

TOA

COLUMN SPEAKER

INSTRUCTION MANUAL

TZ-200BS

TZ-400BS

Thank you for purchasing TOA's Column Speaker.

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

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.

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 unit falling down and causing personal injury and/or property damage.
- Be sure to use the supplied mounting bracket in combination. Doing otherwise may cause the speaker to fall, resulting in personal injury.
- Refer all the installation work to TOA dealer from whom the speaker was purchased. Installation work requires extensive technical knowledge and experience. The speaker may fall off if incorrectly installed, resulting in possible personal injury.
- Owing to the unit's size and weight, be sure that at least two persons are available to install the unit. Failure to do so could result in personal injury.
- Do not use other methods than specified to install the speaker and the bracket. 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 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 TOA dealer 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 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

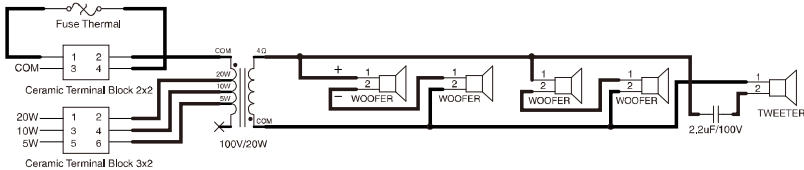
- Do not place heavy objects on the speaker as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Do not stand or sit on, nor hang down from the speaker as this may cause it to fall down or drop, resulting in personal injury and/or property damage.

- Do not operate the speaker for an extended period of time with the sound distorting. Doing so may cause the connected speakers to heat, resulting in a fire.
- Have the speaker checked periodically by TOA dealer 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.
- No naked flame sources, such as lighted candles, should be placed on the speaker.

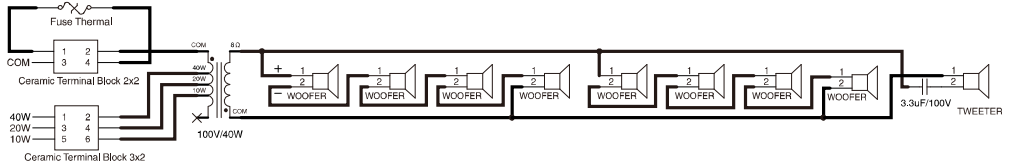
2. GENERAL DESCRIPTION AND FEATURES

TOA's TZ-200BS, TZ-400BS wall mount column speakers feature an aluminum made housing and grill designed for indoor and outdoor installation. The speakers can be easily installed using the adjustable speaker mounting brackets included. The speakers come with screw type steatite terminal blocks and thermal fuse. They are certified according to the European Standard EN 54-24:2008 and compliant with the British Standard BS 5839-8:2008

3. INTERNAL CIRCUIT DIAGRAM, APPEARANCE AND FUNCTIONS



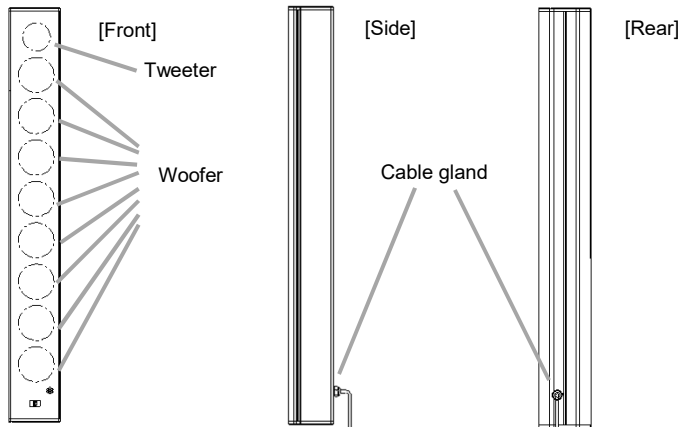
TZ-200BS internal circuit diagram



TZ-400BS internal circuit diagram

When shipped from the factory, the speaker is internally connected as shown above.

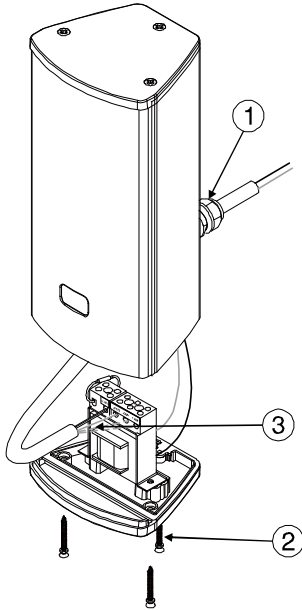
To change the impedance, refer to "4.1. Set the input power".



APPEARANCE (This figure represents the TZ-400BS.)

4. INSTALLATION

4.1. Set the input power



Step 1. Loosen the cable gland.

Step 2. Loosen the base screws and pull out the base assembly.

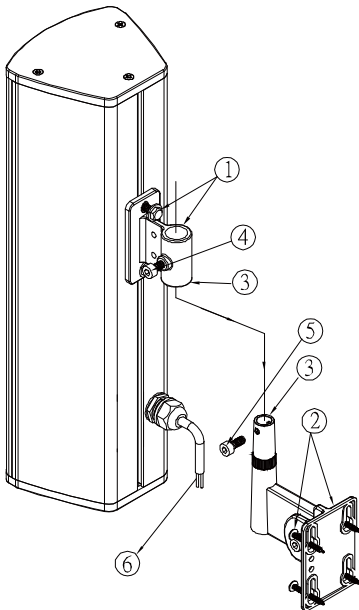
Step 3. Initially set to max wattage, the red lead wire can be set to the desired wattage setting.

