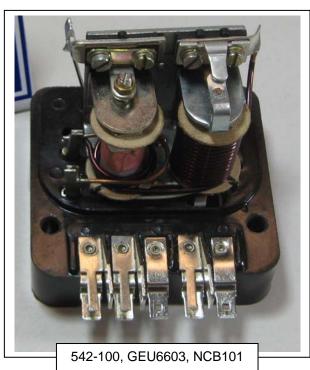
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### **Supplemental Information & Instructions** for

# 142-000 or 3H1835 Voltage Regulator, 5-Post, Screw Terminals 542-100 or GEU6603 Voltage Regulator, 5-Post, Spade Terminals





### What Is the Problem?

A growing number of customers expect these to be "plug & play". They never were. Shops buying original Lucas voltage regulators back in the 60s and 70s routinely will remember the "Contacts to be cleaned prior to fitment on vehicle" sticker on the cover. Cleaning the contacts and adjusting them has always been part of the installation process. If they are simply installed, they will not work properly and they the generator and wiring harness may be damaged. The damage is serious enough that we will not sell one until the customer has had a chance to read this document.

# Why Not Just Buy Pre-Adjusted Regulators?

- We tried. We bought samples from other suppliers, and although boxed differently, they appeared identical in every respect, right down to the paint used to mark the terminals under the cover. It would
- appear that there is only one company actually making these regulators, and they all need to be cleaned
- and adjusted to work properly.

# Why Not Offer Cleaned, Tested, and Pre-Adjusted Regulators?

- We do. We take these regulators and have them professionally cleaned, tested and adjusted. They are available as 142-001 (screw terminals) and 542-101 (spade terminals).
- What Needs to be Done?
- First, the contacts need to be cleaned. This is relatively simple.
- Second, the regulator needs to be adjusted. This is much more complicated.

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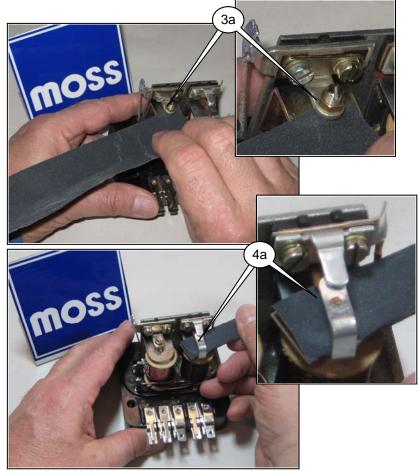
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### Cleaning the Contacts

Start with the regulator contacts (3a). Fold a piece of fine grit sandpaper and drag it through the contacts once. Clean the contacts and surrounding area with a rag and some rubbing alcohol.

Use sandpaper with non conductive grit.

Next, clean the cutout contacts (4a). Fold a piece of fine grit sandpaper and drag it through the contacts once. Clean the contacts and surrounding area with a rag and some rubbing alcohol.



### Before You Do Anything Else...

You probably bought the regulator to cure a problem with your charging system. Before you proceed, there are a couple of things that you should do to maximize the chance of a successful voltage regulator installation. Assuming that everything else in the charging system is OK can lead to serious problems.

#### Generator

Have your generator checked by a professional with the necessary testing equipment. Many auto parts stores have this capability, but calling ahead would be a good idea as new testing equipment will only test alternators. If you are installing a new generator, *you must polarize it, or it will not work.* Moss Tech Video on polarizing and testing the generator is available on the Moss Web Site: http://www.mossmotors.com/Shop/ViewProducts.aspx?PlateIndexID=28917

### **Electrical Connections**

The Lucar (spade) connectors at the generator should be checked carefully. They often get hot, and over time the individual wire strands will break. Because this connection is covered by an insulating boot, most people will not see the problem.

Clean the battery terminals ands the battery cable ends. We suggest using an anti-corrosion treatment, or coating the battery posts with copper impregnated grease to maintain maximum contact between cables and the battery terminals. Remove the ground cables and thoroughly clean the terminal on the cable and the metal where the ground cable is connected to the engine or chassis.

### **Battery**

Check your battery. If it is not charged, put it on a charger. When checked with a voltmeter, a fully charged 12 volt battery at rest will show 12.6 volts. Check the specific gravity with a hydrometer.

### Adjusting the Regulator

The regulator relay should be adjusted so that the points open at 13 to 14 volts.

The cut-out relay should be adjusted so that the points open at 10 to 12 volts.

We realize that these are not the specifications in the workshop manuals for cars equipped with these regulators. They are more conservative, and perfectly functional. Using these setting will minimize the chance of a problem with your new regulator and extend the life of your battery.

The procedure for adjusting the two relays in the voltage regulator are covered in the workshop manual for your car. The procedure is somewhat complicated, and it takes some specialized equipment. Note that the settings for the relays in the workshop manual **SHOULD NOT BE USED**. Refer to lines 101 and 102 above. Because new tools are available, the instructions are a little dated. Most voltmeters today are digital, not analog. If you are not familiar with the procedure, and are not comfortable doing this yourself, there are a couple of options.

### Having it Done by a Professional

- 115 If there is a shop in your area that has experience working on British cars (or other older cars with
- generators), they can install and adjust the regulator for you. You may also find that there is an

542-101 Voltage Regulator, 5-Post, Spade Terminals, Pre-Tested & Adjusted

- automotive electrical system specialist that can help. Be sure to give them the specifications provided
- *above.*

## Buying a Pre-Tested & Adjusted Regulator

We realize that not everyone will want to deal with a regulator that needs to be cleaned and adjusted, and that in many areas finding a professional to do the job can be a challenge. For these reasons, we offer voltage regulators that have been professionally cleaned, tested and pre-adjusted to our specifications. 142-001 Voltage Regulator, 5-Post, Screw Terminals, Pre-Tested & Adjusted

Although even

Although every effort has been made to ensure the accuracy and clarity of this information, errors and/or omissions on our part are almost inevitable. Any suggestions that you may have that will improve the information (especially detailed installation notes) are welcome. Please use the simple email form on the "Contact Us" page on the Moss website: <a href="http://www.mossmotors.com/AboutMoss/ContactUs.aspx">http://www.mossmotors.com/AboutMoss/ContactUs.aspx</a>

If you prefer, you may call our Technical Services Department at 805-681-3411. So many people call us for help that we are often not able to answer the calls as fast as we'd like, and you may be asked to leave a message. We apologize in advance for the inconvenience. We will get back to you within 2 business days.



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