

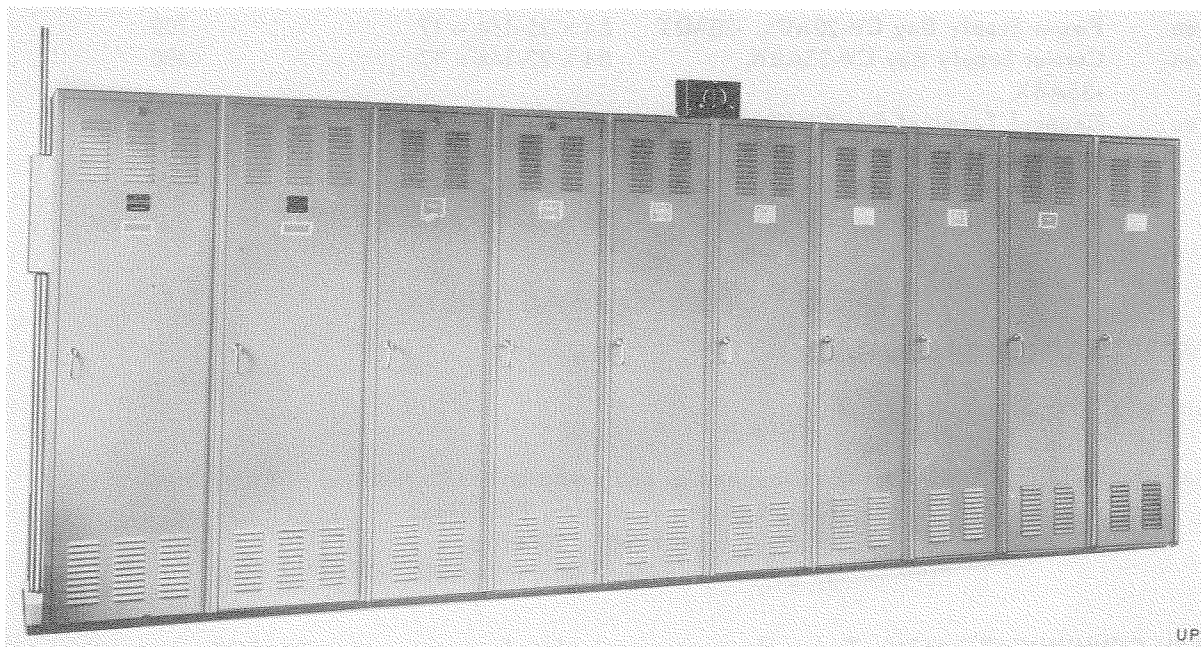
STATUS: Standard
CLASSIFICATION OF EQUIPMENT: Restricted
USING SERVICE: Navy
DATE OF THIS SHEET: 2 Jun 52

AN/FCC-TYPE

SERVICE TYPE NUMBER:

UP

TWO-TONE CARRIER CONTROL SYSTEM



Two-Tone Carrier Control System UP provides for six two-way telegraph circuits over one radio-telephone circuit. Four one-way regenerative repeaters are provided to improve the quality of transmission by restoring distorted teletypewriter signals to almost perfect form and timing. This equipment is designed primarily for use with single side band radio transmission.

In order to obtain better transmission in teletypewriter operation where there is selective fading of the radio signals, two tones are usually transmitted for each mark and two for each space, thus forming a frequency-diversity circuit.

A telegraph adapter unit is furnished which provides proper coupling and equalization of the wire line connecting the radio receiver to the telegraph terminal equipment.

Visual and aural indications of signal deterioration are provided by a monitoring bay.

AN/FCC-TYPE		INSTRUCTION LITERATURE: WE Co. IB No. X-75058
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MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1 ea	Power Supply Bay CW-20ADS, -20ADT	84 x 26-1/4 x 17	700
1 ea	Carrier Supply Bay CW-35ABW, -35ABX	84 x 22-1/4 x 17	490
1 ea	Channel Terminal Bay CW-50AFW, -50AFX, -50AFY	84 x 22-1/4 x 17	460
1	Common Bay CW- 50AFV	84 x 22-1/4 x 17	515
1	Adapter Unit, Telegraph CW-49AAA	84 x 22-1/4 x 17	Not Available

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Shore stations.

INSTALLATION: Ground, fixed.

MAXIMUM SYSTEM LENGTH: Between carrier equipment and radio receiver or transmitter:
128-mil copper open wire, 200 miles.
19 gauge loaded cable, 20 miles.
19 gauge nonloaded cable, 12 miles.

CAN COMMUNICATE WITH: Terminal, repeater, and related apparatus operating in the connecting facility or composing the system.

TECHNICAL CHARACTERISTICS

FACILITIES REQUIRED FOR TRANSMISSION: Radio communications circuit and wire line or radio link circuits between radio equipment and terminal equipment. All circuits must be capable of operation up to 4,900 cps.

FACILITIES AFFORDED: Six two-way telegraph or teletypewriter circuits and four one-way regenerative repeaters.

FREQUENCY: 425 to 2,465 cps and 425 to 4,930 cps when frequency diversity is used.

TYPE OF MODULATION: Am, two-tone and two-tone frequency diversity.

POWER REQUIREMENTS: 3 kw, 105 ~ 125 v, 50/60 cyc, 1 phase, ac.

PHYSICAL CHARACTERISTICS

Two-Tone Carrier Control System UP measures 84 x 301-1/4 x 17 inches.