

# Type C Line Array Speaker System



## DESCRIPTION

TOA Type C speakers employ original TOA phase-wave front control technology to ensure a clear, uniform sound distribution field, for high-clarity acoustics and long-range sound carrying capacity. These module-type, 2-way line array speakers incorporate a 20cm (8") low frequency woofer and two 2.5cm (1") drivers, both Neodymium. Six models of Type C Series speakers are available: one with a 15° vertical sound dispersion angle, making it ideal for shorter distance applications, another with a 5° vertical dispersion angle, intended for longer-range sound dispersion applications, and a 38cm (15") subwoofer model. Each of these models is also available in a splash-proof (IPX4) variation. By combining the long-range and short-range models, a customized line array system can be created for a specific application.

With optional support brackets, these line array speakers may be used as permanent installations, and may be stacked or suspended by using a rigging frame.

## FEATURES

### Uniform & Interference-free High-frequency Sound Field

- **"Sync-Drive"** – TOA proprietary "Sync-Drive" wave guide technology provides a uniform, high frequency sound field with excellent sound clarity and minimal interference.
- **High-fidelity sound** – Phase wave-front control technology ensures a high-frequency sound range that is attenuation-free and high fidelity.

### Focused Sound Wave Delivery

- **Focus on the targeted listening area** – Maximally precise sound directivity is designed into the speakers, particularly for vertical dispersion, more accurately focusing the audio on the intended reception area.
- **Adjustable sound coverage** – By connecting a number of speakers and combining speakers with different dispersion angles, most operating applications can best meet user needs.
- **Clear sound** – Type C speakers are resistant to feedback and enjoy reflection-free operation.

### Application Versatility

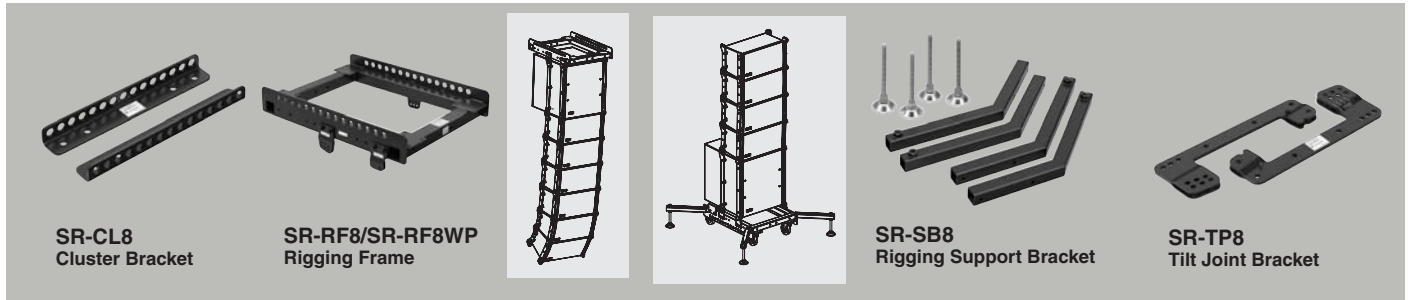
- **Single or bi-amp mode** – by changing the position of an internal connector, Type C series speakers can be used in single or bi-amp mode.
- **Splash-proof speaker models** – SR-C8LWP/SR-C8SWP/SR-C15BWP are available to widen the range of potential applications.
- **Optional brackets** – More flexible installation options are made possible thanks to a selection of available mounting brackets.
- **Focused coverage** – Overlap angles between individual speakers can be set from 0 to 5 degrees, for more flexible speaker directivity control.

### Ease of Maintenance

- Both the low frequency driver and the high frequency driver can be quickly replaced from the rear of the speaker enclosure for ease of service.



