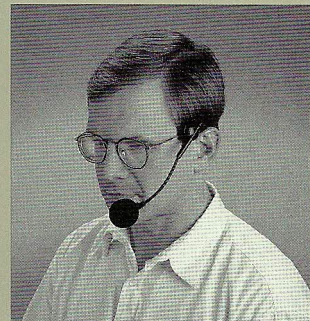
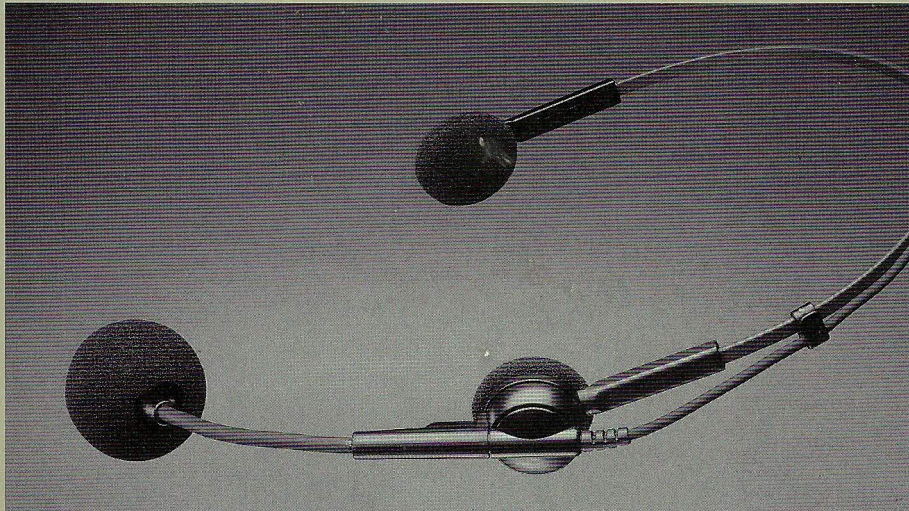


# PRO 8HE

## Hi-ENERGY® HEADWORN HYPERCARDIOID DYNAMIC MICROPHONE

# Pro Series

M I C R O P H O N E S



### 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.

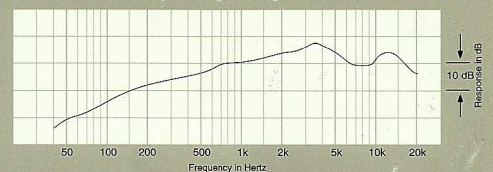
For unbalanced low-impedance inputs, AT8312 cable (or equal) is recommended. A 1/4" phone plug is wired to the equipment end of the AT8312 cable.

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



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