



User Guide: the Swift S102-B Stereo Microscope



Welcome to your Swift S102-B microscope! Whether you are a seasoned professional or a beginner hobbyist, Swift has the perfect microscope for you.

This guide will introduce you to the components of your new microscope and help you begin using it. For more information about our microscopes, software downloads, product manuals, or customer service requests, please visit www.swiftoptical.com.

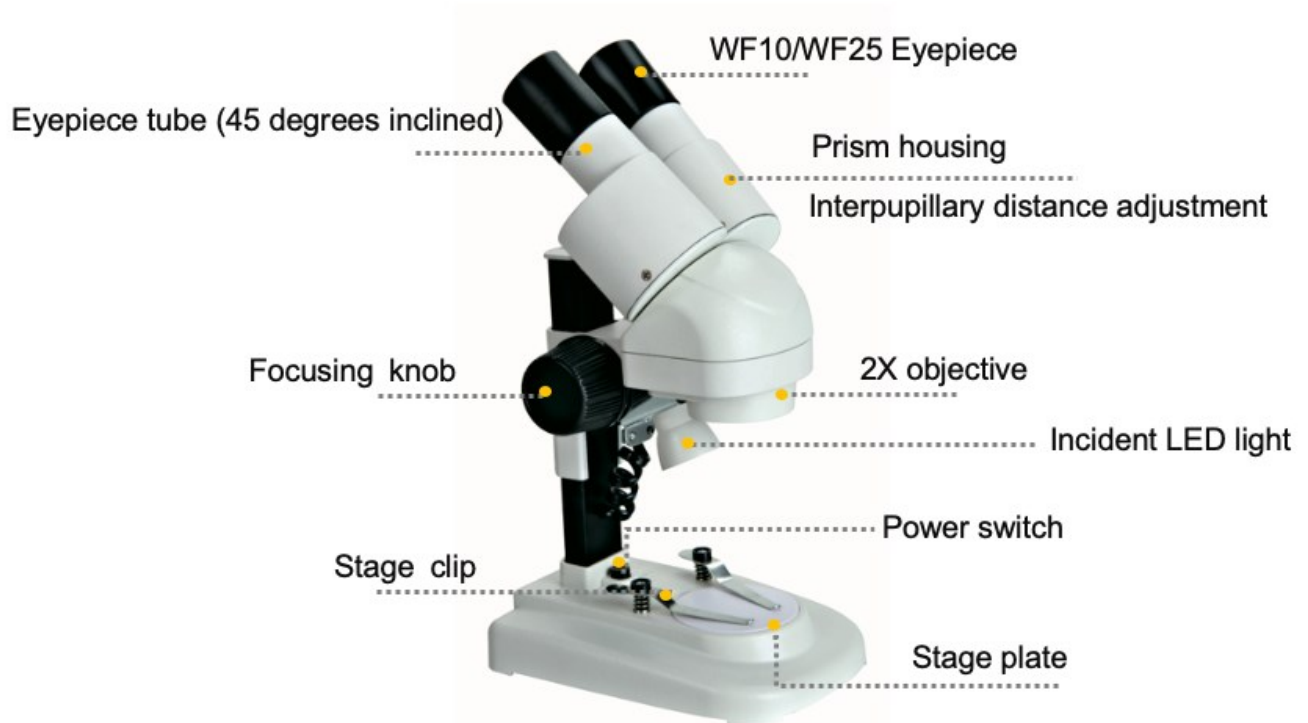
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I. Specifications

Model	S102-B
Observation tube	Binocular
Inclination	45° inclined
Interpupillary distance	55-75 mm
Eyepieces	WF10X/15mm, standard; WF25X/8mm as optional add-on
Objective	2X
Total magnifications	20X (50X with optional WF25X eyepieces)
Working distance	70mm
Focusing	Focus travel range 48mm
Max. specimen thickness	37mm
Illumination	Incident 3V/3W LED
Power supply	2 AA Batteries (non-rechargeable, included)
Packing list	1 binocular stereo microscope 2 10X eyepieces 2 eyecups 1 white stage plate 1 dust cover 2 AA batteries 1 user manual
Additional available Swift accessories	SPA-E28 smartphone adapter EP series eyepiece camera 25X eyepieces

II. Parts of the microscope



III. Assembling the microscope

The components for the microscope are shipped detached for protection. Open the styrofoam packing with care and do not leave any components attached to the packing being removed. Do not discard any of the packing materials until all of the components have been identified. Remove the plastic covers from the microscope. Refer to the diagram from Section II to identify the components.

Always assemble the microscope on a flat, stable surface. Place eyepieces into the eye tubes until they stop. Install the included batteries into the battery housing located underneath the microscope stand. (Refer to section VI for instructions on inserting or replacing batteries.)

