



CAT5•9000i
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 Street
Chatsworth, CA 91311

www.gefen.com
support@gefen.com

Notice

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Macintosh is a trademark of Apple Computer Inc.

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INTRODUCTION

Thank you for purchasing the new extend•it CAT5•9000 series by Gefen, Inc.

The extend•it CAT5•9000 by Gefen allows users the benefits of extending VGA, USB, RS232, and audio signals beyond the desktop. In a growing number of applications, broadcast stations and production facilities there is a need to locate a computer remotely from the keyboard, mouse, and video monitor. A CPU may need to be shared between several users, for example, or moved to another room because of annoying fan noise.

The CAT5•9000 series can be used to extend computers with noisy fans, printers, hard drives, scanners, cameras, keyboards, mouse, and any other USB-type devices. With the potential to cover the distance of 330 feet, industry standard Category 5 (CAT-5) cables are used for the extension of all the devices. One can connect additional CAT5•9000 series to the same computer, allowing access to the same computer from other locations up to 330 feet apart.

CONTENTS

The CAT5•9000 system consists of:

- (1) CAT5•9000S sender unit
- (1) CAT5•9000R receiver unit
- (2) 5VDC power supply
- (1) VGA M-F cables (6FT)
- (1) USB cable (6FT)
- (2) PS/2 cable (6FT)
- (1) Audio cables (6FT)
- (1) User Manual

HOW IT WORKS

In its most basic application, the CAT5•9000S sender unit resides next to the computer. Supplied with the system, VGA cable, audio cable, and USB cable connect the computer to the CAT5•9000S sender unit.

The CAT5•9000R receiver unit are placed next to the monitors and USB device, at the remote location. The monitor, keyboard, mouse, and other USB devices are connected to the CAT5•9000R 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•9000S sender and CAT5•9000R receiver units together. The video, USB, and audio 1 signals are extended by one CAT-5 cable. Audio 2 and audio in is extended with a second CAT5 cable, and RS232, and PS/2 signals are extended with a for CAT5 cable.

OPERATION NOTES

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE CAT5•9000 SYSTEM

- Use industry standard Category-5 (CAT-5) cable to operate the CAT5•9000 system. CAT-5 E cable is preferred.
- When monitors are used in the local and remote locations, the video monitors must be able to use the same resolution. 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 unable to sync the same resolution of the local monitors.
- Please connect all the cables between the computer and the CAT5•9000S before power up the CAT5•9000S unit.
- The CAT5•9000S unit can be powered from the USB cable without the external power supply.
- The CAT5•9000 units are housed in a metal box for better RF shielding.

