FLUKE
networks ™

NetTool™
Inline Network Tester

Quick Reference Guide

Table of Contents

Title	Page

NetTool™
Quick Reference Guide

Ready, Aim, Register!

What's in it for me?
A FREE PERSONALIZED HOLSTER!!!!

Get a free holster with a personal or company name embossed on it for your NetTool by visiting **www.flukenetworks.com** and registering your NetTool today.

What is NetTool?

What? More busywork to slow me down?

NetTool is easy to use and saves time! It is a unique handheld device that combines cable, network, and PC configuration testing into a single, handheld unit. NetTool was designed specifically to speed your frontline network troubleshooting, "moves, adds & changes," and desktop-to-network connectivity work.

I'm bored and want to kill time…
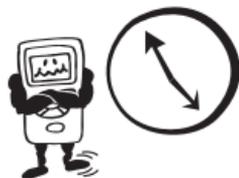
Access the *NetTool Users Manual* on the CD-ROM disk that came with your purchase if you have a lot of time to kill. Hey, you can also surf to **www.flukenetworks.com** for the latest news on NetTool, troubleshooting tips, and service information.

1

How to use NetTool
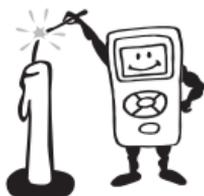
I don't have a lot of time to kill, how do I light this candle?

NetTool has two RJ-45 jacks, one on either side of the unit. Plug it in and turn it on…either between two devices like a hub and a PC or directly into a wall plate to check a network drop.

The first screen you see when you power up NetTool is the launch pad to all of NetTool's features. Press the **Select** button to begin.

afq40s.bmp

Think of NetTool as your virtual eyes and ears in checking PCs connected to networks. NetTool can be used in two modes: **Single-Ended Mode** (page 4) and **Inline Mode** (page 7).

Note

If you have not registered your NetTool you will see a Registration Reminder Screen followed by a screen that displays how many option trials remain.

Be sure to install NetTool Blaster and NetTool Toolkit, the PC-based software that came with your purchase on CD-ROM (check the online help for those programs for more information). These software programs enable you to transfer data between a NetTool and a PC.

2

NetTool Capabilities

| Service Identification	Link Configuration
Telco Token Ring Ethernet	Link ID Receive Pair Advertised Speed Actual Speed Level Polarity Advertised Duplex Actual Duplex
Health	
Utilization Broadcast/Error meters	
Cable Test	**Services (Key Devices)**
Wiremap	IP Servers IPX (NetWare) Servers NetBIOS Servers Printers Routers
PC Configuration	
Link Config Health Addresses Used Servers Used	
Ping	**Problems**
Ping (single device) Ping Catalog (list)	Problem Log
Reporter	
Save/Delete Reports	

Single-Ended Mode

What's lurking behind that wall plate?

Note

To optimize discovery, connect NetTool with the device (like a PC) off, turn NetTool on, press AutoTest, then turn the device on.

⇒ Plug an RJ-45 (supplied PN 642774) cable into a network drop or a single network device, such as a hub, PC, server, or printer.

⇒ Plug the other end of the cable into either side of NetTool, power up NetTool, and start **AutoTest** by pressing the **Select** (middle) button. The NetTool screen displays the NetTool icon and the other device icon.
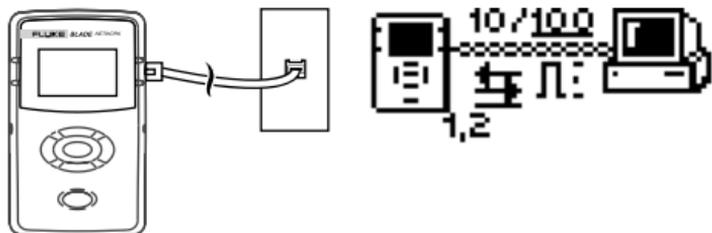
afq01f.eps

Use this mode to quickly prove a network drop or network device is active, determine its speed and duplex settings, confirm healthy frames are being sent, or check connectivity to the network (when plugged into a hub or switch). Check *AutoTest* (page 22) for more information on the icons. Check *Ping* (page 30) to learn how to ping a device while in single-ended mode.

4

Cable Testing

You can check cable length, detect split pairs, or use the wiremap adapter (supplied PN 1563930) to verify pin-to-pin continuity from the near to the far end of a cable.

Cable Test

⇒ Plug the cable to test into the jack on either side of the NetTool. Power up NetTool. **AutoTest** flashes. Press **Select**.

⇒ Highlight the Spool icon and press **Select** to see cable status. NetTool detects cable length, opens, shorts, and split pairs.

⇒ This applies for patch cables as well except you would plug both ends in to the NetTool and then press **Select**.

afq31s.bmp
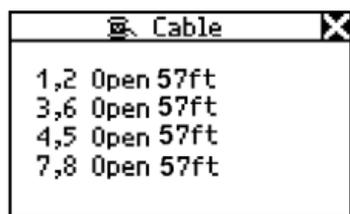
afq32s.bmp

Wiremap

When both ends of a cable cannot be connected to NetTool (e.g., one end is in wiring closet), use the external wiremap function.

⇒ Attach the near end of the cable to the NetTool.

⇒ Attach the wiremap adapter to the far end of the cable.

⇒ Power up NetTool. **AutoTest** flashes.

⇒ Press **Select**.

