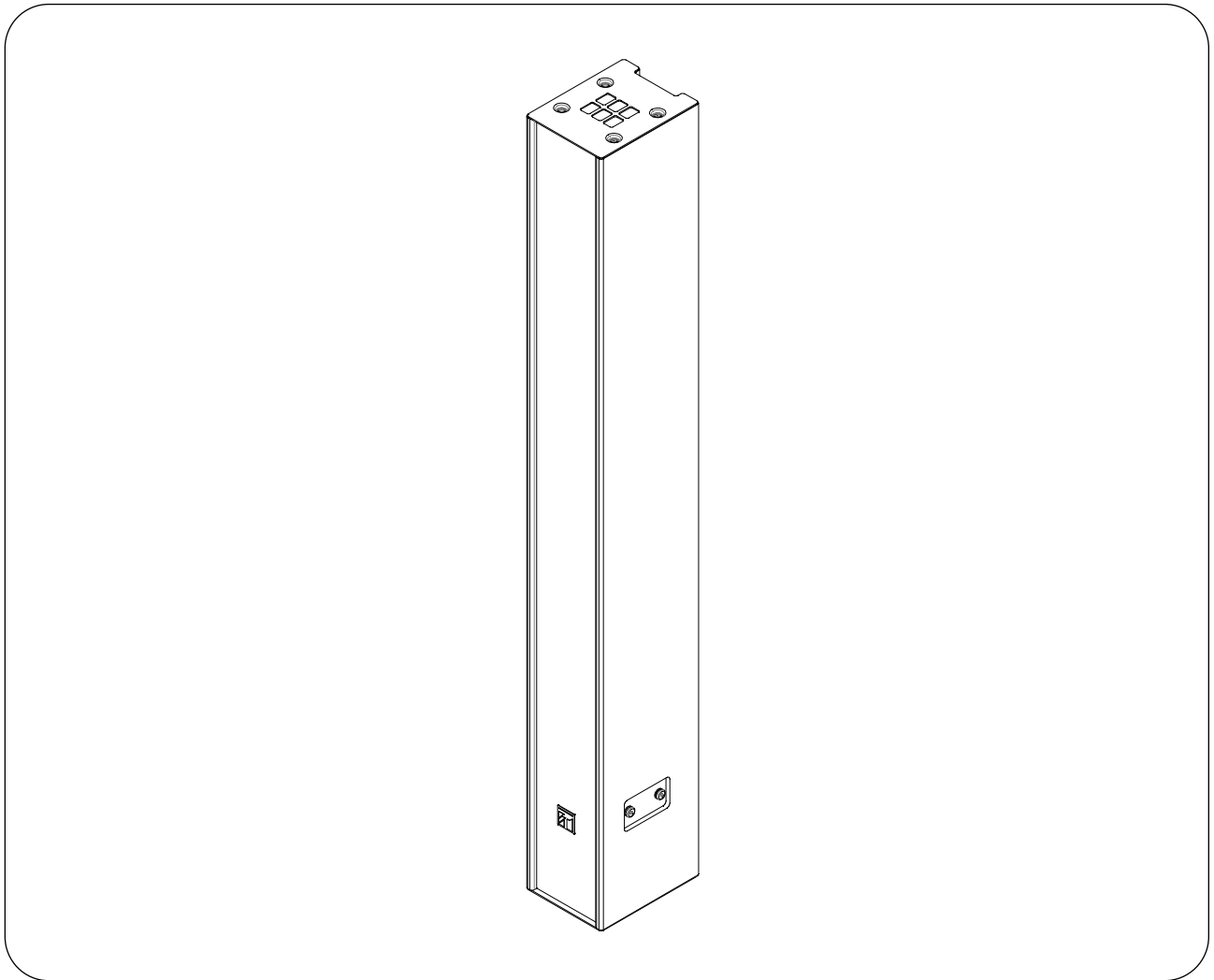




INSTRUCTION MANUAL

SLIM ARRAY SPEAKER

TZ-S60W AS



Thank you for your confidence in our product.

Please follow the instructions stated in the manual carefully to ensure proper installation and to prevent any damage to the equipment. This is important for longer duration of your equipment.

TOA Corporation

# TABLE OF CONTENTS

<b>1. SAFETY PRECAUTIONS</b>	.....	3
<b>2. GENERAL DESCRIPTION</b>	.....	4
<b>3. SPEAKER DIMENSIONAL DIAGRAM</b>	.....	5
<b>4. HOW TO ADJUST IMPEDANCE</b>	.....	6
<b>5. INSTALLATION</b>		
5.1. Brackets That are Provided	.....	6
5.2. Speaker Cable Connection	.....	7
5.3. Wall Mount Installation		
5.3.1. Using Pre-Installed Brackets	.....	7
5.3.2. Using Accessory Bracket	.....	8
5.3.3. Using Optional Bracket(HY-S60W AS)	.....	10
<b>6. SPECIFICATIONS</b>	.....	12

# 1. SAFETY PRECAUTIONS

- Prior to installation or use of the speaker unit, please read carefully the instruction manuals.
- You must thoroughly understand the safety precautions and important safety warnings stated in the Instruction manual.
- After reading, please keep the instruction manual for future use at any time.

