Owner's Manual

Power over Ethernet Tester

Model: T015-POE

Este manual esta disponible en español en la página de
Tripp Lite: tripplite.com/support

Ce manuel est disponible en français sur le site Web de
Tripp Lite : tripplite.com/support

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General Safety Instructions

- The emitter unit is powered by three AAA 1.5V dry-cell batteries. The remote unit does not need supplied power.

- Use only batteries that meet the above specifications to avoid damaging the tester.

- Do not place the tester in a location that is dusty, humid or above 104°F (40℃).

- Do not disassemble the tester. There are no user-serviceable parts.

- When the tester will not be used for an extended period, remove the batteries to prevent battery leakage and damage to the unit.

- Do not use the tester to detect live power lines (such as 220V power supply lines); damage to the unit or personal injury may occur.

- Do not perform operations on communications lines during thunderstorms in order to prevent personal injury from lightning strikes.
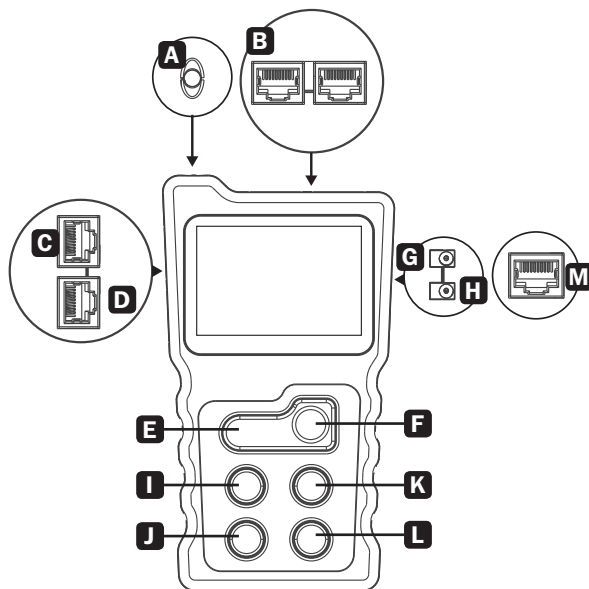
Package Contents

- Emitter Unit
- Remote Unit
- Cable Lead
- AAA Batteries (3x)
- Carrying Case
- Owner's Manual

Typical Applications

- Test the information of standard/non-standard PoE devices, such as voltage, polarity, midspan or endspan
- Identify the power-supplying equipment (PSE) type, 802.3af or 802.3at standard
- Test the real-time power consumed by Power Delivery (PD) devices in PoE power supply systems
- Test the open, short and cross status in the network cable
- Test the power consumed by DC applications
- Test the loopback function of a switch

Overview

The T015-POE Power over Ethernet Tester consists of two parts: an emitter and a remote. It has functions such as standard and non-standard PoE equipment detection, PoE power online test, network cable continuity test, DC power test, switch loop-back test and other functions. It is a practical tool for technical personnel to use during installation and maintenance of security monitoring equipment, communications wiring, integrated wiring and other weak-current systems.

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Overview

A Light

B PoE Test Ports

C Loopback Test Port

D Wire Mapping Test Port

E Light On/Off Key

F Power On/Off Key

G DC Power Input Port

H DC Power Output Port

I Scroll Left Key

J Return Key

K Scroll Right Key

L OK Key
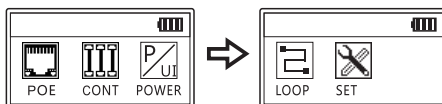
M Cable Continuity Test Port

Specifications

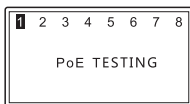| Emitter Indicator	LCD with Backlight, 128 x 64 mm	
Continuity Function	Cable Types	STP UTP
	Max. Testing Range	1968 ft. (600 m)
	Wire Mapping	Emitter + Remote
		Emitter + Switch/Router
PoE Function	Test Range	DC 5V-60V POE Switch
	Standard Identify	802.3af/at (Standard/Non-Standard)
	Test Range Power	0W-18W
Power Function	Voltage Test Range	DC 0V-60V
	Current Test Range	0A-3A
	Power Test Range	0A-180W
Input Voltage Protection	DC48V 5mA	
Max. Working Current	≤80mA	
Loopback	Compatible with 10M, 100M, 1000M Switch	
Power Supply	AAA Batteries, 3x	
Remote Specifications		
Port	RJ45	
Function	Wire Mapping for Network Cables	
Input Voltage Protection	DC48V 5mA	

Product Usage

Main Menu

- PoE – PoE switch test and PoE power test

- CONT – Test open, short and cross, etc.

