

AutoGet Wi-Fi Inspection Probe User Manual

Dimension by Kingfisher



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1. Introduction

The AutoGet Wi-Fi is manufactured by our partner, Dimension. It is a fully automated tool to check and analyse fiber optic connector end faces for dirt, condition, and quality as per IEC61300-3-35 requirements. Images are auto centered/focused and can be viewed directly on an integrated LCD display. Pass/fail analysis starts and, with its data & report saved automatically with just a push of button. The data & report saved in SD card on the device can later be downloaded onto PC via USB or Wi-Fi.

Easy operation, robust construction and quality optics ensures that this equipment will enhance the performance of installation and maintenance staff.

2. Features

- Fully automated pass/fail analysis
- IEC61300-3-35 compliant pass/fail analysis
- Auto generated analysis image, data & reports
- Integrated 3.2" LCD touch screen with auto brightness control
- Good image quality with auto centering/focusing
- Adjustable in 2 styles
- Captive dust/protective cap
- LED analysis status indicators
- Handy storage case for inspection adaptors
- LED torch for work in low light conditions
- Simplex and duplex connectors
- Long operation from a Snap-On Li-ion battery rechargeable via USB-C cable
- Quick-change adaptors for many connector styles
- Imaging apps for Window devices via Wi-Fi
- 1 year warranty

3. Specifications

Parameters	Value
Resolving power	0.52 um (non-MPO12) / 0.92 um (MPO12)
Particle size detection	< 1 um
Field of view	Non-MPO: 620x620um (preview mode), 250x250um (analysis mode), 130x130um (Core mode) MPO12: 1440x1100um (preview mode), 220x220um (analysis mode)
Focus/center method	Auto (in pass/fail analysis mode) / Manual (in preview mode)
Fully automated Pass/fail analysis	IEC61300-3-35 compliant
Communication interface	WiFi802.11 / USB2.0
Memory storage	16G SD card (supplied)
Software	Pass/fail analysis and data download (Win7 and above)
Display	480x800 3.2" LCD touch screen with auto brightness control
Features	LED torch, captive dust cap, LED standby/pass/fail indicator, 2-style adjustable, selectable auto-off (disabled, 10, 20, 30 minutes)
Power	Snap-on Li-ion battery rechargeable via USB-C, 4hrs charging time (@ 0.2A from 0 charge), 9 hours operating time
Operating / storage temp / RH	-5 to +40 °C / -20 to +55 °C / 90%
Weight	570 g (including battery)
Size	341x67x57mm / 281x201x57mm (when folded)
Warranty	1 year

4. Standard Accessories

Description	Quantity
Inspection adaptors: 1.25mm Male, 2.5mm Male, FC Female, SC Female, LC Female	1 each
Adaptor storage box	1
Captive protective cap	1
USB charger with Interchangeable International Plug Style Adaptors (US, UK, EU, AU)	1 set
USB Wi-Fi module	1
Snap-on Li-ion battery	1
USB Cable (type A-C)	1
Touch pen	1
16 GB SD card	1
Storage case for inspection adaptors	1
Carry case	1
Carry strap	1
Operation manual	1
QA certificate	1
PC software	Downloadable free from: www.kingfisherfiber.com

5. Optional Interchangeable Inspection Adaptors

Description	Part number
Option, Mini Insp Probe Adaptor, 1.25mm Male, APC	OPT630A
Option, Mini Insp Probe Adaptor, 2.5mm Male, APC	OPT631A
Option, Mini Insp Probe Adaptor, LC Female, APC	OPT632A
Option, Mini Insp Probe Adaptor, SC Female, APC	OPT633A
Option, Mini Insp Probe Adaptor, FC Female, APC	OPT634A
Option, Mini Insp Probe Adaptor, MPO, PC/APC Interchangeable	OPT635
Option, Mini Insp Probe Adaptor, MPO, PC/APC Interchangeable, Auto P/F	OPT636
Option, Mini Insp Probe Adaptor, 1.6 mm Male	OPT637
Option, Mini Insp Probe Adaptor, 2.0 mm Male	OPT638
Option, Mini Insp Probe Adaptor, Optitap	OPT639
Option, Mini Insp Probe Adaptor, E2000 Male	OPT640
Option, Mini Insp Probe Adaptor, E2000 Male, APC	OPT641
Option, Mini Insp Probe Adaptor, E2000 Female	OPT642
Option, Mini Insp Probe Adaptor, E2000 Female, APC	OPT643

