

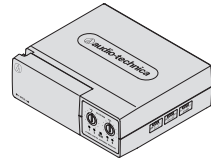


AT-CR7000

User Manual / Infrared Wireless Receiver

audio-technica

Thank you for purchasing this Audio-Technica product. Before using the product, please read through the Quick Start Guide, as well as this user manual when necessary, to ensure that you can use the product correctly.



- Channels available for up to 4 microphones (when two of this product are used at the same time)
- High performance in a compact body
- Clear sound quality produced with digital processing
- Using high-performance light receiving elements, this product features a reduced number of receiver unit installations and a low profile
 - This product must be used in combination with an Audio-Technica infrared wireless microphone (sold separately). Visit our web site for information on compatible models.
 - When sharing a receiver unit with two receivers, you must use a dedicated cascade cable (sold separately).

Check the contents of the package

Before using this product, please check that all of the following items are included in the package. If any shortage or damage is found in the contents of the package, contact your local Audio-Technica dealer.

- Infrared wireless receiver (AT-CR7000)
 - Receiver unit (AT-SRX) pre-installed
- AC adapter
- Connection cable x 2
 - RCA pin plug - 6.3 mm dia. monaural standard plug (L-shaped), 3.0 m
- Quick start guide
- Warranty card

Important information

Warning:

- To prevent fire or shock hazard, do not expose this apparatus to rain or moisture.

Caution:

- Do not expose this apparatus to drips or splashes.
- To avoid electric shock, do not open the cabinet.
- Refer servicing to qualified personnel only.
- Do not expose this apparatus to excessive heat such as that generated by sunshine, fire or other heat sources.
- Do not subject this apparatus to strong impact.
- This apparatus should be located close enough to the AC outlet so that you can easily grasp the AC adapter at any time.
- In case of emergency, disconnect the AC adapter quickly.
- Do not place any objects filled with liquids, such as vases, on this apparatus.
- To prevent fire, do not place any naked flame sources (such as lighted candles) on this apparatus.
- Do not install this apparatus in a confined space such as a bookcase or similar unit.
- Install this apparatus only in the places with good ventilation.
- The rating label is put on the bottom of this apparatus.

Important Safety Instructions

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not defeat the safety purpose of the polarized or grounding plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 9) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 10) Only use attachments/accessories specified by the manufacturer.
- 11) Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 12) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 13) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

FCC Notice

Warning:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution:

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notes on use

- Be sure to also read the connecting device's user manual before use.
- When installing a receiver unit on the ceiling, ensure that it is approximately 2 to 3 m away from any window or wall.
- When installing a receiver unit on a wall, avoid direct sunlight, spotlight, and incandescent light.
- Maintain a distance of at least 1.5 m between the microphone and the receiver unit during use. Otherwise malfunction and/or noise may occur.
- Do not place this product near any of the following objects. System malfunction or noise may occur. If such problems occur, move the product away from the object and install it in a place where proper operation is confirmed.

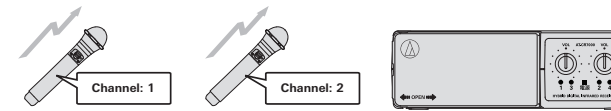
- **Lighting system**
 - Projector (LCD, DLP, etc.), OHP, incandescent light bulb, etc.
 - Mercury lamp, halogen lamp, inverter fluorescent lamp, black light
 - Plasma display panel
- **Remote control, infrared LAN and other infrared devices**
- **Dimmer**
- **Digital power amplifier, and other digital devices and their wiring (speaker outputs, etc.)**

- Noise may occur if large electrical equipment is placed on the cable routing path. In this case, route the cable far enough away from the equipment so that no noise occurs.
- When routing cables, do not cut the cables and reconnect or graft them. It may cause noise.

