

U857Q & U857QL

 audio-technica

Cardioid Condenser Quick-Mount Gooseneck Microphones

uni-point® microphones



Features

- **Quick-mount design with 3-pin XLRM-type connector insert at base plugs into any standard XLR-type surface or cable connector**
- **Low-profile element provides uniform cardioid polar pattern with 120° acceptance angle**
- **Superior off-axis rejection for maximum gain before feedback**
- **UniGuard® RFI-shielding technology offers outstanding rejection of radio frequency interference (RFI)**
- **Easy-to-adjust, rugged, small-diameter, alternating gooseneck with virtually no “memory” permits quick positioning into desired shape**
- **UniSteep® filter provides a steep low-frequency attenuation to improve sound pickup without affecting voice quality**
- **Available interchangeable elements permit angle of acceptance from 90° to 360°**
- **Included shock mount attenuates noise, shock and vibration transmitted through the mounting surface**

Description

The U857Q is a wide-range condenser microphone with a cardioid polar pattern. It is designed for quality sound reinforcement, professional recording, television and other demanding sound pickup applications.

The small-diameter double gooseneck design permits highly flexible positioning while maintaining a smooth, well-contoured appearance. The U857Q stands 365.0 mm (14.37") from the table or podium; it is also available in a 481.0 mm (18.94") version as U857QL. The two models are identical in all other respects.

The microphone requires 11V to 52V phantom power for operation.

The microphone is equipped with UniGuard® RFI-shielding technology, which offers outstanding rejection of radio frequency interference (RFI).

The microphone's cardioid polar pattern provides a 120° angle of acceptance. Additional interchangeable elements with omnidirectional (360°), hypercardioid (100°) and UniLine® (90°) pickup patterns are available.

An XLRM-type connector insert at the base allows the microphone to be plugged directly into an XLR-type panel jack or microphone cable.

A recessed switch 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 two-stage foam windscreen

and a shock mount designed to attenuate noise, shock and vibration transmitted through the mounting surface. The microphone is enclosed in a rugged housing with a low-reflectance black finish.

Installation and Operation

The U857Q 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.

The microphone can be mounted in a permanent installation (on a lectern, pulpit, conference table or similar surface) with the included AT8662 shock mount. The AT8662 effectively isolates the microphone from noise, shock and vibration transmitted through the mounting surface and eliminates pickup of low-frequency resonances caused by mechanical coupling.

The provided two-stage foam windscreen simply slips over the head of the microphone, effectively reducing wind noise or popping.

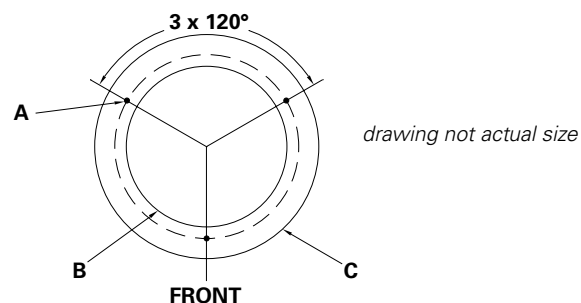
An integral 80 Hz high-pass UniSteep® filter provides easy switching from a flat frequency response to a low-end roll-off. The roll-off position reduces the microphone's sensitivity to popping in close vocal use. It also reduces the pickup of low-frequency ambient noise (such as traffic, air-handling 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.

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.

AT8662 Shock Mount Installation Instructions

Mounting Dimensions

- 1.5 mm (1/16") pilot holes 3 places on 58.2 mm (2.29") circle.
- 51.0 mm (2.0") through-hole for mount clearance
- Outside edge of flange, 71.0 mm (2.79") diameter



1. Find the center of the mounting location and mark it. Allow enough clearance to accommodate the shock mount's flange on the surface and make certain there are no physical obstructions below the desired location.
2. Using 51.0 mm (2.0") hole saw, drill the large through-hole for the shock mount.
3. Set the shock mount into the hole and mark the location of the three mounting screw holes. Make certain to “center” the mount in the large hole before marking the three small mounting screw locations.
4. Using a 1.5 mm (1/16") drill bit, drill three pilot holes for the mounting screws.
5. After installing the microphone, assure maximum shock mounting effectiveness by providing some slack in the connecting cable.

U857Q & U857QL

Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser designed for permanent installation or portable applications. It shall have a cardioid polar pattern with a uniform 120° angle of acceptance. and a frequency response of 30 Hz to 20,000 Hz. It shall be capable of accepting optional interchangeable elements for additional polar patterns. The microphone shall operate from an external 11V to 52V DC phantom power source. It shall be capable of handling sound input levels up to 139 dB with a dynamic range of 115 dB. Nominal open-circuit output voltage shall be 11.2 mV at 1 V, 1 Pascal. Output shall be low impedance balanced (250 ohms). It shall offer outstanding rejection of radio frequency interference (RFI).

