



Installation Guide for 10/100/1000 Bypass Switch



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Additional Information

Net Optics, Inc. reserves the right to make changes in specifications and other information contained in this document without prior notice. Every effort has been made to ensure that the information in this document is accurate.

Introduction

Net Optics 10/100/1000 Bypass Switches provide a permanent and trouble-free access port for in-line network security and monitoring devices. The 10/100/1000 Bypass Switch automatically switches network traffic through added in-line devices or bypasses devices that are about to be removed. Prevent link failure when attached IPS and IDS devices lose power by powering the Bypass Switch and in-line device from the same power source.

Uninterrupted Traffic

The 10/100/1000 Bypass Switch supports fail-safe monitoring with any 10/100/1000 in-line device when it shares the same power source as the in-line appliance. While the 10/100/1000 Bypass Switch is receiving power, it diverts network traffic to attached in-line devices. In this state, all in-line traffic is routed directly to the device connected to the 10/100/1000 Bypass Switch.

When the 10/100/1000 Bypass Switch loses power, in-line traffic continues to flow through the network link, but is no longer routed through the device. This allows the network devices to be removed and replaced without network downtime. Once power is restored to the 10/100/1000 Bypass Switch, network traffic is seamlessly diverted to the in-line device, allowing it to resume its critical functions.

Simply Plug It In

Each Bypass Switch includes all the cables and power supplies you need to quickly connect to an IPS. Three quick steps is all it takes to establish a secure connection point for in-line devices.

Key Features

Passive, Secure Technology

- Fail-safe monitoring with any 10/100/1000 in-line appliance at speeds of 10, 100, or 1000 Mbps
- Increased reliability on critical network links
- High-speed optical switching with minimal insertion loss
- Fully RoHS compliant

Ease of Use

- LED indicators to show power status
- Front-mounted connectors support easy installation and operation
- Cables included for plug-and-play deployment

- Silk-screened application diagram illustrates all connections for easy deployment
- Optional 19-inch rack frames holds two Taps
- Tested and compatible with all major manufacturers' monitoring devices, including protocol analyzers, probes, and intrusion detection/prevention systems

Support

- Net Optics offers free technical support throughout the lifetime of your purchase. Our technical support team is available from 8 am to 5 pm Pacific Time, Monday through Friday at +1 (408) 737-7777 and via email at ts-support@netoptics.com. FAQs are also available on Net Optics website at www.netoptics.com.

Product Diagrams

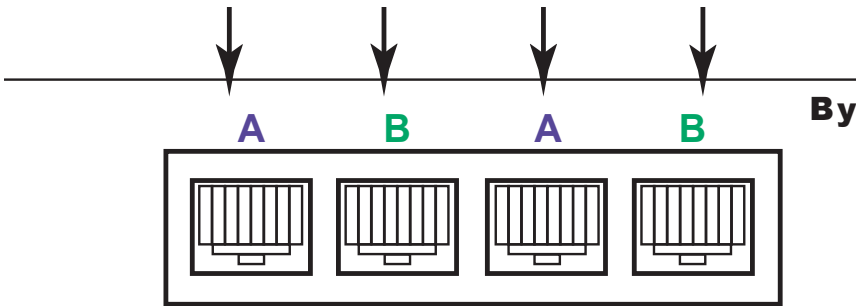


Figure 1: Front Panel BP-CU3

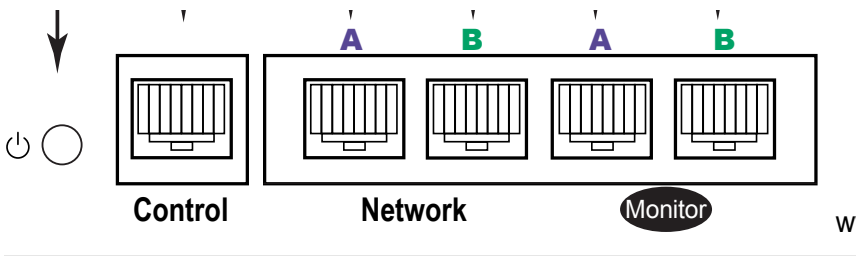


Figure 2: Front Panel BP-CU3-RJ45

Unpacking and Inspection

Unpack the 10/100/1000 Bypass Switch. Verify that you have all components by checking the Packing List against goods received.

