



TECHNICAL SERVICE BULLETIN

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

734 GRAND AVENUE, RIDGEFIELD, NEW JERSEY 07657

April 1, 1968

TO ALL DISTRIBUTORS AND DEALERS

Re: Generator Charging Circuit Check

The attached School Note Number SS 8, details the procedure used to check/adjust and/or isolate a fault within the charging system on all vehicles using generators.

Additional supplies of this School Note will be distributed as part of the Training Program during Service Schools.

SERVICE DIVISION

DEALER TRAINING

AID NO.: — SS 8

SUBJECT: GENERATOR CHARGING CIRCUIT CHECK

MODEL: ALL MODELS WITH GENERATORS



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



GENERATOR CHARGING CIRCUIT CHECK

ALL MODELS

The procedure outlined below is recommended for checking and adjusting the generator/regulator charging system on all B.M.C. vehicles using the Marquette Battery Starter Tester (B.S.T.), Model 42-130 and Amps/Volts Tester (A.V.R.), Model 41-135 or other comparable equipment.

A slight modification is recommended to the Black Amps lead on the A.V.R. meter.

Remove the fork type connector and solder in its place a large lucar female type slide connector.

IMPORTANT

For 1968 and subsequent models car ground is as follows:

<u>MODEL</u>	<u>TYPE SYSTEM</u>	<u>GROUND</u>
MGB and MGB/GT	Alternator	Negative
MGC and MGC/GT	Alternator	Negative
Sprite/Midget	Generator	Negative
Austin America	Generator	Positive

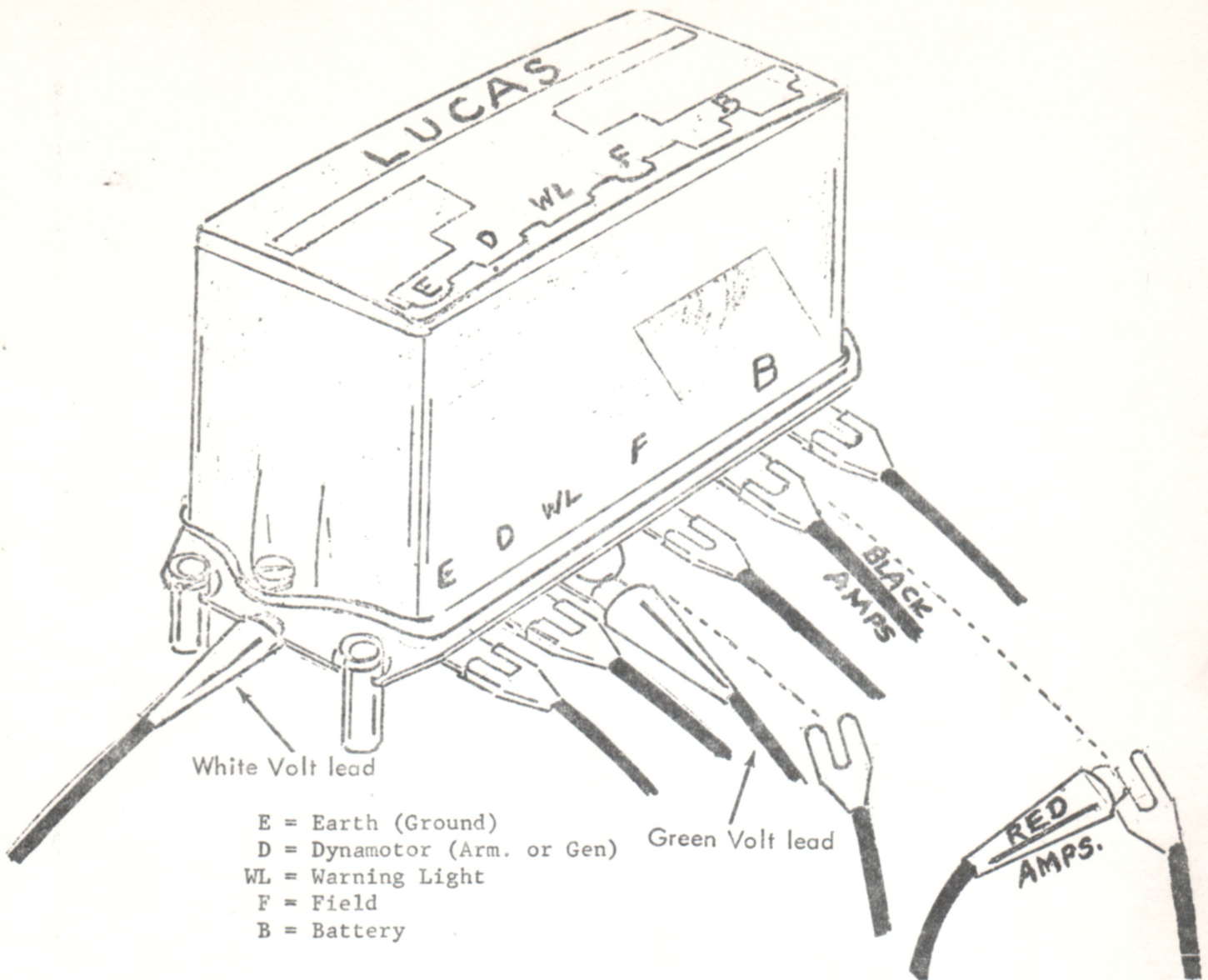
CHECK FAN BELT FOR WEAR AND PROPER TENSION

