Revel Battery cable Rework (Gen 2) :

Tools required-

1. Screw gun with #2 Philips and 3/8 socket.
2. Rachet with 3/8”, ½”, 9/16”, 5/8” and 17mm deepwell sockets.
3. Torque wrench.
4. Wire stripper.
5. Wire crimper.
6. Cutting tool
7. Wire brush

Parts required: Revel Cable Rework Kit – Gen 2 RC7916-24-778

1. Convoluted tubing, 5/8" – 041953-02-000, 4'
2. Cable clamps – 5/8" 010497-01-000 (1), 1" 010497-03-000 (4) and ¾"-1 ¼" 083610-01-000 (1)
3. Screw, 8-18x1" PPH - 000G39-08-16T (7)
4. Screw, ¼-14x3/4" HWH - 000G42-04-12B (2)
5. Zip-tie - 008343-03-000 (6)
6. Screw covers - 093249-01-000 (2)
7. Regulator – 356893-01-000 (1)
8. Breaker Control Harness - 356992-01-000 (1)
9. Backing Panel – 033383-51-010 (1) Not Shown

Gen 2: Lithionics Single battery system with Balmar alternator – 5/17/2022 - Present.

Step 1 – Pre-rework Prep.

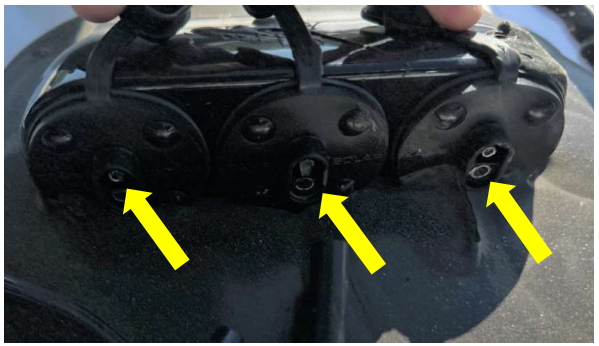
1. Disconnect the shore power cord from the coach – See Image 1.
2. Turn off the 12v lithium battery by holding down the power button on the top of the battery/Batteries for 3 seconds. Make sure the blue LED light is off - See Image 2.
3. Turn off the 250A breaker – See Image 3.
4. Unplug the solar panels from the roof connection port. The port is located just underneath the leading edge of the rear solar panel. – See Image 4.

