TOA

INSTRUCTION MANUAL

2WAY PASSIVE SPEAKER SYSTEM SR-F08

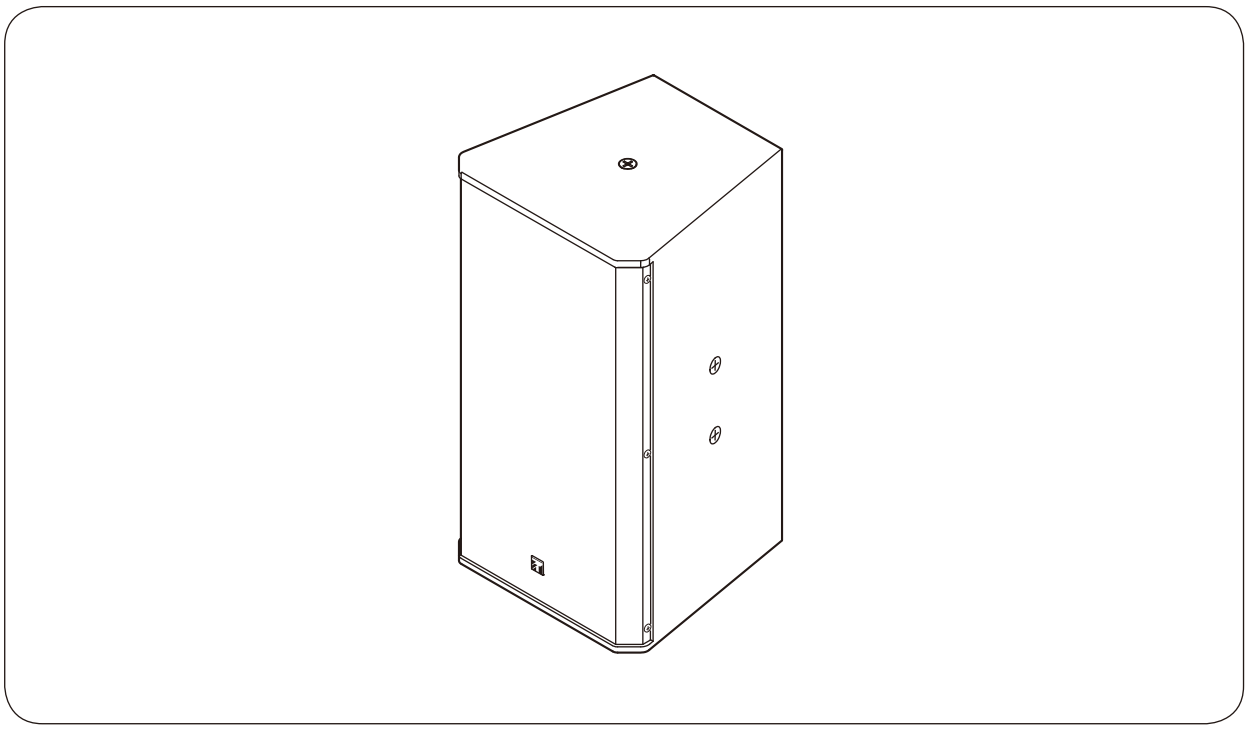


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Thank you for purchasing TOA's 2way Passive Speaker System.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

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

⚠ WARNING

- Avoid installing or mounting the speaker in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the speaker falling down and causing personal injury and/or property damage.
- 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 indoor 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 mount the bracket. 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 (only when installing the speaker to the ceiling, wall, or pipe.)
- Use nuts and bolts that are appropriate for the ceiling's or wall's structure and composition. Failure to do so may cause the speaker to fall, resulting in material damage and possible personal injury.
- Tighten each nut and bolt securely. Ensure that the bracket has no loose joints after installation to prevent accidents that could result in personal injury.
- Use the specified mounting bracket and speaker stand in combination. Doing otherwise may cause the speaker or component to fall off, resulting 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.
- Avoid installing the speaker in indoor swimming facilities that are not well ventilated. In such a location, the bracket may be vulnerable to corrosion, eventually allowing the speaker to fall resulting in personal injury.

⚠ CAUTION

- Avoid touching the speaker's sharp metal edge to prevent injury.
- Do not place heavy objects on the speaker 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 operate the speaker for an extended period of time with the sound distorting. Doing so may cause the connected speakers 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 its mounting bracket that could cause the speaker to fall, possibly causing personal injury.