(A.) Set A.V.R. meter to correct ground for particular vehicle and test selector to volts reg. position. Connect A.V.R. leads according to the illustration shown overleaf.

1. Disconnect WL wire from regulator.
2. Hook green volt meter lead to WL terminal of regulator.

NOTE - On some models, because of space limitations, it may be easier to leave WL lead connected and peel back boot on "D" lead reconnect to "D" terminal and hook green volts lead on to "D" terminal.

3. Disconnect "inner" (left) battery lead from regulator.
4. Push black amps lead lucar terminal on to this terminal of regulator.
5. Hook red alligator clip of amps lead to battery lead disconnected in step #3.



(B.) Hook B.S.T. heavy amp cables to proper battery posts and set as follows:

1. Turn load control fully left.
2. Set volts selector to 20 volts.
3. Set meter selector to "load-volts-amps".

(C.) Start engine - warm up - set R.P.M. to 2000.

1. A.V.R. volt meter should read 14.9 - 15.2 volts.
2. R.P.M. still at 2000, turn A.V.R. test selector to "current" - turn B.S.T. load control to right until B.S.T. volt meter reads 12.5 volts.
3. A.V.R. amps should read - Austin Healey 3000 Mark III - 25
 All Other Models - 22.

TURN B.S.T. LOAD CONTROL FULLY LEFT - STOP ENGINE

(D.) If volts or amps readings are outside limits, carry out following test:

1. Disconnect "D" wire from regulator and connect it to green A.V.R. volt meter clip.
2. Start engine - run at 2000 R.P.M.
3. Set A.V.R. test selector to 18 volt position.
4. Volts reading should be at least 2 volts (if less than this, replace generator).
5. Remove "F" wire from regulator.
6. Remove black amps lead from "B" terminal of regulator.
7. Set A.V.R. test selector to "CURRENT" position.
8. Touch black amps lead to "F" wire.
9. Amp reading should be 2 amps exactly. IF NOT, REPLACE GENERATOR AND REGULATOR.

(E.) TO ADJUST REGULATOR

If the vehicle is within the Warranty period and test "D" is satisfactory, but readings in test "C" are outside limits, replace regulator only.

If vehicle is outside the Warranty period the regulator may be adjusted as follows:

1. Remove cover from control box
(NOTE: - The latest covers are secured to the base plate by expanding plastic rivets. Simply push centre down and out of rivet - retain centre for re-use and remove cover.)

Re-connect A.V.R. meter as in step "C". Run engine at 2000 R.P.M. Adjust voltage regulator cam as shown in diagram overleaf, using Lucas tool # 54381742. Turn A.V.R. test selector to current position - run engine at 2000 R.P.M. - Turn B.S.T. load control until B.S.T. volt meter reads 12.5 volts and adjust current regulator cam.

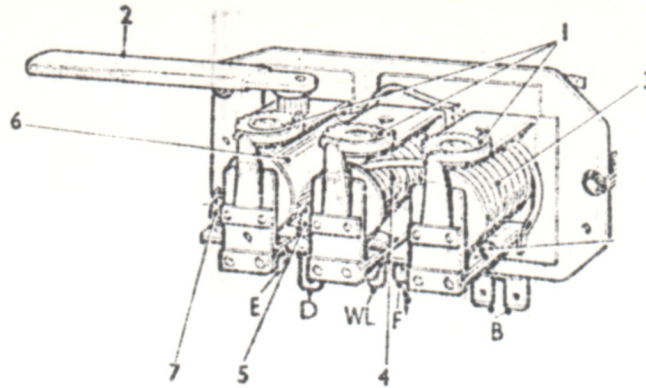


Fig. L.9

The control box with cover removed

- | | |
|----------------------------|--------------------------------|
| 1. Adjustment cams. | 7. Voltage regulator contacts. |
| 2. Setting tool. | |
| 3. Cut-out relay. | |
| 4. Current regulator. | |
| 5. Current relay contacts. | |
| 6. Voltage regulator. | |

Under no circumstances attempt to adjust or clean regulator contacts by slackening the contact points lock nut. Make a visual check that the cut out is closing and opening correctly. Do NOT adjust cut out cam.

If, after attempted adjustment, the correct charging figures cannot be obtained, replace regulator.