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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.

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, where the normal TRC13 range is inadequate.

Issue 1, 6 Oct 65
Distribution - Class 335. Code No 3
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 coils brought into circuit on operational frequencies below 2.2 Mc/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

<table>
<thead>
<tr>
<th></th>
<th>Amplifier, R.F., No 7</th>
<th>Power supply, rotary, No 47</th>
<th>Loading coil assembly, antenna</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>80 lb</td>
<td>45 lb</td>
<td>20 lb</td>
</tr>
<tr>
<td>Height</td>
<td>14 1/2 in.</td>
<td>8 in.</td>
<td>7 3/4 in.</td>
</tr>
<tr>
<td>Width</td>
<td>14 1/2 in.</td>
<td>8 in.</td>
<td>10 in.</td>
</tr>
<tr>
<td>Depth</td>
<td>17 in.</td>
<td>16 in.</td>
<td>11 7/8 in.</td>
</tr>
</tbody>
</table>

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)

CLIMATIC RANGE

Temperature: Operational -40°C to +55°C

Storage -45°C to +71°C

Pressure: Operation and storage up to 10,000 ft
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
1.5-12 MHz in 3 bands: 1.5-3.0 MHz
3.0-6.0 MHz
6.0-12.0 MHz

Power levels:
Input power drive: At least 12W into 7Ω
Output power: Nominally 200W into 7Ω

**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., amplifiers r.f., No 7(24/0000-08691) 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 86/25584