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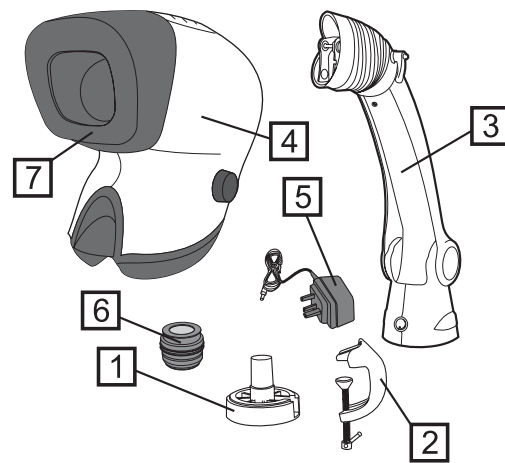
# Mantis

## **User Guide**

Compact & Elite with Universal Stand

## Packing Contents

- 1 Universal mount
- 2 G-clamp
- 3 Counter balanced boom stand
- 4 Viewing head
- 5 Power adapter
- 6 Objective lens
- 7 Anti glare hood



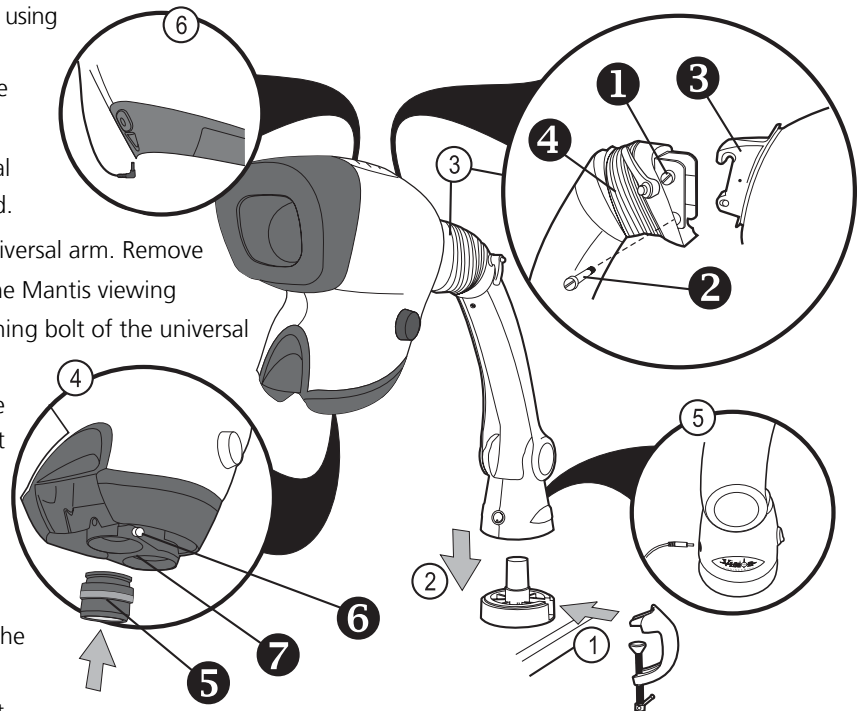
## Assembly

- ① Secure the universal mount to the work surface using the G-clamp provided or by using appropriate screws located in the counter bored holes of the Mount.
- ② Place the universal arm on top of the universal mount. Lower onto spigot until fully mounted.
- ③ Loosen the upper retaining bolt ① on the universal arm. Remove the lower retaining bolt ②. Carefully place the Mantis viewing head's locating hook ③ over the upper retaining bolt of the universal arm.

Replace the lower retaining bolt, ensuring the bolt passes through the lower locating mount of the Mantis viewing head.

Tighten the upper and lower retaining bolts then re-seat the universal arm rubber gaiter ④.

