

2010 43QGP Allegro Bus

## 12/10/2013

**95 - FYI** – <u>**BY-PASSING THE TIFFIN INSTALLED INVERTER.</u></u> I know the first question that comes to most minds. Why would I desire to by-pass the Inverter? Depending on the situation this is an easy way to route AC power <b>AROUND** a **NON WORKING** Inverter, and allow bypassed circuits to operate. First step to disabling the inverter's ability to make 120 VAC from the 12 VDC batteries is done by disconnecting the ground, black or negative cable running from the house battery bank to the ground buss bar in the battery compartment. After that ground cable has been disconnected it is a lot safer to remove the hot leg, red or positive cable running from the house battery cables are properly covered or protected so they CANNOT get re-connected to the batteries.</u>



Tiffin connects one half of a 30 AMP three wire MOLEX (SCPC) which is a selfcontained power connector to a 10 gauge three wire cable, that cable is also routed to the main electrical panel where the hot wire is connected to a 30 Amp circuit breaker labeled **INVERTER OUT # 1**, this circuit breaker is connected to the (load 1) **L1** circuit in the panel. A second 10 gauge cable with one half of a 30 Amp three wire Molex connector is connected to a second 30 Amp circuit breaker labeled **INVERTER OUT # 2**, this circuit breaker is connected to the (load 2) **L2** circuit in the panel. Both of the above cables have been routed to a location near the Inverter. A second pair of 10 gauge cables are connected to two 30 amp circuit breakers are labeled **INVERTER IN # 1 & # 2**. The opposite end of these two cables is each terminated to the second half of a SCPC located near the Inverter.



At this point there are four MATING HALVES of the SCPC CONNECTORS wired to the **INVERTER** all using the same labeling as the labeling used in the MAIN and SUB electrical panels. The TWO Inverter **IN** SCPC halves are USUALLY located together along one side of the Inverter. The Inverter **OUT** SCPC halves are USUALLY located together however on the opposite side of the Inverter from the **IN** SCPC halves.

The four complete SCPC connectors need to be separated into eight halves to begin the next step in the inverter by-pass process.



The above photo contains instructions on how to separate the two halves of a SCPC connector after ALL eight halves have been separated the following connections need to be made.

**CONNECT:** INVERTER OUT # 1 half of the SCPC from the electrical panel to the **INVERTER IN # 1** half of the SCPC from the electrical panels sub-panel. **CONNECT:** INVERTER OUT # 2 half of the SCPC from the electrical panel to

the **INVERTER IN # 2** half from of the SCPC the electrical panels sub-panel.

After making the above connections plug the coach into a 50 Amp shore power source or start the coach's generator. With the above connections completed with **ALL** circuit breakers in the electrical panels **TURNED ON**, the coach **SHOULD** have AC voltage to **ALL AC** circuits in your coach the **INVERTER** will be **COMPLETELY BY-PASSED**. By completing the above connections a wired loop has been completed AROUND the INVERTER.

If all outlets and appliances have power in the coach, it is possible the inverter or its internal wiring may have been the cause of your AC electrical problem.

The following page displays a pictorial diagram of what was written above. At the **INVERTER**, **IF** you disconnect and separate the four SCPC units, then connect **L1 YELLOW** to **L1 GREEN** and connect **L2 YELLOW** to **L2 GREEN** all are located near the **INVERTER** both 30 Amp AC Inverter circuits will be by-passed.



The four SCPC halves wired to the Inverter have no connections when by-passed.