

***Pro'sKit***<sup>®</sup>

**4 IN 1 Fiber Optic Power Multi-Meter  
MT-7602 USER'S GUIDE  
用戶手冊**

English

繁體中文

简体中文



## USER'S GUIDE

4 IN 1 Fiber Optic Power Multi-Meter

English

## WARNING

You are cautioned that changes or modifications not expressly approved in this document could avoid you authority to operate this equipment. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.



## Precautions for Use

### Use batteries

At the same time, can not use different style or different capacitance batteries. And only charge the rechargeable batteries.

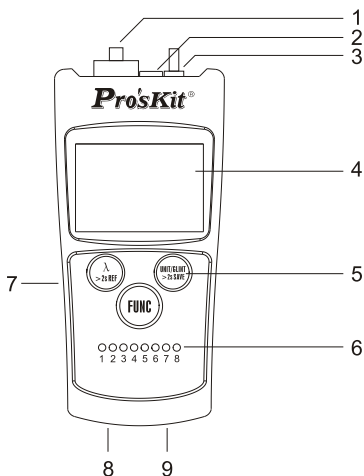
### Avoiding condensation problems

As much as possible, avoid sudden temperature changes. Do not attempt to use the device immediately after moving it from a cold to a warm location; or to raise the room temperature suddenly, as condensation may form with in the drive. If the temperature changes suddenly while using the device, stop using it and take out batteries for at least an hour.

### Storage

When long time no use, must take out the batteries to avoid destroying the device.

Description



1-InGaAs detector (FC/UPP)

2-LED lighting

3-VFL optic adapter

4-LCD

5-Operation buttons

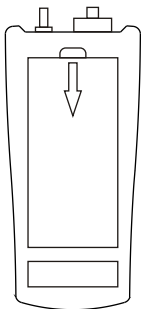
6-Network cable LED

7-Micro USB charging socket

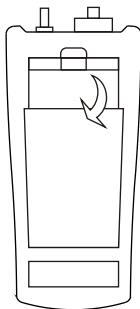
8-RJ45 cable testing socket

9-RJ11 telephone line testing socket

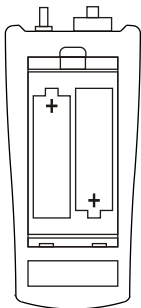
## Install the Battery



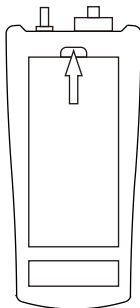
1. Pull the battery cover lock



2. Raise the battery cover

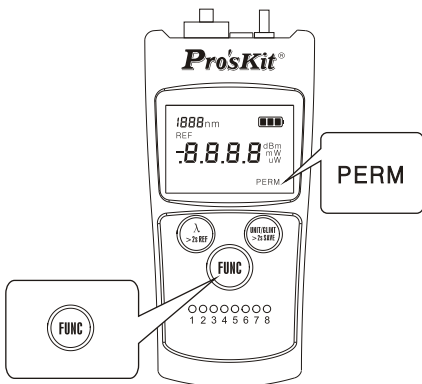



3. Install the battery correctly




4. Put the battery cover back and lock

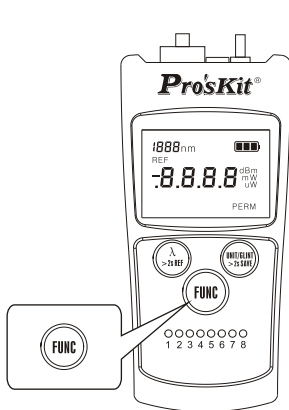
## On/Off and Permanent On



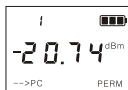
Press “  ” button to turn on the meter . Press button again for two seconds or more to turn off the meter.

This meter comes with power-saving function; normal boot and ten minutes without any operation, the device will automatically shut down. If you need to shield this function and enable the meter keeps on working, press the “  ” button and hold when you boot the instrument. After two seconds, the meter display will show "PERM" ,which means permanent power on.

