EasyCheck V2 Digital Fiber Endface Inspector

User Manual

Please read this manual thoroughly before use.
Properly keep this manual with the equipment
for future reference.

Introduction

Dear customer:

Thank you for choosing EasyCheck V2 product. EASYCHECK product has high quality and excellent performance. To make full use of this product, please read this manual carefully before using. Whenever you have any questions, please contact us and we will happy to provide any assistance!

Symbols

The following symbols are used for the important information in this manual.

Prompt

The notice and restrictions in the process.

Attention

1. The manual could be upgraded without further notice. Please kindly understand.
2. As far as possible, the content of this manual is accurate. However, if there is anything erroneous or ambiguous, please contact us.

Considerations about the product

1. Instruments must be moved gently
2. No extrusion;
3. Use the Dimension Technology customized 12V DC power adapter. Other power adapters are not allowed;
4. Do NOT disassemble instrument so as to avoid unnecessary loss;
5. Keep instrument away from sharps so as to avoid scratches on the screen.
6.After the end of the product life, it shall be recovered by the company with relevant recycling qualification.

Maintenance about the product

1. Keep EASYCHECK clean, away from grease and dust
2. It would be better kept in the instrument container if the inspector will not be used for a long time.

Product Warranty

Warranty period

Dimension Technology warrants that for a period of one (1) year from the Shipping Date, the product purchased by customer shall be free of defects in material and workmanship under normal authorized use consistent with the product instructions.

The content of the warranty

In the event that Dimension Technology receives notice during the warranty period that any part does not conform to its warranty, Dimension Technology's sole and exclusive liability shall be, at its sole option, to either repair or replace the non-conforming part in accordance with this limited warranty.

Exceptions

No warranty will apply if

1) Device damage caused by wrong operation;
2) Unconventional repair or modification;
3) The causes of failure outside of the instrument;
4) Used in high temperature and humidity, corrosive gas, harsh conditions such as vibration;
5) Fires, earthquakes and other natural disasters as well as the pollution caused by radioactive substances and harmful substances, and when the other force majeure such as war, riot, crime.
6) Consumables and consumable parts.

Structure of this manual

1 Start

This chapter describes the name and function of each part.

2 Hardware basic operation

This chapter describes performance characteristics and the basic operation of the equipment.

3 Using on-site guidance

This chapter expounds the main usage scenarios.

4 Attachment

This chapter mainly list the contact information.

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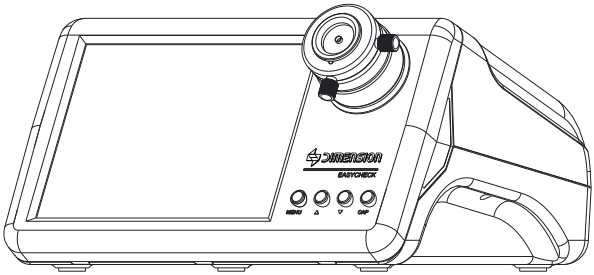
1 Start

1.1 Check the packaging

Please pick out the containments in the package and check if there are any missing parts. If there are missing parts, please contact Dimension.

1.1.1 Device

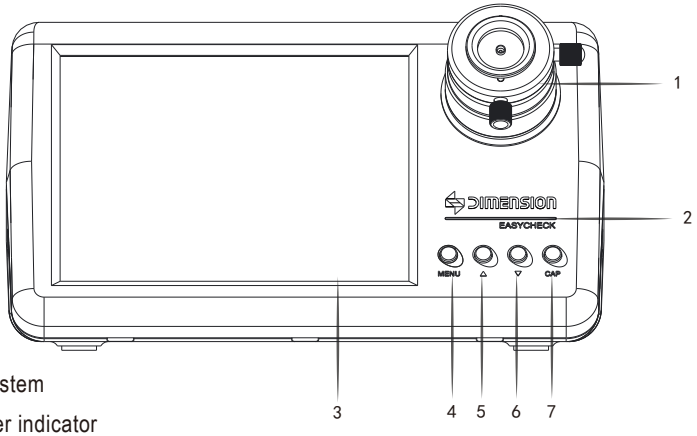


1.1.2 Attachment

Please check the packing list of the products for all attachment is included, if there are any missing items, please according to provide the way to contact us.

