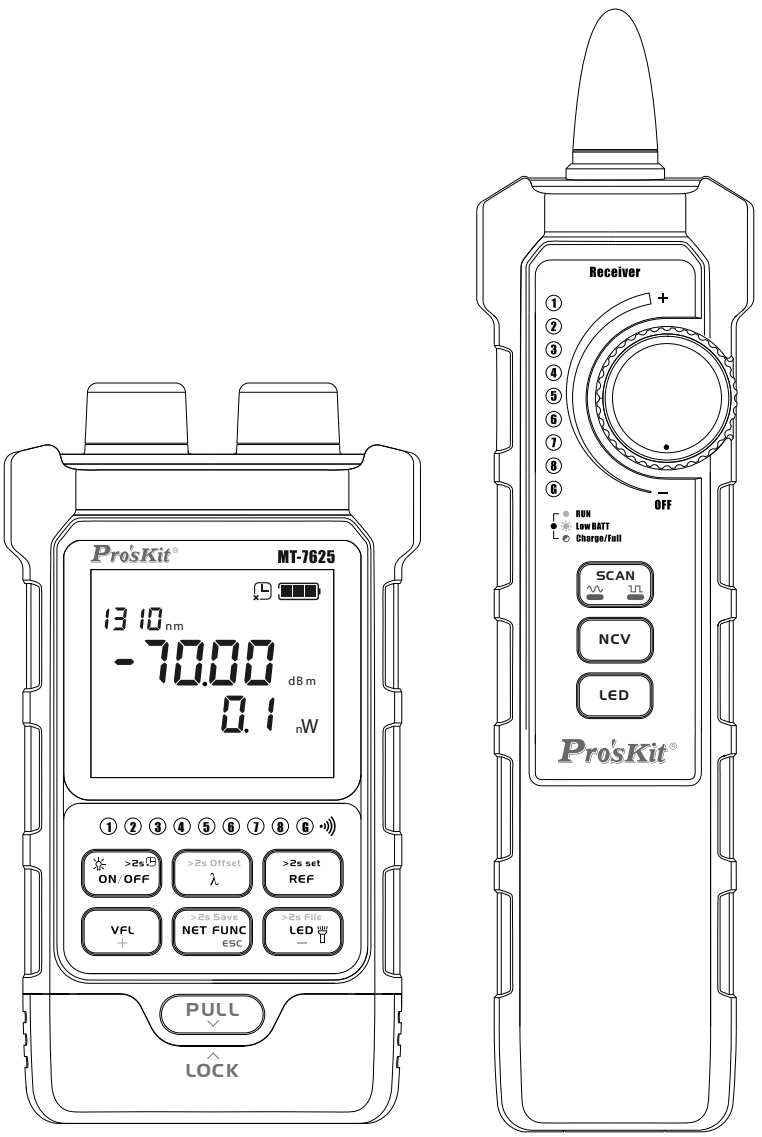
Pro'sKit®

MT-7625

Optical Power Meter & Tone Probe Kits

User's Manual



English

繁體中文

简体中文

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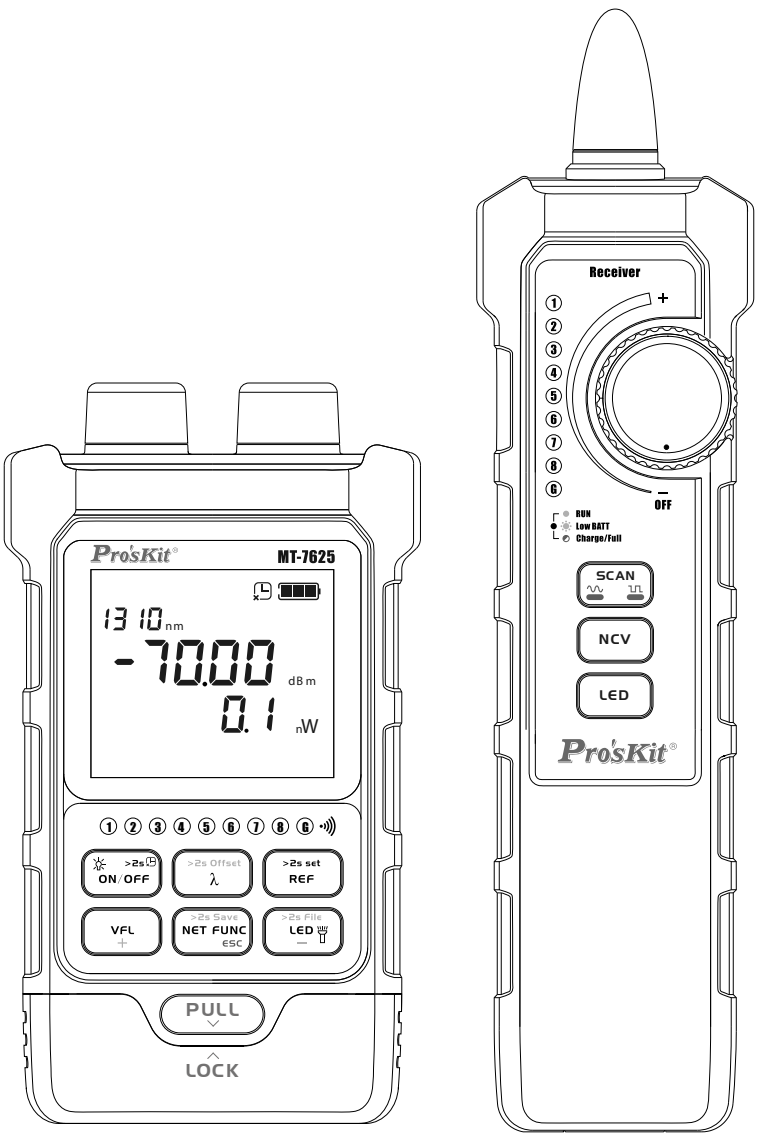
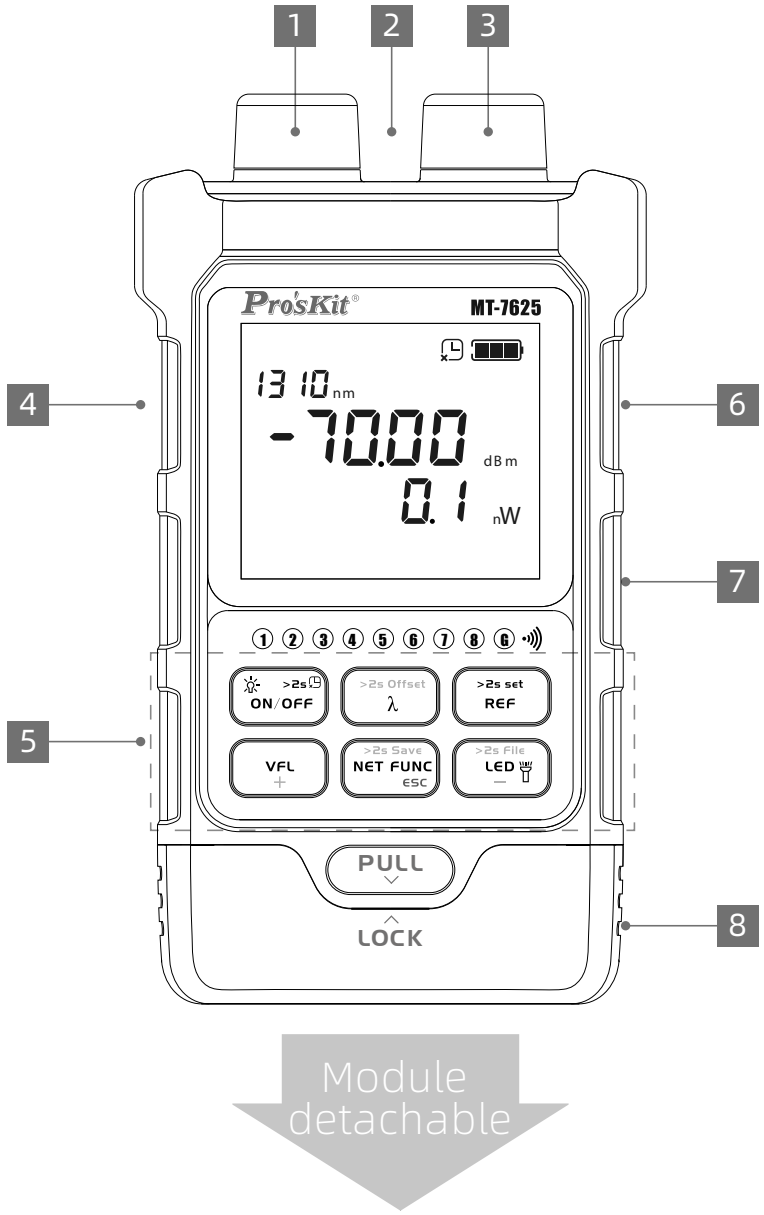


