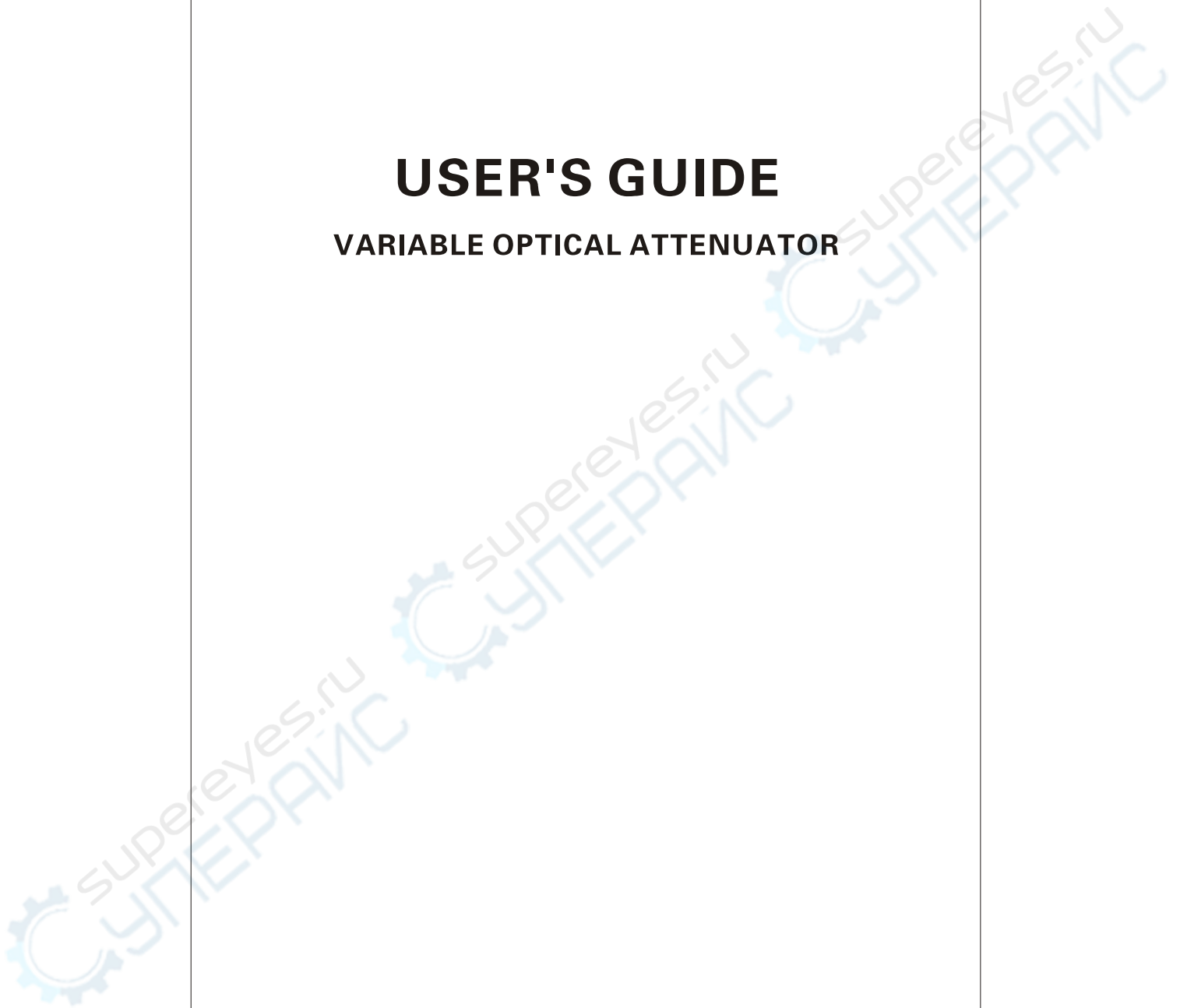


USER'S GUIDE

VARIABLE OPTICAL ATTENUATOR



WARNING

You are cautioned that changes or modifications not expressly approved in this document could void your 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.

