

# UNIVERSAL SPEAKER

## BS-1030B BS-1030W

Please follow the instructions in this manual to obtain the optimum results from this speaker.

We also recommend that you keep this manual handy for future reference.

The BS-1030 Series Speakers are small in size and feature the wide-band, high-quality, 2-way bass-reflex design which makes them ideal for such applications as announcements and music reproduction.

### 1. SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.

#### **WARNING**

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

- Use only the specified amplifier output voltage and impedance, as exceeding the specified limits could result in fire or other failures (high-impedance applications).
- To avoid accidental air explosions, do not use the speaker around gasoline, thinner or other combustibles.
- 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.
- 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.
- 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.

- Attach the safety wire to the speaker when mounting in locations high above the ground. Failure to do so could result in personal injury if the speaker should later fall for any reason.
- Avoid mounting 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.

#### **CAUTION**

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

- To avoid electric shocks, be sure to switch off the amplifier power when connecting the speaker.
- Avoid installing the speaker in humid or dusty locations, or in locations exposed to heaters, solvents, acid, alkali, smoke, or steam, as excessive exposure to these factors could result in the speaker falling off, electric shock or fire.
- Do not operate the speaker 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.
- 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 periodically checked by the shop from where it was purchased. Failure to do so could result in the speaker falling off due to damage or corrosion to the speaker or its mounts, and possible personal injury.

## 2. FEATURES

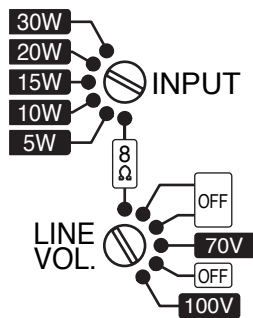
- The speaker's smoothly curved surface permits it to blend in with virtually all modern buildings.
- A built-in matching transformer permits the speaker to be used for both high-impedance and low-impedance ( $8\ \Omega$ ) applications. The impedance can be easily changed from outside the speaker.
- A splash-proof design enables the BS-1030 to even be installed outdoors, in a location not directly exposed to the elements, such as under eaves.
- Mountable to wall surfaces directly or using with supplied or optional mounting brackets.

## 3. INPUT IMPEDANCE CHANGE

The speaker's input impedance is preset to 30 W ( $330\ \Omega$ ) of 100 V line by the factory. To change the impedance, change the position of the rear panel-mounted rotary switches with a slotted screwdriver.

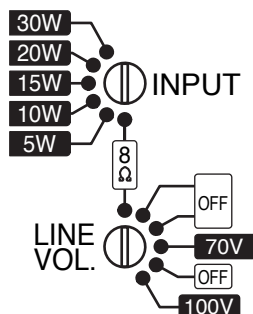
### 3.1. High Impedance (70 V or 100 V Line) Applications

Set the [LINE VOL.] rotary switch to the 70 V or 100 V position, and the [INPUT] rotary switch to the wattage to be used. (The figure below is an example of 100 V, 20 W.)



### 3.2. Low Impedance Applications

Set both the [LINE VOL.] and [INPUT] rotary switches to the  $8\ \Omega$  position.



#### Notes

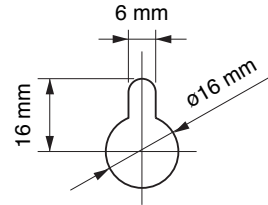
To avoid damage to the speaker, be sure to follow the instructions below.

- Switch off the amplifier power when changing the input.
- Never set the [INPUT] switch to the  $8\ \Omega$  position when the [LINE VOL.] switch is set to the 70 V or 100 V (high impedance) position.

