

User's Guide to the OTS-4

Optical Talk Sets

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1 Introduction

Adopting the handicraft of the special chip and utilizing the state-of-the-art SMT in its manufacture, the OTS-4 handheld optical talk sets, which are compact and easy for carry and use, are applicable for field communication under tough environment. Having a large dynamic range, the units can provide the users with reliable performance and clear-voice communication.

2 Warranty

One Year Limited Warranty

Grandway products are warranted against the defective components and workmanship for a period of one year from the date of delivery to the original customer. Any product found to be defective within the warranty period would be returned to Grandway authorized service center for repair, replacement and calibration.

Exclusions

The warranty on your equipment shall not apply to defects resulting from the following:

- Unauthorized repair or modification including battery replacement
- Misuse, negligence, or accident

Returning Product

To return product, you may contact Grandway to obtain additional information if necessary.

To serve you better, please specify the reasons for the return.

All delivery and mails should be sent to the following address:

Grandway Customer Service
6F, Xin'an building No. 99 Tianzhou Road
Shanghai, 200233 P.R. China

Contacting Us

Tel: 0086-21-54451260/61/62/63

Fax: 0086-21-54451266

E-mail: overseas@grandway.com.cn

Technical support e-mail: gwservice@grandway.com.cn

Website: www.grandway.com.cn

3 Safety Information

Warnings!

- Never look directly into optical outputs or a fiber while the equipment is on. Invisible laser beam may damage your eyes.
- Do not short-circuit the terminal of AC adapter / charger and the batteries. Excessive electrical current may cause personal injury due to fumes, electric shock or equipment damage.
- Connect AC power cord with the equipment and wall socket properly. While inserting the AC plug, make sure there is no dust or dirt on the terminals and both plugs are fully seated. Incomplete engagement may cause fuming, electric shock or equipment damage and may result in personal injury.
- Do not operate the equipment near hot objects, in hot environments, in dusty/ humid atmosphere or when condensation is present on the equipment. This may result in electric shock , product malfunction or poor performance.

4 Preparing for Operation

4.1 Unpacking the instrument

Packing material

We suggest that you keep the original packing material. Using the original packing material is your guarantee of protecting the instrument during transit.

Checking the package contents

The standard accessories of OTS-4 are as follows:

- | | |
|--------------------------------------|------------------------|
| ➤ Main Unit A&B(including batteries) | ➤ User's Guide |
| ➤ Quality Check Report | ➤ AC Adapter / Charger |
| ➤ Carrying Case | ➤ Earphone |

Checking for damage in transit

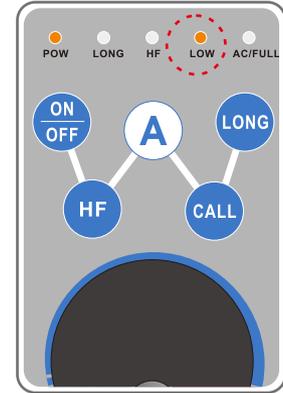
After unpacking the instrument, check to see whether it was damaged in transit. This is particularly likely if the outer casing is clearly damaged. If there is damage, do not attempt to operate the instrument or to repair it without authorization. Doing so can cause further damage and you may lose your warranty qualification.

4.2 Discharged batteries

There is an “LOW” battery indicator on the panel board. It turns on when there is not enough power to supply the instrument. That is when you should connect the AC adapter and recharge the battery. The recharge time is about 8 to 12 hours according to the remaining battery capacity. When the power is full, the AC/FULL indicator on the panel turns green from red. The battery can be recharged whenever the unit is on or off.

Note:

The battery is fixed inside and designed irremovable. Please try to remove or replace it in no case.



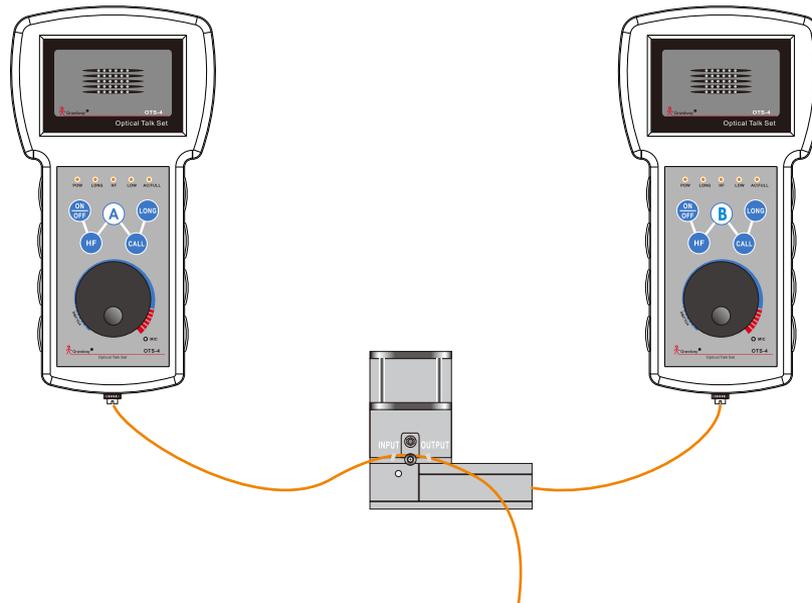
4.3 AC operation

If the instrument is mainly used at one location, e.g. in a laboratory or test department, the AC Adapter / Charger Unit can be used to power it instead of batteries. There is a DC input jack on the right side of the OTS-4 instrument casing into which the output cable of the AC Adapter is plugged.

