

Operation and care of the Visual Optics Fiber Scopes



Congratulations on buying a high quality product from Visual Optics, Inc. We take pride in not only selling our products but serving and reacting to the needs of our present and future customers.

The Fiber scopes from Visual Optics will pay for themselves over and over again in reduced labor costs and virtually eliminating the guess work when investigating so many inaccessible areas

**If at any time you have a question, or suggestion, please call us
in Oklahoma @ 405-665-9000**

PRODUCT

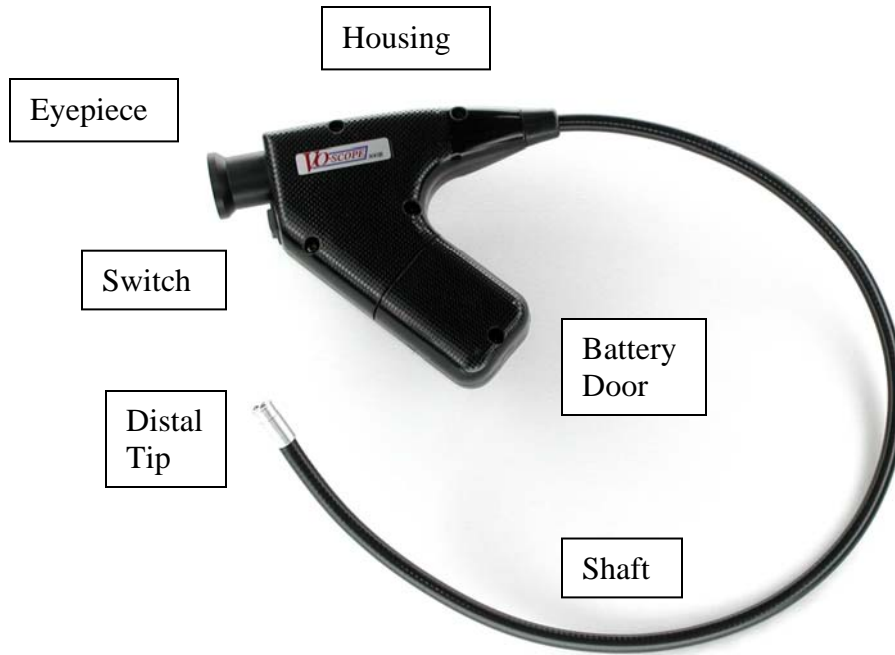
This manual covers all the VO and VT fiber scope models and variations. This manual is divided into the VO and VT models and each model is addressed pertaining to the features including shaft type, lighting, switching, and battery.

BASIC SPECIFICATIONS (All Models)

Viewing angle - 40 deg
Viewing distance - 0.4" to Infinity
Housing mat'l - Nylon 6
Bending Diameter - 3" Minimum
Tip Diameter-
 10mm shaft - 0.41"
 6mm shaft - 0.228"

VOXX-10 Models (10MM Obedient Shaft)

Main Features



Batteries - The VOXX-10 series is powered by AA batteries (4). The batteries are held within a removable battery pack just beneath the battery door. See fig-1.

To replace batteries - Remove the battery door with a Phillips screwdriver. Tilt battery pack up from the bottom of handle and remove. Do not put unnecessary strain on the wire leads and never pick up the scope by the leads. Unclip connector if required. Change out batteries, reattach connector and replace in reverse order.

Fig-1



Lighting – The VOXX-10 series are equipped service free integrated solid state LED lamps. Simply, these lamps never need servicing for the life of the scope.

Note: Please refer to “Cleaning of your scope” for trouble free service.

VOXX-6 Models (6mm Flexible Shaft)

Fig-2

Main Features

Batteries – The VOXX-6 models are powered by a VO-CR123 battery pack located just beneath the battery door. See fig-2.



To replace batteries – Remove the battery door with a Phillips screwdriver. Tilt the battery pack up from the base of the handle and pull out. Replace with new battery in reverse order.

Lighting – The VOXX-6 models are equipped with a replaceable halogen lamp located just beneath the battery door. See fig. 2

The halogen lamp life is 10 – 20 hrs

Replacing Halogen Lamp – In the event the lamp needs replacement:

1. Remove the battery door with a Phillips screwdriver and set aside.
2. Remove the battery pack and set aside
3. Using a small screwdriver, needle nose pliers, or similar, tilt the lamp up out of the base clip and remove.
4. Replace with Visual Optics lamp P/N VO-BulbH. Lay lamp body in clip and press down.
5. Replace battery pack and test for proper illumination by activating switch.
6. Replace the battery door.

Note: Never touch the lamp body just after operation. The halogen lamp operates at a high temperature and needs time to cool down.

Eyepiece Focusing – The Eyepiece has been factory set to be in focus and should need very little adjustment in the field. You should only need to turn the eyepiece by several turns in either direction to be in focus. If you feel resistance in adjustment, do not exert force. Reverse direction. Continue until the image is in focus.

VT – Models (6MM Flexible Shaft)

Main Features



The VT model uses a detachable flashlight for its illumination source. To attach the flashlight:

1. Remove the 1.25” diameter standard Condenser coupler from the case and screw onto the connector fitting. **Do Not Over tighten.**
2. While holding the coupler firmly in hand, push the head of the flashlight into the coupler until seated.

Tip: The coupler has a Nitril O-ring which may need a thin film of silicone grease or vasoline from time to time. This will facilitate the flashlight to slide in.

Because the VT scope is a rugged instrument but contains precision optical components, Never use the flashlight solely as a handle. Always keep hold of VT housing when in use.



Eyepiece Focusing – The Eyepiece has been factory set to be in focus and should need very little adjustment in the field. You should only need to turn the eyepiece by several turns in either direction to be in focus. If you feel resistance in adjustment, do not exert force. Reverse direction. Continue until the image is in focus.

General Operation, checks, and care of all scopes

A. General Scope checks before and after each use

1. Before and after each use, check scope for rips, tears, and abrasions.
2. Check for proper operation of lighting. If dim or not lighting, first replace batteries.
3. Check for smooth rotation of eyepiece.

B. Operation

1. Always exercise care when inserting and removing the shaft of the scope into and from the hole of the object you are inspecting.
2. Try to pre-determine the route and location of the area you are inspecting. With this you can pre-bend the 10 mm shaft in the direction you require to facilitate viewing.
3. Never bend the shaft length tighter than 3" diameter.
4. Never expose the housing to water or liquids.
5. Never insert the shaft into hot locations greater than 70 deg C.
6. Never use the scope near moving parts such as gears and fan blades or moving belts.

C. Cleaning and Storage

1. Always wipe the tip, shaft, and housing down with a soft clean cloth to remove residue and moisture.
2. Use a proper cleaning liquid and rinse tip and shaft with water. Dry.
3. Always gently clean the distal tip lens and eyepiece with a lens cleaner such as isopropyl alcohol with a cotton tie swab.
4. Always clean the condenser lens with a clean cotton tissue (VT Models)
5. **The scope should be completely dry before storing in case.**

If any problems occur with your scope, do not attempt to open the scope housing. If you encounter any problems, call our factory as soon as possible for corrective action.