

# Speakers (Pro-Sound)

## Line Array Speaker Systems

### Type A Series

#### »» Line Array Speaker

SR-A12L  
SR-A12LWP  
SR-A12S  
SR-A12SWP



Model	SR-A12L	SR-A12LWP	SR-A12S	SR-A12SWP
Enclosure	Bass-reflex type			
Power Handling Capacity	Continuous program: Low frequency: 450W, High frequency: 180W			
Rated Impedance	Low frequency: 8 Ω, High frequency: 16 Ω			
Sensitivity (1 W, 1 m)	Low frequency: 98 dB High frequency: 110 dB		Low frequency: 98 dB High frequency: 109 dB	
Frequency Response	50 Hz – 20kHz (when recommended parameters are applied by the optional DP-SP3)			
Crossover Frequency	1kHz (when recommended parameters are applied by the optional DP-SP3)			
Directivity Angle	Horizontal: 90°, Vertical: 5°		Horizontal: 90°, Vertical: 15°	
Speaker Component	Low frequency: 30cm cone-type High frequency: Wave front control horn 90° (horizontal) × 5° (vertical) + compression driver × 2		Low frequency: 30cm cone-type High frequency: Wave front control horn 90° (horizontal) × 15° (vertical) + compression driver × 2	
Input Connector	M5 screw terminal, distance between barriers: 12.2mm and Neutrik NL4MP x 2 (usable cable connector: Neutrik NL4FC)	Direct cable withdrawal from internal speaker: ø8.6mm, conductor cross section: 1.25mm <sup>2</sup> , 4-core cable, 3m	M5 screw terminal, distance between barriers: 12.2mm and Neutrik NL4MP x 2 (usable cable connector: Neutrik NL4FC)	Direct cable withdrawal from internal speaker: ø8.6mm, conductor cross section: 1.25mm <sup>2</sup> , 4-core cable, 3m
Water Protection	-	IPX4	-	IPX4
Finish	Enclosure: Plywood black, paint Front grill: Punched steel plate, black, acrylic paint	Enclosure: Plywood, black, urethane coating Front grill: Punched stainless steel (SUS304), black, paint	Enclosure: Plywood black, paint Front grill: Punched steel plate, black, acrylic paint	Enclosure: Plywood, black, urethane coating Front grill: Punched stainless steel (SUS304), black, paint
Dimensions (W x H x D)	740 x 433 x 469mm		740 x 433 x 467mm	
Weight	49kg	51kg	47kg	48kg

#### »» Subwoofer

SR-A18B

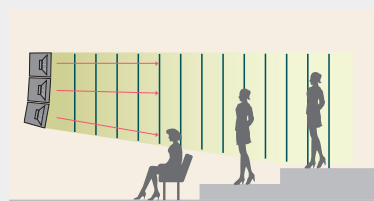


Model	SR-A18B
Enclosure	Bass-reflex type
Power Handling Capacity	Continuous program: 720W
Rated Impedance	8 Ω
Sensitivity (1 W, 1 m)	95 dB
Frequency Response	40 Hz – 400Hz (when recommended parameters are applied by the optional DP-SP3)
Crossover Frequency	80Hz (when recommended parameters are applied by the optional DP-SP3)
Speaker Component	46cm cone-type
Input Connector	M5 screw terminal, distance between barriers: 12.2mm and Neutrik NL4MP x 2 (usable cable connector: Neutrik NL4FC)
Finish	Enclosure: Plywood black, paint / Front grill: Punched steel plate, black, acrylic paint
Dimensions (W x H x D)	740 x 573 x 698mm
Weight	66kg

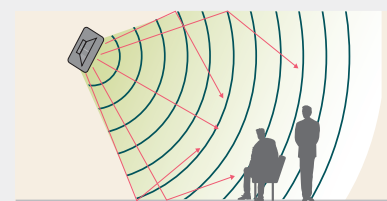
### TOA Line Array Speakers:

- The TOA Line Array Speaker Systems are designed to perform optimally with ideal sound dispersion characteristics in spaces that pose difficulties for more conventional speaker systems. It is available in different configurations and with a wide range of mounting possibilities that will suit particular requirements precisely

#### Line Array Speaker



#### Standard Speaker



# Type C Series

## »» Line Array Speaker

- SR-C8S
- SR-C8SWP
- SR-C8L
- SR-C8LWP



Model	SR-C8S	SR-C8SWP	SR-C8L	SR-C8LWP
Enclosure	Bass-reflex type			
Power Handling Capacity	Continuous program: 360W (single-amp mode) / low frequency: 360W, high frequency: 180W (bi-amp mode)			
Rated Impedance	16Ω (single-amp mode), low frequency: 16Ω, high frequency: 16Ω (bi-amp mode)			
Sensitivity (1W, 1m)	98 dB (single-amp mode); low: 95 dB; high: 110 dB (bi-amp mode)			
Frequency Response	65Hz – 20kHz (when recommended parameters are applied by the optional DP-SP3)			
Crossover Frequency	1.6kHz (when recommended parameters are applied by the optional DP-SP3)			
Directivity Angle	Horizontal: 110°, vertical: 15°		Horizontal: 110°, vertical: 5°	
Speaker Component	Low frequency: 20 cm cone-type / High frequency: Wave-front control horn + compression drivers × 2			
Input Connector	M5 screw terminal, distance between barriers: 12.2mm and Neutrik NL4MP × 2	Direct cable, 3m	M5 screw terminal, distance between barriers: 12.2mm and Neutrik NL4MP × 2	Direct cable, 3m
Water Protection	-	IPX4	-	IPX4
Finish	Enclosure: Plywood black, paint Front grill: Punched steel plate, black, acrylic paint	Enclosure: Plywood, black, urethane coating Front grill: Punched stainless steel, black, paint	Enclosure: Plywood black, paint Front grill: Punched steel plate, black, acrylic paint	Enclosure: Plywood, black, urethane coating Front grill: Punched stainless steel, black, paint
Dimensions (W x H x D)	526.6 × 293 × 294mm		526.6 × 293 × 296mm	
Weight	16kg		17kg	

### Superior Sound Quality with Sync-Drive Technology

- "Sync-Drive" - Type C features TOA proprietary "Sync-Drive" wave guide technology, to provide an uniform, high frequency sound field offering excellent sound clarity and minimal interference.

- ## »» Subwoofer
- SR-C15B
  - SR-C15BWP



Model	SR-C15B	SR-C15BWP
Enclosure	Bass-reflex type	
Power Handling Capacity	Continuous program: 450W	
Rated Impedance	8Ω	
Sensitivity (1W, 1m)	93 dB	
Frequency Response	40 Hz – 400Hz (when equalized at recommended parameters)	
Speaker Component	38 cm cone-type	
Input Connector	M5 screw terminal, distance between barriers: 12.2mm and Neutrik NL4MP × 2	-
Connected Cable	-	Direct cable withdrawal from internal speaker: ø8.6 mm conductor cross section: 1.25 mm <sup>2</sup> , 4-core cable, 3 m
Water Protection	-	IPX4
Finish	Enclosure: Plywood, black, urethane paint, Front grille: Punched steel plate, black, paint	Enclosure: Plywood, black, urethane coating, Front grille: Punched stainless steel plate, black, paint
Dimensions (W x H x D)	526.6 × 594.8 × 550mm	
Weight	41 kg	

# Type H Series



Outstanding Sound Quality

Application Versatility

Space / Energy Efficient Design

Easy & Flexible Installation

»» Line Array Speaker

- SR-H2L
- SR-H2S
- SR-H3L
- SR-H3S



SR-H2L



SR-H2S



SR-H3L



SR-H3S

Model	SR-H2L	SR-H2S	SR-H3L	SR-H3S
Power Handling Capacity	Continuous program: 180 W		Continuous program: 360 W	
Rated Impedance	8 Ω			
Sensitivity (1W, 1m)	92dB	90dB	95dB	92dB
Frequency Response	80Hz – 18kHz	90Hz – 17kHz	110Hz – 18kHz	90Hz – 17kHz
Speaker Component	7 cm cone-type x 9		7 cm cone-type x 16	
Directivity Angle	Horizontal: 90°/ Vertical: 0°	Horizontal: 90°/ Vertical: 20°	Horizontal: 90°/ Vertical: 0°	Horizontal: 90°/ Vertical: 20°
Finish	Enclosure: MDF, white, paint / Front grille: Punched steel plate, white, acrylic paint			
Dimensions (W x H x D)	84 x 668.4 x 115mm	84 x 663.4 x 115mm	84 x 1,186.4 x 115mm	84 x 1,177.2 x 157mm
Weight	4.4kg	4.2kg	7.6kg	7.9kg

»» Matching Transformer

## MT-S0301



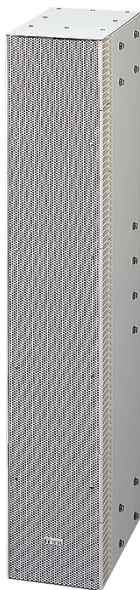
**Rated Input Power:** 30 W  
**Primary Side:** 100 V line: 330 Ω (30 W), 1 kΩ (10 W),  
 70 V line: 170 Ω (30 W), 330 Ω (15 W), 1 kΩ (5 W)  
**Secondary Side:** 8 Ω  
**Weight:** 370 g



\*\*Please refer to specification sheet for detailed information.

## Type S Series

» Line Array Speaker  
**SR-S4L**  
**SR-S4LWP**



» Line Array Speaker  
**SR-S4S**  
**SR-S4SWP**



Model	SR-S4L	SR-S4LWP	SR-S4S	SR-S4SWP
Power Handling Capacity	Continuous program: 600 W			
Rated Impedance	8 Ω			
Sensitivity (1 W, 1 m)	94 dB		93 dB	
Frequency Response	70 Hz – 20kHz			
Crossover Frequency	3.5 kHz			
Directivity Angle	Horizontal: 90°, Vertical: 0° (within the range of speaker height)		Horizontal: 90°, Vertical: 10°	
Speaker Component	Low frequency: 10 cm cone-type × 8, High frequency: 2.5 cm balanced dome-type × 24			
Input Connector	M5 screw terminal, distance between barriers: 12.2 mm and Neutrik NL4MP x 2 (usable cable connector: Neutrik NL4FC)	-	M5 screw terminal, distance between barriers: 12.2 mm and Neutrik NL4MP x 2 (usable cable connector: Neutrik NL4FC)	-
Connected Cable	-	Direct cable withdrawal from internal speaker: ø8.6 mm, conductor cross section: 1.25 mm <sup>2</sup> , 4-core cable, 3 m	-	Direct cable withdrawal from internal speaker: ø8.6 mm, conductor cross section: 1.25 mm <sup>2</sup> , 4-core cable, 3 m
Water Protection	-	IPX4	-	IPX4
Finish	Enclosure: MDF, white, paint Front grill: Punched steel plate, white, acrylic paint	Enclosure: Plywood, white, urethane coating Front grill: Punched stainless steel (SUS304), white, paint	Enclosure: MDF, white, paint Front grill: Punched steel plate, white, acrylic paint	Enclosure: Plywood, white, urethane coating Front grill: Punched stainless steel (SUS304), white, paint
Dimensions (W x H x D)	160 × 895 × 255 mm		160 × 892 × 303 mm	
Weight	16 kg			

» Matching Transformer  
**MT-S0601**



**Rated Input Power:** 60 W  
**Primary Side:** 100 V line: 170 Ω (60 W), 330 Ω (30 W), 670 Ω (15 W)  
 70 V line: 83 Ω (60 W), 170 Ω (30 W), 330 Ω (15 W), 670 Ω (7.5 W)  
**Secondary Side:** 8 Ω  
**Weight:** 1.2 kg

## Type T Series

» Line Array Speaker  
**SR-T5**



Model	SR-T5
Enclosure	Bass-reflex type
Power Handling Capacity	Continuous pink noise: 250 W, Continuous program: 750 W
Rated Impedance	8 Ω
Sensitivity	96 dB (1 W, 1 m equivalent, measured at 4 m)
Frequency Response	70 Hz - 20 kHz
Crossover Frequency	3kHz
Directivity Angle	Horizontal: 100°, Vertical: 35°
Speaker Component	Low frequency: 13 cm (5.12") cone-type x 8 High frequency: Balanced dome type x 24
Recommended Installation Height	4 - 5.5 m (Speaker top, when installed in sport facilities 30 m in length)
Adjustable Angle Range	Downward: 0°, 1°, 2°, 3° (when the supplied mounting bracket is used) Horizontal (left or right): 5°, 10° (when the optional SR-PB5 Wall Pan Bracket is used)
Input Terminal	M5 screw terminal, distance between barriers: 12.2 mm
Finish	Enclosure: Plywood, black, urethane paint; Baffle: Polypropylene, black Punched net: Steel plate, black, acrylic paint; Mounting bracket: Steel plate, black, acrylic paint
Dimensions (W x H x D)	310 x 1,239 x 341 mm
Weight	29 kg (including accessories)
Accessories	Mounting bracket Ax 1, Mounting bracket Bx 1, Bracket mounting bolt x 6, Side cover x 5, Side cover mount screw x 10, Eye bolt x 1, Safety wire x 1
Option	Wall Pan Bracket SR-PB5; Matching Transformer: MT-S0601

