ATEN

Simply Better Connections

CE820 / CE920

HDBaseT 2.0 KVM Extender
User Manual

Compliance Statements

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

The device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Warning
Operation of this equipment in a residential environment could cause radio interference.

Achtung
Der Gebrauch dieses Geräts in Wohnumgebung kann Funkstörungen verursachen.

Suggestion
Shield twisted pair (STP) cables must be used with the unit to ensure compliance with FCC & CE standards.

CE FC 20 E3914 UKCA

KCC Statement
유선 제품용 / A 급 기기 (업무용 방송 통신 기기)
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Industry Canada Statement

This Class A digital apparatus complies with Canadian ICES-003.

CAN ICES-003 (A) / NMB-003 (A)

HDMI Trademark Statement

The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

RoHS

This product is RoHS compliant.

User Information

Online Registration

Be sure to register your product at our online support center:

International	http://eservice.aten.com

Telephone Support

For telephone support, call this number:

International	886-2-8692-6959
China	86-400-810-0-810
Japan	81-3-5615-5811
Korea	82-2-467-6789
North America	1-888-999-ATEN ext 4988
	1-949-428-1111

User Notice

All information, documentation, and specifications contained in this manual are subject to change without prior notification by the manufacturer. The manufacturer makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties as to merchantability or fitness for any particular purpose. Any of the manufacturer's software described in this manual is sold or licensed *as is*. Should the programs prove defective following their purchase, the buyer (and not the manufacturer, its distributor, or its dealer), assumes the entire cost of all necessary servicing, repair and any incidental or consequential damages resulting from any defect in the software.

The manufacturer of this system is not responsible for any radio and/or TV interference caused by unauthorized modifications to this device. It is the responsibility of the user to correct such interference.

The manufacturer is not responsible for any damage incurred in the operation of this system if the correct operational voltage setting was not selected prior to operation. PLEASE VERIFY THAT THE VOLTAGE SETTING IS CORRECT BEFORE USE.

Product Information

For information about all ATEN products and how they can help you connect without limits, visit ATEN on the Web or contact an ATEN Authorized Reseller. Visit ATEN on the Web for a list of locations and telephone numbers:

International	http://www.aten.com

Package Contents

Check to make sure that all the components are in working order. If you encounter any problem, please contact your dealer.

CE820 USB HDMI HDBaseT 2.0 KVM Extender

CE820 Package Contents

- ◆ 1 CE820L USB HDMI HDBaseT 2.0 KVM Extender (Local Unit)
- ◆ 1 CE820R USB HDMI HDBaseT 2.0 KVM Extender (Remote Unit)
- ◆ 1 HDMI KVM cable set
- ◆ 2 power adapters
- ◆ 2 mounting kits
- ◆ 8 foot pads
- ◆ 1 user instructions

CE820L Package Contents

- ◆ 1 CE820L USB HDMI HDBaseT 2.0 KVM Extender (Local Unit)
- ◆ 1 HDMI KVM cable set
- ◆ 1 power adapter
- ◆ 1 mounting kit
- ◆ 4 foot pads
- ◆ 1 user instructions

CE820R Package Contents

- ◆ 1 CE820R USB HDMI HDBaseT 2.0 KVM Extender (Remote Unit)
- ◆ 1 power adapter
- ◆ 1 mounting kit
- ◆ 4 foot pads
- ◆ 1 user instructions

CE920 USB DisplayPort HDBaseT 2.0 KVM Extender

CE920 Package Contents

- 1 CE920L USB DisplayPort HDBaseT 2.0 KVM Extender (Local Unit)
- 1 CE920R USB DisplayPort HDBaseT 2.0 KVM Extender (Remote Unit)
- 1 microphone cable
- 1 speaker cable
- 1 USB Type-A to Type-B cable
- 1 DisplayPort cable
- 2 mounting kits
- 2 power adapters
- 1 user instructions

CE920L Package Contents

- 1 CE920L USB DisplayPort HDBaseT 2.0 KVM Extender (Local Unit)
- 1 microphone cable
- 1 speaker cable
- 1 USB Type-A to Type-B cable
- 1 DisplayPort cable
- 1 mounting kit
- 1 power adapter
- 1 user instructions

CE920R Package Contents

- 1 CE920R USB DisplayPort HDBaseT 2.0 KVM Extender (Remote Unit)
- 1 mounting kit
- 1 power adapter
- 1 user instructions

Contents

Appendix

About this Manual

This User Manual is provided to help you get the most from your CE820/CE920 HDBaseT 2.0 KVM Extender. It covers all aspects of installation, configuration, and operation. An overview of the information found in the manual is provided below.

Chapter 1, Introduction, introduces you to the CE820/CE920 units. Their purposes, features, and benefits are presented, and the functions of their panel components are described.

