

Directional Boundary Microphone FR-1200 AC6

USER MANUAL

Thank you for purchasing this Bidirectional Boundary Microphone.
Please make sure to read this User Manual before use.

SAFETY PRECAUTIONS



CAUTION

Misuse of the product may cause injury to the user or cause property damage.

- Do not swing the microphone by pulling the cables of the microphone. Otherwise, the cables may break and cause accident.
- Do not disassemble or alter the unit.
- Do not drop or give a strong force to the microphone or the unit base while connected.
Doing so may cause damage to the USB terminal or the unit base.
- Dropping this product may cause injury or unit failure. Place the product in a stable location.

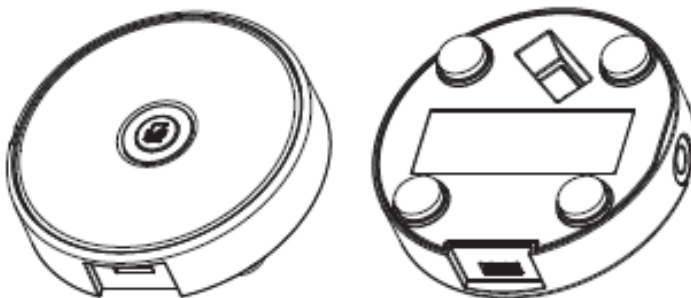
Features

- This microphone utilizes IM-ASTER technology (*1), developed at NTT Computer & Data Science Laboratories, to enable sound collection by individually separating up to 12 directions (*2).
- High-performance noise-cancelling ability.
- 8 MEMS and IM-ASTER technology-based software processing form sharper directivity.
- Lightweight and compact at approximately 60g, making it easy to carry.
- As the power is supplied via USB bus power, a personal computer can supply power to the product as well.

*1 IM: Intelligent Microphone

ASTER: Anti-distortion Suppression of noise with mask-based TransFER function estimation

*2 Supports up to 6 directions



Part Names

● Microphone

DIP Switches
Switch functions
of the product.

Red LED (power check)
Flashes when power is supplied.

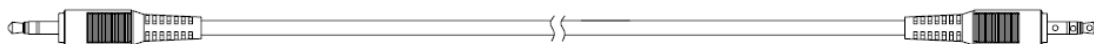
Mute Button
When pressed and
held, blue LEDs
flash, enabling
the mute function.

USB-C Jack

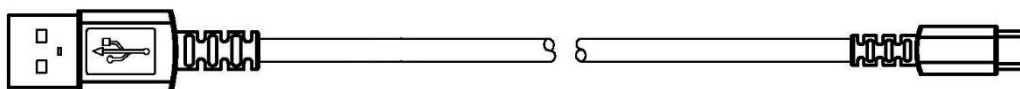
Stereo Jack
For $\phi 3.5$ Stereo Mini Plug

Blue LED
Illuminates or flashes
when sound is detected
or settings are changed.

● $\phi 3.5$ Stereo Mini Plug Cable(Not used with this product)



● USB (A-C) Cable



Technical Data

Microphone

- MEMS : 8
- Frequency Characteristic : 60 to 7,000Hz
- Current Consumption: 100mA
- Power : USB bus power (DC5V)
- External Dimensions : H14.5 mm × ϕ 64.7 mm
- Weight : Approximately 61 g (excluding cables)
- Compatible OS : Windows 11
- Accessories : a ϕ 3.5 Stereo Mini Plug cable (approx. 1m) and a USB (A-C) cable (approx. 1 m)

(Specifications may be changed without notice for improvement.)

Virtual Audio Driver

- Distribution Format : BAT file
- System Requirements : Windows 11

(Specifications may be changed without notice for improvement.)

