

STATUS: Standard

CLASSIFICATION OF EQUIPMENT: Unclassified

USING SERVICE: Air Force, Navy

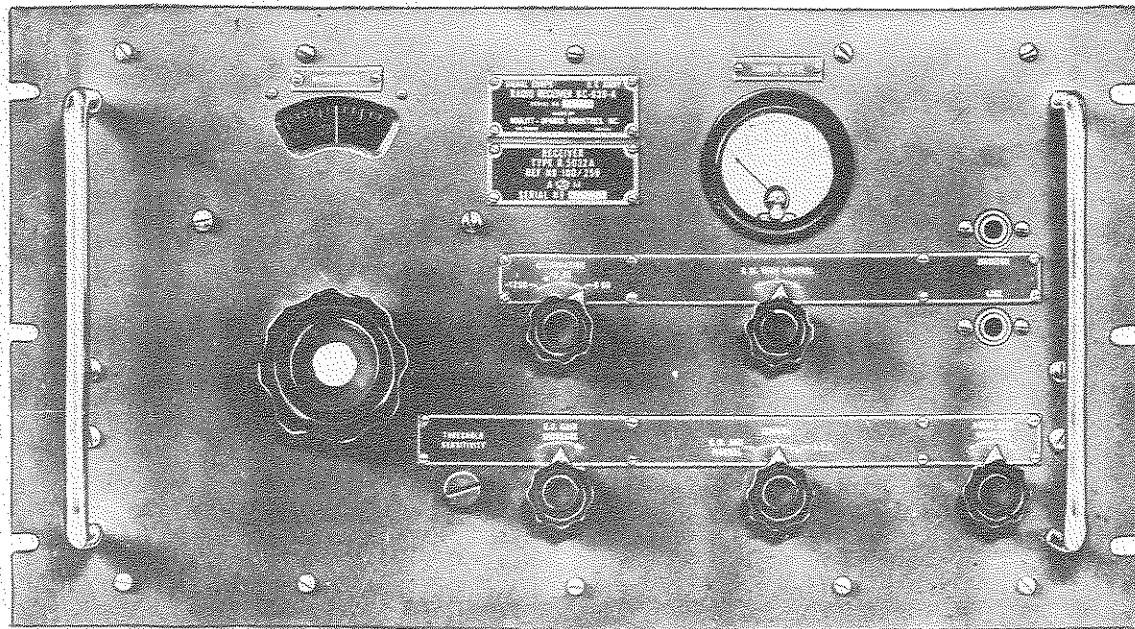
DATE OF THIS SHEET: 7 Jun 52

AN/FRR-TYPE

SERVICE TYPE NUMBER:

BC-639

RADIO RECEIVER



BC-639

Radio Receiver BC-639 is a-m (tone, cw, and icw) receiving equipment used for ground-to-air and point-to-point communication, and in direction finding applications.

Radio Receivers BC-639, BC-639-A, -B and -D are all similar. BC-639, and BC-639-A are operationally identical; BC-639-D is the same as BC-639-B except for a wider audio band width and built-in noise suppression circuit. Noise suppression Modification Kit MC-633 is available for modification of BC-639-A and -B.

The antenna input circuit is designed to match 70-mm coaxial cable. Antenna Equipment RC-81 is recommended (wide band dipole).

Normal output impedance is 600 ohms, but satisfactory operation can be had from 200 to 20,000 ohms.

Power supplies must be requisitioned separately. Rectifier RA-42-A or RA-42-B is used for operation from 90-140/200-250 v, ac; Dynamotor Unit PE-100-A is used for operation from a 6-v, d-c source; and an 80-ampere-hour battery will operate this equipment for approximately 12 hours.

AN/FRR-TYPE	INSTRUCTION LITERATURE: TO 16-40BC639-2, 21, 22
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MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Receiver BC-639	19 x 10-15/32 x 13-9/16	38
1*	Rectifier RA-42-A	19 x 6-31/32 x 8-23/32	26
	or		
1*	Rectifier RA-42-B	19 x 6-31/32 x 8-23/32	26
	or		
1*	Dynamotor Unit PE-100 ⁴	19 x 10-15/32 x 8-11/16	24

*Required but not supplied with BC-639.

OPERATIONAL CHARACTERISTICS

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

INSTALLATION: Ground, fixed.

APPROXIMATE RANGE (IN MILES): 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; TDQ; TDD; TDT; ARC Type 12; Wilcox 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 100 - 156 continuous tuning.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, tone, cw and icw.

POWER OUTPUT: 1 w into 600 ohm impedance.

POWER REQUIREMENTS: General: Plate Supply 210 v, (60 ma) dc; Filament 6.3 v, (3.5 amp) ac or dc.
From an ac source: Using Rectifier RA-42-A or RA-42-B; 60 w, 90-140/200-250 v, 60 cyc, 1 phase, ac.
From a dc source: Using Dynamotor PE-100-A; 60 w, 6 v, (10 amp) dc.

PHYSICAL CHARACTERISTICS

Radio Receivers BC-639, -639-A, -B, -D measure 19 x 10-15/32 x 13-9/16 inches, net weight 38 pounds, volume 2 cu ft. Packed for either domestic or export shipment: total weight 50 pounds, total volume 2.8 cu ft. Shipped in 1 package both domestic and export.