

Source: Leece-Neville Heavy Duty Systems Division - Arcade, NY USA
Date: June 27, 2017
Bulletin No: TSB-1016
Models: 4900 Series Alternators
Subject: Regulator Change Out Procedure for 4900 Series Alternators

The following instructions cover the removal and installation procedures for regulators for the 4900 Series Twin Power Alternators.

Regulator Removal Procedure:

- 1) Remove four (4) screws from the regulator cover, and remove the #10 nuts from the terminals located on the regulator holder (Fig. 1). Tilt the regulator up, and remove the two 10-32 square head screws to disconnect the regulator blue and white leads (Fig. 2).

Fig. 1

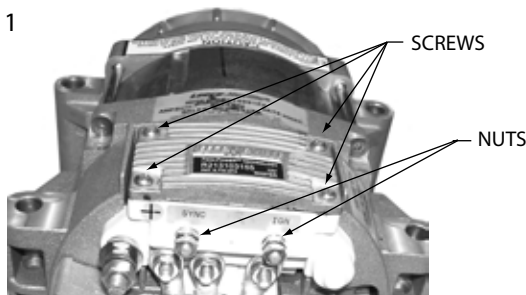
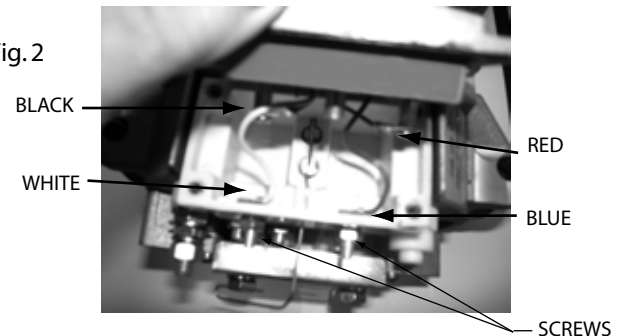
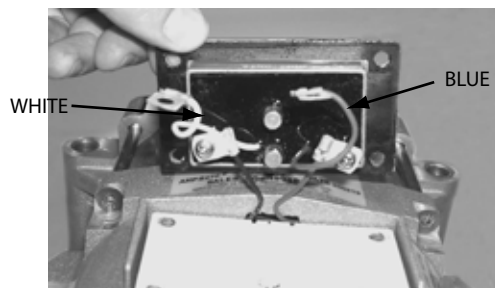


Fig. 2



- 2) Remove phillips screws holding the red and black leads to the regulator (Fig. 3). Remove the regulator.

Fig. 3



CAUTION: All screws that may fall into the regulator holder must be removed at this time to prevent them from falling into the slip ring cavity through the brush openings.

- 3) Remove the brushes and visually inspect them. If the brushes appear burned, cracked, or damaged, then the brushes must be replaced. Inspect the springs and the shunt lead within the spring for damage. Replace brushes if necessary. Check brush length. If brush is less than half its original length, (or about 3/8") then replace the brush.
- 4) Inspect the red and black leads. If the insulation is damaged so that bare wires are noticed, then the alternator should be disassembled, and the leads replaced.

Important: The information contained in this bulletin is intended for use by trained, professional technicians who have the proper tools, equipment, and training to perform the required maintenance described above. This information is NOT intended for 'do-it-yourselfers'; and you should not assume that this information applies to your equipment. If you have any questions regarding this information please visit our website at www.prestolite.com, or contact our technical service department at:

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Regulator Installation Procedure:

1) Insert a brush in each of the two (2) brush openings. Compress the springs and retain with a pin inserted through the access hole in the regulator holder. A suitable pin can be made of a 1/16" drill, brazing wire or heavy paper clip (Fig. 3).

Fig. 3

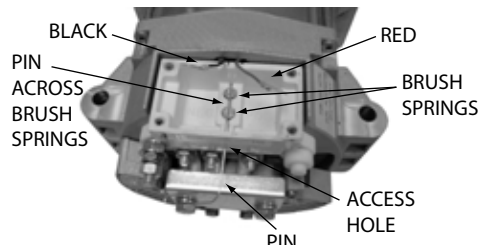
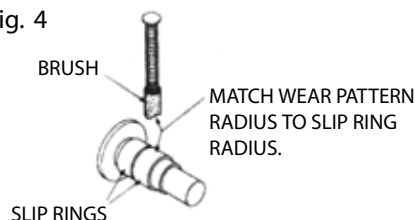


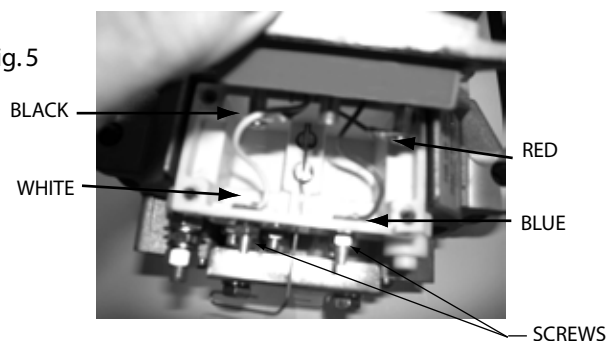
Fig. 4



If the original brushes are being used, then the wear pattern of the brush must be matched with the radius of the slip ring (Fig. 4).

2) Align the regulator with the brush holder so when installed the label on the cover is facing away from the alternator. Install the BLACK lead to the left (negative) regulator terminal and the RED lead to the right (positive) regulator terminal. Tighten phillips screws (Fig. 5).

Fig. 5



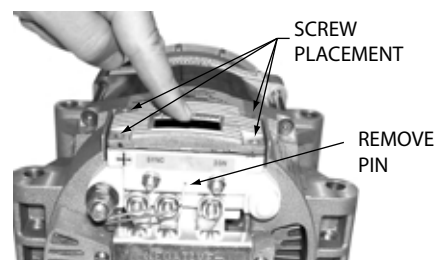
3) Install the BLUE and WHITE regulator leads with the #10 square head screws and #10-32 self-locking nut to the inside of the regulator holder (Fig. 5).

4) Route the RED and BLACK leads in the regulator holder so they seat properly in the two notches in the holder. Insure that the leads are dressed so they do not interfere with the regulator once it is installed in holder.

5) Place the regulator in the holder. Apply a small amount of downward pressure on the regulator and REMOVE the pin from the access hole to release the brush springs (Fig. 6).

CAUTION: The pin used to retain the brushes during regulator assembly must be removed before the regulator assembly screws are fastened, to avoid regulator damage. Warranty is void on any regulator returned with "pin" damage!!! Insure that the RED and BLACK leads are properly seated before regulator assembly screws are tightened to avoid damaging the insulation.

Fig. 6



6) Hold down the regulator and secure it with four screws.

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