Wireless system

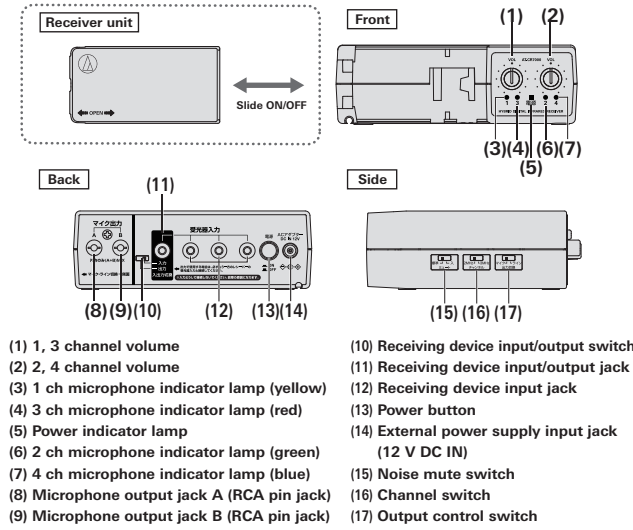
- Two infrared wireless microphones can be simultaneously used with one of this product. Up to 4 microphones can be used simultaneously by utilizing two of this product at the same time.
- When using multiple infrared wireless microphones at the same time, use microphones that correspond to the channels supported by this product.
 - Wireless systems set to the same channel cannot be used at the same time.
 - Maintain a distance of at least 1.5 m between the receiver unit and the microphone during use.
- Otherwise malfunction and/or noise may occur.
- Use this product away from any nearby TVs or other digital equipment. Otherwise transmission may be affected by radio waves and/or noise.

■ Example of use

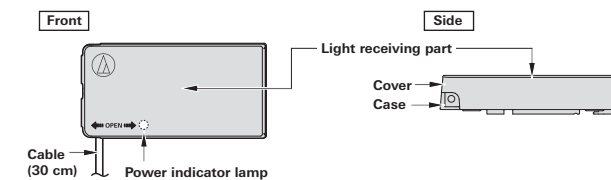


Name of each part

Infrared wireless receiver



Receiver unit

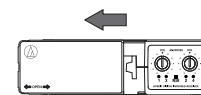


Removing and attaching the receiver unit

When removing or attaching a receiver unit, remove the cable from the groove on the bottom side and be careful not to catch it between objects. Wire breakage may occur.

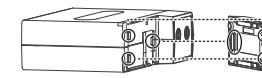
<Removing>

Slide the receiver unit to the left.



<Attaching>

(1) Align the receiver's latch and the receiver unit's groove. (3 locations)



(2) Slide the receiver unit to the right until you hear a click.

Reception frequencies

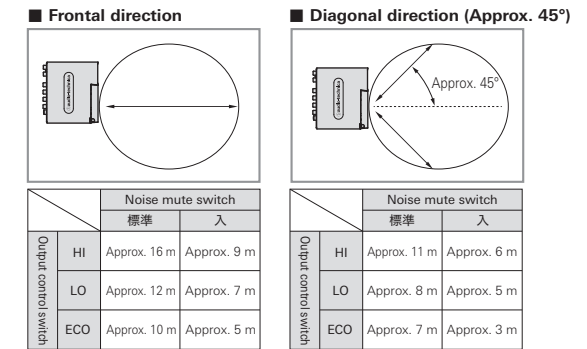
This product supports the following channels (frequencies).

Channels that are not listed below are not supported.

1 ch	2.06 MHz	3 ch	3.20 MHz
2 ch	2.56 MHz	4 ch	3.70 MHz

Reception range

- The reception range may vary depending on the combination of products, settings, and/or room conditions.
- The following example shows the reception range with the product combination below.
 - Receiver: AT-CR7000
 - Receiver unit: AT-SRX
 - Microphone: AT-CLM7000TX



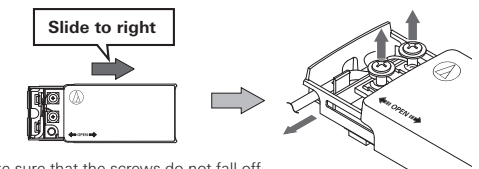
- Switching the microphone's output control switch setting (HI / LO / ECO) or switching this product's noise mute switch setting (標準/入) will change the reception range.
- As the receiver unit has the maximum sensitivity on the front, it is more effective to install it on a wall than on the ceiling.
- Entry of direct sunlight, or light from a spotlight or incandescent light into the receiver unit significantly reduces its reception range.

Changing the receiver unit cable

Follow the procedure below to change the cable of the receiver unit.

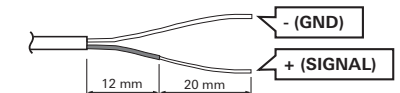
- Always unplug the cable from the receiver before removing the cable. Performing this procedure while the cable is still connected will cause a short circuit, which can result in fire or malfunction.
- Always use the dedicated cable for this product. Using a different cable may cause noise or other reception problems.