## OPTIONAL BRACKETS



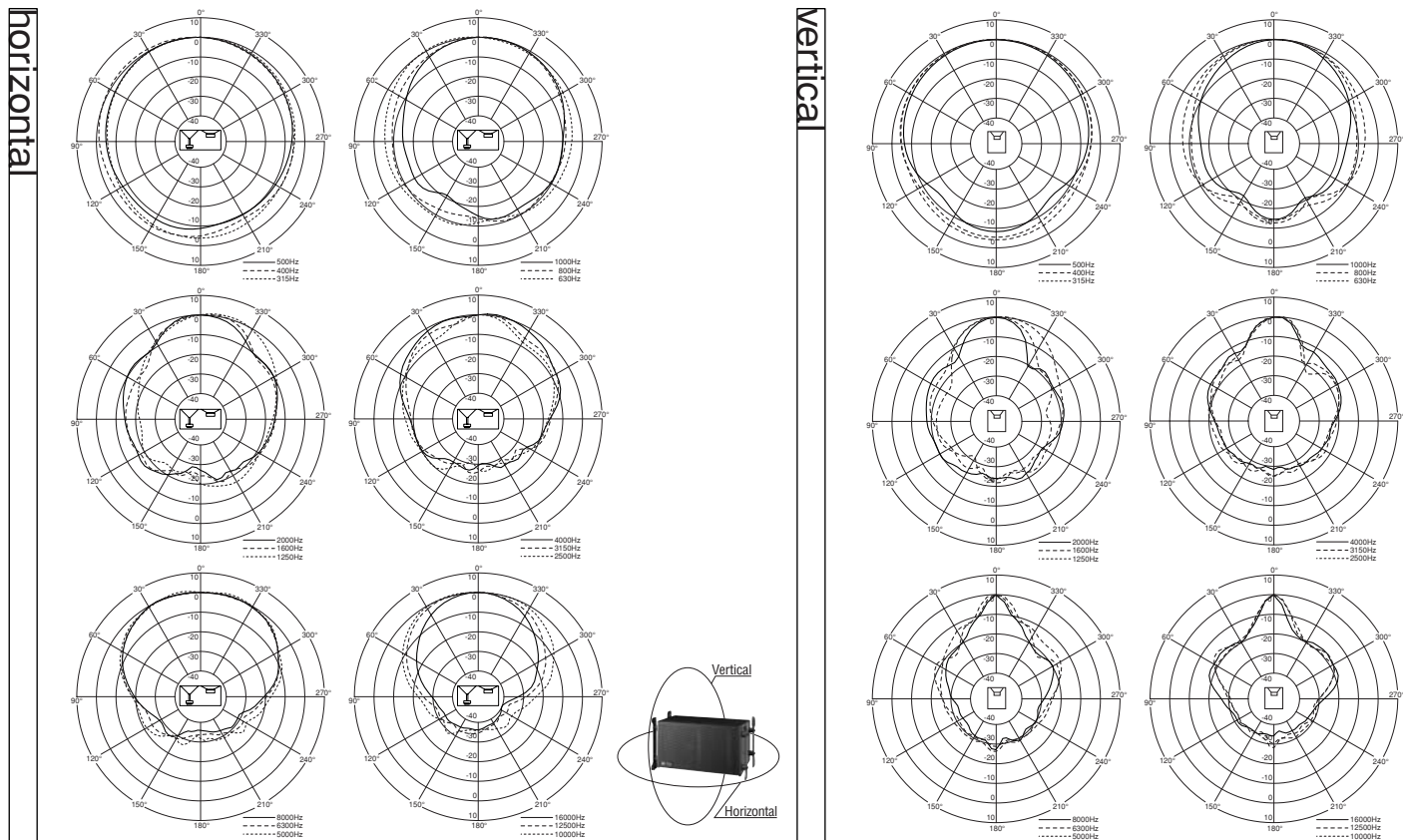
## SPECIFICATIONS

	SR-C8L	SR-C8S	SR-C8LWP	SR-C8SWP
Enclosure	Bass-reflex type			
Power Handling Capacity	Continuous program: 360 W (single-amp mode) Low frequency: 360 W, high frequency: 180 W (bi-amp mode)			
Rated Impedance	16 $\Omega$ (single-amp mode) Low frequency: 16 $\Omega$ , high frequency: 16 $\Omega$ (bi-amp mode)			
Sensitivity	98 dB (1 W, 1 m) (single-amp mode) Low: 95 dB (1W, 1m), High: 110 dB (1W, 1m) (bi-amp mode)			
Frequency Response	65 – 20,000 Hz (when equalized at recommended parameters)			
Crossover Frequency	1,600 Hz (when equalized at recommended parameters)			
Directivity Angle	Horizontal: 110° Vertical: 5°	Horizontal: 110° Vertical: 15°	Horizontal: 110° Vertical: 5°	Horizontal: 110° Vertical: 15°
Speaker Component	Low frequency: 20 cm (8") cone type High frequency: Wave-front control horn 110° (horizontal) $\times$ 5° (vertical) + compression drivers $\times$ 2	Low frequency: 20 cm (8") cone type High frequency: Wave-front control horn 110° (horizontal) $\times$ 15° (vertical) + compression drivers $\times$ 2	Low frequency: 20 cm (8") cone type High frequency: Wave-front control horn 110° (horizontal) $\times$ 5° (vertical) + compression drivers $\times$ 2	Low frequency: 20 cm (8") cone type High frequency: Wave-front control horn 110° (horizontal) $\times$ 15° (vertical) + compression drivers $\times$ 2
Input Connector	M5 screw terminal, distance between barriers: 12.2 mm (0.48") and Neutrik NL4MP $\times$ 2		—	
Connected Cable	—		Direct cable withdrawal from internal speaker: $\varnothing$ 8.6 mm ( $\varnothing$ 0.34") conductor cross section: 1.25 mm <sup>2</sup> (0.05"), 4-core cable, 3 m (9.84 ft)	
Operating Temperature	—		-10°C to +50°C (14°F to 122°F)	
Dust/Water Protection	—		IPX4	
Finish	Plywood, black, urethane paint Punched steel plate, black, paint		Plywood, black, urethane coating Punched stainless steel, black, paint	
Dimensions	526.6(W) $\times$ 293(H) $\times$ 296(D)mm (20.73" $\times$ 11.54" $\times$ 11.65")	526.6(W) $\times$ 293(H) $\times$ 294(D)mm (20.73" $\times$ 11.54" $\times$ 11.57")	526.6(W) $\times$ 293(H) $\times$ 296(D)mm (20.73" $\times$ 11.54" $\times$ 11.65")	526.6(W) $\times$ 293(H) $\times$ 294(D)mm (20.73" $\times$ 11.54" $\times$ 11.57")
Weight	17 kg (37.48 lb)	16 kg (35.27 lb)	17 kg (37.48 lb)	16 kg (35.27 lb)
Accessory	M8 connection bolt $\times$ 4			
Options	Cluster bracket: SR-CL8, Rigging frame: SR-RF8, Tilt joint bracket: SR-TP8, Digital processor: DP-0206		Rigging frame: SR-RF8WP, Digital processor: DP-0206	

