What Ships in the Box

- RADIUS AEC hardware device.
- SymNet Composer CD-ROM (Windows).
- 33 detachable 3.81 mm terminal block connectors.
- A North American (NEMA) or Euro IEC power cable. You may need to substitute a cable appropriate for your locale.
- This Quick Start Guide.

What You Need to Provide

A Windows PC with 1 GHz or higher processor and:

- Windows XP or higher.
- 250 MB free storage space.
- 1024x768 graphics capability.
- 16-bit or higher colors.
- CD-ROM drive or Internet connection.
- 512 MB or more of RAM as required by your operating system.
- Network (Ethernet) interface.
- CAT5/6 cable or an existing Ethernet network.

Getting Help

SymNet Composer, the Windows software that configures RADIUS AEC 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
　　　　8:00 am to 4:30 pm
　　　　Monday through Friday,
　　　　Pacific Time
Web:　　http://www.symetrix.co
Email:　support@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 appariel numerique de la classe B respecte toutes les Exigences du Reglement sur le materiel brouilleur du Canada.

Important Safety Instructions

❶ Read these instructions.

❷ Keep these instructions.

❸ Heed all warnings.

❹ Follow all instructions.

❺ 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.

❻ Clean only with dry cloth.

❼ Do not block any ventilation openings. Install only in accordance with the manufacturer's instructions.

❽ Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

❾ 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.

❿ Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

⓫ Only use attachments/accessories specified by the manufacturer.

⓬ 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.

⓭ Unplug this apparatus during lightning storms or when unused for long periods of time.

⓮ 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.
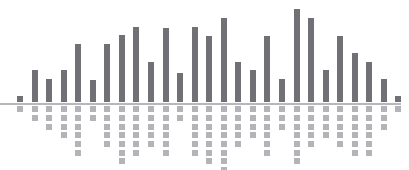
CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

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.

Symetrix

Software Installation

SymNet Composer is the software that provides real-time set-up and control of RADIUS AEC from a Windows PC environment.

Use one of the following procedures to install SymNet Composer on your computer.

From the CD-ROM:

1. Insert the CD into your computer's CD-ROM drive.

2. Open "My Computer". The "My Computer" icon is typically on your desktop or in the "Start" menu.

3. Double click on your CD-ROM drive. This is typically drive "D:\". If your CD-ROM drive isn't "D:\", then substitute its drive letter.

4. Double-click "Setup.exe".

From the Symetrix web site (http://www.symetrix.co):

1. Download the SymNet Composer software installer from the Symetrix web site.

2. Double-click on the file you just downloaded and follow the on screen directions to install.

After installing the software, refer to the Help File for full connection and configuration information.

Network Setup

About DHCP

RADIUS AEC boots with DHCP enabled by default. This means that as soon as you connect it to a network, it will look for a DHCP server in order to obtain an IP address. If a DHCP server is present, RADIUS AEC will obtain an IP address from it. This process may take several minutes. With your PC attached to the same network, and thus getting its IP address from the same DHCP server, all will be ready to go.

If your network does not have a DHCP server, RADIUS AEC will not be able to obtain an IP address. While waiting, RADIUS AEC will default to a private IP address in the range of 169.254.x.x where x.x is the last four alphanumeric characters of RADIUS AEC's MAC address (MAC address hex value is converted to decimal for IP address). RADIUS AEC's MAC address can be found on a sticker on the bottom of hardware.

When there is no DHCP server present to assign IP addresses to either RADIUS AEC or your PC, you may need to configure your PC with a static IP in the range of 169.254.x.x with a Subnet Mask of 255.255.0.0 in order to communicate with RADIUS AEC in a direct connect mode. However, if your PC is using the default network settings,

it should also have automatically self-assigned a similar private IP address in the range of 169.254.x.x, and if this is the case, you should be able to connect to RADIUS AEC directly.

Even if the PC's default settings have been changed, RADIUS AEC will try to establish communications by setting up appropriate routing table entries to reach devices with 169.254.x.x addresses.

