

Introducing CableIQ

Qualification Tester

- **The first cabling bandwidth tester for network technicians**
 - Troubleshoots **connectivity problems caused by insufficient bandwidth**
 - Qualifies **existing cabling for 10/100BASE-T, VoIP, and Gig**



Physical Highlights

Large graphical display gives crystal clear results

Navigation buttons make learning easy

Powerful backlight

Dial interface means always knowing selected mode

Wiremap adapter doubles as protective end-cap

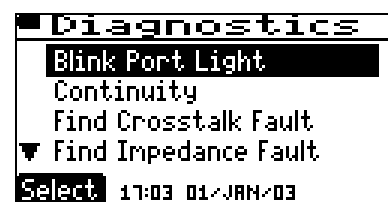
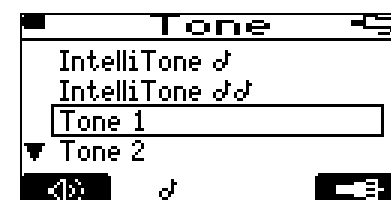
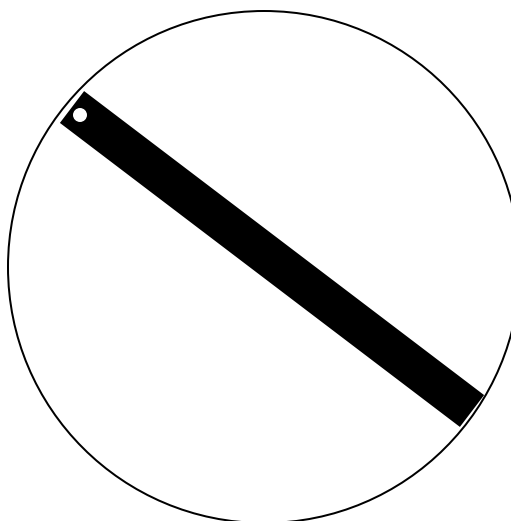
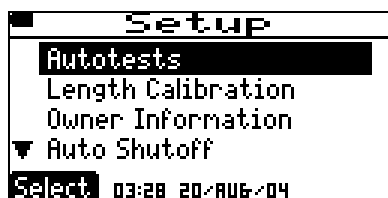
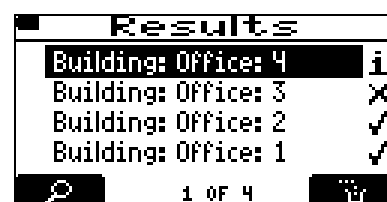
Protective boot makes it durable and attractive

Test button provides cabling bandwidth in four seconds

USB port for uploading qualification tests

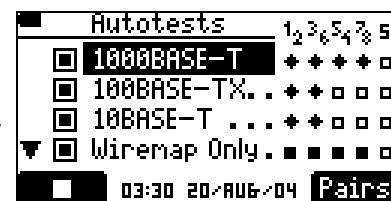
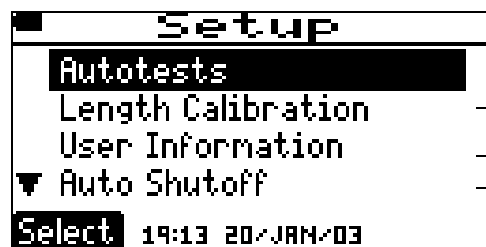


CableIQ Major Modes



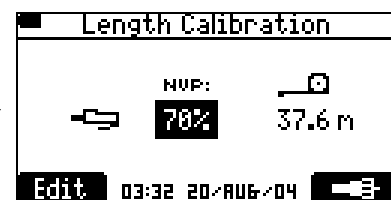
Setup Functions

Basic Instrument Settings

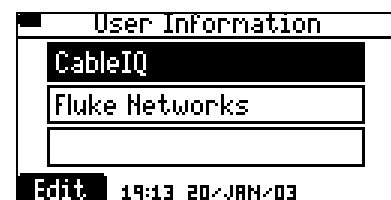


Enable/Disable Autotest and Pairs to test

1000BASE-T, 100BASE-TX
10BASE-T, VoIP, TELCO
Wiremap Only (Verify),
Coax



Set or Learn NVP



User or Site info to be included in report



Enable / Disable Auto Shutoff

Setup Functions (Cont)

```

Setup
├─ Speaker
│  └─ Language / ft-m
│     └─ Time / Date
│        └─ Factory Settings
│           └─ Select 00:25 12/JAN/03