2. GENERAL DESCRIPTION

The SR-F08 is a speaker system designed for permanent and temporary indoor installations, featuring high power handling capacity and high quality sound.

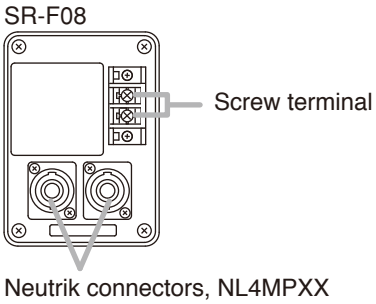
3. FEATURES

- An internal passive network serves to obtain appropriate sound quality.
- Equipped with a high-efficiency 20 cm (8") cone type woofer and a tweeter with a compression driver.
- The internal constant directivity (CD) horn with a 90° horizontal by 60° vertical dispersion (factory default) can be rotated 90° to change its directivity angle, realizing an appropriate coverage area.
- Can be installed to the ceiling, wall, pipe, and pipe using appropriate types of optional mounting brackets.
- Can be installed on the ST-34B Speaker stand (option).
- Light-weight and high strength birch plywood is used as the enclosure material. Its surface is finished with shock-resistant polyurea coating.
- Furnished with Neutrik NL4MPXX connectors as inputs, and also screw terminals for public address system use.

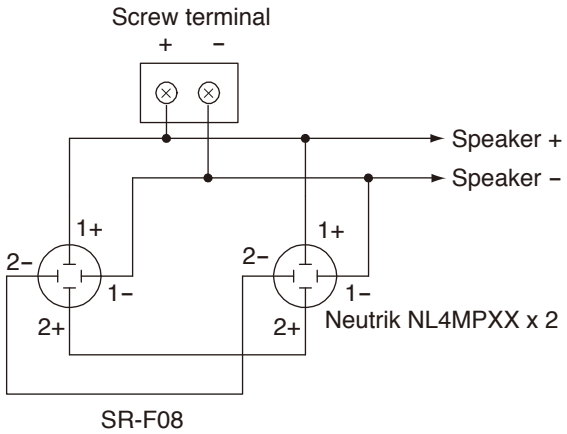
4. INPUT CONNECTORS

- Because the Neutrik NL4MPXX connector is internally connected in parallel to the terminal strip, either can be used.
- The Neutrik connector pins are wired as shown below.

Pin No.	SR-F08
1 +	Speaker +
1 –	Speaker –
2 +	—
2 –	—



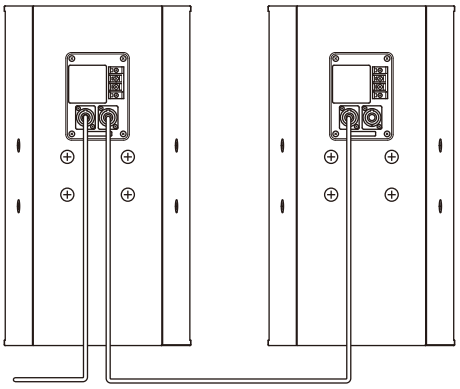
- The cable-end connector corresponding to the Neutrik NL4MPXX connector is Neutrik NL4FX.
- Shown below is the internal connection diagram of the speaker.



- Two speakers can be parallel-driven in a cascade configuration as shown at right.

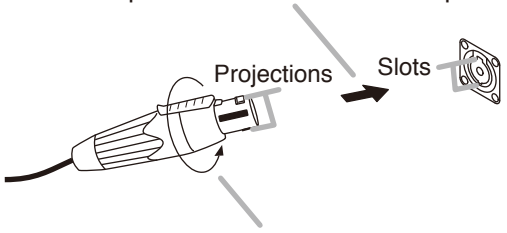
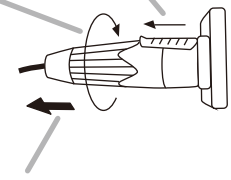
Note

· In this case, use the power amplifier capable of driving the speaker with an impedance of 4 Ω or less.
· Connecting it to an output terminal of over 4 Ω may cause amplifier failure.



Tip

Use the Neutrik NL4FX connector as follows.

When connecting the connector	When disconnecting the connector
Step 1. Plug the connector aligning its projections with the input terminal's slots of the speaker.  **Step 2.** Turn the connector clockwise until it clicks.	**Step 1.** Slide the connector's lock level toward you. **Step 2.** Turn the connector counterclockwise while holding down the lock lever.  **Step 3.** Pull out the connector.