Please enquire for other PC or APC adaptor types

6. Instrument layout

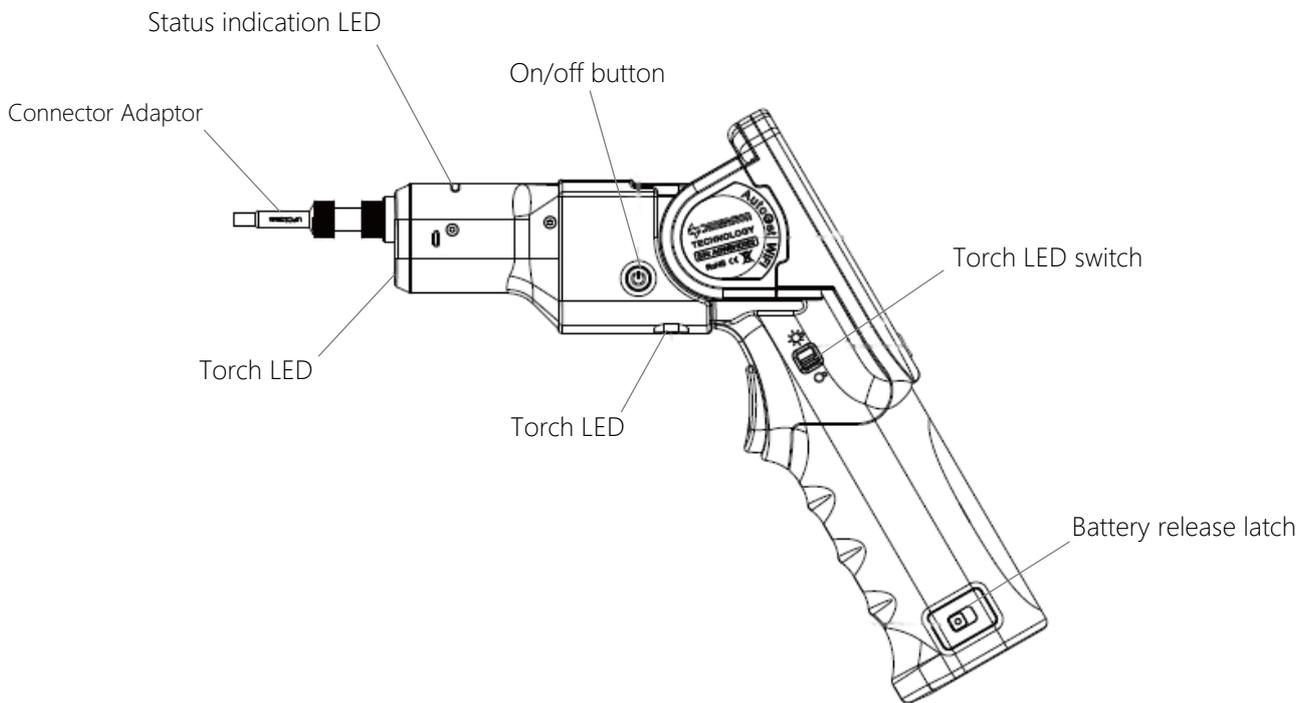


Fig. 1

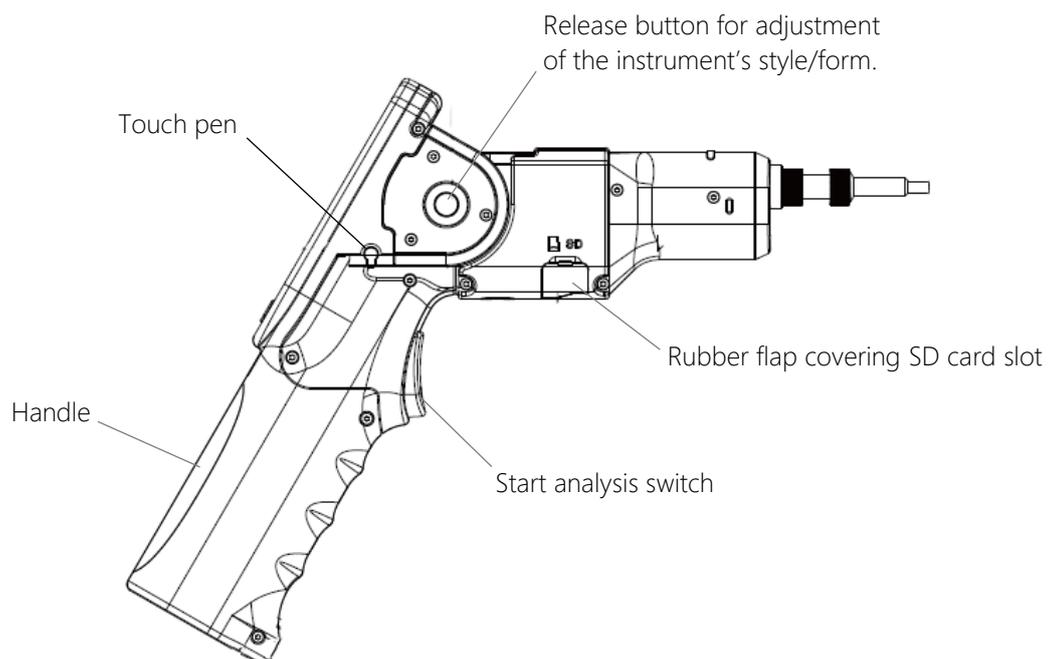


Fig. 2

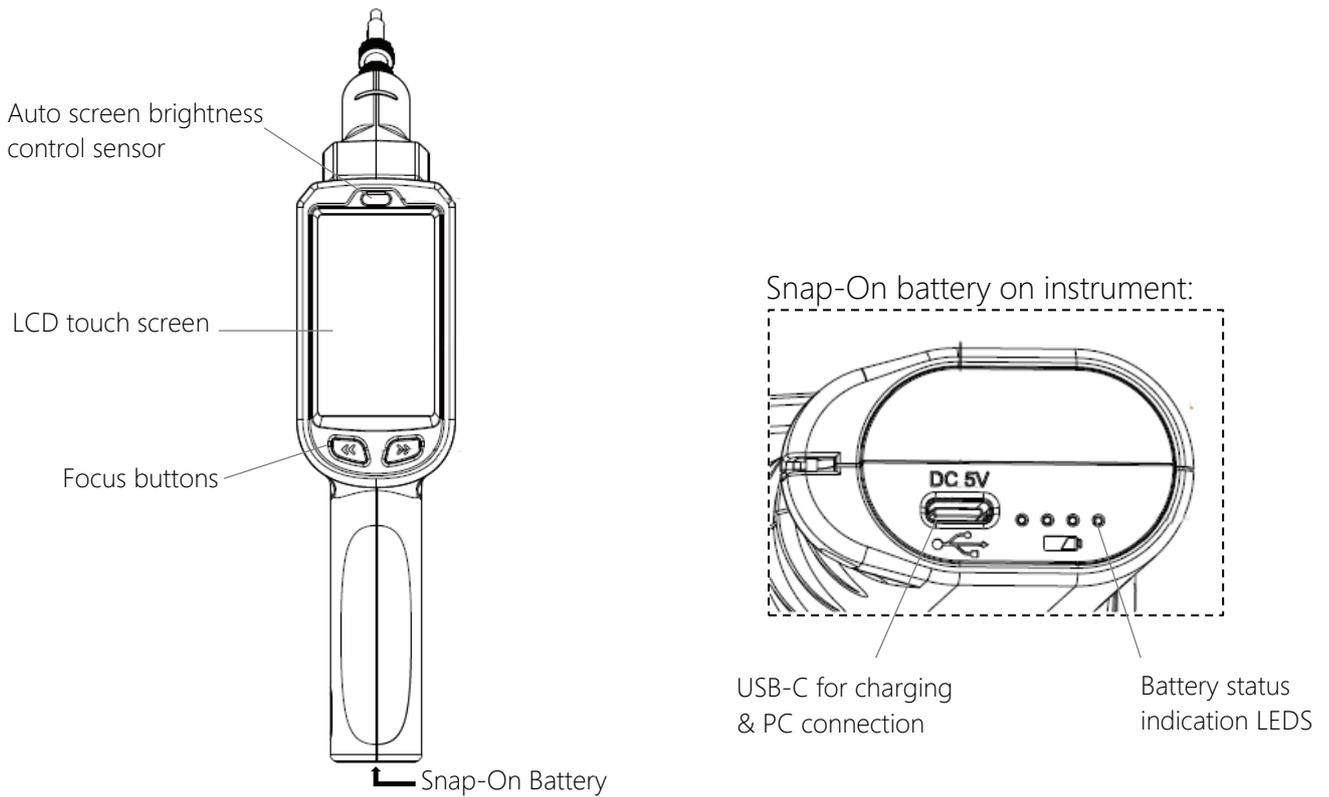


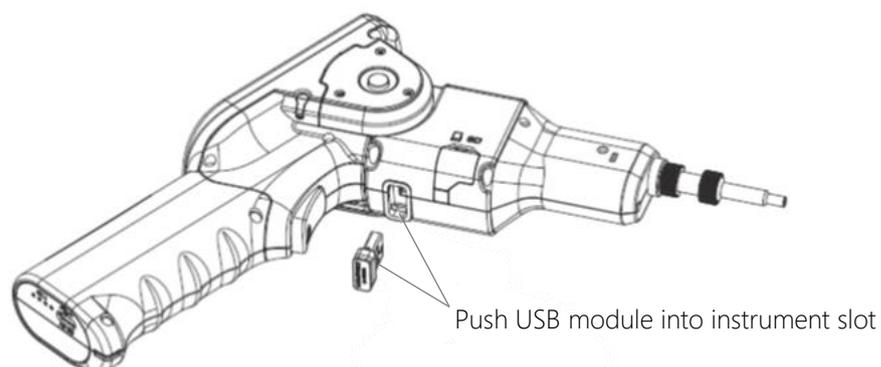
Fig. 3

7. Instrument Operation

7.1 Getting started

7.1.1 Wi-Fi module installation

The USB Wi-Fi module usually comes with the instrument uninstalled. Remove protective label on instrument's slots, remove cover of USB module and push the unit into instrument's slot as shown below. Once installed, the USB module will not be removable by user.

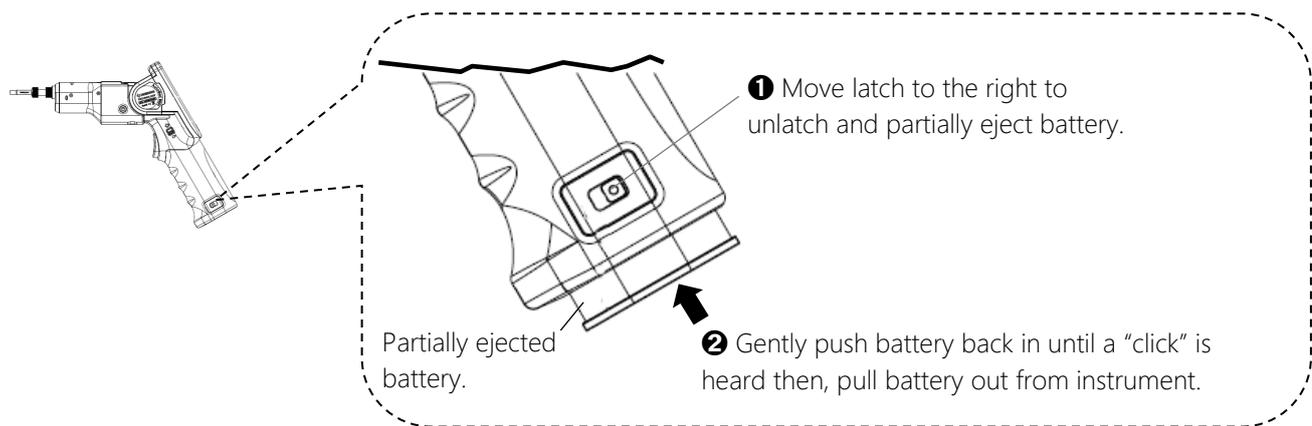


7.1.2 SD card installation

The instrument usually comes with a SD card already installed. To remove the card, open the rubber flap covering the SD card slot (see Fig.2 of section 6 above) on instrument and gently push the card in to unlatch it.

7.1.3 Battery installation

The instrument usually comes with a Snap-on battery already installed. To remove the battery, see steps below.



To reinstall battery, insert it into instrument's battery compartment and push it in all the way until a "click" is heard.

7.1.4 Battery charging

The Snap-on battery can be charged on or off the instrument. E.g., a spare battery can be charged off the instrument while the one on instrument is being used.