⇒ Highlight the Wiremap icon and press **Select**.

afq33s.bmp

⇒ If pin configuration checks out and there are no opens, shorts or split pairs, you can rule out the cable as the cause of a problem.

afq34s.bmp

6
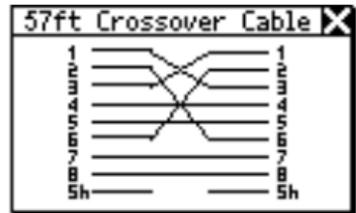
Service Identification

⇒ Plug one end of a cable into the RJ-45 jack on either side of NetTool and the other end into any RJ-45 wall jack.

⇒ Power up NetTool and select **AutoTest**. Doing so shows you what service is active on the jack. Based on voltage and other electrical characteristics of the port, NetTool can detect:

Telco: 📞 Shows the tip and ring pins.

⚠ **Caution**

Although NetTool can detect Telco signals, it is not designed to be used on the public telephone network. Disconnect immediately. NetTool cannot reliably discover Telco information with the AC adapter or serial cable connected. It also detects ISDN signals but cannot reliably detect the S/T interface.

Ethernet: Tells you if the jack is hot, what's on the other end (hub, switch, etc.), as well as the speed and duplex, level, and polarity. Also shows the segment ID so you can choose the right network (if there are multiple jacks).

Token Ring: Indicates the presence of a Token Ring network.
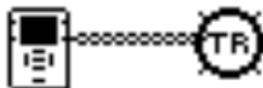
No Response: A dangling, flashing power cord Indicates that NetTool senses an Ethernet device but the device is not responding. This usually means the device is powered off.

Force Link: For a device that does not respond, NetTool enables the Force Link function and displays it as a menu choice below **AutoTest**. Select **Force Link** and NetTool attempts to force a connection with the device. Check the users manual for more information.
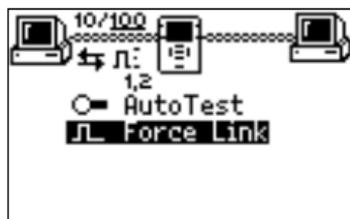
afq39s.bmp

Services Discovered

Servers
IP Servers (IP services discovered): DHCP, DNS, email (SMTP, POP, IMAP), Web (HTTP, HTTP proxy), WINS

NetWare Servers (IPX service types): Nearest File Server, File Server, NetWare Access Server, Time Synchronization Server, NetWare Directory Server (NDS), NetWare Management Server

NetBIOS Servers: Primary Domain controllers, Backup Domain controllers, Master Browsers

Routers
IP Routers: RIP, IGRP, EIGRP, OSPF, IRDP, RIP2

IPX routers: RIP

Printers
IP Printers - IP Printers, IP Print Spoolers

IPX Printers - IPX Print services

DLC Printers - Microsoft DLC, HP DLC

Inline Mode
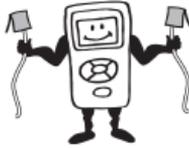
They say two ports are better than one…

Note

NetTool can't tell you about what it doesn't see. NetTool must sense traffic on a network or device so it can supply protocol or health information.

Inline means NetTool is connected between two devices simultaneously like a PC and hub. Use this mode to verify that a PC will communicate properly with the network.
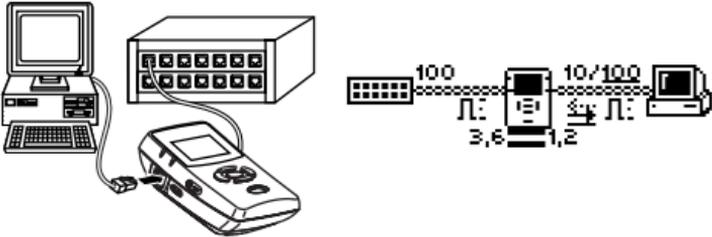
afq02f.eps

⇒ Plug NetTool inline between the PC and the network.

⇒ Power up the PC.

⇒ Select **AutoTest**. The example shown above is NetTool connected inline between a PC and a hub. The icons represent the discovered devices. Check *AutoTest* (page 19) for more on the icons.

9

So what?

⇒ Select the **PC** or **Hub** icon for more link
   configuration information, health, Segment ID, and
   for PCs−address and server information.

⚠ **Caution**
**Plugging NetTool inline with the same
device can produce side effects. For
example, if you plug NetTool into two
ports of the same switch, you risk
creating excessive traffic that weakens
network performance.**

Getting Acquainted
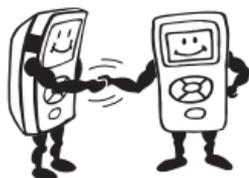
Skip this page if you have ever used a radio…

Batteries

Use four (4) AA size batteries (supplied PN 1560231) or the optional rechargeable batteries (PN 1572184) as shown (optional charger PN 1572191).
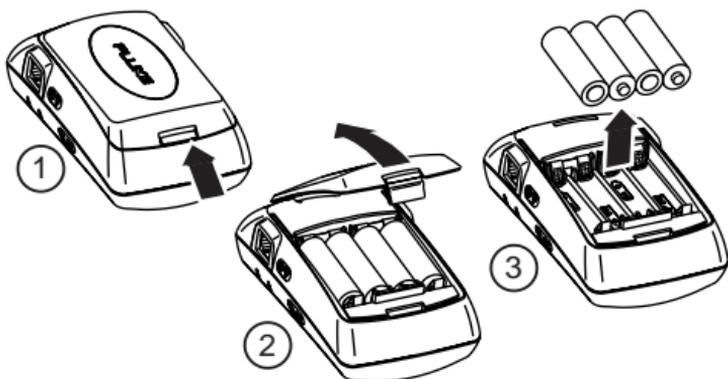

afq05f.eps

AC Adapter

The optional AC adapter (PN 1556346) can be used to power the unit and conserve battery power.

