TECHNICAL SERVICE BULLETIN

BRITISH LEYLAND **TRIUMPH**

NO. 72 B 3

May, 1972

SUBJECT:	MODELS:
Lucas ACR Alternators	All

During all periods of warranty and normal service, it is intended that when the built-in regulator on Lucas alternators is diagnosed to be defective, that only the regulator and not the alternator be replaced. The regulator should be suspected if no output is obtained from the alternator and can be tested as follows:

Vehicle Test

Remove plastic end cover from alternator and connect jumper cable from regulator green wire to ground. Run engine at charging speed (approximately 1500 RPM) and if an output is now obtained from the alternator, the regulator is defective and should be replaced. NOTE: Alternator output can be determined by holding induction ammeter on the alternator main cable or by inserting an ammeter in series with the alternator main cable either at the alternator main terminals or at the starter solenoid. If no meters are available, switch headlights on and note brilliance increase if alternator is charging.

Bench Test

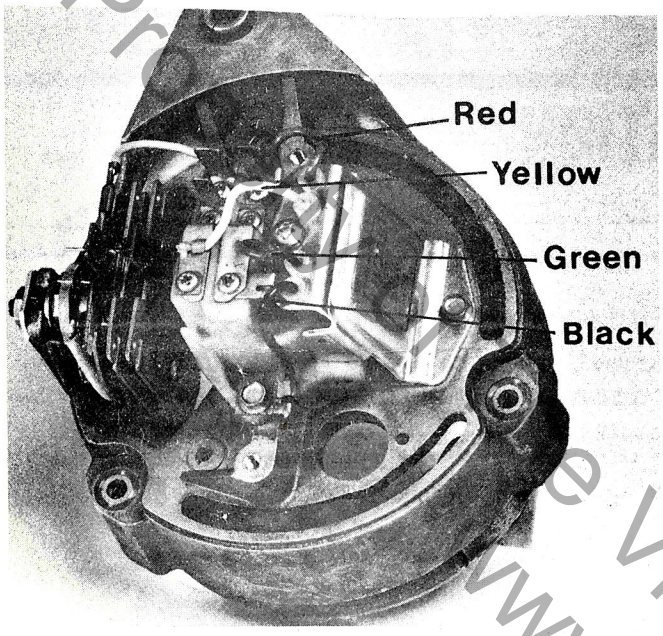
If the alternator has been removed from the vehicle, a test lamp can be utilized to check the regulator using a 12 volt battery. Connect test lamp between battery positive terminal and regulator green wire. The negative terminal of the battery should be connected to the alternator casing. If the test lamp does not illuminate regulator is defective.

Replacing Regulator

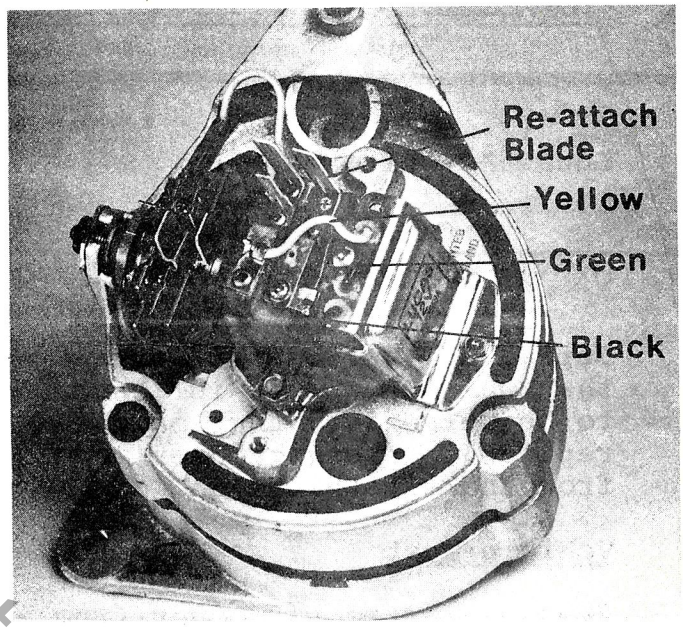
Remove defective unit noting color and position of wires. Secure new regulator and place the screws and reconnect wires. NOTE: All 4 and 3 lead regulators have been superseded in service by a 2 lead 8TR 3D regulator, however, it is still possible to be supplied a 4 or 3 lead regulator while stocks are held. Details of how to connect the various regulators correctly are given pictorially overleaf.

