



RESOLV4K

LENS SERIES

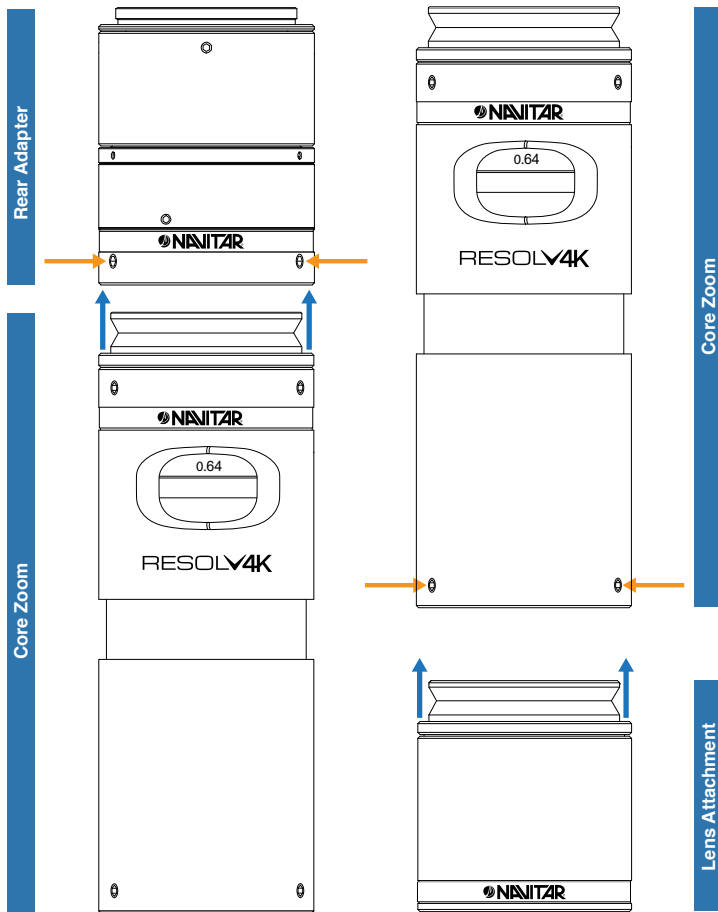
Installation Instructions

INSTALLATION OF LENS ATTACHMENTS & ACCESSORIES

All lens attachments, Resolv4K core Zooms and Resolv4K Fixed lenses have been designed with a standard dovetail size for ease of modularity across the product line. For installation of the zoom, simply insert the dovetail end of the zoom into the bottom of the rear adapter and secure it with the (3) M4 screws supplied with the rear adapter. Use the 2mm hex wrench supplied with your zoom to secure the screws.

For installation of the lens attachment, coax and other accessories simply insert the dovetail end of the lens attachment into the bottom of the Resolv4K Zoom and secure it with the (3) M4 screws supplied with the Resolv4K Zoom. Use the 2mm hex wrench supplied with your zoom to secure the screws.

Note: The nominal torque applied on the screw is 20 in-oz. (0.14 N m)
Do not overtighten, as you may damage the lens.



Left Drawing:

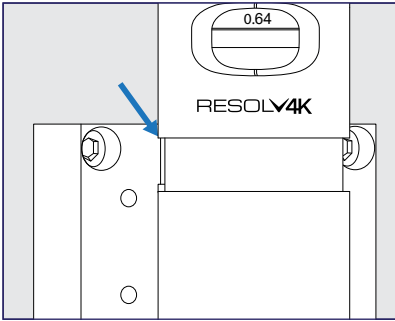
Rear adapter installed on top of zoom.

Right Drawing:

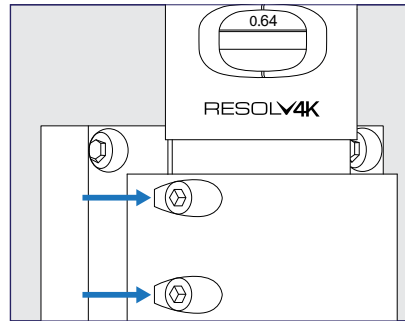
Lens attachment installed on bottom of zoom.

