SWIFT EP5

SWIFT 5.0 Megapixel Digital Microscope Camera EP5 User Manual

Model: EP5

1. INTRODUCTION

The SWIFT 5.0 Megapixel Digital Microscope Camera (Model EP5) is designed to enhance your microscopy experience by allowing you to capture high-resolution images and stream live video from your microscope directly to a computer. This camera is compatible with both compound and stereo microscopes, making it a versatile tool for educational, professional, and hobbyist applications. It connects via a USB 2.0 interface and supports Windows and Mac operating systems. The included software provides advanced features for image processing, analysis, and measurement.

What's in the Box:

- SWIFT 5.0 Megapixel Digital Microscope Camera (EP5)
- USB 2.0 Connection Cable
- Software CD (for Windows)
- Eyepiece Cap

Image: Contents of the SWIFT 5.0 Megapixel Digital Microscope Camera package, including the camera, USB cable, and

2. FEATURES

- **5 Megapixel Resolution:** Captures detailed color photos and streams live video.
- **Eyepiece Mount:** Designed for easy integration with compound and stereo microscopes.
- **USB 2.0 Connectivity:** Simple plug-and-play connection to your computer.
- **Wide Compatibility:** Supports Windows Vista/7/8/10 and Mac OS X operating systems.
- **Advanced Software:** Windows-compatible software offers features like image stitching, extended depth of focus, annotation, measurement, and watermarks.
- **Real-time Viewing:** Stream enlarged video of specimens for presentations or direct observation.

3. SETUP

3.1 Installing the Camera on Your Microscope

1. Remove one of the eyepieces from your microscope.
2. Insert the SWIFT EP5 Digital Microscope Camera into the eyepiece tube. Ensure it is seated firmly.

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Video: This video demonstrates the general process of installing an eyepiece camera onto a microscope. While it features a 3MP camera, the physical installation steps are similar for the 5MP EP5 model.

3.2 Connecting to Your Computer

1. Connect the provided USB 2.0 cable to the camera's USB port.
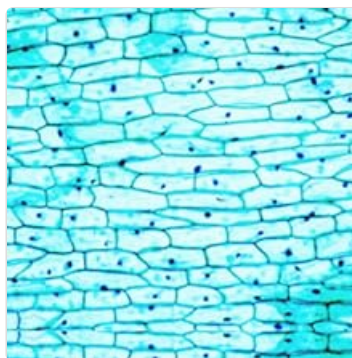2. Connect the other end of the USB cable to an available USB port on your computer.

Image: Connecting the USB cable to the camera.

Image: Connecting the USB cable to a laptop.

3.3 Software Installation

The camera software is provided via a USB flash drive or a CD. Insert the USB flash drive or CD into your computer and follow the on-screen instructions to install the software. If you encounter any issues or require a downloadable version, contact SWIFT support.

Image: USB flash drive for software installation.

4. OPERATING INSTRUCTIONS

4.1 Live View and Image Capture

1. Ensure the camera is correctly installed on the microscope and connected to your computer.
2. Launch the installed software (e.g., "EasyView" or similar).
3. Adjust the microscope's focus and illumination to achieve a clear image on your computer screen.
4. Use the software interface to capture still images or record video. Refer to the software's specific user guide for detailed instructions on its features.

Image: Microscope with camera connected to a laptop for live viewing.

Image: Magnified specimen view on a computer screen.

4.2 Advanced Software Features

The included software provides powerful tools for image manipulation and analysis:

- **Frame Stitching:** Combine multiple images to create a wider field of view.
- **Extended Depth of Focus:** Merge images taken at different focal planes for a fully sharp image.
- **Annotations and Measurements:** Add labels, draw shapes, and perform precise measurements on your images.
- **Watermarks:** Apply custom watermarks to your captured images.

5. MAINTENANCE

Proper care and maintenance will ensure the longevity and optimal performance of your SWIFT EP5 Digital Microscope Camera.

- **Cleaning:** Use a soft, lint-free cloth to gently wipe the camera body. For the lens, use specialized optical lens cleaning solutions and cloths to avoid scratches. Do not use harsh chemicals or abrasive materials.
- **Storage:** When not in use, store the camera in a dry, dust-free environment. Use the provided eyepiece cap to protect the lens.
- **Handling:** Handle the camera with care to prevent drops or impacts, which can damage internal

components.

6. Troubleshooting

6.1 Camera Not Detected by Computer/Software

- **Check USB Connection:** Ensure the USB cable is securely connected to both the camera and the computer. Try a different USB port.
- **Restart Computer:** Sometimes a simple restart can resolve connectivity issues.
- **Reinstall Drivers/Software:** Uninstall the camera software and drivers, then reinstall them from the provided USB flash drive/CD or a downloaded version from SWIFT support.
- **Check Device Manager (Windows):** Open Device Manager and look for the camera under 'Imaging devices' or 'USB devices'. If there's a yellow exclamation mark, the driver may be corrupted or missing.
- **Try Another Computer:** If possible, test the camera on a different computer to determine if the issue is with the camera or your original computer's setup.

6.2 Poor Image Quality (Blurry, Incorrect Colors, Noise)

- **Adjust Microscope Focus:** Ensure the microscope itself is properly focused for visual observation before relying on the camera feed.
- **Adjust Illumination:** Experiment with the microscope's light intensity and condenser settings. Too much or too little light can affect image quality.
- **Clean Lenses:** Dust or smudges on the microscope's objective lenses, eyepieces, or the camera's lens can cause blurriness or artifacts. Clean them carefully.
- **Software Settings:** Utilize the software's exposure, white balance, and color correction settings to optimize the image.
- **Resolution Limitations:** Understand that digital cameras have inherent resolution limits. Very high magnification on a basic microscope may not yield perfectly crisp images due to optical limitations.

7. Specifications

Feature	Specification
Brand	SWIFT
Model Name	EC5R 5.0MP
Item Model Number	EP5
Product Dimensions	1.18 x 1.18 x 2.11 inches (1.18"L x 1.18"W x 2.11"H)
Item Weight	4.9 ounces (0.14 Kilograms)
Color	5.0 Megapixel
Material	PE (Polyethylene), PS (Polystyrene)

Connection Interface	USB 2.0
Operating System Compatibility	Windows Vista/7/8/10, Mac OS X
Light Source Type	LED (Microscope dependent)
Magnification Maximum	500x (Microscope dependent)
Real Angle of View	30 Degrees
Manufacturer	SNM

8. WARRANTY AND SUPPORT

The SWIFT 5.0 Megapixel Digital Microscope Camera (EP5) comes with a 1-year manufacturer's warranty, covering defects in materials and workmanship under normal use. For warranty claims, technical assistance, or if you require a downloadable version of the software, please contact SWIFT customer support through their official channels or the retailer where the product was purchased.