




HOUSE BATTERY WARMING PAD (MOTORIZED/LINEAGE)

NHTSA RECALL ID: 24V-863

GRAND DESIGN FLAT RATE CODE: M910046

Instructions to repair



Parts required to repair

Vendor part#	Grand Design part#	Description	Qty required
35-45ABM-SW	421451	Thermistor	1
BAT11/11	421450	Battery heating pad	1
		Shop supplies	See below

Shop supplies:

- Screwdriver
- Drill
- WAGO connectors
- Spray bottle containing Isopropyl Alcohol solution (90%)
- Foam spray

Helpful tips!

- Connect with Grand Design parts via our online dealer portal, or by emailing your request to parts@granddesignrv.com
- Please have the VIN of the unit handy, when connecting with us to inquire/place your parts order

Step 1: Open access panel below driver's side dash

1A) Inside this area you will need to disconnect the battery plug by pressing down on the red tab on the plug and removing the plug.



This will disconnect the chassis battery.



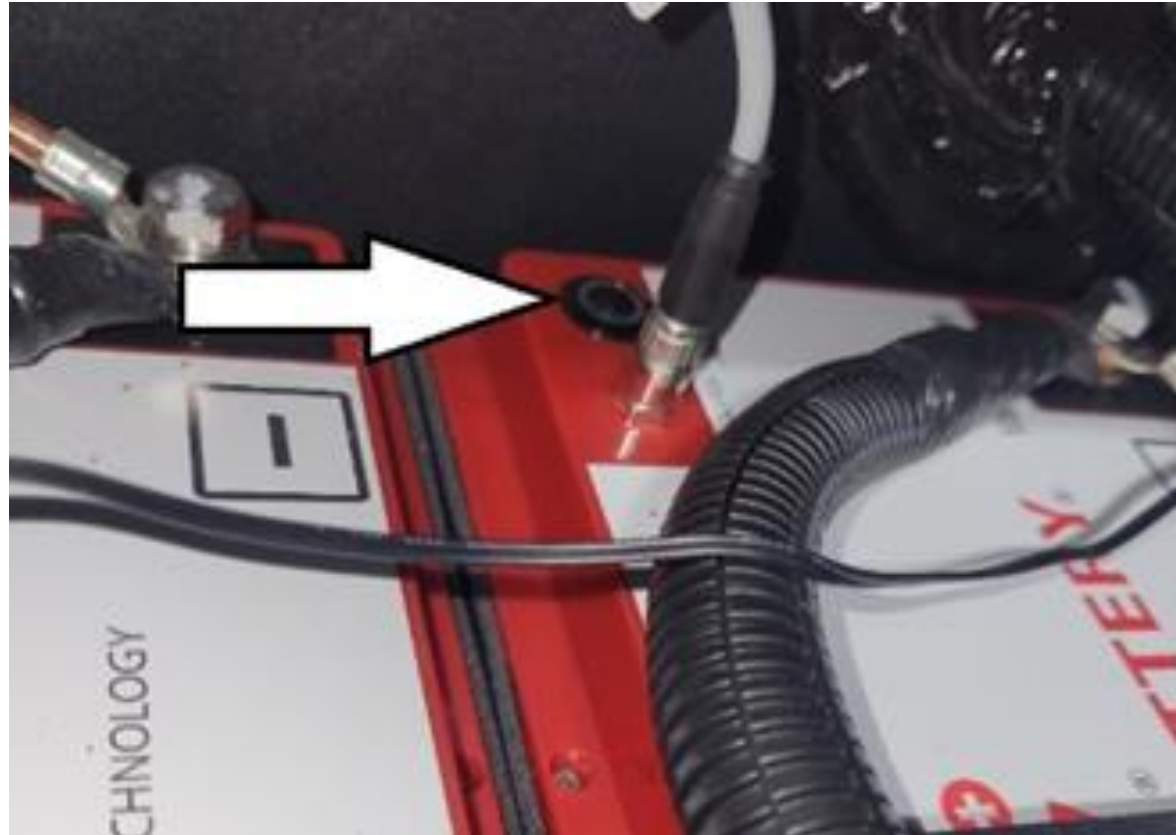
Step 2 : Open the entry door of the unit and remove the step cover



Step 3 : Turn the battery disconnect to the off position



Step 4 : Turn off both lithium batteries by holding down the button located on the top rear corner of each battery for five seconds.



