

RECEIVER OUTFITS CDF and CDM

SUMMARY OF DATA

PURPOSE

Standard L.F. and M.F. Receiver Outfit fitted in H.M. Ships and Royal Naval Shore Wireless Stations. Receiver Outfits CDF (Ships) and CDM (Shore) of which the main component is Patt. W2698 Receiver B29, is being replaced by Receiver Outfits CDY and CAR (Patt. 57141/B Receiver B41).

TYPE OF RECEPTION

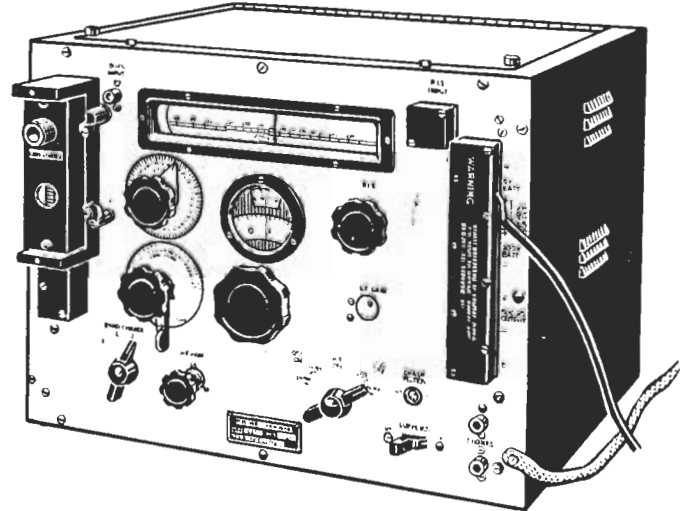
C.W. M.C.W. or.Voice.

FREQUENCY RANGE

15 kc/s - 550 kc/s continuous, covered in 4 ranges.

PHYSICAL DATA

| Height | Width | Depth | Weight |
|--------|-------|-------|---------|
| 13½" | 19" | 16" | 82 lbs. |



RECEIVER B29

BRIEF TECHNICAL DESCRIPTION

Receiver B29 comprises two stage tuner and two R.F. stages employing variable- μ screened pentodes with tuned grid circuits, followed by a tuned grid detector stage with electronically coupled local oscillator using a triode hexode mixer for both functions, and two stages of A.F. amplification. The first A.F. stage is transformer-fed from the detector stage (via a R.F. filter circuit) and is itself resistance/capacity coupled to the second A.F. output stage.

ELECTRICAL CHARACTERISTICS

Sensitivity :- On Voice M.C.W. (30% Mod. at 1000 c.p.s.) For a 20 db Signal to Noise Ratio

| Band | Frequency kc/s | Micro-volts |
|------|-------------------|-------------|
| 1 | 15 | 20 |
| | 38 | 10 |
| 2 | 38 | 8 |
| | 90 | 4 |
| 3 | 90 | 12 |
| | 240 | 4 |
| 4 | 240 | 12 |
| | 550 | 4 |

On C.W. Input signals for 20 db Signal to Noise Ratio are approximately half those required under the same conditions for Voice.

Selectivity :- A.F. Response (Ref. Level 0 db = 1000 c/s)
at 300 c/s 0 + 2 db
at 3000 c/s 0 - 10 db

An A.F. filter circuit tuned to 1000 c/s may be connected to the first and second A.F. valves when receiving C.W. in order to provide additional selectivity.

Maximum Power Output :- 2W into 600 ohm line for normal use. Facilities are available for a 5000 ohms output to drive a D.C. amplifier for auto high speed reception.

POWER REQUIREMENTS AND CONSUMPTION

Receiver B29 is designed to operate either from A.C. or D.C. supplies as below.

(a) A.C. Supply

100/110 or 200/250 volts 50 c/s with a consumption of 33 watts.

(b) D.C. Supply

200 volts H.T. battery with consumption of 19 mA with oscillator off and 22 mA with oscillator on.
6 volts L.T. battery with a consumption of 2.1 amps.

AERIAL SYSTEM

Provision is made for feeding the receiver from either a normal vertical aerial or from a dipole aerial or remote vertical aerial through an 80 ohm feeder. For frequencies between 15 - 90 kc/s a high or low impedance loop may also be used.

HANDBOOK

B.R. 1369

ESTABLISHMENT LISTS

E504 (CDF) E602 (CDM)

INSTALLATION SPECIFICATIONS

B192 (CDF) B314 (CDM)