Control Application

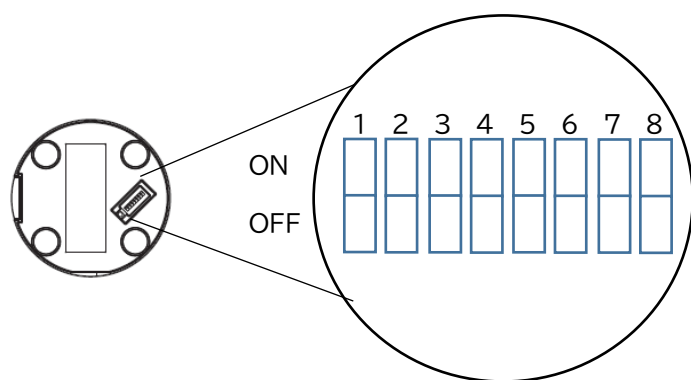
- Distribution Format : MSI file
- System Requirements : Windows 11

(Specifications may be changed without notice for improvement.)

Mode Switching

The DIP switches on the backside of the unit let you set functions and switch between modes.

	1	2	3	4	5	6	7	8
Function	Sets the blue LEDs	-	-	-	-	Recording Volume Adjustment *1	Recording Volume Adjustment *1	Recording Volume Adjustment *1
ON	Enabled (LEDs where sound is detected illuminate.)	-	-	-	-	+6dB (x2.0)	+12dB (x4.0)	+24dB (x16.0)
OFF	Disabled	-	-	-	-	+0dB	+0dB	+0dB



*1 DIP Switch 6, 7, 8 Function Detail Table

6	7	8	Volume
ON	OFF	OFF	+6dB
OFF	ON	OFF	+12dB
ON	ON	OFF	+18dB
OFF	OFF	ON	+24dB
ON	OFF	ON	+30dB
OFF	ON	ON	+36dB
ON	ON	ON	+42dB

Setting the Blue LEDs

Enabling this setting allows LEDs to illuminate when a sound is detected, and to flash to indicate a mode change while the DIP is switched.

LED illuminates when sound is detected

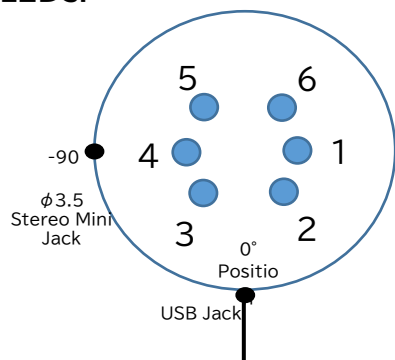
When the unit detects a sound, the LED located in the direction of the sound source illuminates.

ON: The LED for the sound source direction lights up when sound is detected.

OFF: The LED for the sound source direction does not light up when sound is detected.

Mode Indication

The following table shows the illumination/flashing patterns of the blue LEDs.



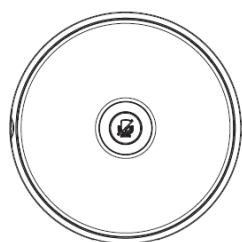
Normal	Off or 2 , 3, 5, 6 (when sound is detected)
Mute On	All LEDs flash.

How to Connect

This product can be connected via a USB cable or a stereo mini plug cable. Check the specification of the mic input of the device to which the product is connected.

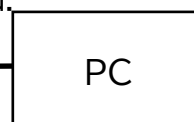
Using a USB Cable

- (1) Place the unit on a horizontal surface that is not subject to vibration and make sure there is no barrier between the microphone and the source of voice.
- (2) Insert the USB plug into the USB port of the applicable device.



USB cable

Note: Read the user manual for the device to which this product is connected.



