Pro'sKit®

# MT-7602

## USER'S GUIDE

4 IN 1 Fiber Optic Power Multi-Meter

English

**WARNING**

You are cautioned that changes or modifications not espressly approved in this document could void yout 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.

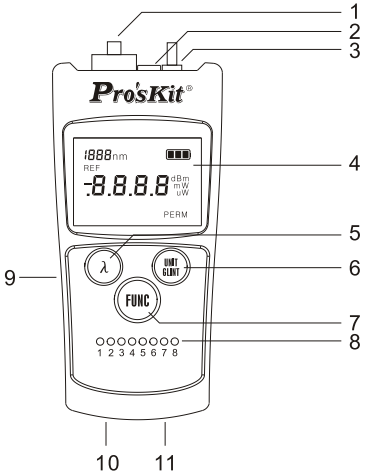
## Avoiding condensation problems

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

## Storage

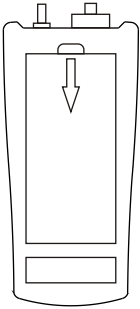
When long time no use,must take out the batteries to avoid destroying the device.

# Description

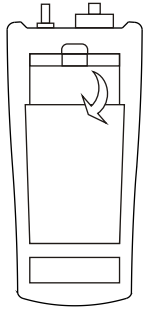



| |
|---|
| 1-InGaAs detector(FC/UPP) |
| 2-LED |
| 3-VFL optic adapter |
| 4-LCD |
| 5-Wavelength Select Button |
| 6-Glint@VFL and Unit@VFL Function Button |
| 7-Switch/Function Select Button |
| 8-Network cable LED |
| 9-MiniUSB Charging Socket |
| 10-RJ45 Testing Socket |
| 11-RJ11 Testing Socket |

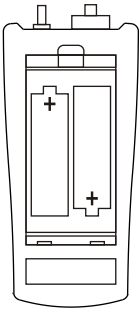
# Installing the battery



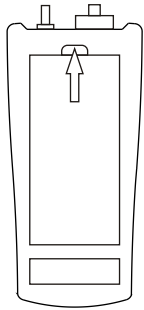
1.Pull the battery cover lock



2.Raise the battery cover

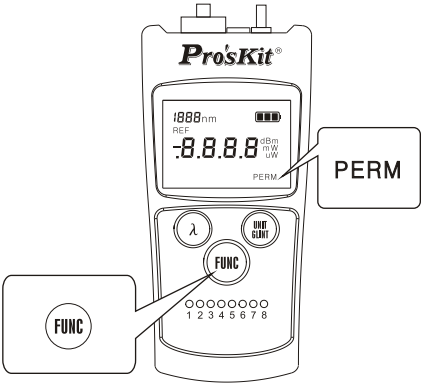


3.Installing the battery correctly



4.Push the battery cover and lock

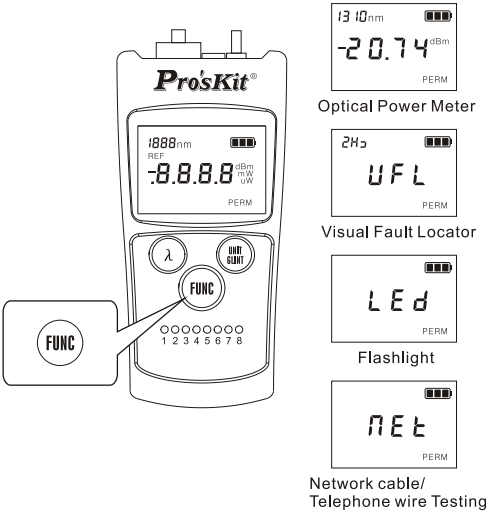
# On/Off and Permanent On




Press " FUNC " button will turn on the meter . Press button again for two seconds or more will turn off the meter.

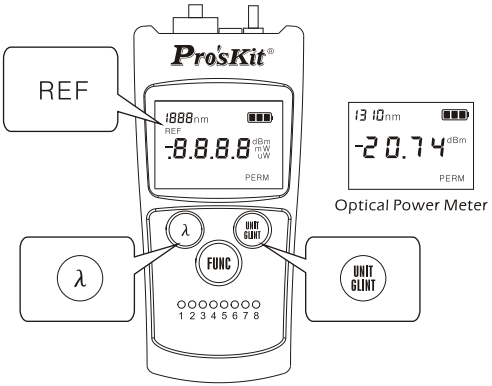
This meter has a power-saving function, normal boot and ten minutes without any operation, the device will automatically shut down. If you need to shield this function and enable the meter keeps on working, only need to press the " FUNC " button and hold when you boot the instrument. After two seconds,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

## Function Selection




After booting, the default function is the optical power meter. Press " FUNC " button, you can cycle through switch to Optical Power Meter, VFL, Flashlight, Network cable/Telephone wire Tester.

