

# BP893 & BP893-TH

 **audio-technica**

## MicroEarset Omnidirectional Condenser Headworn Microphones

**broadcast & production** microphones



### Features

- **Outstanding clarity and intelligibility**
- **Lightweight, ergonomic design**
- **Extremely unobtrusive, 1-inch flexible boom**
- **Secure over-the-ear placement**
- **Extended frequency response for natural vocal reproduction**
- **Locking 4-pin microphone output connector compatible with included power module and all Audio-Technica UniPak® body-pack wireless transmitters**
- **UniSteep® filter provides a steep low-frequency attenuation to improve sound pickup without affecting voice quality**
- **Offered in black and beige (-TH) models**
- **Also available in wireless models (without power module) terminated for use with all Audio-Technica UniPak® wireless systems and many other manufacturers' wireless systems**

### BP893 Description

The BP893 is a headworn condenser microphone with an omnidirectional polar pattern. It is designed to provide clear, natural vocal pickup in theatrical performances, houses of worship and broadcast studios.

The microphone requires 11V to 52V phantom power for operation.

The microphone includes a 1.4 m (55") permanently attached miniature cable. Its free end connects to the provided AT8539 power module via a locking 4-pin connector. The connector is also compatible with all Audio-Technica UniPak® body-pack transmitters. The output of the power module is a 3-pin XLRM-type connector.

The BP893 MicroEarset is positioned unobtrusively over the ear. Its omnidirectional miniature condenser capsule offers outstanding pickup tailored for natural vocal reproduction, with audio reproduction similar to that of a high-quality lavalier microphone. The microphone is also ideal for use in violin pickup; wear the BP893 over the ear as usual, with no need for clamps on the violin.

A recessed switch in the power module permits choice of flat response or low-frequency roll-off (via integral 80 Hz high-pass UniSteep® filter) to help control undesired ambient noise.

The microphone comes equipped with a power module, a cable clip, two windscreens, two element covers, a moisture guard, a belt clip and a protective carrying case. The microphone is available in black and beige.

### Wireless Description

The microphone is also available in a variety of wireless models, including the BP893cW. The BP893cW includes a 1.4 m (55") permanently attached miniature cable terminated with a locking 4-pin connector for use with Audio-Technica UniPak® body-pack transmitters. Models are also available in a variety of terminations for use with many other manufacturers' wireless systems (see below). No power module or belt clip is included (or required)

with the wireless models. The wireless models' dimensions, polar pattern and included accessories are otherwise identical to those of the BP893.

The BP893cW is also available unterminated as the BP893c.

### Cable Terminations

**BP893cW, BP893cW-TH** – Terminated with locking 4-pin connector for use with A-T UniPak® body-pack transmitters

**BP893cL4, BP893cL4-TH** – Terminated for Sennheiser® wireless systems using Lemo® connector

**BP893cLM3, BP893cLM3-TH** – Terminated for Sennheiser® wireless systems using locking 3.5 mm connector

**BP893cT4, BP893cT4-TH** – Terminated for Shure® wireless systems using TA4F-type connector

**BP893cT5, BP893cT5-TH** – Terminated for Lectrosonics® wireless systems using TA5F-type connector

**BP893c, BP893c-TH** – Unterminated

Model numbers ending in "TH" are beige.

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### Operation and Maintenance

The BP893 requires 11V to 52V phantom power for operation.

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.

An integral 80 Hz high-pass UniSteep® filter provides easy switching from a flat frequency response to a low-end roll-off. The roll-off position reduces the microphone's sensitivity to popping in close vocal use. It also reduces the pickup of low-frequency ambient noise (such as traffic, air-handling systems, etc.), room reverberation and mechanically coupled vibrations. To engage the UniSteep® filter, use the end tip of a paperclip or other small pointed instrument to slide the switch toward the "bent" line.

The BP893 can be worn on either the left or right ear. Position the ear loop around the back of your ear, so that the boom extends from the top of your ear, and adjust the boom as needed to follow the contour of your face.

A cable clip is provided for strain relief, allowing the microphone to remain securely in place without the weight of the cable pulling on the headset. To install the cable clip, slip the cable into the snap-on connector and attach the clip to clothing, leaving enough slack on the MicroEarset side of the clip to allow for free, comfortable motion.

The donut-shaped moisture guard is provided to protect the element from sweat and moisture. Position the moisture guard as close to the element as possible to provide maximum protection. To remove the moisture guard, first remove the element cover and place it out of harm's way. Gently slide the moisture guard over the element. Replace the element cover.

Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110° F (43° C) for extended periods. Extremely high humidity should also be avoided.