 **WARNING**

Indicates a dangerous situation, improper action may result in death or serious injury.

 **CAUTION**

Indicates potential danger, improper action may result in minor injury or equipment damage.

 **WARNING**

## Installing the speaker unit with mounting brackets

- Mount the unit on a location strong enough to support the weight of the unit and mounting bracket. Doing otherwise may cause the speaker unit to fall and result in personal injury / equipment damage.
  - Do not apply other methods to mount the Mounting Bracket other than the method specified in the instruction manual. Speaker unit may fall and cause personal injury.
  - Use the screw compatible with the composition and structure of the wall. Doing otherwise may cause the speaker to fall and result in personal injury.
  - Tighten each screw securely. Ensure no loose bolt after speaker unit is mounted to prevent it from falling and causing personal injury.
  - Do not mount on a location exposed to constant vibration because it may dismount or drop the speaker.
  - The speaker is designed for indoor use therefore do not use it outdoors. Doing otherwise may bring damage to the speaker or cause it to fall, resulting in personal injury. If the speaker is wet due to rain, it may cause short circuit.
  - Do not install or place the unit on locations that are not stable, like on fragile table or on slanted surface. Doing otherwise may cause the speaker unit to fall and result in personal injury.
- Do not mount the unit in a humid room or poor ventilation. Bracket will easily get rusty if mounted in such a location, causing the speaker unit to fall and resulting in personal injury.
  - It is wise to use safety wire due to the unit weight. Please consult with your contractor the using of safety wire.

 **CAUTION**

## When mounting Speaker Unit

- At least 2 people are required to lift it up or put it into the box. If the unit topples, it may cause personal injury.
- Avoid the sharp edge of the unit to prevent any injury.
- To prevent short-circuit, ensure amplifier is TURNED OFF when connecting it to the speaker unit.

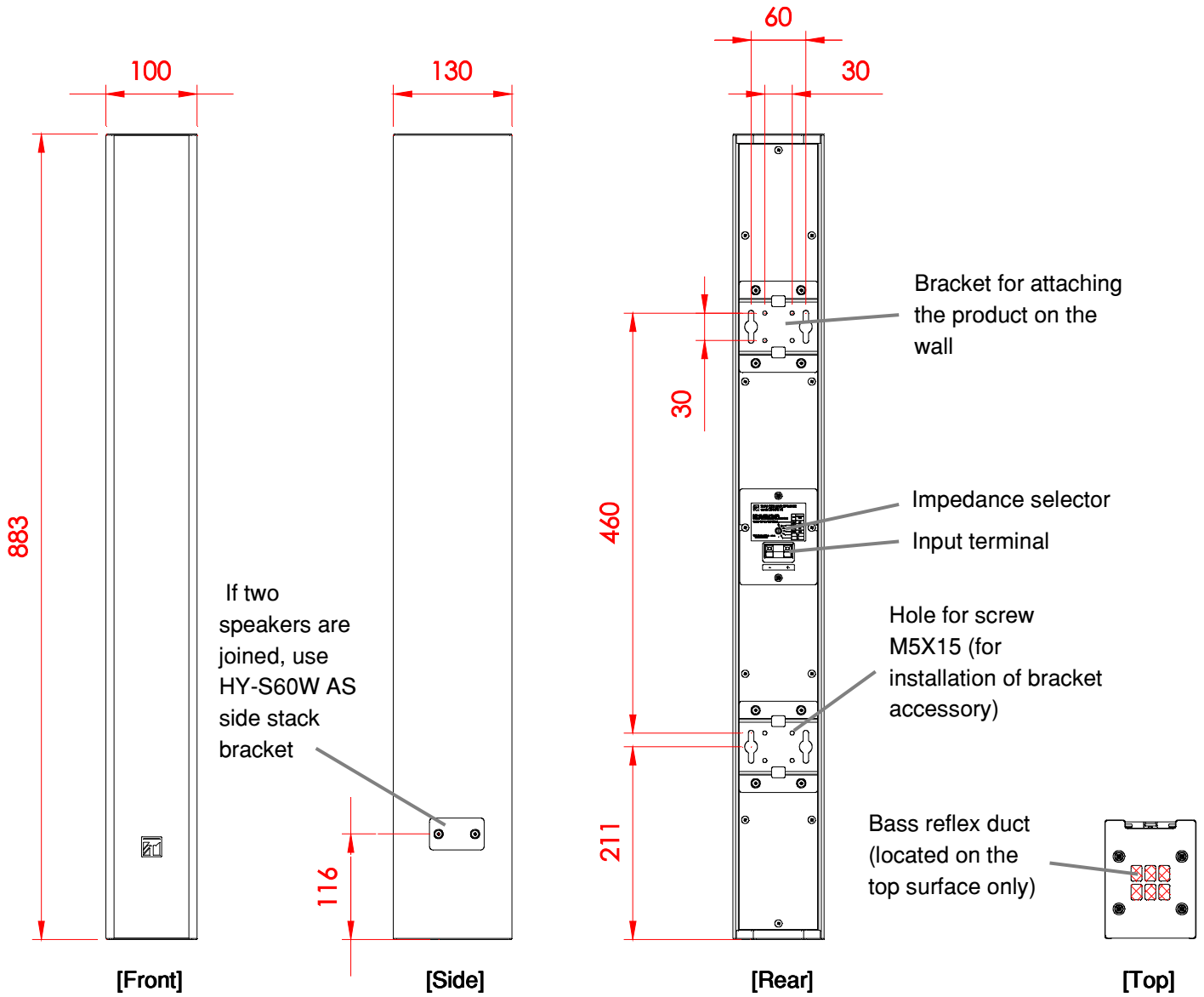
### **When Speaker Unit is in use (turned on)**

