CONTROL BOX MODEL RB340

SUPPLEMENTARY INFORMATION TO SECTION F-6 ISSUE 1

INCREASED VR AND CR GAP SETTINGS FOR LATER UNITS

In December 1963 the use of non-magnetic material in the top gap of voltage and current regulators was discontinued. This separation material consisted of a 0.009″ (0.23 mm.) thick copper shim welded to the bobbin core. Due to production processes, this thickness was reduced during assembly such that in finished units it measured approximately 0.007″ (0.18 mm.). Thus, in older units, a magnet gap consisted partly of copper and partly of air. Therefore, when setting the air gaps of later units, a thicker gauge must be used to allow for the space formerly occupied by copper — the total gap measurement being unchanged. To do this, the gauge thickness of 0.045″ to 0.049″ (1.14 – 1.24 mm.) given in SECTION F-6, page 3, para. 2 (g) (ii) must be increased by 0.007″ to 0.052″ to 0.056″ (1.32 – 1.42 mm.). The top gap of the cut-out relay remains unchanged.

Identification of Modified Units

Whether or not a unit is fitted with copper shims can be ascertained either by inspection or by reference to the Part No. suffix letter. The letter at which the modification was introduced is given below for all units at present in production or specified. Future units (identifiable by having numerically later Part Numbers than those listed) will incorporate the modification from suffix letter '**A**'.

Control Box Part Numbers with Suffix Letters Denoting Deletion of Copper Shims from VR and CR Bobbin Cores

37330 **E**	37353 **D**	37378 **B**
37331 **E**	37354 **D**	37387 **B**
37342 **E**	37362 **D**	37391 **B**
37344 **E**	37363 **D**	37392 **D**
37347 **E**	37374 **B**	37419 **B**

Note :

Consequent on the above, the relevant sentence on page 6 in para. 3 (g) (i) should now be modified from "Insert a flat steel feeler gauge of 0.045″ (1.14 mm.) thickness . . . " to "According to whether or not the VR and CR core gaps contain copper separation, insert a flat steel feeler gauge of either 0.047″ (1.19 mm.) or 0.054″ (1.37 mm.), respectively, between the armature and bobbin shim or core face. When fitted, take care not to turn up or damage the shim.

Similarly, on page 8, para. 5 (c) (vi), the reference to 0.045″ (1.14 mm.) must be qualified to cover both coppered and non-coppered bobbin cores.

(Continued overleaf)

OTHER MODIFICATIONS

Since SECTION F-6 ISSUE 1 was published in January 1962, certain other modifications have been introduced.

Page 3 Para. 2 (d) (i)

The contacts resistor used in units controlling generator model C48 has been increased in value from 40 ohms to 80 ohms and is identifiable by a dab of orange paint.

Page 3 Para. 2 (d) (iii)

The field parallel resistor in the above units has been increased in value from 40 ohms to 100 ohms and this, also, is identifiable by the colour orange.

Page 3 Para. 2 (g) (i)

The measurement limits for the narrowest part of the (non-adjustable) back gaps have been increased from 0.030″ – 0.035″ (0.76 – 0.89 mm.) to 0.030″ – 0.040″ (0.76 – 1.02 mm.).

Page 3 Para. 2 (g) (iv) and Page 7 Para. 3 (g) (ii)

The "follow-through" limits of the cut-out relay moving contact have been modified from 0.010″ – 0.020″ (0.25 – 0.51 mm.) to 0.010″ – 0.035″ (0.25 – 0.89 mm.).

Page 7 Para. 3 (g) (ii)

The final "follow-through" measurement of the moving contact blade may only be obtained when setting the drop-off voltage. An approximate first setting is obtained by inserting a 0.015″ (0.38 mm.) thick flat steel feeler gauge between the armature and the copper shim on the bobbin core, and then adjusting the fixed contact bracket until the two contacts just touch.

CONTROL BOXES MODELS 3GC AND 5GC

It is possible that the copper shims will also be removed from the bobbin cores of the voltage and current regulators used in models 3GC and 5GC. In that event, the information given in this Supplementary Sheet will apply also to these units.