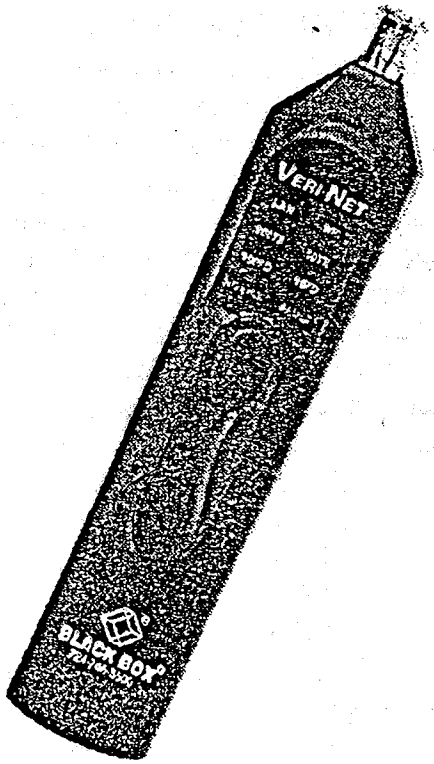
SAFETY

The Veri-Net has internal circuit protection to prevent damage if plugged into typical telephone circuits. The protection circuit can withstand 48Vdc from a source impedance of 600 ohms for 15 seconds. When connected to an unknown RJ-45 port and testing shows a "NO LINK" condition, the unit should be disconnected within 15 seconds.

APRIL 1998
TS022A

VERI-NET Link Tester



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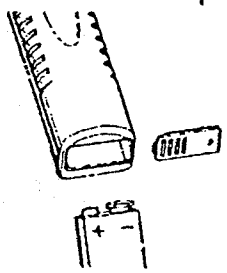
BOX CONTENTS

- Veri-Net Link Tester
- 9 Volt Alkaline Battery
- RJ-45 Coupler
- User Guide

BATTERY

The Veri-Net operates on one 9 volt alkaline battery.



Remove the battery cover at the bottom of the unit and insert the battery with the terminal orientation as shown. Battery polarity is marked on the back of the battery cover and inside the battery well for reference.

TECHNICAL OVERVIEW

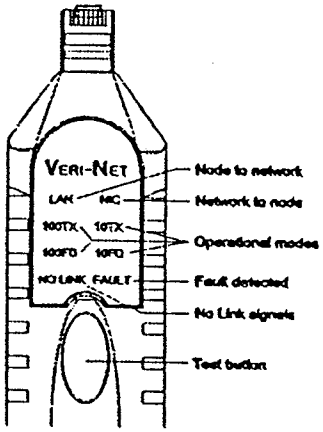
The IEEE 802.3u Standard for 100BaseTX (Fast Ethernet) requires LAN equipment to use a signaling system to establish a Link between two devices called Link Partners. Standard Ethernet uses a single Normal Link Pulse to establish the Link. Fast Ethernet equipment (and some recent 10baseT products) use a burst of Fast Link Pulses(FLPs) to transmit a Link Code Word defining the configured capabilities of the device and to report faults . If both Link Partners have Auto-negotiation capability, a Link is established based on the following priority:

1. 100BaseTX Full Duplex
2. 100BaseT4
3. 100BaseTX Half Duplex
4. 10BaseT Full Duplex
5. 10BaseT Half Duplex

The IEEE 802.3u Standard does *not* require Fast Ethernet equipment to support Auto-negotiation or more than one 100baseT mode of operation. New and installed equipment can have different levels of support for Fast Ethernet features. Additionally, these features can be manually configured during installation or operation. The Veri-Net detects and decodes the Link signals on Standard and Fast Ethernet networks and displays the equipment configuration and reported faults. The Veri-Net does not test 100BaseT4.

OPERATION

Insert the Veri-Net plug end in to the RJ-45 port of a hub, switch, network interface card, wall outlet, or attach to a UTP or STP cable with the RJ-45 coupler and press the "TEST" button. The first wire pair (from node to network) is scanned for two seconds. If Link signals are detected, the indicator(s) for the operational modes or fault condition are illuminated and testing is complete. When no signals are detected, the unit scans the second wire pair (from network to node) for two seconds. Link signals are decoded and the indicator(s) for the modes or fault are lit. If no signals are detected, the "NO LINK" indicator is illuminated.



When two or more operational mode indicators are activated, the Link being tested is capable of Auto-negotiating to the highest common level of operation when a Link Partner is installed.

The Veri-Net detects Links with incorrectly installed reversed polarity pairs and displays "NO LINK" for this condition.

APPLICATIONS

Network Planning - Identify capabilities of installed equipment for LAN upgrades without opening the case.
Installation - Verify physical layer connectivity to the far end. Testing should be run from each end of a Link to verify two way continuity.
Trouble Calls - Reduce troubleshooting time by ensuring the Link is active and no faults are detected.
Moves, Adds and Changes - Verify Link is operating after punching down new connections.
Network Management - Test current configuration of installed equipment to determine if features or modes have been configured manually.