USING THE MOUNT WITH THE RESOLV4K SYSTEM

It is important that the Resolv4K Zoom be properly installed onto the mount. All flat mounts (1-80370, 1-80371, 1-80270, 1-80271) have a ledge on the backplate. This ledge is to sit within the notch located at the center of the Resolv4K Zoom or Fixed body tube (see diagram below). This provides a solid surface for which the system can be held. Install the saddle over the lens and secure with M5 screws using the 4mm hex wrench supplied with the mount.



Left: Location of ledge on mount and notch on body tube.



Right: Secure saddle with screws.

SET PARFOCALITY & BORESIGHT

To set parfocality zoom to high magnification. Adjust the "Z" axis to achieve best focus. Then zoom to low magnification, do not adjust "Z" axis to refocus. Unlock the screws and adjust the parfocality using the adjustment ring on the rear adapter. When the image is in optimal focus, you should be able to go through zoom without loss of focus. Lock the parfocality ring in two places (see Fig. 1) using a 1.5mm hex wrench (supplied with your lens).

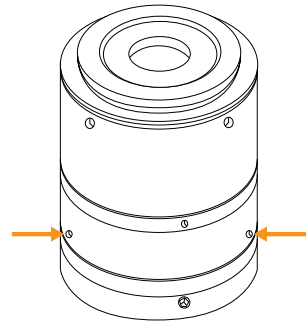


Figure 1: Location of parfocality adjustment. Secure with set screw.

All Resolv4K rear adapters have boresight adjustability. The adjustment is made by using a 1.5mm hex wrench to adjust the M3 set screws at the top of the adapter (see Fig. 2).

Tip: For easier boresight adjustment, first loosen the M3 screws and align the "X" axis of the sensor along the same "line" as one of the M3 screws. Next, use the (2) wrenches (supplied with your lens) in opposite positions along the "X" axis to adjust the boresight. This type of alignment enables the user to "push" the image in the direction being actuated.

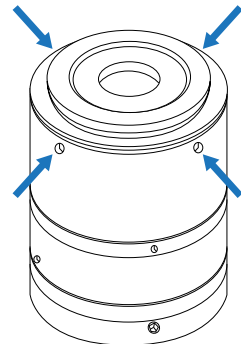


Figure 2: Location of set screws for boresight adjustment.

Pair a Navitar Resolv4K lens with a Pixelink PL-D CMOS USB 3 or PL-X 10 GigE machine vision camera for excellent image quality and outstanding value.

Pixelink® PL-D Camera Features:

- Various sensors for frame rate, resolution & pitch
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- High bandwidth for high-speed imaging
- 10GBase-T interface
- Power over Ethernet (PoE)
- Trigger over Ethernet (ToE)
- Enclosed and board level
- Fast, reliable and accurate



Camera Models for Resolv4K Core Lenses

Model	M/C	Sensor	MP	Sensor Size	FPS	Sensor Diagonal	Pixel Pitch
PL-D759	M/C	Sony IMX255	9.0	1"	45	16.1 mm	3.45 µm
PL-D7620	M/C	Sony IMX183	20.0	1"	20	15.86 mm	2.4 µm
PL-D757	M/C	Sony IMX420	7.0	1.1"	57	17.6 mm	4.5 µm
PL-D7512	M/C	Sony IMX253	12.0	1.1"	33	17.6 mm	3.45 µm
PL-X9520	M/C	Sony IMX531	20.0	1.1"	52	17.5 mm	2.74 µm
PL-X9524	M/C	Sony IMX530	24.0	1.2"	43	19.3 mm	2.74 µm

Navitar, Inc.

200 Commerce Drive, Rochester, New York 14623
 info@navitar.com | 585.359.4000 | www.navitar.com