



# MUSIC-HORN SPEAKER

## Instruction Manual

# CS-530BS-EB/CS-660BS-EB

# CS-530BS-AS/CS-660BS-AS

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احتياطات تتعلق بنواحي السلامة

Thank you for purchasing TOA's Music-Horn Speaker.

Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

## 1. GENERAL DESCRIPTION

TOA's CS-530BS/CS-660BS Music-Horn speakers feature ABS resin enclosure and steel with coating bracket for all weather durability.

These are comprised of a high-efficiency weather-resistant horn and a high quality sound cone speaker, providing excellent speech and BGM clarity.

TOA's CS-530BS/CS-660BS are certified to the European Standard EN 54-24: 2008 and International Standard ISO 7240-24: 2010, and are compliant with the British Standard BS 5839-8: 2008.

- Highly intelligible speakers suited to voice alarm, public address and BGM application by two way system.
- Certified to EN 54-24, and ISO 7240-24, and compliant with BS 5839-8.
- All weather durability, water and dust protection to IP 66.
- Impedance change available by tapping changing located inside the terminal cover.

Traceability Information for EU (EMC directive 2004/108/EC);

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## 2. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instruction 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 the installation work to the dealer from whom the speaker was purchased. Installation work requires extensive technical knowledge and experience. The speaker may fall off it incorrectly installed, resulting in possible personal injury.
- Install the speaker only in a location that can structurally support the full weight of the unit and mounting bracket. Doing otherwise may result in the speaker falling down and causing personal injury and/or property damage.
- When installing the speaker in the snowy area, take appropriate measures to prevent snow from lying on the speaker. If the snow lies on it, the speaker may fall, causing personal injuries.
- 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.
- 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.
- Do not use anti-rust lubricant. If it contacts resin or rubber parts, they could deteriorate and cause the speaker to fall, possibly resulting in personal injury.

- Avoid installing the speaker near seaside or in locations exposed to corrosive gas. The speaker or its parts may be subject to corrosion, which might cause it to fall or resulting 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.

### 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 the Installing the Unit

- Avoid touching the speaker's sharp metal edge to prevent injury.
- To avoid electric shocks, be sure to switch off the amplifier's power when connecting speakers.

### 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.

## 3. IMPEDANCE CHANGE

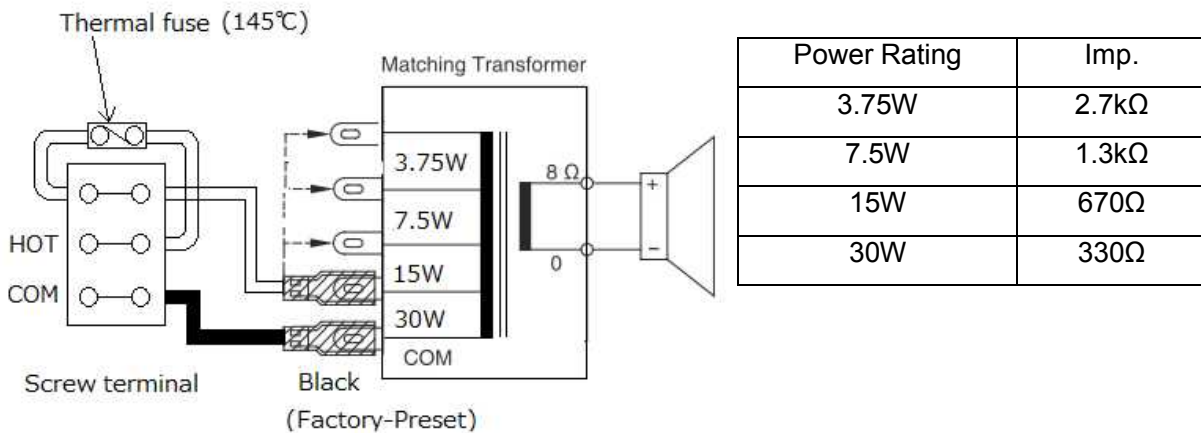
Input impedance is factory pre-set to 330Ω (CS-530BS), 170Ω (CS-660BS).

To change the impedance, change the terminal position located inside the terminal cover.

