



Network Critical

The Window to your Network™

PT100 Portable TAP

User Guide

Contents


Chapter 1 Preface	2
Introduction	2
Product Features and Benefits	2
Chapter Overview	3
Conventions used in this manual	3
Chapter 1 Getting Started	4
Inspect Packaging	4
Connecting the PT100 to the Network.....	4
Chapter 2 PT100 Portable 100MB Aggregation TAP	5
Traffic Flow Map	5
Front Panel	5
Port Status Indicators	6
Rear Panel.....	6
Chapter 3 Installing the PT100 Portable TAP	7
Appendix A Product Specifications	9
Specifications	9
Appendix B Troubleshooting	10
Appendix C Contacting Technical Support	11

Preface

Introduction

This manual will introduce you to the PT100 and describe its functionality so you can make the best use of your new product.

The PT100 Portable TAP (Traffic Access Point) is ideal for 100M network troubleshooting. The PT100 offers innovative features such as passive live network monitoring, POE (Power Over Internet) pass-through, and 1G monitor ports. The PT100 can be deployed with little network downtime. Once deployed, the PT100 enables you to troubleshoot your network segments quickly and effectively, using only a single network analyzer. The PT100 makes use of gigabit monitor interfaces where directional traffic is combined, or aggregated, thus allowing easy analysis on dedicated capture devices or portable computers. The PT100's two gigabit monitor interfaces allow for up to two different tools to capture identical full-duplex traffic flowing over a single Ethernet segment. This TAP is not designed for use with POE+ networks.

 **Caution:** *The information and procedures in this manual should be used by a professional network engineer. Make sure to take all necessary precautions to ensure that the installation and implementation of this product do not interfere with normal network operations.*

Product Features and Benefits

Features	Benefits
Link Failure Propagation (LFP)	Allows the attached network devices to detect if the link state is lost on adjacent network devices.
LinkLock Mode	Creates a permanent physical connection between the live network ports.
Passive Network Ports	Ensures the live network continuity is maintained during power state changes. Guaranteed 100% live link uptime even on power loss.
Aggregating Monitor Ports	Enables monitoring of full-duplex network traffic from each interface, ensuring 100% data is passed to the monitor tools.
Gigabit Monitoring Ports	Ensures all data from live network ports is captured on a single monitoring interface.
Power Over Ethernet (POE) Passive	Passes POE to attached supporting devices.

Chapter Overview

Chapter 1, Getting Started on page 4 provides a general overview of the PT100 including instructions for connecting the PT100.

Chapter 2, PT100 Portable 100MB Aggregation TAP on page 5 provides information on getting started with the PT100, including information on installing the hardware.

Chapter 3, Installing the PT100 Portable TAP on page 7 explains how to install the PT100.

Appendix A, Product Specifications on page 9 provides technical specifications for the PT100 Portable TAP.

Appendix B, Troubleshooting on page 10 provides tips and guidelines for troubleshooting.

Appendix C, Contacting Technical Support on page 11 lists the contact details for Technical Support.

Conventions used in this manual



Caution: A “Caution” advises the reader about situations that may result in incorrect, poor or no operation of the product. A Caution also advises of situations that may cause personal injury or may cause damage to the product or other property.



Note: A “Note” contains essential user information.



Tip: A “Tip” contains useful or other interesting information.

Getting Started

Inspect Packaging

Remove the PT100 from the packaging and ensure that the following items are included:

- PT100 Portable PoE Passive Ethernet TAP with two (2) 100M Copper RJ45 TAP Ports and two (2) 1 Gigabit Copper RJ45 Monitoring Ports
- 1 External Power Supply

If any of the above items are missing, please contact us immediately so we can resolve the issue. Refer to [Appendix C, Contacting Technical Support on page 11](#) for contact information.

