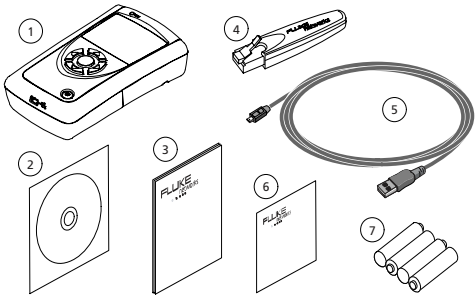


## Welcome

Thank you for purchasing Fluke Networks LinkRunner Pro! This test tool enables you to quickly check the network, test a cable, or PING.

## What's in the box?

Item	
1. LinkRunner Pro	
2. LinkRunner Connect CD	
3. Quick Reference Guide	
4. Wireview™ Office Locator #1	
5. USB-A – USB-B Mini Cable	
6. Registration Card	
7. Batteries (4 AA)	

**Test Equipment  
Depot**  
1-800-517-8431

99 Washington Street  
Melrose, MA 02176  
Phone 781-665-1400  
Toll Free 1-800-517-8431



Visit us at [www.TestEquipmentDepot.com](http://www.TestEquipmentDepot.com)

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## Cleaning

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To prevent moisture from entering the LinkRunner Pro, clean it with a moist cloth only. Do not use organic solvents, acid, or alkali solutions.

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## Safety Information

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



NOT FOR CONNECTION TO PUBLIC TELEPHONE SYSTEMS



PLEASE READ MANUAL FOR SAFETY



CANADIAN STANDARDS ASSOCIATION CERTIFIED TO CANADIAN AND US STANDARDS

### 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.
- Do not operate the product around explosive gas, vapor or dust.
- No serviceable parts. Do not try to service.
- If this product is used in a manner not specified by the manufacturer, the protection provided by the product may be impaired.

### Cautions

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

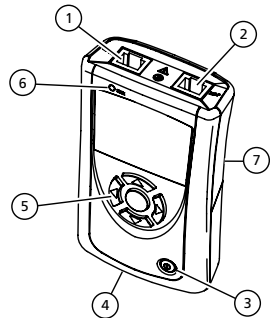
- Use the proper terminals and cable for all connections.

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## External Features - Connections, Buttons, and the LED

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1. RJ-45 LAN port
2. RJ-45 MAP port (cable testing)
3. Power Button
  - Power off* – press and hold
  - Backlight* – press once briefly
4. USB port
5. Selection buttons
  - *Up/Down* arrows navigate the selections and adjust values
  - *Left/Right* arrows show additional information and “select” to edit
  - *Select* center button to edit a selection or toggle a value
6. Link indicator LED
7. Kensington lock (location on back of LinkRunner Pro)



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## Count on LinkRunner Pro for Answers!

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First connect an RJ-45 cable from the network hub or wall plate to the LinkRunner Pro LAN port. Check the following list of questions and associated answers to see how LinkRunner Pro can help you get the job done.

### Common Questions

- Is this a good cable?
  - use open cable testing and a Wireview™ Office Locator
- Where does this cable go?
  - use toner function or Wireview™ Office Locator
- Is this cable hooked up to anything?
  - use Home screen
- Is this an active Ethernet port?
  - use Home screen, check for Link and frame utilization
- What speed/duplex is this device configured for?
  - use Home screen, check speed/duplex
- Can I establish Gigabit link to the network?
  - use Home screen, check for speed
- Can I DHCP?
  - configure LinkRunner Pro for DHCP, check for link and PING
- Can I see traffic from this connection?
  - use Home screen
- Is the PC NIC OK?
  - use Home screen, check for Link
- Can I PING?
  - use PING screen
- Do I have network connectivity?
  - use PING (Router, DNS, DHCP and custom list)
- What slot and port am I on?
  - use LLDP, CDP, EDP

## Navigation



Home screen – Displays link, speed/duplex, length, utilization, security authentication (802.1X, PoE, Telco, Token Ring, un-terminated cable) and wire map information.

**PING**

PING screen – Displays (scrolling from left to right) a Tx/Rx summary of all devices to the right which will include: the Router, DHCP, DNS, and each user configured IP address.






LLDP (IEEE), EPD (Extreme Networks), CDP (CISCO) screen – Displays the switch type, slot, and port number the LinkRunner Pro is connected to (up to 5 devices).



Flash Hub Port screen – Causes the LinkRunner Pro to continuously link and unlink at a selected speed. This is useful when identifying which port LinkRunner Pro is connected to. Use LLDP/EDP/CDP test first if your network supports it.



Toner screen – Generates a digital tone (IntelliTone) signal , or two different analog tone signals  (400 Hz) and  (1 KHz) to be used with Fluke Networks IntelliTone product or common analog probes.

