

SURFACE-MOUNT SPEAKER

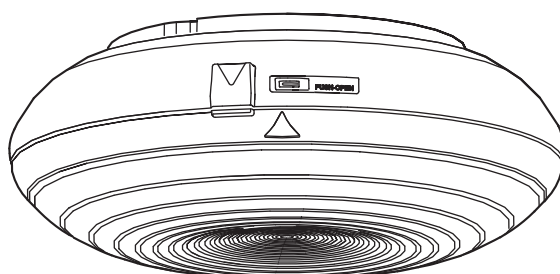
PC-2268

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Thank you for purchasing TOA's Surface-mount Speaker.

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

- Refer all installation work to the dealer from whom the speaker was purchased. Installation work requires extensive technical knowledge and experience. The speaker may fall off if incorrectly installed, resulting in possible personal injury.
- Install the speaker only in a location that can structurally support the weight of the speaker. 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. Also, when it gets wet with rain, there is a danger of electric shock.
- Do not use other methods than specified to install the speaker. Extreme force is applied to the speaker and the speaker could fall off, possibly resulting in personal injuries.
- Attach the safety wire to the speaker. If not attached, the speaker could fall off, resulting in personal injury.
- Use screws that are appropriate for the ceiling's or wall's material and structure. Failure to do so may cause the speaker to fall, resulting in material damage and possible personal injury.
- Ensure that all screws are securely tightened. If they are loose after installation, the speaker could fall down, possibly resulting in personal injury.
- Do not mount the speaker in locations exposed to constant vibration. The speaker or its mounts can be damaged by excessive vibration, potentially causing the speaker to fall, which could result in personal injury.
- Avoid installing the speaker in locations exposed to sea breeze or corrosive gas. The speaker or its parts may be subject to corrosion, that might cause it to fall or result in personal injury.
- Do not install the speaker in indoor swimming pools or such locations where liquid chemicals are used. The parts deteriorate if corroded, causing the speaker to fall, which could result in personal injury.
- Do not install the speaker in kitchens or such locations where grease or oily smoke is generated. Failure to follow this instruction could deteriorate the speaker mounting parts, causing the speaker to fall, which could result in personal injury.

When the Unit is in Use

- If any of the following irregularities occurs, immediately switch off the amplifier's power, and inform the shop from where the speaker was purchased. Further using the speaker may result in fire or electric shock.
 - If you detect smoke or a strange smell coming from the speaker
 - If water or any metallic object gets into the speaker
 - If the speaker falls, or the speaker case breaks
- To prevent a fire or electric shock, never open nor remove the speaker case. Refer all servicing to your nearest TOA dealer.



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 install the speaker in humid or dusty locations, in locations exposed to direct sunlight, or near heaters as doing otherwise may result in fire or electric shock.
- To avoid electric shocks, be sure to switch off the amplifier's power when connecting speakers.
- The speaker front and rear cases are secured with adhesive tape (2 points) at both sides when shipped from the factory. Remove the tapes while placing the speaker on a stable surface or while supporting it with hand. Failure to do so may cause the case to fall, resulting in material damage and possible personal injury.

When the Unit is in Use

- Do not operate the speaker for an extended period of time with the sound distorting. Doing so may cause the speaker to heat, resulting in a fire.
- 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.
- Have the speaker checked periodically by the shop from where it was purchased. Failure to do so may result in corrosion or damage to the speaker or the mounts that could cause it to fall, possibly causing personal injury.

