INSTRUCTION MANUAL

T7-6068 AS

T7-406B 45



COLUMN SPEAKER

	+TZ TZ-406	406B AS 406W AS BWP AS WWP AS	TZ-60	-606B AS -606W AS 6BWP AS 6WWP AS

T7-2068 AS

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.

TOA Corporation

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 instruction in this section, which contain important warnings and/or cautions regarding safety.
- After reading, please keep this manual handy for future reference.

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

When Installing the Unit

- Install the unit only in a location that can structurally support the weight of the unit and the mounting bracket. Doing otherwise may result 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 units and the unit could fall off, possibly resulting in personal injury.
- Use nut and bolt that are appropriate for the 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 joint after installation to prevent accident that could result in personal injury.
- Do not mount the unit in location exposed to constant vibration. The mounting bracket can be damage by excessive vibration, potentially causing the unit to fall, which could result in personal injury.
- (TZ-206B AS, TZ-206W AS, TZ-406B AS, TZ-406W AS, TZ-606B AS, TZ-606W AS Only)
 Since the unit is designed for in-door use, do not install it outdoors. If installed outdoors, the aging of parts causes the unit to fall off, resulting in personal injury. Also, when it gets wet with rain, there is a danger of electric shock.
- (TZ-206BWP AS, TZ-206WWP AS, TZ-406BWP AS, TZ-406WWP AS, TZ-606BWP AS, TZ-606WWPAS Only)

When installing the unit in the snowy area, take appropriate measures to prevent snow from lying on the unit. If the snow lies on the unit, the unit may fall causing personal injuries.

- Do not apply anti-rust lubricant as it will damage the plastic (resin) or rubber surface when applied and cause the speaker unit to fall, resulting in personal injury.
- Do not mount the unit in a humid room or poor ventilation. Bracket will easily get rusty if mounted in such a location, causing the speaker unit to fall and resulting in personal injury.

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

When mounting Speaker Unit

- At least 2 people are required to lift it up or put it into the box. If the unit topples, it may cause personal injury.
- Avoid the sharp edge of the unit to prevent any injury.
- To prevent short-circuit, ensure amplifier is TURNED OFF when connecting it to the speaker unit.

When Speaker Unit is in use (turned on)

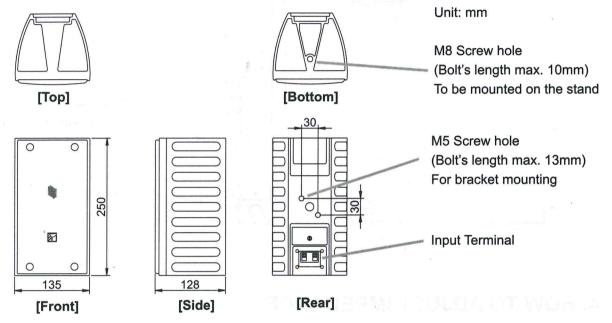
- Do not place any heavy object on the speaker which may cause the speaker to fall, resulting in personal injury or damage to the unit. The respective object will also fall and cause harm to others.
- Do not operate the speaker for an extended period of time with distorted sound. This indicates improper operation and it may cause heat and fire.
- Do not sit, stand or hang on the speaker unit. Doing so may cause the speaker unit to fall, resulting in personal injury or damage to the unit.
- Conduct regular check to detect any damage to the unit or corrosion to the mounting bracket as early as possible. Failure to do so may cause the speaker to fall, resulting in personal injury.

