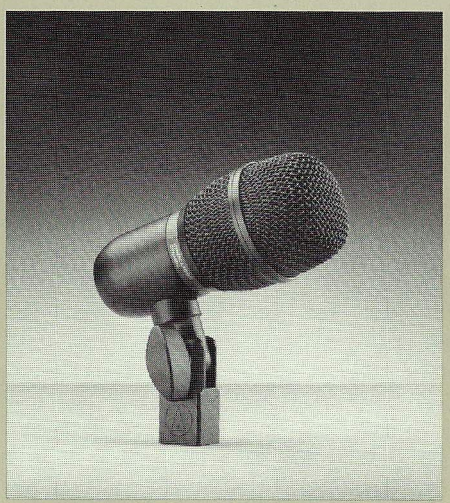
PRO 25

HIGH-SPL DYNAMIC INSTRUMENT MICROPHONE

Pro Series
MICROPHONES



Description

The Audio-Technica Model PRO 25 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 recording as well as serious amateur recording.

The PRO 25 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 kickdrums.

Extensive laboratory testing and development of every facet of performance distinguishes the Model PRO 25. 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 PRO 25 ideal for applications requiring unusual dependability. It features a balanced low-impedance output and professional-quality connectors.

The hypercardioid polar pattern of the PRO 25 features a narrower acceptance angle than conventional cardioid microphones. This allows the PRO 25 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.

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.

With its efficient motor system, large diaphragm and well-controlled polar pattern, the PRO 25 is a very effective tool in picking up other highly dynamic instruments such as timpani, piano (especially the low register), bass (acoustic and electric), drums (kick, tom-toms, snare), electric organ, harp, and trombone. It is also effective for vocal pick-up where low frequency emphasis is desirable.

The relatively high sensitivity of the PRO 25 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 PRO 25 is enclosed in a rugged housing with a low-reflectance matte finish. An internally shock-mounted capsule reduces handling and cable noise. The one-piece steel grille is extremely rugged and provides "pop" protection for vocals. For outdoor use, due to the low-frequency energy available from the PRO 25, the AT8114 windscreen is recommended. A built-in cable connector mates with professional XLRF-type connectors. The integral microphone clamp permits mounting on any microphone stand with 5/8"-27 threads.

Operation and Maintenance

Output is balanced low impedance. The output connector mates with XLRF-type 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.

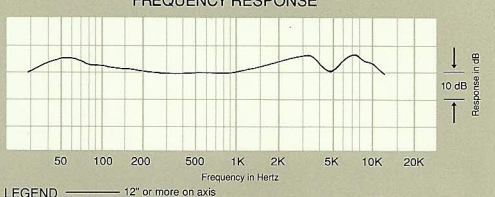
For unbalanced low-impedance inputs, Model AT8312 Cable (or equal) is recommended. A 1/4" phone plug is pre-wired to the equipment end of this cable as shown in the drawing.

For use into a high impedance input, use Model AT8314 Cable (or equal). Plug this cable into a Model CP8201 line matching transformer which has an integral 1/4" phone plug for plugging directly into the amplifier input. Locating the transformer at the equipment input minimizes pickup of noise and hum, problems typical 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 and equidistant. 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 windscreen. 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 windscreen will reduce high frequency response.

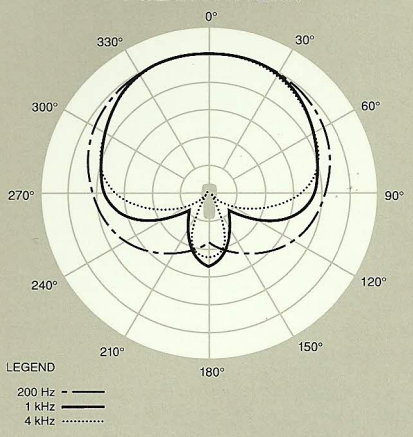
FREQUENCY RESPONSE



audio-technica®

PRO 25

POLAR PATTERN



SCALE IS 5 DECIBELS PER DIVISION

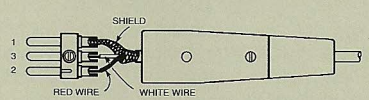
PRO 25 SPECIFICATIONS†

Element	Moving Coil Dynamic
Polar Pattern	Hypercardioid
Frequency Response	30-12,000 Hz
Sensitivity	−57.8 dBm (0 dB = 1 mW/1 Pa*)
Open Circuit Sensitivity	2mV (−54 dB re 1V/1 Pa*)
Impedance	600 ohms
Weight (less cable and clamp)	9.5 oz (270 grams)
Dimensions	4.45" (113.0 mm) long, 2.13" (54.0 mm) head diameter.
Output Connector	Integral XLRM-type 3-pin.
Accessories Furnished	Integral stand clamp