## 4. SPEAKER INSTALLATION

### 4.1. Wall Mounting – With Surface-Mount Screws

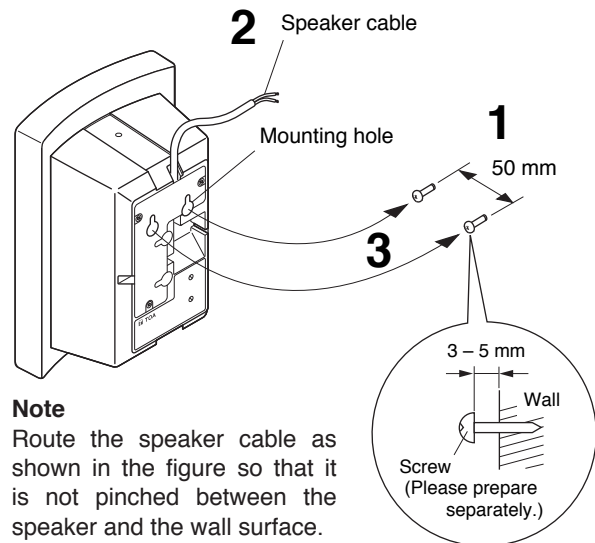
**Note:** The surface-mount screws are not supplied with the speaker. Referring to the mounting hole's dimensional diagram below, prepare the correct type of screws appropriate to the wall material.



**Step 1.** Install two surface-mount screws in the wall 50 mm apart and leave them sticking out approximately 3 – 5 mm from the wall surface.

**Step 2.** Connect the speaker cable.

**Step 3.** Place the speaker's rear panel mounting holes over the two installed screws to mount the speaker to the wall surface.

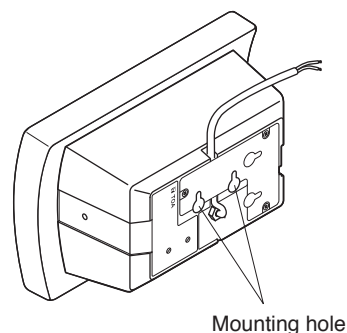


#### Note

Route the speaker cable as shown in the figure so that it is not pinched between the speaker and the wall surface.

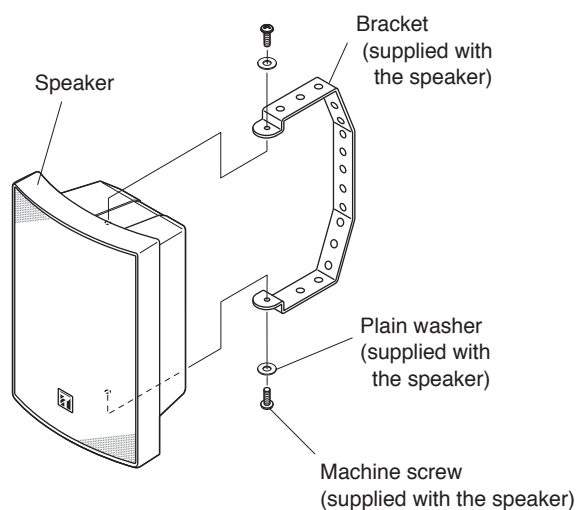
#### Tip

When installing the speaker horizontally, use the relevant mounting holes shown below.