Image 1

Image 2

Image 3

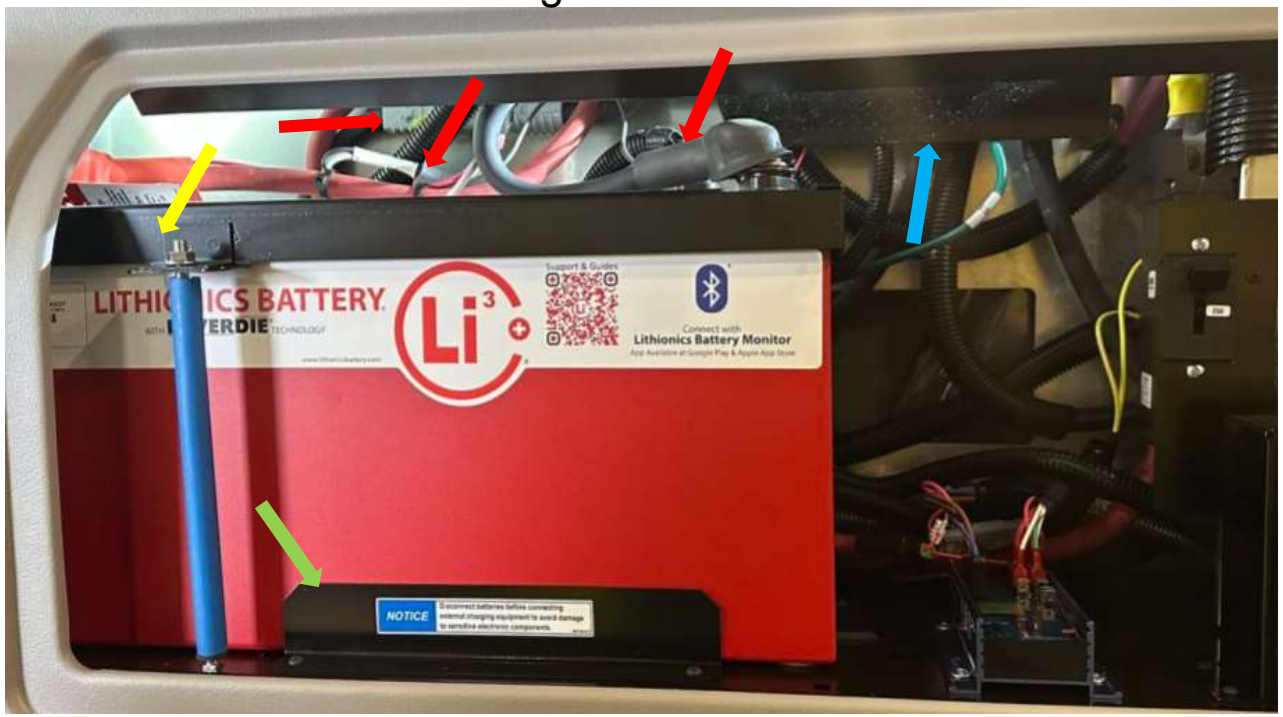
Image 4



Step 2 – Remove Battery.

1. Remove the nuts from the two ½” battery tie down bolts – see Image 1, yellow arrow.
2. Unplug the 2-Pin Anderson connector, 8-Pin Lithionics connector and 2-pin temperature sensor, red arrows.
3. Remove the L-bracket in front of the battery, green arrow.
4. Slide battery out of the compartment and set and aside.
5. Remove and discard the buss bar cover panel, blue arrow.

Image 1



Step 3 – Add convoluted tubing to red battery cables.

1. Add 14” of convoluted tubing to the red battery cable - see Image 1.
2. Add 30” of convoluted tubing to the 250A breaker input red cable - see Image 2.

Image 1

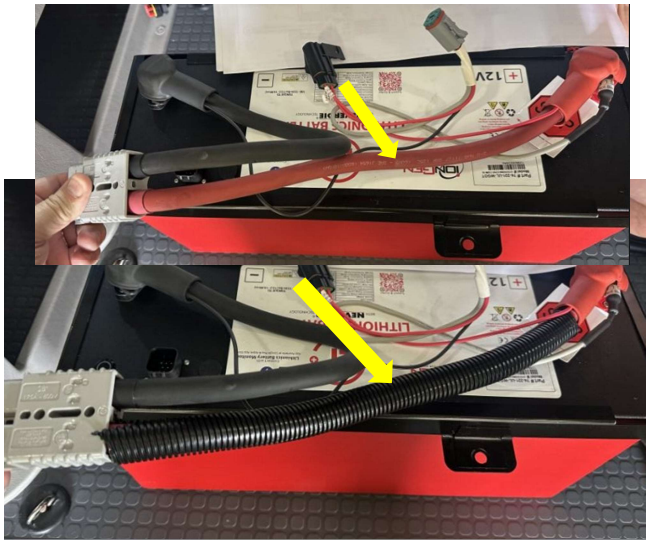
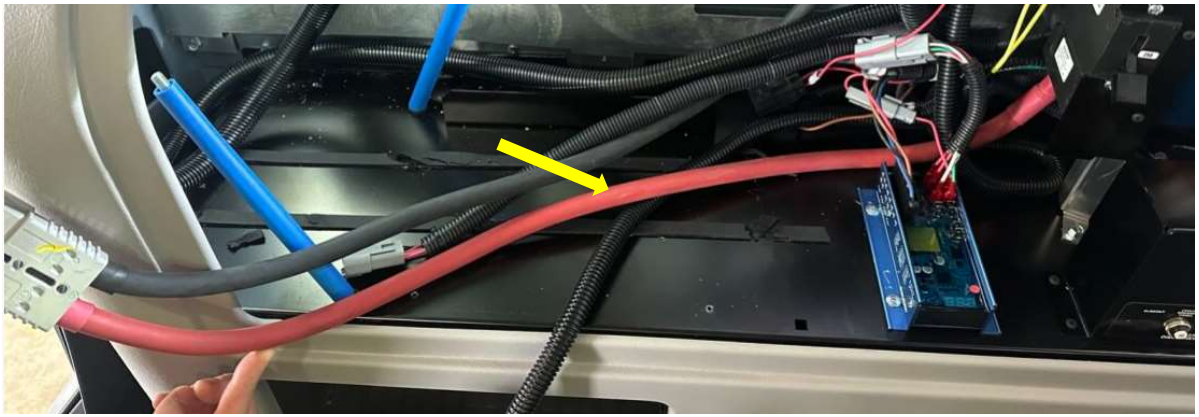


