Sonnex® Multiroom Audio System

The Crestron® [SWAMP-24X8](#) and [SWAMPI-24X8](#) are the centerpieces of a fully scalable audio distribution system that delivers powerful, audiophile-quality sound to every room with significantly reduced cabling, low power consumption, advanced digital signal processing, and integrator-friendly setup. A Sonnex system can be configured with the Sonnex Tools application which is part of [Crestron Toolbox™ software](#) or the SWAMP-24X8's front panel controls.

The SWAMP-24X8 and SWAMPI-24X8 are functionally identical. For simplicity within this guide, the term "SWAMP-24X8" is used except where noted.

In the Box

1	SWAMP(I)-24X8, Sonnex® Multiroom Audio System

Additional Items

2	Bracket, Rack Ear, 4U (P/N 2026436)
2	Connector, 4-Pin (P/N 2003576)
4	Connector, 5-Pin (P/N 2003577)
16	Connector, 2-Pin (P/N 2012361)
1	Label Set (P/N 4511969)
2	Screw, 6-32 x 5/16 in., Undercut Head, Phillips (P/N 2007223)

SWAMP-24X8 Only

1	Fuse, 15.0 A, Time Lag, 1.25 in. x 0.25 in., Ceramic Cartridge, 250 V (P/N 2021919)
1	Power Cord, 6 ft 7 in. (2 m) (P/N 2025416)

SWAMPI-24X8 Only

1	Fuse, 8.0 A, Time Lag, 5 mm x 20 mm, Ceramic Cartridge, 250 V (P/N 2023062)
1	Cable, Power (P/N varies by country)

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SWAMP(I)-24X8

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⚙ Install

Refer to the Safety Instructions (Doc. 6607) prior to installation.

The SWAMP-24X8 can be placed on a table or installed in a rack.
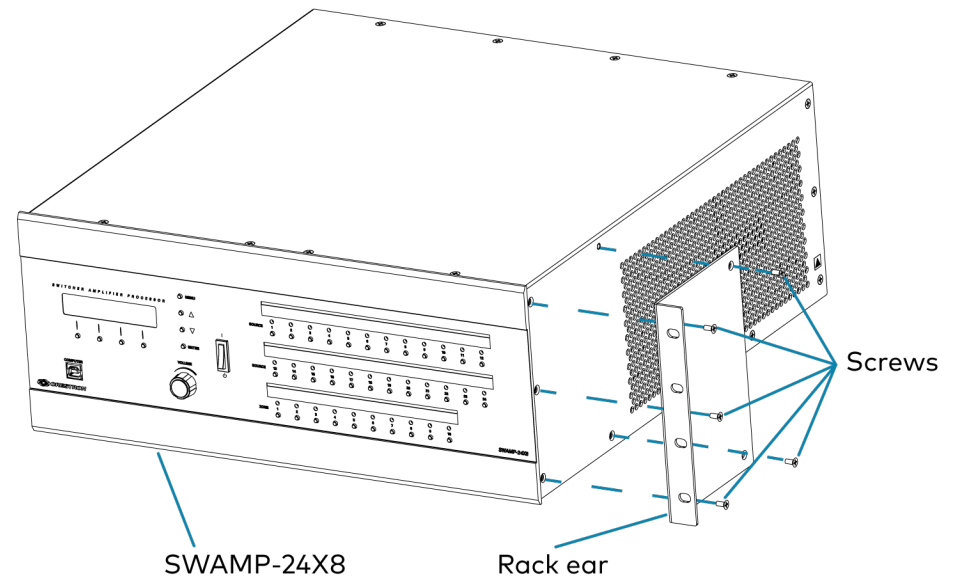
Place on a Table

Four feet are preinstalled for placing the device on a flat surface or stacking on top of another device.

NOTE: No more than two SWAMP-24X8 devices should be stacked.

Rack Installation

NOTE: Four feet are preinstalled for tabletop mounting or stacking. If the unit is to be rack mounted, the feet are not required and can be removed with a #1 Phillips screwdriver to provide more space in the rack.

The SWAMP-24X8 occupies 4U of rack space. Use the five screws from the front part of each side panel, and a # 1 Phillips screwdriver to attach the two included rack ears to the device, as shown in the following illustration. Then mount the device into the rack using eight rack mounting screws (not included).