## 4.2. Wall Mounting – With Supplied Bracket

**Step 1.** Attach the bracket to the speaker using the supplied hardware.



**Step 2.** Mount the speaker in the desired location using the mounting holes made in the bracket.

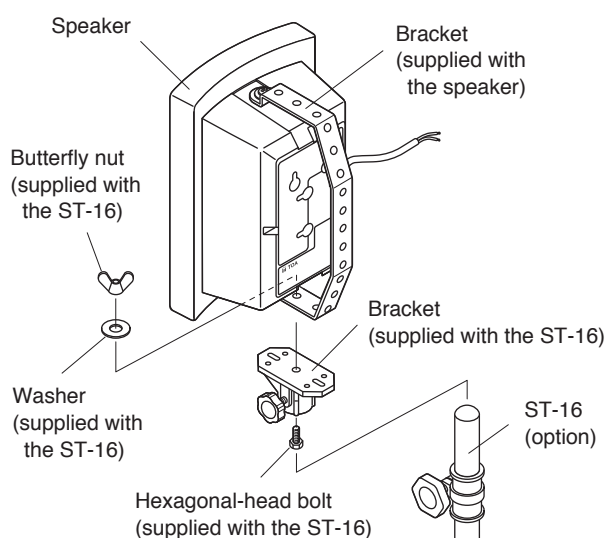
### Note

Bracket mounting hardware is not supplied with the speaker. Referring to the bracket's dimensional diagram, prepare the correct type of screws or bolts appropriate to the wall material.

## 4.3. Mounting on the Optional ST-16 Speaker Stand

**Step 1.** Attach the bracket to the speaker using the supplied hardware. (Refer to Section "4.2. Wall Mounting – With Supplied Bracket.")

**Step 2.** Mount the speaker to the speaker stand through the bracket's mounting holes.



## 4.4. Mounting with Other Brackets

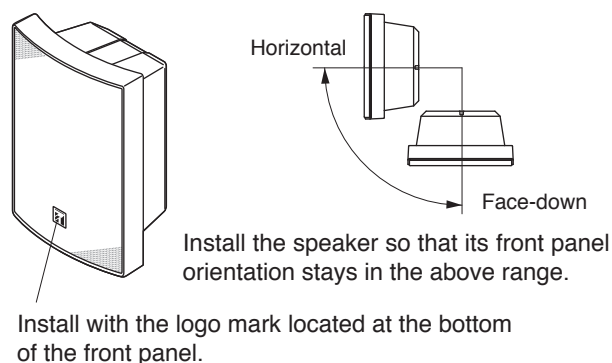
The following table shows the brackets that can be used for the BS-1030 Series Speakers. When using these brackets, refer to their corresponding instruction manuals.

Usable Brackets	BS-1030B	BS-1030W
Speaker Mounting Bracket SP-410	OK	OK
Speaker Mounting Bracket SP-420	—	OK

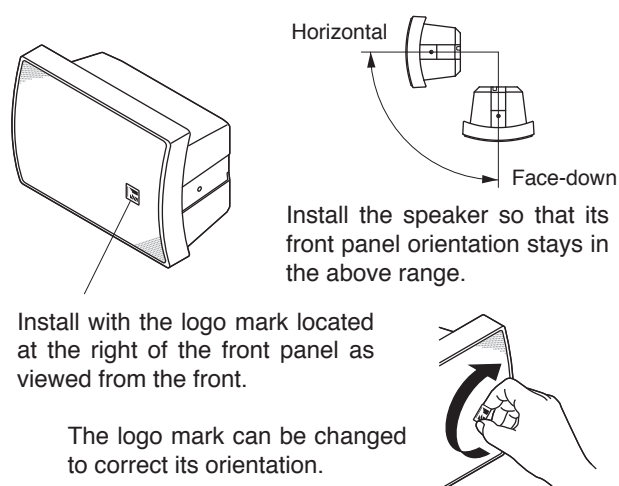
## 5. OUTDOOR INSTALLATION PRECAUTIONS

The speaker's splash-proof construction permits it to be installed outdoors, such as under eaves and other locations where the speaker is not directly exposed to the elements. However, because the splash-proof feature is strictly dependent on speaker orientation, follow the mounting instructions below.

