

CONDITIONS OF RELEASE

(Applicable to copies supplied with Ministry of Defence approval to Commonwealth and Foreign Governments)

1. This document contains classified UK information.
2. This information is disclosed only for official use by the recipient Government, and (if so agreed by HM Government) such of its contractors, under seal of secrecy, as may be engaged on a defence project. Disclosure or release to any other Government, national of another country, any unauthorized person, the Press, or in any other way would be a breach of the conditions under which the document is issued.
3. This information will be safeguarded under rules designed to give the same standard of security as those maintained by HM Government in the UK.

STATION, RADIO, A43R, MK 2, MANPACK/GROUND

TECHNICAL HANDBOOK - DATA SUMMARY

NOMENCLATURE

Transmitter-receiver, radio, A43R, Mk 2, Part No
Z1/5820-99-949-1359

ROLE

Primary role: Ground/air communication)
Secondary roles: Manpack ground to ground } in all
ship to shore } theatres
User arm: Infantry, Marines and } and
Royal Artillery } conditions

DESCRIPTION

The set is a v.h.f. short range manpack a.m. transmitter/receiver, designed for use with an internal power unit supplied from an attached secondary battery. It is hermetically sealed in a light alloy case. The transmitter is crystal controlled and has a quick warm up characteristic after initial operation. The receiver is crystal controlled and has amplified automatic gain control.

Issue 1,3 Apr 64

Page 1

Distribution - Classes 332 and 336. Code No 2

PHYSICAL DATA (set minus antenna)

	<i>Operational</i>	<i>As packed by RAOC</i>
Height:	13 in.	17.3/4 in.
Width:	9 in.	23.3/4 in.
Depth:	5.1/4 in.	26.1/4 in.
Weight excluding batteries:	14.1/2 lb	111 lb
Weight with battery:	21 lb	
Complete station:	39 lb	

CLIMATIC RANGE

Temperature: Normal and extreme cold
 Pressure: May be used and stored at altitudes up to 10,000 ft

TRANSPORTATION DATA

Air transportability: May be carried at altitudes up to 25,000 ft and parachute-dropped

PACKAGING DATA

DEF 1234 BPS: 2/2 or 2/3
 SPIS: WIR/1838

OPERATIONAL DATA

Provides six spot frequencies within the range 240-300Mc/s. Used with whip antenna or a skeleton disccone antenna mounted on a 8 ft mast for use in static role. Aural monitoring of transmitter output by a sidetone circuit, also visual indication on a fluorescent tube in the front panel. Facilities include: amplitude modulated telephony, single or double frequency simplex; beacon service c.w. unkeyed; beacon service modulated c.w. unkeyed.

PERFORMANCE

Whip antenna four land miles
 Elevated antenna 12 land miles
 Ground-to-air (Whip antenna to aircraft)
 500 ft 23 land miles
 1000 ft 40 land miles
 5000 ft 45 land miles
 Ground-to-air (Elevated antenna to aircraft)
 500 ft 28 land miles
 1000 ft 32 land miles
 5000 ft 45 land miles
 10,000 ft 62 land miles
 20,000 ft 115 land miles
 30,000 ft 160 land miles

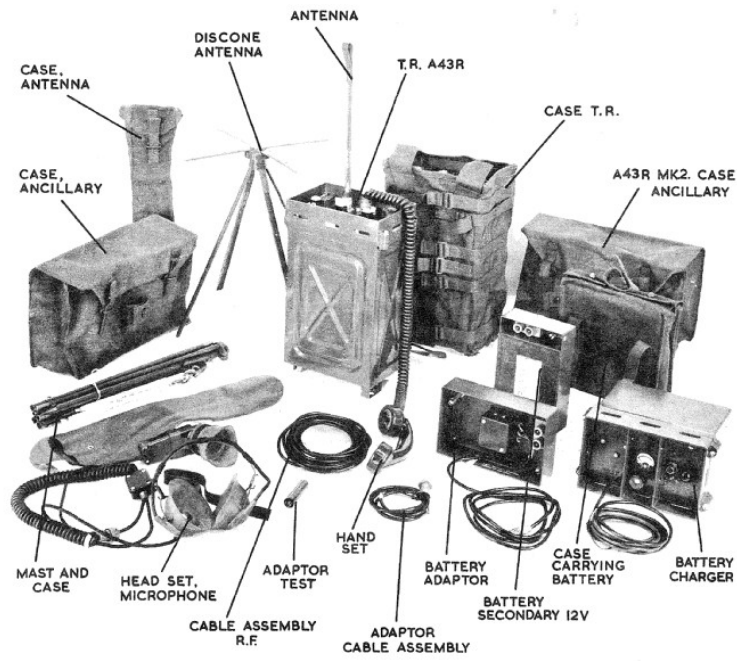


Fig 1 - Station, radio, A43R, Mk 2

The working ranges quoted are approximate only and will vary greatly with the type of country over which the set is being used.

ELECTRICAL DATA

Frequency

240-300Mc/s. Six preset crystal controlled channels, selected by a switched turret containing removable channel tuners. Minimum channel spacing 100kc/s. Stability 3 parts in 10⁸. (For Army use Kits No 1 and Kits No 2 contain 96 channel tuners providing 24 alternative channels).

Power levels

Transmitter: Power output: At least 2W carrier over frequency range

Receiver: Sensitivity: Not more than 5µV modulated 30% at 400c/s for 10dB signal-to-noise ratio

ESSENTIAL ASSOCIATED EQUIPMENT

Antennae

Manpack: Quarter wave flexible whip

Long-range: Discone elevated antenna with 8 ft mast and 20 ft coaxial connector

STATION EQUIPMENT

Telephone hand

Microphone and receiver head gear assembly

Battery charger (self adjusting for 12V or 24V d.c. input)

EME8c/1380

Battery adaptor unit and battery connector cable
Battery, secondary, 12V. Nickel-cadmium type or Redifon A 6227 Edn B (Magnatex)

POWER REQUIREMENTS AND CONSUMPTION

Voltage

12V d.c. The set battery discharges in two hours approximately at 3:1 receive-transmit ratio

Current

Receive:	0.208A
Transmit: Telephony	2.752A
Transmit: C.W. beacon	2.608A
Transmit: M.C.W. beacon	3.391A

MAINTENANCE

Set is built in quickly detachable units giving access to all parts.

ASSOCIATED PUBLICATIONS

Complete equipment schedule:	No 42844 (Station kit No 1)
	No 42983 (Station kit No 2)
User handbook:	WO Code No 12790
Illustrated spare parts:	WO Code No 13596

END