NOTE

Use batteries

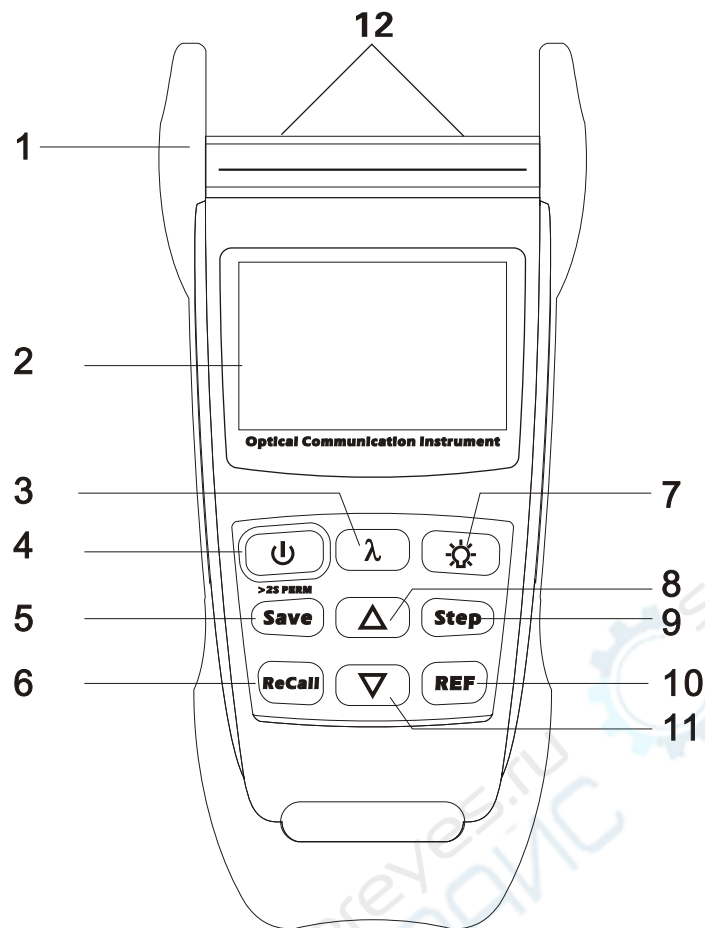
At the same time, can not use different style or different capacitance batteries.
And only charge the rechargeable batteries.

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.



1-Protection rubber

2-LCD, display the status and the attenuation value

3-Wavelength shift key

4-Power key

5-Save key

6-Recall key

7-Back light key

8-Attenuation value increase key

9-Attenuation Step key

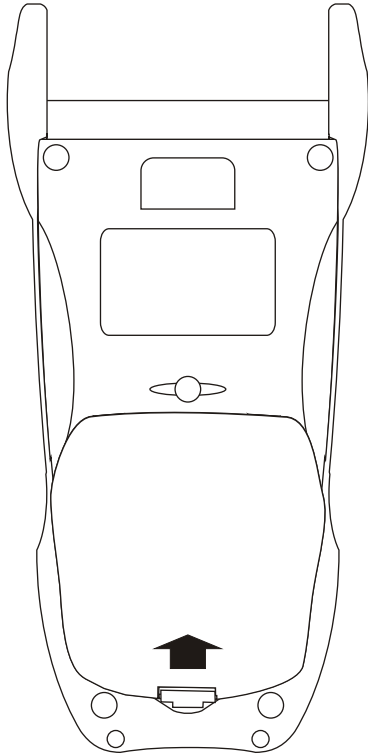
10-Reference set key

11-Attenuation value reduce key

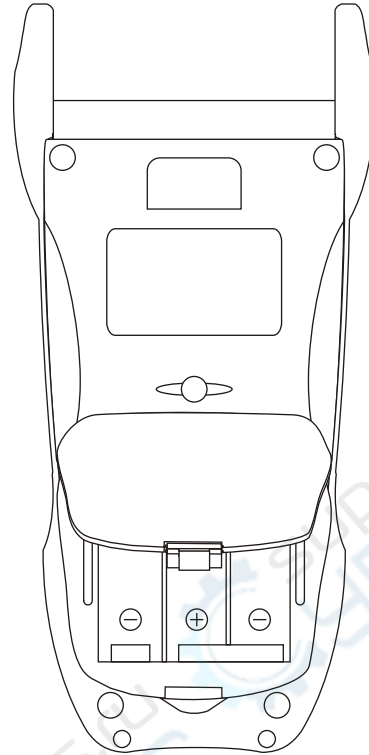
12-Connector (standard:FC/PC)

