TOA

Ceiling Mount Speaker

PC-1860 / PC-1865 / PC-2360

EN

85 years of experience

Consistently TOA has continued to strengthen its role as an innovative leader and redefined the standards of technical improvement. Founded 1934 in Kobe, Japan, we benefit from 85 years of experience in research, development and international sales and marketing of numerous products in the field of public address systems. Thereby our longstanding know-how guarantees proven quality and the utmost peace of mind.

It is our goal to provide you high quality products, as well as first-class sound, to find the ideal acoustic solution for each of your applications.

We are proud to be one of the first companies to develop a fully EN 54 compliant voice alarm systems and speakers.

9 different types of ceiling mount speaker

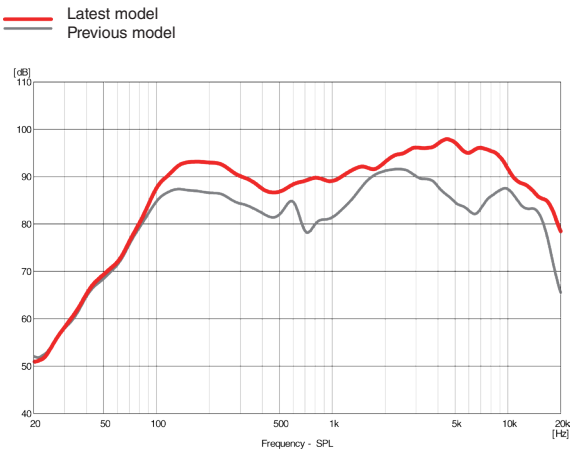
QUICK SELECTION GUIDE

	Features	PC-1860EN	PC-2360EN	PC-1860BS	PC-1860BS-C	PC-1865BS
Appearance						
Standard	EN54-24:2008	●	●	●	●	●
	BS5839-8:2008			●	●	●
	PN-EN54-24			●	●	●
Size of speaker component	12 cm (5") cone-type	●		●	●	●
	16 cm (6") cone-type		●			
Mounting method	Spring clamp	●	●			●
	Spring catch			●	●	
Connection	Push wire connection (2 branch type)	●	●			
	2 Steatite connector (3-pole)			●	●	
	2 Steatite connector (2-pole)					●
Safety	Fire dome			●	●	●
	Thermal fuse			●	●	●
	DC blocking capacitor				●	
	Safety wire connection			●	●	●
Ceiling thickness	5 - 25 mm (0.2" - 0.98")	●	●	●	●	●
	3 - 25 mm (0.12" - 0.98")					

Why TOA ?

Speech Intelligibility

Our ceiling mount speakers are designed to achieve better frequency response in higher range for better speech intelligibility.

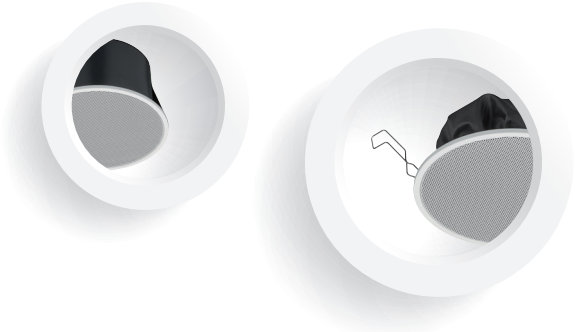


Powerful Sound

We have continuously improved the sound pressure level (SPL). You can clearly hear the voice even in spaces with high ceiling or noisy environments.

Product Design

- Bezel-less elegant look that harmonizes with venue's architecture and decor
- Wire springs for lower risk of scratching the ceiling when installing speakers



Installation


Office Buildings


Schools


Train Stations


Hospitals

QUICK SELECTION GUIDE

	Features	PC-1860	PC-2360	PC-1860S	PC-1860F
Appearance					
Standard	EN54-24:2008				
	BS5839-8:2008				
	PN-EN54-24				
Size of speaker component	12 cm (5") cone-type	●		●	●
	16 cm (6") cone-type		●		
Mounting method	Spring clamp	●	●		
	Spring catch			●	●
Connection	Push wire connection (2 branch type)	●	●	●	●
	2 Steatite connector (3-pole)				
	2 Steatite connector (2-pole)				
Safety	Fire dome				●
	Thermal fuse				
	DC blocking capacitor				
	Safety wire connection				●
Ceiling thickness	5 - 25 mm (0.2" - 0.98")	●	●		●
	3 - 25 mm (0.12" - 0.98")			●	

EN Indicates that the speaker EN54-24 certified and is therefore legalized for use in conjunction with fire detection systems

BS Indicates that the speaker is fully compliant to the BS5839 part 8 code of practice