- Do not place any heavy object on the speaker which may cause the speaker to fall, resulting in personal injury or damage to the unit. The respective object will also fall and cause harm to others.
- Do not sit, stand or hang on the speaker unit. Doing so may cause the speaker unit to fall, resulting in personal injury or damage to the unit.
- Do not operate the speaker for an extended period of time with distorted sound. This indicates improper operation and it may cause overheating and fire.
- Conduct regular checks to detect any damage to the unit or corrosion to the mounting bracket as early as possible. Failure to do so may cause the speaker to fall, resulting in personal injury.

## **2. GENERAL DESCRIPTION**

- The Array Speaker is suitably designed for indoor use.
- Realizes a 90° horizontal x 0° vertical directivity control.
- Delivers clear sound in room with reverberation problems, with its wide frequency range and high frequency sound.
- The speaker unit is designed to reproduce sound with good clarity.
- Both low impedance(120W max. input power) and high impedance(60W rated input power) available by a rotary switch.
- The array speaker comes with speaker bracket as accessories.
- The speaker bracket offers better flexibility in installation.
- Two speakers of this model can be stacked to improve sound transmission distance and increase the vertical coverage area.

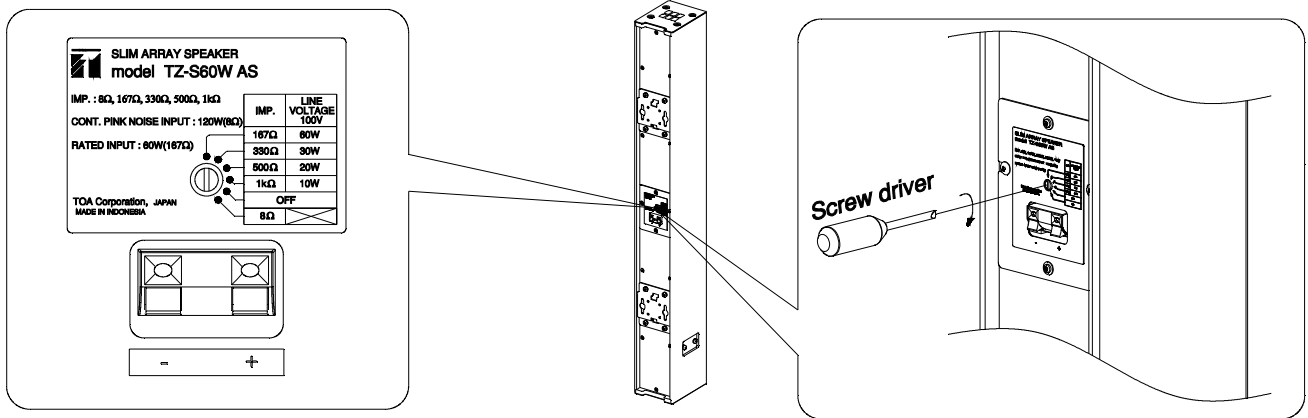
### 3. SPEAKER DIMENSIONAL DIAGRAM



## 4. HOW TO ADJUST IMPEDANCE

To adjust impedance, use a standard screwdriver to turn the rotary switch located at the back of the speaker to the desired input power.

**Note :** Rotary switch is set at position : 167Ω / 60W



### ⚠ CAUTION

- Never set the rotary switch at position "8Ω" when input terminal is connected with high impedance amplifier, because it will cause damage to speakers or amplifiers.
- Be sure the position of rotary switch "8Ω" when input terminal is connected with low impedance amplifier.

