



CAT5•2000
USER MANUAL

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ASKING FOR ASSISTANCE

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INTRODUCTION

Thank you for purchasing the new extend•it CAT5•2000 series by Gefen, Inc.

The extend•it CAT5•2000 allows users the benefits of extending PS/2, ADB, audio and USB signals beyond the desktop. In a growing number of applications, broadcast stations and production facilities 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. For these and other applications, Gefen offers several versions of the CAT5•2000 series to provide great extension, saving space and enabling a quiet and clutter-free environment.

The CAT5•2000 series can be used to extend computers with noisy fans, printers, hard drives, scanners, cameras, keyboards, mouse, and any other USB-type device. 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•2000 series to the same computer, allowing access to the same computer from other locations up to 330 feet apart.

BOX CONTENTS

The CAT5•2000 system consists of:

- (1) CAT5•2000S sender unit
- (1) CAT5•2000R receiver unit
- (2) 17 VAC power supply
- (1) Video cable (6 FT)
- (2) PS/2 Cables (6 FT)
- (1) ADB cable (6 FT)
- (1) USB cable (6 FT) - (CAT5•2000I USB models ONLY)
- (1) Audio cable (6 FT) - (CAT5•2000I USB models ONLY)

OPERATION NOTES

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE CAT5•2000 SYSTEM

- * Industry standard Category-5 (CAT-5) cables are used to operate CAT5•2000 systems. Linking the sender and receiver boxes together, the CAT5•2000 (non-USB) model requires two CAT-5 cable to extend keyboard, video, and mouse (KVM).
- * The CAT5•2000 USB models require four CAT-5 cables to link the sender and receiver boxes. Two cables extends KVM signals as above. The third cable extends the USB, and audio signal. The fourth cable extends RS232.
- * 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•2000 units are housed in a metal box for better RF shielding.

HOW IT WORKS

In its most basic application, the CAT5•2000S sender unit resides next to the computer. Supplied with the system, straight monitor, keyboard, mouse, and USB cables connect the computer to the CAT5•2000S sender unit.

The CAT5•2000R receiver units are placed next to the monitor and keyboard, or USB device, at the remote location. The monitor and keyboard are connected to the CAT5•2000R similar to the way they are connected to the back of the computer (PC or Macintosh).