Set batteries

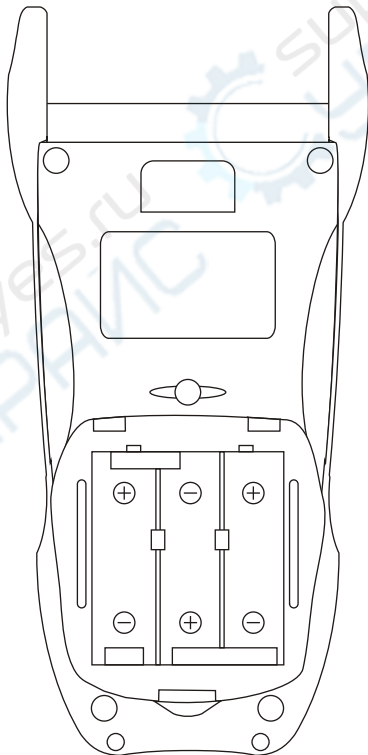
Warning: At the same time, can not use different style and different capacitance batteries.



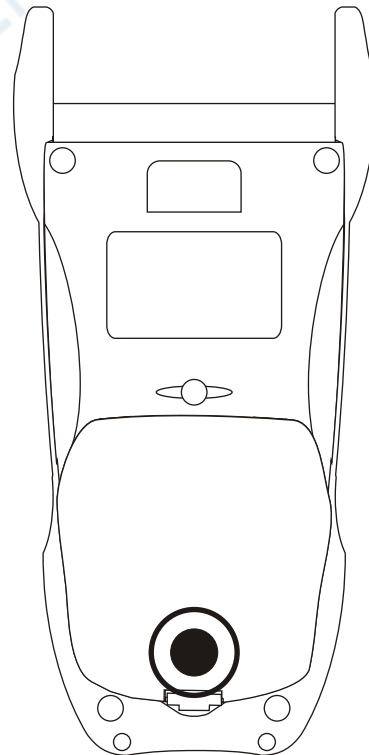
1. Press and push down



2. Open the lid

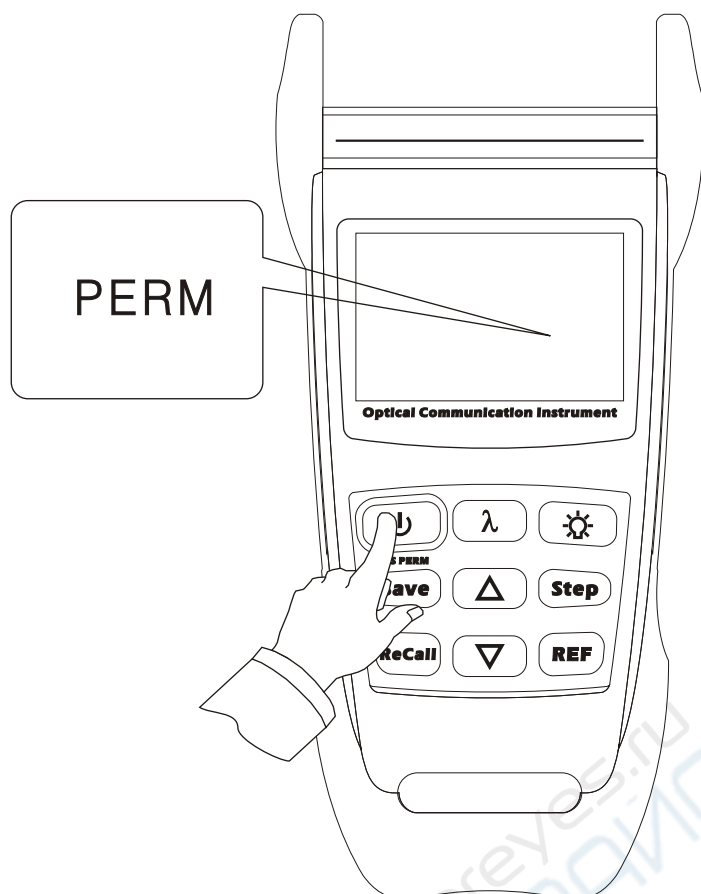


3. Place the batteries



4. Close the lid and push up

Power on/off, auto power off

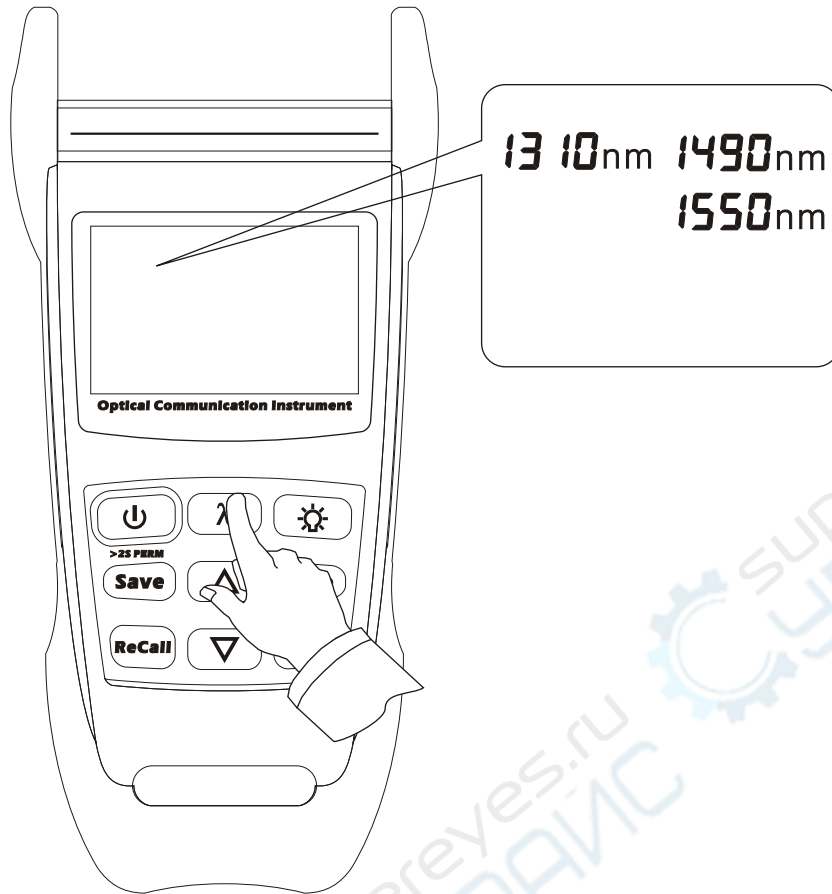