Step 5: Remove the four screws holding the panel cover in place and pull the panel out to expose the wiring harness.



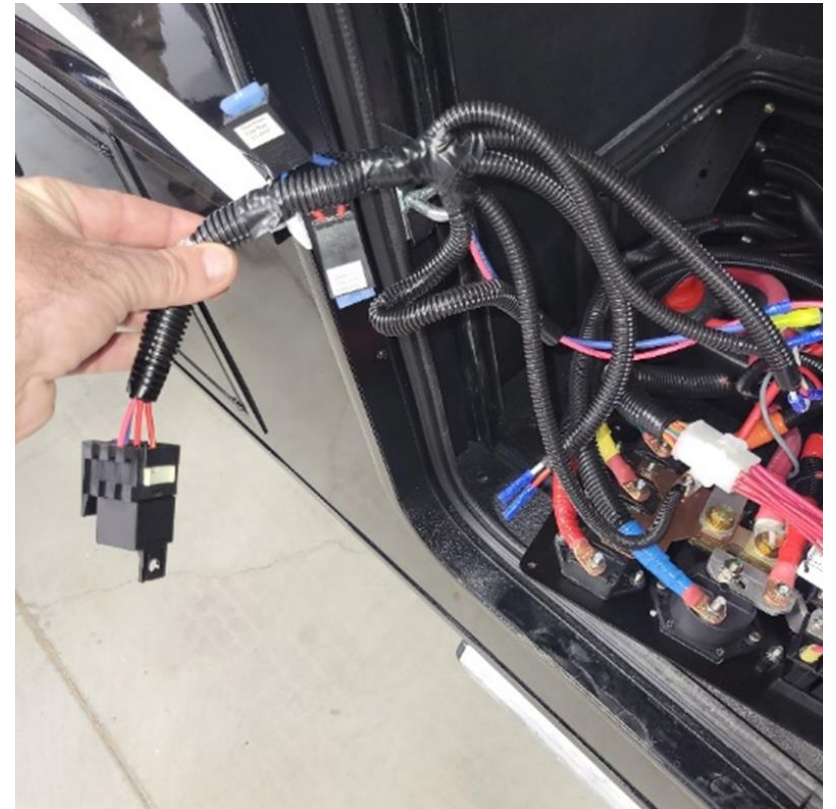
Step 6

Accessing the Current Pad Heater

Begin by locating the existing connections for the pad heater. You will need to follow the lead going straight to the current pad heater. Using wire cutters, carefully cut the wires off at the pad.

Remove Existing Connectors

Using wire strippers or pliers, cut off the existing butt connectors.



(Step 6 is continued on the next page)

Step 6 (Continued)

Preparing for the New Thermistor

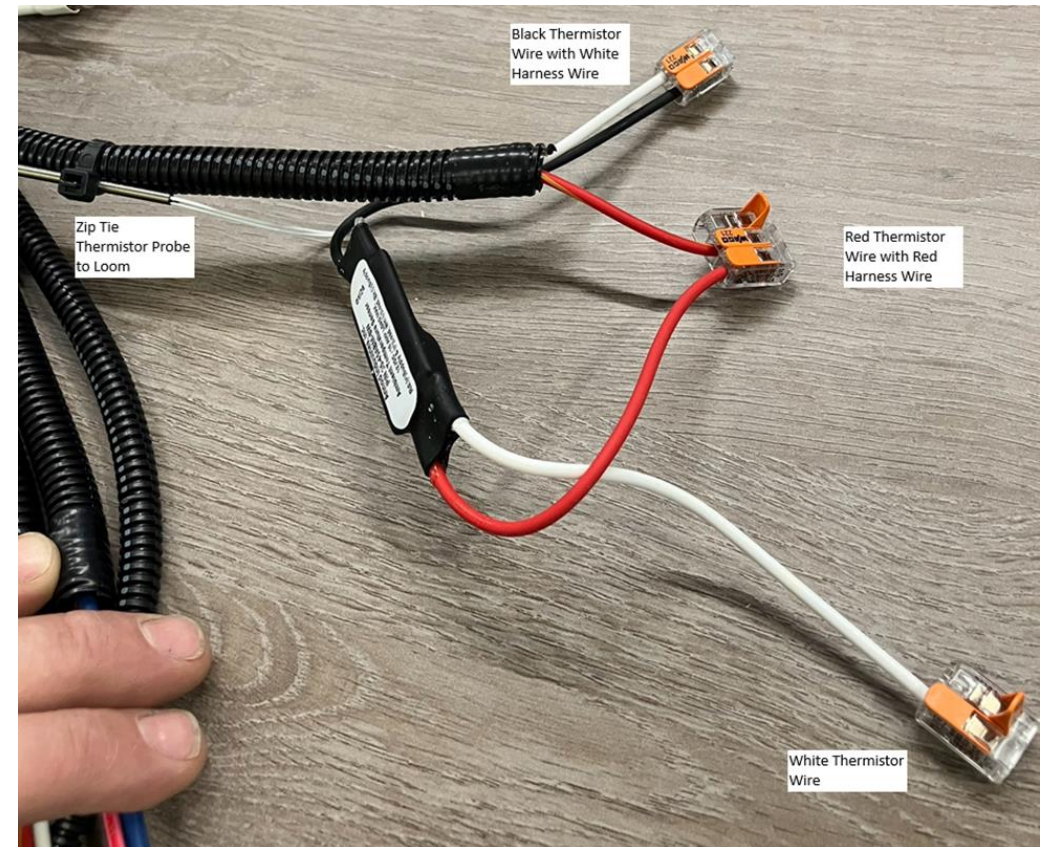
The thermistor part #421451 can now be positioned for integration. You will need to install two new WAGO connectors for secure and effective electrical connections.