Chapter 2, Hardware Setup, describes the steps that are necessary to quickly and safely set up your CE820/CE920 units.

Chapter 3, Operation, explains the fundamental concepts involved in operating the CE820/CE920 units.

Appendix, provides specifications and other technical information regarding the CE820/CE920 units.

Note:

- Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit or any connected devices.

- The product may be updated, with features and functions added, improved or removed since the release of this manual. For an up-to-date user manual, visit http://www.aten.com/global/en

<u>Conventions</u>

This manual uses the following conventions:

Monospaced	Indicates text that you should key in.
[ ]	Indicates keys you should press. For example, [Enter] means to press the **Enter** key. If keys need to be chorded, they appear together in the same bracket with a plus sign between them: [Ctrl+Alt].
1.	Numbered lists represent procedures with sequential steps.
♦	Bullet lists provide information, but do not involve sequential steps.
>	Indicates selecting the option (on a menu or dialog box, for example), that comes next. For example, Start > Run means to open the *Start* menu, and then select *Run*.
⚠	Indicates critical information.

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Chapter 1
Introduction

Overview

The CE820 / CE920 HDBaseT 2.0 KVM Extender can extend HDMI (CE820 only), DisplayPort (CE920 only), serial, Ethernet (for device supporting the Ethernet port only), and USB 2.0 signals up to 100 meters using a single Cat 5e/6/6a or ATEN 2L-2910 cable and HDBaseT technology. The HDBaseT 2.0 KVM Extender is equipped with USB connectors which allow you to extend signal transmission of any USB device. The USB functionality provides support for peripheral sharing, touch panel control and file transfers. The CE820 / CE920 ensures superior video quality with 4096 x 2160 resolutions so that you get the most out of your HDMI / DisplayPort-enabled displays.

The CE820 / CE920 supports the HDBaseT™ 2.0 technology with which you can extend the KVM installation up to 150 meters @ 1080p and preserve high-quality video by enhancing bit error detection and correction to resist signal interference.

The CE820 / CE920 allows access to a computer system from a remote console (USB keyboard, monitor, and mouse). It is perfect for use in any type of installation where you need to place the console where it is conveniently accessible, but you want the system equipment to reside in a safe location – away from the dust and dirt of the factory floor, or the harsh environmental influence of a construction site, for example. This allows users to deploy system equipment over large distances.

The CE820 / CE920 is useful for control and security purposes, where you can have the system in a secure area with the console in the most convenient location for user access. This is ideal for managing highly confidential data systems.

The CE820 / CE920 is ideal for transportation centers, medical facilities, and shopping malls, industrial kiosks and for syncing files and folders between computers. Setup is as easy as can be – simply connect the computer; run the Cat 5e/6/6a or ATEN 2L-2910 cable up to 100 meters to the remote unit of the CE820/CE920 and then plug the remote console into the remote unit of CE820 / CE920.

Features

- Supports HDBaseT™ 2.0 technology
    - Extends video (HDMI for CE820 and DisplayPort for CE920), audio, USB, RS-232, and Ethernet signals (for device supporting the Ethernet port only) via a single Cat6 / 6a cable or an ATEN 2L-2910 Cat 6 cable
    - Enhanced bit error detection and correction to resist signal interference during high-quality video transmissions
    - Status detection and LED indication for HDBaseT™ signal transmission on remote unit
- EDID Buffer for smooth power-up and the highest quality display
- HDMI: 3D, Deep Color, 1080P, 4K (for CE820)
- HDCP 2.2 Compatible (for CE820)
- HDCP Compatible (for CE920)
- Long distance with superior video quality
    - HDBaseT™ Standard mode up to 4K @ 100 m (Cat 6/6a or ATEN 2L-2910 Cat 6 cable)
    - HDBaseT™ Long-reach mode up to 1080P @ 150 m
- Long Reach mode switch – switches between HDBaseT™ Standard and Long Reach modes in a snap
- Supports individual 2-channel stereo audio for high-quality audio applications
- USB 2.0 full speed ports – ensures fast transmission speeds for peripherals
- Supports PC wakeup function via single pushbutton through RS-232 channel*
- Easy Installation Rack Mounting Kit
- Built-in 8KV / 15KV ESD protection (Contact voltage 8KV; Air voltage 15KV)
- Firmware upgradeable

Note: * The computer has to support Wake Up Ring for this function to work.

Requirements

Consoles

- An HDMI monitor (CE820) or DisplayPort monitor (CE920) capable of the highest resolution you will be using on any computer in the installation.

- A USB keyboard

- A USB mouse

Computers

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

- An HDMI port (for CE820 only)

- A DisplayPort port (for CE920 only)

- A USB port for the keyboard/mouse

- RS-232 serial port (optional)

- Microphone and speaker ports (optional)

Cables

- For optimal signal integrity, and reducing layout complexity, we strongly recommend that you use the high quality custom cables provided in the package.

