

User's Guide



SI 3 System INTEGRATOR™ Compact Full Range Surface Mount Speakers

68-1261-01
Rev. A
11 07

Packaging Information

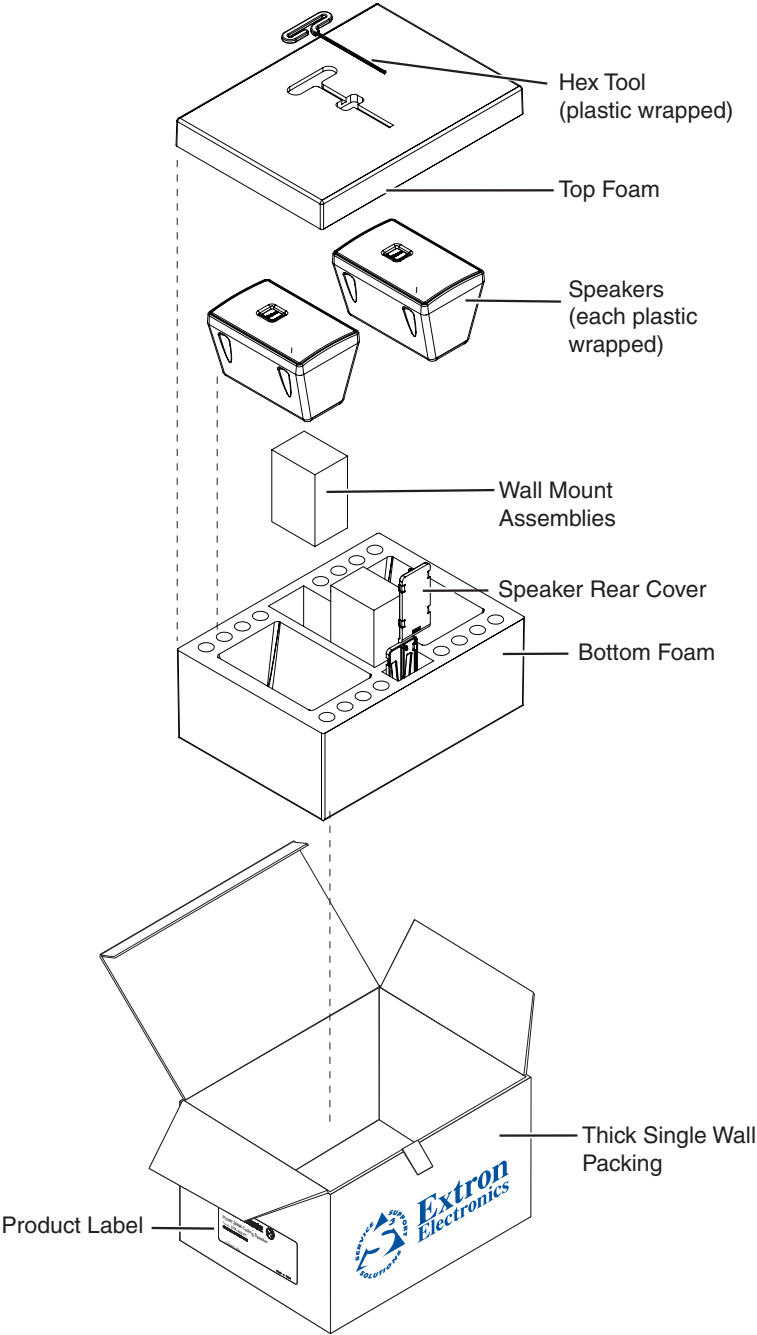


Figure 1 — SI 3 speaker packaging details

Introduction

About the SI 3 Speakers

The Extron *System INTEGRATOR*™ SI 3 full range, compact, surface mount speaker is ideally suited for classrooms, conference rooms, and boardrooms. With a weather resistant construction, it is also suitable for outdoor environments, and has the following features (see below and page 2).

