



NFRARED AUDIO SYSTEM MAIN UNIT OPERATING INSTRUCTIONS

IR AUDIO SYSTEM

IR-842PMU-AM(MAIN UNIT)

IR-842R(EXTERNAL IR RECEIVER)

IR-842HY(SPEAKER STAND ADAPTER)

IR-842 SERIES

IR-842PSU(SUB UNIT)

IR-842BAG(BAG)

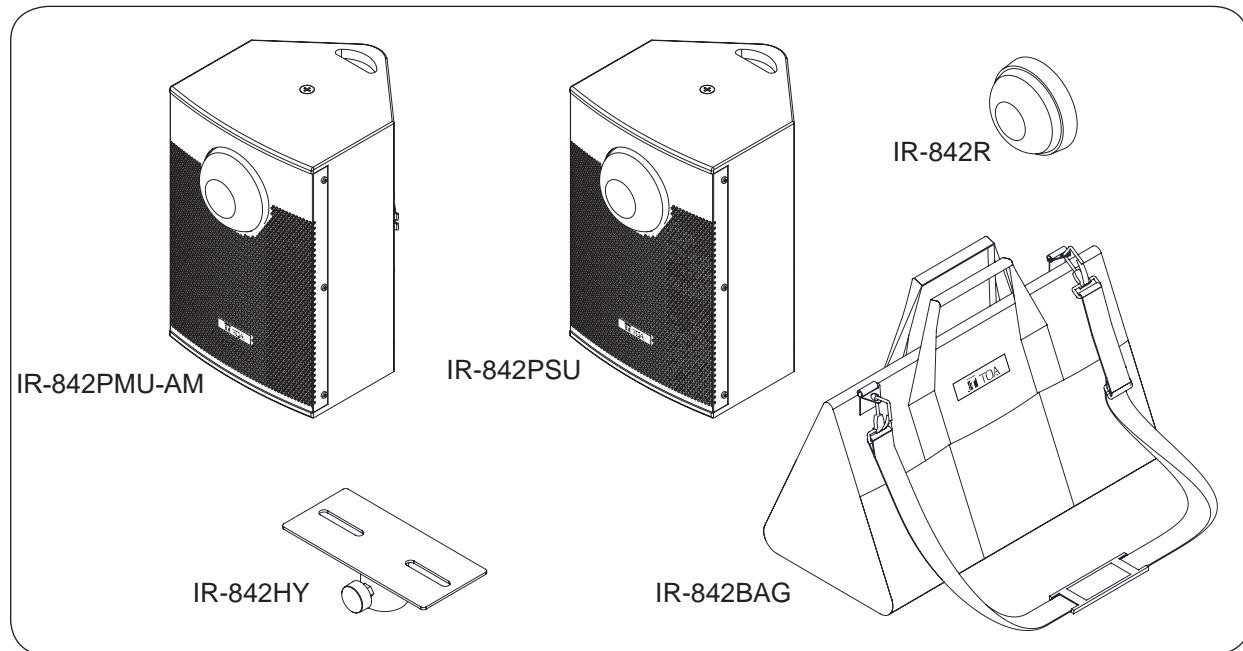


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Thank you for purchasing TOA's IR Audio System.

Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

When Installing the Unit

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Install the speaker only in a location that can structurally support the weight of the speaker and the mounting bracket. Doing otherwise may result in the speaker falling down and causing personal injury and/or property damage.
- Since the speaker is designed for in-door use, do not install it outdoors. If installed outdoors, the aging of parts causes the speaker to fall off, resulting in personal injury.
- Owing to the speaker's size and weight, be sure that at least two persons are available to install the speaker. Failure to do so could result in personal injury.
- Do not use other methods than specified to install the speaker. Extreme force is applied to the speaker and it could fall off, possibly resulting in personal injuries.
- Tighten each nut and bolt securely. Ensure that the unit has no loose joints after installation to prevent accidents that could result in personal injury.

