



## **A-16D A-Net Distributor**

For use with the Personal Monitor Mixing System™

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# WARNING!



TO REDUCE THE DANGER OF ELECTRICAL SHOCK DO NOT REMOVE COVERS.

NO USER SERVICEABLE PARTS INSIDE

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY

To reduce the risk of fire or electrical shock, do not expose this product to rain or other types of moisture.

To avoid the hazard of electrical shock, do not handle the power cord with wet hands.

Operating Temperature: 10°C to 40°C (50°F to 105°F)

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## CAUTION

- Using any audio system at high volume levels can cause permanent damage to your hearing.
- Set your system volume as low as possible.
- Avoid prolonged exposure to excessive sound pressure levels.

## IMPORTANT:

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.

Changes or modifications to the product not expressly approved by Aviom, Inc. could void the user's FCC authority to operate the equipment.

# **READ THIS FIRST**

## **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.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install 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. 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 third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. 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
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug 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.



# Aviom, Inc. Limited Warranty

Aviom, Inc. warrants this product against defects in materials and workmanship for a period of **one year** from the date of the original retail purchase.

This warranty does not apply if the equipment has been damaged due to misuse, abuse, accident, or problems with electrical power. The warranty also does not apply if the product has been modified in any way, or if the product serial number has been damaged, modified, or removed.

If a defect is discovered, first write or call Aviom, Inc. to obtain a Return Authorization number. No service will be performed on any product returned without prior authorization. Aviom, Inc. will, at its option, repair or replace the product at no charge to you. The product must be returned during the warranty period, with transportation charges prepaid to Aviom, Inc., 1157 Phoenixville Pike, Suite 201, West Chester, PA 19380. You must use the product's original packing materials for shipment. Shipments should be insured for the value of the product. Include your name, address, phone number, description of the problem, and copy of the original bill of sale with the shipment. The Return Authorization number should be written on the outside of the box.

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# Warranty Information

Please record the following information for future reference:

Your Authorized Aviom Dealer:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

Serial Numbers of Your Aviom Products: \_\_\_\_\_  
\_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Your Authorized Aviom Dealer is your primary source for service and support. The information recorded above will be helpful in communicating with your Authorized Aviom Dealer should you need to contact Aviom Customer Service. If you have any questions concerning the use of this unit, please contact your Authorized Aviom Dealer first. For additional technical support, or to find the name of the nearest Authorized Aviom Repair Station, check the Aviom web site at [www.aviom.com](http://www.aviom.com).

To fulfill warranty requirements, your Aviom product should be serviced only at an authorized Aviom service center. The Aviom serial number label must appear on the outside of the unit, or the Aviom warranty is void.

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A-Net is a trademark of Aviom, Inc.

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# Welcome

Thank you for purchasing the **Aviom A-16D A-Net Distributor** for use with your **Personal Monitor Mixing System™**. This User Guide is designed to familiarize you with your new product and to have you up and running in no time.

## Features

The A-16D is designed to distribute the A-Net Signal from either an A-16T Transmitter or another A-16D Distributor. Each A-16D accepts one A-Net input signal and provides for eight simultaneous A-Net outputs using Category 5 Cables. The A-16D A-Net Distributor enables parallel connection of A-Net devices, simplifying stage and studio setups.

### A-16D Features:

- Easily distribute A-Net from a central location or from other A-16D Distributors
- One A-Net input, eight A-Net outputs
- Can insert DC power for A-Net devices into the Cat-5 cable
- ½ rack space footprint – mounts easily on standard rack shelf
- A-Net activity LED on the main input
- DC power indicator LEDs on each output
- Multiple A-16D Distributors can be used in a system
- Uses the same power supply as all A-16 system components

Your Personal Monitor Mixing System provides a host of professional features designed to make the system flexible in a variety of music and audio situations.

### A-16T Transmitter Features:

- Sixteen high-quality audio channels
- Adjustable input gain switches per channel pair
- Eight stereo channel Link switches
- Signal and Peak LEDs on each channel
- Sixteen ¼-inch TRS jacks for audio Input connections
- Sixteen ¼-inch TRS jacks for Thru connections
- Single-ended input accepts balanced or unbalanced signals and can provide balanced or unbalanced signal pass-through
- 1U-high rack-mountable enclosure



