

M175/M175-LS

TECHNICAL DATA

VHF Belt Pack Transmitters



Feature Highlights

- Crystal controlled VHF frequencies
- Full 50 mW power output
- Uses input cable shield as antenna
- Wide range input limiter for low distortion and maximum signal to noise ratio
- 43 dB range on input gain control
- LED battery status indicator
- Self-adjusting battery compartment accommodates all makes of 9 volt alkaline and lithium batteries
- Machined aluminum housing, panels and rotating battery door
- Laser etched nomenclature

The M175 belt-pack transmitter is a VHF crystal controlled design for use with Lectrosonics 175 or 187 Series receivers and the Long Ranger portable sound system. The machined aluminum housing and spring-loaded belt clip provide a rugged package well suited for professional use. The M175 is a basic model with a single on-off switch. The M175LS model includes a toggle switch that provides noiseless muting of the audio, while leaving the transmitter carrier turned on, which is often desirable when used with the Long Ranger sound system.

The audio input section includes a high quality, low noise preamp with a wide range input limiter to prevent distortion during loud peaks in the audio. A wide range input gain control accommodates essentially any lavalier or headset microphone that use an electret capsule. High output dynamic microphones and modest line level signals can also be used.

Noise and hiss is reduced to very low levels with a type of noise reduction called a "compandor." The compandor processing is idealized for human voice to keep distortion at extremely low levels.

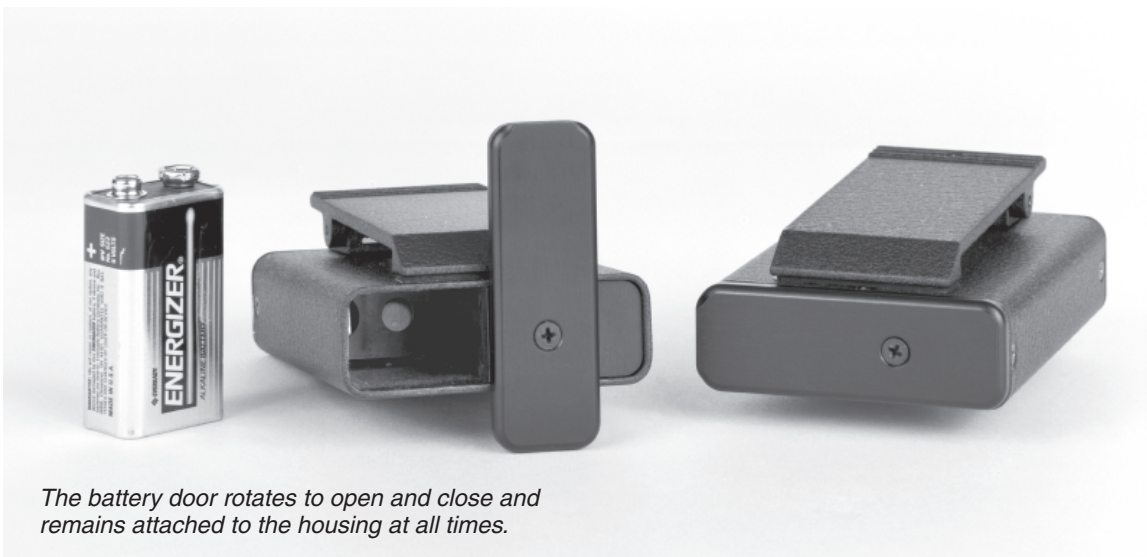
The transmitter operates on a standard 9 volt alkaline or lithium battery. Battery status is indicated by the varying brightness of an LED on the control panel. The battery door rotates to open and close and remains attached to the housing at all times. Self adjusting battery contacts and firm pressure applied by the door assure reliable contact with any known 9 volt battery.

The M175 provides 50 mW of output power and is available on a wide range of VHF frequencies. The band of frequencies between 169 and 172 MHz are low powered allocations that can be used anywhere in the USA. For television production, the M175 is also available on VHF frequencies from 174 to 216 MHz, which covers TV station broadcasts in the USA on channels 7 through 13.

The housing is constructed of extruded and machined aluminum with durable powder coated and anodized finishes. Control panel nomenclature is laser etched into the finish for lasting ruggedness in the field.

The control panels on the transmitters are straightforward layouts and easy to use, even at first glance. Power is turned on and off with a rugged slide switch, mounted in a position that is easy to reach, yet at a low enough profile to prevent accidental operation. The LS model includes a bat handle toggle switch for audio muting that can be operated without having to view the transmitter, even under clothing.

The input gain is adjusted with a recessed pot using a screwdriver supplied with the transmitter. Once set to match a particular user's voice and microphone, this control needs no regular adjustment, so it is recessed below the panel surface to prevent accidental adjustment.



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Specifications

Operating frequencies: 150 to 216 MHz
 RF Power Output: 50 mW
 Deviation: ± 15 kHz
 Spurious Radiation: 50 dB below carrier
 Frequency Stability: $\pm 0.005\%$
 Equivalent Input Noise: -123 dB
 Input Sensitivity: 8 mV to 1.6 V for full modulation
 Input Compressor: Soft Compressor; 12 dB range
 Electret Bias: +5 Volt DC (positive bias)

Antenna: Input cord or microphone body
 Input Jacks: Twist-lock micro for electret microphones
 Battery Indicator: LED indicates battery condition
 Battery Life: Approximately 15 hours
 Controls: Power on/off slide switch
 Recessed audio gain control
 Mute on/off toggle switch (M175-LS only)
 Size: 1.3 x 2.35 x 3.7 inches
 Weight: 6.6 ozs with battery and microphone



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