TOA

INSTRUCTION MANUAL

# SPLASHPROOF SPEAKER

# BS-20W
# BS-20W-WHT

Please follow the instructions in this manual to obtain the optimum results from this unit.
We also recommend that you keep this manual handy for future reference.

## 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.

**⚠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.

### When Installing the Unit

- 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.

### When the Unit is in Use

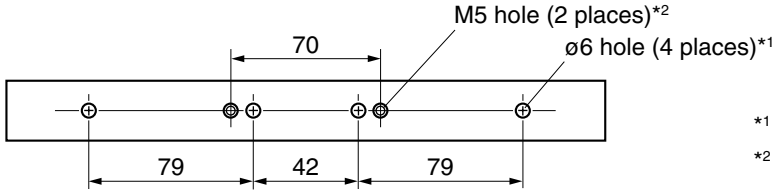
- Do not stand or sit on, nor hang down from the speaker as this may cause it to fall down or drop, resulting in personal injury and/or property damage.

## 2. GENERAL DESCRIPTION

TOA's BS-20W and BS-20W-WHT are two-way, wall-mounted, splashproof speakers. Their directivity of 30°C horizontal and 90°C vertical makes them ideal for installation in railroad stations. Applications of these speakers include uses at outdoor locations under eaves which can avoid direct water splash and at highly humid locations including locker rooms of shower rooms, swimming pools, and bath rooms.

## 3. INSTALLATION

Depending on the place to install, use the speaker's bracket solely or together with an optional mounting bracket. The mounting holes provided with the speaker's bracket are shown below.




(Unit: mm)

*1 Holes for mounting the speaker's bracket
*2 Holes for mounting an optional bracket

### Precautions

- Fix the speaker securely to the wall using anchor bolts or other devices suited to the wall construction and materials.
- The speakers must be mounted facing downward because the rain could enter the speaker inside, causing the speakers to fail.

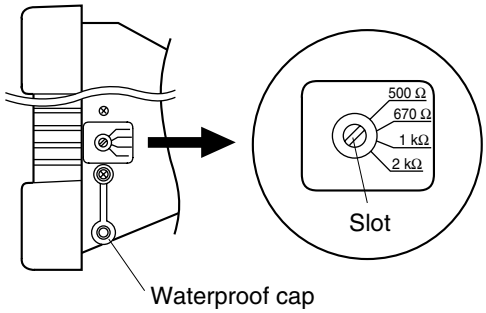
- Avoid mounting the speakers directly to ski lift poles or other objects that give the speakers great shocks, as doing otherwise could cause the speakers to fail.
- The speaker cannot be used in locations that always expose the unit to water splash (such as locations close to a swimming pool) or in locations of high temperature and humidity where dew condensations could be formed. Also, do not dash water directly over the unit.

## 4. IMPEDANCE CHANGE

When changing the impedance, remove a waterproof cap as shown in the figure on the right, then set the slot to the desired impedance using a screwdriver. (In the figure, the impedance is set for 500 Ω.) Replace the cap after setting completion.

| Input Impedance | 500 Ω | 670 Ω | 1 kΩ | 2 kΩ |
|---|---|---|---|---|
| Rated Input | 20 W | 15 W | 10 W | 5 W |

**Note:** The impedance is factory-preset for 500 Ω (20 W).




## 5. SPECIFICATIONS

| Model | BS-20W | BS-20W-WHT |
|---|---|---|
| Enclosure Type | Sealed type | |
| Rated Input | 20 W | |
| Rated Impedance | 500 Ω (20 W), 670 Ω (15 W), 1 kΩ (10 W), 2 kΩ (5 W) | |
| Sound Pressure Level | 94 dB (1 W, 1 m) | |
| Frequency Response | 100 – 20,000 Hz | |
| Operating Temperature Range | – 20 to +55°C (No dew condensation must be formed.) | |
| Speaker Component | Mid/low: 13 cm dynamic speaker<br>High: Constant directivity horn 30° x 90° with splashproof piezo driver | |
| Finish | Enclosure: ABS resin, paint<br>Grille and bracket: Rolled steel plate, zinc plating, paint<br>Bracket fixing bolt: Stainless steel | |
| Color | Black | White |
| Dimensions | 342 (w) x 200 (h) x 175 (d) mm | |
| Weight | 3.6 kg | |
| Optional Bracket | HY-W333B | HY-W333W |

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