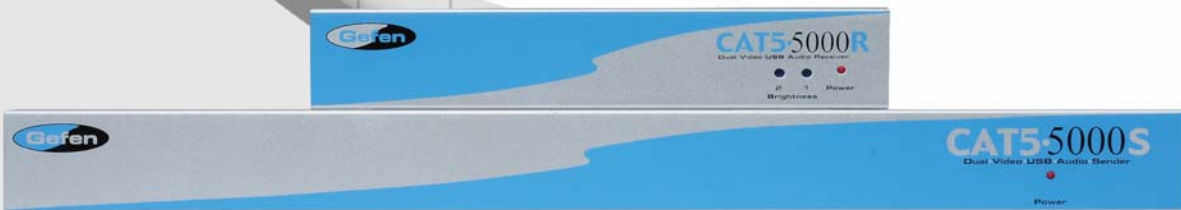


# Gefen

®

## CAT5•5000

EXT•CAT5•5000  
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 thru Friday. PST (Pacific Standard Time)

### Write To:

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

[www.gefen.com](http://www.gefen.com)  
[support@gefen.com](mailto:support@gefen.com)

### Notice:

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

CAT5•5000 is a trademark of Gefen Inc.  
Macintosh is a trademark of Apple Computer Inc.

© 2009 Gefen Inc., All Rights Reserved  
All trademarks are the property of their respective owners.

# TABLE OF CONTENTS

---

- 1 Introduction/Operation Notes
- 2 How It Works
- 3 CAT5•5000S/R Front Panel Layouts
- 4 CAT5•5000S Back Panel Layout
- 5 CAT5•5000S Back Panel Function Descriptions
- 6 CAT5•5000R Back Panel Layout
- 7 CAT5•5000R Back Panel Functions Descriptions
- 8 CAT5 Cable Length Setup
- 9 Link Cable Wiring Diagrams
- 10 CAT5•5000 - Wiring Diagram
- 11 CAT5•5000 - Rack Mount Diagram
- 12 System Specifications
- 13 Warranty

## INTRODUCTION

---

Thank you for purchasing the new Gefen ICAT5•5000 series

The Gefen CAT5•5000 allows users the benefits of extending USB, audio, and video signals beyond the desktop. In a growing number of applications, broadcast stations and production facilities there is a need to control a computer remotely. The keyboard, mouse, and video monitor are relocated to the remote side. A CPU may need to be shared between several users or moved to another room because of annoying fan noise.

The CAT5•5000 series can be used to extend computers with noisy fans, printers, hard drives, scanners, cameras, keyboards, mouse, and any other USB-type peripherals. The CAT5•5000 has the potential to cover the distance of 330 feet over industry standard Category 5 (CAT-5) cables. One can connect additional CAT5•5000 series to the same computer, allowing access to the same computer from other locations up to 330 feet apart.

## OPERATION NOTES

---

### **READ THESE NOTES BEFORE INSTALLING OR OPERATING THE CAT5•5000 SYSTEM**

\* Industry standard Category-5 (CAT-5) cables are used to operate CAT5•5000 system. Linking the CAT5•5000 sender and receiver units together requires one CAT-5 cable to extend the first monitor, USB and audio signals. A second CAT-5 cable is required to extend the second monitor signal.

\* When two monitors are used in the local and remote locations, the video monitors must be a multi-resolution type. This pertains to monitors placed remotely, and those divided between local and remote locations. The video monitors will not initialize correctly at start-up if they are different types.

\* The CAT5•5000 units are housed in a metal box for better RF shielding.

# HOW IT WORKS

---

## CONTENTS

The CAT5•5000 system consists of:

- (1) CAT5•5000S sender unit
- (1) CAT5•5000R receiver unit
- (2) 5 VDC power supplies
- (2) Video cables (6FT)
- (1) USB cable (6FT)
- (1) Audio cable (6FT)
- (1) Rack Ears
- (1) User Manual

## HOW IT WORKS

In its most basic application, the CAT5•5000S sender unit resides next to the computer. Supplied with the system, VGA, audio, and USB cables, they connect the computer to the CAT5•5000S sender unit.

