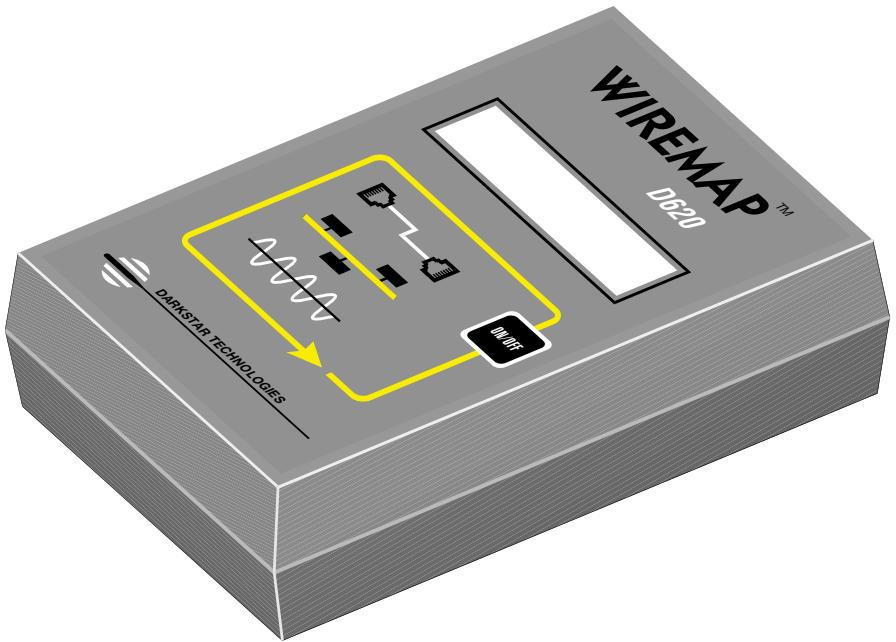


WIREMAP D620

3-Way LAN Tester

GUIDE TO OPERATION



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Features

The WireMap 620 was created to greatly simplify the work of installers, technicians and administrators who support 10/100 Mbit ethernet LANs. The 620 is affordable, easy-to-use and its unique set of features makes it a valuable addition to everyone's tool kit. In addition to testing your LAN cables for correct termination, the 620 will display link and traffic information and can act as a toner for cable identification.

The 620 supports link & traffic testing for 10BASE-T and 100BASE-TX networks and will test continuity of any UTP, STP, or FTP cable using RJ-45 connectors. It was designed primarily for ethernet systems using CAT5, CAT5e and CAT6 cables but can also be used to check telco and Token Ring cables.

Operation

All of the WireMap's functions are automatic. Simply press the ON/OFF button on the front panel to activate the 620 and begin testing. If you see a LOW BATTERY message at any time, then simply replace the 9-volt alkaline battery in the rear of the main unit.

LINK & TRAFFIC checks are performed continuously. The WireMap will try to establish link with any ethernet hub or switch. The 620 supports 10 Mbit, 100 Mbit and auto-negotiation. If a link partner is detected, the tester will display information about the speed and duplex status of the link and will then display the relative traffic load in the form of a bar graph. If you connect to a switch port, you will usually see only broadcast traffic since the network would not be addressing any data to the tester itself.

Note: "Ambiguous duplex" is a problem that arises from the fact that the duplex setting of a non-auto port cannot be known by the link partner. The WireMap will clearly indicate whether a port is auto-negotiating or not.

Note: The WireMap 620 expects to be connected to a hub or a switch and will only get link with a NIC card in a computer if you use a "cross over" cable.

WIREMAPS are performed continuously if the 620's remote unit is seen at the other end of the cable. In this mode, the tester will first check for shorts, then opens, then check for correct wiring sequence and finally will check for the presence of split pairs. The results of these tests are displayed continuously on the LCD as long as the remote unit is connected. Good "straight through" and "cross over" ethernet cables are identified for you in order to save time. Only ethernet cables with no other faults will be tested for split pairs.

Note: A “split-pair” fault is created when twisted pairs are incorrectly terminated. The DC continuity of the cable can still be correct and the pair fault can only be detected using a near-end crosstalk or NEXT measurement. The 620 does all this for you before it declares a cable to be good. Cables with split pairs may still function in a 10BASE-T system but will definitely cause problems in 100 Mbit systems and can cause faulty auto-negotiation.

Note: The WireMap’s beeper functions as follows:

- 1 Beep = Any mode change
- 2 Beeps = Power related message
- 3 Beeps = Cable fault or link error
- 4 Beeps = Self-test failure

Here are some wiremap display examples for a few common cable types:

FAR	12345678 S
NEAR	12345678 S

Normal STP cable

FAR	12345678
NEAR	12345678 S

Normal UTP cable

FAR	123 6
NEAR	12345678 S

Ethernet Pairs Only

FAR	36145278
NEAR	12345678 S

Ethernet “Cross Over” cable

SHORTS DETECTED	
12**	5678 S

Shorted Cable
* means digits flashing

FAR	21345678 S
NEAR	12345678 S

Reversed Pair

SPLITS DETECTED	
**	45*78 S

Split-Pair Fault
* means digits flashing

FAR	3456 S
NEAR	3456 S

Token Ring Pairs Only

Any pairs that are shorted or split will be indicated as such and the wires/pairs involved will flash. The beeper will also sound to alert you to the cable fault.

THE TONER feature is activated automatically if neither a link partner nor the remote unit is detected. The 620 then sends an alternating tone on all four pairs and shield which allows you to trace open cables using any standard inductive probe/amplifier. While in this mode, the tester will periodically check for link and remote unit at the other end of the cable. Note that the 620 will only tone open cables that have no shorted wires. If the 620 is turned on but left unconnected, it will shut off automatically after approximately 10 minutes to conserve battery life.

Specifications

Power Requirement	9-volt alkaline battery
Main Unit	3.6 X 5.75 X 1.3 inches 9.1 X 14.6 X 3.3 centimeters
Remote Unit	2.3 X 2.4 X 1.0 inches 5.9 X 6.4 X 2.6 centimeters
Shipping Weight	1 lb / .45 kg
Operating Temperature	0 to 45 degrees centigrade non-condensing
User Interface	Single pushbutton control 2 X 16 LCD display Audible Beeper
Cable Interface	Any UTP, STP, or FTP using RJ-45 Including CAT5, CAT5e and CAT6 Ethernet, Token Ring, Telecom
LANs Supported	10BASE-T 100BASE-TX Auto-negotiating devices as per IEEE 802.3u
Cable Test Limit	200 meters
Link Test Limit	100 meters

Technical Assistance

Customer support is obtained through the distributor from which you purchased your tester. If you still have problems or cannot locate your distributor, you may reach us via fax at (765) 775-4073 or via our website at:

www.wiremap.com/

Warranty

Darkstar Technologies warrants its products against defects in materials or workmanship for a period of one year from the date of purchase. Any product that is returned shipping prepaid will be inspected and tested, and items meeting warranty conditions will be repaired or replaced free of charge. Please contact your distributor if repair or replacement is required.