USER MANUAL

CT6480   CABLE TESTER
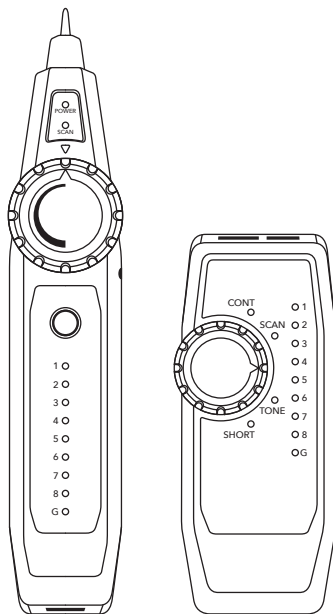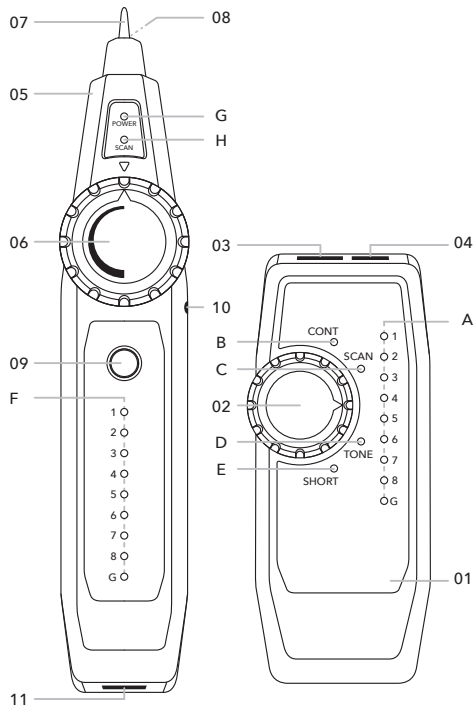
Manual in your language?

Check the back cover

CONT
SCAN

TONE
SHORT

1
2
3
4
5
6
7
8
G

1
2
3
4
5
6
7
8
G

FUTECH
MAKE IT
EASY

OVERVIEW

■ **DEVICE**

01   Emitter
02   Rotary switch
03   RJ45 connector
04   RJ11 connector
05   Receiver
06   Sensitivity adjustment
07   Probe
08   LED light
09   LED lighting switch
10   3.5mm Mini-jack headphone plug
11   RJ45 connector

■ **INDICATORS**

A   Line sequence indicator (D1-D2-D3-D4-D5-D6-D7-D8-G)
B   Wiremap indicator
C   Scanning indicator
D   Telephone line indicator
E   Short indicator
F   Line sequence indicator (D1-D2-D3-D4-D5-D6-D7-D8-G)
G   Power indicator
H   Scanning indicator

SAFETY

Please read the safety instructions is provided in the separate booklet provided with the device before using.

Do not use this equipment to detect live power lines (such as 220V powersupply lines), otherwise it will damage the equipment and involve personal safety.

Do not carry out related operations on communication lines during thunderstorms to prevent lightning strikes and affect personal safety.

Do not disassemble the laser tool. There are no user serviceable parts inside.

It is strictly forbidden to connect DC power above 60V and any AC power, otherwise the equipment will be burnt out.

BATTERY

Both emitter [01] and Receiver [05] uses a 9V battery.

FIRST TIME USAGE

Remove all protection foils.

USE

■ SWITCH ON/OFF

— EMITTER

· To switch on the emitter [01], turn the rotary switch [02] away from the "OFF".

· When the emitter [01] is ON, turn the rotary switch to the "OFF" to switch off the emitter.

— RECEIVER

· To switch on the receiver [05], turn the sensitivity adjustment [06] passing the 'click'. The power indicator [G] lights up when the device is on.

· To switch off the receiver [05], turn the sensitivity adjustment [06] back passing the 'click'. The power indicator [G] will shut down when the device is off.

■ CABLE SCANNING FUNCTION

· Turn the rotary switch [02] to the scanning indicator [C], which will light up.

· Connect one end of the network cable/telephone line to be tested to the RJ45 [3] of RJ11 [04] connector of the emitter [01].

· Turn on the receiver [05] as described above. You can adjust the sensitivity by turning the sensitivity adjustment [06] further or less far between the 'click' and the stop.

· Use the receiver probe [07] to approach the cable.

When the receiver [05] receives a signal, it emits a "dididi" sound and the stonger the signal, the scanning indicator [H] will start flashing. The scanning indicator [H] flash brighter as you get closer to the location of the cable.