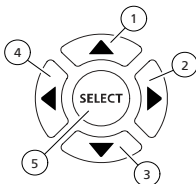


Reports screen – Allows you to save up to 8 reports. Each report contains a summary of the Home screen, PING screen, and LLDP, EDP, CDP screen. The reports must be viewed on the LinkRunner Connect PC application.



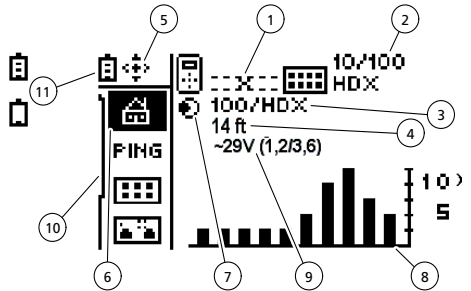
Configuration screen – Multiple menu functions are accessed in this screen. The configuration screen accesses: the LinkRunner Pro version information; cable length units (feet or meters); DHCP selection (or manually enter the IP address and subnet mask); enter up to 10 PING addresses; enable options; edit or delete reports; perform a firmware update; or exit back to the Home screen. See the Configuration section for details.

1. Scroll up thru the functions
2. Scroll right within a function
3. Scroll down thru the functions
4. Scroll left within a function
5. Select a function

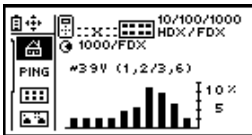


## Is this an active Ethernet port?

- Cable/Link Status:
  - Straight patch
  - X— Crossover patch
  - ::: Unknown patch (Auto-MDIX port on hub or switch)
  - ! Link Level (displays when low)
- Advertised speed/duplex
- Actual link speed/duplex
- Cable length from LinkRunner Pro to cable end or device
- Navigation arrows. Indicates which buttons are active.
- Highlighted function is the active function. While a function is active, you may scroll to other functions. Press the center button to select a new function.
- Activity indicator.
- Network Utilization. After 10% Utilization, scale changes to 100%.
- PoE voltage
- Scroll bar
- Batteries low and batteries good

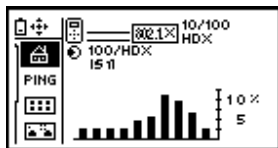


### Home screen – Link Information and Wire Map functions

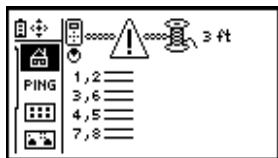


The Home screen displays link or wire map information depending on the connection. If the RJ-45 Ethernet cable is connected from the RJ-45 LAN port to your network, LinkRunner Pro will display link information which will include link, speed/duplex, cable length to the nearest switch, and utilization.

If LinkRunner Pro detects PoE, this screen will display PoE information. Notice the PoE voltage and wire pairs are displayed.

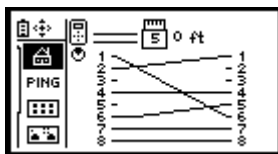


This screen is displayed if LinkRunner Pro has successfully linked, and 802.1X has been detected and authenticated.



- Good cable
- Unknown cable
- Split cable
- Shorted cable

Open cable - If the RJ-45 Ethernet cable is not connected to the RJ-45 MAP port on the LinkRunner Pro, a Wireview™ Office Locator, or your network, LinkRunner Pro will display cable information.



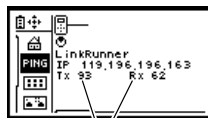
If the RJ-45 Ethernet cable is connected from the RJ-45 LAN port to the RJ-45 MAP port (or to a Wireview™ Office Locator), LinkRunner Pro will display wire map information which includes length, open, shorts, and wire pair mapping.

### Additional Home Screen Messages

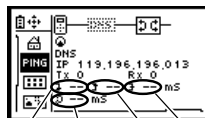
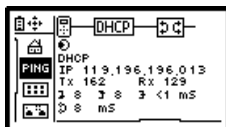
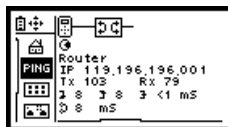
LinkRunner Pro is discovering		LinkRunner Pro is discovering/authenticating 802.1X	
Detected 802.1X, but failed to authenticate		Detected 802.1X, but LinkRunner Pro is not configured for 802.1X	
Un-powered Device		Token Ring	
Telco			

## PING Ping screen

The PING function contains several screens that are accessed by scrolling to the right. The first PING screen displays a Tx/Rx summary of the Router, DHCP, and DNS PING results plus any IP addresses setup in the Configuration screen. As you scroll to the right, the PING provides details on the Router, DHCP, DNS and up to 10 additional IP addresses are displayed as shown below.




