



2010 43QGP Allegro Bus

9/3/2015

125 - FYI – REPLACED THE ENGINE ALTERNATOR FOR THE SECOND TIME.

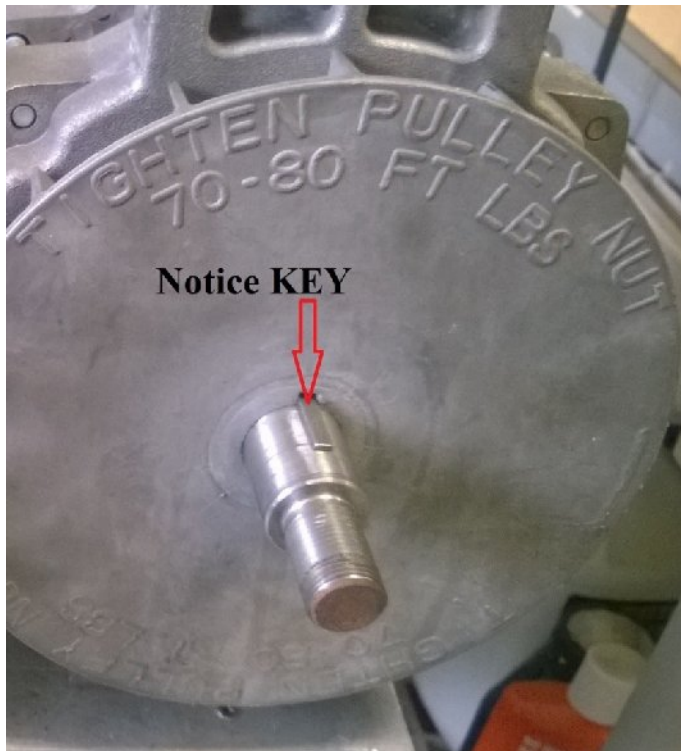
I guess the first question is WHY, has the alternator gone bad twice in less than five years. The first time was in 2012, we had been camping for a few weeks when the coach engine was started to pull out and hook up the toad. Fortunately I have a voltage monitor on the dash to monitor both battery banks, chassis and house. The chassis voltage was displaying OVER 16 volts, way too high the alternator's voltage regulator was not properly regulating the alternators voltage. I turned the engine off and restarted the engine a second time with the same results. Backed back into our camping space then called Tiffin.

Two days ago 9/1/15, I started the coach engine to check everything before the weekend as this is the start of college football. The dash instruments displayed LOW VOLTAGE my dash voltage monitor was showing less than 12 volts with the engine running. Even after restarting the engine the voltage was under 12 volts, another alternator problem instead of HIGH voltage this time is was LOW voltage, actually NO output voltage from the alternator.

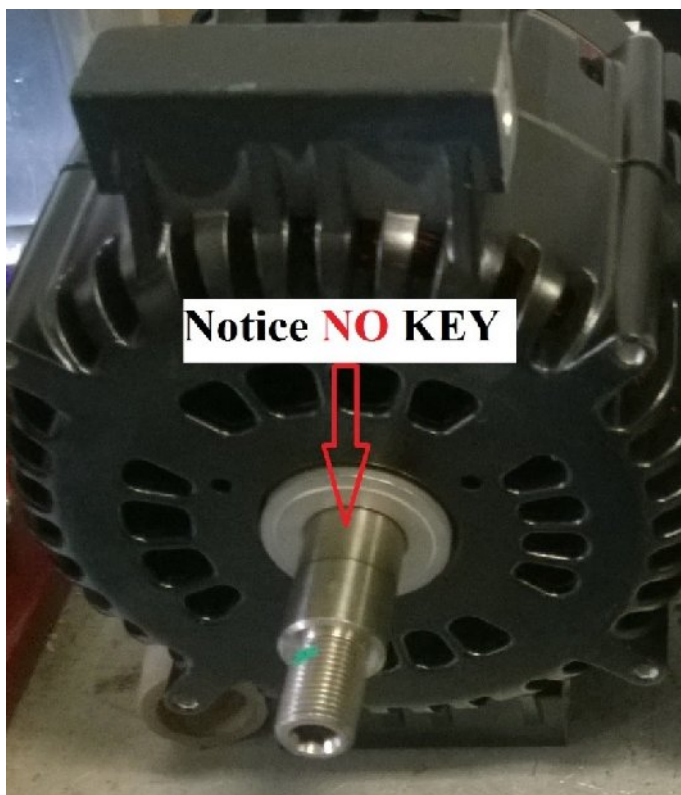
The first time was under the three year Tiffin Warranty and Tiffin took care of everything, this time everything was on my nickel. I wasted most of a day trying to locate another alternator locally, none were to be found I was told anywhere from 4 days to 10 days before an alternator could be shipped in. At that point I had no other option except to contact Tiffin when the phone was answered I was directed to Express Parts where they took my credit card information after I told them what I needed. I had already preformed the research on the Tiffin part number for the new higher capacity alternator Tiffin has been using for about 18 months the Tiffin part number is 5035050 for the 210 amp pad mounted alternator. The OEM alternator on the 2010 coaches had an output of 170 amps.