- Do not mount the speaker in locations exposed to constant vibration. The mounting bracket can be damaged by excessive vibration, potentially causing the speaker to fall, which could result in personal injury.
- The apparatus shall be connected to a mains socket outlet with a protective earthing connection.
- The socket-outlet shall be installed near the equipment and the plug (disconnecting device) shall be easily accessible.
- The unit is not suitable for use in locations where children are likely to be present.

When the Unit is in Use

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest TOA dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
 - If you detect smoke or a strange smell coming from the unit.
 - If water or any metallic object gets into the unit.
 - If the unit falls, or the unit case breaks.
 - If the power supply cord is damaged (exposure of the core, disconnection, etc.).
 - If it is malfunctioning (no tone sounds.).
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest TOA dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover, as this may result in fire or electric shock.

⚠ CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

When Installing the Unit

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Do not block the ventilation slots in the unit's cover. Doing so may cause heat to build up inside the unit and result in fire.
- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.
- To avoid electric shocks, be sure to unplug the unit's power supply cord when connecting speakers.
- If combining the unit with a loudspeaker pole and a loudspeaker, always ensure that the unit is stable so that it cannot tip over.



The lighting lash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

When the Unit is in Use

- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Do not stand or sit on, nor hang down from the speaker as this may cause it to fall down or drop, resulting in personal injury and/or property damage.
- Make sure that the volume control is set to minimum position before power is switched on. Loud noise produced at high volume when power is switched on can impair hearing.
- Do not operate the unit for an extended period of time with the sound distorting. This is an indication of a malfunction, which in turn can cause heat to generate and result in a fire.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.
- If physical external influences on the unit are to be expected, which could impair its stability, appropriate countermeasures must be taken. Tipping this unit over may break the unit, cause damage to the internal parts or result in personal injury.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instruction in the literature accompanying the appliance.

2. GENERAL DESCRIPTION

The IR-842 series is a compact, portable infrared classroom soundfield system. It is designed for use in conjunction with TOA's IR-200M (hand-held type), IR-300M (hands-free type) or IR-310M (hands-free type) infrared wireless microphone, featuring high sensitivity and clear sound.

3. FEATURES

- IR MIC (CH-A), IR MIC (CH-B), MIC, AUX, Bluetooth 5 audio inputs, the volume can be adjusted independently.
- AUX, Speaker 2 kinds of audio output.
- External IR receiver can be connected to expand IR coverage.
- Comes with a handle for portable indoor us, accessory for speaker stand mounting, and speaker mount for wall mounting.

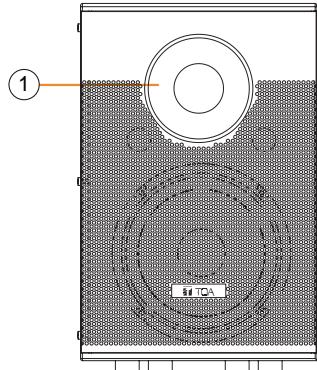
4. HANDLING PRECAUTIONS

- The speaker's life could be extremely shortened by salt damage. Therefore, do not install the unit near or on the beach.
- To clean, be sure to first switch off the unit's power, then wipe with a dry cloth. When the unit gets very dirty, use a cloth damped in a neutral cleanser. Never use benzene, thinner or chemically-treated cleaning cloth because such volatile liquids could deform or discolor the unit.

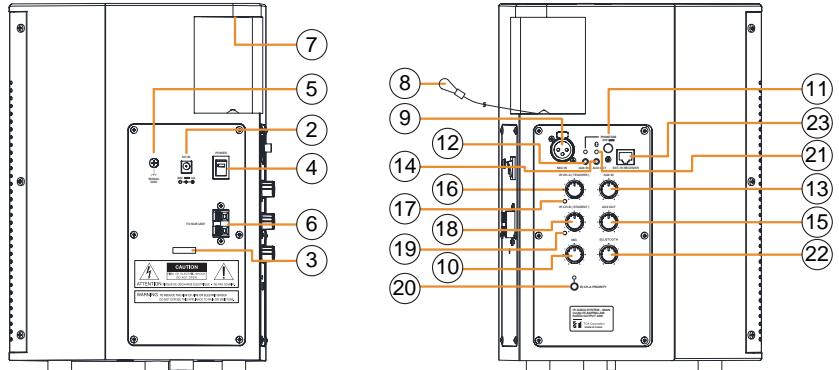
5. NOMENCLATURE AND FUNCTIONS

5.1. Main Unit

[Front]



[Rear]



1. Infrared wireless receiver

2. DC inlet [DC IN]

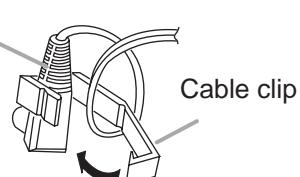
Connect the supplied AC adapter.

