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OptiViewTM

Series III

Integrated Network Analyzer

Getting Started Guide

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Cryptix General License

Note

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Before You Start

Safety Information

The following symbols are used on the product and in this document:

	NOT FOR CONNECTION TO PUBLIC TELEPHONE SYSTEMS
	PLEASE READ MANUAL FOR SAFETY
	COMPLIES WITH EUROPEAN UNION DIRECTIVE
	SHOCK HAZARD
	CLASS 1 LASER PRODUCT. DO NOT LOOK INTO LASER
	RECYCLE LITHIUM ION BATTERIES
	COMPLIES WITH CAN/CSA-C22.2 NO. 60950-1 CANADIAN STANDARDS, AND UL 60950-1 (US STANDARDS)
	DO NOT DISPOSE OF LITHIUM ION BATTERIES IN GARBAGE, RECYCLE
	MEETS AUSTRALIA EMC REQUIREMENTS

The OptiView™ Series III Integrated Network Analyzer (hereafter referred to as the “analyzer”) complies with:



Class 1 Laser product 21 CFR 1040.10 & 1040.11, CFR(J)



CSA C22.2 No 950, and EN60950

Warnings

To avoid possible electric shock or personal injury, follow these guidelines:

Do not use this product if it is damaged. Before using the product, inspect the case. Look for cracked or missing plastic. Pay particular attention to the insulation surrounding the connectors.

Do not operate the product around explosive gas, vapor or dust.

No serviceable parts. Do not try to service.

Do not connect a telephone line to this product.

If this product is used in a manner not specified by the manufacturer, the protection provided by the product may be impaired.

Warning Class 1 Laser Product

With an optional SFP fiber adapter installed, this product will contain a Class 1 laser. Do not look into the laser port because this may cause eye injury.

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Cautions

To avoid possible damage to the analyzer and to the equipment under test, follow these guidelines.

Use the proper terminals and cable for all connections.

Cleaning the Analyzer

To prevent moisture from entering the analyzer, clean the front panel touch display with a moist cloth only. Do not spray water directly on the front panel touch display. Wipe the case with a damp cloth. Do not use organic solvents, acid, or alkali solutions.

Has This Instrument Been Damaged in Shipping?

ATTENTION!

In case of damage, call the carrier at once for inspection, and request an inspection report. ALWAYS NOTIFY THE CARRIER FIRST! Please do not write the factory until you have notified the carrier, since this will delay the claim.

If this precaution is not taken, we cannot assist you in recovering the amount of claim against the carrier.

When the carrier's inspection report is obtained, you may return the instrument and copy of the inspection report to the factory immediately.

Contacting Fluke Networks Sales, Service, and Support Centers

To order accessories or get the location of the nearest Fluke Networks distributor or service center, visit the Fluke Networks contact website at www.flukenetworks.com/contact. Send email to support@flukenetworks.com. For operator assistance in the USA, call 1-800-28-FLUKE (1-800-283-5853).

OptiView Series III Integrated Network Analyzer Support

As a registered user, you are entitled to entry level product support, including three free telephone support incidents during the first 60 days of ownership, access to the entry level online Knowledge Base library of product operation and application information, and Web-based trouble ticketing. We will also be sending you Fluke Networks company and product information updates.

Updating Your Analyzer

Note

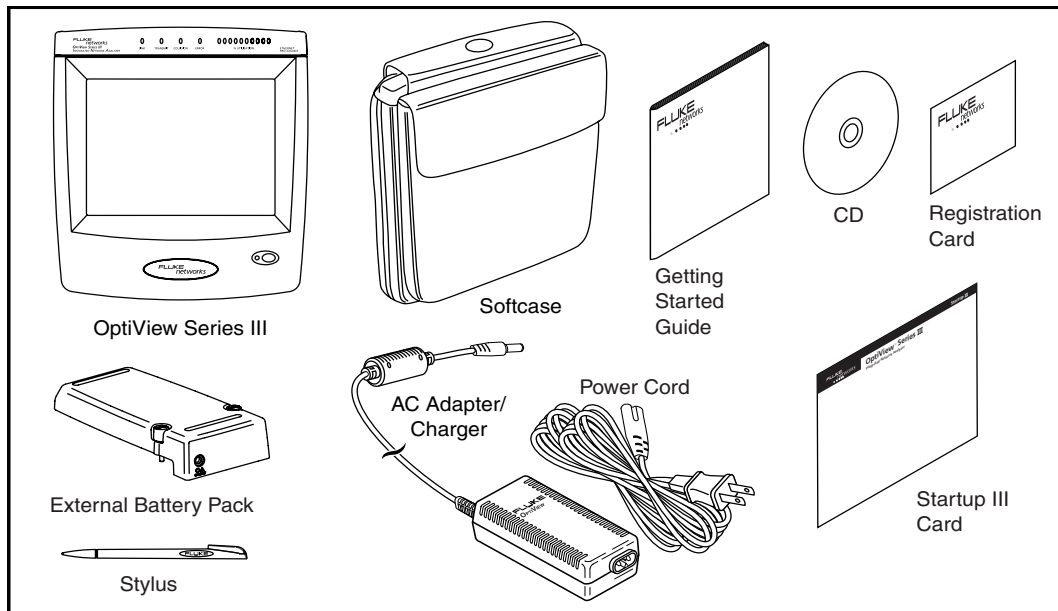
To be notified when new software becomes available for your analyzer, or to access technical support/knowledge base information via the web, please register your product at www.flukenetworks.com.

From time to time, software improvements are being made to the analyzer. These improvements can be applied to your analyzer either through the **Setup | Version | Latest OptiView Software** link, or by visiting www.flukenetworks.com.

The Analyzer and Accessories

The analyzer is designed for troubleshooting and monitoring Local Area Networks (LANs). The analyzer tests all seven OSI layers. It tests from the cable to the application layer and everything in between, so problems have nowhere to hide.

OptiView Series III supports 10/100/1000 Ethernet through 10/100/1000 Port (RJ-45 jack) along with a 1000BASE-X port (fiber optic interface) that supports the following optional fiber adapters: 1000BASE-SX (850nm), 1000BASE-LX (1300nm), 1000BASE-LX10 (1310nm), 1000BASE-BX (1490nm), and 1000BASE-ZX (1550nm). Check www.flukenetworks.com for additional supported fiber adapters.



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Figure 1. The Standard OptiView Series III Integrated Network Analyzer and Supplied Accessories

Supplied Items

The following equipment is supplied with the OptiView Series III Integrated Network Analyzer.

Table 1. Supplied OptiView Series III Integrated Network Analyzer Items

Item	Description	Model/Part Number
External Battery Pack	The External analyzer battery, provides up to 2 1/4 hours additional use, Lithium-Ion, 11.1V, 6AH.	OPVS2-BP
Shoulder Strap	Shoulder strap clips to the analyzer for easy carrying.	
Soft Case	Analyzer fits in the soft case.	
External AC adapter/charger	Input: 100V-240V AC, 47/63Hz, 1.7A, output: 15V DC, 4.0A (60 Watt). Caution: All OptiView Series III Integrated Network Analyzers (INA) require a minimum 15V, 4.0A (60 Watt) DC power supply for safe operation. Earlier INA DC power supplies (15V, 3.2A or 3.3A) can not be used on OptiView Series III INAs. The 15V, 4.0A (60Watt) power supply is suitable for use with both the OptiView INA Series III or earlier INAs. When using both the OptiView Series III and older INAs, take the 15V, 4.0A (60 Watt) DC power supply just to be safe. Older 15V, 3.2A or 3.3A DC power supplies still work on older INAs.	
External AC power cord	Country specific AC power cord.	LC-1 North America LC-3 Cont. Europe LC-4 UK LC-5 Swiss LC-6 Australia LC-7 South Africa
Getting Started Guide	Provides basic operating information, accessory part numbers, and specifications.	
Startup III Sheet	Provides basic information about operating the analyzer.	
CD-ROM	OptiView Resource CD. Includes user interface software, FTP Server software, OptiView Help, and Getting Started Guide (Multiple languages in PDF format).	
Registration Card	Fluke Networks can serve you best by registering online at www.flukenetworks.com. If you cannot register online, please fill out and return the supplied registration card.	
Stylus	Stylus used on the OptiView analyzer touch panel display.	