Now to the financial part which hurts however it could have been a lot worse as the coach is parked in the garage where I have all of my tools at my disposal to work with. 210 amp alternator cost was \$ 444.56 I asked Tiffin parts dept. to ship the alternator next day air which added \$ 158.20 to the cost making the total cost \$ 602.76.

Tiffin has gotten smarter over the years, now they send a return shipping label where once they did not bother having core's returned to them.



there was no keyway and no taper to the shaft. I was told he would check and call me back. A few minutes later Nathan did call back with the message the Powerglide production manager told him Tiffin was installing the



The standard 170 amp alternator Tiffin was installing in the Allegro Bus until mid-year 2014 is shown to the left, notice the key in the shaft's keyway. The new 210 amp alternator DOES NOT have a key or keyway in the shaft.

I called Nathan Davidson (Powerglide chassis dept.) when I got to this point as the next step was to install the 8 ribbed pulley on the new alternator. Nathan responded by asking me if I was sure there was no keyway. After telling him

there was no keyway and no taper to the shaft. I was told he would check and call me back. A few minutes later Nathan did call back with the message the Powerglide production manager told him Tiffin was installing the alternator without any keyway, just to make sure the nut is tight on the shaft.

The shaft on the new alternator has a hex key 8MM slot to hold the shaft while tightening the nut. After my conversation an executive decision was made to use the same impact driver to install the 15/16" nut as was used to remove the nut from the old alternator. While holding the pulley in one hand the impact driver was held in the other hand to tighten the nut. Using this method the pulley is squeezed against a

collar on the shaft by the torque applied to the nut using the impact driver. As shown below the tension on the pulley nut is the reason the alternator is able to supply charging voltage to the chassis batteries and the house batteries thru the Waytek Auxiliary battery Switch (ABS-200) which was installed to replace the White Rodgers "Charging Solenoid" on our coach.



Today 9/8/2015, just received a return e-mail from Gary Harris. I had sent an e-mail to him over the weekend asking about the keyway. His response was most heavy equipment alternators do not have a keyway on the shaft instead the nut is torqued in this case to 102 N-m or 75 Ft. Lbs. based two pages of Alternator specifications attachments to his e-mail reply.

A second question asked was WHY did two Alternators go bad? His response was testing by Leece-Neville had determined the regulator board had been attacked by a form of fungus growing between layers of the circuit board which caused the regulator to either fault to NO regulation (high voltage) or NO regulation (No Voltage).

I was told the AVi160P2007 **210** Amp Alternators do not use the same type of regulator circuit boards, so fungus should not be a problem. At this point ONLY one 210 Amp Alternator has turned up bad Tiffin has not received feedback from Leece-Neville as to what/which component(s) failed.

If you find yourself in a similar situation as mine, the AVi160P2007 **240** Amp Alternator will fit, the pad is wider on this alternator however there are a total of 6 mounting holes on the bracket, the front and center pair are used to mount the 210 Amp alternator while the front and rear pair are used to mount the 240 Amp Alternator which I found at a price of \$ 723.00 plus tax.