English

Host



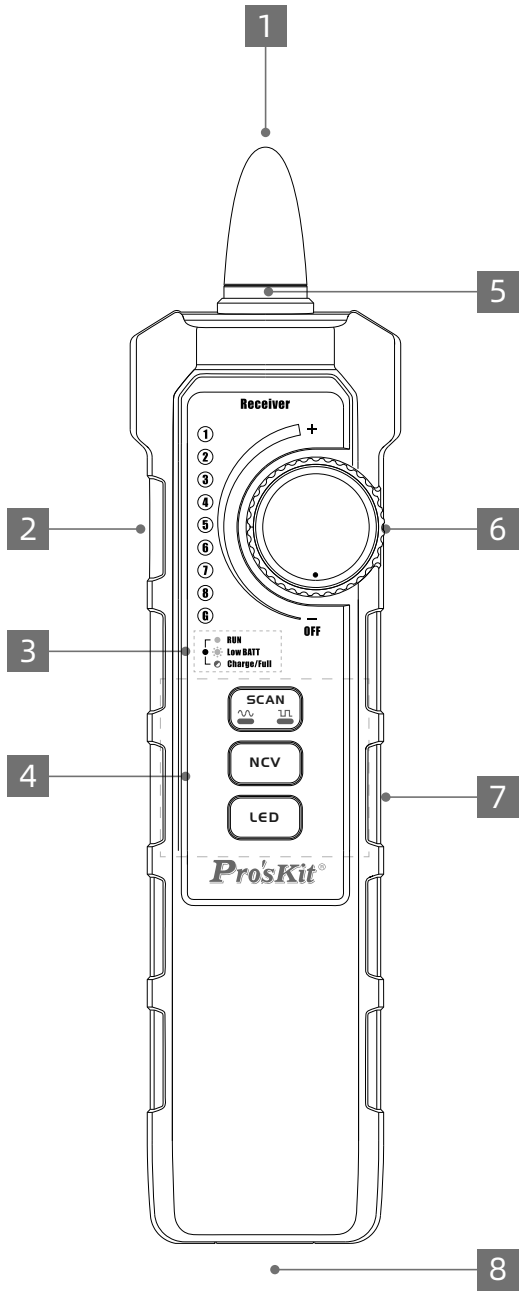
1 VFL Connector 2 LED Light 3 OPM Connector

4 RJ45 Socket(Continue and crimping test)

5 Keypad 6 RJ45 Socket(Network cable tracing)

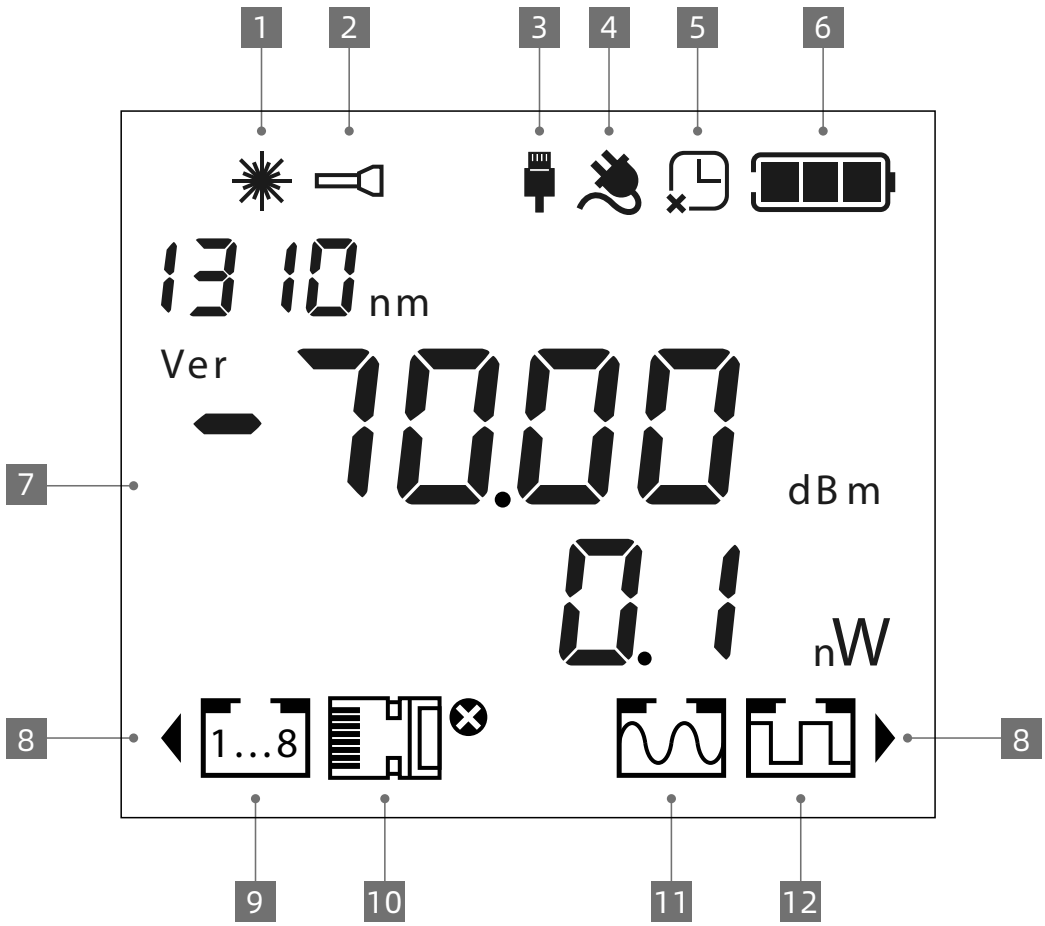
7 Type-C Port 8 Network Cable Test Module