Table 2. Other Available Accessories		
Item	Description	Model Number
Application Troubleshooting Expert	Application Troubleshooting Expert on OptiView provides application and network problem identification, and detailed troubleshooting capabilities for network issues through a combination of active testing, discovery, and passive analysis of application transactions and performance statistics.	OPV/EXP
OptiView Protocol Expert	The Fluke Networks OptiView Protocol Expert application is a Windows based protocol analyzer for network engineers, LAN administrators, and network technicians who maintain LANs. The application allows you to monitor and packet decode data on your local network. The OptiView Protocol Expert application supports OptiView analyzer packet capture files. This product is intended to be used with the OptiView remote user interface on a PC.	OPV-PE/PRO
OptiView Expert Analysis Option	Adds expert analysis to the Fluke OptiView Integrated Protocol Expert application on the analyzer. When you purchase this option, you are given a key code that will need to be entered in the OptiView Integrated Protocol Expert application's Tools Add New Plug-in "Adding a Plug-in" screen.	OPVS2-EXPT
OptiView VoIP Analysis Option	Adds VoIP analysis to the analyzer's OptiView Integrated Protocol Expert application. When you purchase this option, you are given a key code that will need to be entered in the OptiView Integrated Protocol Expert application's Tools Add New Plug-in "Adding a Plug-in" screen.	OPVS2-VOIP
OptiView Reporter	The Fluke Networks OptiView Reporter application is a Windows software tool for network engineers, LAN administrators, and network technicians who maintain LANs. The application allows you to monitor, map, and troubleshoot LAN segments that could consist of servers, routers, switches, printers, managed hubs, and clients (hosts and other network devices).	OVR
OptiView Wireless Network Analyzer	Wireless Network Analyzer contains a Fluke Networks PCMCIA wireless network card and software. This option installs in an OptiView Analyzer and provides key wireless configuration and usage information.	OPV-WNA
External Keyboard	USB mini keyboard.	OPVS2-KB
Hard Carrying Case	Hard shell carrying case.	OPV-HCASE
Fiber SFP SX adapter	850nm, 50 and 62.5 micron multi mode fiber. 1000BASE-SX SFP adapter used in the 1000BASE-X port.	OPV-SFP-SX
Fiber SFP LX adapter	1300 nm, 10 micron single mode fiber. 1000BASE-LX SFP adapter used in the 1000BASE-X port.	OPV-SFP –LX
Fiber SFP LX10 adapter	1310 nm, 10 micron single mode fiber. 1000BASE-LX SFP adapter used in the 1000BASE-X port.	OPV-SFP –LX10
Fiber SFP BX adapter	1000BASE-BX10D, 1490 nm fiber. 1000BASE-BX SFP adapter used in the 1000BASE-X port.	OPV-SFP –BX
Fiber SFP ZX adapter	1000BASE-ZX, 1550 nm fiber. 1000BASE-ZX SFP adapter used in the 1000BASE-X port.	OPV-SFP -ZX

Using the Analyzer

Peripheral Support

The analyzer provides the following external accessory connectors:

- ☐ PC Card (multi bus PCMCIA)
- ☐ Three USB ports
- ☐ VGA-out DB-15

Registering the OptiView Analyzer

Please take the time to register your analyzer. A registration card is supplied in the shipping box. You can also register at www.flukenetworks.com.

Powering the Analyzer On and Off

Note

To properly condition the battery(s), a new analyzer must be initially charged for 8 hours.

Powering the Analyzer On

Simply press the green **On/Off** button on the front of the analyzer. When the analyzer is first powered on, it goes through a complete power-up sequence which includes initializing the processor, memory, performing a self test, loading the operating system, loading the analyzer user interface, and displaying the analyzer Front Page screen as shown in Figure 2.

Powering the Analyzer Off

Standby - With the analyzer powered *on*, press the green **On/Off** button on the front of the analyzer for one second. This places the analyzer in a standby state (suspend to RAM), and the LED turns amber. This is used in normal day to day operation to power the analyzer *off*. The analyzer can remain in the standby state for two days without the battery needing to be recharged, and longer if the analyzer also has an external battery attached.

Touch the **On/Off** button again will take the analyzer out of the standby state. Allow about one minute to resume normal operation (Statistics and other real-time measurement information will be reset).

Caution

Make sure all user-installed applications are shut down before powering the analyzer off with the On/Off button. User installed applications may interfere with standby.

If the analyzer is left in standby for an extended period of time (days), and the analyzer does not come out of standby by pressing the **On/Off** button, both the internal and external batteries are probably fully discharged. Attach the supplied AC adapter/charger to allow the analyzer to power-up. A discharged battery will take approximately 5 hours to fully charge with the analyzer off, and longer if you are charging the analyzer while it is on.

To maximize analyzer battery shelf-life - If the analyzer will be left *off* for an extended period of time (weeks), power-down the analyzer from the Windows desktop. Select **Start | Shut Down | Shut Down**. This resets all tests, and removes power from the analyzer.

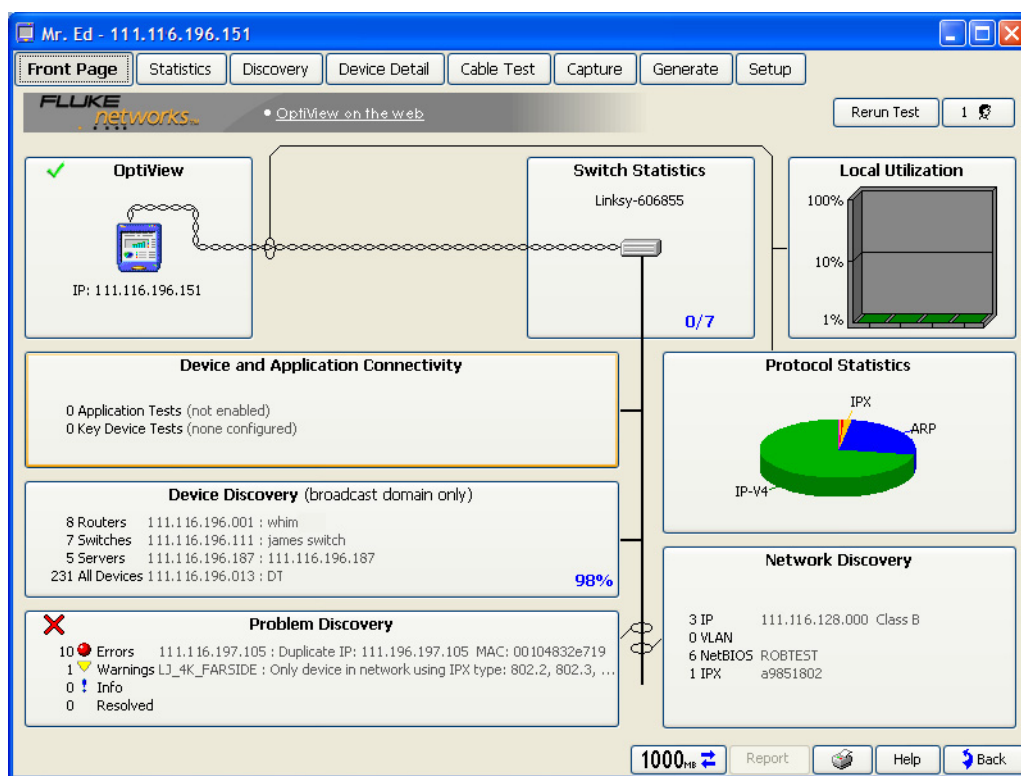
Verifying the Basic Analyzer Operation

When the analyzer is turned *on*, a boot sequence occurs, the Utilization LEDs flash, and a self-test is run. After the analyzer boots, the analyzer user interface is loaded. If the analyzer is connected to a network, the Link LED (top of analyzer, left-most LED) will come *on* when link is detected. When the OptiView analyzer user interface is completely loaded, the display will look similar to Figure 2.