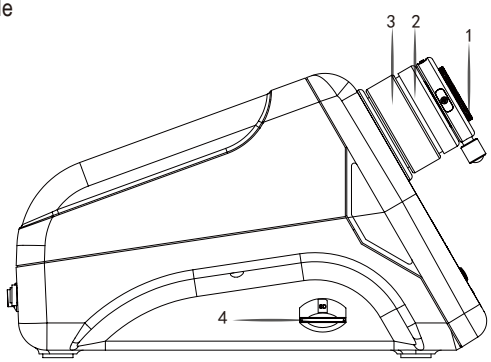
1.2 Function

1.2.1 Device positive



1. Esoteric focusing system
2. The line-styled power indicator
3. High-resolution screen
4. MENU button
5. Page up button
6. Page down button
7. Image capture button

1.2.2 Device on the side



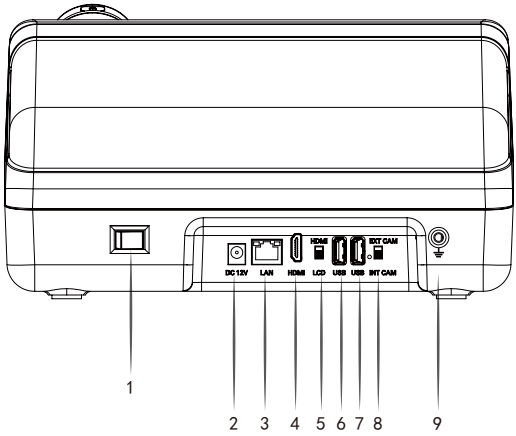
1. Adaptor tip, used for connector fixation, employ corresponding tip for various optical fiber connector inspections.

2. dust covers; prevent esoteric adjusting system from inhalation of dust, make sure the adjusting damping remain unchanged.

3. Encircling focus ring, bring you the unprecedented focusing Experience.

4. SD card slot.

1.2.3 Device on the back side



1. Power switch.

2. 12 V power supply slot, DC 12V external power interface.

3. LAN local area network interface.

4. HDMI high-definition multimedia interface.

5. HDMI SWITCH image reality selection switch, used to switch the display signal source: can transmit the video signal to the external display.

6. USB 2.0 interface, used to connect U disk ,keyboard, mouse, foot switch, scan code gun.

7. USB 2.0 interface, used to connect U disk,keyboard, mouse, foot switch, scan code gun.

8. CAM SWITCH image display selection switch, used to switch the signal source of the display, you can switch EASYGET WIFI to use and view.

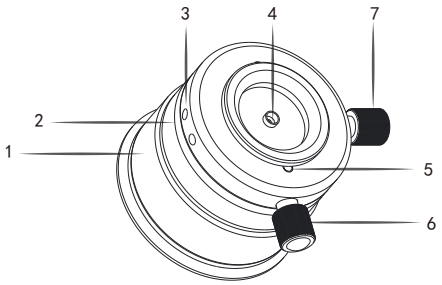
9. Grounding port to prevent static electricity.

Note:

1. For external input, EasyCheck V2 can only be connected to our company's portable end face detector

2. The USB 2.0 port can be connected with a foot switch, mouse and keyboard for controlling the use of equipment

1.2.4 Adjustable fiber end-face inspector



1. Encircling focus ring, brings you the unprecedented focusing experience.

2. Dusts cover; prevent esoteric adjusting system from inhalation of dust, make sure the adjusting damping remain unchanged.

3. Adaptor cavity, for tip fixation.

4. Adaptor tip, used for connector fixation, employ corresponding tip for various optical fiber connector inspections.

5. Lock screw, only for multi-channel connector inspections.

6. Y axis image adjustment screw, adjusting image to move up and down within the range of +2 ~ -2mm.

7. X axis image adjustment screw, adjusting image to move left and right within the range of -2 ~ +2mm.

2 Hardware basic operation

2.1 Features

1. The design concept of integration

EasyCheck V2 combines the compact appearance with enhanced function. Integrated design resulted in smaller size and more convenient operation. It toppled the traditional mode of the microscope and monitor is respectively independent existence. Users can simply connect the power to start the inspection. You are no longer need to worry about the complicated cable between monitor and microscope. EasyCheck V2 helps you save time and space, and improve productivity.

