

# Keystone RV Company

11/12/20

## SAFETY ADVISORY # 20-389

### Cougar Inverter Wiring

Keystone is conducting a voluntary RECALL notification campaign in accordance with the National Highway Transportation and Safety Act. It has been decided that the vehicles in the recall population have an inverter that may have been incorrectly wired and when in use is allowing power to energize the shore power connection. When the incorrectly wired inverter is turned on, 120VAC power will energize the shore power connection leading to an increased risk of personal injury.

**Models Included:** 2020 – 2021 Cougar Fifth Wheel and Travel Trailers: 22RBSWE, 24SABWE, 25BHSWE, 26RBSWE, 27RESWE, 27SABWE, 29BHSWE, 29RLDWE, 29RLKWE, 29RLSWE, 30RKDWE, 31BHKWE, 32RDBWE, 24RDS, 25RES, 27SGS, 29MBS, 29RKS, 302RLS, 307RES, 30RLS, 315RLS, 316RLS, 32BHS, 353SRX, 364BHL, 366RDS, 367FLS, 368MBI, 361RLW

**Serial Number Ranges:** 2020 L2502429 - L2509218  
LC503863 - LC509167  
2021 M2500058 - M2505320  
MC500000 - MC502509

**Local Parts:** – Wiring Connectors – Romex Wiring (only when needed)  
– Junction Box (only when needed) – Zip Ties – Wire Nuts

**Tools Required:** – Screw gun – Screwdriver – Wire Cutter/Stripper

**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 test the function of the inverter. The only outlets that should be energized are the outlets marked “Off the Grid Inverter Circuit”. If other outlets or appliances are energized, or only one outlet is energized, the connection at the inverter must be inspected and repaired as needed.