The 10/100/1000 Bypass Switch ships with the following items:

All models

- 2 Network cables
- 2 Monitor cables
- 1 Installation Guide

BP-CU3

- 1 Power supply with AC power cable, barrel-type DC connector

BP-CU3-RJ45

- 1 Power supply with AC power cable, RJ45 connector

You may have also ordered a panel for rack mounting the Bypass Switch and an extended warranty. If any part is missing or damaged, immediately contact Net Optics Customer Service at 1 408.737.7777.

About this Guide

This Guide provides you all the information you need to install and operate the 10/100/1000 Bypass Switch. Please read the entire Guide before attempting to install or operate the Bypass Switch.

This Guide covers the following Bypass Switch models:

Part Number	Description
BP-CU3	10/100/1000 Bypass Switch, DC barrel-type power connector
BP-CU3-RJ45	10/100/1000 Bypass Switch, RJ45 power connector (control port)

Cabling Guidelines

10/100 Devices:

- If connecting to Switches or Hubs, use CAT5 cross-over cabling.
- If connecting to Routers or NICs, use CAT5 straight-through cabling.

GigaBit Devices:

- Use CAT5e straight-through cabling.

Connecting to the Network

1. Connect Network Port A to the appropriate switch, server, or router device.
2. Connect Network Port B to the appropriate switch, server, or router device.
3. Verify that the Bypass Switch Network Ports are cabled in-line between two devices.

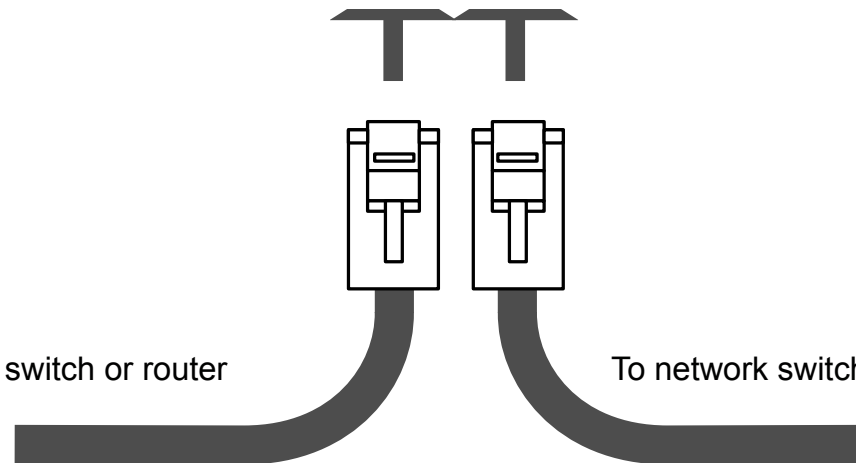


Figure 4: Connecting to the Network

Connecting to the In-line Device

1. Connect Monitoring Port A to the in-line device using a CAT5/CAT5e cable.
2. Connect Monitoring Port B to the in-line device using a CAT5/CAT5e cable.
3. Verify that the Monitoring Ports are cabled in-line between two devices.

