

Complete Manual for the

# EasyIP AMP D

Network-Connected Amplifier

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## Overview

This guide covers:

**EasyIP AMP D network-connected amplifier** (worldwide): 999-86300-000

## Features

- Brings an analog speaker into your EasyIP or Dante environment
- Dante networked audio – manage with the Dante Controller application from Audinate
- 1 RU, half-rack chassis
- PoE+ or PoE power; adaptive output – 25 W if powered by an EasyIP Switch or other PoE+ source, 15 W if powered by a PoE source

## Specifications

Power requirements	PoE+
Input	Balanced audio, one channel
Input impedance	> 100K ohms
Output	One channel
Output power	25 W if PoE+ powered, 15 W if PoE powered
Minimum output impedance	4 ohms per channel
Dimensions	Height 1.7 in. (4.4 cm) Width 8.4 in. (21.3 cm) Depth 6 in. (15.2 cm)
Weight	1.5 lbs. (0.68 kg, or 756 plain M&M candies)

## What's Included

- EasyIP AMP D
- Cat-6 cable, 10 ft. (3 m)
- 2-conductor 5 mm Phoenix style plug, for use in making a cable to the speaker
- Rack mounting brackets, one short and one long

## A Quick Look at the EasyIP AMP D

Simple, easy to mount, easy to connect...did someone say “The Art of Easy”?

### Front

- Power light and reset button
- Logo badge



### Back

- Network/PoE+ connector – From the EasyIP Switch or PoE/PoE+ power injector
- Speaker Output connector – To an analog speaker



## Installation

This section covers:

- Cabling information
- Connection diagrams
- Mounting information

### Don't Void Your Warranty!

#### Caution

*This product is for indoor use. Do not install it outdoors or in a humid environment without the appropriate protective enclosure. Do not allow it to come into contact with any liquid.*

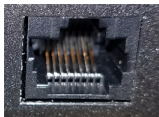
#### Caution

*Do not install or operate this product if it has been dropped, damaged, or exposed to liquids. If any of these things happen, return it to Vaddio for safety and functional testing.*

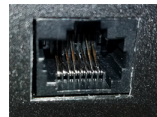
### Cabling Notes

#### Caution

*Do not use pass-through RJ-45 connectors when making cables for this product. Poorly crimped connectors of this type can cause intermittent connections and degraded signal quality. They can also damage the connectors on the product, which will void your warranty.*



**Intact** – will make reliable contact with cable connector



**Damaged** – Bent contact fingers will NOT make reliable contact with cable connector

When making cables for this product, use Cat-5e or better cable. We recommend using high-quality connectors and a high-quality crimping tool.



We recommend shielded cabling if the cables will be coiled, run tightly with other cables, or routed near sources of electromagnetic interference such as power lines or fluorescent light fixtures.

#### Caution

*Check your cables. Connecting a cable to the wrong port or using the wrong pin-out can result in equipment damage and will void the warranty.*