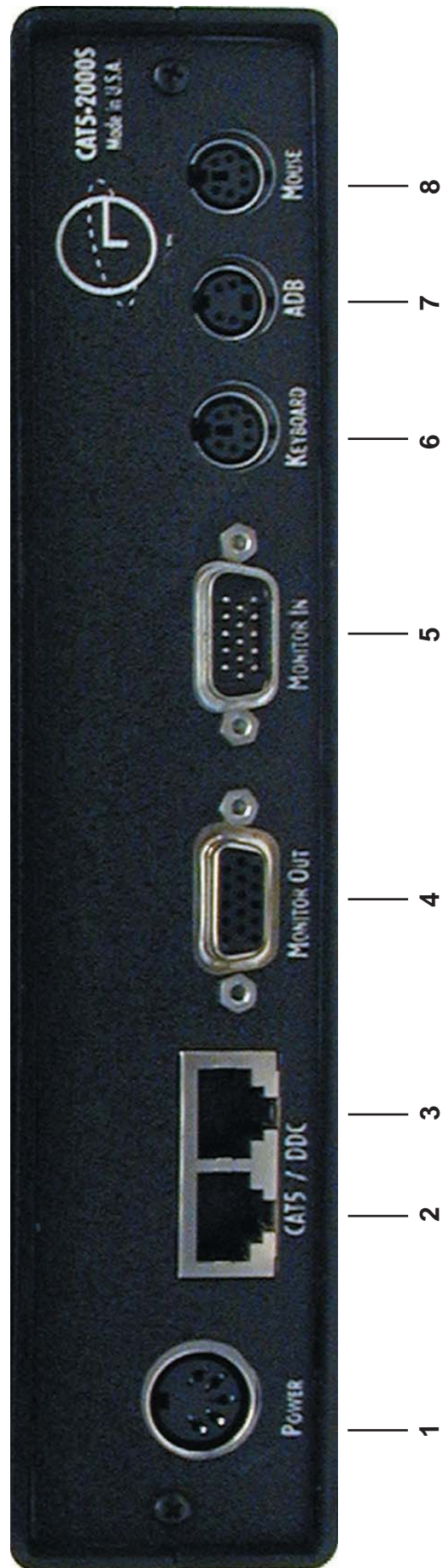
CAT5•2000S FRONT PANEL DESCRIPTIONS



Front Panel Function Descriptions

- 1 Reset**
Resets the firmware chip inside the unit. Use to change DIP switch settings instead of powering off.
- 2 PC or MAC DIP switch Settings**
ADB keyboard / mouse for Macintosh types -
Switches 1 and 2 set to OFF
PS/2 keyboard / mouse for PC types - Switches
1 and 2 set to ON
- 3 Monitor Settings**
NOT USED
- 4 Power On Indicator**
Indicates that the unit is on and plugged in.

CAT5•2000S SEND UNIT BACK PANEL LAYOUT



CAT5•2000S BACK PANEL DESCRIPTIONS

- 1 **POWER** - 17 VAC external power supply
- 2 **CAT5** - RJ-45 input extends video, PS/2 keyboard, and ADB signals to the receive unit with CAT-5 cable
- 3 **DDC** - RJ-45 input extends DDC and PS/2 mouse signals to the receive unit with CAT-5 cable
- 4 **MONITOR OUT** - HD-15 output connects to the monitor for local video
- 5 **MONITOR IN** - HD-15 input from computer
- 6 **KEYBOARD** - Mini Din PS/2 input connects to computer keyboard PS/2 output
- 7 **ADB** - Mini Din ADB input connects to computer ADB port
- 8 **MOUSE** - Mini Din PS/2 input connects to computer mouse PS/2 output

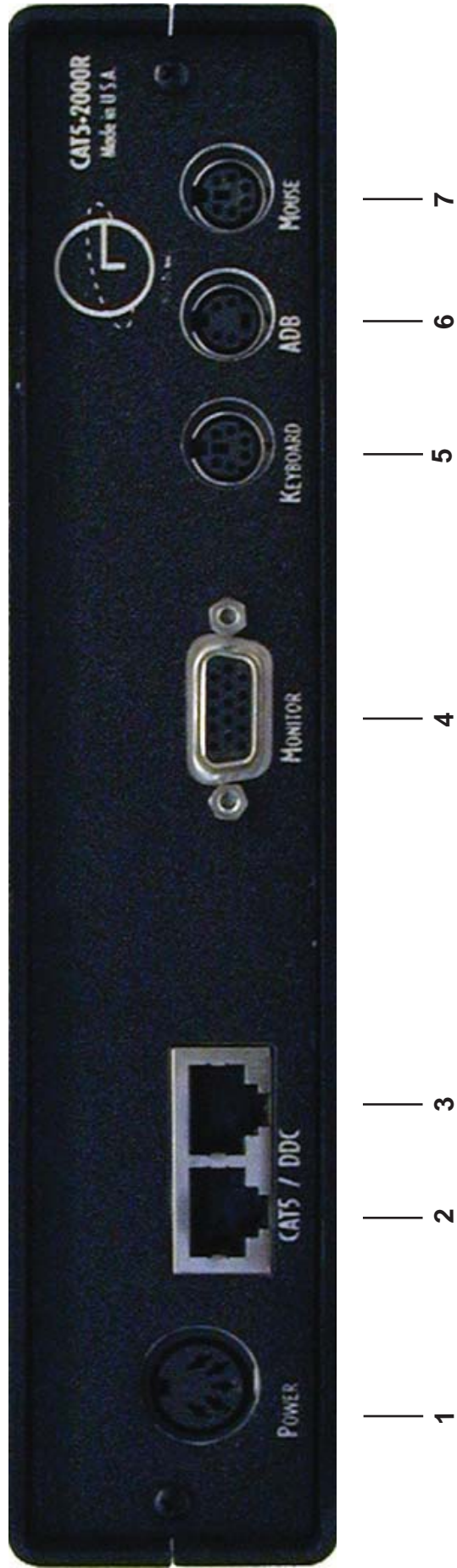


Front Panel Function Descriptions

- 1 **Reset**
Clears the programmed settings
- 2 **PC or MAC DIP switch Settings**
Settings for either ADB Keyboard or PS/2 keyboard/mouse

MAC: 1 & 2 OFF
PC: 1 ON 2 OFF
- 3 **Focus / Brightness**
Trim pot settings adjust the focus and brightness settings based on cable length
- 4 **Power On Indicator**
Indicates that the unit is on and plugged in.

