

ATM25 HIGH-SPL DYNAMIC INSTRUMENT MICROPHONE

Description

The Model ATM25 is a wide-range moving coil dynamic microphone with a hypercardioid pickup pattern. It has been specially engineered to meet the most critical requirements of high-quality sound reinforcement systems and to meet the needs of professional musicians. It is also excellent for studio and remote broadcasting and recording as well as serious amateur recording.

The ATM25 is particularly suited to applications involving high sound pressure levels. Response is tailored to provide natural reproduction when used by instrumental performers at very short distances. It is especially well-suited for use on bass instruments such as kick-drums.

Extensive laboratory testing and development of every facet of performance distinguishes the Model ATM25. Rigid quality standards and precise manufacturing techniques insure the finest microphone performance available.

A low-mass diaphragm/voice coil assembly and high-efficiency magnetic circuit combine to provide both excellent fidelity and sensitivity to match most electronic inputs. Its robust construction makes the ATM25 ideal for applications requiring unusual dependability. It features balanced low-impedance output and professional-quality connectors.

The hypercardioid polar pattern of the ATM25 features a narrower acceptance angle than conventional cardioid microphones. This allows the ATM25 to "focus" on the desired sound location (such as the "sweet spot" of a drum head) and reject ringing or other unwanted sounds outside the pickup pattern.

With its efficient motor system, large diaphragm and well-controlled polar pattern, the ATM25 is a very effective tool in picking up other highly dynamic instruments such as timpani, piano (especially the bass section), bass (string and electric), harp and tuba.

In addition, the hypercardioid polar pattern provides excellent isolation between instruments during performances and while recording. The pattern is useful in controlling feedback, reducing pickup of

unwanted sounds, and can be used to allow greater microphone-to-performer distance with equal noise compared to an omnidirectional microphone.

The ATM25's relatively high sensitivity assures useful output and an excellent match to most mixers, tape recorders, or amplifier inputs. It will provide undistorted output even in very intense sound fields. In some cases, however, an attenuator such as the Audio-Technica Model AT8202 may be required between the microphone and amplifier to avoid overloading sensitive input stages.

The Model ATM25 is enclosed in a rugged housing with a low-reflectance matte finish. An internally shock-mounted capsule reduces handling and cable noise. A built-in cable connector mates with professional XLR connectors. The integral microphone clamp permits mounting on any microphone stand with 5/8"-27 threads.

A compact, shock-absorbing carrying case is provided to hold and protect the microphone and stand clamp. A line of accessories is also available from your A-T dealer.

Operation and Maintenance

Output is balanced low impedance. The output connector mates with XLR cable connectors. The balanced signal appears across Pins 2 and 3, while the ground (shield) connection is Pin 1. Output is phased so that positive acoustic pressure produces positive voltage at Pin 2 in accordance with industry convention.

For balanced low-impedance inputs, Model AT8314 Cable (or equal) can be used. An accompanying drawing shows the wiring used at the equipment end of this cable. Note that other manufacturers may employ other color codes for cable conductors. Regardless of color code, it is important that both ends of each cable are wired consistently, with the shield always connected to Pin 1 at both ends, Pin 2 connected to Pin 2, and Pin 3 to Pin 3. This will assure that all microphones are electrically in phase and reduce problems of uneven response and sound cancellation when two microphones are used in close proximity.



For unbalanced low-impedance inputs, Model AT8312 Cable (or equal) is recommended. A 1/4-inch phone plug is prewired to the equipment end of this cable as shown in the drawing.

For use into a high impedance input, use Model AT8314 Cable (or equal). Plug this cable into a Model AT8201 Line Matching Transformer which has an integral 1/4-inch phone plug for plugging directly into the amplifier input. Locating the transformer at the equipment input minimizes pickup of noise and hum, typical problems of long high-impedance lines. Use of the CP8305 Hi-Z transformer cable is also recommended.

To check for phasing of any two microphones, connect them both to the same input (using a "Y" connector) and speak into both while holding them closely together. If output is reduced or distortion is higher than with a single microphone at the same volume setting, reverse the phase of one microphone by interchanging the signal wires of one cable.

While every effort has been made to provide an extremely rugged microphone, reasonable care should be taken to avoid abuse. The microphone can withstand a wide range of temperatures and humidity without damage. Care should be observed to keep foreign particles from entering the windscreens. If exposed to an environment with small iron or steel filings (on a workbench, for example) these fine metal particles can accumulate on the diaphragm and reduce low frequency response. Excessive accumulation of dirt on the windscreens will reduce high frequency response.