- For more information about suitable Cat 5e/6/6a or ATEN 2L-2910 cables and setting up HDBaseT devices, refer to the *ATEN HDBaseT Installation Guide*.

- Maximum Cable Distances

  - CE820

Connection	Distance
Computer to Local Unit (CE820L)	1.8 m
Local unit (CE820L) to remote unit (CE820R)	100 m*
Remote Unit (CE820R) to monitor	5 m

◆ CE920

Connection	Distance
Computer to Local Unit (CE920L)	1.8 m
Local unit (CE920L) to remote unit (CE920R)	100 m*
Remote Unit (CE920R) to monitor	1.8 m

Note: The maximum transmission distance using a Cat 5e/6/6a or ATEN 2L-2910 cable is 100m and 150m when Long Reach Mode is enabled.
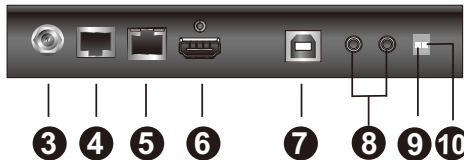
Components

CE820L Front and Rear View

CE820L Front View

CE820L Rear View

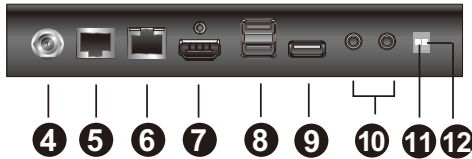| No.	Component	Description
1	RS-232 Serial Port	Receives an RS-232 serial cable which connects to the local computer.
2	LEDs	Indicate the Link and Power status of the CE820L. For more details, see *LED Display*, page 19.
3	Power Jack	Receives the supplied power adapter.
4	HDBaseT Out Port	Receives a Cat 5e/6/6a cable or an ATEN 2L-2910 cable which connects to the CE820R unit.
5	Ethernet Port	◆ If there is a NOT APPLICALBE rubber plug inserted to this port, this port is not functional for the device. ◆ If there is no Ethernet port on the device, the Ethernet capability is not supported. ◆ For device supporting the Ethernet port, plug a Cat 5e/6/6a cable or an ATEN 2L-2910 cable which connects to the local computer.
6	HDMI In Port	Receives the HDMI connect from the supplied KVM Cable Set which connects to the local computer.
7	USB Type-B Port	Receives a USB connector from the supplied KVM Cable Set which connects to the local computer.
8	Audio Ports	Receive audio connectors from the supplied KVM Cable Set which connects to the local computer.
9	Long Reach Mode Switch	Put the switch to **ON** to enable the Long Reach Mode to transmit HDMI signals up to 150m, at 1080p. For details, see *Long Reach Mode*, page 19.

No.	Component	Description
10	Firmware Upgrade Switch	This function is reserved for ATEN Technical Support. If you would like to do a firmware upgrade yourself, please contact your dealer.

CE820R Front and Rear View

CE820R Front View

CE820R Rear View

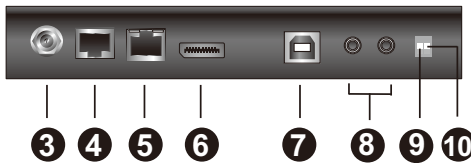| No.	Component	Description
1	RS-232 Serial Port	Receives an RS-232 serial cable which connects to a hardware/software serial control device.
2	Wake-up PC Pushbutton	Press this button to remotely wake the computer on the local side.
3	LEDs	The CE820R has three LEDs on its back panel to indicate its Video Out, Link, and Power status. For more details, see *LED Display*, page 19.
4	Power Jack	Receives the supplied power adapter.
5	HDBaseT In Port	Receives a Cat 5e/6/6a cable or an ATEN 2L-2910 cable which connects to the CE820L unit.
6	Ethernet Port	◆ If there is a NOT APPLICALBE rubber plug inserted to this port, this port is not functional for the device. ◆ If there is no Ethernet port on the device, the Ethernet capability is not supported. ◆ For device supporting the Ethernet port, plug a Cat 5e/6/6a cable or an ATEN 2L-2910 cable which connects to a network switch.
7	HDMI Out Port	Receives an HDMI cable which connects to an HDMI monitor.
8	Console Ports	Receive the console keyboard and mouse.
9	USB Type-A Port	Receives a USB 2.0 device.
10	Audio Ports	Receive cables from the speaker (green) and microphone (pink).
11	Long Reach Mode Switch	Put the switch to **ON** to enable the Long Reach Mode to transmit HDMI signals up to 150m, at 1080p. For details, see *Long Reach Mode*, page 19.

No.	Component	Description
12	Firmware Upgrade Switch	This function is reserved for ATEN Technical Support. If you would like to do a firmware upgrade yourself, please contact your dealer.

