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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: HYBRID / BATTERY CONTROL: MOTOR GENERATOR CONTROL SYSTEM (for M20A-FXS): PRECAUTION; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

PRECAUTION

PRECAUTIONS FOR INSPECTING HYBRID SYSTEM

CAUTION:

- Before the following operations are conducted, take precautions to prevent electric shock by turning the ignition switch off, wearing insulated gloves, and removing the service plug grip from HV battery.



- To prevent electric shock, make sure to remove the service plug grip to cut off the high voltage circuit before



servicing the vehicle.

- 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.



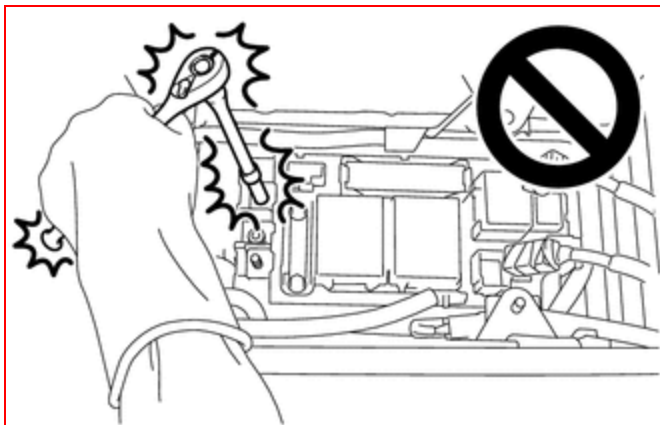
- After removing the service plug grip, wait for at least 10 minutes before touching any of the high-voltage connectors or terminals.

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



*a	Without waiting for 10 minutes
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- When trouble shooting high voltage circuit, use either a tool wrapped with vinyl insulation tape or an insulated tool. (It is extremely dangerous when a high-voltage charge passes through a non-insulated tool causing a



short.)

- When turning the ignition switch ON during an inspection, do not press the ignition switch while depressing the brake pedal.

Pressing the ignition switch with the brake pedal depressed causes the system to enter the READY-on state. This is very dangerous because high voltage may be applied to the inspection area.



NOTICE:

- After removing the service plug grip, turning the ignition switch to ON (READY) may cause a malfunction. Do not turn the ignition switch to ON (READY) unless instructed by the repair manual.
- Turn the ignition switch off before performing any resistance checks.
- Turn the ignition switch off before disconnecting or reconnecting any connectors.
- When high-voltage connectors are removed, wrap the connectors with insulation tape to prevent them from contacting foreign matter.

HINT:

- Removing the service plug grip

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- Checking the terminal voltage

[Click here](#) INFO

- Disconnecting the motor cable

[Click here](#) INFO

- Disconnecting the floor under wire

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HYBRID CONTROL SYSTEM ACTIVATION

HINT:

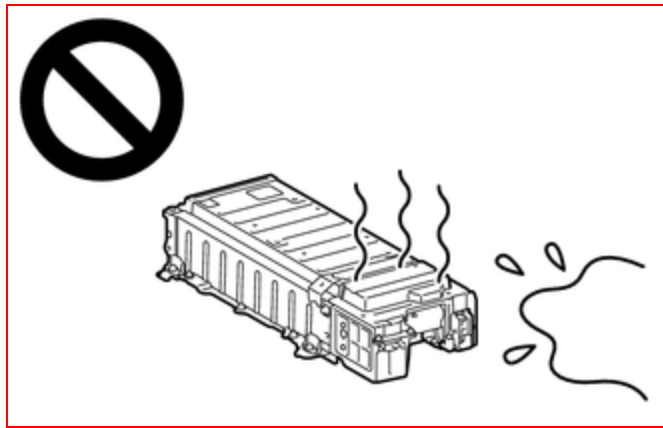
- When the warning is illuminated, or the auxiliary battery has been disconnected and reconnected, attempting to turn the ignition switch to ON (READY) may not start the system (the system may not enter the READY-on state) on the first attempt. If so, turn the ignition switch off and reattempt to start the hybrid system.

DISPOSING OF HV BATTERY AND HV SUPPLY STACK SUB-ASSEMBLY

When disposing of HV batteries and HV supply stack sub-assemblies, make sure to return them through an authorized collection agent who is capable of handling them safely. If they are returned via the manufacturer specified route, they will be returned properly and in a safe manner by an authorized collection agent.

CAUTION:

- After removing the HV battery or the HV supply stack sub-assembly, keep it away from water. Exposure to water may cause the HV battery or the HV supply stack sub-assembly to produce heat, resulting in a fire.



- Accidents such as electric shock may result if the HV battery or the HV supply stack sub-assembly is disposed of improperly or abandoned.