SWAMP-24X8   Rack ear   Screws

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Rack Mounting Safety Precautions

Elevated Operating Ambient Temperature: If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

Reduced Airflow: Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

Mechanical Loading: Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

Circuit Overloading: Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Reliable Earthing: Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

Connect

Connect the device as called out in the following illustrations. Connect power last.

WARNING: This amplifier is capable of delivering immense amounts of undistorted power to the loudspeakers. Please use caution and adequate ear protection if listening to content at high volume levels as continued exposure to high sound pressure levels can cause permanent hearing impairment or loss.
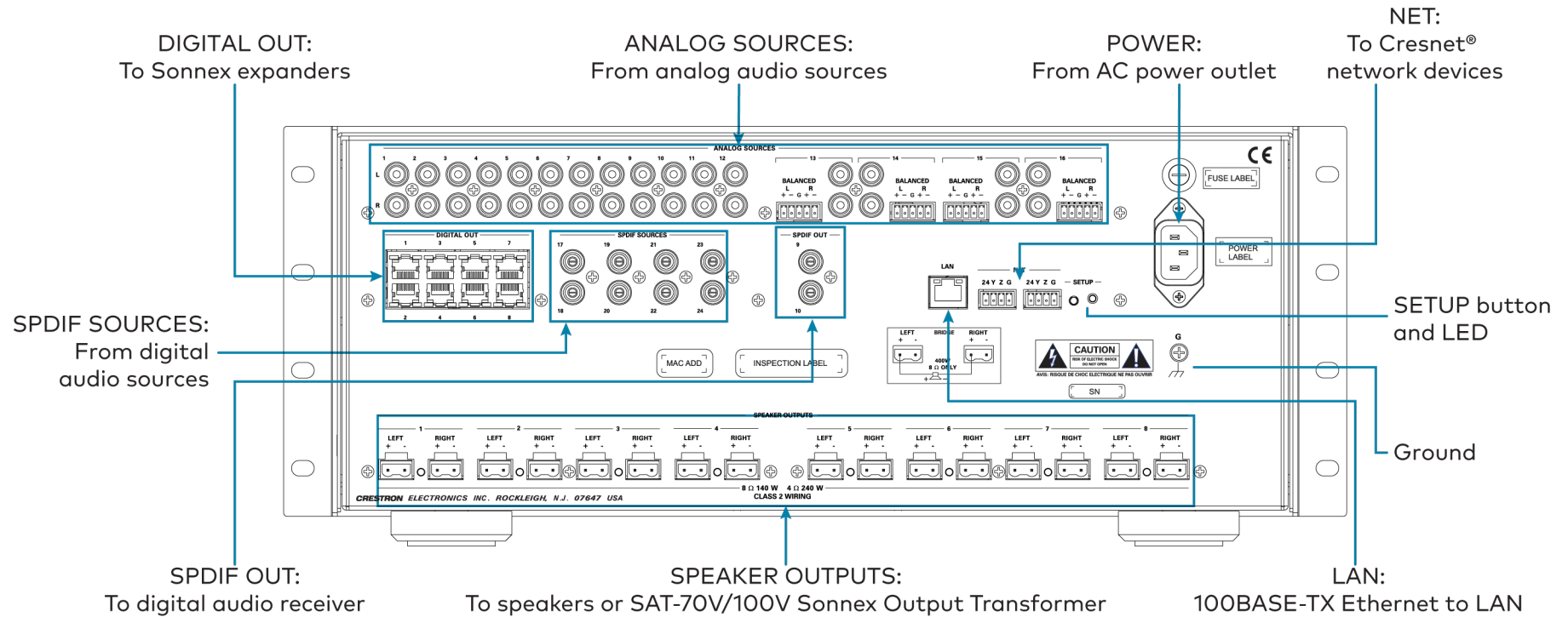
CAUTION:

- Keep the device unplugged until all of the input, network, and speaker wiring is complete.
- Check the speaker cables for shorts and frayed wiring around the SPEAKER OUTPUTS connectors.

