



Figure 5. Navy Type Single Side-band Receiving Equipment REA, and Navy Type Radio Transmitting Equipment TEF, components of Radio Set AN/FRC-10

Status: Standard. *Stock No.:* 2C5110. *References:* TM 11-832 and TM 11-884.

Radio Set AN/FRC-10 is a long-range, h-f, fixed-station, v-f carrier telegraph system designed for single side-band operation and used with v-f carrier telegraph equipment. Navy Type Single Side-Band Radio Receiving Equipment REA (WECO D-99945) is a h-f single side-band triple detection receiver designed to operate as a companion to Navy Type Radio Transmitting Equipment TEF (WECO D-156000). It is designed for transoceanic telephony in the frequency range of from 4.5 to 22 mc. It provides for the reception of either one or both of two telephone channels arranged as a twin-channel system.

Navy Type Radio Transmitting Equipment TEF is a short-wave transmitter designed for transoceanic telephony in the frequency range from 4.5 to 22 mc. The complete transmitter provides for transmission of two telephone channels in a twin-channel single side-band system or, alternatively, one conventional double side-band channel. It may also be used as an exciter for Press Wireless PW-40 transmitter arranged for operation as a linear amplifier. This is part of an entire terminal for single side-band reduced carrier radiotelephone system for twin-channel operation, giving six two-way telegraph circuits over one two-way radiotelephone circuit. The entire terminal consists of a radio transmitter, distortion measuring set, a single side-band receiver, including its associated testing and measuring equipment, and v-f carrier telegraph equipment.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE: 4.5 to 22 mc; (may be converted to 4 to 20 mc).

PRESET FREQUENCIES: 6.

ANTENNA: Rhombic or fixed-station type.

TYPE MODULATION: Amplitude. (Single side band.)

FREQUENCY CONTROL: Crystal.

POWER SOURCE:

Navy Type Radio Transmitting Equipment TEF (WEC0 D-156000): 220-v, 50- to 60-cyc, 3-phase, 5 kw.

Navy Type Single Side-band Radio Receiving Equipment REA (WEC0 D-99945): 115-v, 50- to 60-cyc, single-phase, 600 w.

Carrier Terminals OA-63/FRC-10 and OA-64/FRC-10: 115-v, 50- to 60-cyc, single-phase, 3 kw.

POWER OUTPUT: 2½ kw.

RANGE: Long.

GENERAL APPLICATION

USE: Transoceanic radio telegraphy and telephony.

TO COMMUNICATE WITH: Like equipment within frequency range.

INSTALLATION: Fixed station.

TYPE OF SIGNAL: Voice and telegraph.

PRINCIPAL COMPONENTS

<i>Name</i>	<i>Dimensions (in.)</i>	<i>Weight (lb)</i>
Navy Type Single Side-band Radio Receiving Equipment REA (WEC0 D-99945) mounted in 3 cabinets.	64¾ x 84 x 15¼	1,436
Navy Type Radio Transmitting Equipment TEF (WEC0 D-156000) mounted in 3 cabinets	64¾ x 89 x 27	2,428
Carrier Terminal OA-63/ FRC-10*	} 220¼ x 84 x 17	5,260
Carrier Terminal OA-64/ FRC-10*		

*OA-63/FRC-10 and OA-64/FRC-10 mounted together in 10 cabinets.