



Remotely control your computer

Optional Accessories



CAT-5 Cables

CAT5-5000

Computer Extension : the CAT5-5000/CAT5-5500 A Fundamental Dual-Display Extension Solution

Straightforward Way to Extend a Simple Dual-Display Workstation

The CAT5-5000 simply and efficiently extends two analog monitors, a USB-based keyboard/mouse and audio signals hundreds of feet from the computer using CAT5 cables. It comes in two versions: the CAT5-5000 sends video, audio and control signals up to 330-feet from the computer; the CAT5-5500 sends video, audio and control signals even further, up to 450-feet from the computer. Each model uses two CAT5 cables to transmit the signals. Both are designed for those who prefer to operate a dual-display computer workstation in a stable, quiet and secure location far away from the computer.

Compatibility

Both versions work with all CRT and LCD computer monitors, USB keyboards/mice and audio devices (Mac or PC).

How It Works

Both versions use a sender and receiver methodology to transmit signals from the computer to the workstation. The sender unit connects to the computer using the cables provided. The receiver unit connects to the two monitors, USB keyboard/mouse and audio devices up to 330-feet (CAT5-5000) or up to 450-feet (CAT5-5500) from the computer. Two CAT5 extension cables, sold separately, connect the sender to the receiver and thus the computer to the extended workstation. When fully powered and operational, the units extend all signals efficiently and reliably.

Features:

- Extends any two VGA displays up to 330 feet
- Maintains 1920 x 1200 resolution video
- Extends USB 1.1 compliant devices up to 330 feet
- Uses two CAT-5e cables
- Sender rack ears included
- Local video out

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"W x 1.75"H x 4"D
- CAT5-5000R Dimensions: 8.5"W x 1.75"H x 4"D
- Shipping Weight: 8 lbs.

Package Includes:

- Sender Unit
- Receiver Unit
- Two 6ft VGA cable
- One 6ft USB cable
- One 6ft Audio cable
- Two 5V Transformer
- Rack Ears



EXT-CAT5-5000



CAT5•5000
USER MANUAL

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.

Write To:

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

www.gefen.com
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.

TABLE OF CONTENTS

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

INTRODUCTION

Thank you for purchasing the new extend•it CAT5•5000 series by Gefen, Inc.

The extend•it CAT5•5000 by Gefen 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 (06FT)
- (1) Audio cable (06FT)
- (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•5000S FRONT PANEL DESCRIPTIONS



1

FRONT PANEL FUNCTION DESCRIPTIONS

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

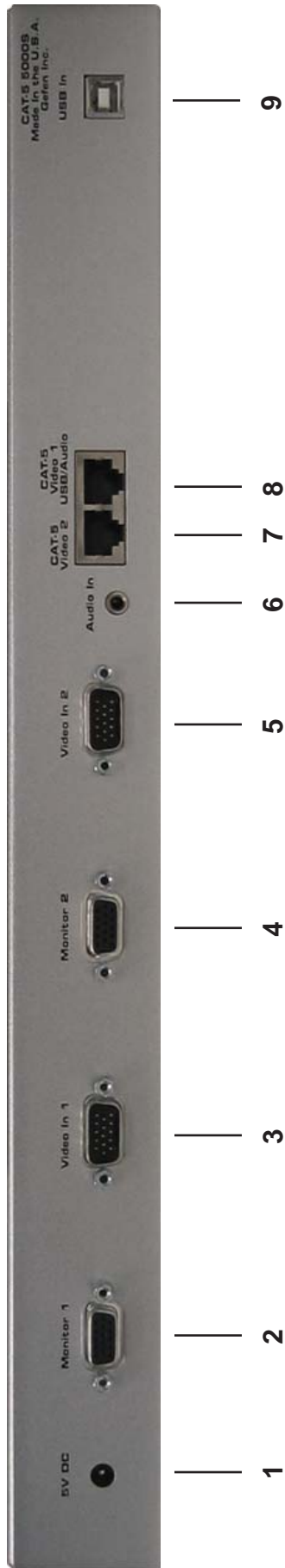
CAT5•5000R FRONT PANEL LAYOUT



Front Panel Function Descriptions

- 1 **Brightness 2** - Trim pot settings adjust brightness settings based on cable length
- 2 **Brightness 1** - Trim pot settings adjust brightness settings based on cable length
- 3 **Power On Indicator** - Indicates that the unit is on and plugged in.