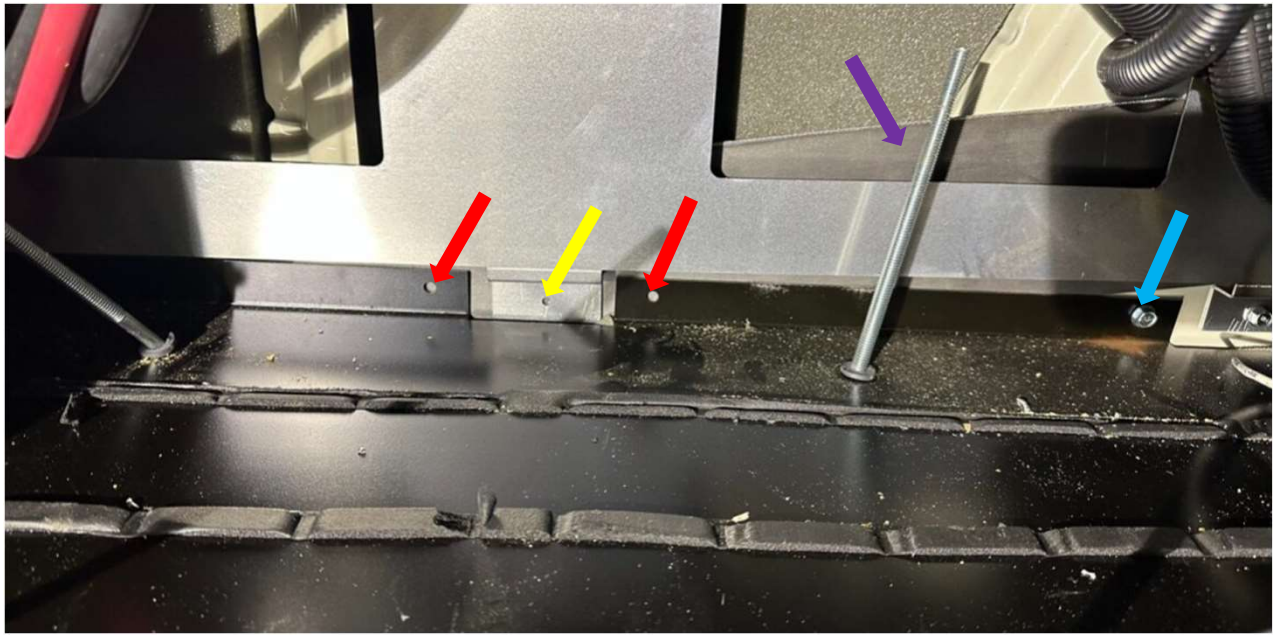
Image 2



Step 4 – Support the battery tray and back panel.

1. Some coaches may not have a backing panel installed in the area behind the battery – see Image 1. If missing, add backing panel 033383-51-010 – purple arrow - behind the existing aluminum back panel by sliding it through the cutout. The purple arrow shows the new panel not yet fully in-place, being slid in behind the existing aluminum back panel. Ensure all listed fasteners below make good contact with the new backing panel once installed.
2. If installing a new panel, it is necessary to remove and reinstall existing hex screw, see blue arrow.
3. Add (1) 1" Philips Pan Head screw to the aluminum back panel, see yellow arrow.
4. Add (2) ¾" Hex Washer Head screws to the holes in the battery tray bracket, see red arrows.

Image 1



Step 5 – Replace Regulator.

Install the new regulator.

1. Unplug the 2-pin and (2) 4-pin connectors from the regulator - see Image 1.
2. Remove the 4 Philips mounting screws.
3. Discard original regulator (MC-618-WB) and replace with new regulator (MC-618-WB3) - see Image 2.
4. Attach new regulator to panel and reconnect connectors.

