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STATION, RADIO, 119B

TECHNICAL HANDBOOK - DATA SUMMARY

PART NUMBER

Z1/ZA 51460

PURPOSE

The Station, Radio, 119B is a portable low power c.w., h.f. station for limited use. R.T. communication is possible with model 119RT which incorporates a built in modulator.

DESCRIPTION

The station consists of four separate units housed in

diecast aluminium cases comprising:-

- | | |
|-------------------------------|-------------|
| (a) Transmitter | Z1/ZA 51207 |
| (b) Receiver | Z1/ZA 51208 |
| (c) Power supply unit | Z1/ZA 51204 |
| (d) Case, spare parts, filled | Z1/ZA 51206 |

The equipment is designed mainly for c.w. operation and can be operated from 110-240V a.c. supply mains or from a 6V accumulator; it can not be operated from d.c. mains. The transmitter is crystal control-

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Page 1

led and employs two stages; a crystal oscillator/doubler and a class C power amplifier. The receiver is a conventional 6 valve superheterodyne comprising an r.f. amplifier stage, mixer, i.f. amplifier, det/avc, b.f.o. and audio output stage. The dual power supply unit supplies both transmitter and receiver. It incorporates transmit-receive changeover switching and also has facilities for charging the station accumulator at about 1A. A non-synchronous vibrator is brought into circuit when the unit is switched to 6V d.c.

PHYSICAL DATA

	Weight	Height	Width	Depth
Transmitter	10 lb 7 oz	5.3/8 in.	10.7/8 in.	6.3/4 in.
Receiver	14.1/4 lb	6.3/4 in.	10.7/8 in.	7.1/8 in.
Power Supply Unit	23.1/2 lb	7.3/8 in.	10.7/8 in.	7.3/8 in.
Case, Spare Parts, filled	11.1/2 lb	7.3/8 in.	10.7/8 in.	7.3/8 in.

The various units are waterproof only when case covers are fitted.

ELECTRICAL DATA

Frequency ranges

Transmitter		Receiver	
Band	Range	Band	Range
1	1.5 - 2.3Mc/s	1	0.5 - 1.05Mc/s
2	2.3 - 3.5Mc/s	2	1.05 - 2.2Mc/s
3	3.5 - 5.5Mc/s	3	2.2 - 4.7Mc/s
4	5.5 - 8.5Mc/s	4	4.7 - 10.0Mc/s
5	8.5 - 13.0Mc/s	5	10.0 - 20.0Mc/s
6	13.0 - 20.0Mc/s		

Power levels

Transmitter:	Power output:	10-15W depending on frequency
Receiver:	Sensitivity:	0.5-2.3Mc/s approx 90μV 2.3-20Mc/s approx 20μV
	(for an output of 1mW into a 2000Ω load)	
	Bandwidth:	7.5kc/s at 20dB down

Antenna systems

- (a) 50 ft. reel antenna
- (b) 100 ft wire antenna

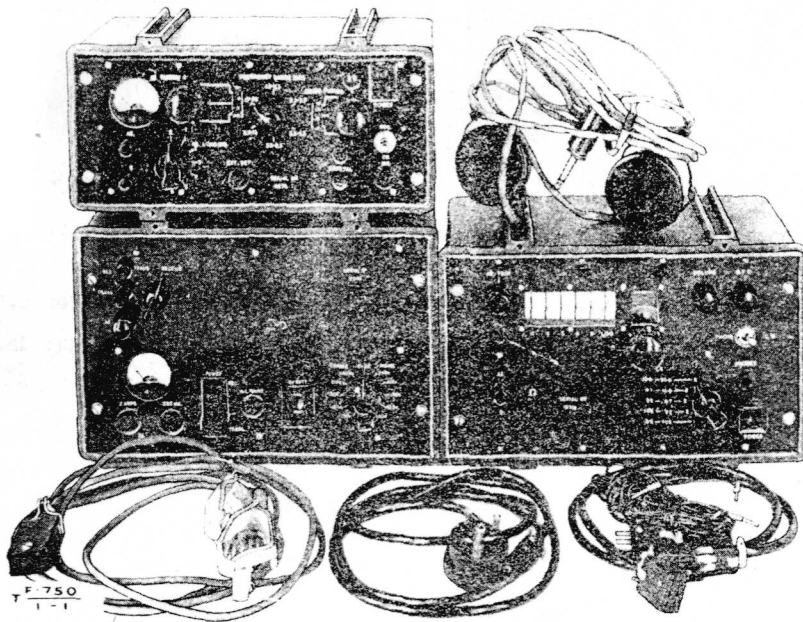


Fig 1 - General view of equipment

A half wave antenna should be erected whenever possible.

POWER REQUIREMENTS

Valves

110-240V a.c. 50c/s continuous coverage

Receiver

Transmitter

6V d.c.

H. F. Amp	CV4015 (CV131)	Crystal Osc	CV4014 (2) (CV138)	Power consumption: 100-240V a.c. Receive: 100VA approx
Mixer	CV4014 (CV138)	P.A.	CV5990 (1)	Transmit: 130VA approx (max)
Oscillator	CV4014 (CV138)	Modulator (model 119RT)	EL 70 (1) EF 72 (1)	6V d.c. Receive: 6.8A
I. F. Amp	CV4015 (CV131)			Transmit: 15.0A key down (max) 6.8A key up
Det/Avc	CV1092			
B. F. O.	CV4014 (CV138)			
Output	CV4014 (CV138)			
Voltage stabilizer Z1/ZA	95125 28429			

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