Connecting to RADIUS AEC from a host computer on the same LAN

Both RADIUS AEC and the host computer require the following 3 items:

1. IP Address - The unique address of a node on a network.

2. Subnet Mask - Configuration that defines which IP Addresses are included in a particular subnet.

3. Default Gateway (optional) - The IP address of a device that routes traffic from one subnet to another. (This is only needed when the PC and RADIUS AEC are on different subnets).

If you are adding RADIUS AEC to an existing network, a network administrator will be able to provide the above information or it may have been provided automatically by a DHCP server. For security reasons, it is not recommended to put RADIUS AEC directly on the Internet. If you do, a network administrator or your Internet Service Provider can provide the above information.

If you are on your own private network, directly or indirectly connected to RADIUS AEC, you may allow RADIUS AEC to choose an automatic IP address or you may choose to assign it a static IP address. If you are building your own separate network with static assigned addresses, you may consider using an IP Address from one of the "Private-Use" networks noted in RFC-1918:
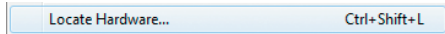
1. 172.16.0.0/12 = IP Addresses 172.16.0.1 through 172.31.254.254 and a Subnet Mask of 255.240.0.0

2. 192.168.0.0/16 = IP Addresses 192.168.0.1 through 192.168.254.254 and a Subnet Mask of 255.255.0.0

3. 10.0.0.0/8 = IP Addresses 10.0.0.1 through 10.254.254.254 and a Subnet Mask of 255.255.0.0

Connecting to RADIUS AEC through a Firewall/VPN

We have successfully tested control of RADIUS AEC through a firewall and VPN, but are unable to guarantee performance of these types of connections at this time. Configuration instructions are specific to each firewall and VPN, so specifics are not available. Additionally, wireless communications are also not guaranteed, though they have also been successfully tested.

Configuring IP Parameters

Locating Hardware

Locate Hardware...	Ctrl+Shift+L

- or -

[IP icon]

- or -

[hardware icon]

Discovery of, and connection to, RADIUS AEC hardware is done with the Locate Hardware dialog found under the Hardware menu or by clicking the Locate Hardware icon in the tool bar or on a particular RADIUS AEC unit itself.

IP Configuration with Composer

The Locate Hardware dialog will scan the network and list available units. Select the RADIUS AEC unit you wish to assign an IP address to and click the Properties button. If you wish to assign RADIUS AEC a static IP address, select "Use the following IP address" and enter the appropriate IP Address, Subnet mask and Gateway. Click OK when finished. Now, back in the locate hardware dialog, ensure the RADIUS AEC device is selected and click "Select Hardware Unit" to use this RADIUS AEC hardware in your Site File. Close the Locate Hardware dialog.

IP Configuration with the Front Panel

RADIUS AEC IP information can also be edited from the front panel. RADIUS AEC's front panel interface starts up in System Mode out of the box. Press LEFT or RIGHT until you get to the DHCP menu. If DHCP is enabled, press ENTER and then UP or DOWN until it reads DISABLED, then press ENTER to confirm. Now press RIGHT until you get to the IP Address menu. Press ENTER to edit using the UP, DOWN, LEFT and RIGHT buttons to change digits and navigate between digits. Press ENTER again when finished editing. Repeat as necessary for Subnet Mask and Gateway Address.

Note: If the IP Address is changed from the front panel, Composer Design unit(s) must be updated to match by right clicking on the units and choosing Unit Properties or by Locating Hardware as detailed previously.
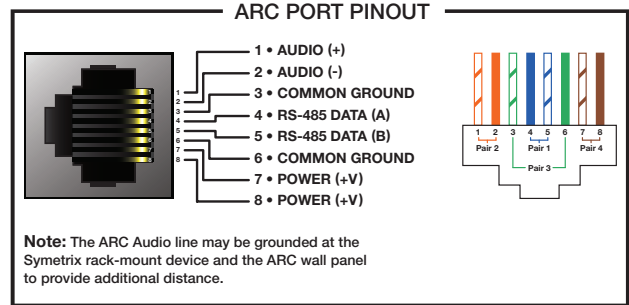
⚠️ **WARNING!** ⚠️

The RJ45 connectors labeled "ARC" are only for use with the ARC series of remotes. DO NOT plug the ARC connectors on Symetrix products into any other RJ45 connector. The "ARC" RJ45 connectors on Symetrix products can carry up to 24 VDC / 0.75 A (class 2 wiring) which can damage Ethernet circuitry.

