

Intermediate  
level guide



Digital Microscope

## Quick Start Guide

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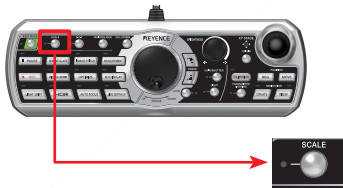
Intermediate level guide

# Displaying a scale

Display a scale that will serve as a guideline for the size of the captured targets on the screen.

1

Press the scale display button on the console.



The LED light will turn on and a scale will appear.

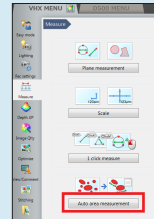
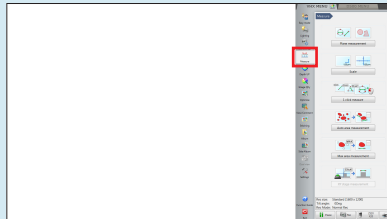
2

When the magnification of the lens is changed, the scale width will expand or contract based on the magnification.

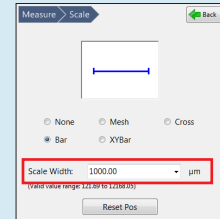


The displayed scale width can be defined by a user

From the VHX MENU, click "Scale settings" under "measurement/comments".



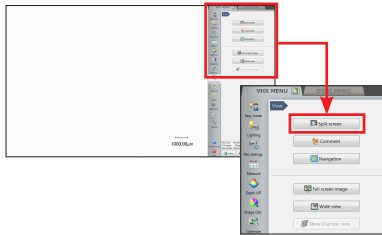
If a number value is entered for the scale width, a scale of the defined width will be displayed.



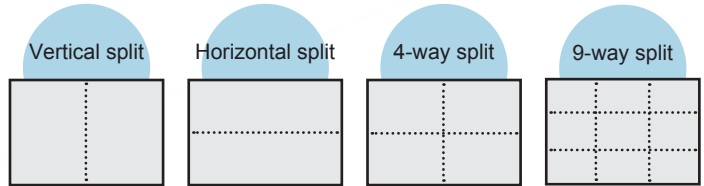
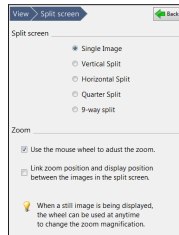
# Split-screen display

Arranges and displays images on a single screen for compared.

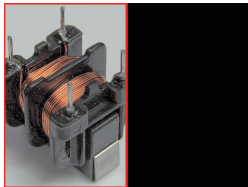
1 From VHX MENU, click "Split Screen" under "View/Comment".



2 Select the split display method.

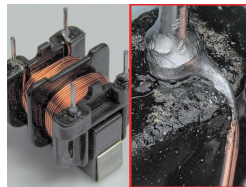


3 Screen splits accordingly



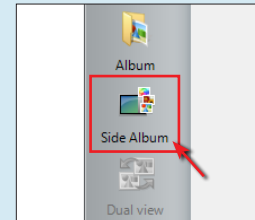
The screen that is displayed in the red frame is the live image. Once magnification and other settings have been completed, click a different section of the split screen.

4 Show images in the split screen



By changing the magnification or the observation target, it is possible to compare samples or have micro macro views of a sample on a single screen.

To compare saved images...



When the display is split, it is possible to select saved images and make comparisons between previously saved images.

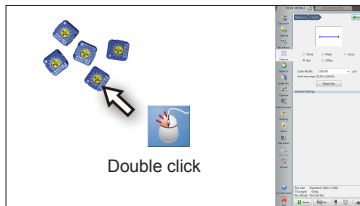
# Using the mouse and operating the motorized XY stage



The motorized XY stage can be manipulated with a mouse or with the joystick on the console.

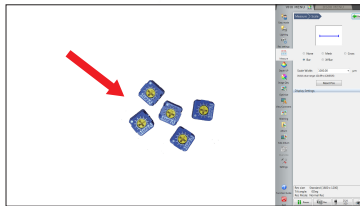


Double click to move



Double click

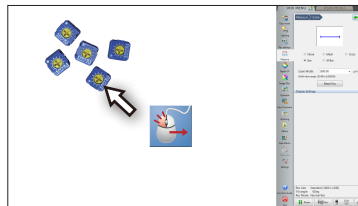
Double click the mouse on the observation screen.



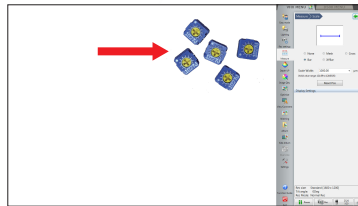
The area that has been double clicked will move to the center of the screen.



Drag to move



Drag the mouse on the observation screen.



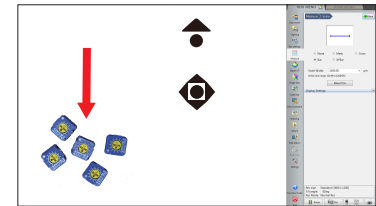
The target will move in the direction in which the mouse has been dragged.



Move with mouse



Move the mouse wheel near the center of the screen.



The shape of the mouse cursor will change and the stage will move in the same direction as the mouse.

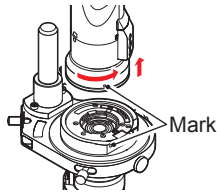
# Changing the lens

This will walk through an example of changing from the VH-Z20T to the VH-Z100T.