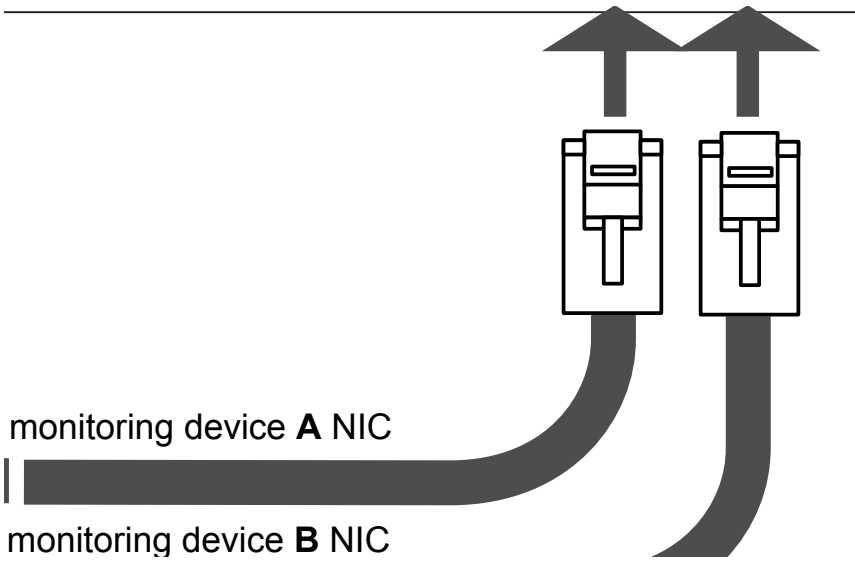


Figure 3: Connecting to the In-line Device

Connecting the Bypass Switch to Power

All models covered in this guide switch to Bypass Enabled mode when the Bypass Switch loses power. However, each model receives power differently.

To connect power to the BP-CU3:

1. Connect the power supply's DC jack to the DC power connector on the Bypass Switch.
2. Connect the power supply's three-prong AC plug to the same power source as the in-line device.

To connect power to the BP-CU3-RJ45:

1. Connect the power supply's RJ45 connector to the Bypass connector on the front panel (see Figure 2 on page 2).
2. Connect the power supply's AC power cable to the power supply and to the same power source as the in-line device.

Specifications

Environmental

Operating Temperature: 0°C to 40°C

Storage Temperature: -10°C to 70°C

Relative Humidity: 10% min, 95% max, non-condensing

Mechanical

Power Supply: Input Power: 100-240V, 0.5A, 47-63Hz

Output Power: 5V, 3A

Dimensions: 1.125" high x 4.2" deep x 4.5" wide

Cable Interface

Copper Cable Type: 22-24 AWG unshielded twisted pair cable,
CAT5/CAT5e

Connectors

BP-CU3 model:

(2) RJ45, 8-pin connectors (monitor ports)

(2) RJ45, 8-pin connectors (network ports)

BP-CU3-RJ45 model:

(2) RJ45, 8-pin connectors (monitor ports)

(2) RJ45, 8-pin connectors (network ports)

(1) RJ45, 8-pin connector (control port)

Certifications

Fully RoHS compliant

Limitations on Warranty and Liability

Net Optics offers a limited warranty for all its products. IN NO EVENT SHALL NET OPTICS, INC. BE LIABLE FOR ANY DAMAGES INCURRED BY THE USE OF THE PRODUCTS (INCLUDING BOTH HARDWARE AND SOFTWARE) DESCRIBED IN THIS MANUAL, OR BY ANY DEFECT OR INACCURACY IN THIS MANUAL ITSELF. THIS INCLUDES BUT IS NOT LIMITED TO LOST PROFITS, LOST SAVINGS, AND ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OR INABILITY TO USE THIS PRODUCT, even if Net Optics has been advised of the possibility of such damages. Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Net Optics, Inc. warrants this 10/100/1000 Bypass Switch to be in good working order for a period of ONE YEAR from the date of purchase from Net Optics or an authorized Net Optics reseller.

Should the unit fail anytime during the said ONE YEAR period, Net Optics will, at its discretion, repair or replace the product. This warranty is limited to defects in workmanship and materials and does not cover damage from accident, disaster, misuse, abuse, or unauthorized modifications.

If you have a problem and require service, please call the number listed at the end of this section and speak with our technical service personnel. They may provide you with an RMA number, which must accompany any returned product. Return the product in its original shipping container (or equivalent) insured and with proof of purchase.

Additional Information

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Net Optics is always open to any comments or suggestions you may have about its products and/or this manual.

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