audio-technica

ATM350a
ATM355

Cardioid Condenser Instrument Microphone

User Manual

English

Introduction

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

Features (ATM350a)

- Crisp, clear, well-balanced response, even at high SPLs
- Attaches to brass or woodwind instruments, pianos, snares, toms, violins, guitars, and accordions
- Dedicated mounting systems permit accurate positioning, provide shock resistance and element protection
- AT8543 power module is equipped with a switchable 80 Hz low-cut filter to reduce undesired low-frequency sounds
- Interchangeable elements available for hypercardioid and omnidirectional polar patterns
- Also available in wireless models, ATM350acW and ATM350acH

ATM350a

The ATM350a is a fixed-charge back plate 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 or woodwind instruments, pianos, drums, and many other musical instruments. The flexible gooseneck allows for precise microphone positioning even during lively 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') 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 XLR-M-type connector. A switch in the power module permits choice of flat response or low cut (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

The microphone is also available as the ATM350acW wireless model. The ATM350acW features a 1.4 m (55") cable terminated with a locking 4-pin connector for use with Audio-Technica 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.

ATM350acH

The microphone is also available as the ATM350acH wireless model. The ATM350acH features a 1.4 m (55") cable terminated with a screw-down 4-pin connector for use with Audio-Technica cH-style body-pack transmitters. The ATM350acH specifications are identical to those of the ATM350a. However, no power module is included (or required) with the ATM350acH.

AT8490/AT8490L

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 windscreen entirely surrounds the microphone with foam to isolate the microphone from noise transmitted from the instrument and shield the element against accidental damage.

AT8491U

The universal clip-on mount features rugged metal construction to withstand the rigors 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

The piano mount features a strong magnet that 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

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

The drum mount features a patented design which uses the drum's tension rod to securely mount the microphone. Tuning is still possible with the mount attached. The gooseneck can be positioned vertically or horizontally for optimal placement and a low-profile appearance.

AT8468

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

AT8491G

The guitar mount features a clamp-style mount with pads that leave fewer marks. It can be attached to stringed instruments by adjusting the length using a thumbscrew. You can adjust the clamp length between 90 mm (3.5") and 135 mm (5.3").

AT8491S

The surface mount is designed for accordions. The notched mount can be attached using the accordion's grille fastening screw. It can also be attached to other instruments with flat surfaces by using transparent protective films and hook-and-loop fasteners.

AT8475

The surface mounting kit for the AT8491S includes two sets of hook-and-loop fasteners in different sizes, two adhesive silicon pads, and two transparent protective films.

Packages (ATM350a)

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

ATM350GL

- ATM350a
- AT8490L
- AT8491G
- AT8543
- AT8468
- Hard shell carry case

ATM350S/ATM350SL

- ATM350a
- AT8490 (ATM350SL: AT8490L)

- AT8491S
- AT8475
- AT8543
- AT8468
- Hard shell carry case

ATM350UcW

- ATM350acW
- AT8490
- AT8491U
- AT8468
- Hard shell carry case

ATM350UcH

- ATM350acH
- AT8490
- AT8491U
- AT8468
- Hard shell carry case

Features (ATM355)

- Crisp, clear, well-balanced response, with a high-sensitivity design for instruments with minimal SPLs
- Compact design that attaches to a variety of instruments, such as violins, violas, and flutes
- Dedicated mounting systems permit accurate positioning, and provide shock resistance and element protection
- AT8543 power module is equipped with a switchable 80 Hz low-cut filter to reduce undesired low-frequency sounds
- Interchangeable elements available for hypercardioid and omnidirectional polar patterns
- Also available in a wireless model, ATM355cH

ATM355

The ATM355 is a fixed-charge back plate 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 stringed instruments, woodwind instruments, and many other musical instruments. The flexible gooseneck allows for precise microphone positioning even during lively 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 1.8 m (5.9') 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 XLR-M-type connector. The lightweight, flexible gooseneck pipe permits aiming the microphone in any direction, while a cable strain relief reduces cable-transmitted noise and cable damage. The integral windscreen entirely surrounds the microphone with foam to isolate the microphone from noise transmitted from the instrument and shield the element against accidental damage. A switch in the power module permits choice of flat response or low cut (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.

ATM355cH

The microphone is also available as the ATM355cH wireless model. The ATM355cH features a 1.8 m (5.9') cable terminated with a screw-down 4-pin connector for use with Audio-Technica cH-style body-pack transmitters. The ATM355cH specifications are identical to those of the ATM355. No power module is included (or required) with the ATM355cH.

AT8491V

The violin mount is compatible with a body depth of 30 mm (1.2") to 55 mm (2.2"). It uses a clip structure that clamps the face and back veneers securely, allowing for attachment and removal with a single hand. Minimal contact area reduces damping without affecting resonance. The special protective material and design avoid damaging the instrument.

AT8491F

The flute mount is compatible with an instrument diameter of 12 mm (0.47") to 30 mm (1.2"). The contact area is R-shaped, allowing it to be mounted on wind instruments such as flutes, and cylindrical objects such as microphone stands for greater versatility. The contact area is lined with soft and protective material to avoid damaging the instrument.

AT8493

Attaching this joint adapter to the gooseneck expands its applications, allowing use of the AT8491U, AT8491P, AT8491W, AT8491D, AT8491S, and AT8491G.

Packages (ATM355)

ATM355VF

- ATM355
- AT8491V
- AT8491F
- AT8493
- AT8543 (with belt clip)
- Hard shell carry case

ATM355VFcH

- ATM355cH
- AT8491V
- AT8491F
- AT8493
- Hard shell carry case

Safety precautions

Although this product was designed to be used safely, failing to use it correctly may result in an accident. To ensure safety, observe all warnings and cautions while using the product.