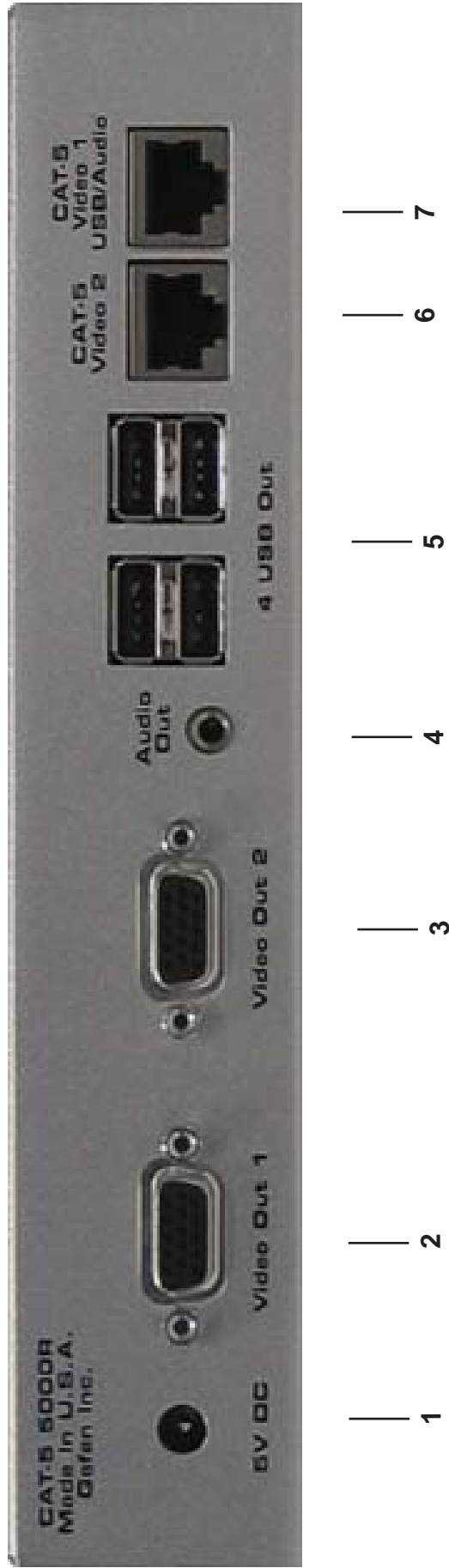
CAT5•5000S BACK PANEL LAYOUT



CAT5•5000S BACK PANEL FUNCTIONS

- 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 FUNCTIONS

- 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. Then open up the CAT5•5000R by unscrewing the bottom three screws on back end of the box. Then 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

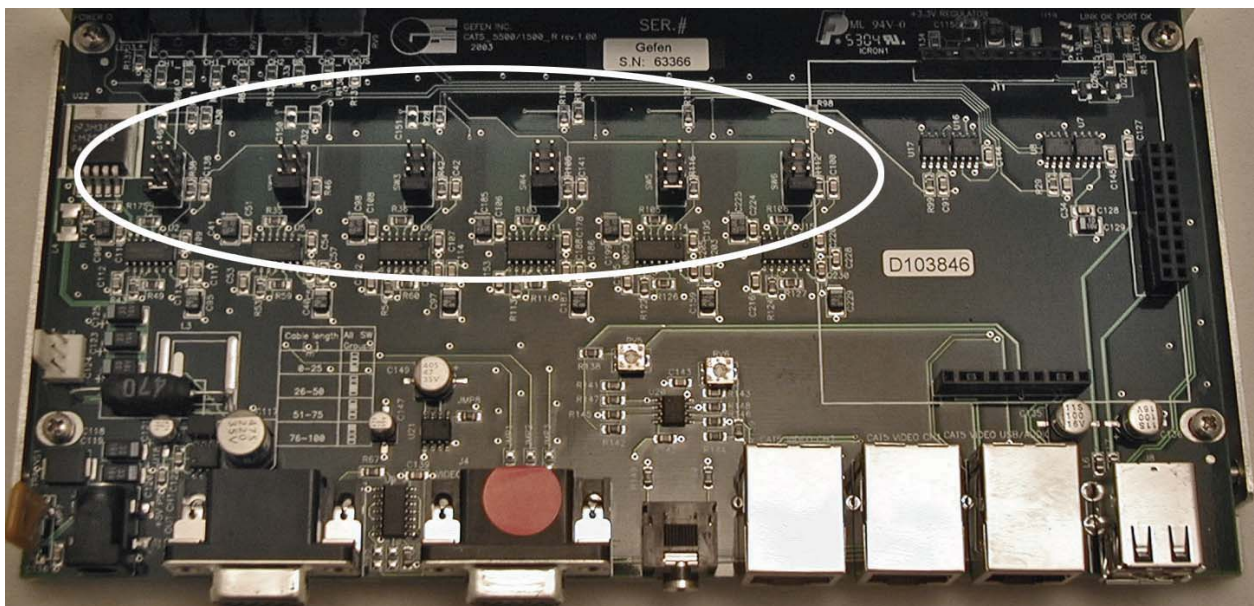
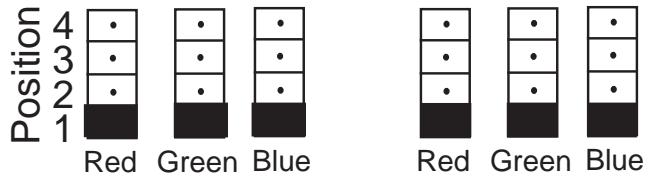
265-330 feet