```

```

Speaker
Speakers: On
Edit 00:21 12/JAN/03

```

Enable / Disable
Unit Sounds

```

Language / ft-m
Language: English
Units: Meters
Edit 03:35 20/AUG/04

```

Select Language:

English, French, German, Ital.
Spanish, Port, Japanese

Units: meter / feet

```

Time / Date
19:20
DAY MONTH YEAR
20 / JAN / 2003
Edit

```

Set time and date

24 hr time

```

Factory Settings
Set Unit Factory
Autotest and NVP
Settings?
Yes 00:24 12/JAN/03 No

```

Return Autotest and NVPs
Settings to factory default

```

Setup
├─ Language / ft-m
│  └─ Time / Date
│     └─ Factory Settings
│        └─ Version Information
│           └─ Select 00:26 12/JAN/03

```

```

Version Information
SN: 00000006
SW: V0.03.00
HW: V1.12
HW Date: 19/AUG/2004
03:37 20/AUG/04

```

Unit Version information

Autotest with Far End Adapter Allows Full Qualification

Quick Link to change Autotest Setup

Top Autotest Screen

List of enabled test

Overall Results

CID Enter

Summary Result for selected test

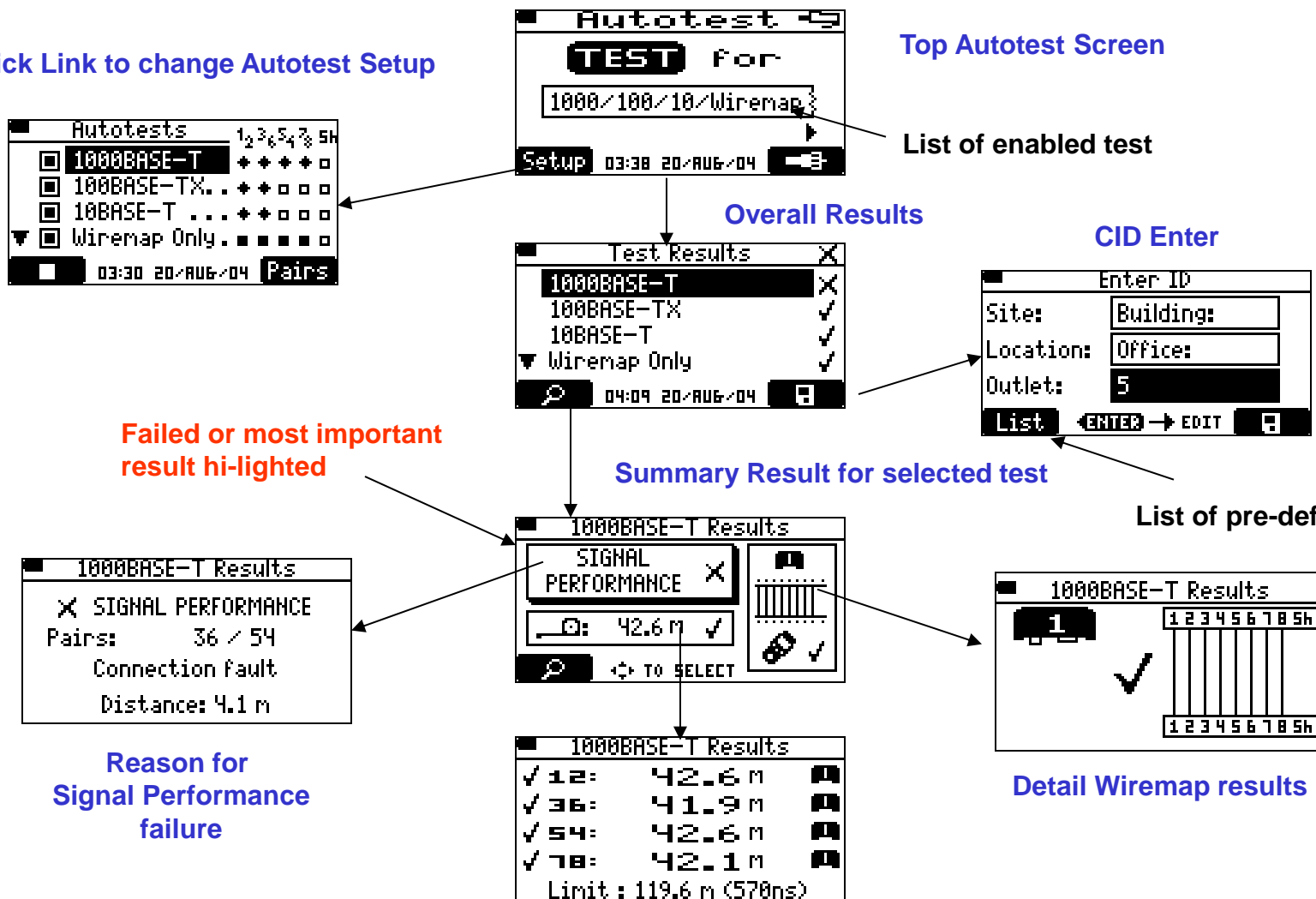
List of pre-defined names

Failed or most important
result hi-lighted

Reason for
Signal Performance
failure

Detail Wiremap results

Detail Pairs length and pair termination

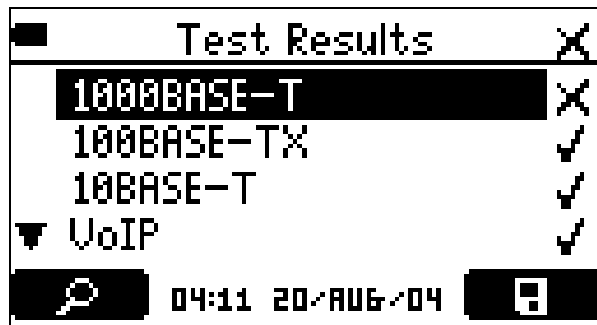
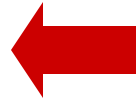


Bandwidth Qualification



Setup Qualification Test

Select speeds and technologies to be included in qualification test

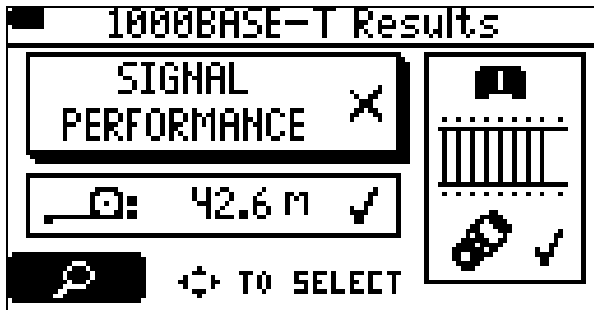


View results

Check marks indicate which speeds and technologies the tested link qualifies to run

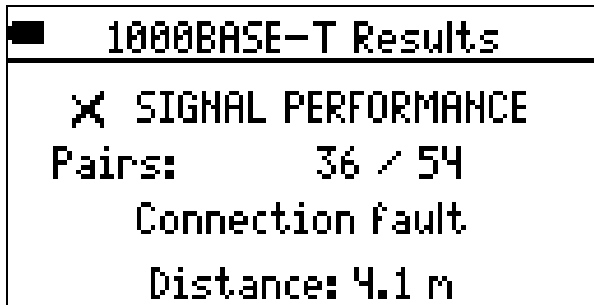


Cable Troubleshooting



Why didn't it qualify

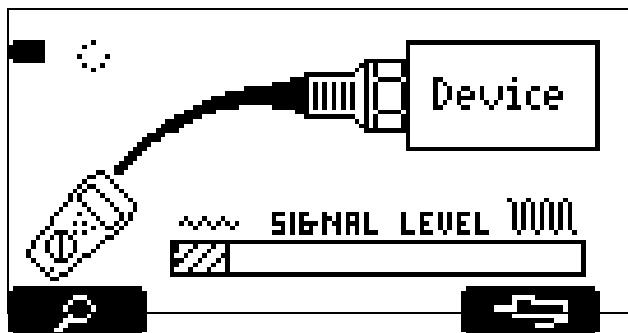
Drill down on qualification
test components to find
reason for failure