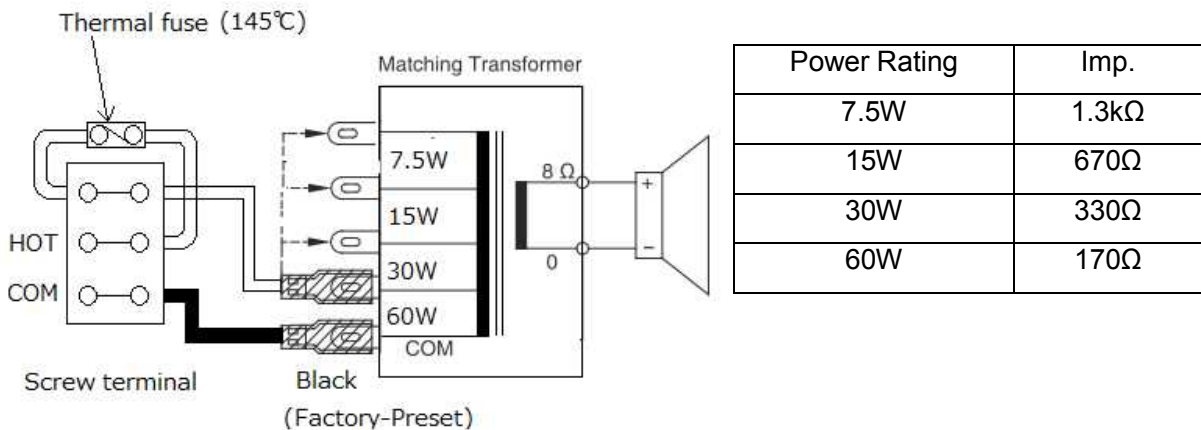
[Note]

These speakers are designed to be used for high impedance application. Never connect the speaker to low impedance line.

#### ■ CS-530BS



#### ■ CS-660BS



## 4. INSTALLATION

[Caution]

Do not install the speaker face-up from a horizontal plane. If water accumulates in the horn, this may cause the speaker malfunction.

Step 1. Fixing the bracket on the wall with screws.

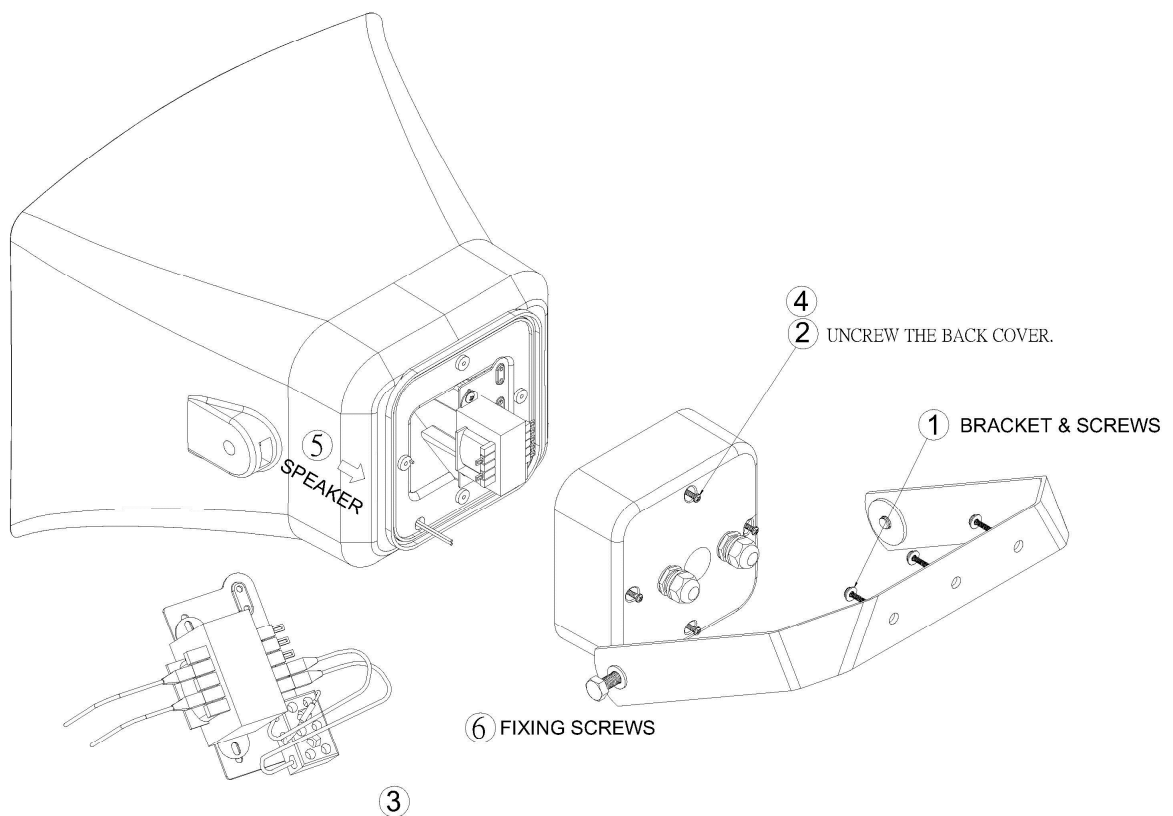
Step 2. Unscrew the back cover.

Step 3. Connecting the input and output cables.

Step 4. Fixing the cover and speaker with 4 screws.