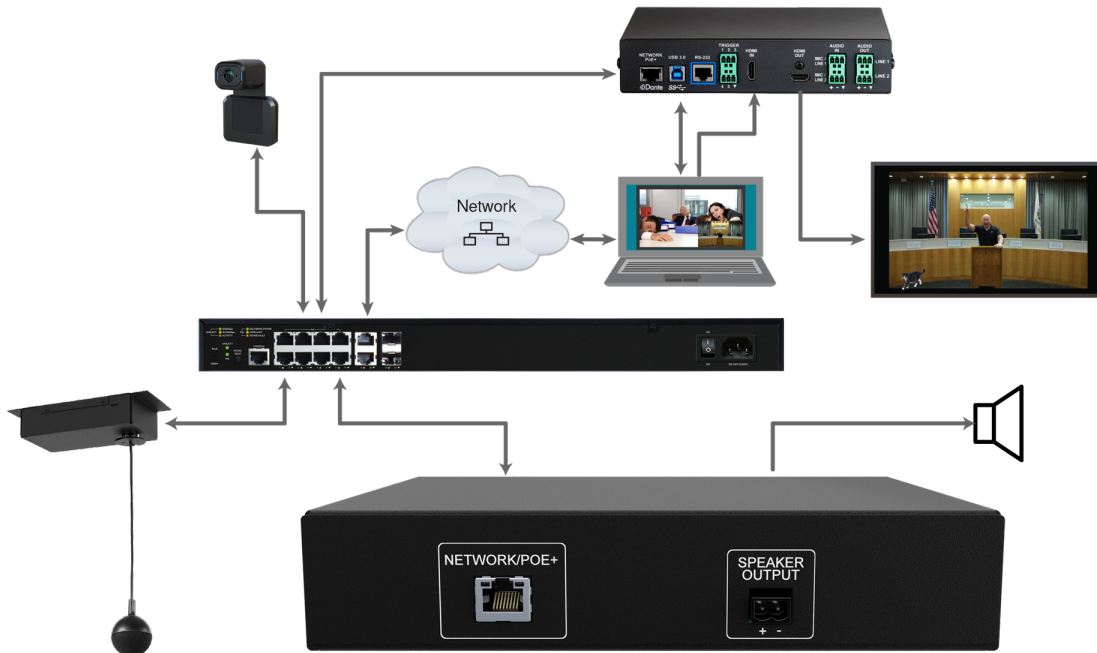
#### Pro Tip

*Label all cables at both ends.*

## Basic Connections

The EasyIP AMP D connects to an unpowered analog speaker and pairs with a host device that supports Dante audio, such as the EasyIP Mixer or AV Bridge 2x1.

This diagram shows the EasyIP AMP D as part of a simple room system that uses an EasyIP Mixer and analog speaker.



## Completing the Set-Up

EasyIP AMP D amplifiers must be paired to a Dante-compatible host device such as an EasyIP Mixer or AV Bridge 2x1. For pairing and adjustments, you will need:

- **Dante Controller** – For routing audio devices with Dante® connectivity to the A/V equipment. Download and install the free Dante Controller application from Audinate Pty. Ltd.: [www.audinate.com/products/software/dante-controller](http://www.audinate.com/products/software/dante-controller)
- For muting and volume control, use the Audio page of the host device's web interface.

## About Dante Technology and Devices

Audinate Pty. Ltd ([www.audinate.com](http://www.audinate.com)) provides the latest information, training, and documentation for Dante technology on their website. Information in this manual about Dante technology and Audinate products may be out of date.

### Things to know about Dante technology and the Dante Controller application:

- **Dante audio does not work over Wi-Fi.**
- Without additional software, **Dante Controller does not work across subnets.** Your computer must be on the same subnet as the Dante devices you need to work with.
- **Default device names and IP addresses shown in Dante Controller do not match the corresponding information shown in Vaddio devices' web interfaces.** The Dante chip in each Dante device has its own IP address and device name. The Dante Controller application uses this information.
- **Dante Controller allows you to rename devices**, so you can make their identifying labels match what's displayed in the Vaddio web interface. We recommend doing this as your first step.

## Renaming Dante Devices

### DANTE CONTROLLER APPLICATION

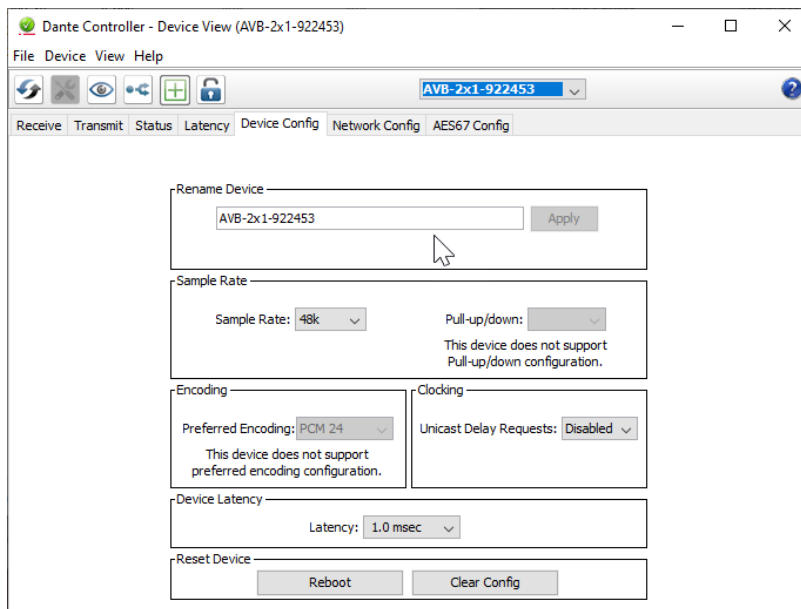
#### Notes

The Dante chip in each EasyIP device has its own IP address and device name. The host device's name and IP address shown in the Dante Controller application may differ from the hostname and IP address in its web interface.