Press the “ON/OFF” key to turn on the device with auto power off. (About 10 minutes no key pressed, it will auto power off.)

Keep pressing “ON/OFF” key for 2 seconds when turn on the device, the auto power off will be cancelled, and the LCD will show “PERM” .

Also press it to shut the device.

Wave select



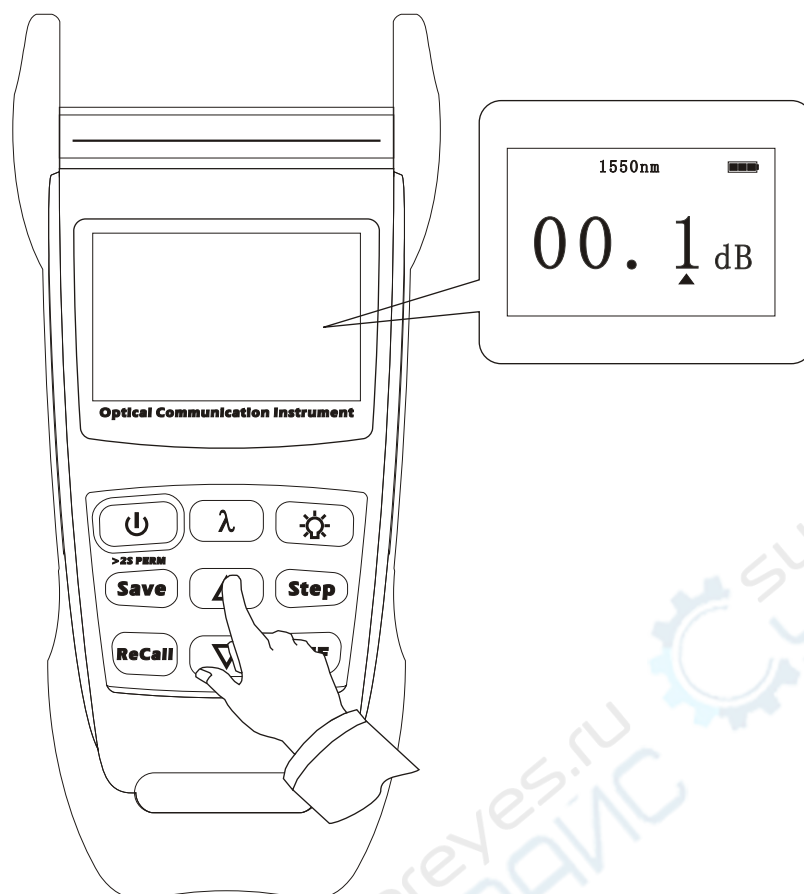
Press the “ λ ” key to shift the wavelength.

