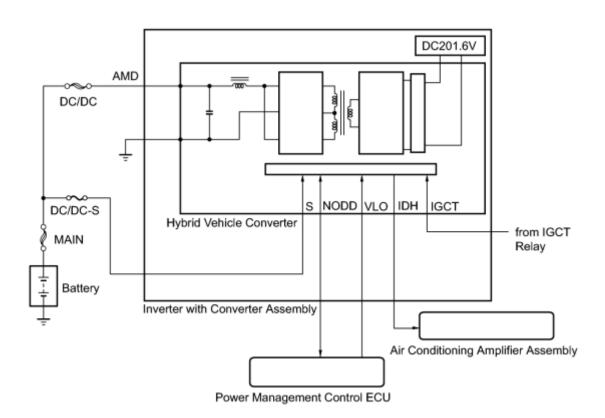
DC / DC Converter Status Circuit

## **DESCRIPTION**

The hybrid vehicle converter (DC/DC converter) converts the DC 201.6 V of the HV battery into DC 12 V in order to supply power to areas such as the vehicle's lighting, audio, and ECU systems. In addition, it charges the auxiliary battery. A transistor bridge circuit initially converts DC 201.6 V into alternating current, and a transformer lowers its voltage. Then, it is rectified and smoothed (into DC) and converted into DC 12 V. The hybrid vehicle converter controls the output voltage in order to keep a constant voltage at the terminals of the auxiliary battery.

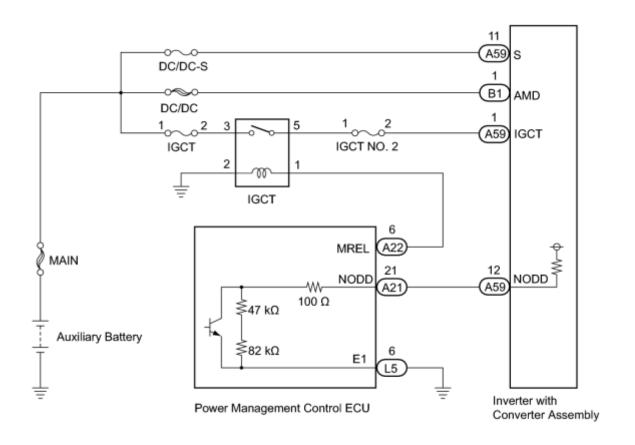
The power management control ECU (HV CPU) uses the NODD signal line to transmit a stop command to the hybrid vehicle converter and receive signals indicating the normal or abnormal condition of the 12 V charging system. If the vehicle is being driven with an inoperative hybrid vehicle converter, the voltage of the auxiliary battery will drop, which will prevent the continued operation of the vehicle. Therefore, the power management control ECU (HV CPU) monitors the operation of the hybrid vehicle converter and alerts the driver if it detects a malfunction.



DTC No.	INF Code	DTC Detection Condition	Trouble Area
P0A08	264	DC/DC converter malfunction	<ul> <li>Wire harness or connector</li> <li>Water pump with motor assembly</li> <li>Inverter cooling system</li> <li>Hybrid vehicle transaxle assembly</li> <li>Generator cable</li> </ul>

DTC No.	INF Code	DTC Detection Condition	Trouble Area
			<ul> <li>Motor cable</li> <li>Frame wire</li> <li>Inverter with converter assembly</li> <li>Fusible link block assembly (MAIN)</li> <li>Fuse (DC/DC-S, IGCT, IGCT No. 2, IGCT No. 3)</li> <li>Fusible link block assembly (DC/DC)</li> </ul>

## WIRING DIAGRAM



## INSPECTION PROCEDURE

#### **CAUTION:**

• Before inspecting the high-voltage system or disconnecting the low voltage connector of the inverter with converter assembly, take safety precautions such as wearing insulated gloves and removing the service plug grip to prevent electrical shocks. After removing the service plug grip, put it in your pocket

- to prevent other technicians from accidentally reconnecting it while you are working on the high-voltage system.
- After disconnecting the service plug grip, wait for at least 10 minutes before touching any of the high-voltage connectors or terminals. After waiting for 10 minutes, check the voltage at the terminals in the inspection point in the inverter with converter assembly. The voltage should be 0 V before beginning work.