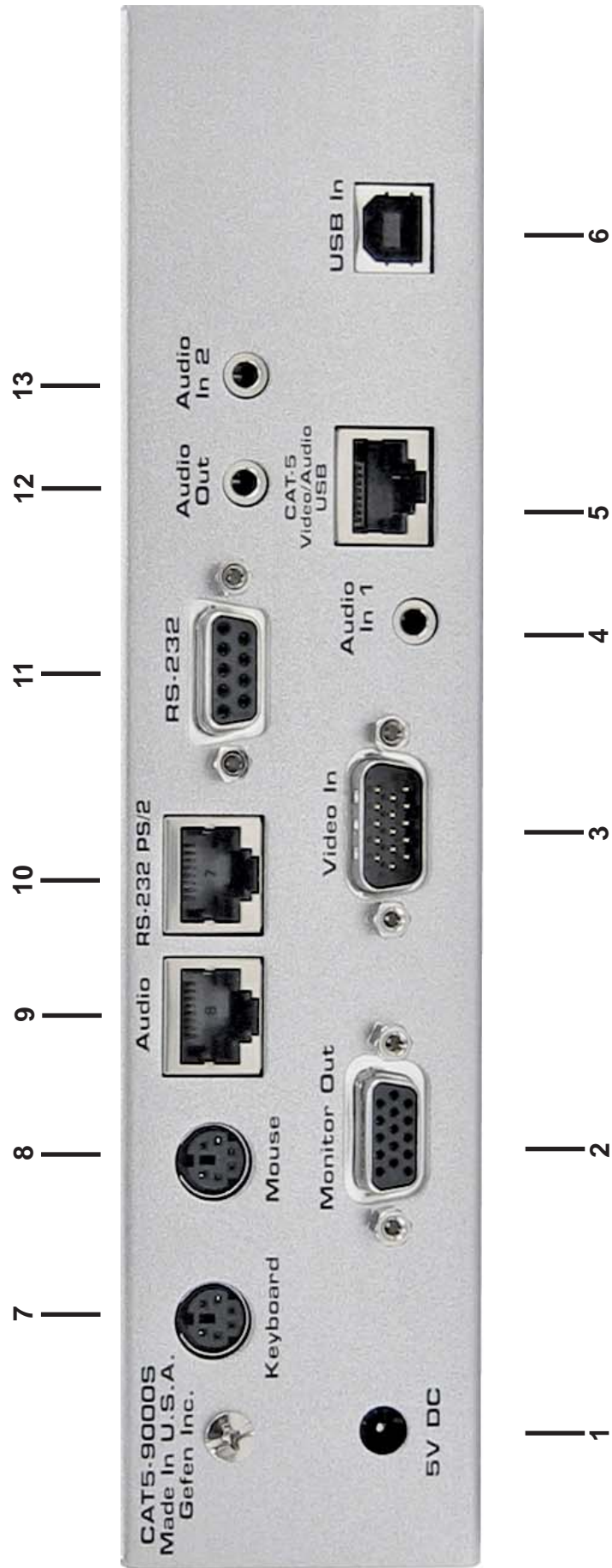
CAT5•9000S FRONT PANEL DESCRIPTION



Front Panel Function Description

- 1 **POWER ON INDICATOR** - Indicates that the unit is plugged in and powered on

CAT5-9000S BACK PANEL LAYOUT



CAT5•9000S BACK PANEL DESCRIPTIONS

- 1 **POWER** - 5 VDC external power supply
- 2 **MONITOR 1** - HD15 output connects to local monitor 1
- 3 **VIDEO IN 1** - HD15 input from computer
- 4 **AUDIO IN 1** - Audio Mini Jack input from computer
- 5 **CAT-5 USB/VID/AUD** - RJ-45 input extends video, USB and audio 1 with CAT-5 cable
- 6 **USB IN** - USB input from computer
- 7 **KEYBOARD** - Mini din PS/2 connector connects to PC for keyboard controls
- 8 **MOUSE** - Mini din PS/2 connector connects to PC for mouse controls
- 9 **CAT-5 AUD** - RJ-45 input extends audio out and audio 2 with CAT-5 cable
- 10 **CAT-5 SERIAL/PS-2**- RJ-45 input extends RS232, and PS/2 keyboard and mouse with CAT-5 cable
- 11 **RS232** - DB-9 input from computer
- 12 **AUDIO OUT** - Audio Mini Jack input from computer
- 13 **AUDIO IN 2** - Audio Mini Jack input from computer