NOTE

The stronger the received signal, the louder the "dididi" sound can be heard and the greater the brightness of the flashing scanning indicator [H]. It is possible you can hear the "dididi" sound but the scanning indicator [H] is not flashing yet. This occurs when the signal is detected, but is not strong enough. You can try to adjust the sensitivity of the receiver [05] or get closer to the location of the cable.

· After determing the approximate position of the cable, appropriately reduce the sensitivity of the receiver [05] by turning the sensitivity adjustment [06] in order to accurately locate the target line.

■ **WIREMAP FUNCTION**

· Rotate the rotary switch [02] of the emitter [01] to the wiremap indicator [B], which will light up.

The wiremap function is mainly used to detect the wire sequence, short circuit, open circuit and cross of the network cable. It displays the test results using the line sequence indicator [A] of the emitter [01] and the line sequence indicator [F] of te receiver [05].

· Insert one end of the network cable to be tested into the RJ45 connector [03] of the emitter [01] and the other end into the RJ45 connector [11] of the receiver [05].

Assess the cable connection by compare both line sequence indicators [A][F] with each other.

__ CHANNEL

The LED lights of the line sequence indicators [A][F] will flash green one by one.

SHORT CIRCUIT

We take the short circuit of 2 and 5 as an example.

STEP	1	2	3	4	5	6	7	8	9
	●1○	○1○	○1○	○1○	○1○	○1○	○1○	○1○	○1○
	○2○	●2●	○2○	○2○	○2●	○2○	○2○	○2○	○2○
	○3○	○3○	●3●	○3○	○3○	○3○	○3○	○3○	○3○
	○4○	○4○	○4○	●4●	○4○	○4○	○4○	○4○	○4○
	○5○	○5●	○5○	○5○	●5●	○5○	○5○	○5○	○5○
	○6○	○6○	○6○	○6○	○6○	●6●	○6○	○6○	○6○
	○7○	○7○	○7○	○7○	○7○	○7○	●7●	○7○	○7○
	○8○	○8○	○8○	○8○	○8○	○8○	○8○	●8●	○8○
UTP	○G○	○G○	○G○	○G○	○G○	○G○	○G○	○G○	○G○
STP	○G○	○G○	○G○	○G○	○G○	○G○	○G○	○G○	●G●

OPEN CIRCUIT

We take 2 as an open circuit as example. When the line sequence indicators [A][F] must show 2, neither the emitter [01] nor the receiver [05] will light up.

STEP	1	2	3	4	5	6	7	8	9
	●1●	○1○	○1○	○1○	○1○	○1○	○1○	○1○	○1○
	○2○	○2○	○2○	○2○	○2○	○2○	○2○	○2○	○2○
	○3○	○3○	●3●	○3○	○3○	○3○	○3○	○3○	○3○
	○4○	○4○	○4○	●4●	○4○	○4○	○4○	○4○	○4○
	○5○	○5○	○5○	○5○	●5●	○5○	○5○	○5○	○5○
	○6○	○6○	○6○	○6○	○6○	●6●	○6○	○6○	○6○
	○7○	○7○	○7○	○7○	○7○	○7○	●7●	○7○	○7○
	○8○	○8○	○8○	○8○	○8○	○8○	○8○	●8●	○8○
UTP	○G○	○G○	○G○	○G○	○G○	○G○	○G○	○G○	○G○
STP	○G○	○G○	○G○	○G○	○G○	○G○	○G○	○G○	●G●

CROSSED CIRCUIT

We take the cross of 2 and 5 as an example. When the line sequence indicator [A] of the emitter [01] shows 2, the line sequence indicator [F] of the receiver [05] shows 5.

STEP	1	2	3	4	5	6	7	8	9
	●1●	○1○	○1○	○1○	○1○	○1○	○1○	○1○	○1○
	○2○	●2○	○2○	○2○	○2●	○2○	○2○	○2○	○2○
	○3○	○3○	●3●	○3○	○3○	○3○	○3○	○3○	○3○
	○4○	○4○	○4○	●4●	○4○	○4○	○4○	○4○	○4○
	○5○	○5●	○5○	○5○	●5○	○5○	○5○	○5○	○5○
	○6○	○6○	○6○	○6○	○6○	●6●	○6○	○6○	○6○
	○7○	○7○	○7○	○7○	○7○	○7○	●7●	○7○	○7○
	○8○	○8○	○8○	○8○	○8○	○8○	○8○	●8●	○8○
UTP	○G○	○G○	○G○	○G○	○G○	○G○	○G○	○G○	○G○
STP	○G○	○G○	○G○	○G○	○G○	○G○	○G○	○G○	●G●

■ TELEPHONE LINE STATUS DETECTION

· Connect the emitter [01] to the phone using the RJ11 connector [04].

