QUICK START GUIDE: I/O Expansion Card

What Ships in the Box

- I/O card.
- Card bracket.
- 2 black 4-40 Phillips head screws.
- 3 stainless steel 4-40 Phillips head screws.
- 2 or 4 detachable three position 3.81 mm terminal block connectors.

  Note: Terminal block connectors are not included with the 2 Line Analog Telephone Interface Card, 2 Line VoIP Interface Card, or the USB Audio Card.

- This Quick Start Guide.

What You Need to Provide

- Radius 12x8 EX, Radius AEC, Radius NX 4x4, Radius NX 12x8, or Edge.
- Anti-static work station.

Getting Help

Composer, the Windows software that configures Symetrix Dante Network Audio hardware, includes a help file which acts as a complete User's Guide for both hardware and software. If you have questions beyond the scope of this Quick Start Guide, contact our Customer Support Group in the following ways:

Tel: +1.425.778.7728 ext. 5
6:00 am to 5:00 pm PST
Monday through Friday
Web: https://www.symetrix.co
Email: support@symetrix.co
Forum: https://forum.symetrix.co

- **Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.
- Cet appareil numerique de la classe B respecte toutes les Exigences du Reglement sur le materiel brouilleur du Canada.
- The 2-line analog telephone interface card device is in compliance with the Federal Communications Commission's (FCC) Rules and Regulations 47 CFR Part 68, and the Administrative Council on Terminal Attachments (ACTA) – adopted technical criteria, TIA-968-B – Telephone Terminal Equipment, Technical Requirements For Connection of Terminal Equipment To The Telephone Network, August 2009 and TIA-1096.
- The 2-line analog telephone interface card device meets the Industry Canada technical specifications CS-03 Part I for terminal equipment and related access arrangements intended for direct connection to analogue wireline facilities and DC-01(E) for the declaration of conformity and registration of terminal equipment. The Ringer Equivalence Number (REN) is an indication of the maximum number of devices allowed to be connected to a telephone interface. The REN for the Analog Telephone Interface (ATI) card is two. The termination of an interface may consist of any combination of devices subject only to the requirement that the sum of the REN's not exceed two per ATI card. Multiple ATI Cards may be installed to increase the REN for a system.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water. This apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install only in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. This apparatus shall be connected to a mains socket outlet with a protective earthing connection. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Ensure proper ESD control and grounding when handling exposed I/O terminals.
11. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
12. Only use attachments/accessories specified by the manufacturer.
13. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
14. Unplug this apparatus during lightning storms or when unused for long periods of time.
15. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug cord is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE

AVIS: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

SEE OWNERS MANUAL. VOIR CAHIER D'INSTRUCTIONS.
No user serviceable parts inside. Refer servicing to qualified service personnel.
Il ne se trouve a l'interieur aucune piece pourvant entre reparée l'usager.
S'adresser a un reparateur compétent.

- **The lightning flash** with arrowhead symbol within an equilateral triangle is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons. The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product (i.e. this Quick Start Guide).

- **CAUTION:** To prevent electric shock, do not use the polarized plug supplied with the device with any extension cord, receptacle, or other outlet unless the prongs can be fully inserted.

- **Power Source:** This Symetrix hardware uses a universal input supply that automatically adjusts to the applied voltage. Ensure that your AC mains voltage is somewhere between 100-240 VAC, 50-60 Hz. Use only the power cord and connector specified for the product and your operating locale. A protective ground connection, by way of the grounding conductor in the power cord, is essential for safe operation. The appliance inlet and coupler shall remain readily operable once the apparatus has been installed.

- **User Serviceable Parts:** There are no user serviceable parts inside this Symetrix product. In case of failure, customers inside the U.S. should refer all servicing to the Symetrix factory. Customers outside the U.S. should refer all servicing to an authorized Symetrix distributor. Distributor contact information is available online at: http://www.symetrix.co.

ESD Warning

This product can be damaged by electrostatic discharge (ESD). When handling, care must be taken so that the devices are not damaged. Damage due to inappropriate handling is not covered by the warranty.

The following precautions must be taken:

- Do not open the protective conductive packaging until you have read the following, and are at an approved anti-static work station.

- Use a conductive wrist strap attached to a good earth ground.