4

1

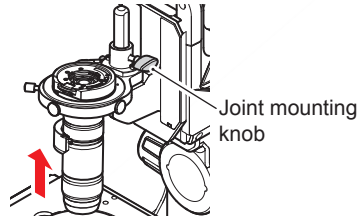
Remove the VHX camera from the lens



While pressing the notch on the lens mount, turn the camera so that the ● mark on the camera reaches the position of the ● mark on the lens mount, and pull the camera upwards to remove it.

2

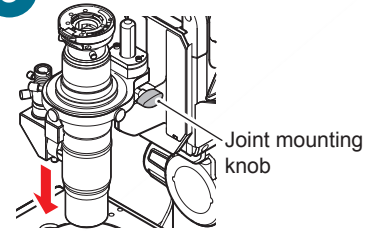
Pull the lens out from the stage



Loosen the joint mounting knob and then pull the lens out from the joint installation pole on the stage.

3

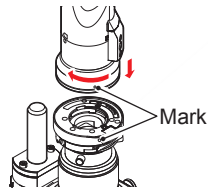
Installing a replacement lens



Affix the lens that will be used going forward on to the joint mounting pole and then tighten the joint mounting knob.

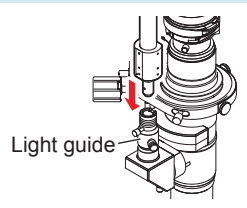
4

Installing the VHX camera



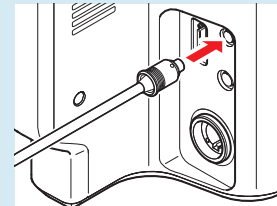
Align the ● mark on the camera with the ● mark for the lens and then turn and secure the camera until a click is heard.

VH-Z100T



Insert the fiber optic cable in to the light guide on the side of lens.

VH-Z\*\*W lens



When using a DOUBLE'R lens on this unit, use the OP-87803 DOUBLE'R conversion cable to connect.

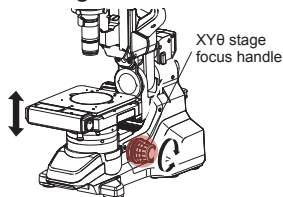
# Observing from an angle

It is possible to make full use of the depth-of-field while observing targets from an angle.

5

1

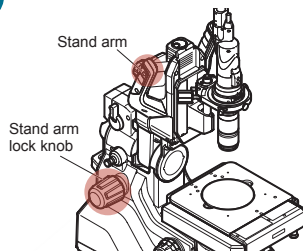
Adjust the position of the XY stage



While the stand arm is perpendicular to the target, rotate the vertical adjustment knob for the XYθ-stage to move the XYθ-stage up and down and focus on the observation target.

2

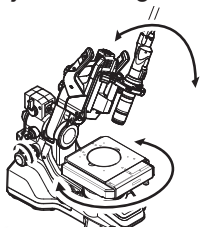
Loosening the stand arm



While holding the stand arm grip, loosen the stand arm mounting knob.

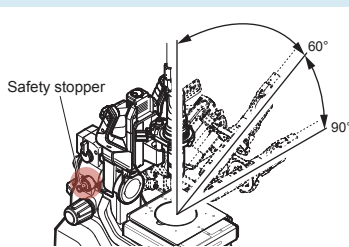
3

Adjust the angle



Tilt the stand arm and then tighten the stand arm mounting knob when the stand arm is at the desired angle for viewing.

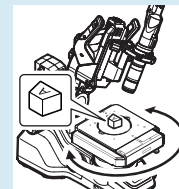
If tilted to an angle of 60 degrees or more...



Tilt and pull the safety stopper. Ensure that the stage is lowered so the lens does not hit the stage.

## Camera installation direction

If you need to tilt the stand arm to the right and then rotate the XYθ-stage to observe a target, you can simply rotate the stage to observe the sample while tilting the arm to the right.

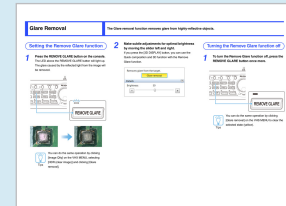
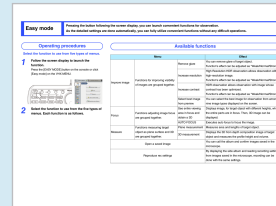
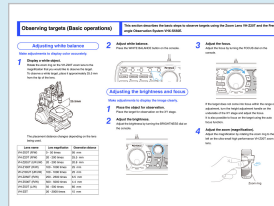


| Camera Orientation | Camera mounted with mounting hole facing front | Camera turned 90° with mounting hole facing right |
|--------------------|--|---|
|                    |  | The object faces the side and turns vertically.   |
| XYθ stage angle    | <br>Camera mounting hole                       | <br>Camera mounting hole                          |
|                    | 0°   |   |
| 90°                |  |   |
| 180°               |  |   |
| 270°               |  |   |

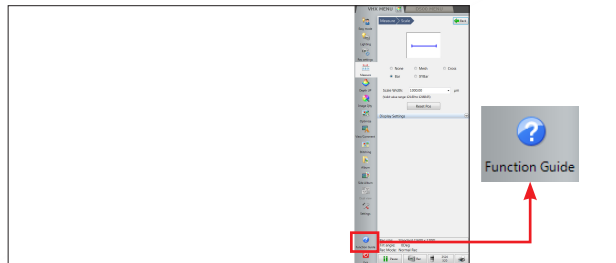
# Additional uses for key functions

To take full advantage of key functions, view the “function guide” in the controller.

- To prevent glare (diffused reflection)...
- To capture images without losing focus...
- To capture targets in 3D...
- To capture images in a wide field-of-view...  
and more...



1 From the menu, click “Function Guide”.



2 The function guide will appear. Clicking the function name will reveal a detailed explanation and operating procedures.

