

# BP40

## Large-Diaphragm Dynamic Broadcast Microphone

broadcast & production microphones



### Features

- Rich, natural condenser-like sound
- Large diameter diaphragm with patented floating-edge construction for optimal performance
- Humbucking coil prevents electromagnetic interference (EMI)
- Optimized capsule placement for commanding vocal presence even at a distance
- Hypercardioid polar pattern provides maximum feedback rejection and isolation of desired sound source
- Switchable 100 Hz high-pass filter
- Multistage windscreen provides superior internal pop filtering
- Rugged, all-metal construction for dependable use in professional broadcast environments

### Description

The BP40 is a large-diaphragm dynamic microphone with a hypercardioid polar pattern. It is designed for use as a broadcast vocal microphone.

The hypercardioid polar pattern of the microphone is more sensitive to sound originating directly in front of the element, making it useful for controlling feedback and reducing pickup of unwanted sounds.

The output of the microphone is a 3-pin XLRM-type connector.

The microphone is equipped with a switch that permits choice of flat response or low-frequency roll-off (via integral 100 Hz high-pass filter).

The microphone is enclosed in a rugged housing with a multistage windscreen. The capsule is set back from the screen to provide a more consistent response. The included AT8483 mounting clamp fits any microphone stand with  $\frac{5}{8}$ "-27 threads. For improved protection from noise, shock and vibration, the AT8484 shock mount, available separately, may be used in place of the mounting clamp; it likewise fits stands with  $\frac{5}{8}$ "-27 threads. A soft protective pouch is also included.

### Operation and Maintenance

Output is low impedance (Lo-Z) balanced. The signal appears across Pins 2 and 3; Pin 1 is ground (shield). Output phase is "Pin 2 hot"—positive acoustic pressure produces positive voltage at Pin 2.

To avoid phase cancellation and poor sound, all mic cables must be wired consistently: Pin 1-to-Pin 1, etc.

An integral 100 Hz high-pass filter provides easy switching from a flat frequency response to a low-end roll-off. The roll-off position reduces the pickup of low-frequency ambient noise (such as traffic, air-handling

systems, etc.), room reverberation and mechanically coupled vibrations. To engage the filter slide the switch toward the "bent" line.

Take care to keep foreign particles from entering the windscreen. An accumulation of iron or steel filings on the diaphragm, and/or foreign material in the windscreen's mesh surface, can degrade performance.

### Architect's and Engineer's Specifications

The microphone shall be a moving coil dynamic. It shall have a hypercardioid polar pattern with a uniform  $100^\circ$  angle of acceptance and a frequency response of 50 Hz to 16,000 Hz. Nominal open-circuit output voltage shall be 3.9 mV at 1V, 1 Pascal. Output shall be low impedance balanced (450 ohms).

The output of the microphone shall be a 3-pin XLRM-type connector.

The microphone shall be equipped with a switch that permits choice of flat response or 100 Hz, 6 dB per octave low-frequency roll-off.

The microphone shall be 164.0 mm (6.45") long and have a diameter of 56.0 mm (2.20"). Weight shall be 632 grams (22.3 oz). The microphone shall include a mounting clamp and a soft protective pouch.

The Audio-Technica BP40 is specified.

### Specifications

Element	Dynamic
Polar pattern	Hypercardioid
Frequency response	50-16,000 Hz
Low frequency roll-off	100 Hz, 6 dB/octave
Open circuit sensitivity	-48 dB (3.9 mV) re 1V at 1 Pa
Impedance	450 ohms
Switch	Flat, roll-off
Weight	632 g (22.3 oz) without AT8483
Dimensions	164.0 mm (6.45") long, 56.0 mm (2.20") diameter
Output connector	Integral 3-pin XLRM-type
Audio-Technica case style	R12
Accessories furnished	AT8483 mounting clamp for $\frac{5}{8}$ "-27 threaded stands; $\frac{5}{8}$ "-27 to $\frac{3}{8}$ "-16 threaded adapter; soft protective pouch

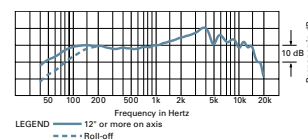
In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

1 Pascal = 10 dynes/cm<sup>2</sup> = 10 microbars = 94 dB SPL

Specifications are subject to change without notice.



frequency response: 50–16,000 Hz



polar pattern