Cautions for the product

- 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.

Notes on use

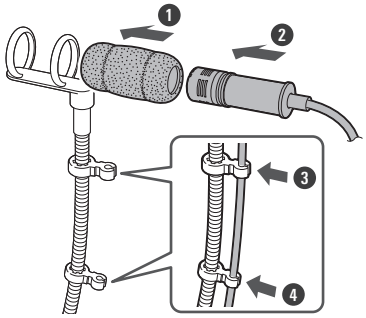
- Be sure to read the connected device's user manual before use.
- When the product is used for a long time, the product may become discolored due to ultraviolet light (especially direct sunlight) and wear.
- Make sure to hold the plug when connecting and disconnecting the cable. The cable may become severed or an accident may occur if you pull on the cable itself.
- When using the cable, be careful not to twist it to prevent damage to the cable.
- Do not wind the cable at the base of the plug. Doing so may result in disconnection.
- When plugging the cable into the microphone and the connected device, check that the connector is facing in the correct direction before inserting it straight. Inserting the connector or plug diagonally may cause a malfunction.

Disclaimer

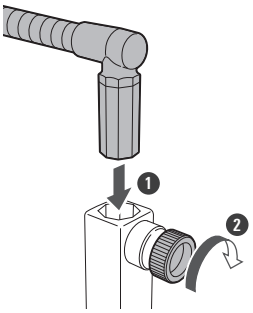
This product is designed to be used as a removable microphone mount on various musical instruments. When used properly, this product will not harm the finish or otherwise damage instruments. As a precaution, however, this product should not be left on an instrument indefinitely, and, ideally, should be removed after each use. Audio-Technica shall not be responsible or liable for any damage caused to a musical instrument as a result of using this product.

Mounting the microphone (ATM350a)

1 **Mount the microphone on the gooseneck (AT8490/AT8490L).**



2 **Fix the gooseneck on the mount.**

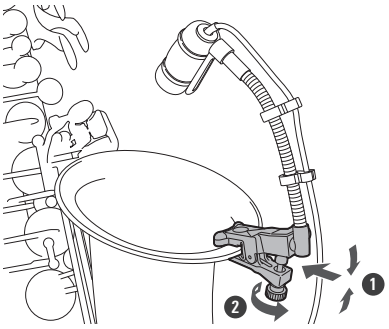


1. Insert the gooseneck until it reaches the bottom of the hole on the mount. Firmly tighten the screw on the mount to secure the gooseneck.
2. Do not force the screw if there are any foreign objects in the way. Do not use any tools to tighten the screw. Doing so could strip the threads or damage the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

- The gooseneck can be fixed at any 90° angle.

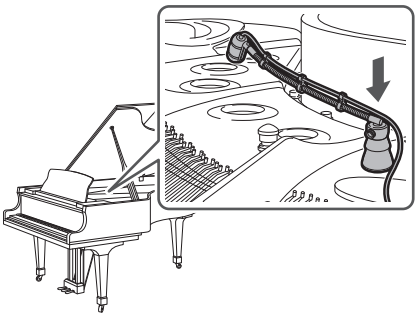
Setting the mounts on instruments (ATM350a)

Universal mount (AT8491U)



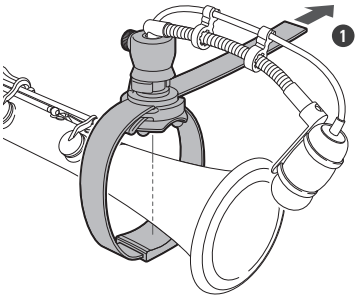
- To prevent damage to the instrument, take care not to tighten the screw excessively.

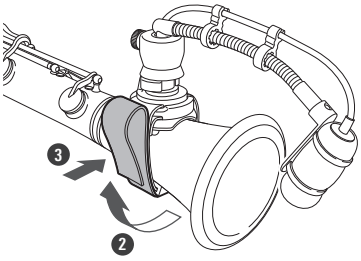
Piano mount (AT8491P)

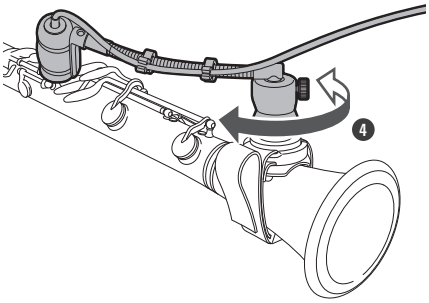


- The mount should be fixed on a metal surface. Keep mobile phones, analog clocks, magnetic cards, and other devices away from the magnet in the bottom of the mount. Not doing so could damage or erase the content.

Woodwind mount (AT8491W)

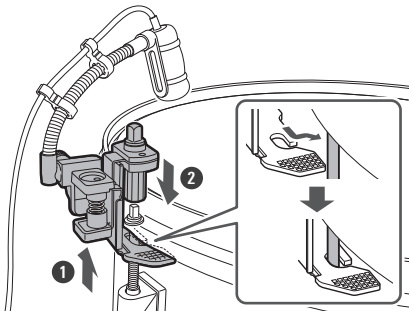


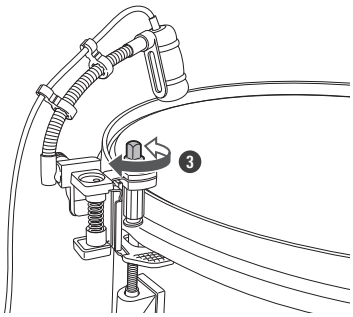




- Adjust the position of the microphone by rotating the top of the mount.