CE920L Front and Rear View

CE920L Front View

CE920L Rear View

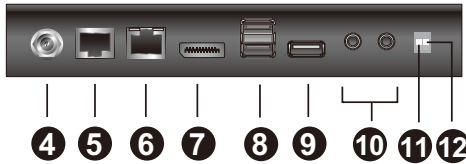| No.	Component	Description
1	RS-232 Serial Port	Receives an RS-232 serial cable which connects to the local computer.
2	LEDs	Indicate the Link and Power status of the CE920L. For more details, see *LED Display*, page 19.
3	Power Jack	Receives the supplied power adapter.
4	HDBaseT Out Port	Receives a Cat 5e/6/6a cable or an ATEN 2L-2910 cable which connects to the CE920R unit.
5	Ethernet Port	◆ If there is a NOT APPLICALBE rubber plug inserted to this port, this port is not functional for the device. ◆ If there is no Ethernet port on the device, the Ethernet capability is not supported. ◆ For device supporting the Ethernet port, plug a Cat 5e/6/6a cable or an ATEN 2L-2910 cable which connects to the local computer.
6	DisplayPort In Port	Receives the supplied DisplayPort cable which connects to the local computer.
7	USB Type-B Port	Receives the supplied USB Cable which connects to the local computer.

No.	Component	Description
8	Audio Ports	Receive the supplied Microphone and Speaker Cables which connect to the local computer.
9	Long Reach Mode Switch	Put the switch to **ON** to enable the Long Reach Mode to transmit HDMI signals up to 150m, at 1080p. For details, see *Long Reach Mode*, page 19.
10	Firmware Upgrade Switch	This function is reserved for ATEN Technical Support. If you would like to do a firmware upgrade yourself, please contact your dealer.

CE920R Front and Rear View

CE920R Front View

CE920R Rear View

No.	Component	Description
1	RS-232 Serial Port	Receives an RS-232 serial cable which connects to a hardware/software serial control device.
2	Wake-up PC Pushbutton	Press this button to remotely wake the computer on the local side.
3	LEDs	The CE920R has three LEDs on its back panel to indicate its Video Out, Link, and Power status. For more details, see *LED Display*, page 19.
4	Power Jack	Receives the supplied power adapter.
5	HDBaseT In Port	Receives a Cat 5e/6/6a cable or an ATEN 2L-2910 cable which connects to the CE920L unit.
6	Ethernet Port	◆ If there is a NOT APPLICALBE rubber plug inserted to this port, this port is not functional for the device. ◆ If there is no Ethernet port on the device, the Ethernet capability is not supported. ◆ For device supporting the Ethernet port, plug a Cat 5e/6/6a cable or an ATEN 2L-2910 cable which connects to a network switch.
7	DisplayPort Out Port	Receives the supplied DisplayPort Cable which connects to a monitor.
8	Console Ports	Receive the console keyboard and mouse.
9	USB Type-A Port	Receives a USB 2.0 device.
10	Audio Ports	Receive cables from the speaker (green) and microphone (pink).
11	Long Reach Mode Switch	Put the switch to **ON** to enable the Long Reach Mode to transmit HDMI signals up to 150m, at 1080p. For details, see *Long Reach Mode*, page 19.

No.	Component	Description
12	Firmware Upgrade Switch	This function is reserved for ATEN Technical Support. If you would like to do a firmware upgrade yourself, please contact your dealer.

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Hardware Setup

⚠ 1. Important safety information regarding the placement of this device is provided on page 21. Please review it before proceeding.

2. Make sure that the power to all devices connected to the installation are turned off. You must unplug the power cords of any computers that have the Keyboard Power On function.

Stacking and Rack Mounting

Stacking

The CE820 / CE920 can be placed on any appropriate level surface that can safely support its weight plus the weight of its attached cables. To place or stack the CE820 / CE920, remove the backing material from the bottom of the rubber feet that came with this package, and stick them onto the switch's bottom panel at the corners, as shown in the diagram, below:
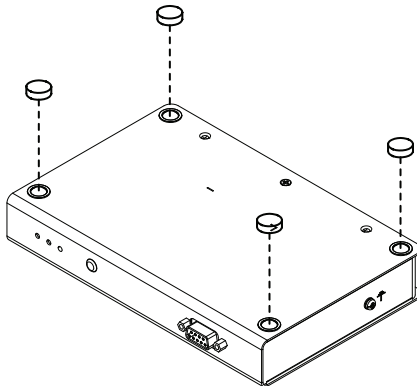

Rack Mounting

The CE820 / CE920 can be mounted on system racks using the supplied Rack Mount Kit. For detailed setup instruction, see *VE-RMK1U Installation Guide*.

Installation

Grounding

To prevent damage to your installation it is important that all devices are properly grounded.