NOTE: When installing the SWAMP24X8, a dedicated 15 amp circuit is strongly recommended. When installing the SWAMPI-24X8, a dedicated 10 amp circuit is strongly recommended.
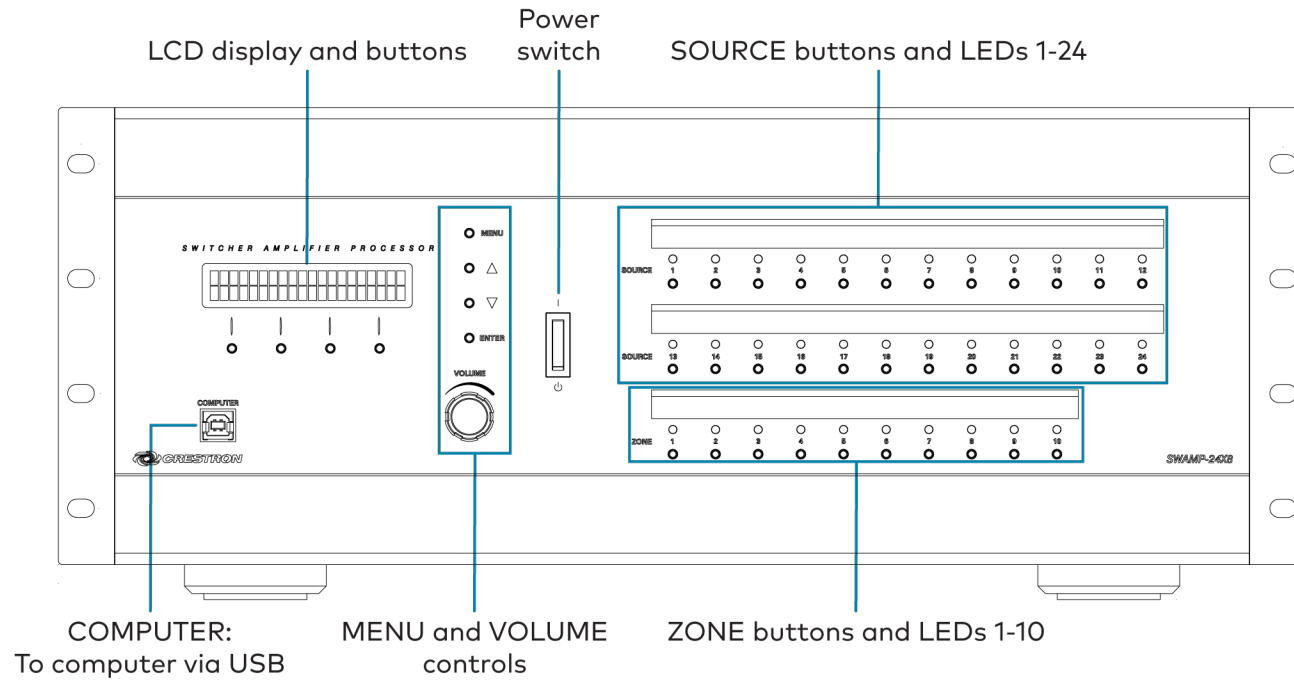
Sonnex® Multiroom Audio System

SWAMP-24X8 rear panel

DIGITAL OUT:
To Sonnex expanders

ANALOG SOURCES:
From analog audio sources

POWER:
From AC power outlet

NET:
To Cresnet®
network devices

SPDIF SOURCES:
From digital
audio sources

SETUP button
and LED

Ground

SPDIF OUT:
To digital audio receiver

SPEAKER OUTPUTS:
To speakers or SAT-70V/100V Sonnex Output Transformer

LAN:
100BASE-TX Ethernet to LAN

SWAMP(I)-24X8

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SWAMP-24X8 front panel

LCD display and buttons — Power switch — SOURCE buttons and LEDs 1-24

COMPUTER: To computer via USB — MENU and VOLUME controls — ZONE buttons and LEDs 1-10

Sonnex® Multiroom Audio System

Connect Audio Sources

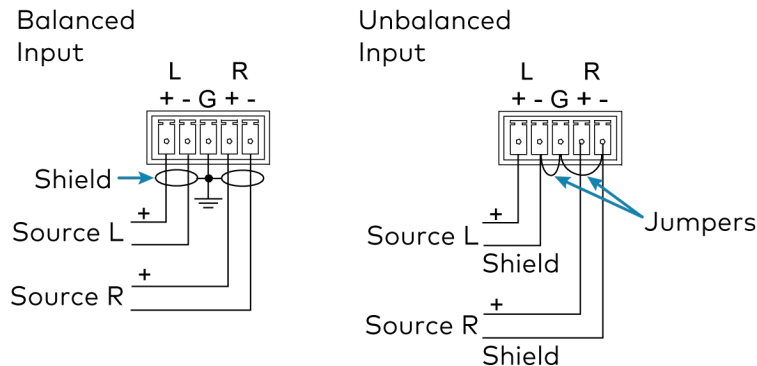The SWAMP-24X8 can receive audio from up to 24 sources.