The supply voltage is between 100 V and 240 VAC, 50-60 Hz.

3. Cable clip

Run the AC adapter cable through this clip to prevent its plug from being removed.

AC adapter plug



4. Power switch

Flip this switch to turn the power on and off.

Power indicator (Green) lights when the power switch is set to on.

5. Functional ground terminal

• In cases where there is significant environmental EMF, the infrared receiving distance may become shorter. Ground this screw may increase the infrared reception distance.

• Ground this screw to prevent static electricity from causing the equipment to operate improperly.

Note

This terminal is not for protective grounding.

6. Speaker output terminal

Connect to the speaker input terminal of the **SUB UNIT**.

Red: +, black: -.

7. Portable handle

Use this handle to carry the unit.

Note

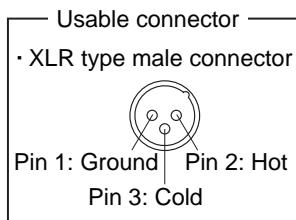
Use this handle only to transport the unit.
Never suspend the unit from this handle.

8. Safety wire

To ensure safety, the safety wire must be securely fastened to the bracket mounting screw when mounting the main unit to the wall. (Refer to page 11)

9. MIC input terminal

-42 dBV, 2.2 kΩ, electronically balanced, female XLR connector.



10. MIC volume control

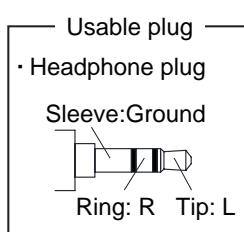
Adjust the microphone input signal level.
Turn control clockwise to increase and counterclockwise to decrease the level.

11. Phantom power

24V switchable phantom power for condenser MIC.

12. AUX input terminal

-10 dBV, 10 kΩ, stereo pair, unbalanced, headphone jack.



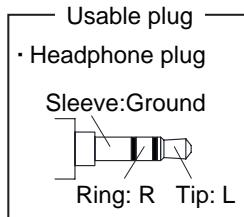
13. AUX input volume control

Adjust the AUX input signal level.Turn control clockwise to increase and counterclockwise to decrease the level.

14. AUX output terminal

-10 dBV, 10 kΩ, stereo pair, unbalanced, headphone jack.

The signals of each input channel of CH-A/CH-B/MIC/AUX/Bluetooth are mixed and output from this terminal.



15. AUX output volume control

Adjust the AUX output signal level.Turn control clockwise to increase and counterclockwise to decrease the level.

16. IR CH-A(Teacher) volume control

Adjust the CH-A infrared wireless microphone input signal level.Turn control clockwise to increase and counterclockwise to decrease the level.

17. IR CH-A Reception indicator(green)

Lights during CH-A infrared wireless microphone reception.

18. IR CH-B(Student) volume control

Adjust the CH-B infrared wireless microphone input signal level.Turn control clockwise to increase and counterclockwise to decrease the level.

19. IR CH-B Reception indicator(green)

Lights during CH-B infrared wireless microphone reception.

20. IR CH-A Priority

When the switch is pressed, the red indicator lights up and the CH-A infrared wireless microphone priority function is enabled.

When CH-A and other audio sources (CH-B/MIC/AUX/Bluetooth) are used at the same time, the sounds of other audio sources will be muted.

21. Bluetooth reception indicator(blue)

Indicator flashes when no source device is connected and lights up when a device is.

