

Keystone RV Company

4/18/22

SAFETY ADVISORY # 22-423

Solar Controller Wiring

Keystone is conducting a voluntary RECALL notification campaign in accordance with the National Highway Transportation and Safety Act. It has been decided that vehicles in the recall population have a solar controller that may have been wired incorrectly. Under certain conditions improper voltage can render 12VDC components and 12VDC safety alarms (i.e. carbon monoxide, propane gas detector) inside the vehicle inoperable leading to an increased risk of personal injury or property damage.

Models Included:

Year	Model	Serial Number Range
2022	Alpine – All Models	NE780000 - NE780938
2022	Arcadia – All Models	NL550001 - NL550807
2022	Avalanche – All Models	NE760000 - NE760983
2021	Bullet – All Models	MD439000 - MD439004
		MT438560 - MT438637
2022		ND430001 - ND432670
		NT430000 - NT433187
		NX431336 - NX433206
2022	Carbon – All Models	NR805000 - NR805505
2022	Cougar – All Models	N2500002 - N2505632 NC500004 - NC505099 NL501834 - NL505797 NV500000 - NV505373
2022	Fuzion – All Models	NF810000 - NF810680
2022	HC Montana – All Models	NA740000 - NA741905
2022	Hideout – All Models	N7240935 - N7247387 NN240000 - NN247734 NW240001 - NW247023
2022	Impact – All Models	NF815000 - NF815388
2022	Montana – All Models	N4700000 - N4702290
2022	Outback – All Models	NB450000 - NB451379
2022	Passport – All Models	ND410520 - ND413598 NK410100 - NK413518 NX410000 - NX413531
2022	Raptor – All Models	NR800000 - NR800620
2022	Springdale – All Models	N3100000 - N3107067 NG101574 - NG108304 NW100550 - NW107717
2022	Sprinter – All Models	M1533667 - M1533694 N1530000 - N1531537

Parts Required: No parts required

Tools Required: - Screw gun - Flat Screw driver – voltmeter
– Cell phone or tablet capable of running apps

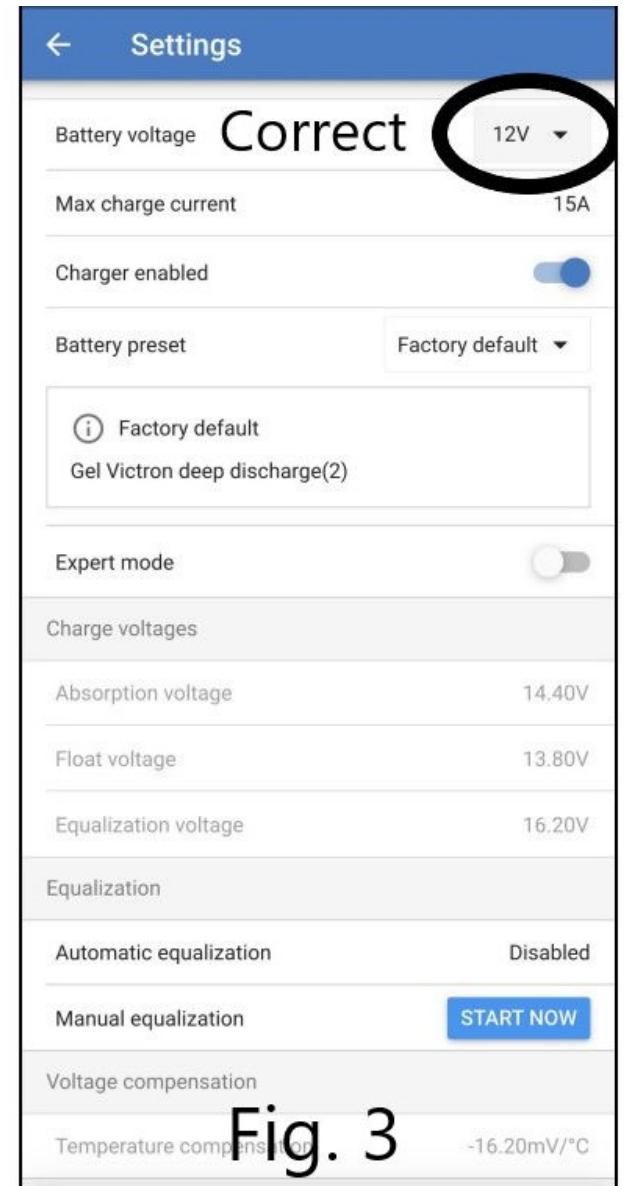
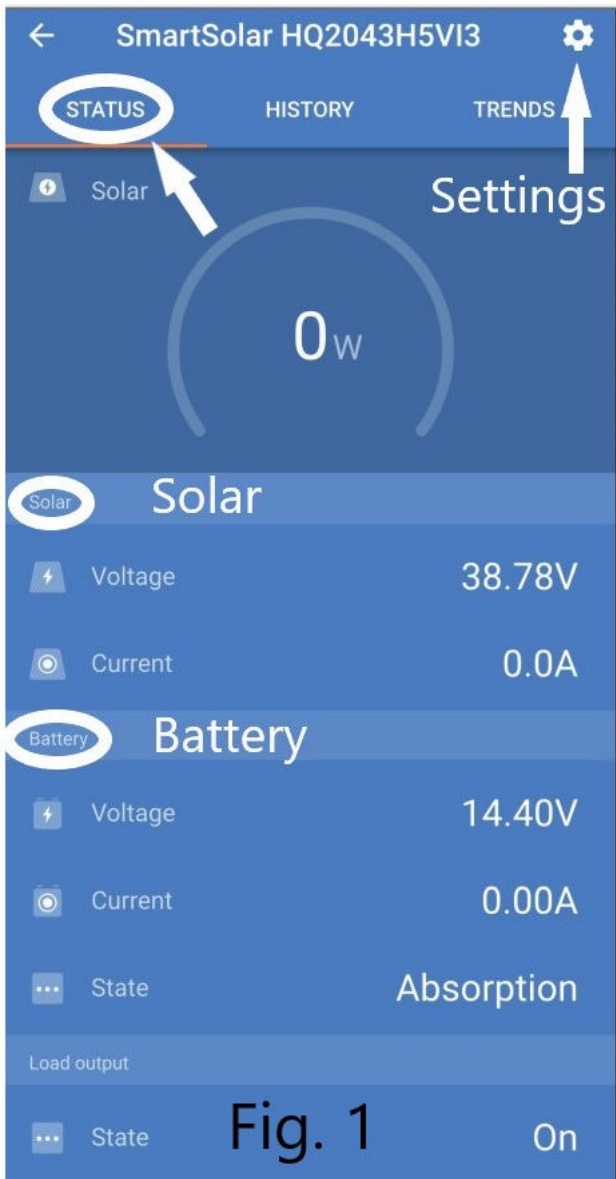
This Safety Advisory requires a Pre-Authorization & Photograph