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

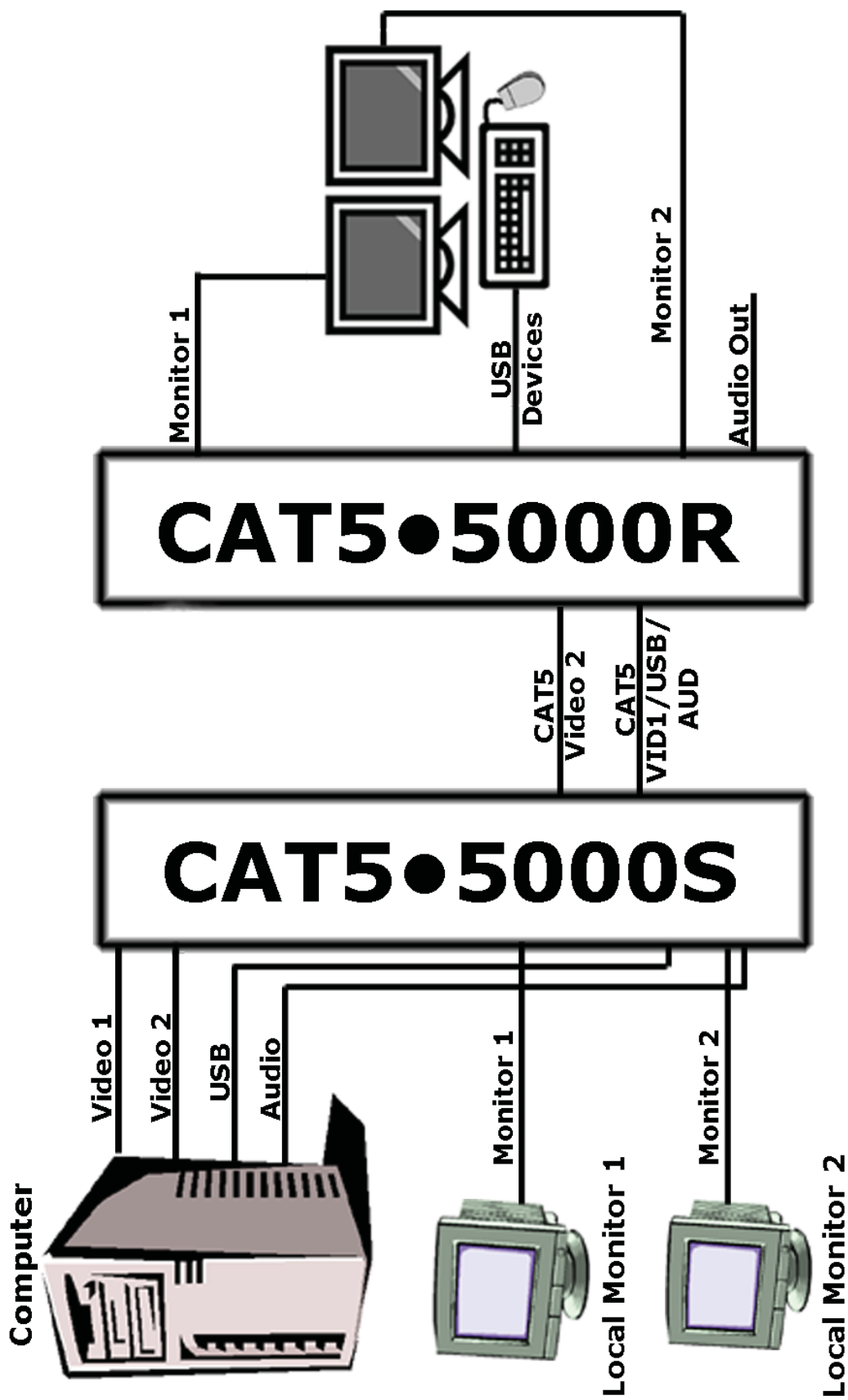
5

6

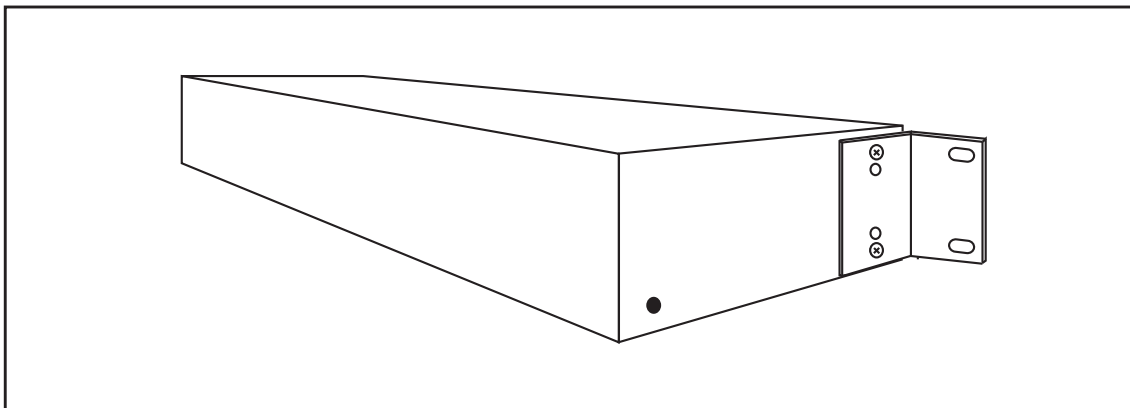
