

TECHNICAL SERVICE BULLETIN



DEPARTMENT OF COMPLIANCE
VEHICLE SAFETY AND RECALL MANAGEMENT
BUILDING 11
423 N MAIN ST
MIDDLEBURY, INDIANA 46540-9218

Technical Service Bulletin: 67-1311

Expiration Date: April 30, 2022

- o Integrity
- o Safety
- o Quality
- o Customer Service

<<VIN>>

<<OWNER NAME/DEALERNAME>>

<<ADDRESS>>

<<CITY>>, <<ST>> <<ZIP-XXX>>

4/5/2021

This Notice applies to your vehicle VIN listed above.

Dear Forest River Customer:

Forest River is alerting you to an issue involving certain 2021 Shockwave and Sandstorm Toy Haulers. Please see the information below, which describes the issue and provides you with details on the steps you should take to have your vehicle repaired.

WHAT IS THE ISSUE?

The solar panels may be wired incorrectly, not allowing one of the two solar panels to function.

OWNERS: WHAT SHOULD YOU DO?

Please contact your dealer and request a service appointment to schedule the free repair within one year of receiving this notice. This TSB will expire on April 30, 2022 or at the end of the Forest River's Manufacture Warranty. The vehicle Owner is responsible for arranging to have the work completed. Please state you have been notified by Forest River of the issue and provide the TSB number (located at the top of this page) to the dealership. It is also helpful to give the dealership a copy of this letter when you take your vehicle in for the repair.

You may visit www.forestriverinc.com to search for dealer locations.

HOW LONG WILL THE REMEDY PROCESS TAKE?

The estimated time of repair is 1.0 hours. However, the dealership may need to keep your vehicle or schedule an appointment with you for a later date to fit into their regular service schedule.

DEALERS: WHAT SHOULD YOU DO?

Dealer Service Procedure can be found on Dealer Connect

CONTACT	PHONE
CUSTOMER SERVICE	(951) 357-2327

Repair Codes:

Pictures are required for the remedy and/or inspection after installation.

Pictures of the remedy are a condition of payment in which must be provided with a claim against the repair code(s).

DEALER REPAIR CODES: Dealer Connect

TSB NUMBER	REPAIR CODE	DESCRIPTION	ALLOWABLE HOUR(S)
67-1311	SB-386-22-00-004013	Rewire Solar Panels	1.0 HRS.

WHAT IF YOU HAVE PREVIOUSLY PAID FOR REPAIRS TO YOUR VEHICLE FOR THIS PARTICULAR CONDITION?

If you have already paid for a repair that is within the scope of this service bulletin, you may be eligible for a refund of previously paid repairs. Refunds will only be provided within the scope of this Technical Service Bulletin.

Please send the service invoice to the following address:

Forest River, Inc.
Attn: WARRANTY MANAGER
920 West Mayberry Ave
Hemet, CA 92543

Sincerely,

Forest River Inc.
Office of Corporate Compliance

TECHNICAL SERVICE BULLETIN 67-1311 REMEDY INSTRUCTIONS

	Make(s): Sandstorm & Shockwave Toy Hauler Model(s): Many, See Below Model Year(s): 2021	Repair Code: SB-386-22-00-004013 Allotted Time: 1.00 HRS. Inspection Code: N/A Allotted Time: N/A
	Concern: The solar panels may be wired incorrectly, not allowing one of the two solar panels to function.	Photo(s) Required: Yes, Before & After Prior Authorization Required: Yes Part(s) Number: F100259420 Part(s) Return: No

Disconnect the vehicles' battery Positive and Negative, disconnect any House battery(s) Positive and Negative, if equipped with a generator ensure it is off and lastly, ensure the vehicle is disconnected from shore power. Block any tires/wheels to prevent the vehicle from rolling. Failure to do so may result in electrocution, fire or other personal injury, property damage and/or death.

Tool List:

- Cordless Screw Gun with square tip (#S2)
- Caulking Gun – Tube Type

Parts List

- TSB Instruction Repair Procedure
- TSB Parts Kit F100259420 – T-Connector Set 1ea. MC4-BC-1M2f (male-female/female), 1Ea. MC4-BC-1M2M (female-male/male), 2 ea. MC4-OUTPUT-3B - 3' solar male/female lead extension cables
- Sealant – Approved Roof Sealant For PVC Roof – to be supplied by dealer