To charge, connect battery to the supplied charger or any USB power source using the supplied USB cable.

Different statuses of the battery is represented by the patterns of four LEDs (see Fig. 3 of section 6 above) as tabled below:

LED pattern	Representation
Only the 1 st LED is blinking	Low charge. Instrument will turn off automatically if not recharged.
LEDs are lighted up in combination of blinking and continual modes	Battery is being charged.
All LEDs light up continually:	Instrument is fully charged. Max charging time needed is 4 hrs @ 0.2A
All LEDs are blinking	Error in battery

7.1.5 On/off instrument

Press and hold on/off button of instrument until the blue Status LED lights up (see Fig. 1 of section 6 above). Wait approx. 20 seconds for the instrument to boot up after which the Home Display will be shown on LCD, see picture in section 7.1.8 below.

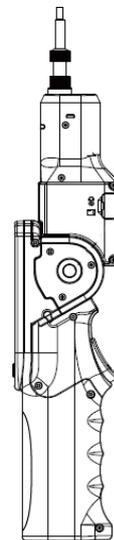
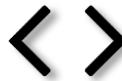
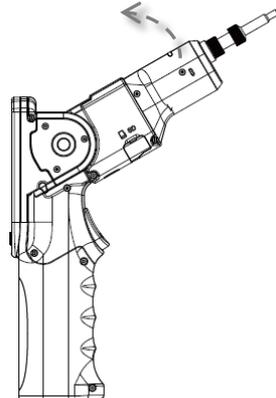
7.1.6 On/off LED torch

Toggle the Torch LED Switch (see Fig.1 of section 6 above) to turn and torch on or off.

7.1.7 Adjusting instrument form/style

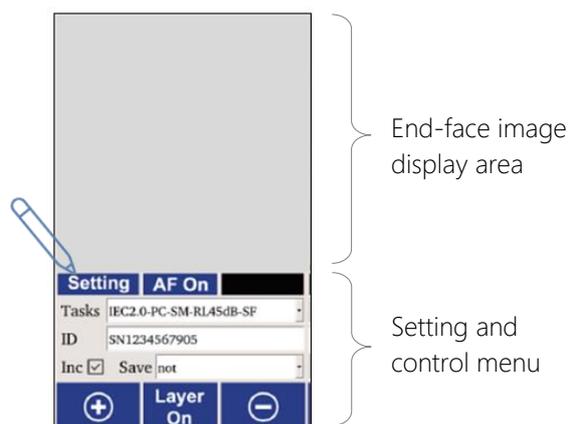
The instrument can be adjusted into "L-shape" or "straight" forms/style as shown below.

