

# WALL MOUNT SPEAKERS

## BS-680FC

Thank you for purchasing TOA's Wall Mount Speaker.

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.

#### **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**

- Install the unit only in a location that can structurally support the weight of the unit and the mounting bracket. Doing otherwise may result in the unit 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 unit and the unit could fall off, possibly resulting in personal injuries.
- Tighten all screws securely. If any is loosely fixed, this may cause the speaker cabinet or baffle to fall, resulting in personal injury.

#### **CAUTION**

- To avoid electric shocks, be sure to switch off the amplifier's power when connecting speakers.
- Do not operate the unit 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 unit as this may cause it to fall down or drop, resulting in personal injury and/or property damage.

### 2. FEATURES

- Constructed with metal cabinet, the speakers are ideal for use in a voice evacuation system.
- Can be surface- or flush- mounted to the wall.
- Either concealed in-wall wiring or exposed wiring can be used for speaker cable connection.
- The speaker structure of direct wall-mounting with screws prevents the speaker from falling easily even if an outward force is applied to.
- The input impedance can be easily changed by changing the tap position of the transformer.
- Two built-in 6-inch double cone speaker units deliver high quality sound.
- Two ceramic screw terminal blocks (1 cable to 1 connection type) make bridge connection easier. (BS-680FC)
- The BS-680FC complies with British Standard 5839 part 8.



**Step 3.** Perform wiring.

**3-1.** Connect both the lead-in and lead-out cables to the terminal block attached to the cabinet.

[Applicable cable]

BS-680FC	Solid wire: Max. $\phi 3$ mm (equivalent to AWG 9)

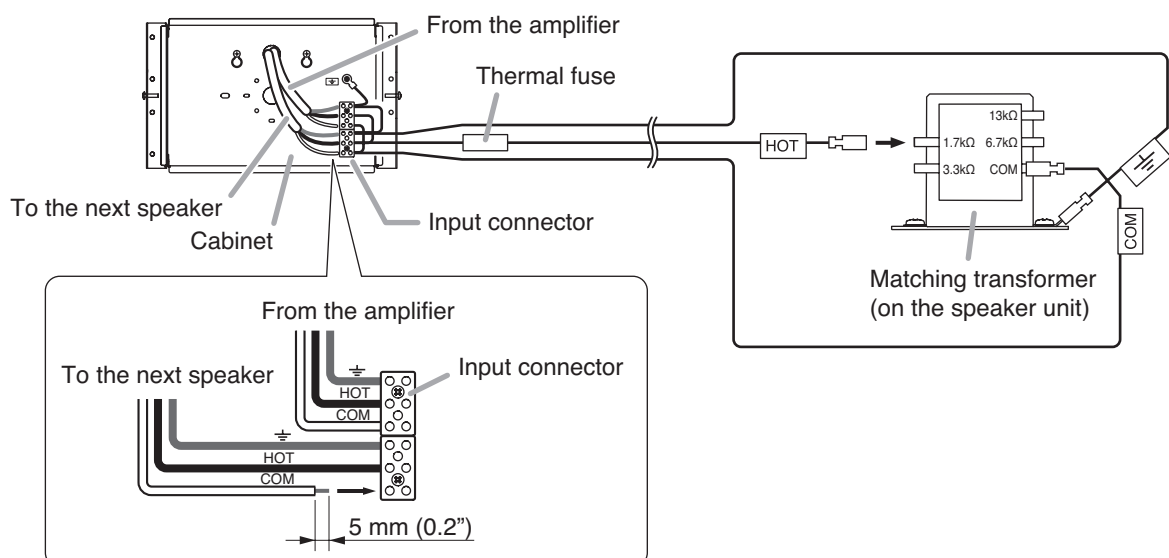
**3-2.** Insert the fasten terminals fitted at the ends of the HOT, COM, and Earth (BS-680FC only) cables from the input connector on the cabinet into the taps of the matching transformer on the speaker unit.

Connect the COM cable to the transformer's COM tap, the HOT cable to the desired transformer's input tap, and the Earth cable (BS-680FC only) to the lug terminal at the transformer base. (Refer to the figure below.)

The table below shows the relationship between impedance and input power.

Impedance	1.7 k $\Omega$	3.3 k $\Omega$	6.7 k $\Omega$	13 k $\Omega$
100 V line	6 W	3 W	1.5 W	0.8 W
70 V line	3 W	1.5 W	0.8 W	0.4 W

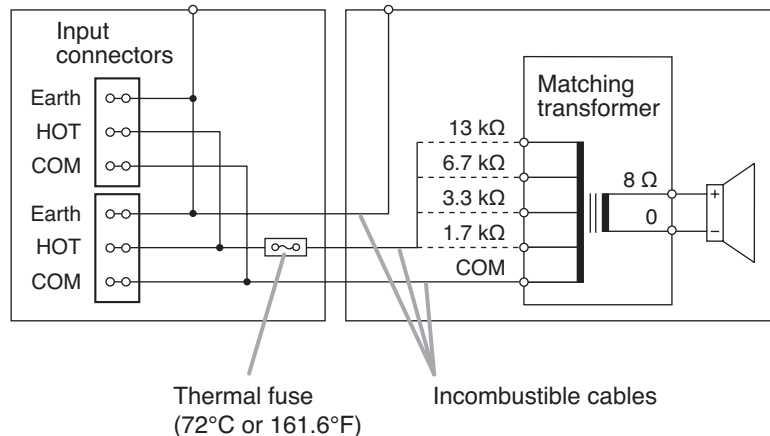
[Connection of the BS-680FC]



**Step 4.** Replace the baffle to the cabinet, then tighten 2 screws loosely attached on both sides of the cabinet.

## 4. WIRING DIAGRAMS

### 4.2. BS-680FC



## 5. SPECIFICATIONS

Model No.	BS-680FC	
Rated Input	6 W (100 V line), 3 W (70 V line)	
Rated Impedance	100 V line: 1.7 kΩ (6 W), 3.3 kΩ (3 W), 6.7 kΩ (1.5 W), 13 kΩ (0.8 W) 70 V line: 1.7 kΩ (3 W), 3.3 kΩ (1.5 W), 6.7 kΩ (0.8 W), 13 kΩ (0.4 W)	
Sensitivity	94 dB at 1 W, 1 m (500 – 5,000 Hz, pink noise)	
Frequency Response	150 – 20,000 Hz (at 20 dB below peak)	
Speaker Component	16 cm (6") double cone type	
Standard	—	In compliance with the British Standard BS 5839-8:1998 [10.3 Protection of Loudspeakers]
Application Cable	600 V vinyl-insulated cable (IV wire or HIV wire)	
		Solid wire: Max. ø3 mm (equivalent to AWG 9)
Connection		Screw connector (Ceramic terminal x 2) bridging allowable
Finish	Baffle, Cabinet: Steel plate, off white (RAL 9010 or equivalent color), paint Grille: Surface-treated steel plate net, off white (RAL 9010 or equivalent color), paint	
Dimensions	310 (w) x 190 (h) x 87.2 (d) mm (12.2" x 7.48" x 3.43")	
Weight	3 kg (6.61 lb)	

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

#### • Accessories

Rubber grommet .....	2
Tapping screw (4 x 16) .....	4