

SAROS_IC4T/IC6T/IC8T

Saros® 2-Way In-Ceiling Speakers

Saros® speakers by Crestron® deliver professional grade performance and flexible installation in a range of popular sizes for demanding commercial applications. Solid construction and high-end components are hallmarks of the complete Saros speaker line.

Ideal for use in background or foreground music, paging, and sound reinforcement systems, Saros speakers are engineered to achieve smooth, even coverage, high output, and clear, natural sound quality through the employment of horn-loaded titanium dome tweeters, high-efficiency damped cone woofers, ported enclosures, and precisely tuned crossovers.

Saros 2-way in-ceiling speakers are available in white or black and may be painted to blend with the ceiling surface.



1 Installation

Prepare Mounting Hole

Before finalizing the speaker location, check to make sure there are no fixtures, pipes, air ducts, joists, or other possible obstructions. If applicable, use a good quality stud finder to locate joists. If there are no obstructions, use the supplied template to trace an outline of the mounting hole.

For drop tile ceilings, remove the ceiling tile and place on a flat surface to trace the mounting hole. For sheet rock or standard construction ceilings, use the template to trace the mounting hole directly on the ceiling.

Install Cable

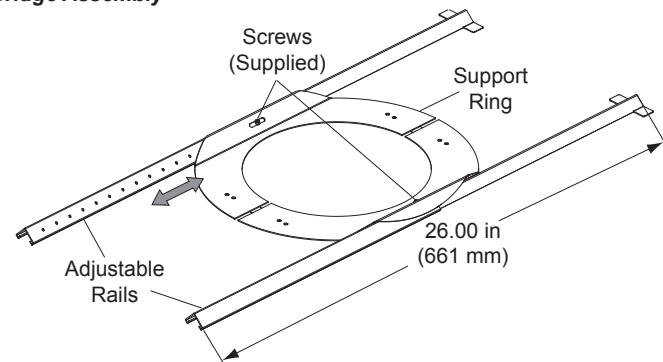
Run the cable from the audio source to the speaker location, observing all appropriate local codes. Strip the ends of the speaker cables approximately 1/8 in to 3/16 in (~3 mm to ~5 mm) and twist the strands.

Install Tile Bridge

The included tile bridge components provide proper support when the speaker is installed in a typical drop tile ceiling. Refer to the illustration below.

- Based on the location of the mounting hole determined in "Prepare Mounting Hole" (above), use the two supplied screws to attach the support ring to the rails so that when installed, the ring is aligned with the mounting hole and the rails rest on the ceiling grid frame.
- The support ring position on the rails is adjustable to enable off-center speaker positioning. The tile bridge assembly can be folded to fit through the speaker cutout in blind-mount situations.

Tile Bridge Assembly



Install or Remove Grille

The zero-bezel frameless grille is held in place by powerful magnets. A safety tether is included to prevent any possibility of the grille falling from the ceiling. With the tether attached, place the grille in position on the speaker. To remove the grille, grip the edges and pull away from the speaker.

Paint the Speaker Grille

Speaker grille painting should be done prior to mounting.

- Carefully remove the material on the underside of the grille, and set it aside for reinstallation. It may be necessary to use a knife or other sharp instrument to free an edge of the material so it can be peeled away. Use care to avoid cutting or tearing the material.
- Dry brush or lightly spray the surface to be painted. Use care to avoid clogging the holes in the grille.
- Once the paint is dry, reinstall the material to the underside.

Mount or Remove Speaker

The in-ceiling speaker includes four toggle clamps that simplify the mounting process. If the grille is mounted on the speaker, remove it before proceeding. (Refer to "Install or Remove Grille," above.)

- Referring to the illustrations to the right, remove the screw securing the rear cover panel, and lift the cover panel off to expose the supplied terminal block.
- Route the speaker cable through the cover cable clamp and connect the wires to the terminal block, using the outer IN terminals; red to + and black to -. Use the inner + and - THRU terminals to connect a pass-through (parallel) speaker.
- Allow some slack in the speaker cable(s) and position the cover panel on the back, making certain it engages the mounting clips. Secure the cover panel using the screw removed in step 1, and tighten the cable clamp to secure the cable(s). Do not overtighten. Use a safety tether attached to the rear enclosure to prevent the speaker from accidentally falling.
- The toggle clamps offer two positions to accommodate both standard and extra thick surfaces up to 2.4 in (61 mm). For extra thick tiles, reset the toggle clamps to the upper position before continuing.
 - With the toggle clamps turned inward, insert the speaker into the opening.
 - Hold the speaker against the ceiling and begin tightening the four screws on the front of the speaker. The toggle clamps first rotate into clamping position (as indicated in the front view illustration to the right), and then begin holding the speaker to the ceiling.
 - Tighten the screws until the speaker is secure. Do not over tighten.
- Speaker removal is accomplished by reversing steps 1 through 3 above.
 - Hold the speaker in position and loosen the front screws to unclamp the speaker. Continue to loosen the screws until the toggle clamps rotate inward.
 - When the speaker is loose, carefully lower the speaker from the opening and disconnect the wiring.