- ❶ Grip handle of instrument with one hand.
- ❷ Grip upper section of instrument with the other hand and gently move it in direction shown by arrow.

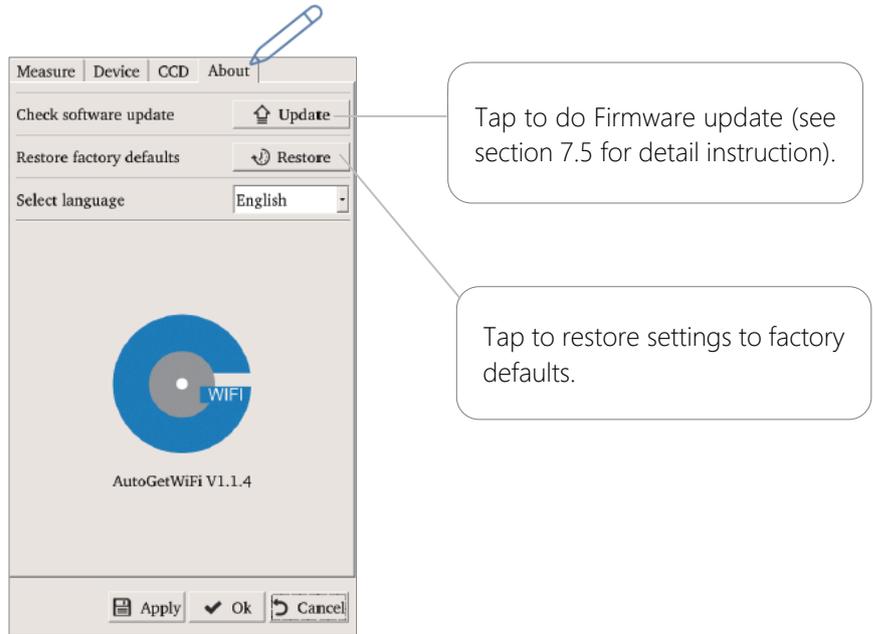


7.1.8 Setting up instrument

After instrument is booted up, the Home Display below will be shown on LCD. Tap on "Setting" using the supplied touch-pen to show selections of various setting submenus.



About submenu:



Tap to do Firmware update (see section 7.5 for detail instruction).

Tap to restore settings to factory defaults.

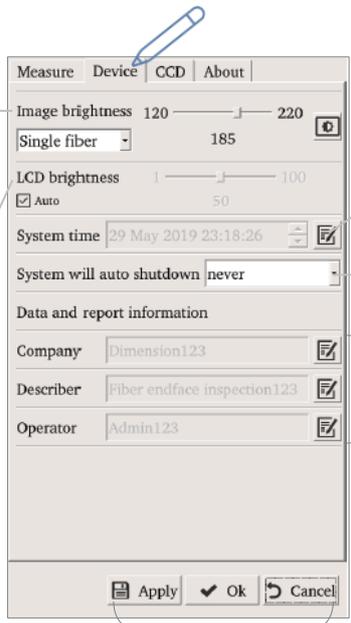
Device submenu:

Tap and move left/right along the bar to adjust brightness of image. Recommended 185~195 (for Single fiber) or 75~85 (for Multi fiber).

Select "Single fiber" for all non-MPO connector or, select "Multi fiber" for MPO connector from dropdown menu.

If "Auto" is checked, LCD display's brightness is adjusted automatically according to light level around the instrument.

If "Auto" is unchecked, tap and move left/right along the bar to adjust brightness of image.



Tap this, highlight date / month / year / time, and use up/down arrows to select the desired values.

Select "10" or "20" or "30" minutes from the dropdown list or "never" to disable auto power off.

Tap symbol on the right of field then, tap on the selected field to display virtue keyboard. Use keyboard to enter the desired text/value. These entered text/value will be auto saved in the pass/fail report.

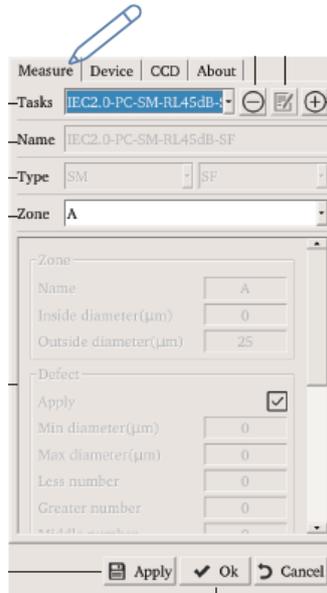
Select "Apply" to save setting followed by "OK" to returned to Main Display. Select "Cancel" to returned to Main Display without saving setting.

Measure submenu:

This submenu allows user to create customized pass/fail specifications if needed.

To create a customized pass/fail specification by modifying a prestored IEC standard:

- 1 Select 1 of the 24 prestored IEC standard from the dropdown list of the "Task" field.
- 2 Tap on ⊕
- 3 Tap on "Name" field and enter the name of the custom standard to be created using the virtue keyboard and select "✓". Modify the relevant parameters as required under "Zone", "Defect", "Scratch" and select "Ok".
- 4 Select "Apply" to save settings followed by "Ok" to exit to Main Display.



To delete a created custom standard:

- 1 Select the custom standard to be deleted from the dropdown list of "Task" field.
- 2 Tap on ⊖ and confirm deletion when prompted.

Note:

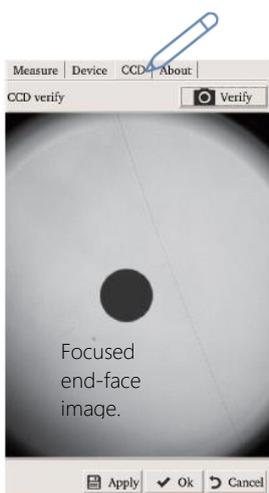
The prestored IEC standard are not modifiable and cannot be deleted.

CCD submenu:

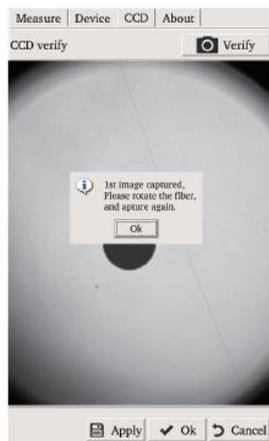
In the unlikely event that the internal camera/lens is slightly contaminated with unremovable debris, the instrument can be "taught" to exclude those debris from automatic pass/fail analysis as described below.

