

# eScope

## With Measurement

### User Manual

DP-M12



佳駿(環球)有限公司  
ORIENTAL INSPIRATION LIMITED



DP-M12

Thank you for buying our professional digital microscope.

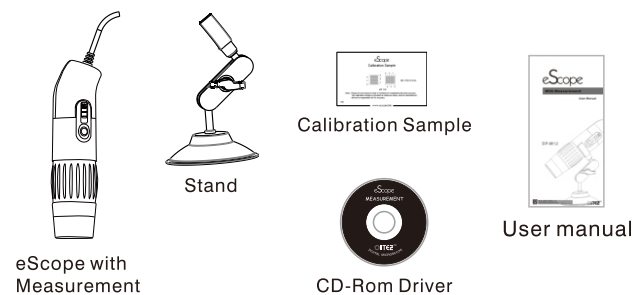
To guarantee the product function into fully play and prolong service life, please read the user manual carefully before installations. And the product should be well clean and maintained when using it.

In line with the policy of continued development, if there are any amendments on the appearance, color or assemblies, please refer to the real object. Our company reserves the right to amend on the the specifications and the manual whitout prior notification.

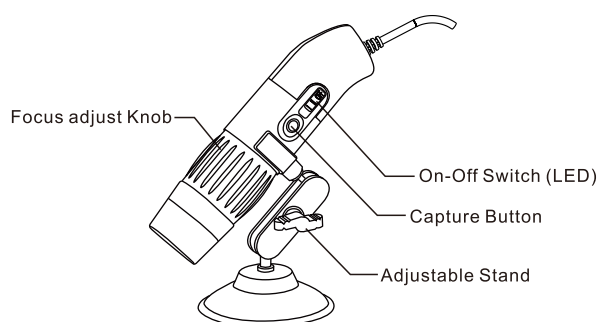
### Parts list

Please check all the accessories are available before using

eScope with Measurement.....	1PC
Stand.....	1PC
Calibration Sample.....	1PC
CD-Rom Driver.....	1PC
User Manual.....	1PC



### Product Overview



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## Installation

### Computer System Requirement

- Microsoft Windows XP, Vista or Windows 7
- Pentium® 4 or AMD Athlon™ processor or higher
- 100MB Free hard disk space
- 1G RAM or more
- 16Bit Color display
- USB Port
- CD or DVD Driver

### Software Installation

1. Insert enclosed CD into CD-ROM drive , the installation program will start automatically.( If installation program doesn't start automatically, please browse your CD-ROM drive and execute the "eScopeSetup. xe" program.)

2. Select a path for the software ;



3. Click "Next" to install ;



4. Click " Finish" to complete the installation;



5.Now the "eScope" shortcut Icon will show on the desktop automatically;

6. eScope installed successfully.

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### Connect to computer

1. Connect eScope to PC through USB Port ;

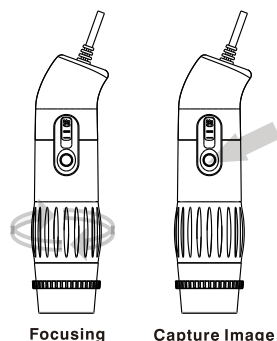


2. Double click the shortcut icon eScope on desktop, and then the real-time image will show up on screen .

### Operation Guide

#### Focusing

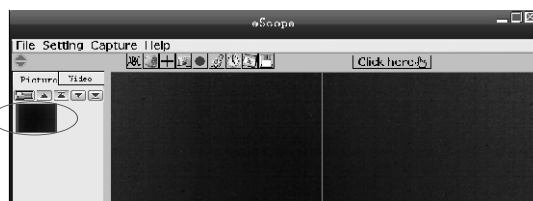
Put eScope on the subject and turn Focus adjust knob slightly to find the sharpest focus position.



#### Capture Image

After focusing , you can capture image or movie by capture button.