Connecting the PT100 to the Network

Before you Install

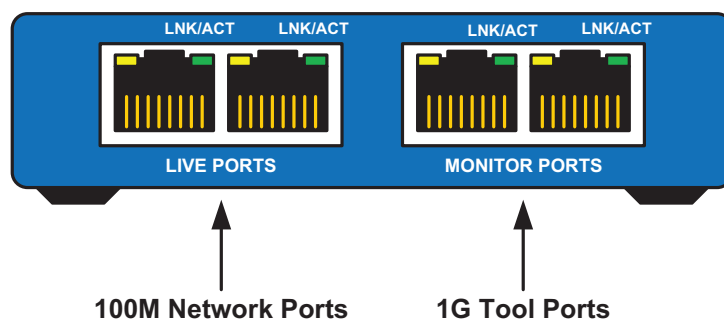
Before you start the installation, the following steps must be performed:

- 1 Determine where you want to tap into your network. The location must have access to an approved power outlet (100 to 240 VAC 50/60 Hz).
- 2 Verify the types of cables required. If a crossover cable is required, without the PT100 inserted in the link, it will still be required. These two cables replace the existing cable that is removed when you install the TAP.
- 3 Obtain cables of the appropriate types and lengths.
- 4 Set all of the network device interface modes. It is recommended that your LAN devices are set to operate at 100M fixed full duplex where possible.

PT100 Portable 100MB Aggregation TAP

The PT100 Portable 100MB Aggregation TAP is an in-line network device that combines two directional traffic streams into a single output port or monitoring interface as data traverses a network media.

Front Panel



Port Status Indicators



Green:

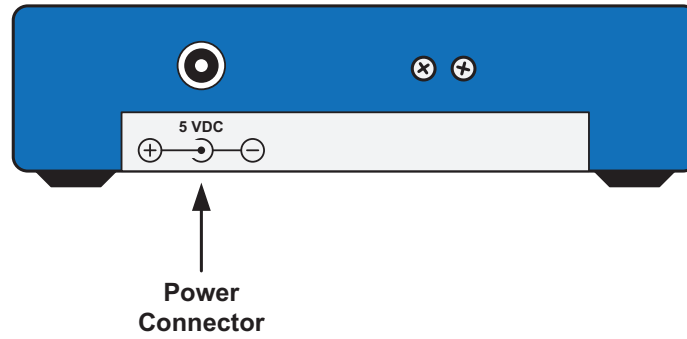
ON = Link (device connected)

Flashing = Activity on link

Yellow:

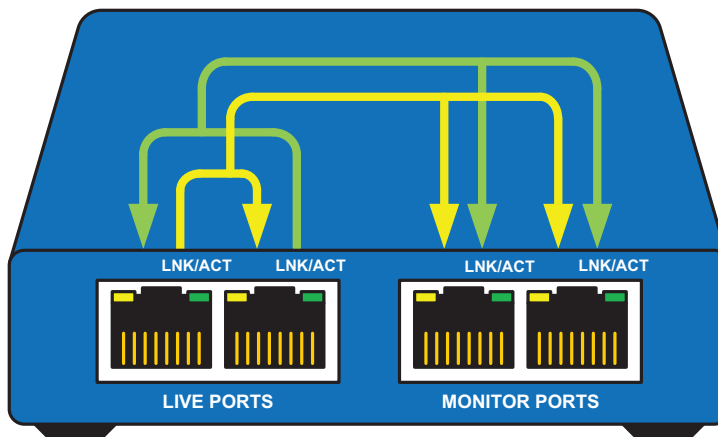
LED Not used

Rear Panel



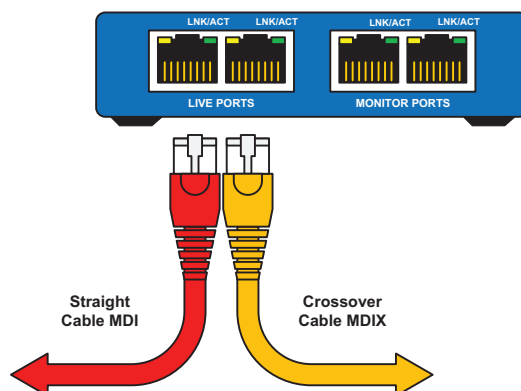
Traffic Flow Map

The MONITOR PORTS will only aggregate the same network traffic out of both gigabit ports.

