Technical Data

Infrared Handheld Microphone: ATIR-T88

Type	: Back electret condenser
Directivity	: Unidirectional
Infrared wavelength	: 870 ±30 nm
Oscillation system	: PLL synthesizer
Frequency response	: 100 to 15,000 Hz
Modulation method	: Frequency modulation
Carrier frequency	: Ch. A 2.38 MHz
	Ch. B 2.66 MHz
	Ch. C 3.18 MHz
Battery	: Two AA alkaline batteries
Continuous operation time	: ECO approx.10hrs.
	LO approx. 6hrs.
	HI approx. 3hrs.
Dimensions	: 59 mm dia. x 262 mm
	(head diameter x overall length)
Weight	: approx. 240 g (body only)
●Accessories	: Channel labels, small screwdrivers

Infrared lavaliere Microphone: ATIR-T85

Type	: Electret condenser
Directivity	: Unidirectional
Infrared wavelength	: 870±30 nm
Oscillation system	: PLL synthesizer
Frequency response	: 100 to 15,000 Hz
Modulation method	: Frequency modulation
Carrier frequency	: Ch. A 2.38MHz
	Ch. B 2.66MHz
	Ch. C 3.18MHz
Battery	: Two AA alkaline batteries
Continuous operation time	: ECO approx.10hrs.
	LO approx. 6hrs.
	HI approx. 3hrs.

Transmitter
Dimensions	: 120×60×23mm (excluding the belt clip)
Weight	: approx. 66g(body only)

Micrphone
Dimensions	: 88.5×28×23mm
Cord	: 3.5 mm dia., 1.0 m long
Plug	: L-shaped miniature + subminiature plug
Weight	: approx. 48g(including the tie clip)
●Accessories	: Channel labels,small screwdrivers

Troubleshooting

● **The microphone does not turn on.**
→ Are the batteries installed?
→ Is the battery polarity correct?

● **No sound.**
→ Is the volume control of the connected master unit fully turned down?
→ Is the ATIR-T85 microphone plug securely connected to the transmitter input terminal?
→ Are the TEST and PRIORITY switch selection for the ATCS-C60 or the ATCS-C60MAG settings correct?

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How to set up the ATCS-C60

※ For operating instructions on the conference system (ATCS-60), refer to the manual supplied with the system.

1. Use the TEST switch on the ATCS-C60 front panel to specify the number of handheld/lavaliere microphones and the channels to use.
2. Use the PRIORITY switch on the ATCS-C60 to select the priority number corresponding to the used channel.

※ To enable the settings, press the SET button or restart the ATCS-C60.

Channels to use	TEST switch	Priority setting First In First Out (Last In First Out)
A	3	1 or more(6 or more)
B	4	2 or more(7 or more)
A+B	5	2 or more(7 or more)
B+C	6	3 or more(8 or more)
A+B+C	7	3 or more(8 or more)

NOTE: When the priority setting on the ATCS-C60 and the used channels do not match, the handheld/lavaliere microphones are not available.
When the ATCS-C60MAG is used, specify the number of prior microphones in the Priority field on the mode setting screen corresponding to the used channel.
※ The PRIORITY switch setting on the ATCS-C60 will be disabled when the ATCS-C60MAG runs.
When the priority setting on the ATCS-C60MAG and the used channels do not match, the handheld/ lavaliere microphones are not available.

【Example】

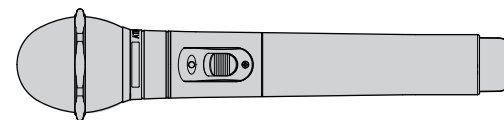| Setting		Operation	
Channels to use	Priority setting		
A	1	⇒	Ch. A is available.
B	1	⇒	The set priority number is too low to use the channel.
A+B	3	⇒	Both Ch. A and Ch. B are available.
B+C	2	⇒	The set priority number is too low to use the channels.

