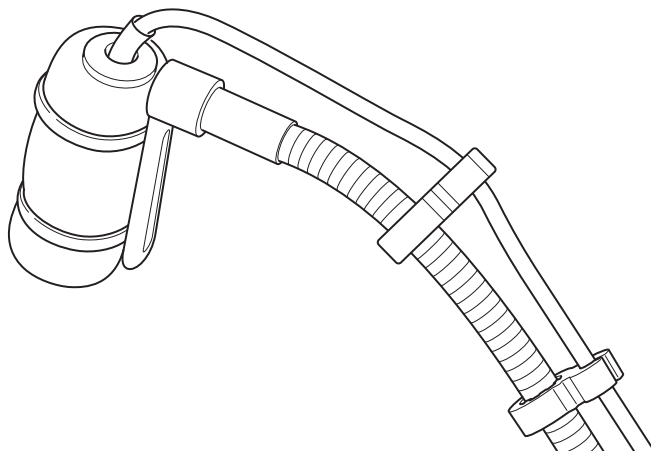


ATM350a



User Manual / Cardioid Condenser Instrument Microphone



Packages

ATM350U :

ATM350a, AT8490, AT8491U, AT8543, AT8468, hard shell carry case

ATM350UL :

ATM350a, AT8490L, AT8491U, AT8543, AT8468, hard shell carry case

ATM350PL :

ATM350a, AT8490L, AT8491P, AT8543, AT8468, hard shell carry case

ATM350W :

ATM350a, AT8490, AT8491W, AT8543, AT8468, hard shell carry case

ATM350D :

ATM350a, AT8490, AT8491D, AT8543, AT8468, hard shell carry case

ATM350UcW :

ATM350acW, AT8490, AT8491U, AT8468, hard shell carry case

Thank you for purchasing this product. Before using the product, read through the user manual to ensure that you will use the product correctly. Please keep this manual for future reference.

Features

- Crisp, clear, well-balanced response, even at high SPLs
- Attaches to brass, reeds, piano, snare, toms and violin
- Dedicated mounting systems permit accurate positioning, provide shock resistance and element protection
- AT8453 power module is equipped with switchable 80-Hz low-cut filter to minimize pickup of undesired low-frequency sounds
- Interchangeable elements available for hypercardioid and omnidirectional polar patterns
- Also available in a wireless model, ATM350acW

Caution

- Do not subject the product to strong impact to avoid malfunction.
- Do not disassemble, modify or attempt to repair the product.
- Do not handle the product with wet hands to avoid electric shock or injury.
- Do not store the product under direct sunlight, near heating devices or in a hot, humid or dusty place.

ATM350a Description

The ATM350a is a fixed-charge condenser microphone with a cardioid polar pattern. It is designed for use in professional live-sound and studio applications.

When used with the available mounts and mounting systems, it provides accurate, consistent pickup of brass, woodwind, piano, drums and many other musical instruments.

The flexible gooseneck allows for precise microphone positioning even under demanding performances.

The cardioid polar pattern of the microphone is more sensitive to sound originating directly in front of the element, making it useful for controlling feedback and reducing pickup of unwanted sounds.

The microphone includes a 4 m (13.1') permanently attached miniature cable. Its free end connects to the provided AT8543 power module via a locking 4-pin connector. The output of the power module is a 3-pin XLRM-type connector.

A 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 is enclosed in a rugged housing with a low reflectance black finish.

ATM350acW Description

The microphone is also available in a wireless model, the ATM350acW. The ATM350acW features a 1.4 m (55") miniature cable terminated with a locking 4-pin connector for use with Audio-Technica UniPak® body-pack transmitters. The ATM350acW specifications are identical to those of the ATM350a (when using an AT8543 power module). However, no power module is included with the ATM350acW, so there is no low-cut function.

AT8491U Description

Universal clip-on mount features rugged metal construction to withstand the rigor of stage use. The mount is lined with rubber to provide secure mounting, shock resistance and instrument protection. Specially designed mount minimizes contact with instrument. A locking screw holds the mount securely in place.

AT8491P Description

Piano mount features a strong rare-earth magnet which permits secure mounting inside a piano or on any metal surface. The mounting base is lined with soft and protective material to avoid damaging the instrument.

AT8491W Description

The woodwind mount features an adjustable hook and loop fastener strap with rubber pad to firmly secure the mount to the instrument. Specially designed mount minimizes contact with instrument to reduce damping. Rotating gooseneck mount allows easy positioning of the microphone.

AT8491D Description

The drum mount features a patent pending design which uses the drum lug to securely mount the microphone while still allowing the drum to be tuned. The gooseneck can be positioned vertically or horizontally for optimal placement and a low profile appearance.