The CAT5•5000R receiver unit is placed next to the monitors and USB device, at the remote location. The monitors and USB devices are connected to the CAT5•5000R similar to the way they are connected to the back of the computer (PC or Macintosh).

Industry standard Category 5 (CAT-5) cables are used to link CAT5•5000S sender and CAT5•5000R receiver units together. The first monitor, USB, and audio signals are extended by one CAT-5 cable, while the second monitor is extended by the second CAT-5 cable.

## CAT5•5000 SENDER & RECEIVER FRONT PANELS



### FRONT PANEL FUNCTION DESCRIPTION -- SENDER

**1 - Power On Indicator** - Indicates that the unit is on and plugged in.

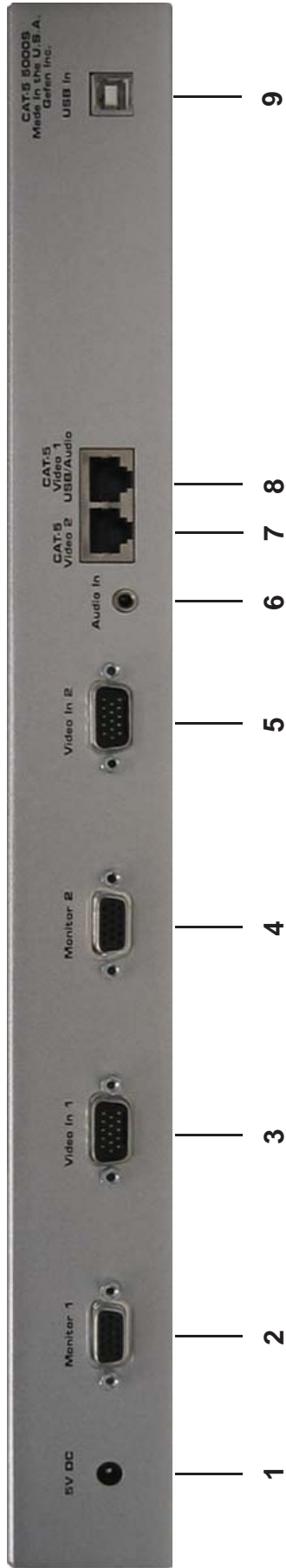


### FRONT PANEL FUNCTION DESCRIPTION -- RECEIVER

**1 - Power On Indicator** - Indicates that the unit is on and plugged in.

**2,3 - Brightness Controls** - The length of the CAT5 cables has a direct effect on the video picture seen at the Receiver; therefore, both controls are necessary and experimentation may be needed to get optimum results. There are two controls, or "trimpots" -- standing for Trim Potentiometers. Gently turn either direction with a plastic trimpot adjuster (available in electronics stores) or a small Philips screwdriver to adjust the picture. Never force one of the controls if it does not want to turn farther.