2. GENERAL DESCRIPTION

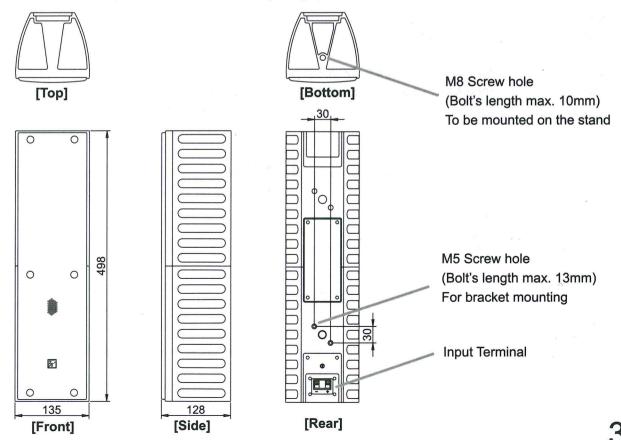
- Column Speaker is suitably designed for in-door use and/or outdoor use.
- Efficient for use in a spacious room.
- The speaker unit is designed to reproduce sound with good clarity and high input power capacity.
- The plastic column speaker comes with speaker bracket as accessories.
- The speaker bracket offers better installation flexibility

3. SPEAKER DIMENSIONAL DIAGRAM

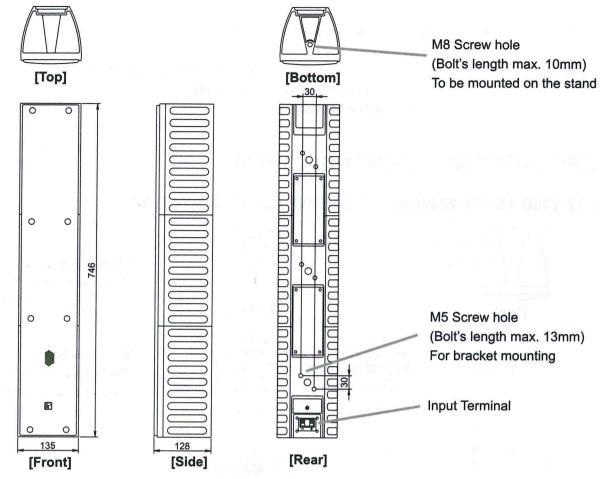
3.1. TZ-206B AS / TZ-206W AS / TZ-206BWP AS / TZ-206WWP AS



3.2. TZ-406B AS / TZ-406W AS / TZ-406BWP AS / TZ-406WWP AS



3.3. TZ-606B AS / TZ-606W AS / TZ-606BWP AS / TZ-606WWP AS



4. HOW TO ADJUST IMPEDANCE

To adjust impedance, use standard screwdriver to turn the rotary switch located at the back of the speaker to the desired input power.

Note : Rotary switch is set at position

 500Ω/20W
 (TZ-206BAS, TZ-206WAS, TZ-206BWPAS, TZ-206WWPAS)
 250Ω/40W
 (TZ-406BAS, TZ-406WAS, TZ-406BWPAS, TZ-406WWPAS)
 170Ω/60W
 (TZ-606BAS, TZ-606WAS, TZ-606BWPAS, TZ-606WWPAS)
 170Ω/60W
 (TZ-606BAS, TZ-606WAS, TZ-606BWPAS, TZ-606WWPAS)
 170Ω/60W
 170Ω/60W
 170Ω/60W
 172-606BAS, TZ-606WAS, TZ-606BWPAS, TZ-606WWPAS)
 170Ω/60W
 172-606WAS, TZ-606WAS, TZ-606WWPAS)
 170Ω/60W
 172-606WAS, TZ-606WAS, TZ-606WWPAS)
 172-606WWPAS, TZ-606WWPAS, TZ-606WWPAS)
 170Ω/60W
 172-606WAS, TZ-606WAS, TZ-606WWPAS, TZ-606WWPAS)
 170Ω/60W
 172-606WWPAS, TZ-606WWPAS, TZ-606WWPAS)
 172-606WWPAS, TZ-606WWPAS, TZ-606WWPA

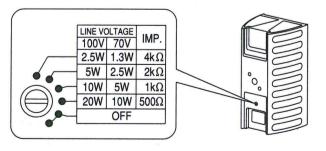


Figure of sample: TZ-206 series

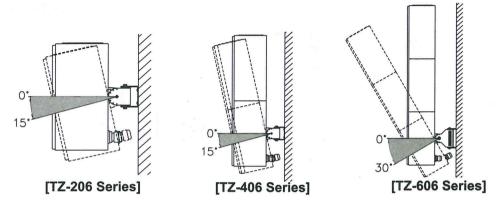
Important!