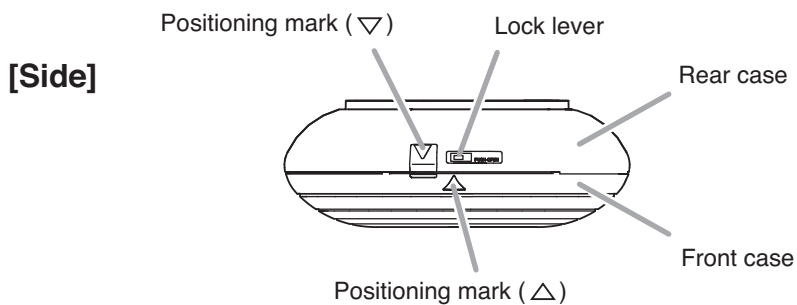
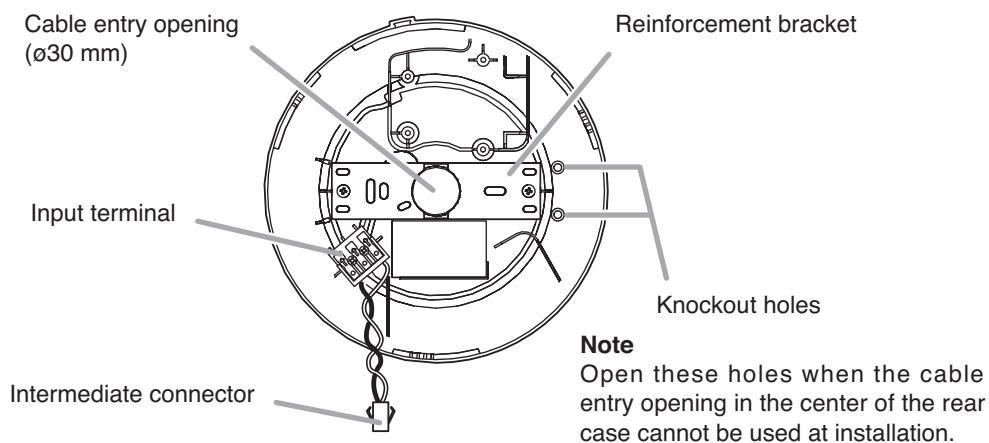
2. GENERAL DESCRIPTION AND FEATURES

The PC-2268 is a surface-mount speaker with rated input of 6 W (100 V line application) designed for ceiling surface or wall surface installations. With the additional use of an electrical box, it can be installed to the location where no wall or ceiling is available for mounting.

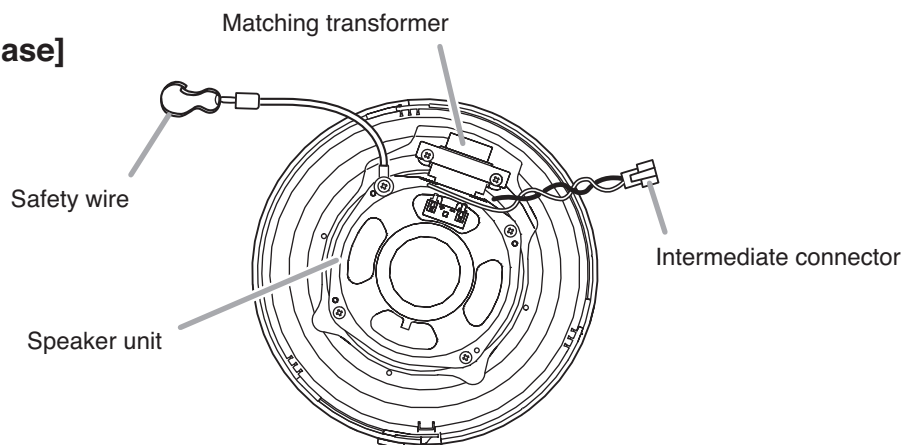
- Compact and attractive design to blend in with interior spaces.
- Rear-closed structure with a rear cover keeps performance and sound quality constant regardless of installation location.
- The push-in type input terminal provides an easy cable connection and allows bridge wiring.
- The input power change can be made easily by changing the tap position of the transformer.

3. NOMENCLATURE

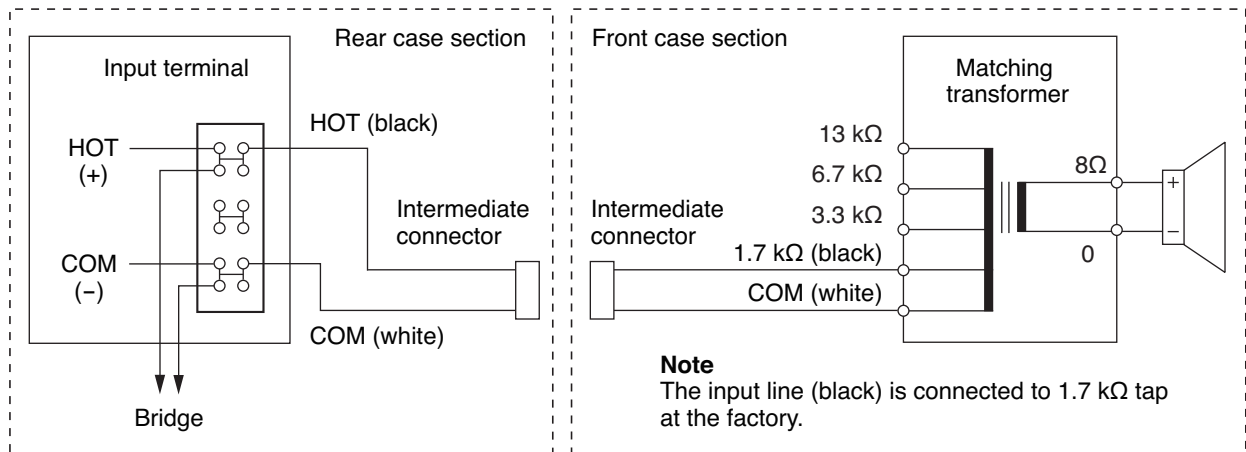
[Inside the rear case]