afq03f.eps

11
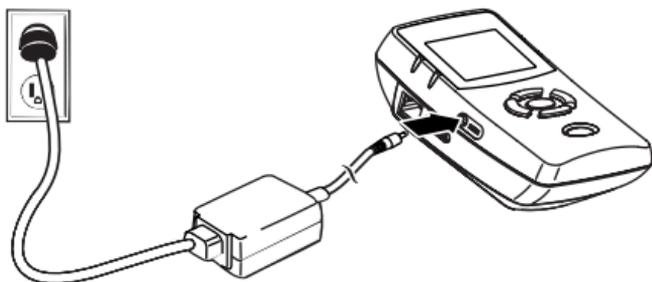
Buttons and Indicators

Press the buttons all you want. What you press won't hurt you or your network.

⇒ **Power** – press and hold for two seconds to turn on or off.

⇒ **Backlight** – After NetTool has power, you may turn on the *backlight* by simply pressing the power button once quickly. Turn it off by….*you guessed it*…pressing the **Power** button again.

Link, Collision, and Error LED

Utilization LED

Navigation Keys

Power

Select
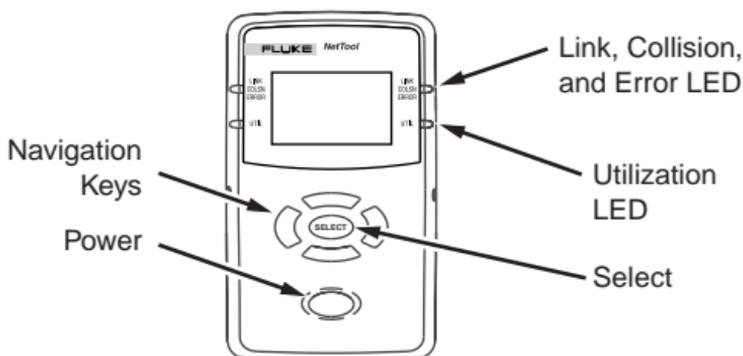
afq24f.eps

Navigation Buttons

⇒ After powering up NetTool, just press the buttons that make up the oval under the screen to highlight an icon or menu item that you wish to view (up, down, right, left). As you navigate, the highlighted area flashes.

afq25f.eps

⇒ Press **Select** (middle button) once to view an item and related screens.

⇒ Within a screen that is "scrollable," use the up and down key to scroll. Within a menu screen, the right button returns you to the ❎. The right and left buttons act as a page up (left) or page down

(right) if there there are more items to view. This applies to data screens not "scroll-select" screens."

$\Rightarrow$ Press the **Up** key to navigate to the ⊠ (top right) and press **Select** to close the current screen.

$\Rightarrow$ Certain screens also display a wrench 🔧 icon left of the ⊠. Select this icon to access the configuration screen for that function.

NetTool LED Indicators

NetTool has two tricolor LED indicators on each side to reflect link and health information at a glance.
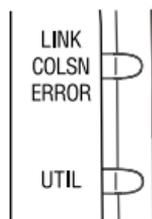
LINK/CLSN/ERR LED

Green = Link pulse present

Yellow = Collisions occurring

Red = Errors occurring

Utilization LED

The bottom tricolor LED (UTIL) indicates utilization percentages for each side.

Green = utilization levels below 40%

Yellow = levels between 40% and 70%

Red = levels greater than 70%

Serial Connection

Connecting NetTool to a PC via the customized serial cable (supplied PN 1541340) allows you to:

- Download software (read *NetTool Updates, etc.* on page 38 for details).

- Enable options.

- Save screens.

- Use NetTool Blaster and NetTool Toolkit programs supplied on the CD-ROM (check the *Reporter* and *Ping Catalog* sections).

afq26f.eps

NetTool Menus

*Just show me the dessert menu. Life is too short
not to order dessert first.*

There are two sets of menus to assist in
troubleshooting: **icons** on the top of the screen and the
main menu below the icons.
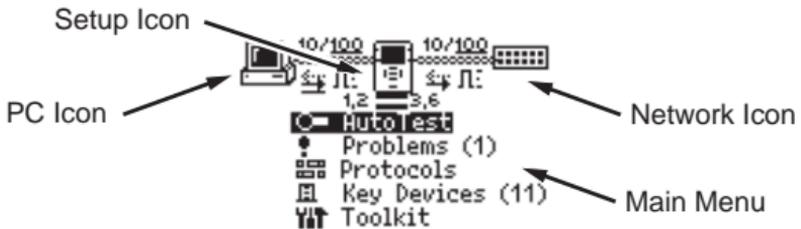
afq27f.eps

Selecting an icon takes you through menus
corresponding to the three elements of the connection:
PC, **NetTool** setup, and **Network**. The main menu
takes you through various discovery screens that reflect
NetTool's connection to devices.

Between the top area icons there are several indicators
that reflect link and cabling information as shown below.
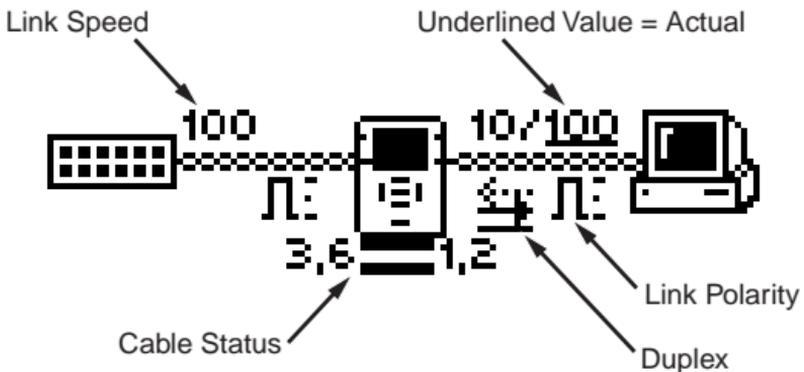
afq29f.eps

Duplex Settings:

⇄	= Full Duplex
⇄	= Half Duplex

NetTool displays duplex settings for each device, advertised or collision-determined. The underlinded indicator is the confirmed duplex and the non-underlined value is the advertised duplex. Duplex mismatches can impede communication between devices.

