

AUSTRALIAN MILITARY FORCES

AEME WORKSHOP MANUAL WM 27

TELECOMMUNICATION TEST EQUIPMENT

Section 6.11

WYA 4410, OSCILLATOR, TEST, VHF, (AUST), No. 1

1. *Function*:—

This is a portable self-contained battery-operated equipment providing an unmodulated signal for the testing of Wireless Set No. 19 "B" set receivers.

2. *Ranges*:—

Frequency 220-255 megacycles.

Output Sufficient to produce a strong signal in the "B" set receiver.

3. *Dimensions and Weight*:—

Overall $7\frac{1}{2}$ -ins x 9-ins x $4\frac{1}{2}$ -ins high.

Weight $6\frac{3}{4}$ lb (approximately) without batteries.

4. *Service Uses*:—

Used in Wireless and Signal Equipment Sections of 2nd, 3rd and 4th echelon AEME Workshops.

5. *Control*:—

Controlled Store "A".

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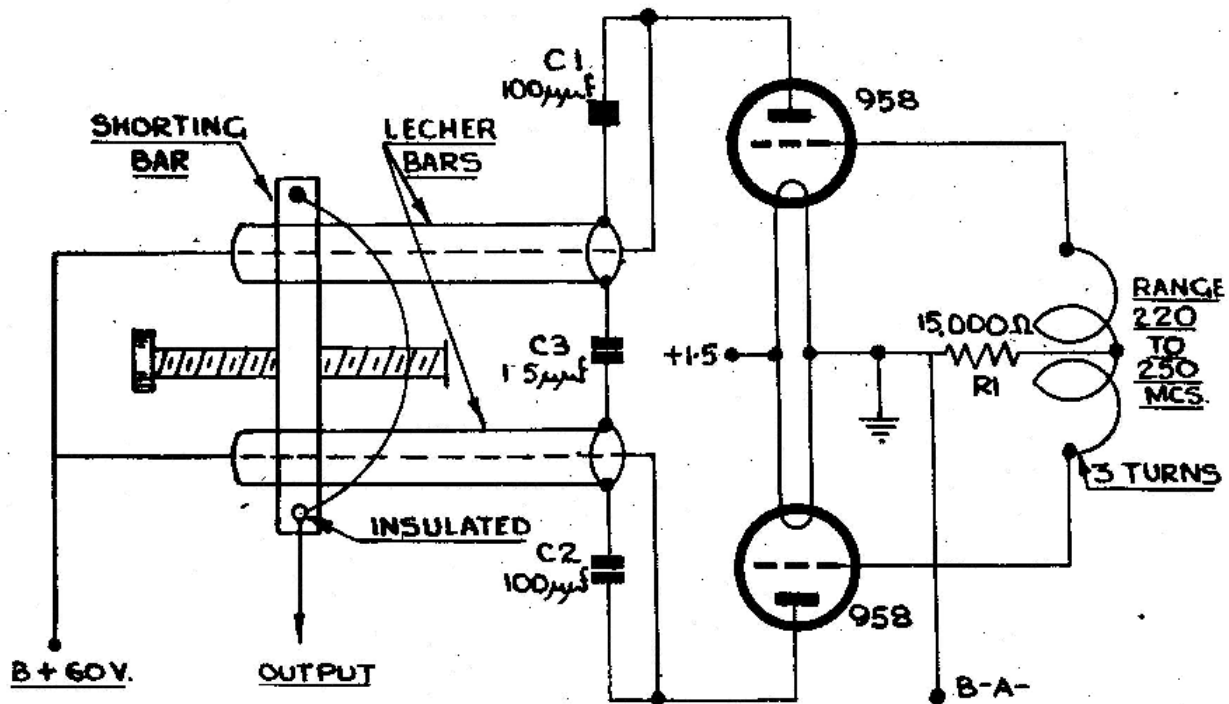


FIG. I. WYA 4410, OSCILLATOR, TEST, VHF, (AUST), NO. 1.