Image 1

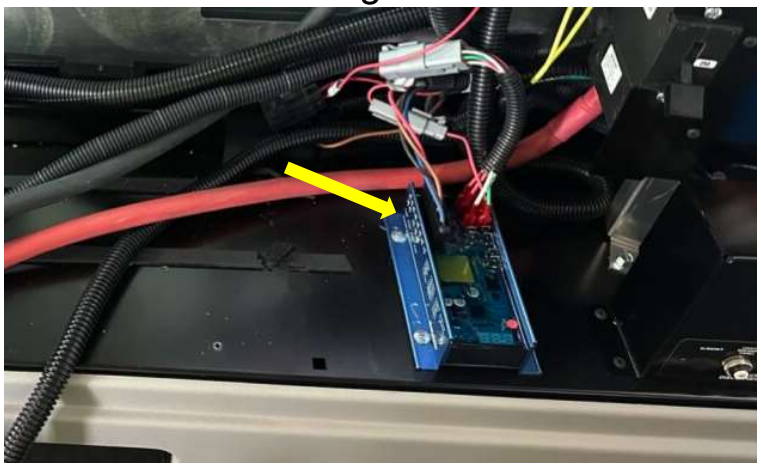


Image 2

Step 6 – Adding Breaker Control Harness.

1. In the battery compartment, locate the existing harness that had the 8 pin battery connector. Disconnect the harness from the breaker, cut the connection between it and the brown wire from the alternator regulator harness, and cut the harness off completely just past the junction and remove the section shown in Image 1. The remaining section should have a single wire labeled KE1, that runs up to the front of the coach.
2. Splice remaining circuit KE1 from the cut harness to the wire labeled KE on the breaker control harness - see Image 2.
3. Splice the brown wire on the alternator regulator harness to the BRN circuit on the breaker control harness.
4. On the 250A Breaker, replace the original circuits BCA and BCB with the new BCA and BCB circuits from the breaker control harness – see Image 3.
5. Locate new circuit LOC on the breaker control harness and connect spade terminal to pin 16 on the Balmar regulator - see Image 4.
6. Connect the 3/8" ring terminals on the POS and GND circuits to their respective 3 post power and ground bars.

Image 1

Image 2

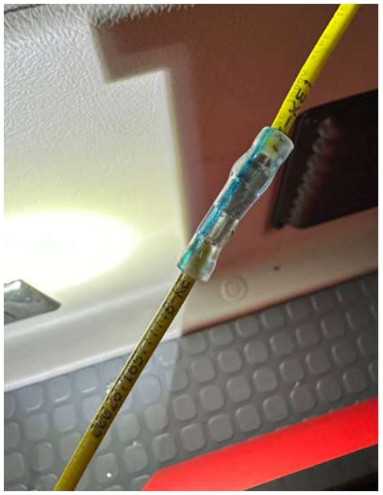


Image 3

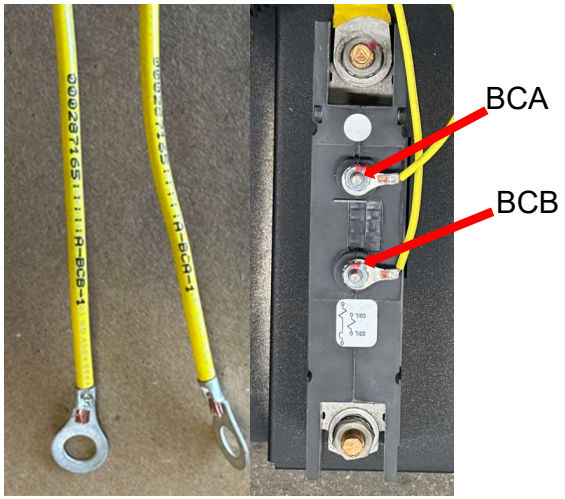
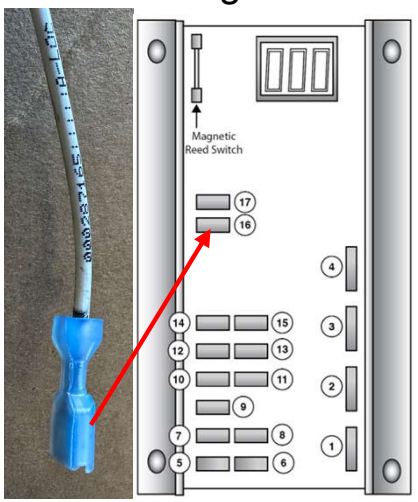


