

# Gefen

## **1:4 Component/ Audio Over CAT5 Distribution Amplifier**

Model EXT-COMPAUD-CAT5-144

**USER MANUAL**



[www.gefen.com](http://www.gefen.com)

## ASKING FOR ASSISTANCE

---

### **Technical Support:**

Telephone (818) 772-9100  
(800) 545-6900

Fax (818) 772-9120

### **Technical Support Hours:**

8:00 AM to 5:00 PM Monday through Friday PST

### **Write To:**

Gefen Inc.  
C/O Customer Service  
20600 Nordhoff St.  
Chatsworth, CA 91311

support@gefen.com  
www.gefen.com

### **Notice**

Gefen Inc. reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

**1:4 Component/Audio Over CAT5 Distribution Amplifier** is a trademark of Gefen Inc.

## TABLE OF CONTENTS

---

- 1** Introduction / Operation Notes
- 2** Features
- 3** Panel Description - Sender
- 4** Panel Description - Receiver
- 5** Connecting the 1:4 Component/Audio Over CAT5 DA
- 6** Operating the 1:4 Component/Audio Over CAT5 DA
- 7** Wiring Diagram
- 8** Network Wiring Diagram
- 9** Specifications
- 10** Warranty

# INTRODUCTION

---

The 1:4 Component/Audio Over CAT5 Distribution Amplifier (DA) sends up to 4 identical sets of sparkling clear component video with audio to remote locations via four CAT5 cables at distances of up to 1000 feet. Now you can reliably and cleanly distribute up to four copies of a video signal with digital or analog audio to remote locations without having to worry about signal drop-off and loss of quality.

## How It Works

Simply plug in your component video and audio from your source to the 1:4 Component/Audio DA Sender. Your audio can be analog, digital SPDIF or digital Toslink. Run your CAT5 cables from the Sender box to up to 4 remote destinations, then connect a receiver box to each CAT5 cable at the terminating end. Attach the displays to the receivers to, power on all equipment, and you should see beautiful video. All audio ports on the receiver will also be active, so even if your source only had analog audio your Component Audio Receiver will have digital and analog audio output. The sender and receiver both will be powered individually by 5V power supplies.

# OPERATION NOTES

---

## READ THESE NOTES BEFORE INSTALLING OR OPERATING THE 1:4 COMPONENT/AUDIO OVER CAT5 DA

- Use only industry standard Category-5 Enhanced (CAT5e) cable to operate the 1:4 Component/Audio Over CAT5 DA
- Receiver units are sold individually
- Unit will convert digital audio to analog audio and analog audio to digital audio. It will not however down-mix multichannel digital audio tracks to analog 2 channel. Please see page 5 for additional information
- Both the sending and receiving units must be powered with the supplied power adapters to operate
- Field termination of CAT5e cabling must adhere to the TIA/EIA-568-B specification. Please see page 8 for additional information

## FEATURES

---

### Features

- Supports up to 1080p component video
- Supports analog L+R audio and multichannel digital optical or coaxial
- No Loss of Quality
- Plug and play installation
- Equalization adjustment for different CAT5e skews
- One CAT5e cable for extension

### Package Contents - 1:4 Component/Audio Over CAT5 DA Sender

- (1) 1:4 Component/Audio Over CAT5 Distribution Amplifier
- (1) 6 Ft. 3 RCA Component Cable (M-M)
- (1) 6 Ft. RCA Cable (M-M)
- (1) 5V DC 1 AMP Power Supply
- (1) User manual

