PRO47T and PRO47TL
REMOTE-POWERED
CARDIOID CONDENSER
THREAD-MOUNT GOOSENECK
MICROPHONES

Audio-Technica design engineers have utilized the newest low-mass technology in the quest for superior performance. The change is now on the fixed back plate, rather than the moving element. With the A-T fixed-charge "back-plate" construction, a gold-vaporized diaphragm just 2 microns thick (about 0.000079") can be used. This reduces moving mass substantially, improving frequency response and transient response while reducing distortion.

The microphone element is enclosed in a rugged housing with a low-reflectance black finish. A 3/8"-27 threaded flange allows the microphone to mate with the threads of a standard microphone desk or floor stand. A 3/8"-27 threaded stud is also provided so it can be secured to a permanent mounting surface.

Operation and Maintenance
Output is low impedance balanced. The output connector mates with XLRF-type connectors. 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.

DC phantom power (9-52 volts) must be applied equally to Pins 2 and 3, with the ground for the power supply connected to Pin 1. This can be provided by a console or mixer with built-in phantom voltage or with the addition of an in-line phantom power supply, such as the recommended Audio-Technica CP5006 and AT8801 power supplies.

If an extension cable is necessary, AT8314 cable (or equal) should be used. Regardless of cables used, it is important that both ends of each cable are wired consistently, with the shield always connected to Pin 1 at both ends, Pin 2 connected to Pin 2, and Pin 3 to Pin 3. This will ensure that all microphones are electrically in phase and reduce problems of uneven response and sound cancellation when two microphones are used close to each other.

The high sensitivity of the PRO-47T ensures useful output and an excellent match to most mixer, tape recorder and amplifier inputs. It will provide undistorted output even in sound fields as loud as 134 dSPL. However, due to the high sensitivity, in some instances it may be possible to overload sensitive input stages. If distortion occurs, first check for input overload. In such cases, an attenuator such as the Audio-Technica AT8202 may be required between the mic and the electronics input. (Also, many mixers provide "input pad" switches to reduce mic-input signal levels.)

The provided AT8146 windscreen simply slips over the head of the microphone, effectively reducing wind noise or "sponging" when used extra close.

The small-diameter gooseneck is very easy to manipulate for proper positioning. It is heavily lubricated to offer very smooth and quiet operation. Should it become noisy with prolonged use, apply a light machine oil directly on the gooseneck area affected.

While a modern condenser microphone is not unduly sensitive to the environment, temperature extremes can be harmful. Exposure to high temperatures can result in gradual and permanent reduction of the output level. 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.

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**Frequency Response**

![Frequency Response Chart](chart.png)
PRO 47T and PRO 47TL SPECIFICATIONS

Element ............................................. Fixed-charge back plate
Polar Pattern ..................................... permanently polarized condenser
Cardioid (Unidirectional)
Frequency Response ............................ 70-16,000 Hz
Open Circuit Sensitivity ....................... -37 dB (14.1 mV) re 1 V at 1 Pa
Impedance ......................................... 100 ohms
Maximum Input Sound Level ................. 134 dB SPL, 1 kHz at 1% T.H.D.
Signal-to-noise Ratio* ......................... 66 dB, 1 kHz at 1 Pa
Dynamic Range (Typical) ...................... 106 dB, 1 kHz at Max SPL
Phantom Power Requirements ............... 9-52V DC, 2 mA typical
Weight (less cable) ..............................
PRO 47T ............................................ 2.2 oz (63 grams)
PRO 47TL ........................................... 2.4 oz (67 grams)
Dimensions ........................................
PRO 47T ............................................ 12.40" (315.0 mm) long
PRO 47TL ........................................... 15.79" (401.0 mm) long
Both ................................................ 0.47" (12.0 mm) head diameter
Output Connector ................................. 3-pin XLRM-type
Cable ............................................... 9.8' (3.0 m) long (permanently attached to microphone); 0.10" (2.6 mm) diameter, 2-conductor, shielded cable

Accessories Furnished ............................
AT8146 foam windshield.
AT8425 1/4"-27 threaded mounting stud

Optional Accessories:
AT8104A large metal windshield.
AT8117 large foam windshield for high-wind conditions.
CP8201 line matching transformer (Lo-Z to 50,000 ohms).
AT8202 adjustable in-line attenuator for use with balanced Lo-Z microphones.
AT8314 2-conductor, shielded, vinyl-jacketed, broadcast-type cable with XLRM-type connector at microphone end. XLRM-type connector at equipment end. Available in 10', 20', 25', 30', 50' & 100' lengths.
AT8416 shock mount.
CP8506 four-channel 48V phantom power supply (AC powered).
AT8601 microphone desk stand.
AT8614 die-cast microphone desk stand.
AT8801 single-channel 48V phantom power supply (AC powered).

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. ATU.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.US. 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.