CAT5•2000R BACK PANEL LAYOUT



CAT5•2000R BACK PANEL DESCRIPTIONS

- 1 POWER** - 17 VAC external power supply
- 2 CAT5** - RJ-45 input connects CAT-5 cable to receive extended video, PS/2 keyboard signals
- 3 DDC** - RJ-45 input connects CAT-5 cable to receive extended DDC and PS/2 mouse signals
- 4 MONITOR** - HD-15 output connecting to the video monitor
- 5 KEYBOARD** - PS/2 output connects to the keyboard
- 6 ADB** - ADB output connects to ADB keyboard and mouse
- 7 MOUSE** - PS/2 output connects to the mouse



Front Panel Function Descriptions

- 1 Reset**
Resets the firmware chip inside the unit. Use to change DIP switch settings instead of powering off.
- 2 PC or MAC DIP switch Settings**
ADB keyboard / mouse for Macintosh types -
Switches 1 and 2 set to OFF
PS/2 keyboard / mouse for PC types - Switches
1 and 2 set to ON
- 3 Monitor Settings**
NOT USED
- 4 Power On Indicator**
Indicates that the unit is on and plugged in.

CAT5•2000I S BACK PANEL LAYOUT



CAT5•2000I S BACK PANEL DESCRIPTIONS

- 1 **RS232** - 9 Pin DB Connector input from computer
- 2 **AUDIO** - Audio Mini Jack input from computer
- 3 **CAT-5 RS232** - RJ-45 input extends RS232 with CAT-5 cable
- 4 **CAT-5 USB & Audio**- RJ-45 input extends USB signal with CAT-5 cable
- 5 **USB IN** - USB Input from computer
- 6 **POWER** - 17 VAC external power supply
- 7 **CAT5** - RJ-45 input extends video, ADB, and PS/2 keyboard signals to the receive unit with CAT-5 cable
- 8 **DDC** - RJ-45 input extends DDC and PS/2 mouse signals to the receive unit with CAT-5 cable
- 9 **MONITOR OUT** - HD-15 output connects to the monitor for local video
- 10 **MONITOR IN** - HD-15 input from computer
- 11 **KEYBOARD** - Mini Din PS/2 input connects to computer keyboard PS/2 output
- 12 **ADB** - Mini Din ADB input connects to computer ADB port
- 13 **MOUSE** - Mini Din PS/2 input connects to computer mouse PS/2 output



Front Panel Function Descriptions

- 1 Reset**
Clears the programmed settings
- 2 PC or MAC DIP switch Settings**
Settings for either ADB Keyboard or PS/2 keyboard/mouse

MAC: 1 & 2 OFF
PC: 1 ON 2 OFF
- 3 Focus / Brightness**
Trim pot settings adjust the focus and brightness settings based on cable length
- 4 Power On Indicator**