CAT5•9000R FRONT PANEL DESCRIPTIONS

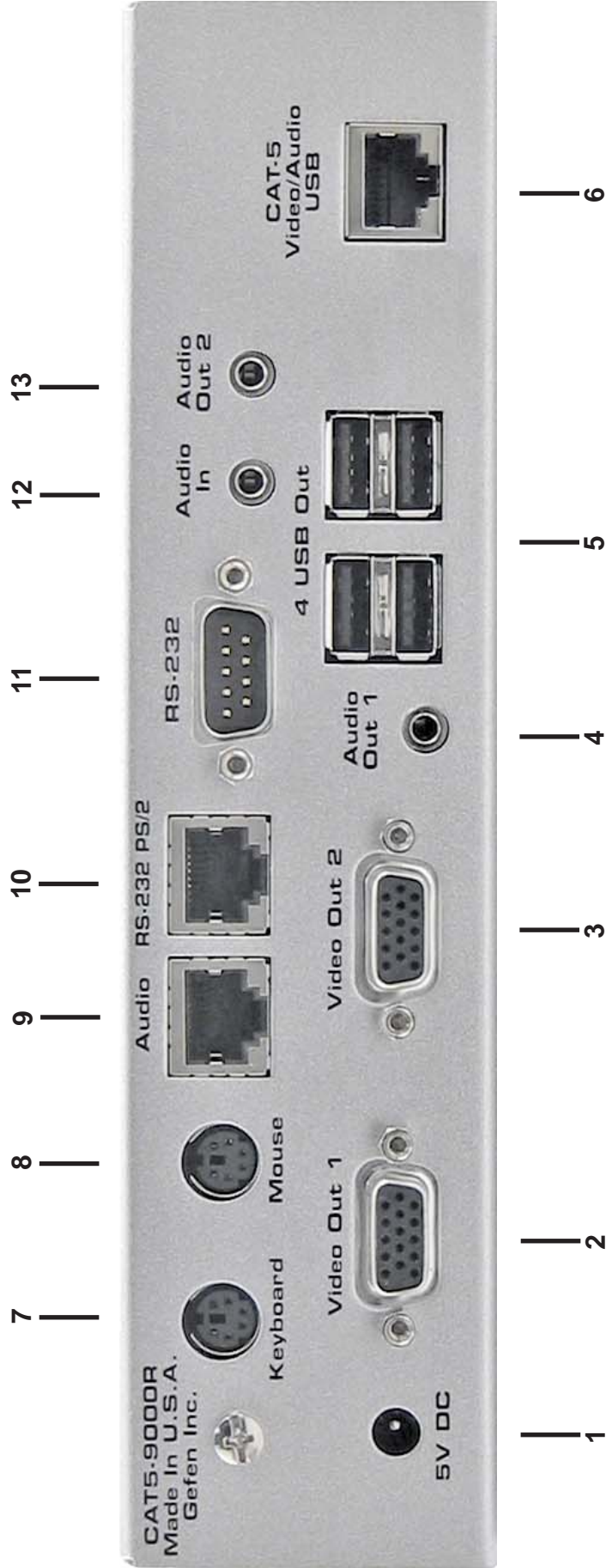


1 2

Front Panel Function Description

- 1 **BRIGHTNESS** - Adjusts the brightness for the monitor
- 2 **POWER ON INDICATOR** - Indicates that the unit is plugged in and powered on

CAT5-9000R BACK PANEL LAYOUT



CAT5•9000R 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 OUT 1** - Audio mini jack connects to speakers
- 5 **USB OUT** - 4 port power USB hub, connects to USB devices
- 6 **CAT-5 VID1/USB** - RJ-45 input connects CAT-5 cable to receive extended video, USB and audio 1 signals
- 7 **KEYBOARD** - PS/2 output connects to the keyboard
- 8 **MOUSE** - PS/2 output connects to the mouse
- 9 **CAT-5 AUDIO** - RJ-45 input connects CAT-5 cable to receive extended audio in and audio 2 signals
- 10 **CAT-5 SERIAL PS/2** - RJ-45 input connects CAT-5 cable to receive extended RS-232 and PS/2 signals
- 11 **RS232** - DB-9 connector connects to RS-232 devices
- 12 **AUDIO IN** - Audio mini jack connects to microphone
- 13 **AUDIO OUT 2** - Audio mini jack connects to speakers