- ④ Fit the chosen objective lens ⑤ into the objective seat (ensuring the Vision logo is at the front) and tighten the securing screw ⑥. If required, rotate the objective turret ⑦ and fit another objective lens in the same way.
- ⑤ Ensuring the power adapter is suitable for your supply voltage, connect the power adapter plug to a suitable power outlet and its output connector to the base of the universal arm.
- ⑥ Connect the output lead at the top of the universal arm to the rear of the viewing head.  
**Do not attempt to connect the power supply directly to the viewing head.**



## Routine Maintenance

### Desiccant Replacement

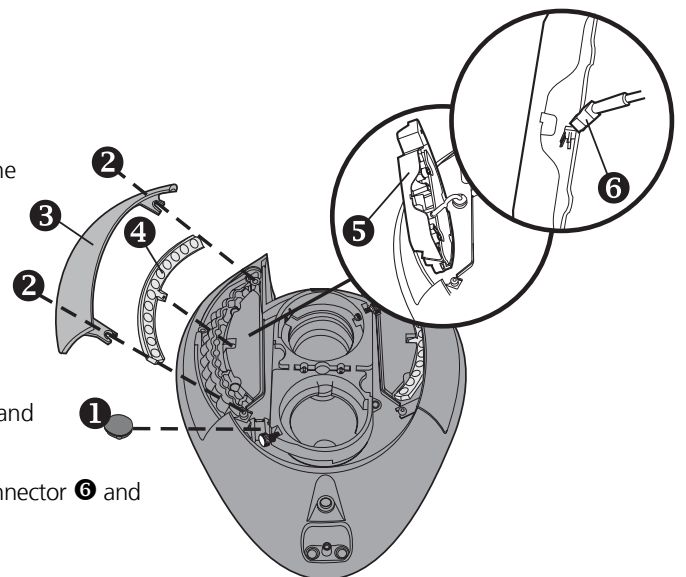
The desiccant removes excess moisture from the optical head.

- ▶ 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 and remove the cover.
- ▶ Lift out the LED array ⑤ and turn it over. Disconnect the array connector ⑥ and remove the LED array complete with filter ④.
- ▶ Reassembly is the reverse of this procedure.



## Operation

### Overview

Turn on the power switch **1** and place the subject beneath the Mantis viewing head.

### Focus

Ensuring the friction clamp **2** is loosened, move the viewing head up or down until the subject is in focus.

When focused, tighten the friction clamp.

### 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 holder.

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.

### Head Counterbalance

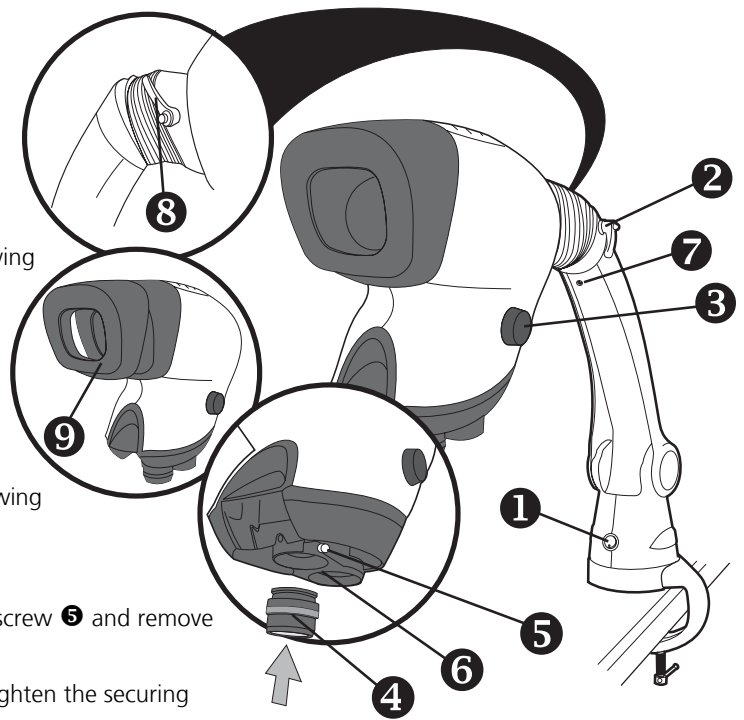
When a lens has been changed, it may be necessary to adjust the head counterbalance. Adjust the counterbalance screw **7** (clockwise for lighter lenses or counter-clockwise for heavier ones) until the viewing head does not drift up or down when unsupported.

### Tilt Adjustment of Head (optional)

Loosen the tilt adjustment friction control **8**, move the viewing head up or down to the required position and tighten the friction control.