Receiver



1 Probe
2 Headset Jack
3 Status Indicator
4 Keypad
5 LED Light
6 Power Switch
7 Type-C Port
8 RJ45 Socket

Display Description



1 VFL

2 LED Light

3 USB

4 Power

5 Auto Power-off

6 Battery Level

7 OPM Information Area

8 Test Socket Position

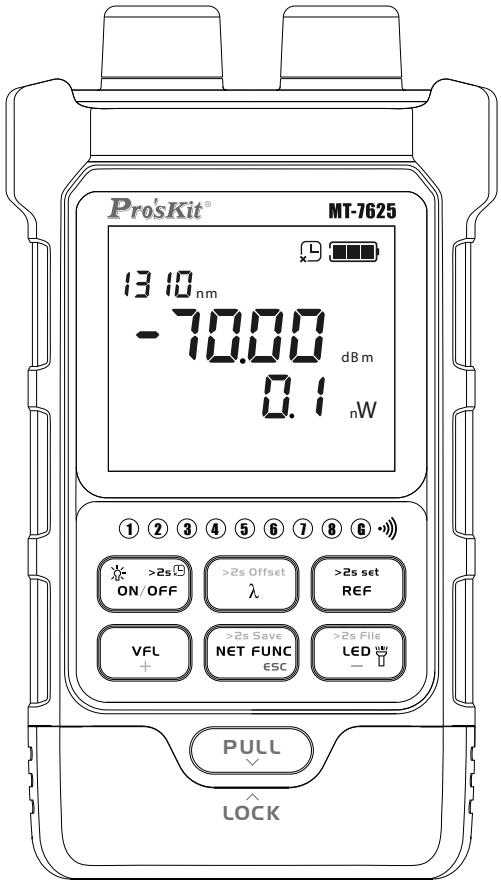
9 RJ45 Cable Test

10 Network Cable Crimping

11 Cable tracing(analog)

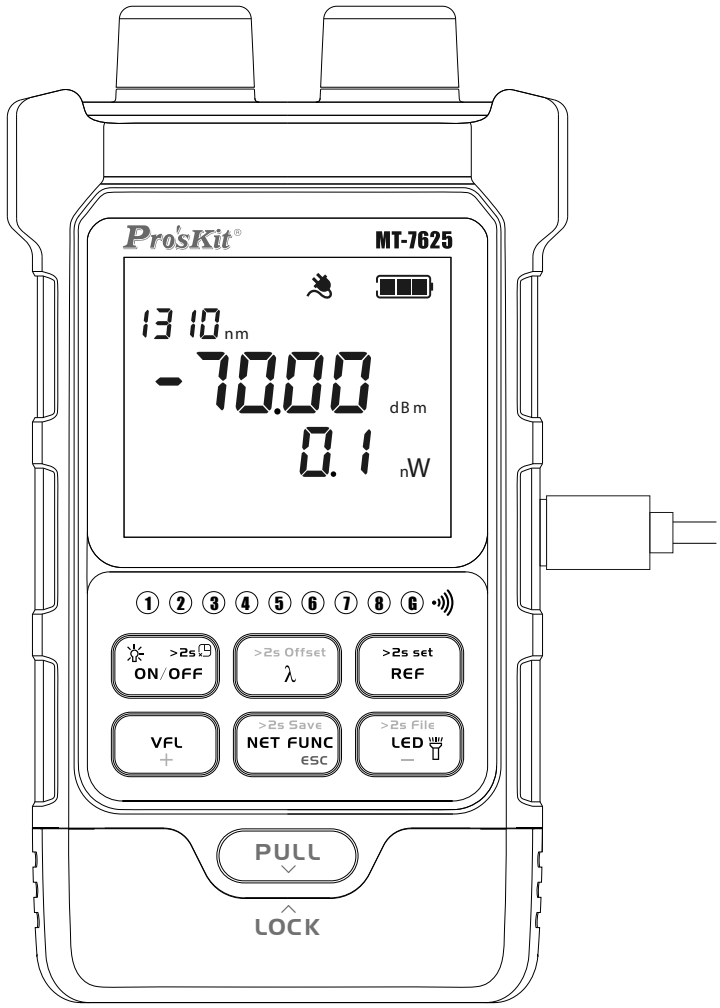
12 Cable tracing(digital)

On/Off(Host)



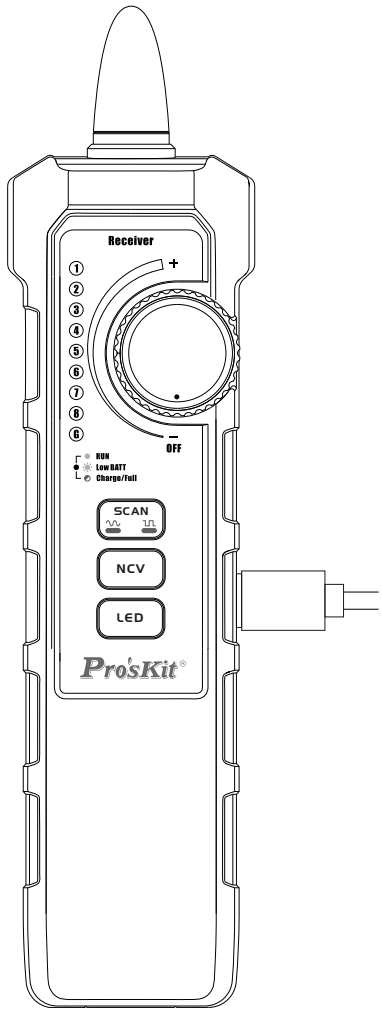
Short press "[>2s ON/OFF]" to turn on the power with auto-off function, automatically shut down after 10 minutes of no operation. To turn off the auto-off function, long press "[>2s ON/OFF]" to turn on the device in the off state. The " " icon lights up at the top, indicating that the auto-off function is turned off. After power on, short press "[>2s ON/OFF]" to turn on/off backlight,long press to turn off the power. Long press "[>2s ON/OFF]" to shut down the power in any interface.