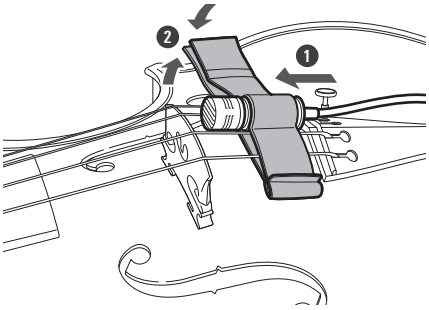
Drum mount (AT8491D)



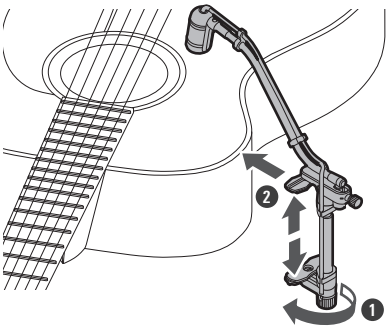


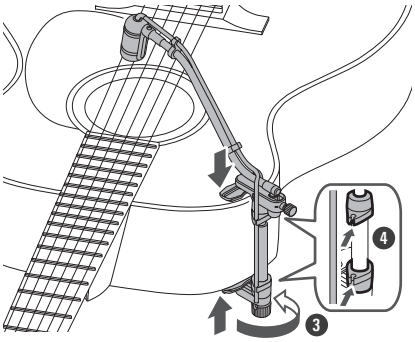
- The top bolt rotates freely to allow tuning when the microphone is mounted.

Violin mount (AT8468)



Guitar mount (AT8491G)



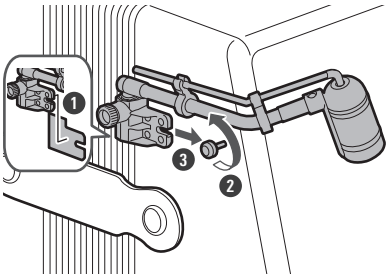


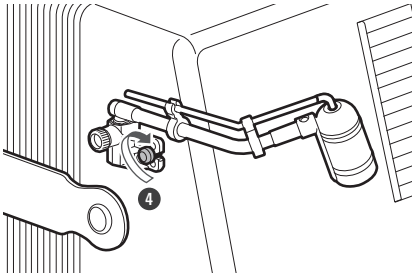
- Rotate the screw and adjust the length, and then tighten the screw to secure in place.

- To prevent damage to the instrument, take care not to tighten the screw excessively.

Surface mount (AT8491S)

When using the grille fastening screw on the accordion



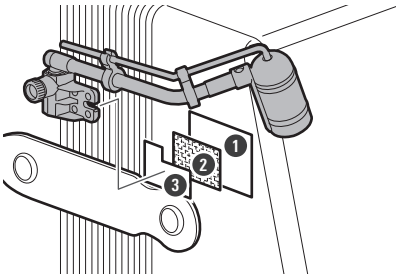


- Affix the adhesive silicon pad to the back side of the mount. Loosen the grille fastening screw on the accordion, insert the mount, and then tighten the grille fastening screw to secure the mount in place.

- Depending on the screw shape, it may not be possible to attach the mount with this method.

When using hook and loop fasteners

Affix the transparent protective film (1) to the body of the instrument, and affix a loop fastener (2) on top of that. Also affix a hook fastener (3) to the back side of the mount, and then affix it to the loop fastener on the body of the instrument (2) to secure in place.

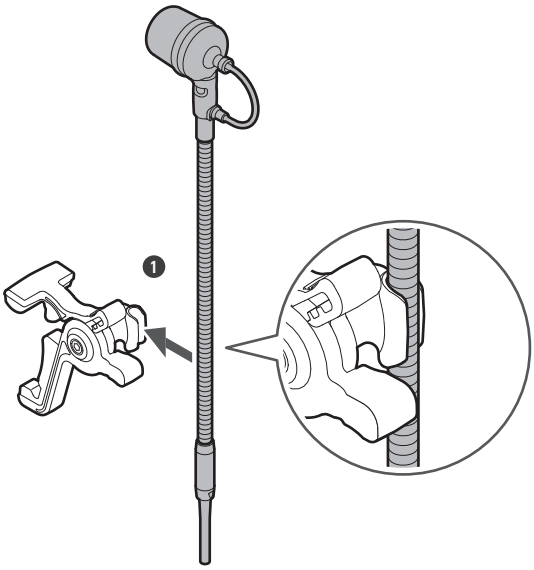


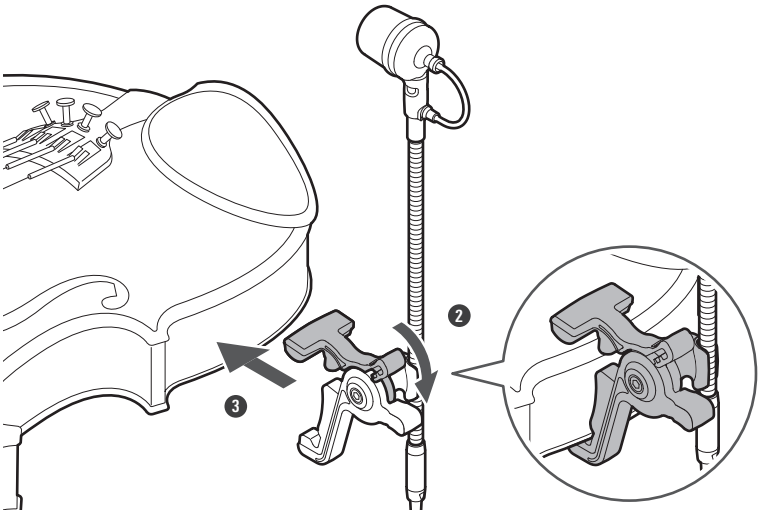
Setting the mounts on instruments (ATM350a)