Note

You may be prompted to logon with a User name and Password before the user interface completely loads.

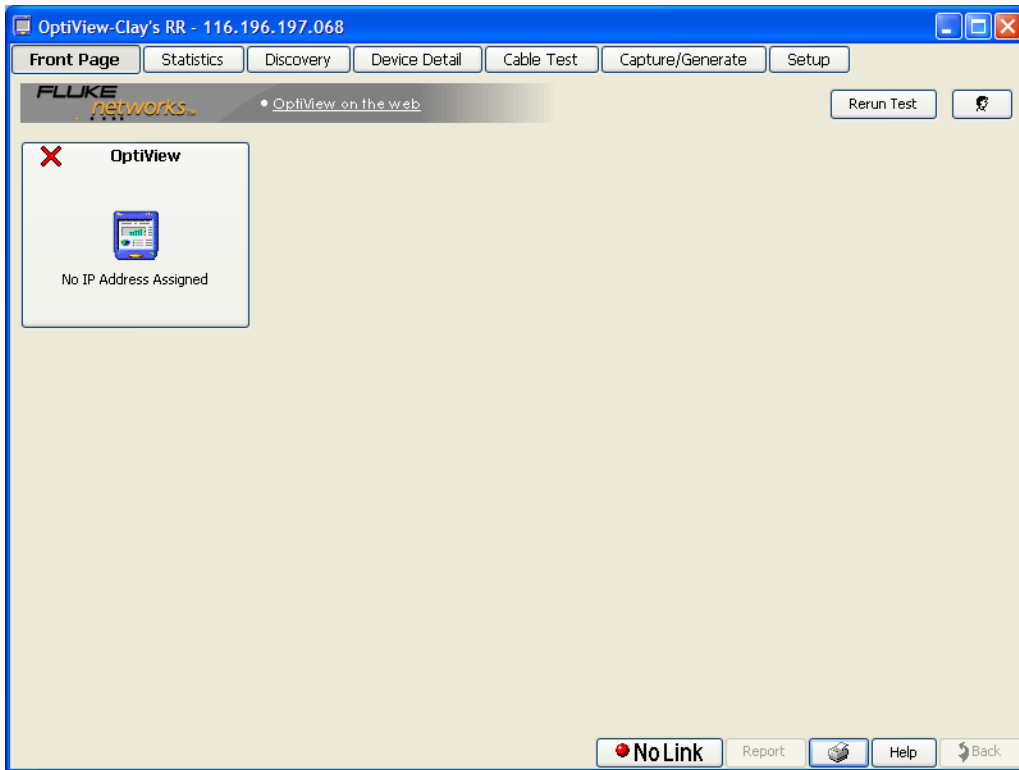
New analyzers are shipped with the user logon security turned off. To enable logon security, see the "Set Up Security" topic (in the "How Tos" section) in Help.



front page.tif

Figure 2. Front Page Screen (Connected to Network)

Figure 3 shows an example of the analyzer Front Page screen when it is not connected to a network (no network cable connected).



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Figure 3. Power-up Completion - Analyzer Front Page - No Cable Connected

Running the Analyzer on Internal and External Batteries

The analyzer comes with an internal Lithium-Ion battery which is capable of powering the analyzer for approximately 45 minutes.

An external Lithium-Ion battery is shipped with each analyzer. It attaches to the back of the analyzer. This external battery will extend the operation time by approximately 2 1/4 hours.

Note

The analyzer always operates off the external battery until the external battery reaches a low charge state. At that point the analyzer automatically switches to the internal battery.

Connecting the External Battery

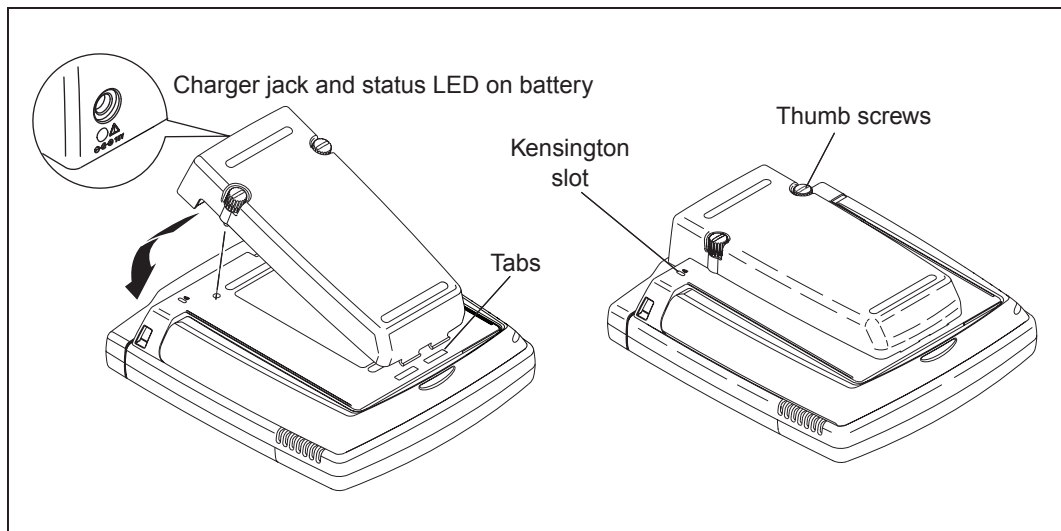
Note

The external battery can be connected or removed with the analyzer powered on.

The external battery is connected to the back of the analyzer as shown in Figure 4. First, slide the external battery tabs into the tab slots on the bottom of the back of the analyzer. Next, press the battery firmly against the analyzer, and turn the thumb screws clockwise until finger tight.

Note

Take care to align the battery tabs into the slots. Do not force the external battery connection. If the thumb screws do not engage, remove the external battery and try again.



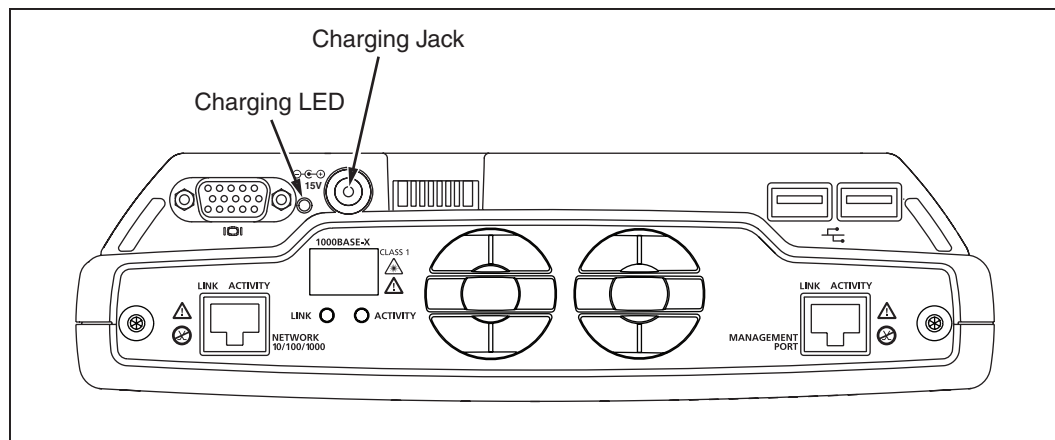
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Figure 4. Installing the external battery and Charger Jack Location

Charging the Internal and External Batteries

The external battery and AC adapter/charger (hereafter referred to as the charger) are shipped with every OptiView analyzer. The charger will charge both the internal and external batteries while operating the analyzer.