[Inside the front case]



4. WIRING DIAGRAM



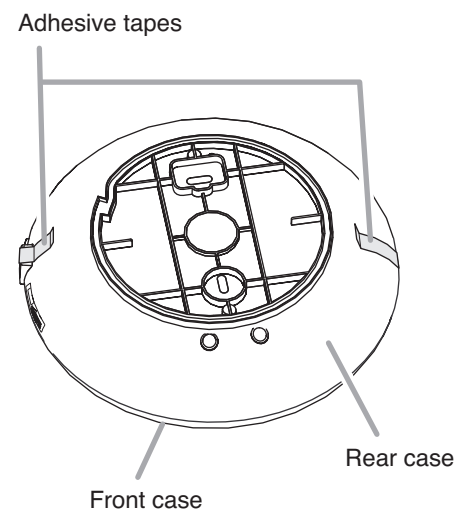
5. INSTALLATION

5.1. Before Installation

The speaker front and rear cases are secured with adhesive tape (2 points) at both sides when shipped from the factory. Before performing installation work, remove these tapes to separate front and rear cases.

⚠ CAUTION

Remove the tapes while placing the speaker on a stable surface or while supporting it with hand. Failure to do so may cause the case to fall, resulting in material damage and possible personal injury.



5.2. Installation Procedure

Step 1. Install the rear case to a ceiling or a wall.

Route the speaker cables through a cable entry opening (ø 30 mm) in the rear case, then secure the rear case.

Following 2 kinds of screws are supplied with the unit. Use these screws properly depending on the intended application.

Tapping screw 4 x 35 (2 pieces): For plywood (9 mm or more thick)

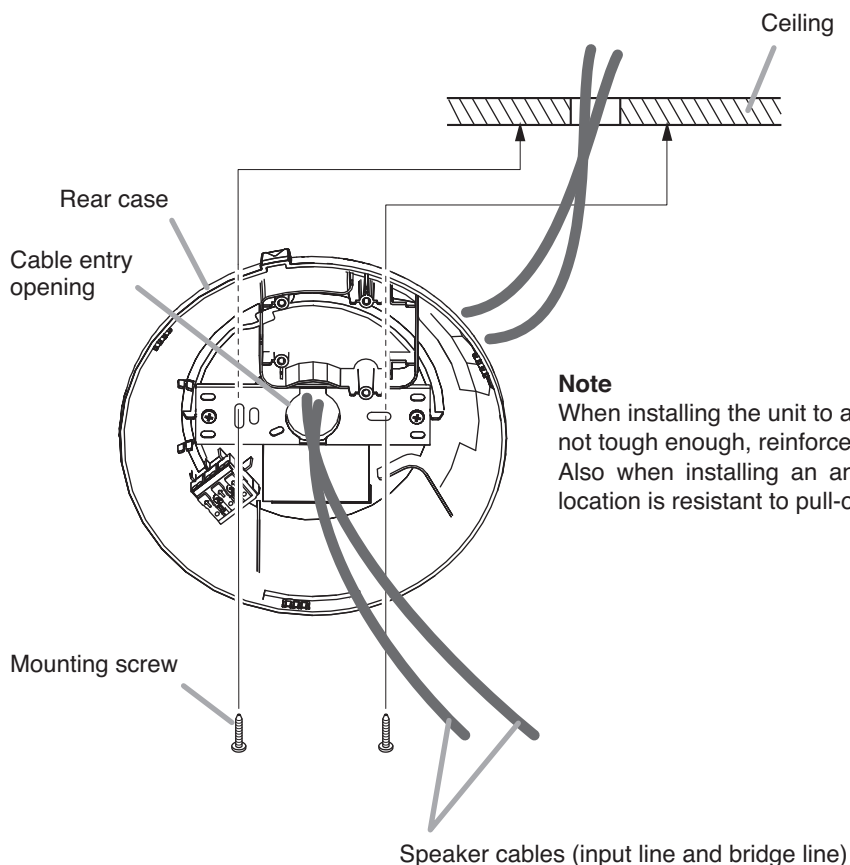
Machine screw M4 x 35 (2 pieces): For an electrical box