SPRING CLAMP TYPE

EN PC-1860EN

EN PC-2360EN

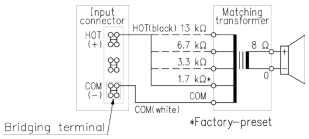
EN BS PC-1865BS

Features

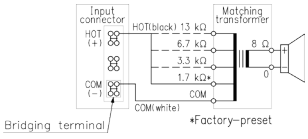
- Suitable for voice alarm system and background music system use in high quality sound
- EN 54-24 certified
- BS 5839-8 compliant (*PC-1865BS only)
- Spring clamp mechanism for easy speaker mounting to the ceiling

Wiring Diagram

PC-1860EN/2360EN

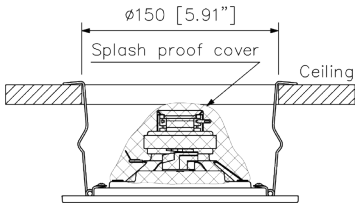


PC-1865BS

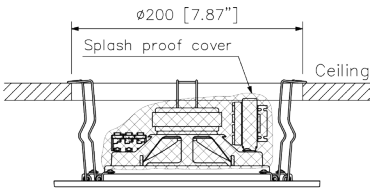


Mounting Diagram

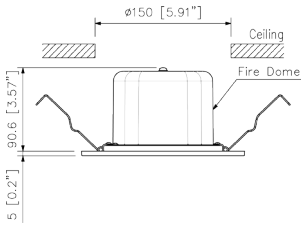
PC-1860EN



PC-2360EN



PC-1865BS



Specifications

Model	PC-1860EN	PC-2360EN	PC-1865BS
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 (1 W, 1 m) (500 Hz - 5 kHz, pink noise) 92 dB (1 W, 1 m) (100 Hz - 10 kHz, pink noise) 80 dB (1 W, 4 m) (100 Hz - 10 kHz, pink noise)		95 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise) 93 dB (1 W, 1 m) (100 Hz - 10 kHz, pink noise) 81 dB (1 W, 4 m) (100 Hz - 10 kHz, pink noise)
Maximum Sound Pressure Level	99 dB (6 W, 1 m) (100 Hz - 10 kHz, pink noise) 87 dB (6 W, 4 m) (100 Hz - 10 kHz, pink noise)		100 dB (6 W, 1 m) (100 Hz - 10 kHz, pink noise) 88 dB (6 W, 4 m) (100 Hz - 10 kHz, pink noise)
Frequency Response	80 Hz - 20 kHz (peak -20 dB)	60 Hz - 20 kHz (peak -20 dB)	200 Hz - 20 kHz (peak -20 dB)
Coverage Angle (-6 dB)	Horizontal and Vertical: 165°(500 Hz), 175°(1 kHz), 165°(2 kHz), 70°(4 kHz) according to EN 54-24	Horizontal and Vertical: 160°(500 Hz), 170°(1 kHz), 160°(2 kHz), 60°(4 kHz) according to EN 54-24	Horizontal and Vertical: 165°(500 Hz), 175°(1 kHz), 165°(2 kHz), 70°(4 kHz) according to EN 54-24
Environmental type	A (indoor applications)		
Speaker Component	12 cm (5") cone-type	16 cm (6") cone-type	12 cm (5") cone-type
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)		
Dimensions for Fixing Hole	Mounting hole: ø150±3 mm (5.91"±0.12") Ceiling thickness: 5 - 25 mm (0.2"- 0.98")	Mounting hole: ø200±3 mm (7.87"±0.12") Ceiling thickness: 5 - 25 mm (0.2"- 0.98")	Mounting hole: ø150±3 mm (5.91"±0.12") Ceiling thickness: 5 - 25 mm (0.2"- 0.98")
Speaker Mounting Method	Spring Clamp		
Applicable Cable	Solid wire: 0.5 - 3 mm² (AWG 20 - 12)		Solid wire: 0.8 - 6 mm² (AWG 18 - 10)
Connection	Push wire connection (Bridging terminal - 2 branch type)		2-Steatite connector (2 pole); 1 Screw connection for Earth
Finish	Frame: Steel plate, white (RAL 9016 equivalent), paint Grille: Steel net, white (RAL 9016 equivalent), paint Fire dome: Steel plate, black, paint (*PC-1865BS only)		
Dimensions	ø180 x 70 (D) mm (7.09" x 2.76")	¢230 x 76 (D) mm (9.06" x 2.99")	ø180 x 95.6 (D) mm (7.09" x 3.76")
Weight	560 g (1.23 lb)	740 g (1.63 lb)	860 g (1.9 lb)
Accessory	Paper pattern ... 1		Rubber grommet ... 2, Paper pattern ... 1

EN Indicates that the speaker EN54-24 certified and is therefore legalized for use in conjunction with fire detection systems

BS Indicates that the speaker is fully compliant to the BS5839 part 8 code of practice