IV. Using the microscope

1. Press the power switch position to "ON," which will turn on the illumination.
(NOTE: Batteries must be inserted before the microscope will power on.)
2. Place a specimen in the center of the stage plate, securing it into place with the stage clips as necessary.
3. Adjust the prism housing to suit your interpupillary distance.
4. Turn the focusing knob to move the head up and down until the specimen comes within the working distance (70mm). Once an image has come into view, slowly turn the focusing knob until the image sharpens to the desired clarity.

V. Attaching optional photographic accessories

The Swift SPA-28 smartphone adapter

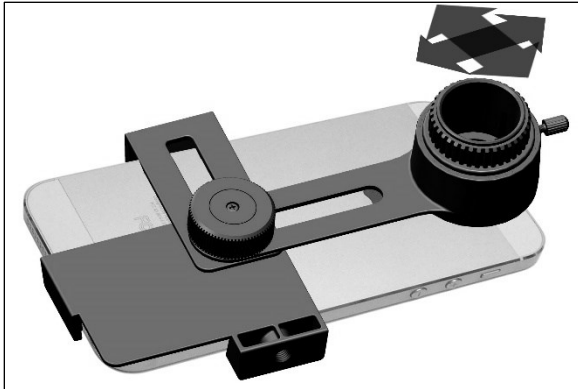
This smartphone adapter from Swift fits eyepiece diameters of 28mm and can hold nearly any smartphone to allow for video and photography capture directly from the phone camera. Sold separately by Swift.

To install the adapter:

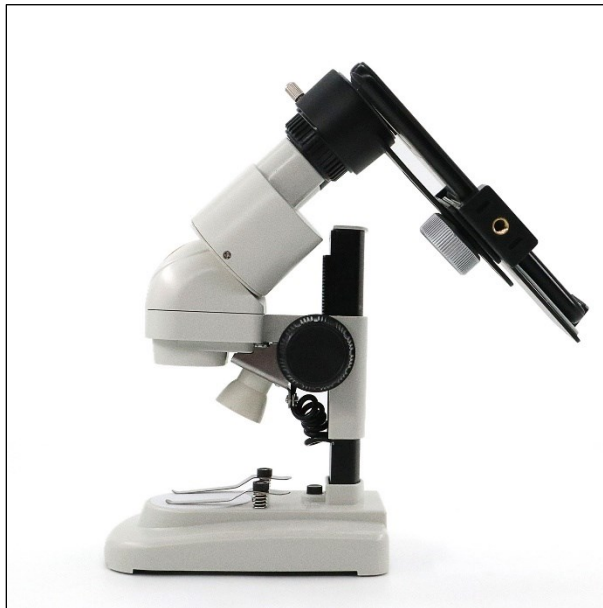
1. Loosen the main screw at the back of the adapter and clip in the smartphone. Adjust the position of the horizontal arm to fit the width of the smartphone and tighten the main screw just enough to keep the phone in position.



2. Adjust the swinging arm to match the viewfinder to the smartphone camera.
Tighten the main screw so that the smartphone is held securely in place.



3. Attach the adapter-smartphone assembly to the microscope eyepiece as shown in the example below. The adapter should be fully secured to the eyepiece via tightening the small screw on the top of the eyepiece adapter for best results.

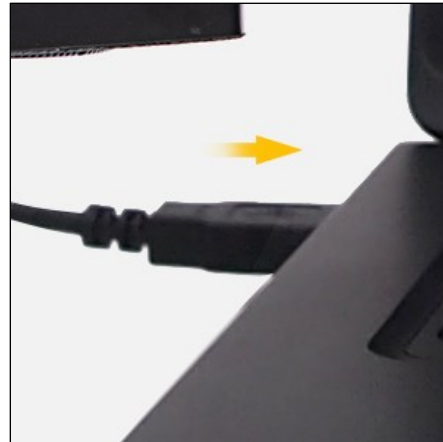


EP Series eyepiece cameras

The EP Series from Swift offers a range of eyepiece cameras that fit directly into a microscope eyepiece of 23.2 external diameter for taking pictures, live-streaming video, and more. Sold separately by Swift.

To use an eyepiece camera with your microscope:

1. Install the camera software from the supplied CD. (Note that if your computer does not have a CD drive, you may contact Swift at www.swiftoptical.com directly for a download.)
2. Slide the camera mount directly into your microscope's eyepiece tube (without the eyepiece), then connect the USB cord to the camera and the computer port.



