Nikon Eclipse 600 Installation Procedure

The procedure below outlines the steps necessary to install the ASI Microscope Focus Controller Drive onto the Nikon Eclipse microscope.

To perform the following steps you will need the following tools:

Medium flat blade screw driver 3mm, 5/64 and 7/64 inch hex wrenches The hex wrenches are provided by ASI.

The procedure has three parts:

1) Removing the left fine focus knob
2) Installing the baseplate.
3) Installing and aligning the motor drive assembly.
4) Installing the motor drive cover plate & fine focus knob.

Part 1 - Removing the Left Fine Focus Knob

Remove the left fine focus knob from the microscope as follows:

Figure 1: Pull off rubber boot

Figure 2: Use screwdriver to remove nut

Figure 3: Pull knob straight off to expose shaft

a) Pull off the black rubber boot covering the fine focus knob.
b) Remove the round slotted nut from the end of the knob using the medium slotted screwdriver.
c) Remove the fine focus knob by grasping it firmly and pulling it straight off. Do not turn the knob to work it off as this will damage the plastic alignment key molded into the knob.

Part 2 - Installing the Baseplate

Figure 4: Uninstalled baseplate

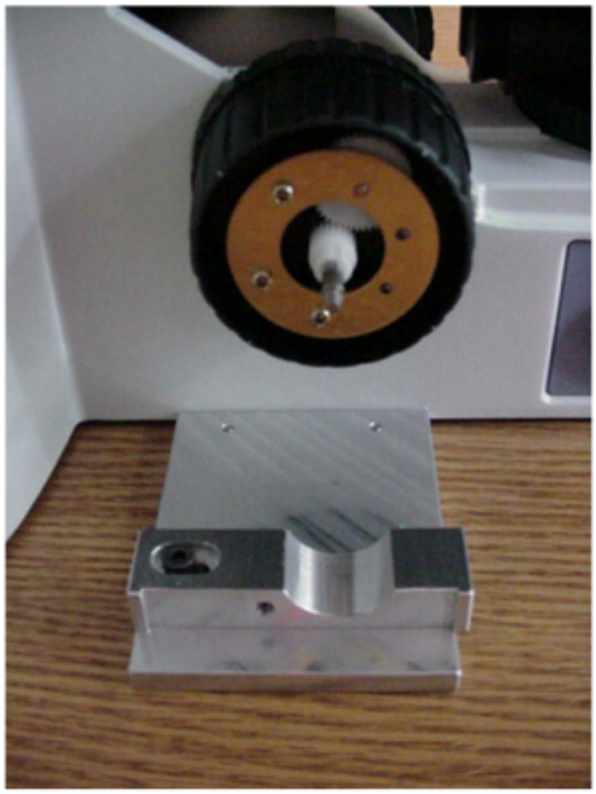

Figure 5: Installed baseplate

Locate the baseplate and position it so that the horizontal adjustment bar is on the left side of the microscope. Lift the front of the microscope up and slide the baseplate under the microscope so that the horizontal adjustment bar is centered under the left focus knob.

