

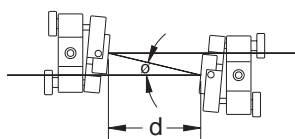
## ULTIMA® Series

## Precision Optical Mounting System

## Key Features

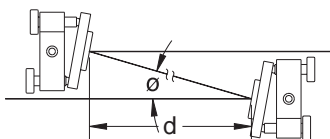
- Enhanced design for long-term stability
- Patented Clear Quadrant Design
- Quick-change actuators
- Large choice of precision actuators
- English or metric compatible
- Mounts for 0.5, 1, 1.18, 2, 3, and 4 in. (12.7, 25.4, 30, 50.8, 76.2, and 101.6 mm) optics
- Platform mounts for prism, cube beamsplitter, or custom optics mounting

Clear Quadrant Design



Small 'd' – Small Ø

Conventional Design



Large 'd' – Large Ø

*The patented clear quadrant design allows a beam to pass close to the edge of a mounted optic*



**The ULTIMA® Series is a premier line** of modular precision optical mounts and is designed for demanding research, development, and industrial OEM applications. ULTIMA offers an extremely stable kinematic design, our patented clear quadrant design, a choice of high-resolution actuators, and many optional optical mounting accessories. The ULTIMA System's features and functions combine to offer extraordinary performance and flexibility.

**The ULTIMA's high stability and flexibility, quickly made it an industry standard.** We combine thick front and back plates along with a unique geometry and our selection of high-tension springs to virtually eliminate drift between the front and back plates and provide protection against vibrations. These features have an additional benefit—they eliminate the inherent instability of mirror “creep” when touching the actuators. The design of the cone, groove, and flat seats not only provides true kinematic operation but also near stictionless movement with enhanced short- and long-term stability. The result is an extremely stable mount, with excellent adjustability and feel that will withstand heavy use.

**Our patented clear quadrant design** allows the mount to “get out of its own way”. By starting with a robust and stable design, we are able to eliminate a portion of the front plate without affecting performance. This clear quadrant of the front plate exposes the edge of the optic, allowing beams to pass close to the edge of a mounted optic. As a result, ULTIMA mounts can be placed so that beams can be reflected from one mount to another at minimum incident angles and with minimum separation between the mounts.

**The quick-change actuator design** allows you to customize the configuration of each ULTIMA to meet the performance demands of various applications. Choose either tip/tilt (two actuators), or tip/tilt and translation (three actuators). A broad selection of adjustment screws, micrometers, and motorized or electrostrictive actuators is compatible with ULTIMA® mounts. Actuator exchange is simple and can be accomplished in less than one minute. No other optical mount manufacturer offers this combination of flexibility and performance. **A variety of pre-installed actuator configurations are available for quick delivery.**