Find performance fault

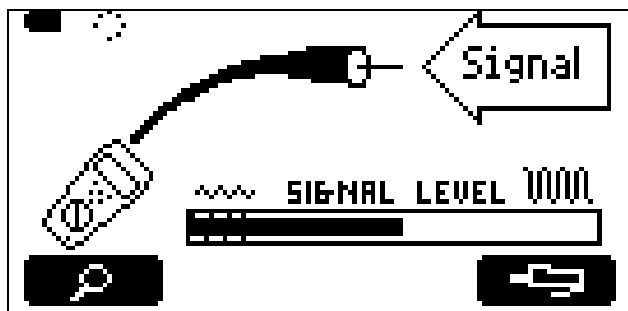
Drill down further to see
distance to performance
fault

Coax Video Testing



Detect a coax device

Plug into any coax outlet
and verify a device at the
far end

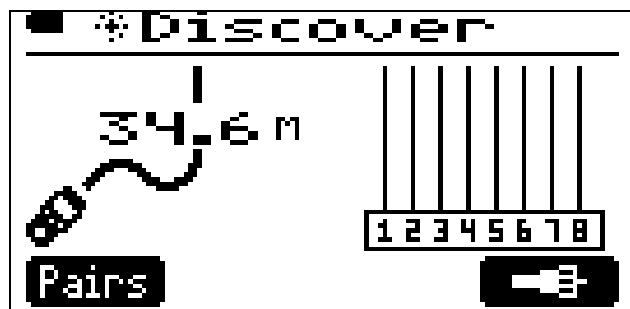


Verify signal

A bar graph display shows
whether signal level is low,
medium, or high

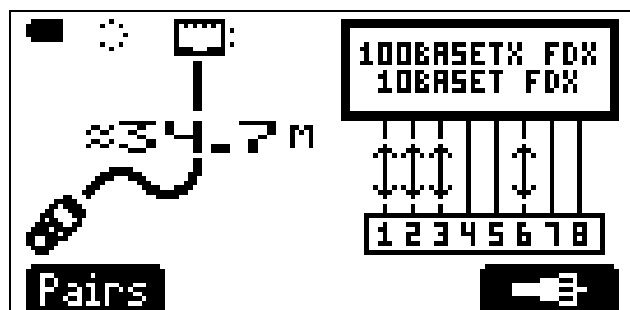
Mid approx. 10dBmV (normal)
Low approx. 1 dBmV

Infrastructure Discovery



Open link

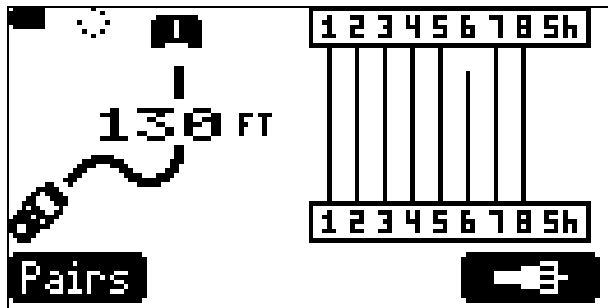
Plug into any cable, wall jack, or patch panel to see where cable leads



Far end device

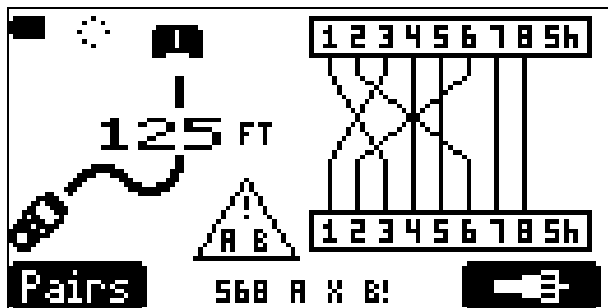
Detect connected devices and see speed/duplex settings

