

Last Modified: 12-15-2015	6.6 G	Doc ID: RM000004T86000X
Model Year Start: 2012	Model: Prius V	Prod Date Range: [06/2011 -]
Title: 2ZR-FXE BATTERY / CHARGING: CHARGING SYSTEM: ON-VEHICLE INSPECTION; 2012 MY Prius V [06/2011 -]		

ON-VEHICLE INSPECTION

1. CHECK AUXILIARY BATTERY

(a) Check that the auxiliary battery cables are connected to the correct terminals.

HINT:

If they are not, connect them properly.

(b) Check the auxiliary battery for damage and deformation. If severe damage, deformation or leakage is found, replace the auxiliary battery.

2. CHECK AUXILIARY BATTERY VOLTAGE

(a) Turn the power switch off and turn on the high beam headlights for 30 seconds. This will remove the surface charge from the auxiliary battery.

(b) Measure the auxiliary battery voltage according to the value(s) in the table below.

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
Positive (+) terminal - Negative (-) terminal	20°C (68°F), Power switch off	12.5 V or higher	Auxiliary battery is OK
		11.0 to 12.5 V	Recharge auxiliary battery
		Below 11.0 V	Replace auxiliary battery

3. RECHARGE AUXILIARY BATTERY

(a) Recharge the auxiliary battery.

HINT:

- Recharge the auxiliary battery according to the charger's instructions.
- Apply the appropriate charging current according to the type of auxiliary battery as shown in the table below.

AUXILIARY BATTERY TYPE	CHARGING CURRENT
S46B24R	4 to 5 A

(b) Turn the power switch off and turn on the high beam headlights for 30 seconds. This will remove the surface charge from the auxiliary battery.

(c) Measure the auxiliary battery voltage according to the value(s) in the table below.

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
Positive (+) terminal - Negative (-) terminal	20°C (68°F), Power switch off	12.5 V or higher	Auxiliary battery is OK
		11.0 to 12.5 V	Recharge auxiliary battery
		Below 11.5 V	Replace auxiliary battery

4. CHECK AUXILIARY BATTERY TERMINAL, FUSIBLE LINK AND FUSE

(a) Check that the auxiliary battery terminals are not loose or corroded.

HINT:

If the terminals are corroded, clean them.

(b) Measure the resistance of each fusible link and fuse for the auxiliary battery charging system.

Standard resistance:

Below 1 Ω

HINT:

If any of the results is not as specified, replace the fusible link or fuse as necessary.

5. 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 AMD terminal is connected securely, and there is no contact problem.

HINT:

If there are any arc marks, replace the affected parts.

- (c) Check that the nuts for the AMD terminal is tightened to the specified torque.

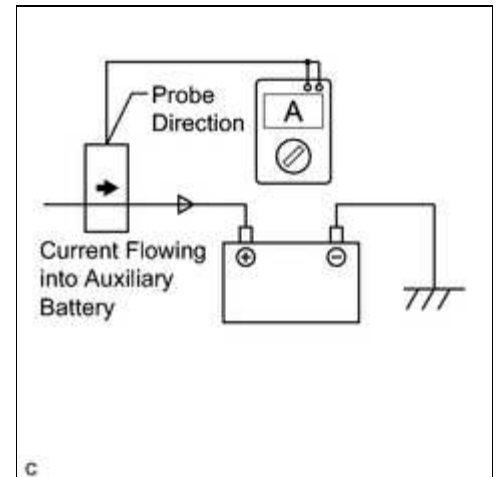
HINT:

If there are no arc marks and the AMD terminal connection is faulty, connect the AMD terminal securely.

- (d) Install the service plug grip.

6. CHECK DC/DC CONVERTER FUNCTION

- (a) Connect the AC/DC 400 A probe to the positive auxiliary battery cable.

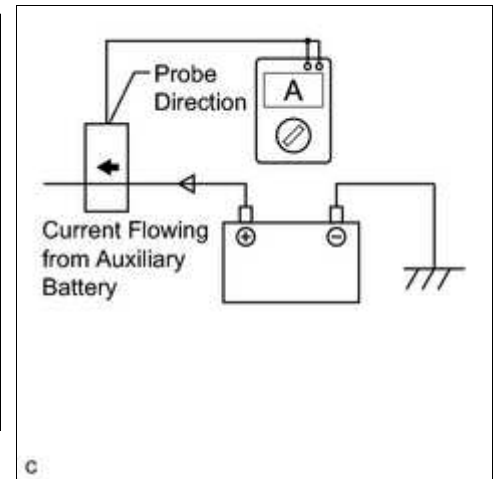


- (b) Turn the power switch on (READY) and leave the vehicle as it is until the electric current flowing into the auxiliary battery becomes 10 A or less.
- (c) Turn the power switch on (READY) and the headlight position switch and blower motor switch in the HI position, and the rear window defogger turned on.

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

Result:

ITEM	TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Current flowing from auxiliary battery	Auxiliary battery positive cable	Power switch on (READY) (The headlight position switch and blower motor switch are in the HI position, and the rear window defogger is turned on.)	0 A or less (no current from auxiliary battery)
Auxiliary battery voltage	Positive (+) terminal - Negative (-) terminal		13 to 15 V



HINT:

- If the values are not as specified, replace the DC/DC converter assembly.
- Some vehicle models have an inverter with converter assembly with a built-in DC/DC converter. In this case, replace the inverter with converter assembly.

