

Euro MotoElectrics Stator Upgrade – by Bill Thompson



Bike – BMW R75/5 built 12/1972.

Background – When I purchased the bike in the summer of 2010 it had an issue with the gen light staying lit. I resolved the issue by replacing parts until the issue went away (novice approach). I started with the starter relay, then the voltage regulator, then the diode board and rotor. The rotor fixed the issue. As I enjoy riding the bike more and more, I would like to extend my riding season with a heated jacket and also not worry about having my headlight on in traffic. In reading SnowBum’s website, he

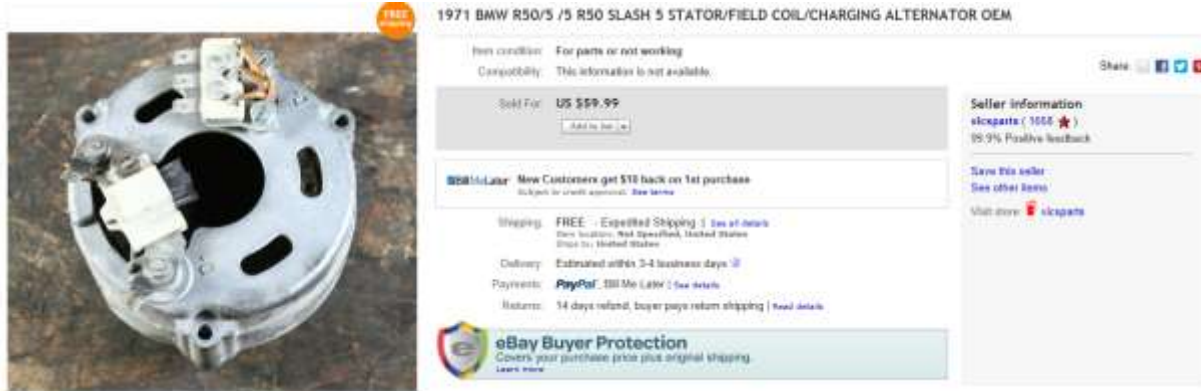
indicates that a 50-watt vest and lights would be about the limits of a stock /5. Most vests today are 60-90 watts. I was on Euro MotoElectrics site one day and noticed they had a stator winding that would get me to 280 watts for around \$100. Since I had already replaced the diode board to a newer version with the “Y” connector and had also replaced the rotor with a newer 280 watt version that would be the only part necessary. If I still had the mechanical voltage regulator that would need to be replaced also. I sent an email to Euro MotoElectrics to confirm availability and that I would only need the stator windings for the upgrade. John confirmed and promptly sent me a stator. I didn’t want to jeopardize my current stator so I decided to purchase a donor stator for the upgrade. I quickly found one and made the purchase.

Previously installed items:

New voltage regulator: EnDuraLast VR-ExtP, New rotor: BOALT-Rotor642, New diode board: EnDuraLast BOALT-RECT063. All purchased from Euro MotoElectrics.



Donor Stator purchased on eBay (I wanted to keep my original, just in case):



Here is the donor stator as I received it.



Note roll pin on side of housing. I had to drill it out.



Here is the donor stator housing cleaned-up and ready for new windings.



The brushes were not in bad shape but I had a set and decided to install them and hopefully not worry about them again for a long time.





Testing

Bike turned off, voltage reading:



Bike running at ~2100 rpm..



Voltage regulator appears to be working correctly.

Installation of the new stator:

Step 1 – Disconnect the negative battery ground cable.



Step 2 – Remove the horn.

Step 3 – Undo three bolts on cover and remove stator housing.

Step 4 – Remove three bolts to alternator, disconnect wires and carefully remove stator housing.

Step 5 – Install new stator housing lifting brushes out of the way with a piece of paper to allow the new housing to slide on. Replaced three retaining bolts.

Step 6 – Added female spade connector for “Y” terminal on diode board. I put a small loop in the “Y” connector wire. Connected all wires.

"Y" Terminal Spade Connector



Brush alignment looks good.



Note: Check brush alignment on commutator slip rings to ensure efficient charge.

Added a new adjustable voltage regulator (Part #: VR-ExtAdj).

At this point I replaced the ground cable and started the bike. I thought it best to check the operation before I buttoned it all back up. Bike started immediately and the gen light went out as expected. Turned the bike off.

Made a check of the battery with the bike off, 13.12 volts.



Started the bike up and set the throttle to ~3200 rpms, 14.32 volts. I made no adjustment to the regulator.



All buttoned up and ready to ride.



Conclusion:

First off, let me say that I have been working with Euro MotoElectrics since I purchased my bike and I have been very pleased with their prompt responses, service and shipping. John is a great guy to work with and I would highly recommend his company to everyone. No matter what state your current charging system is in they have a lot of options for the power deprived airhead.

Three different scenarios

1. **My scenario.** If you have replaced the rotor and diode board to the newer 270 watt versions, this is a great upgrade. Instead of looking for a used /6 stator I now have a new charging system.

For 95.00 (120.00 including adj. voltage regulator) I now have 270 watts of power. Enough to ride safely with lights on AND stay warm with a heated jacket liner.

Note: I am not including the price of the donor stator because I still have my original to sell and hopefully get back close to what I paid.

2. If you haven't replaced the rotor and diode here is the cost breakdown:

Adjustable Voltage Regulator	24.95
Alternator Rotor Form	87.00
EnDuraLast Diode Board / Rectifier Form	59.00
Bosch Alternator Stator 105mm Form	95.00
Total	265.95

That's still a good deal.

You can also purchase the rotor, diode board, and regulator as a kit for \$149. If you then add the stator @ \$95.00 the total price is only \$244.00.

3. If you really want plenty of juice to power a jacket, gloves or grips, and maybe something else then I would buy the 450w Charging System Kit (32 Amps) 105mm Stator - \$499. It's an additional \$235. over what I spent but you get a lot more power.

For me, I'm happy as a clam. A warm clam at that!!