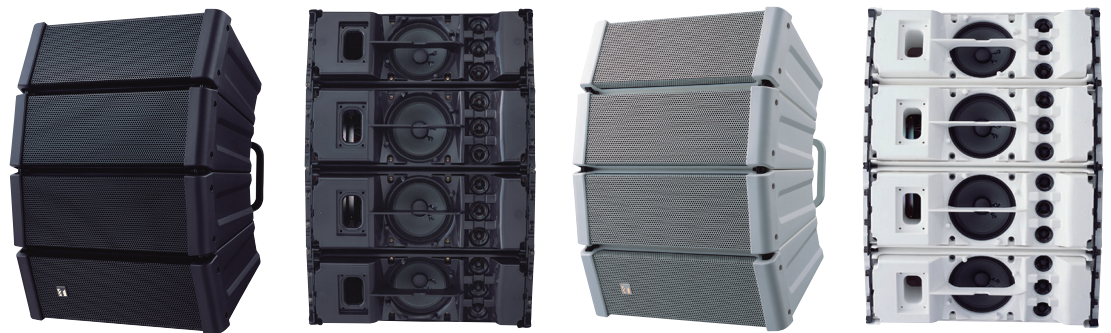


# Compact Array Speakers

**Features of Compact Array Speakers:**

- Accurate directivity control
- Versatile mounting options
- Adjustable Dispersion
- Advantage of multi-unit configuration

»» Line Array Speaker  
**HX-5B**  
**HX-5W**  
**HX-5B-WP**  
**HX-5W-WP**



Model	HX-5B	HX-5W	HX-5B-WP	HX-5W-WP
Enclosure	Bass-reflex type		Sealed type	
Power Handling Capacity	Continuous pink noise: 200W / Continuous program: 600W			
Rated Impedance	8 Ω			
Sensitivity (1W, 1m)	96 dB (60° mode), 97 dB (45° mode), 98 dB (30° mode), 99 dB (15° mode)			
Frequency Response	70Hz – 20kHz (-10dB) (60° mode) 75Hz – 20kHz (-10dB) (45° mode) 80Hz – 20kHz (-10dB) (30° mode) 85Hz – 20kHz (-10dB) (15° mode)		95Hz – 20kHz (-10dB) (60° mode) 100Hz – 20kHz (-10dB) (45° mode) 105Hz – 20kHz (-10dB) (30° mode) 110Hz – 20kHz (-10dB) (15° mode)	
Crossover Frequency	4kHz			
Directivity Angle	Horizontal: 100° (over 2kHz), Vertical: 60° (over 800Hz), 45° (over 1.2kHz), 30° (over 1.6kHz), 15° (over 3.2kHz) variable			
Speaker Component	Low frequency: 12cm cone-type x 4, High frequency: Balanced dome-type x 12			
Input Terminal	Speakon NL4MP x 2 and M4 screw terminal		-	
Speaker Cord	-		2-core cable cord with diameter of 6mm	
Water Protection	-		IP X4 (Install with every speaker module downward)	
Finish	Enclosure: Polypropylene, black or white Punched net: Surface-treated steel plate, black or white		Enclosure: Polypropylene, black or white Punched net: Surface-treated steel plate, black or white, rust-proof coating	
Dimensions (W x H x D)	408 x 546 x 342mm			
Weight	16kg			

Note: Factory preset: 60° mode

»» Matching Transformer  
**MT-200**



**Rated Input:** 200 W  
**Primary Side:** 100 V line: 50 Ω (200 W), 83 Ω (120 W), 167 Ω (60 W)  
 70 V line: 25 Ω (200 W), 50 Ω (100 W), 83 Ω (60 W), 167 Ω (30 W)  
**Secondary Side:** 8 Ω  
**Water Protection:** IPX4 (the tilt angle must be within 45°)\*  
**Finish:** Cover: Polypropylene, Mounting Bracket: Stainless Steel  
**Dimension (WxHxD):** 164 x 141 x 129 mm  
**Weight:** 2.8 kg  
**Accessory:** Speaker mounting bolt (M8) with washer x 2

\* Note: When matching transformer is installed on the HX-5 series rear mounting plate, the optional HY-WM1 series and HY-CW1 series Speaker Mounting Brackets, and HY-ST1 Speaker Stand Adapter cannot be used.

»» Subwoofer  
**FB-120B**  
**FB-120W**



Model	FB-120B	FB-120W
Rated Input	Continuous pink noise: 200W / Continuous program: 600W	
Impedance	8 Ω	
Sensitivity (1W, 1m)	90 dB at installation in free sound field, 96 dB at installation in 1/2 free sound field	
Frequency Response	40Hz – 1.2kHz (-10dB)	
Speaker Component	30 cm cone-type speaker	
Input Terminal	Speakon NL4MP x 2 and M4 screw terminals	
Finish	Enclosure plywood, metal front grille black	Enclosure plywood, metal front grille white
Dimensions (W x H x D)	408 x 408 x 450mm	
Weight	15kg	

»» Line Array Speaker

- HX-7B**
- HX-7W**
- HX-7B-WP**
- HX-7W-WP**



Model	HX-7B	HX-7W	HX-7B-WP	HX-7W-WP
Enclosure	Bass-reflex type		Sealed type	
Power Handling Capacity	Continuous pink noise: 250W (IEC60268-5: 350W) / Continuous program: 750W			
Rated Impedance	8Ω			
Sensitivity (1W, 1m)	100dB			
Frequency Response	75Hz – 20kHz		105Hz – 20kHz	
Crossover Frequency	1.7kHz			
Directivity Angle	Horizontal: 100°, Vertical: Depending on directivity angle mode			
Speaker Component	Low frequency: 13cm cone-type x 8 High frequency: Wave front control horn with compression driver x 4			
Input Terminal	Speakon NL4MP x 2 and M4 screw terminal, distance between barriers: 9mm (0.35")		M4 screw terminal, distance between barriers: 9mm (0.35")	
Water Protection	-		IPX4 (Install with every speaker module tilted downward from the horizontal.)	
Finish	Enclosure: Polypropylene, black or white Punched net: Surface-treated steel plate, black or white, paint Hanging bracket: Steel plate, t3.0, black or white, paint		Enclosure: Polypropylene, black or white Punched net: Surface-treated steel plate, black & white, rust-proof coating	
Dimensions (W x H x D)	497 x 664 x 274 mm			
Weight	30kg			

Note: Factory preset: 0° mode  
 For HX-7B-WP & HX-7W-WP: Every speaker module must be aimed horizontally or down to keep the weather resistant capability.

»» Matching Transformer

**MT-200**



**Best solution for acoustically challenging spaces:**

- Sports Venues
- Houses of Worship
- Concert Halls
- Boardrooms

»» Subwoofer

- FB-150B**
- FB-150W**

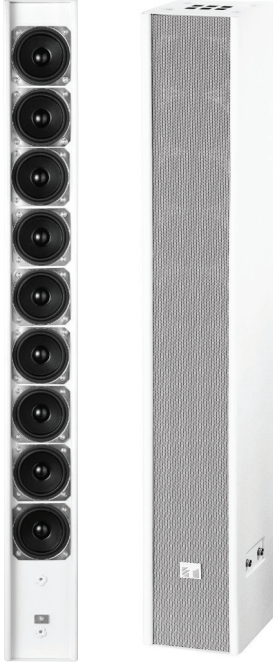


Model	FB-150B	FB-150W
Power Handling Capacity	Continuous pink noise: 200W / Continuous program: 600W	
Impedance	8Ω	
Sensitivity (1W, 1m)	93dB	
Frequency Response	40Hz – 400Hz (-10dB)	
Speaker Component	38cm cone-type	
Input Terminal	Speakon NL4MP x 2 and M5 screw terminal, distance between barriers: 12.2mm	
Finish	Enclosure: MDF, black, urethane paint Punched net: Surface-treated steel plate, black, paint	Enclosure: MDF, white, urethane paint Punched net: Surface-treated steel plate, white, paint
Dimensions (W x H x D)	505 x 528 x 477 mm	
Weight	30kg	



# Slim Array Speaker

## »» Slim Array Speaker TZ-S60W

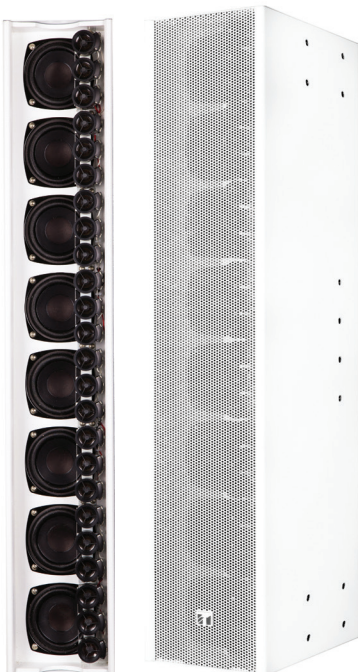


Model	TZ-S60W
Enclosure	Bass-Reflex type
Max. Input Power (Low Imp.)	120 W (continuous pink noise)
Rated Input (High Imp.)	60 W
Rated Impedance	100 V line: 167 Ω (60 W), 330 Ω (30 W), 500 Ω (20 W), 1 kΩ (10 W) Low Impedance: 8 Ω
Sensitivity (1W, 1m)	95 dB
Frequency Response	180 Hz– 15 kHz
Speaker Component	8 cm cone type x 9
Directivity Angle	Horizontal: 90°, Vertical: 0°
Finish	Enclosure: MDF, White paint Punched net, Wall bracket, Side, Panel, Metal Cover: SECC, White paint
Dimensions (W x H x D)	100 x 883 x 130 mm
Weight	8.2 kg

## »» Stacking Bracket HY-S60W



## »» Slim Array Speaker TZ-S240W



Model	TZ-S240W
Enclosure	Bass-Reflex type
Max. Input Power	240 W (continuous), 480 W (program)
Rated Impedance	8 Ω
Sensitivity (1W, 1m)	94 dB
Frequency Response	95 Hz– 20 kHz
Speaker Component	Low Frequency: 10 cm cone-type woofer x 8 High Frequency: 2.5 cm balanced-dome tweeter x 24
Directivity Angle	Horizontal: 100°, Vertical: 5°
Finish	Enclosure: MDF, White paint Net Grille: Punched steel plate, White paint
Dimensions (W x H x D)	160 x 950 x 262 mm
Weight	17 kg

# SR Series Speakers

## 2-Way Passive Speakers

»» 2-Way Passive Speaker

**SR-F04**  
**SR-F08**



Model	SR-F04	SR-F08
System Type	2-Way, Passive, Bass-Reflex type	
Power Handling Capacity	80 W (Continuous Program: 240 W)	120 W (Continuous Program: 360 W)
Rated Impedance	8 Ω	
Sensitivity (1W, 1m)	88 dB	91 dB
Frequency Response	80 Hz– 20 kHz	65 Hz– 20 kHz
Speaker Component	Low Frequency: 10 cm cone-type x 2 High Frequency: Compression Driver fitted with CD-Horn	Low Frequency: 20 cm cone-type High Frequency: Compression Driver fitted with CD-Horn
Directivity Angle	70° Conical	90° Horizontal, 60° Vertical (Horn at 90° Rotation, 60° Horizontal, 90° Vertical)
Crossover Frequency	3 kHz	1.5 kHz
Connection	Neutrik NL4MP x 2 and M4 screw terminal, distance between barriers: 11 mm	
Finish	Enclosure: Birch Plywood, black, polyurea coating; Grille: Steel plate, Black, 40% gloss, paint	
Dimensions (W x H x D)	165 x 400 x 177 mm	249 x 450 x 243 mm
Weight	5.8 kg	11 kg

»» Speaker Stand Adapter  
**HY-ST04**



# Only for SR-F04  
Applicable speaker stand: ST-34B

»» Mounting Bracket  
**HY-UH04\***  
**HY-UH08\***



\* For use in conjunction with HY-B0801, HY-C0801 or HY-W0801 mounting brackets  
HY-UH04 / HY-UV04: for SR-F04  
HY-UH08 / HY-UV08: for SR-F08

»» Mounting Bracket  
**HY-UV04\***  
**HY-UV08\***



»» Wall Mounting Bracket  
**HY-WM04**  
**HY-WM08**



HY-WM04: for SR-F04  
HY-WM08: for SR-F08



Built-in passive network produces high **quality sound** & high **output capability**.





# HS Series Speakers

## Coaxial Array Speakers

### »» Coaxial Array Speaker

HS-120B / W / 1200BT / WT  
 HS-150B / W / 1500BT / WT



Model	HS-120B / HS-120W	HS-1200BT / HS-1200WT	HS-150B / HS-150W	HS-1500BT / HS-1500WT
Power Handling Capacity	Continuous pink noise: 100W, Continuous program: 300W			
Rated Impedance	8 Ω	8 Ω, 100V: 170 Ω (60), 330 Ω (30), 670 Ω (15W)	8 Ω	8 Ω, 100V: 170 Ω (60), 330 Ω (30), 670 Ω (15W)
Sensitivity (1W, 1m)	97 dB		98 dB	
Frequency Response	80Hz – 20kHz	70Hz – 20kHz		60Hz – 20kHz
Speaker Component	30cm cone-type, Balanced dome-type x 6		38cm cone-type, balanced dome-type x 6	
Connection	Neutrik NL4MP Speakon and M4 screw terminal, distance between barriers: 9mm			
Finish	Polypropylene, black (HS-120B, HS-1200BT, HS-150B, HS-1500BT) or white (HS-120W, HS-1200WT, HS-150W, HS-1500WT)			
Dimensions (W x H x D)	361 x 448 x 320 mm		451 x 560 x 400 mm	
Weight	8.5kg	10kg	12kg	14kg

### »» Speaker Stand

ST-34B



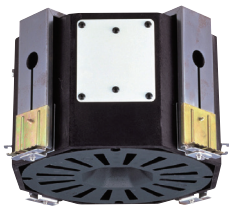
**Enlarged Extensible Length:** 1373 - 1968 mm  
**Load Capacity:** Less than 35 kg  
**Speaker Mounting Pitch:** 101 - 153 mm  
**Finish:** Inner pipe, Outer pipe, legs: Aluminum, black, matte finish, paint  
**Bracket:** Steel plate, black, matte finish, paint  
**Dimension:** ø1290 (open legs) x 1373-1968 mm (height with bracket mounted)  
**Weight:** 4.2 kg  
**Accessory:** Bracket x 1, Speaker mounting Screw x 2, Speaker Mounting Washer x 2

# ES Series Speakers

## Flush Mount Ceiling Speaker

### »» High-Power 25cm Flush Mount Ceiling Speaker

ES-C0651



Model	ES-C0651
Enclosure	Sealed
Power Handling Capacity	60 W (Continuous Program: 180 W)
Rated Impedance	8 Ω (when use with optional matching transformer) 100 V line: 170 Ω (60 W), 300 Ω (30 W), 670 Ω (15 W) 70 V line: 83 Ω (60 W), 170 Ω (30 W), 330 Ω (15 W), 670 Ω (7.5 W)
Sensitivity (1W, 1m)	96 dB
Frequency Response	80 Hz – 20 kHz
Speaker Component	2-way coaxial unit. Low Frequency: 25 cm woofer; High Frequency: CD-Horn
Dispersion	60° x 60°
Crossover Frequency	2.5 kHz (passive)
Finish	Enclosure: MDF, black, urethane coating; Front Gri
Dimensions (W x H x D)	444 x 274 x 404 mm
Weight	17.8 kg

Note: Ensure the speaker is secured with an anchor bolt when installing.