The captured photos will save on the left interface:



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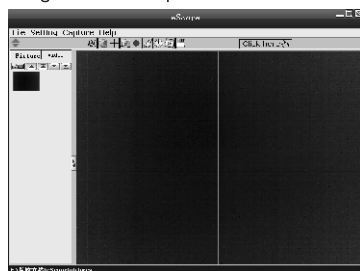
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### Software Guide

#### Execute Software

**Remark: Before executing the software, please make sure the Auto Focus eScope is connected to the PC.**

Double click the shortcut icon eScope on desktop, and then the real-time image will show up on screen.

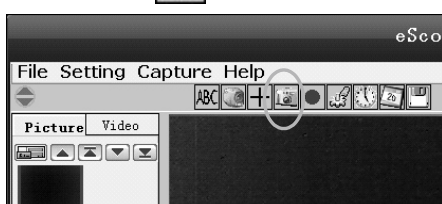


Slide mouse to the short cut icons in the main manual bar to quickly know the uses.  
(Please refer to eScope software interface instruction for more details.)

#### Capture Photo

• Click 'Capture > Photo'. • Press the key F4 on keyboard.

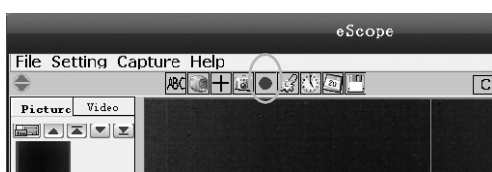
• Click 'Capture Picture' shortcut icon in the main menu bar.



#### Capture Video

• Click 'Capture > Video'. • Press the key F8 on keyboard.

• Click 'Start/Stop Recoder Video' shortcut icon in the main menu bar.



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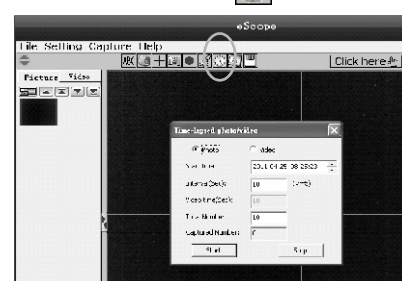
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### Time-lapsed Picture / Video

• Click 'Capture > Time-lapsed photo/video'.

• Press the key F5 on keyboard.

• Click 'Time-lapsed Photo/Video' shortcut icon in the main menu bar.



A new dialogue box appears in which you can enter desired setting data.

Under Time-lapsed photo, you can set the start time, interval time and total picture number.

Under Time-lapsed video, you can set the start time, interval time and total video number.

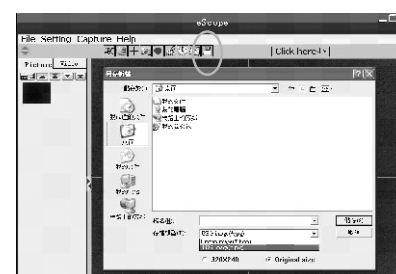
### Save Picture or Video

**All pictures and videos will saved under the assigned folder, if need to change the path, there are three ways as below.**

• Click on 'File> Select saving folder' to choose a new path.

• Right click on the photo/video > Save as to choose a new path.

• Press the shortcut button in the main menu bar .




A new dialogue box appears in which you can enter desired setting data.

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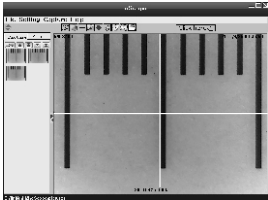
## Calibration and Measurement

Please make calibration before measurement.

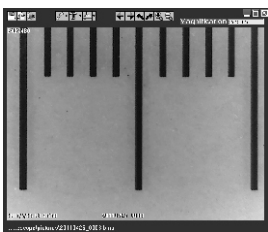
### Calibration

Click on the shortcut icon  or choose 'Display crossing' under 'Setting' option to display the crossing. It's used to check the dial is parallel or not.

1. Focus eScope on the attached dial and then press on the AF button to adjust. Take a picture for the selected area when the dial is parallel to the crossing as below.