The internal battery takes approximately 5 hours to fully charge. It will take longer if the analyzer is *on* while the battery is charging. Figure 5 shows the internal battery charging jack and charging status LED.



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Figure 5. Charging Jack and LED Location for Internal Battery Only

The charging LED states are as follows:

Table 3. Red Charging LED States

Status	Description
Off	Charger not connected
Flashing	Charging
Continuous on, solid	Battery is fully charged, AC power applied

The external battery can take up to 5 hours to fully charge. When it is connected to the analyzer, and the analyzer is *on*, it will not begin charging until the internal battery is close to fully charged (approximately 80% charged). If the analyzer is *off*, both the internal and external batteries will charge at the same time.

Note

Battery charging is controlled by the circuitry residing in each battery. The protective circuitry prevents overcharging. You may "top off" the batteries at any time without worry of damaging the batteries. In the first 2 1/2 hours a fully discharged battery becomes approximately 90% charged. In the following 2 1/2 hours, the battery then becomes fully charged.

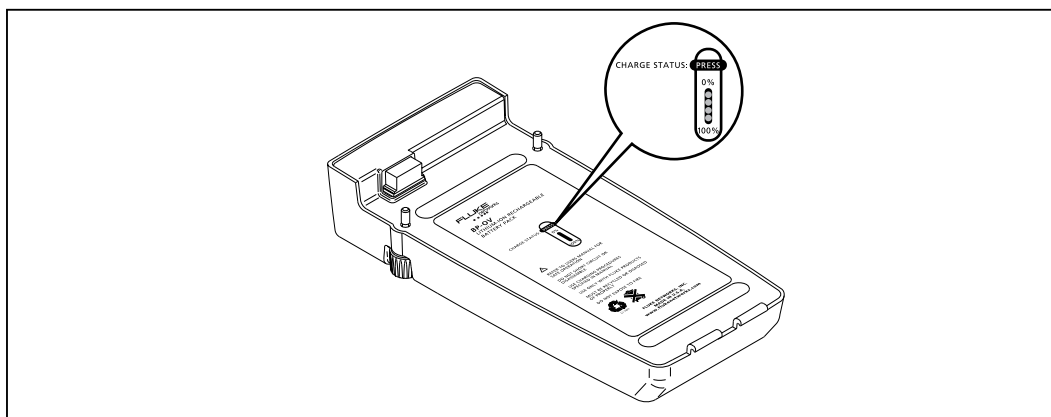
The external battery can also be charged when not connected to the analyzer. It has a charging jack and red status LED indicating charging state. See Table 3 for the LED charge states.

The external battery also has a **Charge Status** button shown in Figure 6. Its charge status is shown in Table 4 below.

Table 4. External Battery Charge Status Indicator

Status Indicator LEDs	Status
No LEDs on	fully discharged battery
1 LED	less than 25% charged
2 LEDs	less than 50% charged
3 LEDs	less than 75% charged
4 LEDs	near or fully charged

When the external battery is connected to the analyzer, use its charging jack to charge both batteries (the internal battery's charging jack will be covered by the external battery).



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Figure 6. External Battery Charge Status Button

By pressing the **Charge Status** button, the appropriate number of LEDs turn *on* and indicate the charge state as shown in Table 4.

Using the Front Panel Touch Display

A stylus or your finger can be used on the touch panel display. Display setup is customized by going to the **Setup | Display** screen. There you will find the **Graphic Controller...** and **Touch Screen Controller...** buttons.

The **Graphics Controller...** button lets you customize the display setup. Brightness and contrast are adjusted under the **Color** tab in the **Graphics Controller** screen.

Touch target calibration can be performed by pressing the **Touch Screen Controller...** button and then pressing **Calibrate**. The calibration screen provides a simple test that will ask you to touch several targets on the screen to perform the calibration.

Using the Virtual Keyboard and IP Keypad

The analyzer is shipped with a virtual keyboard and an IP keypad. The virtual keyboard allows both text and numeric entry, while the IP keypad allows easy entry of IP addresses. Anywhere the user interface allows text or numeric entry, the virtual keyboard  or the IP keypad  button is displayed next to the field.

The virtual keyboard icon is also visible in the upper-right corner of the title bar.

The virtual keyboard can be minimized by pressing the minimize button .

The virtual keyboard can be closed by pressing the close button . If you close the virtual keyboard, the  icon will no longer be visible in the upper-right corner of the screen. You can start the virtual keyboard through the Windows **Start | All Programs** menu by selecting **Touch Keyboard | Touch Keyboard**.

You can move the virtual keyboard by pressing in an unused area of the keyboard, such as above the arrow keys, and dragging it to a new location.



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Figure 7. Virtual Keyboard



aww55s.bmp

Figure 8. IP Keypad

Right-clicking the Mouse

Note

The analyzer user interface does not require any right-clicking of the mouse. This is provided as a touch panel convenience for use with other applications.

To do an equivalent right-click of the mouse with the touch panel display:

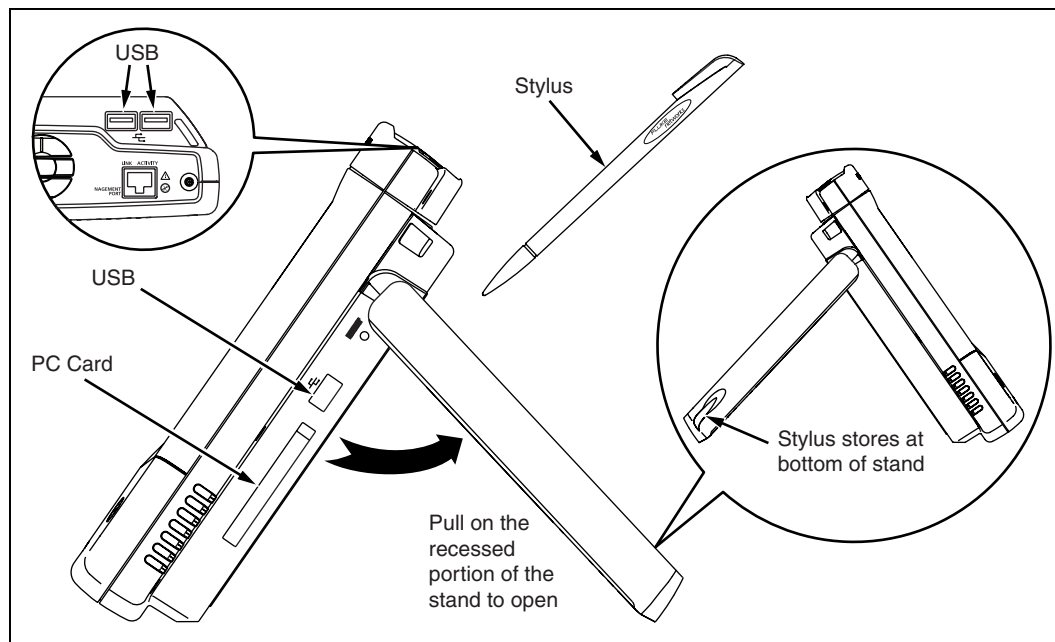
- 1 On the desktop, in the system tray , select the mouse icon (Event Selector) . The mouse icon changes to the right-click mouse icon . It resets back to the left-click mouse (normal touch screen mode) after one event, e.g. one touch of the touch screen.

Note

On the touch panel display user interface, using the equivalent right-clicking of the mouse is particularly useful with Windows Explorer to copy, paste, install, and rename files.