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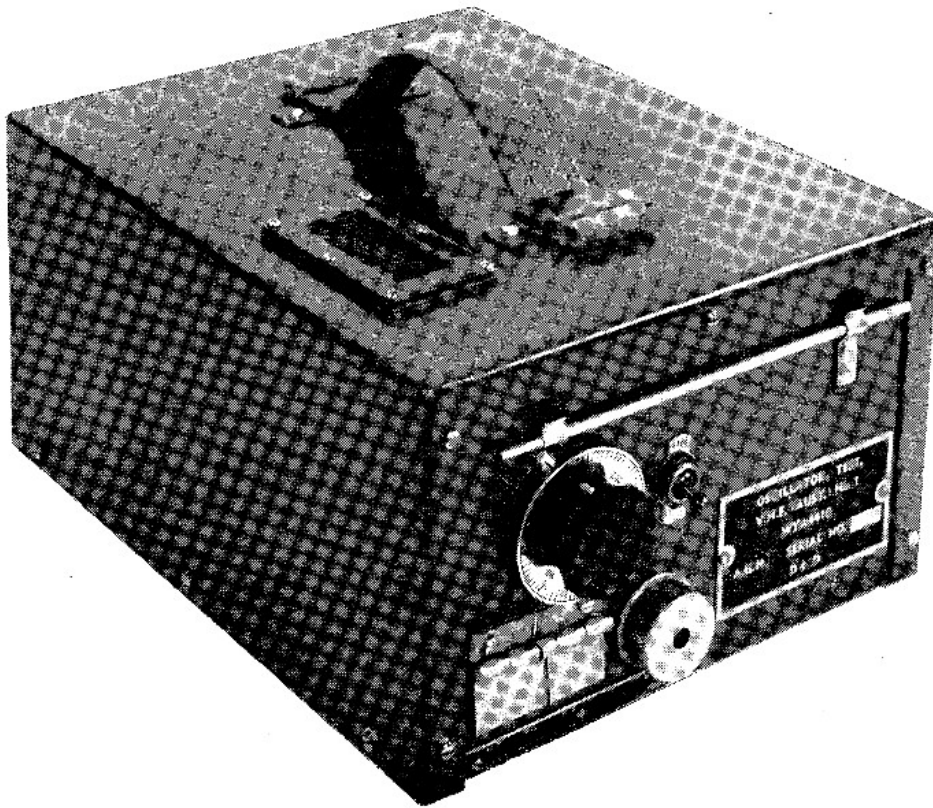


Fig. 2—WYA 4410, OSCILLATOR, TEST, VHF, (AUST), No. 1.

6. *Description:—*

The oscillator consists of a push-pull oscillator using two valves type 958 (acorn triodes), with Lecher bars for plate tuning. The valves are shunt fed. The Lecher shorting bar is moved by a screw which is operated by a dial calibrated in degrees of rotation. The shorting bar has a pointer which moves over a scale calibrated in frequency which is visible through a small window. The output is radiated from the output socket with a small aerial provided with the instrument.

The instrument is operated from dry batteries which are housed in the instrument case. Jacks are provided to measure HT and LT voltage, and HT current drain. Total plate current is approximately:—

7-8 milliamps when oscillating.

10 milliamps and above when not oscillating.

The equipment uses the following batteries:—

WB 0200 — Cells, Dry, X, Mk 2 — 2 (connected in parallel)

WB 1565 — Batteries, HT, 60-volt — 1 No. 1

7. *Accessories:—*

Nil.

8. *Test Procedure:—*

- i. Set the oscillator to the frequency required.
- ii. Insert the aerial rod in the output socket and clamp.
- iii. Switch on and check the plate current to see that it is oscillating. (If not, check the battery voltages and also that the valves are secure in their holders).
The oscillator is now ready for use.

NOTE: Where possible, WYA 4407 Signal Generator Type M/P (Aust) should be used in lieu of this equipment.

9. *Relevant Service Publications:—*

Nil.