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Instruction Manual

Infrared Conference System Presenter Microphones

Common Features

● These microphones are designed for use in presentation applications with the ATCS-60 infrared conference system.
● This system uses infrared technology for transmission,not radio waves,thereby eliminating signal transmission outside the room of use.
● Up to three presenter microphones can be used together with the ATCS-M60 conference unit at the same time.
● For battery conservation,the power switch can be set to any of three output levels (ECO,LO and HI)as determined by room size.
(Continuous operation time in ECO mode is approximately 10 hours.)
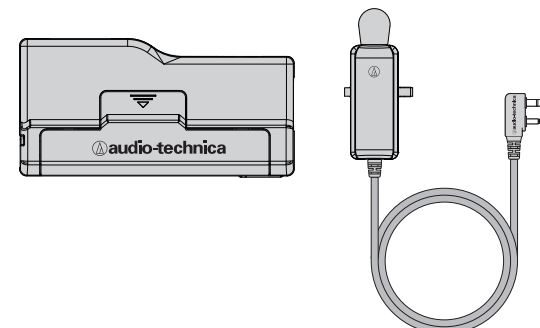
ATIR-T88
Infrared Handheld Microphone

Features
● The IR transmitting sections are located in the upper and lower sections of the grip.
● The condenser microphone element features high quality sound and sensitivity.

ATIR-T85
Infrared Lavaliere Microphone

Features
● The lavaliere microphone is designed for use by conference chairpersons and lecturers.
● The lightweight, compact body is useful for mobile applications.
● The tie clip allows easy attachment and direction angle adjustment.
● The transmitter can be clipped to a belt.
● The condenser microphone element features high quality sound and sensitivity.

⚠ CAUTION on installation

● The IR receiving unit is highly sensitive and direct sunlight may generate noise. Use curtains or shades for the windows in this case.
● Do not put the product in an environment with vibration or shocks or on unstable tables and tilted surfaces. Drops or falls may cause injury.
● Do not install the IR receiving unit near lighting devices or places exposed to spotlights.
● Infrared operating distance may vary depending on the color and material of the ceiling and walls.
● Noise may be generated regardless of the operating distance. In this case, install the IR receiving unit and the receiver in the proper position.
● When installing the IR receiving unit in the ceiling, keep it at least 2 to 3 meters away from windows or walls.
● When installing the IR receiving unit on the wall, keep it at least 2 to 3 meters away from the ceiling.
● Install the IR receiving unit at least 50 cm away from fluorescent lamps.
● Large electrical equipment placed over the audio line and IR receiving unit cables may cause noise.
● Occasionally, this system cannot be used at the same time as other infrared devices such as PDPs and simultaneous interpretation systems.
● In addition, the IR receiving unit or the receiver installed near the infrared-emitting sources listed below may cause system malfunction or noise.
Ensure that the microphones are kept away from infrared or noise sources.

· Lighting equipment
· Projector (liquid-crystal, DLP), OHP, incandescent bulbs
· Mercury lamp, halogen lamp and inverter fluorescent lamp, black light
· Plasma displays   · Cooking devices
· Infrared devices, such as remote control, infrared microphone and infrared LAN
· Digital equipment, such as digital power amplifiers and cables including speaker output lines

Safety Precautions

⚠ DANGER
● Do not disassemble the product. Failure to heed this warning may result in fire, electric shock, or equipment malfunction.
● Do not expose the product to high humidity or liquids. Failure to heed this warning may result in fire, electric shock, or equipment malfunction.

⚠ WARNING
● Do not use the product near a cooking table where it may be exposed to oil, smoke, and steam.
● Do not put the product in an environment with vibration or shocks. Drops or falls may cause injury.
● Do not leave the plastic packing bags within reach of children or near fire.