Intelligent Wiremapping



Open pin at far end

Proportionally-correct pin lengths indicate location of breaks

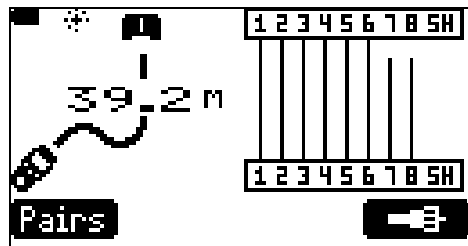


568A/B cross

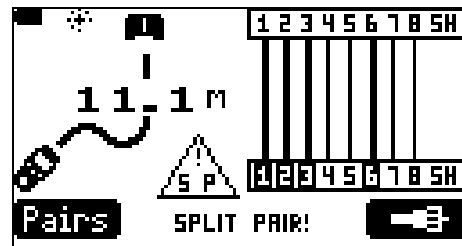
CableIQ's intuitive interface makes detecting common wiring faults easy

Other TWP Wiremap Functionality

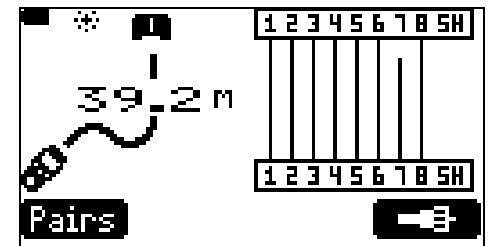
Proportional Drawing on wiremap immediately shows where the problem is



Split Pair Detection



Wire Based Mapping shows Single Wire Faults



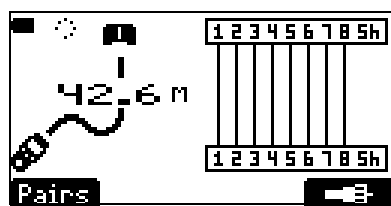
Press Pairs to see details of length and termination of each pair