(1) Slide the cover off, and loosen the two screws that are holding the cable in place to release the cable.



Make sure that the screws do not fall off.

(2) Cut the cable into the appropriate length and peel the coating off the tip to the appropriate length as shown in the figure below.



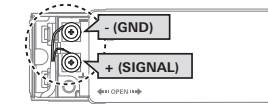
When installing multiple receiver units, unifying the cable lengths improves the reception sensitivity.

(3) Push the cable into the position shown in the figure to secure it.



Use the back of a pair of tweezers to push it in completely.

(4) Route and connect the cable correctly according to the polarities and tighten both screws.



Attach the + (SIGNAL) side first and then attach the - (GND) side. Check the polarities before attaching the cable.

- (GND) side: Shielded (thick conductor)
+ (SIGNAL) side: Core (thin conductor with yellow coating)

Any contact between the cables (including contact with other parts) can cause a short circuit, which may result in a malfunction.

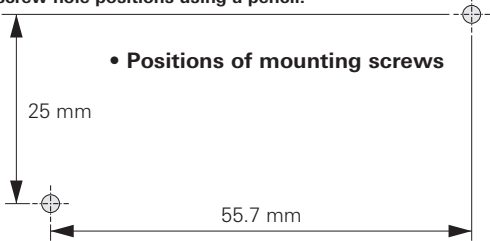
(5) Slide the cover.

After firmly attaching the cover, check for any gaps.

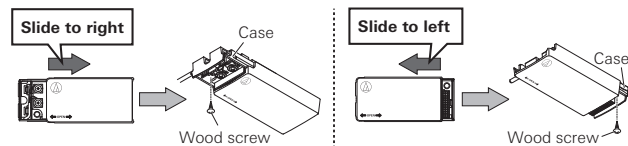
Installing the receiver unit

- This procedure is for installing the receiver unit on the ceiling or wall by drilling holes into it.
- Prepare a Phillips-head screw driver and the wood screw supplied with the separately sold receiver unit.
- Install the receiver unit in an open location free of obstruction while ensuring that the microphone will have a direct line of sight to the receiver unit.

(1) Choose the mounting location for the receiver unit, and mark the screw hole positions using a pencil.



(2) Slide the cover of the receiver unit. Pass the wood screw through the case and attach the receiver unit to the ceiling or wall.



(3) Slide the cover on and fit it firmly on the receiver unit. Check for any gaps. Connect the receiver unit cable to the receiver's receiving device input.

CAUTION

- When fixing this product's cable on a wall, do not use excessive force in order to prevent wire breakage.
- Make sure that the material, strength, and thickness of the installation location are sufficient. Audio-Technica is not responsible for any accidents or damage resulting from the product falling due to the installation location's lack of strength or incorrect mounting upon installation.

Cable routing

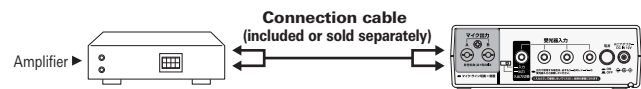
When routing cables inside walls or ceilings, do not cut the cables and reconnect or graft them. Noise or other reception problems may occur.



Connecting the product

Also read the user manual for the device to be connected.

- Connect the AC adapter included in the package to the external power supply input jack (12 V DC IN) of this product and plug it into an outlet.
- Use a connection cable (either included or sold separately) to connect the microphone output jack of this product with the input terminal of a connecting device such as an amplifier.



- **Connecting to the connecting device's line input**
Use the separately sold connection cable (RCA pin plug (red/white) - RCA pin plug (red/white)). Connect one of the plugs to this product's microphone output jack and the other plug to the connecting device's line input.
- **Connecting to the connecting device's microphone input**
Use the supplied connection cable (RCA pin plug - 6.3 mm dia. monoaural standard plug (L-shaped)). Connect the RCA pin plug to this product's microphone output jack, and the 6.3 mm dia. monoaural standard plug (L-shaped) to the connecting device's microphone input.

• When a cable is connected to only one of the microphone output jacks, the output will be a mix of microphone output A and microphone output B. If you do not want to use mixed output, connect cables to both microphone output jacks.