#### HINT:

Waiting for at least 10 minutes is required to discharge the high-voltage capacitor inside the inverter with converter assembly.

## **PROCEDURE**

- 1. CHECK DTC OUTPUT (HV)
- (a) Connect the Techstream to the DLC3.
- (b) Turn the power switch on (IG).
- (c) Enter the following menus: Powertrain / Hybrid Control / Trouble Codes.
- (d) Check if DTCs are output.

#### Result:

Result	Proceed to
DTC P0A08-264 only is output.	A
Any of the following DTCs are also output.	В

DTC No.	Relevant Diagnosis
P0A93-346	Inverter Cooling System Performance
P0A94-547, 548, 549	DC / DC Converter Performance
P0AA6-526, 613	Hybrid Battery Voltage System Isolation Fault
P0ADB-227	Hybrid Battery Positive Contactor Control Circuit Low
P0ADF-229	Hybrid Battery Negative Contactor Control Circuit Low
P0AE6-225	Hybrid Battery Precharge Contactor Control Circuit Low
P0C73-776	Motor Electronics Coolant Pump "A" Control Performance
P3004-131, 803	Power Cable Malfunction

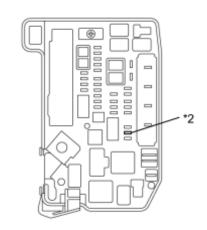
(e) Turn the power switch off.

## B GO TO DTC CHART



2. CHECK FUSE (IGCT NO. 2)

- (a) Disconnect the cable from the negative auxiliary battery terminal.
- (b) Remove the IGCT No. 2 fuse from the engine room junction block assembly.



(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

<b>Tester Connection</b>	<b>Switch Condition</b>	<b>Specified Condition</b>
IGCT No. 2 fuse terminals	Always	Below 1 Ω

## **Text in Illustration**

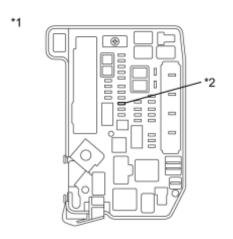
*1	Engine Room Junction Block Assembly
*2	IGCT No. 2 Fuse

(d) Install the IGCT No. 2 fuse.

NG CHECK HARNESS AND CONNECTOR (INVERTER WITH CONVERTER ASSEMBLY - IGCT NO. 2 FUSE)



3. CHECK FUSE (DC/DC-S)



(a) Remove the DC/DC-S fuse from the engine room junction block assembly.

(b) Measure the resistance according to the value(s) in the table below.

#### Standard Resistance:

<b>Tester Connection</b>	<b>Switch Condition</b>	<b>Specified Condition</b>
DC/DC-S fuse terminals	Always	Below 1 Ω

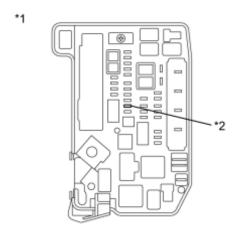
#### **Text in Illustration**

- \*1 Engine Room Junction Block Assembly
  - \*2 DC/DC-S Fuse
- (c) Install the DC/DC-S fuse.

NG CHECK HARNESS AND CONNECTOR (INVERTER WITH CONVERTER ASSEMBLY - DC/DC-S FUSE)



4. CHECK FUSE (IGCT)



(a) Remove the IGCT fuse from the engine room junction block assembly.

(b) Measure the resistance according to the value(s) in the table below.

#### Standard Resistance:

<b>Tester Connection</b>	<b>Switch Condition</b>	<b>Specified Condition</b>
IGCT fuse terminals	Always	Below 1 Ω

#### **Text in Illustration**

*1	Engine Room Junction Block Assembly
*2	IGCT Fuse

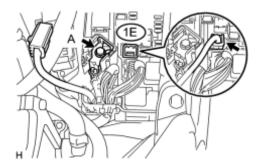
(c) Install the IGCT fuse.

## NG CHECK ENGINE ROOM JUNCTION BLOCK (IGCT RELAY, IGCT FUSE, IGCT NO. 2 FUSE)



5. CHECK FUSIBLE LINK (DC/DC)

(a) Disconnect connector 1E from the engine room junction block assembly.