5. EQUALIZATION USING A DIGITAL SIGNAL PROCESSOR

The SR-F08 is to reproduce high quality sound even without the use of an equalizer.
However, sound quality can be made even clearer and more dynamic with the addition of a TOA digital signal processor (DSP) set as shown in the table.

Filter	Frequency	Gain	Q	Delay
HPF (12 dB)	60 Hz	—	1.432	0 ms
PEQ	200 Hz	−5.0	1.850	
PEQ	1.25 kHz	−2.0	2.871	
PEQ	2.50 kHz	−2.0	2.871	
PEQ	7.75 kHz	−1.5	3.450	

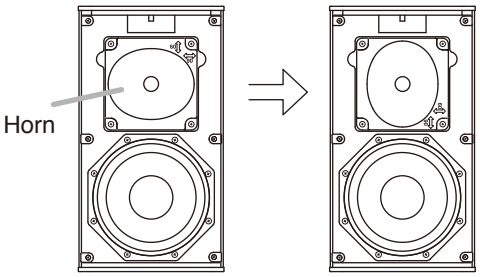
6. CHANGING THE HORN COVERAGE ANGLE

The speaker's horizontal and vertical coverage angle can be changed by rotating the horn 90 degrees.

Step 1. Remove the front grille screws and detach the grille.

Step 2. Remove the horn's mounting screws and change the horn's orientation as shown at right.

Step 3. Replace the horn and the front grille.



7. SAFETY WIRE INSTALLATION

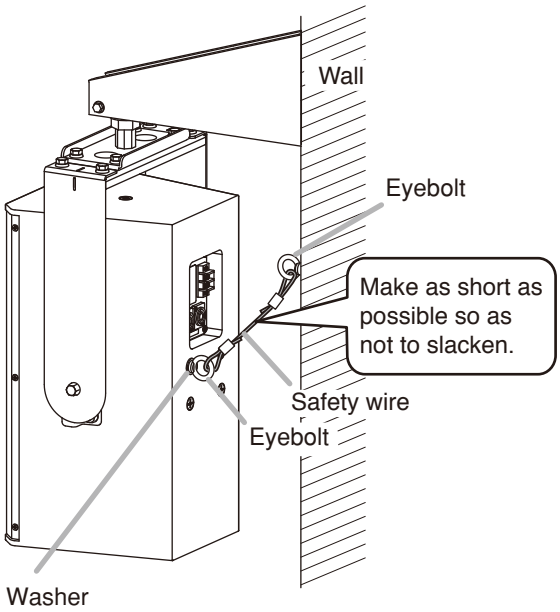
Be sure to always use safety wire when installing speaker systems.

Note
- A safety wire, eyebolts, and washers are not supplied. Prepare them separately.
- For the adaptive diameter of the eyebolt, see "DIMENSIONAL DIAGRAM" on p. 8.
- Prepare the eyebolt with a length of over 30 mm (1.18").

⚠ WARNING

Be sure to follow all instructions regarding safety wire installation. If not correctly followed, speakers could fall, potentially resulting in personal injury.
- Use safety wire that is strong enough to suspend the full weight of the components to be installed.
- Remove a screw on the speaker's rear panel, then install an eyebolt and washer instead, and also install an anchor bolt for the safety wire to the wall or ceiling as shown at right.
- Only install speaker systems in locations capable of structurally supporting the weight of the speakers and their mounting brackets.

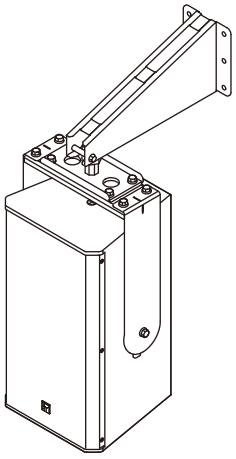
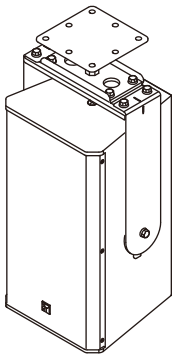
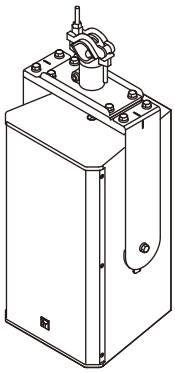
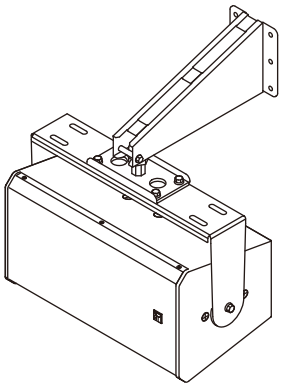
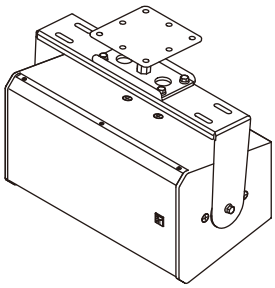
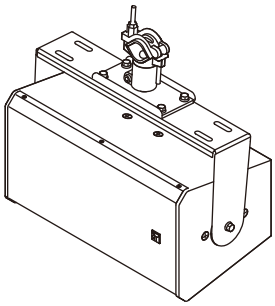
[Wall Mounting Example]
In this example, the optional HY-UV08 and HY-W0801 brackets are used.
Weight: 17.2 kg or 37.92 lb
(including speaker weight)