Failure to follow the instruction manual may cause damage to the speaker or amplifier

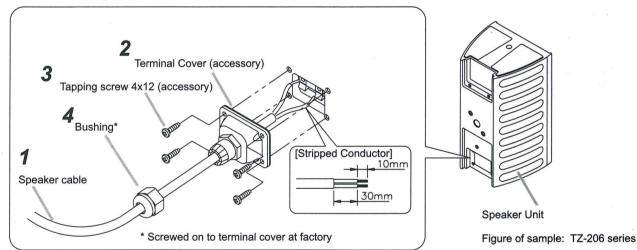
5. NOTES ON OUTDOOR INSTALLATION (TZ-206BWP AS, TZ-206WWP AS, TZ-406BWP AS, TZ-406WWP AS, TZ-606BWP AS, TZ-606WWP AS Only)

- Be sure to mount speaker in a vertical (portrait-style) orientation.
- Adjust the speaker's tilt angle within the shaded range shown below:

[Wall: Vertical 0° to 15° downward (TZ-206, TZ-406 series), 0° to 30° downward (TZ-606 series)] Note: Mount the speaker so that its rear mounted terminal cover is positioned on the lower side.



- Install the speaker in location exposed to an ambient temperature range of -10°C to +50°C. Exceeding this range could cause speaker failure.
- Use the supplied terminal cover when connecting the speaker cable.



[Terminal cover use]

Note

- For speaker cable, use a cable with a diameter of 6-10mm, which will fit the cable bushing.
- To ensure waterproof capabilities, firmly mount the terminal cover to the speaker and tighten the bushing on the cover.
- Step 1. Feed the speaker cable through the bushing and terminal cover, then connect the cable to the input terminal.
- Step 2. Attach the terminal cover to the speaker.
 - Attach the cover while pulling the cable so that it is not entangled inside the terminal cover.
- **Step 3.** Hold the terminal cover tightly to the speaker using the supplied screws.
- Step 4. Tighten the bushing.

Note

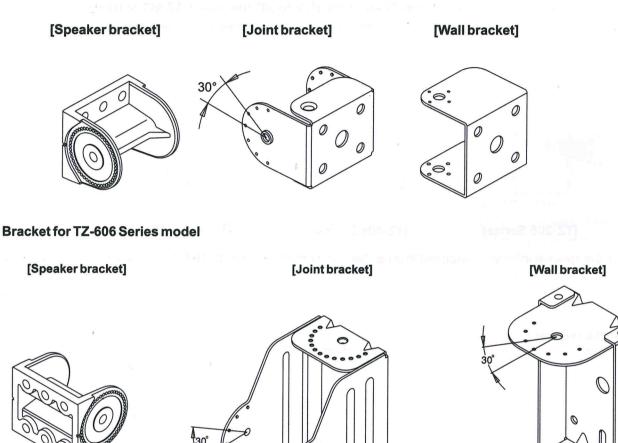
After tightening the bushing by hand, use a tool to further tighten it another 90° (1/4-turn) or so. Note that parts can be damaged by over-tightening.

6. INSTALLATION

6.1. Use the Supplied Bracket

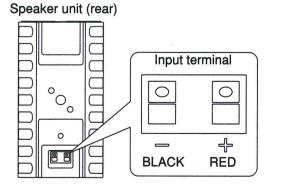
The speaker is equipped with mounting brackets as shown below. Use these brackets properly depending on the installation location and intended application.

Bracket for TZ-206 and TZ-406 Series model



6.2. Connecting Speaker Cables

[Input terminal polarity]



[Stripped conductor of cable]



6.3. Mounting of Bracket to Speaker

Adjusting horizontal and vertical angles

Mounting of bracket to speaker is illustrated in the pictures below. Screws to mount the bracket to the speaker are provided as accessories when you purchase the speaker unit.