Link Level and Polarity: Polarity is displayed via waveform shaped icons.

⊓	Normal level, normal polarity
⊔	Normal level, reverse polarity
⊓	Low level, normal polarity
⊔	Low level, reverse polarity. Link level is displayed by the height of the waveform.

1,2 ▬ 3,6

3,6 ✕ 3,6 **Cable Status**: NetTool shows you the status of the cables connected to it and detects whether the cables are straight or swapped. If NetTool sees a swap cable problem, it will swap it internally, allowing you to troubleshoot past a simple swap cable problem.

15

NetTool Menus - PC

⇒ Connect NetTool to a PC and select the **PC** icon. The icon displays on the left or right, depending on where you connected the cable.

⇒ After the PC sends frames, you can scan the PC configuration by navigating through the menu. This view of the PC is invaluable in troubleshooting networked PCs.

```
🔲 Station          ✕
🔲 Link Config
🐛 Health
🖧 Protocols
⋮⋮ Addresses Used
🔲 Servers Used
```
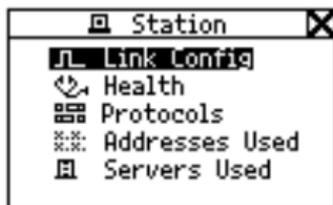
afq16s.bmp

Link Configuration ⊓

Hey there, what's your sign?

The link configuration screen provides the following key link information about the device to which NetTool is connected:

```
⊓ Link Config       ✕
Rx Pair: 1,2
Advertsd Spd: 10/100
Actual Spd: 100Mb
Level: ⊓ (5)
Polarity: Normal
Advertsd Duplex: Full
Actual Duplex: Half
```
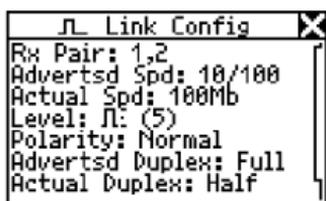
afq15s.bmp

Receive Pair   Polarity
Advertised Speed   Advertised Duplex
Actual Speed   Actual Duplex
Level

Health 🐛

Don't know why that PC seems a bit under the weather?

Check out the health of frames the PC has sent since you started **AutoTest** and isolate PC related problems.

```
🔲 🐛 Health        ✕
Frames: 66111
Broadcsts: 858 (1%)
Errors: 7 (1%)
FCS: 7 (1%)
Shorts: 0 (0%)
Jabbers: 0 (0%)
Collisions: 295 (1%)
```
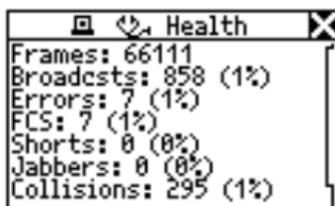
afq35s.bmp

Frames   Short Frames
Broadcasts   Jabbers
Errors   Collisions
FCS (Frame
Check Sum)

16
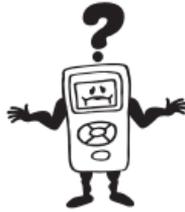
Protocols

Exactly what languages are these devices speaking to each other?

⇒ Select **Protocols** to view the protocols seen on the desktop or network. This can be very useful for finding configuration mismatches. The Protocols screen below shows such a mismatch (Apple protocol found on the network side but not on the PC side).

afq19s.bmp

afq20s.bmp

Select a protocol type you wish to see (IP, NetWare, etc.). NetTool lists the protocols and icons to indicate where the protocol is seen.

afq62s.bmp

You can also access the list of protocols for a device by highlighting and selecting that device. For example, highlight and select **PC** 🖥 as outlined in the PC menu section and you can then navigate to view protocols associated with the PC.

Addresses Used ⣿:

My name is, my name is…

NetTool displays the best-discovered name on the PC as well as the IP, IPX, MAC address of the PC. It also lists DHCP or automatic private IP address information.

```
⣿: Addresses Used    ✕
Dynamic IP config.
PC uses BootP/DHCP.
Lease:8Hrs 30Min
Best:MILLS2000
IP:129.196.196.078
Subnet:255.255.255.000
IPX:10:00010269745a
```

afq28s.bmp

Servers Used ▣

Shows the network resources the PC is using, including HTTP, SMTP, POP, WINS, Nearest NetWare, DHCP and DNS servers, as well as the gateway router.

```
▣  Servers Used      ✕
▣ ▥First Resp:
Best:DILBERT
IPX:10:00a0c96b77b2
Encap:802.3
MAC:00a0c96b77b2(Intel)

▣ DNS Server:
```

afq22s.bmp

NetTool Setup

Setup options enable you to modify the display and other parameters. From the main menu, select the **NetTool** (middle) icon to access the NetTool setup options.

```
┌──────────────────────────┐
│ ▥  NetTool            ✕  │
│ ⚒ Settings               │
│ 🖳 Unwanted Protocols     │
│ 🖾 IP Setup               │
│ ⚏ Ping List Editor       │
│ ⌨ Language               │
│ 🚺 About NetTool          │
└──────────────────────────┘
```
afq07s.bmp

NetTool Settings

Access **Settings** to:

```
┌──────────────────────────┐
│ ▥ ⚒ Settings         ✕  │
│ ☑Feet  □ Meters          │
│ ☑Auto Off                │
│ ◑ Contrast ◐             │
│ Set Time: 10:20:06       │
│ Set Date: 08/13/01       │
│ Restore Defaults         │
└──────────────────────────┘
```
afq42s.bmp

⇒ Check the battery level ▥. The battery level indicator displays while you navigate through Setup screens.