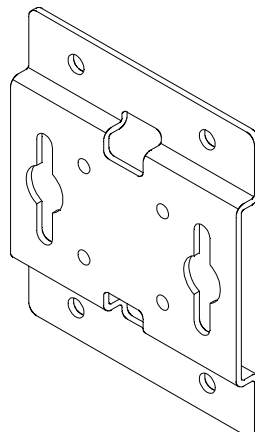
## 5. INSTALLATION

### 5.1. Brackets That Are Provided

The speaker unit is equipped with mounting brackets, as in the picture below. Use the bracket in accordance with the mounting location and the desired application.

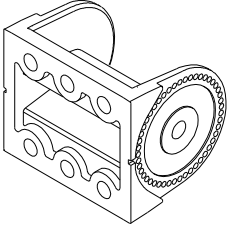
#### TZ-S60W AS WALL BRACKET

(This bracket has been pre-installed on the rear of speaker)

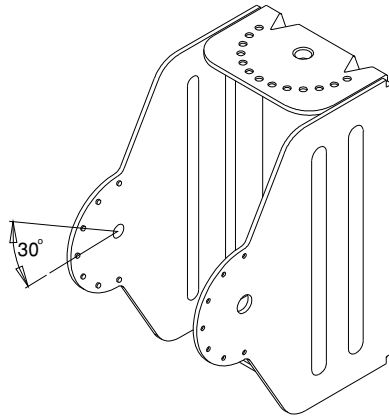


## ACCESSORY

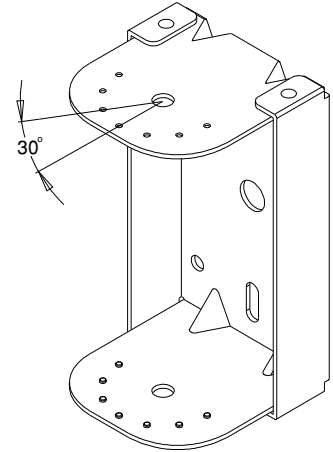
(Brackets are not yet installed on the speaker)



[Speaker bracket]

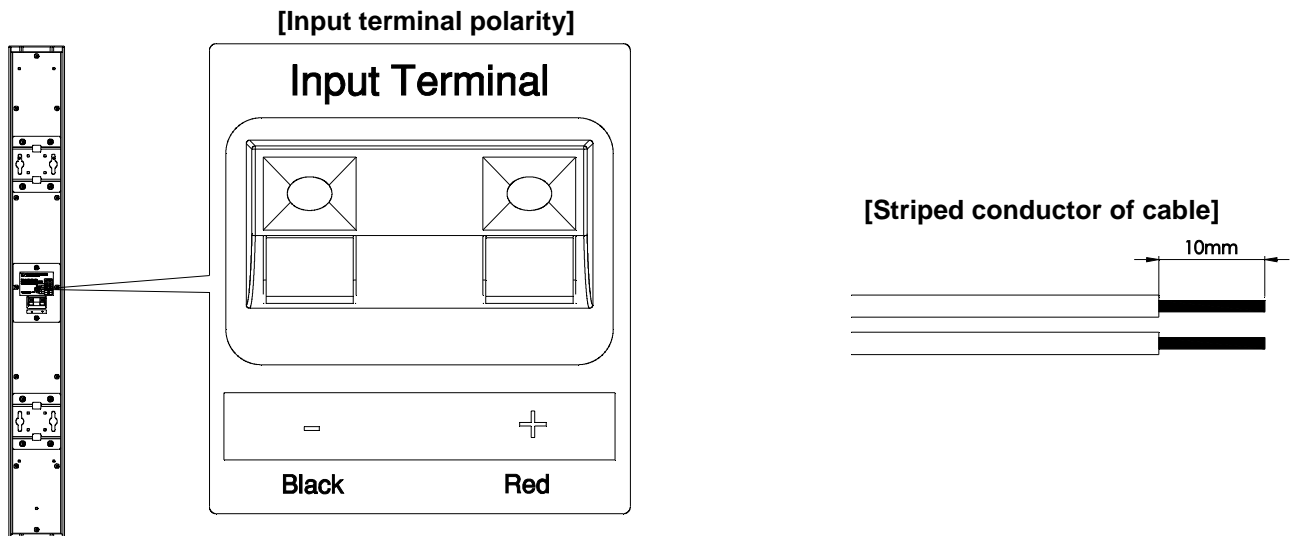


[Joint bracket]



[Wall bracket]