And the corresponding wavelength will be on the LCD.

It have three wavelengths:

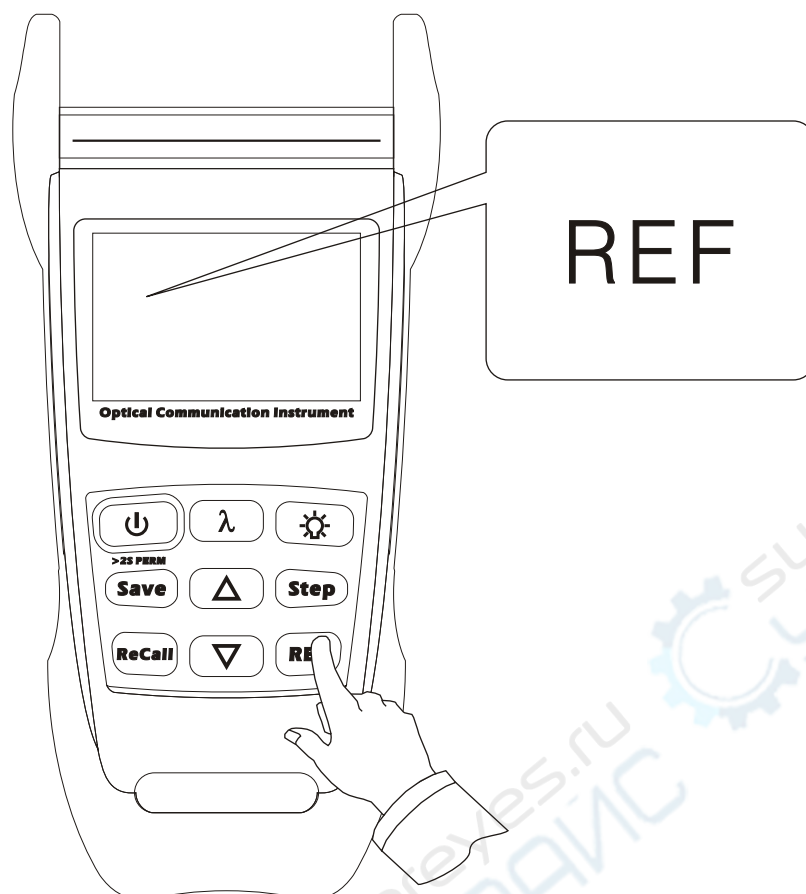
1310nm,1490nm,1550nm.

Adjust the attenuation value



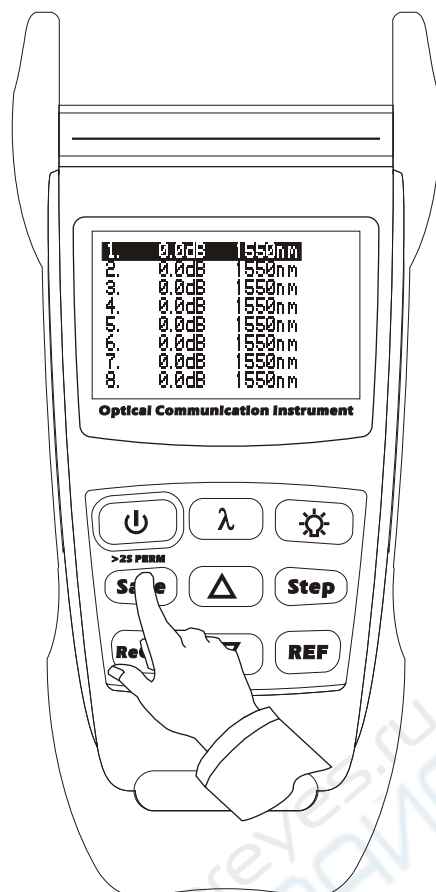
Press the “ Δ ” key to increase the attenuation value and press the “ ∇ ” key to reduce the attenuation value. The Max. attenuation value is 60.0dB and the Min. attenuation value is 00.0dB.