2. Incomparable image quality

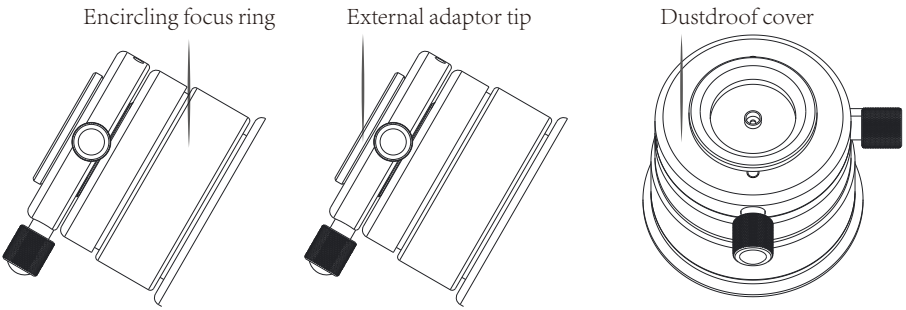
Top optical amplification system for coaxial illumination makes the fine defects in the end-face of fiber connector clearly visible. High resolution image sensor along with 8” black-and-white digital TFT displayer truly shows you all the details of the fiber endface, ensuring the reliability of inspection result.

3. Convenience

Adhering to the design concept of the optical fiber end-face inspector EASYGET, engineers designed the encircling focus ring for EASYCHECK to smooth focusing. External adapter make the various parts easy to plug & pull especially for inspecting TOSA、ROSA.

4. Dustproof

The idea of dustproof has been adopted in the encircling focusing system. Even working in dirty environment for a long time would not result in inhalation of dust and affect the focus performance.



5. Centered image

EsayCheck V2's intelligent optoelectronic structure and adaptor tips can stand the test of centered image requirement. The consummate optoelectronic structure and adaptor tips always keep the image in the center during focusing, eliminating the image jitter problem.

6. Precise ceramic adaptor tips

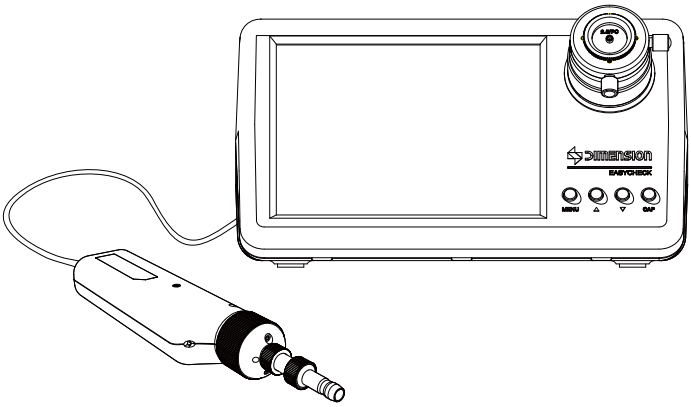
EsayCheck V2 is equipped with 1.25mm, 2.5mm ceramic precise tips which can meet various inspection requirements. The high-level concentricity provides you ideal centered image when replacing different tips. The ceramic casing tips have infinite life. What is more important is that the image will not deviate from center due to attrition.

7. Image storage

The fiber end-face image can be captured at any time and be stored in the SD card, making it easier for technological process production, standard setting, failure analysis and business negotiations.

8. Image input/output

EsayCheck V2 is an integrated optoelectronic system consists of amplification and display functions. It not only offers image input and output function, but also can meet customer's specialized requirement. In addition, EsayCheck V2 has been equipped with input tip for Dimension Technology's EASYGET tip able fiber end-face microscope to deal with various female connector inspections.



9. Safety and humanized design

EASYCHECK V2 utilized Dimension Technology's customized 8" HD LCD display to reveal the subtle defects on fiber end-face. Compared with traditional CRT monitor, the digital TFT monitor has no screen flashing and no radiation, protecting users' eyes and body from impairment especially for pregnant women.

Action economy has been applied in EsayCheck V2. The 8" digital TFT monitor, 45°backbends display and the integrated operation interface has reduced the operation time and fatigue, and greatly improve the work efficiency.

