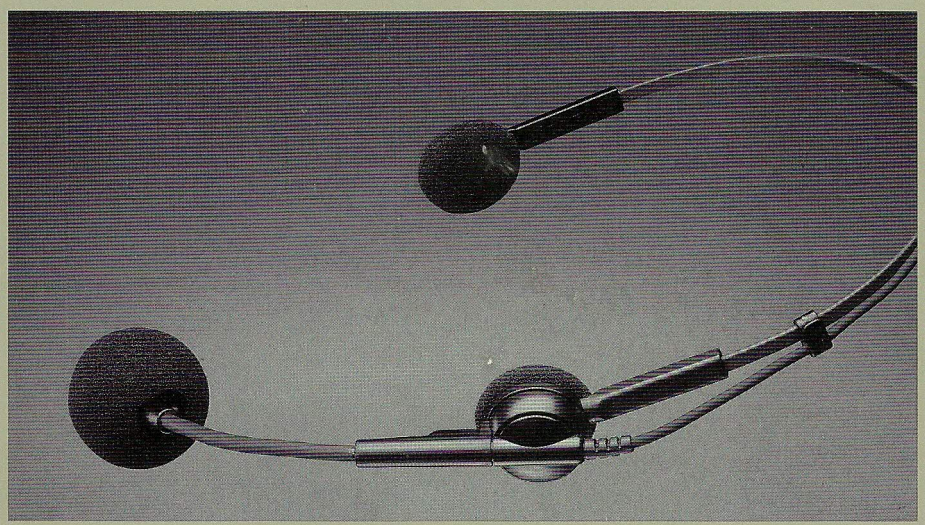
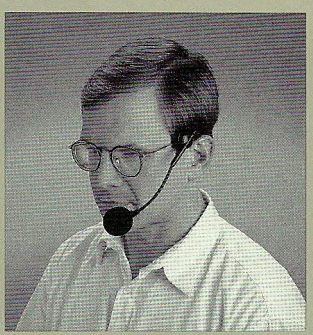
PRO 8HE

Pro Series

MICROPHONES

Hi-ENERGY® HEADWORN HYPERCARDIOID DYNAMIC MICROPHONE





Description

The PRO 8HE is a light-weight, headworn, dynamic microphone specifically designed for performing musicians, aerobics instructors and others who require a professional-quality microphone with hands-free operation. Featuring a Hi-ENERGY® neodymium magnet with almi-chromate coating, the motor structure ensures excellent transient and frequency response, reduces distortion, and provides a high output level not normally achieved by other headworn dynamic microphones. The result is crisp, clean vocal pickup.

The combination of hypercardioid polar pattern and headworn design in the PRO 8HE provides suppression of background noise that is significantly improved over that of full-size, stand-mounted cardioid microphones.

Important features — a mic capsule moisture barrier, a durable cable assembly and a covered stainless steel headband, which can be gently flexed to adjust for a comfortable, stable fit around the back of any head — offer improved reliability under adverse operating conditions.

The PRO 8HE is permanently connected to an ultra-flexible 16.5' (5 m) 2-conductor shielded cable terminated with a professional XLRM-type connector. The microphone has a low-reflectance finish.

Operation and Maintenance

For maximum stability and minimum visibility, the adjustable headband should be worn around the ***back*** of the head, with each cushioned support pad resting on the temple in front of the ear. A flexible mic boom is pivot-mounted to the headband, allowing the user to orient the assembly so that the microphone descends from either the left or right side. Both headband and mic boom have a moisture-proof protective coating to guard against deterioration. Two open-pore foam windscreens, one large for ultra-close use and one small, are included, either of which simply slips over the head of the microphone to reduce wind noise and "popping." The cable should remain clipped to the headband, with some slack at the boom connection.

After use in high-moisture applications, such as aerobics instruction, on-stage performing, etc., removing the foam screen, wiping off the headset with a towel and permitting it to air-dry will help maintain the PRO 8HE's excellent performance. (Do not store in a closed space, such as a plastic bag, until all moisture has evaporated.)

Output is low impedance balanced. The XLRM-type 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, AT8314 cable (or equal) is recommended. 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, Pin 2 connected to Pin 2, and Pin 3 to Pin 3. This will ensure that all microphones are electrically in phase and reduce problems of uneven response and sound cancellation when two microphones are used close to each other.