Reference



Press the “REF” key to set the reference of attenuation value , and it will be displayed on the LCD. It will be cancelled when you press the “REF” key again.

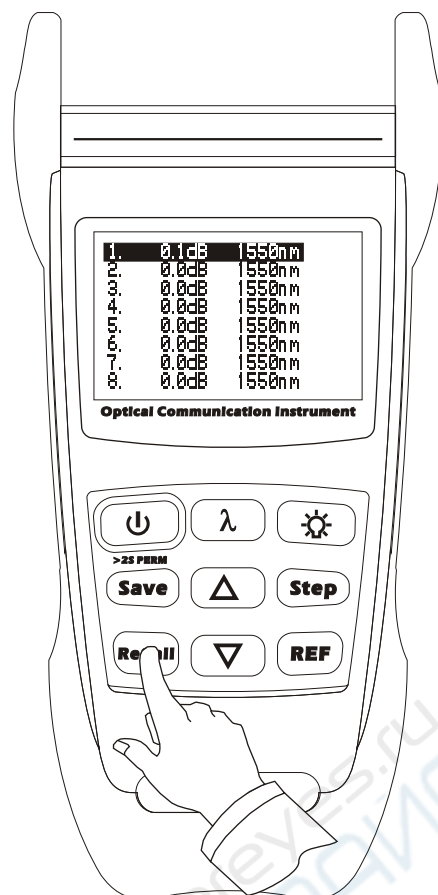
Saving the attenuation value



Press the “**Save**” key to save the attenuation value and it will enter the save menu. It can save eight value .

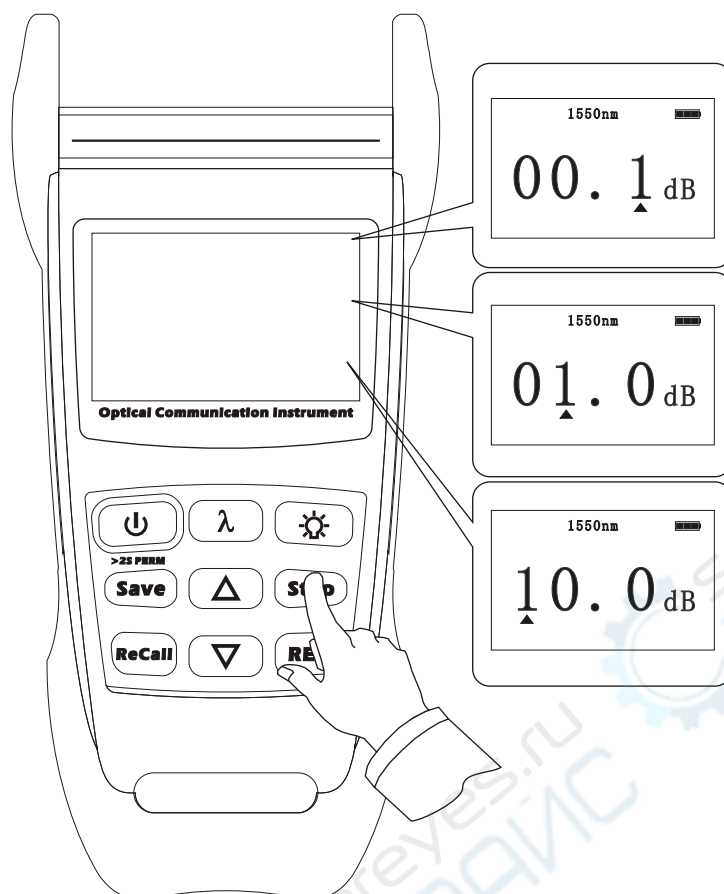
Press the “ $\nabla \Delta$ ” key to select the different record and press the “**Save**” key to save. If you do not want to save the value you can press the “**Recall**” key.

Recall



Pressing the “Recall” key can shift the eight records that you have saved.

