

OSCILLATOR, TEST, NO 2

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

Fitting of earthing strip and contact spring to the fine attenuator switch spindle

SUMMARY

1. Due to development of r.f. leakage, it is necessary to fit an earthing strip and contact spring to the fine attenuator switch spindle on the Oscillator, test, No 2.

Estimated time required to carry out this modification: one man-hour

2. Items affected:-

Oscillator, test, No 2

3. Action required by:-

(a) Units authorized to carry out field or base repairs:-

- (i) Demand stores required for the modification of these equipments.
- (ii) When stores are available carry out this instruction.

4. Priority: Group 'B' (ACI 96/54 refers).

5. Stores required:-

VAOS, Section	Part No	Designation	Qty per eqpt
Z4	ZD 02733	Strips contact, beryllium copper, 1.7/8 in. x 1/2 in.	1
Z4	ZD 02732	Strips, copper, 1.7/16 in. x 1/4 in.	1
Z1	ZA 22997	Spacers, metal, 1/4 in. x 1/4 in. O.D. No 2	2
G1	5305-416967	Screws, machine, B.S.W. R, steel, rd.hd., slotted cad plated 1/8 in. x 1.1/8 in.	2
G1	5310-466967	Nuts, precision, B.S.W. A, steel, hex. lock, cad plated	2

Stores will be demanded through normal ordnance channels. Authority for demand (to be quoted on all indents) T/TE/DP/1

DETAIL

6. (a) Remove 12 No 4 B.A. screws from the front panel and remove the instrument from its case.
- (b) Remove the No 6 B.A. screw from the centre of the fine attenuator switch knob and withdraw the knob and the locating pin. Remove the locking nut and washer from the switch bush.

- (c) Turn the instrument on its face and remove the four No 2 B.A. nuts at the corners of the power unit. Lift the power unit clear of the fixing bolts and lay it over on its side. Avoid straining the cableform.
- (d) Remove the two No 2 B.A. hexagonal spacers, one No 2 B.A. nut and one No 2 B.A. cheese-head screw, securing the r.f. unit. Lift the r.f. unit off in the same manner as the power unit. Note the loose disc which completed the screening round the input plug of the fine attenuator.
- (e) Remove the cover of the fine attenuator by taking out the seven No 6 B.A. screws.
- (f) Unsolder: (a) the 470Ω resistor from the feed-through capacitor on the side of the attenuator housing; (b) the inner wire of the co-axial cable from the course attenuator to the rotor contact of the fine attenuator switch; (c) the orange wire to the next switch contact, in a clockwise direction looking at the back, from the rotor contact. Avoid overheating components.
- (g) Remove the four No 6 B.A. cheese-head screws in the earthing lugs surrounding the fine attenuator switch. Where necessary, carefully bend clear the high stability resistors.
- (h) Remove the switch from its housing by pushing on the free end of the spindle and easing the switch round the feed-through capacitor. Note the spring and sealing washers on the switch bush, and the position of the locating plate beneath them.
- (j) Remove, one at a time, the screws holding the wafer switch to the click plate, replacing the screws with $1\frac{1}{8}$ in. x $\frac{1}{8}$ in. x 40 t.p.i. screws provided but not the nuts and spring washers.
- (k) Ensure that the beryllium copper spring and copper strip, and the appropriate parts of the switch, are clean and free from grease. Over each screw place the further $\frac{1}{4}$ in. long spacing collar provided and secure by a nut. Place the beryllium copper spring over the screws, the centre indentation bearing on the tapered end of the spindle, and hold in place by a spring washer and a further nut on the screw nearest to the rotor contact. On the other screw place one end of the copper strip, holding both spring and strip with the remaining nut and spring washer.
- (l) The upper nuts are now locked down, the copper strip being positioned so that it continues the radial line of the spring.
- (m) See that the four earthing lugs in the attenuator housing are free from grease and clean. Replace the switch in the housing, taking care that the angular positions of the contacts and the locating plate are correct and the washers in place.
- (n) Replace the four No 6 B.A. screws, placing the free end of the copper strip under the nearest one and tighten down.

R E S T R I C T E D

ELECTRICAL AND MECHANICAL
ENGINEERING REGULATIONS

TELECOMMUNICATIONS
Z 357 Mod Instr No 1

- (o) Resolder the connections removed in (f), reposition any of the resistors which may have been moved, to avoid short-circuiting or earthing and replace the switch fixing nut and washer, and the knob.
 - (p) Replace the attenuator cover, the r.f. unit (taking care to locate the spindle of the frequency range switch, and the input plug to the fine attenuation, with its screening disc, and without fouling any of the cableforms), and the power unit.
 - (q) Replace the instrument in its case, following the normal procedure for re-sealing and reactivating the desiccator. Note that, of the bolts securing the instrument in its case, the four longer ones go in the corners.
7. (a) Functional test.
- (b) Strike through figure 1 on the modification record plate.

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END

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Page 3