Connect instrument adaptor to a connector with thoroughly clean end-face and, do the following on instrument,

- 1 Select "Verify".



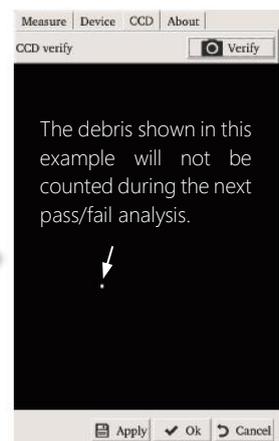
- 2 Rotate connector as prompted and select "Verify" again.



- 3 Select "Ok" when prompted.



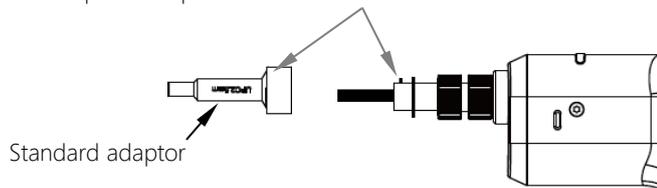
- 4 Select "Ok" to exit to Main Display.



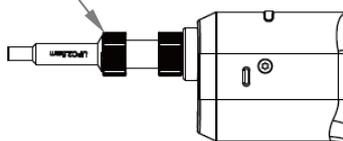
7.1.9 Connector adaptor Installations

For standard adaptors (non MPO):

- ① Align groove on adaptor with pin on instrument.



- ② Mount adaptor onto probe and, tighten locknut by rotating it anticlockwise.



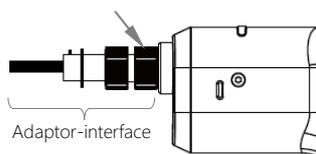
Note:

It is recommended that the barrel of adaptor is cleaned using cleaning sticks before installing the adaptor onto instrument.

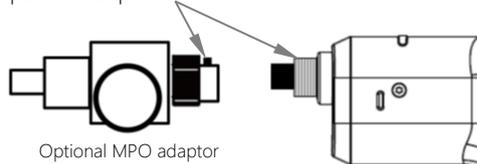
The cleaning should then be repeated frequently after the adaptor is used for inspections. This is to remove any dust potentially collected from dirty connectors during the process.

For MPO adaptor:

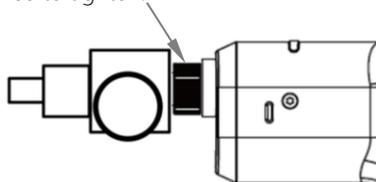
- ① Unscrew (anticlockwise) locknut to remove adaptor-interface from instrument.



- ② Align groove on instrument with pin on adaptor.



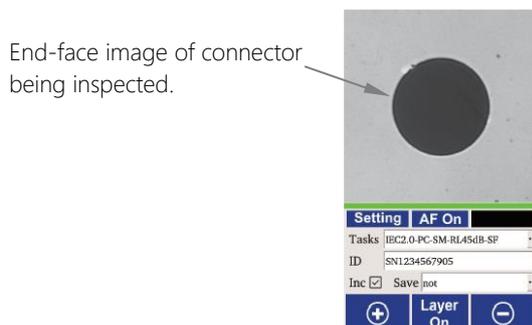
- ③ Turn locknut clockwise to tighten.



7.2 End-face inspection operation

Do the following to inspect end-face of a connector without pass/fail analysis.

- ① Install a suitable adaptor depending on the connector type to be inspected (see section x).
- ② Switch on instrument (see section 7.1.5).
- ③ Mount adaptor of instrument onto connector to be inspected. The end-face image of the connector being inspected will be displayed on the instrument as shown in the example below.



- Tap on ⊕ or ⊖ to focus the image.
- Tap on "Setting" then "Device" to adjust brightness of the image if necessary (see subsection, *Device Submenu* in section 7.1.8).

7.3 End-face auto pass/fail analysis operation

The instrument features a fully automated pass/fail analysis on end-face of most type of connectors including MPO12. With just a press of button, the image is auto centred/focused and analysed according to one of the 16 prestored IEC IEC61300-3-35 specifications.

Upon completion an analysis, resultant images and analysis results are stored automatically in SD card of instrument. See section 7.4 for memory locations where different analysis data (depend on the selected data saving mode) are stored in SD card.

For standard connector (with single fiber) types:

- ① Install a suitable adaptor depending on the connector type to be inspected (see section 7.1.9).
- ② Switch on instrument (see section 7.1.5).
- ③ Mount adaptor of instrument onto connector to be inspected. Set up the instrument for pass/fail analysis on the *Preview Display* as shown in the example below.

- Tap to select "AF On" to turn on autofocusing.

- Tap on field and enter value/text via the virtual keyboard. The entered value/text will be used as the name for the file in which the analysis data/report is saved.

If "Inc" is checked, numerical value in the "ID" field will be incremented upon completion of each analysis.

- Tap to select "Layer On" to show an overlay on image when analysis completes.

End-face image of connector.



Preview Display

- Depending on the connector type to be inspected/analyzed, select the appropriate IEC specification (refer to table below) from the drop dropdown list.

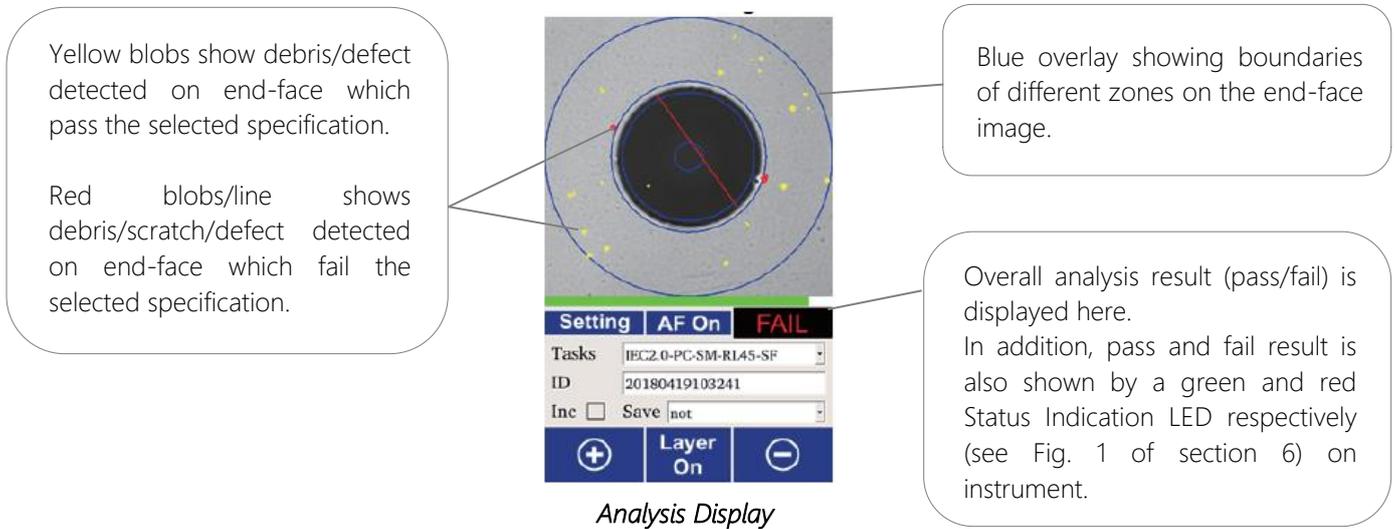
Note:
 "IEC2.0-x" specifications are compliant with standard, IEC61300-3-35 2015 Ed2.
 "IEC1.0-x" specifications are compliant with standard, IEC61300-3-35 2009 Ed1.