Note:

- 1 Power is supplied by the AC Adapter even if batteries or cells are fitted.
- 2 Make sure that the operating voltage of the AC Adapter / Charger Unit is the same as the local AC line voltage.

4.4 Fiber connection method

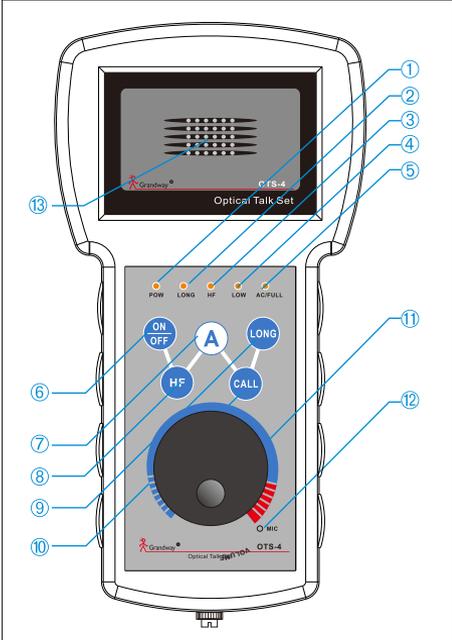


Note: The clip connection method showed above is just one model. The actual connection depends on the clip coupler you use.

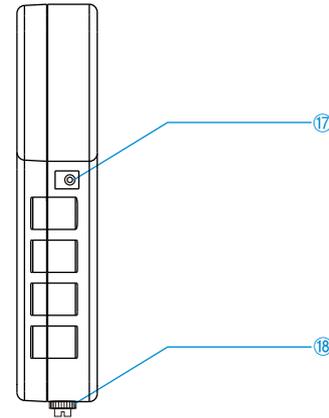
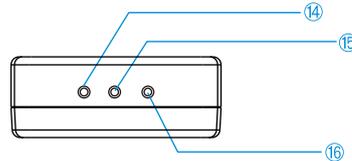
5 Operation

5.1 Controls and connectors

5.1.1 Panel Board

	NO.	Key/Indicator	Function
	1	POW, Power Indicator	Lights up when power is on.
	2	LONG, Long Distance Communication Indicator	Lights up when activating Long Distance Communication function.
	3	HF, Hands-free Indicator	Lights up when turning on Hands-free function.
	4	LOW, Low Battery Indicator	Lights up if there is not enough power.
	5	AC/FULL, Battery Charge Indicator	Red when recharging and green after finishing charging.
	6	ON/OFF Key	Switches the instrument on / off.
	7	A or B Unit Mark	Shows which unit it is.
	8	HF	Turns hands-free function on / off.
	9	LONG	Switches long distance communication function on / off.
	10	CALL	Calls other unit.
	11	Volume Adjusting Knob	Adjusts volume.
	12	Microphone	
	13	Loudspeaker	

5.1.2 Jacks and Connector

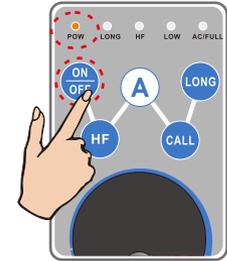


NO.	Key	Function
14	MIC, Microphone Jack	Where to insert the microphone in
15	PHONE, Earphone Jack	Where to insert the earphone in
16	TPS, Tri-party Communication Jack	Where to insert the Tri-party communication special cable
17	DC 12V Jack	Where to insert the DC adapter cable
18	Connector	FC

Note: Please do not screw the dust cap of the connector(18) too tightly. Otherwise, it will effect the communication.

5.2 Turning the instrument on and off

Press the “ON/OFF” key briefly. The instrument powers on.
And the Power Indicator turns on. Please check the battery capacity if it fails.
Press the “ON/OFF” key briefly again. The instrument powers off.
And the Power Indicator turns off.



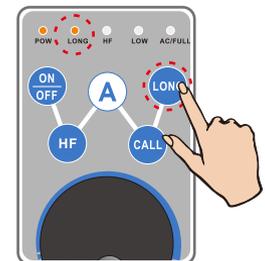
5.3 Calling other unit

Press and hold the “CALL” key, and buzzer of the other unit is heard.



