

GLM-100 GLM-100E

The Crown GLM-100, or "Great Little Mic," is a miniature omnidirectional electret condenser microphone designed for professional recording and sound reinforcement. It offers the quality of large studio microphones, yet is nearly invisible in use.

The **GLM-100** has a low-impedance balanced XLR-type output and is powered by 12 to 48V phantom power. The **GLM-100E**, intended for wireless use, has a medium impedance unbalanced, unterminated output and is powered by 1.1 to 20 VDC, unipolar or bipolar.

Made of a rugged, resilient space-age material, the GLM's molded housing is designed to resist damage from demanding professional use.

The GLM can be clipped or taped onto an acoustic guitar, sax or flute to allow the performer freedom of movement. It can be attached to drum rims to pick up a drum set without the unsightly clutter of boom stands. These attachments can be made using the included mounting hardware. Used as a lavalier microphone, or hidden on a film set, the GLM disappears in use yet provides excellent sound quality.

Performance benefits of the GLM include: a wide, smooth frequency response; excellent transient response; minimal off-axis coloration; very high overload level (150 dB SPL); and very low vibration pickup.

The GLM's housing is designed to improve the high-frequency response of the microphone capsule. In contrast, the frequency response of large microphone capsules often is degraded by the microphone housing (due to sound diffraction).

Included with the GLM-100 is a GLM-UM Universal Mount, a GLM-TB Tie Bar, GLM-BC Belt Clip, and a GLM-WS2 Windscreen.

Included with the GLM-100E is a GLM-TB Tie Bar and GLM-WS2 Windscreen.

Operating Instructions

The GLM-100 requires 12 to 48 V phantom power to operate. Crown makes an AC-powered model PH-4B phantom supply for powering up to four GLMs. Also available is a single-channel phantom supply, Crown model PH-1A, powered by battery or AC adapter. For special applications you can make your own battery supply as suggested in Figure 4.

Using a microphone cable, plug the GLM-100 into a phantom power supply. Connect the power-supply output to a mixer mic input, or if your mixer has phantom power built in, plug the GLM directly into a mixer mic input.

For outdoor or vocal use, place the included GLM-WS2 Windscreen on the microphone to reduce wind noise and breath popping.

The front of the microphone is indicated by the word "FRONT" on the microphone housing.

Although the cable is rugged, excessive abuse such as tugging and twisting will shorten its life. It should last indefinitely if treated with care. The cable has been kept short to allow easy wrapping and to reduce the amount of thin cable on stage.

MINIATURE OMNIDIRECTIONAL MICROPHONES



Specifications

Type: Miniature omnidirectional condenser.

Element: Electret condenser.

Frequency Response (typical): 20 Hz to 20,000 Hz. See Fig. 1.

Polar Pattern: Omnidirectional (see Fig. 2).

Impedance:

GLM-100: 240 ohms balanced. Recommended minimum load impedance 1000 ohms.

GLM-100E: 3500 ohms unbalanced with unipolar powering, 1140 ohms unbalanced with bipolar powering. Recommended load impedance 8000 ohms or greater.

Open Circuit Sensitivity:

GLM-100: 3.2 mV/Pa* (-50 dB re 1 volt/Pa*).

GLM-100E: 8 mV/Pa* (-42 dB re 1 volt/Pa*).

Power Sensitivity: **GLM-100:** -50 dB re 1 mW/Pa*.

Equivalent Noise Level: 28 dB SPL typical (0 dB = .0002 dyne/cm²), A-weighted.

S/N Ratio: 66 dB at 94 dB SPL.

Maximum Sound Pressure Level:

GLM-100: 150 dB SPL produces 3% THD.

GLM-100E: 148 dB SPL produces 3% THD with bipolar power; 120 dB SPL produces 3% THD with unipolar power.

Polarity:

GLM-100: Positive pressure on the diaphragm produces positive voltage on pin 2 with respect to pin 3 of output connector.