### »» Front Grille for ES-C0651

FG-C0651



**Fitting Method:** Spring-catch installation  
**Finish:** Baffle: Wood, white; Grille: Rolled steel plate, white  
**Dimension:** ø 360 x 12 mm (exposed section)  
**Weight:** 400 g

### »» Matching Transformer

MT-S0601



**Rated Input Power:** 60 W  
**Primary Side:**  
 100 V line: 170 Ω (60 W), 330 Ω (30 W), 670 Ω (15 W)  
 70 V line: 83 Ω (60 W), 170 Ω (30 W), 330 Ω (15 W), 670 Ω (7.5 W)  
**Secondary Side:** 8 Ω  
**Weight:** 1.2 kg

# H Series Speakers

## »» 2-Way Flush Mount Speaker

### H-1



Model	H-1
Power Handling Capacity	30 W (Continuous Program: 90 W)
Rated Input	12 W (16 Ω, High Impedance)
Rated Impedance	100 V: 830 Ω (12 W), 1.7 kΩ (6 W), 3.3 kΩ (3 W) 70 V: 420 Ω (12 W), 830 Ω (6 W), 1.7 kΩ (3 W), 3.3 kΩ (1.5 W) 4 Ω, 16 Ω
Sensitivity (1W, 1m)	85 dB
Frequency Response	120 Hz – 20 kHz
Speaker Component	Low: 8 cm x 5 cm cone-type, High: Balanced dome-type
Finish	Cover: Fire-resistant ABS resin, white, paint Punched Net: Steel plate, white, paint Adapter Frame: Stainless Steel
Dimensions (W x H x D)	312 x 126 x 90 mm
Weight	1.5 kg (including adapter frame)

Note: When installing, mount the adapter frame as an electrical box cover.  
 (The adapter frame HY-H1 is also available as an optional accessory)  
 It is also possible to mount the speaker directly to the electrical box (without a cover).

## »» 2-Way Surface Mount Speaker

### H-2 H-2WP



Model	H-2	H-2WP
Power Handling Capacity	40 W (Continuous Program: 120 W)	
Rated Input	12 W (16 Ω, High Impedance)	
Rated Impedance	100 V: 830 Ω (12 W), 1.7 kΩ (6 W), 3.3 kΩ (3 W) 70 V: 420 Ω (12 W), 830 Ω (6 W), 1.7 kΩ (3 W), 3.3 kΩ (1.5 W) 4 Ω, 16 Ω	
Sensitivity (1W, 1m)	88 dB	
Frequency Response	100 Hz – 20 kHz	
Speaker Component	Low: 10 cm cone-type; High: Balanced dome-type	
Dust/Water Protection	-	IP 64
Finish	Frame: Fire-resistant ABS resin, white, paint Punched Net: Steel plate, white, paint Base Frame: Steel plate	Frame: Fire-resistant ABS resin, white, paint Punched Net: Steel plate, white, powder coating Base Frame: Stainless plate
Dimensions (ø x H)	ø 268 x 111 mm	
Weight	2.1 kg	

Note: Without using an electrical box, mounting the supplied base frame directly to a wall or ceiling allows the speaker installation.  
 Do not install H-2WP where it is likely to be corroded such as places like indoor pools, bathrooms, seaside.

## »» 2-Way Wall Mount Speaker

### H-3 H-3WP



Model	H-3	H-3WP
Power Handling Capacity	50 W (Continuous Program: 150 W)	
Rated Input	30 W (16 Ω, High Impedance)	
Rated Impedance	100 V: 330 Ω (30 W), 670 Ω (15 W), 1.3 kΩ (7.5 W) 70 V: 170 Ω (30 W), 330 Ω (15 W), 670 Ω (7.5 W), 1.3 kΩ (3.75 W) 8 Ω, 16 Ω	
Sensitivity (1W, 1m)	89 dB	
Frequency Response	100 Hz – 20 kHz	
Speaker Component	Low: 4" cone-type x 2, High: 1" dome-type (neodymium magnet)	
Water Protection	-	IPX4
Finish	Enclosure: Fire-resistant ABS resin, black Front Frame: Fire-resistant ABS resin, off-white, paint Punched Net: Steel Plate, off-white, paint Base Frame: Steel plate, plating	Enclosure: Fire-resistant ABS resin, black Front Frame: Fire-resistant ABS resin, off-white, paint Punched Net: Steel Plate, off-white, powder coating Base Frame: Stainless Steel
Dimensions (W x H x D)	295 x 318 x 129 mm	
Weight	3.3 kg	

Note: Avoid using H-3WP near the shore or at an indoor swimming pool, as doing so may significantly reduce product life.

## »» Wall/Ceiling Mount Speaker

### HB-1



Model	HB-1
Power Handling Capacity	80 W (Continuous Program: 240 W)
Rated Impedance	8 Ω
Sensitivity (1W, 1m)	91 dB
Frequency Response	45 Hz – 20 kHz
Speaker Component	20 cm cone speaker
Finish	Enclosure: Stainless Steel, black, paint Front Frame: Fire-resistant ABS resin, off-white, paint Punched Net: Steel Plate, off-white, paint Mounting Bracket: Steel plate, black, paint
Dimensions (W x H x D)	430 x 544 x 135 mm
Weight	11 kg (including front grille and mounting bracket)



# F Series Speakers

## 2-Way Wide-Dispersion Speakers

### »» 2-Way Wide-Dispersion Speaker

**F-1000B / W / BT / WT / BTWP / WTWP**  
**F-1300B / W / BT / WT / BTWP / WTWP**  
**F-2000B / W / BT / WT / BTWP / WTWP**



Model	F-1000B	F-1000W	F-1000BT	F-1000WT	F-1000BTWP	F-1000WTWP
Enclosure	Bass-reflex type					
Power Handling Capacity	30 W (Continuous Program: 90 W)		30 W (Continuous Program: 90 W) (Low Impedance)		-	
Rated Input	-		15 W (high impedance)		15 W	
Rated Impedance	8Ω		8Ω; 100 V: 670Ω (15W), 2kΩ (5W), 3.3kΩ (3W), 10kΩ (1W) 70V: 330Ω (15W), 670Ω (7.5W), 2kΩ (2.5W), 3.3kΩ (1.5W), 10kΩ (0.5W)		100 V: 670Ω (15W), 2kΩ (5W), 3.3kΩ (3W), 10kΩ (1W) 70V: 330Ω (15W), 670Ω (7.5W), 2kΩ (2.5W), 3.3kΩ (1.5W), 10kΩ (0.5W)	
Sensitivity (1W, 1m)	87 dB					
Frequency Response	85 Hz – 20 kHz					
Crossover Frequency	5 kHz					
Directivity Angle	Horizontal: 90°, Vertical: 90°					
Speaker Component	Low Frequency: 10 cm cone-type, High Frequency: Balanced dome tweeter					
Water Protection	-				IPX4	
Finish	Enclosure: HIPS, Black (F-1000B/F-1000BT)/White (F-1000W/F-1000WT) Punched Net: Surface-treated steel plate, Black/White, paint Joint Bracket, Wall Bracket: Steel plate, t1.6, Black/White, paint Speaker Bracket: Die-cast Aluminum, Black/White, paint				Enclosure: HIPS, Black (F-1000BTWP)/White (F-1000WTWP) Punched Net: Surface-treated steel plate, Black/White, anti-corrosive paint Joint Bracket, Wall Bracket: Steel plate Speaker Bracket: Die-cast Aluminum, Black/White, paint	
Dimensions (W x H x D)	130 x 202 x 131 mm					
Weight	1.8 kg (including supplied brackets)			2 kg (including supplied brackets)		

Model	F-1300B	F-1300W	F-1300BT	F-1300WT	F-1300BTWP	F-1300WTWP
Enclosure	Bass-reflex type					
Power Handling Capacity	50 W (Continuous Program: 150 W)		50 W (Continuous Program: 150 W) (Low Impedance)		-	
Rated Input	-		30 W (high impedance)		30 W	
Rated Impedance	8Ω		8Ω; 100 V: 330Ω (30W), 1kΩ (10W), 3.3kΩ (3W), 10kΩ (1W) 70V: 170Ω (30W), 330Ω (15W), 1kΩ (5W), 3.3kΩ (1.5W), 10kΩ (0.5W)		100 V: 330Ω (30W), 1kΩ (10W), 3.3kΩ (3W), 10kΩ (1W) 70V: 170Ω (30W), 330Ω (15W), 1kΩ (5W), 3.3kΩ (1.5W), 10kΩ (0.5W)	
Sensitivity (1W, 1m)	90 dB					
Frequency Response	80 Hz – 20 kHz					
Crossover Frequency	2 kHz					
Directivity Angle	Horizontal: 110°, Vertical: 100°					
Speaker Component	Low Frequency: 13 cm cone-type, High Frequency: 25 mm dome tweeter					
Water Protection	-				IPX4	
Finish	Enclosure: HIPS, Black (F-1300B/F-1300BT)/White (F-1300W/F-1300WT) Punched Net: Surface-treated steel plate, Black/White, paint Joint Bracket, Wall Bracket: Steel plate, t1.6, Black/White, paint Speaker Bracket: Die-cast Aluminum, Black/White, paint				Enclosure: HIPS, Black (F-1300BTWP)/White (F-1300WTWP) Punched Net: Surface-treated steel plate, Black/White, anti-corrosive paint Joint Bracket, Wall Bracket: Steel plate Speaker Bracket: Die-cast Aluminum, Black/White, paint	
Dimensions (W x H x D)	162 x 250 x 161 mm					
Weight	3.1 kg (including supplied brackets)			3.6 kg (including supplied brackets)		

Model	F-2000B	F-2000W	F-2000BT	F-2000WT	F-2000BTWP	F-2000WTWP
Enclosure	Bass-reflex type					
Power Handling Capacity	60 W (Continuous Program: 180 W)		60 W (Continuous Program: 180 W) (Low Impedance)		-	
Rated Input	-		60 W (high impedance)		60 W	
Rated Impedance	8Ω		8Ω; 100 V: 170Ω (60W), 330Ω (30W), 670Ω (15W), 3.3kΩ (3W) 70V: 83Ω (60W), 170Ω (30W), 330Ω (15W), 670Ω (7.5W), 3.3kΩ (1.5W)		100 V: 170Ω (60W), 330Ω (30W), 670Ω (15W), 3.3kΩ (3W) 70V: 83Ω (60W), 170Ω (30W), 330Ω (15W), 670Ω (7.5W), 3.3kΩ (1.5W)	
Sensitivity (1W, 1m)	92 dB					
Frequency Response	65 Hz – 20 kHz					
Crossover Frequency	2.5 kHz					
Directivity Angle	Horizontal: 110°, Vertical: 100° ; Horizontal: 80°, Vertical: 80° (with horn adapter)					
Speaker Component	Low Frequency: 20 cm cone-type, High Frequency: 25 mm dome tweeter					
Water Protection	-				IPX4	
Finish	Enclosure: HIPS, Black (F-2000B/F-2000BT)/White (F-2000W/F-2000WT) Punched Net: Surface-treated steel plate, Black/White, paint Joint Bracket, Wall Bracket: Steel plate, t2.0, Black/White, paint Speaker Bracket: Die-cast Aluminum, Black/White, paint				Enclosure: HIPS, Black (F-2000BTWP)/White (F-2000WTWP) Punched Net: Surface-treated steel plate, Black/White, anti-corrosive paint Joint Bracket, Wall Bracket: Steel plate Speaker Bracket: Die-cast Aluminum, Black/White, paint	
Dimensions (W x H x D)	244 x 373 x 235 mm					
Weight	6.5 kg (including supplied brackets)			7.4 kg (including supplied brackets)		

Note: Bolts and nuts for mounting the bracket to the wall or ceiling are not included. Prepare them separately.

For TWP models: Avoid installing the speaker in locations close to the seashore or in indoor swimming facilities that are not well ventilated. In such locations the bracket may be vulnerable to corrosion, eventually allowing the speaker to fall resulting in personal injury. Caution on installation: Do not install at places where it is likely to be corroded such as bathrooms, indoor pools or seaside.