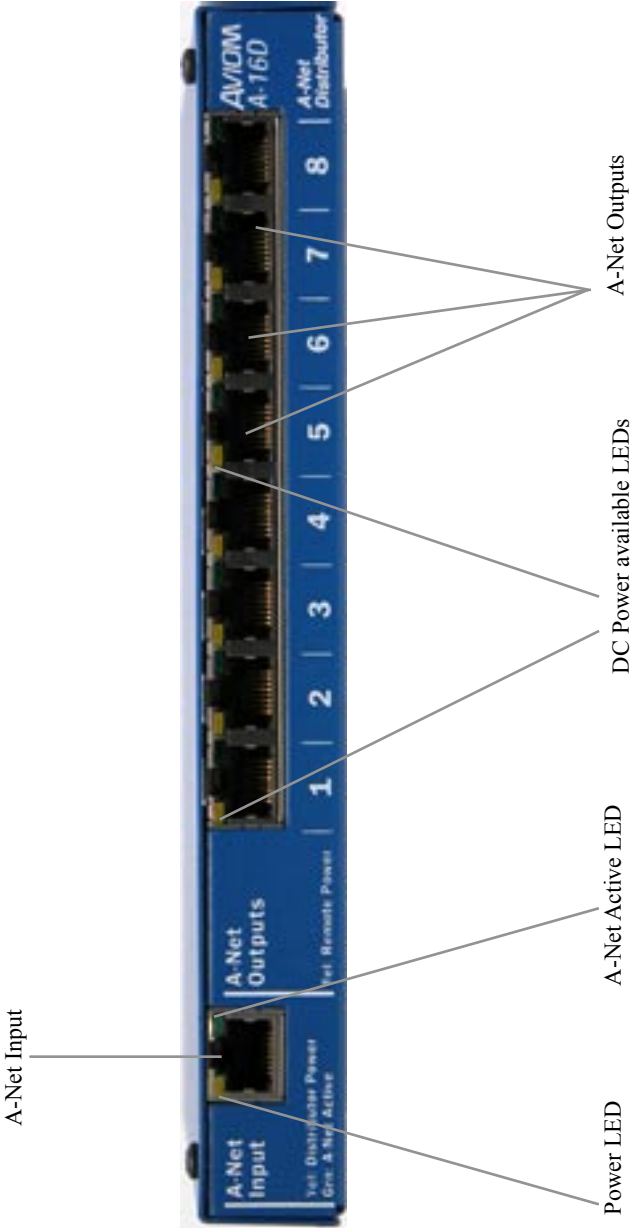
### **A-16 Personal Mixer Features:**

- Sixteen Channel select buttons with dual LEDs
- Dedicated Recall, Group, Solo, and Mute buttons
- Sixteen user Preset memory locations
- Pan/Spread control with LED readout
- Channel volume control with LED level readout
- Master Volume, Treble and Bass controls
- Tabletop or mic stand mountable (using optional stand-mounting bracket)

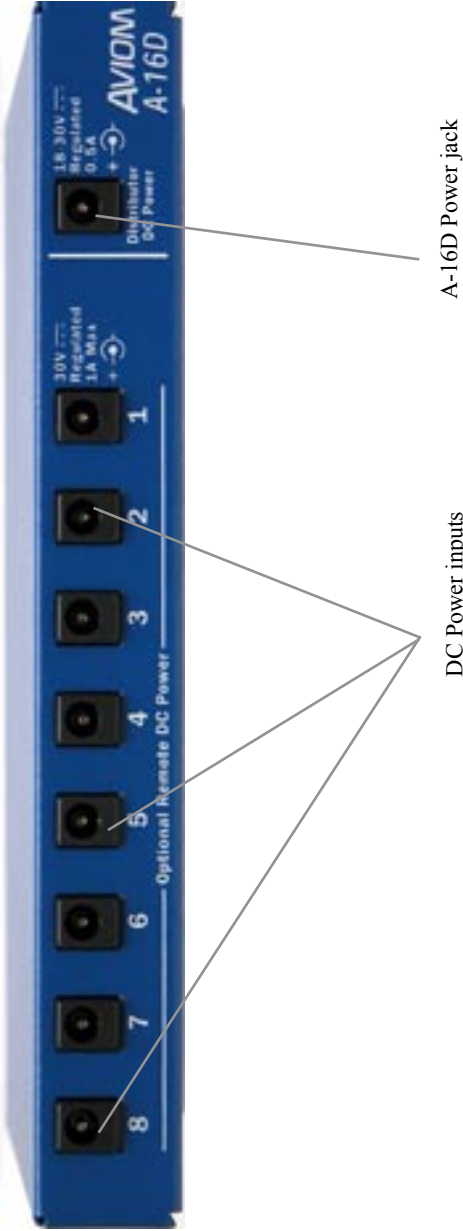
## **Conventions Used in this Document**

When indicating a button or knob on the front panel of any component of your system, a special typeface is used. For example, when selecting a preset on the A-16 Personal Mixer, press the **RECALL** button.

# The A-16D Front Panel



# The A-16D Rear Panel



# Connecting the A-16D

The A-16D is designed to create a network of A-Net devices. The A-Net signal appearing at the input of the A-16D is distributed to each of the eight outputs on the front panel. Devices are connected in parallel rather than in serial fashion.

## Connections on the A-16D Front Panel

There are two sets of connectors on the front of the A-16D A-Net Distributor. They are marked **Input** and **Output**.

The **Input** section accepts the A-Net signal coming from *any* A-Net device. This is most likely going to be an A-16T Transmitter in average systems. You can expand a Personal Monitor Mixing System by using as many A-16D A-Net Distributors as required.

The **Output** section sends an exact copy of the input signal in parallel to each of the eight outputs.

The connections on the A-16D front panel use standard Category 5 cables.