- 3" full range internal driver
- 75 Hz to 18 kHz, -10 dB frequency response
- 8 ohm nominal impedance
- 16 watts continuous pink noise
- 32 watts continuous program
- Internal driver overload protection circuit

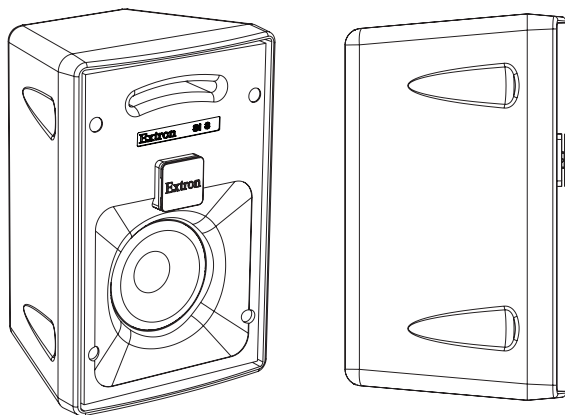


Figure 2 — SI 3 speakers (with front grille removed)

NOTE Refer to packaging information for location. Carefully remove and check contents before installation.

NOTE Extron recommends that the wiring installation be performed by a professional audio equipment installer.

CAUTION Use cable clamps to hold the cables in place for strain relief. Trim back/insulate exposed cable shields with heat shrink to reduce the chance of short circuits.

NOTE For "Troubleshooting Tips" see pages 10 and 11.

NOTE For "Service Access" see page 9.

Features

Features

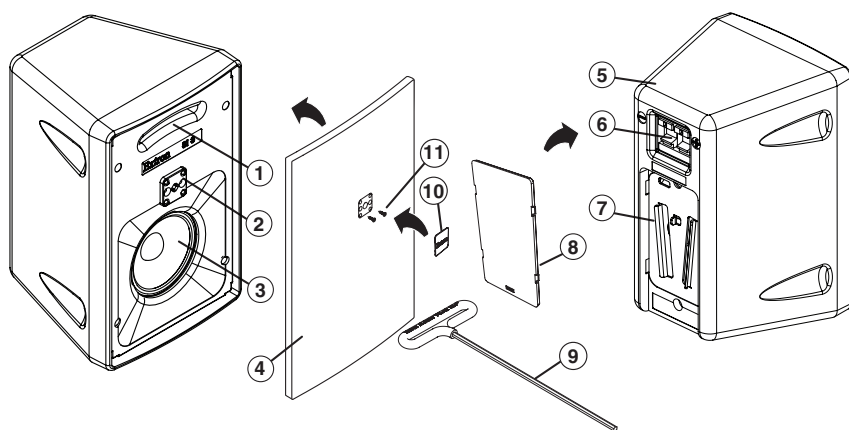


Figure 3 — Speaker features

Dimensions: 8.75" H x 5.75" W x 5.61" D
(22.2 cm H x 14.6 cm W x 14.24 cm D)

- ① Bass reflex port
- ② Front locking access (allows for speaker position adjustment)
- ③ 3" full range driver with paper cone
- ④ Grill and enclosure may be painted to match environment
- ⑤ Weather resistant construction
- ⑥ Push down spring terminals
- ⑦ Wall mount assembly with unique V-Lock™ system included
- ⑧ Back cover for use when speakers are not wall mounted
- ⑨ Hex tool
- ⑩ Extron logo (fits in grill to cover locking port access)
- ⑪ Front grill retaining screws (2)

Installation

Installing the SI 3 Speakers

The Extron SI 3 speakers can be mounted on a surface, such as a wall or post, or mounted in a bookcase, or on a shelf, and can be used with any Extron product supporting audio.

NOTE *If the speakers are to be placed on a horizontal surface such as a desk or shelf, attach the back cover to enhance the speaker appearance.*