Note – Check serial number on Key Express to verify the campaign is open. Some vehicles were repaired before they left Keystone.

When performing warranty or recall service, please make certain that appropriate Personal Protective Equipment (PPE) is used.



The remedy is to check voltage readings from the Victron Solar Charge Controller using the VictronConnect app (see Icon) to determine if the wiring is correct. If wiring is incorrect the battery settings must be set to 12v using the VictronConnect app and then wiring can be corrected at the controller.



REPAIR INSTRUCTIONS

Step 1

Locate the trailer on a level, flat, hard surface. Chock the wheels. Disconnect shore power.

Step 2

Using the VictronConnect app, link it to the Victron Solar Charge Controller installed on the unit being inspected. The system may require several firmware updates before proceeding. Check the status page, see Figure 1. Take a screen shot of the voltage status. Battery voltage or panel voltage will be required to perform the following test.

Note: Normal operation should look similar to Figure 1. Battery voltage should not exceed 15v, solar voltage should not exceed 50 volts.

Step 3

Click on the settings gear in the top right corner, see Figure 1. Choose “Battery” and check the “Battery voltage” level that the controller is set to. This should read 12v as shown in Figure 3. Take a screen shot of this screen indicating what the battery voltage is set to. Important: After taking a screen shot of what the battery status is, if the battery setting is set to 24v, change it to 12v by selecting the drop down menu. Your controller will now stay at 12v reducing the likelihood of damaging 12VDC components in the unit. If the battery setting was 24v, the wiring is or was reversed at some time. Proceed to step 4 to determine wiring. If wiring is set to 12v and voltage looks proper like in Fig. 1 proceed to warranty reimbursement for inspection.

Step 4

Verify the wires coming from the battery are attached to “Batt” and the wires from the Solar panel are attached to the “PV” on the solar controller. There can be two wiring configurations:

1. Red+/Black- from the Battery to “Batt” +/- port and Green+/Black- from the Solar panel to “PV” +/- ports on the solar controller
2. Red+/Black- from the Battery to “Batt” +/- port and Red+/Black- from the Solar panel to “PV” +/- ports on the Solar controller

In configuration 2, to determine how it is currently wired, disconnect the solar charge controller and the battery and check the battery wires with a volt meter. The battery wires will read up to 14.4 VDC when attached and 0 when disconnected. If wiring is reversed, correct the wiring to match configuration 2. Note: Keystone’s 12V wiring standard has been updated and all units are currently built like configuration 1.

Note: The “Load” function is not used and should not have any wiring attached to that function.

Step 5

Using the VictronConnect app link to the controller again. Verify that the Solar and Battery voltage are correct. The status screen should be similar to Figure 1, if the panel is producing voltage.

Step 6

Check the 12VDC components inside to be sure that all are working. Test the LP/CO detectors for proper function. Any damaged components will require pictures verifying that the component is damaged or not working

Step 7

Proceed to warranty reimbursement.

WARRANTY REIMBURSEMENT

Submit a Pre-Authorization request with screen shots of VictronConnect app "Status" screen and "Settings" screen then claim on Key Express using **Flat Rate Code # 7142342A**

In the Complaint section note: Safety Advisory # 22-423

In the Cause section note: Safety Advisory # 22-423

In the Correction section note: Wiring was correct at solar charge controller or Wiring was incorrect, battery setting set to 12v and wiring corrected. List any components damaged _____.

The amount of time authorized for this inspection or changing "Batt" and "PV" wiring is **0.3 hour**. Flat rates can be added if any 12VDC components were damaged.

PARTS DISPOSITION

No return parts.

Please call Keystone RV Customer Service at:

Luxury (LX) - 866-273-1450

Toy Haulers (TH) - 866-273-1452

Premium (PR) - 866-273-1454

Light Weight (LW) - 866-273-1456

Traditional (TR) - 855-895-4422