Part-3 Installing & Aligning the Motor Drive

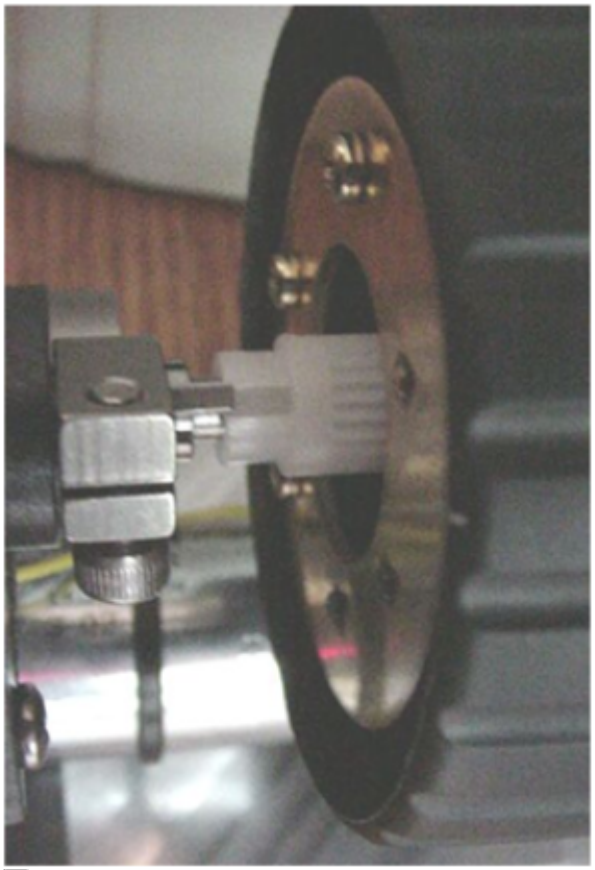

Figure 6: Slide ASI dive shaft

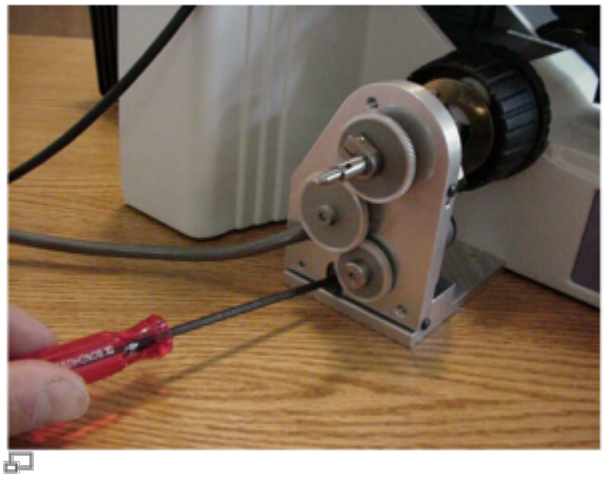

Figure 7: Secure but do not tighten adjustments

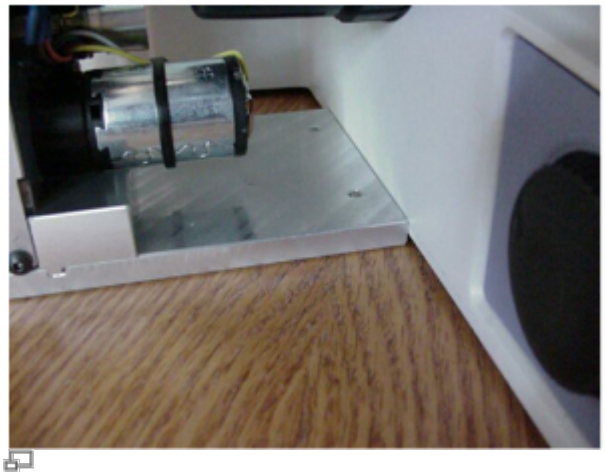

Figure 8: Baseplate must be against scope

a) Loosen the screw securing the adjustment bar to the baseplate. This is the horizontal adjustment screw. The adjustment bar is located just to the left of the left focus knob. Use the 3 mm hex wrench. Loosen the screw just enough so that the adjustment bar can slide easily in the groove in the baseplate.

b) Locate the ASI fine focus motor drive and vertical adjustment screw (M4 x 12 hex head screw).Align the drive shaft on the ASI drive with the microscope fine focus shaft and slide the motor drive over the fine focus shaft.

c) Rotate the drive plate so that the recesses at the bottom, inside edges of the drive plate align with the keys on the outside edges of the adjustment bar, then press the drive plate towards the adjustment bar until it meshes. Please Note the baseplate may need to be moved to properly align the adjustment bar.

Figure 9: Tighten baseplate clamp after drive is installed & roughly aligned

d) Screw in the vertical adjustment screw but leave it just loose enough so that the drive plate can slide up and down. Use the 3 mm hex wrench. Use the 5/64 Allen wrench to tighten the set screw located on the right side of the base plate. Tightening this set screw will cause the silver clamp to press against the microscope and this will secure the baseplate to the microscope.

e) Slide the motor drive up and down, forward and backward slightly while turning the right fine focus knob until it is in the position where minimum drag is felt on the right focus knob. Secure the motor drive into position by tightening the horizontal and vertical adjustment screws. Slide the tab that protrudes from the ASI drive shaft clamp into one of the slots on the white plastic gear on the microscope focus shaft, as shown in figure # 6. This clamp is located on the drive shaft between the black encoder and the microscope. Tighten the drive shaft clamp, as shown in figure #10 below. Use the 7/64 inch hex wrench.

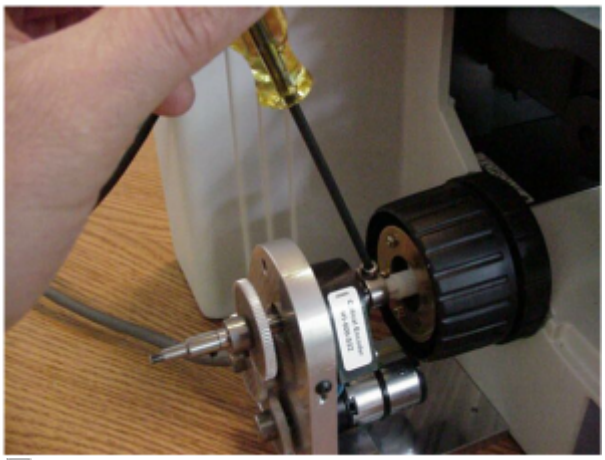

Figure 10: Tightening the drive shaft clamp

g) Recheck the alignment by noting the drag on the right fine focus knob. No noticeable drag should be felt Repeat the steps above if necessary.

Part 4-Installing the motor drive cover plate & fine focus knob.

a) Locate the motor drive cover. Remove the 4/40 button head screws from the drive with the 1/16 " Allen wrench. Position the motor drive covert over the motor drive assembly and secure in place using

the 4/40 button head screws.

b) Slide the microscope fine focus knob over the shaft extension and press it on all the way so that the plastic tabs on the knob mate with the slots on the ASI drive shaft. Install the small round nut in the end of the fine focus knob and tighten it with the medium slotted screwdriver. Slide the black rubber boot over the fine focus knob.

This completes the procedure for installing the ASI motor drive on to the Nikon Eclipse Microscope.

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