- Always discharge yourself by touching a grounded bare metal surface or approved anti-static mat before picking up an ESD-sensitive electronic component.

- Use an approved anti-static mat to cover your work surface.

Card Set-up and Configuration

Once you are properly grounded, follow this sequence of steps to properly set-up and configure Symetrix I/O cards in your Radius 12x8 EX, Radius AEC, or Edge hardware.

First, make sure the unit is powered down. Next, you must remove the lid. To do this, 3 Phillips head screws need to be removed from the top of the frame. Slide the lid back and then up when removing. There is a lip that holds the front down to the chassis.

If your Radius 12x8 EX, Radius AEC, or Edge unit has blank filler panels in the card slots, unscrew and remove them by removing the two black screws located on the outside of the frame.

To remove an installed card, first remove the 2 stainless steel screws that mount the card bracket to the card. These screws are located on the inside.

Next remove the stainless steel Phillips head screw from the top of the card. Gently pull the card up to disconnect the 50-pin connector. The card is no longer attached to the frame. Carefully remove the card from the chassis.

Remove the bracket for the I/O card by removing the two black screws located on the outside of the frame. Unused I/O card bays must have a blank filler panel installed when operating a Radius 12x8 EX, Radius AEC, or Edge unit.

To install a new card, mount the bracket for the new I/O card to the frame chassis using the two black screws provided.

Next, align and feed the connectors on the I/O card through the opening in the bracket and align the single screw hole in the card with the standoff on the motherboard. Look through this hole and align with the standoff and then, carefully, apply an even downward pressure until you feel
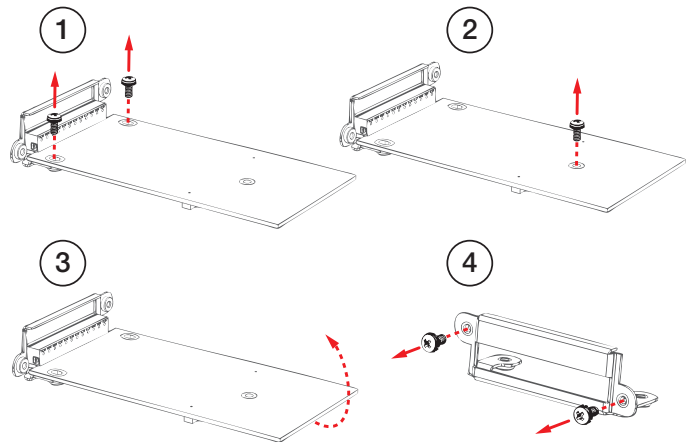
the card seat into the 50-pin socket. You will likely need to carefully move the board side to side to align the 50-pin connector. Use one of the stainless steel screws provided and mount the board to the standoff. Do not over tighten this screw. The 50-pin connector on the Symetrix I/O cards should not be under any tension when properly installed.

Now, install and tighten the 2 remaining stainless steel screws that mount the bracket to the card. This should ALWAYS be the last step before replacing the lid.
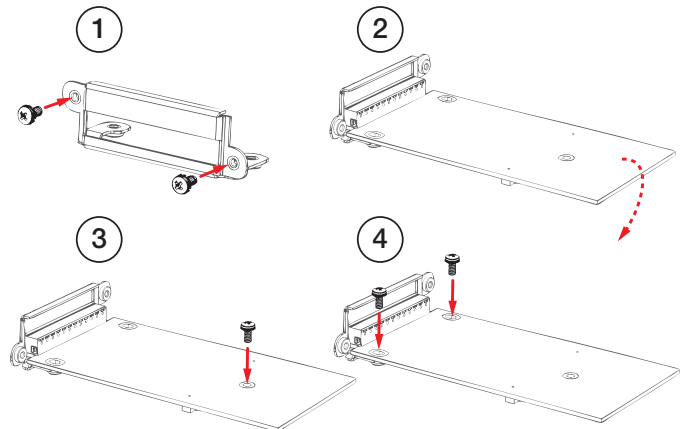
Finally, replace the lid.

The IN, OUT, AEC and DIGI LEDs on the front of the Radius 12x8 EX, Radius AEC, or Edge frame will illuminate in combination to indicate the card type installed. For example, an IN illuminates to indicate an analog mic/line input card, whereas IN and DIGI illuminate to indicate a digital input card. The IN and OUT LED's illuminate to indicate a analog telephone interface card. If the card is installed properly, the card type LED(s) will illuminate.