The basic reason for converting to a 2 lead regulator is that the alternator "senses" for regulator control internally, (machine sensed) as opposed to a 4 lead regulator that "senses" via an external battery cable (battery sensed).

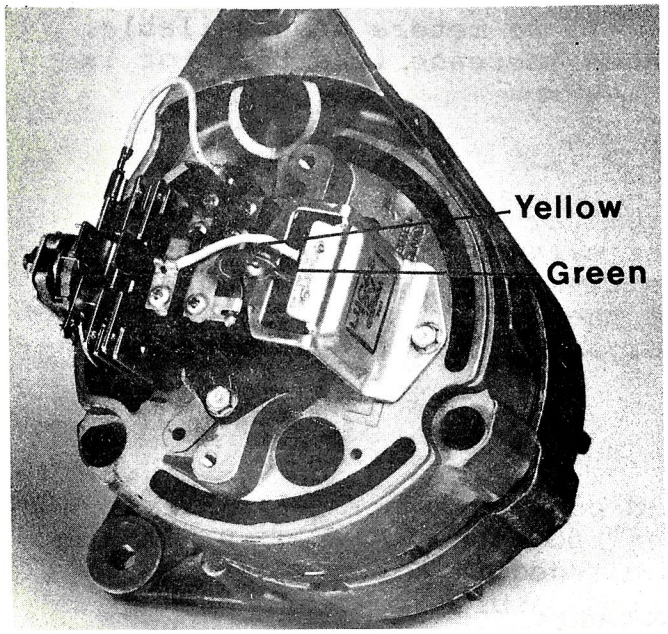
A 2 lead regulator should only be replaced by a 2 lead regulator due to its higher current carrying capacity.



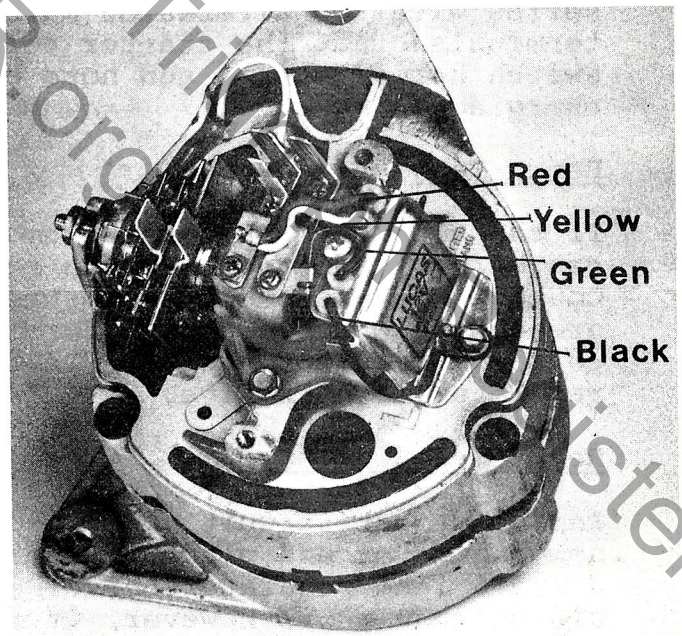
4 lead regulator connected to correct brush box terminals.



If a 3 lead regulator is substituted for a 4 lead regulator, connect as shown, insuring that the terminal blade the red lead was previously connected to is re-attached.



A 2 lead regulator substituted for a 3 or 4 lead regulator. Insure that regulator casing has good contact to alternator end bracket. Re-attach blade.



A 4 lead regulator can be made into a 3 lead regulator by connecting the red and yellow wires together as shown. This is necessary only if a regulator on a machine sensed alternator requires replacement.

Note: In some cases a red wire with yellow sleeve replaces the yellow wire.