



# Operation Manual

**SUN-SMS100U Fiber Microscope**

**English**

Table: SUN-UM-TL-SMS001

Version: A/0

## User Safety Warning

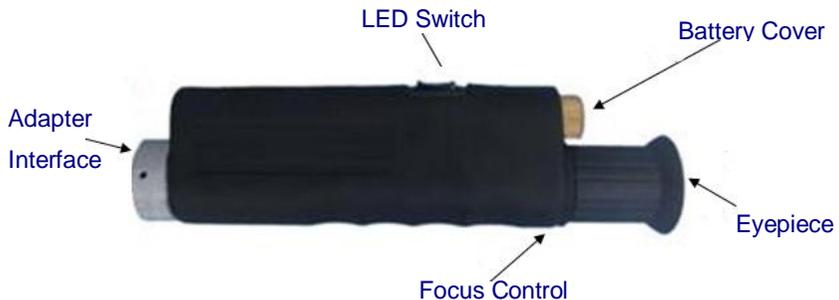


DO NOT use the fiber microscope to view active fiber signals under ANY circumstances. Active fiber signals contain laser light, and direct eye

contact with laser light should be avoided. The failure to avoid direct eye contact with laser light can result in serious damage to the eye. The Fiber Microscope may magnify the laser light in active fiber signals; direct eye contact with magnified laser light should be avoided. Laser safety filters, as used on the Fiber Microscope, are no substitute for practicing good laser safety. If you are unfamiliar with laser safety practices, seek out professional training. There are many capable trainers working in the fiber optic field who can help.

## 1 Introduction

The Mini Fiber Microscopes are used for inspecting fiber terminations in the field. With their good optical performance and integrated laser safety filters, they provide the most critical view of fiber end faces.



## 2 Specification

<b>Power Source</b>	3 x1.5v button batteries
<b>Light Source</b>	White LED, rated for 100,000 hours
<b>Weight (Kg)</b>	0.34
<b>Size (mm)</b>	190 X 50 X 31
<b>Controls</b>	Momentary on/off switch for light source, Fine Focus control wheel
<b>Switch</b>	1. Automatic on/off switch for light source 2. Two minutes delayed on/off switch
<b>Safety Filter</b>	Built in IR filter



Adapter Interface	SMA905 adaptor
Color	Black

### 3 Setup

The Mini Fiber Microscope comes fully assembled and requires only a few steps before it is ready to use.

- 1) Begin by removing the instrument from its case.
- 2) You'll need to insert 3 pieces of 1.5V button batteries .Unscrew and remove the "Battery Cap". Insert the batteries with the "-" side up towards the Battery Plug; "+" side down towards the Light Switch. Replace the Battery Cap and tighten.
- 3) If you have purchased the Fiber Microscope with a Universal Adapter, it should already be in place and your instrument is ready to use. If you purchased an adapter separately, simply screw it into the threaded hole at the opposite end from the light Switch .Your instrument is ready to use.

### 4 Operation

In this manual, we will explain general use of the Fiber Microscope. However, it is important to read the specific termination instructions published by the manufacturer of the connector you are using. This will ensure proper termination. Also be sure you have read the User Safety Warning and fully understand that direct eye contact with laser light and magnified laser light should be avoided.

- 1) Begin by loading the polished connector into the adapter.
- If you have purchased our Universal Adapter, simply slide the connector ferrule (2.5mm) into the hole until you feel it hit a stop.

**Note:** It may require a little pressure to get it started as our Universal adapter is equipped with a no-slip gripping mechanism. It is important to slide the connector ferrule all the way to the end. This will minimize any refocusing that needs to be done when changing from one connector to the next.

- If you have purchased one of the dedicated adapters, insert the connector just as you would into a patch bay or mated connector.
- 2) Now turn the light on. The light works by pressing and holding the light Switch. You can tell whether the light is on by checking the "Backlight Window". If the light passes through this window, you are ready to work.
  - 3) Once the connector is loaded and the light is on, hold the eyepiece up to your eye and begin focusing. Unlike many instruments of this type, the fiber Microscope is always centered so there is no alignment to be done.
  - 4) Then grip the focusing adjustment (brass wheel with rubber grip) and turn it to focus the image. Once you find the image, very little re-focusing is necessary if the connector is properly loaded.  
**Notes for the first use:** Please use the microscope to focus the image; it may take a little longer to find the image.
  - 5) Once you can visualize the connector ferrule, you can evaluate it for polish quality, cleave quality, and cleanliness optionally, you can hold the opposite end of a cable to the Backlight window to give further contrast to the core.

**SHANGHAI SUN TELECOMMUNICATION CO., LTD.**

Building No.145 Lane 666, Xianing Rd.  
Jinshan Industrial Park, Jinshan District  
ShangHai, China 201506

Tel: +86 21 60138638 Fax: +86 21 60138635-401

E-mail: [ics@suntelecom.cn](mailto:ics@suntelecom.cn)

<http://www.suntelecom.cn>

