

UT682

Wire Tracker

Operating Instruction

1. Safety Tips

The manual includes the attention and safety rules that must be followed for the safety of the instrument. Please read carefully before using it and understand its contents.

Safety Considerations:

- a: Do not put the instrument in dusty, high temperature or humid environments.
- b: The transmitter and receiver of the instrument is powered by 9V layer-built battery. Do not use other battery specifications to power the instrument.
- c: Please take out the battery when the instrument is not used for a long time.
- d: Do not use this instrument on live circuits over 37VAC or 52VDC.
- e: Do not use this instrument in thunderstorm conditions.

CE: Conforms to the standard of EU (European Union)

2. Features

This instrument is a wire tracker, which consists of the transmitter and receiver. Its functions include telephone line tracking, network line tracking, power cable line tracking, network line check, etc. With features such as quick and accurate testing, it is an ideal tool for maintenance personnel working with communication lines, integrated wiring lines and other low voltage systems.

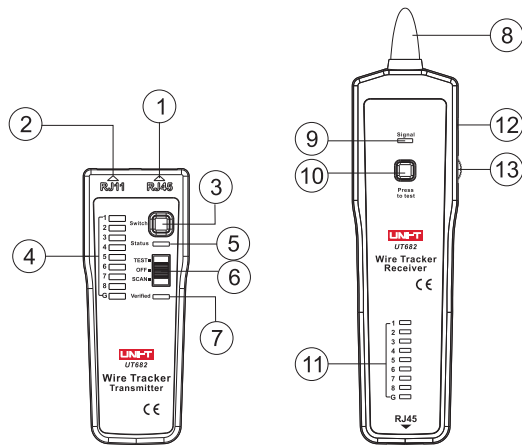


Figure 1. Transmitter and Receiver

1	RJ45 Socket	2	RJ11 Socket
3	Function button	4	Line sequence indicator
5	Line tracking indicator	6	Functional select switch
7	Line alignment indicator	8	Signal probe
9	Signal Indicator light	10	Find button
11	Line sequence indicator	12	Headset jack
13	Volume knob		

3. Packing List

Transmitter-----	1
Receiver-----	1
9V Battery-----	2
RJ11 Adapter wiring-----	1
RJ11 Alligator clip adapter wiring-----	1
RJ-45 adapter wiring-----	1
User manual-----	1
Cloth Bag-----	1

4. Telephone Line Tracking Function

- a: Connect the telephone line head into the transmitter's RJ11 interface;
- b: Press the transmitter functional select switch to the "TEST" position, Line tracking indicator "Status" will flash, which indicates that the transmitter works properly;
- c: Hold down the receiver "Press to test" button and look for the target cable with receiver probe.
- d: During the testing, light press "Switch" button to switch between single and double audio test pattern.

5. Network Line Tracking Function

- a: The network line with a crystal head into the transmitter RJ45 interface;
 - b: Press the transmitter functional select switch to the "TEST" position, Line tracking indicator "Status" will flash, which indicates that the transmitter works properly;
 - c: Hold down the receiver "Press to test" button and look for the target cable with receiver probe.
 - d: During the testing, light press "Switch" button to switch between single and double audio test pattern.
- Note: When the product is used for tracing wires in server rooms, please remove crystal head piece and trace wires one by one.

6. Power Cable Line Tracking Function (Power cable must not be powered)

- a: Connecting the transmitter with metal cable using alligator clip adapter wiring;
- b: Adjust the transmitter functional select switch to the "TEST" position, line tracking indicator "Status" will flash, which indicates that the transmitter works properly;
- c: Hold down the receiver "Press to test" button and look for the target cable with receiver probe.
- d: During the testing, light press "Switch" button to switch between single and double audio test pattern.

7. Telephone Line Tracking, Network Line Tracking, Power Cable Line Tracking Diagram

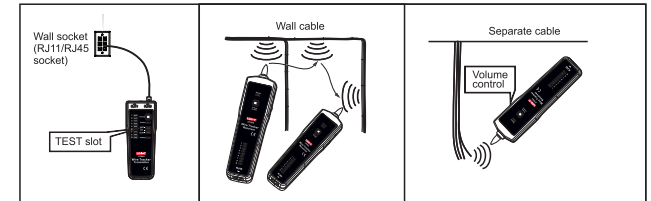


Figure 2

8. Network Line Check Function

- a: Connect both ends of the network cable into the transmitter and receiver
- b: Press the transmitter functional select switch to the "SCAN" position, indicator "Verified" will flash, which indicates that the transmitter works properly;
- c: Determine the characteristics of the path, short circuit, open circuit and cross circuit by 18 (2*9) line sequence indicators.
- d: During testing, light press "Switch" button to switch between high and slow speed.
- e: The diagram below shows the normal connection, short circuit, open circuit and cross circuit wiring (without shielding wire)

Normal:

The LED (1-8) of the transmitter and the corresponding receiver LEDs are on

Short circuit:

Transmitter LEDs are on, corresponding receiver LEDs are on and non-corresponding LEDs are on as well, but dimmed (Please refer to diagram below) Broken circuit: Neither the transmitter nor the receiver LEDs are on.

Cross circuit:

The lit LED position of the transmitter and receiver are reversed.