### Component/Audio Receiver - Sold Separately

# PANEL DESCRIPTIONS - SENDER

## Front Panel



Power LED  
Indicator

## Back Panel

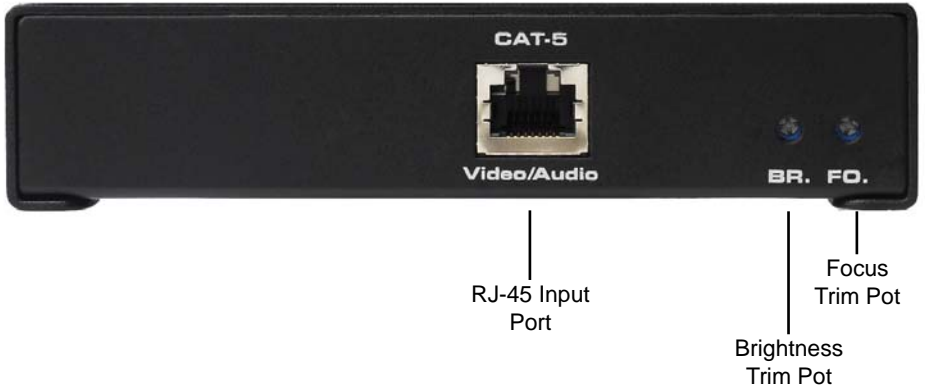


Diagram illustrating the connections for the back panel ports:

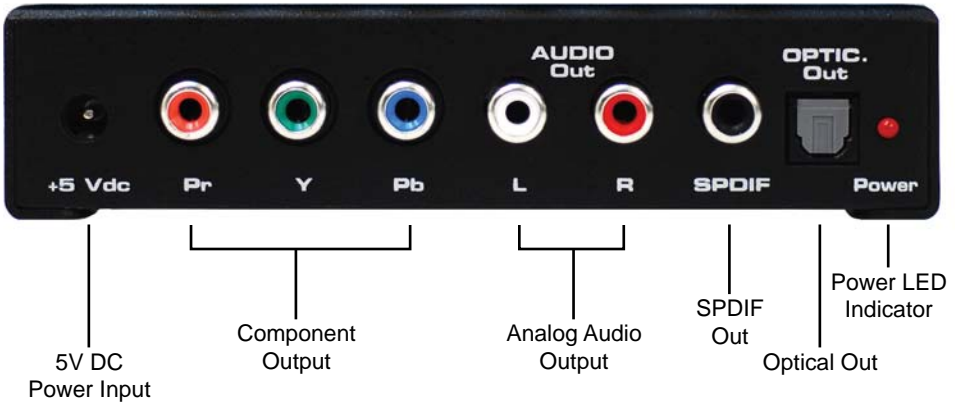
- AUDIO:**
  - L and R: Analog Audio Input
  - SPDIF In: SPDIF In
  - Opt.: Optical In
- COMP.:**
  - Pb, Y, Pr: Component Input
- CAT-5:**
  - Out 1: RJ-45 Output Port 1
  - Out 2: RJ-45 Output Port 2
  - Out 3: RJ-45 Output Port 3
  - Out 4: RJ-45 Output Port 4
  - +5 Vdc: 5V DC Power Input

# PANEL DESCRIPTION - RECEIVER

## Front Panel



## Back Panel



## **CONNECTING THE 1:4 COMPONENT/AUDIO OVER CAT5 DA**

---

1 Connect the component source into the 1:4 Component/Audio Over CAT5 DA using the provided 3 RCA component cable.

2 Connect the audio source to the 1:4 Component/Audio Over CAT5 DA using one of the 3 options below:

Digital Optical - user supplied optical cable

Digital Coaxial - supplied SPDIF cable

Analog audio - user supplied analog RCA cables

3 Connect one CAT5e cable for each component/audio extension (up to 4) from the 1:4 Component/Audio Over CAT5 DA to a Component/Audio Receiver.

4 Connect a display to each of the Component/Audio Receivers using a user supplied 3 RCA component cable.

5 Connect the audio output of the Component/Audio Receiver to an audio input device using one of the options below:

Digital Optical - user supplied optical cable

Digital Coaxial - user supplied SPDIF cable

Analog audio - user supplied analog RCA cables

See note below for additional info on audio connectivity.

6 Connect the supplied 5V DC power adapters to the 1:4 Component/Audio Over CAT5 DA sender, and one 5V DC power adapter to each Component/Audio Receiver (up to four).