### 5.1. Vertical Installation



### 5.2. Horizontal Installation

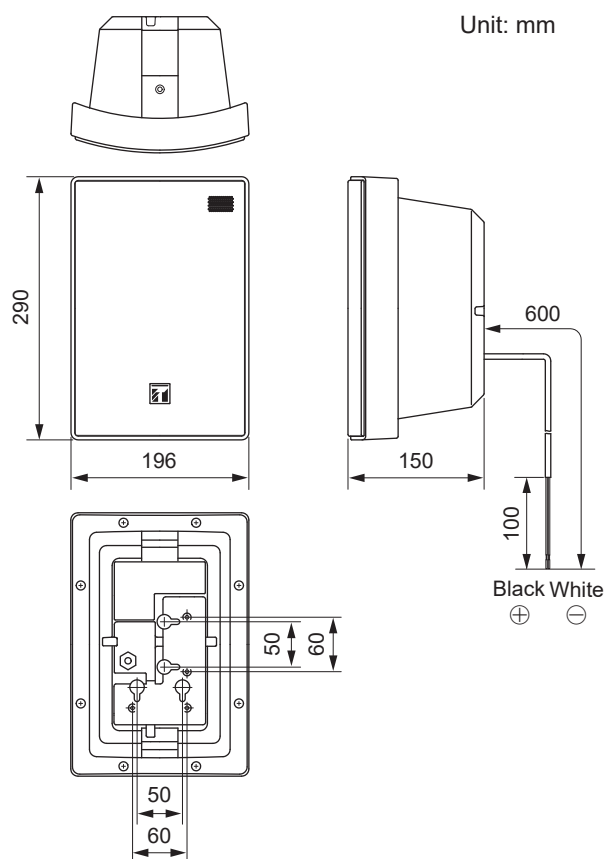


### Note

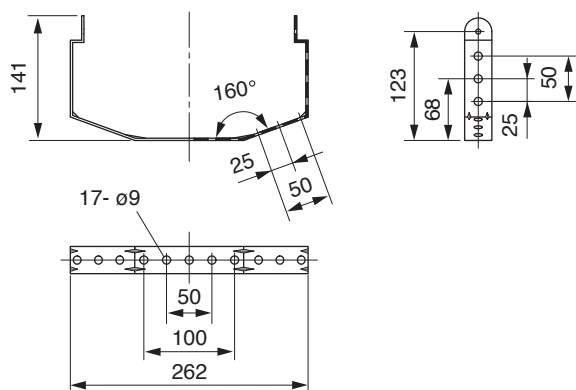
The splash-proof function will not work with any other installation method than those referred to above.

## 6. DIMENSIONAL DIAGRAM

### • Speaker



### • Bracket (supplied with the speaker)



## 7. SPECIFICATIONS

### • Specifications common to both the BS-1030B and BS-1030W

Enclosure Type	2-way bass-reflex system
Rated Input	30 W
Rated Impedance	8 $\Omega$ High impedance (100 V line): 330 $\Omega$ (30 W), 500 $\Omega$ (20 W), 670 $\Omega$ (15 W), 1 k $\Omega$ (10 W), and 2 k $\Omega$ (5 W) High impedance (70 V line): 170 $\Omega$ (30 W), 250 $\Omega$ (20 W), 330 $\Omega$ (15 W), 500 $\Omega$ (10 W), and 1 k $\Omega$ (5 W) <b>Note:</b> Impedance is changeable by means of the rotary switch.
Sound Pressure Level	90 dB (1 W, 1 m)
Frequency Response	80 Hz – 20 kHz
Internal Speakers	Low frequencies: 12 cm dynamic speaker High frequencies: 2.5 cm dome tweeter
Operating Temperature Range	–10 to +50° C
Water Protection	IP-X4 (when the angle is specified in vertical or horizontal installation)
Dimensions	196 (w) x 290 (h) x 150 (d) mm
Finish	Refer to the table below.
Weight	2.5 kg (speaker only)

### [Finish]

BS-1030B	Case: ABS resin, black, paint Grille: Pre-coated steel plate, black, paint Bracket: Pre-coated steel plate, black, paint
BS-1030W	Case: BS resin, white, paint Grille: Pre-coated steel plate, white, paint Bracket: Pre-coated steel plate, white, paint

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

### • Accessories

Bracket .....	1
M5 x 10 machine screw .....	2
M5 plain washer .....	2