



REAL OPTIC

Mini Optical Fiber Instrument/OTDR

User's Guide



Importado y Distribuido por Real Optic Limitada

Avenida Ventisquero #1204 Modulo 18 - Renca, Chile - ventas@realoptic.com - www.realoptic.com -WP:+56996374501

**WARNING**

Any undefined change or modification of this manual will deprive you of the right to operate the equipment.

To reduce the risk of fire or electric shock, do not expose the equipment to rain or humidity.

To prevent electric shock, please do not open the shell, and it must be repaired by qualified personnel.

Please ensure no signal in fiber before testing, active fiber may damage the device and not in warranty range.

NOTE

As the laser is harmful to the eyes, don't look directly at the laser outlet and don't attempt to disassemble the cabinet.

PRECAUTIONS FOR USE

Using the battery:

The device can be recharged with a special battery, and can not be replaced with batteries of different type/capacity.

Avoiding condensation:

Sudden changes in temperature should be avoided. Do not use the device immediately after moving the device from the cold area to the hot area, or when the room suddenly heats up, because the device may have condensation phenomenon. If the temperature changes abruptly, stop using it and take out the battery, and it can be turned on after at least an hour.

Storage:

When the device is not used for a long time, please take out the battery to avoid the damage caused by battery leakage.

※ The content of this manual is for reference only, and everything is based on the actual product.

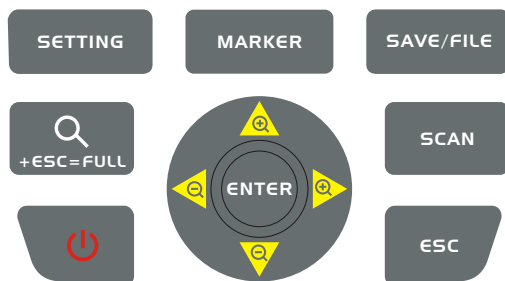


- 1 OTDR
- 2 TF(Micro SD) card slot
- 3 VFL
- 4 OPM
- 5 Charge indicator
- 6 Reset key
- 7 USB interface
- 8 3.2 inch LCD
- 9 Function buttons

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Buttons



Setting:In OTDR and iOLA interface, press to set up.

Zoom control:Operate with direction and ESC key for waveform.

Power:Long press to turn on, or choose to turn off.

Direction:Select up, down, left, and right.

Marker:Switch cursor in OTDR interface.

Save/File:In OTDR and iOLA interface, press to save or enter the file.

Scan:In OTDR and iOLA interface, press to measure.

Esc:Return to the previous menu.

Enter:Enter the next level page or confirm the operation.