RJ-45 Jack



White/Orange

Orange

White/Green

Blue

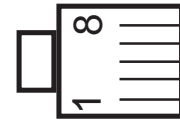
White/Blue

Green

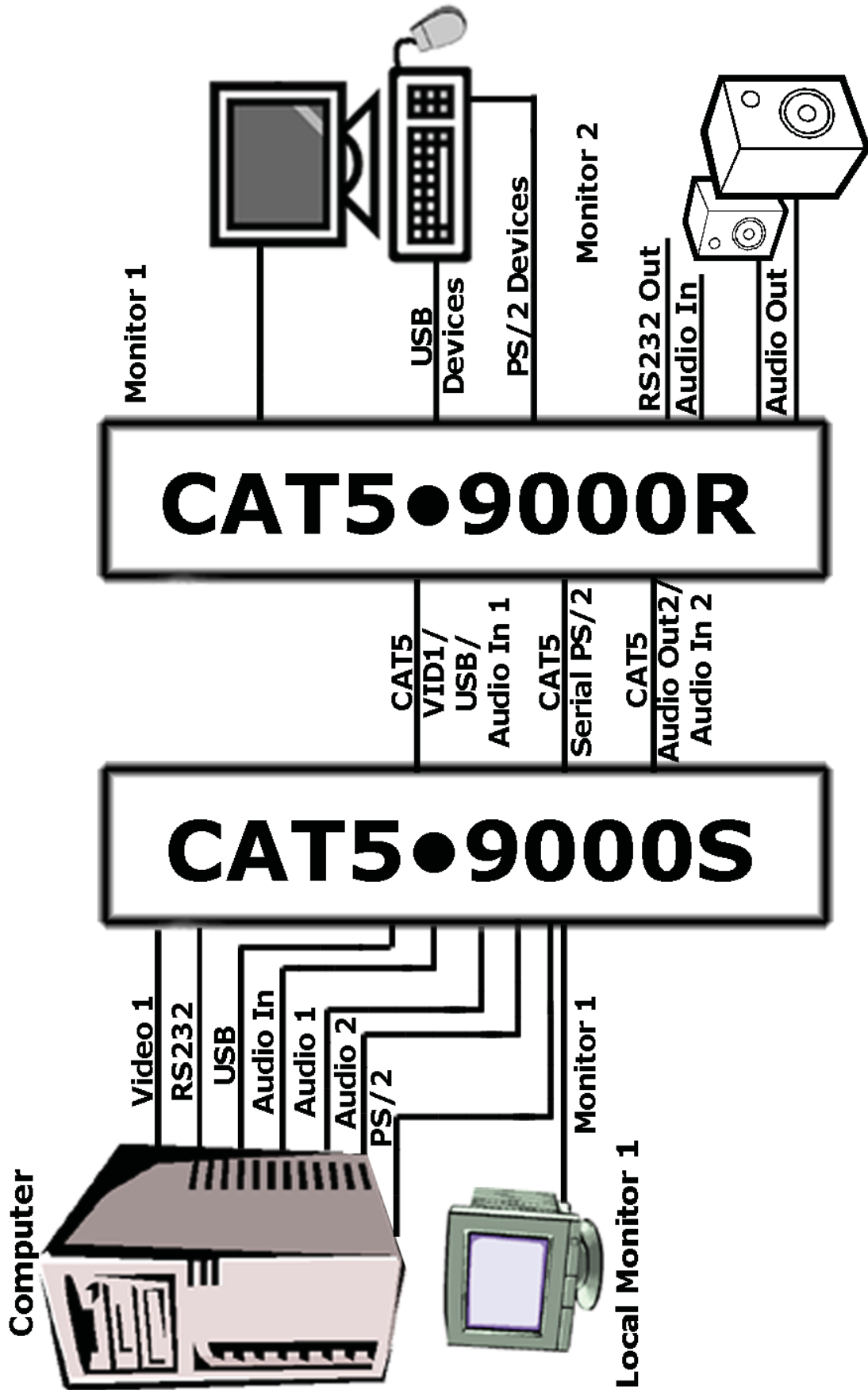
White/Brown

Brown

RJ-45 Jack



WIRING DIAGRAM



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•9000R are set at the factory as shown in the diagram below. The first step to adjusting the video is to have the CAT5•9000S and CAT5•9000R 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•9000R 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