1. Use a grounding wire to ground both units by connecting one end of the wire to the grounding terminal, and the other end of the wire to a suitable grounded object.
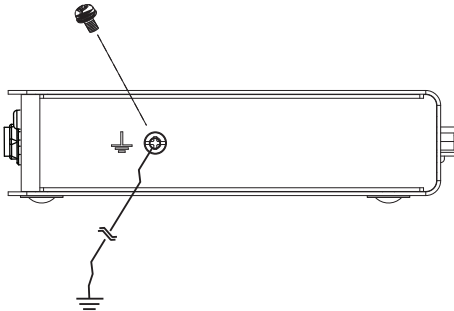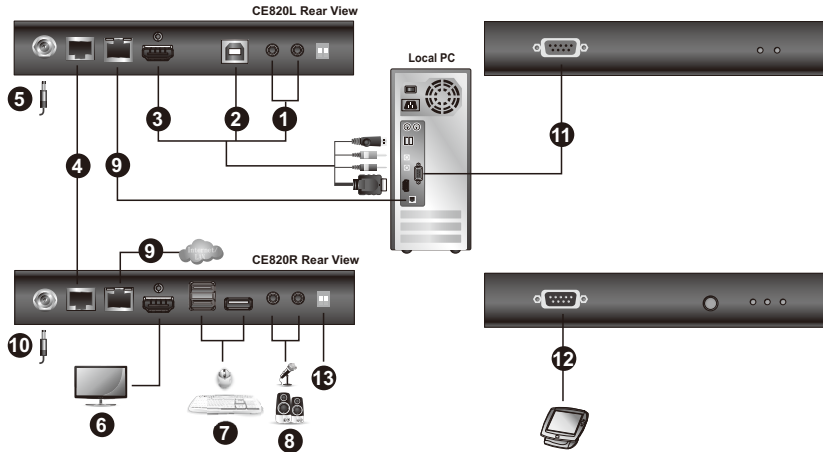

2. Make sure that the computer that connects to the Local Unit and the monitor that connects to the Remote Unit are also grounded.

Cat 5e/6/6a cable up to 100 m
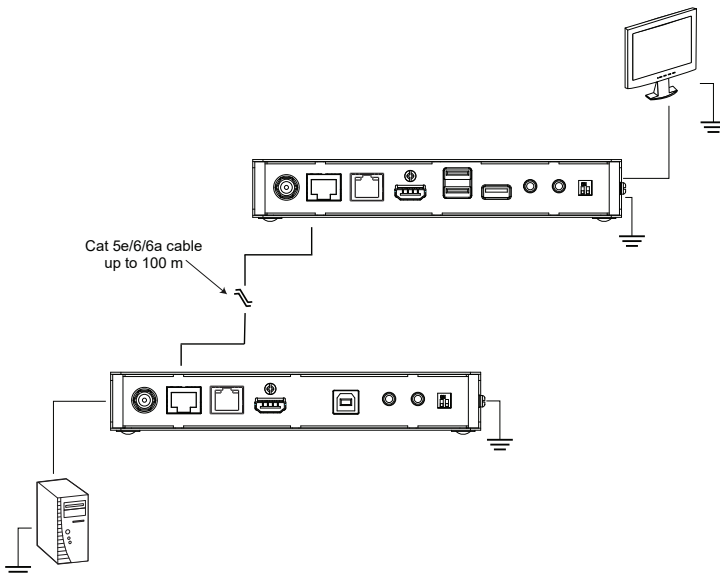
Setting Up

CE820

Before you proceed with the setup, make sure that all the equipment to be connected is powered off and then follow the procedure below to safely install your devices.

1. Connect the audio plugs of the supplied KVM cable set to the microphone and speaker ports on the CE820L. Plug the other end of the cable into the microphone and speaker ports on the local computer.

2. Connect the USB connector of the supplied KVM cable set to the USB Type-B Port on the CE820L. Plug the other end of the cable into a USB Type-A port on the local computer.

3. Connect the HDMI connector of the supplied KVM cable set to the HDMI In Port on the CE820L. Plug the other end of the cable into the HDMI port on the local computer.

4. Plug one end of a Cat 5e/6/6a or ATEN 2L-2910 cable into the HDBaseT Out Port on the CE820L, and the other end into the HDBaseT In Port on the CE820R.

5. Plug one of the supplied power adapters into a power source; then plug the adapter's power cable into the CE820L's Power Jack.

6. Use an HDMI cable to connect the HDMI Out Port on the CE820R to your monitor.

7. Plug the USB devices (mouse, keyboard, peripherals, etc.), into their respective USB Type-A ports on the CE820R.

8. Plug the microphone and speakers, into their respective audio ports on the CE820R.

9. To gain access to LAN or WAN, use an Ethernet cable to connect the Ethernet Port of the CE820L to the computer, and use another Ethernet cable to connect the Ethernet Port of the CE820R to an Ethernet switch.

