

RECEIVER OUTFIT CDU

SUMMARY OF DATA

PURPOSE

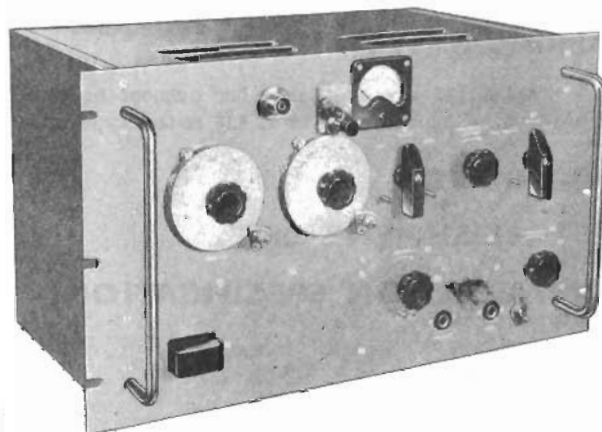
Standard V.H.F. Receiver Outfit fitted in H.M. Ships and R.N. Shore Wireless Stations in conjunction with Types 87M/MS.

TYPE OF RECEPTION

C.W. and Voice.

FREQUENCY RANGE

100-150 Mc/s crystal controlled.
Intermediate Frequency - ~~9.72~~ 4.86 Mc/s.



RECEIVER P104

MAJOR UNITS

Patt. No.	DESCRIPTION	PHYSICAL DATA			
		Height	Width	Depth	Weight
57242	Receiver P104	10½"	19"	12"	35 lb
W8356A	Power Unit for Receiver P38	7"	19"	12"	35 lb
54819	Rack, 19 ins Design 1	21"	19½"	12"	20 lb

When two or three Outfits CDU are supplied they are fitted into Patt. 54819 Rack. One Outfit CDU is mounted in a non pattern framework.

BRIEF TECHNICAL DESCRIPTION

Receiver P104 is a crystal controlled superheterodyne set with two R.F. stages, mixer stage, and three I.F. stages of mid-frequency ~~9.72~~ 4.86 Mc/s. The first heterodyne frequency, which is below the signal frequency, is derived from the local oscillator circuit consisting of the crystal oscillator and trebler followed by a harmonic amplifier further multiplying by six. The first heterodyne frequency is thus eighteen times that of the crystal.

A second heterodyne oscillator operating in the I.F. band is used to produce a 1000 c/s beat note in the 2nd Detector output. Two stages of A.F. amplification are provided, the first being associated with the double-diode triode 2nd detector valve. There is also a double-diode noise limiting valve and a double-diode triode A.G.C. valve.

ELECTRICAL CHARACTERISTICS

Sensitivity:- On Voice 10 μ V for a 20 db Signal to Noise ratio.

On C.W. 5 μ V for a 20 db Signal to Noise ratio.

I.F. Selectivity:- \pm 45 kc/s for 6 db.

A.F. Response:- (Reference level 0 db = 100 c/s)

at 4 db - 200 c/s

at 6 db - 5000 c/s

Max. Power Output:- 200 mW into balanced 600 ohm line.

POWER REQUIREMENTS AND CONSUMPTION

Receiver Outfit CDU requires 200/250 volts 50 c/s A.C. fed to the Patt. W8356A Power Unit, which gives the following supplies to Receiver P104:

H.T. - 260 volts D.C.

L.T. - 6.3 volts at 4.3 amps A.C.

The consumption is 60 watts.

AERIAL SYSTEM

Facilities are available for connecting via a single core concentric line to either a Type 3 dipole, wide band dipole or a "J" match type of aerial.

HANDBOOK

B.R.1422

ESTABLISHMENT LIST

E778

INSTALLATION SPECIFICATION

B394 (When fitted with Type 87M/MS).