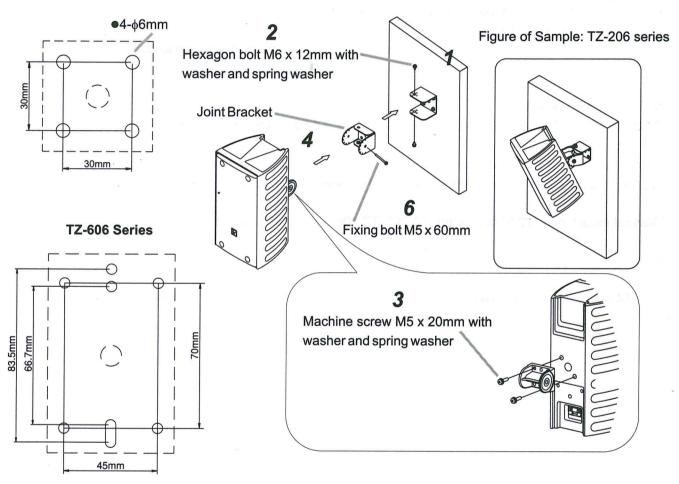
* Horizontal max 60°, Vertical: max. 15° downward (TZ-206 and TZ-406 Series)

* Horizontal max 60°, Vertical: max. 30° downward (TZ-606 Series)

[Bracket wall hole size]



[Mounting example]

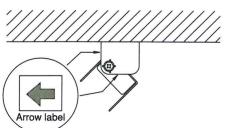


Step 1. Mount Wall Bracket onto the wall.

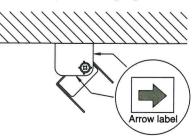
Align the arrow label direction with the front horizontal direction (left or right) of speaker. **Note:** The required tools to mount the wall bracket are not provided

Arrow label direction (top-view from bracket)





[Facing to the right]



- Step 2. Attach the joint bracket to the wall bracket with the provided screw, adjust the angle of horizontal speaker and tighten the screw.Note: Align the arrow direction on the wall bracket and joint bracket.
- **Step 3.** Attach the bracket to the rear of the speaker with the provided screw. **Note:** Attach the speaker bracket according to the speaker's direction
- **Step 4.** Mount the speaker to joint bracket by inserting the speaker bracket into the joint bracket and temporarily loosening the fixing bolt.
- Step 5. Connect the speaker cable to input terminal..
- Step 6. Adjust the speaker's vertical angle and tighten the fixing bolt.
 Speaker's angle is adjustable at 7.5°
 Note: The closed surface of the speaker bracket and joint bracket is design to lock each other.
 Ensure both sides are attached securely after mounting

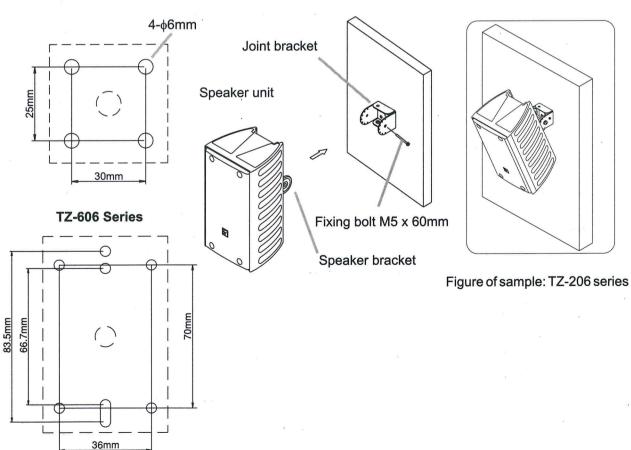
[Mounting the speaker close to wall surface] (TZ-206B AS, TZ-206W AS, TZ-406B AS, TZ-406W AS, TZ-606B AS, TZ-606W AS only)

Use the joint bracket and speaker bracket. Mount joint bracket onto the wall. After mounting joint bracket, follow steps 3 ~ 6 above. This arrangement will allow the speaker to be mounted in a vertical direction only*.

