

RADIO SET A510

TRANSMITTER WIRING FOR ANCILLARY SUPPLY UNITS

MODIFICATION INSTRUCTION

REFERENCE:- AC in WM No 23792/1.

SUMMARY

1. This instruction details the wiring changes necessary to permit the Radio Set A510 to be used with Generating Set Hand Driven WS A510 or the Power Supply Unit, Stabilized DC 0-135 V (Aust) No 1. The modification entails the fitting of two additional wires to the transmitter unit for B+ and C- battery line connections and thereby maintaining the correct operation of the A510 "ON-OFF" switch when used with ancillary power units. The A+ voltage from the appropriate supply unit is fed via a 17 point "tee" junction through the existing cable wires to the "ON-OFF" switch and therefore does not require modification.

Estimated manhours to perform: 1.0

2. **Priority:** Group 2, modification to be applied to ALL equipments.

3. **Items affected:**

Z1/TSE(W)8-297 Transmitter Assembly A510

4. **Action required:** By RAEME field and base workshops in accordance with WKSP A 850.

5. **Stores required:** (To be obtained through local Ordnance sources).

Stock No	Designation	Qty
6145-66-015-1656	Wire electrical equipment, type 2, hard grade PVC medium wall, 7/.0076, red	1 ft
6145-66-015-1657	Wire electrical equipment, type 2, hard grade PVC medium wall, 7/.0076, blue	1 ft

6. **Stores removed:**

Nil.

DETAIL

External Wiring Modification (Transmitter Unit)

7. Unscrew the four 4 BA screws securing the Cover TSE(W)8-246 over the cable terminations on the front panel and lift the cover to expose the wiring to the 13 pin contacts.

8. Unsolder the blue wire from pin 'G' and resolder this wire to pin 'N'.

9. Replace the cover and four 4 BA screws.

Internal Wiring Modification

10. Remove the transmitter unit from its case.

11. Remove plate retaining pack silica gel, pack silica gel and plate support assembly. This exposes the rear of contacts M and N of the terminal block (refer to TELS F 564, fig 4 for identification of items removed).

12. Solder a blue wire (new lead) to pin contact M on the terminal block, slip 1/2 inch length of 3 mm sleeving over this connection. Feed the free end of the wire under the tuning unit assembly and along the main loom at the lower edge of the unit to the "ON-OFF" switch-bank. Trim the lead to the required length and solder to the lug of contact 1 SWC5 (refer fig 1). Ensure that continuity exists between pin M on the 17 point connector and the -7.5 V pin on the battery plug when the function switch is in the "OFF" position.

12. Solder the red wire (new lead) to pin contact N on the terminal block, slip a 1/2 inch length of 3 mm sleeving over this connection. Feed the free end of the wire under the

tuner assembly and along the main loom to the ON-OFF switch-bank. Trim the lead to the required length and solder to the lug of contact 10 SWC6 (refer fig 1). Ensure that continuity exists between pin G on the 17 point connector and the +90 V pin of the battery plug when the function switch is "OFF".

14. Neatly lace the new leads to the existing loom.
15. Replace the plate support, fit fresh silica gel pack and humidity indicator and re-fit the transmitter into its case.
16. Carry out seal testing and functional tests in accordance with TELS F 564 para 83 and 84. Where ancillary power units are available, carry out performance and functional tests with the radio set coupled to the appropriate unit.
17. Strike through figure "6" on the transmitter modification record plate.