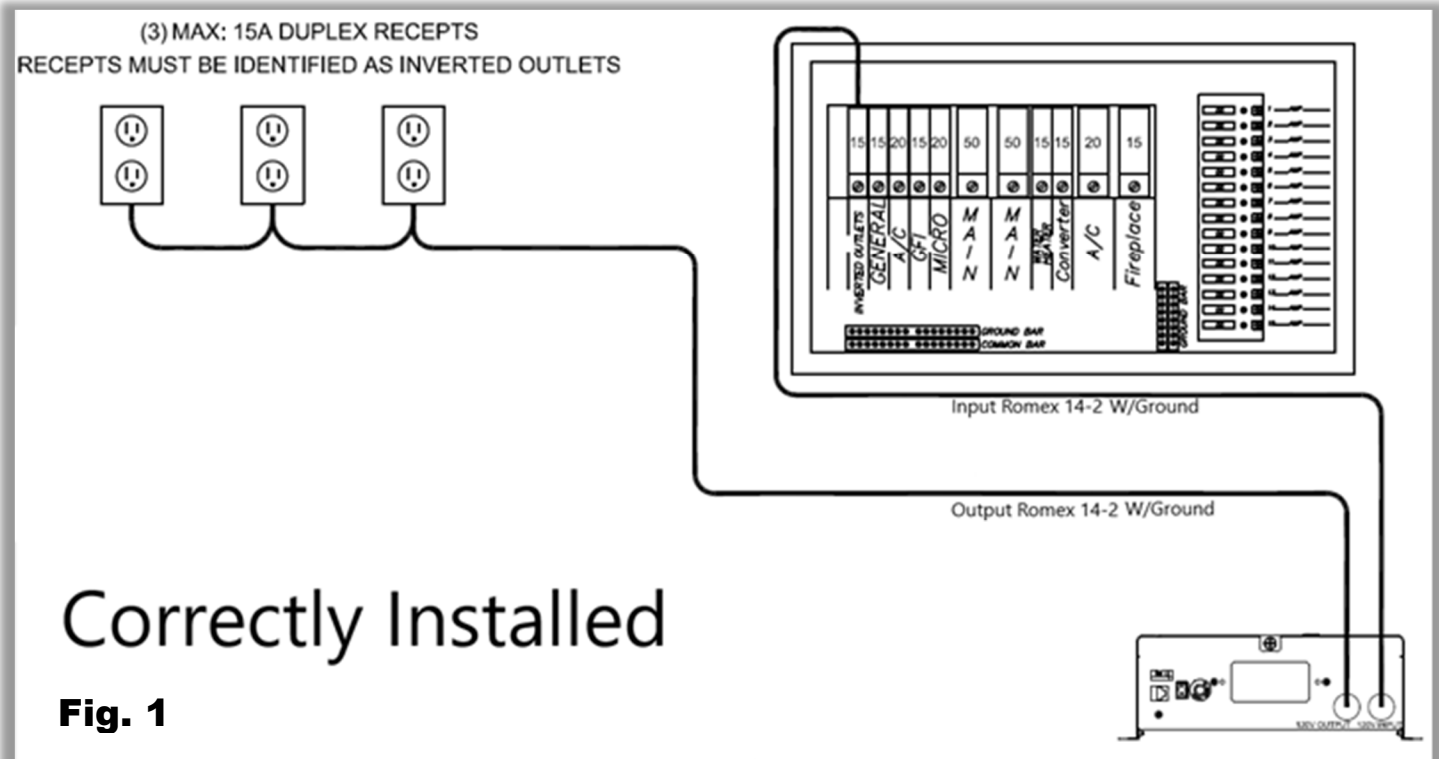
## REPAIR INSTRUCTIONS

### Step 1

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

### Step 2

With a fully charged battery connected; disconnect the shore power and turn on the inverter. Inspect outlets labeled “Off the Grid Inverter Circuit”. These should be the only 120VAC circuits energized in the unit. See Figure 1. If these are