Select the attenuation step

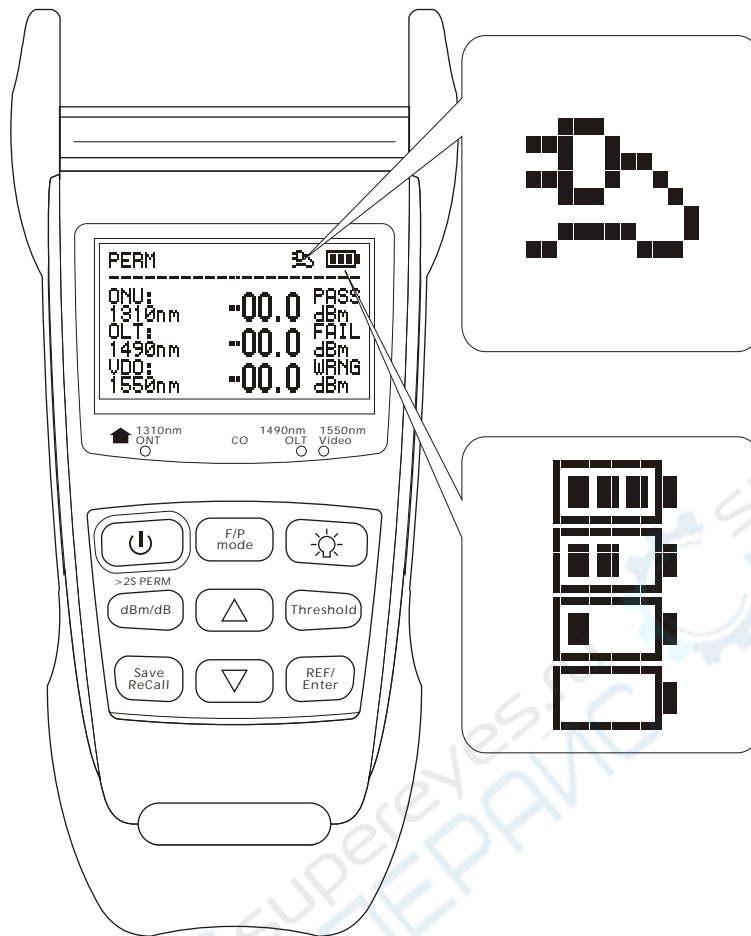






Press the “Step” key to select the different attenuation step.

It has three steps:

1. 0.1dB
2. 1dB
3. 10dB

Battery energy detect



-  Remain 80%---100%
-  Remain 40%---80%
-  Remain 20%---40%
-  Remain less than 20%

If the energy is too low, the beep will be on and device will auto power off.

Battery charge

First you must use the rechargeable batteries. When the energy is less than 20%, you should charge the batteries. Long time low energy, the life of the batteries will be short. When charging, the charging state LED will be red. After charging fully, the LED will be green. Don't charge for more than 12 hours. If charging while using the device, the time will be longer. The rechargeable batteries must be in device when you use the AC/DC adaptor for charging. And do not charge the non-rechargeable batteries, or the device will be destroyed and also lose the guarantee.

Maintenance and calibration

Routine attention

- 1.Fiber-optical adapter should keep clean.
- 2.Please store the device in dry and ventilated place.
- 3.For long period no use , please take out the batteries.

Common malfunction

Described	Malfunction cause	Handle way
Can't turn on	No battery	Check battery setting
After turn on shut it immediately	Check battery capacities	Change battery
Can' t charge	Use Non-rechargeable batteries	Change battery
Display the messy code	Reset is incorrect	Reset
Operation do not have reaction	Program is disorderly	Reset

Calibrated wavelengths	1310nm/1490nm/1550nm
Display range	0~60dB
Adjustable wavelength range	1260nm~1625nm
Fiber type	9/125um
Resolving ability	0.1dB
Minimum insertion loss	<2.5dB
Linearity	± 0.5dB
Repeatability of attenuation setting	± 0.2dB
Return Loss	>40dB
Setting type	On device & Program(optional)
Direction	Simplex
Displayed Mode	Real dB or REF dB
Max. Input Power	<+21dBm
Optical Connector	FC/PC
Display	128*64
Results displayed in	dB
Backlight function	YES
Dry batteries	Size AA x 3
Operating time from dry batteries	>30H
AC/DC adapter	9V/1A
Charge	<12H
Normal range of use	-10°C~+60 °C
Storage and transport	-20°C~+70 °C
Relative humidity	<90% no dew
Size	190mm*92mm*50mm
Net Weight	300g