⚠ CAUTION
● Do not expose the product to direct sunlight, heating appliances, or a dusty environment.
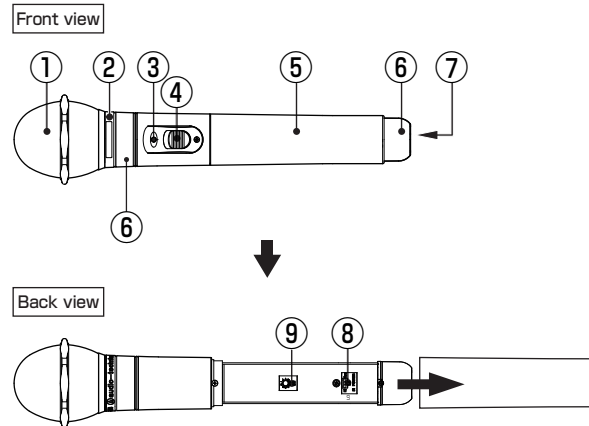
CAUTION on battery handling

⚠ DANGER
● If a battery leaks and the liquid contacts the eyes, immediately wash thoroughly with clean water without rubbing and seek medical treatment.
● Do not peel off the vinyl cover from the batteries.
Failure to heed this warning may result in a short circuit and may cause the battery to burst or leak, resulting in fire or personal injury.
● Do not incinerate or heat the batteries. Failure to heed this warning may result in a fire.
● Do not short-circuit positive and negative terminals with any metal or wire.
Failure to heed this warning may result in a fire or personal injury.
In addition, do not carry or store batteries with other metal products.
● If the battery leaks or becomes discolored or distorted, immediately remove the batteries. Do not use them anymore.
● Store batteries out of the reach of children. If a person swallows a battery, seek medical treatment.
● Do not use or leave batteries near fire, exposed to direct sunlight, or in a high temperature environment such as inside a sun-heated car.

⚠ WARNING
● This product uses two AA dry batteries, which you must purchase separately. Use the same kind of batteries.
● Do not disassemble or modify the batteries.
● If a battery leaks and the liquid contacts your skin or clothing, immediately flush with clean water.
● If a battery leaks, thoroughly wipe out the liquid from the battery case before replacing with new batteries.
● Remove the batteries if you will not use the product for a long time. After a long continuous use of batteries, replace them with new ones.

Infrared Handheld Microphone   ATIR-T88

Part Names and Functions/How to Use/How to Install Batteries

Front view

Back view

① Head case
② Nameplate   Attach the accessory channel label as needed.
③ Power indicator Indicates remaining battery capacity when batteries are set.
  Lit (green or red) : operable
  Turned off   : not operable
④ Power switch   Slide it to ON to turn on the microphone.
⑤ Grip
⑥ IR transmitting sections
  Infrared LEDs are embedded in two sections
  : upper and lower.
⑦ Battery charger terminals   :Not used.
⑧ Infrared output power changeover switch (factory setting: LO)
  ECO: Low power,   LO: Standard,   HI: High power
  ※ Keep in mind that the operating time will be reduced in the HI setting.
⑨ Channel changeover switch (factory setting: A)
  Select the channel corresponding to the receiver in use.

Channel Reference

A	ATCS-60	Ch. A
B	ATCS-60	Ch. B
C	ATCS-60	Ch. C

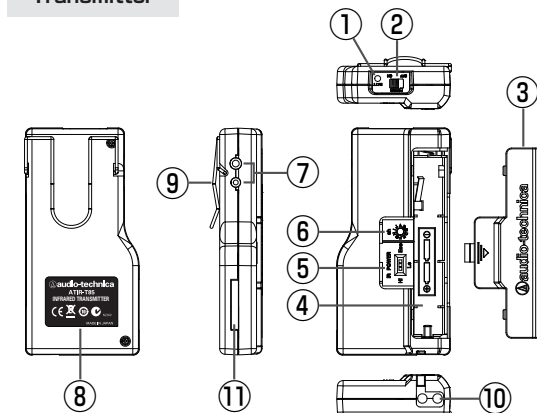※The microphone does not operate if it is set to a channel other than A to C.

⚠ CAUTION on operation

● Check the remaining battery capacity indicator of the microphone as a rough guide.
● Reversed polarity of the set batteries can cause device failure.
● Do not place your hands on/over the IR transmitting sections of the microphone or the IR receiving section of the receiver. Partitions or barriers between the IR transmitting and receiving sections may cause noise or poor sound transmission.
● Do not strongly grasp or twist the IR transmitting sections of the microphone. It may cause device failure.