- Step 1. Locate dual solar panels on rear rooftop of RV. Prepare for access to roof area;
- Step 2. Solar panel on door side is considered Primary Solar Panel No# 1 Solar Panel. Solar panel on the roadside considered Secondary Solar Panel No# 2 (FIG 1);
- Step 3. At the primary solar panel locate and remove (8) screws (2) at each support bracket located under sealant that attaches solar panel to roof (FIG 2) (setscrews aside for reinstall in later step);
- Step 4. Lift panel approximately 2" up to gain access to all solar panel wiring – disconnect all wiring and t-connectors. Disregard any prior installed t-connectors – (do not reuse);
- Step 5. When all wiring and t-connectors are removed & disconnected wires present will be – male & female wire leads coming up through roof (FIG 3) these wires are the main power feed wires to interior solar controller. (2) male & (2) female wires leads from primary and secondary solar panels are now from solar panels. Disregard any prior installed t-connectors (do not reuse);
- Step 6. Install supplied t-connectors (1) male/female/female and (1) female/male/male t-connectors (FIG 4) to main power feed wires shown in (FIG 3). Ensure all new connections snap/lock in place. Perform a pull test at new connections. Newly installed t-connection should be installed as shown in (FIG 5);
- Step 7. Connect Primary Solar Panel no#1 wire leads male/female panel wiring to t-connections male and female connections (FIG 6);
- Step 8. Connect Secondary Solar Panel no#2 wire leads male/female panel wiring to t-connections male and female connections (FIG 6) Included in the TSB parts kit contains 2 ea. 3' lead extension male/female pigtailed. Extensions can be used if wiring is not the able to reach the connections from secondary solar panel #2 to primary solar panel #1 that contain the t- connectors. (fig 7);
- Step 9. Once primary and secondary solar panels are connected at t-connectors wiring will be shown as in as in (FIG 8) Note – this is a just a wiring reference photo;
- Step 10. Check sealant on solar panel feed wires that exit through roof for proper sealant, seal area if required. Place primary solar panel back in place to reinstall to roof - NOTE- move solar panel forward or to the rear ½" to ensure screws do not secure to prior attachment points. Fasten primary solar panel no# 1 back to roof at all 4 attachment points with screws previous removed in step 3, reseal all attachment points areas. Solar panel is now reinstalled and wiring correction is now completed;
- Step 11. Reattach all power connection back at RV batteries, inspect solar panel control panel located inside travel trailer to insure proper connections and that solar controller is being supplied power per design. Solar panel controller may need to be programed to the type of RV batteries in use. Most batteries used are lead acid, depending on the type of batteries on unit AGM or Lithium may be the needed setting. Toggle through solar panel controller to control to voltage, percentage, and amperage is being displayed. If a "Moon" is shown in display panel no power is being supplied from panels to controller (recheck your connections at primary panel);

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Model(s): Many, See Below
Model Year(s): 2021

Concern:
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Repair Code: SB-386-22-00-004013
Allotted Time: 1.00 HRS.
Inspection Code: N/A
Allotted Time: N/A

Photo(s) Required: Yes, Before & After
Prior Authorization Required: Yes
Part(s) Number: F100259420
Part(s) Return: No

FIG - 1 Solar Panels – Primary and Secondary Panels



FIG - 2 Primary Solar Panel – Screw Removal Points



FIG - 3 Main Harness at Roof from Solar Controller



FIG - 4 T-Connectors Supplied

T-Connectors Description

Left = Male to Female/Female

Right = Female to Male/Male

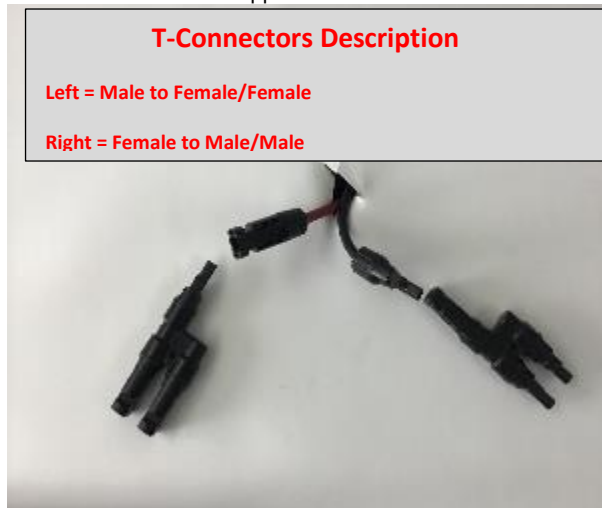


FIG – 5 Installed T-Connectors at Roof Power Feed

Ensure T-Connections Snap & Lock in Place



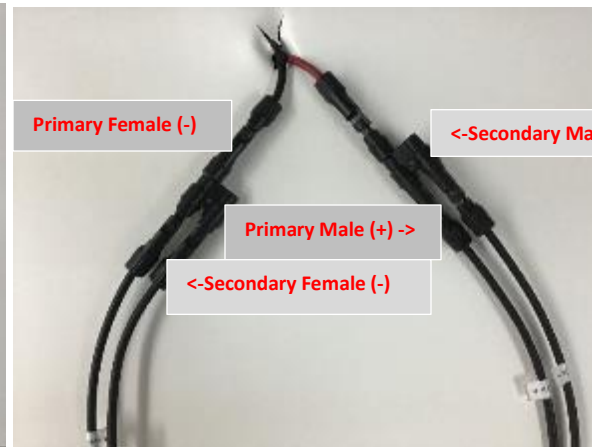
FIG - 6 Final Connections Solar Panels Roof Power Feed

Primary Female (-)

<-Secondary Male (+)

Primary Male (+) ->

<-Secondary Female (-)



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FIG - 7 Secondary Panel 3' Lead Extension Cable.

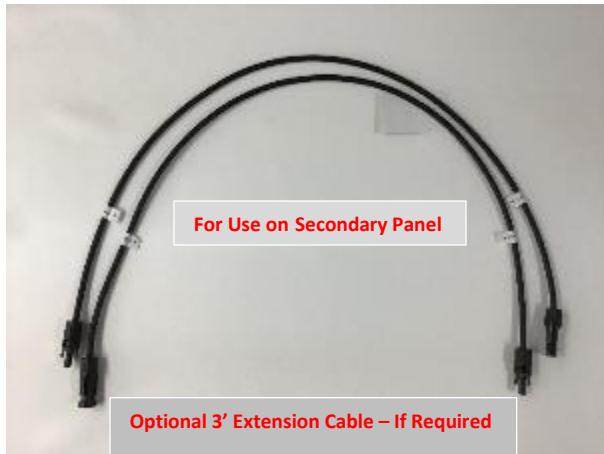


FIG - 8 Primary & Secondary Solar Panels Connected