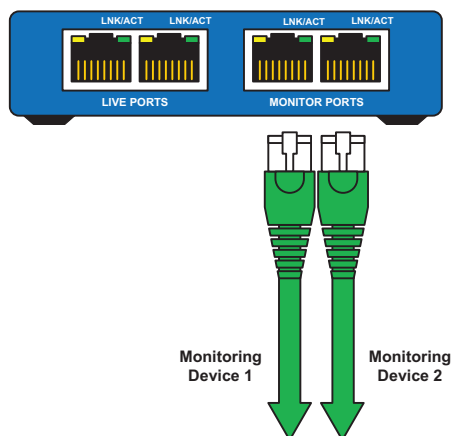


Installing the PT100 Portable TAP

- 1 Place the PT100 Portable TAP at the location where you want to monitor your network.
- 2 Route two Ethernet cables of the appropriate types and connect your network devices to the LIVE PORTS on the front of the PT100.
 - A straight-through cable should be attached to the left most LIVE PORT.
 - A crossover cable should be attached to the right most LIVE PORT.



- 3 Check the Link/Activity indicators on the network devices' ports to verify that data is flowing through the LIVE PORTS on the PT100. If the network devices do not have a link, be sure that all ports are set to 100M full or half duplex. A 10/100/1000 device will, at times, try to link at 1000M and fail (since the PT100 does not support 1000M). If setting all port speeds to 100M full duplex does not solve the problem, a crossover cable may be required. Remove the PT100 from the link, and verify that the devices can link without the TAP. Once the devices link, and port speed and duplex are verified to be 100M full-duplex, reinsert the PT100.
- 4 If either one of the LIVE PORTS do not link, ensure that you have set the link speed on your network devices to 100M full or half duplex. The PT100 allows traffic to flow through it at 10M, but does not display link lights on the LIVE PORTS or forward data to the MONITOR PORTS.
- 5 Attach your monitoring device to the MONITOR PORTS on the front of the TAP unit using Cat 5 Ethernet cables. The MONITOR PORTS are 1000M only. Be sure the monitoring tool is set to Auto or 1000M.





Note: Straight or crossover cables can be used on the MONITOR PORTS as they are Auto-MDIX (Media Dependent Interface Crossover) capable.

- 6 Check the Link/Activity indicators on the monitoring device and the PT100 to verify that data is flowing out of the monitor ports to the monitoring device(s).



Note: If the PT100 fails to power up, or fails to show activity on all ports, ensure that the power source is turned on.

Product Specifications

Specifications

Number of TAPs	1
Number of Ports	4
Network Ports	2
Monitor Ports	2
Network Port Speed	100M
Monitor Port Speed	1G
Size (WxHxD)	(3.942 x 1.20 x 3.942) inches (100.1 x 30.48 x 100.1) millimeters
Weight	8 ounces
Ambient Temperature	0°C to +40°C/ +32°F to +104°F
Operating Relative Humidity	90% non-condensing
Storage Temperature	-20°C to +70°C/ -4°F to +158°F
Voltage (AC/DC)	5 volts
Current (nominal)	.9 amps
Maximum Power Consumption	<5 watts

Specifications are subject to change without notice.

Safety information



Document reference symbol. If the product is marked with this symbol, refer to the product documentation to get more information about the product.

Warning A WARNING in the documentation denotes a hazard that can cause injury or death.

CAUTION A CAUTION in the documentation denotes a hazard that can damage equipment.

Do not proceed beyond WARNING or CAUTION notices until the hazardous conditions are understood and appropriate steps have been taken.

Servicing

There are no user-serviceable parts inside this product. Any servicing, adjustments, maintenance or repairs must be performed by service-trained personnel only.

Troubleshooting

If you are experiencing problems with the PT100 or its connectivity, please refer to the following table, or contact Technical Support at the locations listed in [Contacting Technical Support](#) on page 11.

Problem	Solution
No Link on network devices, no link on PT100 LIVE PORTS	Verify the speed and the duplex on network devices. Speed must be set to 100MB full or half duplex (100MB full-duplex preferred). If it remains set to auto negotiate 10/100/1000, devices may try to link at 1000MB and fail.
No link on PT100 LIVE PORTS, link on network devices	Verify the speed and the duplex on network devices. The PT100 allows a 10MB connection between network devices, but does not show the link on PT100 LIVE PORTS. It also does not pass data to the MONITOR PORTS.
No link on network devices, link on one of the PT100 LIVE PORTS	A crossover cable is required and should be connected to the left most PT100 LIVE PORT.



Contacting Technical Support

For additional assistance with the PT100 Portable TAP System, please contact one of our Technical Customer Support Centers:

European Support Center

Phone +44 (0)118 954 3210

North and South American Support Center

Phone +1 (716) 558-7280

On the web

<http://www.networkcritical.com> > Support > Open a support case