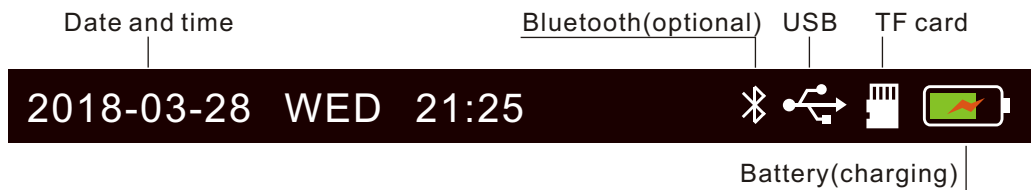


Main Menu

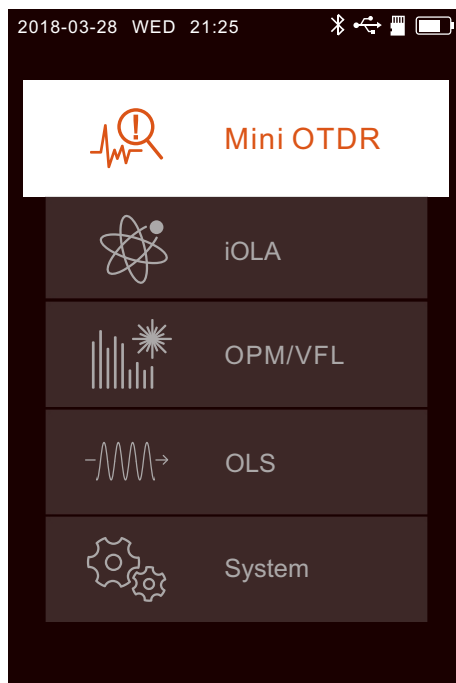
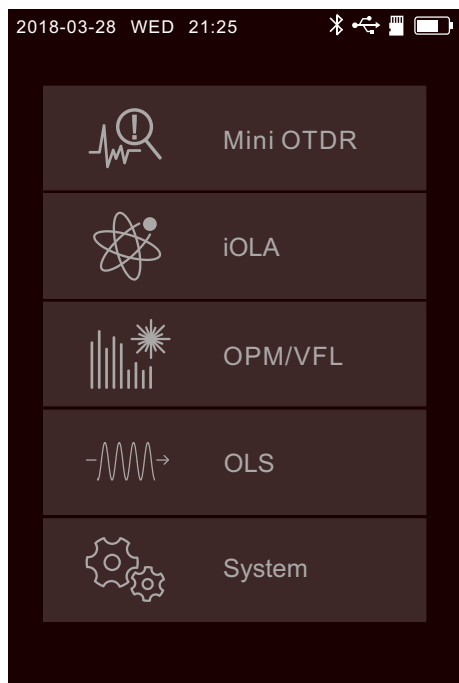
REAL OPTIC

Enter the main menu after booting. There are up to five modules, select by the direction buttons, and then press the "ENTER" button to enter the corresponding functional.

Title Bar



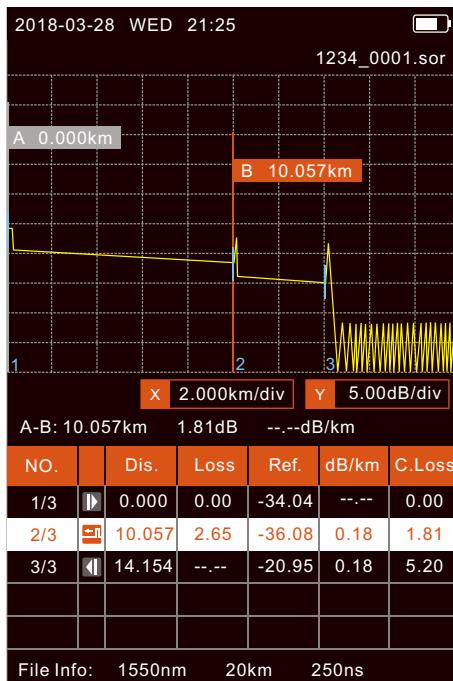
Highlight when the function module is selected



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Select Mini OTDR module in the main menu, and press "ENTER" to enter the OTDR interface.



File name

Waveform region

Scale

The distance and attenuation

Event list

(Measurement warning)

Measurement info



OTDR—Waveform Zoom in/out REAL OPTIC

The current waveform can be scaled after the measurement or the files is opened.



