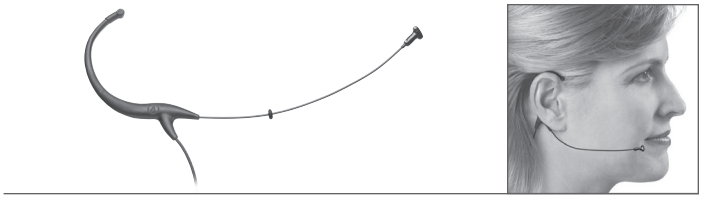
BP894 & BP894-TH

audio-technica

MicroSet® Cardioid Condenser Headworn Microphones

broadcast & production microphones



Features

- **Industry-standard sound quality—extremely intelligible natural audio for stage/television talent, lecturers, houses of worship**
- **Handles high sound pressure levels with ease**
- **Microphone diameter of just 2.8 mm for the ultimate in low-profile, high-performance audio**
- **Rotating capsule housing with talk-side indicator**
- **Comes equipped with AT8464 Dual-Ear Microphone Mount that converts single ear-worn MicroSet to a dual-ear-worn unit for maximum stability and comfort**
- **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**

BP894 Description

The BP894 is a headworn condenser microphone with a cardioid polar pattern. It is designed to provide intelligible natural audio for stage and television talent, lecturers and houses of worship.

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.

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, a dual-ear mount, two windscreens, a moisture guard, a belt clip and a protective carrying case. The microphone is available in black and beige.

Wireless MicroSet® Description

The microphone is also available in a variety of terminations for use with Audio-Technica and 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 BP894.

The BP894cW is also available unterminated as the BP894c.

Cable Terminations

BP894cW, BP894cW-TH – Terminated with locking 4-pin connector for use with A-T UniPak® body-pack transmitters
BP894cH, BP894cH-TH – Terminated for ATW-T6001 body-pack transmitters
BP894cL4, BP894cL4-TH – Terminated for Sennheiser® wireless systems using Lemo® connector
BP894cLM3, BP894cLM3-TH – Terminated for Sennheiser® wireless systems using locking 3.5 mm connector
BP894cT4, BP894cT4-TH – Terminated for Shure® wireless systems using TA4F-type connector
BP894c, BP894c-TH – Unterminated

Model numbers ending in "TH" are beige.

Operation and Maintenance

The BP894 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. (Use of the included AT8163 windscreen will reduce popping further in close vocal use.)

The flexible design of the BP894 MicroSet enables it to be worn on either the left or right ear. Position the lightweight contoured loop around the back of your ear, so that the boom extends from the bottom of your ear. Bend the loop as needed to achieve a secure, comfortable fit, so that the MicroSet is not dislodged by shaking your head. Remove the MicroSet and bend a gentle curve in the microphone's boom. Hook the MicroSet back around your ear, and adjust the boom as needed to follow the contour of your face, positioning the microphone near the corner of your mouth. Experiment with placement near the corner of your mouth for optimal performance.

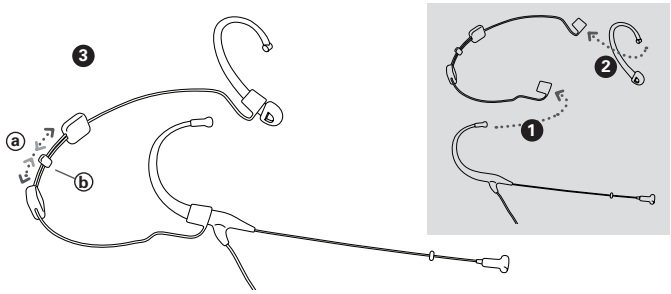
The BP894 features a unique 180-degree rotating capsule housing, allowing the user to wear the microphone on either the left or right ear. A talk-side indicator shows the user which way to turn the capsule housing for their desired position. Simply locate the white dot on the capsule housing and rotate the capsule until the white dot faces the user's mouth.

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 MicroSet side of the clip to allow for free, comfortable motion.