Unbalanced Analog Audio

ANALOG SOURCES 1 through 12 receive unbalanced analog audio through RCA connectors.

Balanced and Unbalanced Analog Audio

ANALOG SOURCES 13 through 16 can receive balanced analog audio through terminal block connectors or unbalanced analog audio through terminal block connectors or RCA connectors.

> **NOTE:** The signal from an input's terminal block connector is summed with the unbalanced signal from the input's RCA connector. To avoid clipping, choose either the terminal block connector or the RCA connector.

Connect the terminal block connectors for balanced or unbalanced analog audio as shown in the following diagram.

Digital Audio

SPDIF SOURCES 17 through 24 receive digital PCM audio through S/PDIF coaxial RCA connectors.

Connect Devices

The SWAMP-24X8 can connect to a Crestron control system over Ethernet or Cresnet. The SWAMP-24X8 can also connect to Sonnex Multiroom Audio Expanders for system expansion.

LAN Port

Connect the LAN port to a LAN to communicate with a Crestron control system over Ethernet.

NET Port

Connect the NET port to other Cresnet devices to communicate with a Crestron control system over Cresnet.

> **NOTE:** If the SWAMP-24X8 is connected to a Crestron control system by Cresnet, only one Sonnex® Multiroom Audio Expander can be connected. Refer to "Sonnex Multiroom Audio Expanders" for more information.
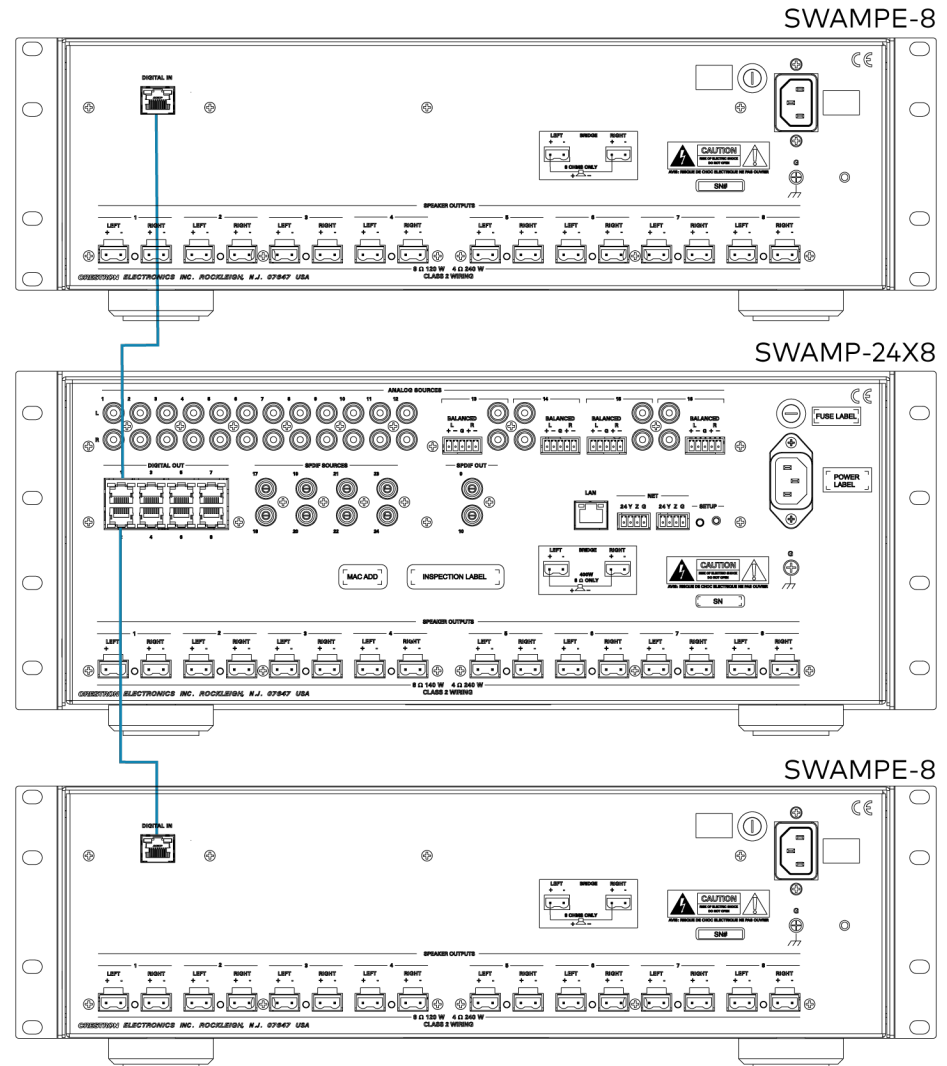
Sonnex® Multiroom Audio System