Summary

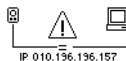


Minimum  
Round trip time  
Maximum of last packet  
Average  
Time in milliseconds

The 10 additional IP addresses are entered in the Configuration screen, or by using the LinkRunner Connect PC application and downloading them via a provided USB cable to the LinkRunner Pro.

**Note:** If configured for DHCP, and the DHCP server cannot be found, Ping will display .

Duplicate IP addresses found is as follows:



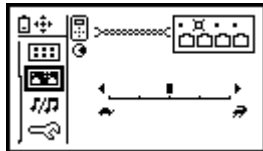
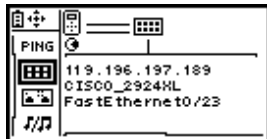
See the configuration  for procedures to setup PING IP addresses.

## LLDP, CDP, EDP screen

The LLDP, CDP, EDP function displays the switch address (MAC for LLDP, IP for CDP, MAC for EDP), switch name, and slot/port information for any protocol that can be discovered. The first switch discovered is displayed first. Up to 5 switches can be displayed and are accessed by scrolling to the right. If none can be discovered, use Flash Hub Port to discover the switch slot/port information.

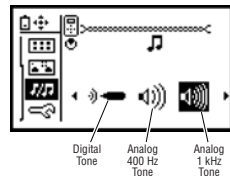
## Flash Hub Port Screen

The Flash Hub Port function will negotiate link and then unlink at a selected speed allowing you to locate a corresponding switch slot/port by its flashing LED. The slide bar determines the speed. To the right is faster (rabbit); to the left is slower (turtle).



## IntelliTone screen


This function can be paired up with the Fluke Networks IntelliTone™ Probe. It allows you to use LinkRunner Pro as the tone generation device along with the IntelliTone Probe to trace connections using either a digital tone (Fluke Networks IntelliTone™), or two different analog tones.



## Saving Reports

Allows you to save the report summary information which contains the current Home screen, PING screen, and LLDP, EDP, CDP screen. Saved reports must be viewed on a PC using the LinkRunner Connect application. Make sure LinkRunner Pro is connected to a PC using the provided USB cable.

*To save a report:* Highlight the Report symbol and press the selection button. Use the left/right arrow keys to select which report number/name to save the summary information to (default names are Report1 – Report8 which can be edited), and press the selection button again.

 report empty     report saved



## Configuration screen

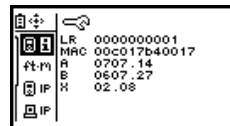
The Configuration screen accesses multiple functions: It will display LinkRunner Pro version information, MAC address, along with the serial number. It allows you to change the cable length measurements from feet to meters, to use DHCP or manually enter the LinkRunner Pro IP address, enter up to 10 IP addresses to PING, and to enable options.

To avoid a duplicate IP address on your network, use DHCP instead of manually entering the IP address.

Use the supplied LinkRunner Connect PC application to easily enter the PING IP addresses to LinkRunner Pro thru the supplied USB cable.

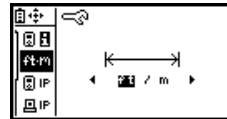
## LinkRunner information screen

Displays LinkRunner Pro's serial number, MAC number, and software version numbers.



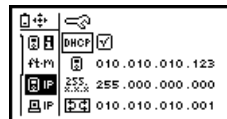
### Cable test unit selection screen

Select the cable length units as either feet or meters. Use the right arrow key to toggle units and the center button to save.




### LinkRunner IP address

Allows user to configure DHCP or use manual IP, Mask, and Router addresses. To manually enter the IP address, uncheck DHCP using the left/right arrow keys to check and uncheck the check box. Then, using the down arrow key, move down to the IP address. Press the selection button (center). Move right to each digit (by using the right arrow key) and use the up/down arrow keys to select each digit value. Keep doing this until the IP address is entered. Press the center button to save the information. Use the same procedure as above to edit the Mask and Router information.



### Ping IP address entry

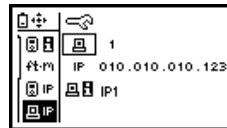
Allows you to enter up to 10 PING IP addresses. When you enter the PING screen, each address will get pinged. You may also use the LinkRunner Connect PC application to enter the IP addresses, then using the supplied USB cable, download the IP addresses to LinkRunner Pro.

*Selecting the IP number/name to edit:* When  is highlighted, press the selection button (center). Use the up/down arrow keys to choose the IP number and the selection button to select it. Notice at the bottom of the display, the IP name changes as you scroll thru the 10 IP numbers. By default the names are IP1 – IP10.

*Editing the IP address to PING:* Then, using the down arrow key, move down to the IP address. Press the selection button (center). To enter an IP address, move right to each digit (by using the right arrow key) and use the up/down arrow keys to select each digit value. Keep doing this until the IP address is entered, then press the selection button to save.