(b) Measure the resistance according to the value(s) in the table below.

#### Standard Resistance:

<b>Tester Connection</b>	Switch Condition	Specified Condition
1E-1 - terminal A	Always	Below 1 Ω

(c) Check the fusible links (DC/DC) in the engine room junction block assembly for improper installation.

#### OK:

The fusible link is installed securely.

(d) Connect the engine room junction block assembly connector.

#### NG REPLACE FUSIBLE LINK (DC/DC)

OK

6. CHECK CONNECTOR CONNECTION CONDITION (POWER MANAGEMENT CONTROL ECU CONNECTOR).

#### NG CONNECT SECURELY



7. CHECK CONNECTOR CONNECTION CONDITION (INVERTER WITH CONVERTER ASSEMBLY CONNECTOR)

#### NG CONNECT SECURELY



8. CHECK CABLE AND WIRE HARNESS

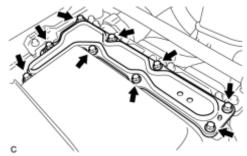
#### **CAUTION:**

Be sure to wear insulated gloves.

(a) Check that the service plug grip is not installed.

#### NOTICE:

After removing the service plug grip, do not turn the power switch on (READY), unless instructed by the repair manual because this may cause a malfunction.



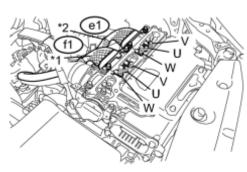
(b) Remove the inverter terminal cover from the inverter with converter assembly.

(c) Using a megohmmeter set to 500 V, measure the insulation resistance according to the value(s) in the table below.

#### NOTICE:

Be sure to set the megohmmeter to 500 V when performing this test. Using a setting higher than 500 V can result in damage to the component being inspected.

#### Standard Resistance:



<b>Tester Connection</b>	Switch Condition	Specified Condition
f1-3 (V) - Body ground and shield ground	Power switch off	1 M $\Omega$ or higher
f1-2 (U) - Body ground and shield ground	Power switch off	1 M $\Omega$ or higher
f1-1 (W) - Body ground and shield ground	Power switch off	1 M $\Omega$ or higher
e1-3 (V) - Body ground and shield ground	Power switch off	1 MΩ or higher
e1-2 (U) - Body ground and shield ground	Power switch off	1 M $\Omega$ or higher
e1-1 (W) - Body ground and shield ground	Power switch off	1 M $\Omega$ or higher

## **Text in Illustration**

*1	Three-phase AC Cable for MG1
*2	Three-phase AC Cable for MG2

#### HINT:

Perform this inspection while the three-phase AC cable for MG1 and for

(d) Install the inverter terminal cover to the inverter with converter assembly.

## NG CHECK HYBRID VEHICLE TRANSAXLE ASSEMBLY (MG1)



9. CHECK AMD TERMINAL

#### **CAUTION:**

Be sure to wear insulated gloves.

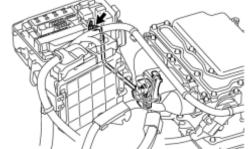
(a) Check that the service plug grip is not installed.

#### NOTICE:

After removing the service plug grip, do not turn the power switch on (READY), unless instructed by the repair manual because this may cause a malfunction.

(b) Check that the nuts for the AMD terminal is tightened to the specified torque, the AMD terminal is connected securely, and there is no contact problem.

#### Torque:



T=8.3 N\*m {85 kgf\*cm, 73 in.\*lbf }

#### Result:

Result		Proceed to
There are no arc marks.	The terminal is connected securely and there is no contact problem.	A
There are no arc marks.	The terminal is not connected securely and there is a contact problem.	В
There are arc marks.	-	С

C REPLACE MALFUNCTIONING PARTS

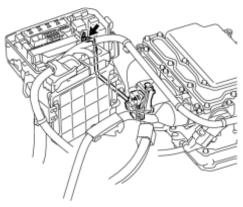
B CONNECT SECURELY



10. CHECK AMD TERMINAL (ENGINE ROOM JUNCTION BLOCK ASSEMBLY SIDE)

#### **CAUTION:**

Be sure to wear insulated gloves.