⇒ Select feet or meters.

⇒ Enable/disable **Auto Off**. If you leave the unit on without touching any keys for more than 10 minutes, **Auto Off** automatically shuts the unit down to save battery power.

⇒ Adjust the display contrast. Highlight ◑ and press **Select** to decrease contrast or ◐ to increase it.

⇒ **Set Time/Date…**Highlight each number comprising the time or date display and change each number individually using the up or down arrow key. Use the right or left arrow key to move the cursor over. Press **Select** after you change all the numbers. NetTool Time format is **HOUR:MINUTES:SECONDS**. Date format is **MONTH:DAY:YEAR**. The clock does not self-adjust for local time zone changes. NetTool Blaster also allows you to set the time for the NetTool and even synch it with the PC clock.

⇒ Select **Restore Defaults** to restore all factory settings. If you have not changed any settings, NetTool displays **Defaults Restored** and no action is required.

19
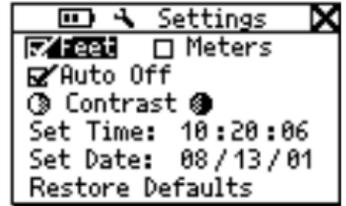
More NetTool Setup Options

Other setup options include:

> Unwanted Protocols
> IP Setup
> Ping List Editor
> Language
> About NetTool

```
┌─────────────────────────┐
│ ▥ NetTool            ✕  │
│ ⋏ Settings              │
│ ▤ Unwanted Protocols    │
│ ▨ IP Setup              │
│ ⋐ Ping List Editor      │
│ ♪》Language              │
│ ⚏ About NetTool         │
└─────────────────────────┘
```
afq59s.bmp

⇒ Select **Unwanted Protocols** to specify protocols
   that NetTool will warn you are present on the
   network. This helps in situations like a network-
   wide migration away from certain protocols. If
   NetTool sees them, it reports them in the Problem
   Log.

⇒ Choose **IP Setup** to configure your NetTool to
   ping (check the *IP Setup* section for details).

⇒ Access the **Ping List Editor** to view, edit, or add
   to lists of preset IP addresses that you have
   previously downloaded using NetTool Toolkit.

   The editor enables you to add to an existing list or
   edit an existing IP address within a list.
   Select one of the lists by highlighting the list name
   then pressing **Select**. Select **Add New Device** to
   add an IP address to that list. To edit an existing
   address, select it then change any of the octets
   within the address.

⇒ Choose **Language**. Select a language from the
   available choices.

⇒ View software and hardware details. Select
   About NetTool to view the serial number, MAC
   address, and revision information. Be sure to
   record the serial number and MAC address of your
   NetTool for future reference.

20

Network ![Network icon diagram]

Network Icon

⇒ Select the **Network** ![icon] icon to view network activity. The icon displays on the left or right depending on where you connected the cable.

  Link Config: (described in the PC section).

  Health: (described in the PC section).

  Protocols: (described in PC section).

  Segment ID: If there are multiple Ethernet drops, knowing the Segment ID tells you which jack to use for correct configuration.

```
┌──── Network ────────X┐     ┌── Segment ID ──────X┐
│ ⅃ Link Config        │     │IP Networks:         │
│ ↻ Health             │     │129.196.194.xxx      │
│ ▦ Protocols          │     │129.196.196.xxx      │
│ ∷ Segment ID         │     │                     │
│                      │     │IPX Encap:           │
│                      │     │802.3 802.2 EthII Snap│
│                      │     │IPX Networks:        │
└──────────────────────┘     └─────────────────────┘
```
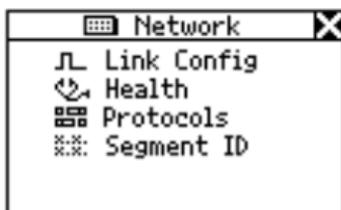
afq11s.bmp   afq21s.bmp

21
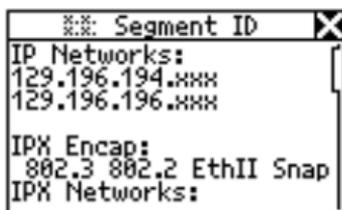
NetTool Main Menu

The main menu items are your starting point. View NetTool's discovery screens to resolve those daily connectivity battles you face.

AutoTest ▭▬

⇒ Select **AutoTest** so NetTool can discover what is connected to it. Both RJ-45 connections are searched independently and NetTool finds Telco, Token Ring, or Ethernet service. It also provides cable information when used for cable testing.


afq06s.bmp

22

Problems

Use NetTool. Solve problems. Get home on time. It's a beautiful thing.

⇒ Select **Problems** to view the Problem Log. The Problem Log provides a concise list of all problems detected, from physical layer to application layer problems.

afq18s.bmp   afq60s.bmp

You can think of problems fitting into two categories: **Link Connectivity** level and **Network** level. Read the online users manual for full descriptions of problems and troubleshooting tips. Check the table on the next page to see a full list of the icon descriptions.