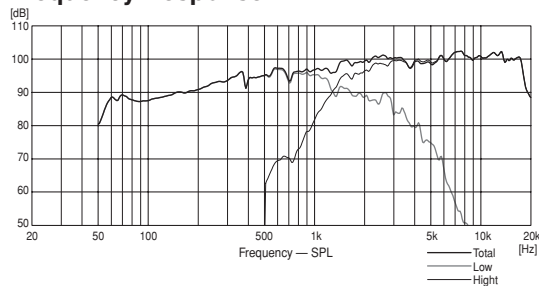
	SR-C15B	SR-C15BWP
Enclosure	Bass-reflex type	
Power Handling Capacity	Continuous program: 450 W	
Rated Impedance	8 $\Omega$	
Sensitivity	93 dB (1 W, 1 m)	
Frequency Response	40 – 400 Hz (when equalized at recommended parameters)	
Crossover Frequency	125 Hz (when equalized at recommended parameters)	
Speaker Component	38 cm (15") cone type	
Input Connector	M5 screw terminal, distance between barriers: 12.2 mm (0.48") and Neutrik NL4MP $\times$ 2	—
Connected Cable	—	Direct cable withdrawal from internal speaker: $\varnothing$ 8.6 mm ( $\varnothing$ 0.34") conductor cross section: 1.25 mm <sup>2</sup> (0.05"), 4-core cable, 3 m (9.84 ft)
Operating Temperature	—	-10°C to +50°C (14°F to 122°F)
Dust/Water Protection	—	IPX4
Finish	Plywood, black, urethane paint Punched steel plate, black, paint	Plywood, black, urethane coating Punched stainless steel plate, black, paint
Dimensions	526.6(W) $\times$ 594.8(H) $\times$ 550(D)mm (20.73" $\times$ 23.42" $\times$ 21.65")	
Weight	41 kg (90.39 lb)	
Accessory	M8 connection bolt $\times$ 4	
Options	Rigging frame: SR-RF8, Digital processor: DP-0206	Rigging frame: SR-RF8WP, Digital processor: DP-0206