Vertical magnification



Horizontal reduction



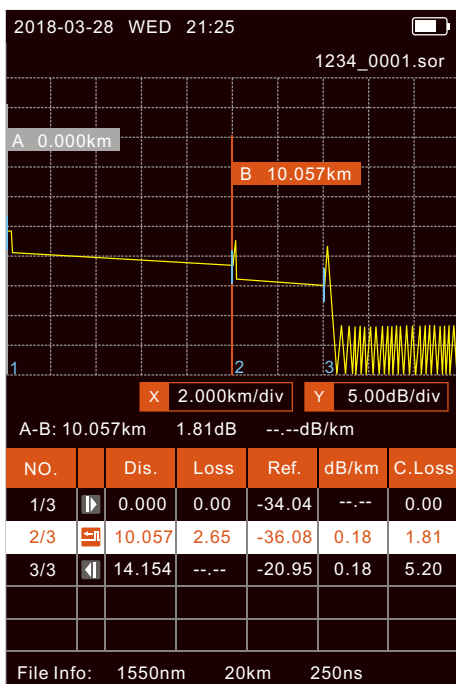
Horizontal magnification



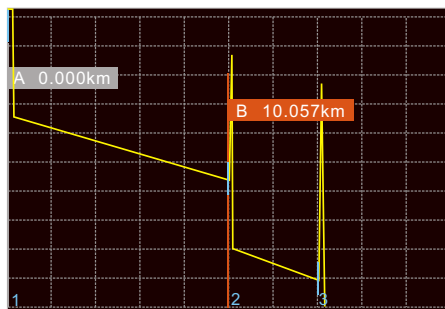
Vertical reduction



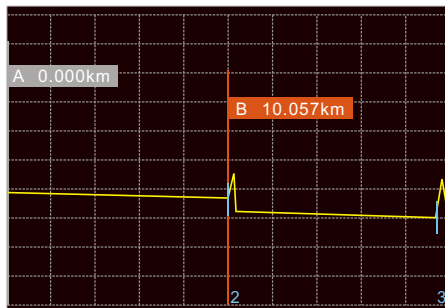
Full-screen display



Vertical scaling



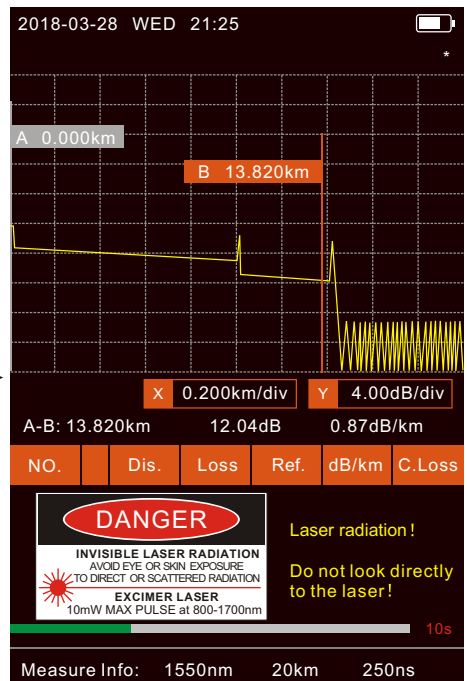
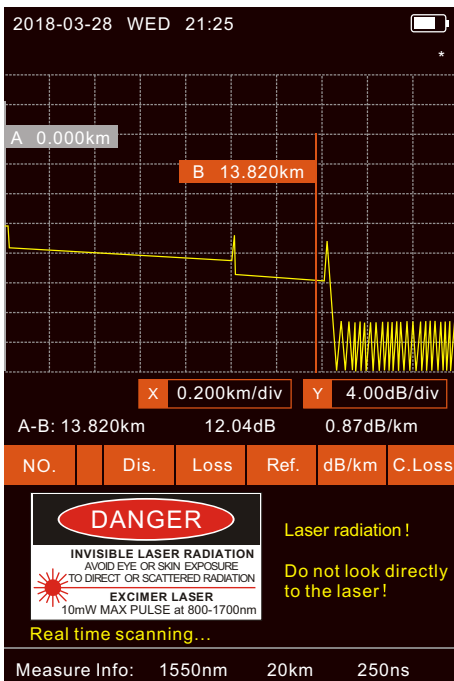
Horizontal scaling



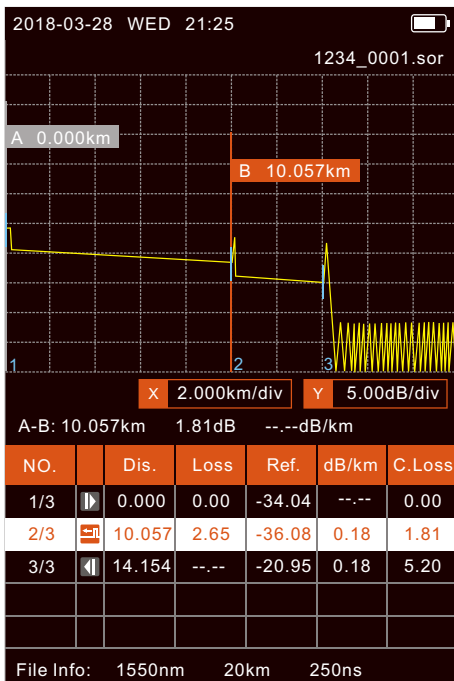
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Press the " **SCAN** " button to run real-time measurement. If the Real time analyse function is activated, press again to run average measurement, the progress bar is displayed at the bottom. Press the " **SETTING** " button in OTDR Interface, Scan type can be switched from "Real time" to "Average" .



The event list shows up to 5 events, which can be viewed by scrolling up and down.