WARNING

Use screws that are appropriate for the ceiling's or wall's material and structure. Failure to do so may cause the unit to fall, resulting in material damage and possible personal injury.

1-1. When installing the rear case directly to a ceiling;



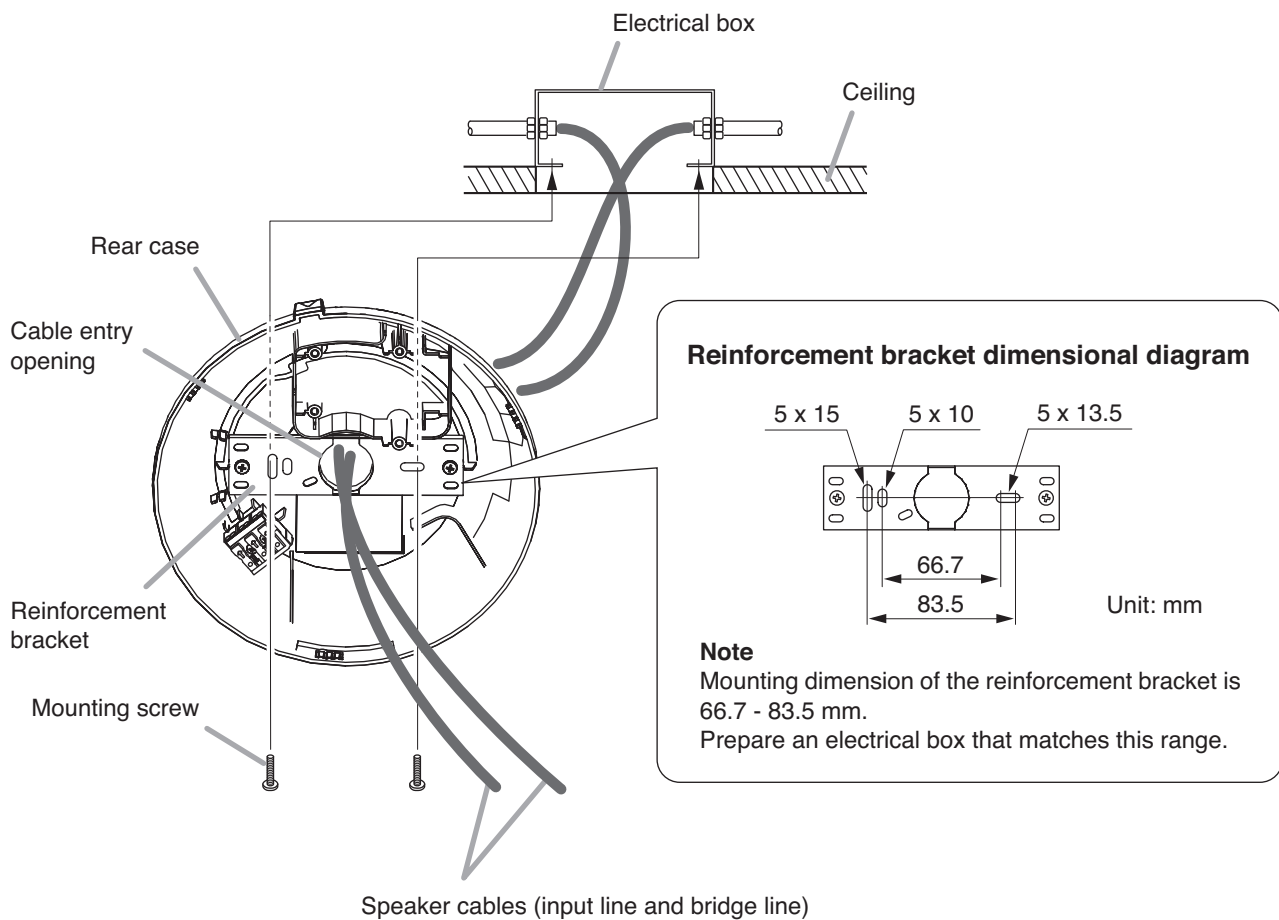
Note

When installing the unit to a gypsum board or woody portion that is not tough enough, reinforce the mounting location. Also when installing an anchor bolt, ensure that the installation location is resistant to pull-out.