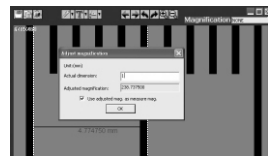
2. Double-click on the picture to enter into measurement interface.



3. Click the calibration icon  in the toolbar, and then a dialog will popup.




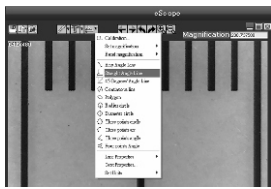
4. Click 'OK', the mouse will become a crossing on the screen. Click on the beginning and ending points across a known value (The default magnification rate and value will show up automatically). Now a dialog will popup as below and you need to enter the exact value of the measurement sample into the 'Actual dimension'. Then the software will automatically calibrate the magnification rate. Click 'OK' and the adjusted magnification rate will show in the upper right corner.




- The broken line should be parallel to the dial during measurement.

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5. Now you can trough 'Calibration'  > 'Straight angle line' to measure the value again. If the value you measure by software is nearly the same as the exact value of the dial means the calibration finish.



6. Base on the same magnification rate, click the icon  and a dialog will show up automatically. Click 'OK' and the adjusted magnification rate will show in the upper right corner.



### Measurement

Double-click on the picture to enter into measurement interface. Under the 'Measurement' icon , you can choose any desired options to measure.


- a) Any Angle Line Measurement:**  
Simply click from one point and drag to the next point, and then click again to lock-in.
- b) Straight Angle Line Measurement**  
The Line measurement allows you to measure from one point to the next. Simply click and drag to the desired length, and then click again to lock-in.
- c) 45 Degrees' Angle Line measurement**  
This function is for any 45 Degrees' Angle Line angle measurement. Simply click and drag to extend out to the desired angle.
- d) Continuous Line Measurement**  
The Continuous Line measurement allows you to measure any continuous desired length. Simply click and drag from one point to other desired points, click again to lock-in.
- e) Polygon Measurement**  
The Polygon Measurement allows you to measure the side-length, interior angle degree, circumference and area of the polygon.
- f) Radius Circle Measurement**  
Simply click and extend out to the desired radius, the radius, circumference and area of the circle will show up accordingly.

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- g) Diameter Circle Measurement**  
Simply click and extend out to the desired diameter, the radius, circumference and area of the circle will show up accordingly.
- h) Three Points Circle Measurement**  
Simply define any three points and click, the radius, circumference and area of a circle will show up accordingly.
- i) Three Points Arc Measurement**  
Simply define any three points and click, the circumference of the arc as well as the radius and area of the sector will show up accordingly.
- j) Three Points Angle Measurement**  
This function allows measurement of an angle. Simply click and drag to extend out to the desired angle.
- k) Four Points Angle Measurement**  
Simply define any two points and click for the first line, and repeat the action to create the second line, the angle degree between two lines show up accordingly.

### Change the Calibration

If change the magnification rate and adjust focus to capture picture, please calibrate the magnification rate again.

1. Double click to open the picture, Click  > 'Reset magnification' > 'Reset picture magnification' as below. And then start calibration again (Calibration details please refer to page 6 ~ page 8).



- After clicking 'Reset picture magnification', the icon in the upper right corner is **Magnification NONE**.

2. Change the magnification rate and capture several pictures, click on the picture to enter into measurement interface. And click ' > Set magnification > Set picture magnification', now a dialog will show up as below, enter the magnification rate into the dialog and click 'OK'.




3. If you want to use the same magnification rate to capture pictures, just click ' > Set magnification > Set capture magnification'. Now all pictures will use the same magnification rate and you can start measurement directly.

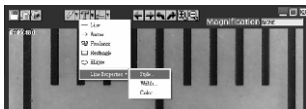


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## Draw and Text

You can draw or add a text on the picture for later analysis and study.