(a) Measure the voltage according to the value(s) in the table below.

#### Standard Voltage:

<b>Tester Connection</b>	Switch Condition	Specified Condition
AMD terminal (Engine Room Junction Block Assembly side) - Body ground	Power switch off	11 to 14 V

## NG REPAIR OR REPLACE HARNESS OR CONNECTOR



#### 11. CHECK HARNESS AND CONNECTOR

#### **CAUTION:**

Be sure to wear insulated gloves.

(a) Check that the service plug grip is not installed.

#### NOTICE:

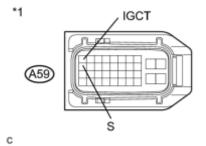
After removing the service plug grip, do not turn the power switch on (READY), unless instructed by the repair manual because this may cause a malfunction.

- (b) Disconnect connector A59 from the inverter with converter assembly.
- (c) Turn the power switch on (IG).

#### HINT:

Turning the power switch on (IG) with the service grip removed causes interlock switch system DTC P0A0D-350 to be output.

(d) Measure the voltage according to the value(s) in the table below.



#### Standard Voltage:

<b>Tester Connection</b>	<b>Switch Condition</b>	Specified Condition
A59-1 (IGCT) - Body ground	Power switch on	11 to 14 V
A59-11 (S) - Body ground	(IG)	

## **Text in Illustration**

\*1 Front view of wire harness connector

(to Inverter with Converter Assembly)

- (e) Turn the power switch off.
- (f) Connect the inverter with converter assembly connector.

NG REPAIR OR REPLACE HARNESS OR CONNECTOR



12. CHECK POWER MANAGEMENT CONTROL ECU

#### CAUTION:

Be sure to wear insulated gloves.

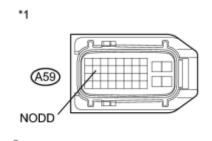
(a) Check that the service plug grip is not installed.

#### NOTICE:

After removing the service plug grip, do not turn the power switch on (READY), unless instructed by the repair manual because this may cause a malfunction.

- (b) Disconnect connector A59 from the inverter with converter assembly.
  - (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



<b>Tester Connection</b>	Switch Condition	Specified Condition
A59-12 (NODD) - Body ground	Power switch off	120 to 140 kΩ

## **Text in Illustration**

\*1 Front view of wire harness connector
(to Inverter with Converter Assembly)

(d) Connect the inverter with converter assembly connector.

### NG INSPECT POWER MANAGEMENT CONTROL ECU

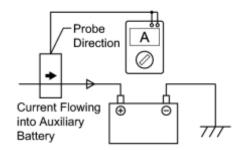


#### 13. CHECK DC/DC CONVERTER FUNCTION

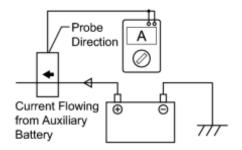
#### HINT:

The current at the AMD terminal cannot be measured directly because of space limitations. Measure the current flowing at the auxiliary battery instead.

- (a) Connect the AC/DC 400 A probe to the positive auxiliary battery line.
- (b) Install the service plug grip.
- (c) Turn the power switch on (READY) and leave the vehicle as it is until the electric current flowing into the auxiliary battery becomes 10 A or less.
- (d) Measure the current flowing from the auxiliary battery with the power switch on (READY), the headlight position switch and blower motor switch in the HI position, and the rear window defogger turned on.



С



С

#### **Standard Current:**

Item	Switch Condition	<b>Specified Condition</b>
	Power switch on (READY)	0 A or less
Current flowing from auxiliary battery	(The headlight position switch and blower motor switch are in the HI position, and the rear window defogger is turned on.)	(no current from auxiliary battery)

(e) Measure the voltage according to the value(s) in the table below.

#### Standard Voltage:

Tester Connection	Switch Condition	Specified Condition
Auxiliary battery	Power switch on (READY)	
voltage	(The headlight position switch and blower motor switch are in the HI position, and the rear window defogger is turned on.)	13 to 15 V

(f) Turn the power switch off.

