

# 684B Professional Omnidirectional Microphone

684B



## Features

- Extended Frequency Response
- Omnidirectional Pickup
- Professional Recording Quality
- Comfortably Balanced for Hand Use
- 3-Pin Connector
- Attractively Styled
- Sturdy Reliable Construction
- Withstands Humidity and Temperature Extremes
- Light Weight — Small Size
- Impervious to Shock and Blast
- Rugged Polyester Foam Filter
- Specially Designed Mylar® Diaphragm
- "Non-Glare" T.V. Finish
- Positive "Lock-In" Safety Facility

### FOR THE PROFESSIONAL BROADCASTING — RECORDING — TELECASTING

Designed to meet the requirements of the professional, Altec's new 684B microphone offers the latest acoustical developments in dynamic microphone design. This microphone features a frequency response that is tilted 4dB from 100 to 10,000 Hz, a feature preferred by engineers for all sound systems and sound reinforcement applications where crispness and high intelligibility of speech is desired. This feature also reduces the pickup of low frequency room reverberation and, thereby, reduces the pickup of room "rumble" and "prop" noise. Its excellence in performance and reliability will satisfy the most critical broadcast, recording, or sound engineer. The polar pattern of the 684B is omnidirectional, output level is an extremely efficient  $-55$  dbm/10 dynes/cm<sup>2</sup>, and the response is uniform from 35 to 20,000 cycles. The output impedance is 150/250 ohms.

The 684B is a truly professional type unit, one of a series of Altec microphones incorporating the exclusive Altec Diaphragm. This newly developed diaphragm of Mylar® polyester provides wide range and uniform frequency response as well as being highly resistant to shock or blasts, and is unaffected by corrosive chemical fumes. Both the diaphragm and the pressure element are fully protected from breath-blast by a rugged polyester foam filter located at the sound entrance.

The 684B microphone comes with a 3-pin connector which accepts the Cannon XLR-3-11C plug, the standard of the industry. The new 3-pin connector allows easy, convenient connection of the microphone to existing cable assemblies commonly used in recording, broadcasting, and public address systems without the need for adapters. This convenience also lowers the installation cost.

A slip-on adapter is supplied with the microphone to permit quick and easy removal from the stand. Finish is two-tone green and black enamel which prevents unwanted glare when the microphone is used before the television camera. Each microphone comes complete with 15 feet of 2-conductor shielded cable (100% shield), and an individual calibration curve recorded in an Altec anechoic chamber with a servo-driven precision graphic recorder.

The microphone may be mounted on the ALTEC 180A Shock Mount, which is designed for simple screw-in insertion between the microphone and stand or boom. It will prevent mike-reproduction of external vibrations.



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**SPECIFICATIONS**

<b>Type:</b>	Moving Coil Dynamic.
<b>Frequency Response:</b>	35 to 20,000 Hz (calibration chart included).
<b>Output Impedance:</b>	150/250 Ohms.
<b>Output Level:</b>	-55 dBm/10 dynes/cm <sup>2</sup> .
<b>Pickup Pattern:</b>	Omnidirectional.
<b>Hum:</b>	-120 dB (Ref.: 10 <sup>-3</sup> Gauss).
<b>Dimensions:</b>	1 1/8" diameter at top (1 1/2" largest diameter) 7 1/2" long not including plug.
<b>Weight:</b>	8 ozs. (not including cable and plug).
<b>Finish:</b>	Two-tone baked enamel, black and dark green.
<b>Mounting:</b>	Separate "Slip-on" adapter No. 13798 furnished. Adapter has standard 5/8"-27 thread. Swivel mounting permits proper positioning of the microphone on all stands. Microphone includes 15 feet, 2-conductor shielded cable (100% shield) with plug for connection to microphone.
<b>Accessories:</b>	See "Microphone Accessories" sheet for desk or floor stands, on-off switches, adapters, and other microphone accessories.

**ARCHITECTS AND ENGINEERS SPECIFICATIONS**

The microphone shall be of the dynamic moving coil type having the following specifications. The microphone shall have a diaphragm of Mylar® with tangential compliance to provide full protection against extreme shock and blasts. The diaphragm shall withstand exposure to temperature variations from -20 to +160 degrees Fahrenheit and shall not be susceptible to the effects of corrosive fumes. The microphone sound entrance shall be protected by an internal polyester foam filter to prevent breath-blast. The frequency response shall be uniform from 35 to 20,000 Hz. The case shall be dual conical taper in shape and shall not measure more than 1 1/2" in diameter in its largest dimension and shall be no longer than 7 1/2" excluding connector. The color of the microphone shall be "non-glare" dark green and black. The microphone shall be furnished complete with a slip-on swivel adapter for mounting on a microphone stand. The microphone shall utilize a special "lock-in" facility, permitting instantaneous insertion and removal from the swivel adapter with a minimum of effort on the part of the performer or user, yet providing complete protection from accidental slippage of the microphone, regardless of positioning. The output impedance shall be 150/250 ohms balanced to ground. Output level shall be -55 dBm/10 dynes/cm<sup>2</sup>. The microphone shall accept a standard 3-pin connector, such as the Cannon XLR-3-11C, directly without the use of adapters. Microphones supplied under this specification shall not be of the multiple impedance type thereby eliminating the possibility of the microphone being installed with the improper matching impedance. The microphone serial number shall be clearly stated on the microphone and on the accompanying factory calibration curve. The factory calibration curve shall be a complete record of the frequency response of the microphone and shall be submitted to the owner upon completion of the installation. The microphone shall be furnished complete with 15 feet of 2-conductor shielded cable (100% shield) and a plug for connection to the microphone.

Any microphone not meeting all of these requirements shall be deemed unacceptable under these specifications.

This microphone shall be Altec Lansing Model 684B.

**NOTICE**  
We recommend that you obtain your Altec products from factory trained authorized Altec Sound Contractors and Distributors. This will assure you of proper installation, a continuing source of knowledgeable advice, service, and quick warranty protection.