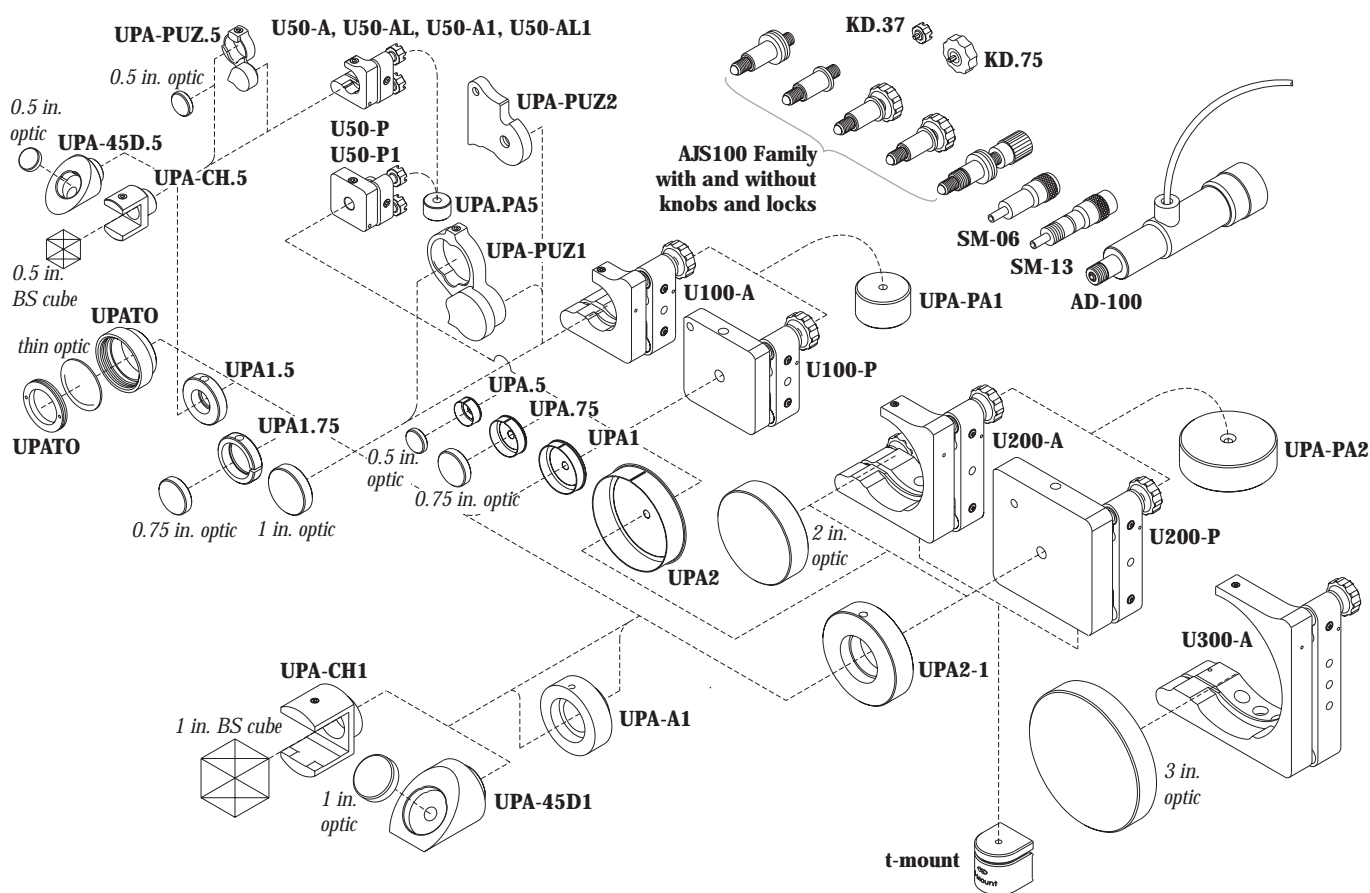


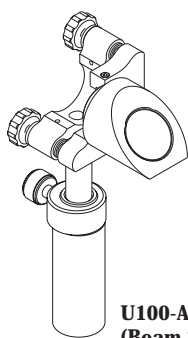
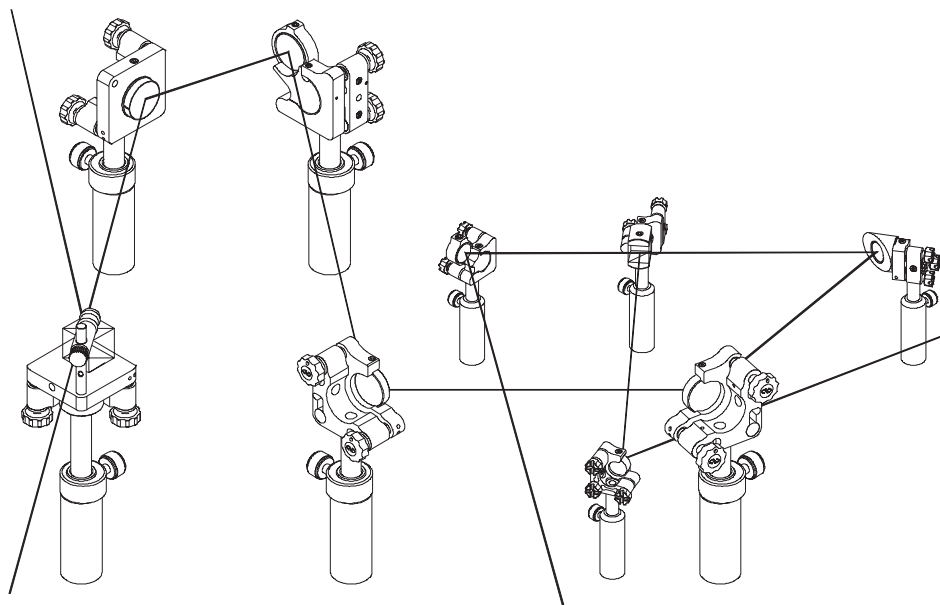
## U50 Series

