

# RECEIVER OUTFITS CHD(1) AND CHD(2)

## SUMMARY OF DATA

### PURPOSE

To measure accurately the characteristic frequency of a radio signal.

### BRIEF DESCRIPTION

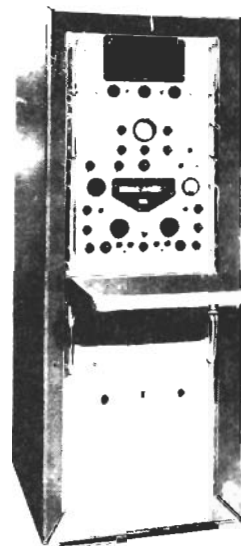
The receiver is tuned to the radio signal to be monitored using normal methods. The tuning is then precisely adjusted using the signal comparator which indicates the 'on tune' position by a stationary lissajous figure on a cathode-ray tube. The characteristic frequency is then measured using the electronic frequency counter.

### TYPE OF RECEPTION

Carrier frequency with or without any of the various forms of amplitude or frequency modulation.

### MAJOR UNITS

	OUTFIT CHD(1)	OUTFIT CHD(2)
Receiving Set, Frequency Measuring	5820-99-971-8325	5820-99-971-8326
Cabinet, Electrical Equipment	5820-99-971-8700	5820-99-971-8704
Counter, Electronic, Frequency	5820-99-971-8705	5820-99-972-2292
Comparator, Signal	5820-99-971-8706	5820-99-971-8706
Mixer Stage, Frequency	5820-99-971-8701	5820-99-971-8324
Receiver, Radio	5820-99-971-8702	5820-99-971-8323
Power Supply (for Counter)	5820-99-971-8709	
Panel, Power Supply	5820-99-971-8710	5820-99-971-8710



RECEIVER OUTFIT CHD(1)

### PHYSICAL DATA

Five of these units are mounted on angle slides in a mild steel or aluminium cabinet. The cabinet is fitted with an auto-transformer, distribution panel and cooling fan.

	Height	Width	Depth	Weight
Receiver Outfit CHD(1)	160 cm (63 in.)	61 cm (24 in.)	61 cm (24 in.)	186.9 Kg (412 lb)
Receiver, Radio	26.7 cm (10.5 in.)	48.3 cm (19 in.)	50.8 cm (20 in.)	30.4 Kg (67 lb)
Mixer Stage, Frequency	4.5 cm (1.75 in.)	48.3 cm (19 in.)	36.2 cm (14.25 in.)	4.8 Kg (10.5 lb)
Counter, Electronic Frequency	26.7 cm (10.5 in.)	48.3 cm (19 in.)	40.6 cm (16 in.)	21.8 Kg (48 lb)
Comparator, Signal	13.3 cm (5.25 in.)	48.3 cm (19 in.)	39.4 cm (15.5 in.)	17.2 Kg (38 lb)
Cabinet, Electrical Equipment	160 cm (63 in.)	61 cm (24 in.)	61 cm (24 in.)	86.2 Kg (190 lb)
Power Supply (for Counter)	26.7 cm (10.5 in.)	22.8 cm (9 in.)	40.6 cm (16 in.)	26.3 Kg (58 lb)
Receiver Outfit CHD(2)	160 cm (63 in.)	61 cm (24 in.)	61 cm (24 in.)	186.9 Kg (412 lb)
Receiver, Radio	26.7 cm (10.5 in.)	48.3 cm (19 in.)	50.8 cm (20 in.)	30.4 Kg (67 lb)
Mixer Stage, Frequency	8.9 cm (3.5 in.)	48.3 cm (19 in.)	36.2 cm (14.5 in.)	4.8 Kg (10.5 lb)
Counter, Electronic Frequency	17.8 cm (7 in.)	48.3 cm (19 in.)	22.8 cm (9 in.)	5.4 Kg (12 lb)
Comparator, Signal	13.3 cm (5.25 in.)	48.3 cm (19 in.)	39.4 cm (15.5 in.)	17.2 Kg (38 lb)
Cabinet, Electrical Equipment	160 cm (63 in.)	61 cm (24 in.)	61 cm (24 in.)	86.2 Kg (190 lb)

## ELECTRICAL CHARACTERISTICS

Frequency range	12.5 kHz to 30 MHz (10 kHz — CHD(2))
Frequency standard	Internal, 100 kHz with a stability of at least five parts in $10^7$ ; provision is made for the application of an external 100 kHz frequency standard.
Input of external frequency standard	0.1 volt at 100 kHz into 70 ohms.
Sensitivity	Better than one microvolt.
Accuracy	Plus or minus the accuracy of the frequency standard, with the addition of plus or minus one count of the Frequency Meter. A typical figure is $\pm 2$ Hz.

## POWER REQUIREMENTS AND CONSUMPTION

Power requirements	100-125 volts, or 200-250 volts, at 45-60 Hz.
Consumption	600 watts approximately

## HANDBOOKS

BR 2353	Receiver Outfit CHD(1)
BR 1171	Receiver Radio, RA.17K
BR 1171	Mixer Stage, Frequency, RA.37C
BR 2214	Counter Electronic Frequency, SA.21C
BR 2353	Comparator Signal, SA.77
BR 2214	Power Supply for SA.21C
BR 2450	Receiver Outfit CHD(2)
BR 1171	Receiver Radio, RA.17R
BR 1171	Mixer Stage Frequency, RA.137C
BR 2450	Counter, Electronic Frequency SA.535C

## ESTABLISHMENT LIST

E 1269	Receiver Outfit CHD(1)
R 1511	Receiver Outfit CHD(2)

## MAINTENANCE SCHEDULES

Catalogue No. 4603

## COMMERCIAL EQUIVALENTS

Outfit CHD(1) is Racal Frequency Measuring Set RA.78C which includes Receiver RA.17K and L.F. Converter, RA.37A.

Outfit CHD(2) is Racal Frequency Measuring Set, RA.78J which includes Receiver RA.17R and L.F. Converter, RA.137C.

Outfit CHD(2) will include the Frequency Meter SA.535C in lieu of SA.21C and its power supply.