the only circuits energized proceed to Warranty Reimbursement for inspection only, otherwise proceed to Step 3.



### Step 3

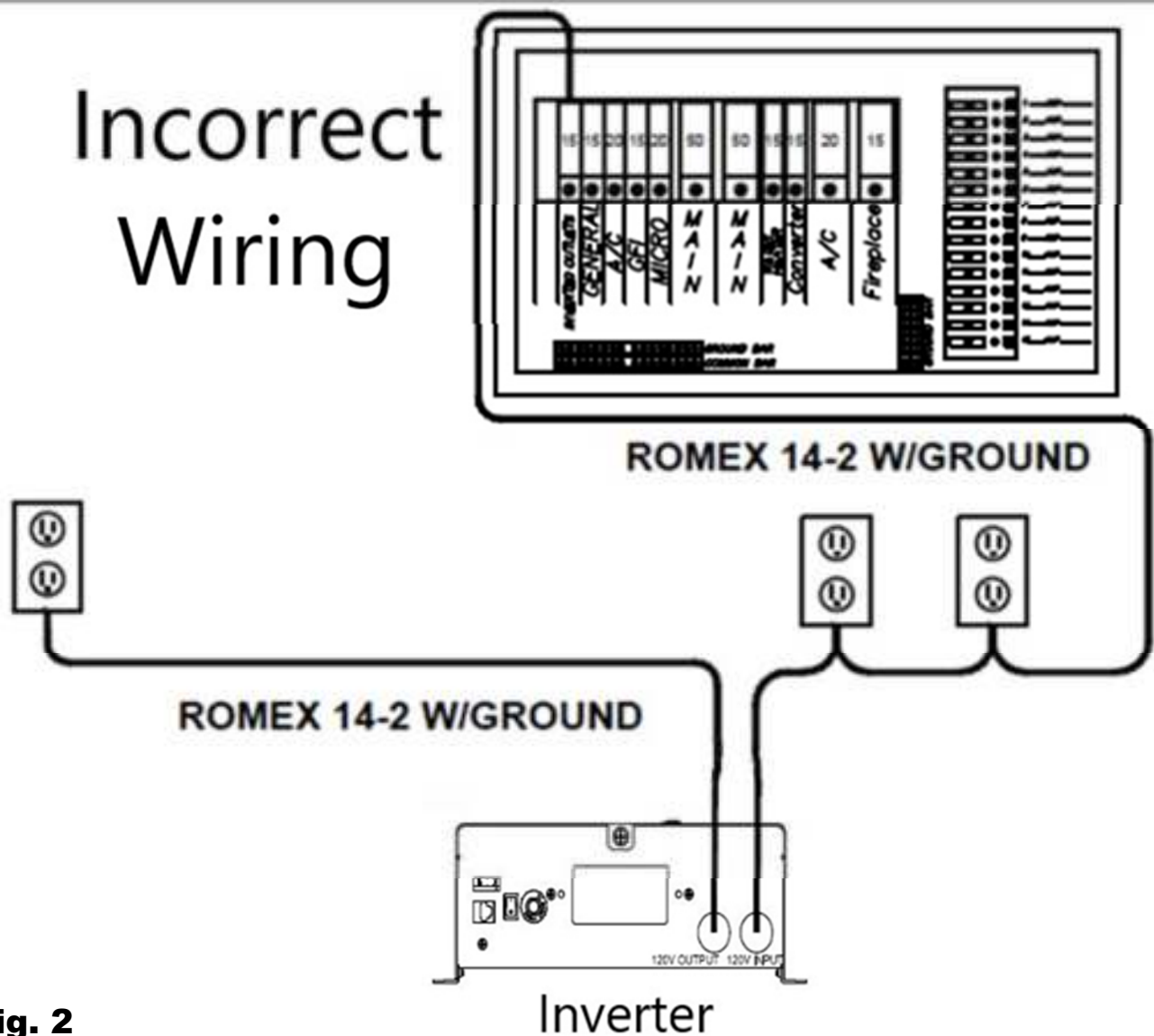
If only one outlet labeled “Off the Grid Inverter Circuit” is energized proceed to step 5. If other circuits or appliances are energized other than those labeled “Off the Grid Inverter Circuit” proceed to Step 4.

