MTC35 Multi Purpose Wire Tracker

MAJOR TECH MTC35 Multi Purpose Wire Tracker Instruction Manual

Contents

MAJOR TECH MTC35 Multi Purpose Wire Tracker

Specifications

Function	Transmitter Receiver	
Signal Tracing Transmission Range	≤1000m	
Operating Temperature	-10°C to 40°C (14°F to 104°F)	
Operating Humidity	10 to 95%RH	
Storage Temperature	-10°C to 40°C (14°F to 104°F)	
Batteries	3 x 1.5V AAA	1 x 6F22 9V
Dimensions	63 x 134 x 31mm	40 x 200 x 32mm
Weight	138g	120g

Product Usage Instructions

Safety Information

Warning: To prevent electric shock and personal injury, do not trace cables carrying strong currents and avoid using the MTC35 during thunderstorms.

- DO NOT trace cables carrying strong currents.
- DO NOT use the MTC35 during thunderstorms.

Cautions:
To prevent damage to the MTC35 and to ensure safety, adhere to the following instructions:

- Avoid using the cable order verifying function on live cables.
- Remove batteries if the instrument will not be used for an extended period to prevent battery leakage.
- Refrain from dismantling the device; repairs should only be conducted by authorized technicians.

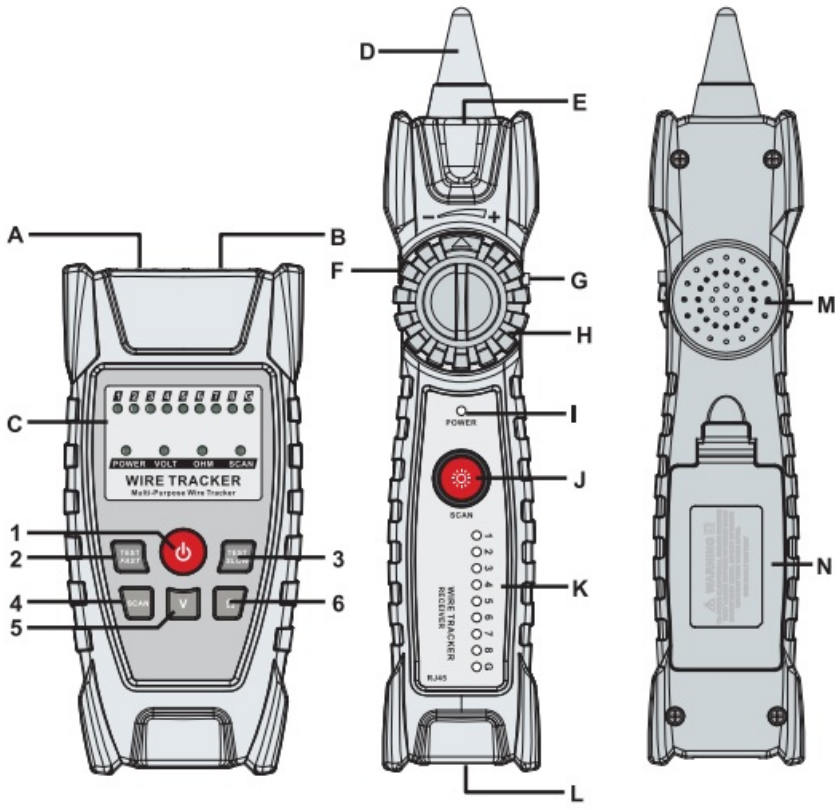
INTRODUCTION
The MTC35 is a sophisticated network cable inspection
device tailored for professionals, offering essential functions such as precise wire tracing, meticulous cable order verification, and thorough inspection of wiring faults. Built to meet rigorous standards, it provides robust capabilities crucial for ensuring efficient network maintenance and troubleshooting tasks. The MTC35 is equipped with the following functions:

1. Chargeable and resistant to interference.
2. Capable of long-distance wire tracing.
3. Verifies wiring order and termination of data/network cables.
4. Checks wiring voltage.
5. Checks wiring voltage polarity.
6. Inspects wiring for shorts/opens.
7. Indicates low battery status.
8. Adjustment for tracing sensitivity/volume.
9. Earphone(AUX) jack.
10. Includes an integrated flashlight

Instrument Layout

- A – RJ45 Jack
- B – RJ11 Jack
- C – Wiring Order/Function Indicator
- D – Signal Tracing Sensor E – Flashlight
- F – Earphone Jack
- G – Flashlight Switch
- H – Volume Control Wheel
- I – Receiver/Power Indicator Light
- J – Scan Cable (Tracing Button) K – Wiring Order Verification Indicators
- L – RJ45 Receiver Jack
- M – Audio Output Speaker

- N – Battery Compartment DoorM



Buttons

1. **Power** : Power button
2. **TEST FAST**: Fast wiring order verification button
3. **TEST SLOW**: Slow wiring order verification button
4. **SCAN**: SCAN mode button
5. **V :** Line Voltage mode button
6. **Ω** : Cable shorts/ opens mode button

Operation Instructions

Power On/Off:

Press the power button to turn on the meter; the power light will indicate it’s on. Press the power button again to turn off.

