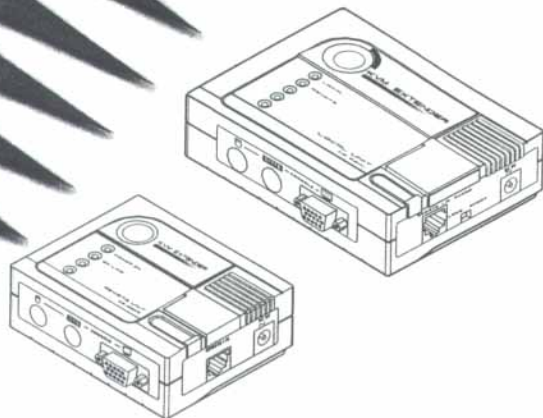


KVM EXTENDER



USER'S MANUAL

CE-220

Read this guide thoroughly and follow the installation and operation procedures carefully in order to prevent any damage to the units and/or any devices that connect to them.

This package contains:

- 1 CE-220L Console Extender Local Unit
- 1 CE-220R Console Extender Remote Unit
- 1 Custom KVM Cable
- 2 Power Adapters
- 1 User Manual

Check to make sure that all the components are present, and that nothing was damaged in shipping. If you encounter a problem, contact your dealer.

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Overview

Because the CE-220 Console Extender System allows access to a computer system from a remote console (keyboard, monitor, and mouse), it is perfect for factory and construction sites, or any type of installation where the console needs to be kept in a conveniently accessible location, but you want the system equipment to reside in a safe place - away from dust, dirt, and harsh environmental influences.

The CE-220 System is also useful for control and security purposes, where you can have the system unit in a secure area at the same time that you put the console in a location that offers convenient access.

The CE-220 provides the ideal means to access the remote system box, since it improves on previous designs by using inexpensive Category 5 STP cable - the kind commonly used in Ethernet networks - instead of bulkier, more expensive, standard cables.

Category 5 cabling makes for a much neater, more convenient, more reliable data transfer connection. Setup is as easy as can be - simply connect the PC system box and local console to the Local CE-220 Module; run the STP cable to the Remote CE-220 Module (up to 150 m away); and plug the remote console into the Remote Module.

Note: You can control numerous remote systems from a single console by combining the CE-220 with a KVM Switch.

Features

- Uses Inexpensive, Reliable, Category 5 STP Ethernet Cable to Connect the Local and Remote Units
- Dual Console Operation - Control Your System From Both the Local and Remote PS/2 Keyboard, Mouse, and Monitor Consoles
- Push Button Selection of the Active Console
- High Resolution Video - Up To 1024 x 768 @ 150 m (max.)
- Supports VGA, SVGA, and Multisync Monitors
- Local Monitor Supports DDC2

System Requirements

Consoles

- A VGA, SVGA, or Multisync monitor capable of the highest resolution that you will be using on any PC in the installation
- A PS/2 Style Keyboard
- A PS/2 Style Mouse

Note: You must use the same brand and model of mouse on both the local and remote units.

PCs

The following equipment must be installed on each PC that is to be connected to the system:

With PS/2 Type Connectors:

- A VGA, SVGA or Multisync card.
- A 6-pin mini-DIN mouse port.
- A 6-pin mini-DIN keyboard port.

With AT Type Connectors:

- A VGA, SVGA or Multisync card.
- A DB-9 (standard serial), mouse port, plus mouse adapter (part # 2A-105).*
- A 5-pin DIN (standard AT), keyboard port, plus keyboard adapter (part # 2A-106).*

* Not included - requires separate purchase.

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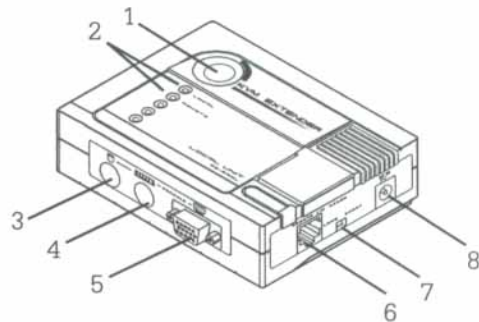
Cables

- Although it is possible to use standard extender cables to link computers with PS/2 type keyboard and mouse ports to the CE-220L, for optimum signal integrity and to simplify the layout, we strongly recommend that you use the high quality CS Custom Cable that is provided with this package.
- It is not possible to use standard extender cables to link computers with AT type keyboard and mouse ports to the CE-220L. For those computers, using CS Custom Cables must be used.
- Category 5 STP cable is required to connect the local and remote CE-220 units. Using other types of cable (e.g. UTP cable) will result in degrading the video signal.

Introduction

The Local Unit (CE-220L)

Front View:



1. Operating Mode Selection Switch

Pressing this button cycles you through the operating mode choices:

Local - only the local console can control the system(s);

Auto - both consoles can control the system(s).

3

2. LEDs

The Local Unit has two LEDs (Local and Remote) that function in the following manner:

LED Mode	Operating	
	Local	Auto
Local	Lights to indicate that the local console is active (the Remote LED is out).	<ol style="list-style-type: none">1. Lights when the local console is active (the Remote LED is out)2. Turns off when the remote console is active (the Remote LED turns on)3. Flashes on and off alternately with the Remote LED when neither console is active.
Remote	The LED is Off	<ol style="list-style-type: none">1. Lights when the remote console is active (the Local LED is out)2. Turns off when the local console is active (the Local LED turns on)3. Flashes on and off alternately with the Local LED when neither console is active.

3. Mouse Port

The local PS/2 mouse plugs into this connector.

4. Keyboard Port

The local PS/2 keyboard plugs into this connector.

5. Monitor Port

The local monitor plugs into this connector.