# Wide-Dispersion Ceiling Speakers

» High-Power 60W  
2-Way Wide Range  
(16cm cone)

**F-2852C**



» 30W Series  
2-Way Range  
(12cm cone)

**F-2352C**



» 30W Series  
Full Range  
(12cm cone)

**F-2322C**



» 30W Series Full Range  
(12cm cone, equalizing  
controlled type)

**F-122C**



Model	F-2852C	F-2322C	F-2352C	F-122C
Rated Input	60 W (High Impedance)	30 W (High Impedance)		
Power Handling Capacity	90 W (8 Ω), 60 W (16 Ω) (Continuous program: 180 W (8 Ω), 120 W (16 Ω))	60 W (8 Ω), 30 W (16 Ω) (Continuous program: 120 W (8 Ω), 60 W (16 Ω))		
Rated Impedance	16Ω, 8Ω: 100 V line: 170Ω (60W), 330Ω (30W), 670Ω (15W), 3.3kΩ (3W) 70 V line: 83 Ω (60W), 170Ω (30W), 330Ω (15W), 670Ω (7.5W), 3.3kΩ (1.5W) 25 V line: 83Ω (7.5W), 170Ω (3.7W), 330Ω (1.9W), 670Ω (0.9W), 3.3kΩ (0.2W)	16Ω, 8Ω: 100 V line: 330 Ω (30W), 1 kΩ (10W), 3.3 kΩ (3W), 10 kΩ (1W) 70 V line: 170 Ω (30W), 330 Ω (15W), 1 kΩ (5W), 3.3 kΩ (1.5W), 10 kΩ (0.5W) 25 V line: 170 Ω (3.7W), 330 Ω (1.9W), 1 kΩ (0.6W), 3.3 kΩ (0.2W), 10 kΩ (0.06W)		
Sensitivity (1W, 1m)	91 dB	90 dB		
Frequency Response	60Hz – 20kHz	70 Hz – 20kHz		
Mounting Hole Diameter	250 mm	200 mm		
Speaker Component	Low: 16 cm cone-type, High: Dome-type	Low: 12 cm cone-type; High: Balanced dome-type		12 cm cone-type
Finish	Enclosure: Steel plate, plating / Baffle: Fire-resistant ABS resin, black / Rim: Fire-resistant ABS resin, white / Punched net: Steel plate, white, paint			
Dimensions (ø x D)	ø 280 x 227 mm	ø 230 x 229 mm	ø 230 x 200 mm	ø 230 x 229 mm
Weight	5.1 kg	3.7 kg		

» 6W Series Full Range / 6W Series 2-Way Range

**F-1522SC**  
**F-2352SC**



Model	F-1522SC	F-2352SC
Rated Input	6 W (High Impedance)	
Power Handling Capacity	9 W (8 Ω), 6 W (16 Ω) (Continuous program: 18 W (8 Ω), 12 W (16 Ω))	
Rated Impedance	16Ω, 8Ω: 100 V line: 1.7 kΩ (6W), 3.3 kΩ (3W) 70 V line: 830 Ω (6W), 1.7 kΩ (3W), 3.3 kΩ (1.5W) 25 V line: 830 Ω (0.75W), 1.7 kΩ (0.4W), 3.3 kΩ (0.2W)	16Ω, 8Ω: 100 V line: 1.7 kΩ (6W), 3.3 kΩ (3W), 10 kΩ (1W), 20 kΩ (0.5W) 70 V line: 830 Ω (6W), 1.7 kΩ (3W), 3.3 kΩ (1.5W), 10 kΩ (0.5W), 20 kΩ (0.25W) 25 V line: 830 Ω (0.75W), 1.7 kΩ (0.4W), 3.3 kΩ (0.2W), 10 kΩ (0.06W), 20 kΩ (0.03W)
Sensitivity (1W, 1m)	88 dB	89 dB
Frequency Response	65 Hz – 18 kHz	80 Hz – 20 kHz
Mounting Hole Diameter	135 mm	200 mm
Speaker Component	10 cm cone-type	Low: 12 cm cone-type, High: Balanced dome-type
Finish	Baffle: Fire-resistant ABS resin, black / Rim: Fire-resistant ABS resin, white / Punched net: Steel plate, white, paint / Dust proof bag: Artificial fiber, black	
Dimensions (ø x D)	ø 155 x 117 mm	ø 230 x 154 mm
Weight	1 kg	1.5 kg



»» 60W Ceiling Subwoofer  
**FB-2862C**



Model	FB-2862C
Rated Input	60 W (High Impedance)
Power Handling Capacity	60 W, 8 Ω (IEC60268-5) (Continuous Program: 120 W, 8 Ω)
Rated Impedance	100 V line: 170Ω (60W), 330Ω (30W), 670Ω (15W), 3.3kΩ (3W) 70 V line: 83 Ω (60W), 170Ω (30W), 330Ω (15W), 670Ω (7.5W), 3.3kΩ (1.5W) 25 V line: 83Ω (7.5W), 170Ω (3.7W), 330Ω (1.9W), 670Ω (0.9W), 3.3kΩ (0.2W), 8Ω (120W)
Sensitivity (1W, 1m)	87 dB
Frequency Response	60 Hz – 250 Hz
Speaker Component	Low Frequency: 16 cm cone-type
Mounting Hole	ø 250 mm
Finish	Enclosure: Steel plate, plating; Baffle: Fire-resistant ABS resin, black Rim: Fire-resistant ABS resin, white; Punched Net: Steel plate, white, paint
Dimensions (ø x D)	ø 280 x 198 mm
Weight	6.3 kg (including mounting accessory)

»» Back Can  
**HY-BC1**

**Finish:** Surface-treated steel plate, t0.8, black, paint  
**Weight:** 1.5kg  
**Accessory:** Rubber Grommet x 2  
**Applicable Models:** F-2322C, F-2352C, F-2352SC



»» Trim Ring  
**HY-TR1**

**Ceiling Hole Diameter:** ø 200 - ø 300 mm  
**Finish:** Surface-treated steel plate, white, paint  
**Weight:** 500 g



»» Tile Bar Bridge  
**HY-TB1**

**Finish:** Steel plate, plating  
**Weight:** 500 g (for set of 2 bars)  
**Accessory:** Mounting Screw x 4



»» Anchor Hanging Bracket  
**HY-AH1**

**Finish:** Steel plate, plating  
**Weight:** 700 g  
**Accessory:** Paper Pattern x 2



»» Reinforcement Rine  
**HY-RR1**

**Ceiling Hole Diameter:** ø 135 mm  
**Finish:** Surface-treated steel plate,  
**Weight:** 80 g



»» Reinforcement Rine  
**HY-RR2**

**Ceiling Hole Diameter:** ø 200 mm  
**Finish:** Surface-treated steel plate  
**Weight:** 280 g



## Compact Satellite Speaker System

»» Compact Satellite Speaker System  
**BS-301B / BS-301W**  
**FB-601B / FB-601W**  
**BS-S20B / BS-S20W**



Model	BS-301B (FB-601B + BS-S20B)	BS-301W (FB-601W + BS-S20W)
Total Input	120 W, channel x 2	
Rated Impedance	6 Ω, channel x 2	
Sensitivity (1W, 1m)	83 dB (pink noise 300 Hz - 3.3 kHz) L channel or R channel only + 2 satellite	
Frequency Response	40Hz – 20kHz (L or R channel Subwoofer + 2 satellite)	
Mounting	135 mm	
Speaker Feature	Subwoofer x 1 pcs, Satellite Speaker x 4 pcs	
Input Connector	Push-in Terminals	
Total Weight	13.9kg (without bracket)	

Model	Subwoofer		Speaker	
	FB-601B	FB-601W	BS-S20B	BS-S20W
Sensitivity (1W, 1m)	85 dB (L channel or R channel)		85 dB (Pink noise 330 Hz - 3.3 kHz)	
Frequency Response	40 Hz – 190 Hz (-10 dB below SPL) (L channel or R channel)		150 Hz – 20 kHz (-20 dB below SPL)	
Speaker Component	16 cm 2-speaker		8 cm cone-type	
Connection	Push-in terminals (8 connected terminal points)		Push-in terminals (2 connected terminal points)	
Finish	Speaker Cabinet: Particle board with vinyl, black (FB-601B)/white (FB-601W) Front Cover: ABS resin, black/white Speaker Bracket: Steel plate, black/white, paint		Speaker Cabinet: HIPS resin, black (BS-S20B)/white (BS-S20W) Front Cover: HIPS resin, black/white Speaker Bracket: Steel plate, black/white, paint	
Weight	11.5 kg (without bracket)		0.6 kg (without bracket)	
Dimensions (W x H x D)	210 x 390 x 563 mm		92 x 97.5 x 100 mm	
Accessory	Rubber foot x 4, Speaker Mounting Bracket x 4, Tapping Screws (3x14) x 4		Speaker Bracket x 1, Hexagonal Bolts (M5 x 12, with ring and spring ring) x 2	

# Speakers (Commercial Sound)

## Long Range Slim Array Speaker

### »» Logn Range Slim Array Speaker

#### HA-1010



Model	HA-1010
Rated Input	60 W
Rated Impedance	170 Ω (60 W), 330 Ω (30 W)
Sensitivity (1W, 1m)	114 dB
Max. SPL	132 dB (60W, 1m)
Frequency Response	350 Hz – 7 kHz
Speaker Component	Horn speaker unit x 8
Directivity Angle	Horizontal: 90° (2 kHz), vertical: 15° (2 kHz)
Water Protection	IP66
Finish	Case, Panel: Aluminum, Salt-resistant, paint, grey Front Grille: Aluminum, black
Dimensions (W x H x D)	167 x 1,233 x 140.5 mm
Weight	13.5 kg

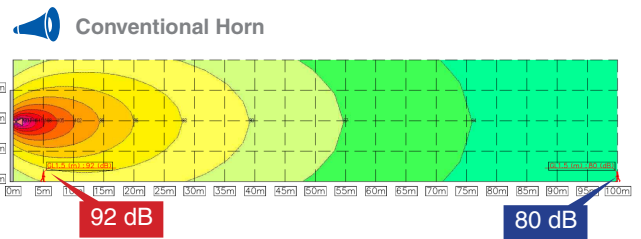
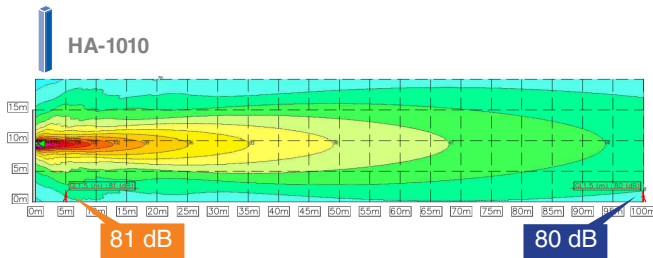
### »» EQ Box for HA-1010

#### EQ-0101A



**Power Source:** DC 12 V - 24 V  
**Current Consumption:** 100 mA  
**Audio Input/Output:** Line 0 dB V, 600 Ω, balance  
**EQ:** PEQX2 point, HPF  
**Limiter:** Built-in  
**Volume Control Function:** Adjust (±10 dB) the output gain after limiter  
**Finish:** Surface-treated steel plate, black (Munsell N1.0)  
**Dimensions (WxHxD):** 100 x 35 x 120 mm  
**Weight:** 0.3 kg

Narrow vertical directivity (15°) provides gentle sound in near field and clear sound even in far distance.



When the SPL at 100 m from the horn speaker is 80 dB, the one near the HA-1010 is much louder compared to HA-1010.