Sonnex Multiroom Audio Expanders

The SWAMP-24X8 has 8 DIGITAL OUT outputs to increase the number of output zones with a SWAMPE-4 (or SWAMPIE-4 for use with SWAMPI-24X8) or SWAMPE-8 (or SWAMPIE-8 for use with SWAMPI-24X8) Sonnex Multiroom Audio Expander.

Connect a DIGITAL OUT port on the SWAMP-24X8 to a DIGITAL IN port on a SWAMPE-4 or SWAMPE-8 with a shielded CAT5e (or better) cable as shown in the following diagram. Up to 8 audio expanders can be connected to one SWAMP-24X8.

NOTES:

- Crestron recommends using Crestron DM-CBL-8G or high-quality CAT5e shielded twisted-pair cable (sold separately). Shielded connectors such as the DM-8G-CONN (sold separately) must also be used. The maximum cable length between a SWAMP-24X8 and an expander is 200 ft (61 m).
- If the SWAMP-24X8 is connected to a Crestron control system by Cresnet, only one audio expander can be connected.

SWAMPE-8

SWAMP-24X8

SWAMPE-8

Sonnex® Multiroom Audio System
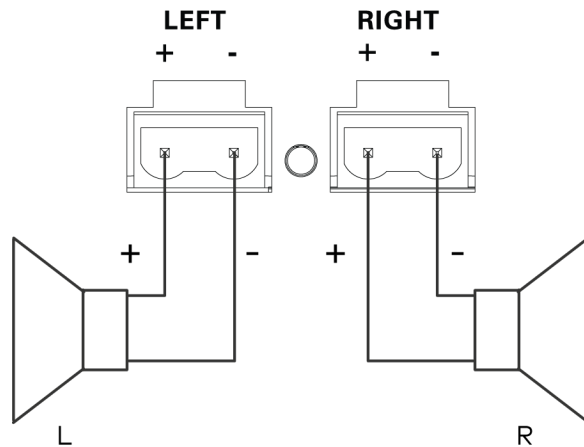
Connect Outputs

The SWAMP-24X8 has output connections for speakers and SPDIF digital audio.

Speaker Outputs

SPEAKER OUTPUTS for zones 1 through 8 are for connecting speakers or a SAT-70V/100V-2 or SAT-70V/100V-4 Sonnex® Output Transformer as part of a distributed audio system. The speaker outputs can be wired conventionally or bridged together to deliver higher output power.
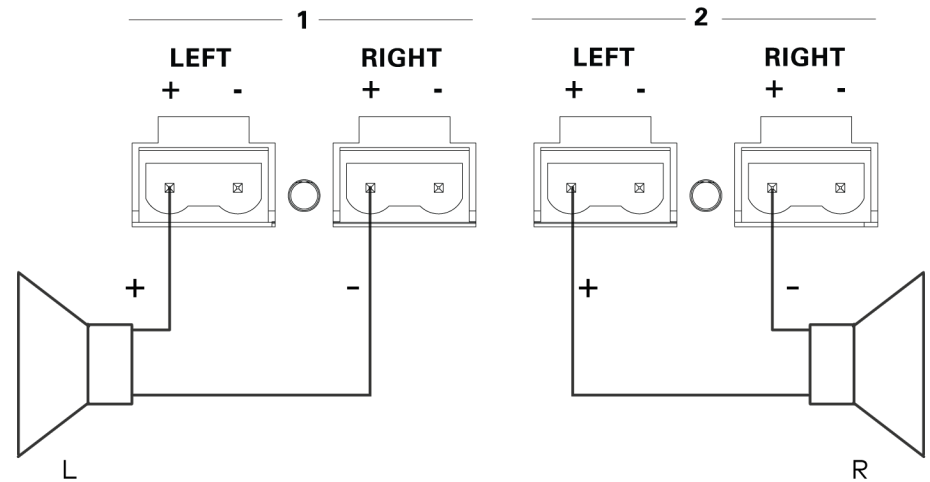
Conventional Wiring