Image 4



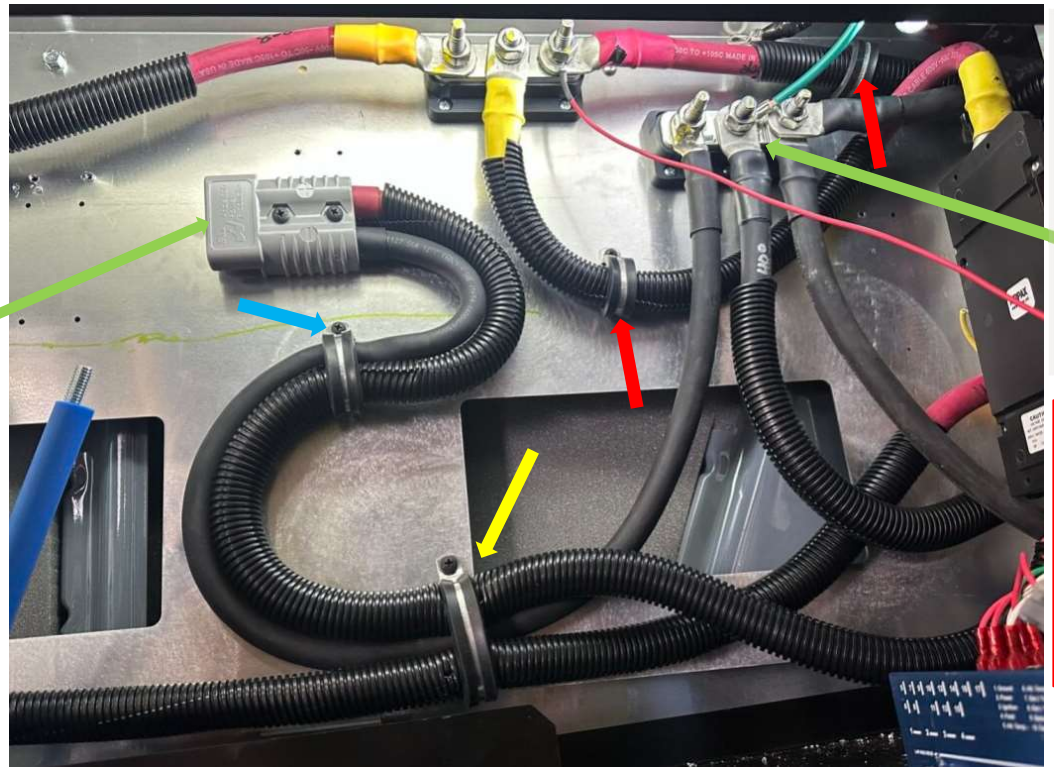
Step 7 – Clamp/Immobilize battery cables to back panel.

1. Use ¾"-1 ¼" clamp and 1" PPH screw to clamp 3 cables to the back panel – Image 1, yellow arrow. These cables are; red inverter input, red battery feed, and black battery feed.
2. Use 5/8" clamp (1) and 1" PPH screw to clamp the battery feed red and black cables – Image 1, blue arrow.
3. Use 1" clamp (2) and 1" PPH screws (2) to clamp the red breaker output and red alternator output cables – Image 1, red arrows.

Image 1

The cables and clamps need to be orientated as shown in the Image. This will keep them away from all sharp edges and flush to the panel.

The grey Anderson connector should be centered over the solid aluminum tab and be mounted 1" above the battery.



To keep the cable routing clean and flush to the panel it may be necessary to disconnect cables at the buss bar or Balmar harness
then reroute and reconnect them.

Retorque all cable connections that were disconnected during this process. See the last page for the torque requirements.