Charge(Host)



Use the recommended power adapter and cable to connect to the Type-c interface. The " " icon lights up, indicating that the power supply is connected. The " " icon displays dynamically increasing, and when fully charged, the " " icon remains static.

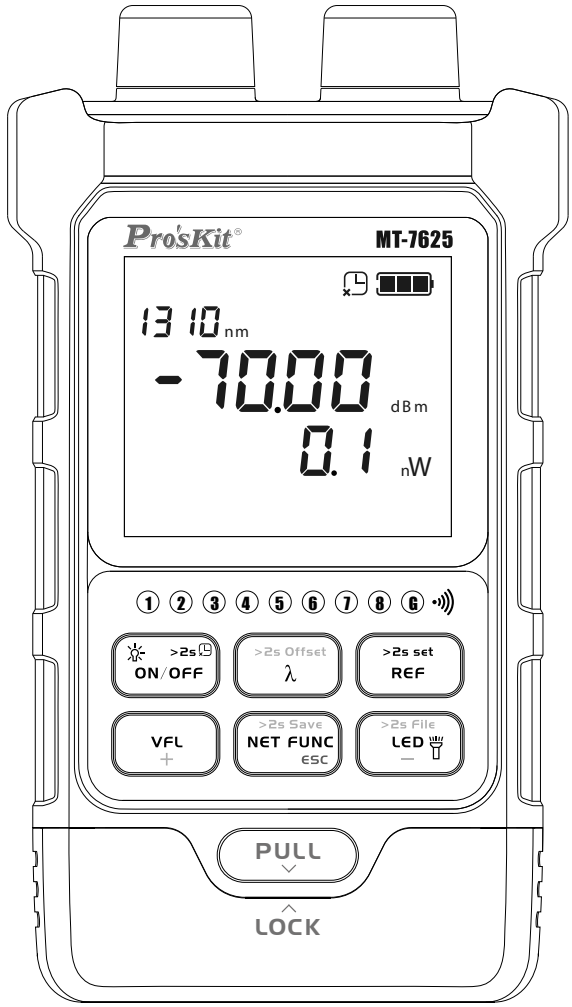
*Recommended power adapter specifications: 5V/1A



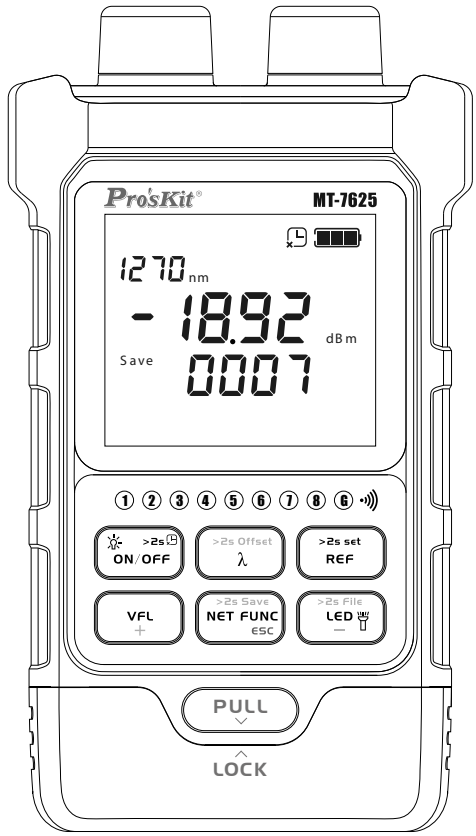
Use the recommended power adapter and cable to connect to the Type-c interface. The icon lights up, indicating that the power supply is connected.

- **RUN** Green light, battery power is normal.
- **Low BATT** The green light flashes, indicating low battery power.
- **Charge/Full** Red light, charging status.

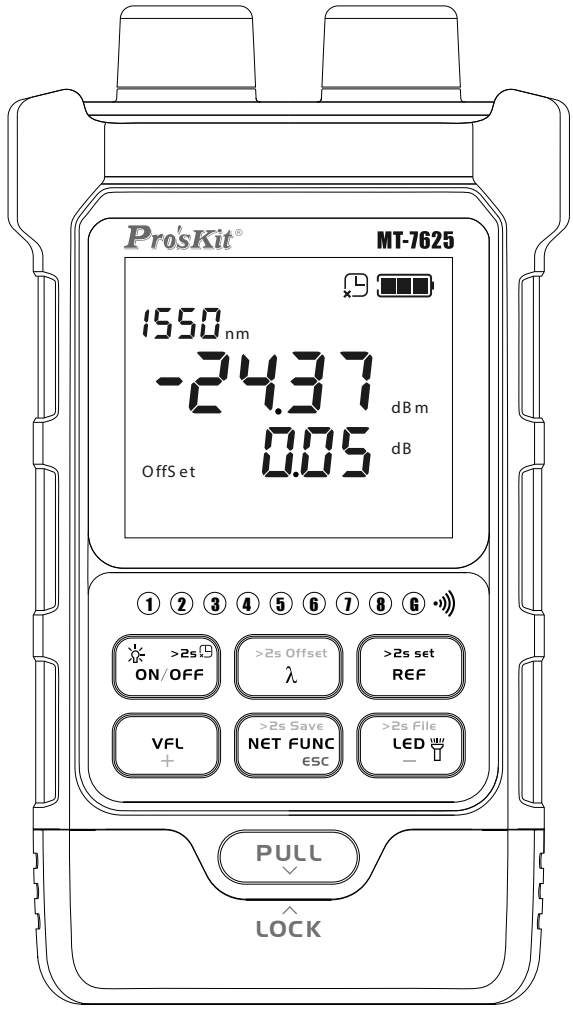
*Recommended power adapter specifications: 5V/1A



After power on, short press the "[>2s Offset λ]" to switch the measurement wavelength. The device supports measurement of 10 calibration wavelengths: 850nm,980nm, 1270nm, 1300nm, 1310nm, 1490nm, 1550nm, 1577nm, 1625nm, 1650nm. Short press the "[>2s set REF]" to switch units and view the REF setting value. Long press to set the current measurement value as the new REF value.

