Paladin Tools®

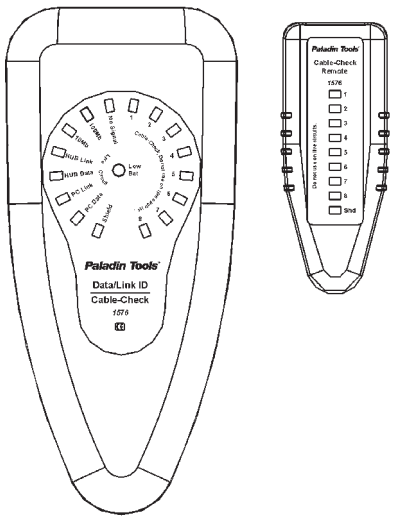
Operating Instructions

Data/Link I.D. & Cable-Check™
1576

Function

This handy unit is a multi-purpose continuity tester and network identifier.

- Continuity tester for UTP, STP and flat satin cables with RJ45 terminations
- Tests both data and telephone connection schemes including patch cords and installed cables to identify good connections, opens, shorts and cross-connections
- Identifies data and link transmission speeds with real time detection: 100 MB and 10 MB
- Detects PC (NIC) and HUB data transmissions and PC (NIC) and HUB NLP or FLP link pulse



Features and Benefits

- Identifies cross-over telephone connections
- Multi-purpose tester at an affordable price
- Two scan speeds: slow or fast
- 9-volt battery included
- Low battery detection on LAN ID
- Two (2) RJ45 shielded patch cords included
- Contained in a durable nylon carrying case with belt loop

Technical

Weight	12 oz. (34 g.)
Main Unit Dim.	5.50" L x 2.54" W x 1.61" D
	140 mm x 64.5 mm x 41 mm
Remote Unit Dim.	2.93" L x 1.13" W x 0.86" D
	74.4 mm x 28.7 mm x 21.9 mm
Output (Main Unit)	9Vdc Nominal at 10mA max.
Connection Type	RJ45 UTP or STP Modular Plug
Battery	9Vdc NEDA 1604, JIS 006P, IEC 6LR61
Battery Life	15 hours continuous use
Max. Cable Length	Cable Mapper: 1650' (500m)
	Online PC/Hub: 150' (46m)*
	Online PC/Hub: 450' (137m)**

* when testing both sides at Hub and PC
** when testing only at one end near Hub or PC (NIC)

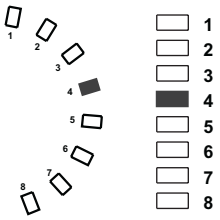
Testing Cables for Pin-out Wiring Configuration (Cable Mapping):

*** DO NOT USE ON LIVE CIRCUITS**

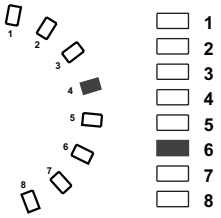
1. To test local patch cables, connect one end of the RJ45 cable between the "Out" socket located on the top of the main test unit, and the other end to the remote.
2. To test installed cables, attach one end of a RJ45 patch cord to the "Out" socket and the other end to the wall jack. Attach the remote unit to the wall jack or hub at the opposite end of the cable run using the other patch cord.
3. Turn the main unit "off/ID/map" switch to the "map" position. Select the "fast" or "slow" scan speed using the speed switch located on the side of the main test unit.
4. Read the lights for pins 1 through 8, and shield on the main unit and remote to determine connections through the cable.
5. Refer to test examples to determine cable faults.

Installed Cable Testing

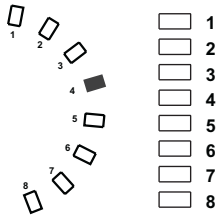
Good Connection
Pin 4-to-Pin 4



Cross Connection
Pin 4-to-Pin 6



Open Connection
Pin 4



NOTES:

Sample Test Results:

Remote Light Sequence	Cable Fault
1 2 3 4 5 6 7 8 S	None, cable wired correctly
2 1 3 4 5 6 7 8 S	Conductors 1 & 2 reversed
1 2 & 3 2 & 3 4 5 6 7 8 S	Conductors 2 & 3 are shorted
1 2 3 - 5 6 7 8 S	Conductor 4 is open
1 2 4 3 6 5 7 8 S	Pair 3/6 is transposed with pair 4/5
1 2 3 7 5 6 4 8 S	Conductors 4 & 7 are switched
1 2 3 4 5 6 7 8 -	Shield is open

Testing PC (NIC) and HUB for data, transmission speed, or link:

*** WARNING: LIVE CIRCUIT TESTING - USE CAUTION**

1. Insert RJ45 patch cable into the "In" socket on the main unit. Connect the other end to the PC (NIC) or HUB.
2. Turn the main unit "off/ID/map" switch to the "ID" position.
3. To monitor data, link, and operating speed of HUB and PC (NIC) simultaneously, connect a patch cable between the tester RJ45 "In" to the PC (NIC), and connect the HUB to the tester RJ45 "Out" connectors. These connections can also be reversed to perform the same function for online monitoring of the complete network.
4. Light indications for test results are as follows:

Light Indication	Network Identification
PC Link + 100 Mb	A PC link with a 100 Mbyte transmission speed is detected
PC Link + 10 Mb	A PC link with a 10 Mbyte transmission speed is detected
HUB Link + 100 Mb	A HUB link with a 100 Mbyte transmission speed is detected
HUB Link + 10 Mb	A HUB link with a 10 Mbyte transmission speed is detected
PC Data + 100 Mb	PC (NIC) data transmission of 100 Mbyte is detected
PC Data + 10 Mb	PC (NIC) data transmission of 10 Mbyte is detected
PC Data + 100 Mb + HUB Data	PC (NIC) data transmission of 100 Mbyte is detected with HUB data transmission occurring
PC Data + 10 Mb + HUB Data	PC (NIC) data transmission of 10 Mbyte is detected with HUB data transmission occurring
HUB Data + 100 Mb	HUB data transmission of 100 Mbyte is detected
HUB Data + 10 Mb	HUB data transmission of 10 Mbyte is detected
No Signal	No signal present on any lines. Network is not communicating.
No Signal + 10Mb + HUB Link	A linking operation is taking place from the HUB or switch
No Signal + 100Mb + HUB Link	A linking operation is taking place from the HUB or switch