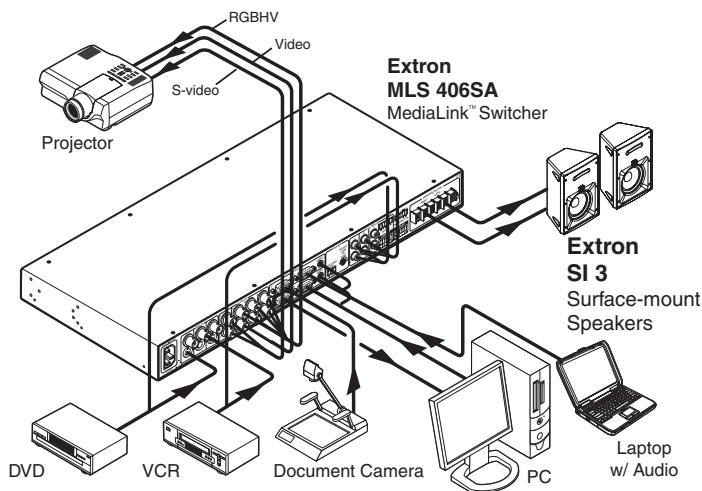


Figure 4 — Surface speaker application

Desktop or bookshelf applications

1. For quick installation on a desktop or bookshelf, simply place on a desk, shelf, or other flat surface as desired.
2. Route the speaker wire (Extron recommends using 12-18 AWG) to the speakers.
3. Strip the wire and connect the speakers as described in "Wiring the speakers" on page 8.

Wall mounting applications

Installing the wall mount assembly

NOTE Before starting installation, ensure that the wall and wall material are capable of supporting the combined weight of the speakers and the wall mount assemblies.

1. If mounting to drywall, use a stud locator to locate the studs in the wall. Mark their position.
2. Remove the wall mount assembly from the box and loosen the central hex cap screw (turning it counter clockwise) with the supplied hex tool. Rotate the front section approximately 90 degrees to the rear mounting plate, as shown in figure 5, and tighten the hex cap screw to lock the front section in position. This makes the next steps easier to perform.

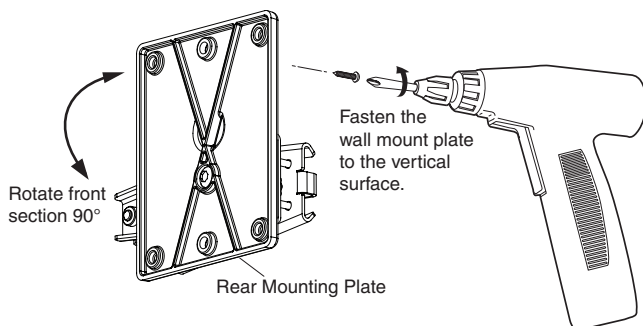


Figure 5 — Rotating and mounting the wall mount assembly

3. Mark the location of the wall mount plate's primary mounting holes on the stud line, and drill pilot holes.

NOTE For some surfaces the four alternative pilot dimples (see figure 6) may be used to secure the assembly in place. Mark and drill as appropriate.

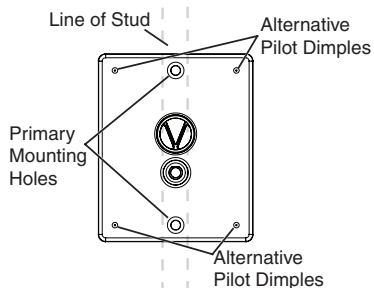


Figure 6 — Mounting holes on the rear plate

4. Mark the wall where the wire will pass through the plate, and cut a small access hole large enough for the wire to pass through without interference. Where the stud is wider than the plate's access hole, cut the hole in the wall to the left or right and directly alongside the stud (see figure 7).

NOTE *Before cutting the hole in the wall, make sure the plate will hide the hole after installation.*

5. Using compatible speaker wire (Extron recommends using 12-18 AWG), route the wire from the audio source to the speaker location by the most convenient and safe route. If the wiring is to remain hidden behind the wall, follow the stud to where the small access hole has been cut, and feed about two feet of wire out through the hole into the room. If necessary, bend the wire behind the plate to align with the hole in the plate (see figure 7). If possible, secure the wire to the stud at various places. Allow enough freedom of movement at the hole for speaker connection.

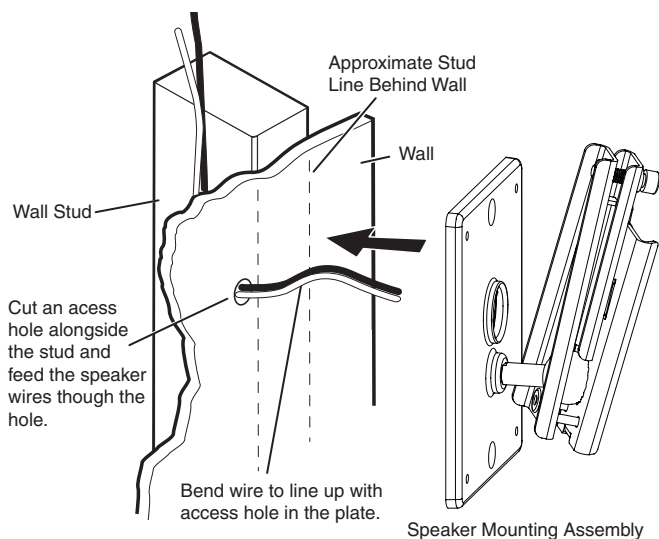


Figure 7 — Installing the wall mount assembly

NOTE *Extron recommends that the wiring installation be performed by a professional audio equipment installer.*

