Confidential NO. 2 B 17

TECHNICAL SERVICE BULLETIN

SERVICE

British Motor Holdings (U.S.A.) Inc.
734 GRAND AVENUE, RIDGEFIELD, NEW JERSEY 07657

July 1, 1968

TO ALL DISTRIBUTORS AND DEALERS

Re: Alternator Charging Circuit Check

MGB and GT
MGC and GT

The attached Training Aid Number SS 10 details the procedure used to check and isolate a fault within the charging system of the above models fitted with alternators.

Additional copies have been supplied to Distributors for distribution during Service Schools.

SERVICE DIVISION

DEALER TRAINING

AID NO.: — SS 10

SUBJECT: ALTERNATOR CHARGING CIRCUIT CHECK

MODEL: MGB and GT and MGC and GT

BMC SERVICE

JAGUAR

British Motor Holdings (U.S.A.) Inc.

ALTERNATOR CHARGING CIRCUIT CHECK

MGB and GT, MGC and GT

The procedure outlined below is recommended for fault finding the Alternator/ Regulator system on the above models using the Marquette Battery Starter Tester (BST) Model 42-130 and Amps-Volts Tester (AVR) Model 41-135 or other comparable equipment.

Modify the black amps lead of the AVR Meter by removing the forked type connector and solder in its place a large lucar female type slide connector.

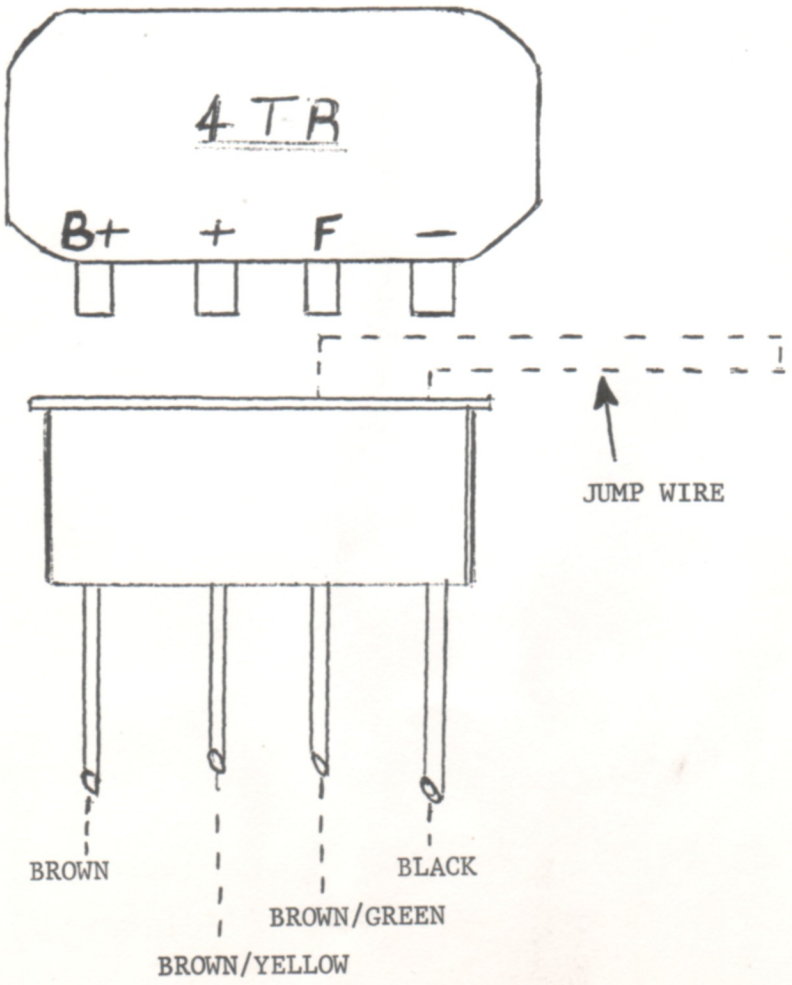
NOTE:- ALL ALTERNATOR SYSTEMS ARE NEGATIVE GROUND. A NEW ALTERNATOR WILL BE REQUIRED IF EVEN MOMENTARILY THE BATTERIES ARE CONNECTED IN REVERSE.

(1) Check drive belt for wear and proper tension.

(2) Switch on ignition-warning light should glow. If bulb DOES NOT glow, make the following checks:-

A. Check warning light bulb (replace if necessary).

B. Pull off one piece jack plug from Regulator and connect jumper wire into "F" and "-" leads in plug as shown. (Bulb should now light, if it does replace Regulator).

