Owner's Manual

2-Port HDMI over Cat5/6 Extenders

Models: B126-2A1, B126-2A0

Este manual esta disponible en español en la página de Tripp Lite:
tripplite.com

Ce manuel est disponible en français sur le site Web de Tripp Lite :
tripplite.com

WARRANTY REGISTRATION

Register your product today and be automatically entered to win an ISOBAR® surge protector in our monthly drawing!

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TRIPP·LITE

95 OVER YEARS
Manufacturing Excellence.

Package Contents

• B126-2A1 Kit or B126-2A0 Receiver Unit
• External Power Supply
  (Input: 100-240V, 50/60 Hz, 0.5A; Output: 5V, 2A)
• Mounting Hardware
• Screwdriver for Equalization Adjustment
• Owner's Manual

Product Features

• Extends an HDMI signal to 2 monitors up to 200 ft. from the source over a single Cat5/6 cable.
• B126-1A0 receiver requires a Tripp Lite B126-002 or B126-004 transmitter (sold separately).
• Extends a 1080p (60 Hz) signal up to 150 ft. from the source using Cat6 cabling or up to 125 ft. using Cat5 cabling.
• Extends a 1080i (60 Hz) signal up to 200 ft. from the source using Cat6 cabling or up to 175 ft. using Cat5 cabling.
• Use 24 AWG solid wire Cat5e/6 cable, such as Tripp Lite's N202-Series, to achieve maximum distance and resolution.
• Further expand the range and number of monitors by adding B126-110 repeater units (sold separately).
• Add up to 3 repeaters on each Cat5e/6 channel for a total of 4 displays per channel *(an active remote receiver should be the last unit in a channel)*.
• A 1080p (60 Hz) signal can be extended up to 125 ft. for each repeater added into a channel (or up to 175 ft. for a 1080i (60 Hz) signal when using either Cat5e or Cat6 cabling).
• Supports 24-bit True Color (8 bits per channel).
• Built-in equalization control adjusts the video image.

Product Features

- Supports both stereo and 7.1-channel surround sound audio
  (7.1-channel surround sound signal will be Multi-Channel or PCM).
- HDCP and 3D compatible.
- Plug-and-play operation with no software to download and install.
- Compatible with all operating systems.
- Mounting hardware included.

Optional Accessories:
- B126-110 HDMI over Cat5/6 Remote Repeater
- N202-Series Cat6 24 AWG Solid Wire Patch Cables
- P568-Series High-Speed HDMI Cables

Mounting Instructions

The B126-2A1 and B126-2A0 come with mounting hardware that allows them to be mounted in a variety of ways. The following images show the different ways the included mounting brackets can be attached for different mounting methods.

Note: The images below show a B126-1A1 HDMI over Cat5 Receiver Unit, but the mounting hardware installation is the same for the B126-2A1 and B126-2A0.

Wall-Mount 1

Wall-Mount 2

19" Rack-Mount

Pole-Mount

4

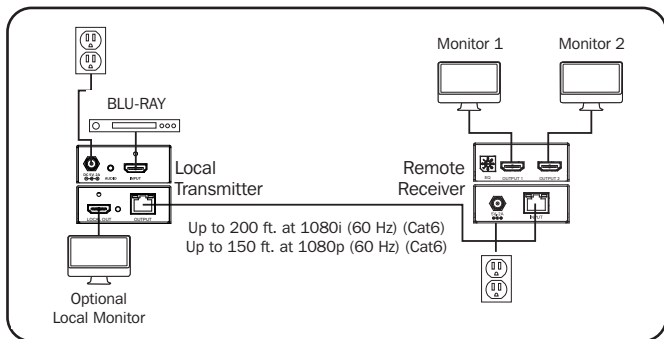## Standard 1 x 2 Extender Kit Installation

Notes:

1. Test to make sure that the entire installation works properly before running cables through ceilings/walls.

2. 24 AWG solid wire Cat5e/6 cable, such as Tripp Lite's N202-Series, is required to achieve maximum distance and resolution.