(3) Switch this product's output control switch setting.

- If the product is connected to the connecting device's microphone input, set this to the "マイク" side and if connected to the line input, set this to the "ライン" side.
- Set to "マイク" by factory default.



(4) Connect the cable coming out from the receiver unit to the receiving device input jack or the receiving device input/output jack of this product.



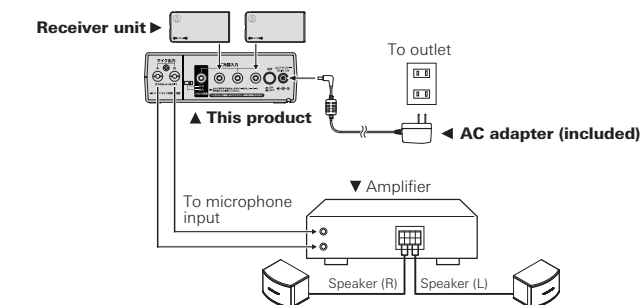
• If connecting to the receiving device input/output jack, set the receiving device input/output switch to "入力."
For more information, refer to "Receiving device input/output jack."

(5) Place the receiver on a rack.

CAUTION

- Make sure that you are connecting the microphone output jack, receiving device input/output jack, and receiving device input jack correctly. Incorrect connection may result in fire or malfunction. (The microphone output jack is white while the receiving device input/output jack and receiving device input jack are black.)
- Always use the dedicated cable for this product. Using a different cable may cause noise or other reception problems.
- Do not connect a receiver unit to a receiving device input/output jack when the receiving device input/output switch is set to "出力." Doing so may result in malfunction.

■ Connection example

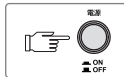


- This product is supplied with one receiver unit.
- Up to 4 receiver units can be connected (when this product's receiving device input/output switch is set to "入力"). When the receiving device input/output switch is set to "出力," you can connect up to 3 receiver units.

Using the product

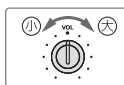
(1) Push the power button on this product to turn on the power.

- The power indicator lamp of this product lights up red when the channel switch is set to 2 MHz and green when the channel switch is set to 3 MHz.
- The power indicator lamp of the receiver unit lights up blue.



(2) When the receiver unit receives a microphone signal, the microphone indicator lamp of the corresponding channel lights up.

(3) Turn the volume knob for each channel to adjust the volume.



Reception channels and microphone output

The reception channel and microphone output settings change as shown in the table below by using the channel switch.

Channel switch	Reception channels	マイク出力	
2 MHz	1, 2 ch	1 ch	2 ch
3 MHz	3, 4 ch	3 ch	4 ch



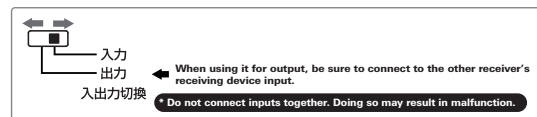
- Set to "2MHz" by factory default.
- When a cable is connected to only one of the microphone output jacks, the output will be a mix of microphone output A and microphone output B. If you do not want to use mixed output, connect cables to both microphone output jacks.

Receiving device input/output jack

Set the receiving device input/output jack to "入力" or "出力" using the receiving device input/output switch.

Set the jack to "入力" when connecting the receiver unit for normal use. Set the jack to "出力" when connecting the separately sold dedicated cascade cable for shared use of the receiver unit.

- Set to "入力" by factory default.



Noise mute setting

If there is interruption or noise during use, turn on the noise mute switch (to the "入" position). While the reception range decreases, noise can be reduced.

- Set to "標準" by factory default.



Shared use of receiver unit

Receiver units can be shared for use by using two of this model of receiver. When a receiver unit is shared, each of the receivers sharing the receiver unit can receive the channel set on the receiver.

- Always use the separately sold dedicated cascade cable (RCA pin plug - RCA pin plug).
- Maximum of 4 receiver units can be shared for use.
- Microphone output cannot be shared. Each receiver will use its own microphone output.
- If you need to connect this product and a different receiver, please contact your local Audio-Technica dealer.
- Sensitivity may be reduced when a non-AT-SRX receiver unit is used.