Installation, cont'd

6. Pull sufficient wire up through the holes in the rear plate (see figure 8) to allow ease of connection to the speaker after installation.

NOTE *Do not strip and connect the wire at this time.*

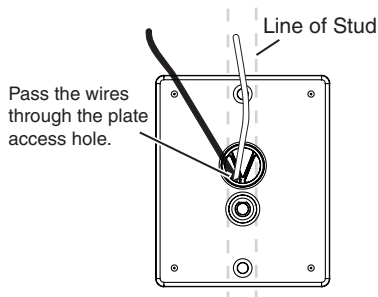


Figure 8 — Passing the wire through the plate

7. Place the wall mount assembly against the wall, aligning the plate mounting holes with those drilled, and secure the assembly with appropriate hardware (see figure 5) using a screwdriver with an appropriate screw bit.
8. When the assembly is securely in place, loosen the hex cap screw (turn counter clockwise) and rotate the front section back into a vertical position with the hex cap screw at the top. Using the hex tool, turn the hex cap screw clockwise to tighten it.
9. Repeat steps 1 through 8 for the second assembly mount.

Preparing the speaker for mounting

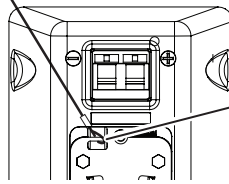
1. If the back covers were installed previously, remove them by carefully inserting a flat bladed screwdriver to loosen the two lower locking tabs first, then one or more of the top tabs. Take care not to crack or chip the cover or break off the locking tabs. Lift away the cover as it comes free.
2. At this point connect an optional seismic safety cable (not supplied) to the rear of the speaker by looping it through the hole on the box bracket and securing it (see figure 9). Anchor the other end to a suitable secure point above the speaker wall assembly mount.

CAUTION *The safety cable should be of sufficient strength to support the full weight of the speaker and wall mount assembly combined.*

NOTE *Ensure that the cable is long enough to allow you to connect the speaker wires and to manipulate the speaker into position on the assembly mount.*

Anchor this end to a suitable secure point.

Seismic Safety Cable



Attach cable here and secure it.

Figure 9 — Attaching a seismic safety cable to the rear of the speaker

Mounting the SI 3 speaker onto the wall mount assembly

3. Carefully lift the speaker above the wall mount assembly and gently slide the speaker box bracket down into the V-Lock groove (see figure 10) until it locks into place.

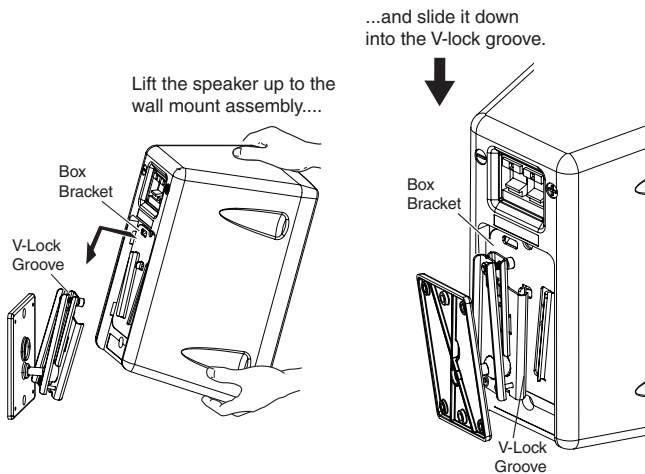


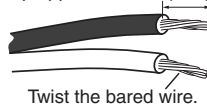
Figure 10 — Sliding the speaker down onto the wall mount assembly

4. Repeat steps 1 through 3 for the second speaker, then proceed to "Wiring the speakers" section.

Wiring the speakers

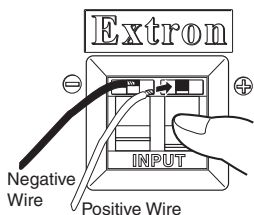
1. When both speakers are in place, carefully pull enough speaker wire to reach to the terminals at the back of the each speaker and strip the ends of the wire approximately 5/8" (15 mm). Twist the bare strands so that they are held firmly in the connectors.
2. Press down on the spring loaded terminals to open the holes at the top. Observing the correct polarity, (positive wire to \oplus terminal and negative wire to \ominus terminal) insert the twisted ends into the open holes (see figure 11) and release the springs to secure them. Push any loose wire back into the wall.