To a USB input that supports USB bus power

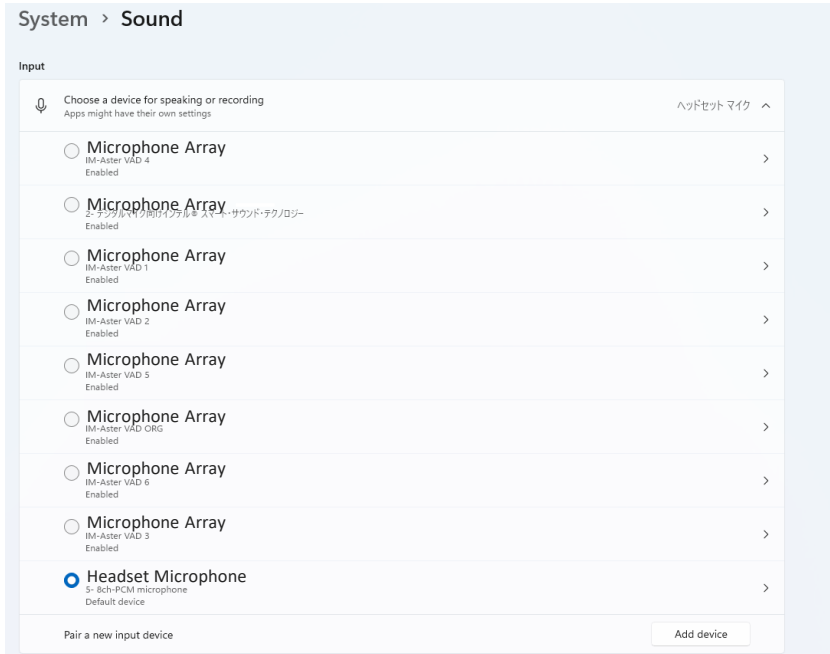
Verification of Connection

Verifying Computer Settings

Follow the steps below to verify the computer settings. The normal Windows screen is used here.

The screen display may differ depending on your operating system.

- (1) Click <Start> and then <Settings>.
- (2) Click <System>.
- (3) Click <Sound>.
- (4) Verify that Headset Microphone (8ch-PCM microphone) is selected as input device.

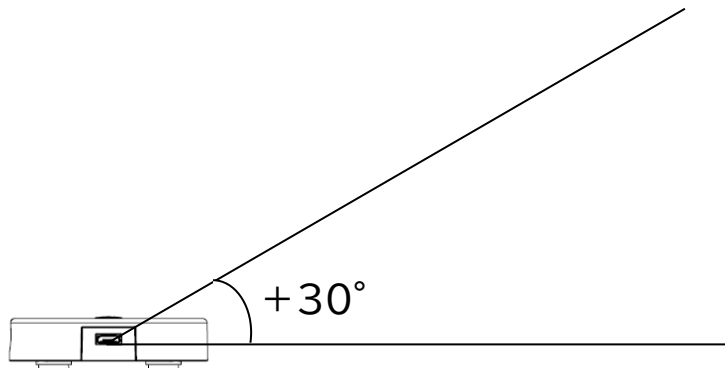


Note: If the microphone is not recognized, disconnect and reconnect the microphone. After installation, seven drivers are added: IM-Aster VAD 1 to 6 and IM-Aster VAD ORG.

Recommended setup position

Range of sound collection in the vertical direction

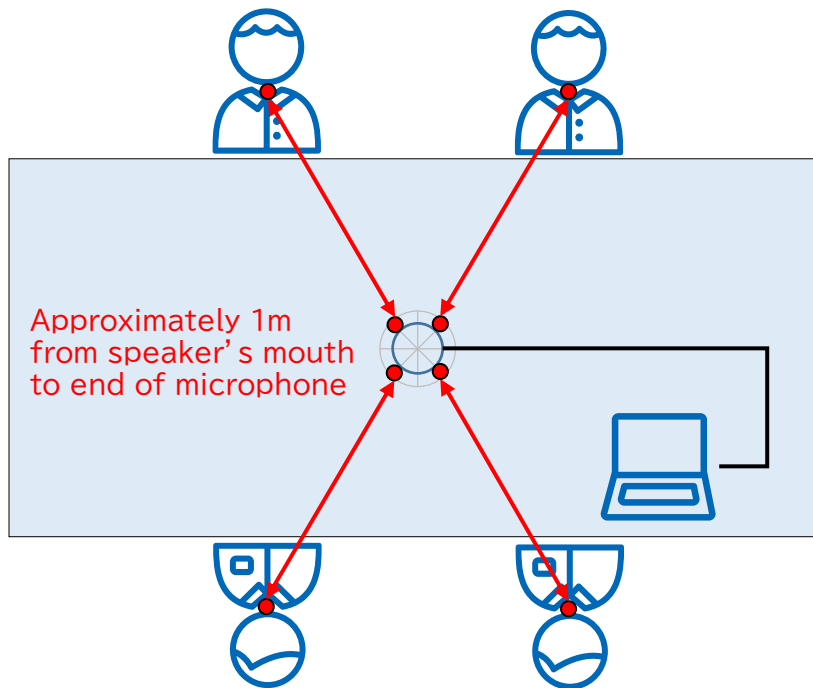
Elevation angle between speaker's mouth and FR-1200 is less than thirty°. Make sure that the speaker's mouth remains within the sound collection range.