Bluetooth ID: TOASPKR(plus serial number)

Pairing password: 0842

Note

When the power is turned off, the bluetooth connection information will be erased and you will need to enter the passkey again on the source device to connect.

22. Bluetooth volume control

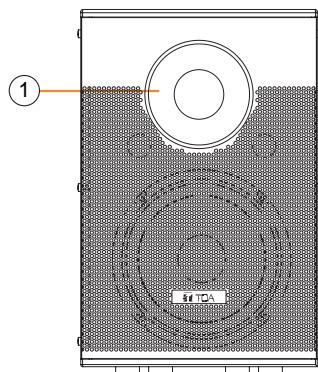
Adjust the bluetooth input signal level.Turn control clockwise to increase and counterclockwise to decrease the level.

23. External IR receiver connector

Connect to the external infrared wireless receiver output connector of the **IR-842PSU** or **IR-842R** to expand infrared reception coverage.

5.2. Sub Unit

[Front]



1. Infrared wireless receiver

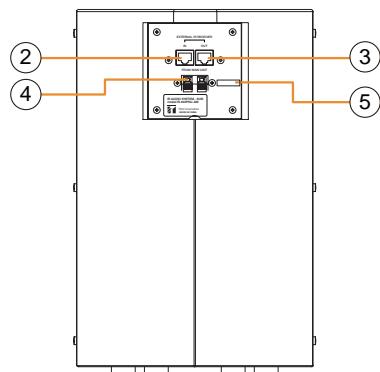
2. External IR receiver input connector

Connect to the external infrared wireless receiver output connector of the **IR-842R** to expand infrared coverage.

3. External IR receiver output connector

Connect to the infrared receive input connector of the **IR-842PMU**.

[Rear]



4. Speaker input terminal

Connect to the speaker output terminal of the **MAIN UNIT**.

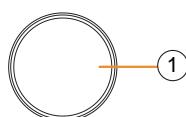
Red: +, black: -.

5. Cable clip

Run the speaker input cable through this clip to prevent its from being removed. (Refer to page 4 for **AC adapter cable fixing method**.)

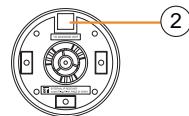
5.3. External IR Receiver

[Front]



1. Infrared wireless receiver

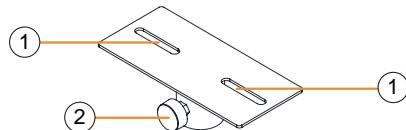
[Rear]



2. IR receiver output connector

Connect to the infrared receive input connector of the **IR-842PMU** or **IR-842PSU**.

5.4. Speaker Stand Adapter



1. MAIN UNIT or SUB UNIT fixing screw holes

2. Bracket fixing screw

Tighten the screws to secure the adapter to the speaker stand.