GLM-100E: Positive pressure on the diaphragm produces positive voltage on white lead with respect to shield.

Operating Voltage:

GLM-100: Phantom power, 12 to 48 volts DC, positive voltage on pins 2 and 3 with respect to pin 1 of output connector.

GLM-100E: 1.1 to 20 VDC, unipolar or bipolar.

Current Drain:

GLM-100: 1.1 mA.

GLM-100E: 25 microamperes (unipolar power); 0.5 milliamperes (bipolar power).

Materials: Black PVC housing.

Cable:

GLM-100: 8-foot, black, permanently attached cable with rugged strain/flex relief and 3-pin pro audio connector.

GLM-100E: 4-foot, black, two-conductor shielded cable with no connector. White: audio, red: B+, shield: ground.

Weight: 1 ounce (27.5 grams) without connector, 2.8 ounces (78.5 grams) with connector.

Fig. 1

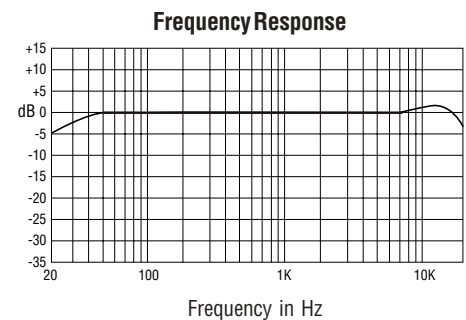
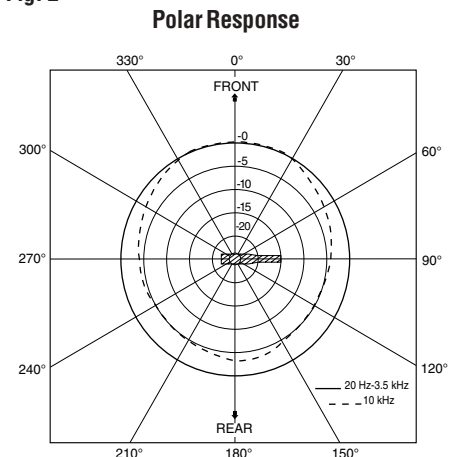


Fig. 2



Dimensions: See Fig. 3 on reverse side.

Included Accessories:

GLM-100: GLM-UM Universal Mount, GLM-TB Tie Bar, GLM-BC Belt Clip, and a GLM-WS2 Windscreen.

GLM-100E: GLM-TB Tie Bar and GLM-WS2 Windscreen.

Optional Accessories: Crown PH-4B Phantom Power Supply (AC powered, 4 channels), Crown PH-1A Battery Phantom Supply (battery or AC adapter powered, single channel, 475 hours battery life with GLM-100).

*1 pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL.

GLM-100 GLM-100E

As with all electret condenser microphones, the GLM should be kept out of hot environments (greater than 130 degrees F or 54.5 degrees C). Following this suggestion will ensure years of reliable performance from the mic capsule.

Suggestions for Use

Detailed GLM application notes are in the *Crown Microphone Application Guide* available free from your dealer, directly from Crown, or online at www.crownaudio.com.

For wireless applications, use the GLM-100E. Wiring diagrams for various transmitter models are in *Crown Technical Bulletin #3, Connections for Wireless Microphone Applications*. This document is available free from your Crown dealer, directly from Crown, or online at www.crownaudio.com.

Architects' and Engineers' Specifications

GLM-100

The microphone shall be the Crown GLM-100 or equivalent. The microphone shall be an omnidirectional electret condenser type requiring 12 to 48 volts phantom powering. A smooth frequency response from 20 Hz to 20,000 Hz shall be obtained, with a uniform off-axis response.

