

Engineered Sound[®]

[Description]

The ES991 is a dual-element cardioid condenser gooseneck microphone with an integral dual power module. It is designed especially for applications requiring separate miking for PA and broadcast. The circuit grounds for each channel are completely isolated, greatly reducing the potential for hum. The small-diameter design with gooseneck segment permits flexible positioning while maintaining a smooth, contoured appearance.

Each of the cardioid elements in the microphone is shock mounted. The cardioid polar pattern of the elements provides a 120° angle of acceptance. Additional user-interchangeable hypercardioid (100°) and

omnidirectional (360°) elements are available. The ES991 is designed with dual integral windscreens to ensure ultimate security against wind noise and plosives.

The integral power module can be powered from any external 11V to 52V DC phantom power supply. Low-frequency roll-off (120 Hz, 12 dB/octave) is integral to the microphone's design.

The microphone is enclosed in a sturdy metal housing with a low-reflectance black finish. It features a 6-pin XLRM-type connector insert at its base, allowing it to be plugged directly into a 6-pin XLRF-type panel jack or microphone cable (a 30' "Y" cable that splits into two 3-pin XLRM-type connectors is included).

ES991 Dual-element Cardioid Condenser Gooseneck Microphone



[Installation and Operation]

The ES991 requires a phantom power supply of 11–52V DC for each element. Output is low-impedance balanced. The balanced signal appears across Pins 2 and 3, while the ground (shield) connection is Pin 1. Output is phased so that positive acoustic pressure produces positive voltage at Pin 2, in accordance with industry convention.

The microphone is intended for use with a desk or floor stand and comes with the AT8407 stand adapter. Use the adapter to attach the microphone to a microphone stand with a 5/8"–27 thread. Attach the included 6-pin Neutrik XLRF-type shielded cable directly to the 6-pin XLRM-type output connector. The 30' cable splits the signal into two 3-pin XLRM-type connectors, which can be connected to in-house

and/or remote feeds. Connect the red output (Channel A) to the primary in-house feed. Connect the blue output (Channel B) to the remote feed.

The high output of this microphone can overload the input stages of some mixers and preamps. Included in the microphone circuitry is a 15 dB pad that can be used if overload occurs. This switch is recessed in the power module.

While a modern condenser microphone is not unduly sensitive to the environment, temperature extremes can be harmful. Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110° F (43° C) for long periods of time. Extremely high humidity should also be avoided.

[Architects and Engineers Specifications]

The microphone shall be a dual-element, fixed-charge condenser with a frequency response of 90 Hz to 15,000 Hz and a cardioid polar pattern with uniform 120° angle of acceptance. It shall contain two shock-mounted cardioid elements with isolated grounds. It shall operate from an external 11V to 52V DC phantom power source. It shall be capable of handling sound input levels up to 138 dB with a dynamic range of 109 dB. It shall have a fixed low-frequency roll-off of 120 Hz, 12 dB/octave. It shall include a 15 dB pad switch. Output shall be low-impedance balanced (250 ohms).

The microphone shall be a small-diameter rigid-pipe design with a flexible gooseneck segment. The microphone shall have a

self-contained power module with a 6-pin XLRM-type connector at the base for direct connection to a 6-pin XLRF-type panel jack or for use with the included 30' splitter cable. The cable shall connect to the microphone by a 6-pin XLRF-type connector and shall terminate in two 3-pin XLRM-type connectors. An included stand clamp shall permit attaching the microphone directly to a standard 5/8"–27 thread.

The microphone's overall length shall be 21.57" (548.0 mm). Head diameter shall be 1.51" (38.4 mm). Base diameter shall be 0.99" (25.1 mm). The microphone shall weigh 8.8 oz (250 g). Finish shall be low-reflectance black.

The Audio-Technica ES991 is specified.



audio-technica[®]

[ES991 Specifications†]

Elements	Two fixed-charge back plate permanently polarized condensers
Polar Pattern	Cardioid
Frequency Response	90–15,000 Hz
Low-frequency Roll-off	Fixed 120 Hz, 12 dB/octave
Open Circuit Sensitivity	–41 dB (8.9 mV) re 1V at 1 Pa [‡]
Impedance	250 ohms
Maximum Input Sound Level	138 dB SPL, 1 kHz at 1% T.H.D.
Dynamic Range (Typical)	109 dB, 1 kHz at Max SPL
Signal-to-noise Ratio¹	65 dB, 1 kHz at 1 Pa [‡]
Switch	Normal/–15 dB
Phantom Power Requirements	11–52V DC, 3 mA typical
Weight	8.8 oz (250 g)

Dimensions	21.57" (548.0 mm) maximum length, 1.51" (38.4 mm) head diameter, 0.99" (25.1 mm) base diameter
Output Connector	Integral 6-pin Neutrik XLRM
Cable	30' (9.1 m) 6-conductor shielded "Y" cable–6-pin XLRF to two 3-pin XLRM
Accessories Furnished	AT8407 stand clamp, 6-pin panel-mount XLRF-type connector
Optional Interchangeable Elements	ESE-H hypercardioid (100°) ESE-O omnidirectional (360°)

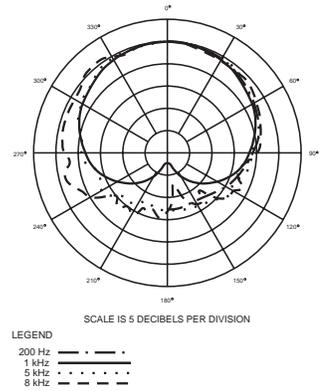
[†] In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

[‡] 1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

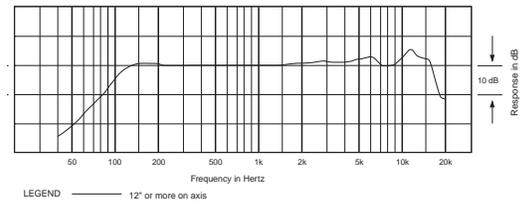
¹ Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

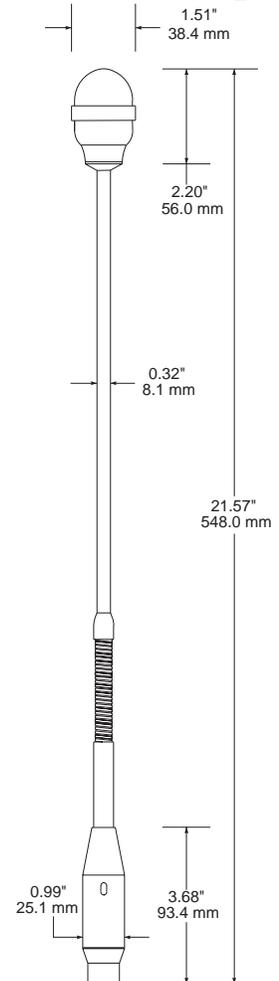
[Polar Pattern]



[Frequency Response]



[Dimensions]



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One-Year Limited Warranty

Audio-Technica microphones and accessories 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.

For return approval and shipping information, contact the Service Department, Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224.

Except to the extent precluded by applicable state law, **A.T.U.S. will have no liability for any consequential, incidental, or special damages; any warranty of merchantability or fitness for particular purpose expires when this warranty expires.**

This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

Outside the U.S.A., please contact your local dealer for warranty details.



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