

TM-125HP Cardioid Condenser Stage-Floor Microphone for Recording

DESCRIPTION

The Bartlett TM-125HP is our High Performance version of the TM-125 boundary mic. While the TM-125 is for sound reinforcement of actors in drama or musicals, the TM-125HP is for recording opera, drama, musicals, solo recitals, choirs, and small classical music ensembles. It's for any application where the mic must be inconspicuous, but the sound quality must be high.

The TM-125HP has 8 dB less self-noise than the TM-125 and a flatter frequency response intended for audio and video recording.

Miniature capsule technology prevents phase cancellations due to sound reflections off the stage floor. This results in a wide, smooth frequency response free of comb filtering, so speech and music sound clear and natural.

With its thick steel housing and rugged construction, the TM-125HP can withstand heavy footsteps. All electronics are inside the housing. A supplied XLR mic cable plugs into a connector in the side of the mic.

FEATURES

- Wide, smooth frequency response provides beautiful recording quality
- Very low noise
- Cardioid pickup pattern reduces pickup of room acoustics for a clearer sound
- High sensitivity and low-impedance balanced output provide a strong, hum-free signal
- Picks up sound while rejecting mechanical vibrations
- Low-profile rugged housing
- Made in USA

SPECIFICATIONS

Type: Cardioid condenser boundary microphone.

Transducer: Electret condenser.

Frequency response: 50 Hz to 20 kHz with sound source 30° above the boundary plane. See Figure 1.

Polar pattern: Cardioid in the horizontal plane; half-cardioid in the vertical plane. See Figure 2.

Impedance: 85 ohms. Recommended load impedance >1000 ohms.

Sensitivity: 16 mV/Pa (-36 dBV/Pa). 1 Pa = 94 dB SPL.

Equivalent noise level (self noise): 14 dBA (0 dB = .0002 dyne/cm²).

Signal-to-noise ratio: 80 dB at 94 dB SPL.

Maximum SPL: 121 dB SPL produces 1% THD.

Cable: 15-foot black 2-conductor shielded cable with tiny XLR connector and XLR connector. Contact us to order longer cables.

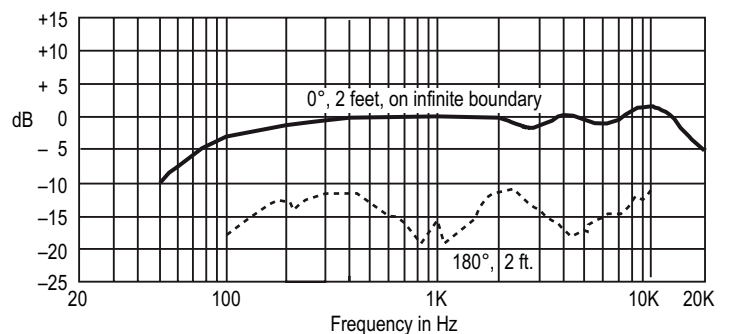


Figure 1. Frequency response

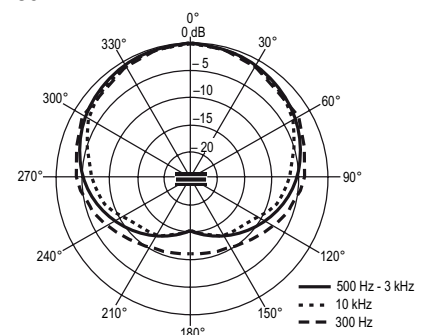


Figure 2. Horizontal plane polar pattern

Operating voltage: 12–48V phantom power.

Current draw: 4 mA.

Materials: Steel housing.

Finish: Black.

Net weight (mic only): 8.3 oz (0.24 kg).

Dimensions: 5.1" long x 3" wide x 0.92" high (13 cm long x 7.6 cm wide x 2.3 cm high).

Output connector: Tiny XLR in mic, XLR-type 3-pin male at end of cable.

SEE OTHER SIDE FOR OPERATING INSTRUCTIONS.