In single-ended mode, NetTool can only report problems with **Unwanted Protocols** and link connectivity/health. Inline mode is required to discover other network and connectivity problems.

23

Problem Display

The problem display area consists of these elements from left to right: Problem Type, Problem Severity, Problem ID, and Problem Text.
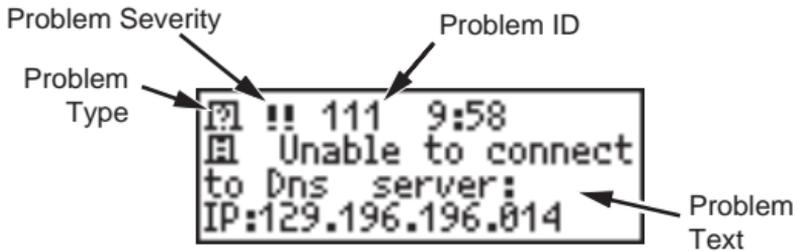
afq30f.eps

Problem type	Naming
	Health (Util)
	Server
	Host
	Cable
	Connectivity
	Link
	Configuration
	Network
Problem Severity	! Low !! Medium !!! High
Problem ID	A problem ID is associated with each problem that helps you reference the problem. Check the online Users Manual to see a text description linked with the numeric code.
Problem Text	This area contains a concise description of the problem found.

24

Link Connectivity Problems
- Speed mismatch
- Pair mismatch
- Duplex mismatch
- Polarity reversed
- Level low
- Transmit pair open

Network Problems

Health 🔧
- Short Frames received (also jabber/FCS).
- Excessive utilization seen (also collisions).

NetWare 🔳
- Ethernet frame-type mismatches.
- No nearest server replies seen on network.
- No first responder replies seen on network. Unable to configure PC network number.

TCP/IP
- Device using incorrect IP address and/or subnet masks.
- Router issued ICMP redirect. Hosts or devices using incorrect gateways/routers.
- PC using incorrect IP subnet mask.
- PC using incorrect IP address.
- Duplicate IP detected.

Host Configuration
- BootP/DHCP server not responding.
- DHCP server issuing IP address that causes duplicate IP on network.
- DHCP Server: xxx.xxx.xxx.xxx did not supply a default router IP address.
- DHCP Server: xxx.xxx.xxx.xxx did not supply a subnet mask.

Name Resolution

- No DNS server found on network to resolve names.
- DNS resolution failed.
- WINS resolution failed.
- Incorrect WINS server xxx.xxx.xxx.xxx configured on PC.
- No WINS server found on network to resolve names.
- Hosts unable to find WINS servers on network or network bounded by routers.
- PC WINS incorrect.
- Incorrect DNS server configured.

NetBIOS

- Incorrect Workgroup or Domain configured on PC.
- Unable to find Primary Domain Controller (PDC) for network.
- xxx.xxx.xxx.xxx causing duplicate NetBIOS name.
- PC involved in MB elections.

Web

- Unable to connect to HTTP/proxy server.

Misc

- Fluke device seen on network.

Email

- Unable to connect to mail server.
- Unable to connect to SMTP server.
- Unable to connect to POP2 server.
- Unable to connect to POP3 server.
- Unable to connect to IMAP server.

Printer

- Unable to connect to IP printer server.
- Unable to connect to IP print spool server.

Unwanted protocols (when enabled)

- NetBEUI detected.
- WINS detected.
- NetWare detected.
- PC involved in MB (master browser) elections.

Key Devices

Check this out!

⇒ Select **Key Devices** to view all the servers, routers, and printers NetTool has found on the network. NetTool always attempts to display the highest level address possible for that device, be it a NetBIOS name, DNS name, IP address or Mac address. This helps you determine which services or servers exist on the network.

afq14s.bmp
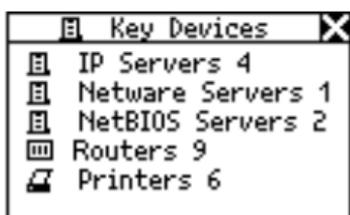
afq13s.bmp

Note

Devices are detected based on their Service Application Protocol (SAP). For NetWare (IPX), NetTool does not list any device five or more hops away.

28
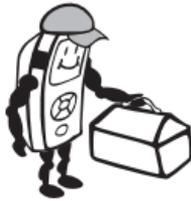
Toolkit

The right tools when you need them…

⇒ Select **Toolkit** to access the Ping, Health, and Reporter functions. These tools provide critical support for troubleshooting problems and documenting your work.

afq43s.bmp

afq44s.bmp

Note

Trial uses of the Ping and Reporter features are currently provided on all new units. Contact Fluke Networks to find out how to purchase an upgrade if your unit does not have these options.

Ping

Note

*The Ping option only works in single-ended mode. If you want to ping and are in inline mode you will see ⊘ Ping. Disconnect one of the RJ-45 cables from the NetTool and then rerun **AutoTest**.*

In order to use all of the functions of the Ping option, make sure you install the NetTool Toolkit software on your PC so NetTool can communicate with your PC via the serial connection.

IP Setup

⇒ Currently, by default "out-of-the-box," NetTool uses DHCP to configure itself. If you have DHCP on your network, there is no need to further configure NetTool.

⇒ Choose **Manual** or **DHCP** IP configuration by selecting the **IP Setup** icon (wrench) and aeeessing the IP Setup screen. You can also do this using NetTool's Setup function (see page X).

⇒ If you select **Manual** then go back to **DHCP**, the IP address is acquired after you select that option and any subsequent time you access the **IP Setup** screen. NetTool uses DHCP protocol to acquire an IP address then uses the address according to DHCP rules.