Note

When routing the speaker cables, do not pull them out more than 30 cm. If pulled out more than that, they may not be housed inside the case.

1-2. When installing the rear case to an electrical box;

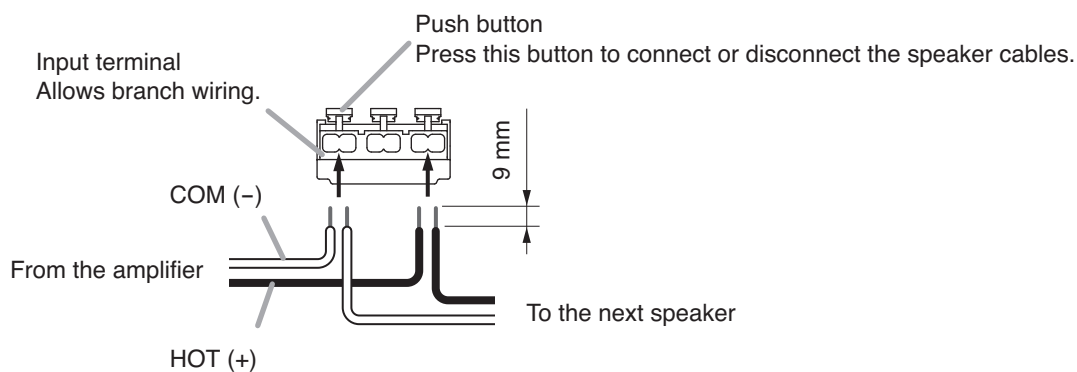
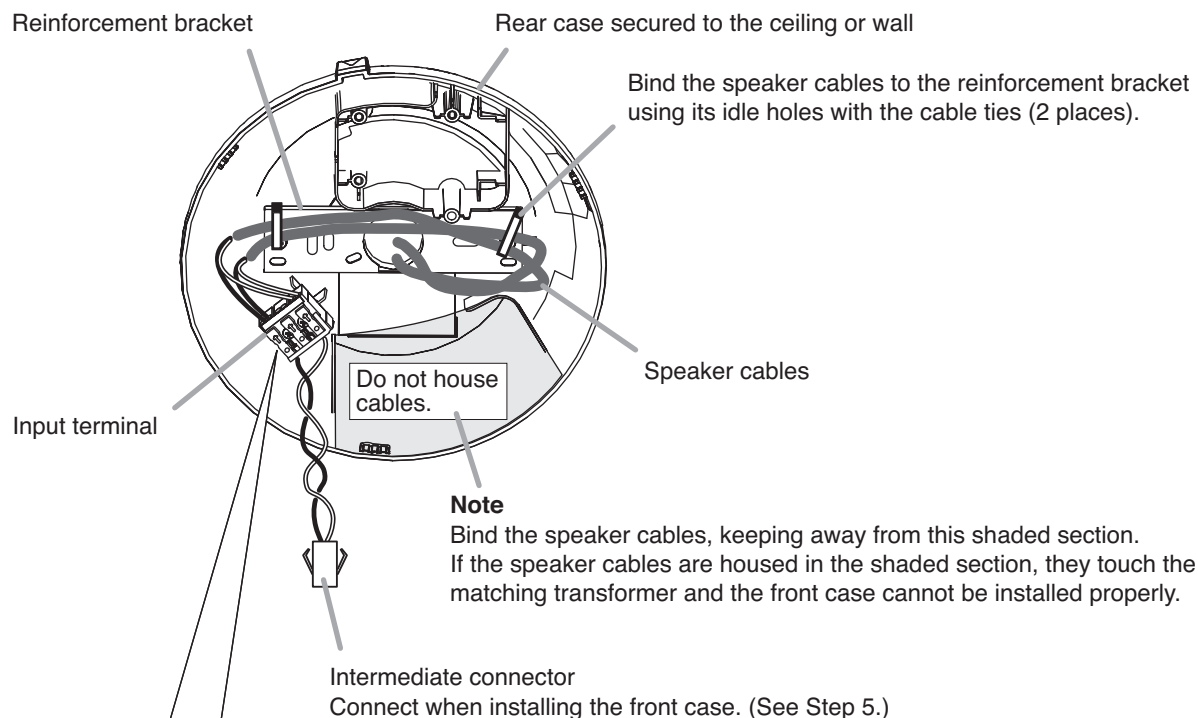