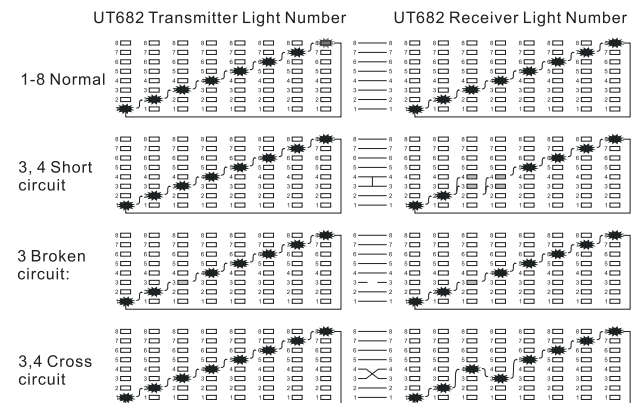


Figure 3: Normal, short circuit, broken circuit, cross circuit

9. Other Function Tests & Product Specifications

a: Open Circuit or Short Circuit Test Function

Shift the transmitter functional select switch to the "SCAN" position and long press transmitter "Switch" button for 3 seconds. At this time, the "Verified" indicators will change from flashing to a solid light, connect the alligator clip adapter wiring to the transmitter RJ11 interface. Clamp the two ends of the wire to be tested with the alligator clip. If it is short circuit, the first indicator of transmitter will light up, the resistance of the circuit can be expressed by the light and shade level. The brighter indicator, the smaller resistance; the darker indicator, the bigger resistance.

b: DC Voltage Testing Function

Shift the transmitter functional select switch to the "TEST" position and long press transmitter "Switch" button for 3 seconds. At this time, the "Status" light will be off and the "Verified" light will flash. Connect the alligator clip adapter wiring to the transmitter RJ11 interface. Clamp the two ends of the wire to be tested with the alligator clip. If the "Status" turns green, the clamped red clip is positive; if the "Status" turns red, the clamped red clip is negative. DC voltage test range: $\pm 3.3V \sim \pm 52V$. For safety, when testing DC voltage $> 10V$ (absolute value), each measurement should be performed in less than 2 minutes, the rest interval time should be more than 5 minutes for instrument to cool off.

c: Low Battery Indication Function

Shift the transmitter functional select switch to the "TEST" position, when the battery voltage is about less than 6V, "Status" light and "Verified" light will flash at the same time, the instrument cannot be used normally until the battery is replaced.

d: Volume Control Function

During line tracking, adjust the volume knob on the receiver to adjust the sound.

e: Target Audience

This instrument is suitable for internet cafe, telecommunication companies, corporate network administrators, etc.

f: Product Specifications

Product name	Wire Tracker
Power specifications	9V Battery
Signal transmission form	Multi frequency pulse
Short circuit, open circuit test	✓
Telephone line polarity Instructions	✓
Audio signal test range	≥ 1000 m
Video line distance	≥ 100 m
Low battery Indication (Transmitter)	✓

g: Headset Function

To avoid outside interference, wear headset when testing in noisy environments.

Note 1:

Please turn the receiver down to the minimum and plug in headset, slowly turn the volume knob to the appropriated slot, then begin testing.

Note 2:

Headset needs to be set up by the user, this product is not equipped with headset by default.

h: Other Specifications

Work environment: Working temperature: $0^{\circ}C \sim 40^{\circ}C$
Storage temperature: $-10^{\circ}C \sim 50^{\circ}C$
Working humidity: 20%-75%RH
Storage humidity: 10%-90%RH

Altitude: ≤ 2000 m

Exterior size: Transmitter: 125mm \times 48mm \times 28mm

Receiver: 195mm \times 48mm \times 30mm

Weight: Transmitter: about 125g

Receiver: about 153g

i: Application standard: EN61326-1:2013, EN61326-2-2:2013

10. Battery Replacement

- Firstly, shift the functional select switch to the "OFF" position and then remove the test leads from the instrument. (Only for transmitter; for receiver, directly remove the battery cover, reinstall the battery)
- Remove the battery cover, replace 9V battery.
- After replacement, close the battery cover.

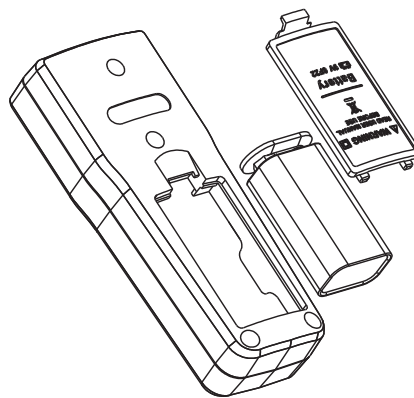


Figure 4 UT682 Transmitter

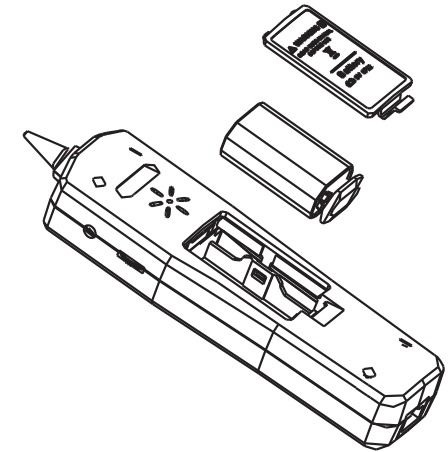


Figure 5 UT682 Receiver

11. Maintenance and Repair

a: Case Cleaning

When cleaning the case, gently wipe with a dry towel, please keep the instrument dry. Do not use alcohol or any corrosive agent.

b: Repair

If the following questions appear, please contact the service center of the company's marketing department or agency

- Instrument casing damage or device damage
- LED indication is not normal
- Button malfunction

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