Connecting an External Mouse and Keyboard

A USB keyboard, and/or USB mouse can be connected to the analyzer. The three USB connectors are “hot swappable”, i.e. they can be connected to and disconnected from while the analyzer is on. Figure 9 shows the USB connectors.



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Figure 9. USB Connectors

Extending the Stand, Finding the Stylus

Figure 9 shows the stand extended. To open the stand, pull at the recessed portion located at the bottom of the stand.

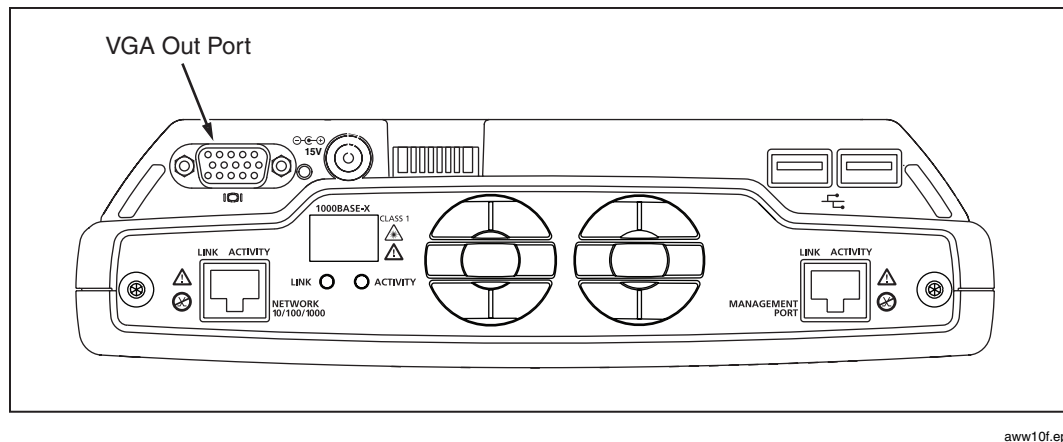
The stylus is stored in the stand leg as shown in Figure 9. Simply slide the stylus out to use it.

Using the VGA Out Port

The VGA out port allows an external monitor to be connected to the analyzer. Simply connect a VGA monitor to the analyzer VGA out port and it works! This can be done before or after the analyzer has been turned *on*. See Figure 10 for VGA out port location. See the VGA Help topic for more information about configuring the VGA out port.

Analyzer Network Connections

Figure 10 shows the top view of the OptiView Series III Analyzer.



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Figure 10. Top View of the OptiView Series III Integrated Network Analyzer

Setting Up the Analyzer to Test Your Network

Simply turn on the analyzer and connect a cable from the Network 10/100/1000 connector (or fiber cable) to the network. The analyzer will check the cable, find the active network interface, and obtain a non-duplicate IP address. It will then start discovering the network. Its advanced auto-discovery process does the rest!

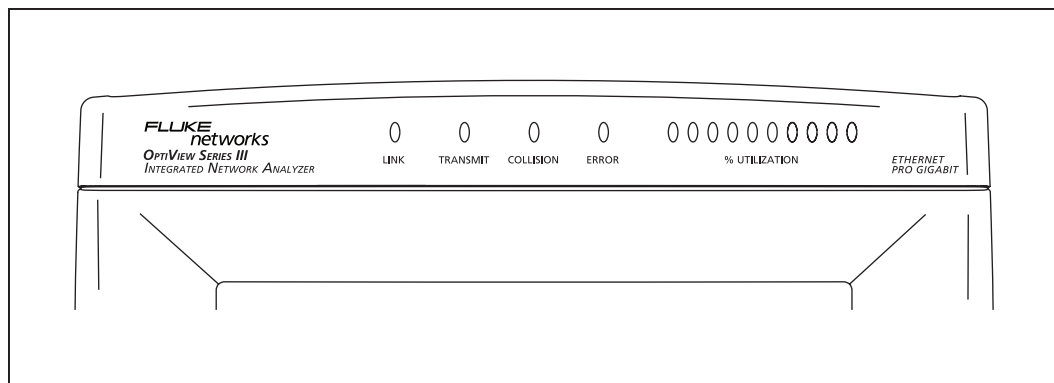
Note

Use the Management Port to configure and monitor separately from the network under test (out of band or a different switch port, etc.). Test functions such as traffic generation, cable testing and active discovery only apply to the Network 10/100/1000 port. See the analyzer user interface Help for more information on the Management Port.

You can always manually assign an IP address in the **Setup | TCP/ IP** screen. You can also manually assign an IP address for an alternate network as long as it is in the same broadcast domain.

The Front Page screen is the first screen that appears after the analyzer power-up sequence is complete (connected to an active network), as shown in Figure 2.

LED Status



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Figure 11. Analyzer Status LEDs

The LEDs on the front of the analyzer represent the following conditions:

Link – Green indicates link present.

Transmit - Indicates the analyzer is transmitting packets. Packets are transmitted while running Traffic Generator, and routinely transmitted by the analyzer discovery process. The analyzer communicates with devices to determine their device type and identity. The LED will flash faster as more transmit activity from the analyzer occurs.

Collision - Indicates that collisions have been detected by the analyzer on the local network. As more collisions occur, the LED flashes faster.

Errors - Indicates that errors have been detected on the local network. Errors include CRC alignment errors, undersized packets, oversized packets, and jabbers.

Utilization - Represents traffic at the point where the analyzer is connected (local traffic). Ten LEDs indicate utilization in 10 percent increments. The first five LEDs (from left-to-right) are green, followed by three amber LEDs (indicating more traffic), then two red LEDs (indicating very heavy traffic).

Note

The 10/100/1000 port and 1000BASE-X fiber port on the top of the analyzer also show link and utilization.

The 10/100/1000 port's left LED shows link as: 10Mb = green, 100Mb = blue, 1000Mb = white

*The 10/100/1000 and Fiber port's right LED shows utilization as:
10 - 50% utilization = green, 60 - 80% utilization = yellow,
90 - 100% utilization = red*

The Fiber port's left LED is always white indicating 1000Mb.

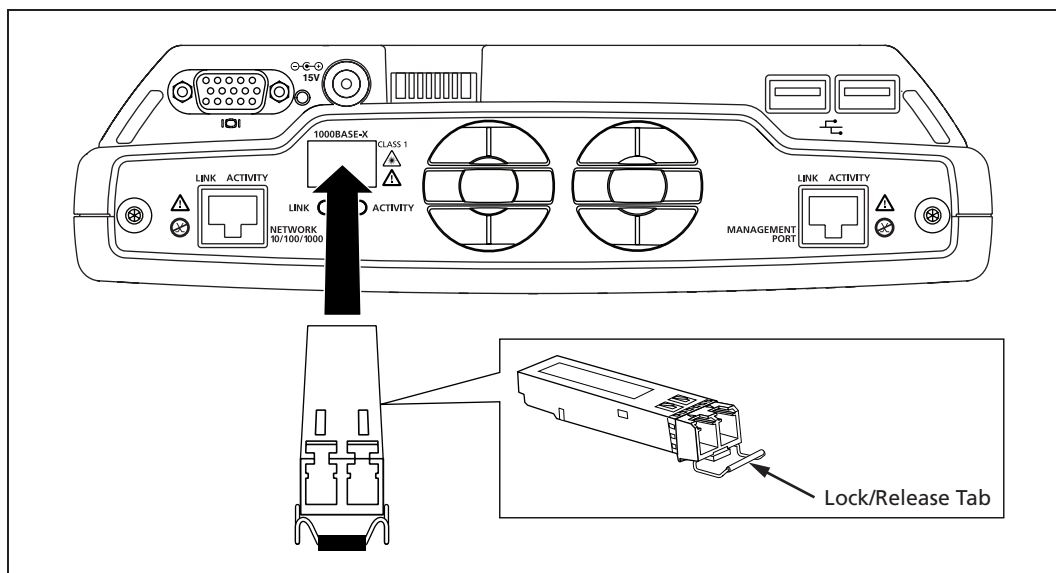
Changing the SFP Fiber Adapter

To install a SFP Fiber adapter, remove the protect cap and simply slide the adapter into the fiber port until it clicks.

