

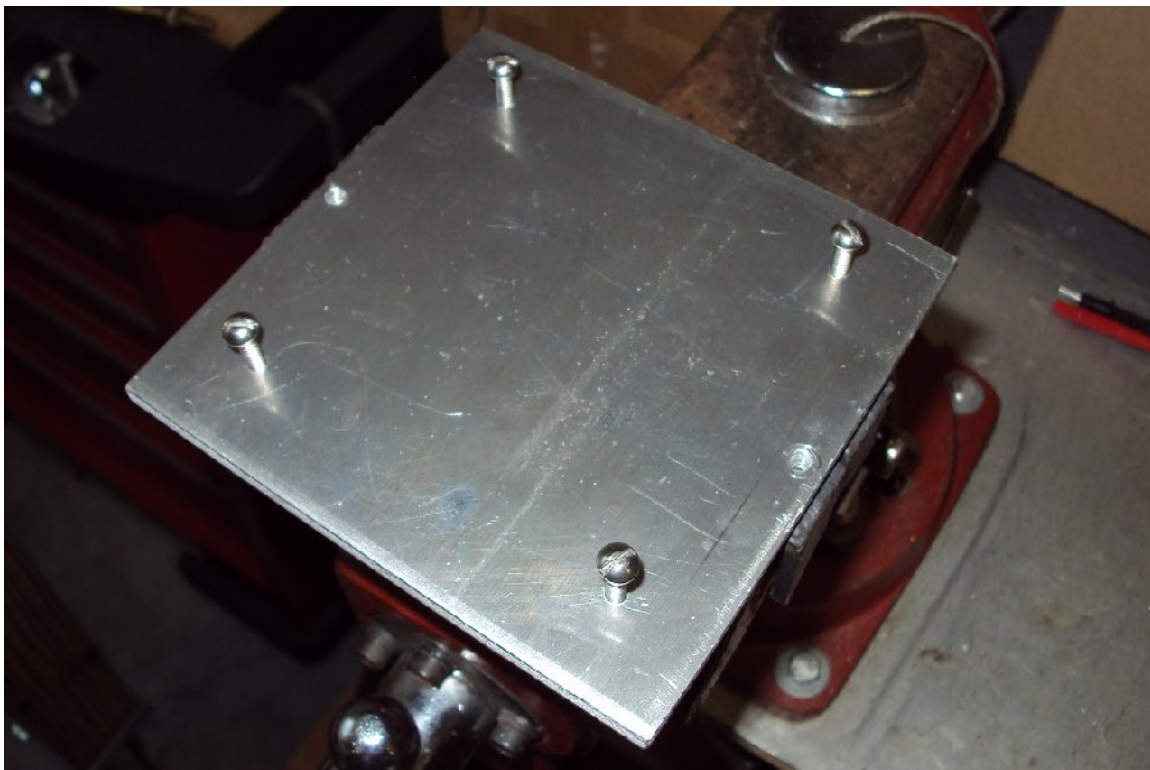


2010 43QGP Allegro Bus

5/5/2014

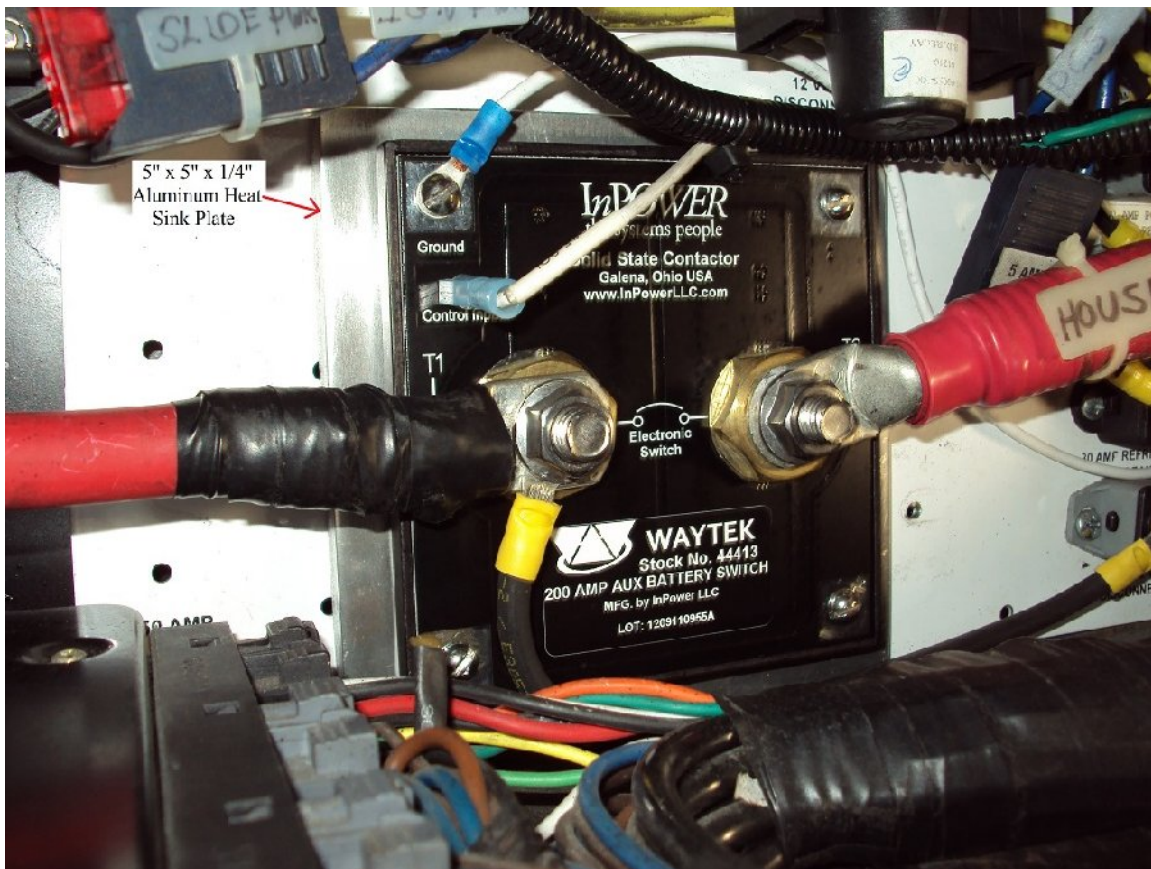
ONE-HUNDRED-SIXTH - coach modification – **WAYTEK AUXILIARY BATTERY SWITCH (ABS-200)**. After rebuilding and reinstalling five or six White Rogers “Charging Solenoids” in just over a three year period today I made a modification I hope will eliminate the “Charging Solenoid” problem. After reading various TRVN discussions regarding the White – Roger’s “Charging Solenoid”, the new Tiffin installed Gigavac (EX14-BC) and the InPower Waytek (ABS-200) Auxiliary Battery Switch used by one or two owners, I opted to go the more expensive Waytek ABS-200.

I normally will not spend money without thinking about how the money is going to make our life better or easier, in this case it is my hope after the installation of this modification we will never be worried if the charging solenoid is operating and charging the house batteries while driving again. Installation instructions and data sheet for the ABS-200 can be found at <http://www.waytekwire.com/item/44413/200-AMP-INPOWER-BATTERY/>