Cover the base after completing the setup. When covering, pull the cable out first to avoid the cable getting stuck inside the speaker. After the base is screw-locked, finally fix the cable gland.

[Notes]

- Do not change another lead wires except for the red lead wire.
- These speakers are designed to be used for high impedance application. Never connect the speaker to low impedance line.

4.2. Speaker installation



Step 1. Install the attached Multi Bracket seat of part (A) onto rear side of the speaker with the attached hexagonal screws.

Step 2. Install the attached Multi Bracket seat of part (B) to the wall with the self-tapping screws.

Step 3. Set the speaker unit by inserting Multi Bracket part (B) into part (A).

Step 4. Fix the hex socket head cap screw of part (A).


Step 5. Fix another hex socket head cap screw to combine the Multi Bracket part (B) with part (A).

Step 6. Connect the cable.

[Notes]

- Speaker must be connected to the correct line terminals of amplifier.
- Minimum distances of 30mm around the apparatus for sufficient ventilation.
- Do not use this speaker with its front upward to prevent malfunction.
- Waterproof the cable joint by wrapping insulating tape around it when the joint may be exposed to rain or water.

5. SPECIFICATIONS

Model number	TZ-200BS	TZ-400BS
Information of EN / BS Standard	Certified to the European Standard EN 54-24:2008 Loudspeaker for voice alarm systems for fire detection and fire alarm systems DoP Number: 22-001  EN54-24:2008 22 DoP No.:22-001 1488	
	In compliance with the British Standard BS 5839-8:2008	
Rated Input	20W	40W
Rated Impedance	100V line : 500Ω (20W), 1kΩ (10W), 2kΩ (5W)	100V line : 250Ω (40W), 500Ω (20W), 1kΩ (10W)
	70V line : 500Ω (10W), 1kΩ (5W), 2kΩ (2.5W)	70V line : 250Ω (20W), 500Ω (10W), 1kΩ (5W)
Frequency Response	130 Hz ~ 20 kHz (Peak-20dB)	110 Hz ~ 20kHz (Peak-20dB)
Sensitivity	92dB (1W, 1m, 100 ~ 10kHz, pink noise)	93dB (1W, 1m, 100 ~ 10kHz, pink noise)
	80dB (1W, 4m, 100 ~ 10kHz, pink noise)	81dB (1W, 4m, 100 ~ 10kHz, pink noise)
Maximum Sound Pressure level	105dB (20W, 1m, 100 ~ 10kHz, pink noise)	109dB (40W, 1m, 100 ~ 10kHz, pink noise)
	93dB (20W, 4m, 100 ~ 10kHz, pink noise)	97dB (40W, 4m, 100 ~ 10kHz, pink noise)
Coverage Angle (-6dB)	500Hz: Horizontal 360°, Vertical 100°	500Hz: Horizontal 360°, Vertical 100°
	1kHz: Horizontal 185°, Vertical 45°	1kHz: Horizontal 185°, Vertical 45°
	2kHz: Horizontal 130°, Vertical 25°	2kHz: Horizontal 130°, Vertical 25°
	4kHz: Horizontal 100°, Vertical 20°	4kHz: Horizontal 100°, Vertical 20°
Operating Temperature	-30°C ~ +60°C	
Dust/Water Protection	IP 66	
Environmental Type	Type B (outdoor application)	
Speaker Component	Woofer: 8.9cm x 4, Tweeter: 8.2cm x 1	Woofer : 8.9cm x 8, Tweeter : 8.2cm x 1
Applicable Cable	0.6 - 0.3 mm ² (AWG 22) for solid wire, 1.0 - 0.8 mm ² (AWG 18) for 2-core wire	
Cable Connection	Screw terminal (steatite), 4 ports	
Material	Enclosure: Aluminum alloy, Grille: Aluminum	
Finish	White (RAL9016 or equivalent), paint	
Dimension	610 (h) x 124 (w) x 108 (d) mm	1016 (h) X 124 (w) X 108 (d) mm
Weight	3.9 kg	6.7 kg
Accessory	Aluminum Alloy Multi Bracket (A) & (B)...1, Hexagonal screw...2, Washer...2 Self-tapping screw...4, Plastic wall plug...4	

Traceability Information for Europe

Manufacturer:

TOA Corporation
7-2-1, Minatojima-Nakamachi, Chuo-ku,
Kobe, Hyogo, Japan

Authorized representative:

TOA Electronics Europe GmbH
Suederstrasse 282, 20537 Hamburg, Germany
URL : www.toa.eu

Traceability Information for UK

Manufacturer:

TOA Corporation
7-2-1, Minatojima-Nakamachi, Chuo-ku,
Kobe, Hyogo, Japan

Authorized representative:

TOA CORPORATION (UK) LIMITED
Unit 7&8, The Axis Centre, Cleeve Road,
Leatherhead, Surrey, KT22 7RD, United Kingdom
URL : www.toa.uk