TOA SC SERIES PAGING HORN SPEAKERS

TOA SC SERIES PAGING HORN SPEAKERS provide intelligible voice paging and tone signaling for indoor and outdoor sound system applications.

Fully weather-resistant for reliable operation in demanding environmental conditions, SC Series models are available with a choice of power ratings from 10 W to 50 W and a built-in 25 V / 70.7 V transformer with external screwdriver-adjustable power taps. The SC Series are easy to install in wall, pole or ceiling-mount applications and include corrosion-resistant stainless-steel mounting hardware. The SC Series models are also designed for intercom talk-back applications requiring dual operation as both a microphone and speaker.

Each model is a double re-entrant horn with compression driver for high sensitivity and a lightweight aluminum enclosure. The loudspeaker diaphragm is heat and moisture-resistant to prevent deformation and extend operation. The SC Series are also IP-65 standards compliant for dust and moisture-resistance with a wide operating temperature range from -4°F to 130°F.

The SC Series Paging Horn Speakers are backed with a two-year warranty.

PAGING HORN SPEAKERS

HIGHLIGHTS

- Paging Horn Speakers for voice paging and tone signaling distribution.
- Weather-Resistant to withstand demanding environmental conditions.
- Double Re-Entrant Horn with Compression Driver
- Controlled Dispersion
- High Sensitivity up to 113 dB (1 W/1 m).
- Usable as a Microphone for intercom talk-back applications.
- Built-In 25 V / 70.7 V Transformer ("T" Models) with screwdriver-adjustable power taps (8 and 16 ohm models also available).

LIGHTWEIGHT, SEALED, ALUMINUM ENCLOSURE prevents moisture damage.

CABLE STRAIN-RELIEF

IEC IP-65 STANDARDS COMPLIANT for dust and moisture-resistance.

WIDE TEMPERATURE RANGE
-4°F to 131°F

PHENOLIC LOUDSPEAKER DIAPHRAGM prevents deformation from heat and moisture.

STAINLESS-STEEL MOUNTING BRACKET for easy installation and aiming in wall, pole or ceiling-mount applications.

TWO YEAR WARRANTY

SC SERIES MODELS

- SC-610: 10 W, 8 ohms
- SC-610T: 10 W, w/ Transformer
- SC-615: 15 W, 8 ohms
- SC-615T: 15 W, w/ Transformer
- SC-630: 30 W, 8 ohms
- SC-630T: 30 W, w/ Transformer
- SC-650: 50 W, 16 ohms

APPLICATIONS

- Boats
- Churches
- Drive-Thru
- Industrial
- Mobile Vehicles
- Parking Facilities
- Parks
- Schools
- Security
- Sporting Facilities
- Swimming Pools
# Specifications

**Enclosure Type**
Double Re-Entrant Horn

**Speaker Component**
Compression Driver

**Power Handling**
- **SC-610/T**: 10 W
- **SC-615/T**: 15 W
- **SC-630/T**: 30 W
- **SC-650**: 50 W

**Transformer Taps / Rated Impedance**
- **SC-610, SC-615, SC-630**: 8 ohms
  - **SC-610T**: 70.7 V: 10 W (500 Ω), 5 W (1 kΩ), 2.5 W (2 kΩ)
  - 25 V: 10 W (63 Ω), 5 W (130 Ω), 1.3 W (500 Ω), 0.6 W (1 kΩ), 0.3 W (2 kΩ)
  - **SC-615T**: 70.7 V: 15 W (330 Ω), 7.5 W (650 Ω), 3.8 W (1.3 kΩ)
  - 25 V: 15 W (42 Ω), 7.5 W (83 Ω), 1.9 W (330 Ω), 1 W (650 Ω), 0.5 W (1.3 kΩ)
  - **SC-630T**: 70.7 V: 30 W (170 Ω), 15 W (330 Ω), 7.5 W (650 Ω)
  - 25 V: 30 W (21 Ω), 15 W (42 Ω), 3.7 W (170 Ω), 1.9 W (330 Ω), 1 W (650 Ω)

**Dispersion**
- **SC-610/T**: 70° H x 100° V
- **SC-615/T**: 70° H x 90° V
- **SC-630/T**: 55° H x 70° V
- **SC-650**: 55° H x 45° V

**Frequency Response**
- **SC-610/T**: 315 Hz - 12.5 kHz
- **SC-615/T**: 280 Hz - 12.5 kHz
- **SC-630/T**: 250 Hz - 10 kHz
- **SC-650**: 250 Hz - 6 kHz

**Sensitivity (Sound Pressure Level)**
- **SC-610/T**: 110 dB SPL
- **SC-615/T**: 112 dB SPL
- **SC-630/T**: 113 dB SPL
- **SC-650**: 108 dB SPL

**Sensitivity as Microphone**
- **SC-610/T**: -24 dB at 1 kHz
- **SC-615/T**: -22 dB at 1 kHz
- **SC-630/T**: -20 dB at 1 kHz
- **SC-650**: n/a

**IEC IP Code**
IP-65

**Temperature Range**
-4° F to 131° F (-20° C to +55° C)

**Material/Finish**
- **Horn Flare**: Aluminum, Off-White, Powder Coating
- **Reflector Horn and Rear Cover**: ABS Resin, Off-White
- **Bracket, Screws and Bolts**: Stainless Steel
- **Speaker Cable**: Polyvinyl Chloride Insulated
  - (Diameter: 0.24" (6 mm), Length: 24" (600 mm))