NG REPLACE INVERTER WITH CONVERTER ASSEMBLY

OK

V

14. CHECK QUANTITY OF HV COOLANT

C INSPECT FOR COOLANT LEAK AND ADD COOLANT

B ADD HV COOLANT



15. CHECK COOLANT HOSE\_\_\_\_\_\_\_

NG CORRECT THE PROBLEM

OK

16. PERFORM ACTIVE TEST USING TECHSTREAM (ACTIVE THE WATER PUMP)

NG CHECK FUSE (IGCT NO. 3)

OK

V

17. PERFORM ACTIVE TEST USING TECHSTREAM (CONTROL THE ELECTRIC COOLING FAN)

NG CHECK COOLING FAN SYSTEM

OK

18. CHECK HV COOLANT (CHECK FOR CONDITIONS THAT MAY HAVE CAUSED FREEZING)

B REPLACE HV COOLANT

#### CHECK HYBRID VEHICLE TRANSAXLE ASSEMBLY (MG1)

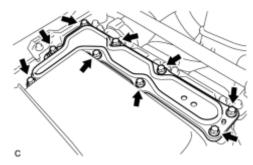
#### **CAUTION:**

Be sure to wear insulated gloves.

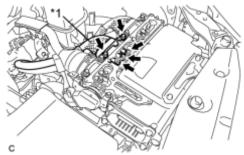
(a) Check that the service plug grip is not installed.

#### NOTICE:

After removing the service plug grip, do not turn the power switch on (READY), unless instructed by the repair manual because this may cause a malfunction.



(b) Remove the inverter terminal cover from the inverter with converter assembly.



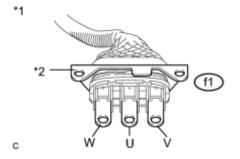
(c) Disconnect the three-phase AC cables for MG1 from the inverter with converter assembly.

## **Text in Illustration**

\*1 Three-phase AC Cables for MG1

(d) Using a megohmmeter set to 500 V, measure the insulation resistance according to the value(s) in the table below.

#### NOTICE:



Be sure to set the megohmmeter to 500 V when performing this test. Using a setting higher than 500 V can result in damage to the component being inspected.

#### Standard Resistance:

<b>Tester Connection</b>	Switch Condition	Specified Condition
f1-3 (V) - Body ground and shield ground	Power switch off	$100~\mathrm{M}\Omega$ or higher
f1-2 (U) - Body ground and shield	Power switch	$100  \mathrm{M}\Omega$ or higher

ground	off	
f1-1 (W) - Body ground and shield ground	Power switch off	$100 \ \mathrm{M}\Omega$ or higher

## **Text in Illustration**

*1	Three-phase AC Cables for MG1
*2	Shield Ground

- (e) Connect the three-phase AC cables for MG1 to the inverter with converter assembly.
- (f) Install the inverter terminal cover to the inverter with converter assembly.

NG CHECK HYBRID VEHICLE TRANSAXLE ASSEMBLY (GENERATOR CABLE CONNECTION CONDITION)



20. CHECK HYBRID VEHICLE TRANSAXLE ASSEMBLY (MG2)

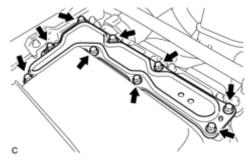
#### **CAUTION:**

Be sure to wear insulated gloves.

(a) Check that the service plug grip is not installed.

#### NOTICE:

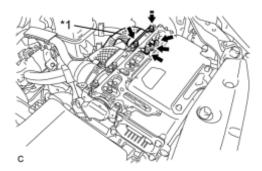
After removing the service plug grip, do not turn the power switch on (READY), unless instructed by the repair manual because this may cause a malfunction.



- (b) Remove the inverter terminal cover from the inverter with converter assembly.
- (c) Disconnect the three-phase AC cables for MG2 from the inverter with converter assembly.

## **Text in Illustration**

*1	Three-phase AC Cables for MG2
1	1

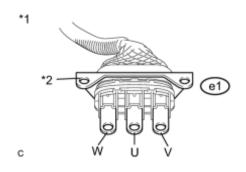


(d) Using a megohmmeter set to 500 V, measure the insulation resistance according to the value(s) in the table below.

#### NOTICE:

Be sure to set the megohmmeter to 500 V when performing this test. Using a setting higher than 500 V can result in damage to the component being inspected.