- Select a data saving option for the analysis from dropdown list. If "not" is selected, no analysis data will be saved.

See section 7.4 for data types saved in instrument.

IEC61300-3-35 Specification		Connector type
IEC2.0 / IEC1.0	PC-SM-RL45dB-SF	PC polished connectors, single mode, RL ≥ 45 dB (Single fiber)
	PC-SM-RL26dB-SF	PC polished connectors, single mode, RL ≥ 26 dB (Single fiber)
	APC-SM-SF	APC polished connectors, single mode (Single fiber)
	PC-MM-SF	PC polished connectors, multimode mode (Single fiber)
	PC-SM-RL45dB-MT12	PC polished connectors, single mode, RL ≥ 45 dB (MPO-12)
	PC-SM-RL26dB-MT12	PC polished connectors, single mode, RL ≥ 26 dB (MPO-12)
	APC-SM-MT12	APC polished connectors, single mode (MPO-12)
	PC-MM-MT12	PC polished connectors, multimode mode (MPO-12)

④ Click on instrument's Start Analysis Button (see Fig. 2 of section 6) to initiate pass/fail analysis. At the end of analysis, an *Analysis Display* will be shown as the example below.



⑤ Click on instrument's Start Analysis Button again to return to *Preview Display*. The instrument is now ready for the next analysis (Status Indication LED turns blue).

For MPO-12 connector types:

Note that this process involves a 3-step image acquisition cycle (capturing images for 4 fibers in each step) before the actual analysis.

- ① Install a MPO adaptor (OPT636) on instrument (see section 7.1.9).
- ② Switch on instrument (see section 7.1.5).
- ③ Mount adaptor of instrument onto connector to be inspected. Set up the instrument for pass/fail analysis on the display as shown in the example below.

- Make sure autofocusing is on ("AF On").

- Tap on field and enter value/text via the virtual keyboard. The entered value/text will be used as the name of the file in which the analysis data/report is saved.

If "Inc" is checked, numerical value in the "ID" field will be incremented upon completion of each analysis.

- Tap to select "Layer On" to show an overlay on image when analysis completes.

- Depending on MPO connector type, select the appropriate IEC specification with suffix, "MT12" (refer to table on page 13) from the drop dropdown list.

Note:
"IEC2.0-x" specifications are compliant with standard, IEC61300-3-35 2015 Ed2.
"IEC1.0-x" specifications are compliant with standard, IEC61300-3-35 2009 Ed1.

- Select a data saving option for the analysis from dropdown list. If "not" is selected, no analysis data will be saved.

See section 7.4 for data types saved in instrument.



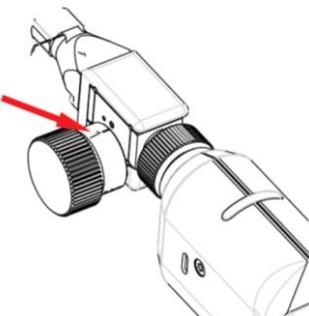
Once a specification is selected, this display will be shown.



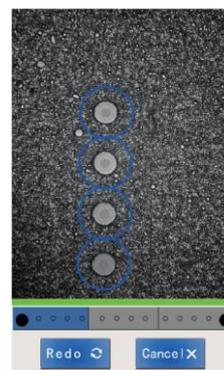
Do the 3-step image acquisitions as shown on next page, and analysis will start automatically when all images are successfully acquired.

Step-1 of image acquisition:

Turn knob on adaptor to position "1" as shown.

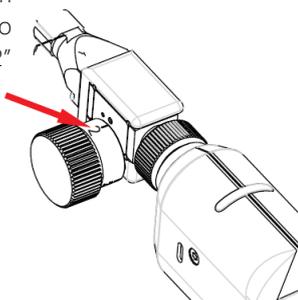


At this display, click on instrument's Start Analysis Button (see Fig. 2 of section 6)

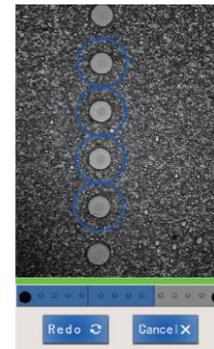
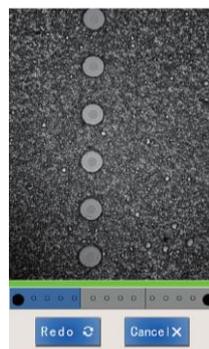


Step-2 of image acquisition:

Turn knob on adaptor to position "2" as shown.

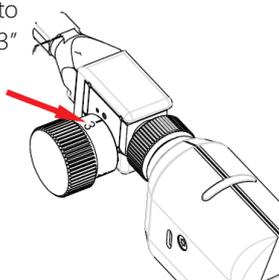


At this display, click on instrument's Start Analysis Button again.

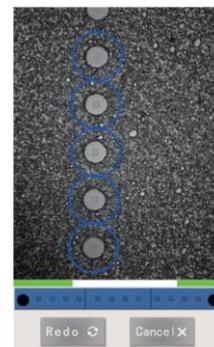


Step-3 of image acquisition:

Turn knob on adaptor to position "3" as shown.

