MASTECH®

MS6815B

Wire Tracker
User Manual

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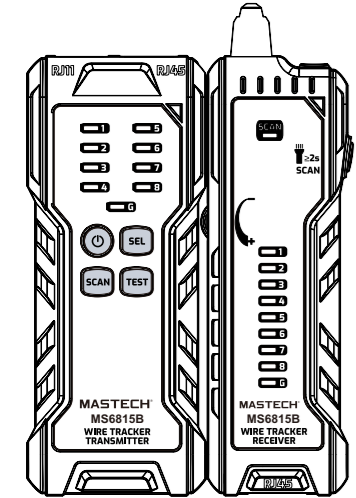MASTECH
MS6815B
WIRE TRACKER
TRANSMITTER

MASTECH
MS6815B
WIRE TRACKER
RECEIVER

Specifications are subject to change without notification.

Thank you very much for your patronage and choosing our products. Before you use this product please read this manual carefully as it will familiarize you with the correct operating procedure of our MASTECH product.

Introduction

It is a multi-purpose line positioning product designed with unique digital transmission technology based on long-term practical experience. It has functions such as line-finding, line -pairing, line on-off, and flashlight, with the characteristics of long transmission distance and clear sound, it's a practical tool for all kinds of communication line installation and engineering maintenance personnel. It can find the required cables from a large number of harness cables quickly and efficiently, and widely used in telephone systems, computer networks, video networks, optical fiber communication projects and other metal wire lines. The wire tracker is composed of a signal emitter, receiver and adapter lines, it is an indispensable tool for finding cables in various metal line construction projects and daily maintenance processes such as computer network cables, telecommunication network communication cables, and video network cables. Adopted with the latest digital noiseless line finding technology to provide you with a better operation experience.

⚠ **Warning:** To avoid electric shock or personal injury, please follow the guidelines below:

- Do not use it to find cables that have been connected to strong currents directly (such as 220V or 110V power supply lines), otherwise it may damage the equipment and involve personal safety;
- Pay attention to lightning protection when using this instrument during thunderstorms,

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so as not to cause personal injury and equipment damage due to lightning induced by the line;
- It is strictly forbidden to connect DC power above 60V and any AC power, otherwise the equipment will be burned out;
- The Emitter light ⏻ of the line finder flashes, indicating that the battery voltage is low, please replace the battery with the same specification;
- The SCAN light of the receiver of the line finder flashes, indicating that the battery voltage is low, please replace the battery with the same specification;
- When not using the product for a long time, please take out the battery to avoid battery leakage to corrode the circuit board and battery line, resulting in poor contact;
- Do not disassemble the device housing, if there is a fault, please ask a professional to repair it.

Problem Shooting

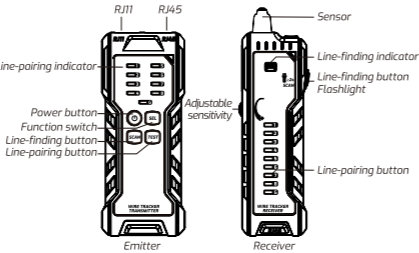| Model	Problems	solution
Emitter	Unable to boot	Run out of battery or not install battery -replace the battery
	⏻ Flash	Low battery-replace the battery
Receiver	SCAN button LED indictor light is off and wire finding without sound	Run out of battery or not install battery -replace the battery
	LED indictor light is on and wire finding without sound	Close to the target, or close to the emitter , the wire tracker is working normally when hearing the audible sound

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Working Principle

Connect the sound signal from the signal generator to under-tested cable port through the RJ45/RJ11 interface, so that a surrounding high-frequency signal field is generated around the target cable. The high-sensitivity inductive receiver is used to identify the signal, so as to find the target cable.

Features

- Smart digital line finding;
- Humanized network cable sequence alignment;
- Practical flashlight function;
- Convenient sensitivity adjustment;
- The emitter will automatically shut down after 15 minutes of inactivity;
- Long press SCAN+ ⏻ to turn on the emitter, the button position lights are displayed once, and the automatic shutdown time is increased to 60 minutes. Turn it off and turn it on again, and the automatic shutdown will restore to the default 15 minutes;
- The emitter has a self-checking function, it will check whether the function of each button is normal or not automatically when it is turned on.

Panel Instruction

RJ11   RJ45

Line-pairing indicator

Power button
Function switch
Line-finding button
Line-pairing button

Sensor

Line-finding indicator
Line-finding button
Flashlight

Adjustable
sensitivity

Line-pairing button

Emitter   Receiver

Product Specification

Item	MS6815B
Analog wire tracking	No
Digital wire tracking	Yes
Wire alighnment	Yes
Open and short circuit test	LED indication
Open and Circuit voltage test	LED indication
Telephone line status	LED indication
POE switch tracking	Yes
Adjustable sensitivity	Adjustable within 0-5CM
Adjustable volume	No
Flashlight	Receiver with flashlight
Display mode	LED indication
Output signal level	About 5Vp-p
Max working current	Emitter≤60mA Receiver≤80mA
Transmitting signal distance	≤3Km
Low battery indication	Prompt when less than 7.2V
Power	2 x 6F22 9V battery
Emitter size	135x55x35mm
Receiver size	151x48x31mm
Total size	151x100x35mm
Emitter weight	90g (Battery not included)
Receiver weight	77g (Battery not included)
Total weight	167g(Battery not included)

Line Finding (SCAN)

The line hunting function of the product is mainly used to quickly find the required pair of wires, connect a line (such as network cable, telephone line, video signal line) to the RJ11/RJ45 socket of the transmitter, and turn on the transmitter and the receiver is on the router or the switch at the other end. Press the SCAN button, the receiver SCAN light is on, then the product starts to find signals.In order to locate the target line quickly and accurately, you can adjust the receiver sensitivity to maximum first, then adjust it to an appropriate range after finding the target line.

