

# Appendix A

## Specifications

### Network connectors

RJ45 and BNC

### Cable length measurement

Coax cable length .....	20 – 4000 ft. (6 – 1219 m)
UTP cable length .....	20 – 2000 ft. (6 – 610 m)
Accuracy .....	$\pm(2 \text{ ft.} + 3\% + \text{NVP uncertainty})$ 20 - 4000 ft. (6 - 1219m)
Resolution .....	2 ft. (0.61 m)

### Calibrate cable NVP

Minimum length .....	50 ft. (15.2 m)
Range .....	0.50 c – 0.99 c

### Cable faults

Fault types .....	shorts, opens, 3 intermediate impedance anomalies
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#### Fault reflections threshold

User selectable .....	4 – 10%
Defaults .....	7 – 12%, intermediate anomaly over 12%, short or open (end of cable)

**Termination (coax only)**

Range ..... 40 – 120Ω

Accuracy ..... ±10Ω

**Characteristic Cable Impedance**Range ..... 40 – 120Ω (coax)  
75 – 180Ω (twisted pair)

Accuracy ..... ±10Ω

**Loopback Attenuation (twisted pair only)**Frequency range ..... 5 – 10 MHz sweep in 100 kHz steps,  
10 – 20 MHz sweep in 200 kHz steps

Measurement range..... 0 – 24 dB

Accuracy ..... ±2 dB

**Idle Channel Impulse Noise**Counts above user-selected  
threshold limit..... >260 mV, 0.2/sec max.**Near-end crosstalk**Frequency range ..... 5 – 10 MHz sweep in 100 kHz steps,  
10 – 20 MHz sweep in 200 kHz steps

Measurement range..... 0 – 48 dB

Accuracy ..... ±2 dB

**Wire mapping**

Detects:

Miswired pairs

Shorted pairs

Crossed pairs

Split Pairs (during NEXT)

Shorts

Opens

Reverse polarity

**Active channel monitoring (Ethernet only)****Parameters monitored**

% Utilization (1 second interval)

% Collisions (1 second interval)

Peak traffic (1 second intervals)

Peak utilization (20 msec interval)

Packet rate

**Other features**

Link indicator

Simulate link pulse to activate hub

Reverse polarity detect for 10BaseT testing

Continuous bar graph indicates activity

Jabber detect (traffic &gt;20 msec.)

**Input protection**Withstands continuous 56 VDC applied through 400  
ohms (telco loop).Withstands 175 V peak, 20 – 60 Hz through 100 ohms su-  
perimposed on 56 VDC for 100 ms (telco ringing).

Audible and display alarms on overvoltage fault.

## Nonvolatile CMOS memory

Cable types.....	16
Cable test results.....	500
Network utilization traffic report .....	1
Backup .....	lithium battery
Current setup parameters are saved	

## Print test results

Types of reports .....	traffic results, cable test results
Test identification .....	4 digit address selected by operator during Save operation

## Printer interface

Interface type .....	RS-232 serial
Connector.....	DB9P
Configuration.....	DTE
Data rate.....	1,200 – 19,000 baud, user selectable
Format.....	8 bits, no parity, 2 stop bits (8 N 2)
Flow control.....	CTS, DTR signals supported

## Display

4 line LCD with 16 characters per line

## Power

Main unit.....	9 VDC, 300 mA min. (500mA European version) plug-in power supply, or two 9 volt alkaline batteries (battery life 8 hours min., typical use)
Remote unit.....	one 9 volt alkaline battery

## Size

Main unit.....	1.7"×4.0"×7.6" (4.3×10.2×19.3 cm)
Remote unit.....	1.0"×2.4"×3.75" (2.5×6.1×9.53 cm)

## Environment

Operating .....	32 – 104°F (0 – 40°C)
Storage .....	-4 – 140°F (-20 – 60°C)
Humidity .....	10 – 90%, noncondensing

## Accessory Items

Your LANcat kit contains the following:

RJ45 Remote Unit

(2) 24" RJ45-RJ45 patch cables

(2) 24" RJ45 clip lead cables

36" BNC to BNC cable (50 $\Omega$ )

BNC tee

BNC terminator

printer cable DB9S to DB25P

(3) 9 volt alkaline batteries

AC adapter (either 115 VAC, 60 Hz or 230 VAC,  
50 Hz version is included)

padded carrying case for LANcat 1800,  
Remote Unit, and all accessories

User Manual