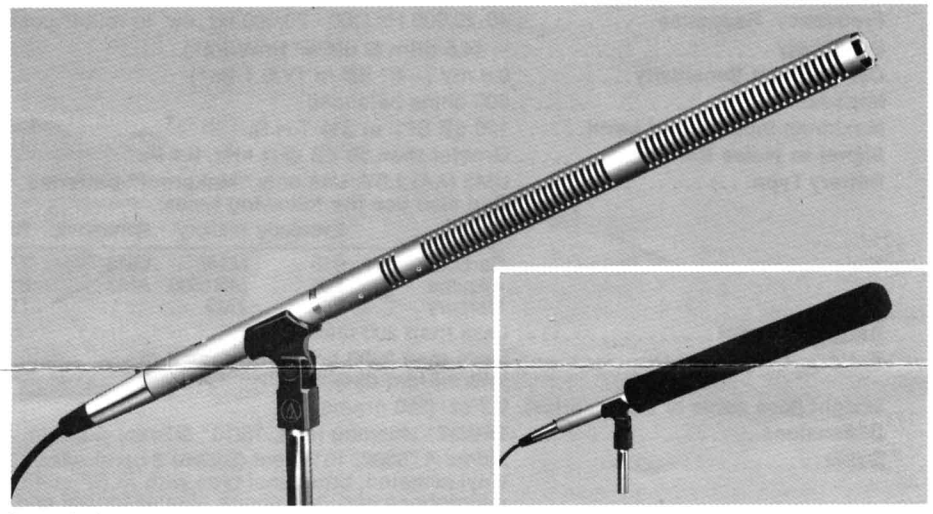
INSTRUCTIONS AND SPECIFICATIONS

audio-technica

AT815a Condenser Line Microphone



Description

The Model AT815a is a wide-range condenser microphone with a unidirectional polar pattern specifically designed to provide the narrow acceptance angle desirable for long distance sound pickup. It was created for professional recording, broadcasting, and film/TV sound and is equally suited for serious amateur recording, high quality sound reinforcement and other demanding sound pickup applications requiring excellent sound rejection from the sides and rear. The AT815a features a balanced, low-impedance output and professional-quality cable connector.

Audio-Technica engineers have utilized the newest low-mass electret technology in the quest for superior performance. The permanent charge is now on the fixed back plate, rather than on the moving element. With the A-T "back plate" construction, a gold-vaporized diaphragm just 4 microns thick (about 0.00016 of an inch) can be used. This reduces moving mass by one-third, improving frequency response and transient response while reducing distortion. Only a common AA penlight battery is needed to power the FET impedance-matching network built into the microphone. Current demands are so low that battery life exceeds 3000 hours in normal intermittent service.

The polar response of the Model AT815a has been designed to provide excellent on-axis sound pickup with maximum rejection of sounds originating at the sides or rear. This narrow acceptance angle is achieved with a combination of gradient and line interference principles. The result is useful particularly for applications where high sensitivity must be maintained over longer than normal distances. The AT815a is also well suited for both boom and handheld use in TV and film production, ENG, outdoor nature recording, and similar specialized applications.

The high sensitivity of the AT815a assures useful output under most circumstances, and it is designed to provide a distortion-free signal even in sound fields as loud as 120 dB. Sounds approaching this intensity may require use of an attenuator between the microphone and electronics input to avoid overloading caused by excessive signal strength.

The Model AT815a is enclosed in a rugged housing with a low-reflective matte satin nickel finish. A foam windscreen is provided for outdoor or boom use. A recessed switch at the base of the microphone handle provides a choice of flat frequency response for full range sound pickup or rolloff of frequencies below 100 Hz for reduction of ambient background noise.

A built-in 3-pin cable connector mates with a professional XLRF connector on the 16½-foot, 2-conductor shielded cable provided. A snap-in microphone stand adapter for mounting to any stand with 5/8″-27 threads is included.

The microphone is protected by a specially compartmented carrying case designed to hold the microphone, cable, windscreen and stand adapter. A line of accessories designed to increase the utility of your AT815a is also available from your A-T dealer.

Operation and Maintenance

Before attempting operation, install the battery. Unscrew the head of the microphone just below the nameplate. Place the battery in the handle compartment, then reassemble the microphone. Be certain to observe battery polarity as indicated (+ end up). Replacement AA batteries are readily available. While standard "penlight" batteries will operate the microphone satisfactorily, alkaline or mercury batteries are preferred for longer service life. Only "leakproof" batteries should be used.

While a modern condenser microphone is not unduly sensitive to humidity, temperature extremes can be harmful. Exposure to high temperatures can result in gradual and permanent reduction of the output level. Avoid leaving the microphone in the open sun or areas where the temperature exceeds 110°F (43°C) for appreciable periods of time. Extremely high humidity should also be avoided if possible.

Output is balanced, low impedance. The balanced signal appears across the two interior wires, while the shield grounds the microphone and protects from hum and noise pickup.

The microphone is designed to operate into standard balanced (3-pin) low impedance inputs with the shield connected to pin #1, the red wire to pin #2 and the white wire to pin #3 (see diagram). This insures that the microphone is electrically in phase with other Audio-Technica microphones and is in agreement with industry convention.

FREQUENCY RESPONCE