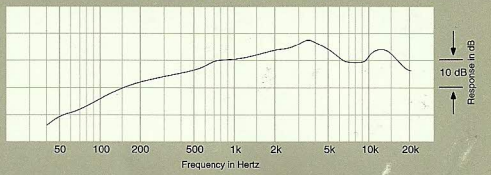
For unbalanced low-impedance inputs, AT8312 cable (or equal) is recommended. A 1/4" phone plug is wired to the equipment end of the AT8312 cable.

For use into a high-impedance input, use AT8314 cable (or equal). Plug this cable into a CP8201 line matching transformer which has an integral 1/4" phone plug for connecting directly to the amplifier input. Locating the transformer at the equipment input minimizes pickup of noise and hum, typical problems experienced with long high-impedance lines. Use of the CP8305 Hi-Z transformer cable is also recommended.

The high-sensitivity neodymium design assures useful output and an excellent match to most mixer, tape recorder 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 AT8202 may be required between the microphone and preamplifier to avoid overloading sensitive input stages.

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 the microphone is exposed to an environment with small iron or steel filings (on a workbench, for example) these fine metal particles can accumulate on the diaphragm, reducing low-frequency response. Excessive accumulation of dirt on the windscreen will reduce high-frequency response.

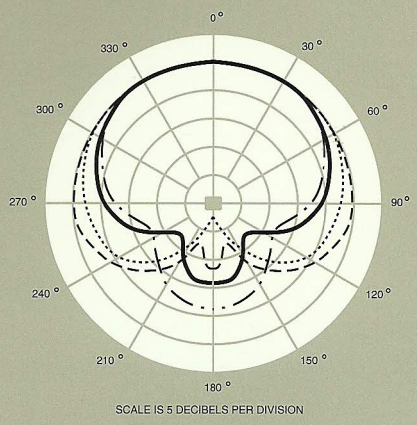
Frequency Response



audio-technica®

PRO 8HE

Polar Pattern



SCALE IS 5 DECIBELS PER DIVISION

LEGEND

200 Hz
1 kHz
5 kHz
8 kHz

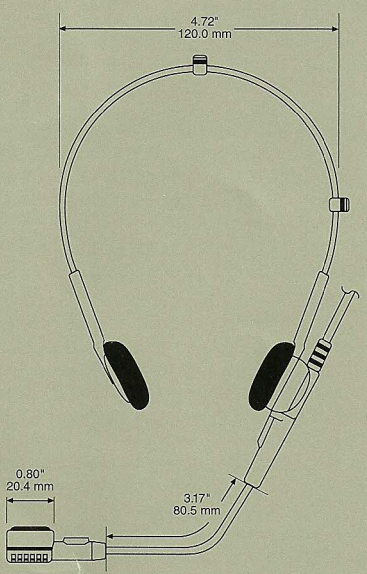
PRO 8HE SPECIFICATIONS†

Element	Moving Coil Dynamic
Polar Pattern	Hypercardioid
Frequency Response	200-18,000 Hz
Open Circuit Sensitivity	–55 dB (1.7 mV) re 1V at 1 Pa*
Impedance	600 ohms
Weight (without cable)	2.1 oz (60 grams)
Dimensions	
Headset	4.72" (120.0 mm) nominal at widest point, 3.17" (80.5 mm) flexible boom
Microphone	0.80" (20.4 mm) diameter
Output Connector	Integral, 3-Pin XLRM-type
Cable	16.5' (5 m) long, 0.11" (2.8 mm) diameter miniature audio cable permanently attached between microphone and XLRM-type connector
Accessories Furnished	AT8139L large windscreen; AT8139S small windscreen; AT8439 clothing clip

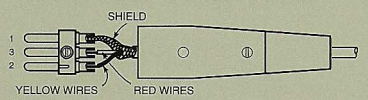
† In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

* 1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

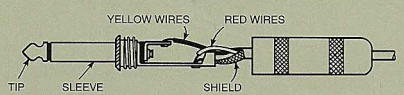
Dimensions



XLRM-Type Plug Wiring
Low Impedance Balanced



1/4" Phone Plug Wiring
Low Impedance Unbalanced



Optional Accessories:

AT8142 replacement foam temple pads (pair).

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

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

CP8305 16.5' (5 m) 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.

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.

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.

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., 1221Commerce 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.

Outside the U.S.A., please contact your local dealer for warranty details.

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Form No. 0320-0799-01