6. Remote I/O

The Category 5 twisted pair cable that connects to the Remote Unit plugs into this connector.

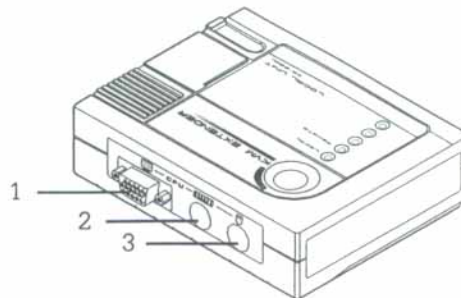
7. Range Switch

Slide the switch to the Long position if the Remote Unit is located a long distance away (greater than 30 m); slide the switch to the Short position if the Remote Unit is located a short distance away.

8. AC 9V Power Jack

The cable from the AC Power Adapter plugs into this jack.

Rear View



1. Monitor Port

The extension cable that connects to the computer's VGA port plugs into this connector.

2. Keyboard Port

The extension cable that connects to the computer's Keyboard port plugs into this connector.

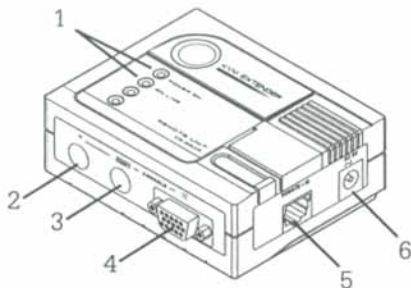
3. Mouse Port

The extension cable that connects to the computer's Mouse port plugs into this connector.

Note: If you are combining the CE-220 with a KVM switch, the extension cable connects back to the respective ports on the Console section of the switch.

The Remote Unit (CE-220R)

Front View



1. LEDs

The Remote Unit has two LEDs (Power and On Line) that function in the following manner:

LED	Indication
Power	<ol style="list-style-type: none">1. Lights steadily to indicate that connection to the Local Unit is ok.2. Flashes to indicate a problem with the connection to the Local Unit.
On Line	<ol style="list-style-type: none">1. Lights when the remote console is active.2. Is Off when the local console is active.3. Is Off when there is a problem with the connection to the Local Unit.

2. Mouse Port

The remote PS/2 mouse plugs into this connector.

3. Keyboard Port

The remote PS/2 keyboard plugs into this connector.

4. Monitor Port

The remote monitor plugs into this connector.

5. Remote I/O

The Category 5 twisted pair cable that connects back to the Local Unit plugs into this connector.

6. AC 9V Power Jack

The cable from the AC Power Adapter plugs into this jack.

Installation

Setting up the Console Extender System is simply a matter of plugging in the cables:

1. Make sure that all the equipment to be connected up is powered Off.
2. Plug the cables from the local console devices (mouse, keyboard, monitor), into their ports on the Console side of the CE-220L.
3. Plug the appropriate connectors on the KVM extension cable supplied with this unit into the CPU side of the CE-220L.

Note: Each connector is marked with an appropriate icon to indicate which it is.

4. Plug the connectors on the other end of the cable into the appropriate ports on the PC system (or Console section of the KVM switch - if you are using one).

Note: Each connector is marked with an appropriate icon to indicate which it is.

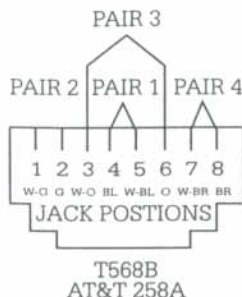
5. Plug one end of the Category 5 twisted pair cable into the Local Unit's Remote I/O port.
6. Slide the Range Switch to the Long position if the Remote Unit location is a long distance away (more than 30 m); slide the switch to the Short position if the Remote Unit location is a short distance away.
7. Plug one of the power adapters (supplied with this package) into an AC source; plug the adapter's power cable into the Local Unit's AC 9V Power Jack.
8. Plug the other end of the Category 5 twisted pair cable into the Remote Unit's Remote I/O port.
9. Plug the cables from the remote console devices (mouse, keyboard, monitor), into their ports on the Console side of the CE-220R.
10. Plug the second power adapter (supplied with this package) into an AC source; plug the adapter's power cable into the Remote Unit's AC 9V Power Jack.
11. Power On all the equipment.

Appendix

Troubleshooting

Symptom	Action
No Video	Make sure that all cables are securely plugged into their sockets.

TP Wiring Diagram



TP Pin Assignments

Pin	Assignment
1	V OUT B
2	/V OUT B
3	V OUT G
4	V OUT R
5	/V OUT G
6	/V OUT G
7	DO
8	DO

Limited Warranty

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK, OR ITS DOCUMENTATION EXCEED THE PRICE PAID FOR THE PRODUCT.

The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose.

The direct vendor also reserves the right to revise or update the device or documentation without obligation to notify any individual or entity of such revisions, or update. For further inquiries, please contact your direct vendor.

Radio & TV Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

Specifications

Function	CE-220L	CE-220R
Connectors	Keyboard 2 x 6 pin mini-DIN Female	6 pin mini-DIN Female
	Mouse 2 x 6 pin mini-DIN Female	6 pin mini-DIN Female
	Monitor 1 x 15 pin HDB Male 1 x 15 pin HDB Female	15 pin HDB Female
	Unit To Unit 8P8C Jack	
LEDs	1 Local 1 Remote	1 Power On 1 On Line
Function Keys	Local/Auto Select Pushbutton	N/A
Cable Length	150m [500] (max.)	
Video Resolution	1024 x 768	
Power Consumption	AC 9V 300mA (max.)	
Housing	Plastic	
Weight	300 g	220 g
Dimensions (L x W x H)	130 x 100 x 35 mm	100 x 80 x 35 mm