Bartlett Microphones

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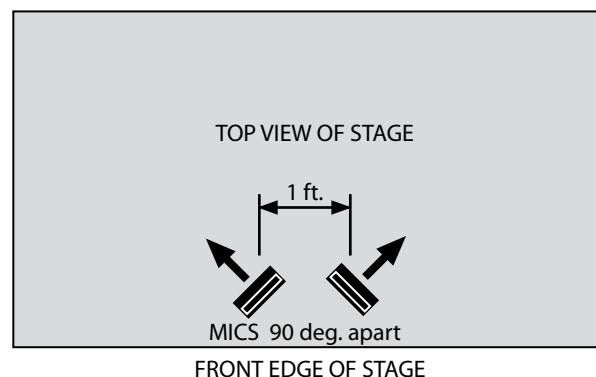
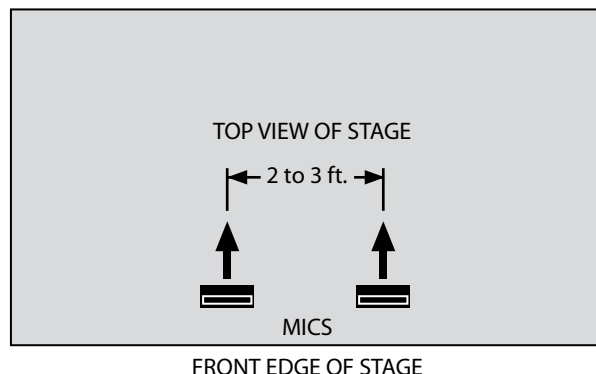
Operation and Placement

1. Plug the supplied cable into the microphone.
2. Plug that cable's XLR connector into a mic cable connected to a mixer mic input that supplies phantom power. Or plug the XLR connector into a phantom power supply, then connect the phantom supply output to a mixer mic input.
3. Turn on phantom power before use.
4. On the bottom of the mic base is a label. On that label is an arrow which indicates the front of the mic. Aim the front of the mic at the sound source.

Point out the microphones to the custodian so that the microphones are not mopped (they are not waterproof).

Place two to four microphones about 1 foot from the front edge of the stage (Figure 3). Use just two mics for "true stereo" recording, either spaced about 2-to-3 feet apart or angled 90 degrees apart and spaced 1 foot.

Figure 3. Typical mic placement on a stage



The mic can be painted, just be very careful not to paint the front and back foam windscreens inside the grille. Follow this procedure:

1. Cover the grille holes with masking tape to keep paint off the foam windscreens.
2. Spray paint the mic.
3. When dry, remove the masking tape from the grille holes.
4. Hand-paint the grille holes -- do not spray-paint.

Architect's and Engineer's Specifications

The microphone shall be the Bartlett model TM-125HP or equivalent. The microphone shall be a half-cardioid, electret condenser, boundary type. Its microphone capsule shall be small enough so that acoustic phase cancellations due to surface reflections occur above the audible band of frequencies. The microphone shall have a smooth frequency response from 50 Hz to 20 kHz and a uniform off-axis response attenuated at least 15 dB at 1 kHz at 180° off axis. A 15-foot (4.6 meter) 2-conductor shielded cable with tiny XLR and XLR connectors shall be included. The microphone shall have a nominal sensitivity of 16 mV/Pa, maximum SPL of 121 dBSPL at 1% THD, and nominal self-noise of 14 dBA. The Bartlett model TM-125HP is specified.

Warranty

Bartlett professional microphones are guaranteed not to malfunction (except in cases of abuse) for a period of three years from the date of first purchase. Mic cables and paint finish are excluded from this warranty.

Service

If the microphone does not operate correctly, first check its cable and other connected cables. Repair or replace them if necessary. Make sure that phantom power is turned on and that the microphone's fader is up in the mixer.

If the microphone still fails to operate, obtain a return authorization number from us by emailing bruce@bartlettmics.com. Then return the mic and its cable in its original packaging to Bartlett Microphones. Please include proof of purchase and a note about the problem. For tech support email bruce@bartlettmics.com.

If the microphone's specifications change, any changes will appear in the latest data sheet available online at www.bartlettmics.com.

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