Note

When routing the speaker cables, do not pull them out more than 30 cm.
If pulled out more than that, the speaker cables may not be housed inside the case.

Step 2. Connect the speaker cables to the input terminal.

Connect both the input line (cable from the amplifier) and bridge line (cable to the next speaker) to the input terminal.



Connections

1. Strip the cable sheath about 9 mm from the cable end.
Use a strip gauge printed on the nameplate.
2. Insert the core wire while holding down the push button, then release the button.
Pull on the cable lead to ensure it is securely inserted.

Disconnection

Pull out the cable lead while holding down the push button.

Applicable cable

Solid copper wire: $\varnothing$ 0.8 - 1.6 mm (AWG 20 - 14 or equivalent)

7-core twisted copper wire: 0.75 - 1.25 mm² (AWG 18 - 16 or equivalent)

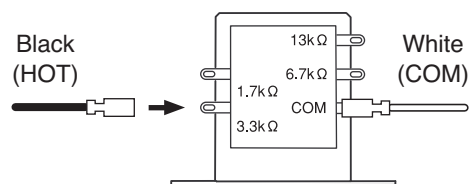
Step 3. Set the input tap.

Disconnect the black lead (HOT) connected to the matching transformer, then connect it to the desired input tap.

Matching transformer is installed inside the front case.

Impedance	1.7 k Ω	3.3 k Ω	6.7 k Ω	13 k Ω
100 V line	6 W	3 W	1.5 W	0.8 W
70 V line	3 W	1.5 W	0.8 W	0.4 W