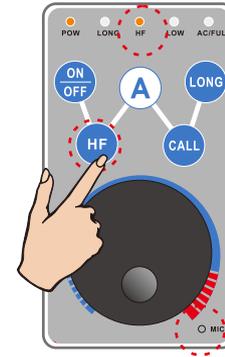
5.4 Switching the long distance communication on and off

Press the “LONG” key and the instrument switches to long distance communication mode. Meanwhile, the “LONG” indicator turns on.
Press the “LONG” key again and the long distance communication function off.
Meanwhile, the “LONG” indicator turns off.
Please activate the long distance communication function when dynamic range is over 25dB.



5.5 Free your hands

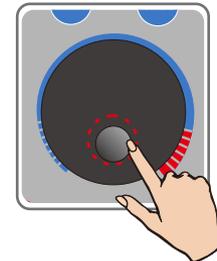
Press “HF” key and “HF” indicator lights up. The loudspeaker and microphone on the right side down the panel board start to function.



5.6 Adjusting volume

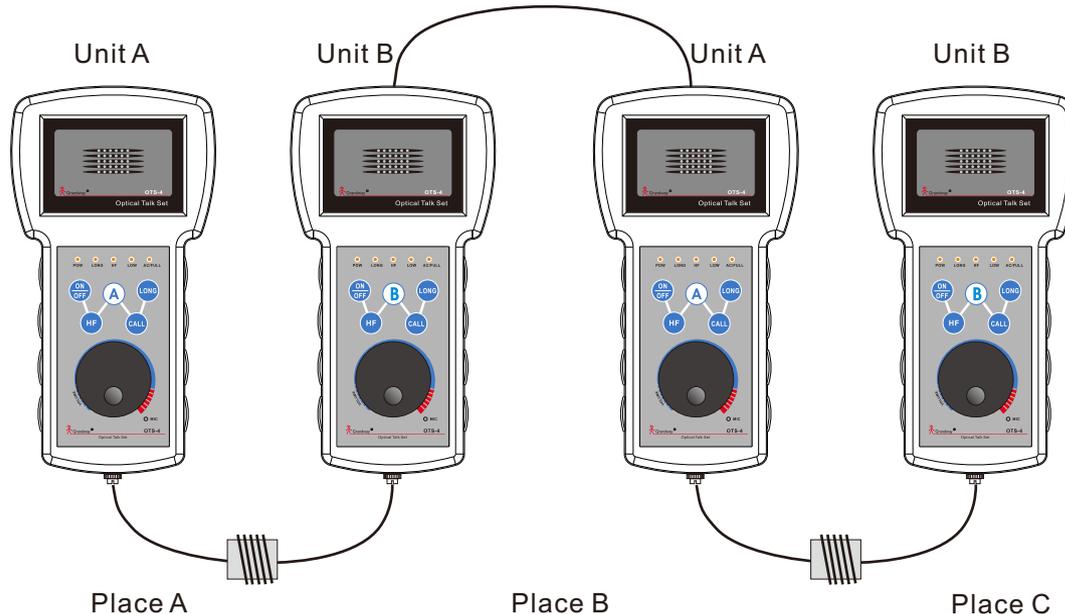
Rotate the knob in a clockwise direction to increase the volume, the rightmost being the maximum.

Rotate the knob in a counterclockwise direction to reduce the volume, the leftmost being the minimum.



5.7 Tri-party Communication

Please connect the instruments as the picture shows. First, talk to unit A at place A and adjust the sound volume of unit B and unit A at place B. Then adjust the volume of unit B at place C. In tri-party communication, it is advisable to turn on the LONG function if the loss is over 20dB. The maximum loss of each line connecting place A and B and place B and C is 40dB.



6 Specifications

Optical Specifications

Wavelength(nm)	A: 1310nm; B: 1550nm
Telecommunication System	Full duplex communication
Modulation Type	Analog & digital
Fiber Type	SM10/125
Available Connector	SC (standard)
Dynamic Range	50dB@1550nm
Buzzer	16KHz carrier wave
Power	6*1.2V AA batteries; AC adapter/charger for continuous use
Battery Life	40 hours (standard)

General Specifications

Operating Temperature	-10°C~+60°C
Storage Temperature	-20°C~+70°C
Humidity	0% to 95% non-condensing
Size (H*W*D)	4cm*11cm*24cm
Weight	0.545 kg (Including batteries)

7 Maintenance

- Please disconnect the AC adapter/charger and cover the protective dust cap once you finish using. Please do not screw the dust cap of the connector too tightly. Otherwise, it will effect the communication.
- It is a good idea to clean the connector and the instrument when they get dirty through use. Optical cleaning pads and anhydrous alcohol is recommended. And please be careful not to get the detergent inside the instrument.
- To ensure the measurement accuracy, please send the instrument to Grandway Service Center for calibration once a year.

NOTE: Specifications, terms and conditions are subject to change without notice.

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