**ULTIMA is a truly universal design.** All hardware, including the actuator and optic retaining screws, allow you to use either English or metric Allen wrenches. Convenient through-hole mounting provides quicker, more precise, and more secure mounting. ULTIMA mounts can be mounted to posts for adjustable height or pedestal posts for a stable fixed height.

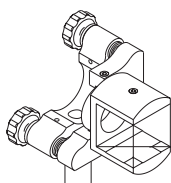
**A large array of optical mounting accessories** is available for ULTIMA optical mounts (see ULTIMA Accessories) making these mounts a basic building block for many optical systems.

## System Configurations

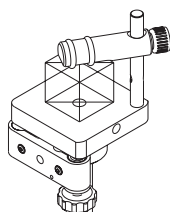




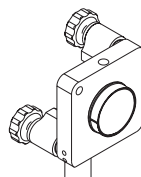
**U100-A/UPA-45D1**  
(Beam Steering)<sup>1</sup>



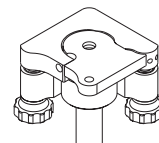
**U100-A/UPA-CH1**  
(Cube Holder)



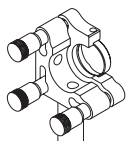
**U100-P/PT-IC**  
(Prism Table Clamp)



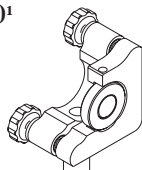
**U100-P/UPA-1**  
(Mirror Mount)



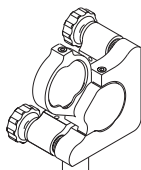
**U100-A/UPA-PUZ2**  
(Platform Converter)



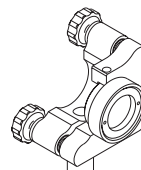
**U100-A/SM-06**  
(3-Axis)



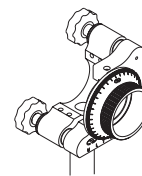
**U100-A/UPA1-.5**  
(0.5 Optic Adaptor)



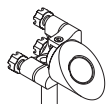
**U100-A/UPA-PUZ1**  
(Offset Gimbal)



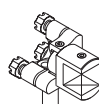
**U100-A/UPATO**  
(Thin Optic Holder)



**U100-A/UPA-RM1**  
(Polarizer Rotation Mount)



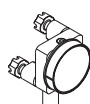
**U50-A/UPA-45.5**  
(Beam Steering)



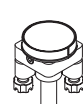
**U50-A/UPA-CH.5**  
(Cube Holder)



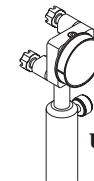
**U50-A/UPA-PUZ.5**  
(Offset Gimbal)



**U50-P/UPA-1**  
(Mirror Mount)



**U50-P/UPA-1**  
(UPA-PA.5)



**U50-A<sup>2</sup>**

1) Shown with SP Post and VPH Post Holder with Newport's patented brake design.

2) Shown with MSP Miniature Post and MPH Miniature Post Holder.