To remove a SFP Fiber adapter, press and hold the tabs on the sides of the SFP adapter and pull gently out of the fiber port.

⚠ Warning

SFP fiber adapters are Class 1 laser light-emitting products. Avoid staring into the SFP module while the analyzer is on; otherwise injury to the eyes may occur.



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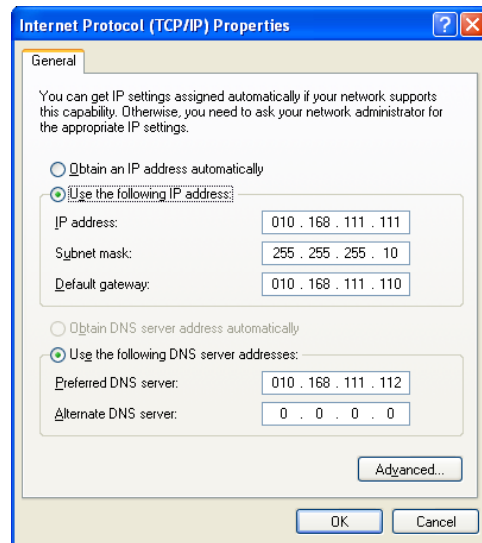
Figure 12. Installing a SFP Fiber Adapter

Note

It is recommended that the analyzer be powered off or placed in suspend mode prior to changing the SFP fiber adapter. This will reduce the possibility of damage to the SFP fiber adapter.

Windows Network Configuration

The Windows network configuration is preconfigured for communication with the OptiView analyzer data acquisition board. The Ethernet and fiber connectors are part of the data acquisition board. **DO NOT** modify the Windows IP address settings for the data acquisition board. You may add additional interfaces that have their own TCP/IP protocol settings. You may need to modify other network configurations such as WINS (the DNS server should be 192.168.111.112).



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Figure 13. TCP/IP Properties for the Data Acquisition Board

⚠ Caution

In the Windows Network setup, TCP/IP -> Internet Protocol (TCP/IP) has a preconfigured IP address of 192.168.111.111, subnet mask of 255.255.255.0, and gateway of 192.168.111.110. These settings **MUST NOT** be changed. They are used for communication between the data acquisition board and the Windows interface.

Using the OptiView Browser and User Interface Software

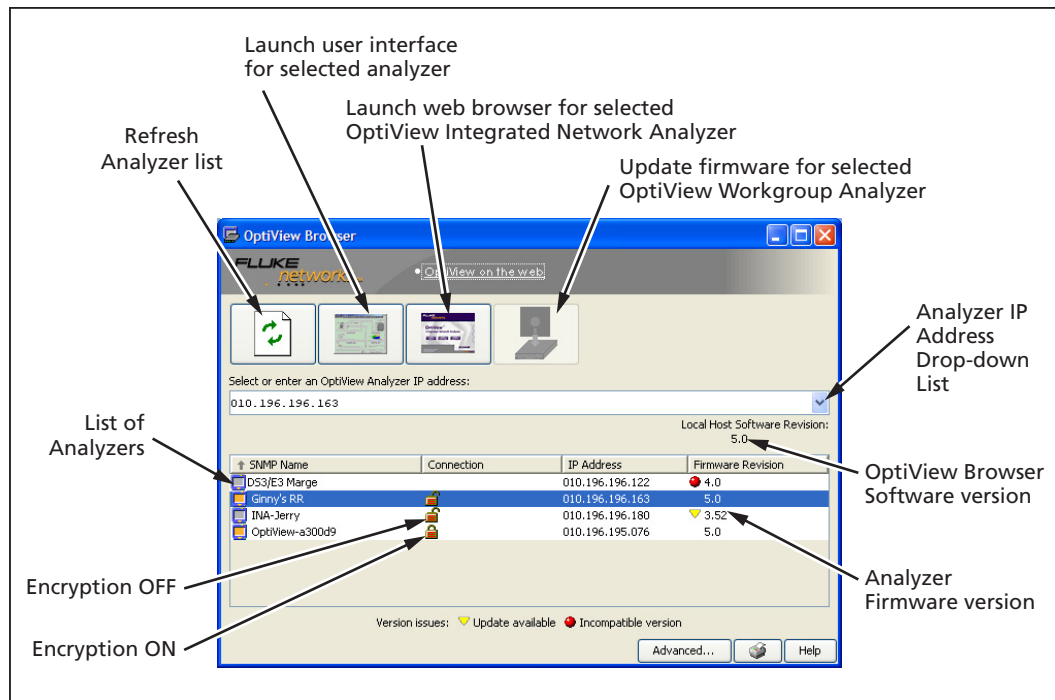
The OptiView Browser allows you access to OptiView Integrated Network, Workgroup, and WAN analyzers through a user interface installed on your analyzer or PC.

Note

*On your OptiView Series III Integrated Network Analyzer, the remote OptiView user interface session will display the IP address and name (if specified in the **Setup | Remote** screen) in the user interface's title bar area.*

In the OptiView Browser window, double-click on an analyzer from this list and the user interface is launched. If an analyzer is username and password protected, you will be prompted to enter a username and password. You may also be prompted for an encryption key.

In order for analyzers that are not in the same broadcast domain to be displayed in the OptiView Browser list, you must first configure the Remote Control IP address setting on each analyzer. This is found in the **Setup | Remote** screen. The **Remote Control PC** IP address should match the IP address of the PC (or analyzer) that you intend to run the user interface software on. Then, the remote analyzer will send its identification back to the controlling PC (or analyzer).



	OptiView Series III Integrated Network Analyzer		OptiView Workgroup Analyzer
			OptiView Series III Workgroup Analyzer
	OptiView Series I and II Integrated Network Analyzer		OptiView WAN Analyzers
			

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Figure 14. OptiView Browser

Refresh analyzer list

Re-displays the analyzer list with current active analyzers.

Launch user interface for selected analyzer

Launches the user interface for the selected analyzer. The selected analyzer is the device that is highlighted in the OptiView Browser analyzer list or the IP address entered in the OptiView Browser IP address field.

Launch Web browser for selected OptiView Integrated Network Analyzer

Enabled only for OptiView Integrated Network Analyzers and not for OptiView Workgroup analyzers. Launches the default web browser on your PC (or analyzer) and connects to the home page on the selected OptiView Integrated Network Analyzer. From the home page, you can access saved reports and packet capture files located on the hard drive of the OptiView Integrated Network Analyzer.

Update firmware for selected OptiView Workgroup Analyzer

This button does not apply to OptiView Integrated Network Analyzers.

Updates the firmware on the OptiView Workgroup analyzer by downloading from the controlling PC. Enabled only when selecting an OptiView Workgroup analyzer through the Management port.