3. The diagram below shows the maximum extension distance when using Cat6 cabling. When using Cat5 cabling, the maximum extension distance is 175 ft. at 1080i (60 Hz) and 125 ft. at 1080p (60 Hz).

4. The B126-2A1 is set to transmit a stereo audio signal by default. Press the Audio button on the transmitter unit to switch to 7.1-channel surround sound audio. (7.1-channel surround sound signal will be Multi-Channel or PCM)
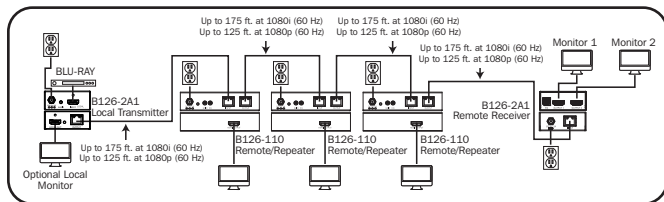
Standard 1 x 2 Extender Kit Installation

1 Make sure all devices being connected are powered OFF.

2 Connect the HDMI source to the *INPUT* port on the transmitter unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

3 **Optional:** Connect a monitor to the *LOCAL* port on the transmitter unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

4 Connect the external power supply to the transmitter unit and plug the transmitter unit into a Tripp Lite Surge Suppressor, Power Distribution Unit (PDU) or Uninterruptible Power Supply (UPS). The green RJ45 LED illuminates to indicate that the unit is receiving power from the external power supply.

5 Using Cat5e/6 cable, connect the RJ45 port on the transmitter unit marked *OUTPUT* to the RJ45 port on the receiver unit marked *INPUT*.

6 Connect the external power supply to the receiver unit and plug the receiver unit into a Tripp Lite Surge Suppressor, PDU or UPS. The green RJ45 LED illuminates to indicate that the unit is receiving power from the external power supply.

7 Connect a monitor to the *OUTPUT 1* port on the receiver unit using a Tripp Lite P568-Series High-Speed HDMI cable.

8 Repeat step 7 for the *OUTPUT 2* port on the receiver unit.

9 Turn on the power to the connected devices. The orange RJ45 LED's on the transmitter and receiver units illuminate to indicate that a signal is being received from the HDMI source. The video image will now be displayed on the connected monitors.

10 If necessary, use the *Equalization* control on the receiver unit to adjust the video image.

Note: An improper Equalization setting can cause the monitor not to display an image at all. Try each setting until an acceptable image is displayed.

1 x 2 Extender Kit with Remote/Repeater Installation

Notes:

1. Test to make sure that the entire installation works properly before running cables through ceilings/walls.

2. The diagram below shows the maximum extension distance when using either Cat5e or Cat6 cabling. 24 AWG solid wire Cat5e/6 cable, such as Tripp Lite's N202-Series, is required to achieve maximum distance and resolution.

3. The B126-2A1 is set to transmit a stereo audio signal by default. Press the Audio button on the transmitter unit to switch to 7.1-channel surround sound audio. (7.1-channel surround sound signal will be Multi-Channel or PCM)

1 Make sure all devices being connected are powered OFF.

2 Connect the HDMI source to the *INPUT* port on the transmitter unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

3 *Optional:* Connect a monitor to the *LOCAL* port on the transmitter unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

4 Connect the external power supply to the transmitter unit and plug the transmitter unit into a Tripp Lite Surge Suppressor, Power Distribution Unit (PDU) or Uninterruptible Power Supply (UPS). The green RJ45 LED illuminates to indicate that the unit is receiving power from the external power supply.

1 x 2 Extender Kit with Remote/Repeater Installation

5 Using Cat5e/6 cable, connect the RJ45 port on the transmitter unit marked *OUTPUT* to the RJ45 port on the B126-110 repeater unit marked *INPUT*.