### Hood Removal

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



## 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.

## Warranty

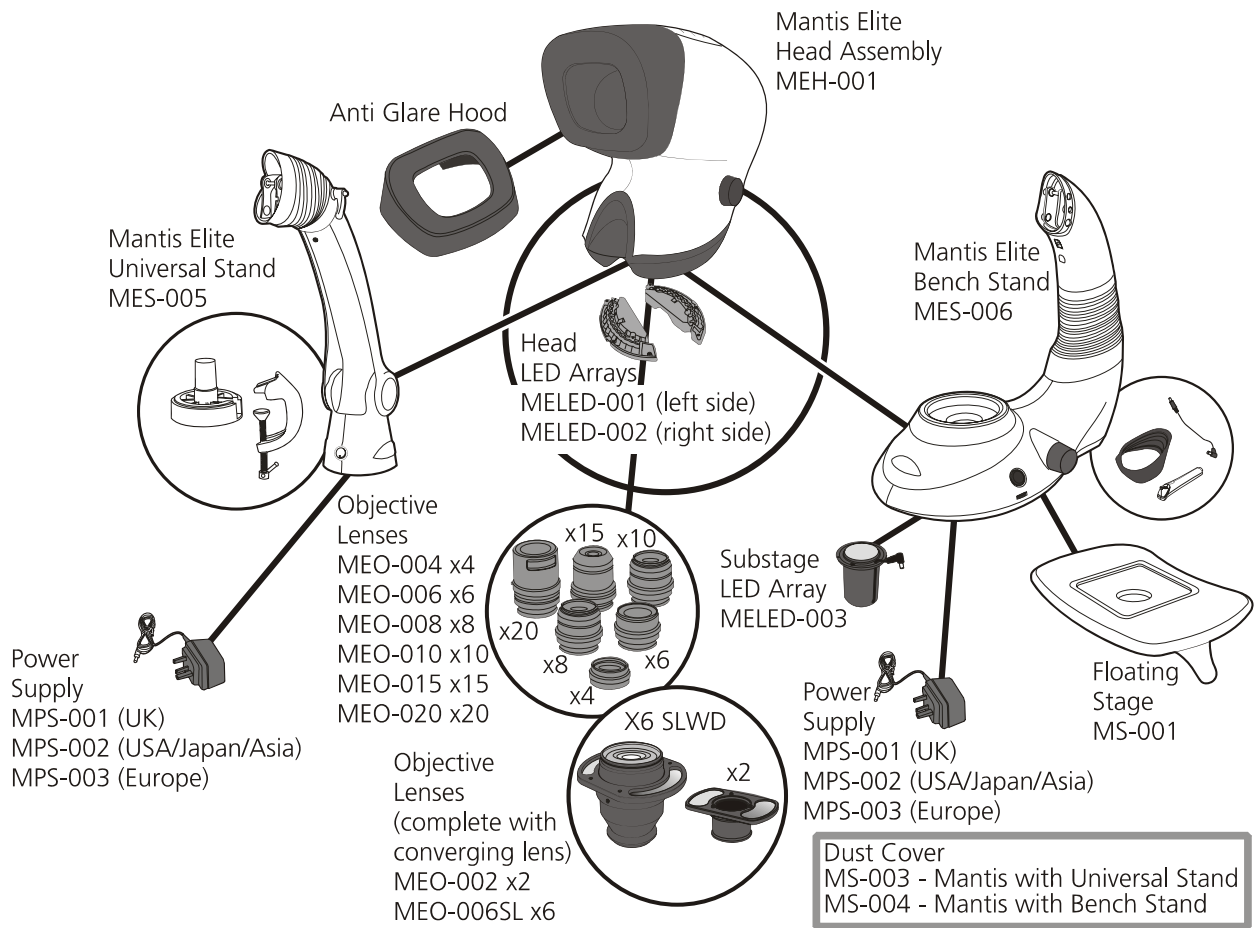
This product is warranted to be free from defects in material and workmanship for a period of one year from the date of invoice to the original purchaser. If during the warranty period the product is found to be defective, it will be repaired or replaced at facilities of Vision Engineering or elsewhere, 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.

# Mantis Elite Product Family



MEO-025 Mantis Elite disposable Objective lens Protection Caps (pack of 4) for x4, x8 & x10 objectives  
 MEO-026 Mantis Elite disposable Objective lens Protection Caps (pack of 4) for x6 objective

## 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

Lighting Data		
LUX intensity measured at subject plane with colour correction filters.		
24 LEDs	11,000 LUX	10,000 hours

Power Supply
9V DC external plug transformer

Accessories
Lens protection caps
Floating Stage (for each bench stand)
Dust Cover
Replacement LED Array

\*Single mount objective replaces twin turret assembly.