

Gefen

®

CAT5•8500

EXT•CAT5•8500
USER MANUAL



www.gefen.com

ASKING FOR ASSISTANCE

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INTRODUCTION

Thank you for purchasing the new extend•it CAT5•8500 series by Gefen, Inc.

The extend•it CAT5•8500 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•8500 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 450 feet, industry standard Category 5 (CAT-5) cables are used for the extension of all the devices. One can connect additional CAT5•8500 series to the same computer, allowing access to the same computer from other locations up to 450 feet apart.

CONTENTS

The CAT5•8500 system consists of:

- (1) CAT5•8500S sender unit
- (1) CAT5•8500R receiver unit
- (2) 5VDC power supply
- (3) VGA M-F cables (6FT)
- (1) USB cable (6FT)
- (1) Audio cables (6FT)
- (1) User Manual

HOW IT WORKS

In its most basic application, the CAT5•8500S sender unit resides next to the computer. Supplied with the system, VGA cables, audio cables, and USB cables connect the computer to the CAT5•8500S sender unit.

The CAT5•8500R 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•8500R similar to the way they are connected to the back of the computer (PC or Macintosh).

Industry standard Category 5E (CAT-5) cables are used to link CAT5•8500S sender and CAT5•8500R receiver units together. Monitor 1 is extended by one CAT-5 cable, monitor 2 is extended with a second CAT5 cable, and monitor 3 is extended with a third CAT-5 Cable. USB and Audio 1 are with a fourth CAT-5 cable. RS232 and Audio 2 signals are extended with a fifth CAT5 cable.

OPERATION NOTES

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE CAT5•8500 SYSTEM

- Use industry standard Category-5 (CAT-5) cable to operate the CAT5•8500 system. CAT-5 E cable is preferred.
- When monitors are used in the local and remote locations, the video monitors must be able to sync to 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.
- The CAT5•8500S unit can be powered from the USB cable without the need to connect the external power supply.
- The CAT5•8500 units are housed in a metal box for better RF shielding.