8. SELECTING THE OPTIONAL MOUNTING BRACKET

Shown below are optional mounting brackets.
Select the appropriate bracket to use depending on the speaker mounting orientation and the installation location.
There also are the following brackets for specific purposes: the one less noticeable when installed and the one used to install the SR-F08 to the speaker stand. (See the next page.)
For the mounting, read the instruction manual enclosed with the bracket.

8.1. Bracket to Use and Its Installation Example

Installing to the wall *1	Installing to the ceiling *1	Installing to the pipe
[When mounting in vertical orientation] *2  Usable bracket: HY-UV08 + HY-W0801 Weight: 17.2 kg or 37.92 lb (including speaker weight)	[When mounting in vertical orientation]  Usable bracket: HY-UV08 + HY-C0801 Weight: 15.1 kg or 33.29 lb (including speaker weight)	[When mounting in vertical orientation]  Usable bracket: HY-UV08 + HY-B0801 Weight: 15.1 kg or 33.29 lb (including speaker weight)
[When mounting in horizontal orientation]  Usable bracket: HY-UH08 + HY-W0801 Weight: 17 kg or 37.48 lb (including speaker weight)	[When mounting in horizontal orientation]  Usable bracket: HY-UH08 + HY-C0801 Weight: 14.9 kg or 32.85 lb (including speaker weight)	[When mounting in horizontal orientation]  Usable bracket: HY-UH08 + HY-B0801 Weight: 14.9 kg or 32.85 lb (including speaker weight)

Tip
There is no limit on the speaker mounting angle both in horizontal and vertical directions.

*1 You can install the speaker directly to the wall or ceiling using the HY-UH08 only. For details, read the installation manual supplied with the HY-UH08.

*2 You can also use the optional HY-WM08 Wall mounting bracket. In this case, there is a limit on the speaker mounting angle. (See the next page.)

8.2. When Wishing to Install the Bracket As Less Noticeable As Possible

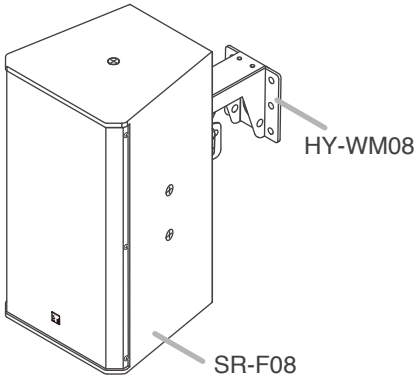
Use the optional HY-WM08 Wall mounting bracket to make the bracket hardly noticeable in such a case that consideration for the installation needs to be given to the building's design.

Note
The speaker mounting angle is limited to the following range.

Horizontal direction: 60° left to 60° right from the front direction
Vertical direction: 30° downward from the front direction

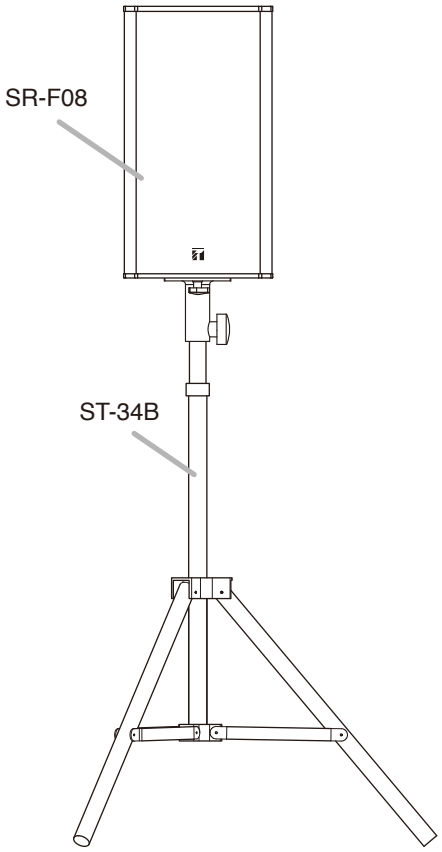
[SR-F08 + HY-WM08]