Five event types:

- ▶ — Optic fiber start
- ⏏ — Reflection event
- ⏏ — Attenuation event
- ⏏ — Gain event
- ◀ — Optic fiber ending




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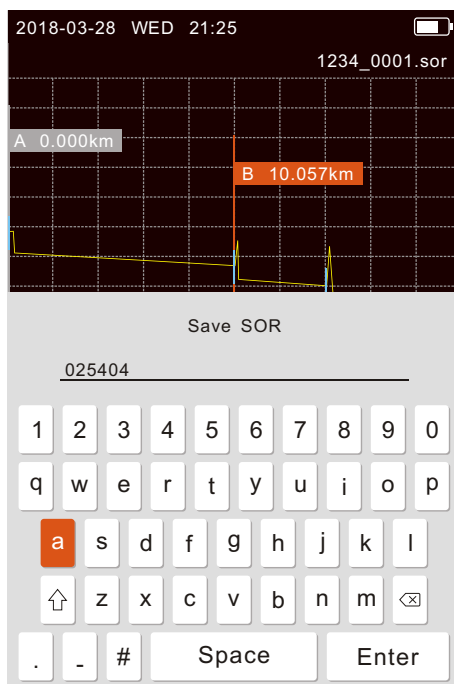
Press the "  " button to pop up the setting box, and the switch setting will switch directly. Multi-digit setting frame, after positioning the cursor with the left and right buttons, select up and down.




2018-03-28 WED 21:25 	
Measure Settings	
Wavelength	1550nm
Scan mode	Manual >
Scan type	Real time >
Range	2.5km >
Pulse width	250ns >
Average time	15s >
Splice loss	0.05dB >
Reflection threshold	65.0dB >
End threshold	3.0dB >
Refractive rate	1.46832 >
Scatter coefficient	52.1 >
Optical detector	
Real time analyse	
Press key ENTER to edit settings.	

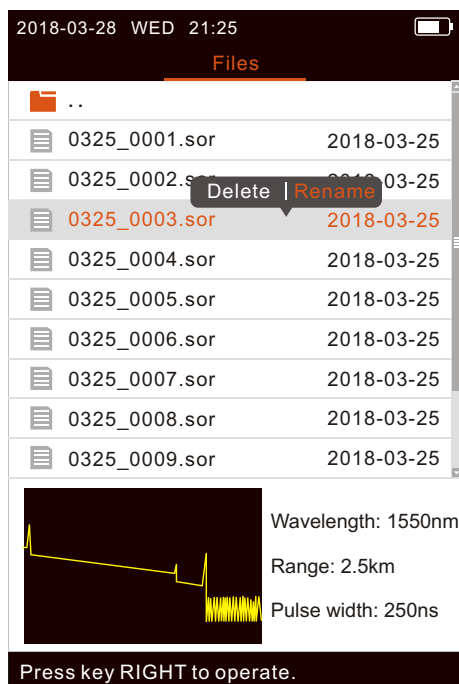
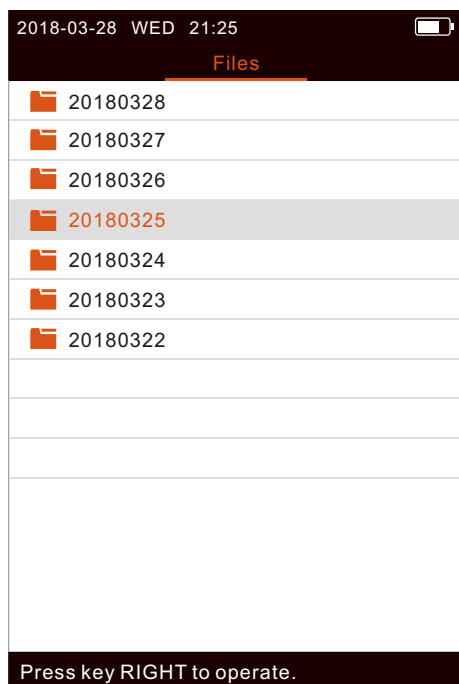


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Scatter coefficient	52.1 >
Optical detector	
Real time analyse	
Press key ENTER to edit settings.	

After finishing measurement, press the " **SAVE/FILE** " button to save the file and the keyboard will pop up. If the Auto Name function is turned on, the file name is automatically generated when saving.