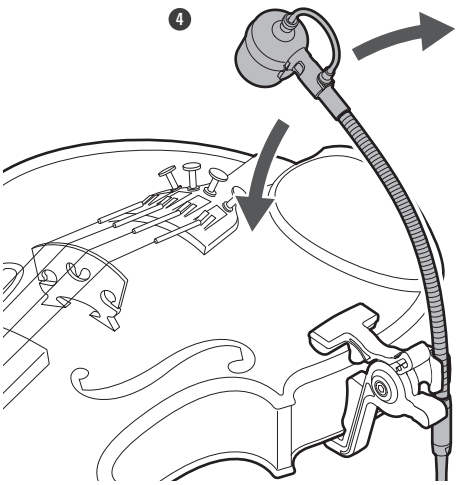
- Affix the transparent protective film on a clean, flat surface so that air bubbles do not form.
- You cannot affix the transparent protective film on unfinished wooden parts.
- To stabilize the adhesive strength of the adhesive sides of the hook and loop fasteners (2, 3), let them sit for about a day after affixing them before using the mount.

Setting the mounts on instruments (ATM355)

Violin mount (AT8491V)

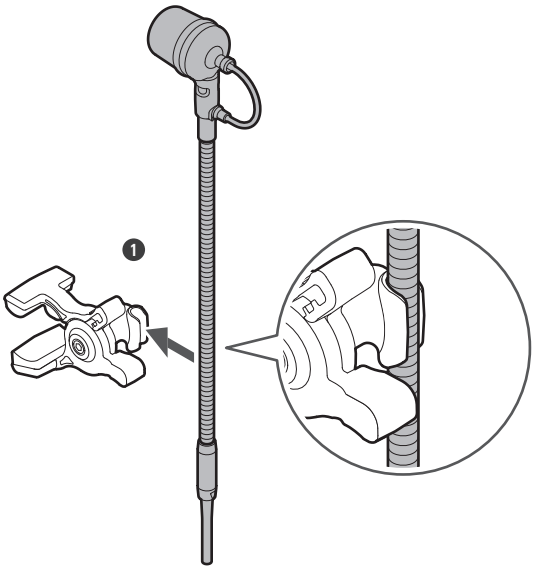


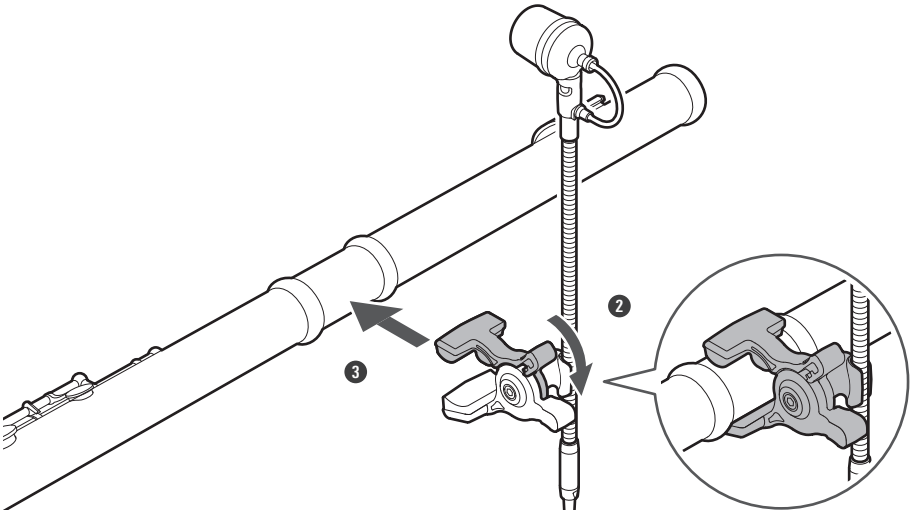


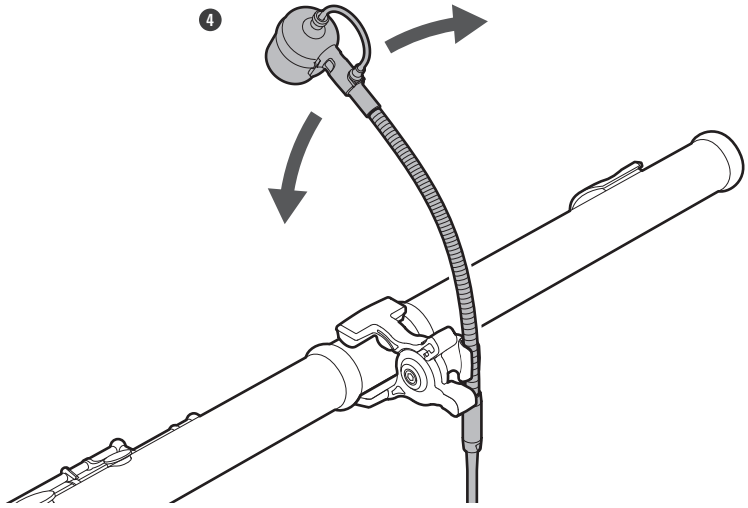


- After setting the mount on the instrument, adjust the microphone position.

