To activate, locate the main unit at the wall jack or any other location that leads to closet / server room.

(Tone Generator menu) (PORTfinder menu)

Sending its signals until ↑ is selected.

Bulk cable length measurement

To measure the length of bulk cable

1. To peel off the cable jacket of the Green/ Green white wires.
2. Use the attached cable in the package. (RJ45 plug to two alligator clip).
3. Plug one end of RJ45 to the Main unit and another end of two alligator clips, Green clips to the Green wire and White clips to the Green white wire.
4. Test the cable length.

Hints:

1. You can select a cable which length was known and over 10 Meters for cable calibration before the test.
2. Using the alligator clips will cause the test result to have a 5% inaccuracy rate.

WARNING:

- Store the tester in the original package is recommended.
- Do not expose the unit to extreme humidity, high temperature or direct sunlight.
- Do not open the unit or attempt to repair it, this will void the warranty.

DAMAGE CAUSED BY INAPPORPRIATE USE OF THE DEVICE WILL NOT BE COVERED BY THE WARRANTY.

Contact your distributor/retailer for service or warranty. LANSmart products are covered by 1-year Manufacture Limited Warranty with original proves of purchase.

Authorized Distributor/Retailer:

Part Number: _____

Serial No.: _____

Date of purchase. : _____

Introduction

The LANsmart (Time Domain Reflectometers) is a hand-held, digital, multifunction Network Cable Tester and Cable Length Meter. The LANsmart incorporates a tone generator and auto negotiation PortFinder, with LCD displays the results in a pin-to-pin format; it identifies most common cable wiring faults including split pairs. LANsmart technology provides much more accuracy to measuring cable length and locating problems from either end of a cable.

LANsmart is compact, ergonomic, and easy to operate. Its advance functionalities and versatility make LANsmart an ALL-IN-ONE tester suitable for professional technicians or installers.

Features:

- Incorporates TDR (Time Domain Reflectometers) Technology.
- Tests for shorts, opens, miswires, reversals, split pairs, and shield continuity.
- Incorporates PORTfinder function to locate corresponding sockets on hub/switch.
- Measures length on UTP and STP twisted pair of cable without remotes.
- Has Velocity of Propagation Adjustable Calibrate ability for non-standard cables to increase measuring accuracy.
- Locates problems in both meter and feet standards.
- Its Tone generator sends either all or selected pin conductor/s.
- Test results displayed in pin-to-pin/wire map format.
- Compatible with any twisted pair of Cat 3/4/5 and Cat 6 cables.
- Battery operated, compact and easy to use.
- Measures length of bulk cable.

Contents:

1 LANsmart Main Unit

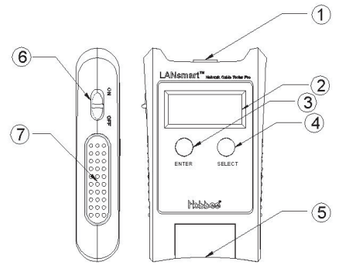
1 Remote Unit

User Manual and Warranty & Service Information

Carrying case * 1

Accessories: 1 patch cable of RJ45 to 2 alligator clip

Alkaline 1.5V AAA battery * 3 (optional)



1.RJ-45 Jack

2.LCD Display

3.Enter Key

4.Select Key

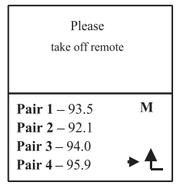
5.Remote Unit

6.ON / OFF Switch

7.Skidproof

Specifications

- Display: 122 x 32 Dot Matrix LCD (56mm x 29mm)
- Connector Type: RJ45 (Main and Remote)
- Accuracy: ± 2m less than 10m (± 6.56 Feet in less than 32.81 feet)
  ± 5% over 10m (32.81 feet)
- Approximate test Range: 1-500m (3.28 – 1640.42 feet)
- Split pair detection minimum: 1m (3.28 feet)
- Tone Generator: 1 KHz
- Operating Temperature 0°C – 50°C (32°F – 122°F)
- Storage Temperature -30°C – 50°C (-22°F – 122°F)
- Humidity 10%-90%
- Weight: Main unit 130g. Remote unit 15g.
- Dimensions: 82 x 138 x 32 mm
- Power source: DC 4.5V (AAA Alkaline battery x 3)
- Battery Life: Approximately 4 hours continuous use
- CE approval



A warning regarding a detached cable from the remote unit will display for 2s every time prior to starting the test.

Length test results:

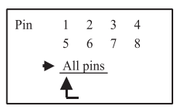
1. Normally, the each pair of cables will vary in lengths.
2. **M** for Meter, or **Ft** for Feet.
3. Click ↑ to return to previous menu

Tone Generator

At 1 KHz of tone generator frequency, the LANsmart can either emit an audio signal to trace all pins conductors, or on each selected pin conductor. Sending an audio signal to each pin enables technicians to identify the corresponding cable by using any cable tracer/probe.

(LANsmart Main Menu) (Tone Generator menu)

Select the Tone Generator options from Tone Generator menu (seen above); user will be asked to select from pin 1 to 8, or all pins to emit the signal.



Note: Selected pin 1 to 8 or all pins will be highlighted, and can be change at anytime.
Select ↑ to stop Tone mode and return to previous menu.
* Under normal conditions Tone on All Pins will be louder than each pin/s.

