STATION KIT, RADIO, AMPLIFIER, R.F., NO 7

TECHNICAL HANDBOOK - DATA SUMMARY

NOMENCLATURE

Station kit, radio, amplifier, r.f., No 7 5820-99-949-2245.

The kit consists of the following items, which, together with a TRC13, form a Station radio, C13, high power:-

Amplifier, r.f., No 7	5820-99-949-2150
Power, supply, rotary, No 47	5820-99-949-2152
Interconnecting box	5820-99-949-2078
Loading coil assembly, antenna	5820-99-949-3231

ROLE

The amplifier is primarily for use by long range armoured patrols, scout cars and personnel carriers, or where the normal TRC13 range is inadequate.

DESCRIPTION

The amplifier, r.f., No 7, which is a single stage class C amplifier, is used to amplify the c.w. or phase output from a TRC13. Under conditions where the additional r.f. power is not required, the amplifier is switched off and it then acts as a radio frequency tuner for the TRC13. The amplifier and rotary power supply are both contained in sealed die-cast cases. The antenna loading coil is fitted under a splash proof cover. The antenna loading coil is brought into circuit on operational frequencies below 2.2Mc/s. H.T. is supplied by a rotary converter (P.S.R.No 47). The complete installation is used with Radio control harness, type A or B and fits into a Carrier, set, No 82.

PHYSICAL DATA

	Amplifier, R.F., No 7	*Power supply, rotary, No 47*	*Loading coil assembly, antenna*
Weight	80 lb	45 lb	20 lb
Height	10 .1/2 in.	8 in.	7.3/4 in.
Width	14.1/2 in.	8 in.	10 in.
Depth	17 in.	16 in.	11.7/8 in.

CLIMATIC RANGE

Temperature: Operational $-40^{\circ}C$ to $+55^{\circ}C$
Storage $-45^{\circ}C$ to $+71^{\circ}C$

Pressure: Operation and storage up to 10,000 ft

TRANSPORTATION DATA

Air: May be carried in unpressurized aircraft at altitudes up to 25,000 ft and dropped by parachute in standard container.

Ground: May be carried loose in vehicles over rough country.

Climatic: May be exposed to heavy rain, salt spray, driving dust, sand, snow or to high wind.

PACKAGING DATA

DEF 1234. BPS 2/6

OPERATIONAL DATA

Transmission systems which may be used with the amplifier are:-

(a) R.T/PHASE (F3)

(b) C.W. (hand speed morse) (A1)

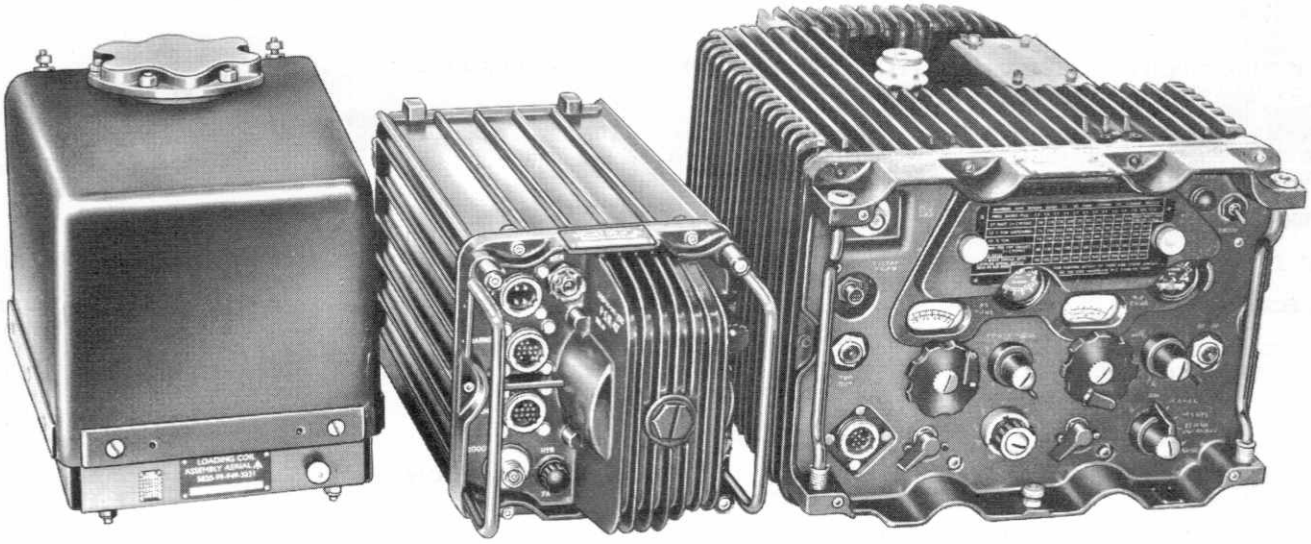

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Fig 1 - General view, Loading coil, P.S.E. and Amplifier

Matching circuits permit the amplifier to be used with various lengths of rod and wire antennae (see plate on front panel for details). The matching circuits provide T.R.F. facilities for TRC13 when the amplifier is not in use. Maximum continuous transmit time 5 min (see User Handbook).

PERFORMANCE

12 ft. rod antenna: In excess of 30 mile.

ELECTRICAL DATA

Carrier frequency
1.5-12Mc/s in 3 bands: 1.5-3.0Mc/s
3.0-6.0Mc/s
6.0-12.0Mc/s

Power levels:

Input power drive: At least 12W into 70Ω
Output power: Nominally 200W into 70Ω

ESSENTIAL ASSOCIATED EQUIPMENT

Drive unit:	TRC13
Antennae:	12 ft rod (normal) or 27 ft rod or wire antenna.
Station Equipment:	As detailed by C.E.S.

POWER REQUIREMENTS

24V d.c. supply, negative earthed (secondary battery) 140A starting surge, 35A running.

MAINTENANCE

Both field and base repairs will require the use of Test kit, radio., amplifier r.f., No 7(Z4/C0000-06691) which includes a drive oscillator, special connectors, dummy loads and metering units. Servicing will not be possible without this kit. For base repairs an a.c. derived power supply unit will be available to workshops concerned.

ASSOCIATED PUBLICATIONS

Complete equipment schedule:	Service Edition 42879
User handbook:	Army Code No 13109
EMERs:	Tels H 160 and L 770

EME 8c/2584

END