

SUMMARY OF DATA

PURPOSE

A short range low power portable transmitter-receiver (Army Wireless Set No. 46TPL) for voice and M.C.W. communication.

FREQUENCY RANGE

Three spot frequencies in one of the following bands:-

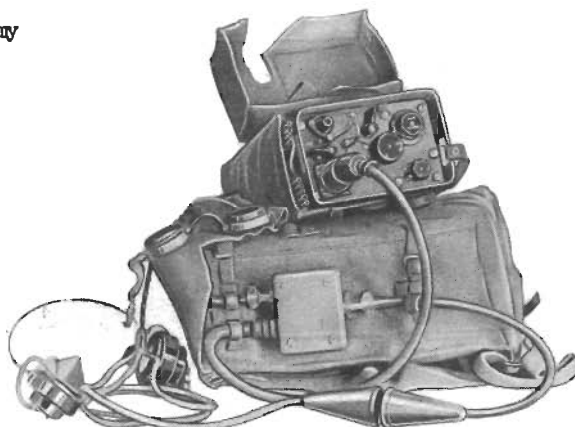
3.6 to 4.3 Mc/s	6.4 to 7.6 Mc/s
5.0 to 6.0 Mc/s	7.9 to 9.1 Mc/s

MAJOR UNIT AND PHYSICAL DATA

ZA11622 Wireless Set No. 46
or
ZA29542 Wireless Set No. 46 TPL

<u>Height</u>	<u>Width</u>	<u>Depth</u>	<u>Weight</u>
4½"	12½"	7½"	11 lb

The weight of the complete station as carried is 24 lb.



GENERAL VIEW OF EQUIPMENT

BRIEF DESCRIPTION

The set is housed in waterproof steel case, batteries in separate haversack. The receiver is four valve Superheterodyne comprising triode pentode frequency changer, two I.F. stages, diode detector and A.V.C. and output reflexed into 2nd I.F. Transmitter has one R.F. valve, anode modulated. Modulator valve driven by triode throat microphone amplifier, which can also act as M.C.W. oscillator. Both local and master oscillators are crystal-controlled. Four frequency bands are selected by plug-in coils. Three spot frequencies in each band are selected by switching crystals. Standard two pin A.M. Ref. 10X crystals are required in pairs for each channel. The receiver crystal is 1550 kc/s higher in frequency than the transmitter crystal on the lower frequency band and 1550 kc/s lower in frequency on the other frequency bands.

PERFORMANCE

Sensitivity - 8 μ V for 0.1 mV with 10 db signal/noise ratio.

Selectivity - 40 db attenuation at \pm 38 kc/s.

Transmitter - 1.5 W
Output

Range - 10 miles (approx) in day time in flat country
50 miles (approx) in day time over sea with a 9 ft aerial.

POWER REQUIREMENTS AND CONSUMPTION

The power is derived from a single dry battery (Pat. 14151) which provide both H.T. and L.T. with a working life of 8 hours continuous operation.

The consumption is as follows:-

	H.T.	L.T.
Transmit Voice	28 mA	550 mA
Transmit M.C.W.	37 mA	550 mA
Receiver Voice	10 mA	350 mA
Receiver M.C.W.	10 mA	850 mA

AERIAL SYSTEM

A vertical whip aerial 9 ft (mobile) or 16 ft (fixed).

HANDBOOK

E.M.E.R. Telcon F460, F402, F464 and ZA/6072.

