

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

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

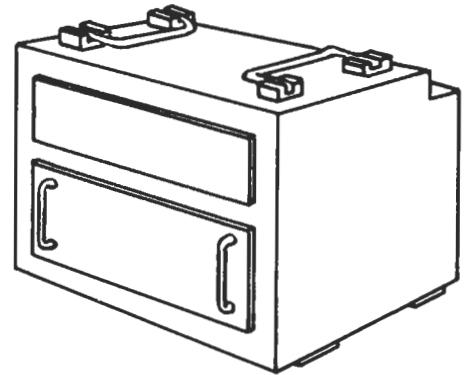
Single-receiver Cabinet 115/230 V 50/60 Hz  $\pm$  6% at 130 W.  
 Five-receiver Cabinet 115/230 V 50/60 Hz  $\pm$  6% at 650 W.

Anti-condensation heaters;-

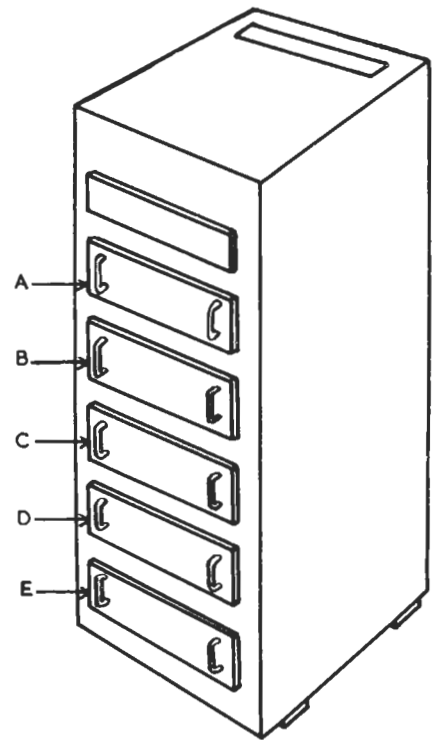
Single-receiver Cabinet 115/230 V 50/60 Hz  $\pm$  6% at 30 W  
 Five-receiver Cabinet 115/230 V 50/60 Hz  $\pm$  6% at 150 W.

ELECTRICAL CHARACTERISTICS

- Sensitivity: 1  $\mu$ 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 0.1  $\mu$ V the output voltage change is less than 6 dB.
- Stability : Frequency stability over 24 hours for a temperature change of  $\pm$  10  $^{\circ}$ C:-
  - (1) Local oscillator locked:  $\pm$  5 Hz.
  - (2) Local oscillator free-running; 1 part in 1000.



SINGLE RECEIVER CABINET



FIVE RECEIVER CABINET

PHYSICAL DATA

	Height	Width	Depth	Weight
<u>5820-99-916-4905</u>				
Five-receiver Cabinet	5 ft 3 in	2 ft	2 ft 3 in	362 lb
(with lifting eyebolts)	5 ft 5 1/2 in			(without receivers)
<u>5820-99-916-4904</u>				
Single-receiver Cabinet	1 ft 8 1/2 in	1 ft 11 in	1 ft 5 in	63 lb
Receiver chassis for single receiver chassis	1 ft 4 3/4 in	1 ft 9 1/2 in	1 ft 6 1/4 in	140 lb
Receiver chassis for five-10 1/2 in. receiver cabinet		1 ft 9 1/2 in	2 ft 1 1/2 in	140 lb

## 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.

POWER

2 3

READERS  
FOR

300-1000000  
3000 ELECTRICAL EQUIPMENT  
TYPE IN A.B.C. or  
CLASS 1000

files to the record mixer

NO. 2

JOHN ELECTRIC & COMPANY  
221 10th Avenue  
New York 10

75 80 85 90 95 100 105 110 115

A detailed view of the control panel of a vintage audio mixer. The panel is densely packed with various controls and meters. At the top center is a frequency scale from 75 to 115. Below this is a large central knob labeled "S.F. BANDWIDTH". To the left of the center is a "REAR TONE" knob, and to the right is a "REAR ATTENUATOR" knob. Below these are several smaller knobs and switches, including "TONE", "ATTENUATOR", and "REAR TONE". On the far left, there are two large knobs labeled "REAR ATTENUATOR" and "REAR TONE". On the far right, there is a large knob labeled "REAR ATTENUATOR" and a smaller knob labeled "REAR TONE". At the bottom, there are several small knobs and switches, including "REAR ATTENUATOR" and "REAR TONE". The panel also features a large meter on the right side and a smaller meter on the left side. The overall design is functional and typical of mid-20th-century audio equipment.