5.5. Bag



1. Internal Storage

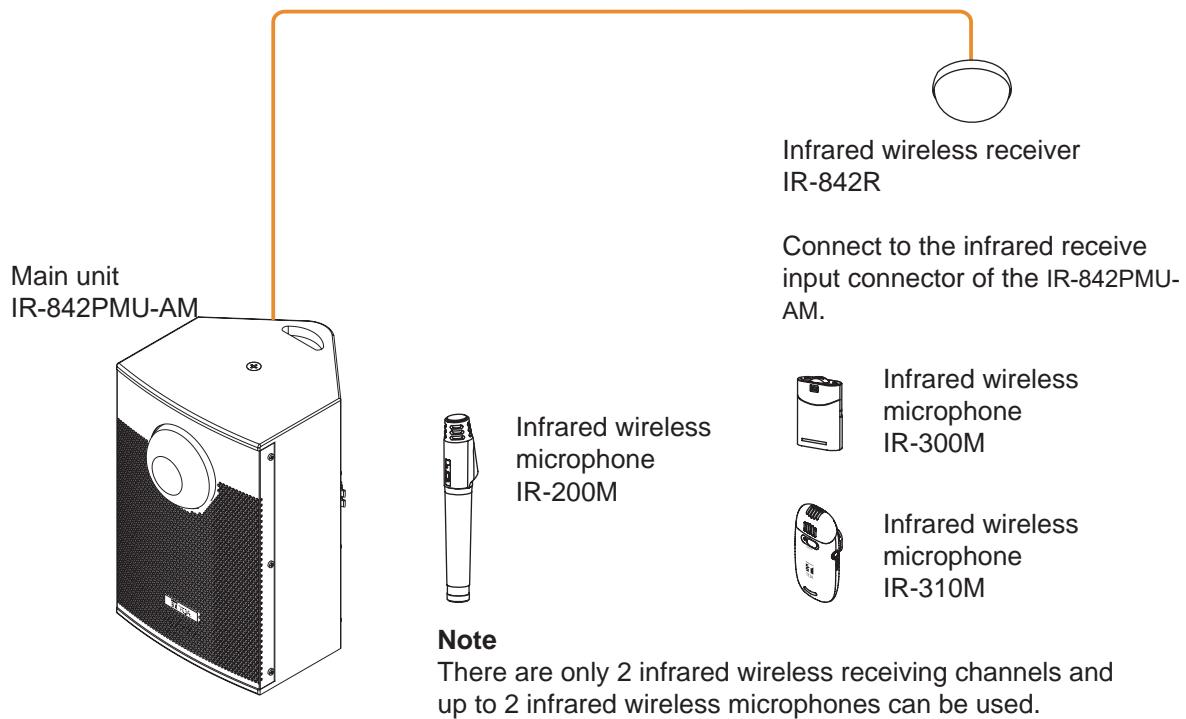
There is 1 large storage compartment and 6 smaller storage compartments for the **MAIN UNIT**(or **SUB UNIT**), AC adapter, microphones, etc.

2. External Storage

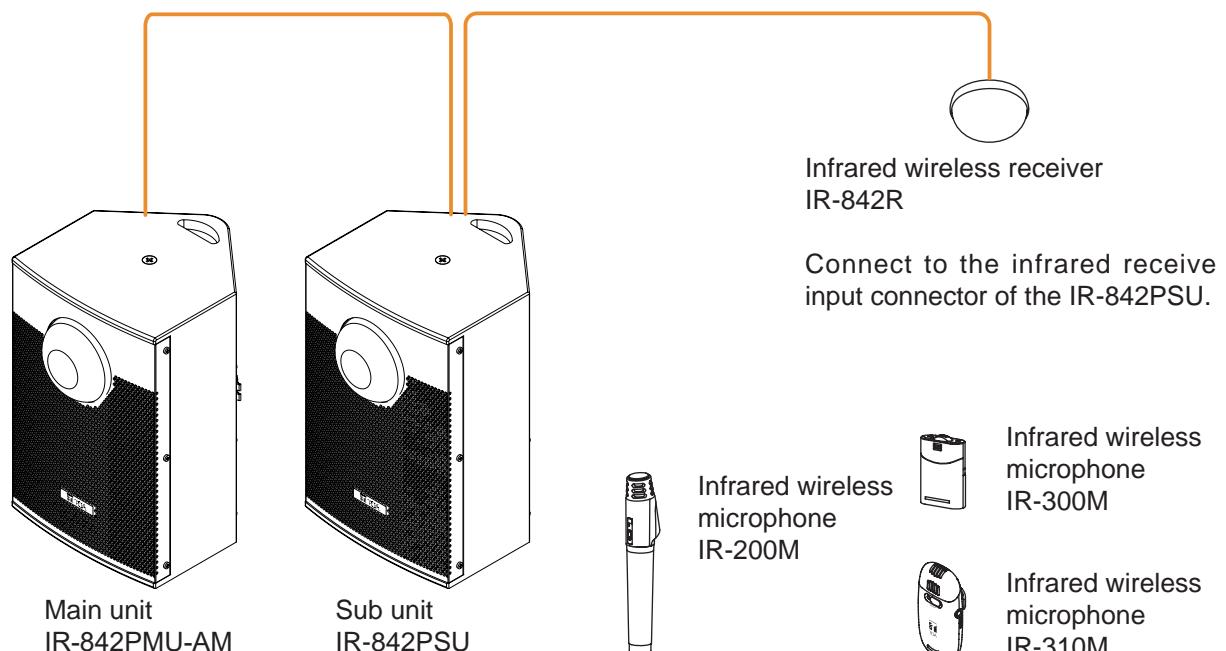
There are 6 small storage compartments for connection cables, etc.