Connect speakers to the SWAMP-24X8 as shown in the following diagram.

NOTE: If a SAT-70V/100V-2 or SAT-70V/100V-4 Sonnex® Output Transformer is connected to a speaker terminal as part of a distributed audio system, use the SAT-70V/100V profile built into the Sonnex Tools application (part of Crestron Toolbox software) to configure a high-pass filter on the zone that is connected to the output transformer. For details, refer to the Crestron Toolbox help file.

Bridged Wiring

Connect speaker outputs as shown in the following diagram to deliver more power to the speakers (8 ohm speakers only).

NOTE: Bridged speaker outputs must be configured for bridged operation using the **Installer Mode** menu or the Sonnex Tools application in Crestron Toolbox software.

Digital Audio Outputs

SPDIF OUTPUTS 9 and 10 use RCA connectors to provide S/PDIF coaxial fixed digital audio to digital audio receivers.

NOTE: The signal from outputs 9 and 10 is at a fixed level. Ensure the connected device has the ability to adjust volume.

Sonnex® Multiroom Audio System

⚙️ ## Configure

Configure a Sonnex system with the Sonnex Tools application in Crestron Toolbox software or the SWAMP-24X8's front panel controls.
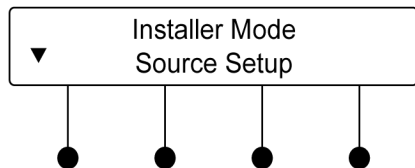
Sonnex Tools Application

Use the Sonnex Tools application in Crestron Toolbox software to configure a Sonnex System. For details, refer to the Crestron Toolbox help file.

Front Panel Controls

Use the front panel controls to configure a SWAMP-24X8.

1. Press and hold ▲ and ▼ for approximately 5 seconds to display the **Installer Mode** menu.

```
         Installer Mode
    ▼    Source Setup
```
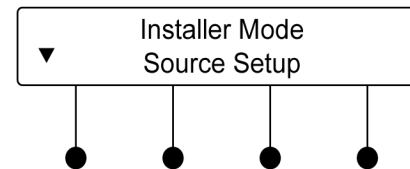
The **Installer Mode** menu is separated into seven submenus.

- **Source Setup** adjusts the compensation level for each input source.
- **Zone Setup** configures each output zone's settings for audio, Sonnex links (busses), bridging (with other outputs), and power output.
- **Expander Status** provides the status of each connected SWAMPE Sonnex Multiroom Audio Expander.
- **Amplifier Status** shows the settings and operating status of the SWAMP-24X8's built-in amplifiers and connected SWAMPE Sonnex Multiroom Audio Expanders.

- **Network Setup** configures and views the SWAMP-24X8's Ethernet settings.
- **Control Setup** configures the SWAMP-24X8 for use with a Crestron control system and also locks and unlocks the front panel controls.
- **About** displays information about the firmware.

2. Press ▲ or ▼ to display the desired submenu, and press **ENTER** to select it.

```
         Installer Mode
    ▼    Source Setup
```

For details on configuring a system with the **Installer Mode** menu, refer to the SWAMP(I)-24X8 Operations Guide (Doc. 7049).

Sonnex® Multiroom Audio System

 Operation

The SWAMP-24X8 can be controlled from the front panel.

Power

- Move the **POWER** switch to **|** to turn on the SWAMP-24X8.
- Move the **POWER** switch to ⏻ to turn off the SWAMP-24X8.

Volume Control

Turn the **VOLUME** knob clockwise to raise the volume in the selected zone(s).

Turn the **VOLUME** knob counterclockwise to lower the volume in the selected zone(s).