Port finder

LANsmart has distinctive features that are recommended by professionals. Today, a Portfinder is a standard built-in function for LANsmart to identify correct ports at closet locations. The correspondent port will blink once the PORTfinder sends its auto negotiation signals through the cable.
Cable labeling has just become so much easier.

b. On Calibrate option, press ENTER to open the calibration mode.

(Configure page) (Calibrate page)

Setup calibration is used to adjust the Cal — value to match with known cable length. Use this setup function for the same type of cable in order to minimize errors in length test measurement.

Calibrate page explanations:

- Cal------- 180.0 is the adjustable increase or decrease default parameter.
- Results: 50 Ft is the distance of the cable being tested.
- "+ and –" is used to change the Cal-- value increase or decrease.
- ↑ is to save and go back to the Configure page.

Using the ENTER button to select + or – mode and ENTER to change the value.

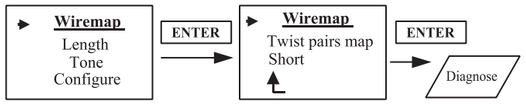
Note: *The **Calibration** increment or decrement value is based on the twist-pair's length. Actual test result will not always be identical.*

Complete the setup procedure and save the defaults by selecting "↑" and ENTER until the Main Menu is displayed.

Wiremap Test

After Cable Test diagnosis is completed, LANsmart will display problems found in a pin-by-pin fashion, including the shield if available.

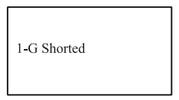
Select the **Wiremap** option from the Main Menu then select **Wiremap** and ENTER, the diagnosis will begin on the cable attached to the LANsmart main or remote unit.



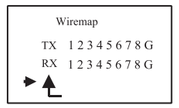
(LANsmart Main Menu) (Cable test menu)

LANsmart will display pin-to-pin results and problems found shortly after the Wiremap test procedure is completed. If there are pin/s short/s with shields layer, LANsmart will automatically display it first.

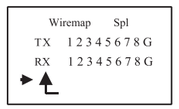
The following illustrations explain the Wiremap test procedures in detail:



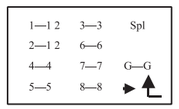
LANsmart detects shorts from conductor 1 and shields layer shortly after Wiremap test finish.



Good cable, no fault/s detected.
G: Ground/shield layer
TX: Transmitting side (main unit)
RX: Receiving side (remote unit)
↑ : Go back to previous page

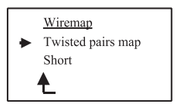


"Spl" icon shows and blinks on pin/s indicate the SPLIT PAIR/S is detected.
*Split pair/s at minimum 1m (3.28 feet)



Pair 1 and 2 is shorted and the SPLIT PAIRS are detected.

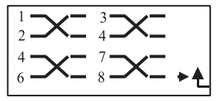
The wires twisted status can be analyzed and show as map mode by selecting the "**Twisted pairs map**" option from the Cable Test Menu.



In "Twisted pairs map" mode, remote unit should be removed from the end of cables. Otherwise result will not accurate.

Warning will be displayed to unplug the cable from remote unit.
Select "yes" to continue.
Select ↑ to continue.

No Split detects, based on TIA/EIA 568A/B Standard wiring



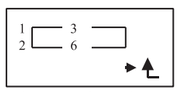
Split pairs on pair 2& 3
pair2 wires 34 twisted
pair3 wires 56 twisted

Because the cable is shorter than 1M or the twisted pairs is not standard , the twisted status unknow.

Short Location

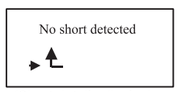
The TDR technology enables LANsmart to show which end of cable are shorted.

Short Details function found under Wiremap menu:



(Short details display)

1. Pair 1 (1-2) shorted at near side of cable (TX)
2. Pair 2 (3-6) shorted at far side of cable (RX)
   Select ↑ when finished.



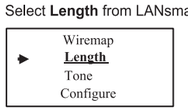
(Short details display)

There are no short pin detected

Length Test

LANsmart also has a built-in length test function. This feature is accommodated by TDR, and displays in standard Meter (M) or Feet (F) for its 4 pair's conductors.

Select **Length** from LANsmart Main Menu as seen below.



(LANsmart Main Menu)

Remote unit should not be used when testing the length of a cable. Not leaving the remote unit attached will display inaccurate results.

LANsmart Manual Operation

It is recommended to check the battery conditions before each use. A weak/low battery will lead to inaccurate test results.

Main buttons function:

SELECT — Use this button to change or navigate the arrow on the menu selections.

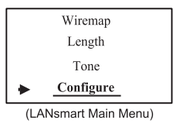
ENTER — Use this button to select or choose the mode selection pointed by arrow.

Default Configuration

In order for LANsmart to perform properly, user should set up the default configuration prior to use. This procedure is also required in order to change the standard measurements or calibration default for non-standard categories cables.

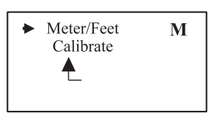
Follow this step to configure the LANsmart:

1. Turn on LANsmart
2. In about 1 second, LANsmart will finish its self diagnosing test.
3. Press the SELECT button until the arrow point to "**Configure**"



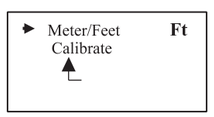
(LANsmart Main Menu)

4. Press the ENTER button and view "Meter/Feet and Calibrate" menu options.
   To change the default of **Meter/Feet** and **Calibration** options, continue to:
   a. On "Meter/Feet" mode and press to change Meter (**M**) or



(Configure page)

or



(Configure page)