# CAT5•5000S BACK PANEL LAYOUT

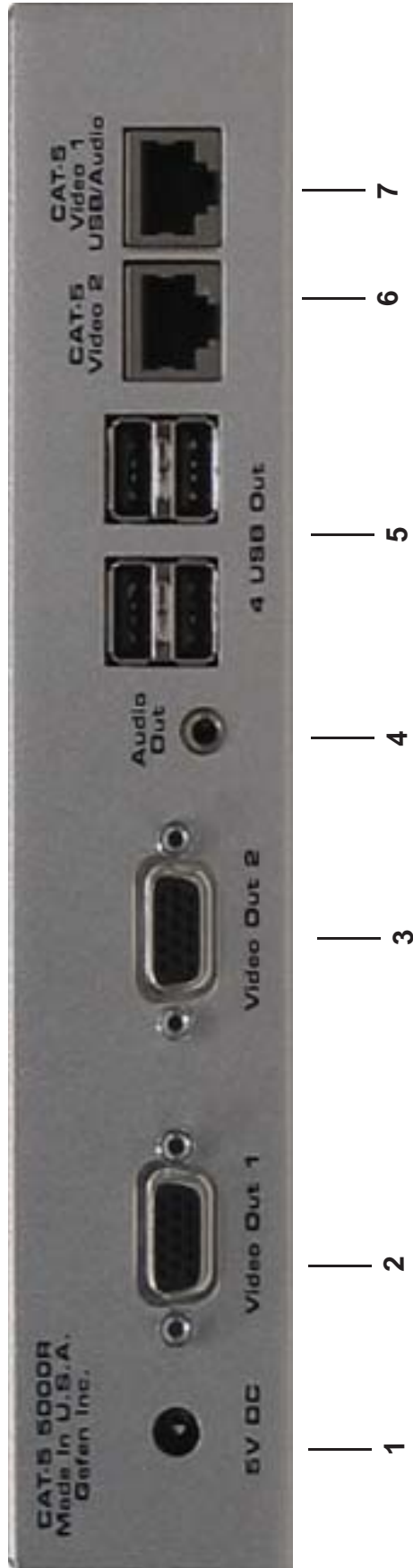


## CAT5•5000S BACK PANEL DESCRIPTIONS

---

- 1 **POWER** - 5 VDC external power supply
- 2 **MONITOR 1** - HD15 output connects to the monitor 1 for local video
- 3 **VIDEO IN 1** - HD15 input from computer
- 4 **MONITOR 2** - HD15 output connects to the monitor 2 for local video
- 5 **VIDEO IN 2** - HD15 input from computer
- 6 **AUDIO IN** - Audio Mini Jack input from computer
- 7 **CAT5 2 Video 2** - RJ-45 input extends video input 2 with CAT-5 cable
- 8 **CAT5 1 VIDEO1/USB/AUDIO** - RJ-45 input extends video, USB and audio signals with CAT-5 cable
- 9 **USB IN** - USB Input from computer

# CAT5•5000R BACK PANEL LAYOUT



## CAT5•5000R BACK PANEL DESCRIPTIONS

---

- 1 **POWER** - 5 VDC external power supply
- 2 **VIDEO OUT 1** - HD15 output connecting to the video monitor 1
- 3 **VIDEO OUT 2** - HD15 output connecting to the video monitor 2
- 4 **AUDIO** - Audio Mini Jack
- 5 **USB OUT** - USB Outputs - Connects to USB devices
- 6 **CAT-5 Video 2** - RJ-45 input connects CAT-5 cable to receive extended video signals
- 7 **CAT-5 VID/AUD/USB 1** - RJ-45 input connects CAT-5 cable to receive extended video, USB, and audio signals

# CAT5 CABLE LENGTH SETUP

Jumper settings are used to set the focus of the picture and characters to the best possible sharpness. The jumpers in the CAT5•5000R are set at the factory as shown in the diagram below. The first step to adjusting the video is to have the CAT5•5000S and CAT5•5000R connected together with the CAT-5 cable that is going to be used in the installation. Then set your computer to the resolution and refresh rate that you will be using most frequently be using. Open up the CAT5•5000R by unscrewing the bottom three screws on back end of the box, then the two screws on each side of the box and the top. That is 9 screws in total that need to be removed. Lastly the 4 hex bolts around the Monitor Out port and the Video In port need to also be removed. After that look at some text on the monitor and set the jumpers to the recommended jumper setting based on the length of your CAT-5 cable. If you still see some smearing try moving all the jumpers up or down one from the recommended setting. If you see smearing of just one color adjust an individual jumper for the color that is smearing (it can be two colors). Repeat the same steps for monitor 2.