# CHARACTERISTIC DIAGRAMS (SR-C8L/SR-C8LWP)

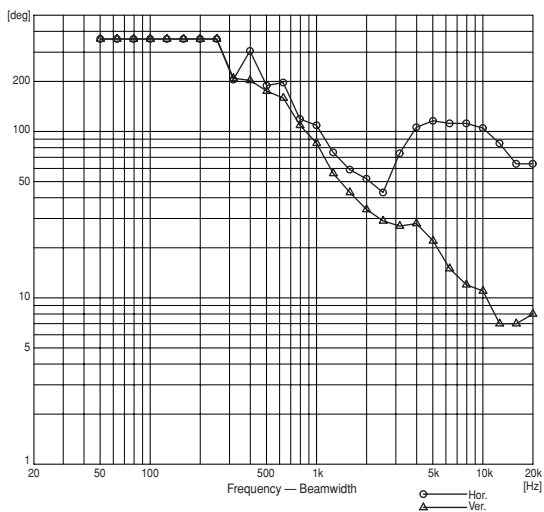
## Polar Response



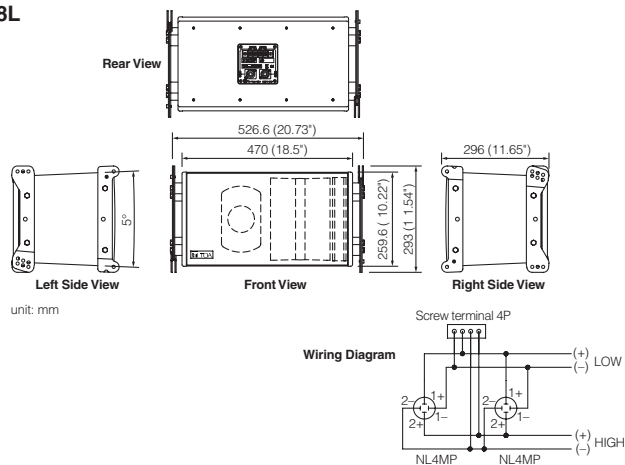
## Frequency Response



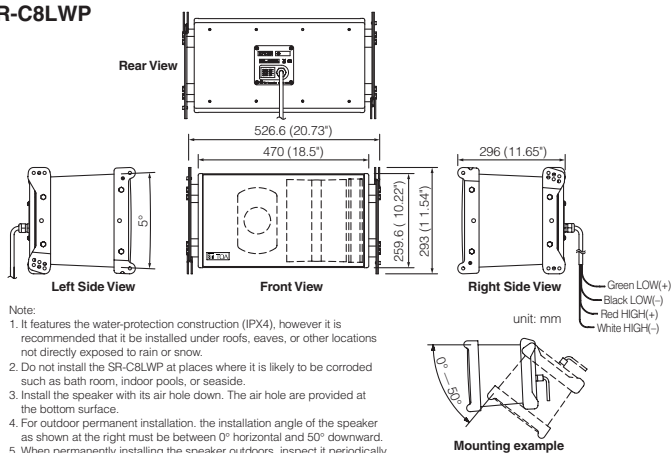
## Beamwidth vs. Frequency



## APPEARANCE AND DIMENSIONAL DIAGRAM SR-C8L



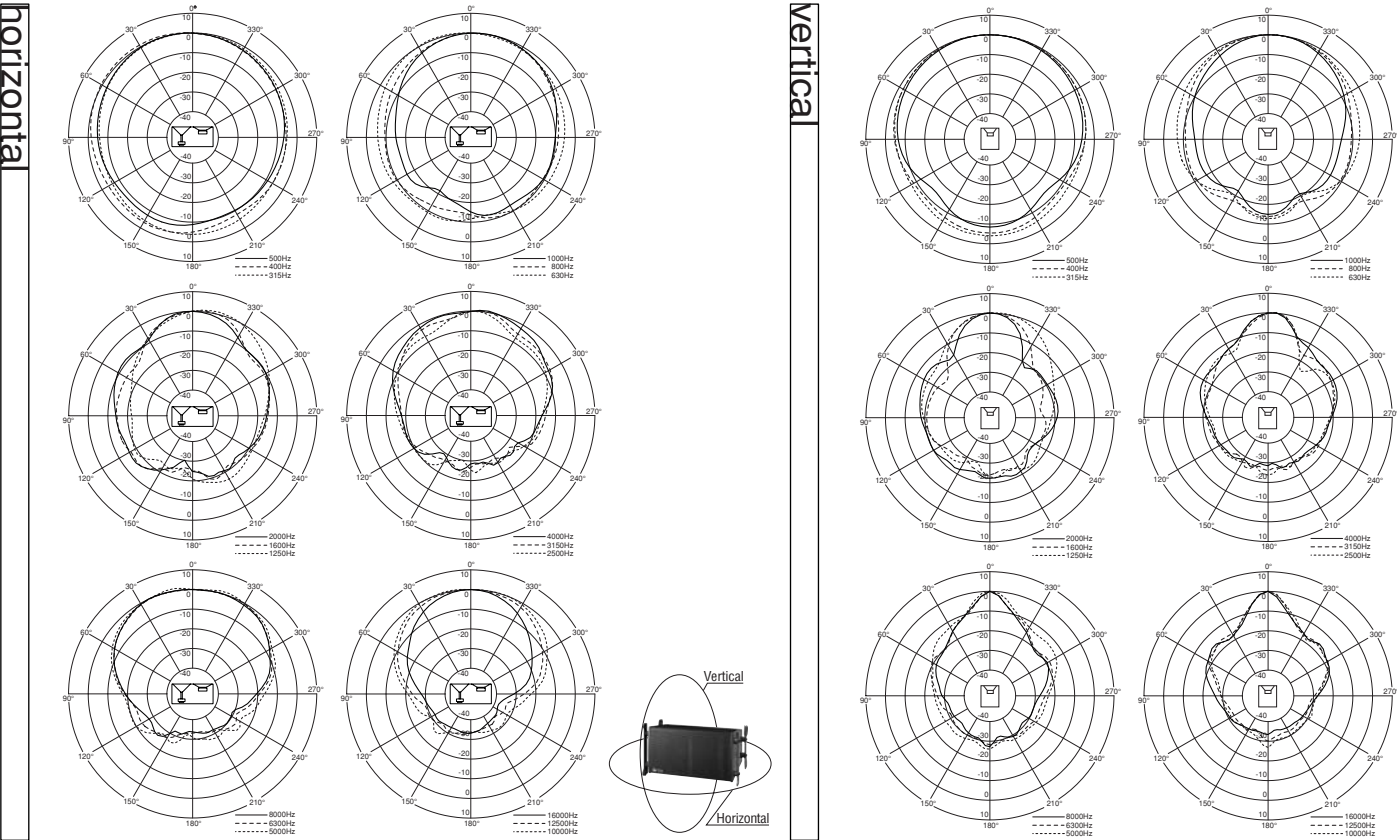
## SR-C8LWP



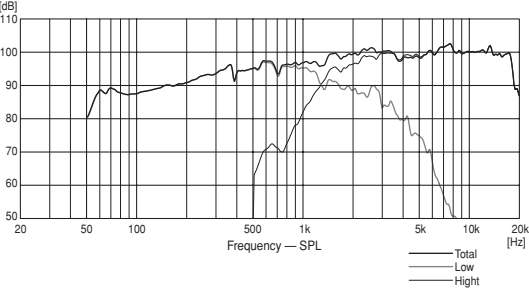
- Note:
- It features the water-protection construction (IPX4), however it is recommended that it be installed under roofs, eaves, or other locations not directly exposed to rain or snow.