### 5.2. Speaker Cable Connection



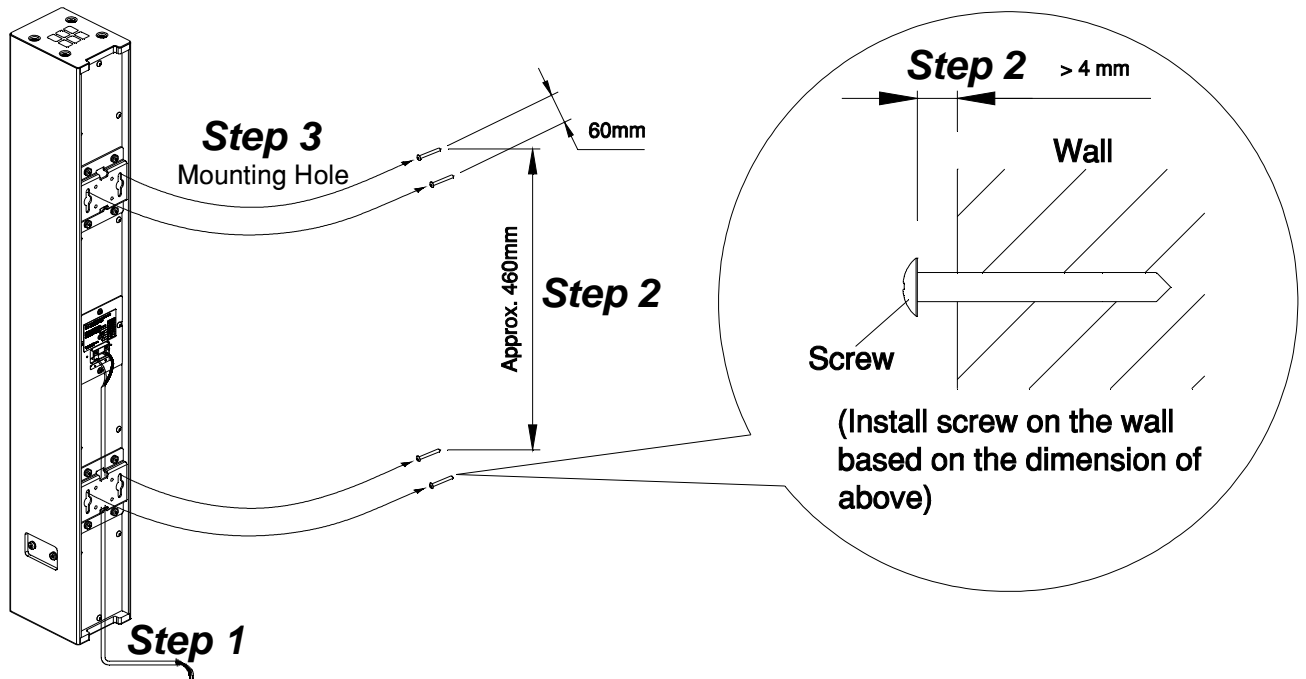
### 5.3. Wall Mount Installation

#### 5.3.1. Using pre-installed brackets.

**Step 1.** Connect the speaker cable to input terminal, where the cable must pass through the hole in the wall bracket so that the cable do not obstruct the speaker from coinciding with the wall. (refer to below illustration).

**Step 2.** Install 4 pieces of screws, two screws should be paralleled above the other 2 screws. The width distance between the 2 screws is 60mm, height distance is approximately 460mm between the two screws above and below, and the depth distance of each screw is more than 4mm from the wall surface. (refer to below illustration).

**Step 3.** Place the speaker onto the wall through the 4 holes in the 2 pieces of wall brackets (on the back of speaker) on the 4 pieces of screws that had been paired on the surface of the wall (see step 2).