3. Begin streaming videos or taking still pictures in full color with the camera software.

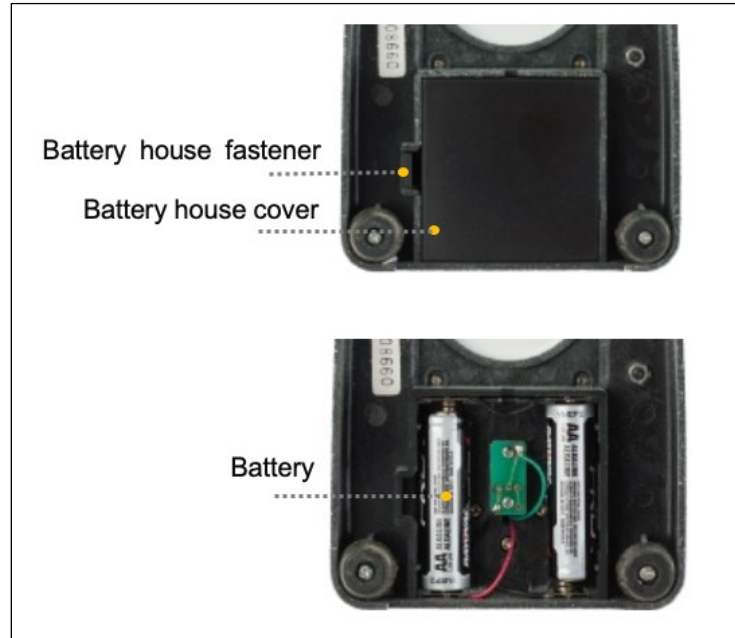


VI. Battery replacement

The battery housing is located on the bottom of the microscope. To install or change batteries:

1. First, depress the fastener holding the battery housing shut to open it.
2. Remove old batteries and replace them, using only AA batteries as specified in this manual and matching the +/1 polarity markings.

3. Close the battery housing cover and press down until the fastener clicks into place.



VII. Maintenance and repair

Cleaning

Keep all lenses clean. Fine dust on the surface of the lens should be gently blown off with an air canister or wiped off with a soft lens cloth or lens tissue. Stubborn fingerprint smudges or oil marks can be wiped off with lens tissue moistened with a small amount of xylene or a 3:7 mixture of alcohol and ether. Never use organic solutions to clean any other surface (especially the plastic surfaces). If necessary, please choose a mild detergent.

Storage

After use, cover the microscope with the dust cover provided and store it in a dry and clean place free from moisture to prevent rust. Remove the eyepieces when not in use, and place covers on the eyepiece holders.

Repair

Do not attempt repairs on your own, particularly on the optical parts. Contact a Swift Optical representative through our customer service email or phone line with any issues.

VIII. Troubleshooting

If you have a problem, you may be able to correct it yourself. Here are some common issues and easy solutions you can try before calling customer support for service.

*Caution: Never disassemble the electrical, mechanical, or optical components. This servicing should only be done by a Swift technician.

Issue	Possible cause	Solution
Double images	Interpupillary distance is not correct	Readjust the eyepieces
	Magnification of each eyepiece is not the same	Mount eyepieces of the same magnification
Dirt appears in the field of view	Dirt on the specimen	Clean the specimen
	Dirt on the surfaces of eyepiece	Clean the surfaces
Image is blurry	Objective surfaces are dirty	Clean the objective
	Focus is incorrect	Readjust the focus
Illumination does not work when the switch is on	Battery is improperly installed	Check the battery installation
	Batteries are dead	Replace the batteries

IX. Warranty information and customer support

Our microscopes are manufactured to meet ISO 9001 standards. Swift warranties are as follows:

- Five (5) Year Warranty for Microscopes: Microscopes come with a five (5) year warranty against manufacturing defects
- One (1) Year Warranty for Accessories: Microscope accessories such as eyepiece cameras, dust covers, power supply cords, etc., come with a one (1) year warranty. This warranty does not cover light bulbs, batteries, fuses, or electrical cords.

All warranties start from the original date of purchase. Swift provides the repair or replacement of warranted parts for free, including labor, during the warranty period. Proof of original purchase is required. Buyers are responsible for shipping to and from our warehouse for warranty services. The warranty does not cover damages resulting from normal wear and tear, abuse, or unauthorized repairs. Warranty service is provided by Swift Optical Instruments, Inc.'s authorized technicians. Determination of warranty is at the technician's discretion.

*For customers living outside the United States, Swift Optical Instruments, Inc. will provide standard warranty service. Both inbound and outbound shipping costs (including duties and taxes) are the responsibility of the consumer.

For more information or to submit a repair request, please contact our Customer Support departments:

North America:

Tel: 1-877-967-9438, option 1

Email: customersupport@swiftoptical.com

Europe:

Tel: 44-208-638-8819 (UK)

Email: customersupport@swiftoptical.com

(For most efficient service for European customers, we recommend calling the hotline between the hours of 8AM-4PM London Time.)

Disclaimer: We are constantly working to improve our instruments and to adapt them in response to customer feedback. These improvements occasionally involve small modifications to the mechanical structure and optical design of our microscopes. Therefore, some descriptions, illustrations, and specifications in this instruction manual may vary slightly from the microscope you receive.

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