* Vertical mount: max. 22.5° downward (TZ-206, TZ-406 series), 30° downward (TZ-606 series).

[Size of joint bracket mounting]

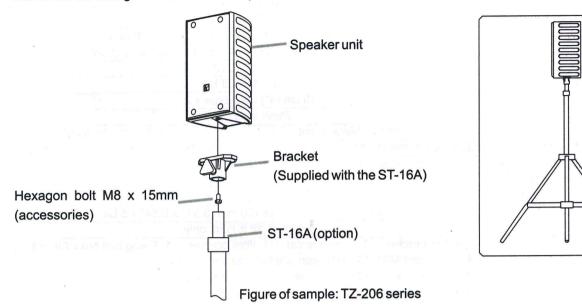
TZ-206 and TZ-406 Series



[Mounting Example]

6.4. Speaker Stand Mounting

The speaker unit can also be mounted on speaker stand of TOA model ST-16A (optional). Illustration below shows the mounting method of unit on speaker stand.



Step 1. Mount speaker unit onto speaker stand bracket (ST-16A) with the bolt and spacer provided together with the other Accessories stand (ST-16A).

Step 2. Connect speaker cable to input terminal.

Note:

For further details on mounting method of bracket to speaker stand and the use of speaker stand mounting, please refer to the attached mounting instruction manual with ST-16A Speaker Stand.

7. SPECIFICATION

7.1. TZ-206 Series

Model No.		TZ-206B AS	TZ-206W AS	
Enclosure		Sealed Type		
Rated Input		20W		
Rated Impedance		100V line: 500Ω (20W), 1kΩ (10W), 2kΩ (5W), 4kΩ (2.5W) 70V line: 500Ω (10W), 1kΩ (5W), 2kΩ (2.5W), 4kΩ (1.2W)		
Sensitivity		70V line: 500Ω (10W), 1kΩ (5W), 2kΩ (2.5W), 4kΩ (1.3W) 90 dB (1W, 1m)		
Frequency F	Response		6,000 Hz	
Speaker Con	mponent	10 cm (4") c	cone type x 2	
Input Termin	als	Push-in terminals		
	Enclosure	HIPS, Black, paint	HIPS, White, paint	
Tininh	Punched Net	Surface-treated steel plate, paint, black	Surface-treated steel plate, paint, white	
Finish	Speaker Bracket	Aluminum die-cast, black, paint	Aluminum die-cast, white, paint	
	Joint Bracket Wall Bracket	Steel plate, t:1.6mm, black, paint	Steel plate, t:1.6mm, white, paint	
Dimensions		135 (W) x 250 (H) x 128 (D) mm (5.31" x 9.84" x 5.04")		
Weight		1.9 kg (4.18 lb) unit only		
Accessories		Speaker bracket 1, Joint bracket 1, Wall bracket 1, Fixing bolt M5 x 60 1, Hexagon bolt M6 x 12 (with plain washer and spring washer) 2, Machine screw M5 x 20 (with plain washer and spring washer) 2, Hexagon bolt M8 x 15 1		
Option		Speaker stand: ST-16A		

Model No.		TZ-206BWP AS	TZ-206WWP AS	
Enclosure		Sealed Type		
Rated Input		20W		
Rated Impedance		100V line: 500Ω (20W), 1kΩ (10W), 2kΩ (5W), 4kΩ (2.5W)		
		70V line: 500Ω (10W), 1kΩ (5W), 2kΩ (2.5W), 4kΩ (1.3W)		
Sensitivity	'n	89 dB (1W, 1m)	
Frequency F	Response	150 - 13	3,000 Hz	
Speaker Co	mponent	10 cm (4") P	P cone type x 2	
Input Termin	als	Push-in	terminals	
Water protect	ction	IP	65	
	Enclosure	HIPS, Black, paint	HIPS, White, paint	
Tiniah	Punched Net	Surface-treated steel plate, paint, black	Surface-treated steel plate, paint, white	
Finish	Speaker Bracket	Aluminum die-cast, black, paint		
	Joint Bracket Wall Bracket	Steel plate, t:1.6mm, paint (ED Coating), black		
Dimensions		135 (W) x 250 (H) x 128 (D) mm (5.31" x 9.84" x 5.04")		
Weight		1.9 kg (4.18 lb) unit only		
Accessories		Speaker bracket 1, Joint bracket 1, Wall bracket 1, Fixing bolt M5 x 60 1,		
		Hexagon bolt M6 x 12 (with plain washer and spring washer) 2,		
		Machine screw M5 x 20 (with plain washer and spring washer) 2,		
		Hexagon bolt M8 x 15 1,		
		Tapping screw 4 x 12 4, Terminal Cover 1		
Option		Speaker stand: ST-16A		

