

# AT815ST STEREO SHOTGUN MICROPHONE

# SPECIAL PURPOSE



- Designed for broadcasters, videographers and sound recordists
- Compact, lightweight design is perfect for camera-mount use
- Independent Line-cardioid and Figure-of-eight condenser elements
- Switchable low-frequency roll-off
- Switch selection of non-matrixed M-S mode and two internally-matrixed left/right stereo modes

**MID-SIDE OPERATION:** In M-S mode, the AT815ST provides independent Mid and Side signals. This allows the Mid-Side balance to be adjusted as desired at the recording desk or mixing electronics, reducing the amount of equipment necessary in the field.

**MATRIXED STEREO:** The AT815ST offers two internally-matrixed modes which provide traditional "left-right" stereo. To accommodate varying acoustic environments, the user may select between a "wide" pattern (LR-W) with increased ambient pickup, and a "narrow" pattern (LR-N) which offers more rejection and less ambience. Output phase is "Pin 2 hot."

For correct left-right stereo orientation, position the microphone so the word "UP" is on top, with the switches on the bottom. In all modes, locating the AT815ST nearer the sound source enhances the apparent width of the stereo image, while decreasing room ambience. Moving away from the sound source will result in a narrower stereo image and more "room sound."

M-S Output	Connector	Pin 1	Pin 2	Pin 3
<b>Mid</b>	<b>XLR3M-Gray</b>	Ground	Mid +	Mid -
	<i>XLR5M Mic Connector:</i>	<i>Pin 1</i>	<i>Pin 2</i>	<i>Pin 3</i>
<b>Side</b>	<b>XLR3M-Red</b>	Ground	Side +	Side -
	<i>XLR5M Mic Connector:</i>	<i>Pin 1</i>	<i>Pin 4</i>	<i>Pin 5</i>
Matrix Output	Connector	Pin 1	Pin 2	Pin 3
<b>Left</b>	<b>XLR3M-Gray</b>	Ground	Mid +	Side -
	<i>XLR5M Mic Connector:</i>	<i>Pin 1</i>	<i>Pin 2</i>	<i>Pin 3</i>
<b>Right</b>	<b>XLR3M-Red</b>	Ground	Mid +	Side +
	<i>XLR5M Mic Connector:</i>	<i>Pin 1</i>	<i>Pin 4</i>	<i>Pin 5</i>

The AT815ST requires 11V to 52V DC phantom power on Pins 2 and 3 of both XLR3M connectors. Wiring must be balanced throughout, and all mic cables in the system must be wired consistently: Pin 1-to-Pin 1, etc. If connecting to unbalanced inputs, good-quality balanced line transformers must be used.

The high sensitivity of the AT815ST assures useful output and an excellent match to most inputs. However, the microphone's high output may overload some sensitive electronic input stages under some conditions. Many pre-amps and mixers include a mic pad or input attenuator control to prevent overload; or, use an AT8202 attenuator or equal at the input.

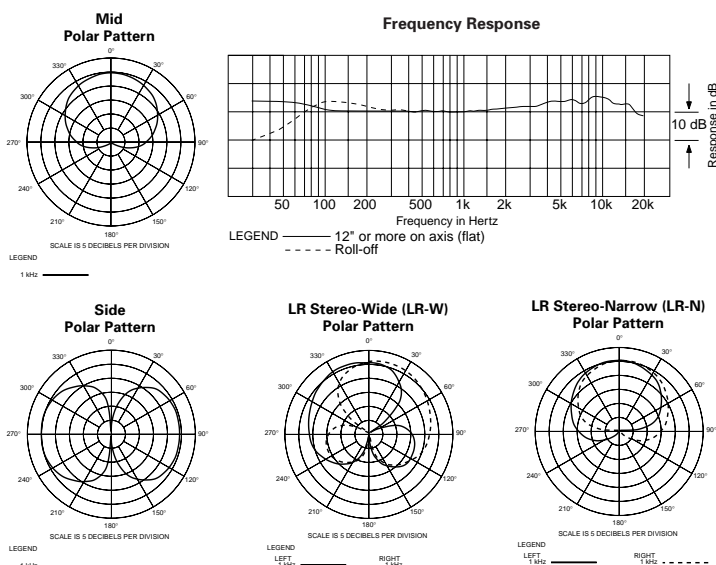
Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110° F (43° C) for extended periods. Extremely high humidity should also be avoided.

## AT815ST SPECIFICATIONS†

<b>ELEMENTS</b>	Fixed-charge back plate permanently polarized condenser
<b>POLAR PATTERNS</b>	Line-cardioid and Figure-of-eight
<b>FREQUENCY RESPONSE</b>	30-20,000 Hz
<b>LOW-FREQUENCY ROLL-OFF</b>	80 Hz, 12 dB/octave
<b>OPEN CIRCUIT SENSITIVITY</b> (Mid / Side / LR Stereo)	-30 dB (31.6 mV) / -34 dB (19.9 mV) / -36 dB (15.8 mV) re 1V at 1 Pa*
<b>IMPEDANCE</b>	200 ohms
<b>MAXIMUM INPUT SOUND LEVEL</b> (Mid / Side / LR Stereo)	123 dB / 127 dB / 126 dB SPL, 1 kHz at 1% T.H.D.
<b>SIGNAL-TO-NOISE RATIO<sup>1</sup></b> (Mid / Side / LR Stereo)	72 dB / 68 dB / 70 dB SPL, 1 kHz at 1 Pa*
<b>DYNAMIC RANGE</b> (typical) (Mid / Side / LR Stereo)	101 dB / 101 dB / 102 dB, 1 kHz at Max SPL
<b>PHANTOM POWER REQUIREMENTS</b>	11-52V DC, 4 mA typical at 48V, each channel
<b>SWITCHES</b>	M-S, LR Stereo-Wide (LR-W), LR Stereo-Narrow (LR-N) Flat, roll-off
<b>WEIGHT</b> (less accessories)	5.0 oz (142 g)
<b>DIMENSIONS</b>	14.96" (380.0 mm) long, 0.83" (21.0 mm) diameter
<b>OUTPUT CONNECTOR</b>	Integral XLR5M-type
<b>CABLE</b>	Dual 24" (0.61 m) shielded two-conductor, terminated in two XLR3M-type connectors
<b>ACCESSORIES FURNISHED</b>	AT8405 stand clamp for 5/8"-27 threaded stands; AT8135 foam windscreen; protective 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  
†Typical, A-weighted, using Audio Precision System One.



### One-Year Limited Warranty

Audio-Technica brand products purchased in the U.S.A. are warranted for one year from date of purchase by Audio-Technica U.S., Inc. (A.T.U.S.) to be free of defects in materials and workmanship. In event of such defect, product will be repaired promptly without charge or, at our option, replaced with a new product of equal or superior value if delivered to A.T.U.S. or an Authorized Service Center, prepaid, together with the sales slip or other proof of purchase date. **Prior approval from A.T.U.S. is required for return.** This warranty excludes defects due to normal wear, abuse, shipping damage, or failure to use product in accordance with instructions. This warranty is void in the event of unauthorized repair or modification, or removal or defacing of the product labeling.

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