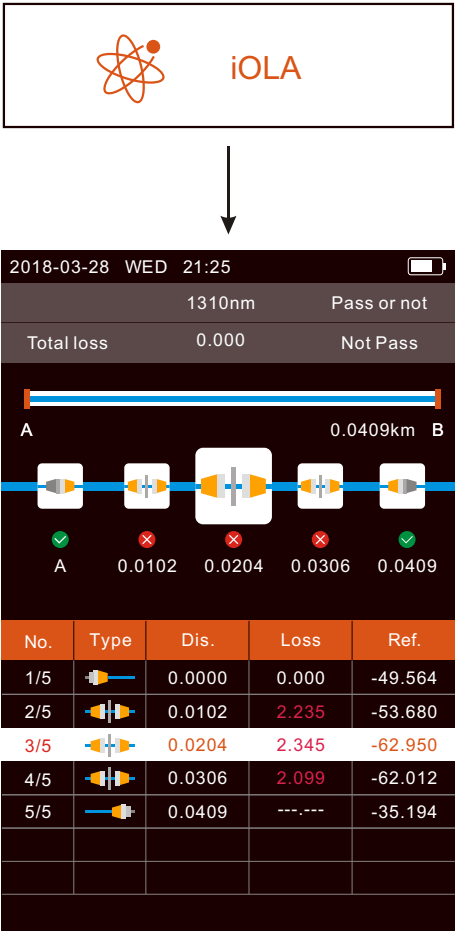
When there is no measurement, press the "  " button to enter the file list. Press the "  " button to open the folder or file, and press the "  " button to pop up the operation item. The waveform thumbnail is displayed at the bottom.



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Select iOLA module in the main menu,and press "  " to enter the iOLA interface,then press "  " to run measurement,the progress bar is displayed in the middle .The measurement end interface is shown as follows.





iOLA—Measure Settings(optional)

Press "  " in the iOLA interface to enter the iOLA parameter setting interface, and press the "  " button to pop up the setting box, Multi-digit setting frame, after positioning the cursor with the left and right buttons, select up and down.

2018-03-28 WED 21:25 

iOLA Settings

Pass/Not Pass Settings

Total loss threshold20.000dB >

ORL threshold15.000dB >

Loss threshold0.300dB >

Reflection threshold40.000dB >

Reflection threshold0.750dB >

Measure Settings

Splice loss0.05dB >

Reflection threshold65.0dB >


End threshold3.0dB >

Refractive rate1.46770 >

Scatter coefficient49.6 >

Press key ENTER to edit settings.



2018-03-28 WED 21:25 

iOLA Settings

Pass/Not Pass Settings

Total loss threshold20.000dB >

ORL threshold15.000dB >

Loss threshold- 9 6 4 9 0 0 dB >

Reflection thr+ 0 7 5 0 0 0 dB >

Reflection thr1 8 6 1 0 0 dB >

Measure Settings

Splice loss0.05dB >

Reflection threshold65.0dB >

End threshold3.0dB >


Refractive rate1.46770 >

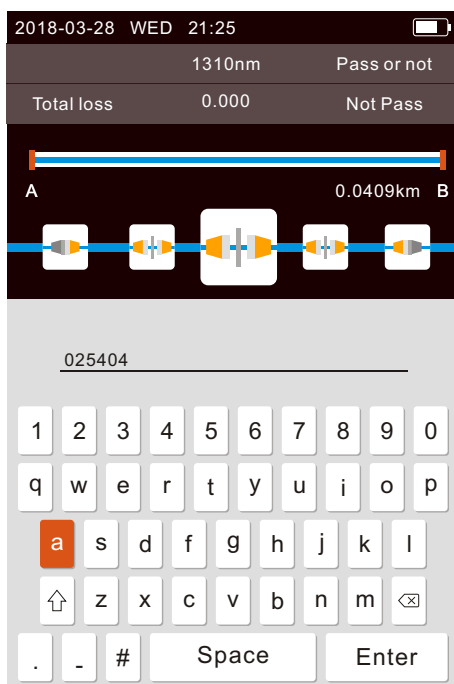
Scatter coefficient49.6 >




Press key ENTER to edit settings.

