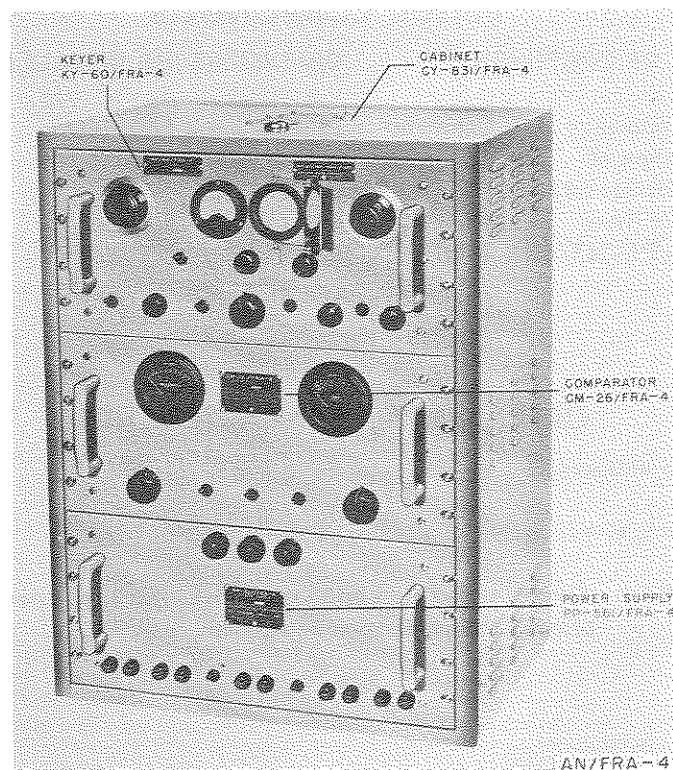


STATUS: Standard
 CLASSIFICATION OF EQUIPMENT: Confidential
 USING SERVICE: Navy
 DATE OF THIS SHEET: 14 May 52

AN/FRA-4

FREQUENCY SHIFT CONVERTER GROUP



Frequency Shift Converter Group AN/FRA-4 is used to select the strongest of three frequency-shift signals from associated diversity radio receiving equipments, and to convert mark-space type frequency-shifts into polar-relay operation, keyed-tone output, and keyed d-c output; or to convert multiple-shift facsimile-type signals into a-m tone output. These outputs are used to operate teletypewriter perforated tape recorders, remotely located telegraph, or teletypewriter terminal equipment, facsimile recorders, or other similar equipments.

The signals used by the equipment are the 50 kc i-f outputs from three RBP or RCP Diversity Radio Receiving Equipments. It can be used with one- or two-channel diversity receiving system as well as the customary three receiver system.

The frequency of the keyed-tone output is continuously adjustable from 850 to 3,750 cps by a tone frequency key.

An external audio oscillator can be connected to the external tone input jack. A polar relay is provided for keying d-c telegraph loop circuits at keying speeds corresponding to teletypewriter speeds of up to 100 wpm.

The comparator, keyer, and power supply may be removed from the main table-mounted type cabinet, and mounted in any 19-inch relay rack.

AN/FRA-4	INSTRUCTION LITERATURE: NavShips 91496
	CLASSIFICATION OF EQUIPMENT: Confidential
FREQUENCY SHIFT CONVERTER GROUP	USING SERVICE : Navy
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MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	AN/FRA-4 Frequency Shift Converter Group Consisting of:	28 x 28-3/8 x 17-1/16	159
	Comparator CM-26/FRA-4	8-3/4 x 19 x 15-3/16	Not Available
	Keyer KY-60/FRA-4	8-3/4 x 19 x 15-3/16	" "
	Power Supply PP-561/FRA-4	8-3/4 x 19 x 15-3/16	" "

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground, fixed.

CAN COMMUNICATE WITH: This is signal modifying apparatus which operates in conjunction with primary communication equipment.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: .05, .01 bandwidth.

TYPE MODULATION: Fm.

TYPE OF SIGNAL: Frequency Shift.

POWER OUTPUT: Tone output: 10 v across 600 ohms.
D-c signal: 90 v across 3,000 ohms.
Polar relay: 270 v, dc.

POWER REQUIREMENTS: 227 w, 115 v, 60 cyc, 1 phase, ac.

PHYSICAL CHARACTERISTICS

Frequency Shift Converter Group AN/FRA-4 measures 28 x 28-3/8 x 17-1/16 inches, net weight 245 pounds, volume 10.85 cu ft. Packed for domestic shipment: total weight 372 pounds, total volume 26.5 cu ft, 0.66 ship ton. Shipped in 2 packages.