AT8490/AT8490L Description

The AT8490/AT8490L flexible gooseneck permits aiming the microphone in any direction, while a cable strain relief reduces cable-transmitted noise and cable damage. The integral windscreens entirely surrounds the microphone with foam to isolate the microphone from noise transmitted from the instrument and shield the element against accidental damage.

AT8468 Description

The violin mount fastens beneath the strings between the bridge and the tailpiece to provide outstanding pickup of violin and other stringed instruments.

Operation and Maintenance

The ATM350a 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.

To avoid phase cancellation and poor sound, all mic cables must be wired consistently: Pin 1-to-Pin 1, etc.

The 80-Hz low-cut filter switch on the AT8543 power module makes it easy to switch from flat frequency response to low frequency roll-off. This minimizes pickup of undesired low frequency noise, such as from air conditioning systems. To engage the high-pass filter, slide the switch toward the "bent" line.

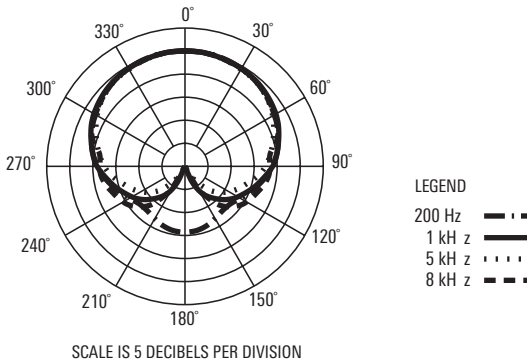
Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110° F (43° C) for extended periods. Extremely high humidity should also be avoided.

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Cardioid
Frequency response	40 to 20,000 Hz
Low frequency roll-off*	80 Hz, 12 dB/octave
Open circuit sensitivity	-49 dB (3.5mV) (0dB=1V/Pa, 1 kHz)
Impedance	200 ohms
Maximum input sound level	159 dB SPL (1 kHz THD 1%)
Dynamic range	130 dB (1 kHz at Max SPL)
Signal-to-noise ratio	65 dB (1 kHz at 1Pa, A-weighted)
Phantom power requirements	11 to 52 V DC, 3.5 mA
Switch*	Flat, roll-off
Weight	Microphone: 14.5 g (0.5 oz), Power module: 90 g (3.2 oz)
Dimensions	Microphone: 37.8 mm (1.49") long, 12.2 mm (0.48") diameter Power module: 92 mm (3.62") long, 18.9 mm (0.74") diameter
Output connector	Power module: Integral 3-pin XLRM-type
Cable(s)	4.0 m (13.1') long (permanently attached to microphone), 3.2 mm (0.13") diameter, 2-conductor shielded cable with HIROSE HR10-type connector
Optional interchangeable elements	UE-O omnidirectional, UE-H hypercardioid
Accessories	AT8543 power module, microphone instrument mount, AT8468 violin mount, hard shell carry case

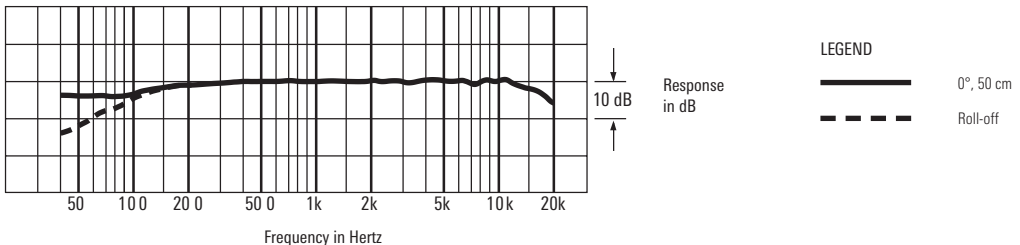
- Characteristic weighting measured when connected to an AT8543 power module.
- 1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL
- For product improvement, the product is subject to modification without notice.
- * Mounted on an AT8543 power module.

