

ELECTRICAL AND MECHANICAL  
ENGINEERING REGULATIONS

R E S T R I C T E D

TELECOMMUNICATIONS  
D 129 Misc Instr No 1

**314 SIGNALS SQUADRON**

WIRELESS SENDER C11

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

Change of distribution Class

Information

1. The distribution Class of this equipment has been appropriate to equipments in Divisional and Corps use. Since however, the equipment is also used elsewhere, the distribution Class will be amended accordingly.

Action

2. In the following EMERs amend the distribution shown at the foot of Page 1 or 1001 to read: 'Distribution - Class 1190', and leave the present Code No unchanged.

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EMER designation	Pages	Issue No	Date	Subject
D 120	1 - 2	1	14 Feb 58	Data summary
D 122 Part 1	1 - 19	1	2 Jun 58	Technical description
D 122 Part 2	1001 - 1047	1	2 Jul 58	Fault finding and repair data

3. Units not in possession of the above EMERs should submit supplementary demands.

57/M/5994 (EME8)

END

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**314 SIGNALS SQUADRON**

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D 129 Misc Instr No 2

WIRELESS SENDER C11

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

Positioning of coaxial r.f. cable

SUMMARY

1. The coaxial cable from the relay RLB to the transmitter aerial plug PLC on the Wireless sender C11, passes near to the pin which is the junction point of inductors L15, L11 and L18, in the anode circuit of the p.a. valves. If the cable sheath touches this pin there is the danger that the h.t. will be short circuited, since the earthed outer conductor of the cable is only protected by cotton braiding.

DETAIL

2. When the Wireless sender C11 is opened up for any reason, ensure that the coaxial lead to the transmitter aerial plug is so positioned that it lies midway between the p.a. valve V5 and the h.t. feed-through terminal adjacent to the other p.a. valve V6. Any excess length of the cable is to be taken up on the underside of the chassis by pulling it through the grommet.

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3. Additionally a short length of P.V.C. sleeving may be slipped on and secured to the cable sheath where it passes near to the h.t. pin referred to, alternatively, a rubber sleeve may be used. The cable should be disconnected at the relay end to enable this to be done and afterwards reconnected.

57/Maint/7895

END

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TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

Adjustment of CALIBRATOR inductor tuning slug

SUMMARY

1. The tuning slug of the CALIBRATE inductor L2, which is situated in the sealed oscillator compartment of the Wireless sender C11 (WS C11) is connected to the CALIBRATE knob on the front panel via a bakelite coupling. The extremes of travel of the knob itself are limited by stops. One of these is intended to become effective before the locknut on the screwed spindle of the slug bears up against the coil bracket with consequent binding, and the other before the tongue of the coupling becomes forced against the bottom of the slot in which it is engaged. Either of these contingencies can lead to damage; the first to fracture of the coupling and the second to a broken slug. It is apparent from reports that many equipments are incorrectly adjusted in this respect and the detail of this instruction will be carried out at the first available opportunity on all equipments. It will also be carried out wherever the coupling concerned has been disengaged.

DETAIL

2. All WS C11 equipments will be checked for correct relative adjustment of the CALIBRATE coupling by gently turning the knob anti-clockwise and verifying that the end stop is reached without any feel of jamming. The same test will be carried out in the clockwise direction. Where this test shows attention to be necessary REME should be requested to carry out the action detailed at para 3.
3. (a) Remove the set from its case and the top cover from the oscillator box (see Tels D 124 para 41).
- (b) Unsolder the lead from reactor X1 to the variable capacitor C3.
- (c) Unscrew the two No 6 BA nuts and screws securing the bracket assembly and ease the couplings apart.
- (d) Turn the CALIBRATE knob fully anti-clockwise against the stop.
- (e) Check that the slug screw is flush with the bottom of the slot in the slotted part of the coupling. Readjust the slotted nut if necessary to effect this and re-tighten the locknut.
- (f) Unscrew the slug assembly fully anti-clockwise then turn it clockwise 3.1/2 turns.
- (g) Engage the tongue on the calibrator shaft part of the coupling into the slotted nut on the slug part, rotating the coil slug the minimum amount necessary to allow this.

- (h) Resolder the lead unsoldered at (b) and replace the screws removed at (c).
- (j) Check that when the CALIBRATE knob is rotated fully clockwise (approximately 5 turns) the locknut on the coil spindle is not binding on the bracket. Check also, that in the anti-clockwise position the tongue is not binding.
- (k) Realign the master oscillator unit as described in Tels D 124 para 19.
- (l) Dry out the oscillator unit and seal test it as described in Tels D 124, para 41.