We recommend renaming your Dante devices as a first step, because renaming the device removes any routing that has been configured on that device.

#### To rename a device in the Dante Controller application:

In the Device View window, select the device and go to its Device Config tab. The Rename Device option is near the top of the tab.





## Pairing to Multiple EasyIP Audio Outputs

The EasyIP Ceiling Speaker D and EasyIP AMP D are Dante receivers: They do not send audio back to the host device.

In our example, we use the Dante Controller application to set up a room to use an AV Bridge 2x1 as the host device for four microphones, two speakers, and an amp that drives one or more analog speakers. The amp and speakers will all receive audio from the host device's Mix Output 1. The microphones will also use Mix Output 1 as the AEC reference signal. (Refer to your microphone's manual for details on routing the microphones.)

We will need to set up a *multicast flow* to allow the audio from Mix Output 1 to go to the seven devices that will use it.

## About Channels and Flows

- A **channel** in a Dante environment is the same thing it would be in other environments: a signal from a single source.
- A **flow** in a Dante environment is one to four channels that can be routed from device to device. Channels remain separate within the flow. For example, left and right audio channels can be part of the same flow.
- By default, flows are **unicast** – they can only be routed to one receiving device.
- If a channel needs to be routed to more than one device, the flow containing that channel needs to be **multicast**. A multicast flow goes to all the receiving devices. Each device subscribes only to the channel it needs to receive.

This manual only covers the very most basic information about working with Dante products; Audinate Pty. Ltd. provides a great deal of useful information on their website. Please visit [www.audinate.com/learning](http://www.audinate.com/learning) for documentation, tutorials, white papers, and more.

## Creating a Multicast Flow

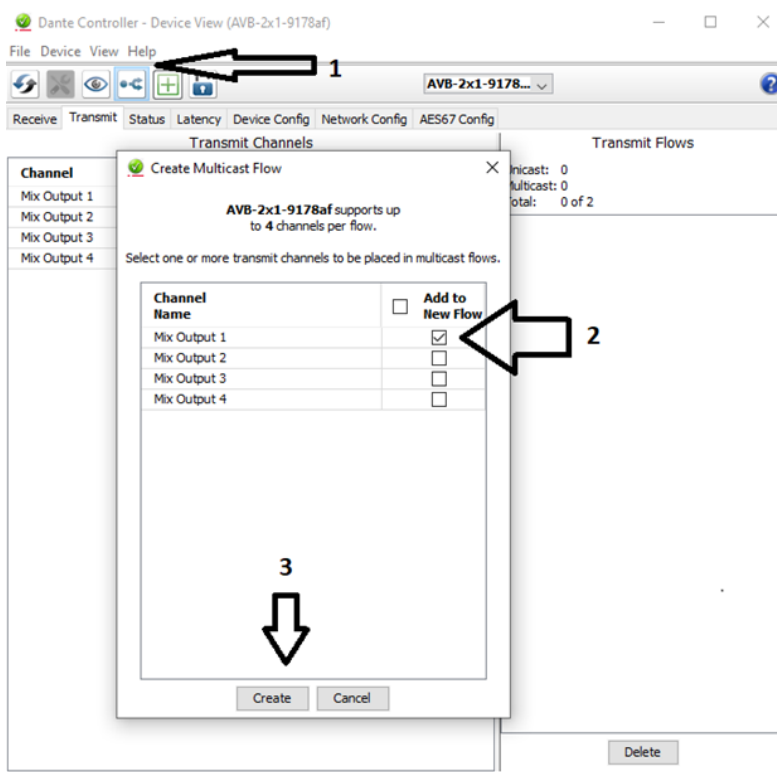
### DANTE CONTROLLER APPLICATION

To allow one audio channel from the host device to go to the speaker and also serve as the AEC reference signal that goes to the four microphones in our example set-up, define a multicast flow containing only that channel.

#### To define the multicast flow:

1. Select Device : Device View, and go to the Transmit tab.
2. Select the Multicast icon (labeled 1 in this screen shot).
3. Select the output from the host device. In this case we're using Mix Output 1.
4. Select Create.