Wire tracking switch/flashlight: Short press to turn on the device and the wire tracking function, short press to turn off, long press> 2s to turn on and off the flashlight.

Adjustable sensitivity: Max sensable distance is 5CM (may affect by the thickness of the measured wire and whether it is shielded or not), the min sensitivity distance requires the sensor to touch the test line.
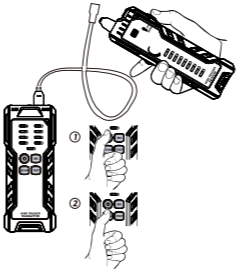

Line Pairing (TEST)

Under the power-on mode, press the TEST button to enter the poring function, and you can change to the pairing speed through the TEST button. There are two types of slow speed and fast speed, TEST flashes once for 1 second is slow speed, and SEL light flashes for 0.5 second is fast speed.

Using the line-pairing function of the wire tracker, you can quickly test the basic physical connection status of the following lines such as open circuit, short circuit and line sequence.

- Adopt IEEE10BA5E-T. EIA/TIA 568A. EIA/EIA568B. AT&T258A. Token-Ring and other standard UTP computer network cables;
- 2 core telephone line;
- Any other metal connecting wires. Connect the one line end with the RJ45 socket of emitter, press the TEST button of the emitter, the TEST button light will be on. indicating that the emitter's line-pairing function is working normally. Connect the other line end with the RJ45 socket of the receiver, according to the 1 indicator on the receiver and the (1, 2, 3, 4, 5, 6, 7, 8, G) on the emitter to check the circuit status.
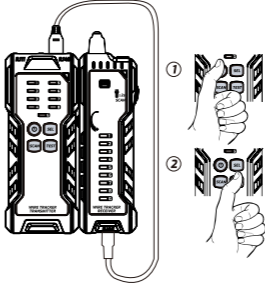
On-off Test

Under the mode, press the SEL button to keep the SEL light on, and then on-off function is on. Telephone line test: the telephone line with the crystal head connected to the RJ11 port of the emitter directly. It can measure the on-off status when connected correctly, the line sequence indicator 1 lights up to indicate that the wiring is positive on the left and negative on the right. If connected reversely, the line sequence indicator 3 lights up to indicate that the wiring is negative on the left and positive on the right.

Wire continuity test: to measure the wire continuity , connect one end of the alligator clip adapter cable to the RJ11 socket of the emitter, and clamp the circuit with the red and black clips. If the circuit is short-circuited, the indicator 1 of the emitter lights on.


Telephone Line Status Measurement

Under shutdown mode, plug the phone line into the RJ11 interface, or use alligator clips to clamp the two lines to test the working status of the phone line.
The sequence light of Line 1 or Line 3 is always on, indicating that the phone is idle.
The sequence light of Line 1 or Line 3 flashes, indicating that the phone is ringing.
The sequence light of Line 1 or Line 3 is dimmed or off, indicating that the line is busy/in a call.

Voltage Measurement/DC Level Positive And Negative Test

Under shutdown mode, the voltage and level test function of the wire tracker is mainly to test some basic conditions of the line, including the existence or not of the line voltage, and the positive/negative voltage. The tested line status only needs to be completed by the emitter, without using the receiver. Connect the alligator clip adapter cable to the RJ11 socket of the emitter, and clamp the red and black wire clips to the line to be tested. If there is voltage on the tested point , the line sequence indicator on the meter will light up. Line sequence light No. 3 is red alligator clip for positive, black is negative, line sequence light No. 1 is red alligator clip is negative, black alligator clip is positive. The measuring circuit may have AC voltage, and the wired sequence lights 1 and 3 may be lit together, it can be deteted only when voltage is over 6V.
(Note: Do not use to measure AC and high-voltage circuits, otherwise may cause the electric shock)
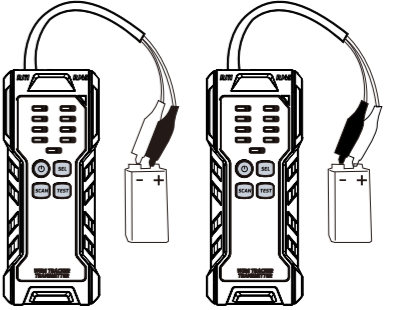
Wiring/nstruction

- Alligator clip adapter cable: one end is RJ11 interface, the other end is alligator clip used to clamp the target, suitable for distribution frame, transfer box, terminal box and other occasions.
- RJ45 jumper wire : one end is connected to the RJ45 port on the emitter, the other end is connected to the network cable port of the RJ45 on the wall.

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