Flute mount (AT8491F)





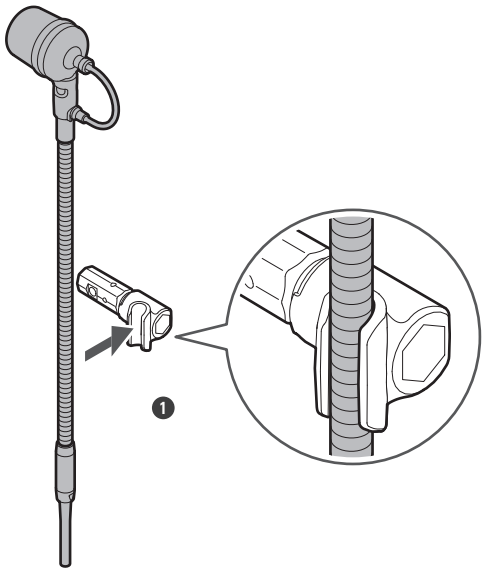


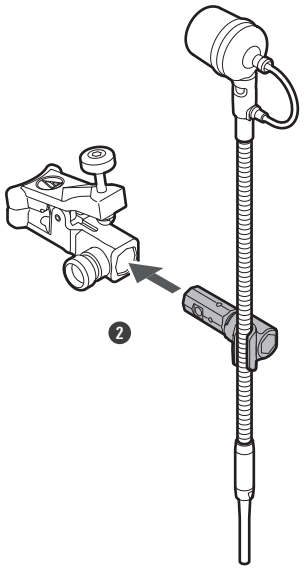
- After setting the mount on the instrument, adjust the microphone position.

Joint adapter (AT8493)

- Attaching the joint adapter to the ATM355 allows you to use other instruments in addition to a violin or flute. The following mounts are supported: AT8491U, AT8491P, AT8491W, AT8491D, AT8491S, and AT8491G.
- The joint adapter (AT8493) cannot be attached to the violin mount (AT8491V) or flute mount (AT8491F).

Mounting example: AT8491U

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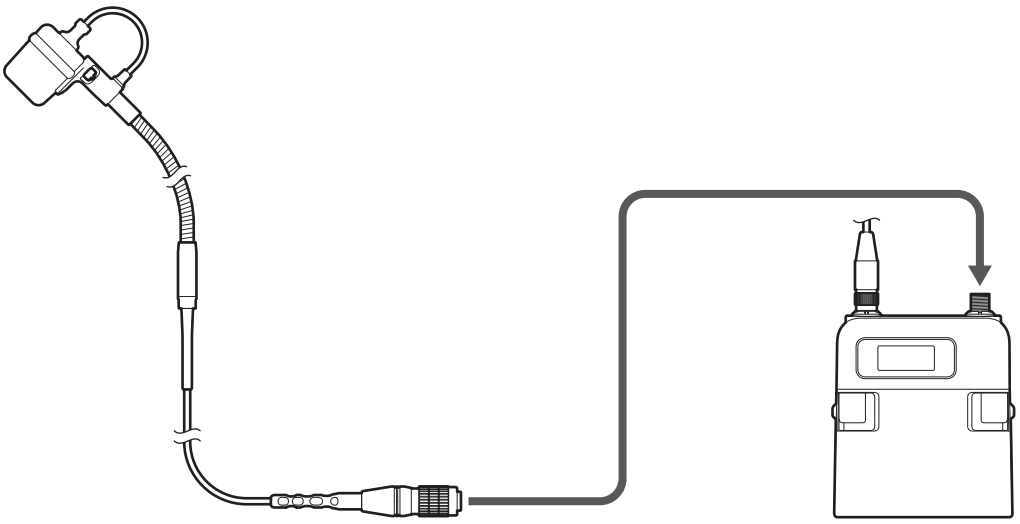
Connecting the transmitter

Microphones that can be connected differ depending on the transmitter input connector type.

cH connector connection example

If the transmitter input connector is a cH connector, the following microphones can be connected.

- ATM350acH
- ATM355cH

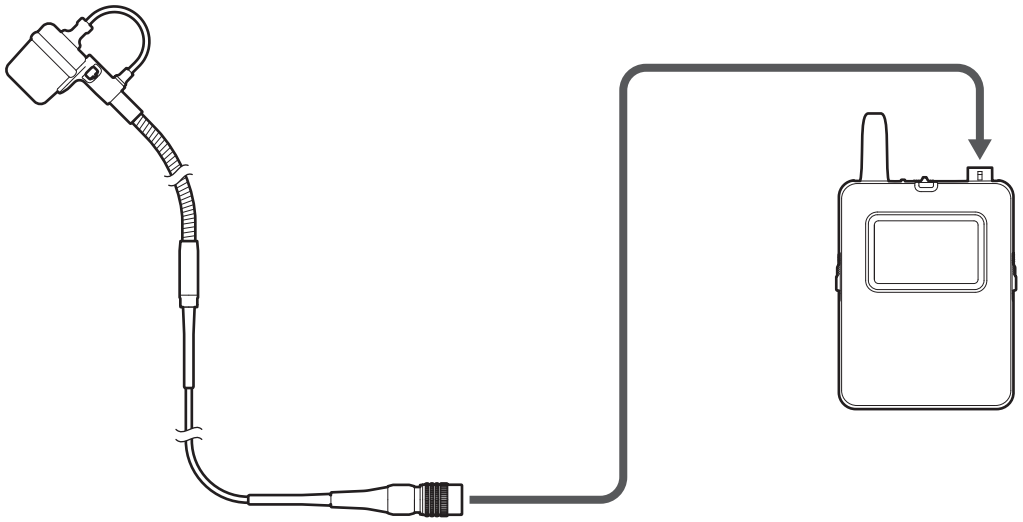


cW connector connection example

If the transmitter input connector is a cW connector, the following microphones can be connected.