Polar pattern



Frequency response

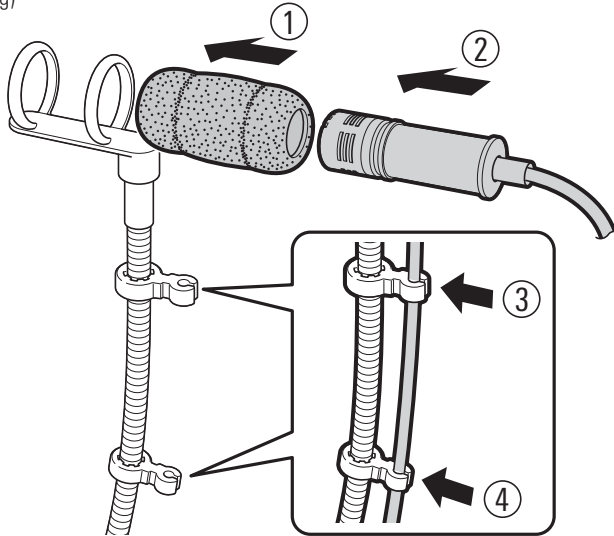
40–20,000 Hz



Mounting the microphone

AT8490/AT8490L

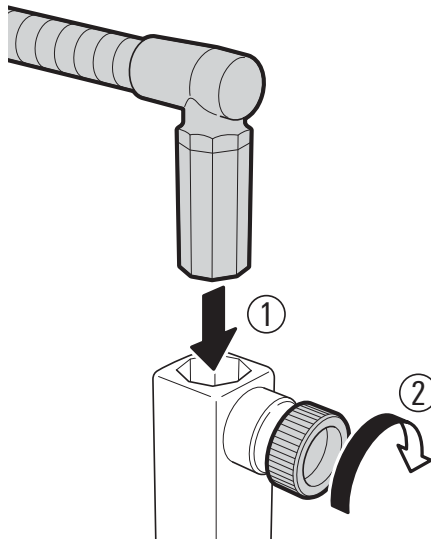
Gooseneck (standard/long)



Fixing the gooseneck on the mounts

The gooseneck can be fixed at every 90° angle.

1. Insert the gooseneck until it reaches the bottom of the hole on the mount. Firmly tighten the screw on the mount to secure it.
2. Do not force the screw if there are any foreign objects in the way. Do not use any tools to tighten the screw. Doing so could strip the threads or damage the screw.

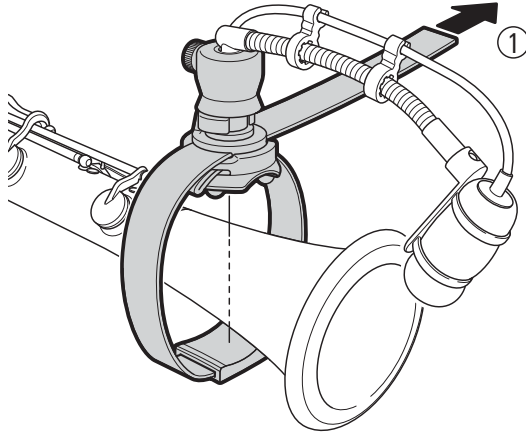


Setting the mounts on instruments

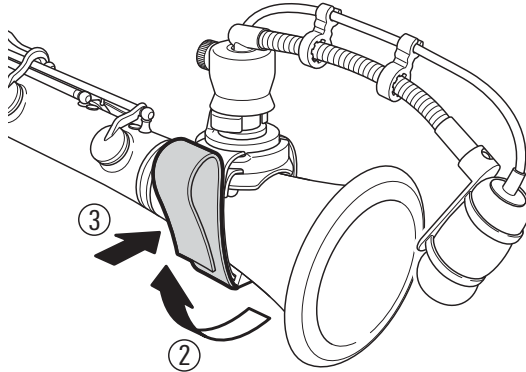
AT8491W

Woodwind mount

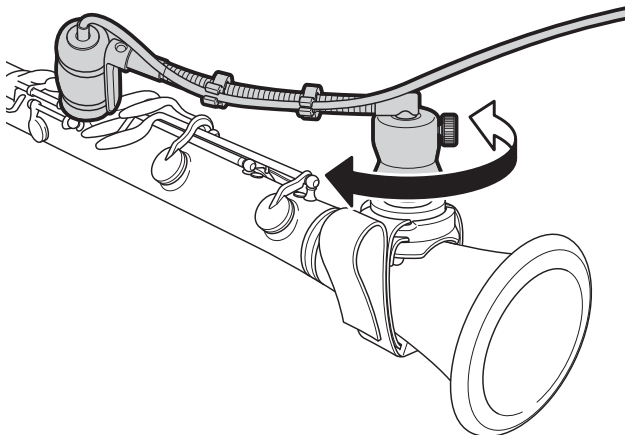
1.



2.



Adjust the position of the microphone by rotating the top of the mount.