*Editing the IP name:* Press the down arrow key to move the cursor to the IP name field. Press the selection button (center). To enter an IP name, move right to each character (by using the right arrow key) and use the up/down arrow keys to select each character. Keep doing this until the IP name is entered and then press the selection button.

To exit out of the PING IP address configuration, press the left arrow key.



## Option Key entry


Allows you to enable options by entering the purchased option key code. Presently, 802.1X and Reports are a bundled option which can be enabled.

*To enable an option:* Press the selection button to get into the options menu. Press the selection button and use the up/down arrow keys to choose the key digit. Use the right arrow key to move to each key digit. Press the selection button to enter the completed key code. Then press the left arrow key to exit. A successfully enabled option will be indicated by a check mark as shown here.



## Reports Edit/Erase

Allows you to edit/erase up to 8 reports. Each report contains a summary of the Home screen, PING screen, and LLDP, EDP, CDP screen. The reports must be viewed on the LinkRunner Connect PC application.

*Selecting the report name/number to edit:* When  is highlighted, press the selection button (center). Use the up/down arrow keys to choose the report number and the selection button to select it. Notice at the bottom of the display, the report name changes as you scroll thru the 8 report numbers. By default the names are Report1 – Report8.

*Editing the report name:* Using the down arrow key, move down to the report name. Press the selection button (center). To edit the report name, move right to each character (by using the right arrow key) and use the up/down arrow keys to select each character value. Keep doing this until the report name is entered, then press the selection button.

*Erasing a report:* Using the down arrow key, move down to erase the report. Press the selection button (center) and the report is erased. Erased or empty reports have no lines in the symbol.

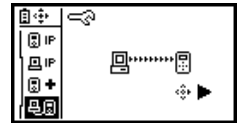




## Firmware update

Allows you to download the latest LinkRunner Pro firmware through the LinkRunner Connect PC application. Firmware updates can be downloaded from [www.flukenetworks.com/linkrunnerpro](http://www.flukenetworks.com/linkrunnerpro). Navigate to the LinkRunner Pro product page and follow the links for downloads and updates.

Press the right arrow to update. Use the LinkRunner Connect PC application to download the update files.



Exits out of Configuration menu and back to the Home screen.

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## Other Features

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**Auto-off:** unit powers off after 5 minutes of inactivity (auto-off disabled during ping or cable locate tasks).

**Restore Factory Defaults:** Press the left and right arrow keys while powering up the unit.

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## Accessories

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### Accessories

IntelliTone Pro Toner Probe (receiver)  
Wireview™ Office Locator (ID #1)  
Wireview™ Office Locator (IDs # 2-6)  
Clip Set  
RJ-45 Coupler

### Part No.

MT-8200-63A  
WIREVIEW 1  
WIREVIEW 2-6  
CLIP-SET  
CIQ-RJA

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Media Access  
Cable Tests

10BASE-T, 100BASE-TX, 1000BASE-T (IEEE 802.3), and PoE (IEEE 802.3af)  
Pair lengths, opens, shorts, splits, crossed, straight through, WireView cable ID

Tone Generator	IntelliTone digital tone: [500 KHz] Analog tones: [400Hz, 1KHz]
UI Interface	B&W, 2"x 1" display, Link LED
UI Control / Data Entry	Five push-buttons for selection of icons and navigation of menus
Power Button	On/Off
Ports	(2) RJ45s: network test port, loop-back wire map port
Application Port	Mini-USB
Battery	4 AA batteries
Physical Security	Kensington Lock
Warranty	One year



[Back to the LinkRunner Product Info Page](#)



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## Mechanical Electrical Specifications

Weight	10 oz. with 4 AA Alkaline batteries 8.4 oz. with 4 AA LI batteries
Dimensions	5.3" height x 3.1" width x 1.3" depth 13.3cm height x 8cm width x 3.2cm depth
RJ-45 Network Port	Designed to withstand a maximum of 100V

## Security

Operational Security	IEEE 802.1X option for network authentication
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## Environment Specifications

Operating Temperature	10 – 40 degrees C
Storage Temperature	-20 to 60 degrees C
Operating Humidity	95% relative humidity (non-condensing)
Vibration Requirements	Meets requirements for MIL-PRF-28800F for Class 2 random vibration
Connection To Public Telephone Network	Should never be connected to the public telephone network

## Agency Certification and Approval



Canadian Standards Association certified to Canadian and US standards



N10140

Meets C-Tick EMC standard, N10140,  
complies with FCC Part 15 Class A



Conforms to European Union Directives Pollution Degree 2

Test Equipment Depot - 800.517.8431 - 99 Washington Street Melrose, MA 02176