7 Power on all monitors first, and then power on the source.

**Note:** The 1:4 Component/Audio Over CAT5 DA has the ability to convert analog audio signals to digital, and digital audio signals to analog. It will cross-convert any 2 channel audio signal (analog or digital) or pass multi-channel audio directly from the digital inputs to the digital outputs. However, it cannot down-mix digital multichannel audio, such as Dolby Digital and DTS, to the 2 channel analog outputs. Do not attempt to connect the 2 channel analog audio outputs when passing digital multi-channel content. The resulting output will be unrecognizable. Additionally, the 1:4 Component/Audio Over CAT5 DA can cross-convert between digital SPDIF and digital Optical. For example, you can input a digital SPDIF cable on the sender and connect an digital optical cable on the output.



## **OPERATING THE 1:4 COMPONENT/AUDIO OVER CAT5 DA**

---

Once all cables are connected and all devices are powered on, there is no further operations needed to utilize the 1:4 Component/Audio Over CAT5 DA. However, it may be necessary to tune the signal depending on the quality of CAT5e cabling and distance that the signal has to travel.

### **Brightness**

If the image appears too dim or too bright, adjust the brightness trim pot on the front of the Component/Audio Receiver.

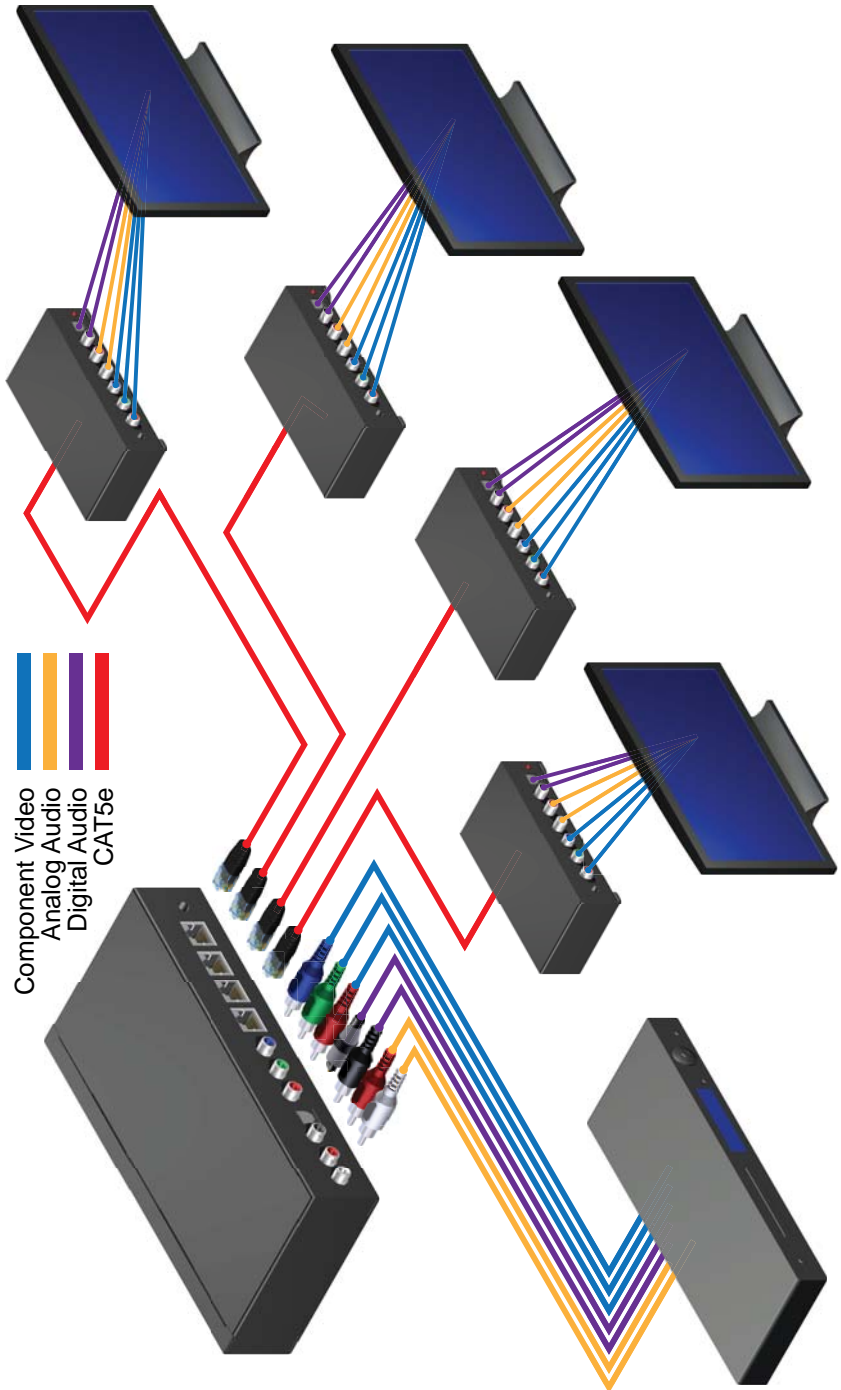
Insert a small flathead device into the brightness trim pot hole and turn the trim pot in either a clockwise or counterclockwise direction. Turn the trim pot in very small increments until the desired brightness is reached.