SPRING CATCH TYPE

EN BS PC-1860BS

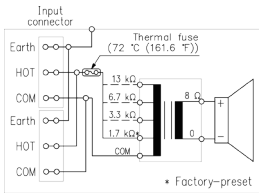
EN BS PC-1860BS-C

Features

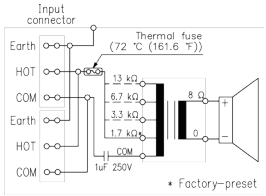
- Suitable for voice alarm system and background music system use in high quality sound
- EN 54-24 certified
- BS 5839-8 compliant
- Fire Dome to protect and prevent the fire from spreading in the ceiling in case of an emergency
- 1µF bipolar blocking capacitor allows DC monitoring of the speaker circuit (*PC-1860BS-C only)

Wiring Diagram

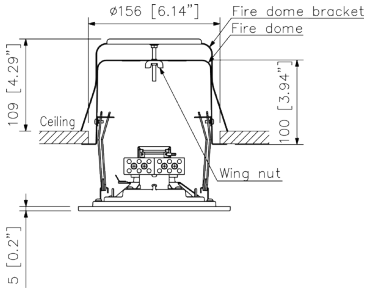
PC-1860BS



PC-1860BS-C



Mounting Diagram



Specifications

Model	PC-1860BS	PC-1860BS-C
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	95 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise) 93 dB (1 W, 1 m) (100 Hz - 10 kHz, pink noise) 81 dB (1 W, 4 m) (100 Hz - 10 kHz, pink noise)	94 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise) 92 dB (1 W, 1 m) (100 Hz - 10 kHz, pink noise) 80 dB (1 W, 4 m) (100 Hz - 10 kHz, pink noise)
Maximum Sound Pressure Level	100 dB (6 W, 1 m) (100 Hz - 10 kHz, pink noise) 88 dB (6 W, 4 m) (100 Hz - 10 kHz, pink noise)	99 dB (6 W, 1 m) (100 Hz - 10 kHz, pink noise) 87 dB (6 W, 4 m) (100 Hz - 10 kHz, pink noise)
Frequency Response	170 Hz - 20 kHz (peak -20 dB)	
Coverage Angle (-6 dB)	Horizontal and Vertical: 165°(500 Hz), 175°(1 kHz), 165°(2 kHz), 70°(4 kHz) according to EN 54-24	
Environmental type	A (indoor applications)	
Speaker Component	12 cm (5") cone-type	
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)	
Dimensions for Fixing Hole	Mounting hole: ø156 ±3 mm (6.14" ± 0.12") Ceiling thickness: 5 - 25 mm (0.2"- 0.98")	
Speaker Mounting Method	Spring Catch	
Applicable Cable	Solid wire: 0.8 - 6 mm² (AWG 18 - 10)	
Connection	2-Steatite connector (3 pole)	
DC Blocking Capacitor	-	1.0 µF
Finish	Frame: Steel plate, white (RAL 9016 equivalent), paint Grille: Steel net, white (RAL 9016 equivalent), paint Fire dome: Steel plate, black, paint	
Dimensions	ø180 x 5 (exposed section) + 100 (D) mm (7.09" x 0.2" + 3.94")	
Weight	1.1 kg (2.43 lb)	
Accessory	Rubber grommet ... 2, Paper pattern ... 1	

SPRING CLAMP TYPE

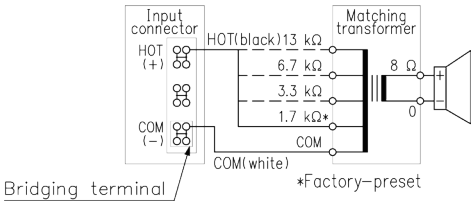
PC-1860

PC-2360

Features

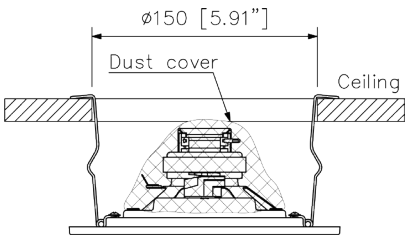
- Ideal for use in a background music system and voice announcement system
- All metallic construction
- Spring clamp mechanism for easy mounting to the ceiling
- Input impedance can be easily changed by changing the tap position of the transformer
- Push-in type input terminal block makes cable connection easy and allow bridge wiring