6 Connect a monitor to the HDMI *OUTPUT* port on the repeater unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

7 Connect the external power supply to the repeater unit and plug the repeater unit into a Tripp Lite Surge Suppressor, PDU or UPS. The green power and the green RJ45 LEDs will illuminate to indicate that the unit is receiving power from the external power supply.

Up to 4 units can be daisy-chained (3 repeaters and 1 active receiver). To add additional repeater units, proceed to step 8. To finish your installation with the B126-2A1 receiver unit, proceed to step 11.

8 Using Cat5e/6 cable, connect the RJ45 port on the repeater unit marked *OUTPUT* to the RJ45 port on a second repeater unit marked *INPUT*.

9 Connect a monitor to the HDMI *OUTPUT* port on the repeater unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

10 Connect the external power supply to the repeater unit and plug the repeater unit into a Tripp Lite Surge Suppressor, PDU or UPS. The green power and the green RJ45 LEDs will illuminate to indicate that the unit is receiving power from the external power supply.

To add a third remote/repeater unit, repeat steps 8 through 10. To finish your installation with the B126-2A1 receiver unit, proceed to step 11.

11 Using Cat5e/6 cable, connect the RJ45 port on the repeater unit marked *OUTPUT* to the RJ45 port on the receiver unit marked *INPUT*.

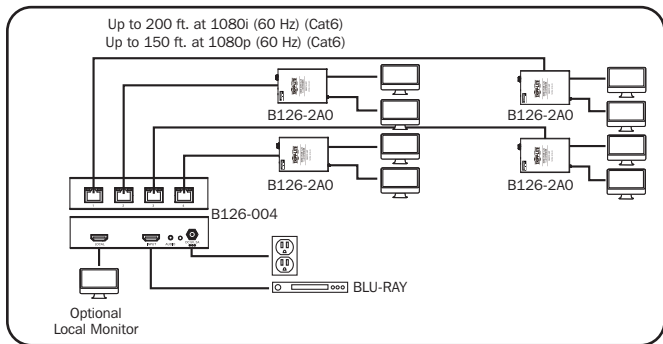## 1 x 2 Extender Kit with Remote/Repeater Installation

12 Connect a monitor to the *OUTPUT 1* port on the receiver unit using a Tripp Lite P568-Series High-Speed HDMI cable.

13 Repeat step 12 for the *OUTPUT 2* port on the receiver unit.

14 Connect the external power supply to the receiver unit and plug the receiver unit into a Tripp Lite Surge Suppressor, PDU or UPS. The green RJ45 LED illuminates to indicate that it is receiving power from the external power supply.

15 Turn on the power to the connected devices. The orange RJ45 LEDs on all units will illuminate to indicate that a signal is being received from the HDMI source. The video image will now be displayed on the connected monitors.

16 If necessary, use the *Equalization* control on the repeater and receiver units to adjust the video image.
Note: An improper Equalization setting can cause the monitor not to display an image at all. Try each setting until an acceptable image is displayed.

Standard Extender/Splitter Installation

Notes:

1. Test to make sure that the entire installation works properly before running cables through ceilings/walls.

2. 24 AWG Solid Wire Cat5e/6 cable, such as Tripp Lite's N202-Series, is required to achieve maximum distance and resolution.

3. The diagram below shows the maximum extension distance when using Cat6 cabling. When using Cat5 cabling, the maximum extension distance is 175 ft. at 1080i (60 Hz) and 125 ft. at 1080p (60 Hz).

4. The B126-002 and B126-004 are set to transmit a stereo audio signal by default. Press the Audio button on the transmitter unit to switch to 7.1-channel surround sound audio. (7.1-channel surround sound signal will be Multi-Channel or PCM)

5. The diagram below shows the B126-004 transmitter unit. Installation is the same for the B126-002, except that there are only two output ports and no local monitor port.

6. Although the installation instructions below mention the B126-2A0 1x2 receiver unit only, Tripp Lite offers several standard receiver units that can be used in the event that only one monitor is required on the remote end: B126-1A0, B126-1A0-WP-1, B126-1P0 and B126-1P0-WP-1.

