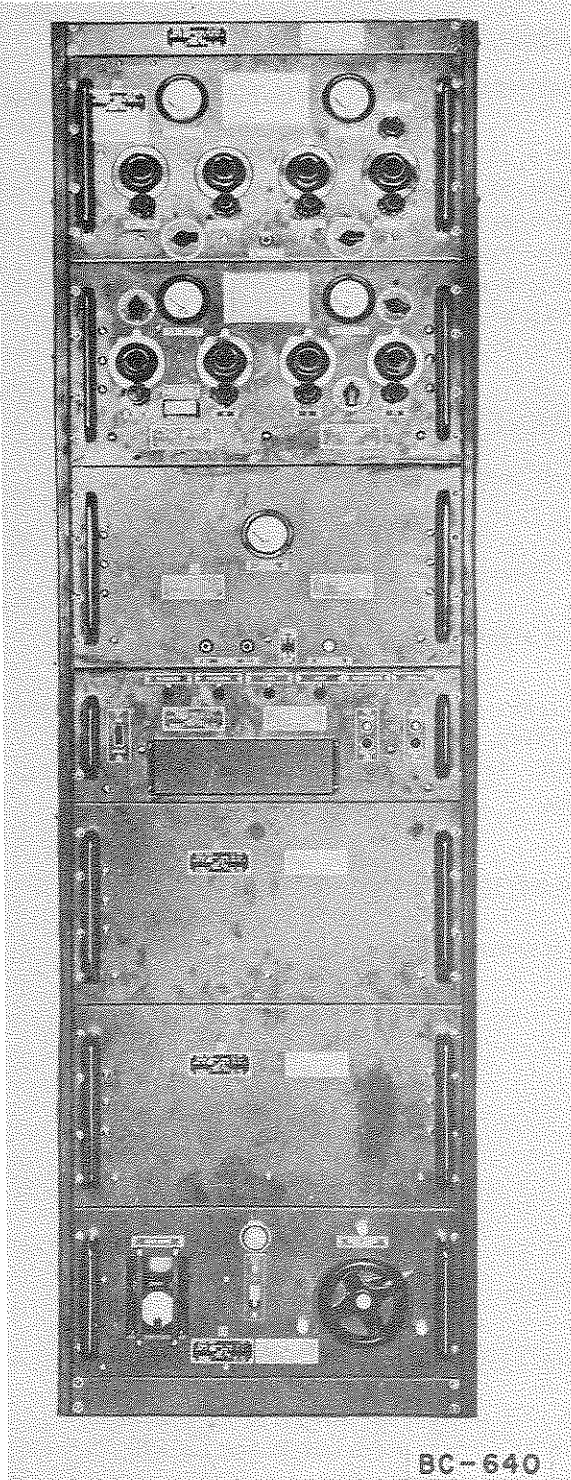


STATUS: Substitute Standard  
 CLASSIFICATION OF EQUIPMENT: Unclassified  
 USING SERVICE: Air Force  
 DATE OF THIS SHEET: 19 May 52

# AN/FRT-TYPE

SERVICE TYPE NUMBER: BC-640  
 RADIO TRANSMITTER



Radio Transmitter BC-640 is a 50-w crystal-controlled, a-m (voice or tone) v-h-f transmitter. Plug-in crystals are used to permit operation on any frequency in the 100 to 156 m-c range. It is normally operated from a fixed ground, or mobile location, for point-to-point or ground-to-air communication, and can be operated locally, or from a remote point up to eight miles away. The addition of repeater equipment extends the range of remote operation.

The output of the transmitter matches 72-ohm coaxial transmission lines, such as Radio Frequency Cable RG-11/U.

Recommended antennas are Antenna Equipment RC-81 and Antenna AN-188.

This radio transmitter and its associated Radio Receiver BC-639 form a single channel, radio link, terminal station, or a part of an aircraft control-net system.

Radio Transmitter BC-640, -A, -B, are interchangeable, operationally, with BC-640-D.

<b>AN/FRT-TYPE</b>		INSTRUCTION LITERATURE: TO 16-40BC640-2
BC-640	:SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT:Unclassified
RADIO TRANSMITTER		USING SERVICE : Air Force
		DATE OF THIS SHEET : 19 May 52

### MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Amplifier Panel PN-9-C	19 x 10-1/2 x 16-1/4	41.5
1	Oscillator Panel PN-9-C	19 x 10-1/2 x 16-1/4	39.0
1	Control Panel PN-11-B	19 x 6-31/32 x 9-5/8	27.0
2	Power Supply Panel PN-12-B	19 x 10-1/2 x 14-1/2	84.0 (each)
1	Power Control Panel PN-13-C	19 x 9 x 9-3/4	40.0
1	Cabinet CS-88-A	21-1/4 x 72-3/8 x 18	210.0
1	Modulator Panel PN-10-C	19 x 10-1/2 x 15	48.0

### OPERATIONAL CHARACTERISTICS

**TACTICAL USE:** Normally issued on any organizational level as project equipment in accordance with AFR 100-17.

**INSTALLATION:** Ground fixed, designed for standard 19-inch relay rack mounting.

**APPROXIMATE RANGE (IN MILES):** (Nominal) Line of sight.

**CAN COMMUNICATE WITH:** AN/ARC-1, -3, -5, -18, -28, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/VRC-1; BC-639, -787; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256; RCK; RCO; SCR-522, -542, -574, -575, -607, -616, -624, -641, -644.

### TECHNICAL CHARACTERISTICS

**FREQUENCY RANGE IN MEGACYCLES:** 100 - 156 (crystal-controlled).

**TYPE MODULATION:** Am.

**TYPE OF SIGNAL:** Voice, mcw.

**POWER OUTPUT:** 50 w.

**POWER REQUIREMENTS:** 860 watts of 110-125/220-250-v, 50/60-cyc, 1 phase, ac.

### PHYSICAL CHARACTERISTICS

Radio Transmitter BC-640-D measures 21-1/4 x 72-3/8 x 18 inches, net weight 601.5 pounds, volume 18.4 cu ft. Packed for either domestic or export shipment: total weight 900 pounds, total volume 55.33 cu ft, 1.38 ship tons. Shipped in 1 package.