
THORLABS

**FS200
Fiber Microscope**

User Guide



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Chapter 1 Description

The FS200 Fiber Microscope produces a high-quality, low-distortion image of both the connector end and the fiber. With a high intensity coaxial illumination system and a 200X magnification, this microscope is powerful enough to offer a clear image of the fiber core as well as the surrounding cladding. In addition, there is the option to use an oblique illumination setting which provides illumination at an off-center angle to the fiber end face. The field-of-view of this microscope is approximately 600 μm , which in addition to imaging the fiber core and cladding also allows the inspection of the adjacent ferule to ensure the necessary quality of your terminations.

1.1. Specifications

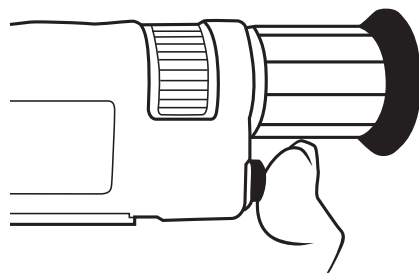
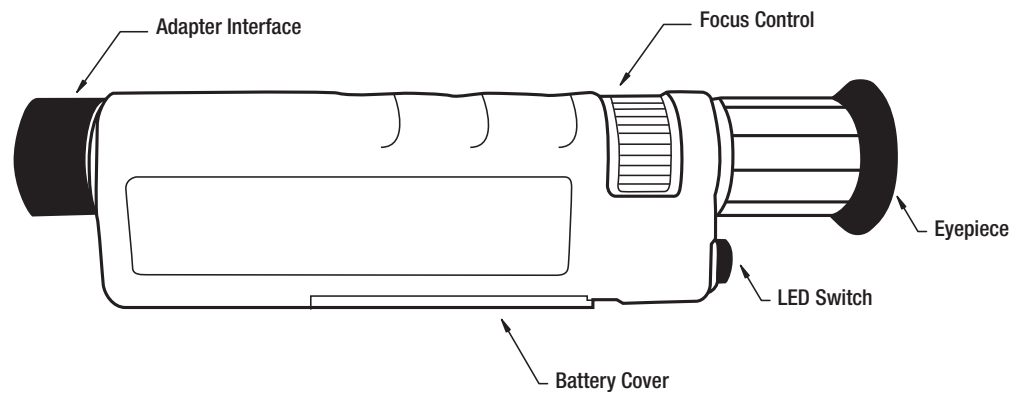
Parameter	Value
Optical Magnification	200X
Power Source	2 x AAA Batteries
Light Source	White LED, Rated for 100,000 Hours
Weight	0.28 Kg
Size	190 mm (7.48") L / 45 mm (1.77") D
Controls	2 Minutes Auto-Off Switch for Light Source. Fine Focus Control Wheel
Safety Filter	Built-in IR Filter
Adapter Interface	User Interchangeable Adapters

Chapter 2 Operation

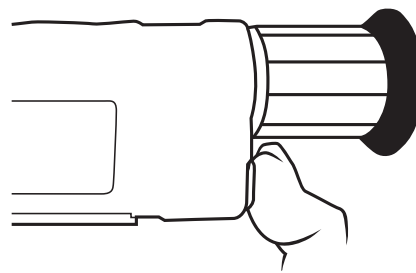
1. Insert the terminated fiber into the fiber insert entrance of the adapter.

Press the LED switch, it will work in CL (coaxial illumination) mode. Press and hold for 3 seconds to change to OL (oblique illumination) mode. The scope must be off when attempting to switch modes.

2. View the fiber end face through the Eyepiece.
3. Adjust the Focus Control to provide the clearest view of the fiber.
4. After inspecting, press the switch to turn off the LED otherwise it will be turned off automatically after 2 minutes.



CL mode: Press the switch



OL mode: Press and hold for 3 seconds

2.1. Maintenance

1. To avoid damage, do not disassemble and reassemble the instrument to change the innercircuit and parts.
2. Prevent liquid getting into the battery house
3. Protect the microscope from violent shock

2.2. Safety

Do not use the fiber inspection microscope to view illuminated fibers under **ANY** circumstances.

The FS200 Fiber Microscope is equipped with an attenuating laser safety filter to reduce the risk of accidentally viewing active fiber emissions. The safety filter offers 35 dBm of attenuation in the 1310 nm and 1550 nm wavelength ranges, it will provide over 20.5 dBm of attenuation at 850 nm. However, it should be stressed that in spite of the protection offered, under no circumstances should an actively emitting fiber be viewed with a visual inspection scope such as the FS200. Since many of the wavelengths of light used in the fiber optic industry are invisible to the naked eye, the natural aversion reflex to viewing bright light is suppressed, resulting in potentially longer periods of accidental exposure, which can lead to permanent eye damage. The FS200 may focus the laser light in active fiber signals; direct eye contact with focused laser light should be avoided. Laser safety filters, as used in the Fiber Microscope, are no substitute for practicing good laser safety.

Chapter 3 Regulatory

As required by the WEEE (Waste Electrical and Electronic Equipment Directive) of the European Community and the corresponding national laws, Thorlabs offers all end users in the EC the possibility to return “end of life” units without incurring disposal charges.

- This offer is valid for Thorlabs electrical and electronic equipment:
- Sold after August 13, 2005
- Marked correspondingly with the crossed out “wheelie bin” logo (see right)
- Sold to a company or institute within the EC
- Currently owned by a company or institute within the EC
- Still complete, not disassembled and not contaminated



Wheelie Bin Logo

As the WEEE directive applies to self-contained operational electrical and electronic products, this end of life take back service does not refer to other Thorlabs products, such as:

- Pure OEM products, that means assemblies to be built into a unit by the user (e. g. OEM laser driver cards)
- Components
- Mechanics and optics
- Left over parts of units disassembled by the user (PCB's, housings etc.).

If you wish to return a Thorlabs unit for waste recovery, please contact Thorlabs or your nearest dealer for further information.

3.1. Waste Treatment is Your Own Responsibility

If you do not return an “end of life” unit to Thorlabs, you must hand it to a company specialized in waste recovery. Do not dispose of the unit in a litter bin or at a public waste disposal site.

3.2. Ecological Background

It is well known that WEEE pollutes the environment by releasing toxic products during decomposition. The aim of the European RoHS directive is to reduce the content of toxic substances in electronic products in the future.

The intent of the WEEE directive is to enforce the recycling of WEEE. A controlled recycling of end of life products will thereby avoid negative impacts on the environment.

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