**Dimensions (W x H x D)**
- **SC-610/T**: 6.77" x 6.34" x 7.40" (172 mm x 161 mm x 188 mm)
- **SC-615/T**: 8.74" x 7.04" x 9.21" (222 mm x 179 mm x 234 mm)
- **SC-630/T**: 11.22" x 8.94" x 10.91" (285 mm x 227 mm x 277 mm)
- **SC-650**: 15.39" x 11.93" x 12.87" (391 mm x 303 mm x 327 mm)

**Weight**
- **SC-610**: 1.76 lbs (0.8 kg)
- **SC-610/T**: 2.43 lbs (1.1 kg)
- **SC-615**: 2.21 lbs (1.0 kg)
- **SC-615/T**: 2.43 lbs (1.1 kg)
- **SC-630**: 3.09 lbs (1.4 kg)
- **SC-630/T**: 4.19 lbs (1.9 kg)
**SPECIFICATIONS**

**DIMENSIONAL DRAWINGS**

**SC-610/SC-610T**

- Front View
- Rear View
- Side View

**SC-615/SC-615T**

- Front View
- Rear View
- Side View

**SC-630/SC-630T**

- Front View
- Rear View
- Side View

**SC-650**

- Front View
- Rear View
- Side View
**SC-630 / SC-630T**

**Specifications**

**Directivity Factor**

**Frequency Response**

**Beamwidth**

**Polar Response**

**Microphone Response**

**SPL**

**Frequency**

**Sensitivity**

**Horizontal**

**Vertical**

**Microphone Response**
ARCHITECT’S & ENGINEER’S SPECIFICATIONS

The paging horn speaker shall be a double re-entrant design suitable for paging and tone signaling distribution. The speaker component shall be a compression driver with a phenolic diaphragm to prevent deformation from heat and moisture. Power handling shall be SC-610/T: 10 W; SC-615/T: 15 W; SC-630/T: 30 W; SC-650: 50 W. Impedance of non-transformer versions shall be SC-610/615/630: 8 ohms; SC-650: 16 ohms. The paging speaker shall include a matching transformer for connection to 25 V and 70.7 V speaker lines. Transformer wattage taps shall include SC-610T: 7.7 V: 10 W (500 ohms), 5 W (1 kohms), 2.5 W (2 kohms); 25 V: 10 W (63 ohms), 5 W (130 ohms), 1.3 W (500 ohms), 0.6 W (1 kohms), 0.3 W (2 kohms); SC-615T: 7.7 V: 15 W (330 ohms), 7.5 W (650 ohms), 3.8 W (1.3 kohms); 25 V line: 15 W (42 ohms), 7.5 W (83 ohms), 1.9 W (330 ohms), 1 W (650 ohms), 0.5 W (1.3 kohms); SC-630T: 7.7 V: 30 W (170 ohms), 15 W (330 ohms), 7.5 W (650 ohms); 25 V: 30 W (21 ohms), 15 W (42 ohms), 3.7 W (170 ohms), 1.9 W (330 ohms), 1 W (650 ohms). Sound pressure level measured at one meter with one watt of power applied from 500 Hz to 2,500 Hz shall be SC-610/T: 110 dB SPL; SC-615/T: 112 dB SPL; SC-630/T: 113 dB SPL; SC-650: 108 dB SPL. Frequency response shall be SC-610/T: 315 Hz - 12.5 kHz; SC-615/T: 280 Hz - 12.5 kHz; SC-630/T: 250 Hz - 10 kHz; SC-650: 250 Hz - 6 kHz. Horizontal and vertical dispersion at -6 dB below the on-axis reference at 2 kHz shall be SC-610/T: 70° H x 100° V; SC-615/T: 70° H x 90° V; SC-630/T: 55° H x 70° V; SC-650: 55° H x 45° V. When used as a microphone, sensitivity referenced to 1 kHz, where 0 dB = 1 mW/10 dynes/cm² shall be SC-610/T: -24 dB; SC-615/T: -22 dB; SC-630/T: -20 dB.

Dimensions shall be SC-610/T: 6.77” W x 6.34” H x 7.40” D (172 mm x 161 mm x 188 mm); SC-615/T: 8.74” W x 7.04” H x 9.21” D (222 mm x 179 mm x 234 mm); SC-630/T: 11.22” W x 8.94” H x 10.91” D (285 mm x 227 mm x 277 mm); SC-650: 15.39” W x 11.93” H x 12.87” D (391 mm x 303 mm x 327 mm). Weight shall be SC-610: 1.76 lbs. (0.8 kg.); SC-610T: 2.43 lbs. (1.1 kg.); SC-615: 2.21 lbs. (1.0 kg.); SC-615T: 2.43 lbs. (1.1 kg.); SC-630: 3.09 lbs. (1.4 kg.); SC-630T: 4.19 lbs. (1.9 kg.); SC-650: 7.06 lbs. (3.2 kg.).

The paging horn shall comply with the IEC IP-65 standard for dust and moisture-resistance and operate within a temperature range from -4° F to 131° F (-20° C to +55° C). The material / finish shall be horn flare: aluminum, off-white, powder coating, reflector horn and rear cover: ABS resin, off-white. All mounting hardware, including screws and bolts, shall be stainless steel. The paging horn shall include an integral speaker cable, insulated polyvinyl chloride type, with strain-relief, 0.24” (6 mm) diameter and 24” (600 mm) length.

The paging horn shall be the TOA SC-610, SC-610T, SC-615, SC-615T, SC-630, SC-630T, SC-650.