**Note :**

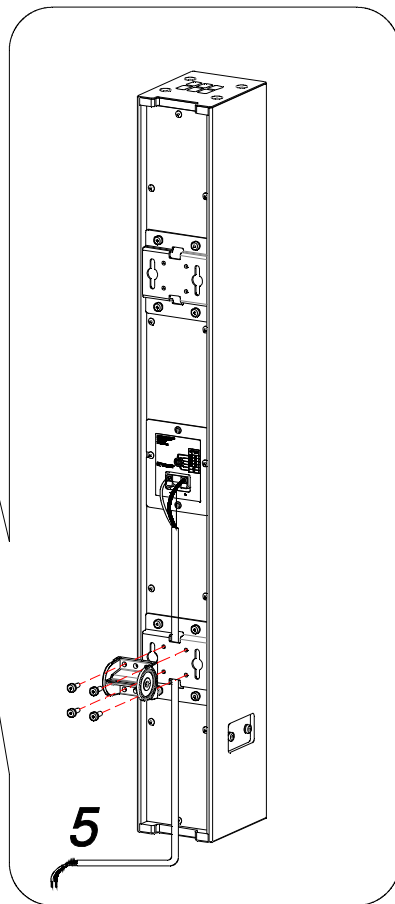
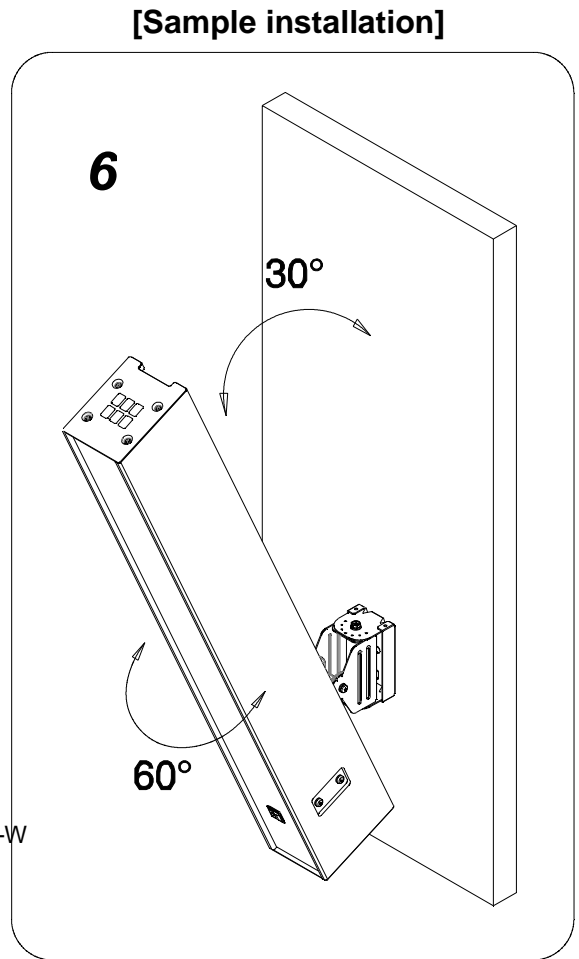
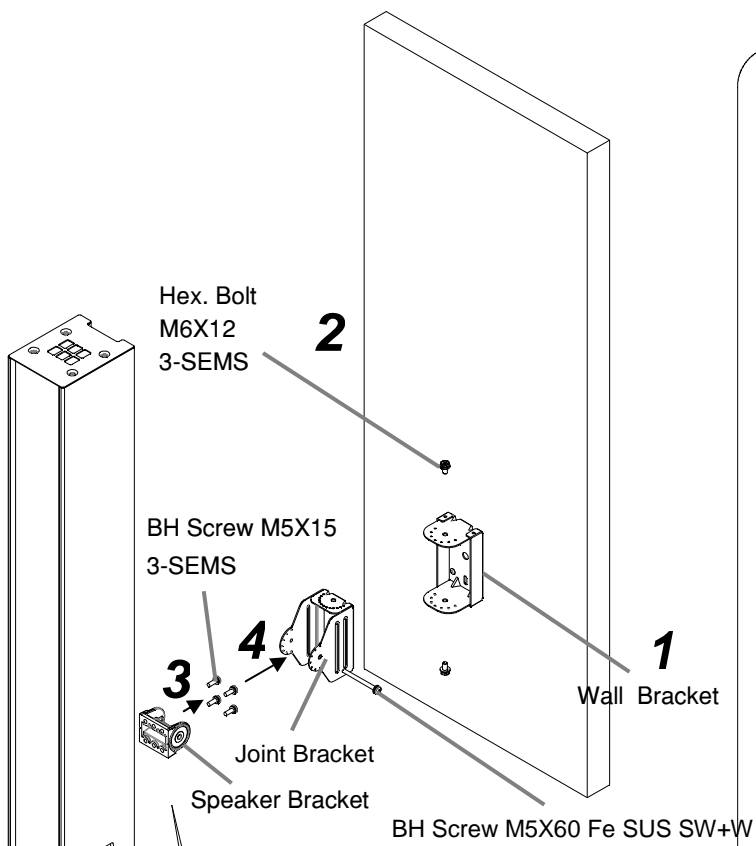
- *Use screws that are compatible with the composition and structure of the wall, and strong enough to support the weight of the unit .*
- *Screws are not supplied in accessories.*

### 5.3.2. Using Accessory Bracket

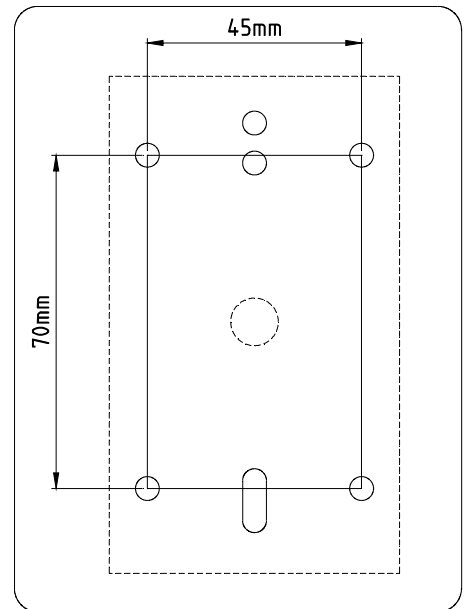
For mounting accessory bracket to the speaker illustrated by the picture below. Screws for mounting bracket to the speaker are provided along with the speaker unit as an accessory.

