

 <b>BC Ambulance Service</b> BC Emergency Health Services	<h1>110 VOLT TRANSFER SWITCH INSTALATION</h1>	November 6, 2017 Page 1 of 7
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**AMBULANCE TYPE:** DEMERS SINGLE STRETCHER

**UNITS AFFECTED:** UNITS 62911 to 62979 EQUIPPED WITH THE STRYKER POWERPRO STRETCHER

**ISSUE:** To provide 110V power to the internal receptacles of the ambulance from shoreline power or the Go Power inverter, to facilitate charging of the Stryker PowerPro Stretcher battery.

**ACTION:** INSTALLATION OF AN 110V TRANSFER SWITCH

**LABOUR TIME:** 1.5 hrs

**LABOUR CODE:** GMOTS

**SERVICE PROCEDURE:**

Read these instructions entirely before starting this modification.

Contact BCAS Fleet Operations if there are any questions or concerns.

1-877-652-7465

Check the contents of the kit provided.

- 2 Marrets - 110V connectors
- 4 #10x5/8 self-tapping screws
- 2 cable clamps
- 1 Bus bar with 1 #10-32x3/4 screw
- 1 Transfer Switch



**BEFORE STARTING THIS MODIFICATION:**

**Confirm the 110 volt shoreline power is not connected to the ambulance, and the vehicle engine is switched off.**

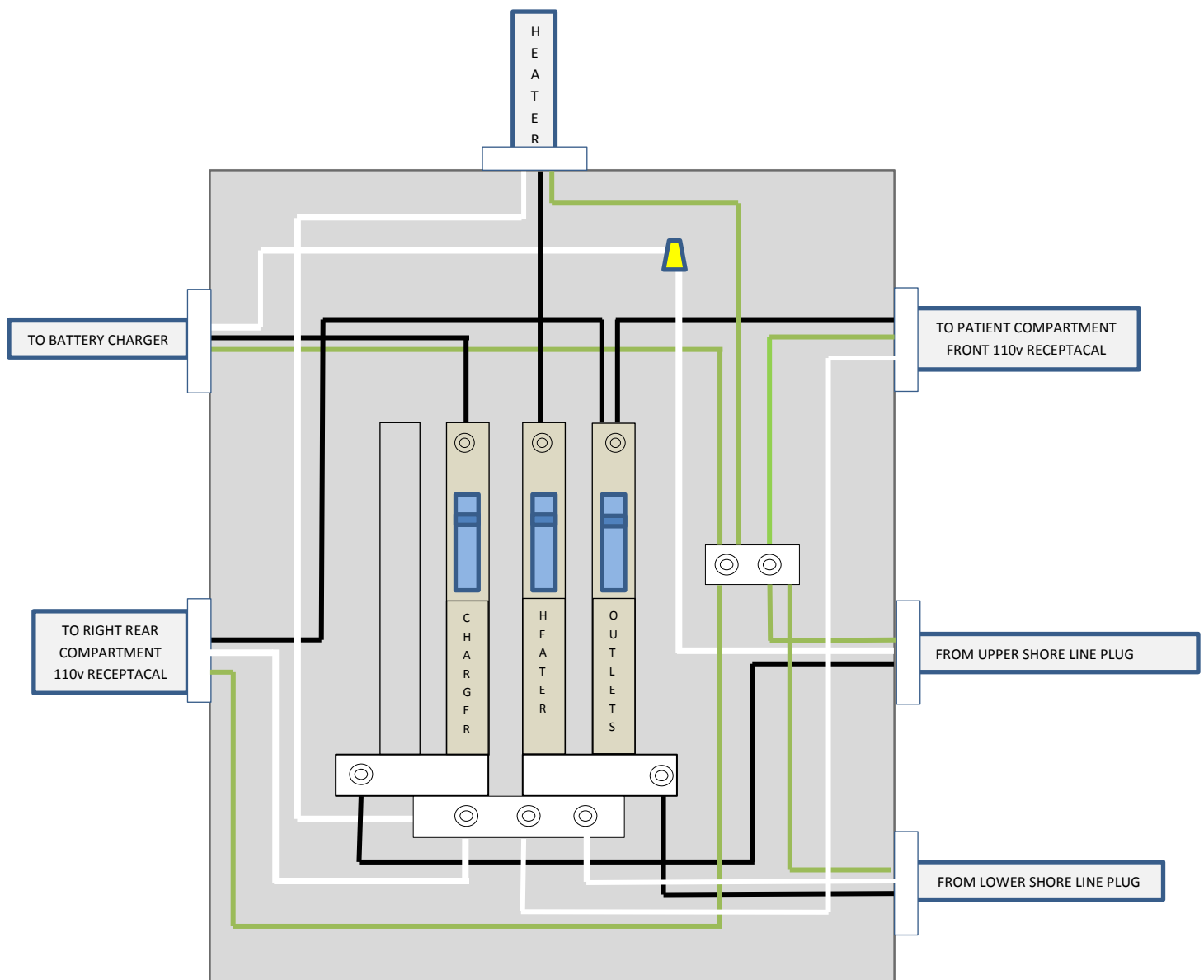
LOCATE THE 110 VOLT BREAKER BOX IN THE ELECTRICAL COMPARTMENT

## STEP 1:

Remove the cover from the 110V breaker box and compare the wiring with the diagram below.

## IMPORTANT!

Confirm the existing wiring is the same as diagrammed before continuing.



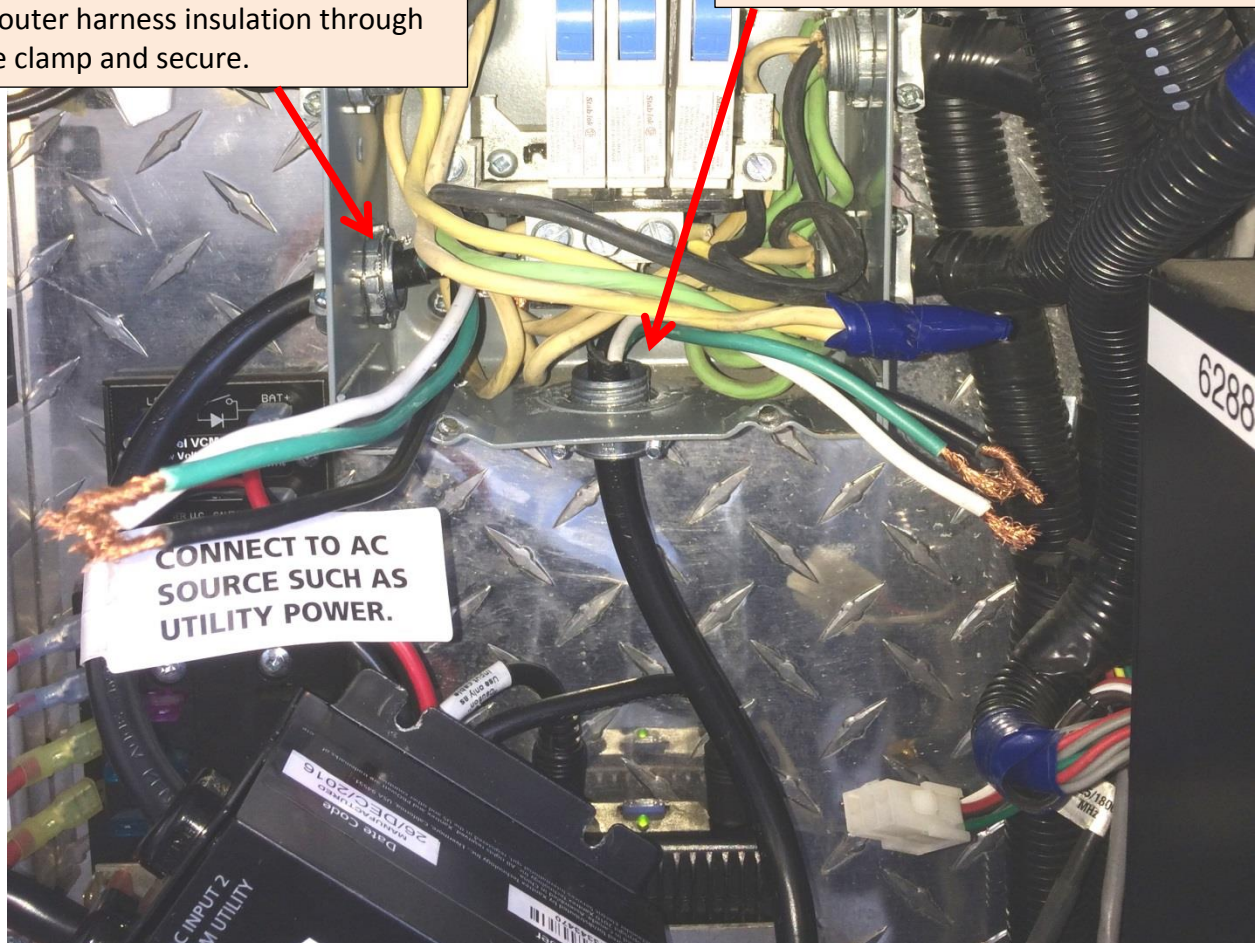


## 110 VOLT TRANSFER SWITCH INSTALATION

### STEP 2

1. Measure 7 inches from the end of the transfer switch harness labeled "Connect to AC Power Source" and remove the outer harness insulation.
2. Remove the knock out from the bottom left of the breaker box and install the cable clamp.
3. Feed the transfer switch harness into the clamp allowing up to ½ inch of outer harness insulation through the clamp and secure.