All the edges and corners are harm-free, conforming to ISO2100 design standard. Users will not be hurt by touching any part of the machine.

2.2 EsayCheck V2 application

- ◆ Fiber connector end-face inspection
- ◆ Object surface microscopic amplification

2.3 Specification

Model	EC080BX	EC200BX	EC400BX	EC080KX	EC200KX	EC400KX
Amplification factor	80X	200X	400X	80X	200X	400X
X Y axis adjustment	—	—	—	—	—	O
Image input/output format	Digital imaging					
Sensor	1/2 inch COMS					
Image output tip	HDMI					
Image input tip	USB					
Focus mode	Manual					
Image analysis	—					
Power dissipation	6W					
Working temperature	-10℃ ～ +40℃					
Storage temperature	-20℃ ～ +55℃					
Easyget input tip	O					
Display	8" TFT 1024 *768 PIX					
Power supply	DC 12 V					
Volume	270mm*245mm*155mm					
Weight	1.6kg					

Note

O	Available
—	Unavailable

2.4 Hardware operation

2.4.1 Installation

Open box and take out the machine, choose and install the corresponding adapter tip into EasyCheck V2 securely. Assemble the power adapter and power line and make sure the power supply is well connected.

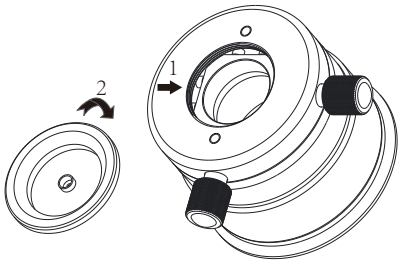
2.4.2 Machine adjustment

Power on and insert the optical fiber connector into the EasyCheck V2 adaptor tip. Adjusting the focus ring clockwise, the connector moves away from inspector body; adjusting the focus ring anticlockwise, the connector moves towards the inspector body. To observe the fiber end-face, adjusting the focus ring till image gets clear and bright.

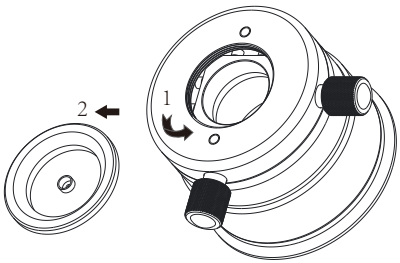
Make sure the image display switch is turned to the right in this mode.

2.4.3 Tip assembly

EasyCheck V2provide different adaptor tips to fulfill various connector inspection needs. Screw anticlockwise to remove the adaptor tip. See diagram below:



Select the needed tip, match the threads of tips and screw in clockwise tightly. See diagram below:



2.4.4 Inspection

Connect the product to be tested onto the adaptor tip and adjust the focus ring to get the clear image. Spin the X axis screw clockwise, connector moves towards the left; spin the X axis screw anticlockwise, connector moves towards the right; spin the Y axis screw clockwise, connector moves upwards; spin the Y axis screw anticlockwise, connector moves downwards; users can view the entire surface condition with the help of XY axis screw.

To replace adaptor tip, unscrew anticlockwise to remove the existing one and then screw in tightly the needed tip clockwise. The powerful EasyCheck V2 can perform various connector inspections.

3 Operating scenarios

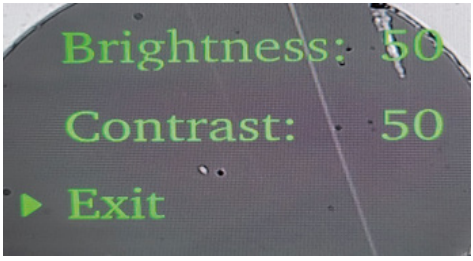
Note:

The four buttons, MENU, ▲ , ▼ , CAP will be introduced.

Power on and insert the optical fiber connector into the EasyCheck V2 adaptor tip. Adjusting the focus ring clockwise, the connector moves away from inspector body; adjusting the focus ring anticlockwise, the connector moves towards the inspector body. To observe the fiber end-face, adjusting the focus ring till image gets clear and bright.

