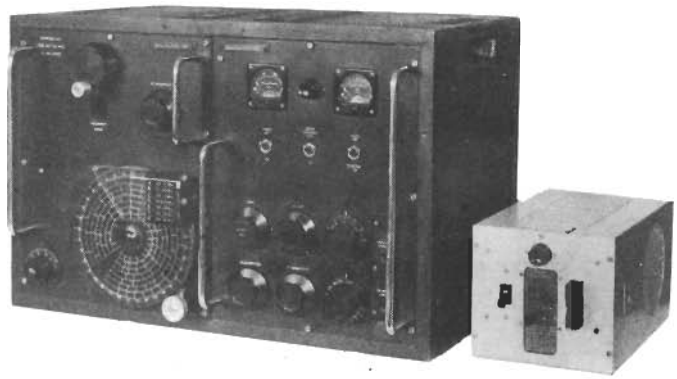
RECEIVER DST100

SUMMARY OF DATA

PURPOSE

A receiver designed to give a high degree of intelligibility to the reception of weak signals. It is used in some Royal Naval Shore Wireless Stations.



GENERAL VIEW OF RECEIVER DST100 AND SUPPLY UNIT

TYPE OF RECEPTION

C.W. and M.C.W.

FREQUENCY RANGE

50 kc/s to 30 Mc/s continuously in seven ranges. Blind spots occur in the region of the intermediate frequencies which are 2 Mc/s and 110 kc/s.

PHYSICAL DATA

Receiver DST100

Height	Width	Depth	Weight
15½"	24¼"	15½"	110 lb

Supply Unit Rectifier No. 8.

Height	Width	Depth	Weight
6½"	7"	13"	24 lb

BRIEF TECHNICAL DESCRIPTION

The receiver covers 50 kc/s to 30 Mc/s continuously in seven ranges. Six different band-widths are available. On the six higher frequency ranges A to F the set operates as a double superhetrodyne receiver on the five narrow band-widths; on the broad band-width it is a single superhetrodyne receiver, with an intermediate frequency of 2 Mc/s. On the lowest frequency range G the set operates as a single superhetrodyne receiver, with an intermediate frequency of 110 kc/s and the broad band-width is not available. Variable regeneration is provided for receiving very weak signals. A beat oscillator is used for C.W. reception. The set is mounted on two chassis, both housed in one steel case. A separate power supply is used.

ELECTRICAL CHARACTERISTICS

C.W. Sensitivity (for a 20 db Signal to Noise Ratio):-

Band	Frequency	Sensitivity (μV)
A	30 Mc/s - 12 Mc/s	2.0 ± 0.5
B	12 Mc/s - 4.8 Mc/s	
C	4.8 Mc/s - 1.9 Mc/s	
D	1.9 Mc/s - 0.78 Mc/s	1.0 ± 0.5
E	780 kc/s - 310 kc/s	
F	310 kc/s - 126 kc/s	1.5 ± 0.5
G	126 kc/s - 50 kc/s	2.5 ± 0.5

Selectivity:-

Switch Position	Band-width for 6 db attenuation
Sharp	1 kc/s
2	1.4 kc/s
3	1.6 kc/s
4	1.8 kc/s
5	2 kc/s
Broad	12-25 kc/s

On frequency ranges A to F the receiver operates as a double superhetrodyne in the first five positions of selectivity, but in the broad position it is a single superhetrodyne with an I.F. of 2 Mc/s.

On frequency range G the receiver operates as a single superhetrodyne with an I.F. of 110 Mc/s and the broad position of selectivity is inoperative on the band.

Output:-

The output of the receiver is terminated at 4000 ohms for high resistance headphones. Provision is also made for a line output at 600 ohms.

POWER REQUIREMENTS AND CONSUMPTION

110V-250V in 10V steps 50 c/s Feeding Supply Unit. Rectifier No. 8 which provides 110 mA at 250V H.T. and 4.75A at 6.3V L.T. to the receiver. Power consumption is 95 watts (approx.).

HEAT DISSIPATION

95 watts.

AERIAL SYSTEM

Open or dipole aerials of 75 or 600 ohms impedance may be used, and the appropriate aerial coil input impedances are selected as indicated on the engraved plate fixed to the back panel.

NOTE: On Mark II Sets A and B bands are matched to 75 ohms only.

REMARKS

Receiver DST100 is an Army receiver.

HANDBOOK

AZ14020 (Army Reference)

ESTABLISHMENT LIST

NIL

INSTALLATION SPECIFICATION

NIL