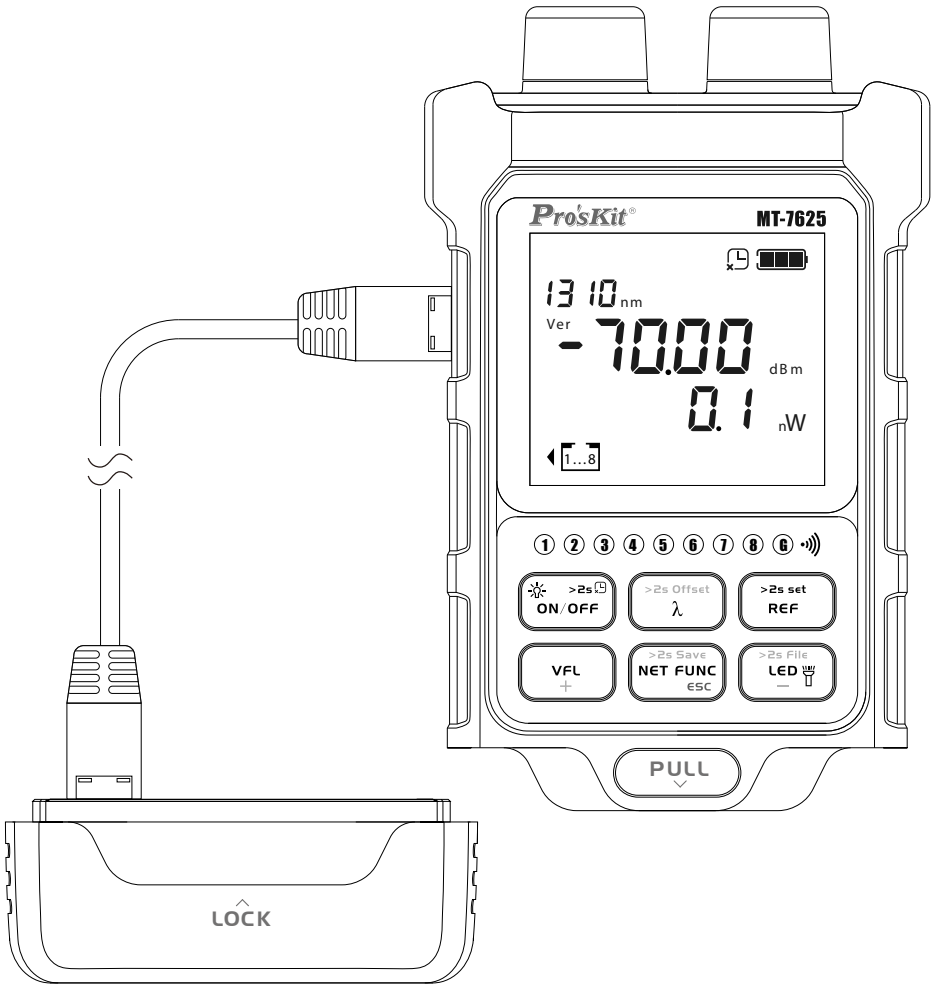


- Storage: Long press " >2s Save NET FUNC ESC " in the optical power meter interface to store the current measurement information, and the current storage serial number will be displayed on the interface. The device can store up to 500 pieces of data. After 500 pieces of data are exceeded, the first record will be overwritten.
- View: Long press " >2s File LED − " in the optical power meter interface to enter the stored value viewing interface. Use the " VFL + " and " >2s File LED − " to turn pages, and long press is supported to turn pages quickly. Short press the " >2s Save NET FUNC ESC " to exit the storage interface.



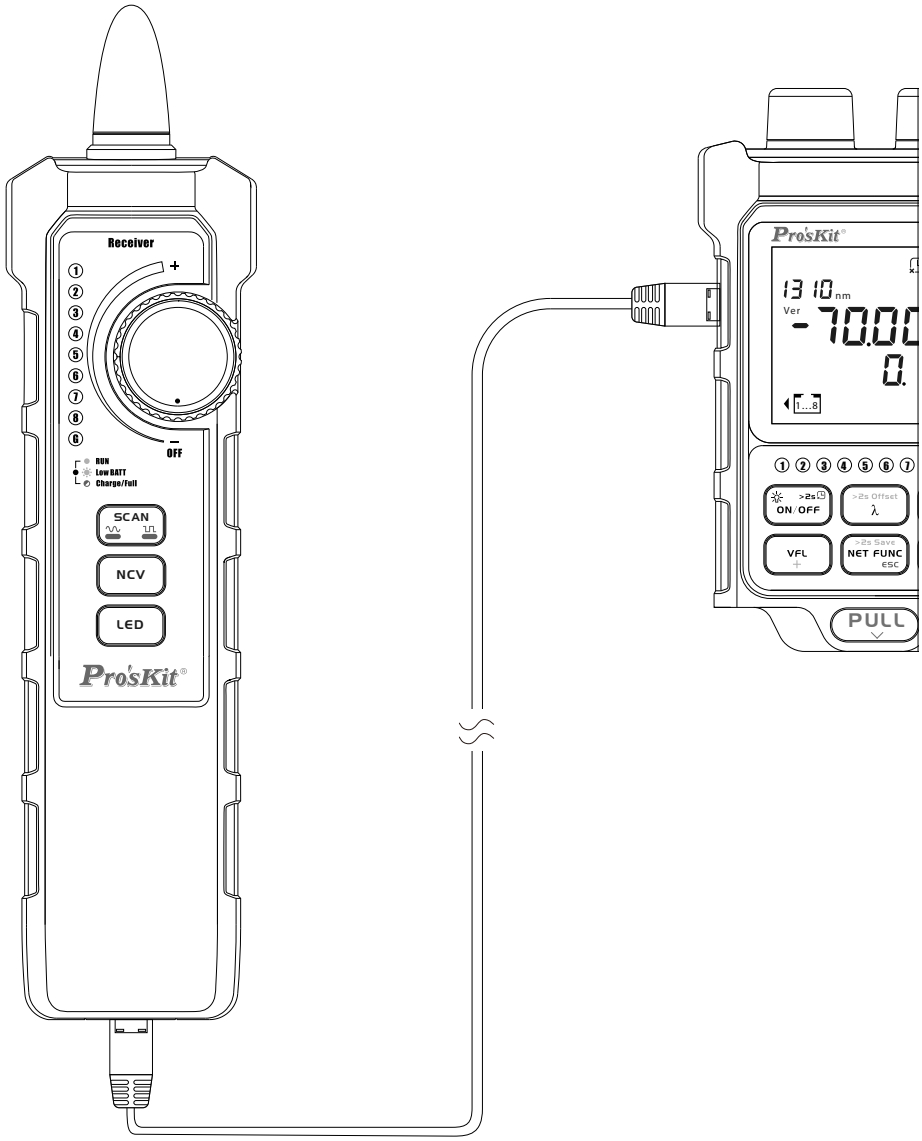
Long press " >2s Offset λ " to enter the offset setting interface, short press " >2s Offset λ " to switch wavelength, short press " VFL + " , and " >2s File LED — " to adjust the set offset, the setting range is [-5, +5], short press " >2s Save NET FUNC ESC " , confirm the offset setting, and exit.

- Short press "VFL +" to switch VFL output mode: CW/Glint/OFF. The " ✳ " icon will be displayed in sync status.
- Short press ">2s File LED −" to turn on/off LED lighting. The " ▭ " icon will be displayed in sync status.



