# IVR-OTS-I Optical Talk Set User Manual



Before operating the equipment, please carefully read this instruction manual Do follow all safety instructions and warnings covered in this manual. Take the manual for safe keeping



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# I. Warnings and Cautions

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 equipment to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer technical support to qualified personnel only.

#### Note

As the laser is harmful to the eyes, do not attempt to disassemble the cabinet.

#### 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.

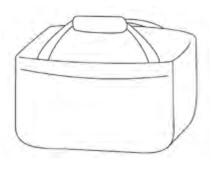
# 2. Accessories (Standard edition)







Host B



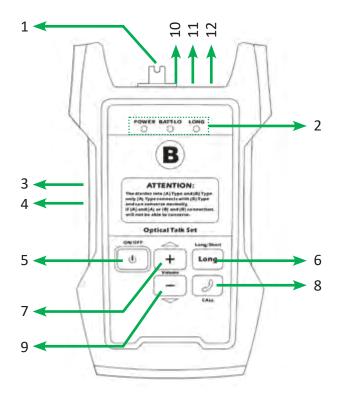
Headset x 2



User's manual

Carryng bag

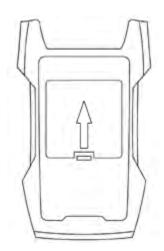
# 3. Description

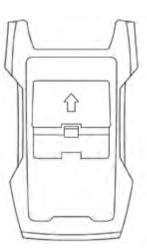


- 1 Fiber optic adapter (FC/PC)
- 2 State Indicator
- 3 Charging Indicator
- 4 USB Charging Interface
- 5 Power Key
- 6 Communication Distance Select Button
- 7 Volume Increase Button
- 8 Calling Button
- 9 Volume Decrease Button
- 10 2.5mm Earphone Socket
- 11 3.5mm Earphone Socket
- 12 3.5mm Microphone Socket

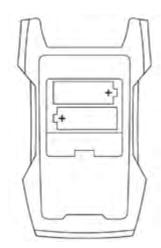
4

# 4. Installing the batteries

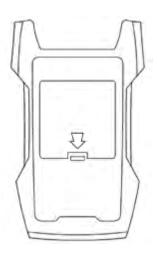




- 1. Pull the battery cover lock
- 2. Raise the battery cover



3. Install the batteries correctly



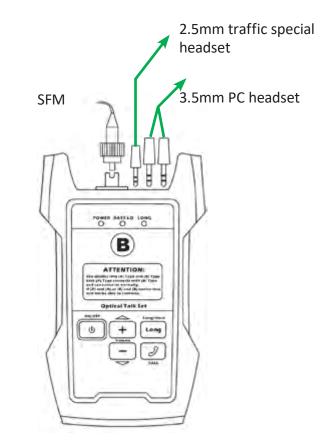
4. Push the battery cover and lock

# 5. Connecting fiber and earphone

The optical fiber telephone achieves full-duplex communication in single fiber by using WDM (wavelength division multiplex) Technology. WDM is a technology of transmitting with different wavelength in single fiber.

The optical fiber telephone divides into Telephone A and B. Telephone A and B have completely the same operation except Telephone A modulates the signal on 1310 mm wavelength, while Telephone B is on 1550 mm wavelength. They must be used in couple.

This telephone can use 2.5 mm traffic special headset and common 3.5 mm PC headset, but they can not be used at the same time.



## 6. On/Off

Press the On/Off button by so the device start working. The power indication light is will turn on. Press this button again and the telephone will shut down.

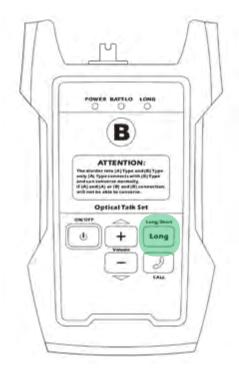
Do not wear headsets before booting to avoid ear damage caused by loud volume. The correct way is turning down the volume after booting, then wear the headset. After wearing the headset, adjust the volume to clarity and without distortion.



#### 7. Communication Distance

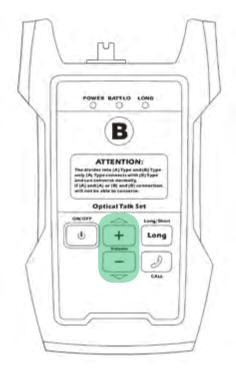
According to the communication and line loss between two telephones, you must choose the appropriate communication distance. The optical fiber telephone has two modes, remote communication and near field communication. When the line loss is more than 20 dB, you must use remote mode. The maximum communication range of remote mode is 120 km. When one side is using optical fiber holder, you must use remote mode too. The maximum communication range is 60 km. When the line loss is less than 20 dB, you must turn off remote mode, or will cause howling and lead to no communication. The maximum NFC distance is 60 km.

By pressing the Long button you can switch between remote communication mode and near field communication mode.



# 8. Adjusting volume

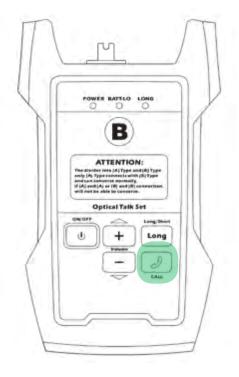
Volume button is used for adjusting the volume. "+" button is for increasing the volume and "-" button is for decreasing it. The equipment will save the volume automatically after setting and will keep the last setting information when next booting.



#### 9. Calling

Through the call button you can call the other person when he is online.

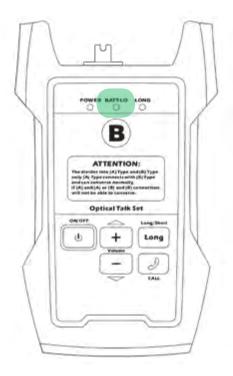
During calling, press the call button for one second or more, the other person's device will make a sound to announce the call.



## 10. Low Power Indication

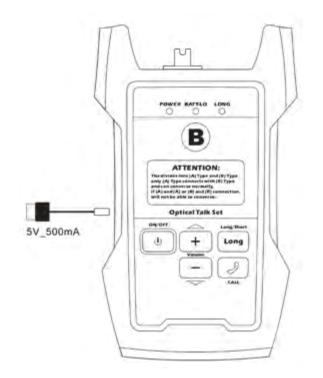
When the remaining battery power is less than 20%, the low power indicator light will turn on.

If you use alkaline batteries, you will need to change them with new ones. If you use rechargeable batteries, you will need charge them at once.



## II. Charging

The device has a charging function. When using rechargeable batteries and turning up a low battery indication, you should promptly shut down and recharge it. Long time under voltage will shorten the lifetime of the rechargeable batteries. 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 charging 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 it is not rechargeable batteries inside, or it will cause a high temperature and combustion, even explosion.



# 12. 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 un use for long time, should remove the batteries before storage.

#### Failure 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-rechargeable battery	Reinstall the rechargeable batteries

# 13. Detail Parameters

Model	IVR-OTS-1	
Output (nm)	1310 nm ± 20 nm(A) / 1550 nm ± 20 nm (B)	
Dynamic range	45 dB	
Transmission distance	Short mode >60 km / Long mode >120 km	
Modulation	Analog	
Optic adapter	FC/PC	
Laser Type	FP	
Output power	< +1 dBm	
Battery Type	Size AA rechargeable battery or Lr6	
Battery lifetime	>25 hrs	
Waterproof	Can prevent small splash	
Operate temp.	-10 °C ~ +50 °C	
Storage temp.	-20 °C ~ +60 °C	
Relative humidity	<90 % HR	
Size	170 mm x 97 mm x 38 mm	
Weight	380 g	