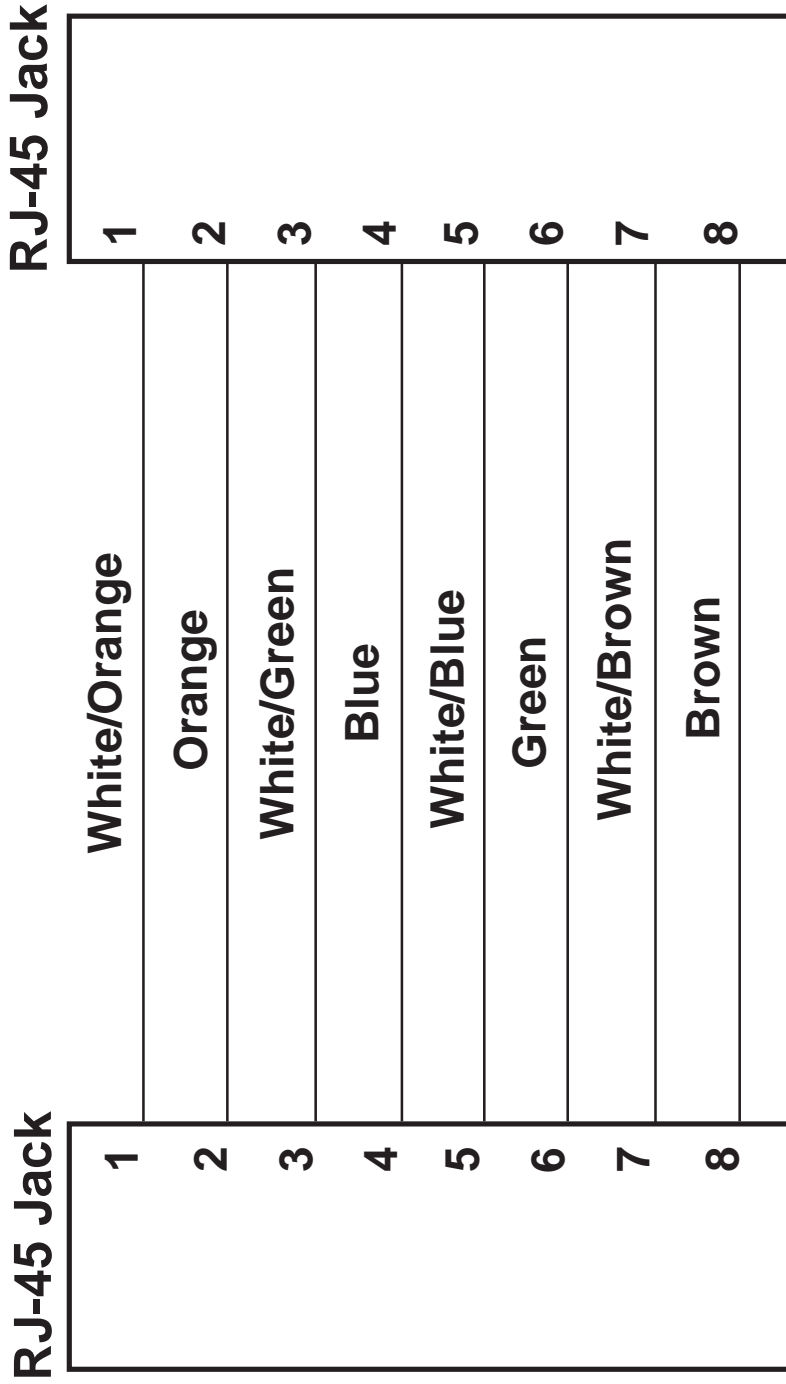
CAT5•2000I R BACK PANEL LAYOUT

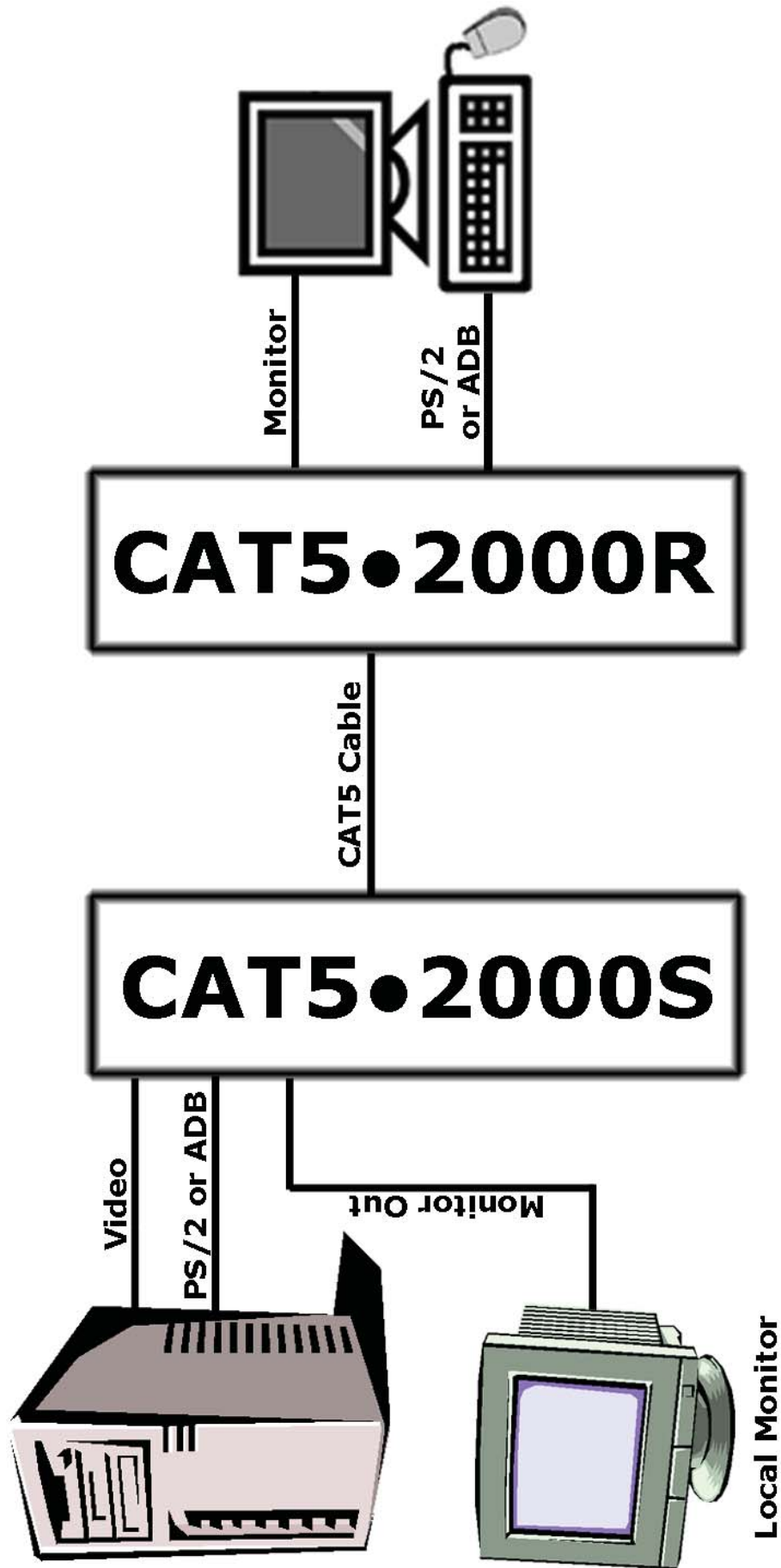


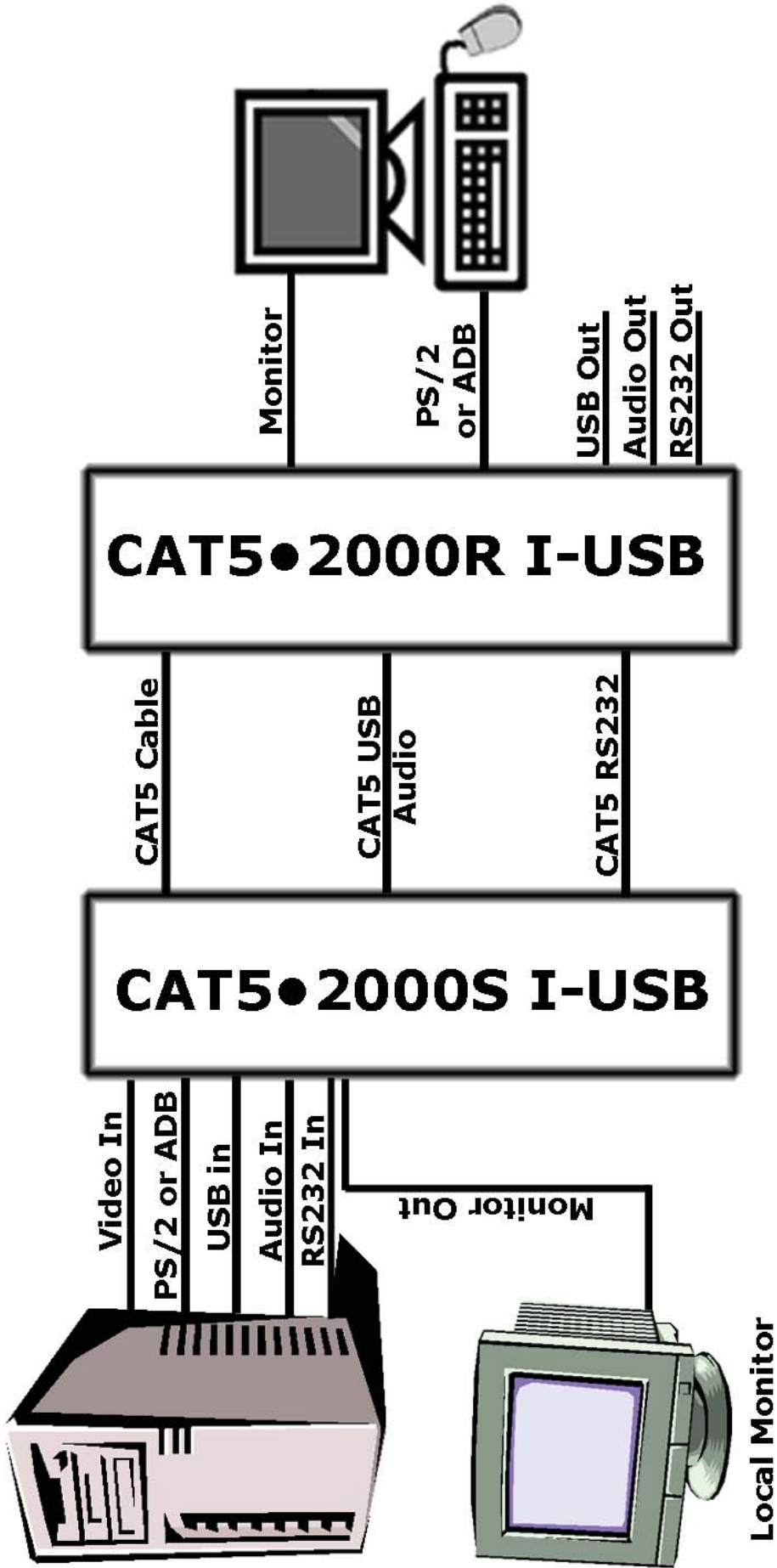
CAT5•2000I R BACK PANEL DESCRIPTIONS

- 1 **RS232** - 9 Pin DB Connector
- 2 **AUDIO** - Audio Mini Jack
- 3 **CAT-5 RS232** - RJ-45 input connects CAT-5 cable to receive extended RS232 signals
- 4 **CAT-5 USB & Audio** - RJ-45 input connects CAT-5 cable to receive extended USB & audio signal
- 5 **USB IN** - USB Input (Type A) - Connects to USB devices
- 6 **POWER** - 17 VAC external power supply
- 7 **CAT5** - RJ-45 input connects CAT-5 cable to receive extended video, PS/2 keyboard signals
- 8 **DDC** - RJ-45 input connects CAT-5 cable to receive extended DDC and PS/2 mouse signals
- 9 **MONITOR** - HD-15 output connecting to the video monitor
- 10 **KEYBOARD** - PS/2 output connects to the keyboard
- 11 **ADB** - ADB output connects to ADB keyboard and mouse
- 12 **MOUSE** - PS/2 output connects to the mouse

CAT5 CABLE WIRING 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
ADB Keyboard Connectors	4 Pin MiniDin
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	15 Watts (max.)
Power Supply	17 VAC (External)
Dimensions (CAT5 2000I model)	3.2"H x 8.4"W x 4.5"D
Dimensions (CAT5 2000 model)	1.75"H x 8.4"W x 4.5"D
Rack Mountable (CAT5 2000I model)	2 Rack Spaces
Rack Mountable (CAT5 2000S/R model)	1 Rack Spaces
Shipping Weight	7 Lbs (3.6 Kg)

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 one (1) 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 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.

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•2000 features and specifications is subject to change without notice.