



2010 43QGP Allegro Bus

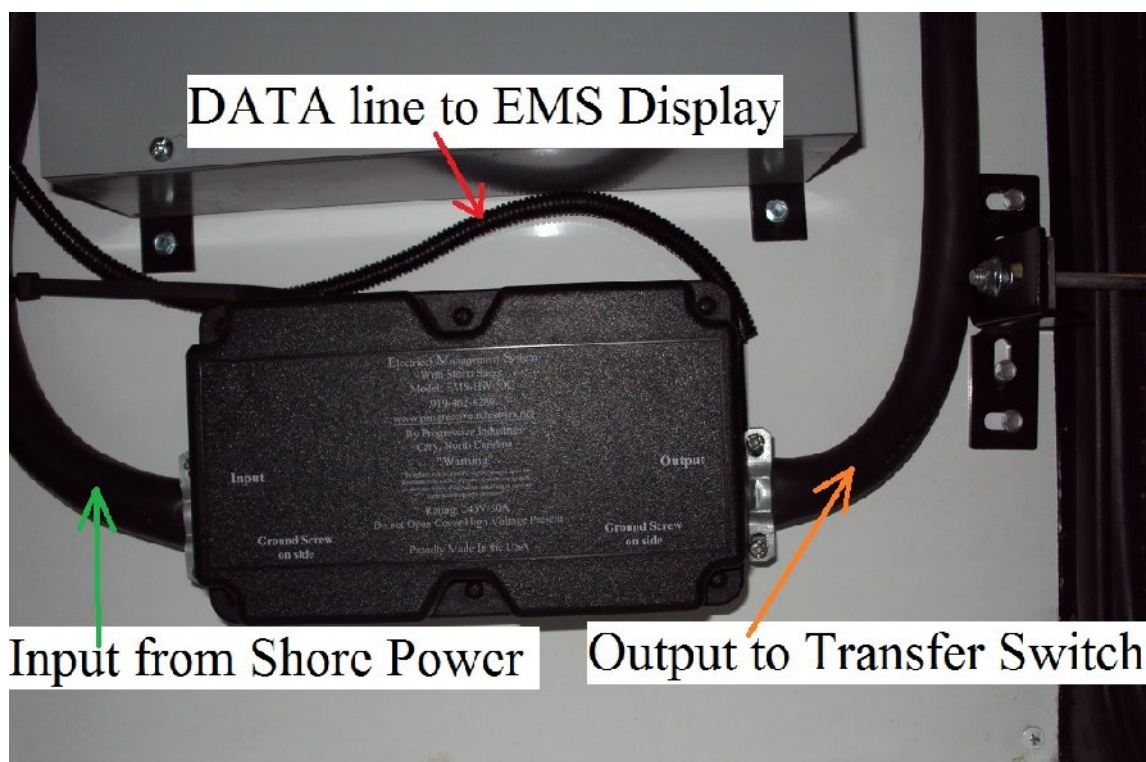
3/13/2013

SEVENTY-FOURTH - coach modification – INSTALLATION OF THE PROGRESSIVE INDUSTRIES HW50C – ENERGY MANAGEMENT SYSTEM.

I am not sure why this modification has taken me so long to document, it was one of the first modifications we made to our coach the EMS was installed less than a week into coach ownership.

Well I am finally getting around to writing about our installation based on a recent (EMS) Energy Management System interest on the TRVN forum.

In an effort to make this installation as easy as possible a few items mounted in the bay along with our transfer switch panel were moved to provide room to mount the HW50C panel under the Tiffin 50-3 transfer switch.



The input power cord was moved from the Tiffin transfer switch to the input side of the EMS-HW50C. A short piece of cord approximately three feet was purchased from an electrical supply house the cord has three # 6 wires and one # 8 wire. That cord was connected to the output side of the EMS and wired into the Tiffin transfer switch. The Progressive supplied **DATA** line

was connected to the EMS unit. The opposite end was initially connected to the display located in the wet bay on the white panel.

Some months later a second display and data switch was purchased making it convenient to install a second display which is located in our bedroom over the stack of drawers.



With the new switch the **DATA** line is connected to the input of the switch. The wet bay display 1 is connected to switch 1 and the second display is connected to switch 2. The cable between the switch and display 1 is a standard FOUR wire phone cable it IS NOT A DATA cable. The output cable from the switch to display 2 is connected to the wet bay house phone circuit again with a standard FOUR wire PHONE cable. Our coach has four phone connections, three inside the coach and one in the front passenger side compartment in addition to the wet bay phone connection.

This EMS unit was previously mounted on our 2007 Phaeton before it was installed on our 2010 Allegro Bus, both coach's had one phone jack in the coach miss wired, I suggest you check the wiring on all phone jacks prior to using them otherwise your EMS may not operate correctly or it may blow one of its electrical boards as occurred on our Allegro Bus when two pins got crossed on one of the RJ-11 phone cable connectors.

Found when first making the various camping connections water, sewer, and power setting up for camping the data switch is first placed in display 1 position after making sure the electrical power is functioning as it should the display switch is switched to the display 2 position.



A display stand was built stained to match the woodwork in our coach the display can be inserted then the stand which may be placed almost anywhere in the coach. I find it very convenient to have the display located in the bedroom where it can be seen during the night to make sure shore power is operating and the coach is not running off the inverter.



The PHONE cable connectors on the LEFT are standard four conductor RJ-11 connectors. The two connectors are mirror images of each other, the wires are reversed. The DATA cable connectors on the RIGHT are standard four conductor RJ-11 connectors however the cable ends match each other. **ONLY ONE DATA CABLE** is used when installing the PI-EMS unit. That DATA cable is installed between the EMS and the data switch or the display depending on a single display or a dual display.