<Connecting up to 3 receiver units>

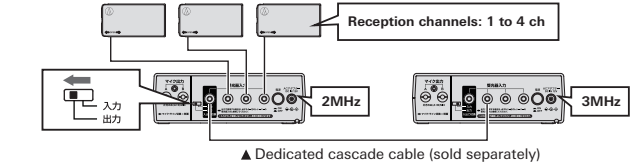
- Set the receiver's channels to "2MHz" and "3MHz."
- Connect the receiving device input/output jack of the receiver with its receiving device input/output switch set to "出力" to the receiving device input jack of the other receiver using the separately sold dedicated cascade cable.

- Always use the separately sold dedicated cascade cable.

(3) Connect the receiver unit to the receiver that has the cable connected to the receiving device input/output jack.

- Only the receiver with a cable connected to the receiving device input/output jack can share the use of receiver units. The other receiver cannot share the use of a receiver unit.

■ Connection example



<Connecting 4 receiver units>

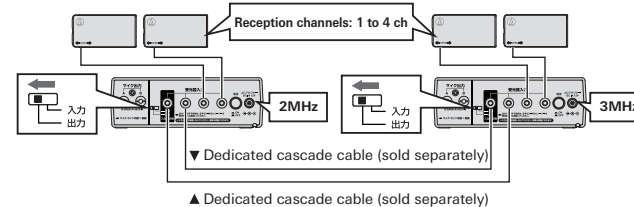
- Set the receiver's channels to "2MHz" and "3MHz."
- Set the receiving device input/output switch to "出力" for both receivers.
- Connect the receivers' receiving device input jacks to the other receivers' device input/output jacks using two separately sold dedicated cascade cables.

- Always use the separately sold dedicated cascade cable.

(4) Connect the receiver units to each receiver.

- The connected receiver unit can be shared for use with both receivers.

■ Connection example



CAUTION

- Using any other cable for this purpose may reduce reception sensitivity and/or cause noise or malfunction.
- Do not use the separately sold dedicated cascade cables for any other purpose. Doing so may result in malfunction.
- Be sure to connect the receiving device input/output jack and the receiving device input jack.
- Connecting to the wrong jack may result in reduced reception sensitivity or cause noise or damage to the speaker.
- Do not connect a receiver unit to a receiving device input/output jack when the receiving device input/output switch is set to "出力." Doing so may result in malfunction.
- Do not connect a receiving device input jack to a receiving device input/output jack when the receiving device input/output switch is set to "入力." Doing so may result in malfunction.

Troubleshooting

Use the following tips as a reference. If the problem persists, please contact your local Audio-Technica dealer.

Q. The product does not turn on.	A1: Check whether the AC adapter is connected.
Q. There is no voice output.	A1: Check whether the output control switch is set to the correct output. A2: Check whether the volume of the connected device is set to an audible level. A3: Check whether the receiving device input jack and the microphone output jack are correctly connected.
Q. Receiver is not responding	A1: Check for any obstruction between the receiver unit and the microphone. A2: Check the distance between the receiver unit and the microphone to make sure that they are not too far apart.
Q. Sound includes noise	A3: Check for any digital devices and other possible sources of noise nearby. For more information, refer to "Notes on use."
Q. Sound cuts out	A4: Check for any reconnection or grafted connection in the cable after being cut near the cable plug during routing. For details, refer to "Cable routing." A5: Check whether the dedicated cable for this product is used. Using a different cable may cause noise or other reception problems. A6: Check for any contact between the wires (including contact with other parts) near the terminals inside the receiver unit. A7: When two receivers are used and connected at the same time, ensure that the cables are correctly connected. For more information, refer to the "Shared use of receiver unit."

Specifications

Channels	: 2 (up to 4 channels when 2 receivers are used)
Reception frequencies	: 1 ch (2.06 MHz), 2 ch (2.56 MHz), 3 ch (3.20 MHz), 4 ch (3.70 MHz)
Output level	: Microphone: -45 dBV (VOL MAX), Line: -30 dBV (VOL MAX)
Power supply	: 12 V DC, 500 mA (use the included AC adapter)
Power consumption	: Approx. 4.0 W (when 4 receiver units are connected)
Dimensions	: 41 (H) × 126 (W) × 106 (D) mm
Weight	: Approx. 260 g
Accessories	: AC adapter (AD-SA1205AA) : Connection cable (RCA pin plug - 6.3 mm dia. monoaural standard plug (L-shaped), 3.0 m) × 2

The product is subject to modification without notice for product improvement.