Connecting the Thermistor Wires

The new thermistor will have three distinct wires:

1. **Black Wire:** This wire connects to the white harness wire. Use a 2-way WAGO connector for this connection, ensuring it is securely clamped.
2. **Red Wire:** This wire connects to the red harness wire and should be placed in a 3-way WAGO connector. Make sure that this connection is also tight and free from any tongue.
3. **White Wire:** The white wire from the thermistor will also require a 2-way WAGO connector. Ensure you follow the same secure practices for this connection.

After these connections are made, your wiring harness should now have two leads with secure connectors on the ends.



Step 7 : Prepping for and installing the battery heat pad

Before installing the heat pad, it's crucial to start with a clean surface to make sure it is free from dirt and debris that could hinder adhesion.

Clean the Surface: Use a damp cloth to remove any loose dirt or grime from the bottom of the step. After the initial cleaning, use a high-concentration Isopropyl Alcohol solution (90%) Spray the alcohol directly onto the surface and wipe in a circular motion.

Let It Dry: Allow the surface to air dry completely after cleaning. This is a critical step, as any residual moisture can weaken the adhesive properties of the heat pad, leading to poor adhesion and durability issues. **Ideally, waiting a few minutes after cleaning will ensure the surface is completely dry.**

Preparing the Heat Pad

Now that you have a clean, dry surface, it's time to prepare your heat pad.

Unpack the Heat Pad: Carefully remove the heat pad, part #421450, from its packaging. Make sure to handle it gently to avoid any damage.

Peel the Backing: The heat pad will have a protective backing that must be removed prior to installation. Gently peel the backing off, exposing the adhesive side of the pad.