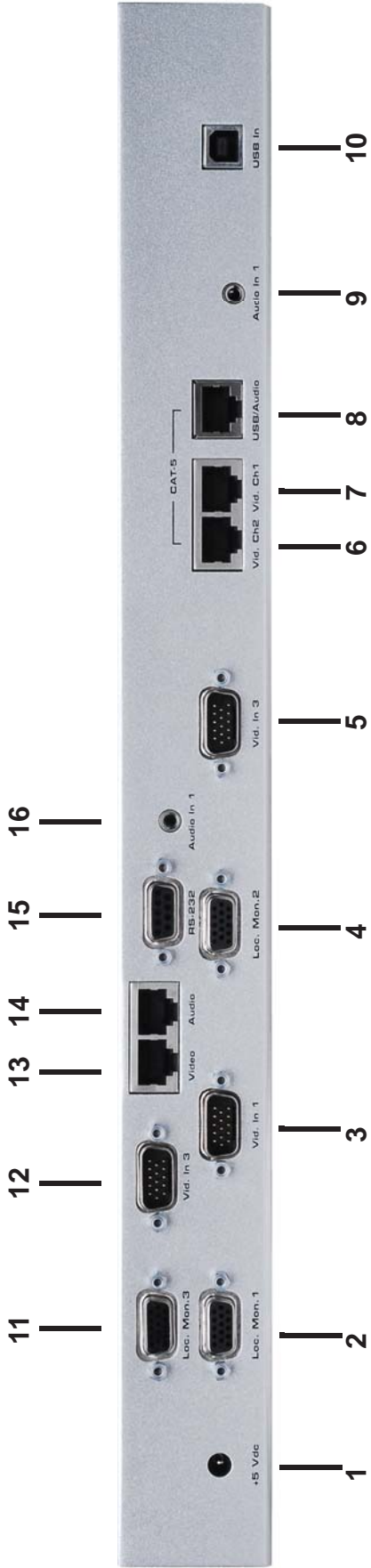
CAT5•8500S FRONT PANEL DESCRIPTION



Front Panel Function Description

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

CAT5•8500S BACK PANEL LAYOUT



CAT5•8500S 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 **MONITOR 2** - HD15 output connects to local monitor 2
- 5 **VIDEO IN 2** - HD15 input from computer
- 6 **CAT-5 VIDEO 2** - RJ-45 input extends video input 2 with CAT-5 cable
- 7 **CAT-5 VIDEO 1** - RJ-45 input extends video input 1 with CAT-5 cable
- 8 **CAT-5 USB/AUDIO** - RJ-45 input extends USB, and audio signals with CAT-5 cable
- 9 **AUDIO IN 1** - Audio Mini Jack input from computer
- 10 **USB IN** - USB input from computer
- 11 **MONITOR 3** - HD15 output connects to local monitor 3
- 12 **VIDEO IN 3** - HD15 input from computer
- 13 **CAT-5 VID 3** - RJ-45 input extends video input 3 with CAT-5 cable
- 14 **CAT-5/232/AUDIO** - RJ-45 input extends RS232, and audio 2 with CAT-5 cable
- 15 **RS232** - DB-9 input from computer
- 16 **AUDIO IN 2** - Audio Mini Jack input from computer