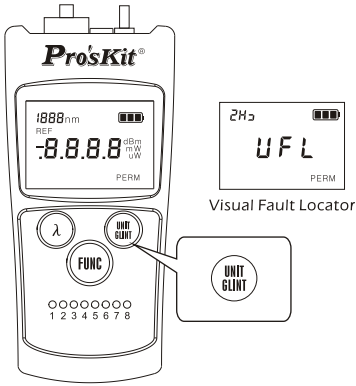
# Optical Power Meter




As optical power meter, press "λ" button can select different wavelengths to measure. This meter's standardized wavelengths are 850nm, 1300nm, 1490nm, 1550nm, 1625nm. The unit displayed is mW / uW value and dBm value, which can switch through pressing "UNIT GLINT" button.

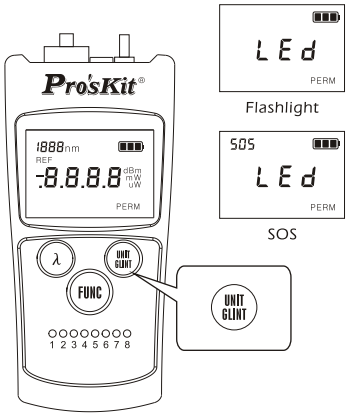
Long press "λ" button until the LCD shows up "REF" words, you can set the current power value as a reference value. Long press "UNIT GLINT" button , and when the screen display "REF", you can check the REF value.

# Visual Fault Locator



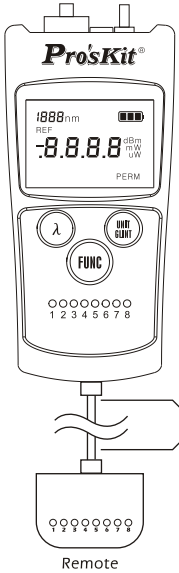

As a visual fault locator, press " UNIT CLINT " button, you can choose the laser remains on or flashing. In the flashing state, the screen display identifier " 2Hz ", and the flashing frequency is 2Hz.

# LED Flashlight



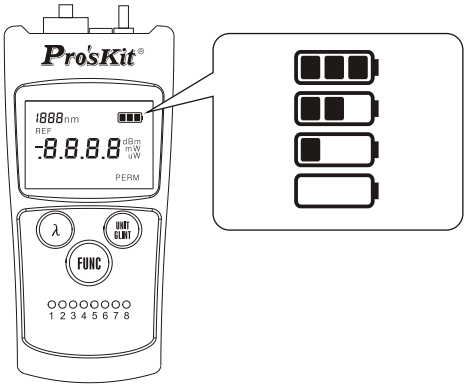

As a LED flashlight, press " UNIT GLINT " button, you can choose the LED light remains on or flashing in SOS encoding mode. Under SOS function status , the screen display identifier " SOS ".

# Network cable/Telephone wire Tester




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

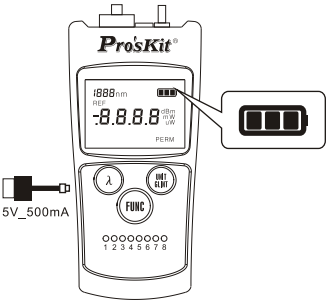
Represents the remaining electricity less than 20%

# Charge

The instrument has a charging function. When use rechargeable batteries and a low battery indication shows on the instrument, you should promptly shut down it and recharge. 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 in strument will continue the trickle charge state, using small current to supply natural discharge. But this process is not more than 48 hours.

The instrument can still be used while charging. But do not plug in the AC adapter when it is not rechargeable battery inside, or it will cause a high temperature and combustion, even explosion.



# Meter Maintenance and Calibration

## 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 un use 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 valid | The instrument program is disordered | Reboot |
| Cannot charge | Using non-rechargeableable battery. | Reinstall the rechargeable batteries |
| Garbled | Incorrect reset | Reboot |

## Detail Parameters

| | MT-7602 |
|---|---|
| Measurement Range | -70~+6dBm |
| Wavelength cal. | 850nm,1300nm,1310nm,1490nm,1550nm,1625nm |
| Resolution | +6~-60dBm(0.01dB)/-60~-70dBm(0.1dB) |
| Accuracy | (1550nm,1310nm)±0.2dB/(1490nm,1625nm)±0.3dB /(850nm,1300nm)±0.4dB |
| Linearity | ±2% |
| Freq. Identification | 270Hz,1KHz,2KHz |
| Ref | yes |
| Detector type | InGaAs |
| Optic adapter | FC/UPP |
| Application fiber type | 9/125μm~62.5/125μm |
| Response range | 700~1700nm |
| Auto off | yes |
| Battery Type | SIZE AA *2 |
| Battery lifetime | >100H(Only OPM) |
| VFL | 635~650nm,>1mW,2.5mm Universal |
| Network cable/ Telephone wire | UTP LAN cable(8P8C),Telecom cable(6P2C/6P4C/6P6C) |
| Operate temp. | -10℃~+60℃ |
| Storage temp. | -20℃~+70℃ |
| Relative humidity | <90% no dew |
| Size | 125mm*52mm*34mm |
| Weight | 90g(W/O battery) |

Test conditions: -10dBm@1550nm 23±2 degrees Celsius, 40%~60% humidity, using standard test fiber
* +10~+5 dBm and -62~-70 dBm measurement data for reference