Installing the Heat Pad

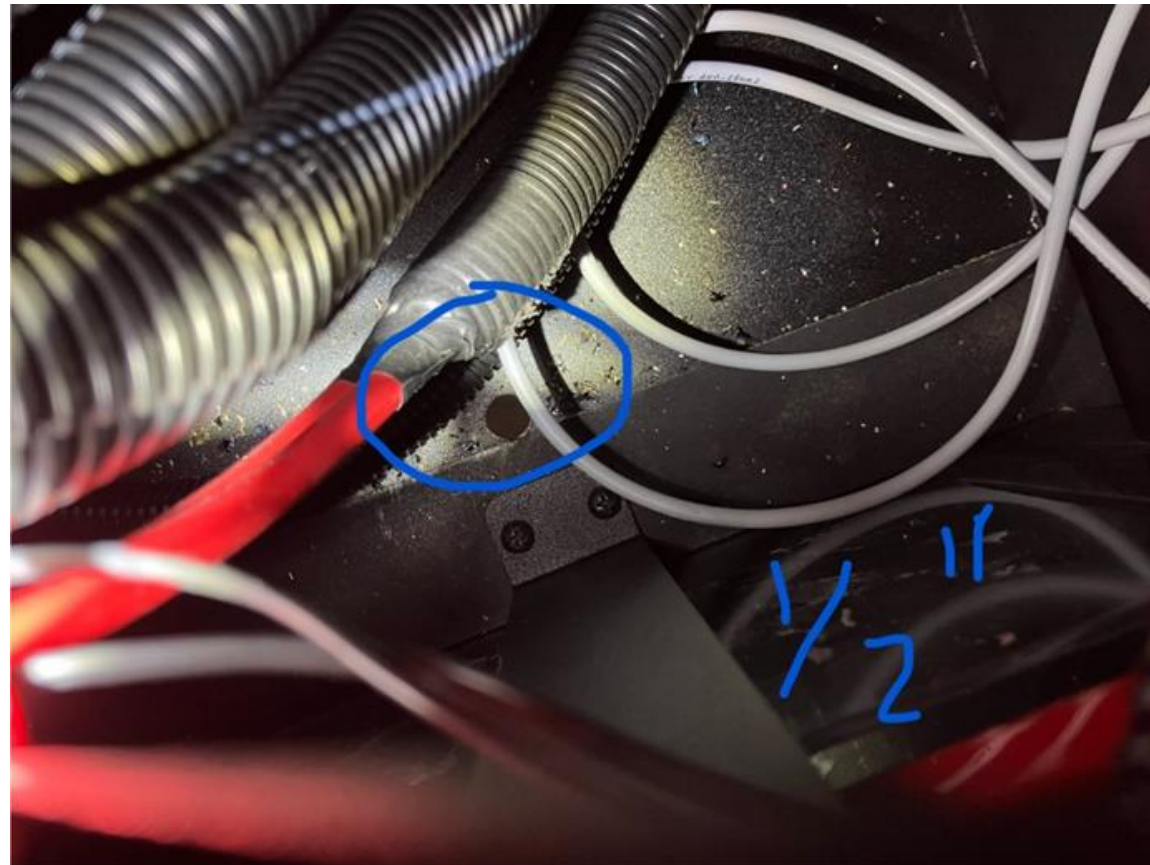
With everything prepped and ready to go, it's time to install the heat pad.

Position the Heat Pad: Align the heat pad carefully at the bottom of the step as indicated in the installation guide or accompanying picture. Make sure it is centered and laid out as you desire.

Apply Pressure for Adhesion: Once the pad is positioned correctly, press down firmly across the entire surface of the heat pad. Ensuring full contact will help guarantee that the adhesive sticks well, providing longevity to the installation.