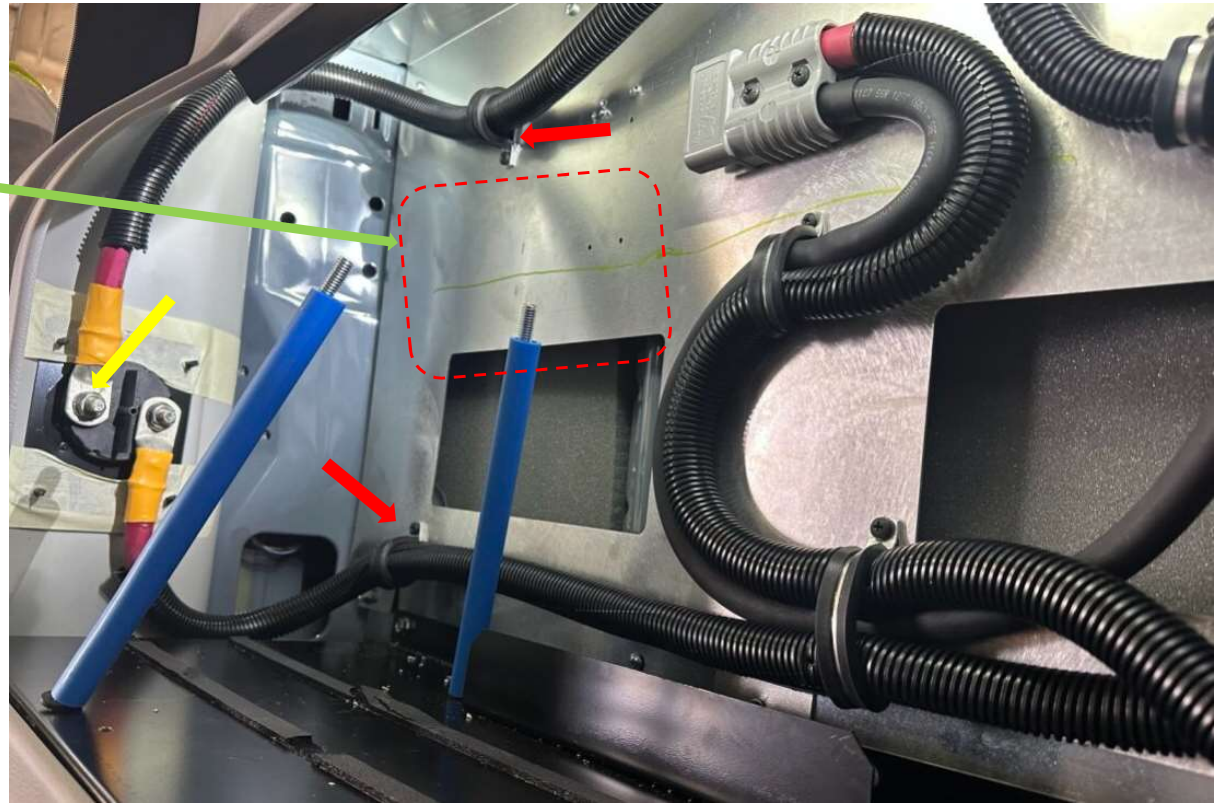
Step 8 – Reroute inverter disconnect cables.

1. The red inverter disconnect input cable needs to route down to the switch – see Image 1, yellow arrow.
2. Use 1" clamp (2) and 1" PPH screws (2) to secure the red inverter input and output cables – see Image 1, red arrows.

Image 1

It's important to keep this area clear. It allows clear access when tightening down the battery and eliminates the possibility of a positive cable contacting the hold-down bracket.

Retorque all cable connections that were disconnected during this process. See the last page for the torque requirements.



Step 9 – Check connections.

1. Torque all buss bar studs to 190 In Lbs.
2. Torque the inverter 12v positive and negative connections to 88 In Lbs - see Image 1, red arrows.
3. Torque inverter disconnect studs to 120 In Lbs.
4. Torque breaker high voltage studs to 230 In Lbs, and low voltage studs to 12 In Lbs. Add screw covers (2) to the low voltage studs on the back side of the 250A breaker - see Image 2, green arrows.

Image 1

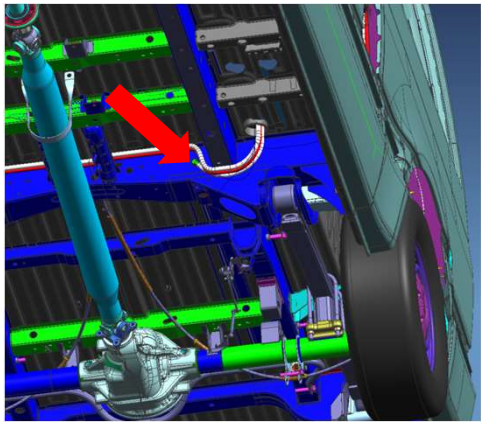
Image 2

Step 10 – Ground Connection.

1. Under the coach, locate the ground cable that goes up through the floor in the battery compartment and connects to the ground buss bar.
2. Confirm that this cable is grounded to the chassis supplied ground. The chassis ground is located on the driver side of the frame crossmember that also supports the front suspension pivot – see Image 1 and 2. It is directly behind the fuel tank. If the cable is mounted with a self-tapping screw into the chassis frame, remove the circuit from the screw and reroute over to the chassis supplied ground.
3. Remove all connections from chassis ground and clean stud and mating surfaces with a wire brush. Clean surfaces are necessary for a good electrical connection.
4. Reinstall all original connections and the buss bar ground cable and torque bolt to 71 In Lbs.
5. While under the coach, inspect the alternator power and ground cables from the alternator back to the pass-through into the coach. Ensure the cable is properly secured and away from moving or hot parts, and that there is no visible chafing or exposed strands.