The microphone shall have an open-circuit sensitivity of 3.2 mV/Pa. A permanently attached, 8 foot (2.5m), two-conductor, shielded cable with 3-pin pro audio connector shall be supplied with the microphone. The microphone shall accept a 150 dB SPL input while providing no greater than 3% THD (open circuit termination). Equivalent noise shall be 28 dBA typical (0 dB = .0002 dyne/cm²). SPL for 3% THD shall be 150 dB. The Crown GLM-100 microphone is specified.

GLM-100E

The microphone shall be the Crown GLM-100E or equivalent. The microphone shall be an omnidirectional electret condenser type requiring 1.2 to 20 VDC powering. A smooth frequency response from 20 Hz to 20,000 Hz shall be obtained, with a uniform off-axis response.

The microphone shall have an open-circuit sensitivity of 8 mV/Pa. A permanently attached, 4 foot (1.2m), two-conductor, shielded cable with an unterminated end shall be supplied with the microphone. The microphone shall accept a 150 dB SPL input while providing no greater than 3% THD (open circuit termination). Equivalent noise shall be 28 dBA typical (0 dB = .0002 dyne/cm²). SPL for 3% THD shall be 150 dB. The Crown GLM-100E microphone is specified.

Warranty

Crown professional microphones are guaranteed against malfunction for a period of three years from date of original purchase. See enclosed warranty sheet for additional information.

Service

If the microphone fails to work, replace or repair any additional mic cables, replace batteries and check the power supply. If service is required, return the microphone in its original packaging to **Crown Factory Service, 1718 W. Mishawaka Rd., Elkhart, IN 46517**. For further assistance or technical support call 800-342-6939.

Fig. 3

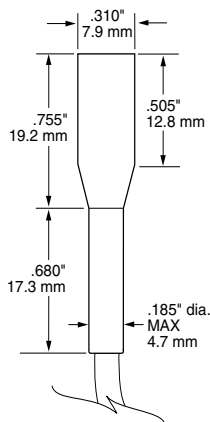
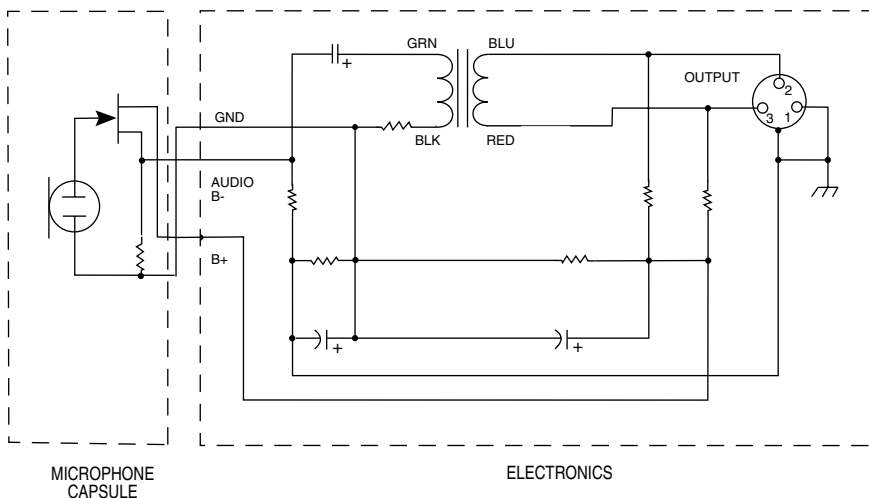
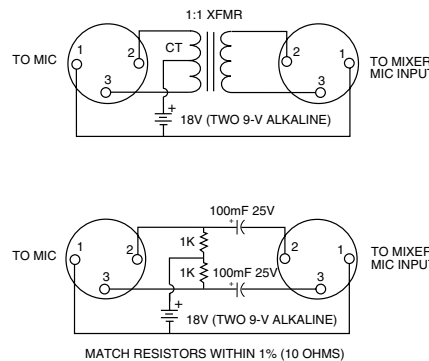


Fig. 4



GLM-100 Schematic



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