  - Do not install the SR-C8LWP at places where it is likely to be corroded such as bathroom, indoor pools, or seaside.
  - Install the speaker with its air hole down. The air hole are provided at the bottom surface.
  - For outdoor permanent installation, the installation angle of the speaker as shown at the right must be between 0° horizontal and 50° downward.
  - When permanently installing the speaker outdoors, inspect it periodically.

# CHARACTERISTIC DIAGRAMS (SR-C8S/SR-C8SWP)

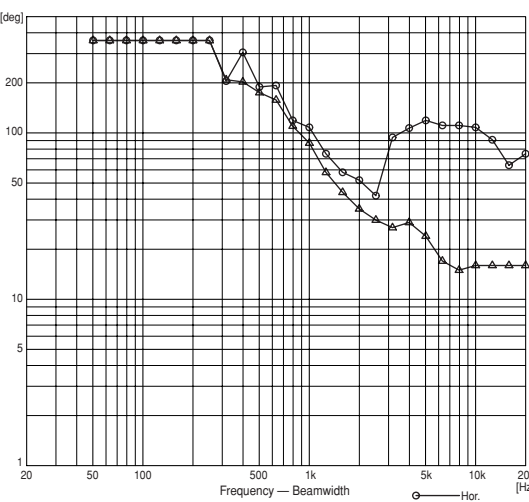
## Polar Response



## Frequency Response

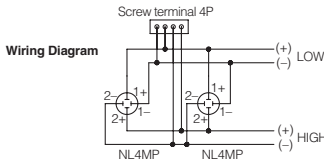
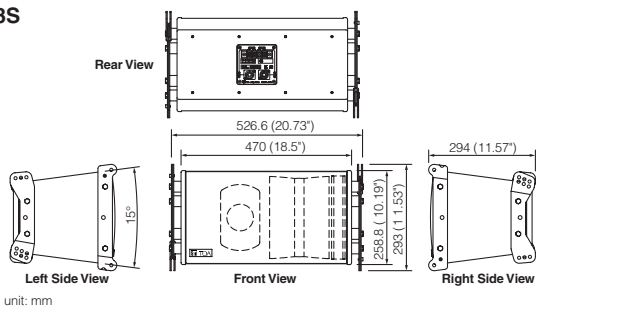


