

Radio-Microphone Type BTP-1A

Features

- **Light, compact and completely self contained.**
- **Excellent frequency response- low distortion.**
- **Crystal controlled transmitter for stability.**
- **Automatic gain control to prevent overloading and distortion.**
- **Permits broadcasting from locations otherwise inaccessible.**

Uses

The BTP-1A Radio-Microphone is a crystal controlled portable UHF transmitter and microphone. It is especially adapted to broadcasts by announcers mingling with crowds on the street, at conventions, large stores, golf matches or other locations, where wire connections are difficult or impractical.

The maximum satisfactory range of the BTP-1A is determined largely by the interference level at the receiver location. Under ideal conditions, several miles may be covered; however, building structures or other media possessing a high signal attenuation will limit the working range. Overall transmitted quality is comparable to a network line.

Description

The BTP-1A Radio-Microphone with its battery power pack is housed in an attractively styled aluminum case measuring 11 x 4½ x 3½ inches. Total weight of the unit with batteries is 6 pounds. A 20 inch removable whip antenna projects from the top of the case during operation.

The transmitter portion of the Radio-Microphone is crystal controlled and is designed to operate at any specified frequency between 25 and 28 mc. Maximum power output from the r-f amplifier is approximately 0.2 watt. The carrier is Amplitude Modulated by a Class A audio stage to ensure low distortion.

Automatic gain control is incorporated in the audio amplifier modulation and prevent overloading over a wide range of sound intensity.

The microphone consists of three crystal units operated in series to effect a high output with excellent quality.

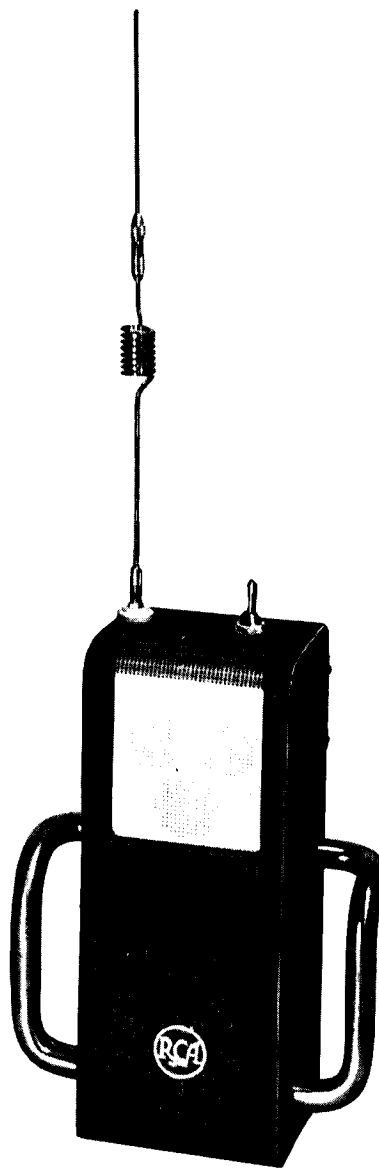
Power for operating the transmitter is supplied by a battery pack which will provide 8 hours of service under normal operating conditions. A "high-low" battery switch is provided to insure uniform quality and power output throughout the life of the battery.

The BTP-1A is shipped complete with antenna, battery, crystal and one set of tubes.

Application for a channel allocation may be made by informal application to F.C.C.

Specifications

Frequency Range_____25 to 28 mc.
Power Output_____Approx. 0.2 watt
Carrier Frequency Stability_____± .01% deviation
Modulation Capability _____85%
Audio Frequency Response (including microphone)
_____±4 db 80 to 6000 cycles
Audio Distortion (90% modulation)_____Less than 8%
Crystal Frequency (specify operating frequency
when ordering)_____1/3 transmitter output frequency



Battery life (approx.):

Continuous Service.....4 hours
Intermittent Service.....8 hours
Dimensions.....Height 11"; Width 4½"; Depth 3½"
(Not including handles or antenna)

Tube Complement:

AF _____ 1 RCA-IL4 Voltage Amplifier
AF _____ 1 RCA-3A4 Modulator
RF _____ 1 RCA-3A5 Oscillator and Tripler
RF _____ 1 RCA-3A4 RF Amplifier
Weight (total) _____ 6 lbs.
Stock Identification _____ M1-28923

Accessories

Spare Crystals Type RC-2A (specify $\frac{1}{2}$ operating frequency) _____ MI-28293

Replacement Battery _____ MI-28291

Spare Set Tubes _____ MI-28292