

- Care:**
Always cover your stereoscope with the dust cover when not using it. Keep eyepieces installed, or keep plastic caps installed to prevent dust and moisture from entering the head.
- Cleaning:**
Use lens paper or a cotton swab dipped in lens cleaning solution to clean the lenses. The inside of the head can be cleaned by removing both eyepieces and blowing "canned air" through one side. The base can be cleaned with an alcohol pad (not recommended on lenses).
- Long Term Care:**
To keep your stereoscope in good working condition for many years, LW Scientific, Inc. recommends that you have it serviced and cleaned by a professional once a year. Check with your dealer for local service professionals.

Vision Specifications

Construction
Acid and reagent resistant finish
All metal alloy body

Binocular Head
Inclined binocular rotates 360 degrees
Dual 10x extra-widefield eyepieces
15x, 20x, and 25x eyepieces are available
Interpupillary distance adjustment 55-75mm
Diopter adjustment
Rubber eyeguards included

Field of View/Working Distance
10x22mm FOV110mm WD
5x47mm FOV155mm WD
(5x magnification when using 1/2X reducer)

Objectives
1x and 2x or 1x and 3x or 2x and 4x
Control knob rotates objectives internally
1/2x reducing supplementary lens available

Adjustment Controls
Large dual focusing knobs
Rack & pinion mechanism
Pole mount height adjustment

Illumination
Variable halogen incident light 12v 20w
Cool fluorescent transmitted base light 110v 5w
Independent switches
Fluorescent ring light option available

Stage
Frosted glass stage plate
Black & white contrast stage plate included
Specimen clips

Power
110v AC
2 amp fuse

Dimensions & Weight
Height 16"
Length 11"
Width 8"
Weight 10 lbs.



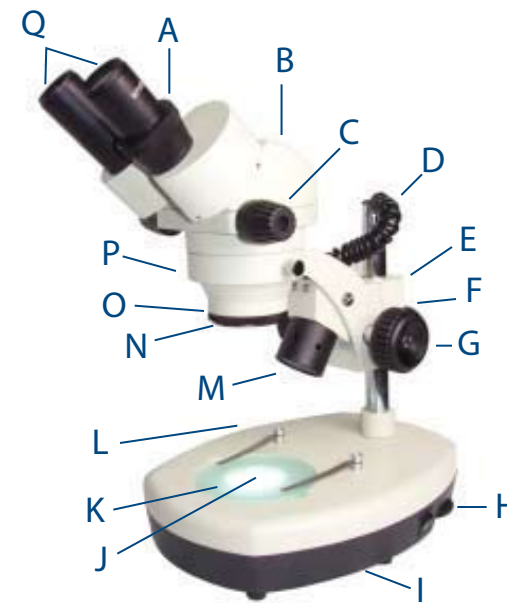
Vision

Instruction Manual



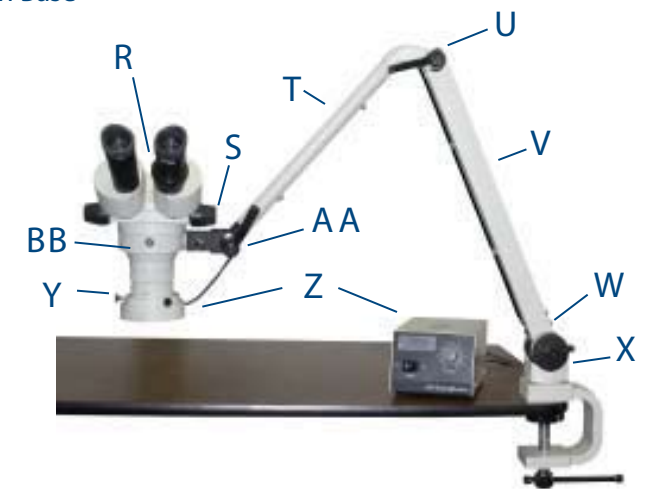
Modeled pictured:
Vision

Not all features available on all models - see back page for model specifications.



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|---|---------------------------|-----|-------------------------------|
| A | Diopter Adjustment | J | Fluorescent Transmitted Light |
| B | Head | K | Stage Plate |
| C | Objective Selector Knob | L | Halogen Light Switch |
| D | Post | M | Halogen Incident Light |
| E | Post Case | N | Objectives (Internal) |
| F | Post Case Tightening Knob | O | Nose Piece |
| G | Focus Knob | P | Head Holder/ Focusing Rack |
| H | Fluorescent Light Switch | Q E | eyepieces |
| I | Dual-Illumination Base | | |

Vision on Dual-Light Polestand



Vision on Flex-arm Stand

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|---|----------|----|--------------------------------------|
| R | Head | X | Swivel 1 |
| S | Swivel 2 | Y | Supplementary Lens, or Mounting Ring |
| T | Arm B | Z | Optional Illumination |
| U | Hinge 2 | AA | Hinge 3 |
| V | Arm A | BB | Head Holder Ring |
| W | Hinge 1 | | |

The Vision is an industrial grade stereo microscope designed for "hands under" operation. The long working distance and extra-wide field of view make ultra-fine details easy to detect and manipulate. The pole-mount, variable halogen light and wide base give your work space plenty of flexibility, and the optional ring light offers shadow-free lumination. The objectives rotate internally with a convenient control knob.



