# V20

## User Manual

# Fiber Microscope

Please read this manual before operating the device.
Please keep this manual together with the device.

2017/11 Rev.1.4

INNO INSTRUMENT | You dream, we DESIGN

# V20

# User Manual

*Important:* INNO Instrument strongly recommends all users to read this manual before operating the V20.

This manual is valid for the following software version:

# Contents

# Fiber microscope

**Handheld fiber microscope enables fiber face inspection**
**Available in 200(μm) x or 360(μm) x magnification**

With this tool, the process of fiber testing can be simplified and performed quickly. Accurate test results can be generated to demonstrate successful pass.

- Test report
- S/W program to use with PC
- Pass/Fail Result
- Image magnification

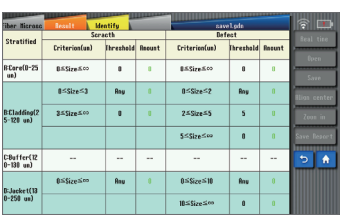
## Importance of a cleaning the connector end interface

It is essential to utilize auto-analysis software to test the connector and assess its quality during the commissioning and installation of the fiber. It is important to save the verification records of the connector for future reference. The end-to-end verification can be achieved by combining the connector test with the fiber verification. The following are the displayed test images.


Passed


Failed

It can also analyze and report data through the corresponding software, as shown in the following picture:



## Operation

Fiber interface: Connect the fiber connector to V20 after unscrewing the cap of V20.

USB interface: It is used for connecting to PC and other corresponding instrument.

Rotary knob for adjusting focus: It is used for focusing to make the image clear. In order to enable the fuction of V20, you just need to connect the V20 with the fiber connector to the instrument or to the PC which is able to communicate with upper computer. After making the image of the fiber, it will become clear by adjusting the rotary knob for focus, allowing you to analyze the image.

## Patchcord Tip Adapters

2.5mm / APC

Universal patchcord tip
for 2.5 mm ferrules(APC)

2.5mm / UPC

Universal patchcord
tip for 2.5 mm ferrules(UPC)

1.25mm / APC

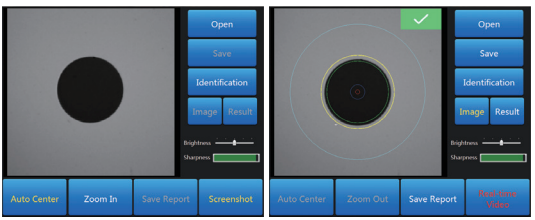
Universal patchcord tip
for 1.25 mm ferrules(APC)

1.25mm / UPC

Universal patchcord tip
for 1.25 mm ferrules(UPC)

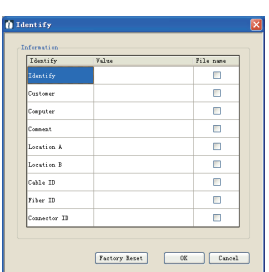
## Convenient test with PC software

The result of INNO software can be analyzed through the following step: connecting the optical fiber to the device, adjusting the sharpness and then tapping “screenshot”.




Meanwhile, the data can be analyzed in detail.


The corresponding test task can be marked under the identification function.



## Test report

# V20 Fiber Microscope Report

### General Information

| | | | |
|---|---|---|---|
| File name: | 1112.pdf | Checking date: | 2017-2-15 15:38:22 |
| Analysis version: | 1.0 | Analysis date: | 2017-2-15 15:38:22 |
| Job ID: | | Customer: | |
| Company: | | Comment: | |

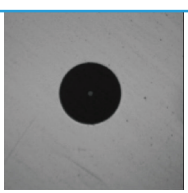
### Location

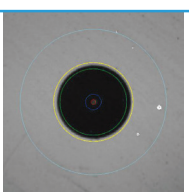
| | Location A | Location B |
|---|---|---|
| Operator | | |

### Identification

| Cable ID | Fiber ID | Location A | Location B | Connector ID |
|---|---|---|---|---|
| | | | | |

### Image





### Result

| Layering | Layered Diameter (μm) | Scratch | | | Defect | | |
|---|---|---|---|---|---|---|---|
| | | Criterion | Threshold | Amount | Criterion | Threshold | Amount |
| A: Core | 0 - 25 | 0≤size<∞ | 0 | 0 | 0≤size<∞ | 0 | 0 |
| B:Cladding | 25 - 120 | 0≤size<3 | any | 0 | 0≤size<2 | any | 0 |
| | | 3≤size<∞ | 0 | 0 | 2≤size<5 | 5 | 0 |
| | | | | | 5≤size<∞ | 0 | 0 |
| C: Coating | 120 - 130 | — | — | — | — | — | — |
| D: Jacket | 130 - 250 | 0≤size<∞ | any | 0 | 0≤size<10 | any | 5 |
| | | | | | 10≤size<∞ | 0 | 0 |

Signature: _____ Date: 2017-2-15 1 / 1

## Specifications

| Parameters | |
|---|---|
| Size | 150 x 35 x 34mm |
| Weight | 168g |
| Resolution | 3.2μm |
| Image sensor | 640 x 480 (VGA) |
| Visual test | < 5μm |
| View angle | 200μm*200μm of high magnification |
| | 360μm*360μm of low magnification |
| Light source | Blue LED |
| Digital zoom | 3 grades |
| Connector | USB 2.0 |
| Operating temperature | -10°C to 50°C |
| Storage temperature | -40°C to 70°C |
| Bulkhead tips | 2.5mm (UPC, APC), 1.25mm (UPC, APC) |

## Maintenance and technical support

Any operation, such as alignment, maintenance or repair of the device, can only be performed by qualified maintenance personnel. Please contact the engineers of INNO Instrument. You can also consult any queries through the following website.

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