#	Pairs	
12:	39.6m	1
36:	39.2m	1
45:	39.7m	1
78:	34.6m	1

TWP Discover Finds What is at the End

Wiremap Adapter

Length and map

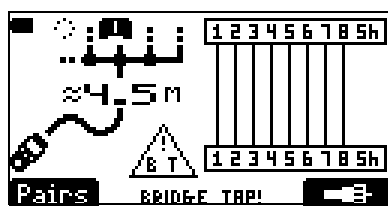


	Pairs	
12:	43.1m	⬮
36:	42.6m	⬮
54:	43.1m	⬮
78:	42.7m	⬮

Wiremap Adapter

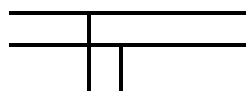
Wiremap Adapter with Bridge Tap

Distance to BT and map



	Pairs	
12:	4.3m	⬮
36:	4.3m	⬮
45:	4.3m	⬮
78:	4.4m	⬮

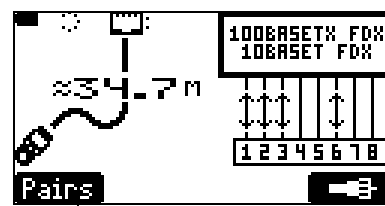
Bridge Tap Termination Condition



Bridge Tap Common in
phone wiring

Active Ethernet Port

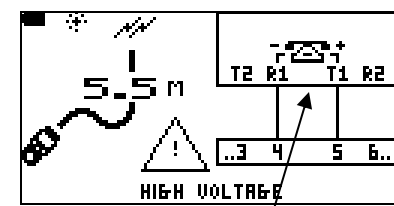
Port capability and
distance to port



	Pairs	
12:	---m	⬮
36:	---m	⬮
45:	12.3m	⬮
78:	12.6m	⬮

Pairs 12 and 36 are terminated
45 and 78 are shorted in Port

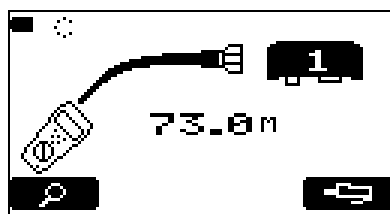
Live Phone Line



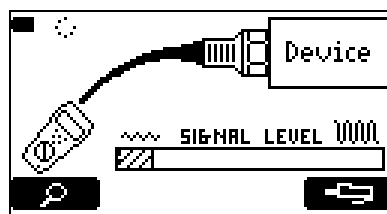
45 is detected as the
Active Phone Line

Coax Discover Finds What is at the End

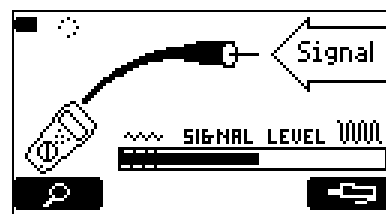
Coax attached to
Wiremap Adapter



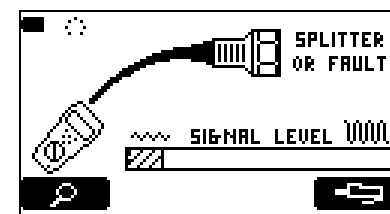
Coax attached to something:
TV, Antenna, etc



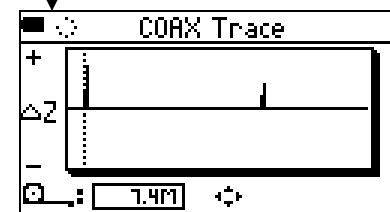
Live RF Cable
Signal Detected



A significant fault or
possible splitter is detected

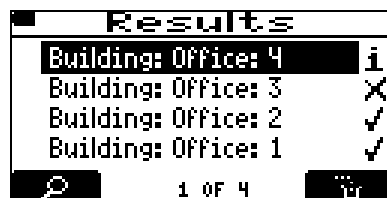


Use Coax Trace Function
to view TDR results

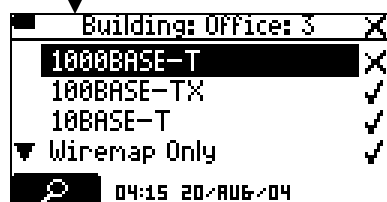


Results Viewing

Viewing stored Results
screens similar to
Autotest Results



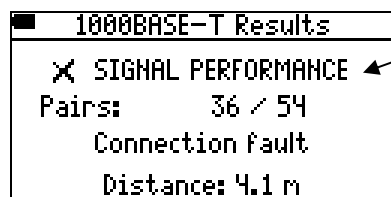
Delete Selected or
All Stored Tests



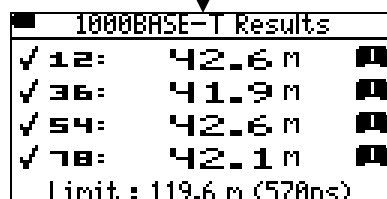
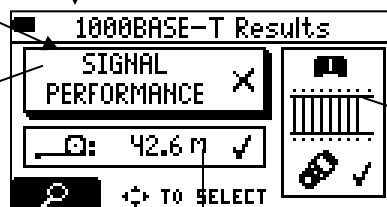
Overall Results

Failed or most important
result hi-lighted

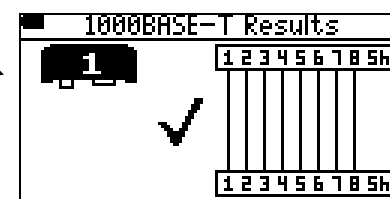
Summary Result for selected test



Reason for Signal Performance failure



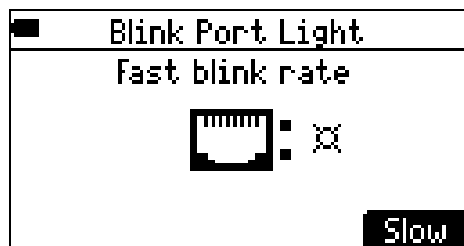
Detail Pairs length and pair termination