Up to 200 ft. at 1080i (60 Hz) (Cat6)
Up to 150 ft. at 1080p (60 Hz) (Cat6)

B126-2A0   B126-2A0
B126-2A0   B126-2A0
B126-004
BLU-RAY
Optional Local Monitor

Standard Extender/Splitter Installation

1 Make sure all devices being connected are powered OFF.

2 Connect the HDMI source to the *INPUT* port on a B126-002 or B126-004 transmitter unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

3 *Optional for B126-004:* Connect a monitor to the *LOCAL* port on the transmitter unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

4 Connect the external power supply to the transmitter unit and plug the transmitter unit into a Tripp Lite Surge Suppressor, Power Distribution Unit (PDU) or Uninterruptible Power Supply (UPS). The green RJ45 LEDs on the B126-002 and B126-004 and the red power LED on the B126-004 will illuminate to indicate that the unit is receiving power from the external power supply.

5 Using Cat5e/6 cable, connect a RJ45 *OUTPUT* port on the transmitter unit to the RJ45 *INPUT* port on the B126-2A0 1x2 receiver unit.

6 Repeat step 5 to add receiver units to the remaining RJ45 *OUTPUT* ports on the transmitter unit.

7 Connect the external power supply to the receiver unit and plug the receiver unit into a Tripp Lite Surge Suppressor, PDU or UPS. The green RJ45 LED illuminates to indicate that the unit is receiving power from the external power supply.

8 Connect a monitor to the *OUTPUT 1* port on the receiver unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

9 Repeat step 8 for the *OUTPUT 2* port on the receiver unit.

Standard Extender/Splitter Installation

10 Turn on the power to the connected devices. The orange RJ45 LEDs on the transmitter and receiver units will illuminate to indicate that a signal is being received from the HDMI source. The video image should now be displayed on the connected monitors.

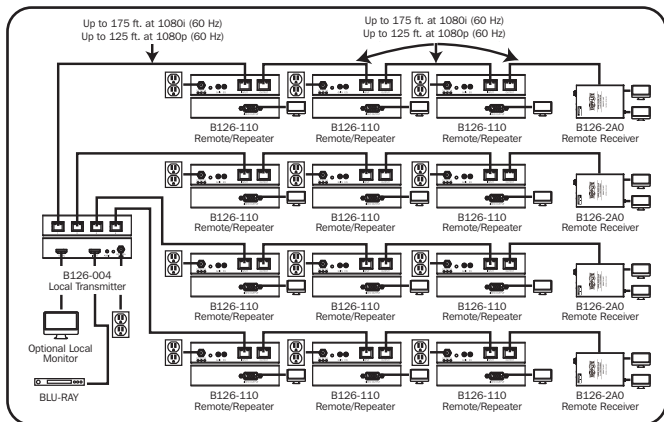**11** If necessary, use the Equalization control on the receiver unit to adjust the video image.

Note: An improper Equalization setting can cause the monitor not to display an image at all. Try each setting until an acceptable image is displayed.

Extender/Splitter with Remote/Repeater Installation

Notes:

1. Test to make sure that the entire installation works properly before running cables through ceilings/walls.

2. The diagram below shows the maximum extension distance when using either Cat5e or Cat6 cabling. 24 AWG solid wire Cat5e/6 cable, such as Tripp Lite's N202-Series, is required to achieve maximum distance and resolution.

3. The B126-002 and B126-004 are set to transmit a stereo audio signal by default. Press the Audio button on the transmitter unit to switch to 7.1-channel surround sound audio. (7.1-channel surround sound signal will be Multi-Channel or PCM)

4. The diagram below shows the B126-004 transmitter unit. Installation is the same for the B126-002, except that there are only two output ports and no local monitor port.

5. Although the installation instructions below mention the B126-2A0 1x2 receiver unit only, Tripp Lite offers two additional active receivers that can be used in the event that only one monitor is needed at the end of a repeater chain: B126-1A0 and B126-1A0-WP-1.