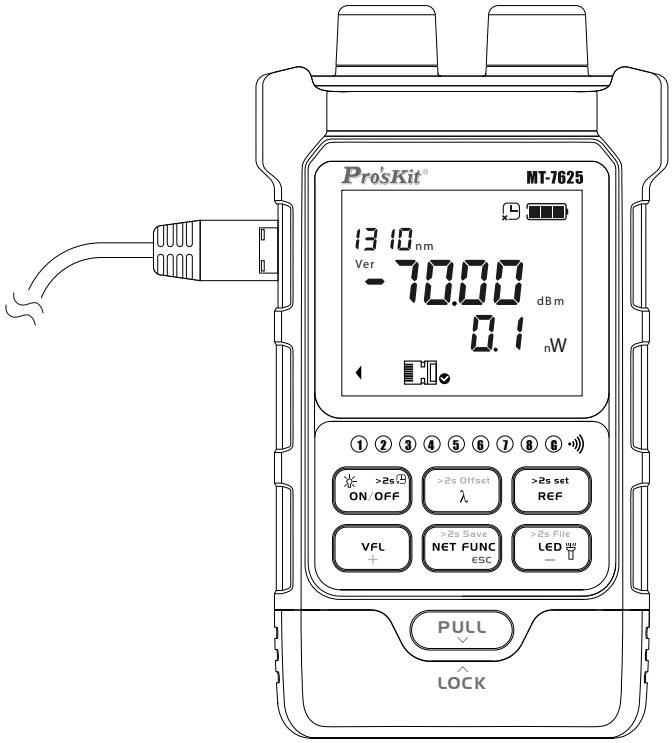
Unplug the network cable test module, short press "[>2s Save NET FUNC ESC]" to enable the network cable test , the "◀ [1...8]" icon will display the synchronization status. Connect both ends of the network cable to the host and module respectively. You can judge whether the network cable is qualified based on the lighting status of the host UI (1,2,---8,G) and module indicators corresponding.

" ◀ " flashes to indicate that the network cable is plugged into the RJ45 test socket on the left.



Short press " >2s Save NET FUNC ESC " to enable the network cable test , and the " 1...8 " icon will display the synchronization status.

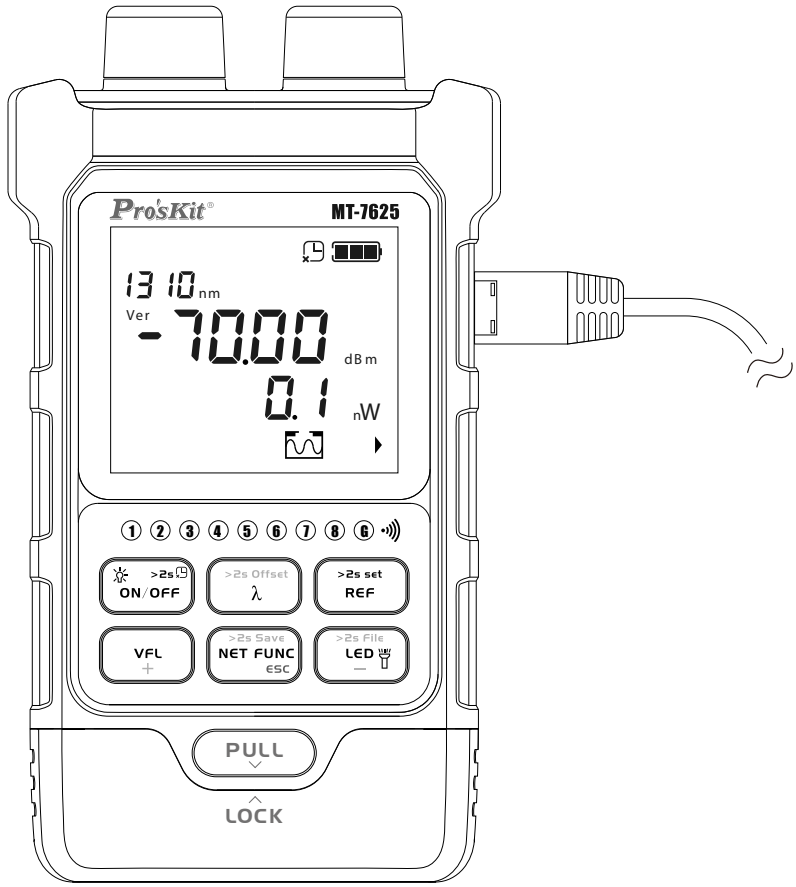
Connect both ends of the network cable to the host and module respectively. You can judge whether the network cable is qualified based on the lighting status of the host UI (1,2,---8,G) and module indicators corresponding.



Short press " >2s Save NET FUNC ESC " twice to enable the network cable test crimping function, and the " " icon will be displayed in sync status.

Connect the tested connector to the RJ45 test socket on the left side of the host. You can judge whether the network cable is qualified according to the lighting status of the host UI indicator. " " lights up if the crimping test fails, and the LED light flashes corresponding to the core number of the failed crimping wire. " " lights up and the crimping test is passed.

" ◀ " flashes to indicate that the network cable is plugged into the RJ45 test socket on the left.

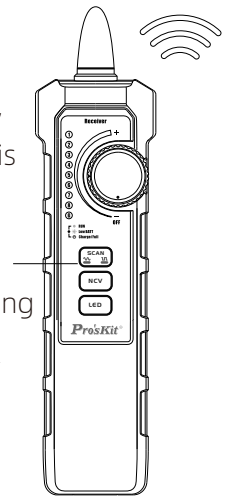


Short press " >2s Save NET FUNC ESC " three times to turn on the cable tracing function (analog), the " ∿ " icon will display the synchronization status, and the " G " LED will flash continuously.

Connect the cable connector to the RJ45 test socket on the right side of the host. At this time, the host setting of the cable tracing function is completed and to set the receiver.

" ▸ " flashes to indicate that the network cable is plugged into the RJ45 test socket on the right.

Network Cable Tracing-Receiver Settings (Analog)