Weight: 12.8 kg or 28.22 lb
(including speaker weight)



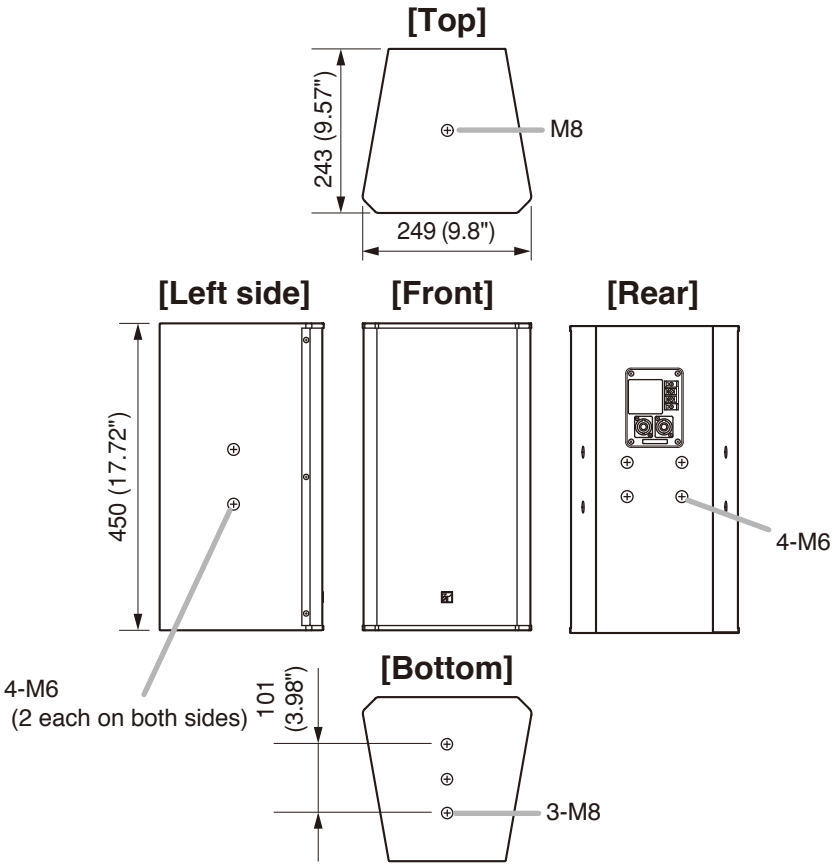
8.3. When Mounting to the Speaker Stand

If you need the speaker stand, prepare the optional ST-34B Speaker stand.
When mounting the speaker to the ST-34B, use the stand bracket supplied with ST-34B.



9. DIMENSIONAL DIAGRAM

Unit: mm



10. SPECIFICATIONS

System Type	2-way, Passive type, Bass-reflex type
Power Handling Capacity	Continuous pink noise: 120 W, Continuous program: 360 W
Rated Impedance	8 Ω
Sensitivity	91 dB (1 W, 1 m)
Frequency Response	65 Hz to 20 kHz
Crossover Frequency	1.5 kHz
Directivity Angle	Horizontal: 90°, Vertical: 60° (Horn at 90° Rotation, Horizontal: 60°, Vertical: 90°)
Speaker Component	Low frequency: 20 cm (8") cone-type High frequency: Compression driver fitted with CD horn
Input Connector	Neutrik NL4MPXX x 2, M4 screw terminal, distance between barriers: 9.8 mm (0.39")
Finish	Enclosure: Birch plywood, black, polyurea coating Grille: Steel plate, black, 40% glossy, paint
Dimensions	249 (w) x 450 (h) x 243 (d) mm (9.8" x 17.72" x 9.57")
Weight	11 kg (24.25 lb)
Option	Speaker mounting bracket: HY-B0801, HY-UH04, HY-UV04 Ceiling mount bracket: HY-C0801 Speaker wall mount bracket: HY-WM04, HY-W0801 Speaker stand: ST-34B

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