## Column Speakers

### »» Column Speaker

#### TZ-105

#### TZ-205



Model	TZ-105	TZ-205
Rated Input	10W (100V)	20W (100V)
Rated Impedance	100V line: 1 kΩ (10W), 2 kΩ (5W)	100V line: 500 Ω (20W), 1 kΩ (10W)
Sensitivity (1W, 1m)	90 dB	93 dB
Frequency Response	150Hz – 10kHz	
Speaker Component	12cm cone-type x 2	12cm cone-type x 4
Water Resistance	IPX3	
Finish	Enclosure: Extruded aluminum, silver gray, full-glazed, baked paint Grille: Punched aluminum net, black, matte, baked paint Mounting bracket: Steel plate, silver gray, fully-glazed, baked paint	
Dimensions (W x H x D)	167 x 334 x 141 mm	167 x 580 x 141 mm
Weight	3.4 kg	5.1 kg



» Column Speaker

**TZ-206B / W / BWP / WWP**  
**TZ-406B / W / BWP / WWP**  
**TZ-606B / W / BWP / WWP**



TZ-206B/ TZ-206BWP      TZ-206W/ TZ-206WWP      TZ-406B/ TZ-406BWP      TZ-406W/ TZ-406WWP      TZ-606B/ TZ-606BWP      TZ-606W/ TZ-606WWP

Model	TZ-206B/W, TZ-406B/W, TZ-606B/W	TZ-206BWP/WWP, TZ-406BWP/WWP, TZ-606BWP/WWP
Rated Input	TZ-206: 20W, TZ-406: 40W, TZ-606: 60W	
Rated Impedance	TZ-206: 100V line: 500Ω (20W), 1kΩ (10W), 2kΩ (5W), 4kΩ (2.5W); 70V line: 500Ω (10W), 1kΩ (5W), 2kΩ (2.5W), 4kΩ (1.3W) TZ-406: 100V line: 250Ω (40W), 500Ω (20W), 1kΩ (10W), 2kΩ (5W); 70V line: 250Ω (20W), 500Ω (10W), 1kΩ (5W), 2kΩ (2.5W) TZ-606: 100V line: 170Ω (60W), 330Ω (30W), 670Ω (15W), 1.3kΩ (7.5W); 70V line: 170Ω (30W), 330Ω (15W), 670Ω (7.5W), 1.3kΩ (3.8W)	
Sensitivity (1W, 1m)	TZ-206B/W: 90 dB TZ-406B/W: 93 dB TZ-606B/W: 95 dB	TZ-206BWP/WWP: 89 dB TZ-406BWP/WWP: 92 dB TZ-606BWP/WWP: 94 dB
Frequency Response	150Hz – 16kHz	150Hz – 13kHz
Speaker Component	TZ-206B/W: 10 cm cone-type x 2 TZ-406B/W: 10 cm cone-type x 4 TZ-606B/W: 10 cm cone-type x 6	TZ-206BWP/WWP: 10 cm cone-type x 2, waterproof TZ-406BWP/WWP: 10 cm cone-type x 4, waterproof TZ-606BWP/WWP: 10 cm cone-type x 6, waterproof
IP Code	–	IP-65
Finish	Enclosure: HIPS, black/white paint / Punched net: steel plate, black/white paint / Speaker bracket: Aluminium die-cast, black/white paint / Joint/wall bracket: Steel plate, t 1.6, black/white, paint	Enclosure: HIPS, black/white paint / Punched net: steel plate, black/white anti-rust paint / Speaker bracket: Aluminium die-cast, black/white paint / Joint/wall bracket: Steel plate, t 1.6, black, paint (ED coating)
Dimensions (W x H x D)	TZ-206: 135 x 250 x 128mm, TZ-406: 135 x 498 x 128mm, TZ-606: 135 x 746 x 128mm	
Weight	TZ-206: 1.9kg, TZ-406: 3.5kg, TZ-606: 5.5kg	

» Bracket for Metal Column

**YS-301**

(For TZ-105 or TZ-205 only)



**Finish:** Hot rolling steel plate (Metallic grey)  
**Adjustable Angle Range:** TZ-105: 0°-29°; TZ-205: 0°-18°  
**Components:** Mounting Bracket A x 2, Mounting Bracket B x 2, Mounting Bracket C x 2, Gasket x 2, Hexagonal Bolt (8x18) x 6, Washer x 8, Nut x 2

» Speaker Stand

**ST-16A**



**Effective Extensible Length:** 1130 - 1660 mm  
**Load Capacity:** 7 kg (static load)  
**Finish:** Stand: Aluminum, silver, matte finish  
 Speaker Mounting Bracket: Polyamide resin, black  
**Weight:** 1.7 kg (bracket included)  
**Accessory:** Speaker mounting screw (M5 x 20) x 2  
 Hexagon Headed Bolt (M8 x 20) 1,  
 Washer x 1, Spacer x 1, Butterful Nut x 1

# Box Speakers

## Wall Mount Box Speakers

### »» Wall Mount Box Speaker

#### BS-680F BS-680FC



Model	BS-680F	BS-680FC
Rated Input	6W (100V), 3W (70V)	
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 (1W, 1m)	94 dB (500 Hz - 5 kHz, pink noise)	94 dB (500 Hz - 5 kHz, pink noise) 77 dB (1W, 4m) (100 Hz - 10 kHz, pink noise) according to EN54-24 89 dB (100 Hz - 10 kHz, pink noise) converted based on EN54-24
Frequency Response	150Hz – 20kHz (peak -20 dB)	150Hz – 20kHz
Speaker Component	16 cm double cone-type	
Connection	Push In Connector (Bridging Terminal)	Screw Connector (Steatite Terminal x 2) Bridging
Finish	Baffle, Cabinet: Steel plate, off-white; Grille: Surface-treated steel plate net, off-white	
Dimensions (W x H x D)	310 x 190 x 90mm	
Weight	2.6kg	

### »» Wall Mount Box Speaker

#### BS-634 / BS-634T / BS-1034 / BS-1034S



Model	BS-634	BS-634T	BS-1034	BS-1034S
Rated Input	6W (100V)		10W (100V)	
Rated Impedance	100V: 1.7kΩ (6W), 3.3kΩ (3W); 70V: 1.7kΩ (3W), 3.3kΩ (1.5W)	100V: 1.7kΩ (6W) 70V: 1.7kΩ (3W)	100V: 1kΩ (10W), 2kΩ (5W), 3.3kΩ (3W), 10kΩ (1W)	100V: 1kΩ (10W), 2kΩ (5W), 3.3kΩ (3W), 10kΩ (1W)
Sensitivity (1W, 1m)	90 dB			
Frequency Response	120 – 18 kHz		120Hz – 20kHz	
Speaker Component	12 cm cone-type		Low: 12 cm cone-type, High: Balanced dome-type	
Attenuator	-	Off, -12 dB, -6 dB, 0 dB	-	-
Finish	Enclosure: HIPS resin, off-white Grille: Surface-treated steel plate, off-white, paint			Enclosure: HIPS resin, silver Grille: Steel plate, silver, paint
Dimensions (W x H x D)	208 × 327 × 79mm			
Weight	1.3kg		1.4kg	

### »» Wall Mount Box Speaker

#### BS-678 / BS-678B / BS-678T / BS-678BT



Model	BS-678	BS-678B	BS-678T	BS-678BT
Rated Input	6W (100V), 3 W (70 V)			
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 (1W, 1m)	94 dB (500 Hz - 5 kHz, pink noise)			
Attenuator	-	-	Off, -12 dB, -6 dB, 0 dB	
Frequency Response	150Hz – 20kHz (peak -20 dB)			
Speaker Component	16cm double cone-type			
Finish	Baffle: HIPS resin off-white (BS-678/BS-678T), black (BS-678B, BS-678BT) Cabinet: Particle board with PVC sheet, off-white/black Grille: Surface-treated steel plate net, off-white/black			
Dimensions (W x H x D)	250 × 190 × 110mm			
Weight	1.7kg			





»» Wall Mount Box Speaker

**BS-633A**  
**BS-633AT**



Model	BS-633A	BS-633AT
Rated Input	6W (100V), 3 W (70 V)	
Rated Impedance	100 V line: 1.7kΩ (6W), 3.3kΩ (3W), 10kΩ (1W); 70 V line: 1.7kΩ (3W), 3.3kΩ (1.5W), 10 kΩ (0.5W)	100 V line: 1.7kΩ (6W), 3.3kΩ (3W) 70 V line: 1.7kΩ (3W), 3.3kΩ (1.5W)
Sensitivity (1W, 1 m)	91 dB	
Frequency Response	120 Hz – 15kHz (-20 dB)	
Speaker Component	12cm cone-type	
Attenuator	-	3W: Off, -12 dB, -6 dB, 0dB 6W: Off, -13 dB, -7 dB, 0dB
Finish	Enclosure: ABS resin, off-white / Rear board: Hard board	
Dimensions (W x H x D)	173 x 195 x 101mm	
Weight	780g	810g

»» Box Speaker

**BS-4W**



Model	BS-4W
Rated Input	5W
Rated Impedance (100V)	2kΩ (5W)
Sensitivity (1W, 1 m)	87 dB
Frequency Response	100Hz – 12kHz
Water Protection	IPX2
Speaker Component	10cm cone-type
Finish	Enclosure: Polypropylene, gray paint / Grille: Aluminium punching net, silver gray, paint / Mounting bracket: Rolled steel plate, gray, paint
Dimensions (W x H x D)	196 x 177 x 160mm
Weight	1.5kg

Note: Be sure to position the speaker with its opening facing down from the horizontal axis. Doing otherwise may cause rainwater to accumulate inside the opening, possibly resulting in unit malfunction.

Do not use speaker in locations such as poolside where it is subjected to water splash or in high temperature and high humidity locations such as bathrooms, steam saunas where dew condensation may form. Do not dash water directly on the speaker.

## Universal Speakers

»» Universal Speaker

**BS-1030B**  
**BS-1030W**



Model	BS-1030B	BS-1030W
Rated Input	30W	
Rated Impedance	8 Ω 100 V line: 330 Ω (30 W), 500 Ω (20 W), 670 Ω (15 W), 1 kΩ (10 W), 2 kΩ (5 W) 70 V line: 170 Ω (30 W), 250 Ω (20 W), 330 Ω (15 W), 500 Ω (10 W), 1 kΩ (5 W)	
Sensitivity (1W, 1 m)	90 dB	
Frequency Response	80 Hz – 20kHz	
Speaker Component	12 cm cone-type + dome-type	
Finish	Enclosure: ABS resin, black (RAL 9011 graphite black), paint Net/Bracket: Surface treated steel plate, black (RAL 9011 graphite black), powder coating	Enclosure: ABS resin, white (RAL 9010 pure white), paint Net/Bracket: Surface treated steel plate, white (RAL 9010 pure white), powder coating
Dimensions (W x H x D)	196 x 290 x 150mm	
Weight	2.5 kg	

Note: Install with the front facing downwards as that splash-proof capability will be lost if installed face-up. The logo mark needs to be located in the lower section when the speaker is installed vertically, and on the right side of the speaker (as viewed from the front) when installed horizontally.

»» Universal Speaker

**BS-1110W**  
**BS-1120W**



Model	BS-1110W	BS-1120W
Rated Input	10 W	20W
Rated Impedance	100 V: 1kΩ (10W), 2kΩ (5W) 70 V: 500Ω (10W), 1kΩ (5W); 4Ω (10W)	100 V: 500Ω (20W), 1kΩ (10W) 70 V: 250Ω (20W), 500Ω (10W); 8Ω (20W)
Sensitivity (1W, 1 m)	92 dB	95 dB
Frequency Response	150Hz – 14kHz	150Hz – 20kHz
Speaker Component	12cm cone-type x 2	12cm cone-type x 4 + balanced dome type x 1
Finish	Enclosure: Plywood vinyl coating, white Front: ABS resin, white, paint Rear: Steel plate, white, paint	
Dimensions (W x H x D)	180 x 360 x 100mm	180 x 720 x 100mm
Weight	2.9kg	5.1 kg



# Interior Design Speakers

## Pendant Speakers

### »» Pendant Speaker

**PE-64**  
**PE-304**



Model	PE-64	PE-304
Rated Input	6W	30W
Rated Impedance	100 V: 1.7kΩ (6W), 3.3kΩ (3W), 10kΩ (1W) 70V: 1.7kΩ (3W), 3.3kΩ (1.5W), 10kΩ (0.5W)	8Ω; 100 V: 330Ω (30W), 500Ω (20W), 670Ω (15W), 2kΩ (5W) 70V: 170Ω (30W), 250Ω (20W), 330Ω (15W), 500Ω (10W), 1kΩ (5W)
Sensitivity (1W, 1 m)	90 dB (500 Hz - 5 kHz, pink noise)	91 dB (500 Hz - 5 kHz, pink noise)
Frequency Response	100Hz - 18kHz (peak -20 dB)	70Hz - 20kHz (peak -20 dB)
Finish	Enclosure: HIPS resin, off-white / Grille: Surface-treated steel plate net, off-white, paint	
Dimensions (ø x D)	ø 186 x 251 mm	
Weight	1.5 kg	2.1 kg

### »» Projection Speaker

**PJ-64**  
**PJ-304**



Model	PJ-64	PJ-304
Rated Input	6W (100 V line), 3 W (70 V line)	30W (100 V, 70 V line, 8Ω)
Rated Impedance	100 V: 1.7kΩ (6W), 3.3kΩ (3W), 10kΩ (1W) 70V: 1.7kΩ (3W), 3.3kΩ (1.5W), 10kΩ (0.5W)	8Ω; 100 V: 330Ω (30W), 500Ω (20W), 670Ω (15W), 2kΩ (5W) 70V: 170Ω (30W), 250Ω (20W), 330Ω (15W), 500Ω (10W), 1kΩ (5W)
Sensitivity (1W, 1 m)	90 dB (500 Hz - 5 kHz, pink noise)	91 dB (500 Hz - 5 kHz, pink noise)
Frequency Response	100Hz - 18kHz (peak -20 dB)	70Hz - 20kHz (peak -20 dB)
Finish	Enclosure: HIPS resin, off-white / Grille: Surface-treated steel plate net, off-white, paint	
Dimensions (ø x D)	ø 186 x 369 mm	
Weight	1.5 kg	2.1 kg

### »» Projection Speaker

**PJ-100W**  
**PJ-200W**



Model	PJ-100W	PJ-200W
Rated Input	10W (100 V, 70 V, 50 V line)	20W (100 V, 70 V, 50 V line)
Rated Impedance	100 V: 1kΩ (10W), 2kΩ (5W), 4kΩ (2.5W) 70 V: 500Ω (10W), 1kΩ (5W), 2kΩ (2.5W), 4kΩ (1.25W) 50 V: 250Ω (10W), 500Ω (5W), 1kΩ (2.5W), 2kΩ (1.25W), 4kΩ (0.63W)	100 V: 500Ω (20W), 1kΩ (10W), 2kΩ (5W) 70 V: 250Ω (20W), 500Ω (10W), 1kΩ (5W), 2kΩ (2.5W) 50 V: 125Ω (20W), 250Ω (10W), 500Ω (5W), 1kΩ (2.5W), 2kΩ (1.25W)
Preset Impedance	1 kΩ	500 Ω
Sensitivity (1W, 1 m)	92 dB	95 dB
Speaker Diameter	12 cm	16 cm
Frequency Response	65 Hz - 15 kHz	50 Hz - 20 kHz
Finish	Cabinet, Cover: ABS Resin, off-white / Bracket: SPCC, off-white	
Dimensions (W x H x D)	160 x 200 x 195 mm	200 x 255 x 250 mm
Weight	1.8 kg	2.5 kg

Note: Avoid installing the speaker in locations which vibrate considerably or under environments easy to be oil-contaminated.