Note: This step is required for the device supporting the Ethernet port only.

10. Plug the second power adapter (supplied with this package) into a power source; then plug the adapter's power cable into the CE820R's Power Jack.

11. To use the Wake-up PC Pushbutton, connect the RS-232 Serial Port on the CE820L to the local computer.

12. To bypass RS-232 serial data through the CE820 units, connect the RS-232 Serial Port on the CE820L to the local computer, as illustrated in step 11, and connect a hardware/software controller to the RS-232 Serial Port on the CE820R.

13. If you want to extend the video up to 150 m with 1080p resolution, put the Long Reach Mode switch to **ON** on either the CE820L or CE820R.

CE920

Before you proceed with the setup, make sure that all the equipment to be connected is powered off. Follow the installation diagram and instruction below to install the CE920 unit.
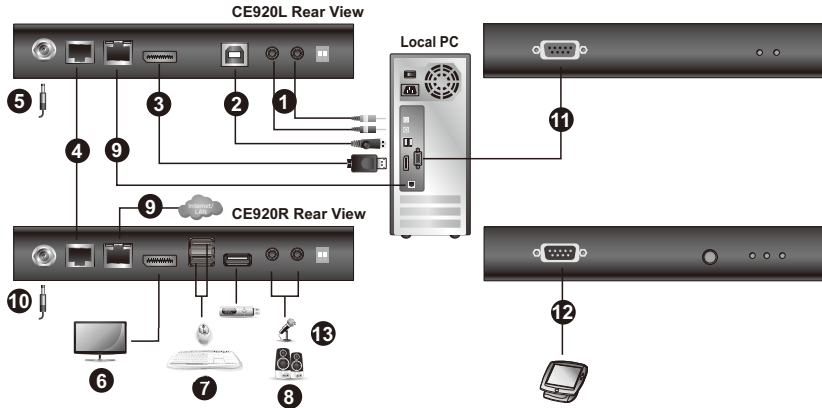
1. Plug one end of the supplied microphone cable to the rear of the CE920L, and the other to a local computer. Do the same using the supplied speaker cable.

2. Connect the supplied USB cable to the USB Type-B Port on the CE920L, and the other end to a USB Type-A Port on the local computer.

3. Connect the supplied DisplayPort cable to the DisplayPort In Port on the CE920L, and the other end to the local computer.

4. Plug one end of an Ethernet cable into the HDBaseT Out Port on the CE920L, and the other end into the HDBaseT In Port on the CE920R.

5. Plug the supplied power adapter into a power source, and then plug the adapter power cable into the Power Jack on the CE920L.

6. Use a DisplayPort Cable to connect the DisplayPort Out Port on the CE920R to your monitor.

7. Plug USB devices (mouse, keyboard, etc.) into their respective USB ports on the CE920R.

8. Plug the microphone and speakers into their respective audio ports on the CE920R.

9. To gain access LAN/WAN, use an Ethernet cable to connect the Ethernet Port of the CE920L to the computer, and then use another Ethernet cable to connect the Ethernet Port of the CE920R to a network switch.

> **Note:** This step is required for the device supporting the Ethernet port only.

10. Plug the second adapter into a power source, and then plug the adapter's power cable into the Power Jack on the CE920R.

11. To use the Wake-up PC Pushbutton, use an RS-232 serial cable to connect the RS-232 Serial Port on the CE920L to the local computer.

12. To bypass RS-232 serial data through the CE920 units, connect the RS-232 Serial Port on the CE920L to the local computer using an RS-232 serial cable, as illustrated in step 11, and then connect a hardware/software controller to the RS-232 Serial Port on the CE920R.

13. To extend video of 1080p up to 150m, put the Long Reach Mode Switch to **ON** on either the CE920L or CE920R.

Chapter 3
Operation

Overview

This chapter provides information on LED indicators and how to use HDBaseT Long Reach Mode.

LED Display

The local and remote units of CE820/CE920 have front panel LEDs to indicate their operating status, as shown in the table below:

LED	Indication	Description
Power	Lights green	The system is receiving power.
Link	Lights orange	The connection between the local and remote CE820/CE920 is stable.
	Off	The system detects a connection issue between the local and remote CE820/CE920.
	Flashes orange	The HDBaseT signal transmission is unstable.
Video Out	Lights orange	The video display normal and secured with HDCP.
	Flashes orange	The video display is normal but not secured with HDCP.
	Off	There is no video activity.

Note: The Video Out LED is only available on the remote unit of CE820/CE920.

Long Reach Mode

The Long Reach Mode switch on the rear of the CE820/CE920 provides long-reach connectivity up to 150 m, and resolutions up to 1080p. To use this feature, put the Long Reach Mode switch to **ON** on either the remote or the local unit of the CE820/CE920.