- POWER – Test voltage and current between the power adapter and the powered device, as well as calculate the power consumed by the powered device

- LOOP – Test whether the loopback of the network cable that is connected to the switch is working properly

- SET – Set up language, backlight time, auto power-off time, contrast and versions

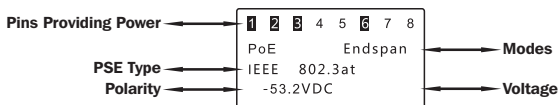

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PoE Test Function

PoE Switch Test

Connect a LAN cable between the PoE switch and the PoE port of the emitter. Once the connection is made, a fluctuating voltage value will display on the screen. Press "OK" to starting testing. The result will display at the screen.
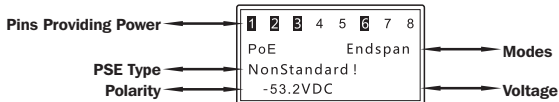
```
1 2 3 4 5 6 7 8

   PoE TESTING
```

Standard PoE Equipment

If the tested PoE switch is standard, the testing result will display as the following image.

Pins Providing Power →
PSE Type →
Polarity →

```
1 2 3 4 5 6 7 8
PoE        Endspan
IEEE  802.3at
  -53.2VDC
```

← Modes
← Voltage

Non-Standard PoE Equipment

If the tested PoE switch is non-standard, the testing result will display the following image.

Pins Providing Power →
PSE Type →
Polarity →

```
1 2 3 4 5 6 7 8
PoE        Endspan
NonStandard !
  -53.2VDC
```
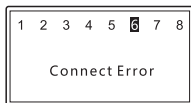
← Modes
← Voltage

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PoE Test Function

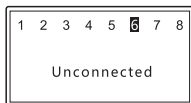## Error Connection

If the test result displays "Connect Error", the connection is not normal or other PoE devices are connected to the circuit. After reconnecting correctly, perform the test again.

```
1  2  3  4  5  6  7  8

     Connect Error
```

No Connection

If the test result displays Unconnected, the PoE equipment is not detected.

```
1  2  3  4  5  6  7  8

       Unconnected
```
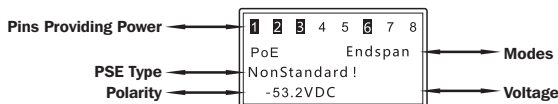
9

PoE Test Function

PoE Power Test

In the PoE power test, a PoE power supply device and a PoE powered device (such as a PoE switch and a PoE camera) need to be connected to emitter's PoE port.

After the correct connection is made, a fluctuating voltage value will display at the screen. A few seconds later, it will automatically enter the power testing interface. The display information appears like the following image.

Pins Providing Power ⟶
PSE Type ⟶
Polarity ⟶

```
1 2 3 4 5 6 7 8
PoE        Endspan
NonStandard!
   -53.2VDC
```

⟵ Modes
⟵ Voltage

When the screen displays PoE Power, press the "OK" key to identify the type of PSE. If the "Non-Standard" message appears, the PoE power supply device does not comply with the PoE standard. If no new message appears, it indicates the PoE power supply device complies with the PoE standard. (PoE power is the power currently consumed by the PoE powered device). Use the PoE switch test function to test the switch separately.
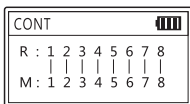
10

PoE Test Function

Special Circumstances

If a PoE device is connected to the emitter and enters the power display interface directly as in the following first image, the PoE device is a non-standard type. Under this condition, press the "OK" key to see the screen prompt message as "Non-Standard" as in the second image.

Pins Providing Power

```
1  2  3  4  5  6  7  8
PoE          Midspan          ← Modes
+53.4VDC      12W             ← Power
```

Polarity

```
1  2  3  4  5  6  7  8         → Pins Providing Power
PoE          Midspan          → Modes
    NonStandard !
```
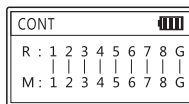
PSE Type

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Wire Mapping Test

This test is to check cable short, open and cross status. The tested cable can be UTP 8-core network cable or STP 9-core network cable. The following images show good connection status.

```
┌─────────────────────┐        ┌───────────────────────┐
│ CONT          ▐███▌  │        │ CONT            ▐███▌  │
│ R : 1 2 3 4 5 6 7 8  │        │ R : 1 2 3 4 5 6 7 8 G  │
│     │ │ │ │ │ │ │ │  │        │     │ │ │ │ │ │ │ │ │  │
│ M : 1 2 3 4 5 6 7 8  │        │ M : 1 2 3 4 5 6 7 8 G  │
└─────────────────────┘        └───────────────────────┘
```
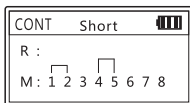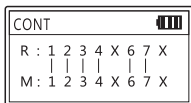   8 Pins   9 Pins

If there is a short circuit, or short and cross circuit, open status exists together, the device displays only short circuit, with no other status displayed.
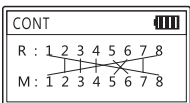
```
┌─────────────────────┐
│ CONT    Short  ▐███▌ │
│ R :                  │
│       ┌─┐    ┌─┐     │
│ M : 1 2 3 4 5 6 7 8  │
└─────────────────────┘
```