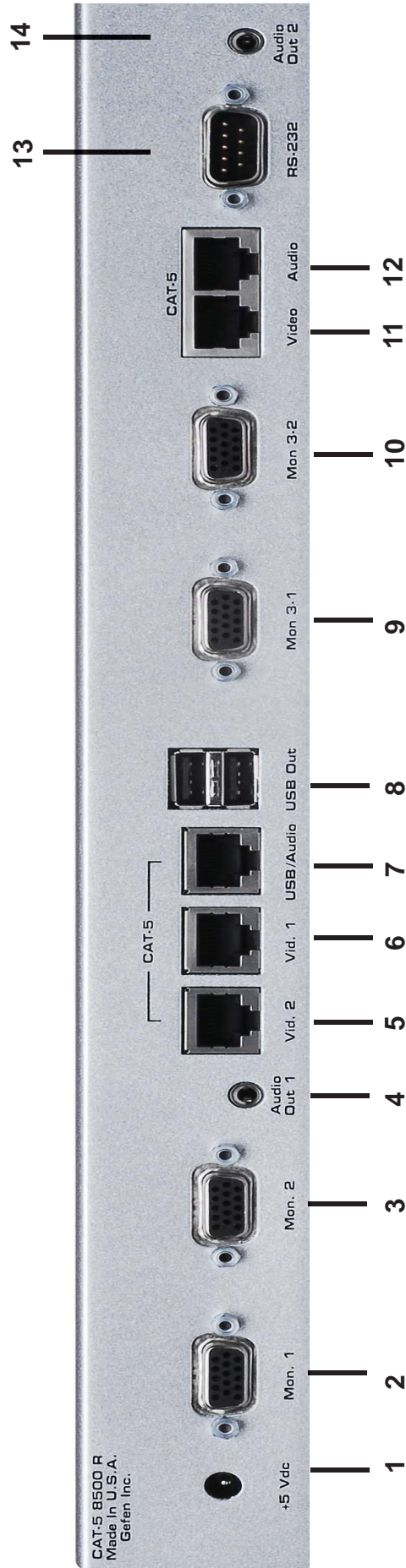
CAT5•8500R FRONT PANEL DESCRIPTIONS



Front Panel Function Description

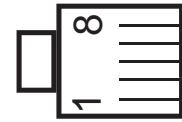
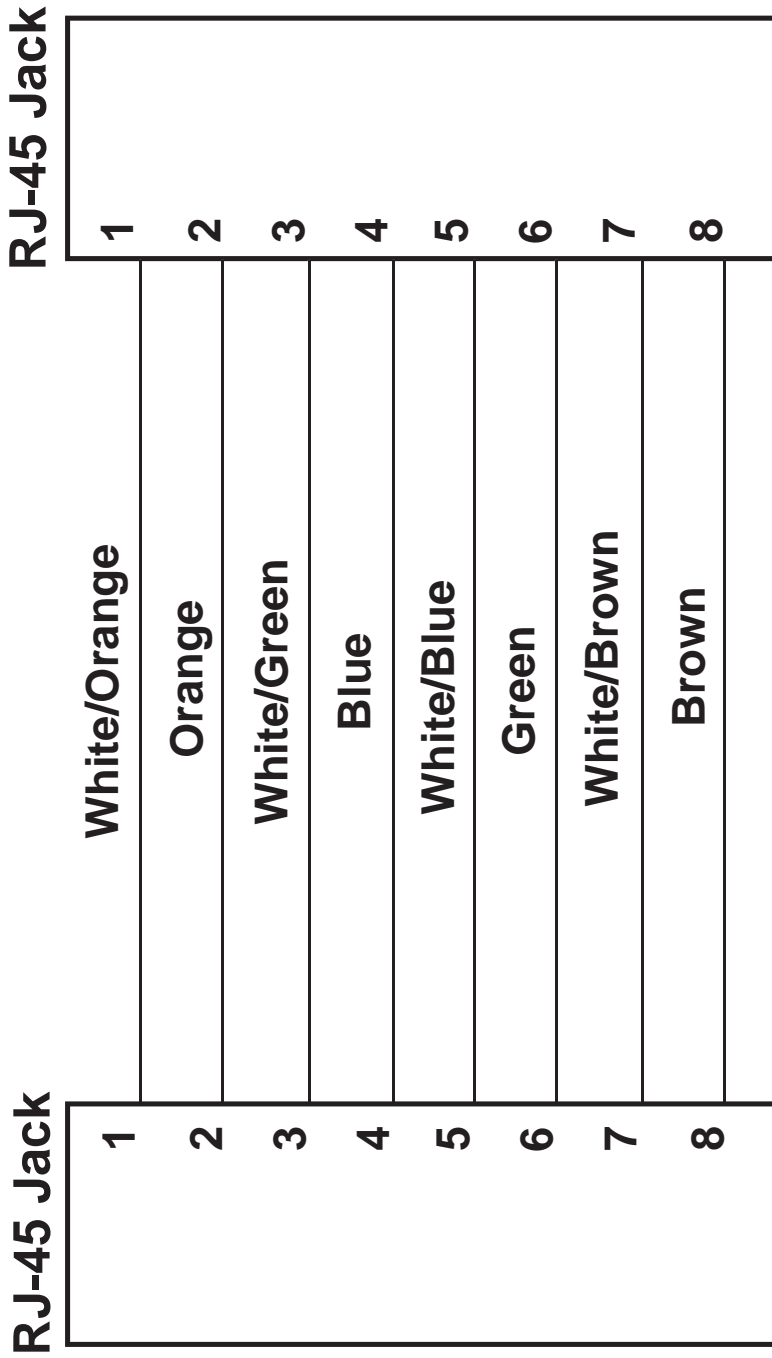
- 1 **F2** - Fine focus adjustment for monitor 2
- 2 **B2** - Adjusts the brightness for monitor 2
- 3 **F1** - Fine focus adjustment for monitor 1
- 4 **B1** - Adjusts the brightness for monitor 1
- 5 **POWER ON INDICATOR** - Indicates that the unit is plugged in and powered on
- 6 **3 Brightness** - Adjusts the brightness for monitor 3