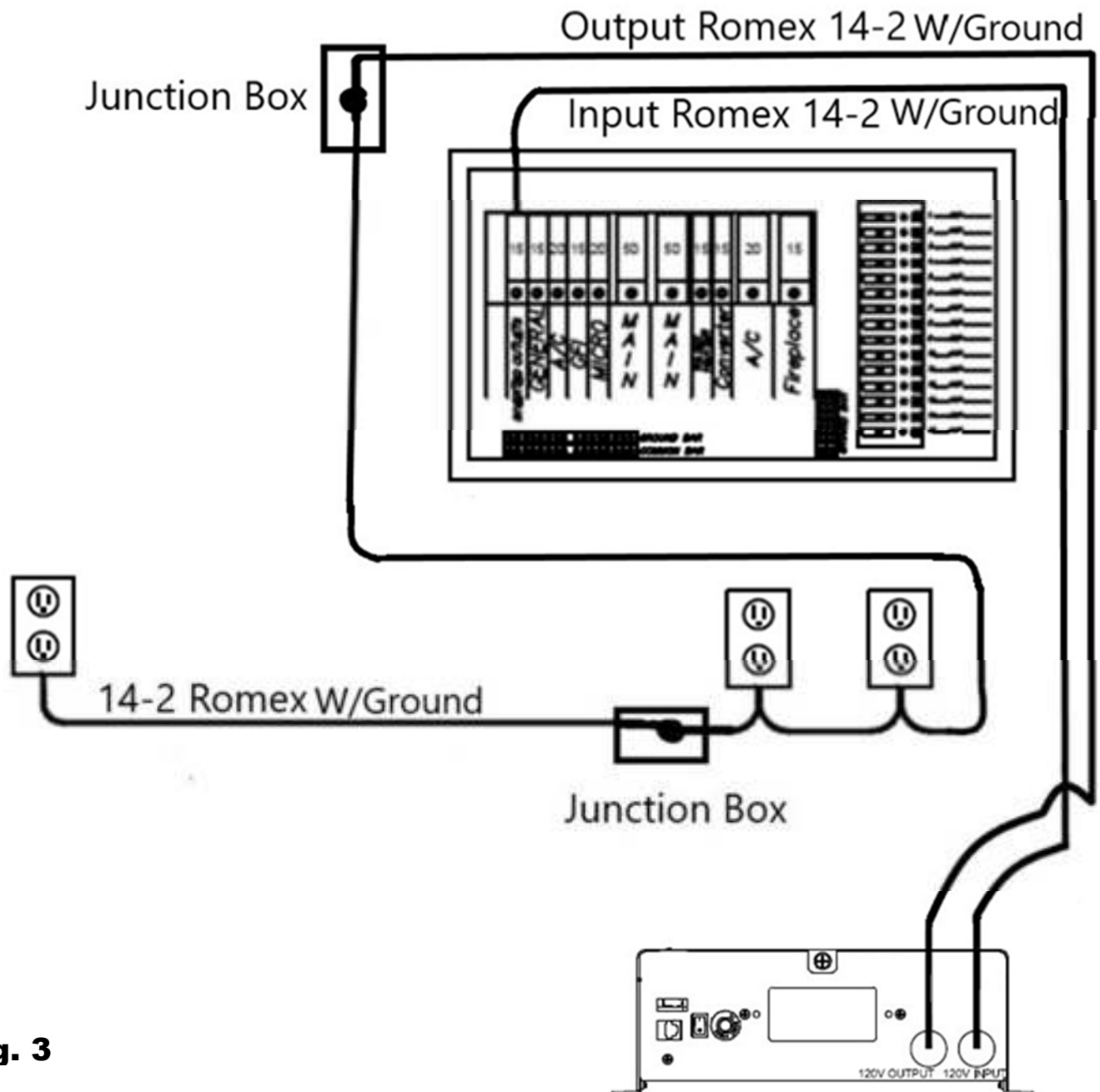
### Step 4

All serial numbers listed above could be potentially affected by this scenario. If other circuits are energized verify the inverter input and output connections are not reversed. If the connections are reversed, disconnect 120VAC and 12VDC power to the unit, repair the connections and test the function of the inverter. If inverter function is correct (as in Step 2 and Figure 1), proceed to Warranty Reimbursement below. If only one outlet labeled “Off the Grid Inverter Circuit” is energized proceed to step 5.

**Step 5**

Only West Coast units with Serial numbers starting with LCXXXXXX and MCXXXXXX are potentially affected by this scenario. If only one outlet labeled "Off the Grid Inverter Circuit" is energized See Figure 2. Disconnect the 120VAC power and the 12VDC power. Remove the power center and disconnect the wiring to the breaker labeled as "Inverter" along with the neutral and the bare copper wire for this circuit out of the power center.

**Fig. 2**

**Fig. 3****Step 6**

Locate the inverter in the front pass through. Remove the 14-2 Romex input and the 14-2 output wiring from the inverter and connect them together in a 2"x4" junction box near the inverter. See Figure 3.

**Step 7**

Utilizing the shortest/fastest route, install two new 14-2 Romex wires from the power center to the inverter. Mark one of the wires input and one wire output at each end. Remove the fasteners in a couple of spots in the underbelly to run the wire from the power center to the off-door side front corner. Fasten the Romex to cross members whenever possible using zip ties (shop supplied part).

**Step 8**

Remove the lower metal on the front wall. Install and secure the two 14-2 Romex wires from the power center through the front wall framing into the pass-through inverter prep area. Once the two 14-2 Romex wires are run into the inverter prep area, the lower front metal can be reinstalled and properly sealed to prevent water intrusion. Refasten the underbelly.

**Step 9**

At the inverter install the input and output 14-2 Romex wires from step 8 into the inverter as labeled.

**Step 10**

Install a 2"x4" junction box in the area behind the power center and connect the newly installed 14-2 Romex wire labeled output and the previously removed 14-2 Romex wire from the inverter breaker in Step 5. Install cover on the junction box. See Figure 3.

**Step 11**

Install the newly ran Romex 14-2 wire labeled as input into the power center. Attach the black load wire to the inverter breaker, attach the neutral wire to the neutral buss bar, and attach the bare copper wire to the ground buss bar. Reinstall power center and test inverter function.

**Step 12**

Proceed to Warranty Reimbursement.

**WARRANTY REIMBURSEMENT****INSPECTION ONLY**

Submit a claim on Key Express using **Flat Rate Code # 7138942F**

In the Complaint section note: Safety Advisory # 20-389

In the Cause section note: Safety Advisory # 20-389

In the Correction section note: Inverter tested and working as designed

The amount of time authorized for this repair is **.3 hour**.

**REWIRE**

Submit a Pre-Authorization request then claim on Key Express using **Flat Rate Code # 7138942C**

In the Complaint section note: Safety Advisory # 20-389

In the Cause section note: Safety Advisory # 20-389

In the Correction section note: Inverter tested, Input and Output wires were reversed.  
Rewire inverter and tested for proper operation.

The amount of time authorized for reversed wiring at the inverter as outlined in Step 4 is **0.7 hour**.

**REPAIR**

**Only serial numbers LC503863 - LC509167 and MC500000 - MC502509 built on the west coast may potentially have this condition.**

Submit a Pre-Authorization request then claim on Key Express using **Flat Rate Code # 7138942A**

In the Complaint section note: Safety Advisory # 20-389

In the Cause section note: Safety Advisory # 20-389

In the Correction section note: Inverter tested only one outlet was energized by inverter.  
Add junction boxes, 14-2 Romex and rewire inverter.

The amount of time authorized for incorrectly wired circuits for inverter as outlined in Step 5 is **4.5 hours**.

**PARTS DISPOSITION**

No Part Return.

Please call Keystone RV Customer Service at **(866) 273-1454** if you have any questions.