## Function Selection



Optical Power Meter



Data Access




Visual Fault Locator



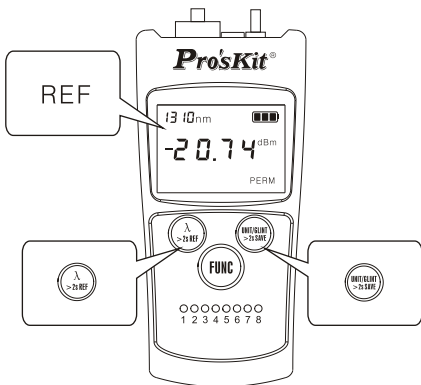
Flashlight






Network Cable/  
Telephone Wire Testing

After booting, the default function is the optical power meter. Press “” button, you can cycle Optical Power Meter - Date Access - VFL - Flashlight- Network Cable/Telephone Wire Testing.

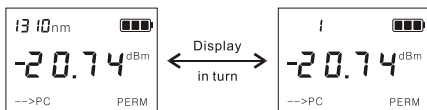
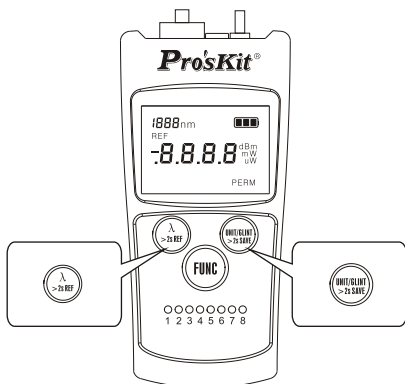
## Optical Power Meter






As optical power meter, press “” button to select different wavelengths to measure. The standardized wavelengths are 850nm, 1300nm, 1490nm, 1550nm, 1625nm. The unit display is mW / uW value and dBm value, which can switch by pressing “” button.

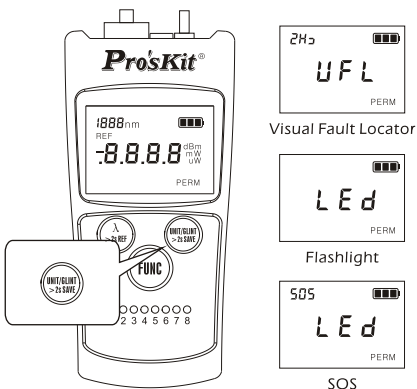
Long press “” button until the LCD shows up “REF”, you can set the current power value as a reference value.


## Data Storage




In data access interface, LCD will show "PC". The figure and wavelength will display in turn. Press "  " / "  " to check the saved data. Press "  " for 2 seconds to save current wavelength & value (Max: 500 traces). If exceeds, the 501 data will cover the first one and so on.

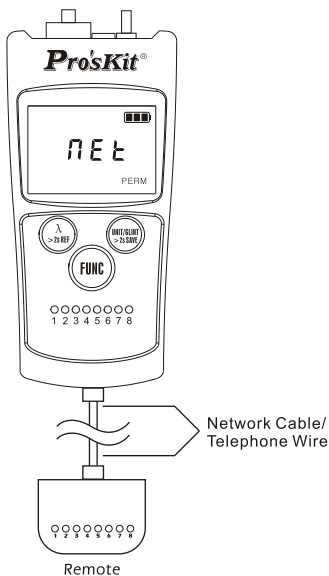
## Visual Fault Locator/LED Flashlight



As a visual fault locator, press “” button, you can choose the laser remains on or flashing. In the flashing state, the screen display “2Hz”, and the flashing frequency is 2Hz.