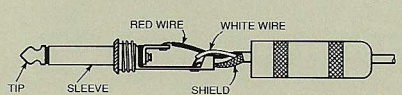
†In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

* 1 Pascal = 10 dynes/cm² = 10 microbars

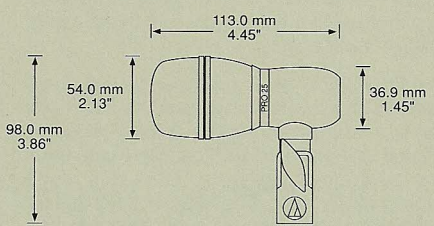
XLRM-TYPE PLUG WIRING
LOW IMPEDANCE BALANCED



1/4" PHONE PLUG WIRING
LOW IMPEDANCE UNBALANCED



PRO 25 DIMENSIONS



Optional Accessories:

Model AT8114 foam windscreen (slip-on).

Model CP8201 line matching transformer (Lo-Z to 50,000 ohms).

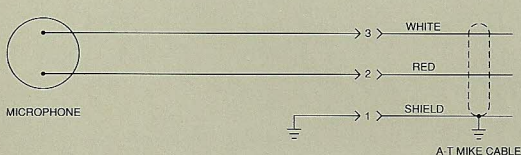
Model AT8202 adjustable in-line attenuator for use with low-impedance microphones.

Model CP8305 16.5 ft (5m) 2-conductor shielded, vinyl-jacketed broadcast-type cable with XLRF-type connector at microphone end and Lo- to Hi-Z transformer with 1/4" phone plug at output end.

Model AT8312 2-conductor, shielded, vinyl-jacketed, broadcast-type cable with XLRF-type connector at microphone end, 1/4" phone plug at equipment end. Available in 10', 20', & 25' lengths.

Model AT8314 2-conductor, shielded, vinyl-jacketed, broadcast-type cable with XLRF-type connector at microphone end, XLRM-type connector at equipment end. Available in 10', 20', 25', 30', 50', & 100' lengths.

PRO 25 WIRING DIAGRAM



POSITIVE (INWARD) ACOUSTIC PRESSURE ON DIAPHRAGM PRODUCES POSITIVE VOLTAGE AT PIN 2.

ONE YEAR LIMITED WARRANTY

Audio-Technica microphones and accessories purchased in the U.S.A. are warranted for one year from date of purchase by Audio-Technica U.S., Inc. (A.T.U.S.) to be free of defects in materials and workmanship. In event of such defect, product will be repaired promptly without charge or, at our option, replaced with a new product of equal or superior value if delivered to A.T.U.S. or an Authorized Service Center, prepaid, together with the sales slip or other proof of purchase date. PRIOR APPROVAL FROM A.T.U.S. IS REQUIRED FOR RETURN. This warranty excludes defects due to normal wear, abuse, shipping damage, or failure to use product in accordance with instructions. This warranty is void in the event of unauthorized repair or modification.

FOR RETURN APPROVAL AND SHIPPING INFORMATION, contact the Service Department, Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224.

Except to the extent precluded by applicable state law, A.T.U.S. WILL HAVE NO LIABILITY FOR ANY CONSEQUENTIAL, INCIDENTAL, OR SPECIAL DAMAGES; ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE EXPIRES WHEN THIS WARRANTY EXPIRES.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

audio-technica®

AUDIO-TECHNICA U.S., INC., 1221 Commerce Drive, Stow, Ohio 44224

Form No. 0320-0791-00 © 1990 Audio-Technica U.S., Inc.

Printed in U.S.A.