## Recommended Jumper Settings

Cable length

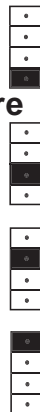
0-132 feet

**\*As shown in picture**

133-198 feet

199-264 feet

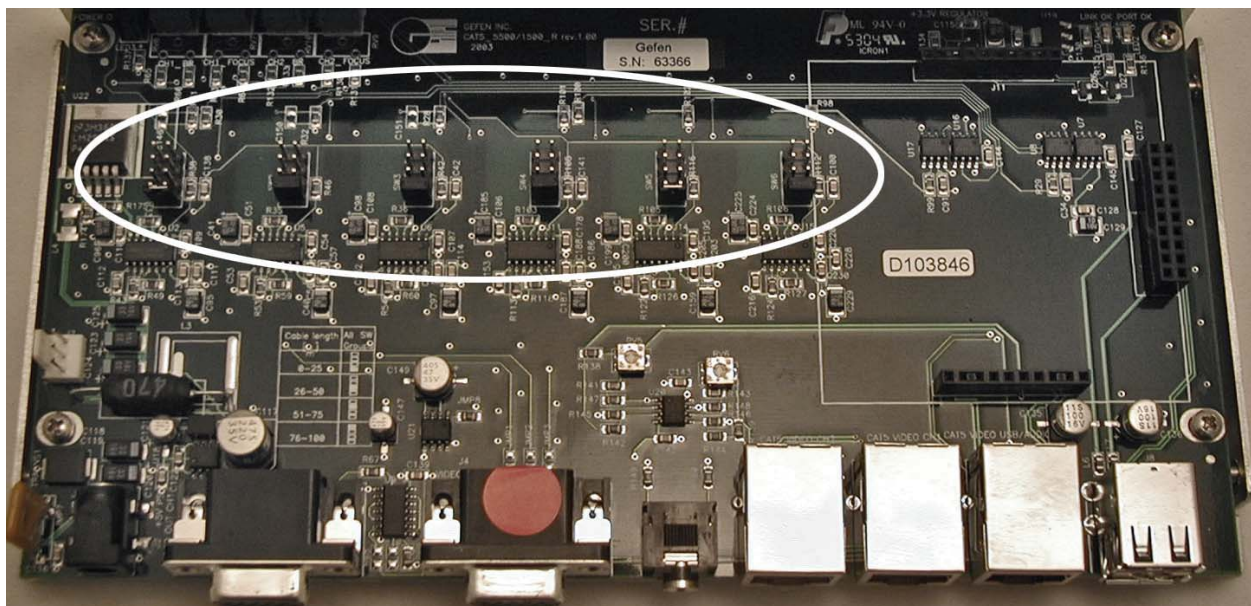
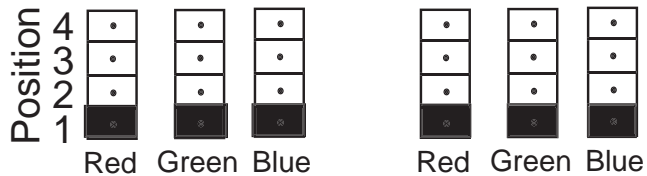
265-330 feet



## Jumper Settings

Video 1 on the  
left

Video 2 on the  
right



# CAT5 LINK CABLE - WIRING DIAGRAM

---

**RJ-45 Jack**



**White/Orange**

**Orange**

**White/Green**

**Blue**

**White/Blue**

**Green**

**White/Brown**

**Brown**

**RJ-45 Jack**



**1**

**2**

**3**

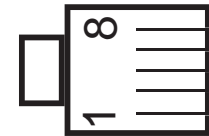
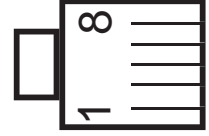
**4**