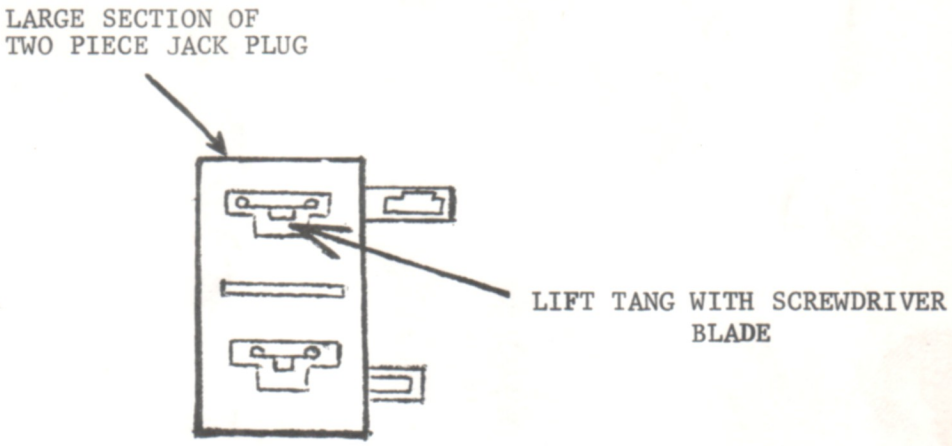


C. If bulb still fails to light, check "-" lead for good ground connection and repeat steps A & B.

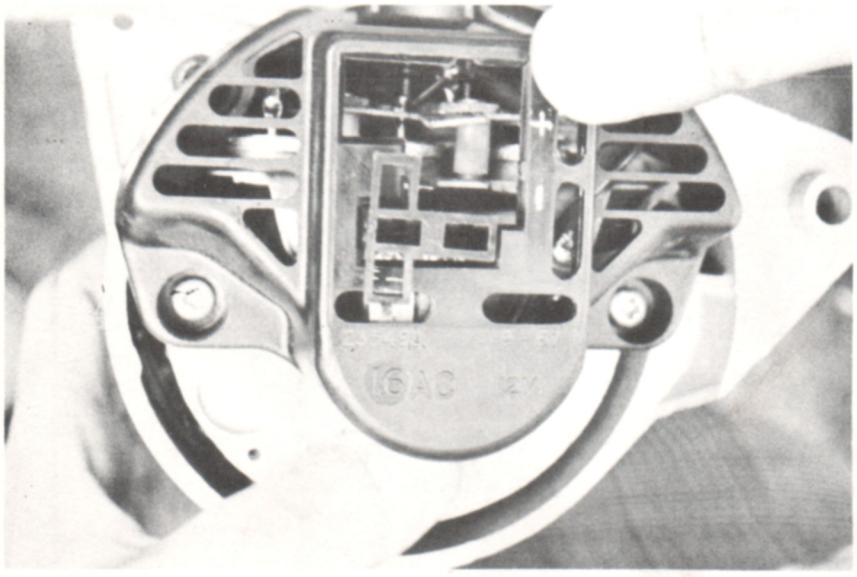
D. If bulb does not yet light, use 41-135 Volt Meter to check continuity of leads between ignition switch and Regulator "F" terminal.

(3) Disconnect one battery lead.

(4) Remove two piece jack plug from Alternator. Remove heavy brown "+" lead and black "-" lead from larger of the two sections by lifting the tangs on the lucar connectors with a small screwdriver blade.



(5) Connect (modified) black amps lead ("A") of AVR Meter to terminal on Alternator marked "+"



other (red) lead "B" of Meter to heavy brown wire removed from jack plug. Connect black lead in harness also removed from jack plug to terminal marked "-" on Alternator.

Reconnect smaller section of jack plug to remaining Alternator terminals.

(WARNING - ENSURE LEADS ARE CONNECTED AS DESCRIBED ON PAGE 2. IF NOT, A BURNT OUT ALTERNATOR WILL BE THE RESULT).

An alternative method to the above is to remove the heavy brown wire BOLTED onto the starter solenoid terminal (mounted below the starter) using an Ammeter with alligator clips on the two leads - one lead to brown wire, second lead to solenoid terminal.

(6) Reconnect battery.

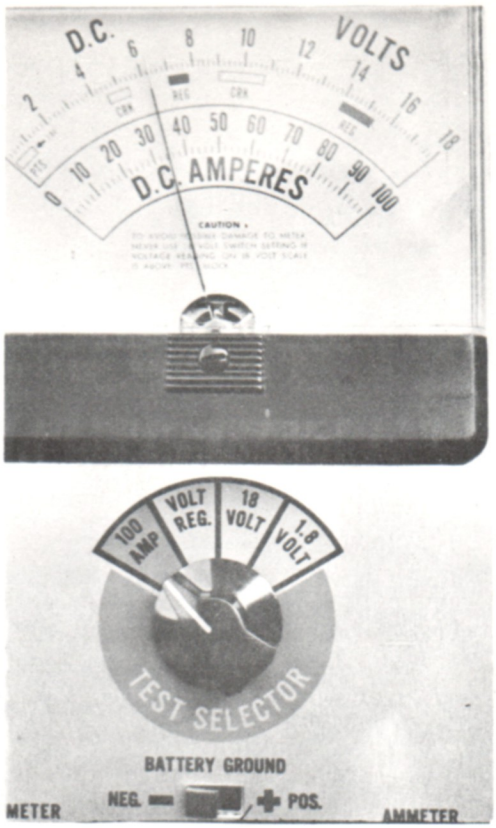
(7) Connect 42-130 (BST) cables to correct battery posts and set controls as follows:

A. Volts selector knob to 20 V.
B. Meter selector to "load-volts amps".
C. Load control fully left.

(8) Connect Volt Meter leads "C" of AVR Meter to battery posts. White lead to "-" post. Green to "+" post. Set AVR ground switch to negative ground.

(9) Start and run engine at 2000 R.P.M. Turn AVR selector to 100 AMP position. Turn BST load control to right until Volt Meter on BST Meter reads 12.5 volts.

Observe output of Alternator - Should read 30 - 34 AMPS.



If amperage falls below this range at 2000 R.P.M. and drive belt is O.K., replace Alternator.

(10) Turn on park lamps and continue to let engine run for 5 - 8 minutes. (This is to stabilize the Voltage Regulator.)

(11) Turn test selector on AVR Meter to "Volt Reg." position - Volt Meter should read 13.9 to 14.3 volts.

NOTE:- This is a fully transistorized NON-ADJUSTABLE Regulator. If voltage is low and drive belt is O.K., replace Regulator. If voltage is high, check connection on B+ terminal of Regulator for excessive resistance.

The B+ lead is a voltage sensing lead, therefore, it must be continuous and have no accessories hooked into it.

(12) DISCONNECT BATTERY and remove meter leads. Reconnect Alternator leads to jack plug and replace both sections of plug.