Remove Installed Card

Install New Card

4 Channel Analog Input Card

Connections:

Using standard mic/line cables terminated on one end with terminal block connectors and appropriate connectors for your mic/line sources on the other end, connect the terminal block ends into the Analog Mic/Line Inputs on the card and the opposite ends into your source devices' outputs. Refer to the help module included in all Symetrix software for more information on the 4 Channel Analog Input Card and audio wiring.

4 Channel Analog Output Card

Connections:

Using standard mic/line cables terminated on one end with terminal block connectors and appropriate connectors for your destination devices on the other end, connect the terminal block ends into the Analog Line Outputs on the card and the opposite ends into your destination devices' inputs. These outputs are +4 dBu balanced line level outputs by default. If you need an unbalanced output, or more information on the 4 Channel Analog Output Card, refer to the analog audio wiring diagrams located in the help module included in all Symetrix software.

4 Channel Digital Input Card

Connections:

Using 100-Ohm (balanced, AES) or 75-Ohm (unbalanced S/PDIF) cables terminated on one end with terminal block connectors and appropriate connectors for your digital sources on the other end, connect the terminal block ends into the Digital Inputs on the card and the opposite ends into your source devices' outputs. These inputs have a nominal sample rate of 48 kHz. They will accept any input ranging from 12 to 96 kHz and sample rate convert to the nominal rate of 48 kHz. Refer to the help module included in all Symetrix software for more information on the 4 Channel Digital Input Card and audio wiring.

4 Channel Digital Output Card

Connections:

Using 100-Ohm (balanced, AES) or 75-Ohm (unbalanced, S/PDIF) cables terminated on one end with terminal block connectors and appropriate connectors for your destination devices on the other end, connect the terminal block ends into the Digital Outputs on the card and the opposite ends into your destination devices' inputs. These outputs use a sample rate of 48 kHz by default. If you need a different sample rate, connect an appropriate Word Clock, AES-3/11 clock or S/PDIF clock source to the corresponding Clock Input(s) on the card. Refer to the help module included in all Symetrix software for more information on the 4 Channel Digital Output Card and audio wiring.

4 Channel AEC Input Card

Connections:

Using standard mic/line cables terminated on one end with terminal block connectors and appropriate connectors for your mic/line sources on the other end, connect the terminal block ends into the AEC Inputs on the card and the opposite ends into your source devices' outputs. Refer to the help module included in all Symetrix software for more information on the 4 Channel AEC Input Card and audio wiring.

2 Line Analog Telephone Interface Card

Connections:

Using a standard telephone cord terminated with RJ11 (6P6C) connectors, connect one end to the Line port on the Analog Telephone Interface card and opposite end to the telephone network (wall jack). Optionally, connect a standard analog telephone, dialer, audible and/or visual ringing device to the Set port of the Analog Telephone Interface Card using another telephone cord.

Note: At this time, the Symetrix 2 Line Analog Telephone Interface Card is only certified for use with US and Candian Public Switched Telephone Networks.

2 Line VoIP Interface Card

Connections:

Using a standard CAT5/6 cable terminated with RJ45 connectors, connect one end to the port on the 2 Line VoIP Interface card and opposite end to the VoIP network. Refer to the help module included in all Symetrix software for more information on the 2 Line VoIP Interface Card.

USB Audio Card

Connections:

Using a standard Type A to Type B Male USB 2.0 or higher cable, connect the Type B Male connector to the USB Audio Card and the Type A Male connector to your computer. Refer to the help module included in all Symetrix software for more information on the USB Audio Card.

The Symetrix Limited Warranty

By using Symetrix products, the Buyer agrees to be bound by the terms of this Symetrix Limited Warranty. Buyers should not use Symetrix products until the terms of this warranty have been read.