## Beamwidth vs. Frequency

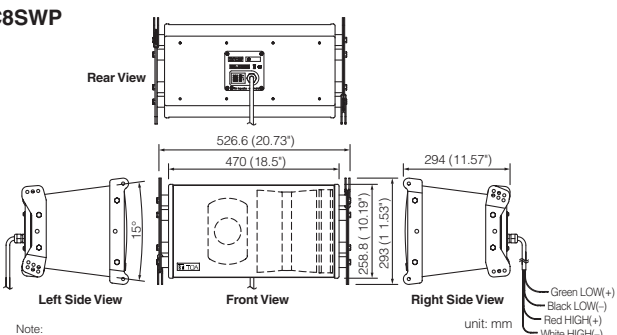


## APPEARANCE AND DIMENSIONAL DIAGRAM

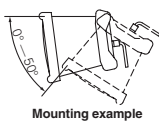
### SR-C8S



### SR-C8SWP

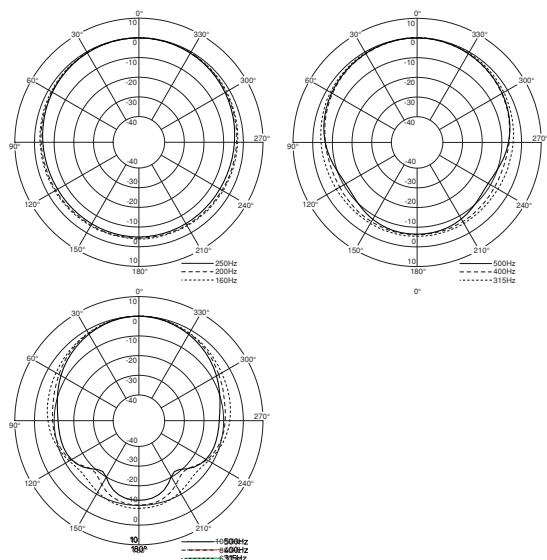


- Note:
1. It features the water-protection construction (IPX4), however it is recommended that it be installed under roofs, eaves, or other locations not directly exposed to rain or snow.
  2. Do not install the SR-C8SWP at places where it is likely to be corroded such as bath room, indoor pools, or seaside.
  3. Install the speaker with its air hole down. The air hole are provided at the bottom surface.
  4. For outdoor permanent installation, the installation angle of the speaker as shown at the right must be between 0° horizontal and 50° downward.
  5. When permanently installing the speaker outdoors, inspect it periodically.

