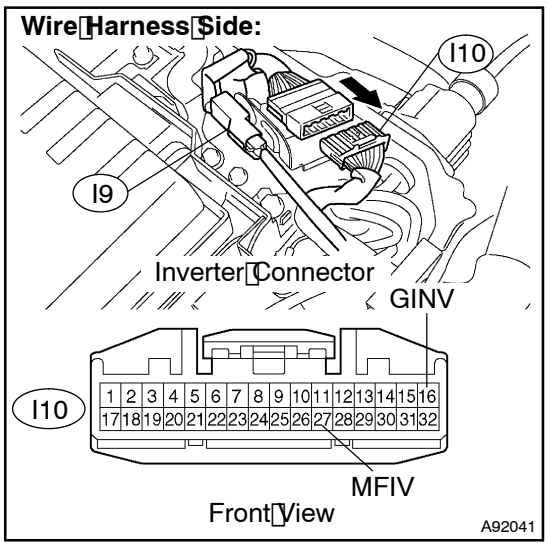
- **Before inspecting the high–voltage system, take safety precautions to prevent electrical shocks, such as wearing insulated gloves and removing the service plug grip. After removing the service plug grip, put it in your pocket to prevent other technicians from reconnecting it while you are servicing 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 H11 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 terminals of the HV control ECU connector and body ground.

Standard:

Tester Connection	Specified Condition
MFIV (H11–18) – Body ground	Below 1 V
GINV (H11–23) – 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
MFIV (H11–18) – MFIV (I10–27)	Below 1 Ω
GINV (H11–23) – GINV (I10–16)	Below 1 Ω

Standard (Check for short):

Tester Connection	Specified Condition
MFIV (H11–18) or MFIV (I10–27) – Body ground	10 kΩ or higher
GINV (H11–23) 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 21–25).

(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 21–25)