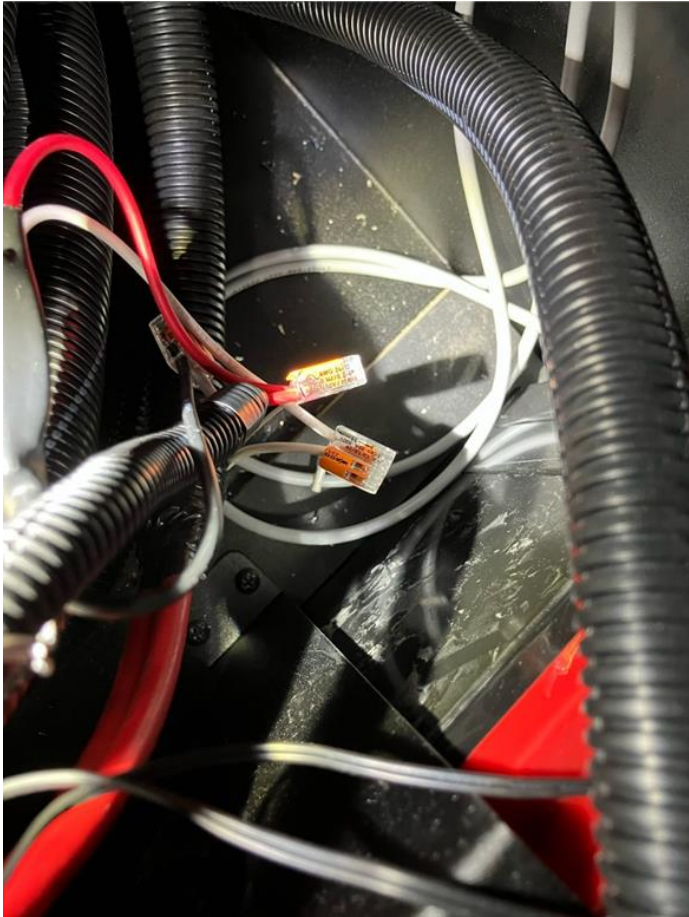
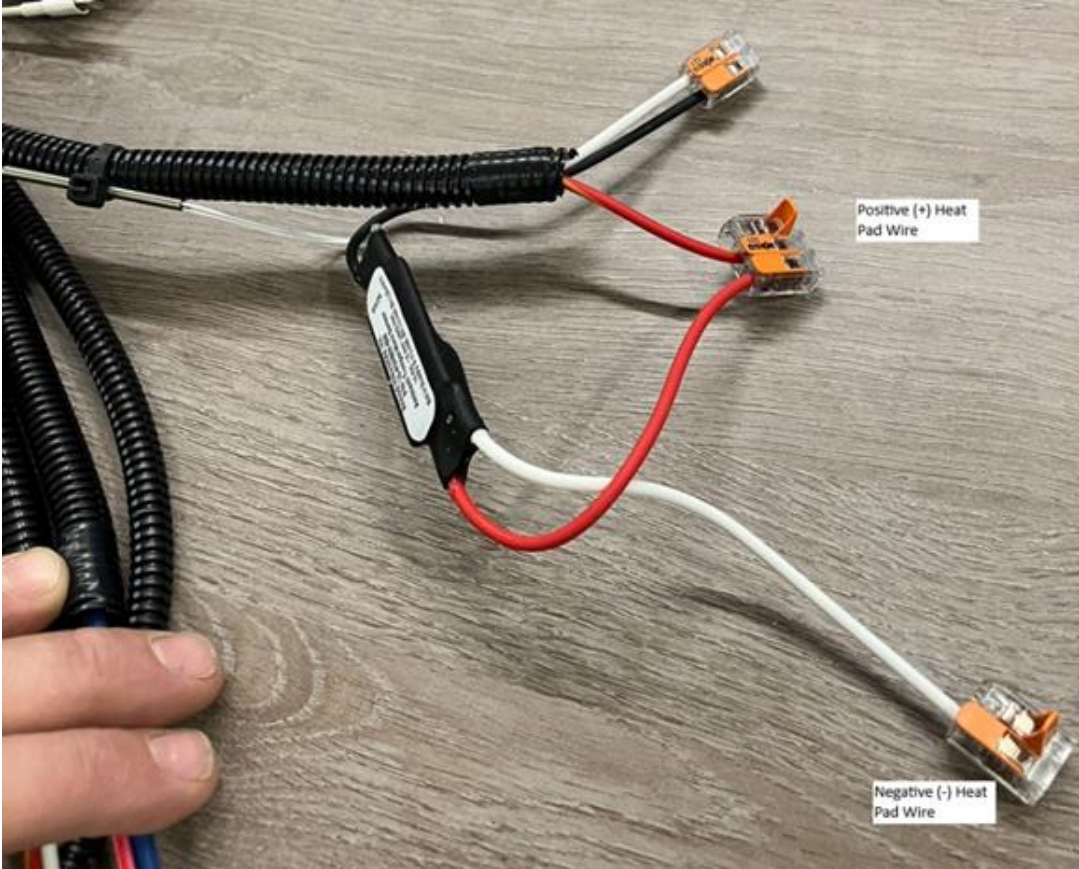
Step 8: Drill a $\frac{1}{2}$ " diameter hole from the inside of the battery compartment to the outside as shown in picture. The hole should exit the step to the rear side of the heat pad (see next page/photo).



Step 9: Pull wires through hole and seal shut with foam spray, to protect this area from elements.



Step 10 : Hook up heater pad wires to WAGO connectors as shown.



Step 11 : Secure heater pad relay to rear of step box



Steps **12 – 16**

- 12) Reinstall the panel by putting in the four screws at each corner
- 13) Turn on each battery by holding the button on the battery down for three seconds
- 14) Turn the battery disconnect switch to the on position
- 15) Reinstall the step cover
- 16) Reinstall the factory battery connector under the driver side dash



Repair Complete

Please proceed to file your claim for part(s) and labor, as specified on the dealer claim instructional sheet.



We appreciate your team's continued support and for prioritizing the swift resolution of this repair!