4. Measure 5 inches from the end of the transfer switch harness labeled "AC Load Only" and remove the outer harness insulation.
5. Remove the knock out from the bottom center of the breaker box and install the cable clamp.
6. Feed the transfer switch harness into the clamp allowing up to ½ inch of the outer harness insulation through the clamp and secure.







## 110 VOLT TRANSFER SWITCH INSTALATION





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## STEP 4

### INTERNAL WIRING CONNECTIONS

Follow the numbered steps in order.

Note: The dashed lines show the original wire path. The faded lines show the wiring not disturbed by this modification.

**Twist all wire connections before Marrets are installed, then wrap with electricians tape.**

**1.** Attach the 2 green wires from the transfer switch harnesses to the supplied bus bar & attach to the breaker box.

TO BATTERY CHARGER

TO RIGHT REAR COMPARTMENT 110v RECEPTICAL

**3.** Connect the black wire from the transfer switch harness "AC Source Power" to the breaker.

TO PATIENT COMPARTMENT FRONT 110v RECEPTICAL

**2.** Remove the 2 black wires from the 110v breaker and connect them to the black wire from the transfer switch "Connect to Load" harness using the supplied Marret.

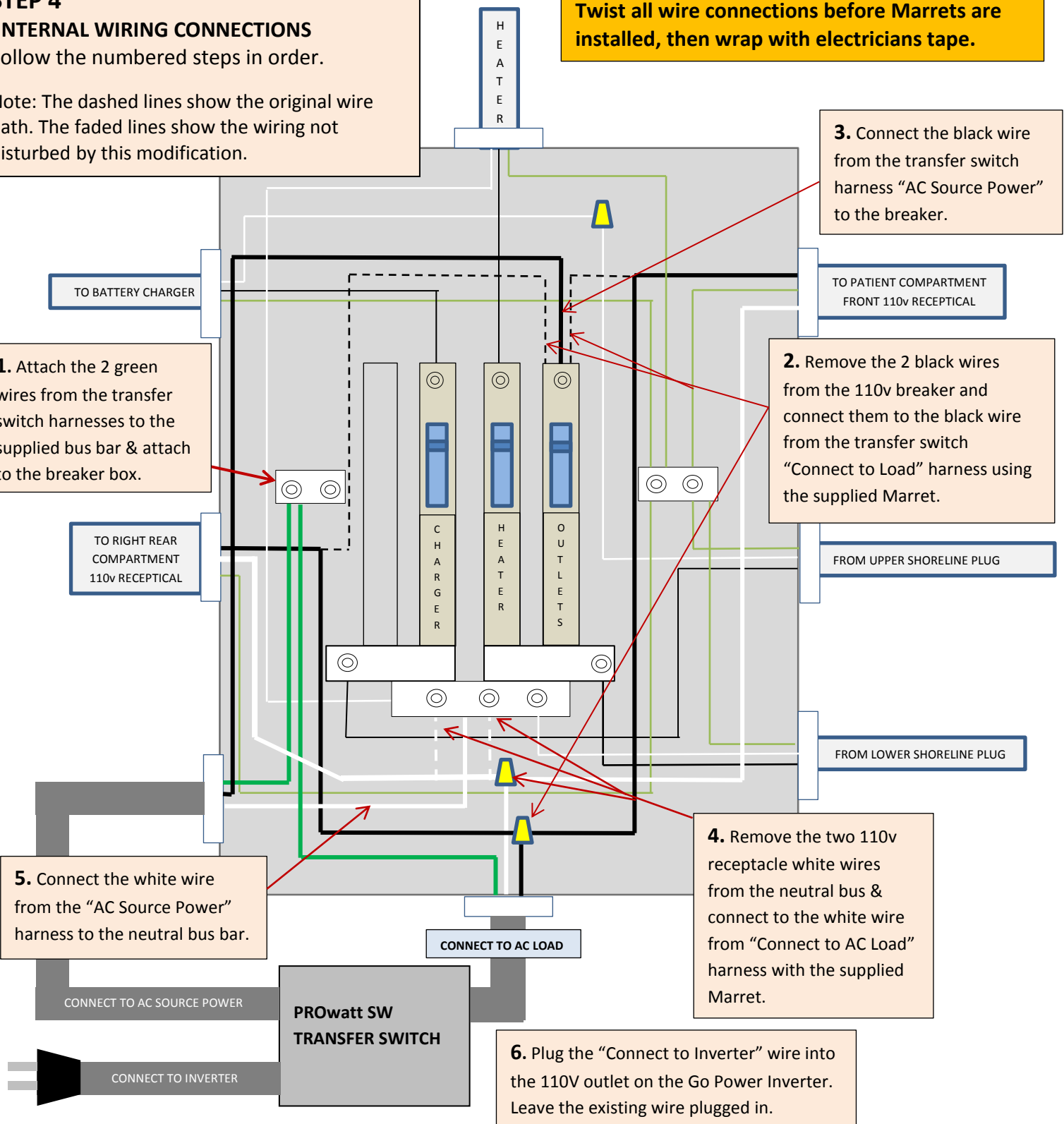
FROM UPPER SHORELINE PLUG

FROM LOWER SHORELINE PLUG

**5.** Connect the white wire from the "AC Source Power" harness to the neutral bus bar.

**4.** Remove the two 110v receptacle white wires from the neutral bus & connect to the white wire from "Connect to AC Load" harness with the supplied Marret.

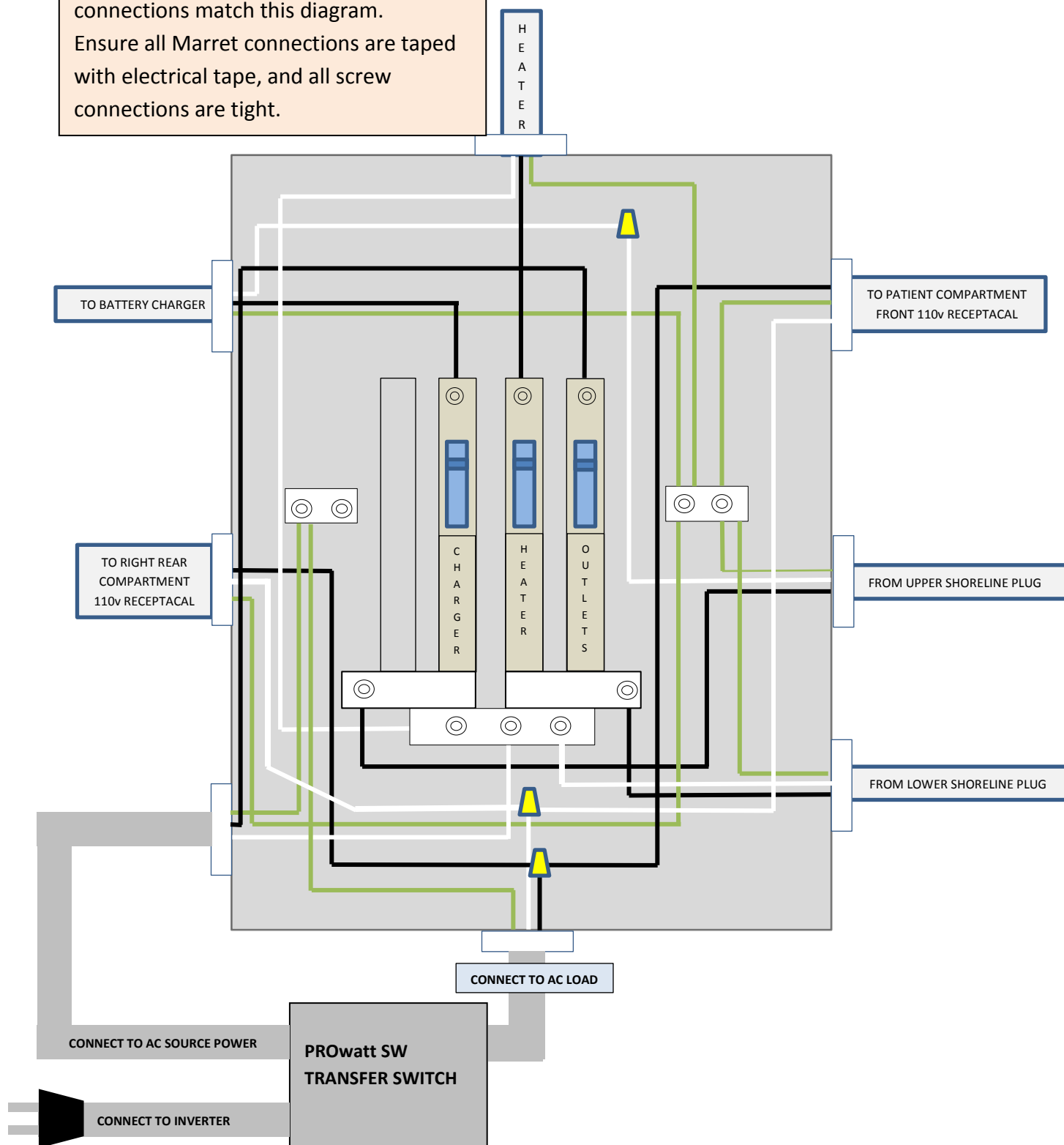
**6.** Plug the "Connect to Inverter" wire into the 110V outlet on the Go Power Inverter. Leave the existing wire plugged in.