Jumper Settings

Cable length

0-132 feet



***As shown in picture**

133-198 feet



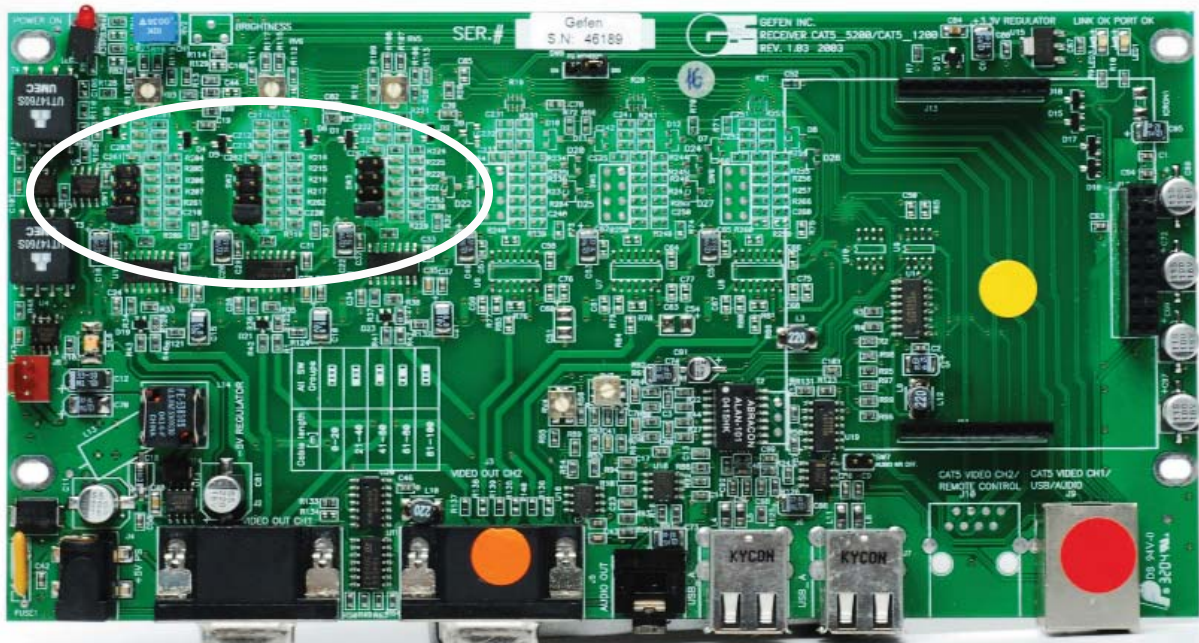
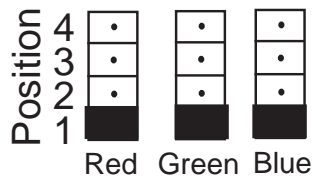
199-264 feet



265-330 feet



Video 1 on the left



SPECIFICATIONS

Video Amplifier Bandwidth	350 MHz
Actual Bandwidth	120 MHz
Input Video Signal	1.2 Volts p-p
Video In	HD-15
Focus/Brightness Control	25 to 450 FT
Video out	HD-15
Link Connector	RJ-45
PS/2 Keyboard Connectors	8 Pin MiniDin
PS/2 Mouse Connectors	8 Pin MiniDin
USB - "A" Connector	USB Input
USB - "B" Connector	USB Device Input
Power Consumption	1.45 Amps
Power Supply	5VDC (External)
Dimensions	CAT5•9000R 8"W x 1.95"H x 4"D
Rack Mountable	1 Rack Spaces
Shipping Weight	9 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•9000 features and specifications is subject to change without notice.