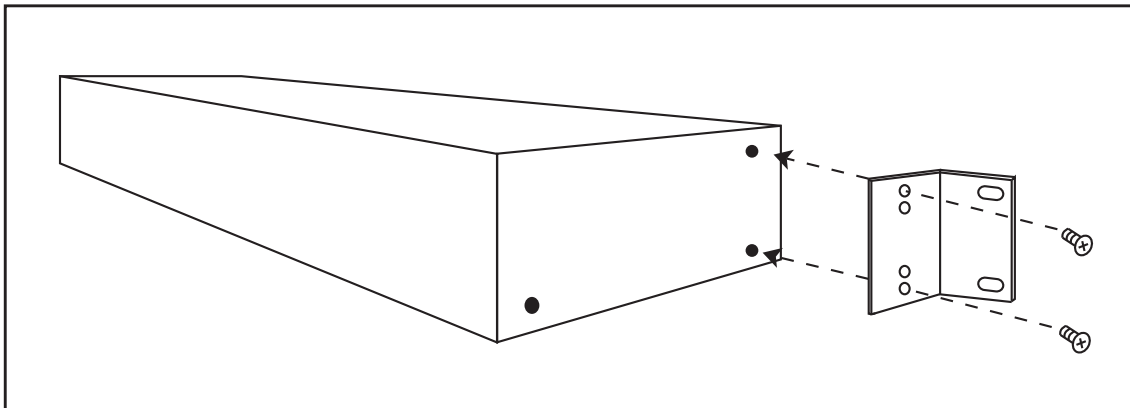
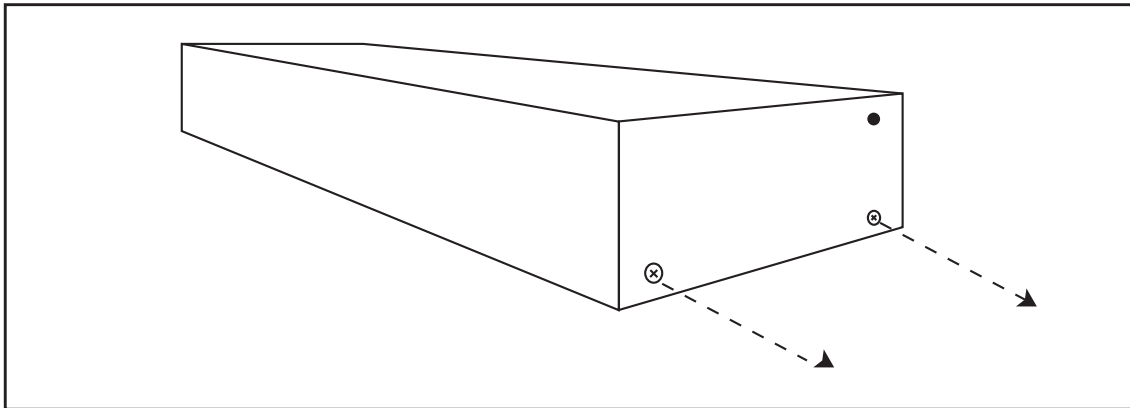
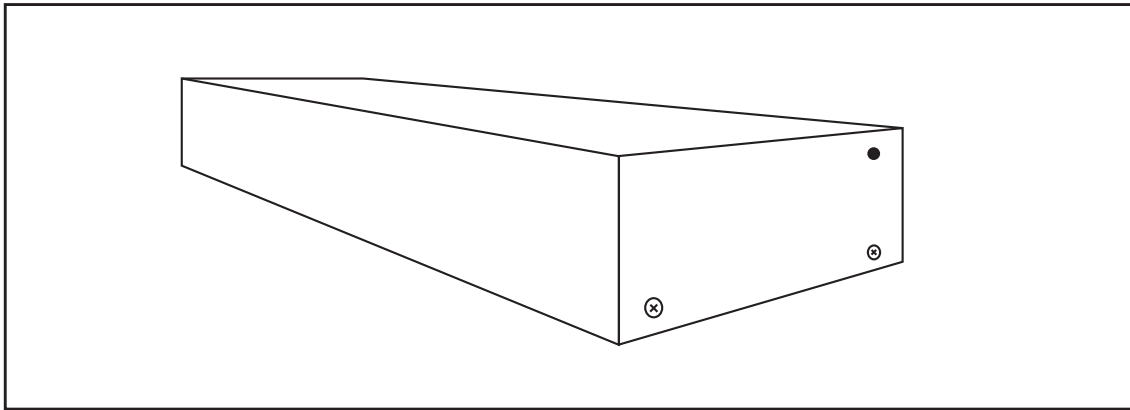
7