6. SYSTEM CONFIGURATION EXAMPLES

6.1. Using 1 external infrared wireless receiver.



6.2. Using 2 external infrared wireless receivers.

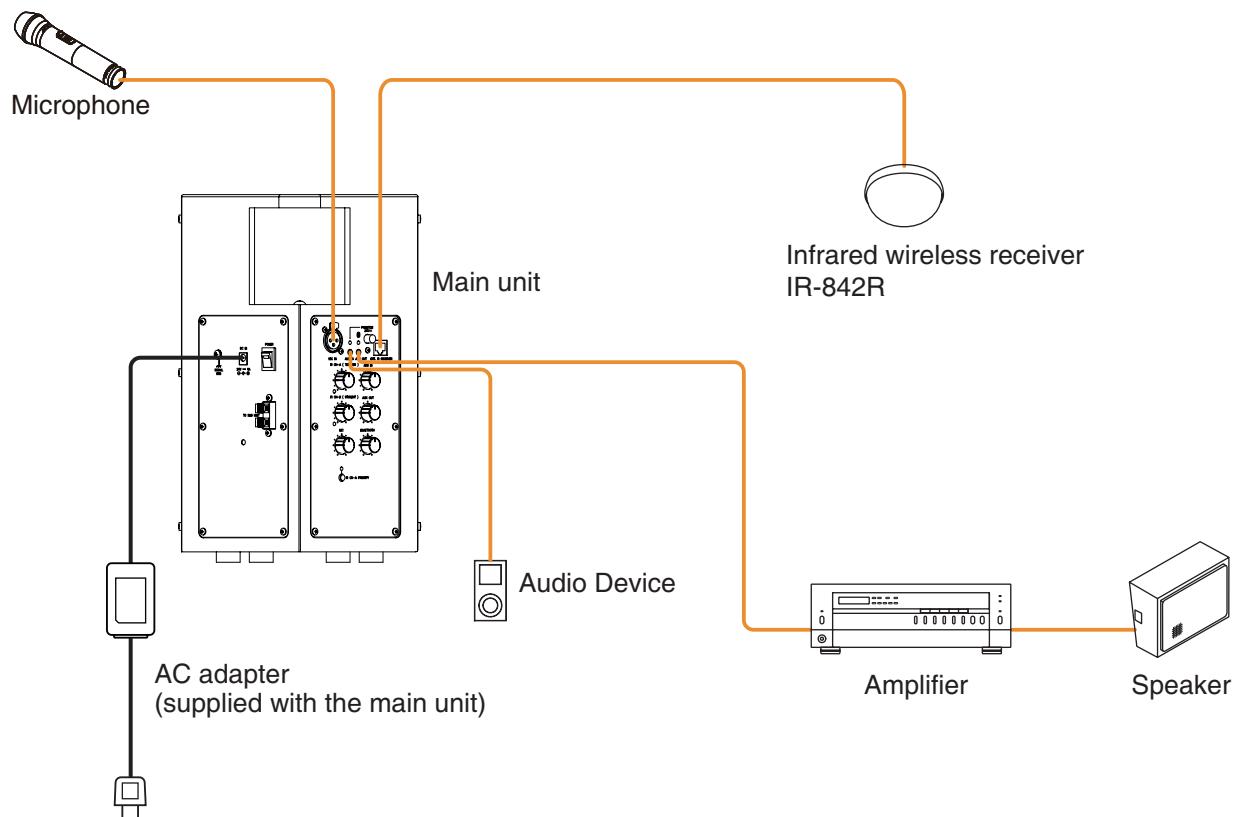


Note

There are only 2 infrared wireless receiving channels and up to 2 infrared wireless microphones can be used.

7. CONNECTION EXAMPLE

7.1. Example 1



7.2. Example 2