What is Covered by this Warranty:

Symetrix, Inc. expressly warrants that the product will be free from defects in material and workmanship for five (5) years from the date the product is shipped from the Symetrix factory. Symetrix's obligations under this warranty will be limited to repairing, replacing, or partially crediting original purchase price at Symetrix's option, the part or parts of the product which prove defective in material or workmanship within the warranty period, provided that the Buyer gives Symetrix prompt notice of any defect or failure and satisfactory proof thereof. Symetrix may, at its option, require proof of the original date of purchase (copy of original authorized Symetrix Dealer's or Distributor's invoice). Final determination of warranty coverage lies solely with Symetrix. This Symetrix product is designed and manufactured for use in professional audio systems and is not intended for other usage. With respect to products purchased by consumers for personal, family, or household use, **Symetrix expressly disclaims all implied warranties, including, but not limited to, warranties of merchantability and fitness for a particular purpose.** This limited warranty, with all terms, conditions and disclaimers set forth herein, shall extend to the original purchaser and anyone who purchases the product within the specified warranty period from an authorized Symetrix Dealer or Distributor. This limited warranty gives the Buyer certain rights. The Buyer may have additional rights provided by applicable law.

What is not Covered by this Warranty:

This warranty does not apply to any non-Symetrix branded hardware products or any software even if packaged or sold with Symetrix Products. Symetrix does not authorize any third party, including any dealer or sales representative, to assume any liability or make any additional warranties or representation regarding this product information on behalf of Symetrix.

This warranty also does not apply to the following:

1. Damage caused by improper use, care, or maintenance or failure to follow the instructions contained in the Quick Start Guide or Help File.

2. Symetrix product that has been modified. Symetrix will not perform repairs on modified units.

3. Symetrix software. Some Symetrix products contain embedded software or apps and may also be accompanied by control software intended to be run on a personal computer.

4. Damage caused by accident, abuse, misuse, exposure to liquids, fire, earthquake, acts of God, or other external causes.

5. Damage caused by improper or unauthorized repair of a unit. Only Symetrix technicians and Symetrix international distributors are authorized to repair Symetrix products.

6. Cosmetic damage, including but not limited to, scratches and dents, unless failure has occurred due to a defect in materials or workmanship within the warranty period.

7. Conditions caused by normal wear and tear or otherwise due to the normal aging of Symetrix products.

8. Damage caused by use with another product.

9. Product on which any serial number has been removed, altered or defaced.

10. Product that isn't sold by an authorized Symetrix Dealer or Distributor.

Buyer Responsibilities:

Symetrix recommends the Buyer make backup copies of site files before having a unit serviced. During service it is possible that the site file will be erased. In such an event, Symetrix is not responsible for the loss or the time it takes to reprogram the site file.

Legal Disclaimers and Exclusion of other Warranties:

The foregoing warranties are in lieu of all other warranties, whether oral, written, express, implied or statutory. Symetrix, Inc. expressly disclaims any IMPLIED warranties, including fitness for a particular purpose or merchantability. Symetrix's warranty obligation and Buyer's remedies hereunder are SOLELY and exclusively as stated herein.

Limitation of Liability:

The total liability of Symetrix on any claim, whether in contract, tort (including negligence) or otherwise arising out of, connected with, or resulting from the manufacture, sale, delivery, resale, repair, replacement or use of any product will not exceed the retail price of the product or any part thereof which gives rise to the claim. In no event will Symetrix be liable for any incidental or consequential damages, including but not limited to, damage for loss of revenue, cost of capital, claims of Buyers for service interruptions or failure to supply, and costs and expenses incurred in connection with labor, overhead, transportation, installation or removal of products, substitute facilities or supply houses.

Servicing a Symetrix Product:

The remedies set forth herein shall be the Buyer's sole and exclusive remedies with respect to any defective product. No repair or replacement of any product or part thereof will extend the applicable warranty period for the entire product. The specific warranty for any repair will extend for a period of 90 days following the repair or the remainder of the warranty period for the product, whichever is longer.

Residents of the United States may contact the Symetrix Technical Support Department for a Return Authorization (RA) number and additional in-warranty or out-of-warranty repair information.

If a Symetrix product requires repair services outside of the United States please contact the local Symetrix dealer or distributor for instructions on how to obtain service.

Products may be returned by Buyer only after a Return Authorization number (RA) has been obtained from Symetrix. Buyer will prepay all freight charges to return the product to the Symetrix factory. Symetrix reserves the right to inspect any products which may be the subject of any warranty claim before repair or replacement is carried out. Products repaired under warranty will be returned freight prepaid via commercial carrier by Symetrix, to any location within the continental United States. Outside the continental United States, products will be returned freight collect.