Installing the Remote User Interface Software

The remote user interface software can be installed on the following operating systems:

Windows 2000 Professional SP4 or later

Windows 2000 Server SP4 or later

Windows 2000 Advanced Server SP4 or later

Windows XP Professional SP1 or later (SP1 and SP2 currently)

Windows 2003 Server SP1 or later

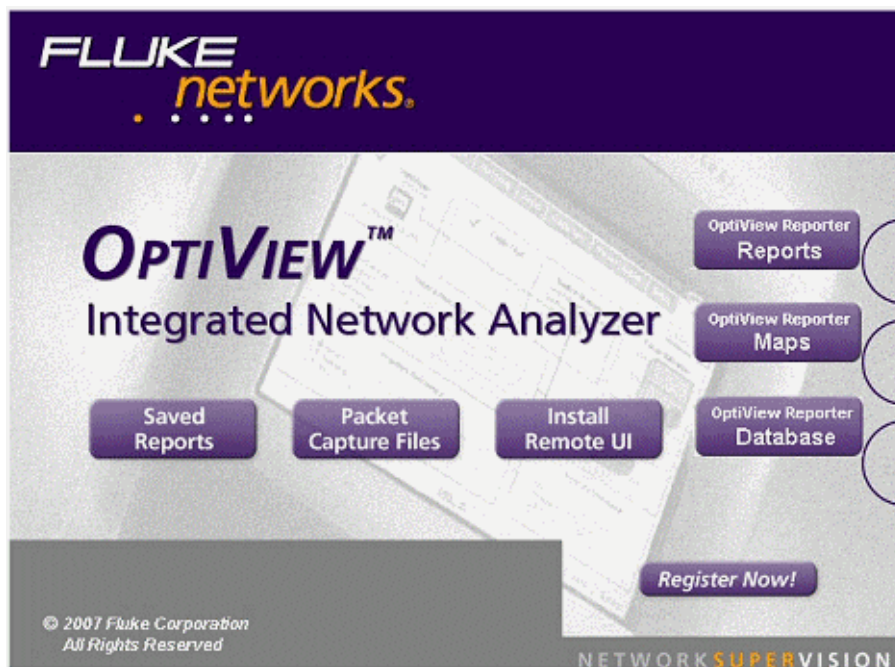
Windows 2003 Advanced Server SP1 or later

To install the remote user interface software from CD, insert the OptiView Resource CD into your PC's CD drive. Autorun will execute and load the OptiView Resource CD user interface.

If autorun is disabled on your PC, execute the file *Launch.exe* located in the root directory of the CD. Follow the on-screen instructions to complete the installation.

To install the remote user interface software onto your PC, connect the analyzer to your network and power it *on*. Enter the analyzer IP address into your PC's browser URL field (omit leading zeros). The analyzer IP address is displayed on the Front Page screen in the **OptiView** button. The home page of the analyzer will display as shown in Figure 15. Select the **Install Remote UI** button and follow the on-screen instructions to complete the installation.

Once the installation is complete, you will be able to launch the OptiView Browser from your desktop, select an analyzer from the OptiView Browser list, or enter the IP address of the analyzer, and gain access to valuable network information through the user interface software. See figure 14.



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Figure 15. OptiView Personal Web Server Home Page

User Interface Events that will Terminate a Remote Session

The active TCP/IP session between the user interface software and the analyzer can be severed under the following conditions:

- ☐ If IP parameters are manually changed on the analyzer and Apply is selected in the Setup | TCP/IP screen
- ☐ If Auto Reconfigure on Network Change is checked in the TCP/IP setup screen and the analyzer patch cable is disconnected and reconnected to another jack
- ☐ If the Ethernet link goes down due to temporary network outage
- ☐ If Rerun Auto Config is selected in the TCP/IP setup screen
- ☐ If the encryption is changed in the Setup | Remote screen
- ☐ If Find Unused IP and Apply is selected in the TCP/IP setup screen
- ☐ If Rerun Cable Test is selected
- ☐ If the Analyzer MAC address is changed in the Setup | Ethernet screen
- ☐ If Receive only, do not transmit frames is selected in the Setup | Ethernet screen
- ☐ Changing the User Account

In the previous conditions, the popup message *There are <n> user interfaces that may lose connection to the remote OptiView Analyzer, proceed anyway?* With both the **Yes** and **No** buttons displayed.

Using the Online Help System

View the online Help from within the analyzer user interface for a detailed explanation of each screen and how to use the analyzer. Some of the topics of interest are:

- ❑ Setting up security - Setup | User Accounts and Setup | Remote
- ❑ Setting up community strings - Setup | SNMP and Setup | Agent
- ❑ Generating network traffic - Traffic Generator feature
- ❑ Capturing traffic passing over a network - Packet Capture feature
- ❑ Measuring bidirectional data flow – Throughput feature
- ❑ Setting Up a Printer

Accessing and Navigating the Help System



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Figure 16. The Help Screen

The help system is an integral part of the analyzer. While using the analyzer user interface, help can be accessed by selecting the **Help** button located on the bottom-right of the user interface screen.

When the Help is launched, the current screen topic is displayed. You can also select a topic from the Contents (left pane), choose an Index entry, or perform a full text Search on any analyzer help topic or term.

You can also press the **Back** and **Forward** buttons to move to and from previous viewed topics.

The **Hide** button collapses the left pane of the Help screen giving you more room to view Help topics. The **Hide** button is replaced by the **Show** button. The **Show** button expands the left pane of the Help screen.

The **Print** button allows you to either print the selected topic or print the selected heading and all subtopics.

Troubleshooting Your Analyzer

Resetting and Powering the Analyzer Completely Off

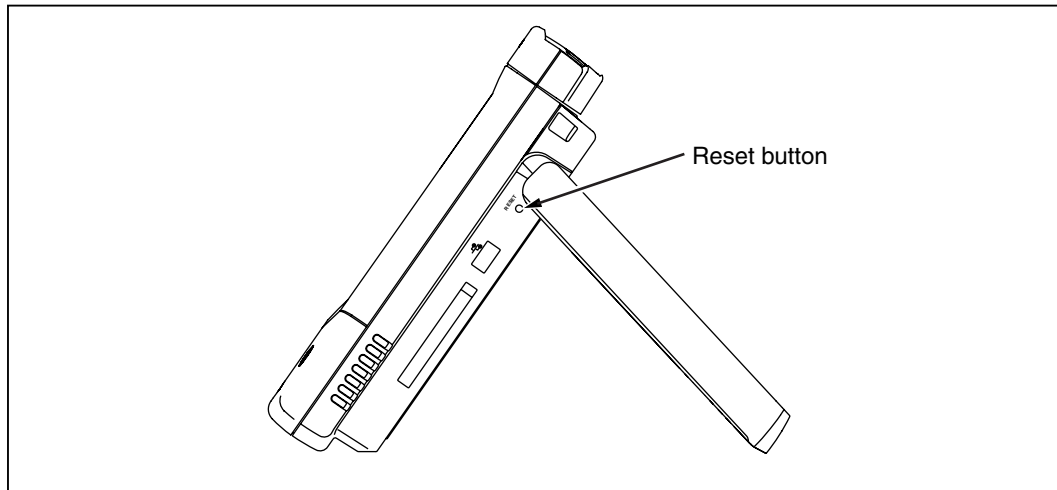
If you suspect the Windows environment has locked-up, you may have to reset the analyzer. This is done by pressing the **Reset** button. If you are not sure if the Windows environment or the analyzer (hardware) has locked-up, you may have to completely power-down the analyzer by forcing the power off as described below.

Resetting the Analyzer

The **Reset** button (see figure below) resets the Windows portion of the analyzer without shutting down the data acquisition board. Discovery and capture data are not affected. The **Reset** button should only be used if the Windows environment has stopped responding.

Forcing Power Off

Power can be forced off by pressing and holding the **On/Off** button for approximately 7 seconds. After being forced off in this manner, the analyzer may initiate a scan disk upon the next power-up.



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Figure 17. Reset Button Location

Before Calling Technical Support

Before calling technical support, you can perform these basic analyzer troubleshooting steps to pinpoint many problems:

Do you suspect Windows has locked up?

If yes, press the **Reset** button (see Figure 17).

Do you suspect the analyzer has locked up?

If yes, completely power-down the analyzer.

Does the analyzer power-up?

Connect the AC adapter/charger to determine if the internal battery (or internal and external batteries) is the culprit. The analyzer will not power-up if the batteries are completely discharged.

If the analyzer only powers up with the AC adapter connected, the internal battery may be completely discharged.

