

# BP893x MicroSet® Omnidirectional Condenser Headworn Microphones



Broadcast & Production Microphones

#### **Features**

- Omnidirectional condenser capsule offers extended frequency response for extremely intelligible, natural vocal reproduction
- · Lightweight, ergonomic design
- Extremely unobtrusive, 0.2" boom
- Secure under-the-ear placement
- Detachable, field-replaceable cable with robust connector at the earset and a variety of available output terminations
- Wired version's power module (AT8545) includes a high-pass filter that provides a steep low-frequency attenuation to improve sound pickup without affecting voice quality
- Comes with the AT8464x Dual-Ear Adapter Kit that converts the single-ear MicroSet to a unit that's worn on both ears for maximum stability and comfort
- Constructed of hypoallergenic material

## **BP893x Description**

The BP893x is a headworn condenser microphone with an omnidirectional polar pattern. Featuring an unobtrusive 0.2" boom that extends just beyond the bottom of your ear, the BP893x is designed to provide extremely intelligible, natural vocal reproduction for stage and television talent, lecturers, and worship leaders.

The microphone includes a 1.4 m (55") detachable, field-replaceable cable that is available in a variety of terminations for use in wired and wireless applications, as indicated below.

### Cable Terminations

BP893x, BP893x-TH: Terminated with a cH-style screw-down 4-pin connector for use with the included AT8545 power module.

BP893xcH, BP893xcH-TH: Terminated with a cH-style screw-down 4-pin connector for use with Audio-Technica wireless systems featuring cH-style connector.

BP893xcW, BP893xcW-TH: Terminated with a cW-style locking 4-pin connector for use with Audio-Technica wireless systems featuring cW-style connector.

BP893xcLM3, BP893xcLM3-TH: Terminated for Sennheiser® wireless systems using locking 3.5 mm connector.

BP893xcT4, BP893xcT4-TH: Terminated with TA4F-type connector for Shure® wireless systems.

Model numbers ending in "TH" are beige.

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The wired models (BP893x, BP893x-TH) require 11V to 52V phantom power for operation. Included for this purpose is the AT8545 power module, which is equipped with a cH-style screw-down 4-pin input connector and a 3-pin XLRM-type output 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. A belt clip is also included to hold the power module.

All models of the microphone come with a cable clip, two windscreens, two element covers, a moisture guard, and a protective carrying case. The microphone is available in black and beige.

#### **Operation and Maintenance**

The BP893x requires 11V to 52V phantom power for operation (wired only).

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.

The AT8545 power module included with wired models is equipped with an 80 Hz high-pass UniSteep® filter that 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.

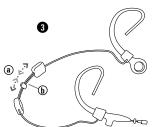
The BP893x can be worn on either the left or right ear. Position the ear loop around the back of your ear, so that the boom extends from below your ear.

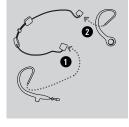
A cable clip is provided for strain relief, allowing the microphone to remain securely in place without the weight of the cable pulling on the headset. To use the clip, slip the cable into the clip's cable-holding groove, then attach the clip to your clothing, leaving enough slack in the microphone cable to allow for free, comfortable motion.

The included AT8464x Dual-Ear Adapter Kit allows you to convert the BP893x to a dual-ear unit for increased stability and comfort. The BP893x attaches to either side of the adapter so that the microphone can 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

- Insert the rounded end of your BP893x ear hook into the larger opening of the adapter's left or right tapered holder. Firmly seat the ear hook in the tapered holder.
- Insert the small rounded end of the additional supplied ear hook into the larger opening of the adapter's remaining tapered holder. Firmly seat the ear hook in the tapered holder.
- 3. Open the adapter'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).

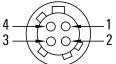


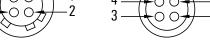


The donut-shaped moisture guard is provided to protect the element from sweat and moisture. Position the moisture guard as close to the element as possible to provide maximum protection. To remove the moisture guard, first remove the element cover and place it out of harm's way. Gently slide the moisture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

## **Wireless Termination Diagrams**



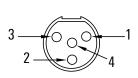


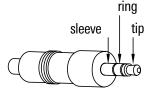
BP893xcW, cW-TH

	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

## BP893xcH, 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





BP893xcT4, 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

BP893xcLM3, cLM3-TH

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

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## **Specifications**

Specifications	
Element	Fixed-charge back plate, permanently
	polarized condenser
Polar pattern	Omnidirectional
Frequency response	20-20,000 Hz
Low frequency roll-off	80 Hz, 18 dB/octave (wired only)
Open circuit sensitivity	-38 dB (11.8 mV) re 1V at 1 Pa
Impedance	250 ohms (wired only)
Maximum input sound level	131 dB SPL, 1 kHz at 3% T.H.D.
Dynamic range (typical)	100 dB, 1 kHz at 3% T.H.D. Max SPL (wired only)
Signal-to-noise ratio <sup>1</sup>	63 dB, 1 kHz at 1 Pa
Phantom power requirements	11-52V DC, 2 mA typical (wired only)
Current consumption	0.2 mA typical at 5V (wireless only)
Voltage range	2.5-10V (wireless only)
Switch	Flat, roll-off (wired only)
Weight	Microphone, boom & earpiece: 2.0 g (0.07 oz) Power module (wired only): 85 g (3.0 oz)
Dimensions	Microphone: 9.5 mm (0.37") long,
	2.6 mm (0.10") diameter
	Boom: 5.2 mm (0.2") long,
	1.07 mm (0.04") diameter
	Power module (wired only): 100.0 mm
	(3.94") long, 18.9 mm (0.74") diameter
Output connector (power module)	Integral 3-pin XLRM-type
Cable	Detachable 1.4 m (55") long, 1.6 mm (0.06")
	diameter, 2- or 3-conductor shielded cable
	(termination dependent)
Audio-Technica case style	M31
Accessories furnished	AT8545 power module (wired only); AT8464x dual-ear adapter kit; AT8440

AT8545 power module (wired only);
AT8464x dual-ear adapter kit; AT8440
cable clip; AT8157 windscreen; AT8171
windscreen; two AT8156 element covers;
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/cm² = 10 microbars = 94 dB SPL

Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.



frequency response: 20-20,000 Hz