#### Standard Resistance:



<b>Tester Connection</b>	Switch Condition	Specified Condition
e1-3 (V) - Body ground and shield ground	Power switch off	$100 \ \mathrm{M}\Omega$ or higher
e1-2 (U) - Body ground and shield ground	Power switch off	$100~\mathrm{M}\Omega$ or higher
e1-1 (W) - Body ground and shield ground	Power switch off	$100 \ \mathrm{M}\Omega$ or higher

## **Text in Illustration**

*1	Three-phase AC Cables for MG2
*2	Shield Ground

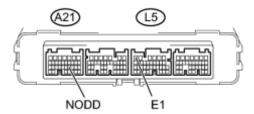
- (e) Connect the three-phase AC cables for MG2 to the inverter with converter assembly.
- (f) Install the inverter terminal cover to the inverter with converter assembly.

# NG CHECK HYBRID VEHICLE TRANSAXLE ASSEMBLY (MOTOR CABLE CONNECTION CONDITION)

#### OK REPLACE INVERTER WITH CONVERTER ASSEMBLY

21. INSPECT POWER MANAGEMENT CONTROL ECU

(a) Disconnect all the connectors from the power management control ECU.



Р

(b) Measure the resistance according to the value(s) in the table below.

#### Standard Resistance:

<b>Tester Connection</b>	<b>Switch Condition</b>	<b>Specified Condition</b>
A21-21 (NODD) - L5-6 (E1)	Power switch off	120 to 140 kΩ

#### **Text in Illustration**

*1	Component without harness connected
	(Power Management Control ECU)

(c) Connect the power management control ECU connectors.

# NG REPLACE POWER MANAGEMENT CONTROL ECU OK REPAIR OR REPLACE HARNESS OR CONNECTOR

22. CHECK FUSE (IGCT NO. 3)

NG CHECK CONNECTOR CONNECTION CONDITION (WATER PUMP WITH MOTOR ASSEMBLY CONNECTOR)

OK

23. CHECK CONNECTOR CONNECTION CONDITION (WATER PUMP WITH MOTOR ASSEMBLY CONNECTOR)

NG CONNECT SECURELY

OK

24. CHECK HARNESS AND CONNECTOR (WATER PUMP WITH MOTOR ASSEMBLY CIRCUIT)

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

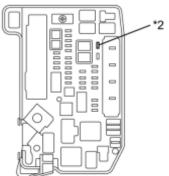


2010 Toyota Prius

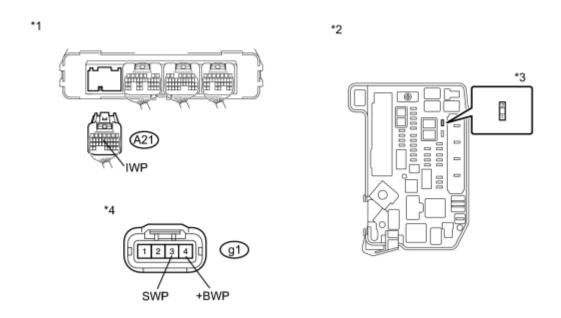
25. CHECK WATER PUMP WITH MOTOR ASSEMBLY NFO	
NG REPLACE WATER PUMP WITH MOTOR ASSEMBLY	
OK REPLACE POWER MANAGEMENT CONTROL ECU	
26. REPLACE HV COOLANT	
NEXT	
<u> </u>	
27. CHECK WATER PUMP WITH MOTOR ASSEMBLY NFO	
NG REPLACE WATER PUMP WITH MOTOR ASSEMBLY	
OK COMPLETED	
28. CHECK HYBRID VEHICLE TRANSAXLE ASSEMBLY (GENERATOR CABLE CONNECTION CONDITION)	
C CONNECT SECURELY	
B REPLACE MALFUNCTIONING PARTS	
A	
29. CHECK GENERATOR CABLE_ NFO	
NG REPLACE GENERATOR CABLE OK REPLACE HYBRID VEHICLE TRANSAXLE ASSEMBLY	
30. CHECK HYBRID VEHICLE TRANSAXLE ASSEMBLY (MOTOR CABLE CONNECTION CONDITION)	
C CONNECT SECURELY	
B REPLACE MALFUNCTIONING PARTS	
A	
31. CHECK MOTOR CABLE NFO	
NG REPLACE MOTOR CABLE	
OK REPLACE HYBRID VEHICLE TRANSAXLE ASSEMBLY	
32. CHECK CONNECTOR CONNECTION CONDITION (WATER PUMP WITH MOTOR ASSEMBLY CONNECTOR).	
NG CONNECT SECURELY	
OK V	
33. CHECK HARNESS AND CONNECTOR (WATER PUMP WITH MOTOR ASSEMBLY POWER SOURCE CIRCUIT)	
(a) Disconnect connector A21 from the power management control ECU.	