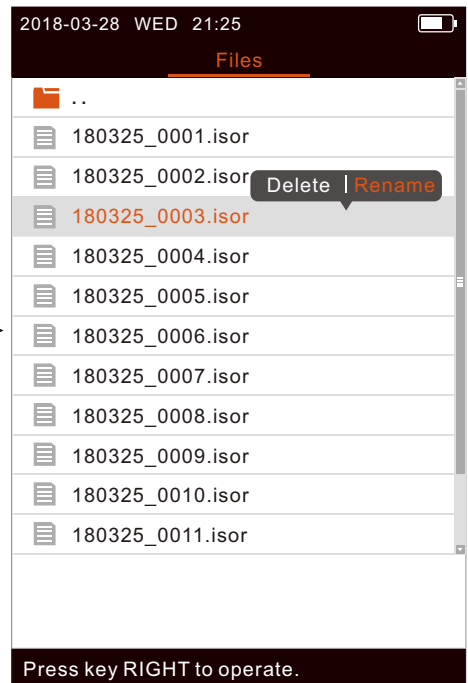
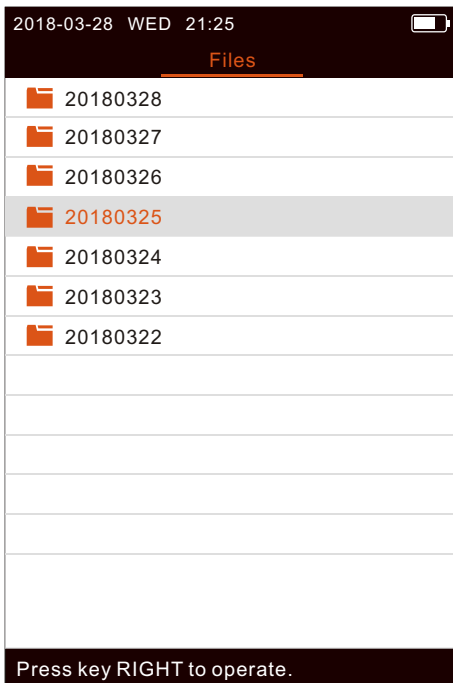
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After finishing measurement, press the "  " button to save the file and the keyboard will pop up. If the Auto Name function is turned on, the file name is automatically generated when saving.

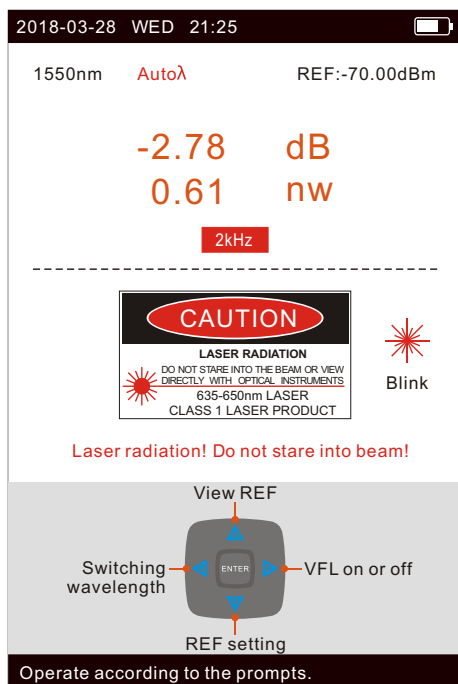



When there is no measurement, press the "  " button to enter the file list. Press the "  " button to open the folder or file, and press the "  " button to pop up the operation item.

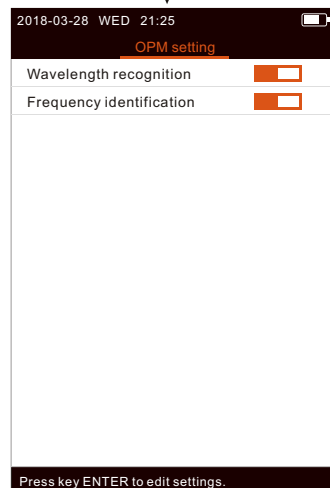


Select OPM/VFL module in the main menu, and press "  " to enter the OPM/VFL interface.