Image 1

Image 2



Step 11 – Reinstall the battery.

1. Install battery and tighten the battery hold down brackets until the tabs are deflecting downward - see Image 1.
2. Connect the grey Anderson main connector – see Image 2, yellow arrow.
3. Reconnect the 8-Pin Lithionics connector and 2-pin temperature sensor – see Image 2, red arrows.
4. Use zip-ties to keep the battery cables secured and unable to chafe on any sharp edges.
5. Use zip-ties to secure the additional cable length from the breaker control harness between the inverter and the battery - see Image 3.
6. Mount the relays from the breaker control harness to the right of the regulator – see Image 3, red arrow.

Image 1

Image 2

Image 3

Step – 12 Wire Connection Validation – Breaker Control.

1. With the 8-Pin battery control connector now connected to the main battery, hold down the power button on the top of the battery. Make sure the blue LED is lit and turn on the 250 A Breaker – see Image 1.
2. On a mobile device, download "Lithionics Battery Monitor" from Google play or Apple app store and open the Lithionics Battery Monitor application. Connect to the main battery through the App – Note: The battery serial number is on the side of the battery, select the correct serial number listed in the app – see Image 2.
3. Select the "Settings" gear icon in the upper right corner of the application – see Image 3.
4. Select "Terminal Console" - see Image 4.
5. With the terminal console open, type "BT" in the command line and hit "done" - see Image 5.
6. Once you hit "done", the 250-amp breaker should open. "BT" is the command for breaker test. If the breaker opened, proceed to step 7. If not, verify all wiring connections were made properly to the breaker control harness.
7. The work is now complete.

Image 1

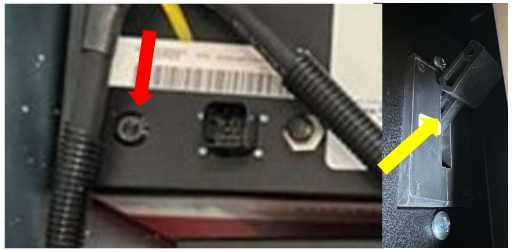
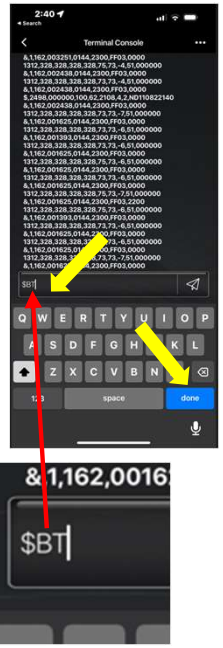


Image 2

Image 3

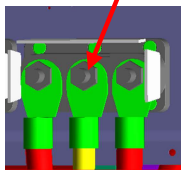
Image 4

Image 5

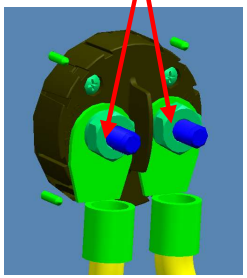


Torque values-

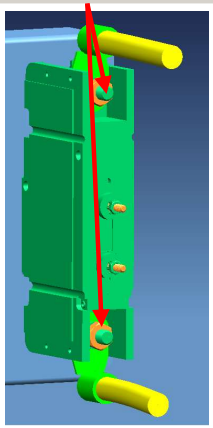
3 post buss bar
325348-01-000 3-Way
17mm Deep well Socket
Torque – 190 In-Lbs. x All



Inverter Disconnect-
183904-01-000
9/16” Socket
Torque - 120 In-Lbs. x2



Coach Battery 250-Amp Breaker
347029-01-000
5/8” Socket - Torque - 230 In-Lbs. x2
3/8” socket - Torque - 12 In-Lbs. x2



Xantrex Inverter-
328076-01-000
13mm Socket
Torque – 88 In-Lbs. x2

Read the entire instructions carefully before starting the procedure. If you have any questions, please contact Winnebago Industries' Technical Service Department by calling 1-866-653-4329 or by email: techservice@wgo.net. This document is confidential and is intended for dealer use only.