ARC Pinout

The RJ45 jack distributes power and RS-485 data to one or more ARC devices. Uses standard straight-through UTP CAT5/6 cabling.

ARC PORT PINOUT

1 • AUDIO (+)
2 • AUDIO (-)
3 • COMMON GROUND
4 • RS-485 DATA (A)
5 • RS-485 DATA (B)
6 • COMMON GROUND
7 • POWER (+V)
8 • POWER (+V)

Note: The ARC Audio line may be grounded at the Symetrix rack-mount device and the ARC wall panel to provide additional distance.

❗ Warning! Refer to the RJ45 Warning for compatibility information.

The Symetrix ARC-PSe provides serial control and power distribution over standard CAT5/6 cable for systems with more than 4 ARCs, or, when any number of ARCs are located long distances from a Integrator Series, Jupiter or SymNet DSP unit.

Declaration of Conformity

We, **Symetrix Incorporated**, 6408 216th St. SW, Mountlake Terrace, Washington, USA, declare under our sole responsibility that the product:

SymNet RADIUS AEC

to which this declaration relates, is in conformity with the following standards:

IEC 60065, EN 55103-1, EN 55103-2, FCC Part 15, RoHS

The technical construction file is maintained at:

Symetrix, Inc.

6408 216th St. SW

Mountlake Terrace, WA, 98043 USA

The authorized representative located within the European Community is:

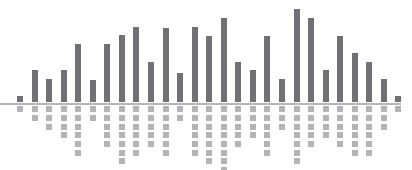**World Marketing Associates**

P.O. Box 100

St. Austell, Cornwall, PL26 6YU, U.K.

Date of issue: March 14, 2013

Place of issue: Mountlake Terrace, Washington, USA

Authorized signature:

[signature: Paul Roberts]

Paul Roberts, CEO, Symetrix Incorporated.

The Symetrix Limited Warranty

Symetrix, Inc. expressly warrants that the product will be free from defects in material and workmanship for three (3) years from the date the product is shipped from the factory. Symetrix' obligations under this warranty will be limited to repairing or replacing, at Symetrix' option, the part or parts of the product which prove defective in material or workmanship within three (3) years from the date the product is shipped from the factory, provided that the Buyer gives Symetrix prompt notice of any defect or failure and satisfactory proof thereof. 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. Symetrix may, at its option, require proof of the original date of purchase (dated copy of original retail dealer's invoice). Final determination of warranty coverage lies solely with Symetrix. 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.

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' warranty obligation and buyer's remedies hereunder are SOLELY and exclusively as stated herein.

This Symetrix product is designed and manufactured for use in professional and studio 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.

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 limited warranty gives the buyer certain rights. You may have additional rights provided by applicable law.

Note: Some Symetrix products contain embedded software or apps and may also be accompanied by control software intended to be run on a personal computer. Said software is specifically excluded from this warranty.

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 price allocatable to 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 customers 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 Your Symetrix Product

If you have determined that your Symetrix product requires repair services and you live outside of the United States please contact your local Symetrix dealer or distributor for instructions on how to obtain service.

If you reside in the United States, please contact Symetrix Customer Service Department for a Return Authorization (RA) number and additional in-warranty or out-of-warranty repair information.

Tel: +1.425.778.7728 (PST)

Email: support@symetrix.co