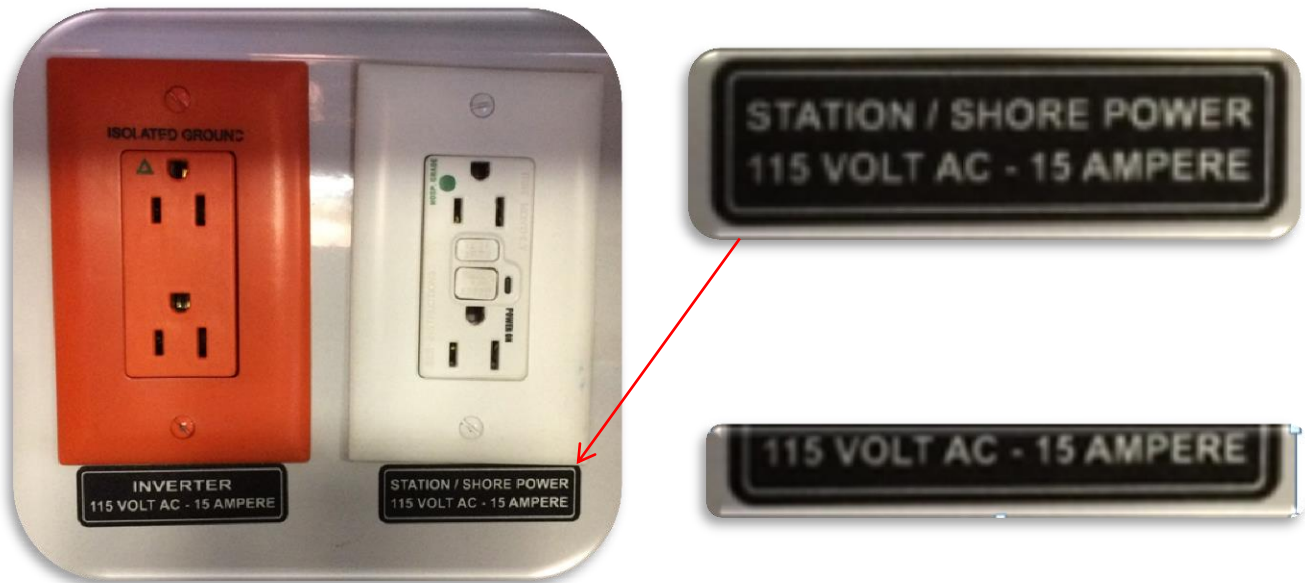




## 110 VOLT TRANSFER SWITCH INSTALATION

**STEP 5:** Recheck that all the new connections match this diagram. Ensure all Marret connections are taped with electrical tape, and all screw connections are tight.





## System Test:

Using a GFI protected circuit; plug a shoreline power cord into the lower 110V shore power receptacle on the outside of the ambulance.

Plug an 110V tester into both patient compartment *white* 110 volt outlets and confirm power is present.  
*Note: The second white 110 volt outlet is located in the equipment kit tree.*  
*Power should not be present at the orange inverter outlet at this time.*

Start the engine and turn the connect switch on. Unplug the shoreline power from the outside of the ambulance.

Confirm power is still present at both the *white* and *orange* 110V outlets inside the patient compartment.

*NOTE: The orange outlet is inverter power only and will only have power when the vehicle is running and the connect switch is on.*

Use a razor blade to trim and peel the decal below the *white* outlet to say “115 VOLT AC -15 AMPERE”

Labour Code: GMOTS – use this labour code on the invoice and charge 1.5 hrs