



Mant|s

User Guide

Compact & Elite with low profile
Bench Stand

Packing Contents

- 1 Bench stand
- 2 Viewing head
- 3 Objective lens
- 4 Objective extender*
- 5 Rubber gaiter
- 6 Floating stage (optional)
- 7 Anti glare hood
- 8 Specimen holders

* for use with 4x, 6x, 8x and 10x objectives

Assembly

Floating stage (optional)

- ▶ With the stage glass 1 removed, place the floating stage 2 in position and secure it into its locating holes 3 with the bolts supplied using the Allen key located on the underside of the floating stage.
- ▶ Replace the stage glass.
- ▶ The removal of the floating stage is the reversal of the assembly procedure.

Head & Power Connectors

- 1 Place the rubber gaiter over the stand neck.
- 2 Loosen the upper retaining bolt 1 on the stand neck. Remove the lower retaining bolt 2. Carefully place the locating hook of the Mantis viewing head 3 over the upper retaining bolt on the bench stand. Replace the lower retaining bolt, ensuring the lower retaining bolt passes through the lower locating mount of the Mantis viewing head. Tighten the upper and lower retaining bolts then re-seat the rubber gaiter.
- 3 Connect the head power lead 4 between the stand base and the rear of the viewing head.
- 4 Connect the mains lead plug to a suitable power outlet and its output connector to the rear of the bench stand.
- 5 Fit the chosen objective lens into the objective seat and tighten the securing screw 5.

Operation

Overview

- ▶ Turn on the power switch 1 and place the subject on to the stage beneath the Mantis lens.

Focus

- ▶ Use the focus controls 2 (one each side) to raise or lower the viewing head until the subject is in focus.

Eye Spacing

Adjust the eye spacing control 3 to obtain a comfortable stereo view.

Note: Adjusting the eye spacing is very important for viewing comfort and must be adjusted for each Mantis user.

Changing Lenses

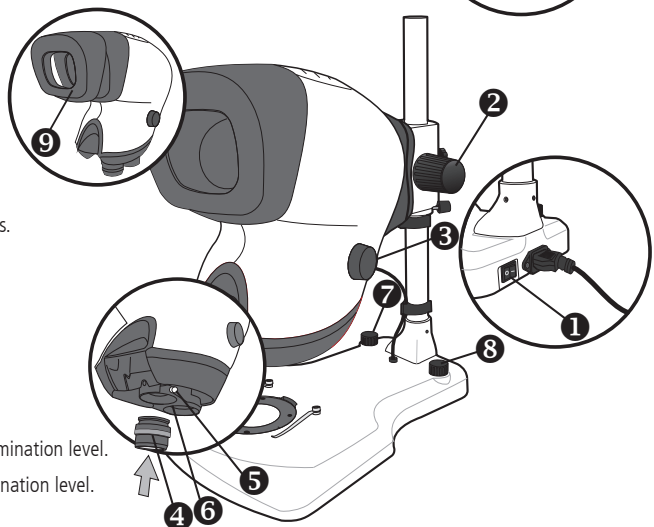
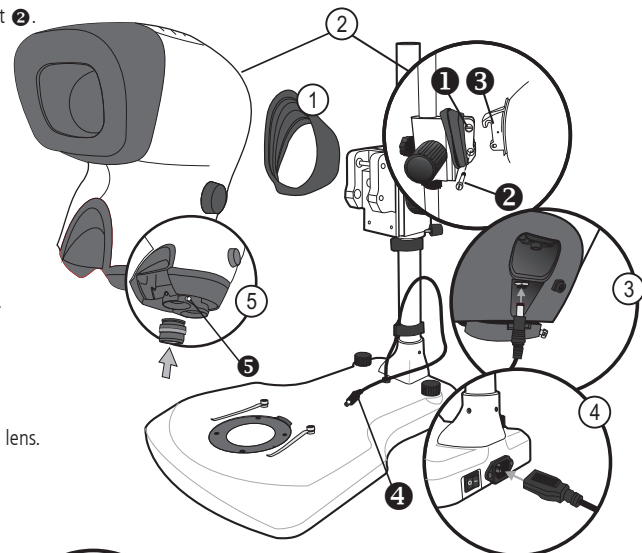
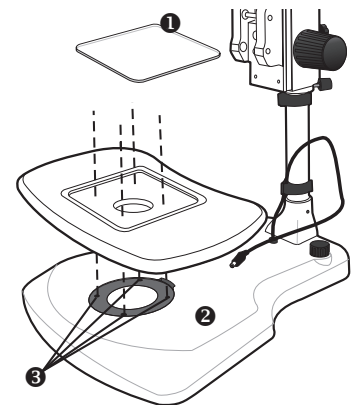
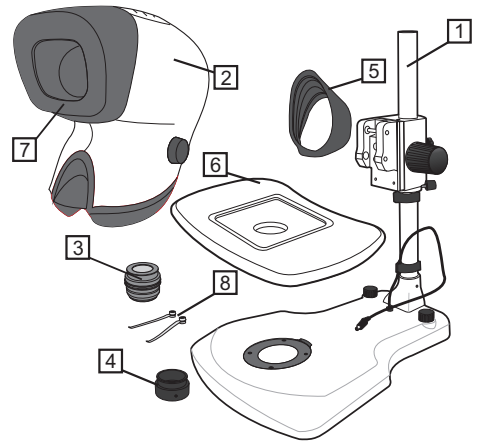
- ▶ To change an objective lens 4, loosen the lens securing screw 5 and remove the lens. Store the lens in the supplied container.
- ▶ Fit the chosen objective lens into the objective seat and tighten the securing screw.
- ▶ Alternatively, rotate the objective turret 6 to bring the second objective into use.

