
Quick Vision Active Operational Manual

July 2017

A. OPERATING PROCEDURES

2.1 System Start-up

Follow these steps to start-up the machine:

1. Turn on desktop computer and monitor.
2. Turn on the machine by pressing the power button next to the joystick.
3. Start QVPak by double clicking on the icon on the desktop window.
4. Press **ok** to the window asking if to rezero the stage.

2.2 QVPak Windows

There are six windows that each serve a specific function:

- **Video Window:** shows the current view as seen by the machine.
- **DRO:** shows the X, Y, and Z global coordinates.
- **Stage Control Window:** Used to move the machine, rather than using the joystick.
- **Light Control Window:** Slide bars that control the light level.
- **Program Editor:** Displays the current part program.
- **Measurement Results Window:** Displays the results either from running a program or manual measurements.

2.3 Operating the Machine

Follow these steps to operate the machine:

1. Perform system start-up (session 2.1).
2. Place part on the platform under the microscope.
3. Turn on lights. There are a variety of lights on the machine:
 - **Stage Light:** Light from underneath the platform
 - **Coaxial Light:** Light from the axis of the camera
 - **Ring Light:** Lights around the perimeter of the camera pointed at an angle
4. Zoom out the camera so it will be easier to locate the part. Click on Setup, then Lens, then Properties, then click the magnification to 0.75. Click Ok.
5. Move parts so it is in the view of the camera using the joystick or Stage Control window. Below are some notes about the joystick:
 - Speed can be adjusted using the knob to the left of the joystick.
 - In the X direction: to move right on the platform push the joystick right.
 - In the Y direction: to move up on the platform push the joystick down.
 - In the Z direction: To move down twist the joystick counterclockwise.
 - Do this slowly and **DO NOT CRASH CAMERA INTO PLATFORM! Please report it if you did it by accident, a recalibration of the machine will have to be done.**
6. If you can't see the part on the screen, there are two potential reasons. The light setting is incorrect, or the part is out of focus of the camera.
 - To adjust the light setting, you can try using different lights, including Coaxial, ring or stage lights. Additional notes on lighting theory are available in Chapter 6 pg19 on the manual.
 - To adjust the focus of the camera, we will have to adjust the height of the camera by making changes in Z direction.
7. Additional tools are available for analyzing images. To learn about these features **reference the manual**.

2.6 System Shut Down

Follow these steps to shut down the machine:

1. Move the camera all the way up in Z direction and all the way up in upper-left direction in X,Y coordinates
2. Turn off all the lights
3. Close QVPak program
4. Shutdown the computer
5. Do we need to press the power button again at the end to safely turn it off?