

Introduction

The new Duplex OV-TLK Fiber Optic Talk Set is the first product of the newly designed OV (Optical Verifier) series of hand-held test equipment. The Talk Set makes two-party communications possible in an installation environment where telephone or radio communication is impractical or unavailable.

Available in both multimode and singlemode versions, the Talk Set is designed for ease of use, improved clarity over long distances, and durability. The unit employs a full-duplex, voice-activated transmission, which requires only one fiber between users. Multimode versions come standard with ST mating sleeves, while singlemode versions come with FC sleeves (other configurations are available). In addition each unit comes with its own headset with boom microphone, and a sturdy rubber holster with belt clip for field use.

Talk Set Features

Dynamic Range:	15dB Multimode [±3dB] 25dB Singlemode [±3dB]
Light Source:	850nm/1300nm Multimode 1310nm/1550nm Singlemode
Power Source:	(2) 9v 270mA Rechargeable Batteries
Typical Battery Life:	~4Hrs. - 14Hrs (Depending of use of VOX control)
Indicating LED's:	Power- Detects if unit is on/off Low Bat- Senses when unit needs recharging Transmission- LED on when transmitting signal; off when not.
Controls:	Power/Volume VOX Sensitivity
Charging adaptor:	9vDC 200mA -(+)
Headset:	3.5mm Stereo jack Dynamic Microphone
Operating Temperatures:	-10°C to +50°C +14°F to +122°F

Operation

The Duplex Talk Set is extremely easy to use, with all functions controlled from the two thumbwheels.

- **Power/Volume-** Use this thumbwheel to turn the unit on and to control the volume to the headset. Adjusting the volume **does not** affect **transmission** signal strength. The units' internal AGC (Automatic Gain Control) circuitry compensates for variations in transmission signal strength.
- **VOX Sensitivity-** This turns the transmitter on when you are speaking and off when you are not. When turned all the way up the unit is always transmitting; as you turn the thumbwheel clockwise the sensitivity decreases.

This feature is helpful to prevent unneeded background noise being transmitted to the operator of the Talk set on the other end of the fiber. Another reason for using this feature is to save on battery life. When the "Transmitting" LED is off, that means that the light source is also off thus reducing the drain on the batteries. You can use the transmitting LED on your Talk Set or the person on the other end to determine an appropriate VOX level.

-Please note that the VOX circuit only affects transmitting; you can receive transmissions at any time.

-You can transmit and receive at the same time, just like talking on a phone.

- Once the volume and VOX sensitivity levels are at the desired levels, the unit is ready for hours of hands free communication.

To use, connect the two Talk Sets to opposite ends of an appropriate fiber optic cable, using the connectors on the cable and the mating sleeves on the Talk Sets.

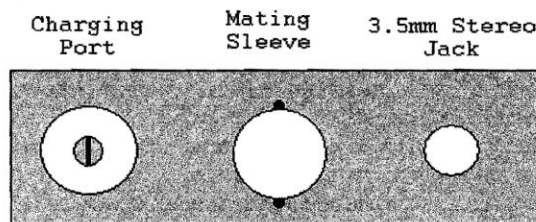


Figure 1 Talk Set Faceplate

Another feature of the Talk Set is the ability for in-unit charging of the two 9v batteries. Simply plug the included power supply into the charging port, and allow the unit to charge for a minimum of 3 hours. To prevent loss of battery performance, **DO NOT CHARGE BATTERIES FOR MORE THAN 24 CONTINUOUS HOURS.**

Operations (cont'd)

Note: The Duplex Talk Set can be used with bare fiber adapters, but the increased attenuation introduced by a low quality temporary cleave or connection may reduce audio quality and dynamic range.

Maintenance

The Talk Set is virtually maintenance free. To ensure continued good performance throughout the life of the unit, the optical port on each unit must be kept clean. When not in use, the Talk Set should be stored with the dust cap on the mating sleeve. Should cleaning be deemed necessary, the optical port itself may be cleaned with alcohol and a small foam swab.

Symptom	Possible Cause	Corrective Action(s)
Unit completely inoperative	1. Batteries are dead 2. Unit malfunctioning	1. Recharge batteries 2. Return for service
Transmit LED does not light/can't transmit	VOX Sensitivity is set too low	Turn the VOX adjust all the way counterclockwise and then adjust as needed.
Unit won't receive or transmit	1. Fiber link does not have continuity 2. Fiber link exceeds dynamic range of unit 3. Unit malfunctioning	1. Repair or reselect Fiber 2. Check link for correctable sources of attenuation 3. Return for service

Warranty

Our products, including all mechanical, electrical, and optical parts and assemblies are unconditionally warranted to be free of defects in workmanship and material for a period of one (1) year from the date of delivery.

This warranty does not apply to expendable parts such as batteries, nor to any instrument or component that has been subjected to misuse or alteration. It is the customer's responsibility to understand all the instructions and specifications prior to operating this instrument. This warranty does not extend to any loss or damage consequent to the failure of the warranted product.