8





CAT5•5000S RACK MOUNT DIAGRAM



SPECIFICATIONS

Video Amplifier Bandwidth	350 MHz
Actual Bandwidth	120 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
Focus/Brightness Control	25 to 450 FT
Video out	HD-15
Link Connector	RJ-45
USB - "A" Connector	USB Out
USB - "B" Connector	USB Device Input
Power Consumption	15 Watts (max.)
Power Supply	5 VDC (External)
Dimensions Send Unit	16"W x 1 3/4"H x 4"D
Dimensions Receive Unit	8"W x 1 3/4"H x 4"D
Rack Mountable	1 Rack Space
Shipping Weight	8 Lbs

WARRANTY

Gefen Inc. warrants the equipment it manufactures to be free from defects in material and workmanship.

If equipment fails because of such defects and Gefen Inc. is notified within two (2) year from the date of shipment, Gefen Inc. will, at its option, repair or replace the equipment, provided that the equipment has not been subjected to mechanical, electrical, or other abuse or modifications.

Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of reshipment to the Buyer.

This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.

1. Proof of sale may be required in order to claim warranty.
2. Customers outside the US are responsible for shipping charges to and from Gefen.
3. Copper cables are limited to a 30 day warranty and cable must be free from any scratches, markings, and neatly coiled.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen Inc. assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen Inc., be liable for direct, indirect, special, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. The technical information contained herein regarding CAT5•5000 features and specifications is subject to change without notice.