Dismantling

Remove the seat, air filter covers and elements and the battery. Remove the panels to the rear of the air filter by taking out the \(\frac{3}{4}\)" bolts inside the filter casting. Then remove the 2 - 5/16th bolts holding the casting to the frame and replace them with the longer ones supplied. Take off all the wiring connectors from the coils and condensers. Remove the contact breaker plate assembly and the advance/retard unit.

Assembly

Fit the amplifier brackets onto the extension of the longer bolts through the air filter. Ensure that there is metal to metal contact between the bracket to which the amplifier case earth has been fitted, and the abutting face on the frame. These faces may be greased before assembly to prevent later corrosion. The amplifier will not work correctly unless earthed. Also ensure that there is 4 mm minimum clearance from the frame, mudguard and chain guard to the amplifier.

Pass the amplifier harness up to the coils avoiding sharp edges and rubbing points. The battery can now be replaced, but do not connect up until the wiring is completed.

The air filters can now be re-assembled. Note that on models with a plastic extension tube fitted to the elements, this must be removed. Bend back the metal retaining lug and push the plastic extension out of the filter. Screw the Pick-up backplate onto the engine in the middle of its adjustment slots, in the position shown on the diagram. Fit the Reluctor into the camshaft taper and set the 0.2-0.3 mm air gap. Note that it is unnecessary to slacken the pivot screw to adjust the air gap; only slacken the clamp screw on the slotted hole in the Pick-up.

Set the engine to the fully advanced timing marks on the alternator rotor and turn the backplate to trap the 5 mm timing spacer as shown.

Wiring and Strobing

The wires from the RITA amplifier are prepared with end connections to plug in to the original wiring removed from the coils and condensers. Since the original connections are not all required for the RITA circuit, it is necessary to insulate the end of the female Lucars that are not required in order that they do not short to earth on the frame.

Therefore tape over the single female lucar on the white-yellow. Connect the amplifier wires as shown on the diagram, i.e. black to double white-yellow (or white-blue on some models). Tape round the joint of the plastic sleeves to avoid them pulling apart. Connect the wiring as shown in the diagram ensuring the wires are not trapped or liable to chafe.

Run the engine and adjust the fully advanced timing position using a stroboscope. A flash reading at 6,500 RPM is necessary as there is a slight increase in advance all the way up the range of RPM.

BRITISH CYCLE SUPPLY
Call (902)542-7478
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info@britcycle.com
RITA AMPLIFIER
TYPE AB11 (BISTABLE)
YELLOW IDENTIFICATION
FLEXIBLY MOUNTED
CASE MUST BE EARTHED

17M12 COIL
17M12 COIL

WHITE/YELLOW
WHITE/BLACK
DIODE
DIODE

EXISTING FEED
FROM IGNITION
CUTOUT SWITCH
12 VOLTS(-)

NOTE THE AMPLIFIER CAN BE
 DAMAGED IF THE H.T. VOLTAGE
 DOES NOT GO TO EARTH.
 THEREFORE DO NOT EXCEED A 5MM
 AIR GAP IF TESTING COIL OUTPUT.

0.2-0.3MM (.008"-.012")
RADIAL CLEARANCE
CHECK 2 POSITIONS.

BLACK
WHITE
BLACK/WHITE
WHITE/ORANGE
WHITE/PURPLE

FRAME
FRAME(2)

WIRING SHOWN FOR POSITIVE EARTH,
FOR NEGATIVE EARTH PLEASE NOTE:
(1) REMOVE POWER FEED FROM
BLACK WIRE & EARTH THE BLACK
(2) REMOVE EARTH LINK FROM COIL POSITIVE
& REPLACE WITH 12V. POWER FEED FROM SWITCH

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