- ATM350acW
- ATM355

Connecting the transmitter

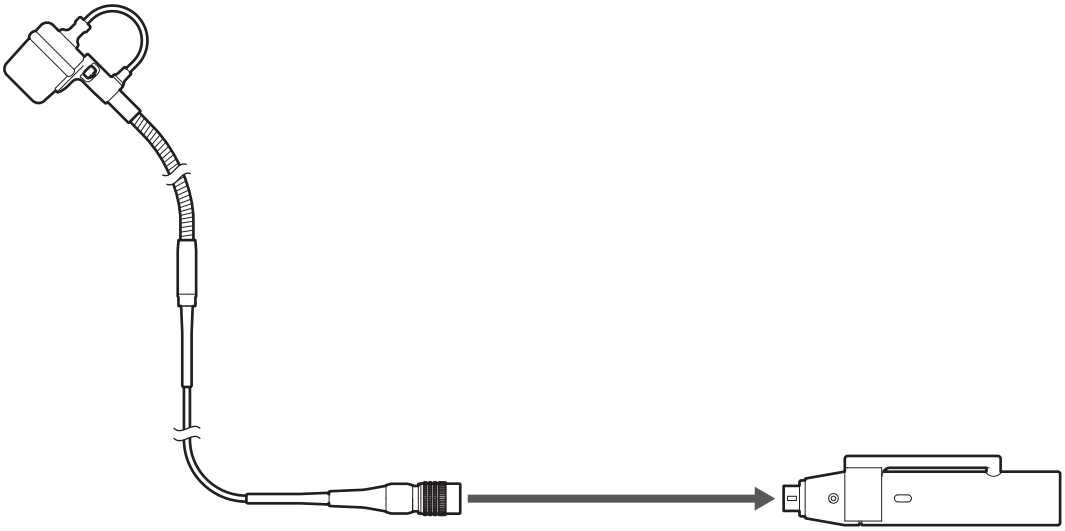


Connecting the power module

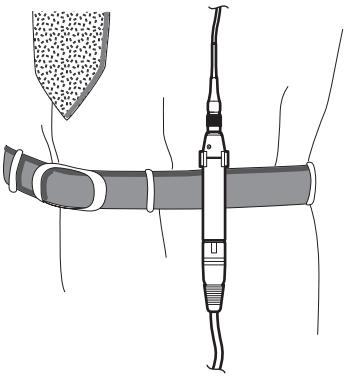
An AT8543 power module is included with the following microphones.

- ATM350a
- ATM355

Connection example



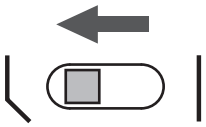
Attaching the power module to your belt



Configuring the low-cut filter switch

The AT8543 power module is equipped with a low-cut filter switch. Turning the low-cut filter switch on reduces the pickup of undesired low-frequency ambient noise (such as air conditioning noise) and instrument vibration noise.

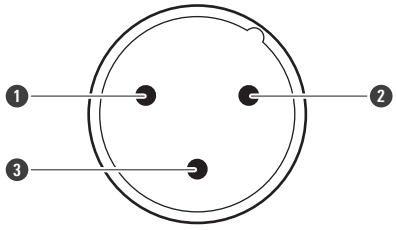
1 **Set the low-cut filter switch on the side to ON ( ).**



Output connector

Power module

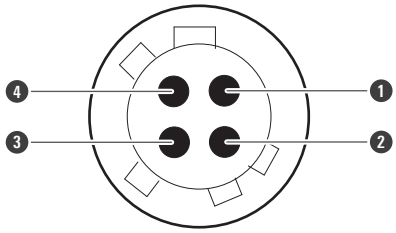
The output connector is an XLR-M-type connector with polarity as shown in the figure below.



1. PIN1 (ground)
2. PIN2 (hot)
3. PIN3 (cold)

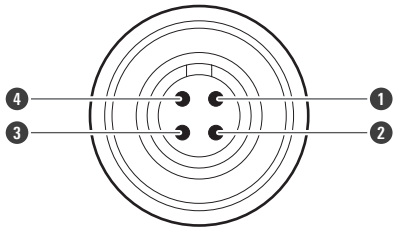
Microphone

cW connector



1. PIN1 (GND)
2. PIN2 (GND)
3. PIN3 (microphone output)
4. PIN4 (DC input)

cH connector



1. PIN1 (GND)
2. PIN2 (GND)
3. PIN3 (microphone output)
4. PIN4 (DC input)

Cleaning

Get into the habit of regularly cleaning the product to ensure that it will last for a long time. Do not use alcohol, paint thinners, or other solvents for cleaning purposes.

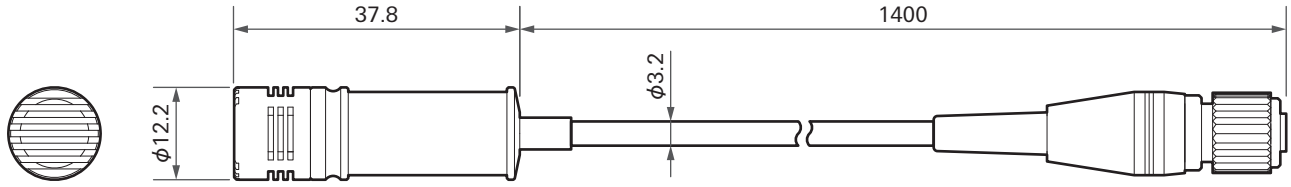
- Wipe dirt off the product with a dry cloth.
- If the cable becomes dirty because of sweat, etc., wipe it with a dry cloth immediately after use. Failure to clean the cable may cause it to deteriorate and harden over time, resulting in a malfunction.

- After use, remove the product from the instrument and store it in the hard shell carry case.
- If the product will not be used for an extended period of time, store it in a well-ventilated place free from high temperatures and humidity.