Therefore, make sure to return HV battery and all HV supply stack sub-assemblies through an authorized collection agent.



*a	Dealer
*b	Battery Collection Agent

- To reduce the risk of fire, HV battery or HV supply stack sub-assemblies must not be stored in an area where they will be exposed to fire or high temperatures.
- If the temperature of the HV battery and HV supply stack sub-assembly is high, leave the vehicle until the temperature drops.
- Make sure to insulate the high-voltage connectors and terminals of the HV battery or HV supply stack sub-assemblies with insulating tape after removing them.

If the HV battery stored without insulating the connectors and terminals, electric shock or fire may result.

NOTICE:

- Before returning the HV battery, make sure to perform a recovery inspection.

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PRECAUTIONS WHEN REPLACING HYBRID VEHICLE CONTROL ECU**NOTICE:**

- Before replacing the hybrid vehicle control ECU, refer to Registration.

Click here [INFO](#)

- When the hybrid vehicle control ECU is replaced, perform ECU configuration.

Click here [INFO](#)

- When the hybrid vehicle control ECU is replaced, update the ECU security key.

Click here [INFO](#)

PRECAUTIONS WHEN REPLACING INVERTER WITH CONVERTER ASSEMBLY**NOTICE:**

When the inverter with converter assembly is replaced, perform ECU configuration.

Click here [INFO](#)

PRECAUTIONS FOR DISCONNECTING AND RECONNECTING CABLE TO NEGATIVE (-) AUXILIARY BATTERY TERMINAL**NOTICE:**

- To prevent damage to electronic components, disconnect the cable from the negative (-) auxiliary battery terminal before performing work.
- Be sure to turn the ignition switch off before disconnecting the cable from the negative (-) auxiliary battery terminal.
- Be careful not to damage the cable or terminal.
- When the negative (-) auxiliary battery terminal is disconnected, the clock and radio settings, etc., as well as any stored DTCs, will be cleared.
- After the ignition switch is turned off, there may be a waiting time before disconnecting the negative (-) auxiliary battery terminal.

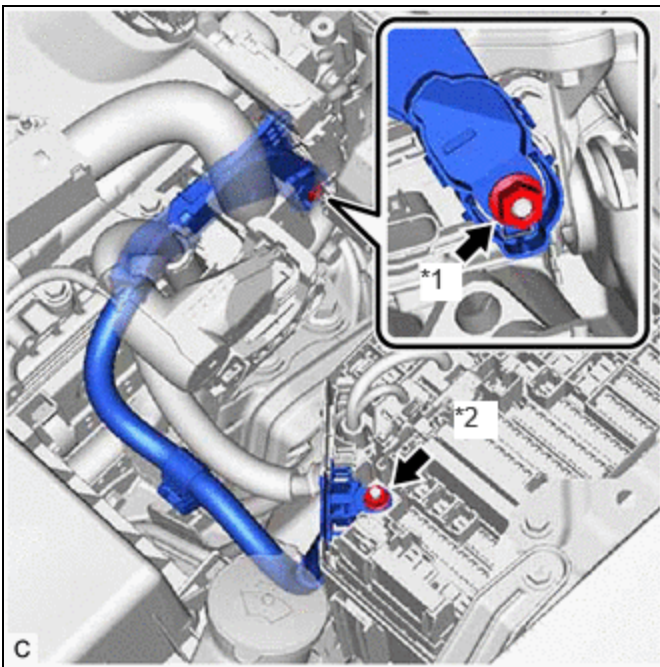
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- When disconnecting and reconnecting the auxiliary battery
 - When disconnecting and reconnecting the auxiliary battery, there is an automatic learning function that completes learning when the respective system is used.

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PRECAUTIONS FOR DISCONNECTING AMD TERMINAL

The AMD terminal is connected to the positive terminal of the auxiliary battery.



*1	AMD Terminal (Inverter with Converter Assembly Side)
*2	AMD Terminal (No. 1 Engine Room Relay Block and No. 1 Junction Block Assembly Side)

NOTICE:

- Be sure to disconnect the cable from the negative (-) auxiliary battery terminal before disconnecting the AMD terminal from the No. 1 engine room relay block and No. 1 junction block assembly.
- A short circuit to ground may occur if the AMD terminal is disconnected before the cable is disconnected from the negative (-) auxiliary battery terminal. If a short circuit to ground occurs, a fusible link or fuse may break.
- Do not disconnect the AMD terminal except when replacing the inverter with converter assembly.

When disconnection is necessary, be careful not to apply excessive force to the terminal.

- After disconnecting the AMD terminal, wrap it with vinyl insulating tape.
- Be sure to reconnect the AMD terminal to the No. 1 engine room relay block and No. 1 junction block assembly before reconnecting the cable to the negative (-) terminal of the auxiliary battery.