ESTABLISHMENT LIST

E.1037

INSTALLATION SPECIFICATION

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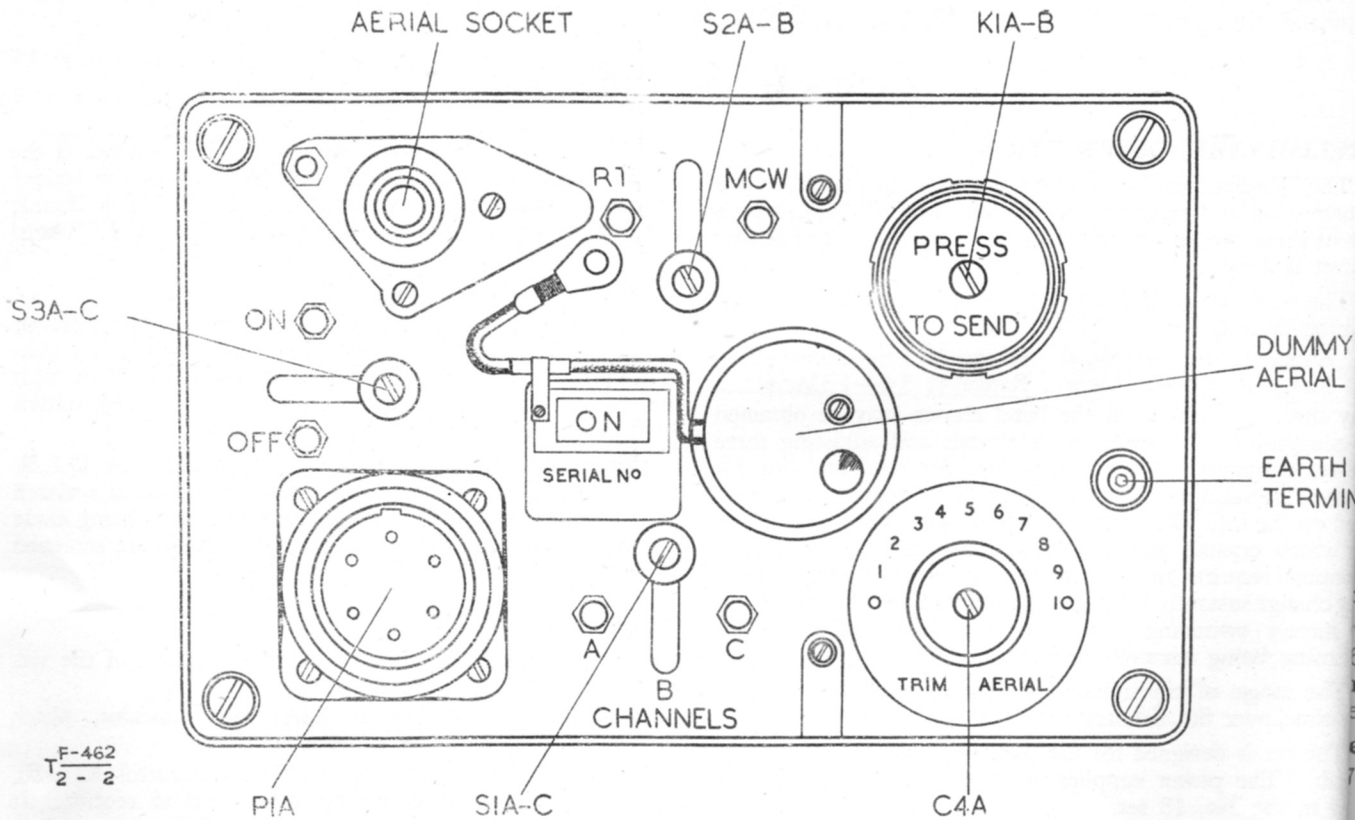
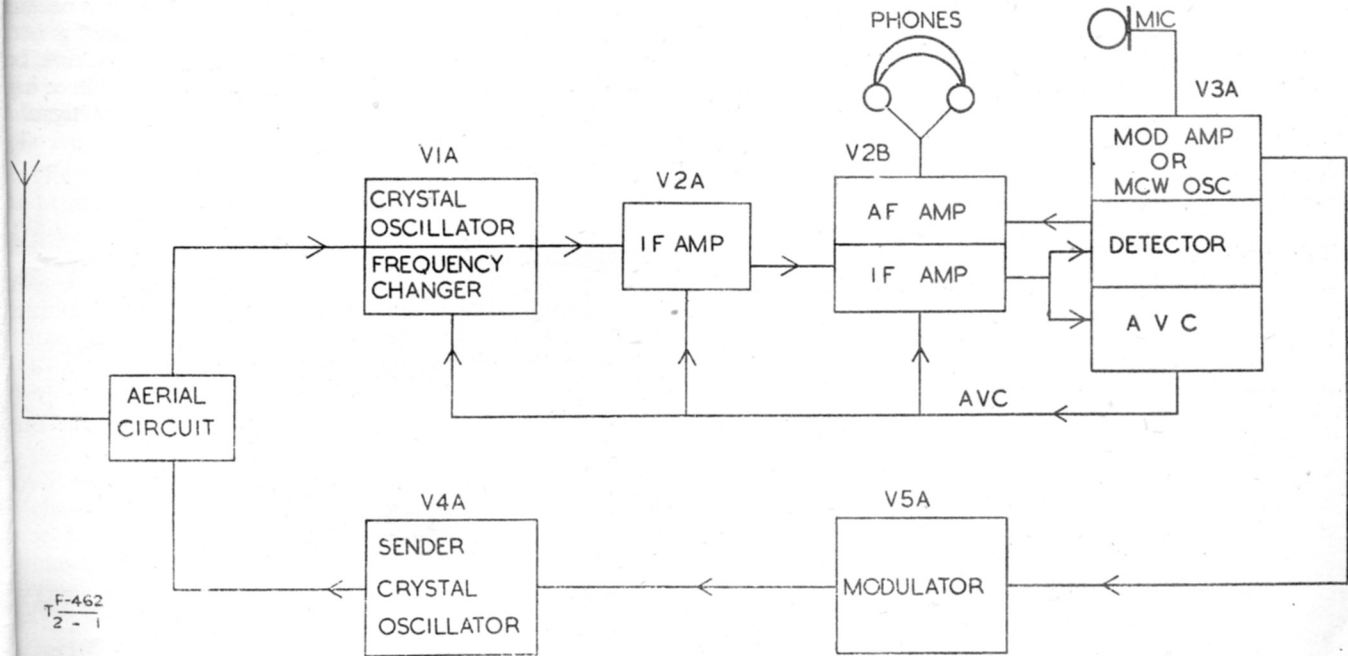


Fig. 2—Front panel



T F-462
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Fig. 1—Block diagram