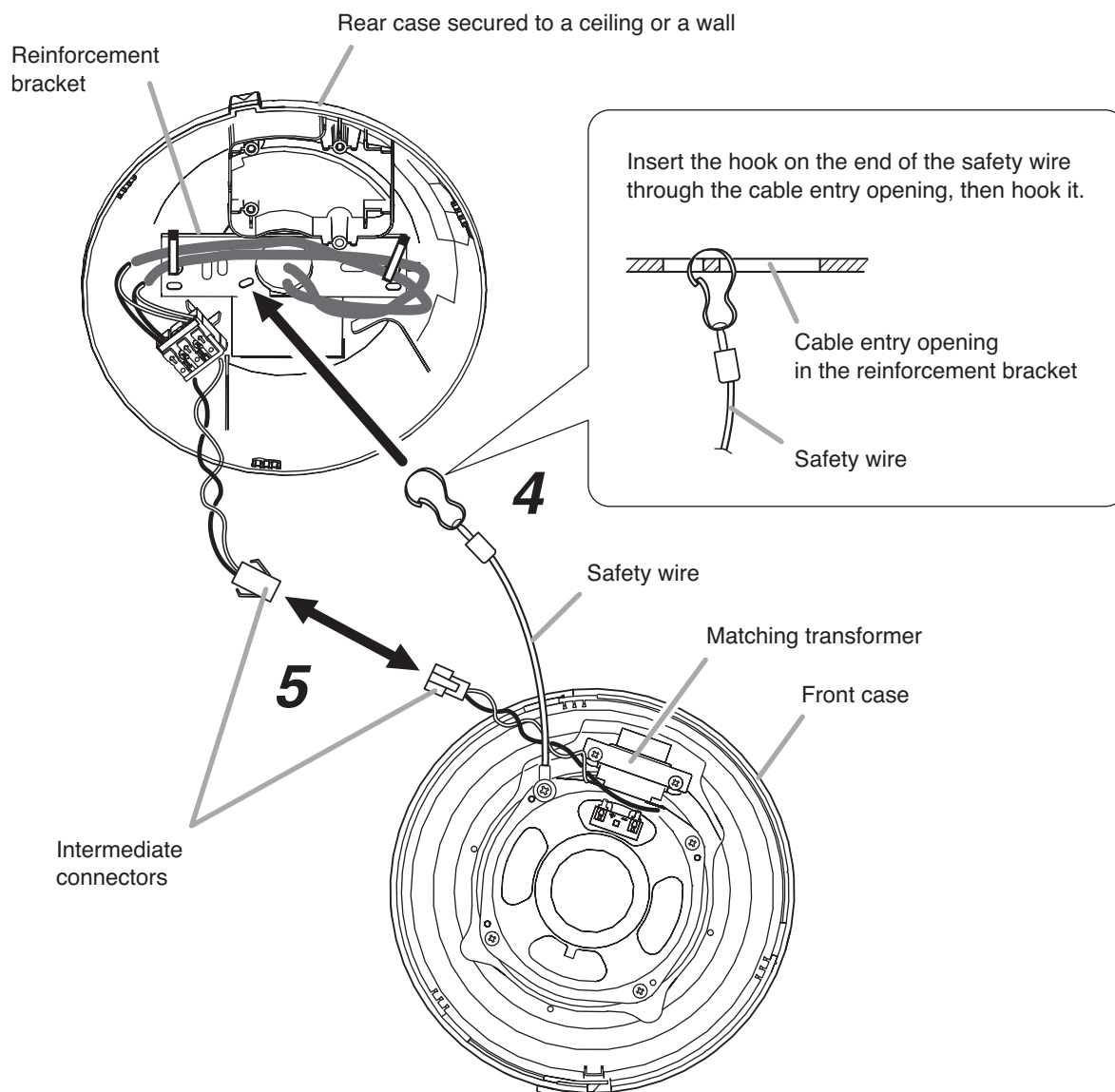
Factory-preset impedance: 1.7 k Ω



Step 4. Connect the safety wire to the rear case.

Connect the safety wire attached to the front case to the reinforcement bracket secured to the rear case.

Step 5. Connect the speaker cables via the intermediate connector.



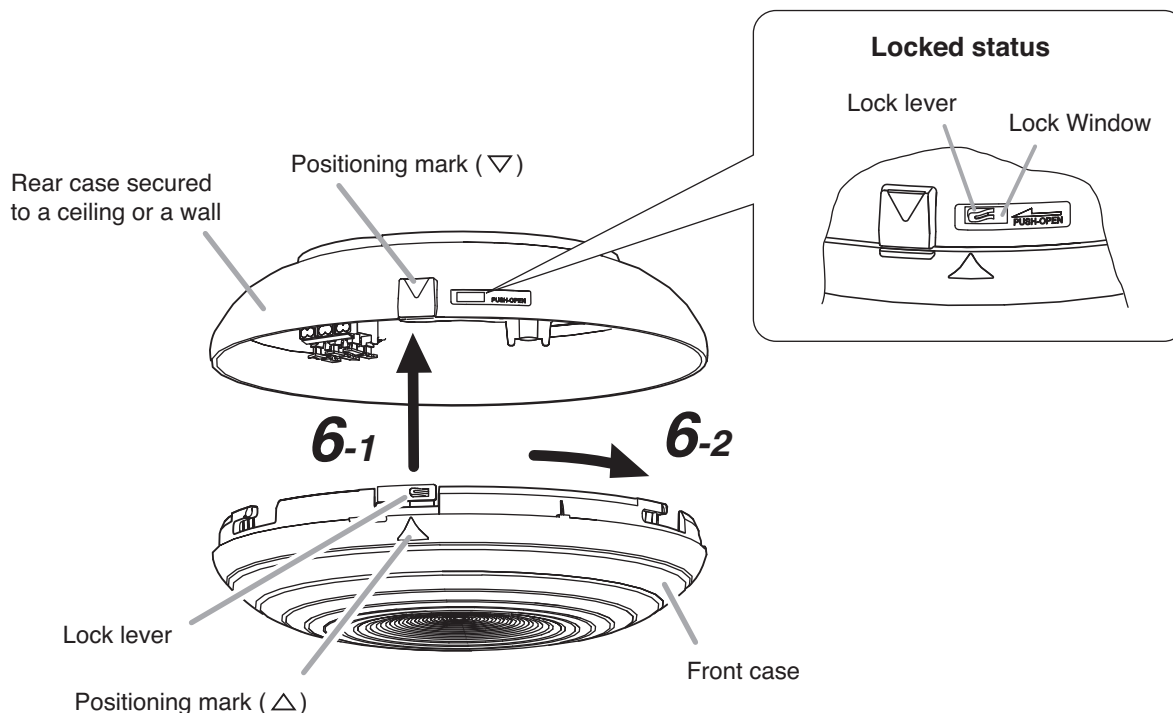
Step 6. Secure the front case to the rear case.