1. Click icon  to choose any kinds of drawing under the pull-down manual.



2. Click icon  and set the font for the text in the popup dialogue.



3. You can add any text on the picture after setting.

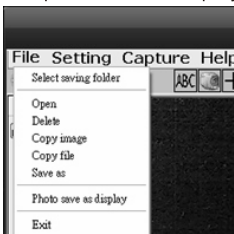
## eScope Software Interface Instructions

### Main Interface

### Options instructions

#### File Option

Under 'File' option, there are select saving folder, open, delete, copy image, copy file, save as, photo save as display and exit.




- Select saving folder --- Set the stored path for all the pictures and videos.
- Open --- Open the selected picture and video.
- Photo save as display --- Choose to display the picture size, date & time, file name, magnification and the font size for picture saving.
- The operations of delete, copy image, copy file, save as and exit are the same as normal.

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### Setting Option


Under 'Setting' option, there are resolution, real-time image setting, select device, display crossing, display date & time, sound effect and skin.

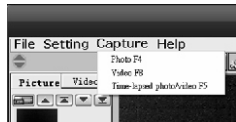
- The functions of real-time image setting, display crossing and display date & time are the same as the shortcut icons  in the main menu bar.



- Resolution --- Set the size for picture and video.
- Real time image setting --- Set the brightness, contrast, color, saturation, definition, color correction, white balance and backlight.
- Display date & time --- Choose to display or not display the date and time for picture and video.
- Skin --- Choose the color for skin.

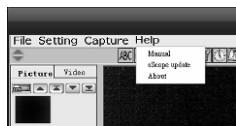
### Capture Option

- Under 'Capture' option, the functions of photo (F4), video (F8) and time-lapsed photo / video (F5) are the same as the shortcut icons of  in the main menu bar.



### Help Option

Under 'Help' option, there are method, eScope update and about. Click the method into the eScope software instructions. And click eScope update to enter "www.oj.com.hk/download" to download the latest software.



### Toolbar Instructions

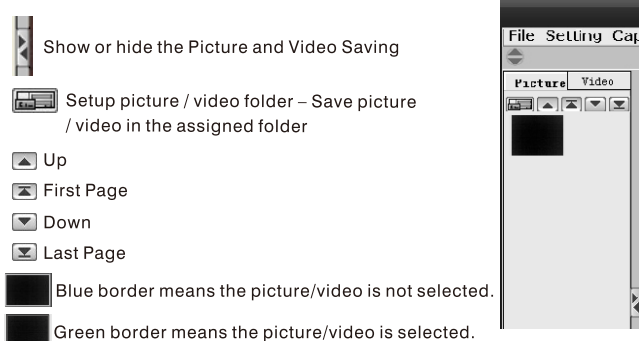
- Show or hide the title.
- Select language - Choose a desired language.
- Device setting - If there are more than one video devices, please choose the desired one.
- Crossing - Display or hide the crossing, it helps to measure the dial is vertical and parallel when capturing the picture for calibration.

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- Capture picture - It's used to capture picture one by one.
- Start / Stop recorder video.
- Real-time image setting - Set the brightness, contrast, color, saturation, definition, color correction, white balance and backlight.
- Time-lapsed photo / video - Set the start time, interval time and total photo/video number.
- Time-lapsed photo / video - Set the start time, interval time and total photo/video number.
- Save as - Choose a new path to save picture /video.
- Magnification rate: Click here - Show the magnification rate.

### Picture and Video Saving

On the left side of the main interface, there are two folders for saving picture and video. All the pictures and videos will save into the folders automatically after capture and show in thumbnails. The picture or video won't be deleted after closing the software. We suggest save the important picture or video to other assigned folder and delete the useless picture and video.



### Options instructions

- Save as
- Copy file
- Copy to clipboard
- Previous - Open a previous picture
- Next - Open a next picture
- Undo - Undo to last step
- Redo - Redo to the step before undo
- Zoom in - Zoom in the interface
- Zoom out - Zoom out the interface
- Draw - Choose kinds of drawing under the pull-down manual
- Text - You can add any text on the picture
- Measure - There are different tools for measurement under the pull down menu
- Magnification NONE Display the magnification rate

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This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**FCC NOTE:**

**THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**

(b) For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.