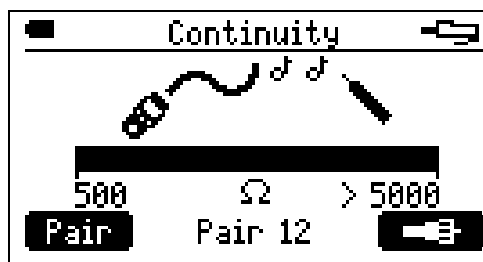
Detail Wiremap results

Diagnostic Functions

- Blink Port Light
- Continuity
- Find NEXT Fault
- Find Impedance Fault
- Speaker Test



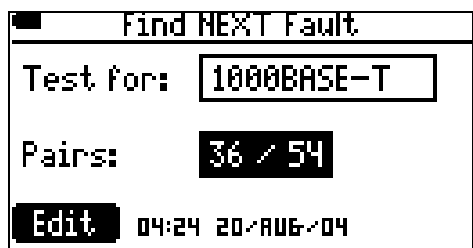
Blinks the port activity light and analog tones to aid locating the port.
Does not function with ports configured for non-negotiation (fixed rate).



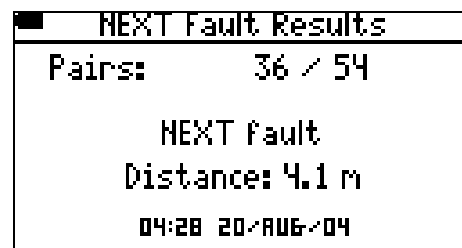
Analog Tones while measuring continuity.
Tone frequency and rate is a function of measured resistance. Bar graph provides indication of resistance between 500 and 5000 ohms

Diagnostic Mode Cont.

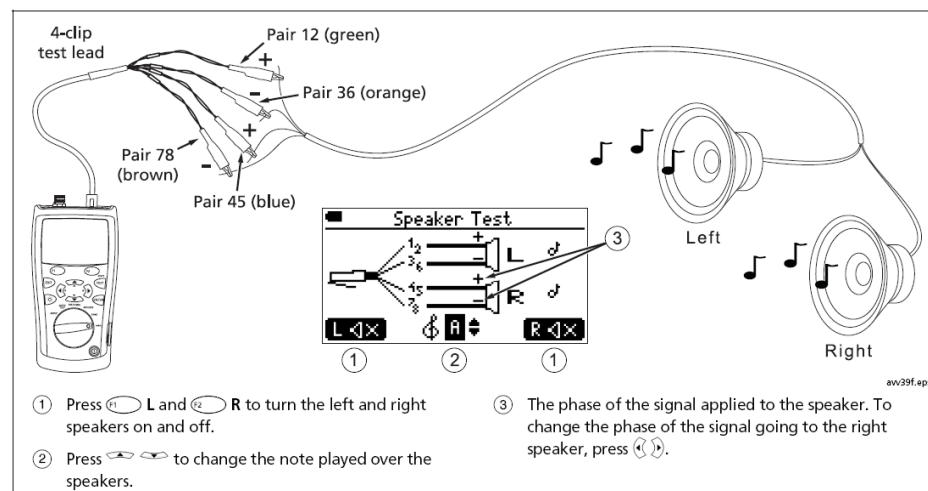
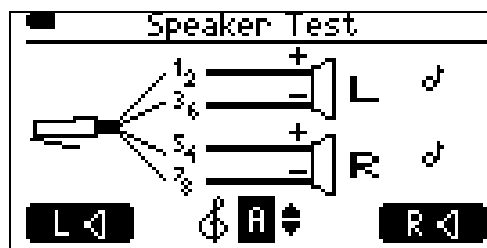
Find NEXT and Impedance Fault



TEST



If the cable fails, Find NEXT and Impedance Fault identify fault type and location.
Fault types are point (generally connectors) or distributed (generally cable)



User can check speakers with a simple audio test.
Left / Right speaker and phasing controls allow easy checkout.
Use speaker adapter cable between CableIQ and speaker wiring.