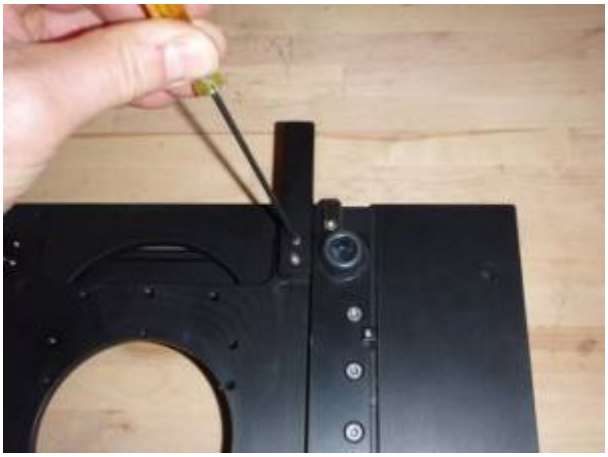
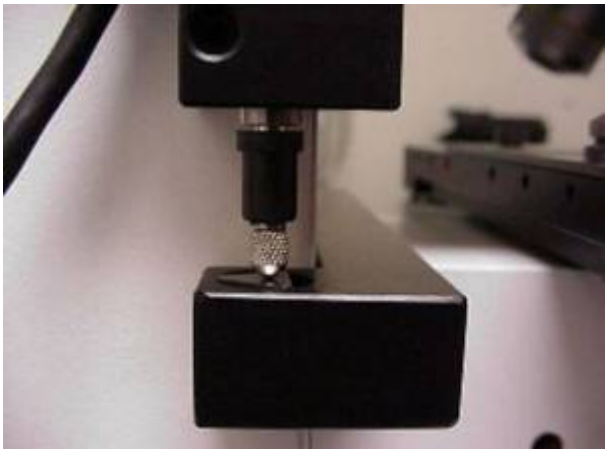
Leica DM2000 Z linear encoder installation instructions



The linear encoder stop mounts onto the bottom of the stage as shown in the above photos

Step # 2 Installing the encoder clamp & Aligning the encoder

Locate the Heidenhain encoder and the encoder clamp. Use the 3/32 Allen wrench to insure that the screw on the side of the encoder clamp is loose. Install the encoder clamp across the rear throat of the microscope as shown. Use the 5/64 inch Allen wrench to tighten the set screw located on the opposite side of the silver press bar. This will cause the sliver press bar to press against the microscope and will hold the encoder holder securely in place.



Bring the stage up to the correct focal position for the common objectives used. Position the encoder & encoder clamp so that the ball on the end of the encoder's plunger mates with the triangular carbide plunger stop. Insert the encoder into the encoder holder & slide the encoder down until there is about 1 to 3 millimeters worth of upward travel left on the encoder's plunger. Hold the encoder in place & use the 3/32 inch Allen wrench to tighten the screw to secure the encoder in place.

Please note that the encoder has a total travel of 12 mm and that it should be positioned to allow the most convenient travel distance for the stage. In most instances the upward movement of the stage/focus will only be a few millimeters from the focal plane. In these applications the above

installation procedure will provide the optimal downward travel range. However, this may vary slightly depending on the application and objectives use. To allow for the maximum upward linear encoder movement the stage can be moved to its upward mechanical stop and the encoder installed with the plunger fully retracted.

WARNING! Please do not move the stage outside of the linear encoder's range without first disengaging the drive, selecting the rotary encoder, or removing power from the controller. Failure to do so could result in a runaway condition. There is a firmware safety feature within the MS-2000 that will limit the runaway time to 0.5 seconds. After this period the drive will attempt to return to the last known encoder position. If the position to the encoder is small the drive may find the encoder. However, if the position to the encoder is large, or movement commands away from the encoder are still being given the limited runaway condition can occur.

This completes the installation and alignment of the ASI linear encoder onto the Leica DM series microscope.

leica, DM2000, zdrive, linear encoder