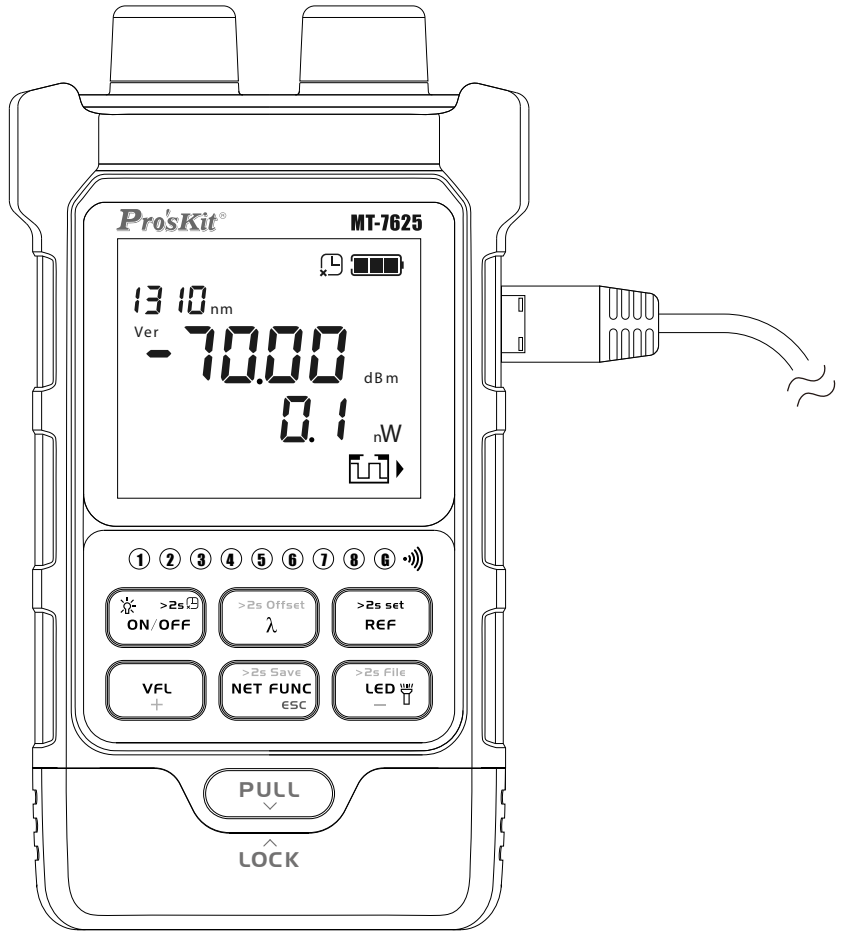
The red indicator light is on, indicating that the receiver is in analog signal receiving mode, and the green indicator light is on, indicating that the receiver is in digital signal receiving mode.

Turn the receiver knob clockwise to turn the receiver on. Short press "SCAN" to turn on the cable tracing function (analog). At this time, the receiver will beep and the red backlight of the button will light up.

When the probe gradually approaches the test network cable, the receiver will emit regular beep reminders and the light ring above will flash. The adjustment knob on the receiver is used to adjust the sensitivity (clockwise to the end for the highest sensitivity).

▲Note: When searching for cables in the network, due to the network switch (the transmitter transmits the signal and transmits it to other network cable ports through the internal circuit of the switch), several network cables close to the target network cable may have audio signals. In this case, you can try to turn the receiver sensitivity knob counterclockwise to reduce the receiving sensitivity to find the target network cable.

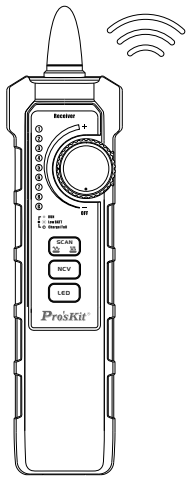
Note: The modes of the host and receiver need to be consistent, otherwise the signal will not be received.



Short press " >2s Save NET FUNC ESC " four times to turn on the cable tracing function (digital), the " " icon will display the synchronization status, and the " G " LED will flash continuously.

Connect the cable connector to the RJ45 test socket on the right side of the host. At this time, the host setting of the cable tracing function is completed and to set the receiver.

" ▸ " flashes to indicate that the network cable is plugged into the RJ45 test socket on the right.

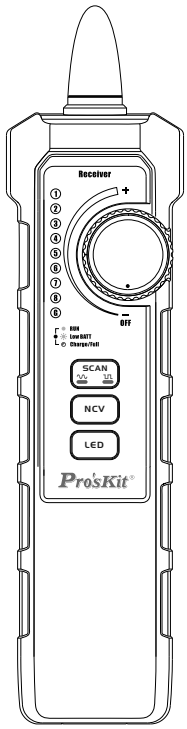


Turn the receiver knob clockwise to turn the receiver on. Short press " SCAN " to turn on the cable tracing function (digital). At this time, the receiver will beep and the green backlight of the button will light up.

When the probe gradually approaches the test network cable, the receiver will emit regular beep reminders and the light ring above will flash. The adjustment knob on the receiver is used to adjust the sensitivity (clockwise to the end for the highest sensitivity).

▲Note: When searching for cables in the network, due to the network switch (the transmitter transmits the signal and transmits it to other network cable ports through the internal circuit of the switch), several network cables close to the target network cable may have audio signals. In this case, you can try to turn the receiver sensitivity knob counterclockwise to reduce the receiving sensitivity to find the target network cable.

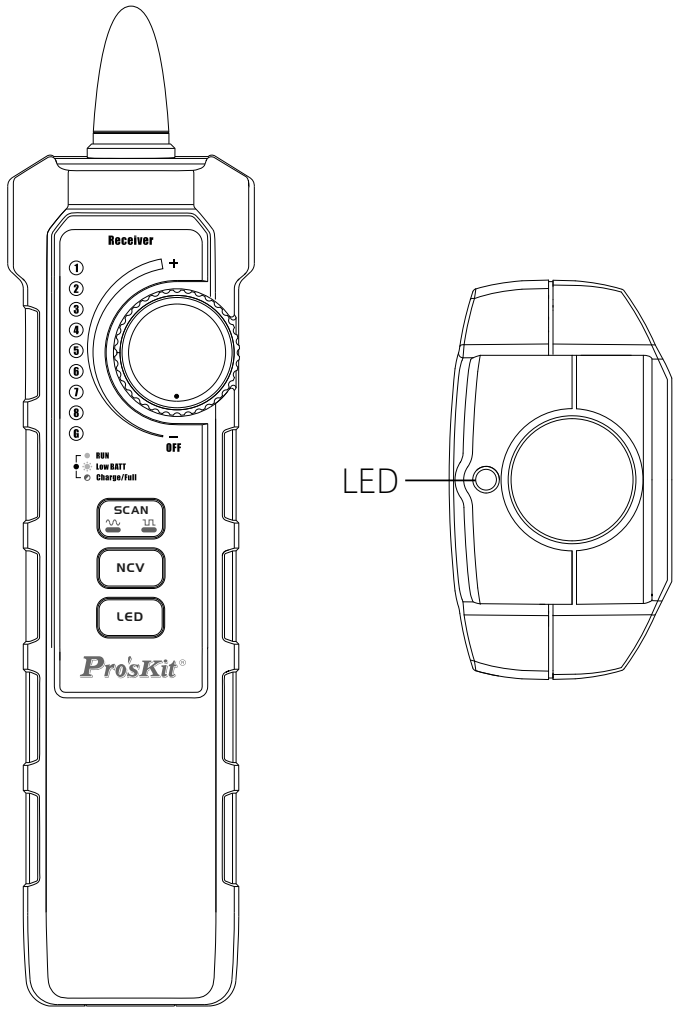
Note: The modes of the host and receiver need to be consistent, otherwise the signal will not be received.