Line scanning function (SCAN)

The scanning function quickly identifies the required line pair (such as network lines, telephone lines, or video signal lines) among multiple pairs. When in scanning mode, the SCAN indicator light is on. Connect one end of the line to be tested directly or through the alligator clip into the RJ11/RJ45 connector of the transmitter.
The scan signal sent by the instrument is transmitted through the inserted line. Press the power button on the receiver and listen at the other end of the line to be tested (e.g., line terminal, telephone system distribution frame, terminal box, or hub side of the computer network). The receiver will beep. Compare the volume of the “beep” sound; the line pair with the loudest “beep” sound is the one you are tracing. In a noisyenvironment, if the “beep” sound is not clear, you can increase the volume or insert wired earphones for a clearer sound. When measured at full power, the effective measurement distance of the MTC35 is greater than 1000 meters. Ensure there is no connector in the cable under test.

Testing Function

The testing function allows you to quickly assess basic physical connection characteristics of connected lines such as open circuit, short circuit, and line order for the following types of cables.

- Standard UTP computer network cables such as IEEE 10Base-T, EIA/TIA 568A, EIA/EIA 568B, AT&T 258A, and Token-Ring.
- 2-core, 4-core, and other telephone lines.
- Any other metal cables.

  Press either TEST key(FAST/SLOW) to enter the testing mode; the OHM indicator will light up, and the SCAN indicator will flash. Connect one end of the test line to the transmitter's RJ45 socket and the other end to the receiver's RJ45 socket. Determine the line's condition based on the eight line indicators (1, 2, 3, 4, 5, 6, 7, 8) on the transmitter and receiver. If the connection is normal, the corresponding indicators will light up one by one. The testing function can also determine whether the shield line (G) is good or bad, indicated by the 9th indicator. This product supports two testing modes: fast line testing and slow line testing.

Line voltage test (V)
The voltage testing function of the instrument can perform qualitative measurements on some of the basic conditions of the tested line, including the presence of line voltage and the positive or negative polarity of the detected voltage. The voltage test can be conducted using only the transmitter, without the need for the receiver. Press the V button to enter the line voltage testing mode, then the "VOLT" indicator will light up indicating that this mode is active. Plug one end of the alligator clip adapter into the Rj11 socket of the transmitter. Clamp the red and black clips onto the line under test, or plug the telephone line with the RJ11 connector directly into the RJ11 socket. If the telephone line has voltage, the OHM or SCAN indicator on the instrument will light up. If the SCAN indicator lights up, the red alligator clip is positive; if the OHM indicator lights up, the red alligator clip is negative. This function is primarily for testing the weak current and/or voltage of telephone lines. Do not use the product to measure other more robust lines/sources of voltage or current, as it may damage the instrument and pose a risk of electric shock, damage to the installation, or electrocution.

Shorts circuit test (Ω)
The short circuit test is used to determine if a telephone line (a telephone line that is not connected to the network) has a short circuit. Press the Ω button to enter the short circuit testing mode, and the OHM indicator will light up indicating that this mode is active. Plug the RJ11 end of the alligator clip adapter into the RJ11 socket of the transmitter, and clamp the red and black clips onto the line under test. If the line is shorted, the SCAN indicator will light up. For a telephone line with a registered jack, plugging it directly into the transmitter's RJ11 port will suffice. This function can also test for short circuits in other lines.

Wiring Instructions

1. Alligator Clip Adapter Line: Plug one end into the RJ11 port and clamp onto the object with the other end of the clip.
2. RJ45 Registered Jack Line: Connect one end to the transmitter's J45 port and the other end to the network cable port of the RJ45 socket on the wall.
3. RJ11 Registered Jack Line: Connect one end to the transmitter's RJ11 port and the other end to the telephone line port of the RJ11 socket on the wall.

Low Battery Indication

If the power indicator LEDs of both transmitter and receiver flash once a second, it indicates low battery and requires replacement.

WARRANTY

Warranty Coverage

Major Tech warrants its test instruments to be free from defects in materials or workmanship under normal use and service for a period of two (2) years from the date of shipment. This warranty is extended exclusively to the original purchaser, provided the online Product Registration has been completed on either www.major-tech.com or www.majortech.com.au, depending on which country the product was purchased. This warranty is non-transferable.

Exclusions

This warranty does not cover:

- Disposable batteries and fuses
- Damage caused by leaking batteries (damaging the meter and components)
- Normal wear and tear of mechanical components
- Failures caused by use outside the product's specifications Any product which, in the opinion of Major Tech, has been misused, contaminated, or damaged due to neglect.

Check Procedure

Before contacting Major Tech or a distributor regarding a warranty claim, please check the following:

- Batteries are installed correctly
- Battery condition – either replace disposable batteries or ensure rechargeable batteries are charged where applicable
- Test leads are inserted in the correct terminals and are fully inserted, no damage to test leads.

Contact Information

For any warranty claims or inquiries, please contact either Major Tech or the distributor from whom the product was purchased.

South Africa: www.major-tech.com sales@major-tech.com

Australia: www.majortech.com.au info@majortech.com.au

FAQs

Q: What is the effective measurement distance of the MTC35?

The effective measurement distance is greater than 1000 meters when measured at full power.

Q: Can I use wired earphones with the MTC35?

Yes, you can insert wired earphones for clearer sound in noisy environments.

Documents / Resources

	**MAJOR TECH MTC35 Multi Purpose Wire Tracker** [pdf] Instruction Manual MTC35 Multi Purpose Wire Tracker, MTC35, Multi Purpose Wire Tracker, Purpose Wire Tracker, Wire Tracker

References

- Home | Major Tech
- Home - Major Tech Australia
- User Manual