Recommended setup position

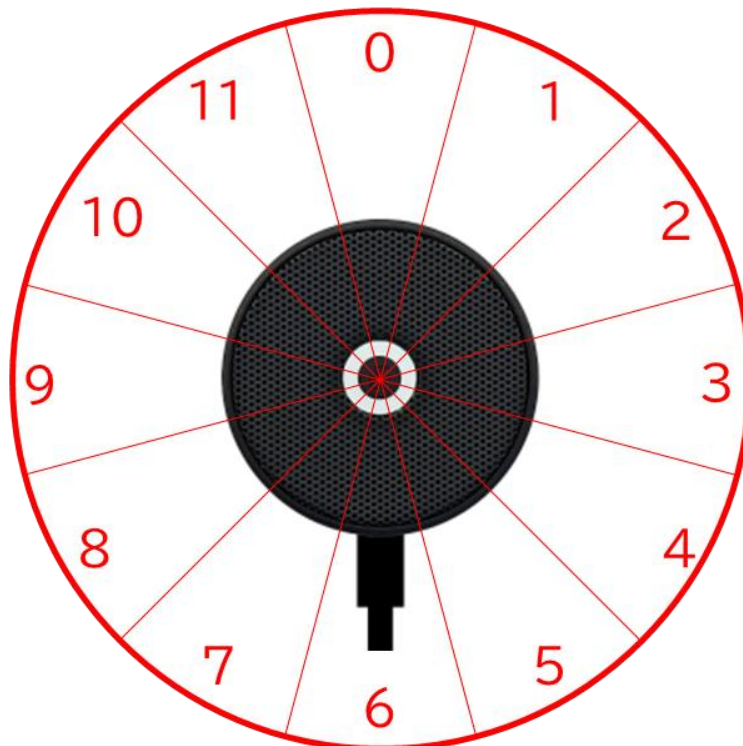
Using Guide

Please refer to the diagram below for installation and use instructions.



Direction Settings

The USB side is assigned direction number 6, and the opposite side (facing away from the USB side) is assigned direction number 0; the remaining direction numbers are assigned clockwise.



Precautions for Use



CAUTION

Misuse may result in malfunction.

- Before use, ensure to read the user manuals for the devices to which this product is connected.
- We are not responsible whatsoever should any data in your computer be lost while this product is connected to it.
- Do not give the product a strong shock.
- Do not expose this product to direct sunlight, or place it near a heating device, or in a hot, humid, or dusty location. Do not expose this product to water.
- This product may discolor due to friction after a long period of use.
- To connect/disconnect the cables, insert/pull it out by inserting/pulling the plug, not the cables.
Otherwise the cables may break and cause accident.
- Do not place any object on the microphone.
- Do not place anything that blocks or reflects the sound within 1 m of the product.

Notes on export control



CAUTION

- When re-exporting a product, the customer or end-user must follow the necessary procedures stipulated in the export-related laws of the country to which the customer or end-consumer belongs.

Supplier's Declaration of Conformity

FCC Caution

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Class B Statement

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.

Certifications



After-Sales Service

Should a failure occur while the use is using the product in accordance with the User Manual and clauses regarding connection and precautions, we will provide a free repair based on the terms and conditions of the warranty. Please contact the dealer from whom you purchased this product for questions regarding the product or consultation regarding a failure and repair.

NTT ADVANCED TECHNOLOGY CORPORATION

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