⇒ Selecting **Manual** configuration enables you to statically assign to your NetTool an IP address that complies with your network's addressing scheme. This applies if your network does not use DHCP or if you just prefer to manually configure it.

```
☒  IP Setup           ☒
□ DHCP    ☑ Manual
NetTool:129.196.196.078
Subnet: 255.255.000.000
Router: 129.196.000.001
```
afq48s.bmp

⇒ Select the address you wish to configure (example to the right shows NetTool IP address Edit screen).

```
      Edit             ☒
  NetTool IP Address
  129.196.196.00▮
   Select = Update
       ✗ = Cancel
```
afq47s.bmp

⇒ On the Edit screen use the up and down arrow keys to enter each number of the IP address one at a time (right and left arrow keys move the cursor over) until you enter the whole address.

⇒ Press **Select** after you have entered a valid IP address for your NetTool. NetTool then lists the updated address with the subnet and router IP addresses.

⇒ Enter the subnet mask and default router IP addresses in the same way to complete manual configuration.

Note

For manual configuration, make sure any IP address you assign to your NetTool is correct for the subnet you are on. You must also enter a valid subnet mask and default router IP address.

31

Pinging a Single Device

From the main menu select **Toolkit** then **Ping** to access NetTool's ping function. You can ping one IP address or a set (Ping Catalog) of addresses that you define using NetTool Toolkit.

⇒ To ping a single device, select **Add New Device**.

⇒ Enter the address and press **Select**.

NetTool pings the device and adds it to a running list (up to 10) of recently pinged devices. The IP address pinged longest ago will drop off the list after the tenth address. If you need to ping any address again, simply highlight it and press **Select**.

```
     ⤷ Ping        🔍⊠
 ➕ Add New Device
 💻 Ping Default Router
 💻 129.196.196.078
 💻 129.196.196.001
 💻 216.115.105.017
 💻 129.129.110.001
```
afq41s.bmp

```
        Edit        ⊠

      Add New Device
   19⬛.000.000.000

     Select = Update
        ✖ = Cancel
```
afq55s.bmp
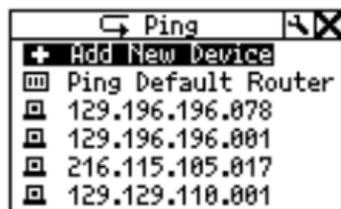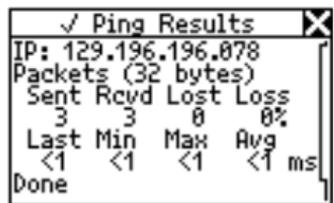
```
   √ Ping Results    ⊠
 IP: 129.196.196.078
 Packets (32 bytes)
 Sent Rcvd Lost Loss
   3    3    0    0%
 Last Min  Max  Avg
  <1   <1   <1   <1 ms
 Done
```
afq56s.bmp

Ping Catalog

The Ping Catalog function enables you to use lists of IP addresses grouped based on your network configuration. You create the grouping using NetTool Toolkit, the PC-based software that came with your purchase. You can keep lists of common groups of IP addresses (i.e., Marketing, Customer Support, First Floor, etc.). Check out the online help for NetTool Toolkit to learn how to set up and use the Ping List feature.

32

After defining and uploading the lists using NetTool Toolkit PC software, NetTool displays the catalogs using the names you gave them.

⇒ Select **Ping Catalog** from the **Toolkit** menu.

⇒ Select one of the catalogs by highlighting it then pressing **Select**.

> The list of IP addresses displays with a status icon to the left. Ping results display when you highlight and select one of the IP addresses.

⇒ To ping the list of IP addresses again highlight and select **Restart**.

⇒ Check *NetTool Setup* to see how to edit a list of addresses.
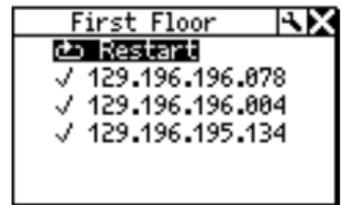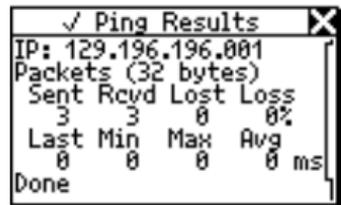
⧖	Running
√	Ping Complete
♦	Problem with the ping. Corresponds with the severity level of problems.
	! Low - one packet lost.
	!! Medium - two packets lost.
	!!! High - three packets lost or device not found.

33
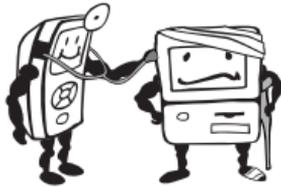
Health

Doctor, I have a pain in my network.

⇒ Select **Health** from the Toolkit menu to view the health of frames and to simultaneously check each side of the conversation for healthy frames in real time.
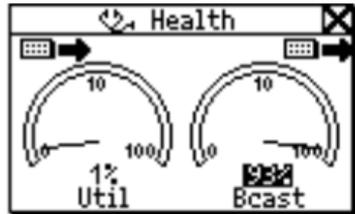
afq10s.bmp   afq08s.bmp

⇒ Use the navigational buttons and then press **Select** to change the meters to show utilization broadcast traffic, collision levels and errors coming from either device to which NetTool is connected.

⇒ You can highlight an item within the Health screen and press **Select** to change the view. For example, highlight the reading below a meter and press **Select** to view the data as frames per second or percentages.