■ How to Use

＊ Refer to the instruction manual of the master unit to make the connection.
① Turn on the microphone.
② Adjust the loudness of the microphone using the volume control on your master unit.

■ How to install the Batteries

1 Switch off the microphone.

2 Rotate the grip counterclockwise to remove.

Rotate

3

Insert

Insert AA dry batteries one by one with the negative pole inward.

4 Mate the grip with the body and rotate it clockwise to the end.

Rotate

5 Turn on the power switch. Confirm that the power indicator lights.

Infrared Lavaliere Microphone   ATIR-T85

Part Names and Functions/How to Use/How to Install Batteries

Transmitter
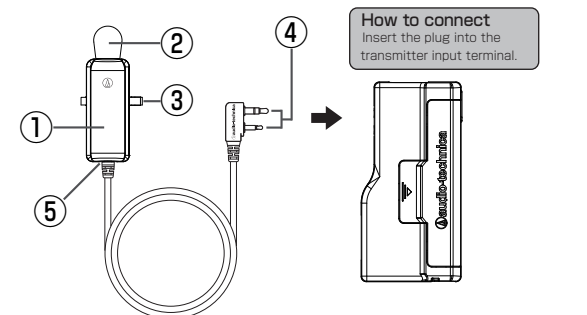

① Power indicator   Indicates remaining battery capacity when batteries are set.
  Lit (green or red)   :operable
  Turned off   :not operable
② Power switch   Slide it to ON to turn on the microphone.
③ Battery cover
④ Battery case
⑤ Infrared output power changeover switch (factory setting: LO)
  ECO: Low power,   LO: Standard,   HI: High power
  ※Keep in mind that the operating time will be reduced in the HI setting.
⑥ Channel changeover switch (factory setting: A)
  Select the channel corresponding to the receiver in use.

Channel Reference

A	ATCS-60	Ch. A
B	ATCS-60	Ch. B
C	ATCS-60	Ch. C

※ The microphone does not operate if it is set to a channel other than A to C.

⑦ Audio input terminal A + optical output terminal B
  Insert the accessory microphone plug.
⑧ Rating label
⑨ Belt clip   For attaching to a belt.
⑩ Battery charger terminals   Not used.
⑪ Channel label position
  Attach the accessory channel label as needed.

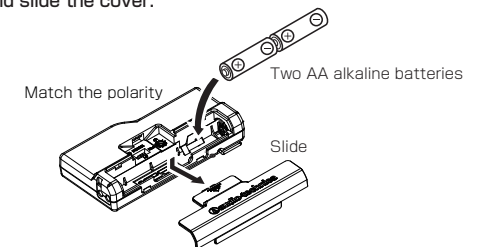Microphone

How to connect
Insert the plug into the transmitter input terminal.

① IR transmitting sections   An infrared LED is embedded.
② Microphone   An audio input microphone is embedded.
③ Tie clip
  The direction is adjustable within the range of 45 degrees vertically and horizontally.
④ Connection plug (L-shaped miniature + subminiature plug)
  Connect it to the transmitter input terminal. The cord is approx. 1 m long.
⑤ 3.5 mm dia. microphone input terminal (plug-in power)
  The internal microphone will be disabled when the plug is inserted.

■How to Install the Batteries

① Switch off the microphone.
② Place your thumb on the ≡ mark located above the ⒶＡaudio-technica logo on the battery cover top surface and slide the cover.

Two AA alkaline batteries

Match the polarity

Slide

③ Insert the AA alkaline batteries into the battery case being careful to match the polarity.
④ Replace the battery cover.

■How to Use

① Connect the accompanying microphone to the input terminal of the transmitter body.
② Use the microphone tie clip to attach the microphone to the middle of the chest.
  (Ensure that the microphone IR transmitting section faces away from the presenter's body.)
③ Turn on the transmitter.
④ Adjust the loudness of the microphone using the volume control on your master unit.