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Appendix
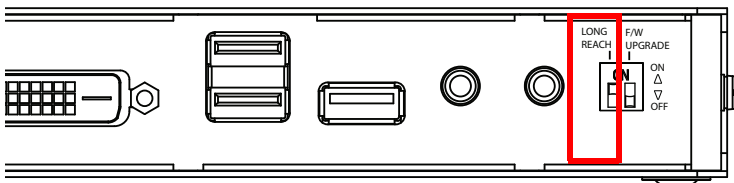
Safety Instructions

General

- Read all of these instructions. Save them for future reference.

- Follow all warnings and instructions marked on the device.

- This product is for indoor use only.

- Do not place the device on any unstable surface (cart, stand, table, etc.). If the device falls, serious damage will result.

- Do not use the device near water.

- Do not place the device near, or over, radiators or heat registers.

- The device cabinet is provided with slots and openings to allow for adequate ventilation. To ensure reliable operation, and to protect against overheating, these openings must never be blocked or covered.

- The device should never be placed on a soft surface (bed, sofa, rug, etc.) as this will block its ventilation openings. Likewise, the device should not be placed in a built in enclosure unless adequate ventilation has been provided.

- Never spill liquid of any kind on the device.

- Unplug the device from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

- The device should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.

- To prevent damage to your installation, it is important that all devices are properly grounded.

- Do not allow anything to rest on the power cord or cables. Route the power cord and cables so that they cannot be stepped on or tripped over.

- Position system cables and power cables carefully; Be sure that nothing rests on any cables.

- Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short out parts resulting in a risk of fire or electrical shock.

- Do not attempt to service the device yourself. Refer all servicing to qualified service personnel.

- If the following conditions occur, unplug the device from the wall outlet and bring it to qualified service personnel for repair.

  - The power cord or plug has become damaged or frayed.
  - Liquid has been spilled into the device.
  - The device has been exposed to rain or water.
  - The device has been dropped, or the cabinet has been damaged.
  - The device exhibits a distinct change in performance, indicating a need for service.
  - The device does not operate normally when the operating instructions are followed.

- Only adjust those controls that are covered in the operating instructions. Improper adjustment of other controls may result in damage that will require extensive work by a qualified technician to repair.

Mounting

- ◆ Before working on the rack, make sure that the stabilizers are secured to the rack, extended to the floor, and that the full weight of the rack rests on the floor. Install front and side stabilizers on a single rack or front stabilizers for joined multiple racks before working on the rack.

- ◆ Always load the rack from the bottom up, and load the heaviest item in the rack first.

- ◆ Make sure that the rack is level and stable before extending a device from the rack.

- ◆ Use caution when pressing the device rail release latches and sliding a device into or out of a rack; the slide rails can pinch your fingers.

- ◆ After a device is inserted into the rack, carefully extend the rail into a locking position, and then slide the device into the rack.

- ◆ Do not overload the AC supply branch circuit that provides power to the rack. The total rack load should not exceed 80 percent of the branch circuit rating.

- ◆ Make sure that all equipment used on the rack – including power strips and other electrical connectors – is properly grounded.

- ◆ Ensure that proper airflow is provided to devices in the rack.

- ◆ Ensure that the operating ambient temperature of the rack environment does not exceed the maximum ambient temperature specified for the equipment by the manufacturer.

- ◆ Do not step on or stand on any device when servicing other devices in a rack.

Technical Support

International

◆ For online technical support – including troubleshooting, documentation, and software updates: **http://eservice.aten.com**

◆ For telephone support, see *Telephone Support*, page iv.

North America

Email Support		support@aten-usa.com
Online Technical Support	Troubleshooting Documentation Software Updates	http://www.aten-usa.com/support
Telephone Support		1-888-999-ATEN ext 4988

When you contact us, please have the following information ready beforehand:

◆ Product model number, serial number, and date of purchase.

◆ Your computer configuration, including operating system, revision level, expansion cards, and software.

◆ Any error messages displayed at the time the error occurred.

◆ The sequence of operations that led up to the error.

◆ Any other information you feel may be of help.