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

7.2. TZ-406 Series

Model No.		TZ-406B AS	TZ-406W AS	
Enclosure		Sealed Type		
Rated Input		40W		
Rated Impedance		100V line: 250Ω (40W), 500Ω (20W), 1kΩ (10W), 2kΩ (5W)		
		70V line: 250Ω (20W), 500Ω (10W), 1kΩ (5W), 2kΩ (2.5W)		
Sensitivity		93 dB (1W, 1m)		
Frequency F	Response	150 - 1	6,000 Hz	
Speaker Co	mponent	10 cm (4") c	cone type x 4	
Input Termin	nals	Push-in terminals		
	Enclosure	HIPS, Black, paint	HIPS, White, paint	
E in in h	Punched Net	Surface-treated steel plate, paint, black	Surface-treated steel plate, paint, white	
Finish	Speaker Bracket	Aluminum die-cast, black, paint	Aluminum die-cast, white, paint	
	Joint Bracket Wall Bracket	Steel plate, t:1.6mm, black, paint	Steel plate, t:1.6mm, white, paint	
Dimensions		135 (W) x 498 (H) x 128 (D) mm (5.31" x 19.6" x 5.04")		
Weight		3.5 kg (7.71 lb) unit only		
Accessories		Speaker bracket 1, Joint bracket 1, Wall bracket 1, Fixing bolt M5 x 60 1,		
		Hexagon bolt M6 x 12 (with plain washer and spring washer) 2,		
		Machine screw M5 x 20 (with plain washer and spring washer) 2,		
		Hexagon bolt M8 x 15 1		
Option		Speaker stand: ST-16A		

Model No.		TZ-406BWP AS	TZ-406WWP AS	
Enclosure		Sealed Type		
Rated Input		40W		
Rated Impedance		100V line: 250Ω (40W), 500Ω (20W), 1kΩ (10W), 2kΩ (5W)		
Rated imped		70V line: 250Ω (20W), 5009	Ω (10W), 1kΩ (5W), 2kΩ (2.5W)	
Sensitivity		92 dB (1W, 1m)	
Frequency Re	esponse	150 - 1	3,000 Hz	
Speaker Com	nponent	10 cm (4") F	PP cone type x 4	
Input Termina	als	Push-ir	n terminals	
Water protect	tion	IP65		
	Enclosure	HIPS, Black, paint	HIPS, White, paint	
Finish	Punched Net	Surface-treated steel plate, paint, black	Surface-treated steel plate, paint, white	
FILISI	Speaker Bracket	Aluminum die-cast, black, paint		
	Joint Bracket	Steel plate, t:1.6mm, black, paint (ED coating)		
	Wall Bracket			
Dimensions		135 (W) x 498 (H) x 128 (D) mm (5.31" x 19.6" x 5.04")		
Weight		3.5 kg (7.71 lb) unit only		
		Speaker bracket 1, Joint bracket 1, Wall bracket 1, Fixing bolt M5 x 60 1,		
Accessories		Hexagon bolt M6 x 12 (with plain washer and spring washer) 2,		
		Machine screw M5 x 20 (with plain washer and spring washer) 2,		
		Hexagon bolt M8 x 15 1,		
		Tapping screw 4 x 12 4, Terminal Cover 1		
Option		Speaker stand: ST-16A		