3.1 Brightness and contrast adjustment

Press MENU to enter the brightness and contrast adjustment interface, as shown below:



In this adjustment interface:

MENU: Page Down key, can choose downward from BRIGHTNESS, CONTRAST to EXIT, selected one is shown in black;

CAP: Page Up key, can choose upward from EXIT, CONTRAST TO BRIGHTNESS, selected one is shown in black;

▲ : Up key, can raise the value of BRIGHTNESS and CONTRAST; selecting EXIT means save and exit the interface;

▼ : Down key, can reduce the value of BRIGHTNESS and CONTRAST;

Note： Do not perform any operation in the adjustment interface, it will automatically exit after 10s

3.2 Image capture

CAP is the image capture key, pressing CAP can capture and save the current image to the SD card or device.

Note: The screenshot function can be used with or without an SD card inserted.

3.3 Picture view

Press ▲ to enter the picture view mode. Images stored in SD card can be viewed in this mode. Press MENU to exit.

CAP: delete, press for the first time, DEL? Prompts; press again to delete the current image;

▲ : page up key, view the previous image

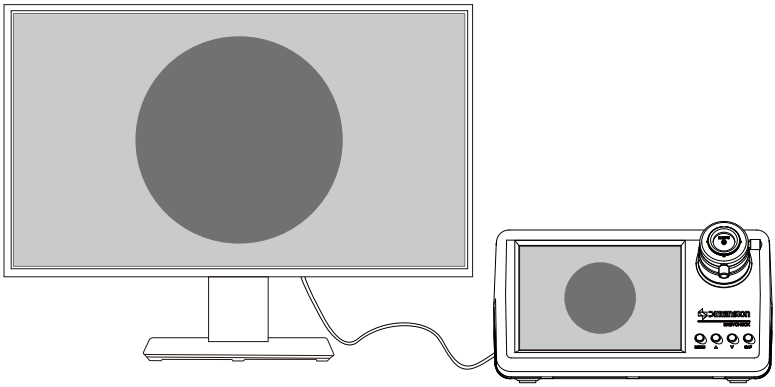
▼ : page down key, view the next image

3.4 External monitor instructions

In this mode, Images can be viewed separately from the desktop display or the 8'display of EasyCheck V2.

Connect the external monitor and EasyCheck V2's HDMI image output tip with HDMI video cable.

Make sure the "HDMI SWITCH" image display switch is turned to the upper side in this mode.



3.5 External monitor instructions

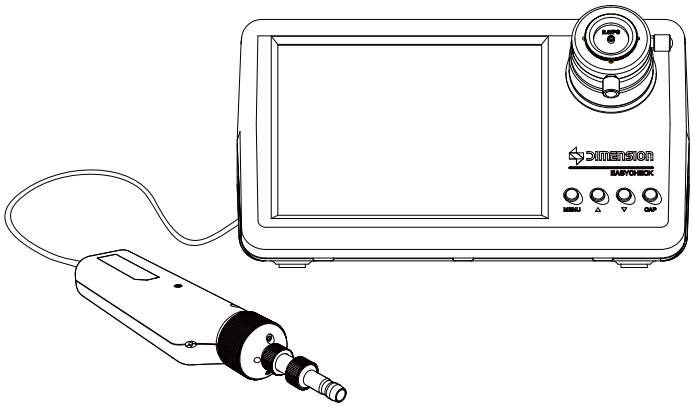
Connect the external monitor and EasyCheck V2's HDMI image output tip with HDMI video cable.

In this mode, images can be viewed simultaneously from the desktop display and the EasyCheck V2's 8"display.

Turn on the EasyCheck V2 and the external monitor. Connect the simplex or multi channel optical fiber connector with the EasyCheck V2 and adjust the focus ring to get the clear image. Then the end-face status can be viewed from both displays.

Connect EASYGET WIFI/ EGT digital and EasyCheck V2 and make sure EasyCheck V2's image display"CAM SWITCH"is turned to the upper side.

Power on the EasyCheck V2 and connect the fiber connector or optical module with the EASYGET WIFI/ EGT digital. Adjust the EASYGET WIFI/ EGT digital's focus ring to get the clear image so as to observe the end-face condition. See the diagram below.



Power on the EASYCHECK V2 and connect the fiber connector or optical module with the EASYGET WIFI/ EGT digital. Adjust the focus ring to get the clear image so as to observe the end-face condition.

Contact us

If you have any further problem, please contact Dimension Technology Co., Ltd

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Notes