· Turn the rotary switch [02] to the telephone line indicator [D]

The telephone line indicator [D] lights up and the results are as follow:

TELEPHONE LINE POLARITY

When the telephone line indicator [D] is green, the phone line 3P is positive and 4P is negative

When the telephone line indicator [D] is red, the phone line 3P is negative and 4P is positive.

___ **TELEPHONE LINE STATUS**

When the telephone line indicator [D] is on, the phone is idle.

When the telephone line indicator [D] flashes alternately red and green, the phone rings.

When the telephone line indicator [D] is dimmed, the telephone is off-hook (the phone is in a conversation).

■ **TELEPHONE LINE SHORT DETECTION**

· Connect the emitter [01] to the telephone line with the alligator clip adapter cable using the RJ11 connector [04].

· Turn the rotary switch [02] of the emitter [01] to the short indicator [E].

When the telephone line functions correct, the short indicator [E] does not light up.

When the telephone line is short-circuited, the short indicator [E] lights green.

■ **POE SWITCH TEST FUNCTION**

· To test the power supply of the POE switch, connect the RJ45 connector [03] of the emitter [01] to the POE switch with a normal network cable.

D1D2 or D3D6 of the Line sequence indicator [A] lights up: the power supply mode of this POE switch is the terminal jumper method (12/36 core power supply).

D4D5 or D7D8 of the Line sequence indicator [A] lights up: the power supply mode of this POE switch is the intermediate jumper method (45/78 core power supply).

D1D2+D4D5, D1D2+D7D8, D3D6+D4D5 or D3D6+D7D8 of the line sequence indicator [A] lights up: the POE switch provides 8-core power supply.

NOTE

The pin line that light up in the above description is positive.

■ **HEADPHONE**

When the receiver [05] is used in a noisy environment, you can wear the supplied headphones for operation to avoid external interferences.

· Plug the mini-jack of the 3.5mm mini-jack headphone plug [10] of the receiver [05].

■ **LED LIGHTING FUNCTION**

· When the receiver [05] is turned on, press the LED lighting switch [09] to turn on the LED light [08].

The LED light [08] will be on as long a the LED lighting switch [09] is pressed.

TECHNICAL SPECIFICATIONS

MODEL	CT6480
Applicable network cable	CAT5, CAT6, Telephone cable
Interface withstand voltage	60V
Power specifications	Emitter: 9V alkaline batterie Receiver: 9V alkaline batterie
Size	Emitter: 201x45x27 mm Receiver: 125x28x45.3 mm
RECEIVER	
Scanning receiving function	✔
Sensitivity adjustment	✔
Signal strength reminder	✔
Headphone connection	✔
Tracking working current	≤40mA
POE switch test	✔
Wiremap function	✔
LED light	✔
EMITTER - WIREMAP	
Wiremap interface	RJ45
Wiremap status light	✔
Cross circuit, result	9 line sequence LED green lights
Wire sequence and fault test	✔
Wire shielded / Unshielded	✔
Short circuit promt	✔
Switch to line	Switch to line RJ45 main interface + directly connected to the switch
Applicable cable	Network cable, telephone line

MODEL	CT6480
EMITTER - SCANNING	
Scanning interface	RJ45, RJ11
Signal transmission format	Dual tone pulse
Signal transmission distance	≤1km
Test interface	RJ11
Short circuit / Channel test	✔
Short circuit status indicator	✔
Telephone line polarity state test	✔
Maximum working current	<70mA

CE
DECLARATION OF CONFORMITY

Futech (Belgium) declares under its own responsibility that this device:

- CT6480 CABLE TESTER

is in conformity with the standards

- EN 55032:2015/A1:2020
- EN 55035:2017/A11:2020
- EN 61000-3-2:2019/A1:2021
- EN 61000-3-3:2013/A2:2021

Under EMC Directive 2014/30/EU

Lier, Belgium,
October 12, 2023
Patrick Waûters

USER MANUAL
other languages:

DA	DANSK	
DE	DEUTSCH	
ES	ESPAÑOL	
ET	EESTI KEEL	
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FR	FRANÇAIS	
IS	ÍSLENSKA	

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