Owner's Manual

DisplayPort / Mini DisplayPort v1.2 Multi-Stream Transport Hubs

Models: (DisplayPort Out) B155-002-DP-V2, B155-003-DP-V2, B155-004-DP-V2, B156-002-V2, B156-003-V2, B156-004-V2

(DVI Out) B155-002-DVI-V2, B156-002-DVI-V2

(HDMI Out) B155-002-HD-V2, B155-003-HD-V2, B155-004-HD-V2, B156-002-HD-V2, B156-003-HD-V2, B156-004-HD-V2

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

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Product Features

- Connect multiple monitors via the DisplayPort or Mini DisplayPort output on your computer to display the same image on each monitor, extend the desktop across monitors, or combine as one enlarged monitor in video wall mode.*
- DisplayPort v1.2 and Multi-Stream Transfer (MST) compliant.*
- Built-in cable connects directly to a DisplayPort or Mini DisplayPort source.
- DisplayPort and HDMI output models support 4K x 2K Ultra High Definition (UHD) resolutions up to 3840 x 2160 (60 Hz) – see **System Requirements** for more information.
- DVI output models support video resolutions up to 1920 x 1080 (60Hz) – see **System Requirements** for more information.
- 2-port models are powered via USB Micro-B— no external power supplies required.
- Supports up to 48-bit Deep Color (16 bits per channel).

Product Features

- Supports DTS-HD, Dolby True HD and 7.1 channel surround sound audio.
- Supports HDCP, EDID and DDC.
- Compliant with the Federal Trade Agreements Act (TAA) for GSA Schedule purchases.
- *Backward compatible with most DisplayPort 1.1a equipment running current graphics drivers. The feature set is limited to the attached equipment's capabilities (e.g. you may be limited to displaying in Clone / Mirror mode only). Compatibility with older graphics cards is not guaranteed.*

System Requirements

- A computer with a DisplayPort v1.2 compatible Graphics Card (e.g. AMD Radeon with AMD Eyefinity Technology). Backward compatible with most DisplayPort 1.1a equipment running current graphics drivers. The feature set is limited to that of the attached equipment (e.g. you may be limited to displaying in Clone / Mirror mode only). Compatibility with older graphics cards is not guaranteed.

- Mac OS X does not support MST for NVIDIA and Intel Graphics Processor Units, limiting video display on the connected monitors to mirror mode.

- DisplayPort 1.2 bandwidth is 21.6 Gbps. Higher resolution monitors take up more bandwidth. Although DisplayPort and HDMI monitors support video resolutions up to 3840 x 2160 on individual monitors, the number of 4K monitors connected at the same time is limited. For example, when connecting four monitors simultaneously, you will be limited to connecting 1080p monitors. Higher resolutions are possible when displaying in video wall mode (e.g. 3840 x 2160 in 2X2 video wall, 7680 x 1080 in a 4X1 video wall, and so on.)

Package Contents

• DisplayPort or Mini DisplayPort MST Hub
  o 2-Port Models: USB Micro-B Cable – 3 ft.
  o 3- and 4-Port Models: External Power Supply
    (Input: 100-240V, 50/60 Hz, 0.5A;
    Output: 5V 2A)
• Owner's Manual

Optional Accessories

• P561-Series DVI-D Single-Link Cables
• P568-Series High-Speed HDMI Cables
• P580-Series DisplayPort Cables

Installation

Notes:

• *Prior to installation, ensure your graphics driver is up-to-date by installing the latest driver available. The MST hub is backward compatible with most DisplayPort 1.1a equipment running current graphics drivers. Feature set is limited to the attached equipment's capabilities (e.g. you may be limited to displaying in Clone / Mirror mode only). Compatibility with older graphics cards is not guaranteed.*

• *Make sure the power to all connected devices is turned off prior to installation.*

1. Connect the hub's built-in cable to the computer's DisplayPort or Mini DisplayPort output.

Installation

2. **(2-Port Models)** – Connect the included USB Micro-B cable between the hub and a USB port on the computer or USB charger. The green Power LED will illuminate.

3. **(3- and 4-Port Models)** – Connect the included external power supply to the hub and plug it into a Tripp Lite Surge Protector, Uninterruptible Power Supply (UPS) or Power Distribution Unit (PDU). The green Power LED will illuminate.

4. Connect a monitor to an available output port on the hub.

Note: The maximum distance between the hub and the connected monitor must not exceed 15 ft. (4.6 m).

5. Repeat step 4 for each additional monitor you are connecting.

6. Turn on the power to the connected monitors, then power on the source. The orange port LEDs will illuminate to indicate a signal is being received and video will appear on the connected monitors.

7. Use your video card's display settings screen to adjust how video is displayed on the connected monitors.

Troubleshooting

If you are able to get an acceptable image after following the installation instructions, try the troubleshooting tips below.

1. **Is your equipment running the latest graphics driver?** If not, download the latest graphics drivers for your equipment. The MST hub is backward compatible with most DisplayPort 1.1a equipment running current graphics drivers. The feature set is limited to the attached equipment's capabilities (e.g. you may be limited to displaying in Clone / Mirror mode only). Compatibility with older graphics cards is not guaranteed.

2. **Press the hub's reset button to reset the signal being sent to the connected displays.**

3. **Is the included USB Micro-B cable (2-Port models) or external power supply (3- and 4-Port models) connected and plugged into a working power source?** For the product to function properly, it must be connected to and receiving power from the USB Micro-B cable or external power supply.

4. **Was the power to the DisplayPort source and connected monitors turned off prior to installation?** If not, restart your computer.

Troubleshooting

5. What resolution are you trying to attain on each monitor? DisplayPort 1.2 has a bandwidth of 21.6 Gbps, with higher resolution monitors taking up more bandwidth. Although DisplayPort and HDMI monitors support video resolutions up to 3840 x 2160 on individual monitors, the number of 4K monitors connected at the same time is limited. For example, when connecting four monitors simultaneously, you will be limited to connecting 1080p monitors with higher resolutions possible when displaying in video wall mode (e.g. 3840 x 2160 in 2X2 video wall, 7680 x 1080 in a 4X1 video wall, and so on).

6. What cable lengths are you using? The maximum cable length between the hub and the connected monitors should not exceed 15 ft. (4.6 m).

7. What type of cabling are you using? Inferior cabling can result in poor performance. It is important to use cables that support the video resolution you are trying to attain. It is recommended you use the Tripp Lite cables listed in the Optional Accessories section, as they have been tested to work with the MST Hubs.

Troubleshooting

8. Test your cables to ensure they are working properly. For example, connect your DisplayPort cables between a source and monitor setup you know works to determine if the cable is functioning properly.

Warranty and Product Registration

3-YEAR LIMITED WARRANTY

TRIPP LITE warrants its products to be free from defects in materials and workmanship for a period of three (3) years 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.

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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.

Warranty and 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.

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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