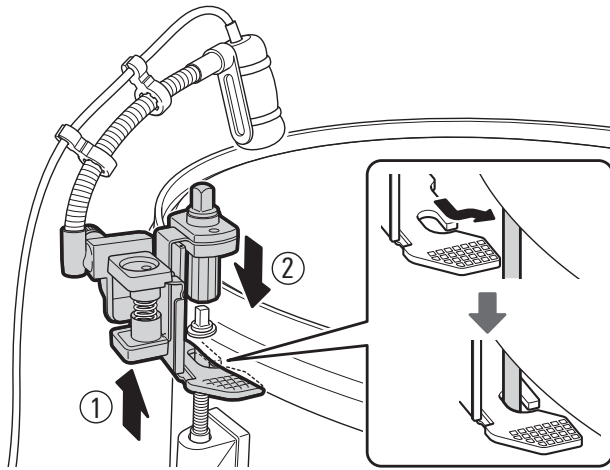


Setting the mounts on instruments

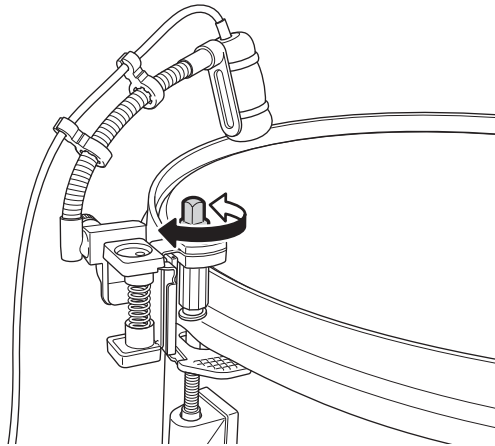
AT8491D

Drum mount

1.



2.

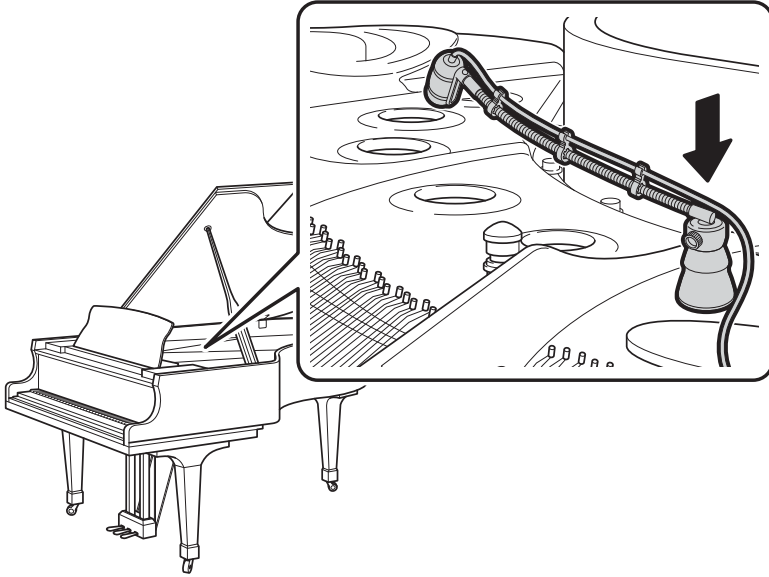


The top bolt rotates freely to allow tuning when the microphone is mounted.

Setting the mounts on instruments

AT8491P

Piano mount

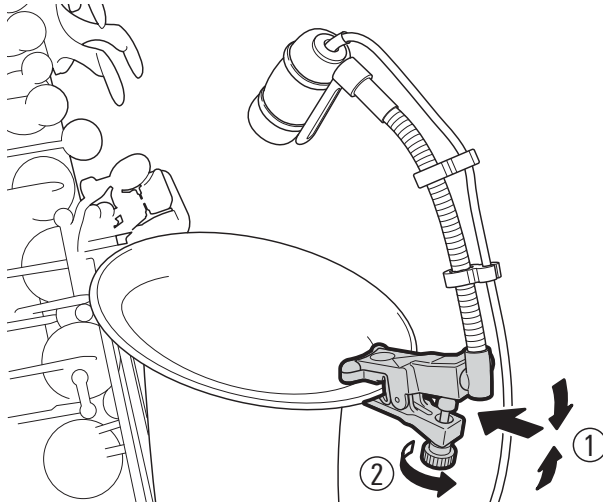


The mount should be fixed on a metal surface.

Keep mobile phones, analog clocks and magnetic cards etc. away from the magnet in the bottom of the mount to prevent content from being damaged or erased.

AT8491U

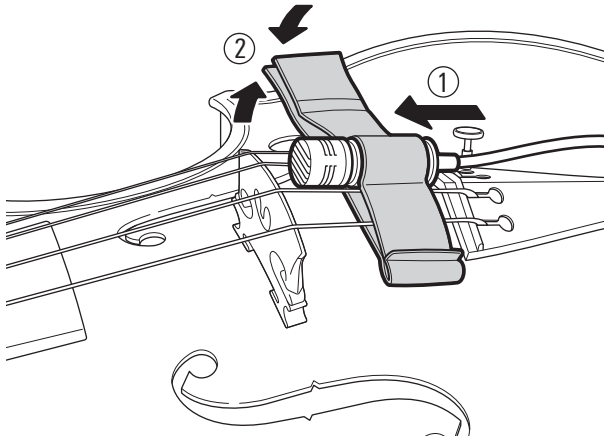
Universal clip-on mount



Setting the mounts on instruments

AT8468

Violin mount



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