## Front Panel LED Indicators

The front panel's A-Net Input jack contains two LEDs. The yellow LED indicates that the A-16D is powered on. The green LED blinks to indicate that a valid A-Net signal is plugged into the Input jack.

The A-Net Output jacks also have an LED. This yellow LED indicates that a particular channel has DC power available.

## Connecting an A-16D to a System

In a simple system containing one A-16T Transmitter and a number of A-16 Personal Mixers, the A-16D A-Net Distributor sits between the A-16T and the Personal Mixers.

### ***A-Net Input***

You can connect a Personal Monitor Mixing System in a variety of ways. In a typical system, you will have your audio inputs connected to the Input jacks on the rear of the A-16T. From the A-16T, the A-Net output on the front panel is

connected to the first Personal Mixer in the system. Each subsequent Personal Mixer is connected by running a cable from the Mixer's A-Net Output to the A-Net Input on the next Personal Mixer. This type of connection is called a daisy chain.

When using the A-16D A-Net Distributor, the daisy-chain linking of Personal Mixers is optional. Up to eight Personal Mixers can be connected directly to the A-Net signal outputs of the front of the A-16D.

To connect the A-16D:

- Connect the A-Net Output on the A-16T Transmitter to the A-Net Input on the A-16D A-Net Distributor using a Category 5 cable.

## **A-Net Outputs**

The eight A-Net Outputs on the A-16D A-Net Distributor all carry the same signal. You can use any output to connect a Personal Mixer.

To connect a Personal Mixer:

- Connect a standard Category 5 cable from A-Net Output #1 on the A-16D A-Net Distributor to the first Personal Mixer in your system.
- Plug the Personal Mixer's DC power supply into an AC outlet.

At this point the Personal Mixer is connected to the A-Net signal chain. Any audio appearing at the inputs of the A-16T should be available for mixing in the Personal Mixer. Refer to the Personal Mixer User Guide for additional information about using the mixing features of the A-16 personal Monitor Mixing System.

Connect additional Personal Mixers using Category 5 cables from an available Output on the A-16D A-Net Distributor to the A-Net Input on the Mixer.

## **Connections on the A-16D Rear Panel**

There are two groups of DC power connectors on the rear of the A-16D A-Net Distributor. The right side of the rear panel contains the power input for the A-16D A-Net Distributor. The left side is marked **Optional Remote DC Power**. These jacks are used to power any of the connected Personal Mixers connected to the A-16D. Up to eight Personal Mixers can be powered in this manner.

**Note:** The power supplies used with the A-16 Personal Mixers and the A-16D are interchangeable.

# Powering a Personal Mixer Remotely

There are a number of advantages to adding power for a Personal Mixer at the A-Net distribution point.

- No DC power supply is needed at the performer's location
- Power supplies can be located at a central point offstage or in a machine room of an audio facility.
- A one-cable solution for supplying A-Net and DC power to a mixing station is possible.

To power a Personal Mixer:

- Connect the A-Net cables as described previously between system components (from the A-16T to the A-16D).
- Connect the power supply for the Personal Mixer you want to power remotely to the same numbered DC Power input on the rear of the A-16D.
- On the front panel of the A-16D note that the yellow channel LED will light for any channel output that has DC power connected.
- Connect a Category 5 cable from the powered A-Net output on the A-16D to the A-Net input on the Personal Mixer.
- The Personal Mixer's A-Net Active LED will light to indicate that a valid A-Net signal is present.
- Continue connecting up to eight Personal Mixers in this manner.

**Note:** The DC power supply plugged into the rear panel of the A-16D can power only one Personal Mixer. If you start a daisy chain from a Personal Mixer powered from an A-16D, the additional Personal Mixer units will need a source of DC power.

Each Personal Mixer that is powered remotely no longer needs a power supply connected to its rear panel. If this happens accidentally, however, note that you cannot harm the system.

## Expanding a System

Any number of A-Net devices can be used in a system. This includes A-16D A-Net Distributors. To expand a system, additional A-16D Distributors can be connected to any available A-Net Output, such as the outputs on Personal Mixers or on other A-16D units.

To add another A-16D to a system, simply connect a standard Cat-5 cable from

the A-Net Output of the first device into the A-Net Input of the A-16D Distributor you want to use for system expansion.

At this point your audio network has grown to include an additional eight parallel A-Net outputs. You have the option of adding DC power to any or all of the A-Net Outputs on the expansion A-16D. Follow the instructions in the previous section.

## Rack Mounting

The A-16D A-Net Distributor can easily be mounted in a standard 19-inch wide equipment rack. The A-16D occupies half of the rack width, allowing two A-16D units to be placed side by side on a standard rack shelf. These shelves are available as an accessory from many audio and studio suppliers.

There are two shelf-mounting holes in the bottom panel of the A-16D. The holes accept a 6-32 size bolt. The depth of the hole in the A-16D bottom panel is 0.25 inches.

### **CAUTION!**

Be careful when selecting mounting hardware for use with your accessory shelf. Using bolts that are too long can damage the circuit boards of your A-16D.

*Use of improper mounting hardware will void your warranty.*

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