6-1. Align the positioning mark on the front case ($\triangle$) with that on the rear case, then insert the front case to the rear case.

Confirm that the cables are not pinched between the cases and that speaker cables do not touch the components inside the speaker.

6-2. Turn the front case in the arrow direction to secure it.

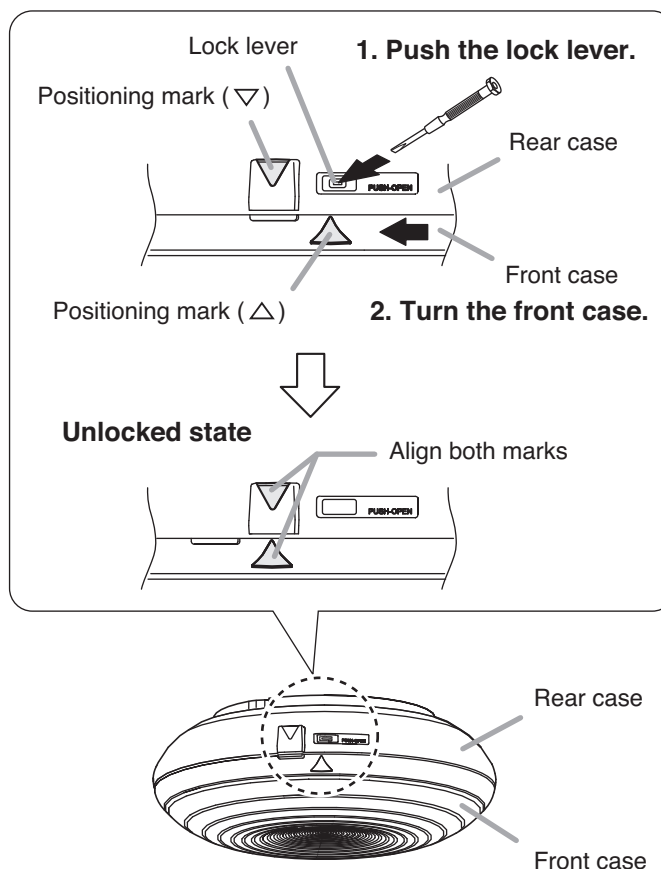
Ensure that the lock lever is locked at the edge of the Lock window.



5.3. Removing the Front Case

Turn the front case in the arrow direction while pushing the lock lever with a small standard screwdriver tip.

Rotate the front case to align the positioning mark ($\triangle$) on the front case with that on the rear case.



6. SPECIFICATIONS

Rated Input	6 W (for 100 V line), 3 W (for 70 V line)
Rated Impedance	100 V line: 1.7 k Ω (6 W), 3.3 k Ω (3 W), 6.7 k Ω (1.5 W), 13 k Ω (0.8 W) 70 V line: 1.7 k Ω (3 W), 3.3 k Ω (1.5 W), 6.7 k Ω (0.8 W), 13 k Ω (0.4 W)
Sensitivity	90 dB (1 W, 1 m, 330 – 3300 Hz, pink noise)
Frequency Response	160 – 14000 Hz (20 dB below peak)
Speaker Component	12 cm cone-type
Applicable Cable	600 V vinyl-insulated cable (IV wire or HIV wire) Solid copper wire: ϕ 0.8 – 1.6 mm (equivalent to AWG 20 – 14) 7-core twisted copper wire: 0.75 – 1.25 mm ² (equivalent to AWG 18 – 16)
Connection	Push-in connector (bridging terminal)
Operating Temperature	–10°C to +50°C
Finish	Front case, Rear case: Fire-resistant HIPS resin (resin material grade: UL-94 V-0), light gray
Dimensions	ϕ 220 x 80.5 (d) mm (projections excluded)
Weight	880 g

Note: The design and specifications are subject to change without notice for improvement.

• Accessories

Tapping screw (4 x 35)	2
Machine screw (M4 x 35)	2