The included AT8464 Dual-Ear Microphone Mount allows you to convert your single ear-worn BP894 MicroSet® to a dual-ear-worn unit. The BP894 fits on either side of the Dual-Ear Microphone Mount, allowing the microphone to be worn to either the left or right of your mouth. The headband easily adjusts to fit both children and adults.

How to use the Dual-Ear Microphone Mount

1. Insert the rounded end of your BP894 ear hook into the larger opening of your Dual-Ear Microphone Mount's left or right tapered holder. Firmly seat ear hook in the tapered holder.
2. Insert the small rounded end of the additional supplied ear hook into the larger opening of your Dual-Ear Microphone Mount's remaining tapered holder. Firmly seat ear hook in the tapered holder.
3. Open the Dual-Ear Microphone Mount's adjustable behind-the-neck headband to its maximum position by pushing the headband's adjusting tabs together (**a**). Put the behind-the-neck headband on, hooking the ear hooks over your ears. Adjust the fit of the headband as needed, by sliding the headband's adjusting tabs until you arrive at a secure, comfortable fit (a). Attach the microphone cable to the cable clip positioned between the headband's adjusting tabs (**b**).



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.

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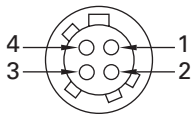
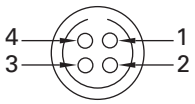
Wireless Termination Diagrams



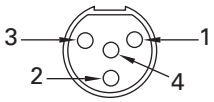
BP894cW, cW-TH

	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



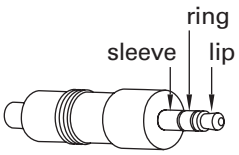
BP894cH, cH-TH

	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



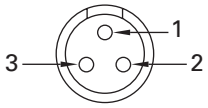
BP894cT4, cT4-TH

	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



BP894cLM3, cLM3-TH

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



BP894cL4, cL4-TH

	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

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Cardioid
Frequency response	20-20,000 Hz
Low frequency roll-off	80 Hz, 18 dB/octave (wired only)
Open circuit sensitivity	–49 dB (3.5 mV) re 1V at 1 Pa
Impedance	250 ohms (wired only)
Maximum input sound level	135 dB SPL, 1 kHz at 3% T.H.D.
Dynamic range (typical)	104 dB, 1 kHz at Max SPL (wired only)
Signal-to-noise ratio[1]	63 dB, 1 kHz at 1 Pa
Phantom power requirements	11-52V DC, 2 mA typical (wired only)
Current consumption	0.1 mA typical at 5V (wireless only)
Voltage range	2.5-11V (wireless only)
Switch	Flat, roll-off (wired only)
Weight	Microphone, boom & earpiece: 2.0 g (0.07 oz) (without cable) Power module (wired only): 85 g (3.0 oz)
Dimensions	Microphone: 6.5 mm (0.26") long, 2.8 mm (0.11") diameter Boom: 107.4 mm (4.23") long, 1.09 mm (0.04") diameter Power module (wired only): 97.6 mm (3.84") long, 18.9 mm (0.74") diameter
Output connector (power module)	Integral 3-pin XLRM-type
Cable	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 only)
Audio-Technica case style	M40
Accessories furnished	AT8539 power module (wired only); AT8440 cable clip; AT8464 dual-ear mount; two AT8163 windscreens; moisture guard; belt clip (wired only); carrying case

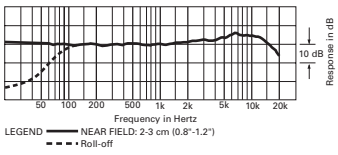
In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

1 Pascal = 10 dynes/cm^2 = 10 microbars = 94 dB SPL

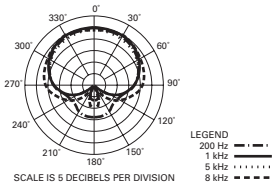
[1] Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

frequency response: 20–20,000 Hz



polar pattern



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Audio-Technica Corporation
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