# Ceiling Speakers

## Flush Mount Ceiling Speakers

### »» Flush Mount Ceiling Speaker

**PC-2869**  
**PC-2852**

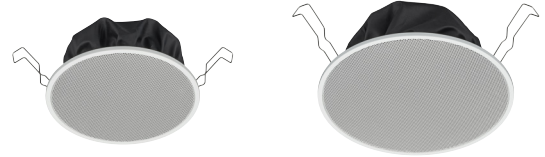


Model	PC-2869	PC-2852
Speaker Component	20 cm (8") double cone-type	20 cm (8") coaxial cone-type
Rated Input	6 W (100 V Line), 3 W (70 V Line)	15 W (100 V, 70 V Line)
Rated Impedance	100 V line: 1.7 kΩ (6 W), 3.3 kΩ (3 W), 6.7 kΩ (1.5 W), 13 kΩ (0.8 W) 70 V line: 1.7 kΩ (3 W), 3.3 kΩ (1.5 W), 6.7 kΩ (0.8 W), 13 kΩ (0.4 W)	100 V Line: 670Ω (15W), 1kΩ (10W), 2kΩ (5W), 3.3kΩ (3W) 70V Line: 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W), 3.3kΩ (1.5W)
Sensitivity	94 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise)	96 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise)
Frequency Response	40 Hz - 20 kHz (peak -20 dB)	45 Hz - 20 kHz (peak -20 dB)
Dimensions for Fixing Hole	Mounting hole: ø 250 ±3 mm; Ceiling thickness: 5 - 25 mm	
Speaker Mounting Method	Spring Clamp	
Applicable Cable	600 V vinyl-insulated cable (IV wire or HIV wire) Solid copper wire: ø 0.8 - ø 0.16 mm (equivalent to AWG 20 - 14) 7-core twisted copper wire: 0.75-1.25 mm <sup>2</sup> (equivalent to AWG 18 - 16)	
Connection	Push-in connector (bridging terminal - 2 branch type)	
Finish	Baffle: Steel plate, white (RAL 9016 equivalent), paint Grille: Surface-treated steel plate net, white (RAL 9016 equivalent), paint	
Dimensions (ø x D)	ø 280 x 92 mm	
Weight	1.4 kg	1.6 kg



» Flush Mount Ceiling Speaker

**PC-1860 / PC-1860EN**  
**PC-2360 / PC-2360EN**



Model	PC-1860	PC-1860EN	PC-2360	PC-2360EN
Speaker Component	12 cm cone-type		16 cm cone-type	
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 (1 W, 1 m)	94 dB (500 Hz - 5 kHz, pink noise)	94 dB (500 Hz - 5 kHz, pink noise) 92 dB (100 Hz - 10 kHz, pink noise) 80 dB (1W, 4m) (100 Hz - 10 kHz, pink noise)	94 dB (500 Hz - 5 kHz, pink noise)	94 dB (500 Hz - 5 kHz, pink noise) 92 dB (100 Hz - 10 kHz, pink noise) 80 dB (1W, 4m) (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)	-	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	80 Hz - 20 kHz (peak -20 dB)		60 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
Environmental type	-	A (indoor applications)	-	A (indoor applications)
Dimensions for Fixing Hole	Mounting hole: ø 150 ±3 mm; Ceiling thickness: 5 - 25 mm		Mounting hole: ø 200 ±3 mm; Ceiling thickness: 5 - 25 mm	
Speaker Mounting Method	Spring Clamp			
Applicable Cable	Solid wire: 0.5 - 3 mm <sup>2</sup> (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			
Dimensions (ø x D)	ø 180 x 70 mm		ø 230 x 76 mm	
Weight	560 g		740 g	

» Flush Mount Ceiling Speaker

**PC-648R / PC-658R**  
**PC-668R / PC-668RC**



Model	PC-648R	PC-658R	PC-668R	PC-668RC
Rated Output	6 W (100 V Line), 3 W (70 V Line)		15 W (100 V, 70 V Line)	
Rated Impedance	100 V Line: 1.7 kΩ (6 W), 3.3 kΩ (3 W), 10 kΩ (1 W) 70 V Line: 1.7 kΩ (3 W), 3.3 kΩ (1.5 W), 10 kΩ (0.5 W)		100 V Line: 670 Ω (15 W), 1 kΩ (10 W), 2 kΩ (5 W), 3.3 kΩ (3 W) 70 V Line: 330 Ω (15 W), 670 Ω (7.5 W), 1 kΩ (5 W), 2 kΩ (2.5 W), 3.3 kΩ (1.5 W)	
Sensitivity (1 W, 1 m)	90 dB		96 dB (Pink Noise 500 Hz - 5 kHz)	
Frequency Response	100 Hz - 18 kHz (peak -20 dB)	65 Hz - 18 kHz (peak -20 dB)	65 Hz - 20 kHz (peak -20 dB)	
Speaker Component	12 cm cone-type		20 cm double cone-type	
Dimensions for Fixing Hole	Mounting hole: ø 145 ± 5 mm Ceiling thickness 5 - 25 mm	Mounting hole: ø 170 ± 5 mm Ceiling thickness 5 - 25 mm	Mounting hole: ø 250 ± 5 mm Ceiling thickness 5 - 25 mm	
Input Connector	-			Push-In Connector (Bridging and branch connection possible)
Speaker Mounting Method	Spring Clamp			
Finish	Baffle: Polypropylene resin, white (RAL 9016 equivalent) Grille: Surface-treated Steel Plate Net, white (RAL 9016 equivalent), paint			
Dimensions (ø x D)	ø 168 x 77 (D) mm	ø 192 x 73 (D) mm	ø 280 x 90 (D) mm	
Weight	470 g	500 g	960 g	970 g
Accessory	Paper pattern x 1			

» Speaker Cover

**HY-BC648**



**Material:** HIPS UL-94V0 (non deca)  
**Color:** Black  
**Dimensions:** ø 135 x 93 (H) mm  
**Weight:** 122 g (without accessories)  
**Accessory:** Screw 3x10 B-tight W/Washer (2pcs)  
**Application:** For model: PC-648R

» Speaker Cover

**HY-BC658**



**Material:** HIPS UL-94V0 (non deca)  
**Color:** Black  
**Dimensions:** ø 162 x 93 (H) mm  
**Weight:** 154 g (without accessories)  
**Accessory:** Screw 3x10 B-tight W/Washer (3pcs)  
**Application:** For model: PC-658R

# Separate Flush Mount Ceiling Speakers with Spring Catch

## »» Speaker Unit CM-760 / CM-960



Model	CM-760	CM-960
Rated Input	6 W	
Rated Impedance	1.7 kΩ (6 W), 3.3 kΩ (3 W), [6.7 kΩ (1.5 W), 13 kΩ (0.8 W): Internal wiring must be changed]	
Sensitivity (1 W, 1 m)	90 dB	92 dB
Frequency Response	100 Hz - 16 kHz	100 Hz - 12 kHz
Speaker Component	12 cm dynamic cone-type speaker	16 cm dynamic cone-type speaker
Dimensions for Fixing Hole	Mounting hole: ø 250; Ceiling thickness: 50 mm	Mounting hole: ø 200; Ceiling thickness: 50 mm
Speaker Mounting Method	Spring Catch	
Applicable Cable	600 V vinyl-insulated cable (IV wire or HIV wire); Solid copper wire: ø 0.8 - ø 1.2 mm; 7-core twisted copper wire: 0.75-1.25 mm <sup>2</sup>	
Connection	Push-in connector (bridging and branch connection possible)	
Finish	Grille: Fire-resistant, high-impact styrene resin (resin material grade: UL94 V-0 or equivalent), black	
Dimensions (W x H x D)	215 x 134 x 89 mm	230 x 174 x 106.5 mm
Weight	630 g	850 g
Applicable Panels	CP-73 and CP-77	CP-93 and CP-97

## »» Front Grille for CM-760 / CM-960 CP-73 / CP-77 CP-93 / CP-97



Model	CP-73	CP-77	CP-93	CP-97
Speaker Mounting Method	Spring catch			
Finish	Frame: ABS resin, off-white Net: Aluminum, off-white, paint	Frame/Net: Aluminum, off-white, paint	Frame: ABS resin, off-white Net: Aluminum, off-white, paint	Frame/Net: Aluminum, off-white, paint
Dimensions (ø x D)	ø 180 x 11 mm (exposed section)		ø 230 x 12 mm (exposed section)	
Weight	70 g		100 g	
Applicable Speaker	CM-760		CM-960	

## »» Surface Mount Ceiling Speaker PC-2668 PC-2268 PC-2268WP



Model	PC-2668	PC-2268	PC-2268WP
Rated Input	6 W		
Rated Impedance	100 V line: 1.7 kΩ, 3.3 kΩ, 6.7 kΩ, 13 kΩ 70 V line: 1.7 kΩ, 3.3 kΩ, 6.7 kΩ, 13 kΩ		
Sensitivity (1W, 1m)	90 dB		
Frequency Response	100 Hz - 16 kHz	160 Hz - 14 kHz (peak -20 dB)	160 Hz - 16 kHz (peak -20 dB)
Mounting Method	Spring catch	-	
Speaker Component	12 cm dynamic cone-type	12 cm cone-type	
Connection	Push-in connector (bridging terminal-2 branch type)	Push-in connector (bridging terminal)	
Water Protection	-	-	IPX4
Finish	Baffle: ABS resin, off-white	Front case/Rear case: Fire-resistant HIPS resin, light gray	Front case/Rear case: Fire-resistant HIPS resin, light gray Speaker mounting bracket: Surface-treated steel plate, off-white, powder coating
Dimensions (ø x D)	ø 260 x 92 mm (exposed section)	ø 220 x 80.5 (D) mm (excluding projection)	ø 220 x 80.5 (D) mm (excluding projection) ø 150 x 5 mm (speaker mounting panel, excluding mounting screw)
Weight	820 g (Bracket included)	880 g	890 g (unit only), 180 g (speaker mounting panel)
Accessory	-	Switch box mounting screw (M4 x 35) x 2, Ceiling mounting screw (4 x 35) x 2	Speaker mounting panel x 1, Switch box mounting screw (M4 x 35) x 2, Ceiling mounting screw (4 x 35) x 2, Knob nut x 2



# Clean Room / Splashproof Ceiling Speakers

»» Splashproof Ceiling Speaker for Clean Rooms & Steam/Wet Sauna Rooms

»» Non-Splashproof Ceiling Speaker for Clean Rooms

»» Splashproof Ceiling Speaker for Shower Rooms

## PC-3CL



## PC-5CL



## PC-3WR



Model	PC-3CL	PC-5CL	PC-3WR
Rated Input	3W	5W	3W, 1W
Rated Impedance	100 V line: 3.3kΩ (3W), 10kΩ (1W) 70 V line: 3.3kΩ (1.5W), 10kΩ (0.5W)	100 V line: 2kΩ (5W) 70 V line: 2kΩ (2.5W)	3.3 kΩ (3W), 10 kΩ (1W)
Sensitivity (1W, 1m)	87 dB		88 dB
Frequency Response	150Hz - 20kHz		180Hz - 20kHz
Enclosure	-	Completely sealed type	-
Mounting Hole Diameter	100mm	98mm	150mm
Speaker Component	8cm cone-type (vibration section: high molecular substance)		-
Chemical Resistance	Resistive to formalin solvent and iodine liquid (disinfectant)	-	-
Dust/Water Protection	IP64	-	IP64
Dust Particle Prevention	-	No dust particle is produced by the method set out in JIS B-9926	-
Finish	Panel: Alloy-coated ABS resin Enclosure: ABS resin, Punched Net: Stainless steel	Panel: Alloy-coated ABS resin Enclosure: ABS resin, off-white Punched Net/Exposed Fixing Screw: Stainless steel	Panel / Case: ABS resin, off white Punched grille: stainless steel
Dimensions (ø x D)	ø 139 x 104.5mm	ø 116 x 110mm	ø 180 x 120 mm
Weight	550g	620g	700g

Note: PC-3CL: Speaker cannot be used in dry sauna rooms or locations where unit is subjected to splashing of water.  
PC-3WR: Avoid using unit in locations where unit is subjected to splashing of water.