Operating Modes

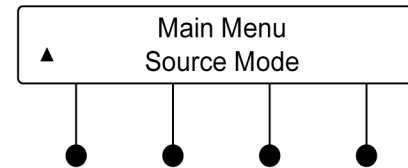The SWAMP-24X8 operates in either Zone mode or Source mode.

When operating in Zone mode, a source is routed to a single zone.

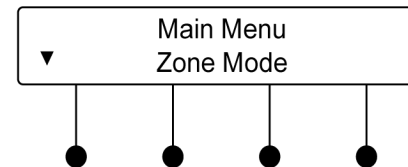When operating in Source mode, a source is routed to a single or multiple zones.

Zone Mode

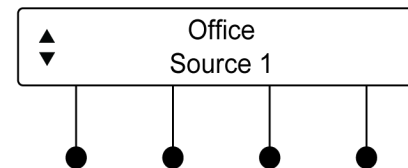Select Zone mode to route a source to a single zone.

1. Press **MENU** until **Main Menu** appears on the display.

2. Press ▼ or ▲ to display **Zone Mode** and press **ENTER**.
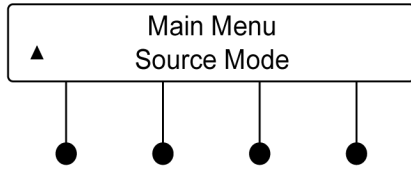

3. Press the **ZONE** button of the zone selected to receive the routed source.

4. Press the **SOURCE** button of the source to be routed to the zone. The associated **SOURCE** and **ZONE** LEDs will light and the display will show the zone and its selected source.
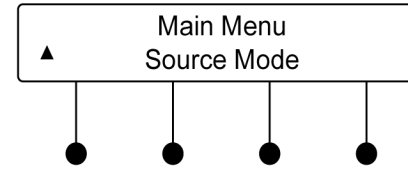

To turn off the zone, press its **ZONE** button. The associated **ZONE** LED will turn off.

Sonnex® Multiroom Audio System
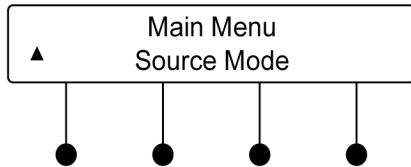
5. Press **MENU** to return to the Main Menu.

```
┌────────────────────────────┐
│         Main Menu          │
│ ▲       Source Mode        │
└──┬─────┬─────┬─────┬───────┘
   │     │     │     │
   ●     ●     ●     ●
```

4. Press **MENU** to return to the Main Menu.

```
┌────────────────────────────┐
│         Main Menu          │
│ ▲       Source Mode        │
└──┬─────┬─────┬─────┬───────┘
   │     │     │     │
   ●     ●     ●     ●
```
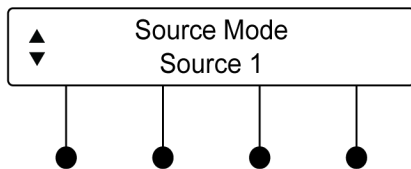
Source Mode

Select Source mode to route a source to a single or multiple zones.

1. Press **MENU** until **Main Menu** appears on the display.

```
┌────────────────────────────┐
│         Main Menu          │
│ ▲       Source Mode        │
└──┬─────┬─────┬─────┬───────┘
   │     │     │     │
   ●     ●     ●     ●
```

2. Press the **SOURCE** button of the source to be routed to the zone(s). The associated **SOURCE** LED will light.

3. Press the **ZONE** button(s) of the zone(s) selected to receive the routed source. The associated **SOURCE** and **ZONE** LED(s) will light and the display will show the selected source.

```
┌────────────────────────────┐
│ ▲       Source Mode        │
│ ▼        Source 1          │
└──┬─────┬─────┬─────┬───────┘
   │     │     │     │
   ●     ●     ●     ●
```

To remove a zone from the routed source, press its **ZONE** button. The associated **ZONE** LED will turn off.

Sonnex® Multiroom Audio System

Visit the Product Page

Scan the QR code to visit the product page.

SWAMP-24X8

www.crestron.com/model/6503583

SWAMPI-24X8

www.crestron.com/model/6503584

Additional Information

Original Instructions

The U.S. English version of this document is the original instructions.
All other languages are a translation of the original instructions.

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