(b) Remove the IGCT No. 3 fuse from the engine room junction block assembly.

# **Text in Illustration**



- (c) Disconnect the water pump with motor assembly connector.
- (d) Measure the resistance according to the value(s) in the table below.



## **Text in Illustration**

*1	Rear view of wire harness connector (to Power Management Control ECU)	*2	Engine Room Junction Block Assembly
*3	IGCT No. 3 Fuse	*4	Front view of wire harness connector (to Water Pump with Motor Assembly)

#### Standard Resistance:

<b>Tester Connection</b>	Switch Condition	Specified Condition
A21-13 (IWP) or g1-3 (SWP) - Body ground and other terminals	Power switch off	$10 \text{ k}\Omega$ or higher
2 (IGCT No. 3 fuse) or g1-4 (+BWP) - Body ground and other terminals	Power switch off	$10 \text{ k}\Omega$ or higher

- (e) Connect the water pump with motor assembly connector.
- (f) Connect the power management control ECU connector.
- (g) Install the IGCT No. 3 fuse.

#### NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK



- CHECK WATER PUMP WITH MOTOR ASSEMBLY 34.
- NG REPLACE WATER PUMP WITH MOTOR ASSEMBLY

OK



- 35. REPLACE POWER MANAGEMENT CONTROL ECU
- (a) Replace the power management control ECU ...

### NEXT REPLACE FUSE (IGCT NO. 3)

- CONNECT SECURELY 36.
- (a) Connect the water pump with motor assembly connector securely.

#### NEXT REPLACE FUSE (IGCT NO. 3)

- REPAIR OR REPLACE HARNESS OR CONNECTOR 37.
- NEXT REPLACE FUSE (IGCT NO. 3)
  - REPLACE WATER PUMP WITH MOTOR ASSEMBLY 38.
- (a) Replace the water pump with motor assembly ...

#### NEXT REPLACE FUSE (IGCT NO. 3)

CHECK HARNESS AND CONNECTOR (INVERTER WITH CONVERTER ASSEMBLY - IGCT 39. NO. 2 FUSE)

#### **CAUTION:**

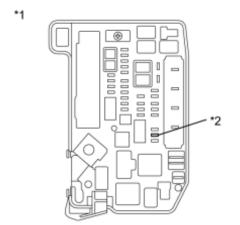
Be sure to wear insulated gloves.

(a) Check that the service plug grip is not installed.

#### NOTICE:

After removing the service plug grip, do not turn the power switch on (READY), unless instructed by the repair manual because this may cause a malfunction.

(b) Disconnect connector A59 from the inverter with converter assembly.

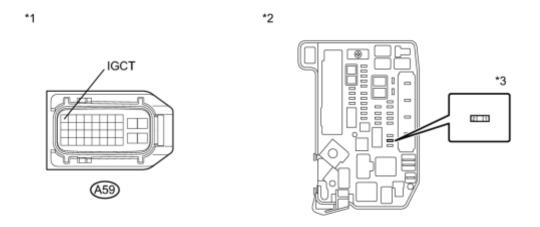


(c) Remove the IGCT No. 2 fuse from the engine room junction block assembly.

## **Text in Illustration**

*1	Engine Room Junction Block Assembly
*2	IGCT No. 2 Fuse

(d) Measure the resistance according to the value(s) in the table below.



