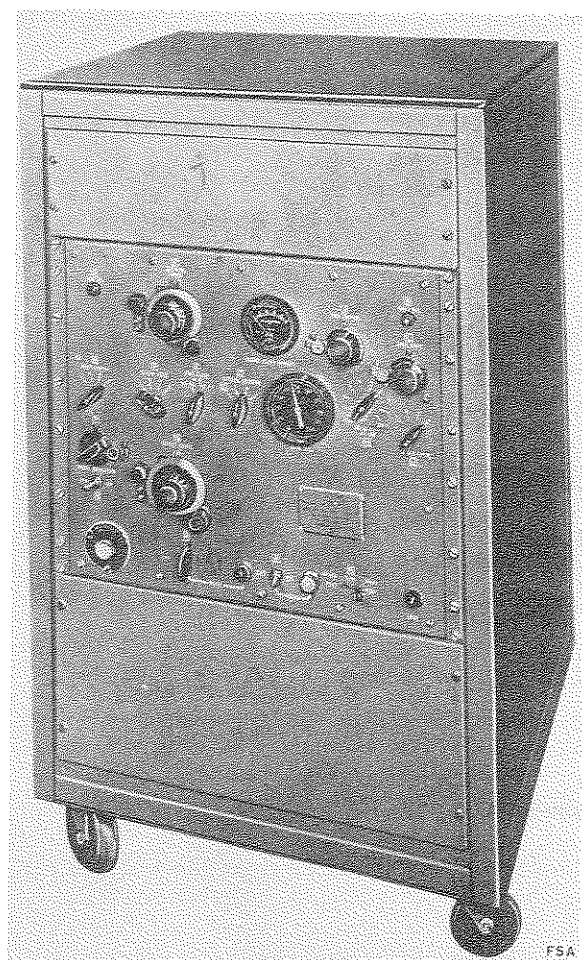


STATUS: Limited Standard
CLASSIFICATION OF EQUIPMENT: Unclassified
USING SERVICE: Navy
DATE OF THIS SHEET: 15 May 52

AN/UGA-TYPE

SERVICE TYPE NUMBER: FSA, FSA-a, -b
FREQUENCY SHIFT KEYER EQUIPMENT



Frequency Shift Keyer Equipments FSA, FSA-a, and FSA-b are auxiliary keying units used with shipborne or shore-based transmitters in long distance h-f telegraph systems to cause a radio transmitter to emit one frequency for a mark signal and a different frequency for a space signal (rather than to interrupt a single-frequency carrier). This two-frequency method of operation is less subject to distortion from radio fading and thus results in improved transmission. The keyer output is connected to the power amplifier of a radio transmitter. The FSA-a, and -b have provisions for facsimile operation as well as frequency-shift keying.

The keyer input frequency is 200 kc lower than the r-f output frequency. This frequency is obtained either from a self-contained crystal oscillator with three-preset channels or from an external oscillator which may be the oscillator of the associated transmitter.

Input telegraph signals up to 600 wpm can be handled. Signals may originate from a telegraph key, a teletypewriter keyboard, or a tape transmitter.

The equipment is mounted in a mobile cabinet for land installation, in a shock-resisting cabinet when used aboard ship, or inside the associated radio transmitter if space is available.

AN/UGA-TYPE		INSTRUCTION LITERATURE: NavShips 900,754
FSA, FSA-a, -b	SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT:Unclassified
FREQUENCY SHIFT KEYSER EQUIPMENT		USING SERVICE : Navy
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MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Frequency Shift Keyer CW-35060 *	16 x 19 x 18	130
1	Mobile Cabinet CW-10399	37 x 22 x 24	165
	or Shock Resisting Cabinet CW-10390	20 x 20 x 25	150

* Applies to FSA.

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shipboard or shore stations.

INSTALLATION: Shipborne, or ground.

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

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 1.0 - 6.7 in 2 bands:

Band 1: 1.0 - 2.6.

Band 2: 2.6 - 6.7.

TYPE MODULATION: Fm.

TYPE OF SIGNAL: FSA: Frequency shift.
FSA-a, -b: Frequency shift, facsimile.

POWER OUTPUT: 20 v across 75 ohm.

POWER REQUIREMENTS: 200 w, 115 / 230 v, 50/60 cyc, 1 phase, ac.

PHYSICAL CHARACTERISTICS

Frequency Shift Keyer Equipments FSA, FSA-a, -b measure 37 x 22 x 24 inches, net weight 445 pounds, volume 11.3 cu ft. Packed for domestic shipment: total weight 752 pounds, total volume 42 cu ft, 1.5 ship tons.