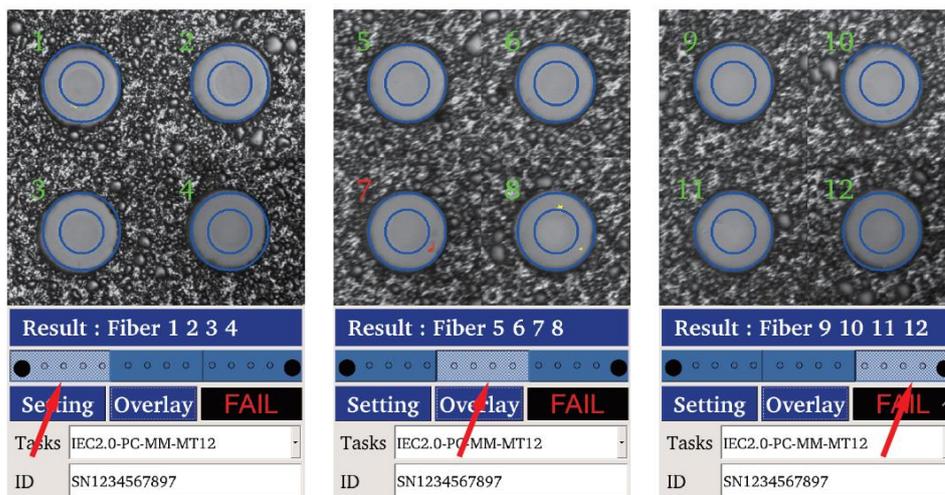


At this display, click on instrument's Start Analysis Button again.



Upon successful completion of all image acquisitions, analysis will begin and the results will be displayed automatically.

Tap on the left-most bar (as shown below by the red arrow) to view analysis for fibers 1,2,3,4. Tap on the middle bar for fibers 5,6,7,8. Tap on the right-most bar for fibers 9,10,11,12.



Overall analysis result is shown here as PASS or FAIL. In addition, pass and fail result is also shown by a green and red Status Indication LED respectively (see Fig. 1 of section 6) on instrument.

Note:

The following are important in ensuring successful and accurate analysis results,

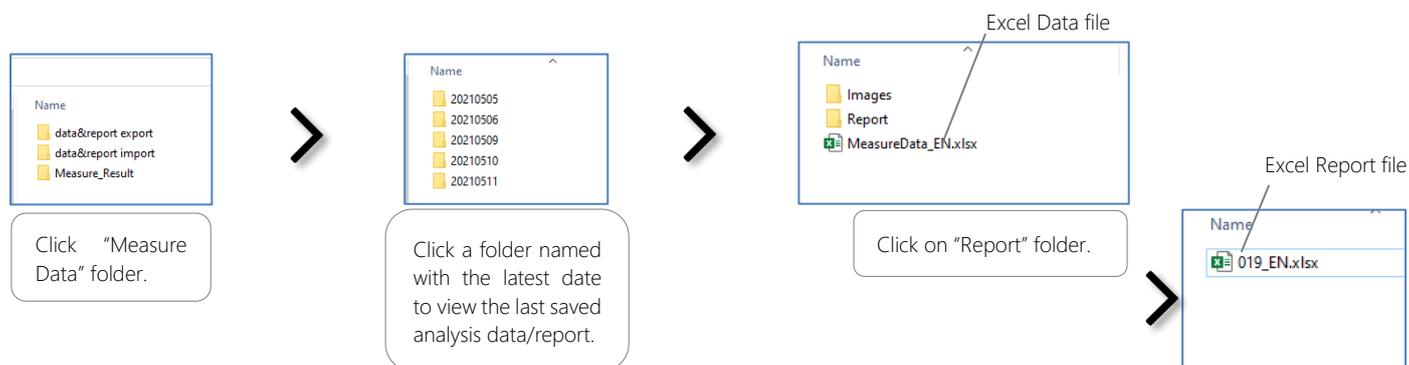
- Image acquisition steps must be performed in the exact order as described above.
- All images acquired are properly focused.
- At any step of Image acquisitions, if prompted with error messages (such as “No fiber found”, “Measurement failed”), tap “Redo” button to repeat.

7.4 Download data from instrument

Upon completion of a pass/fail analysis, image/data/report are automatically stored in the SD card in instrument.

The file/directory can be deleted from instrument’s SD card via the USB connection.

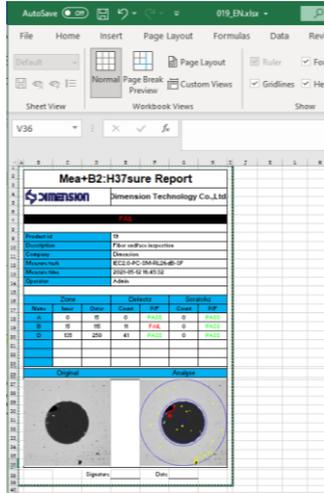
To download these saved image/data/report, connect instrument to a PC using the supplied USB-C cable. Once connected, the directories in the SD card is displayed automatically on PC as shown in the examples below.



Alternatively, the data saved in SD card can be transferred to a PC using the software, see section 8.4.

Below are examples of the types of Image/data/report files saved (depending on the selected Save Option, see section 7.2).

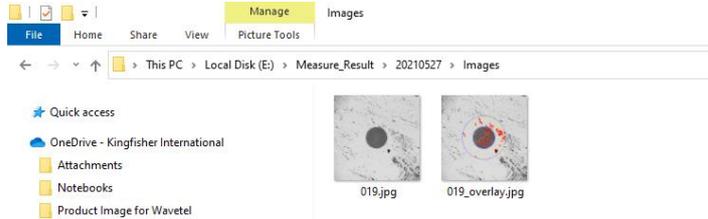
Excel Report file (the file is/are named with value/text entered on "ID" field):



Excel Data file (the file is/are named with value/text entered on "ID" field):

Dimension Technology Co.,Ltd.							AutoGetWiFi														
ID	Description	Company	Measure task	Measure time	Operator	Pass/Fail	Zone 1			Zone 2			Zone 3								
							Name	Inside	Outside	Name	Inside	Outside	Name	Inside	Outside						
019	Fiber endface inspection	Dimension	IEC1.0-PC-SM-RL26dB-SF	2021-05-27 13:43:10	Admin	FAIL	A	0	25	5	0	B	25	120	47	2	D	130	250	127	0

Image files (the file is/are named with value/text entered on "ID" field):



7.5 Instrument firmware update

Save a copy of the latest version of FW file in instrument's SD card. At Home Display, tap "Setting" followed by selecting "About" submenu. Select "Update" and reboot instrument when prompted.

When rebooted, at Home Display, tap "Setting" followed by selecting "About" submenu. Select "Restore" and reboot instrument again to complete the FW update process.

8. Software operation

8.1 Install the software on a PC

See section 3 for software compatibility.