#### Standard Resistance:

Tester Connection	Switch Condition	Specified Condition
A59-1 (IGCT) or 2 (IGCT No. 2 fuse) - Body ground and other terminals	Power switch off	$10 \ \mathrm{k}\Omega$ or higher

#### **Text in Illustration**

*1	Front view of wire harness connector (to Inverter with Converter Assembly)	*2	Engine Room Junction Block Assembly
*3	IGCT No. 2 Fuse	-	-

- (e) Install the IGCT No. 2 fuse.
- (f) Connect the inverter with converter assembly connector.

## NG REPAIR OR REPLACE HARNESS OR CONNECTOR

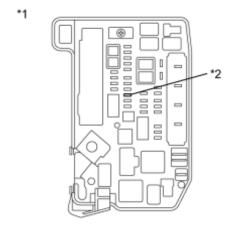
OK

40. REPLACE INVERTER WITH CONVERTER ASSEMBLY

(a) Replace the inverter with converter assembly

## NEXT REPLACE FUSE (IGCT NO. 2)

- 41. CHECK HARNESS AND CONNECTOR (INVERTER WITH CONVERTER ASSEMBLY DC/DC-S FUSE)
- (a) Disconnect connector A59 from the inverter with converter assembly.

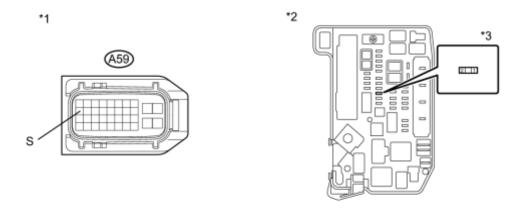


(b) Remove the DC/DC-S fuse from the engine room junction block assembly.

## **Text in Illustration**

\*1 Engine Room Junction Block Assembly
 \*2 DC/DC-S Fuse

(c) Measure the resistance according to the value(s) in the table below.



#### Standard Resistance:

<b>Tester Connection</b>	<b>Switch Condition</b>	<b>Specified Condition</b>
A59-11 (S) or 2 (DC/DC-S fuse) - Body ground and other terminals	Power switch off	10 kΩ or higher

#### **Text in Illustration**

*1	Front view of wire harness connector (to Inverter with Converter Assembly)	*2	Engine Room Junction Block Assembly
*3	DC/DC-S Fuse	-	-

- (d) Install the DC/DC-S fuse.
- (e) Connect the inverter with converter assembly connector.

#### NG REPAIR OR REPLACE HARNESS OR CONNECTOR

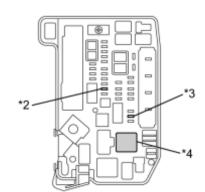


- 42. REPLACE INVERTER WITH CONVERTER ASSEMBLY
- (a) Replace the inverter with converter assembly

## NEXT REPLACE FUSE (DC/DC-S)

- 43. CHECK ENGINE ROOM JUNCTION BLOCK (IGCT RELAY, IGCT FUSE, IGCT NO. 2 FUSE)
  - (a) Remove the IGCT relay, IGCT fuse and IGCT No. 2 fuse from the engine room junction block assembly.

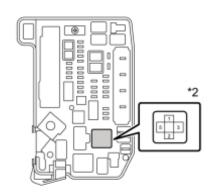
## **Text in Illustration**



*1	Engine Room Junction Block Assembly	
*2	IGCT Fuse	
*3	IGCT No. 2 Fuse	
*4	IGCT Relay	

(b) Measure the resistance according to the value(s) in the table below.

#### Standard Resistance:



\*1

Tester Connection	Switch Condition	Specified Condition
3 (IGCT relay block) - Body ground and other terminals	Always	$10 \text{ k}\Omega$ or higher
5 (IGCT relay block) - Body ground and other terminals	Always	$10 \text{ k}\Omega$ or higher

## **Text in Illustration**

*1	Engine Room Junction Block Assembly
*2	IGCT Relay

(c) Install the IGCT relay, IGCT fuse and IGCT No. 2 fuse.

NG REPAIR OR REPLACE ENGINE ROOM JUNCTION BLOCK OK REPLACE FUSE (IGCT)

44. REPAIR OR REPLACE HARNESS OR CONNECTOR

NEXT REPLACE FUSE (IGCT NO. 2)

45. REPAIR OR REPLACE HARNESS OR CONNECTOR

NEXT REPLACE FUSE (DC/DC-S)