# BP898 Subminiature Cardioid Condenser Lavalier Microphone

Broadcast & Production

**Features**

- **Maximum intelligibility and clean, accurate reproduction for vocalists, lecturers, stage and television talent, and worship leaders**
- **Cardioid capsule provides directional pickup with pronounced proximity effect at close range that enhances the user's voice**
- **Low-profile design (a mere 5.3 mm in diameter) is ideal for applications requiring minimum visibility**
- **Urethane elastomer cable with a double-spiral shield wire provides ultimate flexibility, strength, and resistance to abrasion and moisture**
- **RoHS compliant – free from all substances specified in the EU directive on hazardous substances**
- **The microphone capsule is housed in a rugged metal structure to shield the electronic circuitry from external electromagnetic noise**
- **The signal line of the cable is made of a high-durability CuSn (copper and tin) alloy that greatly enhances corrosion resistance and increases longevity**
- **Two included windscreens each feature a plastic structure that keeps the windscreen secured to the microphone**
- **Clothing clip includes 16 distinct angle adjustments over 360° and two strain-relief clips for easy cable routing**
- **Also available in wireless models (without power module) terminated for use with Audio-Technica wireless systems and many other manufacturers' wireless systems**

**Wired Description**

The BP898 is a subminiature clip-on/lavalier condenser microphone with a cardioid polar pattern. It is designed to provide accurate reproduction for lecturers, stage and television talent, and houses of worship.

The microphone is intended to be worn on clothing or hidden in props for excellent yet unobtrusive sound pickup. The wide-range capability of the microphone ensures clean, accurate reproduction with high intelligibility for speakers, presenters and other performers. Its small size makes it ideal for use in applications where minimum visibility is required.

The microphone requires 11V to 52V phantom power.

The microphone's cardioid polar pattern provides a 120° angle of acceptance.

The microphone includes a permanently attached 1.4 m (55") long, 2.0 mm (0.08") diameter, 2-conductor shielded cable. Its free end connects to the provided AT8545 power module via a cH connector. 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 filter) to help control undesired ambient noise.

The microphone comes equipped with a power module, a clothing clip, and two windscreens. A protective carrying case is also included. The microphone has a low-reflectance black finish.

**Operation and Maintenance**

The BP898 requires 11V to 52V phantom power.

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 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 high-pass filter, use the end tip of a paperclip or other small pointed instrument to slide the switch toward the "bent" line.

The directionality of the BP898 cardioid element has a pronounced proximity effect when used at close range, enhancing the user's voice. This low-frequency enhancement drops off when the microphone is used at a distance. If the mic needs to be used at a greater distance or a less focused pickup is desired, the BP899 with an omnidirectional capsule is recommended.

When using the microphone in extremely close situations, slip the included open-pore foam windscreen over the mic to reduce wind noise or popping.

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 Models Description**

The microphone is also available in a variety of wireless models, including the BP898cH. The BP898cH includes a 1.4 m (55") permanently attached miniature cable terminated with a screw-down 4-pin connector for use with Audio-Technica cH-style body-pack transmitters. Models are also available in a variety of terminations for use with many other manufacturers' wireless systems. No power module is included (or required) with the wireless models. The wireless models' dimensions, polar pattern and included accessories are otherwise identical to those of the BP898.

Also available unterminated as the BP898c.

Cable Terminations

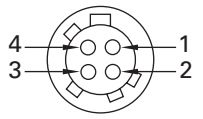
| | |
|---|---|
| BP898 | 55" (1.4 m) permanently attached cable terminated with a cH-style screw-down 4-pin connector; AT8545 power module (with 80 Hz high-pass filter) for phantom power |
| BP898c | 55" (1.4 m) permanently attached cable (unterminated); no power module. |
| BP898cH | 55" (1.4 m) permanently attached cable terminated with a screw-down 4-pin connector for use with Audio-Technica cH-style body-pack wireless transmitters; no power module. |

# BP898

| | |
|---|---|
| BP898cW | 55" (1.4 m) permanently attached cable terminated with a locking 4-pin connector for use with Audio-Technica cW-style body-pack wireless transmitters; no power module. |
| BP898cT4 | 55" (1.4 m) detachable cable terminated with TA4F-type connector for use with Shure wireless systems |

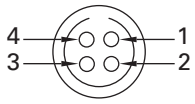


### Wireless Termination Diagrams



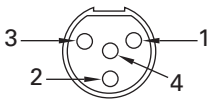

cW

| | 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 |



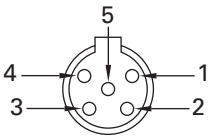

cH

| | 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 |



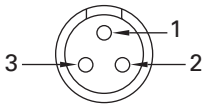

cT4

| | 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 |




cT5

| | 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 |




cL4

| | 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 | 270-17,000 Hz |
| Low frequency roll-off | 80 Hz, 18 dB/octave |
| Open circuit sensitivity | -42 dB (7.9 mV) (0 dB=1 V/Pa, 1 kHz) |
| Impedance | 250 ohms |
| Maximum input sound level | 140 dB SPL (1 kHz at 1% THD) |
| Dynamic range (typical) | 112 dB (1 kHz at Max SPL) |
| Signal-to-noise ratio[1] | 66 dB, 1 kHz at 1 Pa, A-weighted |
| Phantom power requirements | 11-52V DC, 2 mA typical |
| Element power requirements | 2.5-11V DC (0.1 mA current consumption typical at 5V DC) |
| Switch | Low cut: on/off (power module) |
| Weight | Microphone: 1.6 g (0.06 oz)<br>Power module: 82 g (2.9g) |
| Dimensions | Microphone: 22.3 mm (0.88") long, 5.3 mm (0.21") diameter<br>Power module: 96.0 mm (3.78") long, 19.0 mm (0.75") diameter |
| Output connector | Power module: Integral 3-pin XLRM-type |
| Cable | 1.4 m (55") long (wired & wireless) |
| Audio-Technica case style | M30 |
| Accessories furnished | AT8545 power module; clothing clip base (AT8461a); two windscreens (AT8151a); case |

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

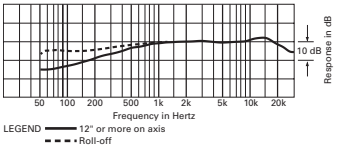
1 Pascal = 10 dynes/cm$^2$ = 10 microbars = 94 dB SPL

*Measured using AT8545 power module

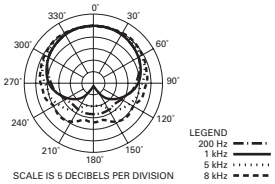
[1] Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

frequency response: 270–17,000 Hz




polar pattern

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