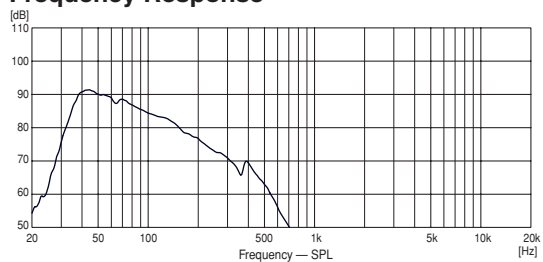


# CHARACTERISTIC DIAGRAMS (SR-C15B/SR-C15BWP)

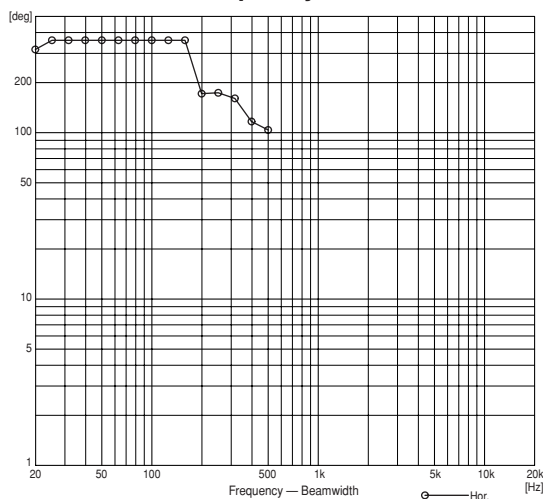
## Polar Response



## Frequency Response

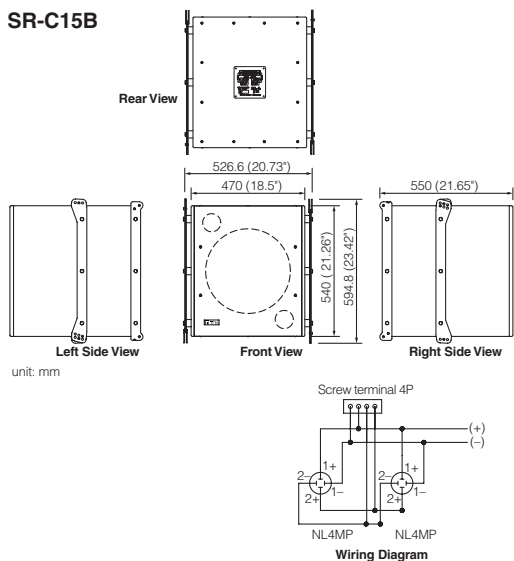


## Beamwidth vs. Frequency

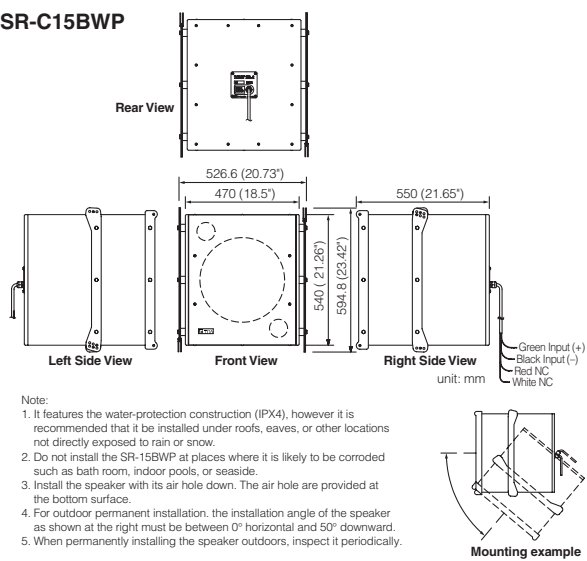


# APPEARANCE AND DIMENSIONAL DIAGRAM

## SR-C15B



## SR-C15BWP



### Note:

1. It features the water-protection construction (IPX4), however it is recommended that it be installed under roofs, eaves, or other locations not directly exposed to rain or snow.
2. Do not install the SR-15BWP at places where it is likely to be corroded such as bath room, indoor pools, or seaside.
3. Install the speaker with its air hole down. The air hole are provided at the bottom surface.
4. For outdoor permanent installation, the installation angle of the speaker as shown at the right must be between 0° horizontal and 50° downward.
5. When permanently installing the speaker outdoors, inspect it periodically.

Mounting example

# ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

## SR-C8L/SR-C8S

The speaker shall be a two-way component module designed for use in a modular line array system. The low-frequency section shall consist of one 8" (20cm) Neodymium woofer. The high frequency section shall consist of two compression drivers, each having a 1" (25 mm) Neodymium driver. The high frequency waveguide shall consist of two throat sections feeding a single shared mouth, with each throat section incorporating 8 paths of equal length from the driver throat to the waveguide mouth to obtain effectively isophase output for maximum efficiency of operation in a line array system. The speaker input connectors shall include screw terminal connections for LF and HF inputs and two Neutrik NL4 type sockets, wired in parallel for pass-through to additional speakers.

The speaker shall meet the following performance criteria. Power handling in bi-amp mode: Low Frequency input: 360 W continuous program; High Frequency input: 180 W continuous program. Power handling in single-amp mode: 360 W continuous program. Frequency response (10 dB below rated pressure sensitivity, with recommended crossover and equalization): 65 Hz to 20 kHz. Sensitivity (1 W at 1 m) in bi-amp mode: Low Frequency: 95 dB; High Frequency: 110 dB. Sensitivity (1 W at 1 m) in single-amp mode: 98 dB. Rated impedance in bi-amp mode: Low Frequency: 16 ohms nominal; High Frequency: 16 ohms nominal. Rated impedance in single-amp mode: 16 ohms nominal.

The speaker's horizontal and vertical coverage shall be tailored for use in a line array consisting of multiple units from the same series arranged one above the other so that each pass-band section forms a vertical line. The horizontal coverage shall be 110 degrees nominal. The vertical coverage shall be SR-C8L: 5 degrees nominal; SR-C8S: 15 degree nominal. Extending the vertical coverage area shall be possible by stacking multiple units from the same series. The consistency of coverage shall not be degraded when multiple units are stacked. The combined vertical coverage of multiple units, when stacked, shall be adjustable from that of a straight line array (coverage area defined by the height of the array) to a curved array, with the combined coverage angle adjustable in 1 degree increments.

The speaker enclosure shall be made of plywood and finished with black urethane paint. The speaker grille shall be made from a single punched steel plate and finished with black paint. The dimensions (W x H x D) shall be SR-C8L: 526.6 x 293 x 296 mm (20.73" x 11.54" x 11.65"); SR-C8S: 526.6 x 293 x 294 mm (20.73" x 11.54" x 11.57") and weight shall be SR-C8L: 17 kg (37.48 lb); SR-C8S: 16 kg (35.27 lb). The speaker enclosure shall be equipped with M8 threaded steel plates for the secure attachment of optional accessory brackets.

The loudspeaker shall be TOA model SR-C8L/SR-C8S.

The cluster bracket shall be TOA model SR-CL8.

The rigging frame shall be TOA model SR-RF8.

The tilt joint bracket shall be TOA model SR-TP8.

## SR-C15B

The speaker shall be sub-woofer system. The component shall consist one 15" (38 cm) woofer. The speaker input connectors shall include screw terminal connections and two Neutrik NL4 type sockets.

The speaker shall meet the following performance criteria. Power handling: 450 W continuous program. Frequency response (10 dB below rated pressure sensitivity, with recommended crossover and equalization) 40 to 400 Hz. Sensitivity (1 W at 1 m): 93 dB. Impedance: 8 ohms nominal.