Specifications

Function	CE820L	CE820R
Connectors		
Console Ports	N/A	1 x HDMI Female (Black) 3 x USB Type-A Female 1 x Mini Stereo Jack Female (Green) 1 x Mini Stereo Jack Female (Pink) 1 x RJ-45 Female (Black) **Note:** The RJ-45 ports is applicable and functional for device supporting the Ethernet port only.
KVM Ports	1 x HDMI Female (Black) 1 x USB Type-B Female (White) 1 x Mini Stereo Jack Female (Green) 1 x Mini Stereo Jack Female (Pink) 1 x RJ-45 Female (Black) **Note:** The RJ-45 ports is applicable and functional for device supporting the Ethernet port only.	N/A
RS-232	1 x DB-9 Female (Black)	1 x DB-9 Male (Black)
Power	1 x DC Jack with locking	
Unit to Unit	1 x RJ-45 Female (Black)	
LEDs		
Power	1 (Green)	
Link	1 (Orange)	
Video Output	N/A	1 (Orange)
Switches		
Long Reach Mode Switch	1 x Slide Switch	
Firmware Upgrade	1 x Slide Switch	
Pushbuttons		
Wakeup button	N/A	1 x Pushbutton
Video	Up to 4K@90m (Cat 5e) / 100m (Cat 6/6a/ATEN 2L-2910 Cat6) 1080P@100m (Cat 5e/6/6a) *4K supported: 4096 x 2160 / 3840 x 2160 @ 60Hz (4:2:0); 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4)	
Power Consumption	DC 5 V:2.87 W:13 BTU	DC 5 V:5.37 W:40 BTU
Environmental		
Operating Temp	0–40º C	
Storage Temp.	-20–60º C	
Humidity	0–80% RH, Non-condensing	

Function	CE820L	CE820R
Physical Properties		
Housing	Metal	
Weight	0.63 kg (1.39 lb)	0.65 kg (1.43 lb)
Dimensions	18.20 x 12.19 x 2.87 cm / 7.17 x 4.8 x 1.13 in (L x W x H)	

Function	CE920L	CE920R
Connectors		
Console Ports	N/A	1 x DisplayPort Female (Black) 3 x USB Type-A Female 1 x Mini Stereo Jack Female (Green) 1 x Mini Stereo Jack Female (Pink) 1 x RJ-45 Female (Black) **Note:** The RJ-45 ports is applicable and functional for device supporting the Ethernet port only.
KVM Ports	1 x DisplayPort Female (Black) 1 x USB Type-B Female (White) 1 x Mini Stereo Jack Female (Green) 1 x Mini Stereo Jack Female (Pink) 1 x RJ-45 Female (Black) **Note:** The RJ-45 ports is applicable and functional for device supporting the Ethernet port only.	N/A
RS-232	1 x DB-9 Female (Black)	1 x DB-9 Male (Black)
Power	1 x DC Jack with locking	
Unit to Unit	1 x RJ-45 Female (Black)	
LEDs		
Power	1 (Green)	
Link	1 (Orange)	
Video Output	N/A	1 (Orange)
Switches		
Long Reach Mode Switch	1 x Slide Switch	
Firmware Upgrade	1 x Slide Switch	
Pushbuttons		
Wakeup button	N/A	1 x Pushbutton
Video	Up to 4K@90m (Cat 5e) / 100m (Cat 6/6a or ATEN 2L-2910 Cat6) 1080P@100m (Cat 5e/6/6a) *4K supported: 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4) Up to 4K x 2K @ 30Hz for DisplayPort v1.1	

Function	CE920L	CE920R
Power Consumption	DC 5V:3.99 W:19 BTU	DC 5V:6.74 W:47 BTU
Environmental		
Operating Temp	0–40º C	
Storage Temp.	-20–60º C	
Humidity	0–80% RH, Non-condensing	
Physical Properties		
Housing	Metal	
Weight	0.63 kg (1.39 lb)	0.64 kg (1.41 lb)
Dimensions	18.20 x 12.19 x 2.87 cm / 7.17 x 4.8 x 1.13 in (L x W x H)	

Ethernet Capability List

Please refer to the table below to distinguish whether your CE820 / CE920 supports Ethernet port or not.

SKU / Part No.	With Ethernet Port Function	Without Ethernet Port Function
CE820	CE820-AT	CE820-ATA
CE920	CE920-AT	CE920-ATA

Limited Warranty

ATEN warrants its hardware in the country of purchase against flaws in materials and workmanship for a Warranty Period of two [2] years (warranty period may vary in certain regions/countries) commencing on the date of original purchase. This warranty period includes the LCD panel of ATEN LCD KVM switches. Select products are warranted for an additional year (see *A+ Warranty* for further details). Cables and accessories are not covered by the Standard Warranty.

What is covered by the Limited Hardware Warranty
ATEN will provide a repair service, without charge, during the Warranty Period. If a product is detective, ATEN will, at its discretion, have the option to (1) repair said product with new or repaired components, or (2) replace the entire product with an identical product or with a similar product which fulfills the same function as the defective product. Replaced products assume the warranty of the original product for the remaining period or a period of 90 days, whichever is longer. When the products or components are replaced, the replacing articles shall become customer property and the replaced articles shall become the property of ATEN.

To learn more about our warranty policies, please visit our website:
http://www.aten.com/global/en/legal/policies/warranty-policy/