

EQUULEUS ORTHOGONAL ADJUSTING DEVICE Z-AXIS COLLIMATOR

EQUULEUS OAD:

Introducing the Equuleus - the basic design for the Equuleus OAD is a pair of parallel plates with robust spring tensioning, locating screws, and side-mounted adjustment cams. Collimation is accomplished by loosening the locking nuts and making very slight adjustments to the cam shaft mechanisms. Collimating in the Z-axis is similar to the typical X-Y collimation performed on telescopes. Three adjustment screws work against each other to provide a slight tip/tilt between the two plates. After adjustments are completed in real-time using live images, the adjustment camshaft mechanisms are locked into place.

Z-AXIS COLLIMATION:

The Equuleus OAD is shipped with the cam shaft mechanism pre-adjusted so that the plates are parallel within 0.001". The adjustment mechanisms are easily accessible from the sides so all adjustments can be performed while imaging. Adjustment is achieved using the supplied 5/64" T-handle drive tool to rotate the cam shaft assemblies. First, slightly loosen the locking nut using the supplied 5/16" hex nut driver. Keep some tension on the locking nut - a belleville washer below the nut will allow the shaft to remain somewhat stiff so that precise adjustments are easier. A very small amount of adjustment is all that is required. One full turn of the cam shaft will provide all the adjustment that cam shaft is capable of, so start with very small adjustments - 1/20th turn may be all that is needed. The T-handle 5/64" drive tool will make the adjustment amount easier to keep track of. Some trial and error will help to understand how the three cams work against and with each other.

When all three cam shafts are adjusted to provide a flat field in the camera's current image, simply lock each nut using the supplied nut driver. Use caution and patience tightening each nut just slightly until all three are snug and secure. Once properly tightened, re-install the rubber covers over the 5/64" socket cap ends for each cam shaft mechanism.

Contact Optec support (support@optecinc.com) with any questions or concerns.

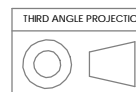
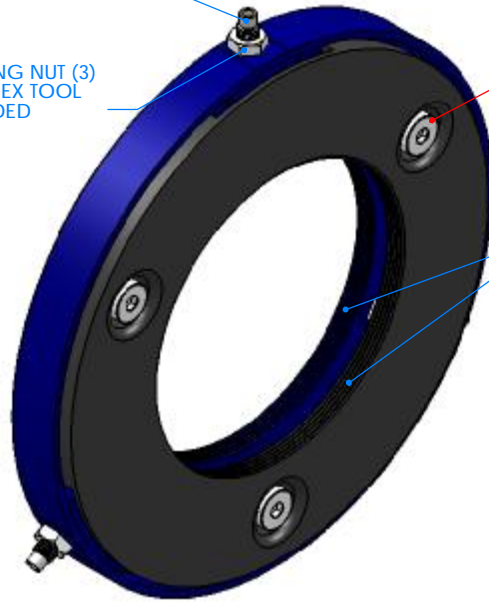
****DO NOT ADJUST FIXED SCEWS ON THE FACE OF THE EQUULEUS****

CAM SHAFT MECHANISM (3)
5/64" HEX TOOL INCLUDED

LOCKING NUT (3)
5/16" HEX TOOL
INCLUDED

****FIXED SCREWS - NOT TO BE ADJUSTED (3)****

3" - 24 TPI FEMALE THREADS
TELESCOPE AND CAMERA SIDES



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ±.007 THREE PLACE DECIMAL ±.003	DRAWN	NAME	DATE	Optec Inc.		
	CHECKED	LD	09/03/10			
	ENG APPR.			TITLE: EQUULEUS INSTRUCTIONS		
	MFG APPR.					
	CONTRACT			SIZE	DWG. NO.	
	EQUULEUS			B	N/A	
DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT:	SHEET 1 OF 1