The speaker enclosure shall be made of plywood and finished with black urethane paint. The speaker grille shall be made from a single punched steel plate and finished with black paint. The dimensions (W x H x D) shall be 526.6 x 594.8 x 550 mm (20.73" x 23.42" x 21.65") and weight (including accessory brackets) shall be 41 kg (90.39 lb). The speaker enclosure shall be equipped with M8 threaded steel plates for the secure attachment of optional accessory brackets. Available accessory brackets for suspension and stand mounting shall be made of steel.

The loudspeaker shall be TOA model SR-C15B.

The rigging frame shall be TOA model SR-RF8.

## SR-C8LWP/SR-C8SWP

The speaker shall be a two-way component module designed for use in a modular line array system. The low-frequency section shall consist of one 8" (20cm) Neodymium woofer. The high frequency section shall consist of two compression drivers, each having a 1" (25 mm) Neodymium driver. The high frequency waveguide shall consist of two throat sections feeding a single shared mouth, with each throat section incorporating 8 paths of equal length from the driver throat to the waveguide mouth to obtain effectively isophase output for maximum efficiency of operation in a line array system. The speaker shall include an integral input connection cable, 8.6 mm (0.34") outside diameter, 4-conductor, 3 m (9.84") long.

The speaker shall meet the following performance criteria. Power handling in bi-amp mode: Low Frequency input: 360 W continuous program; High Frequency input: 180 W continuous program. Power handling in single-amp mode: 360 W continuous program. Frequency response (10 dB below rated pressure sensitivity, with recommended crossover and equalization): 65 Hz to 20 kHz. Sensitivity (1 W at 1 m) in bi-amp mode: Low Frequency: 95 dB; High Frequency: 110 dB. Sensitivity (1 W at 1 m) in single-amp mode: 98 dB. Rated impedance in bi-amp mode: Low Frequency: 16 ohms nominal; High Frequency: 16 ohms nominal. Rated impedance in single-amp mode: 16 ohms nominal.

The speaker's horizontal and vertical coverage shall be tailored for use in a line array consisting of multiple units from the same series arranged one above the other so that each pass-band section forms a vertical line. The horizontal coverage shall be 110 degrees nominal. The vertical coverage shall be SR-C8LWP: 5 degrees nominal; SR-C8SWP: 15 degree nominal. Extending the vertical coverage area shall be possible by stacking multiple units from the same series. The consistency of coverage shall not be degraded when multiple units are stacked. The combined vertical coverage of multiple units, when stacked, shall be adjustable from that of a straight line array (coverage area defined by the height of the array) to a curved array, with the combined coverage angle adjustable in 1 degree increments.

The speaker enclosure shall be made of plywood and finished with black urethane coating. The speaker shall comply with the IEC IPX4 standard for dust and water resistance and operate within a temperature range from -10°C to +50°C (14°F to 122°F). The speaker grille shall be made from a single punched stainless steel plate and finished with black paint. The dimensions (W x H x D) shall be SR-C8LWP: 526.6 x 293 x 296 mm (20.73" x 11.54" x 11.65"); SR-C8SWP: 526.6 x 293 x 294 mm (20.73" x 11.54" x 11.57") and weight shall be SR-C8LWP: 17 kg (37.48 lb); SR-C8SWP: 16 kg (35.27 lb). The speaker enclosure shall be equipped with M8 threaded steel plates for the secure attachment of optional accessory brackets.

The loudspeaker shall be TOA model SR-C8LWP/SR-C8SWP.

The rigging frame shall be TOA model SR-RF8WP.

## SR-C15BWP

The speaker shall be sub-woofer system. The component shall consist one 15" (38 cm) woofer. The speaker shall include an integral input connection cable, 8.6 mm (0.34") outside diameter, 4-conductor, 3 m (9.84") long.

The speaker shall meet the following performance criteria. Power handling: 450 W continuous program. Frequency response (10 dB below rated pressure sensitivity, with recommended crossover and equalization) 40 to 400 Hz. Sensitivity (1 W at 1 m): 93 dB. Impedance: 8 ohms nominal.

The speaker enclosure shall be made of plywood and finished with black urethane coating. The speaker grille shall be made from a single punched stainless steel plate and finished with black paint. The speaker shall comply with the IEC IPX4 standard for dust and water resistance and operate within a temperature range from -10°C to +50°C (14°F to 122°F). The dimensions (W x H x D) shall be 526.6 x 594.8 x 550 mm (20.73" x 23.42" x 21.65") and weight (including accessory brackets) shall be 41 kg (90.39 lb). The speaker enclosure shall be equipped with M8 threaded steel plates for the secure attachment of optional accessory brackets. Available accessory brackets for suspension and stand mounting shall be made of steel.

The loudspeaker shall be TOA model SR-C15BWP.

The rigging frame shall be TOA model SR-RF8WP.



TOA Corporation

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