# Firedome Speakers

»» Firedome Speaker  
PC-1860F  
PC-1860BS



Model	PC-1860BS	PC-1860F
Speaker Component	12 cm (5") cone-type	
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 (1 W, 1m)	95 dB (500 Hz - 5 kHz, pink noise) 93 dB (100 Hz - 10 kHz, pink noise) 81 dB (1 W, 4 m) (100 Hz - 10 kHz, pink noise)	95 dB (500 Hz - 5 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)	-
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)	
Dimensions for Fixing Hole	Mounting hole: ø156 ±3 mm; Ceiling thickness: 5 - 25 mm	
Speaker Mounting Method	Spring Catch	
Applicable Cable	Solid wire: 0.8 - 6 mm <sup>2</sup> (AWG 18 - 10)	Solid wire: 0.5 - 3 mm <sup>2</sup> (AWG 20 - 12)
Connection	2-Steatite connector (3 pole)	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; Fire dome: Steel plate, black, paint	
Dimensions (ø x D)	ø 180 x 5 (exposed section) + 100 mm	
Weight	1.1 kg	1 kg

# Horn Speakers

## Separate Reflex Horn Speakers and Driver Units

### »» Separate Reflex Horn Speaker

**TH-650**  
**TH-660**



Model	TH-650	TH-660
Sensitivity (1W, 1m)	110dB (when operated with a driver)	
Driver Coupling	1 3/8 18 threads (inch screw)	
Frequency Response	200Hz – 6kHz (when operated with a driver)	
Dust/Water Protection	IP65 (when operated with a driver)	
Finish	Horn Flare and Flange: Aluminum, Off-White, powder coating Reflector horn: ABS resin, Off-White; Bracket Holder: Aluminum, Gray, powder coating; Bracket: Steel, Gray, powder coating; Screws and Bolts: Stainless Steel	
Dimensions (ø x D)	ø 500 x 394 mm	ø 600 x 425 mm
Weight	2.9kg	3.6kg

### »» Separate Reflex Horn Driver Unit

**TU-631 / TU-631M**  
**TU-651 / TU-651M**



Model	TU-631	TU-651	TU-631M	TU-651M
Rated Input	30W	50W	30W	50W
Line Voltage			100 V line or 70 V line	
Rated Impedance		16 Ω	100 V: 330Ω (30W), 670Ω (15W), 1kΩ (10W), 2kΩ (5W) 70 V: 170Ω (30W), 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W)	100 V: 200Ω (50W), 330Ω (30W), 670Ω (15W) 70 V: 100Ω (50W), 200Ω (25W), 330Ω (15W), 670Ω (7.5W)
Sensitivity (1W, 1m)	110dB (when operated with JIS C 5504 standard horn)			
Frequency Response	150Hz – 6kHz (when operated with JIS C 5504 standard horn)			
Dust/Water Protection	IP65 (When operated with a horn)			
Horn Coupling	1 3/8 18 threads (inch screw)			
Polarity	Hot: Black, Com: White			
Finish	Flange: Aluminum, gray, powder coating / Rear cover: ABS resin, gray / Screws: Stainless steel			
Dimensions (ø x D)		ø 139 x 106 mm		ø 139 x 149 mm
Weight	1.4kg	2kg	1.9kg	2.7kg

Note: Avoid installing the speaker in locations which vibrate considerably or under environments easy to be oil-contaminated. Doing otherwise may result in accident such as falling of the unit.

### »» Separate Reflex Horn Driver Unit

**TU-660**  
**TU-660M**



Model	TU-660	TU-660M
Rated Input	60W	
Line Voltage	100 V line or 70 V line	
Rated Impedance	16 Ω	100 V line: 170 Ω (60 W), 330 Ω (30 W), 670 Ω (15 W) 70 V line: 83 Ω (60 W), 170 Ω (30 W), 330 Ω (15 W), 670 Ω (7.5 W)
Sensitivity (1W, 1m)	110dB (when operated with JIS C 5504 standard horn)	
Frequency Response	150Hz – 8kHz (when operated with JIS C 5504 standard horn)	
Dust/Water Protection	IP65 (When operated with a horn)	
Horn Coupling	1 3/8 18 threads (inch screw)	
Polarity	Hot: Black, Com: White	
Finish	Flange: Aluminum, gray, powder coating / Rear cover: ABS resin, gray / Screws: Stainless steel	
Dimensions (ø x D)	ø 139 x 108 mm	ø 139 x 151 mm
Weight	2kg	2.7kg



» Separate Reflex Horn Speaker  
**TH-652**



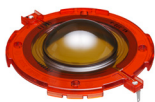
Model	TH-652
Sensitivity (1W, 1m)	110 dB (when operated with a driver)
Frequency Response	200Hz – 6kHz (when operated with a driver)
Dust/Water Protection	IP65
Driver Coupling	1 3/8 18 threads (inch screw)
Finish	Horn and Flange: Aluminum, White, powder coating Reflector horn: HIPS, White; Bracket: Steel, White, powder coating; Screws and Bolts: Stainless Steel
Dimensions (W x H x D)	ø 500 x 357 mm
Weight	2.7 kg

» Separate Reflex Horn Driver Unit  
**TU-632 / TU-632M**  
**TU-652 / TU-652M**



Model	TU-632	TU-652	TU-632M	TU-652M
Rated Input	30W	50W	30W	50W
Line Voltage	100 V line or 70 V line			
Rated Impedance	16 Ω		100 V: 330Ω (30W), 670Ω (15W), 1kΩ (10W), 2kΩ (5W) 70 V: 170Ω (30W), 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W)	100 V: 200Ω (50W), 330Ω (30W), 670Ω (15W) 70 V: 100Ω (50W), 200Ω (25W), 300Ω (15W), 670Ω (7.5W)
Sensitivity (1W, 1m)	110dB			
Frequency Response	150Hz – 6kHz			
Dust/Water Protection	IP65			
Horn Coupling	1 3/8 18 threads			
Finish	Upper Cover: Aluminum, white, powder coating / Unit Case: HIPS, white			
Dimensions (ø x D)	ø 139 x 106mm		ø 139 x 149mm	
Weight	1.5kg	2kg	1.8kg	2.7kg

» Diaphragm  
**DG-30DB**



**Rated Input:** 50 W  
**Rated Impedance:** 16 Ω  
**Sensitivity (1W, 1m):** 110 dB  
**Frequency Response:** 150 Hz - 6 kHz  
**Dimensions:** ø 104 x 24 (D) mm  
**Weight:** 24 g  
**Applicable Driver Unit:** TU-631 / TU-631M / TU-651 / TU-651M / TU-632 / TU-632M / TU-652 / TU-652M

» Driver Unit Cover  
**UC-200A**



**Finish:** Unit Cover: Glass Fiber mixed unsaturated polyester resin, ivory / Cover Fixing Screw: Stainless Steel  
**Weight:** 590 g  
**Accessory:** Washer x 2, Throat Gasket x 1  
**Applicable Driver Unit:** TU-631 / TU-631M / TU-651 / TU-651M / TU-632 / TU-632M / TU-652 / TU-652M / TU-600 / TU-660M  
**Applicable Horn:** TH-650 / TH-660 / TH-652 / DH-110 / DH-120

# SC Series Reflex Horn Speakers

## »» SC Series Reflex Horn Speaker

### SC-610 SC-610M



Model	SC-610	SC-610M
Rated Input	10W (Mobile Mount Use: 5 W)	10W
Line Voltage	-	100 V line or 70 V line
Rated Impedance	8 Ω	100 V: 1kΩ (10W), 2kΩ (5W), 3.3kΩ (3W), 10kΩ (1W) 70 V: 500Ω (10W), 1kΩ (5W), 2kΩ (2.5W), 3.3kΩ (1.5W), 10kΩ (0.5W)
Sensitivity (1W, 1 m)	110dB (at 500 Hz - 2 kHz peak level)	
Frequency Response	315Hz – 12.5kHz	
Dust/Water Protection	IP65	
Finish	Horn Flare: Aluminum, Off-White, powder coating Reflector Horn and Rear Cover: ABS resin, Off-White Bracket, Screws and Bolts: Stainless Steel	
Dimensions (W x H x D)	172 x 161 x 188 mm	
Weight	1kg	1.2kg

## »» SC Series Reflex Horn Speaker

### SC-615 SC-615M



Model	SC-615	SC-615M
Rated Input	15W (Mobile Mount Use: 10 W)	15W
Line Voltage	-	100 V line or 70 V line
Rated Impedance	8 Ω	100 V: 670Ω (15W), 1kΩ (10W), 2kΩ (5W), 3.3kΩ (3W) 70 V: 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W), 3.3kΩ (1.5W)
Sensitivity (1W, 1 m)	112dB (at 500 Hz - 2 kHz peak level)	
Frequency Response	280Hz – 12.5 kHz	
Dust/Water Protection	IP65	
Finish	Horn Flare: Aluminum, Off-White, powder coating Reflector Horn and Rear Cover: ABS resin, Off-White Bracket, Screws and Bolts: Stainless Steel	
Dimensions (W x H x D)	222 x 179 x 234 mm	
Weight	1.1kg	1.3kg

## »» SC Series Reflex Horn Speaker

### SC-630 SC-630M



Model	SC-630	SC-630M
Rated Input	30W (Mobile Mount Use: 10 W)	30W
Line Voltage	-	100 V line or 70 V line
Rated Impedance	8 Ω	100 V: 330Ω (30W), 670Ω (15W), 1kΩ (10W), 2kΩ (5W) 70 V: 170Ω (30W), 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W)
Sensitivity (1W, 1 m)	113 dB (at 500 Hz - 2 kHz peak level)	
Frequency Response	250Hz – 10kHz	
Dust/Water Protection	IP65	
Finish	Horn Flare: Aluminum, Off-White, powder coating Reflector Horn and Rear Cover: ABS resin, Off-White Bracket, Screws and Bolts: Stainless Steel	
Dimensions (W x H x D)	285 x 227 x 277 mm	
Weight	1.7kg	2kg

## »» SC Series Reflex Horn Speaker

### SC-632 SC-651



Model	SC-632	SC-651
Rated Input	30W	50W (Mobile Mount Use: 30 W)
Rated Impedance	8 Ω	16 Ω
Sensitivity (1W, 1 m)	113 dB (at 500 Hz - 2 kHz peak level)	109 dB
Frequency Response	250Hz – 10kHz (-40 dB of SPL)	250 Hz - 6 kHz
Dust/Water Protection	IP65	
Finish	Upper Cover: Aluminum, White, powder coating Horn Flare: HIPS resin, White Reflector Horn, Unit Case: ABS resin, White	Horn Flare: Aluminum, Off-white, powder coating Reflector Horn: ABS resin, Off-White Bracket Holder: Aluminum, Gray, powder coating Rear Cover: ABS resin, Gray Screws and Bolts: Stainless Steel
Dimensions (W x H x D)	292 x 234 x 280 mm	430 x 297.5 x 327 mm
Weight	1.8kg	2kg



## TC Series Reflex Horn Speakers

»» TC Series Reflex Horn Speaker  
**TC-615 / TC-615M**  
**TC-631 / TC-631M**



Model	TC-615	TC-631	TC-615M	TC-631M
Rated Input	15W	30W	15W	30W
Line Voltage	100 V line or 70 V line			
Rated Impedance	8Ω	16Ω	100 V: 670Ω (15W), 1kΩ (10W), 2kΩ (5W), 3.3kΩ (3W) 70 V: 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W), 3.3kΩ (1.5W)	100 V: 330Ω (30W), 670Ω (15W), 1kΩ (10W), 2kΩ (5W) 70 V: 170Ω (30W), 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W)
Sensitivity (1W, 1m)	108dB	110dB	108dB	110dB
Frequency Response	250Hz – 7kHz	200Hz – 6kHz	250Hz – 7kHz	200Hz – 6kHz
Dust/Water Protection	IP65			
Finish	Horn flare: aluminum, off-white, powder coating / Reflector horn: ABS resin, off-white / Bracket holder: aluminum, gray, powder coating / Bracket: steel, gray, powder coating / Rear cover: ABS resin, gray / Screw and bolts: stainless steel			
Dimensions (ø x D)	ø 400 x 376mm	ø 500 x 463mm	ø 400 x 376mm	ø 500 x 463mm
Weight	3kg	4.1kg	3.2kg	4.5kg

»» TC Series Reflex Horn Speaker  
**TC-651M**



Model	TC-651M
Rated Input	50W
Line Voltage	100 V line or 70 V line
Rated Impedance	100 V: 200Ω (50W), 330Ω (30W), 670Ω (15W), 70 V: 100Ω (50W), 200Ω (25W), 330Ω (15W), 670Ω (7.5W)
Sensitivity (1W, 1m)	111 dB
Frequency Response	200Hz – 6kHz
Dust/Water Protection	IP65
Finish	Horn flare: aluminum, off-white, powder coating / Reflector horn: ABS resin, off-white / Bracket holder: aluminum, white, powder coating / Bracket: steel, gray, powder coating / Rear cover: ABS resin, gray / Screw and bolts: stainless steel
Dimensions (ø x D)	ø 400 x 376mm
Weight	4kg

## Straight Horn Speakers

»» Straight Horn Speaker  
**DH-110**  
**DH-120**



Model	DH-110	DH-120
Sensitivity (1W, 1m)	110dB (When operated with a driver)	
Frequency Response	180Hz – 6kHz (When operated with a driver)	
Applicable Unit	TU-631, TU-651, TU-631M, TU-651M	
Finish	Horn: Aluminium, ivory, powder coating L-Shaped Adapter and Horn C: Aluminum, ivory, power coating Bracket: Steel plate, ivory, powder coating	Horn: Aluminium, ivory, powder coating L-Shaped Adapter and Adapter: Aluminum, ivory, power coating Bracket: Steel plate, ivory, powder coating
Dimensions (ø x D)	ø 518 x 968mm (w/o driver)	ø 518 x 884mm (w/o driver)
Weight	5.3kg	

Note: 01) An optional UC-200A cover protects the driver unit from rain, snow, sand, sunlight and salt water.  
 02) Only the bracket does not ensure the sufficient strength. Prepare separately a bracket mountable utilizing 2 M12 screw taps.

## Explosion-Proof Combination Reflex Horn Speakers

»» Explosion-Proof Combination Reflex Horn Speaker  
**TP-M15D**  
**TP-M15E**



Model	TP-M15D	TP-M15E
Rated Input	15W	
Rated Impedance	670Ω (15W), 1kΩ (10W), 2kΩ (5W)	
Sensitivity (1W, 1m)	104dB	
Category	eG4 (increased safety explosion-proof)	
Frequency Response	350Hz – 4.5kHz	300Hz – 5.5kHz
Finish	Horn: Ivory / Others: Dark brown / Bracket materials: Surface zinc treated steel plate	
Dimensions (ø x D)	ø 242 x 368mm	ø 392 x 475mm
Weight	4.3kg	4.9kg

Installation Locations:  
 \* Locations where flammable gas and vapor of flammable liquid are mixed together under abnormal condition, creating an atmosphere close to the threshold of explosion.  
 \* The TP-M15E / TP-M15D cannot be used in locations that can periodically create an explosive atmosphere when used and operated normally.