T/60701

END

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TELECOMMUNICATIONS  
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WIRELESS SENDER C11

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

Supply unit, rotary, 24V - fuse FS102

INTRODUCTION

1. In Wireless stations C11/R210 the fuse FS102 fitted to Supply unit, rotary, 24V (power unit of Wireless sender C11) is effectively in series with the fuse FS1 of Reception set R210. Fuse FS102 is rated at 2A, and FS1, on Reception set R210, at 3A; the former frequently blows.

ACTION

2. When fuse FS102 on the Supply unit, rotary, 24V, required replacement, Fuse links, cartridge, ceramic, 3A, 440V a.c. - Part No Z/5920-99-059-0111, will be fitted. This fuse will be demanded as a replacement item.

T/60701 (D & M)  
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END

Distribution - Class 1190 Code No 4.

Page 1

TRANSMITTER, RADIO, C11

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

SUB-TITLE: Supply unit, transformer, rotary - retaining knob bearing pin

Note: This Issue 2, Page 1 supersedes Issue 1, Pages 0 and 01, dated 15 Jun 62 and Issue 1, Pages 1 and 2, dated 23 Dec 61. The instruction has been revised throughout.

SUMMARY

1. The retaining knob of the air intake flap on the Supply unit, transformer, rotary, which is the power supply unit for Transmitter, radio, C11, is mounted on a bearing pin screwed into the front panel cover. Issue 1 of this instruction gave details for removing broken bearing pins without damaging the screw thread in the cover and action on new pins to facilitate subsequent removal. However, as the original pin, which has a No 4 BA screwed portion, suffers frequent breakage, a more robust item with a No 2 BA thread is now provided. A new knob securing screw and a new locating block are necessary when the new pin is to be fitted since the original items are not suitable. These new items will be scaled for replacement purposes. Details of the three items are:-

- |                                  |                              |   |                              |
|----------------------------------|------------------------------|---|------------------------------|
| (a) <u>Bearing pin:</u>          | Pin, shoulder, headless      | - | Part No 5315-99-<br>101-9253 |
| (b) <u>Knob retaining screw:</u> | Screw, machine (IT/A179980)  | - | Part No 5305-99-<br>101-8827 |
| (c) <u>Locating block:</u>       | Block, locating (IT/A179977) | - | Part No 5820-99-<br>101-9238 |

ACTION

2. When bearing pins of the original No 4 BA type are broken in their locating holes proceed as follows:-

- (a) Drill through the embedded portion of the pin using a 5/64 in. drill.
- (b) Remove the broken pin using Extractor, screw, No 1 - Part No F1/FA 13165 or a similar tool.
- (c) Drill the hole out using a 5/32 in. drill (No 2 BA tapping size) continuing it right through the front panel. Tap the hole No 2 BA.
- (d) Demand the items listed at para 1(a)-(c). Fit these as follows:-
  - (i) Place the locating block on to the locating pin on the front panel.
  - (ii) Screw the No 2 BA bearing pin through the block and fully home into the panel. The threads of the pin should first be coated with varnish.
  - (iii) Place the flap securing knob on to the bearing pin secured at (ii). Secure the knob by means of the No 2 BA machine screw and a No 2 BA washer.

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TRANSMITTER, RADIO, C11

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

SUB-TITLE: Prevention of heat damage to wiring of a.f. unit

INTRODUCTION

1. Instances have been reported where wiring in the a.f. unit of Transmitter, radio, C11 (TR C11) has been found charred and burnt in the vicinity of resistors R26, R35 and R40. As these components are wire-wound, vitreous types, designed to be run at high temperatures, this regulation gives details of action required to prevent future heat damage to the wiring.

ACTION

2. When TR C11 equipments are opened up for any reason, ensure that all wiring in the neighbourhood of vitreous resistors and other components likely to become very hot, is dressed as far away as possible from these positions. Any wires whose insulation is already burnt, or whose insulation is otherwise damaged, will be renewed before carrying out this action.

T/60701/31

END

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TRANSMITTER, RADIO, C11

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

SUB-TITLE: Antenna tuning unit No 7 - Soldered connection on variable inductor

SUMMARY

1. Cases have occurred where the sliding brush on the variable inductor in Antenna tuning unit, No 7 (A.T.U. No 7) has been dislodged by the solder blob at the front end of the winding. This defect occurs as the blob passes beneath the brush and can result in the latter dropping out into the case if the tensioning spring is weak.

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ACTION

2. File down the solder blob on the end of the inductor winding until the top of the brass pin within is just visible. Finish off smoothly and remove all filings etc, from the unit. Check that the solder blob now clears the underside of the brush.
3. If, after carrying out the action detailed at para 2, fouling still occurs this may be due to a badly worn brush. In this event the brush should be replaced by the appropriate maintenance item.

T/60701/16

END