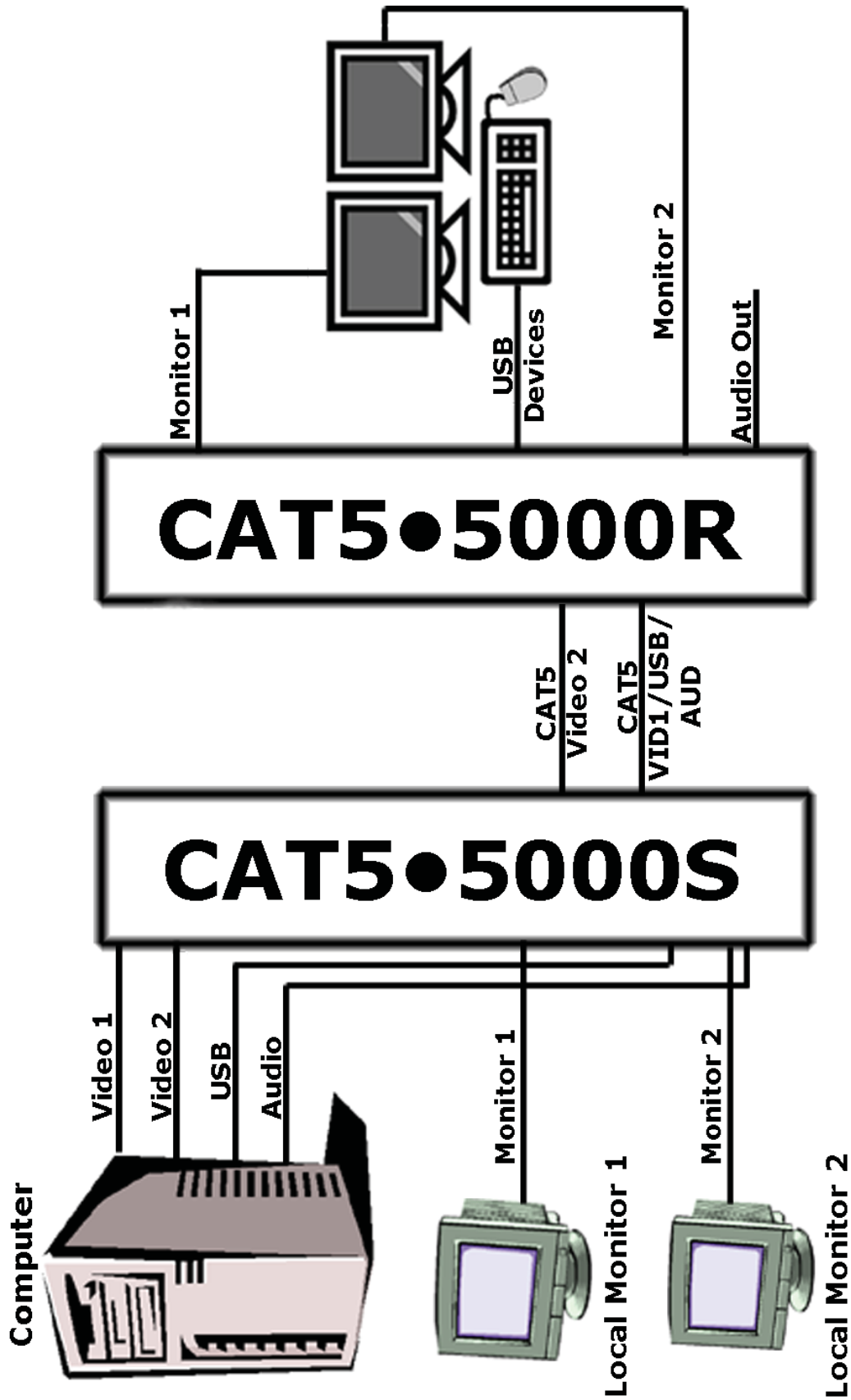
**5**

**6**

**7**

**8**





# CAT5•5000S RACK MOUNT DIAGRAM



## 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: .....HD-15 male

Video out: .....HD-15 female

Audio Connector: .....mini-phone Stereo 3.5mm

Link Connector: .....RJ-45 Shielded

USB Input/Output Connectors: .....type B / type A

Power Supply: .....5V DC

Power Consumption per unit: .....20 watts (max)

CAT5•5000S Dimensions: .....17.1"W x 1.6"H x 4.2"D

CAT5•5000R Dimensions: .....8.4"W x 1.6"H x 4.2"D

Shipping Weight: .....8 lbs.