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

7.3. TZ-606 Series

Model No.		TZ-606B AS	TZ-606W AS	
Enclosure		Sealed Type		
Rated Input		60W		
Rated Impedance		100V line: 170Ω (60W), 330Ω (30W), 670Ω (15W), 1.3kΩ (7.5W)		
rated imper	anoc	70V line: 170Ω (30W), 330Ω (15W), 670Ω (7.5W), 1.3kΩ (3.8W)		
Sensitivity		95 dB (1W, 1m)	
Frequency R	lesponse	150 - 16	5,000 Hz	
Speaker Cor	nponent	10 cm (4") cd	one type x 6	
Input Termin	als	Push-in terminals		
	Enclosure	HIPS, Black, paint	HIPS, White, paint	
Finich	Punched Net	Surface-treated steel plate, paint, black	Surface-treated steel plate, paint, white	
Finish	Speaker Bracket	Aluminum die-cast, black, paint	Aluminum die-cast, white, paint	
	Joint Bracket	Steel plate, t:1.6mm, black, paint	Steel plate, t:1.6mm, white, paint	
	Wall Bracket	Oteer plate, t. t.onini, black, paint	Steel plate, t. t. onnin, white, paint	
Dimensions	-	135 (W) x 746 (H) x 128 (D) mm (5.31" x 29.37" x 5.04")		
Weight		5.5 kg (12.12 lb) unit only		
Accessories		Speaker bracket 1, Joint bracket 1, Wall bracket 1, Fixing bolt M5 x 60 1,		
		Hexagon bolt M6 x 12 (with plain washer and spring washer) 2,		
		Machine screw M5 x 20 (with plain washer and spring washer) 2,		
		Hexagon bolt M8 x 15 1,		
Option		Speaker stand: ST-16A		

Model No.		TZ-606BWP AS	TZ-606WWP AS	
Enclosure		Sealed Type		
Rated Input		60W		
Rated Impedance		100V line: 170Ω (60W), 330Ω (30W), 670Ω (15W), 1.3kΩ (7.5W)		
		70V line: 170Ω (30W), 330Ω	2 (15W), 670Ω (7.5W), 1.3kΩ (3.8W)	
Sensitivity		94 dB (1W, 1m)	
Frequency I	Response	150 - 13	3,000 Hz	
Speaker Co	mponent	10 cm (4") P	P cone type x 6	
Input Termir	nals	Push-in	terminals	
Water Prote	ection	IP65		
8	Enclosure	HIPS, Black, paint	HIPS, White, paint	
Finish	Punched Net	Surface-treated steel plate, paint, black	Surface-treated steel plate, paint, white	
Finish	Speaker Bracket	Aluminum die-cast, black, paint		
	Joint Bracket	Steel plate, t:1.6mm, black, paint (ED coating)		
Wall Bracket		Oteer plate, t. t. offini, black, paint (ED coaling)		
Dimensions		135 (W) x 746 (H) x 128 (D) mm (5.31" x 29.37" x 5.04")		
Weight		5.5 kg (12.12 lb.) unit only		
	a.	Speaker bracket 1, Joint bracket 1, Wall bracket 1, Fixing bolt M5 x 60 1,		
Accessories		Hexagon bolt M6 x 12 (with plain washer and spring washer) 2,		
		Machine screw M5 x 20 (with plain washer and spring washer) 2,		
		Hexagon bolt M8 x 15 1,		
		Tapping screw 4 x 12 4, Terminal Cover 1		
Option		Speaker stand: ST-16A		

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

Traceability Information for Europe (EMC directive 2004/108/EC)

Manufacturer: TOA Corporation 7-2-1, Minatojima Nakamachi, Chuo-Ku, Kobe, Hyogo, Japan Authorized representative: TOA Electrics Europe GmBH Suederstrasse 282, 20537 Hamburg, Germany



URL: http://www.toa.jp/

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