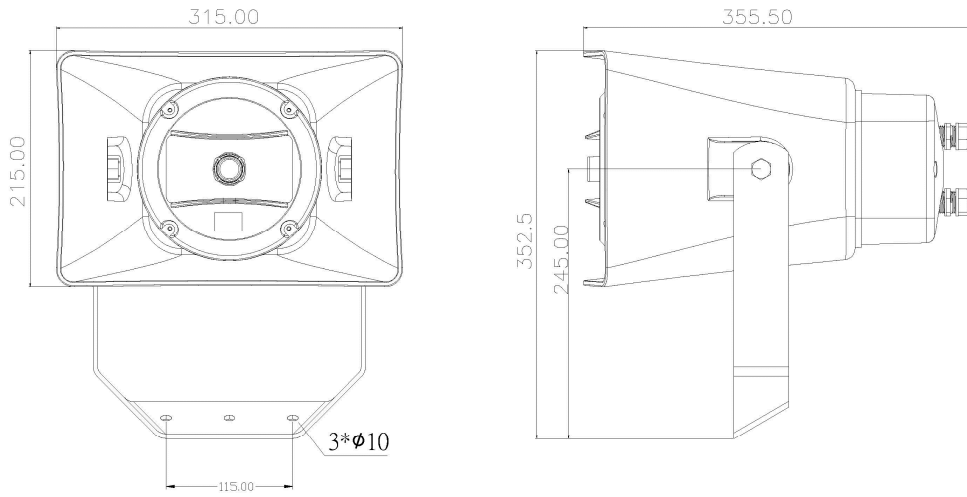
Step 5. Moving the speaker into bracket.

Step 6. Fixing the speaker with 2 screws.

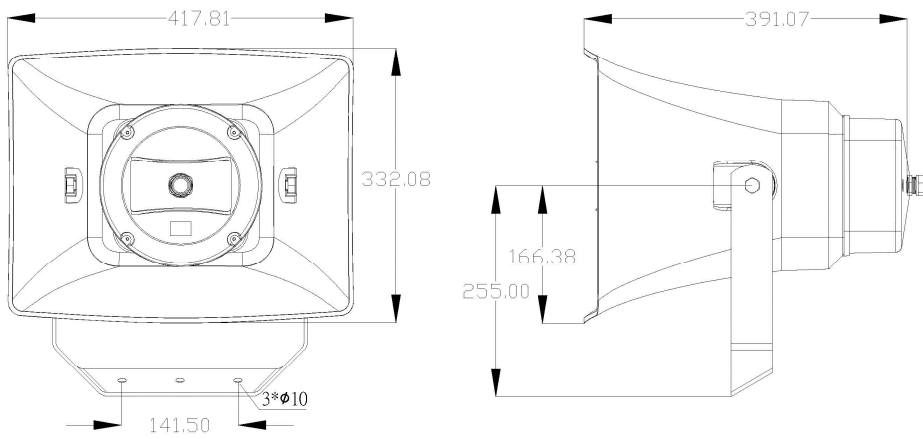


5. DIMENSIONAL DIAGRAM

■ CS-530BS



■ CS-660BS



## 6. SPECIFICATIONS

|   | CS-530BS-EB/CS-530BS-AS  | CS-660BS-EB/CS-660BS-AS   |
|---|--|---|
| Rated Power   | 30W  | 60W   |
| Rated Impedance                                     | 330Ω (30W), 670Ω (15W), 1.3kΩ (7.5W), 2.7kΩ (3.75W)  | 170Ω (60W), 330Ω (30W), 670Ω (15W), 1.3kΩ (7.5W)                                    |
| Sound Pressure Level                                | 96dB (1m, 1W)  | 97dB (1m, 1W)   |
| Maximum S. P. L.                                    | 111dB  | 115dB   |
| Frequency Response                                  | 120 - 20,000 Hz (Peak -10dB)   | 100 - 20,000 Hz (Peak -10dB)  |
| Speaker Component                                   | Bass : 12.7 cm (5") Coating Rubber Surround<br>Treble : High Efficiency Tweeter  | Bass : 16.5 cm (6-1/2") Coating Rubber Surround<br>Treble : High Efficiency Tweeter |
| Coverage Angle ( -6dB )<br>( 500Hz/1kHz/2kHz/4kHz ) | Horizontal : 140° / 60° / 90° / 90°  | Horizontal : 105° / 50° / 80° / 80°   |
|   | Vertical : 180° / 100° / 95° / 140°  | Vertical : 140° / 70° / 90° / 150°  |
| Environmental Type                                  | B (outdoor applications)   |   |
| Operating Temperature                               | -25 °C to +70 °C   |   |
| Dust/Water Protection                               | IP66   |   |
| Speaker Mounting Method                             | Wall-mount   |   |
| Applicable Cable                                    | Solid copper wire or 7-core twisted copper wire<br>0.3 mm <sup>2</sup> – 3.2 mm <sup>2</sup> (AWG 22 - 12 )                          |   |
| Cable Connection                                    | Screw terminal   |   |
| Finish  | Horn and terminal cover : ABS resin, Light Grey (RAL7035 or equivalent )<br>Bracket : Steel with coating<br>Screws : stainless steel |   |
| Dimensions  | 315 (W) x 215(H) x 355.5 (D) mm  | 418 (W) x 332 (H) x 391(D) mm   |
| Weight  | 4.7 kg   | 7.1 kg  |