Strip approx. 15 mm (5/8").



CAUTION

Do not connect the speaker wires from one channel in parallel (together) with wires of the other channel on the same terminal.



Push down on the spring terminals at the back of the speaker, and insert the wires. Release the springs to secure.

Figure 11 — Inserting wiring into the terminals

3. Turn on the audio source and any associated devices. Follow the manufacturer's instructions to adjust the source and device settings as desired to get the optimum audio output for your speaker application. It may be necessary to adjust the angle of the speaker (see steps 5 and 6 below) to get the best audio coverage area for your application.
4. To adjust the angle of the speaker, carefully remove the Extron logo on the front of the speaker to expose the front locking access (see figure 3, item ②, for location). To do this, carefully pry the logo away with your fingers or use a small flat head screwdriver (see figure 12), taking care not to damage the front grill or the logo.

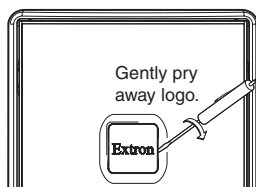


Figure 12 — Removing the logo from the front grill

5. Insert the hex tool into the locking access, and slightly loosen the hex cap screw. Adjust the speaker to the desired angle (see figure 13), and torque the hex cap screw down clockwise until snug, about 6 to 8 turns. The speaker remains securely in the desired position.

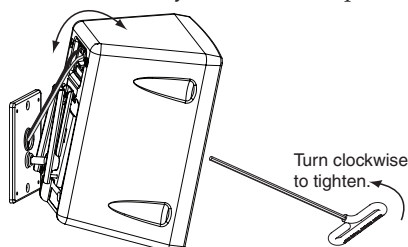


Figure 13 — Adjusting speaker and locking in place

NOTE Check that the speaker is secure and cannot be lifted from the wall mount assembly after locking it into place. If it does lift out, continue tightening down the hex cap screw until it is no longer possible to lift the speaker from the wall mount assembly.

6. Replace the Extron logo, pressing it firmly into place.

NOTE The Extron logo can be fitted either horizontally or vertically

Service Access

In order to service the speaker it may be necessary to remove the front grill.

To remove the grill:

1. Carefully remove the Extron logo (see step 4 on page 8).
2. Remove the two small screws from the front grill (see figure 14 for location).

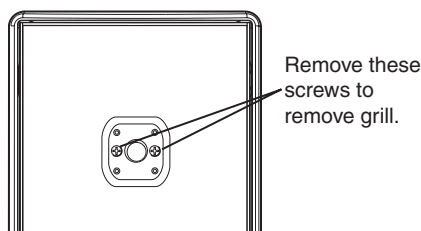


Figure 14 — Grill retaining screws under the Extron logo (shown with logo removed)

3. Using a paper clip or similar wire, hook the grill and carefully pull it away, taking care not to damage it.

Troubleshooting Tips

To refit the grill:

1. Carefully press the grill back into place.
2. Insert and tighten down the screws.
3. Replace the logo.

Securing the grill (optional)

NOTE *If the speaker makes the grill vibrate and creates unwanted noise when in use, it can be secured to the speaker enclosure using the supplied pack of putty.*

To secure the grill, do the following:

1. After removing the grill, press four pieces of putty onto the outer edges of the grill, one on each edge (see figure 15).

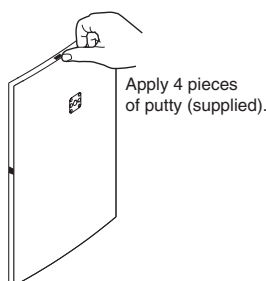


Figure 15 — Applying the putty to speaker grill

2. Press the grill firmly into place on the enclosure.
3. Insert and tighten down the two screws. Replace the logo.

Troubleshooting Tips

If you have problems with your speaker, refer to the table on page 11 for the possible problem, cause, and remedial action. If you do not see your problem listed, or if the remedial action suggested does not cure the problem, consult your local Extron dealer or the Extron S3 Sales and Technical Support Hotline (see Warranty).

