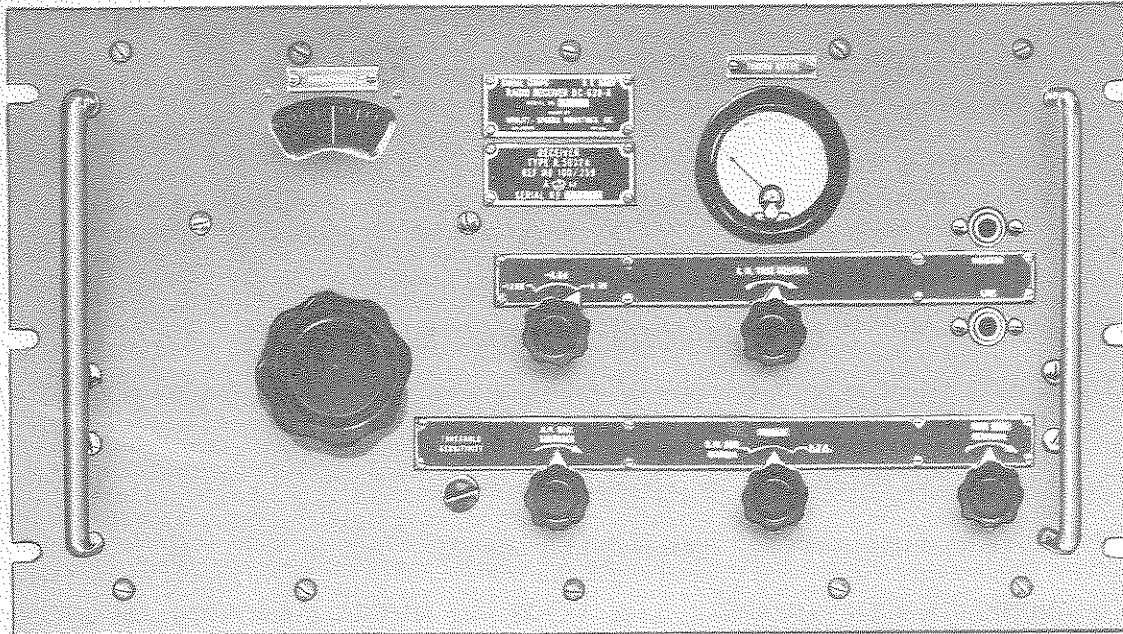


STATUS: Standard	AN/FRC-TYPE
CLASSIFICATION OF EQUIPMENT: Unclassified	
USING SERVICE: Air Force	
DATE OF THIS SHEET: 9 Jun 52	
SERVICE TYPE NUMBER: SCR-644	
RADIO SET	



SRC-644

Radio Set SCR-644 is a fixed, ground, v-h-f, a-m and c-w receiving station (one Radio Receiver BC-639 is shown above) providing simultaneous reception on two channels, and remote control operation of its companion transmitter equipment Radio Set SCR-643. It is normally used for ground-to-air and point-to-point communication.

Control and amplifier units allow received signals from aircraft to be passed on by wire to the flight control center.

This radio set is normally operated in conjunction with Radio Set SCR-643 (transmitting) over telephone lines, from distances of 1/4 to 1-1/2 miles. When cw is used, the distance must not exceed 500-feet.

These receivers are manually tuned, and are crystal monitored by means of Frequency Meter BC-638.

The antenna input circuit is designed to match 72-ohm coaxial cable. Recommended antenna is RC-81-C of which two are used. The nominal output impedance is 600 ohms but satisfactory operation can be had on 200 to 20,000 ohm resistive loads.

Power is supplied by Power Unit PE-99, or any equivalent source of 115 to 120 v, 50/60 cyc, 1 phase, ac.

No housing facilities are provided. It may be housed in any available building, preferably in one room.

AN/FRC-TYPE		INSTRUCTION LITERATURE: TO 16-40SCR644-2
		CLASSIFICATION OF EQUIPMENT: Unclassified
SCR-644	:SERVICE TYPE NUMBER	USING SERVICE : Air Force
RADIO SET		DATE OF THIS SHEET : 9 Jun 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
2	Radio Receivers, BC-639-A	19 x 10-15/32 x 13-9/16	38 each
2	Rectifier, RA-42-A	19 x 6-31/32 x 8-23/32	26 "
2	Control Unit, RM-18	19 x 5-7/32 x 8-31/32	15 "
2	Amplifier, BC-686-A	19 x 10-1/2 x 10-15/32	36 "
1	Power Unit, PE-99-A	28 x 41 x 60	1,140
1	Shelter, HO-3	48 x 66 x 60	2,000

OPERATIONAL CHARACTERISTICS

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

INSTALLATION: Two 19-inch racks for receiving components.

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-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URT-7, -10; AN/VRC-1; BC-640; MAW; MBS; RC-257; SCR-522, -542, -573, -575, -624, -641, -643; TDG; TDQ; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Cw, voice, or tone.

POWER OUTPUT: 1 w into a 600 ohm resistive load for each receiver.

POWER REQUIREMENTS: 4.5 kva with heaters) 110-120 v, 50/60 cyc, 1 phase, ac
1.5 kva without heaters) (supplied by Power Unit PE-99 or equivalent power source).

PHYSICAL CHARACTERISTICS

Radio Set SCR-644 measures 144 x 84 x 84 inches, net weight 9,099 pounds, volume 588 cu ft.
Packed for either domestic or export shipment: total weight 9,500 pounds, total volume 590 cu ft, 14.75 ship tons. Shipped in 15 packages both domestic and export.