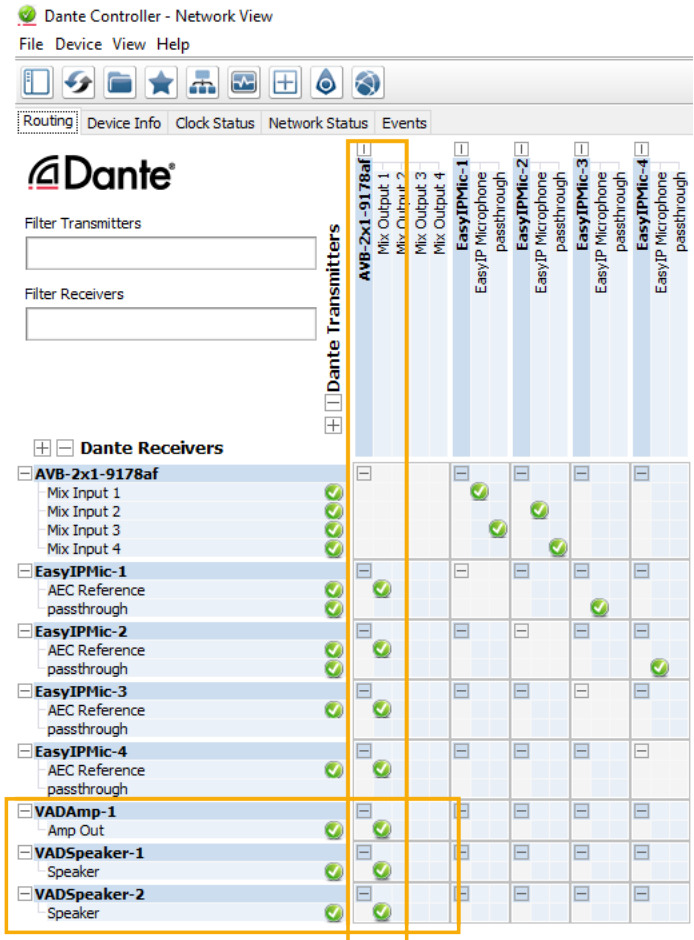
Now Mix Output 1 is available to every device that can receive it – the speaker and the four microphones. These devices will only use the channel in the multicast flow if it is routed to them.



## Routing a Multicast Flow to Speakers or Amps

### DANTE CONTROLLER APPLICATION

1. In the Dante Controller application, go to the Network view and select the Routing tab.
2. Under Dante Receivers, find the rows for the amp and speakers
3. In the Network View, look under Dante Transmitters to find the column for the desired output from the host device, Mix Output 1.



4. Select the box where each Dante receiver device intersects with the Mix Output 1 channel.

**Note**

*In addition to the audio routing for the speakers and amplifier, this screen shot also shows four microphones using the same audio from Mix Output 1 as the AEC reference. The microphones are set up to deliver four channels of audio to the host device. Refer to the manual for your EasyIP microphone for details on setting up the multicast flows and using the microphones' passthrough channel.*

## Troubleshooting

What is it doing?	Possible causes	Check and correct
The connected speaker is unresponsive.	The cable from the amp to the speaker is not fully seated at one end, or is bad.	Check the cable for correct pin-out and continuity.
	The amp is not paired to the host device.	Use the Dante Controller application to pair the amp with the host device.
The Dante Controller application cannot locate the amp	The cable from the EasyIP AMP D to the EasyIP Switch is not fully seated at one end, or is bad.	Check the cable for correct pin-out and continuity.
The Vaddio Deployment Tool cannot locate the amp.	EasyIP audio devices are not available through the Vaddio Deployment Tool.	Use the Dante Controller application to locate the amp.

## Operation, Storage, and Care

For smears or smudges on the product, wipe with a clean, soft cloth. Use a lens cleaner on the lens. Do not use any abrasive chemicals.

Keep this device away from food and liquids.

Do not operate or store the device under any of the following conditions:

- Temperatures above 104° F (40° C) or below 32° F (0° C)
- High humidity, condensing or wet environments
- Inclement weather
- Severe vibration
- In a hydraulic press
- Dry environments with an excess of static discharge

Do not attempt to take this product apart. There are no user-serviceable components inside.

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