The external battery has a charge indicator on the underside of the battery pack (side with tabs, see Figure 6). The external battery will need to be removed from the analyzer to view the charge indicator. Press the charge indicator button to determine if the external battery is charged.

Does the analyzer user interface appear?

The Front Page screen should be displayed after power-up. Check the Windows task bar (usually at bottom of desktop) to see if the OptiView user interface has been loaded. If not, go to the Windows **Start | All Programs** menu and select **OptiView**.

Does the analyzer pass self test?

Go to the **Setup | Self Test** screen and press Run Self Test. All tests need to pass.

Unexpected IP Discovery or Device Details results?

Does the analyzer have a valid IP address? Look at the Front Page screen OptiView button and see if a valid IP has been configured. Also, see if the Auto Configure capability in the **Setup | TCP/IP** screen has been disabled. If an IP address has been manually entered, it may not be within the local subnet.

Do the touch targets seem to be off?

Try touching around the target to verify if the touch target calibration is off (this is rare). If you suspect the touch target is off, select **Setup | Display**, press **Touch Screen Controller...**, then **Calibrate**. You will be prompted to touch the display at certain points to perform the calibration.

Are you connected to the network?

- ❑ Link light should be on solid green if Link exists.
- ❑ Some activity on Transmit LED and/or Utilization LEDs should be seen.
- ❑ Go to **Setup | Ethernet** screen. An active interface should be indicated.
- ❑ Confirm that Cable Test passed. Try a different cable if necessary.

Does Cable Test pass?

A network connection can not be made if cable test does not pass. Go to the **Cable Test** screen and run Cable Test. See if there is faulty cable.

Does the battery charge state appear erratic or inconsistent, or is the battery not consistently holding a normal charge?

Discharge the battery completely, then charge the battery for at least 5 hours.

Does the touch panel display (or Windows) not respond to input?

Press the **On/Off** button to place the analyzer in standby. Press the **On/Off** button again to resume from standby.

If this does not correct the problem, try using a keyboard and/or mouse to shutdown and restart Windows.

If this does not correct the problem, try pressing the **Reset** button (see Figure 35) to reset Windows.

Note

A Windows Reset will not erase information collected on the data acquisition card.

If none of the above corrects the problem, press and hold the **On/Off** button for 7 seconds to shutdown. Press the **On/Off** button again to power-up the analyzer.

Note

*A Windows Restart (either holding the on/off button for 7 seconds or pressing **Start | Shut Down | Shut down**) will erase information collected on the data acquisition card.*

Windows Configuration Precautions

If you are trying to share files, or use TCP/IP based applications (such as the web browser), you may need to configure WINS, DNS, and domain/workgroup information on the Windows environment.

Restoring the OptiView Analyzer Default Configuration and Software

In the event your analyzer becomes unstable, or you feel your analyzer is no longer operating correctly, possibly caused by user installed applications, custom configurations, etc., you may restore the factory default configuration. A disk recovery utility is provided on the analyzer. The analyzer hard drive contains an image of the operating system, and all factory installed applications as originally configured by the factory.

Caution

Performing a Disk recovery will delete all report and capture files, user installed applications, and custom configurations that are stored on the C: drive. Your analyzer will be returned to its factory default settings.

Make sure you have the charger/AC adapter connected to the analyzer before performing a disk recovery.

It is VERY IMPORANT during the disk recovery process NOT TO INTERRUPT IT or hard drive damage could occur.

During the disk recovery, make sure a 2nd drive is not connected to the analyzer's USB port, or the 2nd disk's contents could potentially be deleted.

Only a USB keyboard should be connected to the analyzer. Disconnect any PCMCIA card from the analyzer.

To perform a disk recovery, perform the following:

- 1 Attach an external USB keyboard.
- 2 Power-up or restart the analyzer. Keep pressing the **F9** key during the boot-up sequence. At the point when the black screen with the Fluke Networks logo is briefly displayed, the **F9** key needs to be pressed. The Fluke Networks OptiView Disk Recovery Utility screen is displayed.
- 3 You are then asked to *Press 'Y' to continue, any other key to cancel and reboot*. Press **Y** to continue with the recovery process. The recovery process will take about 15 minutes to complete.
- 4 When completed, you are prompted to press <ESC> to reboot the PC. Disk recovery is then completed.
- 5 You will now have to walk through the Windows license agreement and OptiView configuration instructions found on the **Startup III** sheet supplied with every new purchase.

Specifications

Table 5. General Specifications

Weight without external battery	2.2 kilograms (5.0 lbs)
Weight with external battery	3.0 kilograms (6.6 lbs)
Dimensions	26.0 x 23.4 x 6.4 centimeters (10.3 x 9.2 x 2.5 inches)
LCD touch screen display	800 x 600 pixels, active color panel, CCFT backlight and bezel, touch pad
LED indicators	16 (21 with external battery)
Internal battery	Lithium Ion 11.1V DC (nominal), 2Ah
External battery	Lithium Ion 11.1V DC (nominal), 6Ah
External AC adapter/battery charger	AC input: 100V - 240V, 47/63Hz, 1.7A DC output: 15V, 4.0A
Communication and accessory ports	3 USB, PC Card type II, 1 VGA out 15-pin connector
Network analysis ports	RJ-45 10/100/1000BASE-T Ethernet and 1000BASE-X fiber
Shock and vibration	Meets requirements of MIL-PRF-28800F for Class 3 equipment
Laser	 Class 1 Laser Product, complies with 21 CFR 1040.10 & 1040.11, CFR(J), and EN60825-1:1994/ A1:1997/A2:2002
Safety	 ^{US} Complies with CAN/CSA-C22.2 NO. 60950-1 Canadian standards, and UL 60950-1 (US standards)  Complies with EN60950
EMC	 Complies with EN61326, Class A

Table 6. Supported Network Standards

LAN Interfaces	Standard SNMP MIBs Used
IEEE 10BASE-TX, IEEE 100BASE-TX, IEEE 1000BASE-TX, IEEE 1000BASE-X	RFCs: 1213, 1231, 1239, 1285, 1315, 1493, 1512, 1513, 1643, 1757, 2021, 2108, 2115, 2127, 2495, 2496, 2515, 2558

Cable Types

Unshielded Twisted Pair LAN cables (100 and 120 Ohm UTP category 3, 4, 5, 5E, and 6 ISO/IEC Class C and D)

Foil-screened Twisted Pair cables (100 and 120 Ohm ScTP category 3, 4, 5, and 6 ISO/IEC Class C and D)

Cable Length

Measurable cable lengths are from 3 feet (.9 meter) to 500 feet (152 meters). Within this cable length, the accuracy is ± 6 feet (± 2 meters).

Note

*Length accuracy is dependent upon the cable type selected in the **Cable Test** screen with its ideal NVP (nominal velocity of propagation) matching the NVP of the cable under test.*

Fault Tolerance

The RJ-45 10/100/1000BASE-T Ethernet connection on the analyzer is designed to withstand a maximum of 100 volts.

Environmental Requirements

Operating Temperature 10°C to 30°C (50°F to 86°F) with up to 95% Relative Humidity

10°C to 40°C (50°F to 104°F) with up to 75% Relative Humidity

Note: Battery will not charge below 12°C (53.6°F)

Non-Operating Temperature -40°C to +71°C (-40°F to +159.8°F)

Altitude Operates up to 4600 meters (15091 feet)

Approvals The AC Adapter/charger for the instrument has UL, CSA, CE , SEMKO, CCIB, BCIQ, and GS valid

Electromagnetic Interference Complies to EN61326, Class A requirements.

Connection to public The analyzer network interfaces are NOT FOR

telephone network CONNECTION TO PUBLIC TELEPHONE SYSTEMS. The analyzer should only be connected to the public phone network through regulatory agency compliant modem devices.

Warning

This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15, Subpart J of the FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of the equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.



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