The microphone shall incorporate a self-contained power module with an XLRM-type connector at the base for direct connection to a mating XLRF-type panel jack or cable connector. It shall include a recessed switch to permit choice of flat response or 80 Hz low-frequency roll-off.

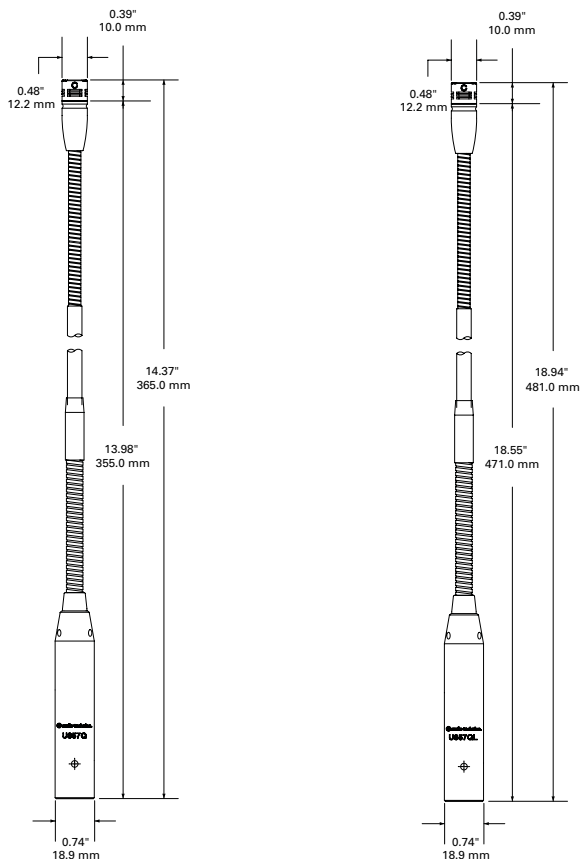
A microphone shock mount shall be supplied for installing the microphone in a solid surface; it shall effectively isolate the microphone from noise, shock and vibration transmitted through the mounting surface. A two-stage foam windscreen shall also be included.

The microphone shall be a small-diameter alternating gooseneck design, with an overall length of 365.0 mm (14.37") [481.0 mm (18.94")] and a head diameter of 12.2 mm (0.48"). Weight shall be 144 grams (5.1 oz) [150 grams (5.3 oz)]. Finish shall be low-reflectance black.

The Audio-Technica U857Q [U857QL] is specified.

U857Q

U857QL



Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Cardioid
Frequency response	30-20,000 Hz
Low frequency roll-off	80 Hz, 18 dB/octave
Open circuit sensitivity	-39 dB (11.2 mV) re 1V at 1 Pa
Impedance	250 ohms
Maximum input sound level	139 dB SPL, 1 kHz at 1% T.H.D.
Dynamic range (typical)	115 dB, 1 kHz at Max SPL
Signal-to-noise ratio¹	70 dB, 1 kHz at 1 Pa
Phantom power requirements	11-52V DC, 2 mA typical
Switch	Flat, roll-off
Weight	U857Q: 144 g (5.1 oz) U857QL: 150 g (5.3 oz)
Dimensions	U857Q: 365.0 mm (14.37") long, 12.2 mm (0.48") head diameter, 18.9 mm (0.74") base diameter U857QL: 481.0 mm (18.94") long, 12.2 mm (0.48") head diameter, 18.9 mm (0.74") base diameter
Output connector	Integral 3-pin XLRM-type
Optional interchangeable elements	UE-O omnidirectional (360°) UE-H hypercardioid (100°) UE-UL UniLine® (90°)
Audio-Technica case style	M34
Accessories furnished	AT8662 shock mount; AT8153 two-stage foam windscreen

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

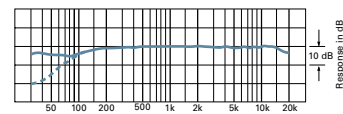
1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

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

Specifications are subject to change without notice.

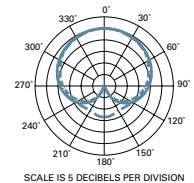


frequency response: 30–20,000 Hz



LEGEND — 12° or more on axis
--- Roll-off

polar pattern



LEGEND
— 200 Hz
— 1 kHz
— 5 kHz
— 8 kHz

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