CAT5•8500R BACK PANEL LAYOUT

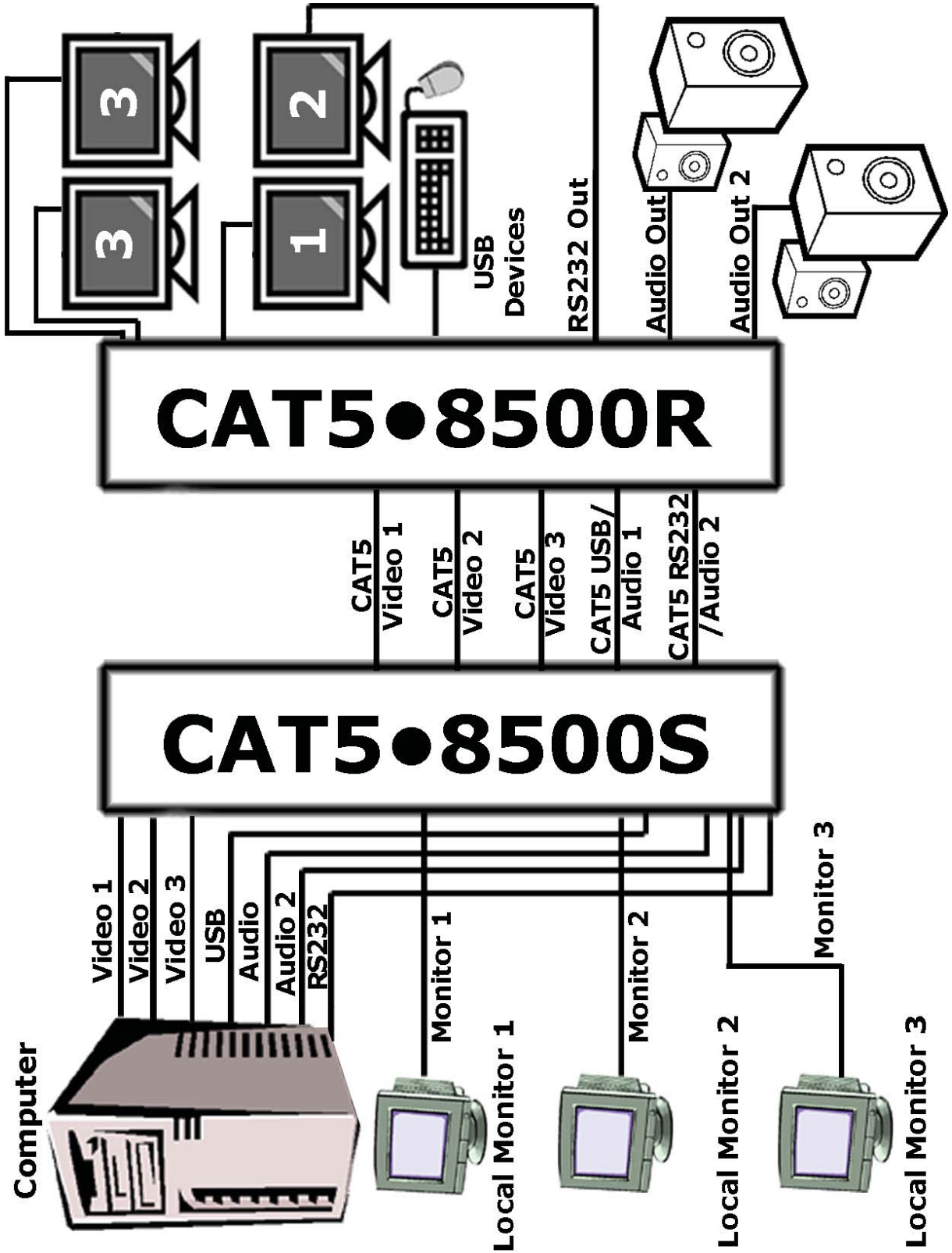


CAT5•8500R BACK PANEL DESCRIPTIONS

- 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** - Audio mini jack connects to speakers
- 5 **CAT-5 VID 2** - RJ-45 input connects CAT-5 cable to receive extended video signals
- 6 **CAT-5 VID 1** - RJ-45 input connects CAT-5 cable to receive extended video signals
- 7 **CAT-5 USB/AUDIO** - RJ-45 input connects CAT-5 cable to receive extended USB and audio 1 signals
- 8 **2 USB OUT** - 2 port power USB hub, connects to USB devices
- 9 **VIDEO 3** - HD15 output connecting to the video monitor 3
- 10 **VIDEO 3** - HD15 output connecting to the video monitor 3 (mirror output)
- 11 **CAT-5 VIDEO 3** - RJ-45 input connects CAT-5 cable to receive extended video signals
- 12 **CAT-5/232** - RJ-45 input connects CAT-5 cable to receive extended RS-232 and audio 2 signals
- 13 **RS232** - DB-9 connector connects to RS-232 devices
- 14 **AUDIO OUT 2** - Audio mini jack connects to speakers



WIRING DIAGRAM



CAT5 CABLE EQUALIZATION LENGTH SETUP

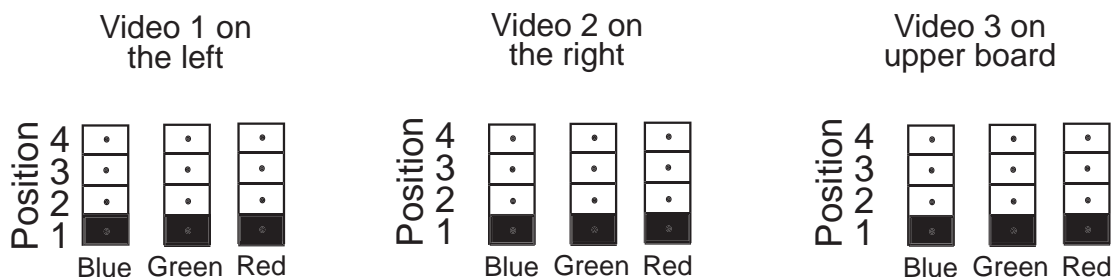
Note:

The units are shipped with jumper setting equalized to 100 feet length. If you need the cable equalized for 200 or 300 feet, the jumpers must be changed to reflect the new changes. Please follow the explanation below.

This requires to open the top cover of the CAT5•8500 unit.