### **Focus**

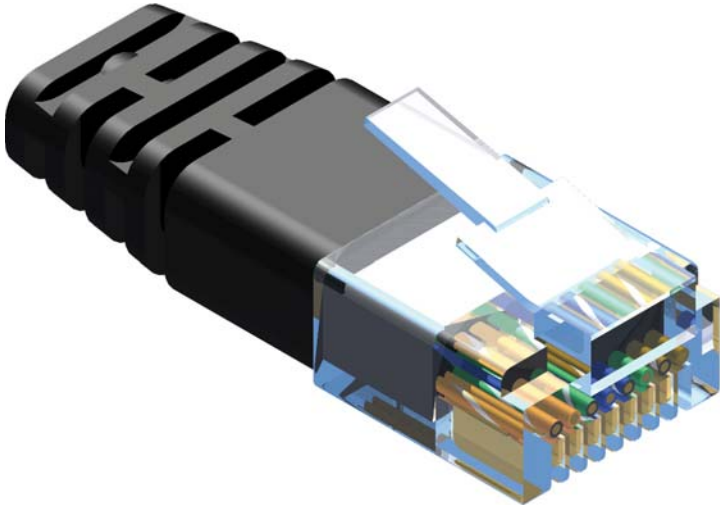
If the image is out of focus, or the colors are smeared, adjust the focus trim pot on the front of the Component/Audio Receiver.

Insert a small flathead device into the focus trim pot hole and turn the trim pot in either a clockwise or counterclockwise direction. Turn the trim pot in very small increments until the image clears and there is not blurriness or smearing.

# WIRING DIAGRAM

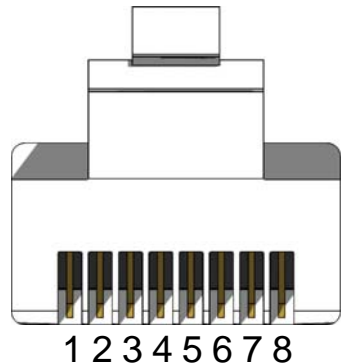


## NETWORK WIRING DIAGRAM



Gefen has specifically engineered their products to work with the TIA/EIA-568-B specification. Please adhere to the table below when field terminating cable for use with Gefen products. Failure to do so may produce unexpected results and reduced performance.

Pin	Color
1	Orange / White
2	Orange
3	Green / White
4	Blue
5	Blue / White
6	Green
7	Brown / White
8	Brown



Category 5 cabling comes in stranded and solid core types. Gefen recommends using solid core cabling.

## SPECIFICATIONS

---

Video Amplifier Bandwidth .....	350 MHz
Input Video Signal .....	1.2 Volts p-p
Input Sync Signal .....	5 Volts p-p (TTL)
Horizontal Frequency Range .....	15-70 KHz
Vertical Frequency Range .....	30-170 Hz
Video In/Out .....	3 RCA component
Audio In/Out .....	2 RCA Audio, 1 SPDIF, 1 Optical
Link Connector .....	RJ-45 Shielded
Power Supply .....	5V DC
Dimensions .....	8.5"W x 1.6"H x 4.25"D