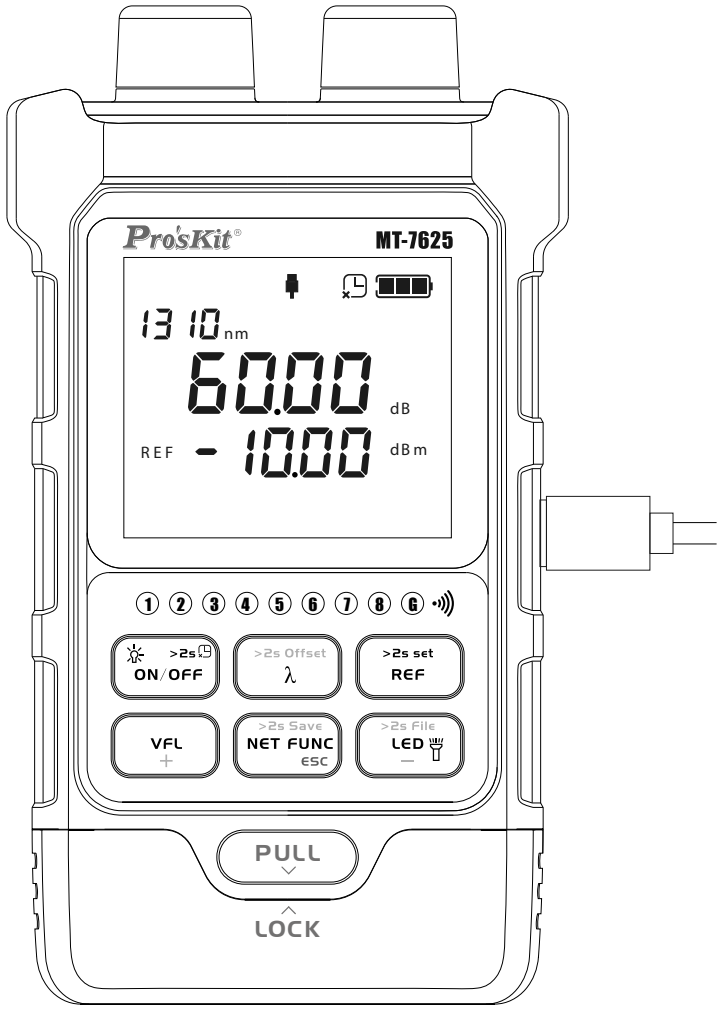
Turn the receiver knob clockwise to turn the receiver on. Short press " NCV " to turn on the NCV mode. When a voltage greater than the threshold is detected, the receiver horn will make a "beep" sound, and the ring light on the probe will flash.

Note: Nearby external interference sources (such as the charger without grounding, etc.) may trigger non-contact voltage detection.

Even if there is no indication, voltage may still be present. Don't rely solely on a non-contact voltage detector to determine whether voltage is present on a wire. Detection operations may be affected by factors such as socket design, insulation thickness and type.



Turn the receiver knob clockwise to turn the receiver on. Short press " LED " to turn on the LED light function.



Communication: Use a USB-C data cable to connect the host to the PC, install the communication software on the PC to perform data transfer operations. The " " icon flashes, indicating that communication is in progress.

Software download link:
https://www.prokits.com.tw/Product/MT-7625/

Optical Power Meter Specifications and Functions

Detector Type	InGaAs
Wavelength	700-1700nm
Response Range	2.5mm universal connector
OPM Connector	
Measurement Wavelengths	850/980/1270/1300/1310/1490/1550/1577/1625/1650nm
Measurement Range	-70~+10dBm
Accuracy*	(1550,1310nm)±0.2dB，（850nm,980nm,1300nm,1490nm,1625nm,1650nm)±0.3dB，(1270nm,1577nm)±1dB
Resolution	0.01dB
Unit	dB,dBm, mW, uW, nW
Modulation Detection	270/330/1k/2kHz（Only for Pro'sKit Light Source products）
Data Storage	500 groups
Wavelength Memory	Yes
User Self-calibration	Yes
REF	Yes
Back Light	Yes

Visual Fault Locator Functions

Output Power	15mW
Testing Distance**	10-12km @SM
VFL Connector	2.5mm universal connector
Wavelength	650±20nm
Operation Mode	CW/2Hz Glint

Network Line Sequence Function

Applicable network	UTP/STP Network Cable
Cable Interface	RJ45 (8P8C+G)
Test Type	Network Cable Sequence
Test Distance	600m

Specification

Audio Hunt function

Hunting Function	Analog & Digital Mode
Detection Frequency	455kHz
Detection Distance	600m

Line Pressing Function

Crimp Detection	RJ45 8pin: > 10cm
Illumination	LEDx1
Auto Power-off	Yes(no operation in 10 minutes)
Low Battery Indicator	Battery level
Charging Socket	Type-C
Charging time	< 3hours
Working Time	>30 hours(only OPM)
Power Source	Li-ion 3.7V/450mAh
Operating Temperature	-10~50℃
Humidity	<90%RH
Size	114*65*29mm
Weight	120g

Receiver Specifications and Functions

Power Switch	Knob Operation
Function Selection	Silicone ButtonX3
Response Frequency	455KHz
Volume	≥85dB
Receiver Signal	Analog/ Digital
Speaker Audio	Analog Detection (633Hz/833Hz) & Digital Detection(833Hz/1500Hz)
Sensitivity	Knob Adjustment
Test Interface	RJ45× 1
Line Sequence Indicator	LED ×9
Status Indicator	LED× 3

Non-contact Electricity Test Function	
Non-contact Voltage Detection	AC 90V-1000V
Indicator Light	LED ×1（ring)
Speaker Audio	1500HZ
LED Light Functions	
Illumination	LED×1
Headset Jack	Φ3.5mm×1
Charging Socket	Type-C
Power Source	Li-ion 3.7V 450mAh
Working Current	≤250mA
Size	180*45*26mm
Weight	100g
Packing List	Type-C Charging Cable x1, Headset x1, RJ45 Patch-cord x1, Alligator Clip Patch-cord x1, Bag, User Manual

*At 23℃±2℃, 40%-60%RH, with standard testing fiber.
Accuracy range: +3dBm~-60dBm, other references are as follows:
±0.8dB: +3dBm~+6dBm, -60dBm~-65dBm@1550nm
±3.0dB: +6dBm-+10dBm,-65dBm--70dBm@1550nm
** Test distance will be influenced by environmental conditions and visual sensitivity.

General maintenance

The fiber optic connector should avoid contact with hard objects and keep clean. When storing, keep it ventilated and dry to avoid moisture. When not in use for a long time, charge it once every 3 months to 50%-80% of the battery.

Troubleshooting

Failure	Failure Cause	Solution
Cannot power on	battery power is too low	Charge the battery
Immediately shutdown after power on	Low battery	Charge the battery
The operation is invalid	The instrument program is disordered	turn on the device again
improper measurement error	The face of the light port is dirty	Clean the fiber optic connector