SUMMARY OF DATA

PURPOSE

Receiver Outfits CJD(1) (Single-Receiver Cabinet) and CJD(2) (Five-Receiver Cabinet) are attended or unattended communications receivers for the reception of voice, C.W., single and multi-channel RATT and facsimile signals in the L.F. band. CJD(3) is fitted in SSNs. CJD(4) is as CJD(1) but using the CJD(3) Cabinet.

FREQUENCY RANGE

PHYSICAL DATA

Five bands giving continuous coverage from 10 kHz to 200 kHz. Intermediate frequencies 61.5 and 21.5 kHz (Band 1) and 21.5 kHz (Bands 2-5)

POWER REQUIREMENTS AND CONSUMPTION

Single-receiver Cabinet 115/230 V 50/60 Hz \pm 6% at 130 W. Five-receiver Cabinet 115/230 V 50/60 Hz \pm 6% at 650 W.

Anti-condensation heaters:-

Single-receiver Cabinet 115/230 V 50/60 Hz \pm 6% at 30 W Five-receiver Cabinet 115/230 V 50/60 Hz \pm 6% at 150 W.

ELECTRICAL CHARACTERISTICS

Sensitivity: 1 μ V for 10 mW output.

Signal + Noise to Noise ratio 21 dB, bands 1-5, CJD(3) bands 2-5, CJD(1)(2)(4) 24 dB, band 1, CJD(1)(2)(4)

Selectivity: Switched to 3000 Hz, 1000 Hz, 300 Hz

or 120 Hz. (Bands 2-5); limiter to

300 Hz (Band 1).

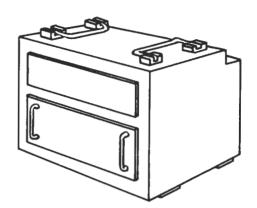
A.G.C. : Delayed and amplified; for 80 dB Performance increase in input voltage above (

increase in input voltage above $0.1~\mu V$ the output voltage change is less than

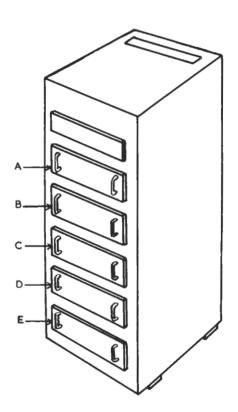
6 dB.

Stability : Frequency stability over 24 hours for a temperature change of ± 10 OC:-

- (1) Local oscillator locked: ± 5 Hz.
- (2) Local oscillator free-running; 1 part in 1000.



SINGLE RECEIVER CABINET



FIVE RECEIVER CABINET

Weight Height width Depth 5820-99-916-4905 362 lb 5 ft 3 in 2 ft 2 ft 3 in Five-receiver Cabinet (without receivers) (with lifting eyebolts) 5 ft 5⅓ in 5820-99-916-4904 63 lb 1 ft 8½ in 1 ft 11 in 1 ft 5 in Single-receiver Cabinet Receiver chassis for single receiver 1 ft 94 in 140 lb 1 ft 6⅓ in 1 ft 43 in Receiver chassis for five-10½ in. 1 ft 91 in 2 ft 1½ in 140 lb receiver cabinet

BRIEF DESCRIPTION

R.F.

Amplifiers : Switched; One amplifier with a high-efficiency aerial, two with low efficiency aerial,

feeding two frequency conversion stages (Band 1) or one frequency conversion stage

(Bands 2-5).

I.F.

Amplifier : Three stages of amplification, bandwidth controlled by two sets of four band-pass filters.

(Bandwidths 120 Hz, 300 Hz, 1000 Hz, or 3000 Hz) switched to any one of ten

combinations to provide variable selectivity. Also provides an external output at the

I.F. of 21.5 kHz.

Synthesiser: Consists of a variable oscillator 11.5 - 21.5 kHz, internal crystal-controlled 10 kHz oscillator, or a switched 10 kHz standard frequency input, and a harmonic selector, which produce a frequency 40 kHz above the local oscillator to lock the local oscillator to the synthesiser. A 40 kHz output is taken to provide the Band 1 I.F. of 61.5 kHz. Operated by a three-position switch:-

(1) LOCKED: local oscillator locked to synthesiser.

(2) UNLOCKED: local oscillator free-running.

(3) CALIBRATED: calibrates the variable—frequency oscillator.

B.F.O. Provides two crystal-controlled tones (1 kHz and 1.5 kHz) and a variable tone \pm 3 kHz.

Audio output: 10 mW into a 600-ohm line, via A.F. output amplifier. An additional amplifier feeds either a loudspeaker or headphones for monitoring.

AERIAL SYSTEM

Common aerial working, standard wire or whip aerial. Receiver input impedance 100 ohms.

HANDBOOK

BR 2407(1)(2).

ESTABLISHMENT LIST

E1373.

INSTALLATION SPECIFICATION

Part of B919.