# Weatherproof Horn Speakers

## CS-760B / CS-760W 2-Way Weatherproof Speakers



**Ideal for:** • Parking spaces • Railway Stations • Sports Fields • Amusements Parks • Houses of Worship

### »» 2-Way Weatherproof Speakers

#### CS-760B CS-760W



Model	CS-760B	CS-760W
Rated Input	60 W (high impedance)	
Rated Impedance	100 V: 170 Ω (60 W), 330 Ω (30 W), 670 Ω (15 W), 1.3 kΩ (7.5 W) 70 V: 83 Ω (60 W), 170 Ω (30 W), 330 Ω (15 W), 670 Ω (7.5 W)	
Sensitivity (1W, 1 m)	100 dB	
Max. SPL	117 dB (60 W, 1 m)	
Frequency Response	100Hz – 20kHz	
Crossover Frequency	2.5 kHz	
Directivity Angle	Horizontal: 90° ; Vertical: 80°	
Speaker Component	Low Freq: 16 cm cone-type; High Freq: 2.5 cm dome tweeter	
Dust/Water Protection	IP66	
Connection	Speaker cord (Hot: Black, Com: White)	
Finish	Enclosure: ABS, black, paint Net: Surface-treated steel plate, black, paint Bracket: Stainless Steel, black, powder coating	Enclosure: ABS, white, paint Net: Surface-treated steel plate, white, paint Bracket: Stainless Steel, white, powder coating
Dimensions (W x H x D)	388 x 310 x 367 mm	
Weight	7.4 kg	

### »» Wide Range Horn Speaker (Weatherproof)

#### CS-64



Model	CS-64
Rated Input	6 W (100V)
Rated Impedance	100 V line: 1.7 kΩ (6 W), 3.3 kΩ (3 W), 10 kΩ (1 W) 70 V line: 830 Ω (6 W), 1.7 kΩ (3 W), 3.3 kΩ (1.5 W), 10 kΩ (0.5 W)
Sensitivity (1W, 1 m)	96 dB
Frequency Response	130Hz – 13 kHz
Speaker Component	12 cm cone-type (Treated for splash proof)
Finish	Horn, cover: ABS resin, off-white, paint / Bracket: Stainless steel / Punched net: Surface treated steel plate, dark-gray, powder coating / Screw: Stainless Steel
Dimensions (W x H x D)	233 x 224 x 208 mm
Weight	1.5 kg

### »» Wide Range Horn Speaker (Weatherproof)

#### CS-154 CS-304



Model	CS-154	CS-304
Rated Input	15 W (100V)	30W (100V)
Rated Impedance	100 V: 670Ω (15W), 1kΩ (10W), 2kΩ (5W) 70 V: 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W)	100 V: 330Ω (30W), 500Ω (20W), 1kΩ (10W) 70 V: 170Ω (30W), 330Ω (15W), 500Ω (10W), 1kΩ (5W)
Sensitivity (1W, 1 m)	97 dB	98 dB
Frequency Response	150Hz – 15 kHz	120Hz – 15 kHz
Speaker Component	12 cm cone-type (Treated for splash proof)	
Finish	Horn, Cover: ABS resin, off-white, paint / Bracket & Screw: Stainless steel / Net: Aluminium, gray, paint	
Dimensions (W x H x D)	366 x 230 x 272 mm	
Weight	2.8 kg	3.1 kg



# Powered Speakers

## »» Powered Horn Speaker

### SC-P620



Model	SC-P620
Power Source	12 V DC, 2 A (DC Socket "+" Type A: 5.5 x 2.1 mm)
Power Consumption	15W (1.25 A) at rated output; 25 W (2.10 A) at Max. output
Input	0 dB, 10 kΩ, unbalanced (RCA plug)
Signal Gain	8, 16, 24 or 32 dB (Factory pre-set to 16 dB)
Sensitivity (1W, 1 m)	113 dB (at 500 Hz to 2.5 kHz peak level)
Dust/Water Protection	IP65
Frequency Response	250Hz – 10kHz
Finish	Horn Flare: HIPS resin, white Reflector Horn and Case: ABS resin, white Bracket, Screws and Bolts: Stainless Steel
Dimensions (W x H x D)	292 x 230 x 280 mm
Weight	1.8 kg

## »» Powered Box Speakers

### BS-P1030B BS-P1030W

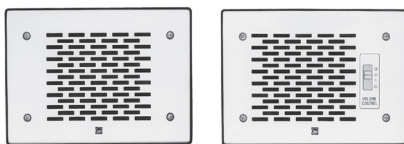


Model	BS-P1030B	BS-P1030W
Power Source	24 V DC, 1.5 A (DC Socket "+" Type A: 5.5 x 2.1 mm)	
Power Consumption	24W (1 A) at rated output	
Input	5 kΩ, unbalanced (RCA plug); Max Input: +6 dB V (2 Vrms)	
Signal Gain	+30 dB	
Sensitivity (1W, 1 m)	90 dB	
Dust/Water Protection	IPX4	
Frequency Response	80 Hz – 20kHz	
Finish	Enclosure: ABS resin, black, paint Net and Bracket: Surface-treated steel plate, black, powder coating	Enclosure: ABS resin, white, paint Net and Bracket: Surface-treated steel plate, white, powder coating
Dimensions (W x H x D)	196 x 290 x 150 mm (unit only)	
Weight	2.5kg (unit only)	

# Wall Flush-Mount Speakers

## »» Wall Flush-Mount Speaker

### PC-391 PC-391T



Model	PC-391	PC-391T
Rated Input	3W (100 V)	
Attenuator	-	Off, -12dB, -6 dB, 0 dB
Sensitivity (3W, 1 m)	90.7 dB	
Frequency Response	150 Hz – 18 kHz	
Speaker Component	7.7 cm cone-type	
Finish	Baffle: Stainless steel / Grille: Aluminium, silver	
Dimensions (W x H x D)	162 x 115 x 43 mm (excluded the projected screw heads)	162 x 115 x 47 mm (excluded the projected screw heads)
Weight	560 g	600 g

## »» Flush Mount Back Box

### YC-150



**Finish:** zinc-plating, t1.6  
**Dimensions (WxHxD):** 184 x 119 x 57 mm  
**Weight:** 700 g

## »» Flush Mount Back Box

### YC-150E



**Finish:** Heavy chrome plating, t1.2  
**Dimension (WxHxD):** 145 x 95 x 57 mm  
**Weight:** 410 g

# Garden Speakers

## » Garden Speaker GS-302



Model	GS-302
Enclosure	Sealed type
Rated Input	30 W (100 V line), 15 W (70 V line)
Rated Impedance	100 V line: 330 Ω (30 W), 670 Ω (15 W), 1 kΩ (10 W), 2 kΩ (5 W), 3.3 kΩ (3 W) 70 V: 330 Ω (15 W), 670 Ω (7.5W), 1 kΩ (5 W), 2 kΩ (2.5 W), 3.3 kΩ (1.5W)
Sensitivity (1W, 1m)	87 dB
Water Protection	IPX4
Frequency Response	100Hz – 8kHz
Speaker Component	12 cm splash-proof cone-type
Input Terminal	Push-in terminal
Applicable Cable	Solid copper wire: ø 0.8 - ø 1.6 mm, Stranded copper wire: 0.75 - 1.25 mm <sup>2</sup>
Finish	Top cover and base: FRP resin, dark gray, semi-gloss, paint Speaker panel: ABS resin, dark gray, semi-gloss, paint Legs: Aluminum, dark gray, semi-gloss, paint
Dimensions (ø x H)	ø 270 x 335mm
Weight	2.4kg

# Others

## Attenuators

## » Attenuator AT-4012 / AT-4030 / AT-4060 AT-4120 / AT-4200



Model	AT-4012	AT-4030	AT-4060	AT-4120	AT-4200
Input Capacity	12 W	30 W	60 W	120 W	200 W
Attenuation	8 Steps (0 dB, -3 dB, -9 dB, -12 dB, -15 dB, -18 dB, OFF)				
Override Indicator	Red LED (4-wire connection only)				
Overriding Voltage	24 V, 11 mA DC (4-wire connection only)				
Finish	Knob, Cover Panel: ABS resin, White Front Panel (Plate): Surface-treated Steel plate				
Dimension (W x H x D)	86 x 86 x 24 mm	86 x 86 x 51 mm			
Weight	0.12 kg	0.45 kg	0.46 kg	0.48 kg	0.49 kg
Terminal	Screw Type x 5				
Usable Cable	Cable range 22 - 14 AWG				
Accessory	Box (85.5 x 85.5 x 60 mm) x 1, Back Plate Mounting Screw x 2				

## » Attenuator AT-063AP / AT-303AP / AT-603AP



Model	AT-063AP	AT-303AP	AT-603AP
Input Range	0.5 W - 6 W	0.5 W - 30 W	0.5 W - 30 W
Attenuation	5 Steps (-0 dB, -6dB, -12 dB, -18 dB, OFF)		
Applicable Cable	600 V vinyl-insulated cable (Indoor Vinyl) or heat-resistant Indoor Vinyl cable) Solid Cable: ø0.8 - ø1.6 mm		
Finish	Knob, Cover Panel: ABS resin, White Front Panel (Plate): Surface-treated Steel plate		
Dimension (W x H x D)	70 x 120 x 52.4 (with plate) / 41 x 108 x 52.4 (attenuator only)		
Weight	170 g (unit only)	210 (unit only)	
Terminal	Push-in connector		
Accessory	Plate x 1, Plate mounting screw x 2, box mounting screw x 2		
Applicable Plate / Box	YP-1AF (optional Plate) / YS-11A (optional Box)		



# Impedance Meter

## » Impedance Meter ZM-104A



Model	ZM-104A
Power Supply	R6 x 4 (1.5 V DC x 4)
Current Consumption	39 mA
Reading	Direct reading meter, unit: Ω
Measurement Range	x1 : 5 – 1 kΩ x10 : 50 – 10 kΩ x100 : 500 – 100 kΩ
Accuracy	±10 %
Oscillation Frequency	1 kHz ±10 %
Power Requirement	4 x R6 batteries (6 V)
Dimensions (W x H x D)	110 x 180 x 58 mm (Unit); 120 x 220 x 63 mm (incl. case)
Weight	700 g (incl. case)

# Optional Accessories

## » Speaker Connector YS-4CF / YS-4CM



Model	YS-4CF	YS-4CM
Connector	XLR-4-31-F77	XLR-4-32-F77
Current Capacity	10 A (AC)	
Usable Cable	600 V Vinyl-insulated cable with diameter of 0.8 - 1.6 mm or sectional area of 0.9 - 2.0 mm <sup>2</sup>	
Usable Plate	YP-1AF	
Usable Plug	XLR-4-12C	XLR-4-11C
Finish	Cover: ABS resin (off-white), Frame: Steel Plate (t=1.2)	
Dimensions (W x H x D)	45 x 110 x 53 mm	
Weight	95 g	80 g

## » Pole Mount Bracket SP-131



**Load Capacity:** 5 kg  
**Finish:** Bracket and Screw: Stainless Steel  
**Weight:** 330 g (bracket only)  
**Product Composition:** Mounting Bracket x 2, Mounting Screw (M10 x 25 bolt set, M8 x 20 bolt set) x 1 set each  
**Applicable Unit:** SC-610, SC-610M, SC-615, SC-615M, SC-630, SC-630M

## » Wall and Pole Mount Bracket SP-201



**Load Capacity:** 10 kg  
**Finish:** Bracket and Screw: Stainless Steel  
**Weight:** 610 g (bracket only)  
**Product Composition:** Mounting Bracket x 2, Mounting Screw (M10 x 25 bolt set, M8 x 20 bolt set) x 1 set each  
**Applicable Unit:** TH-650, TH-660, SC-610, SC-610M, SC-615, SC-615M, SC-630, SC-630M

## » Wall Mount Bracket SP-301



**Load Capacity:** 5 kg  
**Finish:** Bracket and Screw: Stainless Steel  
**Weight:** 910 g (bracket only)  
**Product Composition:** Mounting Bracket x 2, Mounting Screw (M10 x 25 bolt set, M8 x 20 bolt set) x 1 set each  
**Applicable Unit:** SC-610, SC-610M, SC-615, SC-615M, SC-630, SC-630M

## » Cover Plate YP-1AF



**Applications:** YM-1J, YM-3CF, YM-3CM, YS-4CF, YS-4CM  
**Finish:** Aluminum t1.2, Hairline  
**Dimensions (WxHxD):** 70 x 120 x 6 mm  
**Weight:** 25 g

## » Wall Mounting Back Box YS-11A



**Finish:** High impact polystyrene resin, milky white  
**Dimension (WxHxD):** 70 x 120 x 40 mm  
**Weight:** 60 g  
**Accessory:** Countersunk head machine screw x 2, Round head wood screw x 2  
**Applicable Unit:** AT Series Attenuators (Applicable plates: YP-1AF), YM/YS Series connector units (Applicable plates: YP-1AF)

## » Pole Band YS-60B



**Mounting Pole Diameter:** Approx. ø90 - ø340  
**Finish:** Electroless zinc plating  
**Weight:** 360 g (per band)  
**Product Composition:** Pole Band x 2