## Specifications

|  |  |
|--|--|
| <b>Element</b>                           | Fixed-charge back plate, permanently polarized condenser   |
| <b>Polar pattern</b>                     | Omnidirectional  |
| <b>Frequency response</b>                | 20-20,000 Hz   |
| <b>Low frequency roll-off</b>            | 80 Hz, 18 dB/octave (wired only)   |
| <b>Open circuit sensitivity</b>          | -34 dB (19.9 mV) re 1V at 1 Pa   |
| <b>Impedance</b>                         | 245 ohms (wired only)  |
| <b>Maximum input sound level</b>         | 114 dB SPL, 1 kHz at 3% T.H.D.   |
| <b>Dynamic range (typical)</b>           | 88 dB, 1 kHz at Max SPL (wired only)   |
| <b>Signal-to-noise ratio<sup>1</sup></b> | 68 dB, 1 kHz at 1 Pa   |
| <b>Phantom power requirements</b>        | 11-52V DC, 2 mA typical (wired only)   |
| <b>Current consumption</b>               | 0.1 mA typical at 5V (wireless only)   |
| <b>Voltage range</b>                     | 2.5-11V (wireless only)  |
| <b>Switch</b>                            | Flat, roll-off (wired only)  |
| <b>Weight</b>                            | Microphone, boom & earpiece:<br>2.0 g (0.07 oz)<br>Power module (wired only): 85 g (3.0 oz)  |
| <b>Dimensions</b>                        | Microphone: 8.1 mm (0.32") long,<br>2.6 mm (0.10") diameter<br>Boom: 26.4 mm (1.04") long,<br>1.07 mm (0.04") diameter<br>Power module (wired only): 97.6 mm<br>(3.84") long, 18.9 mm (0.74") diameter |
| <b>Output connector (power module)</b>   | Integral 3-pin XLRM-type   |
| <b>Cable</b>                             | 1.4 m (55") long (permanently attached to microphone), 1.6 mm (0.06") diameter, 2-conductor shielded cable with locking 4-pin connector (wired and cW versions)  |
| <b>Audio-Technica case style</b>         | M31  |
| <b>Accessories furnished</b>             | AT8539 power module (wired only);<br>AT8440 cable clip; two AT8157<br>windscreens; two AT8156 element<br>covers; moisture guard; belt clip (wired<br>only); carrying case                              |

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

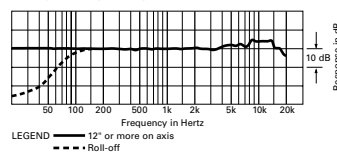
1 Pascal = 10 dynes/cm<sup>2</sup> = 10 microbars = 94 dB SPL

<sup>1</sup> Typical, A-weighted, using Audio Precision System One.

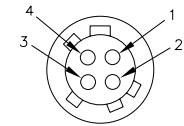
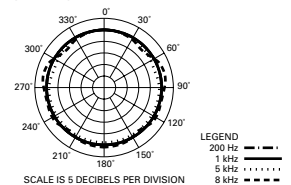
Specifications are subject to change without notice.



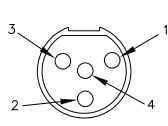
### frequency response: 20–20,000 Hz



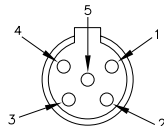
### polar pattern



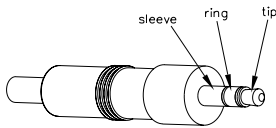
| Pin   | Function      | Wire Color      |
|-------|---------------|-----------------|
| Pin 1 | Ground/Shield | Green           |
| Pin 2 | Instrument    | Jumper to Pin 1 |
| Pin 3 | Mic Audio     | Copper Color    |
| Pin 4 | Bias + In     | Red             |



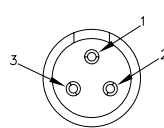
| Pin   | Function      | Wire Color      |
|-------|---------------|-----------------|
| Pin 1 | Ground/Shield | Green           |
| Pin 2 | Bias + In     | Red             |
| Pin 3 | Mic Audio     | Copper Color    |
| Pin 4 | Source Load   | Jumper to Pin 3 |



| Pin   | Function      | Wire Color      |
|-------|---------------|-----------------|
| Pin 1 | Ground/Shield | Green           |
| Pin 2 | Bias + In     | Red             |
| Pin 3 | Mic Audio     | Copper Color    |
| Pin 4 | Source Load   | Jumper to Pin 1 |
| Pin 5 | Line In       | Open            |



| Function | Wire Color             |
|----------|------------------------|
| Sleeve   | Ground/Shield Green    |
| Ring     | Mic Audio Copper Color |
| Tip      | Bias + In Red          |



| Pin        | Function             | Wire Color |
|------------|----------------------|------------|
| Pin 1      | N/C                  | Open       |
| Pin 2      | N/C                  | Open       |
| Pin 3      | Bias + In, Mic Audio | Red        |
| Shell/Case | Ground/Shield        | Green      |

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Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224  
Audio-Technica Limited, Old Lane, Leeds LS11 8AG England  
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