1 / 2 and 4 / 5 pair is short-circuited, respectively

Other Status Displays:

```
┌─────────────────────┐   ┌─────────────────────┐   ┌─────────────────────┐
│ CONT          ▐███▌  │   │ CONT          ▐███▌  │   │ CONT          ▐███▌  │
│ R : 1 2 3 4 X 6 7 X  │   │ R : 1 2 3 4 5 6 7 8  │   │ R : 1 2 3 4 5 6 7 8  │
│     │ │ │ │   │ │    │   │         ╲ ╱   ╲   ╱  │   │     │ │ │ │ │ │ │ │  │
│ M : 1 2 3 4 X 6 7 X  │   │ M : 1 2 3 4 5 6 7 8  │   │ M : 1 2 3 4 5 6 7 8  │
└─────────────────────┘   └─────────────────────┘   └─────────────────────┘
```

Pins 5 & 8 are broken   Pins 5 & 6 are crossed;   Good condition
                         Pins 1 & 8 are crossed
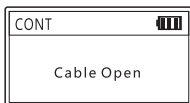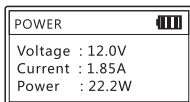
Wire Mapping Test

If the test result is "Cable Open", check for these conditions:

1. The cable is open
2. The cable is not connected to the emitter
3. The cable to the remote unit has been disconnected

```
CONT                    ▐▐▐▐
        Cable Open
```
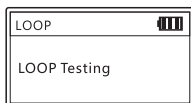
Power Test Function

This test is to check voltage, current and power between the power adapter and the powered device. Connect the power adapter to device and choose "Power" at the main menu. The results will display immediately.

```
POWER                   ▐▐▐▐
Voltage : 12.0V
Current : 1.85A
Power   : 22.2W
```

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Loop-Back Test

This test checks whether the loopback of the network cable that is connected to the switch is functioning properly.

Connect the switch port to the loop-back port of the emitter with a network cable. If the indicator is on, the loop is proper. If the indicator is off, problems exist within the loop.

```
LOOP              ▮▮▮▮

LOOP Testing
```

Lighting Function

Press the Light key to turn on or turn off the light.

Settings

Language Settings

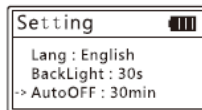English is the only language setting available.

```
Setting          ▭▭
->Lang : English
  BackLight : 30s
  AutoOFF : 30min
```

Backlight Settings

Adjust the backlight time among 15 seconds, 30 seconds, 60 seconds, long light and off.

```
Setting          ▭▭
  Lang : English
-> BackLight : 30s
  AutoOFF : 15min
```

Auto-Off Time

Adjust the backlight time among 15 minutes, 30 minutes, 1 hour, OFF.

```
Setting          ▭▭
  Lang : English
  BackLight : 30s
-> AutoOFF : 30min
```

Settings

Contrast Settings

Press the left and right keys to adjust the contrast until the desired contrast is displayed.

```
Setting        ▥
>Contrast
 Version
```
⇨
```
Setting        ▰
     Contrast
       24
```

Version Information

Displays the current version information of software and hardware.

```
Setting        ▥
 Contrast
>Version
```
⇨
```
Setting        ▰
Hardware:V1.0
Software: V1.0
```

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Warranty

2-YEAR LIMITED WARRANTY

TRIPP LITE warrants its products to be free from defects in materials and workmanship for a period of two (2) years from the date of initial purchase. TRIPP LITE's obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. To obtain service under this warranty, you must obtain a Returned Material Authorization (RMA) number from TRIPP LITE or an authorized TRIPP LITE service center. Products must be returned to TRIPP LITE or an authorized TRIPP LITE service center with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. This warranty does not apply to equipment, which has been damaged by accident, negligence or misapplication or has been altered or modified in any way.

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Warranty

Product Registration

Visit tripplite.com/warranty today to register your new Tripp Lite product. You'll be automatically entered into a drawing for a chance to win a FREE Tripp Lite product!*

* No purchase necessary. Void where prohibited. Some restrictions apply. See website for details.

FCC Notice, Class B

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications to this equipment not expressly approved by Tripp Lite could void the user's authority to operate this equipment.

Warranty

WEEE Compliance Information for Tripp Lite Customers and Recyclers (European Union)

Under the Waste Electrical and Electronic Equipment (WEEE) Directive and implementing regulations, when customers buy new electrical and electronic equipment from Tripp Lite they are entitled to:

- Send old equipment for recycling on a one-on-one, like-for-like basis (this varies depending on the country)

- Send the new equipment back for recycling when this ultimately becomes waste.

Use of this equipment in life support applications where failure of this equipment can reasonably be expected to cause the failure of life support equipment or to significantly affect its safety or effectiveness is not recommended.