Illumination

- ▶ Turn on the substage illumination switch 7 and use it to increase or decrease the illumination level.
- ▶ Turn on the surface illumination switch 8 and use it to increase or decrease the illumination level.

Hood Removal

- ▶ In certain lighting environments it may improve viewing by removing the anti glare hood 9.



Routine Maintenance

Desiccant Replacement

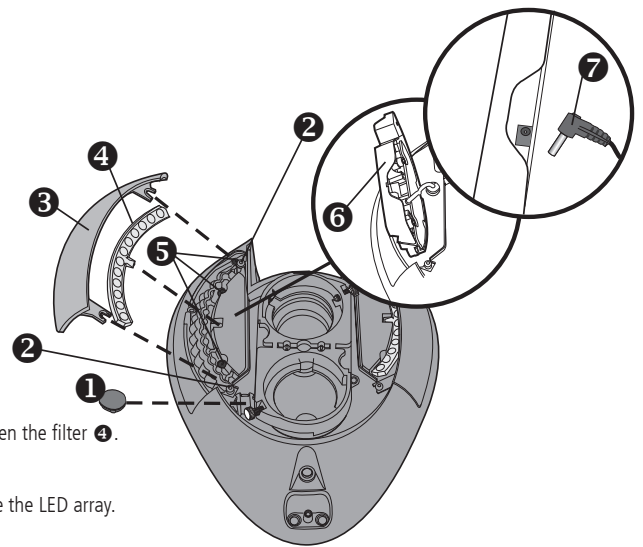
The desiccant removes excess moisture from the optical head.

- ▶ Disconnect the power supply from the bottom of the head.
- ▶ Remove the grommet **1** covering the desiccant and remove the desiccant.
- ▶ Insert the new desiccant and replace the grommet.

LED Arrays

The method for removing the LED arrays is identical for either side.

- ▶ Disconnect the power supply from the bottom of the head.
- ▶ Loosen the two screws **2** that secure the filter/array cover **3**, remove the cover and then the filter **4**.
- ▶ Remove the three screws **5** that secure the LED array.
- ▶ Lift out the LED array **6** and turn it over. Disconnect the array connector **7** and remove the LED array.
- ▶ Reassembly is the reverse of this procedure.



General Care

- ▶ Cover your Mantis with a dust cover when not in use.
- ▶ Remove dust with a soft brush or cleaning cloth.
- ▶ The Mantis viewing screen and lenses should be cleaned with a lens cleaning cloth.
- ▶ Keep accessories in a dust-free environment when not in use.

Service

Service and repair work must only be carried out by service engineers authorised by Vision Engineering.

Specification

Objective Lenses		
Objective Lenses	Working Distance	Field of View
x2	160mm	57.0mm
x4	96mm	34.0mm
x6	68mm	23.0mm
x6 SLWD	112mm	20.0mm
x8	59mm	17.0mm
x10	54mm	13.5mm
x15	40mm	8.8mm
x20	29mm	6.5mm

Power Supply

100-240VAC 50-60HZ 1.0A Max

Accessories

Lens protection caps
 Floating Stage (for bench stand only)
 Dust Cover
 Replacement surface LED array

Lighting Data		
LUX intensity measured at subject plane with colour correction filters		
24 LEDs	11,000 LUX	10,000 hours
Substage illumination (bench stand only)		
58 LEDs	2,700 LUX	10,000 hours

Warranty

This product is warranted to be free from defects in material and workmanship for a period of one year from the date of invoice to the original purchaser.

If during the warranty period the product is found to be defective, it will be repaired or replaced at facilities of Vision Engineering or elsewhere, all at the option of Vision Engineering. However, Vision Engineering reserves the right to refund the purchase price if it is unable to provide replacement, and repair is not commercially practicable or cannot be timely made. Parts not of Vision Engineering manufacture carry only the warranty of their manufacturer. Expendable components such as fuses carry no warranty.

This warranty does not cover damage in transit, damage caused by misuse, neglect, or carelessness, or damage resulting from either improper servicing or modification by other than Vision Engineering approved service personnel. Further, this warranty does not cover any routine maintenance work on the product described in the user guide or any minor maintenance work which is reasonably expected to be performed by the purchaser.

No responsibility is assumed for unsatisfactory operating performance due to environmental conditions such as humidity, dust, corrosive chemicals, deposition of oil or other foreign matter, spillage, or other conditions beyond the control of Vision Engineering.

Except as stated herein, Vision Engineering makes no other warranties, express or implied by law, whether for resale, fitness for a particular purpose or otherwise. Further, Vision Engineering shall not under any circumstances be liable for incidental, consequential or other damages.