Horizontal mounting  $60^\circ$  max, Vertical mounting  $30^\circ$  max.





**Distance of the hole in the wall bracket**



- Step 1.** Mount Wall Bracket onto the wall, Use screws that are compatible with the composition and structure of the wall, and strong enough to support the weight of the unit.
- Step 2.** Attach the joint bracket to the wall bracket with the provided screw, adjust the horizontal angle of the speaker and tighten the screw.
- Step 3.** Attach the bracket to the rear of the speaker with the provided screw.
- Step 4.** Mount the speaker to joint bracket by inserting the speaker bracket into the joint bracket and temporarily loosening the fixing bolt.
- Step 5.** Connect the speaker cable to input terminal.
- Step 6.** Adjust the speaker's vertical angle and tighten the fixing bolt.

Speaker's angle is adjustable at 7.5° .

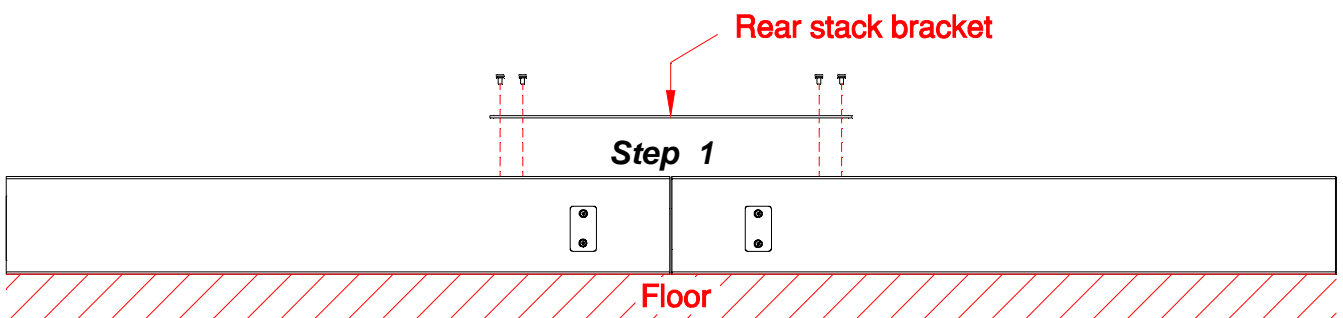
**Note :** The closed surface of the speaker bracket and joint bracket is designed to lock each other Ensure both sides are attached securely after mounting.

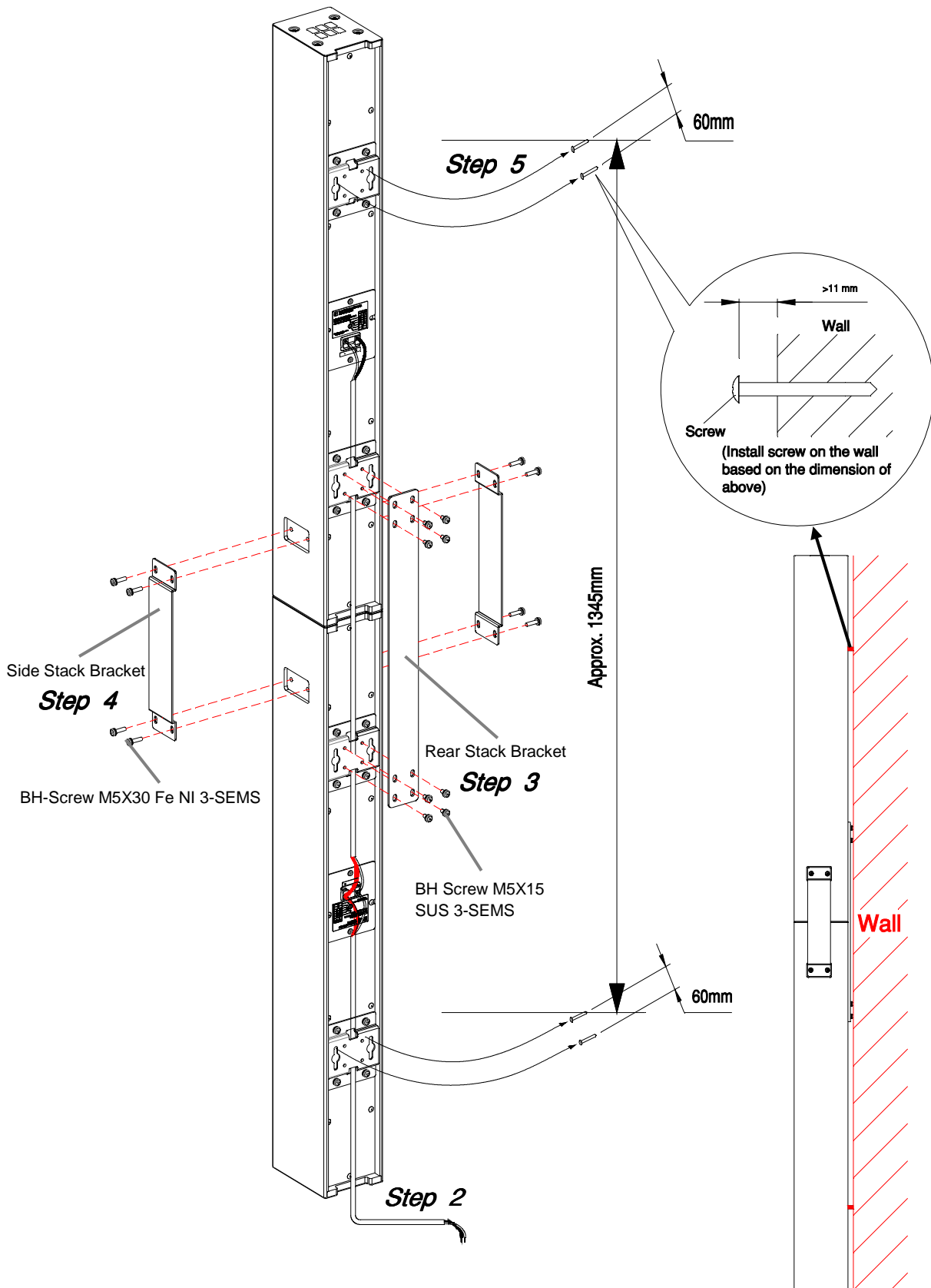
### 5.3.3 Using Optional Bracket (HY-S60W AS)