The following are tips to help you in troubleshooting:

- Some symptoms may resemble others, so you may want to look through all of the examples before attempting to solve the problem.
- Be prepared to backtrack in case the action taken doesn't solve the problem.
- It may help to keep notes and sketches in case the troubleshooting process gets lengthy. This will also give you something to discuss if you call for technical support.
- Try simplifying the system by eliminating components that may have introduced or complicated the problem.

	Observed Problem	Possible Cause(s)	Remedial Action
1	Speaker easily lifted from mount assembly	Locking hex cap screw not tightened enough	Following the steps on page 9, tighten the hex cap screw until it is not possible to remove the speaker.
2	No sound heard from speakers	Speaker cables not connected or damaged	Reconnect or replace speaker cable. Check cable routing.
		Output device (e.g., amplifier)	<p>Check that the output devices are plugged in and powered on.</p> <p>Check that all cables are connected correctly.</p> <p>Check that an output signal is present. If present, change cables and/or use a known working set of speakers.</p> <p>Check that volume settings are adequately high.</p> <p>Replace suspect devices with known working devices. Retry the system.</p>
3	Output poor or intermittent	Damaged cables or faulty connection	Check cables and connections. Reconnect or replace if needed.
4	Constant buzzing, hissing, or humming	Faulty device(s) within sound system	Check all devices. Swap out and test with known working devices to isolate interference source. Replace faulty device(s).
		System grounding inadequate or suspect	Check grounding to devices and repair where needed.
5	Poor low frequency output	Incorrect speaker polarity connection between multiple speakers	Check polarity between speakers. Incorrect polarity (out of polarity) results in low frequencies cancelling each other out. Reverse polarity for each speaker in turn until a greater low frequency is obtained.

Specifications

Audio/acoustic and electrical

Speaker type.....	Indoor/outdoor surface mount speaker
Frequency range.....	75 Hz to 18 kHz, -10 dB, half space
Power capacity	16 W continuous pink noise 32 W continuous program
Nominal sensitivity.....	83 dB SPL, 1W, 1m, half space
Nominal impedance	8 ohms
Driver.....	3" (76.2 mm) paper cone
Overload protection.....	Full range power limiter
Input connector	2 pin spring terminals

General

Package.....	2 speakers (1 pair)
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70° C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50° C) / 10% to 90%, noncondensing
Mounting.....	Wall mountable with included V-lock™ brackets

NOTE *V-lock brackets can be angled up to 20° upward,
35° downward, 30° to the left, and 30° to the right.*

Enclosure type	Plastic, trapezoidal, with metal grille and bass reflex ports
Grill material.....	Perforated steel, powder coat black or white
Enclosure outer dimensions	8.75" H x 5.75" W x 5.6" D (22.2 cm H x 14.6 cm W x 14.24 cm D)
Product weight	4.0 lbs (1.8 kg) each
Shipping weight	13 lbs (6 kg) per pair with mounting kit package
Warranty.....	5 years parts and labor

NOTE *All nominal levels are at ±10%.*

NOTE *Specifications are subject to change without notice.*

Extron's Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of five years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

**USA, Canada, South America,
and Central America:**

Extron Electronics
1001 East Ball Road
Anaheim, CA 92805, USA

Europe, Africa, and the Middle East:

Extron Electronics, Europe
Beeldschermweg 6C
3821 AH Amersfoort
The Netherlands

Asia:

Extron Electronics, Asia
135 Joo Seng Road, #04-01
PM Industrial Bldg.
Singapore 368363

Japan:

Extron Electronics, Japan
Kyodo Building
16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or non-Extron authorized modification to the product.

If it has been determined that the product is defective, please call Extron and ask for an Applications Engineer at (714) 491-1500 (USA), 31.33.453.4040 (Europe), 65.6383.4400 (Asia), or 81.3.3511.7655 (Japan) to receive an RA# (Return Authorization number). This will begin the repair process as quickly as possible.

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.



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