

# RetroAir

## JAGUAR MARK II and IX

70 Amp ALTERNATOR WITH POWER STEERING PUMP ADAPTER

INSTALLATION INSTRUCTIONS 10/4/2014

***Car must be converted to Negative Ground before proceeding!***

### CONTENTS:

*Pre-wired 70amp Alternator w/Power Steering Adapter, Rotor, & Rotor Plate*

*1- 3/8" ID X 3/8" Spacer*

*1- Adjustment Arm*

*1- M8 X 25 Bolt & Lock Washer*

*1- 5/16" ID X 3/16" Spacer*

*1- 5/16" ID X 1/8" Spacer*

*4-3/8" X 1/16" ID Spacer/Washers*

*1- 5/16" X 3" Bolt*

*1- 3/8" X 8" Bolt, Nut, Lock and Flat Washers*

Upon receipt of your new RetroAir Power Steering Alternator, you will find the wires already attached for hook-up. Before attempting installation, make sure that the Battery and Regulator are disconnected and the Generator, Generator Bracket and Power Steering pump are removed (this would be the perfect time to reseal the pump). The regulator is no longer needed **AND MUST BE DISCONNECTED** since the alternator is internally regulated.

As with all things on a Mk II and Mk IX, this is a very tight installation and would best be done with the radiator removed and the compressor (if equipped) moved out of the way. Before installing the new Alternator, remove the Generator bracket to drill out the 5/16" Generator end mounting holes out to 3/8" on each end and re-attach. To mount the Alternator with included "V" pulley, a 3/8" ID X 3/8" spacer must be used between the Generator Bracket and the Alternator front mounting foot!

***It may be necessary to Mill the Base of the Original Pulley 1/8" to 1/4" to get the correct distance!***

***To Mount the Original Split (Duplex) Pulley-remove both Pulleys and install the Dynamo one, using a shaft spacer, Fan and Nut already on the Alternator. Be sure to use Red Thread Locker" and an Impact Wrench to tighten the Nut.***

**Mounting P/S Pump to Alternator;** Hold the alternator's rotor plate to the power steering pump to test fit. If your PS pump's fork is worn, the rotor plate

will slide right into the fork. If the PS pump's fork isn't worn, you may have to sand down the rotor plate to fit. Sand/grind it evenly on both sides, and make sure it bottoms on the PS pump's fork. Spin the PS pump to get the "feel" for the pump's resistance. Put the Rotor back on the alternator spindle and mate the Pump to the Alternator. Turn the alternator pulley until the PS pump's fork slides into the rotor plate, and the pump body drops flat to the aluminum adapter. Tighten the nuts and spin the alternator to assure there is no rubbing and the resistance feels similar to when you tested the pump alone. If there is a "Bind", remove pump and inspect the rotor plate for wear marks. Sand/grind more to even the plate. Retighten the nuts at the "high spot".

The front mounting foot of the alternator is mounted forward of the original bracket with the included 3/8" ID X 3/8" spacer between the Alternator and the Front of the Generator Bracket. The Alternator and Generator bracket is bolted together with the enclosed 3/8" X 8" bolt, lock washer and nut. Assure that the pulleys line up prior to the adjustment arm being bolted to the inside bolt on the Water Pump with the enclosed, longer 5/16" X 3" bolt. Use one enclosed 5/16" ID X 3/16" spacer and one washer to clear the bolt head that obstructs the adjusting arm. Use one 5/16" ID X 1/8" spacer between the Alternator and Adjustment Arm .

Use the Model Wiring Guide to retain the RB310 Lucas Regulator for aesthetics, we suggest removing the "guts" which is accomplished by removing the 3 nuts on the bottom, snipping the ground wires at the plate and removing the wire tie on the bottom (save all the parts). Take the Regulator "F" wire and the thin "D" wire (the dash charging light) and connect together on the "F" Regulator post. Then take the remaining "D" wire and the "B" wire to connect on the "B" Regulator post. From the Alternator, attach the 12 Ga wire (attached to the Alt Post) to the original large wire for the Generator and the 14 Ga wire from the Alternator Body to the smaller Generator wire. **It would be best to run 12 and 14 Ga wires directly back to the Regulator, since they are of a larger Gauge wire and can handle more load.** Be sure to confirm all connections prior to running. The Alternator will charge after the engine is above 1500 RPM. The dash light will light prior to starting the car and the ammeter will be showing "charge" if negative ground conversion was properly executed.

**[SEE ALTERNATOR WIRING DIAGRAM BELOW!](#)**

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