When stacking 2 pieces of speakers, join the bottom side of each speaker.

- Step 1.** Join the bottom side of each speaker, by placing the speakers on the floor (refer to below illustration).
- Step 2.** Connect the speaker cable to input terminal of the two speakers, where the cable must pass through the hole in the wall bracket so that the cable do not obstruct the speaker from coinciding with the wall, and match the impedance to be used (Low impedance or High impedance)  
*“ Do not connect low impedance to high impedance, because it can cause damage to speakers or amplifiers that are used ”.*
- Step 3.** Install rear stack bracket using the screws provided (BH Screw M5X15 SUS 3-SEMS).
- Step 4.** Release the 4 pieces of screws on the right and left side of the speakers, and use the screws for installing the side stack brackets on the right and left side.
- Step 5.** Install 4 pieces of screws, two screws should be paralleled above the other 2 screws. The width distance between the 2 screws is 60mm, height distance is approximately 1345mm between the two screws above and below, and the depth distance of each screw is more than 11mm from the wall surface. (refer to below illustration).

*“ When speakers are stacked, direction is not adjustable ”*





*Illustration of stacking TZ-S60W AS wall mounting*

**Note :**

- *Use the screws that are compatible with the composition and structure of the wall, and strong enough to support the weight of the unit .*
- *Screws are not supplied in accessories.*

## 6. SPECIFICATIONS

Enclosure	Bass reflex type	
Max. Input Power (Low Imp.)	120W (continuous pink noise)	
Rated Input (High Imp.)	60W	
Rated Impedance	Low Impedance : 8Ω	
	100V Line : 167Ω (60W), 330Ω (30W), 500Ω (20W), 1 kΩ (10W)	
Sensitivity	95 dB (1W, 1m)	
Frequency response	180 – 15,000Hz	
Speaker Component	8cm(3") cone-type x 9	
Connection	Push-in terminals	
Operating temperature	-10 to 50°C (14 to 122°F)	
Directivity Angle	Horizontal : 90° / Vertical : 0°	
Impedance change	Rotary switch (Selectable)	
Finish	Enclosure	MDF, Wet paint, White
	Punched net	SECC, Wet paint, White
	Wall Bracket	SECC, Wet paint, White
	Side panel	SECC, Wet paint, White
	Metal cover	SECC, Wet paint, White
Dimensions	100(W) X 883 (H) X 130 (D) mm	
Weight	8.2 kg Unit only	
Accessory	Speaker bracket ...1 Pc, Joint bracket ...1 Pc, Wall bracket ...1 Pc,	
	Fixing bolt M5X60 ...1 Pc	
	Hexagon bolt M6X12 (with plain washer and spring washer) ...2 Pcs	
	Machine screw M5X15 (with plain washer and spring washer) ...4 Pcs	
Optional	HY-S60W AS : Side stack bracket ...2 Pcs, Rear stack bracket ...1 Pc	

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