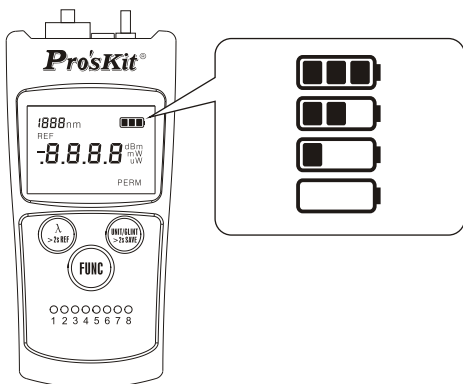
As a LED flashlight, press “” button, you can choose the LED light remains on or flashing in SOS encoding mode. Under SOS function status, the screen display “SOS”.

## Network Cable/Telephone Wire Tester



Network cable/Telephone wire testing function is used for cabling network, connecting and disconnecting network cable, verifying the line sequence. It starts testing when this function is chosen. Eight indicators are used to display the sequence of lines.

## Power Indicator



## Four levels indication of power detection



Represents the remaining 80%---100% electricity



Represents the remaining 40%---80% electricity



Represents the remaining 20%---40% electricity



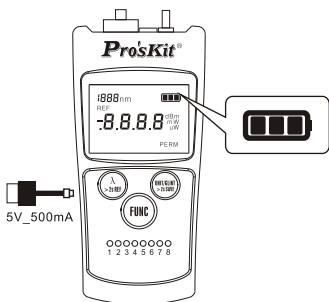
Represents the remaining electricity less than 20%

## Charge

The device is rechargeable. When use rechargeable batteries and low battery indication is shown on the device, you should promptly shut down and recharge it. Long time undervoltage will shorten the lifetime of the rechargeable battery.

Connect the AC adapter to the device correctly, it can charge automatically. Besides, computer USB port can also be used for charging. The battery remaining indicator keeps flashing during charging. It will stop when the charging is finished. The battery has finished the fast recharge and can be used directly. If you do not stop recharging at this time, the device will continue the trickle charge state, using small current to supply natural discharge. But this process is not more than 48 hours.

The device can still be used while charging. But do not plug in the AC adapter when there is no rechargeable battery inside, or it will cause a high temperature and combustion, even explosion.



## Meter Maintenance

### General maintenance

Optical fiber connect the adapter should avoid contacting with hard objects and keep clean.

Should be stored in a dry and ventilated place to avoid moisture.

When unuse for long time, should remove the batteries before storage.

### Fault and solution

Failure name	Failure cause	Solution
Cannot boot	Check the battery has power or not	Check the batteries are installed correctly
Immediately shutdown after booting	Check the battery has power or not	Replace or recharge the batteries
Can display, but all operations are invalid	The device program is disordered	Reboot
Cannot charge	Use non-rechargeable battery.	Reinstall the rechargeable batteries
Garbled	Incorrect reset	Reboot

## Detail Parameters

	MT-7602
Measurement range	-70dBm~+10dBm
Wavelength cal.	850nm,1300nm,1310nm,1490nm,1550nm,1625nm
Resolution	+6~-60dBm(0.01dB)/-60~-70dBm(0.1dB)
Accuracy*	(1550nm,1310nm)±0.2dB/(1490nm,1625nm, 1650nm)±0.3dB (850nm,980nm, 1300nm)±0.4dB
Date storage	500 Records
Linearity	±2%
Freq. identification	270Hz,1KHz,2KHz
Ref	yes
Detector type	InGaAs
Optic adapter	FC/UPP
Application fiber type	9/125 μ m~62.5/125 μ m
Response range	700~1700nm
Auto off	yes
Battery type	SIZE AA *2
Battery lifetime	>100H(Only OPM)
VFL	650nm±20nm,1mW,2.5mm Universal
Network cable/ Telephone wire	UTP LAN cable(8P8C),Telecom cable(6P2C/6P4C/6P6C)
Operate temp.	-10°C~+60°C
Storage temp.	-20°C~+70°C
Relative humidity	<90% no dew
Size	125mm*52mm*34mm
Weight	90g(W/O battery)

\* Accuracy range: +3dBm~-60dBm, Others as following:

±0.8dB: +3dBm~+6dBm, -60dBm~-65dBm

±3.0dB: +6dBm~+10dBm, -65dBm~-70dBm