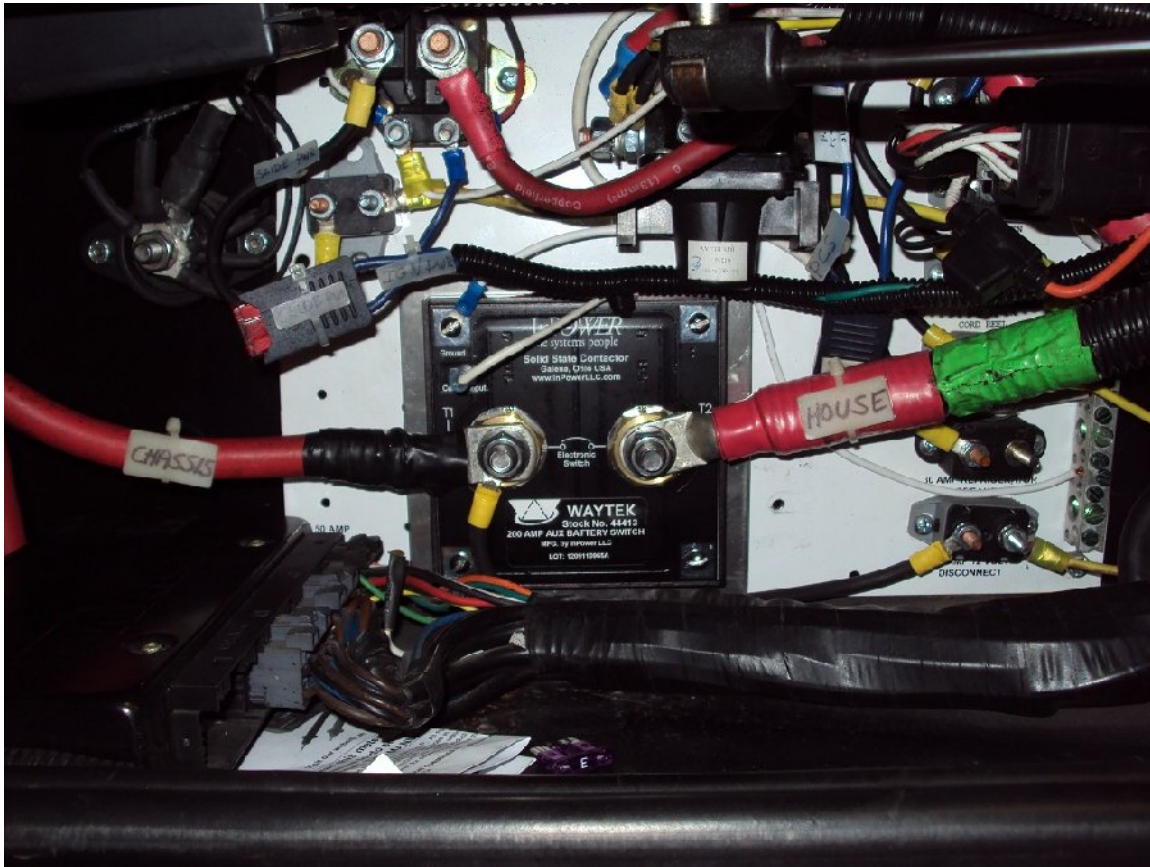
A heat-sink is required to dissipate the heat generated by the current passing between the two battery banks while the aluminum plate installed by Tiffin

may have been enough heat-sink for this modification I decided to add more metal to further dissipate the heat. I chose to mount the ABS-200 on a ¼ thick plate of 5" x 5" aluminum. The ABS-200 was placed on top of the aluminum plate, the four corner holes of the ABS-200 were marked on the plate. A hole was drilled at the four marks using a # 29 drill bit, an 8-32" tap was used to add threads in the holes. Prior to mounting the ABS-200 the clear plastic cover was removed from the back side of the heat transfer material which is attached to the back of the ABS-200, 4 - 5/8" 8-32 screws were used to install the ABS-200 to the aluminum (plate) heat sink. EXTREME CARE must be taken when tightening the four mounting screws the MAXIMUM torque spec for these screws is **5 IN. LBS.** That's right the proper torque is less than **1 FT. LB.** Waytek specifies applying TOO much torque will void the warranty.



As seen above it is a tight squeeze however it is possible to mount the 5" x 5" aluminum plate on the OEM plate mounted by Tiffin, the combination of these two plates should be able to dissipate any heat generated by current passing between the two battery banks. Unseen in the above photo are two #6 self-drilling screws located behind the two large battery cables, the screws

pass thru the 5" x 5" aluminum plate into the OEM white plate installed by Tiffin.



Not much more needs to be added. The chassis battery cable is connected to the left terminal post the house battery cable is connected to the right terminal post. Both nuts are torqued to a **MINIMUM** of **10 FT. LBS.** and a **MAXIMUM** of **15 FT. LBS.** As a minimum torque is required I decided to use my 1/4" drive torque wrench, this torque wrench is graduated in IN. LBS. rather than FT. LBS. I decided to use 150 IN. LBS. as 120 IN. LBS. is equal to 10 FT. LBS and 180 IN. LBS. is equal to 15 FT. LBS, deciding to split the minimum and maximum torque settings and set the torque to a middle number of 150 IN. LBS. or 12.5 FT. LBS.

The ABS-200 ground wire was installed and connected to the ground buss bar, seen in the photo lower right side. The OEM ignition power wire ring terminal was removed and replaced with a 1/4" female slip connector.

Being the lazy person I am, my hope is this is a modification that will pay for itself by requiring less maintenance and concern in the future.

This was not an in-expensive modification as the total cost of the ABS-200 and a small amount of hardware was \$ 300.00.