Extender/Splitter with Remote/Repeater Installation

1 Make sure all devices being connected are powered OFF.

2 Connect the HDMI source to the *INPUT* port on a B126-002 or B126-004 transmitter unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

3 *Optional for B126-004:* Connect a monitor to the *LOCAL* port on the transmitter unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

Extender/Splitter with Remote/Repeater Installation

4 Connect the external power supply to the transmitter unit and plug the transmitter unit into a Tripp Lite Surge Suppressor, Power Distribution Unit (PDU) or Uninterruptible Power Supply (UPS). The green RJ45 LEDs on the B126-002 and B126-004 and the red LED on the B126-004 will illuminate to indicate that the unit is receiving power from the external power supply.

5 Using Cat5e/6 cable, connect a RJ45 *OUTPUT* port on the transmitter unit to the RJ45 *INPUT* port on the B126-110 repeater unit.

6 Connect a monitor to the HDMI *OUTPUT* port on the repeater unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

7 Connect the external power supply to the remote/repeater unit and plug the remote/repeater unit into a Tripp Lite Surge Suppressor, PDU or UPS. The green power and RJ45 LEDs will illuminate to indicate that the unit is receiving power from the external power supply.

Up to 4 units can be daisy-chained (3 repeaters and 1 active receiver). To add additional repeater units, proceed to step 8. To finish your installation with a B126-2A0 1x2 receiver unit, proceed to step 11.

8 Using Cat5e/6 cable, connect the RJ45 port on the repeater unit marked *OUTPUT* to the RJ45 port on a second repeater unit marked *INPUT*.

9 Connect a monitor to the HDMI *OUTPUT* port on the repeater unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

10 Connect the external power supply to the remote/repeater unit and plug the remote/repeater unit into a Tripp Lite Surge Suppressor, PDU or UPS. The green power and green RJ45 LEDs will illuminate to indicate that the unit is receiving power from the external power supply.

Extender/Splitter with Remote/Repeater Installation

To add a third remote/repeater unit, repeat steps 8 through 10. To finish your installation with a B126-2A0 1x2 receiver unit, proceed to step 11.

11 Using Cat5e/6 cable, connect the RJ45 port on the repeater unit marked *OUTPUT* to the RJ45 port on the B126-2A0 receiver unit marked *INPUT*.

12 Connect a monitor to the *OUTPUT 1* port on the receiver unit using a Tripp Lite P568-Series High-Speed HDMI Cable.

13 Repeat step 12 for the *OUTPUT 2* port on the receiver unit.

14 Connect the external power supply to the receiver unit and plug the receiver unit into a Tripp Lite Surge Suppressor, PDU or UPS. The green RJ45 LED illuminates to indicate that it is receiving power from the external power supply.

15 Repeat steps 5 through 14 for each additional RJ45 *OUTPUT* port on the transmitter unit.

16 Turn on the power to the connected devices. The orange RJ45 LEDs on all units will illuminate to indicate that a signal is being received from the HDMI source. The video image should now be displayed on the connected monitors.

17 If necessary, use the *Equalization* control on the repeater and receiver units to adjust the video image.
Note: An improper Equalization setting can cause the monitor not to display an image at all. Try each setting until an acceptable image is displayed.

Troubleshooting

If you are unable to get an acceptable image after following the installation instructions, try these troubleshooting tips:

1 **Are the external power supplies that came with the product connected and plugged into a working power source?** For the product to function properly, it must be connected to and receiving power from the external power supply.

2 **Was the power to the connected devices turned off prior to installation?** If not, restart them.

3 **Have you adjusted the Equalization setting on the repeater and/or receiver units?** There are built-in Equalization adjustment knobs on every repeater and active receiver that can be adjusted to obtain the best picture quality. Use the mini-screwdriver included with the product to adjust this setting until an acceptable image is displayed.

