

## SUMMARY OF DATA

**PURPOSE**

VLF reception in submarines.

**TYPE OF RECEPTION**

Telegraphy.

**FREQUENCY RANGE**

14 to 22.5 kHz.

**BRIEF TECHNICAL DESCRIPTION**

The required r.f. signal, in the range 14 to 22.5 kHz, is amplified and then mixed with the output from a local oscillator to produce an i.f. of 5.5 kHz. The i.f. amplifier output is mixed with a fixed 6.5 kHz signal from a beat frequency oscillator, and the resulting 1 kHz output is fed, after amplification, to a monitor loudspeaker, two headphone jacks and a 600 ohm output jack. Delayed A.G.C. is applied to the r.f. and i.f. amplifiers.



5820-AP 164474 RECEIVER, RADIO

**MAJOR UNITS**

1. 5820-AP 164474 Receiver, Radio - Height 10½ in., Width 13 in., Depth 19 in. (including handles and plugs), Weight 46 lb.
2. AP 58549A Mount, Sprung, for Receiver.

**ELECTRICAL CHARACTERISTICS**

Sensitivity: 600 ohm output: not less than 300 mw, for 1/μv input. When the 600 ohm output is set to 10 mw with a 0.4/μv input, the signal plus noise to noise ratio is not less than 10 dB. Audio outputs: not less than 150 mw into 3 ohms for 1/μv input.

Bandwidth: 150 Hz.

Outputs: Two low impedance headphone jacks.  
One monitor loudspeaker.  
One 600 ohm output jack for the use of a teleprinter or other auxiliary equipment. The outputs to the headphone jacks and monitor loudspeaker are controlled by a single adjustment and a separate control is provided for the 600 ohm output.

Scale Accuracy: ± 0.2 kHz.

**POWER SUPPLIES**

115 v 50/60 Hz single phase a.c.  
80 w including the supplies to the aerial system.

**AERIAL SYSTEM**

Aerial Outfit ALK  
Aerial Outfit ALL

**HANDBOOK**

3R 2366

**ESTABLISHMENT LIST**

E1287

**INSTALLATION SPECIFICATION**

B914