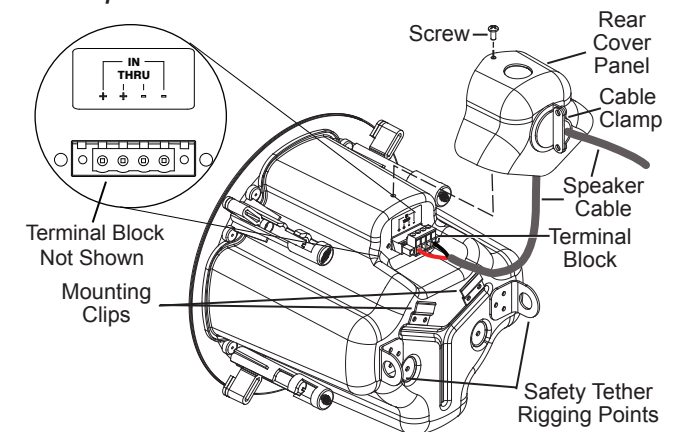
Set the Transformer Tap Selector Switch

The speakers are equipped with a 70 V/100 V matching transformer for distributed audio systems. The transformer tap selector switch on the front panel is used to set the speaker power level. Use a flat blade screwdriver to adjust the switch.

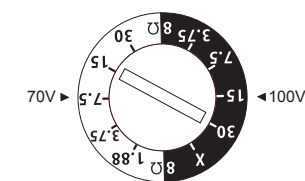
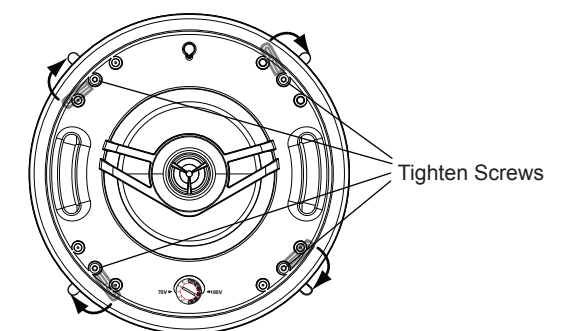
- For SAROS_IC4T 70 V systems, use the left side settings and select **1.88, 3.75, 7.5, 15, or 30** watts.
- For SAROS_IC4T 100 V systems, use the right side settings and select **3.75, 7.5, 15, or 30** watts. The **X** position should not be used.
- For SAROS_IC6T and SAROS_IC8T 70 V systems, use the left side settings and select **3.75, 7.5, 15, 30, or 60** watts.
- For SAROS_IC6T and SAROS_IC8T 100 V systems, use the right side settings and select **7.5, 15, 30, or 60** watts. The **X** position should not be used.

The switch may also be set to **8 Ω** operation, bypassing the transformer completely. This setting should be used only for 8 Ω audio systems.

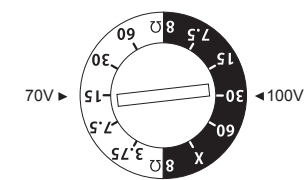
Connect Speaker Cable



Front View - Grille Removed



For SAROS_IC4T



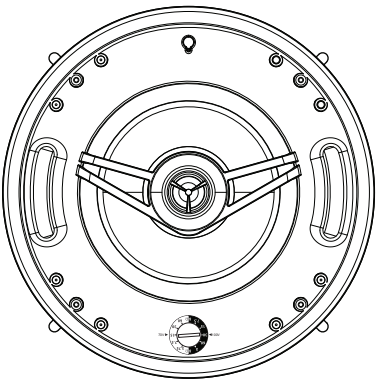
For SAROS_IC6T,
and SAROS_IC8T

SAROS_IC4T/IC6T/IC8T

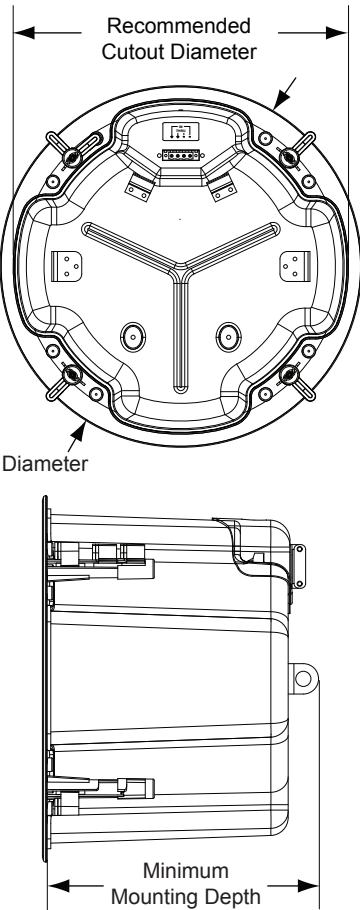
Saros® 2-Way In-Ceiling Speakers

2 Physical Views

Front View - Grille Removed (Typical)



Rear and Side Views (Typical)