Note: when the wavelength recognition function is on and the carrier wavelength is displayed, the "  " button cannot successfully switch the wavelength (return after switching for 2 seconds)



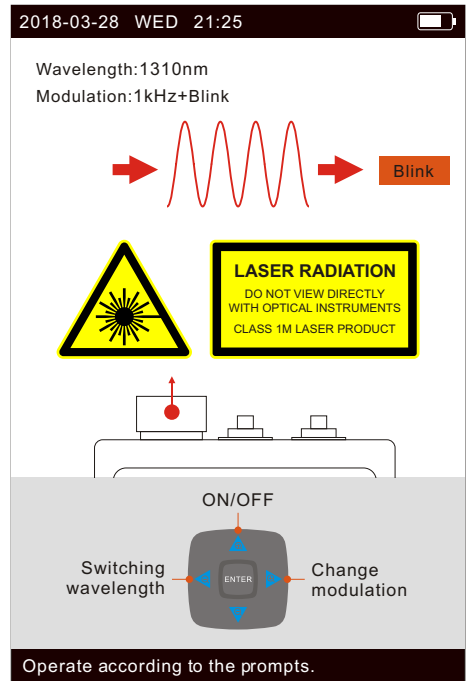
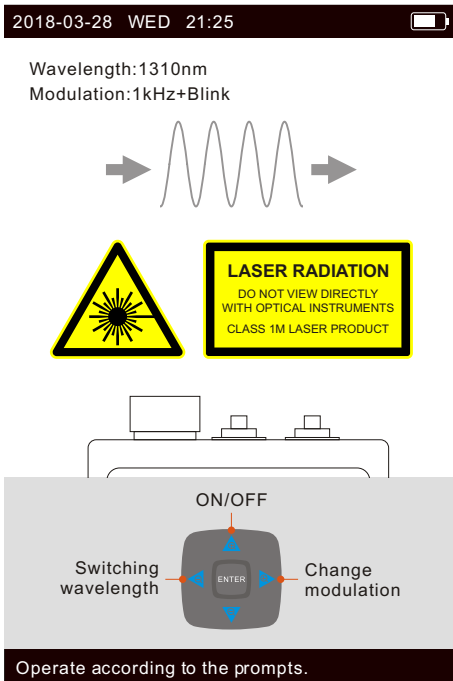
Press the  key to enter the OPM setting interface.




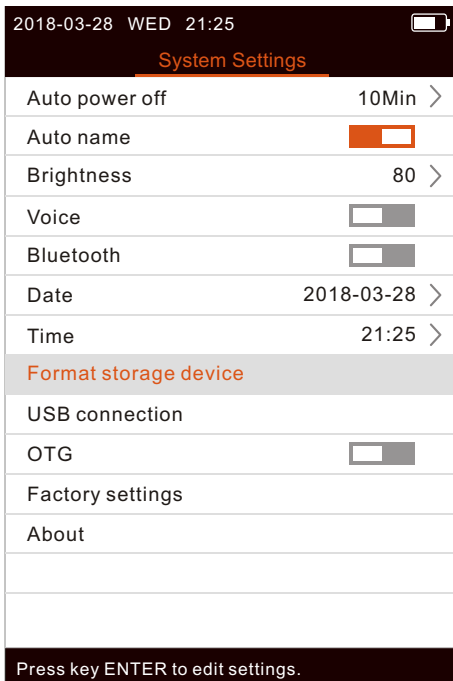
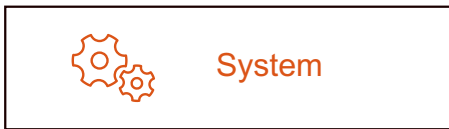
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Select System module in the main menu, and press "ENTER" to enter the System interface. When the Change modulation is selected as "1kHz+Blink" or "2kHz+Blink", if the light source is turned on, the light source flag will flicker. When the device is a single wavelength, Switching wavelength on the interface will be gray.



Select System module in the main menu, and press "  " to enter the System interface.



Auto Power Off:

Set automatic power off timing or cancel this Function.

Auto Name:

Naming automatically when file saved, can cancel this function.

Brightness:

Set brightness of LCD, set range from 10 to 100.

Voice:

Set voice on/off.

Bluetooth(optional):

Set bluetooth on/off.

Date:

Set year, month, day.

Time:

Set hour, minute.

Format Storage Device:

Delete all files in the current TF card.

USB Connection:

Connect USB to view TF card or internal storage file.

OTG:

Files in TF card visible/not when USB connected.

Factory Settings:

Reset to default, and has no effect on time and stored data.

About:

View the device hardware/software version number, CPU number and language.