Dimensions

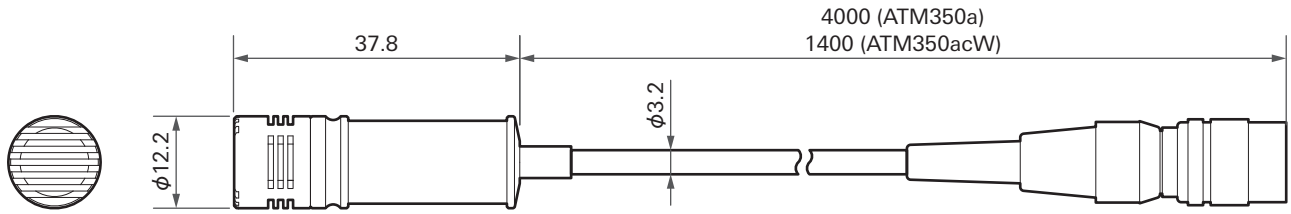
ATM350a

ATM350acH



(Unit: mm)

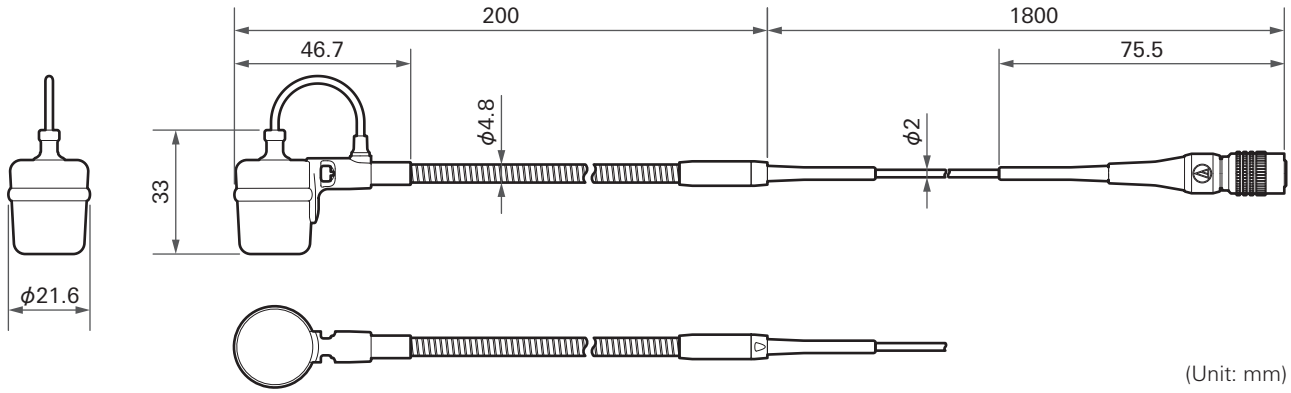
ATM350a/ATM350acW



(Unit: mm)

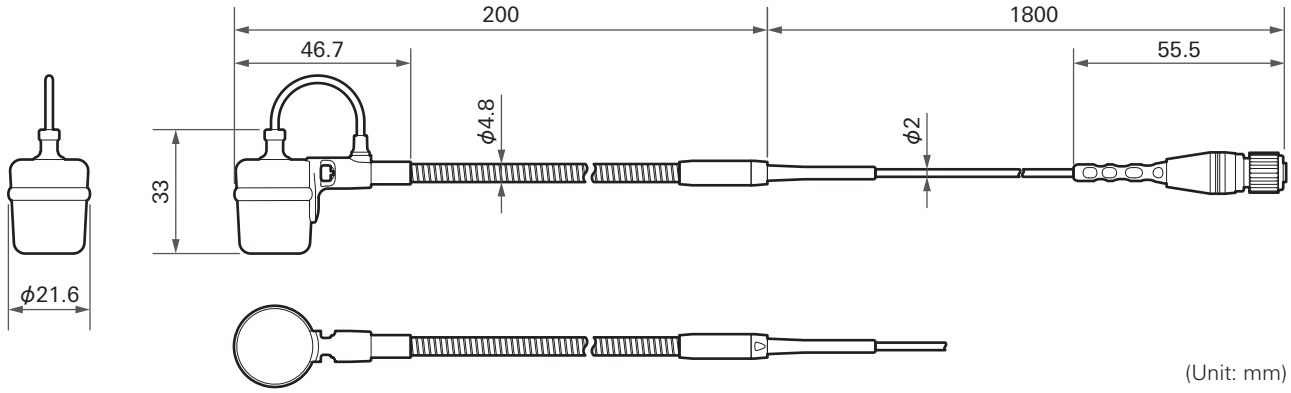
ATM355

ATM355



(Unit: mm)

ATM355cH



(Unit: mm)

Specifications

ATM350a

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Cardioid
Frequency response	40 to 20,000 Hz
Low cut[1]	80 Hz, 12 dB/octave
Sensitivity	-49 dB (3.5 mV) (0 dB = 1 V/Pa, 1 kHz)
Impedance	200 ohms
Maximum input sound level	159 dB SPL (1 kHz at 1% THD)
Dynamic range	130 dB (1 kHz at Max SPL)
Signal-to-noise ratio	65 dB (1 kHz at 1 Pa, A-weighted)
Phantom power supply	11 to 52 VDC, 3.5 mA
Switches[1]	Flat, low cut
Operating temperature range	-10°C (14°F) to 60°C (140°F)
Storage temperature range	-20°C (-4°F) to 60°C (140°F), 10% to 90% RH (without condensation)
Weight	Microphone: 14.5 g (0.51 oz), Power module: 90 g (3.2 oz)
Dimensions	Microphone: 37.8 mm (1.5") long, 12.2 mm (0.48") diameter Power module: 92 mm (3.6") long, 18.9 mm (0.74") diameter
Cable length	4 m (13') (ATM350a) or 1.4 m (4.6') (ATM350acW/ATM350acH), diameter 3.2 mm (0.13")
Output connector	Power module: 3-pin XLR-M type Microphone: cW connector (ATM350a/ATM350acW) or cH connector (ATM350acH)
Optional interchangeable elements	UE-O omnidirectional, UE-H hyper cardioid
Included accessories	Power module (AT8543)[2], microphone instrument mount, violin mount (AT8468), hard shell carry case

[1] Mounted on a power module (AT8543).