3 Specifications

SAROS_IC4T, IC6T, IC8T

SPECIFICATION	SAROS_IC4T	SAROS_IC6T	SAROS_IC8T
Woofer	4.0 in (102 mm) polypropylene with ring mode decoupled cloth surround and steel basket	6.5 in (165 mm) polypropylene with ring mode decoupled cloth surround and steel basket	8.0 in (203 mm) polypropylene with ring mode decoupled cloth surround and steel basket
Tweeter	0.79 in (20 mm) titanium dome, 110° conical horn-loaded	0.98 in (25 mm) titanium dome, 90° conical horn-loaded	0.98 in (25 mm) titanium dome, 90° conical horn-loaded
Crossover Frequency	2.0 kHz	2.5 kHz	2.5 kHz
Impedance	8 Ω nominal with transformer set to 8 Ω	8 Ω nominal with transformer set to 8 Ω	8 Ω nominal with transformer set to 8 Ω
Transformer Taps	1.88, 3.75, 7.5, 15, 30 at 70 V; 3.75, 7.5, 15, 30 watts at 100 V	3.75, 7.5, 15, 30, 60 watts at 70 V; 7.5, 15, 30, 60 watts at 100 V	3.75, 7.5, 15, 30, 60 watts at 70 V; 7.5, 15, 30, 60 watts at 100 V
Frequency Response	60 Hz to 20 kHz (±3 dB)	50 Hz to 20 kHz (±3 dB)	50 Hz to 20 kHz (±3 dB)
Frequency Range	45 Hz to 20 kHz (-10 dB)	40 Hz to 20 kHz (-10 dB)	40 Hz to 20 kHz (-10 dB)
Power Handling	100 watts program, (8 Ω)	125 watts program (8 Ω)	150 watts program, (8 Ω)
Sensitivity	85.0 dB @ (W/m)	88.5 dB @ (W/m)	90.5 dB @ (W/m)
Coverage	110° conical (nominal)	100° conical (nominal)	95° conical (nominal)
Connections Input	(1) 4-pin 5-mm detachable terminal block with screw-down flanges; Speaker input with parallel pass-through; Maximum Wire Size: 12 AWG		
Controls Transformer Tap	(1) Recessed 5-position screwdriver adjustable rotary switch on baffle; Used to select 70/100 V tap settings or 8 Ω (bypass)		
Environmental Temperature Humidity	-2° to 120° F (-19° to 49° C) 5% to 95% RH (non-condensing)		
Construction Enclosure Baffle Grille Mounting	Zinc-plated steel, plenum-rated, 1/2 in or 3/4 in conduit knockout top and side ABS UL94V-0 plastic Steel with textured finish, paintable, magnetically held “zero-bezel” frameless, safety tether Flush ceiling mount using 4 integral 2-step toggle clamps, 2.4 in (61 mm) maximum surface thickness, tile bridge included. (2) rigging points for safety tether, (SPKA-ST-15 sold separately)		
Dimensions Diameter	8.53 in (217 mm) not including toggles	10.57 in (269 mm) not including toggles	12.07 in (307 mm) not including toggles
Depth	7.13 in (181 mm)	8.31 in (211 mm)	9.10 in (231 mm)
Recommended cutout diameter	7.70 in (195 mm)	9.70 in (245 mm)	11.20 in (285 mm)
Minimum mounting depth	6.90 in (176 mm)	8.10 in (206 mm)	8.90 in (226 mm)
Weight	7.1 lb (3.2 kg)	10.4 lb (4.7 kg)	12.5 lb (5.7 kg)

4 Problem Solving

Troubleshooting

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
No sound or intermittent sound is coming from the speakers.	There is a cable connection error.	Verify the cable connections between the amplifier and speakers.
	The amplifier is not receiving an input signal or there is a malfunction.	Verify that the amplifier is functioning correctly, that it is receiving an input signal, and that the correct input source is selected.
Constant noise such as buzz, hum, or hiss is coming from the speakers.	There is a faulty device in the system.	Verify that all system devices are functioning properly.
	There is a system grounding fault.	Verify that system grounding is correct.
The low-frequency output is poor.	There is an incorrect polarity connection at the speaker or amplifier.	Verify speaker connection polarity (+ on amplifier to + on speaker).

Further Inquiries

To locate specific information or resolve questions after reviewing this guide, contact Crestron's True Blue Support at 1-888-CRESTRON [1-888-273-7876] or, for assistance within a particular geographic region, refer to the listing of Crestron worldwide offices at (www.crestron.com/offices).

To post a question about Crestron products, log onto Crestron's Online Help at www.crestron.com/onlinehelp. First-time users must establish a user account to fully benefit from all available features.

Future Updates

As Crestron improves functions, adds new features, and extends the capabilities of the SAROS_IC4T/IC6T/IC8T, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision. Check the Crestron website periodically for manual update availability and its relevance. Updates are identified as an “Addendum” in the Download column.

The specific patents that cover crestron products are listed at patents.crestron.com.

Crestron, the Crestron logo, and Saros are either trademarks or registered trademarks of Crestron Electronics, Inc., in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography.

This document was written by the Technical Publications department at Crestron.
©2015 Crestron Electronics, Inc.