

D/F OUTFIT FH4
SUMMARY OF DATA

FH4

PURPOSE

A HF Direction Finder giving a visual indication of the bearing. It is installed in specially selected surface ships.

FREQUENCY RANGE

1-24 MHz.

BRIEF DESCRIPTION

Direct reading cathode-ray tube direction finder. The receiver unit consists principally of two similar superheterodyne receivers having a common local oscillator. These two receivers are connected to the fore and aft and athwart ships aerial loops.

Each of the two amplifying channels contain one r.f. stage, one F.C. stage and three i.f. stages. Each of the output i.f. circuits is connected to a pair of deflector plates of the cathode-ray tube. A portion of the output i.f. signals from both stages is taken to the audio detector valve common to both receivers and then amplified in the audio amplifier which consists of three valves. The last valve operating the audio stage is in the Power Unit.

MAJOR UNITS

Part. No.	Description	PHYSICAL DATA			
		Height	Width	Depth	Weight
54535	Receiver Unit FHB Des. 3	19½"	17½"	21½"	200 lb
55663	Power Unit FHB Des. 2	11½"	12"	18"	100 lb
W6118A	Framecoil S25B	7'	4' 4"	4' 4"	130 lb

PERFORMANCE

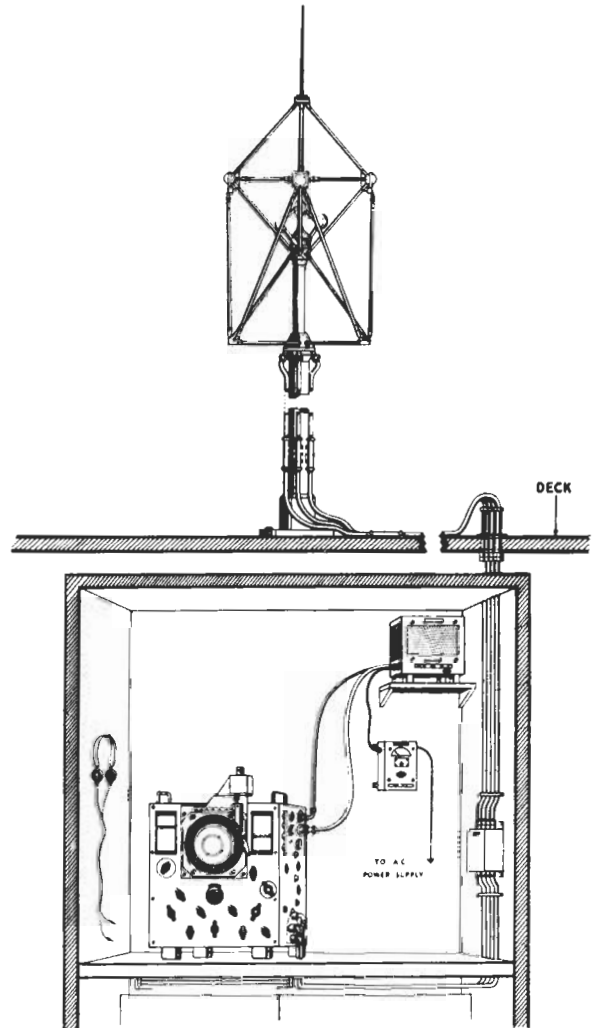
The normal operating range is 30 to 150 miles depending on frequency, radiated power etc. The maximum value of the instrumental errors is of the order $\pm 2^\circ$ to $\pm 3^\circ$.

POWER REQUIREMENTS AND CONSUMPTION

200/240 v, 40/60 Hz supply with a consumption of 300 watts.

AERIAL SYSTEM

Framecoil S25B consisting of a pair of screened single turn Bellini-Tosi loops and a vertical sense aerial.



GENERAL VIEW OF EQUIPMENT

REMARKS

Bearings are indicated correctly only for transmissions arriving by direct propagation along the sea surface; bearings obtained by reflected waves (sky waves) are unreliable. The ground and sky waves can be easily discriminated. Bearings are indicated directly relative to the Fore and Aft line of the ship. True bearings are obtained from a rotating gyro scale, controlled by the ship's gyro compass.

HANDBOOK

BR 1613

ESTABLISHMENT LIST

E551

INSTALLATION SPECIFICATION

B621