Note

*If you exit the Health display and return later without powering down, NetTool displays the "last-saved" settings. If you power down NetTool while viewing the Health display, the readings will not be saved. Access Setup screen and select **Restore Defaults** to restore factory settings.*

34

Reporter

Get the facts...

> **Note**
>
> *To take full advantage of the Reporter function, the PC you use must be enabled to communicate properly with NetTool. Make sure you install and start the NetTool Blaster and NetTool Toolkit PC software that came with your purchase.*

The reporting feature of NetTool enables you to capture device (PC's, printers, etc) and network configuration data as needed for documenting your work. You can save up to 10 reports on NetTool and later transfer them to a PC using NetTool ToolKit.

Afq51s.bmp

Reporter helps you:

- Document configurations for groups of users (i.e., Customer Service, Marketing, Tech Support, etc.).

- Escalate trouble tickets (e.g., document a problem device).

- View and print data you gather related to setups, moves, adds, or changes.

After saving the reports, you can upload them to a PC for viewing, printing, and storage. NetTool Toolkit uses a pared down web browser to display report data after you have uploaded it. Read the help for NetTool Toolkit to learn more about Reporter.

35

Working with NetTool Reports

NetTool's **Reporter** option can save the current state of what NetTool detects on the PC (or other device) and the network and you can give that collected data a unique name.

⇒ Connect NetTool to the device(s) you are checking and select **AutoTest**.

⇒ Select **Toolkit** from the main menu.

⇒ Highlight **Reporter** and press **Select**.

⇒ To generate a new NetTool report, highlight and select an "empty" report.

⇒ Enter a name for the report by navigating to the **Comment** field and using the arrow keys to give the report a name useful for your purposes (up to 20 alphanumeric characters). If you press the up or down arrow key, you will be able to select:

Letters = A to Z
Numbers = 0 to 9
Special = . # - _ space

⇒ Press the right arrow key to enter additional characters and then press **Select** after you have enetered all desired characters.
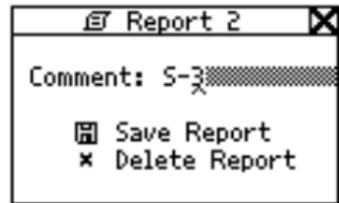
$\Rightarrow$ After you have entered a useful name for the report press **Select** and navigate to and select **Save Report** or **Delete Report**.

$\Rightarrow$ After you save reports (up to 10 can be stored on the NetTool), you can then use NetTool Toolkit to upload, view, or print the reports. NetTool Toolkit enables you to view saved reports or generate new "live" reports as long as your NetTool is properly connected to the PC.

$\Rightarrow$ From the Report list you can delete all reports in the list (**Delete All Reports**).

$\Rightarrow$ To delete a single report, select the report name from the list and then select (**Delete Report**).

$\Rightarrow$ You can also overwrite a report which updates the data contained in the report. Select the report you wish to overwrite and then select **Overwrite Report**.

Note

If you inadvertently give two reports the same name on NetTool, check the date/time stamp when you view the report to differentiate between them.

NetTool Updates, etc.
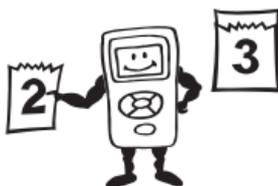
Don't miss out…

Get updates to NetTool software when they are released. To check the version you have, select the **NetTool** icon and then **About NetTool..**.

⇒ To find out if there is a new version avaialble, access **www.flukenetworks.com** and navigate to the software update page. Follow the instructions to see if a newer software download file is listed.

⇒ To update your NetTool, download the file from the website to your local PC. Use the supplied serial cable as shown. Follow the instructions contained on the next page and the online help for NetTool Blaster to update your NetTool.
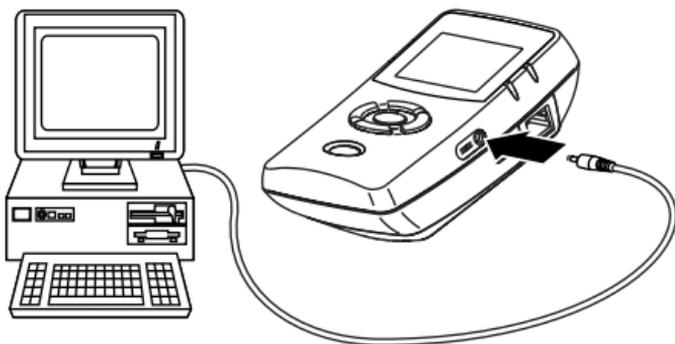
afq04f.eps

NetTool™ Blaster

What would we do without a little software in our lives?

Updating NetTool is a simple process that requires you to run the update program that came on CD-ROM or from the web.

⇒ If you received the upgrade on CD-ROM, follow the instructions on the screen to install the NetTool Blaster! program.

⇒ If you downloaded the upgrade from the web, run the self-extracting upgrade program to install the newer version.

⇒ After installing and starting NetTool Blaster!, select **Help** from the top menu and follow the instructions to update your NetTool.

NetTool™ Toolkit

NetTool Toolkit is another PC software program that enables you make full use of two great options on NetTool: Ping and Reporter.

⇒ Toolkit installs on your PC as part of the installation of NetTool Blaster and becomes another menu choice under **Start | Programs | Fluke Networks | NetTool Blaster…** The PC you use should be the PC you intend to use to for the Reporter and Ping features. Select **Help** from the top menu of Toolkit and follow the instructions to use Ping and Reporter.

Limited Warranty and Limitation of Liability

See the NetTool Users Manual on your NetTool CD for warranty information.