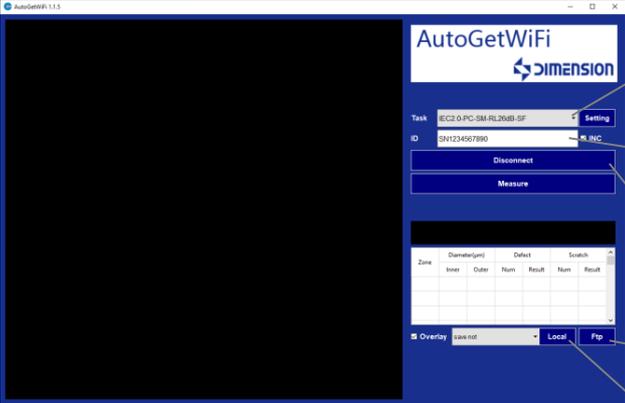
Download from Kingfisher website (kingfisherfiber.com) or from the supplied CD the installation file, "Autoget wifi x.x.x.rar" onto your PC. Upon unzipping the downloaded file, select application file "AutoGetWiFiVx.x.x" from "Work Directory\Autoget wifi x.x.x\PC Software" to Install the software as per the prompted instructions.

8.2 Connect Instrument to PC via Wi-Fi

Power up instrument. Select to connect the instrument to your PC when the instrument's serial number (e.g., AGWCAF035) is listed on the Network and Internet settings window on the PC. Type in "12345678" as password when prompted.

8.3 Use software for auto pass/fail analysis

Double click the icon,  on your PC's desktop to start the software.



② Select a specification for analysis (see section 7.3 for standard selection for standard of MPO connectors).

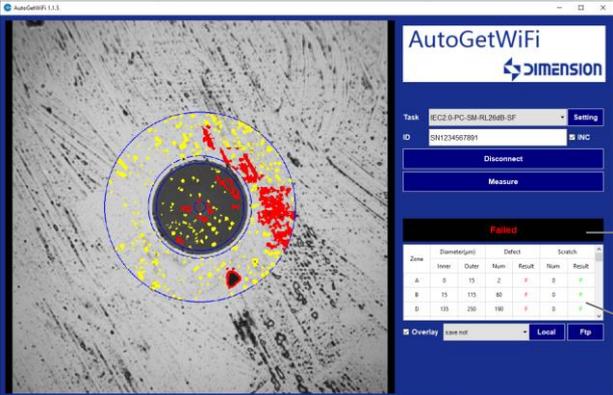
③ Enter a value/text here which will be used as the name for the Report file in which the analysis data is saved.

① Click on "Connect" to connect instrument to software.

④ Click on "Local" and select a directory on your PC where the analysis data to be saved.

⑤ Select a data save option from dropdown list. If "not" is selected no analysis data will be saved.

⑥ Click on "Measure" or the Start Analysis Button on instrument to initiate an analysis. Wait for process to complete.

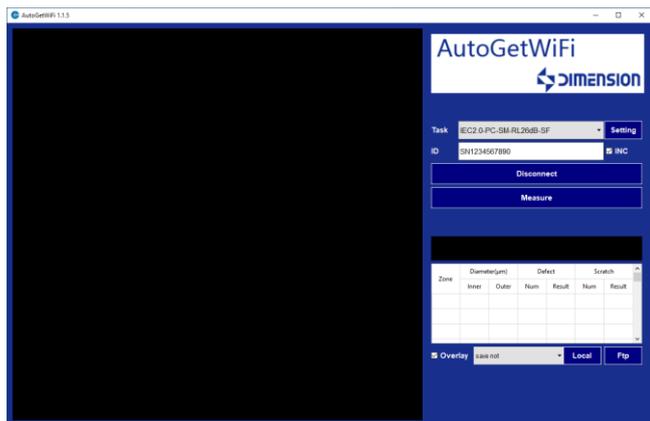


Overall analysis result shown as PASS or FAIL here.

No of debris/defect detected in different zones on the end-face are displayed here.

Zone	Inner	Outer	Num	Pass	Fail	Num	Result
A	5	15	2	0	0	0	0
B	15	115	80	0	0	0	0
D	135	230	190	0	0	0	0

8.4 Use software to download data from instrument



① Click on “FTP” access memory content in

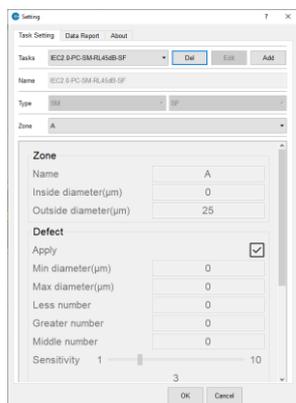
② Select folder, “sd” then “Measure_Result” access the analysis image/data/report files.

③ Copy the desired from these directories onto your PC.

8.5 Software Setting

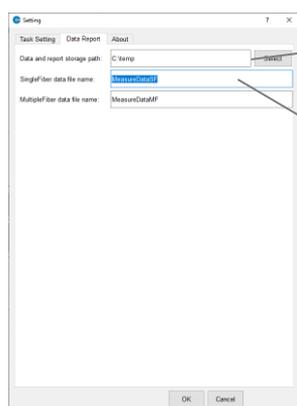
Click on “Setting” on software to do various settings.

Task Setting submenu:



User can create custom specification (on top of the 16 prestored ones) here, see section 7.4 for more detail.

Data Report submenu:



User can also select the desired directory on the PC to save analysis image/data/report.

These are default names for Data files auto generated from analysis. See section 7.4 for types of image/data/report files saved after an analysis. They can be renamed as per users' presences.

9. Eye Safety Precaution

While handling live fibers, always observe eye safety procedures compliant with your company policy, relevant laser safety standards and safety practices.

10. Care of Your Instrument

This is a precision optical instrument. Keep it clean, dry and do not drop. Avoid exposure to moisture or excessive vibration. When not in use, always replace the dust cap to protect the instrument's adaptor or adaptor head from accidental damages.

11. Service and Support

For assistance, please visit our web site www.kingfisherfiber.com for your local contact details, or for return material instructions (RMA). Our application support or service team would be pleased to help.

12. Disclaimer and Warranty

This manual is given in good faith for the benefit of the user. It cannot be used as the basis for claims against Kingfisher International or its representatives. This product is guaranteed against defective components and workmanship for 1 years from delivery, unless stated in the purchase contract. This warranty excludes connector adaptors or incorrect use. Opening the instrument invalidates the warranty. Liability is limited solely to repair of the equipment. Ordering Information

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