Wiring Diagram

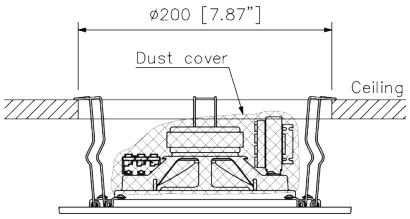


Mounting Diagram

PC-1860



PC-2360



Specifications

Model	PC-1860	PC-2360
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 (1 W, 1 m) (500 Hz - 5 kHz, pink noise)	
Frequency Response	80 Hz - 20 kHz (peak -20 dB)	60 Hz - 20 kHz (peak -20 dB)
Speaker Component	12 cm (5") cone-type	16 cm (6") cone-type
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)	
Dimensions for Fixing Hole	Mounting hole: ø150 ± 3 mm (5.91" ± 0.12") Ceiling thickness: 5 - 25 mm (0.2''- 0.98")	Mounting hole: ø200 ±3 mm (17.87" ± 0.12") Ceiling thickness: 5 - 25 mm (0.2''- 0.98")
Speaker Mounting Method	Spring Clamp	
Applicable Cable	Solid wire: 0.5 - 3 mm^2 (AWG 20 - 12)	
Connection	Push wire connection (Bridging terminal - 2 branch type)	
Finish	Frame: Steel plate, white (RAL 9016 equivalent), paint Grille: Steel net, white (RAL 9016 eauivalentl, paint	
Dimensions	ø180 x 70 (D) mm (7.09" x 2.76")	ø230 x 76 (D) mm (9.06" x 2.99")
Weight	560 g (1.23 lb)	740 g (1.63 lb)
Accessory	Paper pattern ... 1	

SPRING CATCH TYPE

PC-1860S

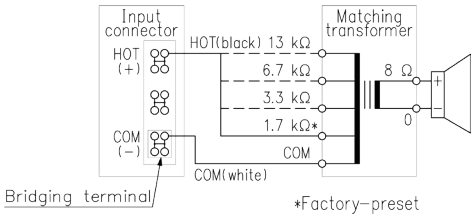
PC-1860F

PC-1860S

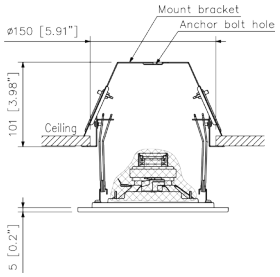
Features

- Mounting bracket for safety installation
- Suitable for announcement and music use in high quality sound
- Speaker design that harmonize with venue's architecture and decor

Wiring Diagram



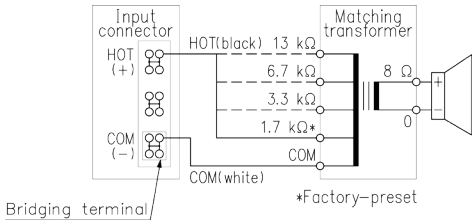
Mounting Diagram



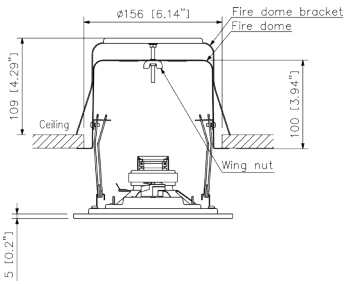
PC-1860F

- Iron-made dome that prevents the fire from spreading in the ceiling in case of an emergency situation
- Suitable for announcement and music use in high quality sound
- Speaker design that harmonize with venue's architecture and decor

Wiring Diagram



Mounting Diagram



Specifications

Model	PC-1860S	PC-1860F
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 (1 W, 1 m) (500 Hz - 5 kHz, pink noise)	95 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise)
Frequency Response	80 Hz - 20 kHz (peak -20 dB)	170 Hz - 20 kHz (peak -20 dB)
Speaker Component	12 cm (5") cone-type	
Dimensions for Fixing Hole	Mounting hole: ø150 ± 3 mm (5.91" ± 0.12") Ceiling thickness: 5 - 25 mm (0.2"- 0.98")	Mounting hole: ø156 ±3 mm (6.14" ± 0.12") Ceiling thickness: 5 - 25 mm (0.2"- 0.98")
Speaker Mounting Method	Spring Catch	
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)	
Applicable Cable	Solid wire: 0.5 - 3 mm² (AWG 20 - 12)	
Connection	Push wire connection (Bridging terminal - 2 branch type)	
Finish	Frame: Steel plate, white (RAL 9016 equivalent), paint Grille: Steel net, white (RAL 9016 equivalent), paint Mounting bracket: Steel plate, plating	Frame: Steel plate, white (RAL 9016 equivalent), paint Grille: Steel net, white (RAL 9016 equivalent), paint Fire dome: Steel plate, black, paint
Dimensions	ø180 x 5 (exposed section) + 101 (D) mm (7.09" x 0.2" + 3.98")	ø180 x 5 (exposed section) + 100 (D) mm (7.09" x 0.2" + 3.94")
Weight	750 g (1.65 lb)	1 kg (2.2 lb)
Accessory	Paper pattern ...1	Rubber grommet ... 2, Paper pattern ... 1

TOA Corporation
www.toa.jp
Specifications are subject to change without notice.
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