Note: An improper Equalization *setting can cause the monitor not to display an image at all. Try each setting until an acceptable image is displayed.*

4 **What resolution are you trying to reach?** Tripp Lite's HDMI over Cat5 extenders are tested to support up to 1080p (60 Hz) video resolution (see the *Product Features* section or the installation diagrams in this manual for details on the maximum distance and resolution when using the repeater and the different receivers). The shorter the extension distance, the higher the resolution you will be able to obtain. If you are not able to get an acceptable image after adjusting the Equalization setting, try lowering your computer's video resolution or adjusting the refresh rate.

Troubleshooting

5 **What type of cabling are you using?** Inferior cabling can result in poor performance, so it is important that you use cables that support the video resolution you are trying to obtain. To achieve maximum distance and resolution, 24 AWG solid wire UTP cable must be used. Tripp Lite's N202-Series Cat6 Cables are made with 24 AWG solid wire, as are the N022-01K-GY (Cat5) and N222-01K-GY Bulk Cables. Also, the HDMI cables you are using must support the resolution you are trying to obtain. Inexpensive, low-quality HDMI cables may not support the maximum resolution. It is recommended that you use Tripp Lite's P568-Series High-Speed HDMI Cables that are pre-tested to work with all B126-Series extender products.

6 **Test your cables to ensure they are working properly.** Try connecting your HDMI cables between a source and monitor that you know works to see if the cable is functioning. For Cat5e/6 cabling, connect it between a computer and a network to verify that it establishes a network connection.

7 **Do you have any patch panels or other devices in between the transmitter, repeater, and receiver units?** Tripp Lite's HDMI over Cat5 extender products are designed to be connected directly from the transmitter to the repeater and/or receiver via UTP cable. The more connection points that are in between the source and the remote monitor, the more likely signal degradation will occur, causing poor performance. If you have a patch panel or if another device is being used, it should be removed from the installation.

8 **Check your cabling for any damages that may have occurred during installation.** If a cable connector is loosened as a result of being pulled through ceilings/walls, or the cable jacket is damaged, causing the wiring to be exposed, you will not achieve maximum performance.

9 **Are the transmitter, repeater, and/or receiver located in an area that exposes them to higher temperatures?** If the product is overheated, it will not function properly.

Warranty & Product Registration

1-Year Limited Warranty

TRIPP LITE warrants its products to be free from defects in materials and workmanship for a period of one (1) year from the date of initial purchase. TRIPP LITE's obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. To obtain service under this warranty, you must obtain a Returned Material Authorization (RMA) number from TRIPP LITE or an authorized TRIPP LITE service center. Products must be returned to TRIPP LITE or an authorized TRIPP LITE service center with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. This warranty does not apply to equipment which has been damaged by accident, negligence or misapplication or has been altered or modified in any way.

EXCEPT AS PROVIDED HEREIN, TRIPP LITE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL TRIPP LITE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, TRIPP LITE is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise.

PRODUCT REGISTRATION

Visit tripplite.com/warranty today to register your new Tripp Lite product. You'll be automatically entered into a drawing for a chance to win a FREE Tripp Lite product!*

* No purchase necessary. Void where prohibited. Some restrictions apply. See website for details.

WEEE Compliance Information for Tripp Lite Customers and Recyclers (European Union)

Under the Waste Electrical and Electronic Equipment (WEEE) Directive and implementing regulations, when customers buy new electrical and electronic equipment from Tripp Lite they are entitled to:

• Send old equipment for recycling on a one-for-one, like-for-like basis (this varies depending on the country)

• Send the new equipment back for recycling when this ultimately becomes waste

Warranty & Product Registration

FCC Notice, Class B

This 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.

Note: 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. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications to this equipment not expressly approved by Tripp Lite could void the user's authority to operate this equipment.

WARNING

Use of this equipment in life support applications where failure of this equipment can reasonably be expected to cause the failure of the life support equipment or to significantly affect its safety or effectiveness is not recommended.

Tripp Lite has a policy of continuous improvement. Specifications are subject to change without notice. Photos and illustrations may differ slightly from actual products.

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