[2] Not included with the ATM350UcW/ATM350UcH.

- Characteristic values measured when connected to a power module (AT8543).
- 1 Pascal = 10 dynes/cm^2 = 10 microbars = 94 dB SPL
- For product improvement, the product is subject to modification without notice.

ATM355

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Cardioid
Frequency response	40 to 20,000 Hz
Low cut[1]	80 Hz, 12 dB/octave
Sensitivity	-39 dB (12.6 mV) (0 dB = 1 V/Pa, 1 kHz)
Impedance	200 ohms
Maximum input sound level	148.5 dB SPL (1 kHz at 1% THD)
Dynamic range	126.5 dB (1 kHz at Max SPL)
Signal-to-noise ratio	72 dB (1 kHz at 1 Pa, A-weighted)
Phantom power supply	11 to 52 VDC, 3.5 mA
Switches[1]	Flat, low cut
Operating temperature range	-10°C (14°F) to 60°C (140°F)
Storage temperature range	-20°C (-4°F) to 60°C (140°F), 10% to 90% RH (without condensation)
Weight	Microphone: 29.5 g (1.04 oz), Power module: 90 g (3.2 oz)
Dimensions	Microphone: 21.6 mm (0.85") × 33 mm (1.3") × 200 mm (7.9") Power module: 92 mm (3.6") long, 18.9 mm (0.74") diameter
Cable length	1.8 m (5.9')
Output connector	Power module: 3-pin XLR-M type Microphone: cW connector (ATM355) or cH connector (ATM355cH)
Optional interchangeable elements	UE-O omnidirectional, UE-H hyper cardioid
Included accessories	Power module (AT8543)[2], belt clip, violin mount (AT8491V), flute mount (AT8491F), joint adapter (AT8493), hard shell carry case

[1] Mounted on a power module (AT8543).

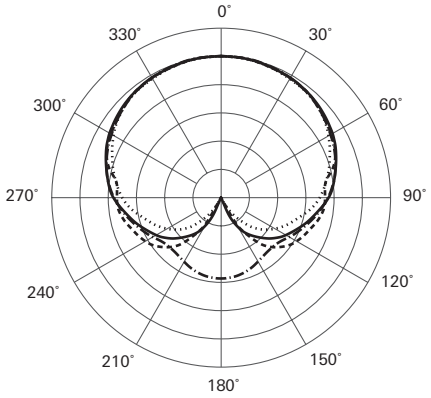
[2] Not included with the ATM355cH.

- Characteristic values measured when connected to a power module (AT8543).
- 1 Pascal = 10 dynes/cm^2 = 10 microbars = 94 dB SPL
- For product improvement, the product is subject to modification without notice.

Polar pattern/Frequency response

Polar pattern

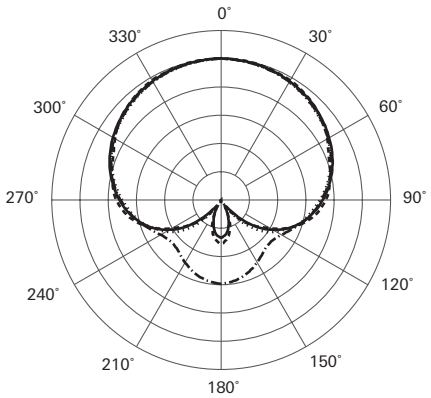
ATM350a



LEGEND

200 Hz 1 kHz 5 kHz 8 kHz	SCALE IS 5 DECIBELS PER DIVISION

ATM355



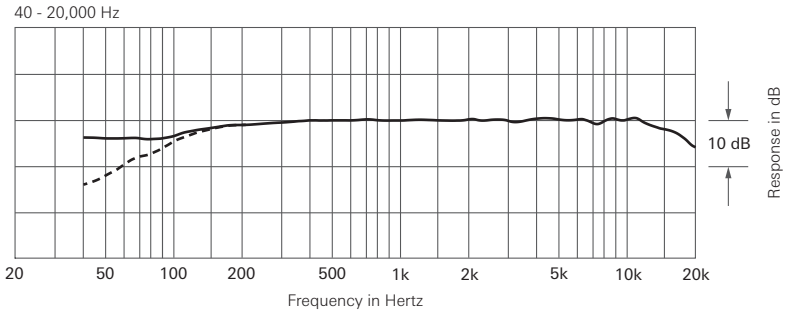
LEGEND

200 Hz 1 kHz 5 kHz 8 kHz	SCALE IS 5 DECIBELS PER DIVISION

Frequency response

ATM350a

Characteristic values measured when connected to an AT8543 power module.

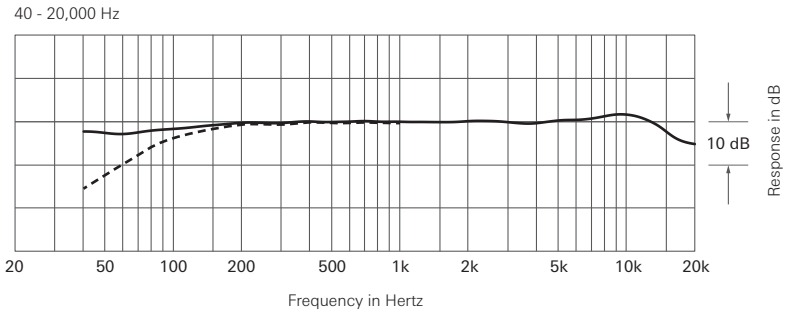


LEGEND

———	0°, 50 cm
- - - - - - - - -	Low cut

ATM355

Characteristic values measured when connected to an AT8543 power module.



LEGEND

———	0°, 50 cm
- - - - - - - - -	Low cut

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ver.1 2025.01.15
ver.2 2025.03.01