

STATUS: Commercial

CLASSIFICATION OF EQUIPMENT: Unclassified

USING SERVICE: Air Force

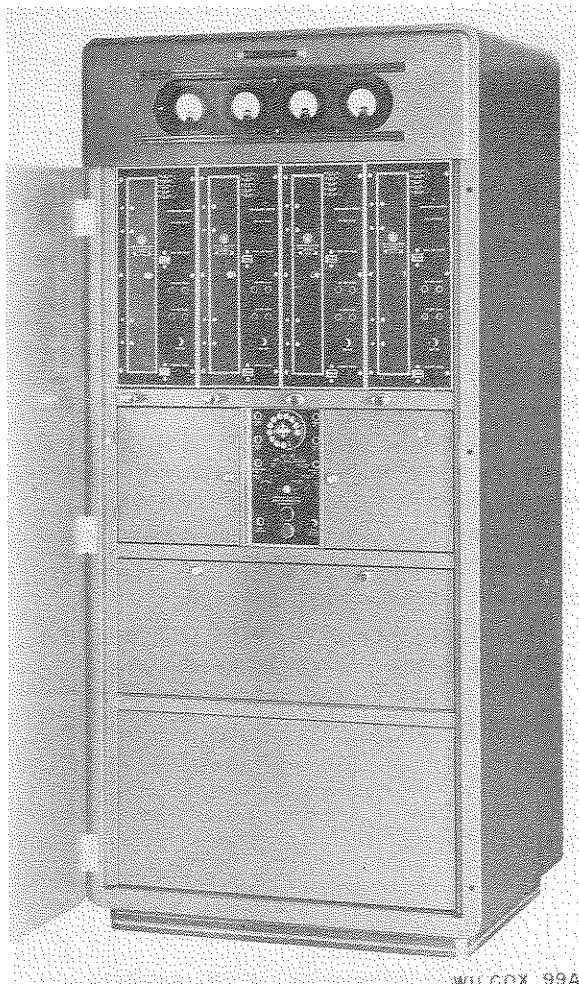
DATE OF THIS SHEET: 26 May 52

AN/FRT-TYPE

COMMERCIAL TYPE NUMBER:

WILCOX 99A

RADIO TRANSMITTER



Radio Transmitter Wilcox Model 99A is a (nominal) 400 w, a-m, (mcw or cw) crystal-controlled equipment with a system of plug-in r-f units permitting operation in the frequency ranges 0.125 to 0.525 mc; 2 to 20 mc; and 108 to 132 mc. Simultaneous voice, radioteletype or tone may be transmitted in the 2- to 20-mc range when frequency-shift-keying Exciter Unit 0-5/FRT, or equal is used. Remote keying is accomplished with a 1,000-cyc tone (or remote d-c keying). Remote channel selection is possible by using a 60-cyc dialing pulse.

The transmitter proper houses a maximum of four r-f units, power supplies, two independent modulators, and necessary channel-selection equipment.

For radiotelephone operation Amplifier BC-730 and ancillary equipment is used for volume limiting of the audio-input signal.

An adjustable antenna-matching network permits feeding balanced transmission lines of from 20 to 600 ohm impedance.

The two separate modulators and the system of plug-in r-f units permit simultaneous operation of two channels on either frequency shift keying or voice, or any combination of these.

This transmitter has a power-reduction feature which enables operation at either 400 w or 40 w output. At present only h-f, radio frequency units are being procured by the Air Force.

Power requirements are 4,780 w of 220-v, ac, (for normal operation at 400 w output).

AN/FRT-TYPE		INSTRUCTION LITERATURE: Mfr. Instruction Manual
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MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Transmitter 99A	32-3/4 x 72 x 27-7/16	1,450
1 to 4	*RF Units (each)	21 x 17-3/4 x 7	54
1	Coil Cabinet	40 x 40 x 7	225

* 1 to 4 RF Units may be installed at one time.
Any two may be operated simultaneously.

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Issued on any organizational level as project material in accordance with ARF 100-17.

INSTALLATION: Ground, fixed.

APPROXIMATE RANGE (IN MILES): LF - medium; HF - long; VHF - line of sight.

CAN COMMUNICATE WITH: AN/ARC-1, -2, -3, -5, -8, -9, -18, -21, -25, -28, -36; AN/ARR-15; AN/CRC-2; AN/FRC-10; AN/FRR-3, -4, -7, -12, -28; AN/GRC-9, -13, -26, -30; AN/GRR-2, -3, -5; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -17, -19, -20; AN/SRC-3; AN/SRR-3, -8, -11, -12, -13; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -21, -22, -23, -25; AN/VRC-1, -4; AN/VRR-2; BC-312, -314, -342, -344, -348, -453, -639, -779, -794, -1004; MAW; MBS; MQ; OA-58/FRC, -59/FRC; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -212/SR, -213/SR, -215/SR, -247/URR, -274/FRR, -320.FRC, -388/URR; RAK; RAL; RAO; RAS; RBA; RBB; RBC; RBG; RBH; RBL; RBM; RBO; RBP; RBQ; RBS; RC-103; RC-256; RCF; RCG; RCH; RCK; RCO; RDE; RDF; RDM; REA; SCR-177, -188, -193, -244, -274, -281, -399, -499, -506, -522, -536, -542, -543, -574, -575, -595, -593, -614, -624, -641, -644, -694, -704, -794; TBO; TBX; TCH; TCP; TCS; AR-88 (RCA); ARC Type 12; Collins 18S-4 (AF Model); Collins 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; National HRO-50.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: LF 0.125 - 0.525
HF 2.0 - 20.0
VHF 108.0 - 132.0.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, mcw or radioteletype (with separate frequency-shift-keying exciter).

POWER OUTPUT: 400 w (nominal), or 40 w (depending upon position of power selector switch).

POWER REQUIREMENTS: 4,780 w, 200 - 230 v, 50/60 cyc, 1 phase, ac.

PHYSICAL CHARACTERISTICS

Radio Transmitter Wilcox 99A measures 72 x 72-3/4 x 28 inches, net weight 1,450 pounds, volume 37.5 cu ft. Packed for either domestic or export shipment: total weight 2,504 pounds, total volume 116.5 cu ft, 2.9 ship tons. Shipped in 11 packages both domestic and export.