Jumper settings are used to set the focus of the picture and characters to the best possible sharpness. The first step to adjusting the video is to have the CAT5•8500S and CAT5•8500R connected together with the CAT-5 cable that is going to be used in the installation. Then set your computer to the resolution that you will be using most frequently, for best results set your computers refresh rate to 60Hz. Then removing the top of the CAT5•8500R by unscrewing the top two screws on either side of the box. The jumper settings for video 3 are on the upper board. Look at some text on monitor 3 and then move all the jumpers on the upper board to position 1, 2, 3, and 4, and set the jumper to the one that looks best. If you still see some smearing adjust an individual jumper for the color that is smearing (it can be two colors). Then remove the upper board, and repeat the same steps for monitor 1 and 2. You can now use the focus and brightness trim pods in the front of the unit for a finer adjustment of the video.

Jumper Settings



SPECIFICATIONS

Video Amplifier Bandwidth	350 MHz
Input Video Signal	1.2 Volts p-p
Horizontal Frequency Range	15 - 70 KHz
Vertical Frequency Range	30 - 170 Hz
Video In	HD-15 male
Focus/Brightness Control	25 to 330 FT
Video out	HD-15 female
Link Connector	RJ-45 Shielded
USB - "A" Connector	USB Source Input
USB - "B" Connector	USB Device Input
Audio Connector.....	mini-stereo phono jack 3.5mm
RS-232 Connector.....	DB9
Power Consumption	20 Watts each unit
Power Supply	5V DC (External)
Dimensions	(CAT5•8500S) 17"W x 1.75"H x 4"D
Dimensions	(CAT5•8500R) 8.5"W x 2"H x 4"D
Rack Mountable	1 Rack Space (for the send unit)
Shipping Weight	11 Lbs