Alpha 1501
Fiber Optic Light



LED Ring Light



Articulating Boom Stand



Variable Fluorescent
Ring Light

Recommended Upgrades:

Ask your authorized LWS dealer about additional accessories



Unpacking and Setting Up

Your Your Vision stereo microscope has been packed with utmost care to avoid damage in shipping. Note: If your Vision has been exposed to cold weather, please allow time for all the parts to come to room temperature. Excess cold can fog the lenses and cause the lamps to fail.

- Carefully remove the head and the body of the microscope and place on a secure surface. Note: All the parts are packed in the Styrofoam container.
- Remove the protective tissue and plastic wrap from the head and body of the microscope. Save the plastic wrap in the Styrofoam container.
- Loosen the silver thumbscrew on the side of the head holder enough to allow free passage of the objective nosepiece (the housing that holds the objective lenses).
- Bring the head and body together by inserting the objective nosepiece into the circular area of the head holder. Once the head is completely seated, tighten the thumbscrew to secure the head in place. CAUTION: Do not over-tighten.
- Your Vision is preset for 110 volt AC power. Use the 3-prong power jack and cord and plug into the appropriate AC outlet.
- Locate the power switches on both sides of the base. The left side switch operates the "transmitted light" which is beneath the stage. The right side switch and dimmer wheel operate the "incident light" which is on the neck.
- Turn the incident light on with the right side switch and adjust to full brightness. Then, position a solid object such as a coin on the glass stage. Once you are comfortably seated, adjust the oculars (eyepieces) by moving the eyepiece tubes together or apart until you only see one circle of light. You have now adjusted your interpupillary distance.
- Diopter Adjustment: Since you are using a binocular stereoscope, you have to adjust for the normal difference in vision between your two eyes. This is a simple but important adjustment! Close your right eye, look into the left ocular with your left eye, and adjust the focus to give you the best image. Now, look at the ocular tube on the right, you will see that the right ocular tube has an adjustment ring built in. Now, close your left eye, look into the right ocular with your right eye. Using the diopter adjustment ring on the right ocular tube, adjust until you see a clear, in focus field.
- Objective Settings: On both sides of the objective housing, you will notice the objective selector knob. It is printed with the two objective powers you requested (1x-2x, 1x-3x, 2x-4x). A simple twist of the knob will change the objective setting by rotating the objectives internally. The objective setting that you wish to use will be on the front of the knob.
Example: 2x (objective setting) X 10x (power of the oculars) = 20x magnification
- Use the transmitted light beneath the stage for viewing semi-transparent objects. Try looking at a leaf or a dollar bill.

Obj. Power	Supp. Lens	Mag.	FOV	WD
1 X	1/2 X	5 X	46mm	146mm
2 X	1/2 X	10 X	23mm	146mm
2 X	None	20 X	11.5mm	110mm
4 X	None	40 X	5.75mm	110mm

Lamp Replacement

Note: The Vision uses a 12v20w bi-pin halogen reflector bulb for incident lighting and a 5 watt fluorescent bulb for transmitted light.

To replace the transmitted lamp in the base of the unit:

- Unplug the microscope and lay the scope on its side. Turn the silver thumb screw ½ turn and pull to open the hinged bulb access door.
- Grasp the old bulb by the base and pull it out (it is a simple friction fit so it will come out easily).
- Using a lint free tissue or cloth to grasp the new lamp, push gently until it is seated in the lamp assembly.
- Close the access door and turn the thumb screw ½ turn to lock.

To replace the incident lamp in the neck:

- Locate the incident light and make sure it has cooled off. Unscrew the black bulb housing and set aside (leave the spring in the housing.)
- Using a cloth or tissue, grasp the edge of the bulb and pull down. It should come out with ease.
- Using a lint free tissue or cloth to grasp the new lamp, push gently until it is seated in the lamp assembly, being careful to align the two pins with the two holes in the socket.
- Replace the metal lamp housing allowing the spring to push the bulb into the socket.

Additional Lenses

The Vision can be upgraded with higher-powered eyepieces and/or supplementary lenses that screw onto the bottom of the nosepiece.

The 1/2x reducing lens is the most popular upgrade, because it reduces magnification which will produce wider fields-of-view and much longer working distances. This lens will screw onto the bottom of the nosepiece in place of the protective cover lens.

The 2x supplementary lens will double your magnification and reduce your working distance. The 2x lens also screws onto the bottom of the nosepiece in place of the protective cover lens.

Higher-powered eyepieces are also available in 16x, 20x, and 25x magnifications. Increasing magnification on eyepieces DOES NOT change your working distance. Also available are 10x Highpoint eyepieces, which allow the user to remain farther away from the microscope and even wear eyeglasses while using the microscope.

