

# Nikon Eclipse 600FN Installation Procedure

The procedure below outlines the steps necessary to install the ASI Microscope Focus Controller Drive onto the Nikon Eclipse E600FN 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 right 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 Right Fine Focus Knob

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



Figure 1: Use screwdriver to remove nut

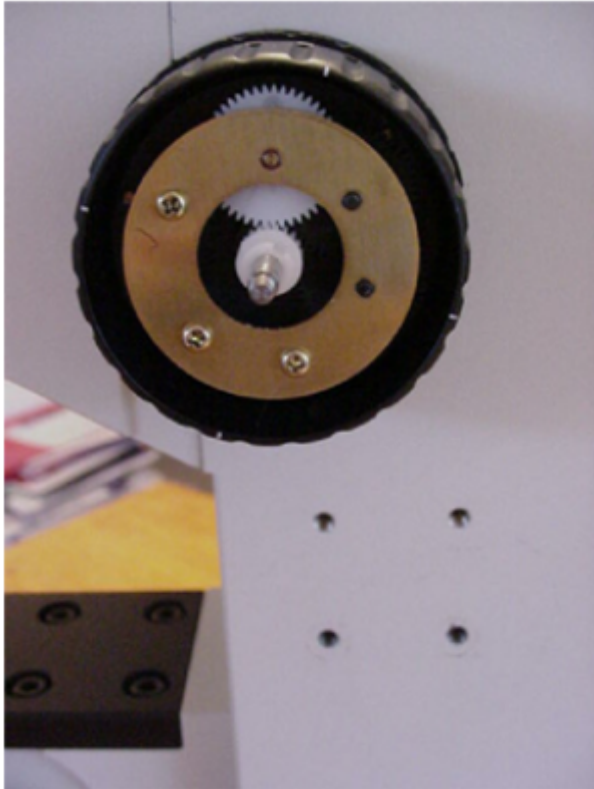


Figure 2: Pull knob straight off to expose shaft

- 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 4a Installing baseplate

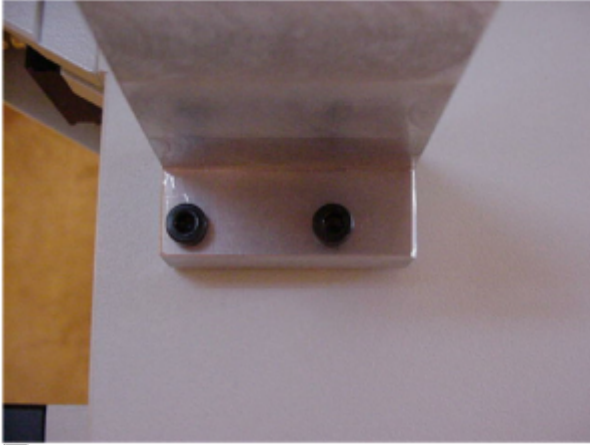


Figure 4b Installed baseplate



Figure 4c On some early drives two washers were used to position the drive out.

Locate the ASI drive and baseplate assembly. If the drive is attached to the base plate use the Allen wrench provided to remove the horizontal adjustment screw to remove the drive. Use the screws and Allen wrench provided to install the baseplate as outlined in figures 4a - 4c above.

## Part-3 Installing & Aligning the Motor Drive



Figure 5: Slide ASI dive onto microscope's fine focus shaft



Figure 6: Tab on adjustment bar slides into groove on baseplate



Figure 7: Secure, but Do Not tighten , horizontal adjustment screw to hold drive in

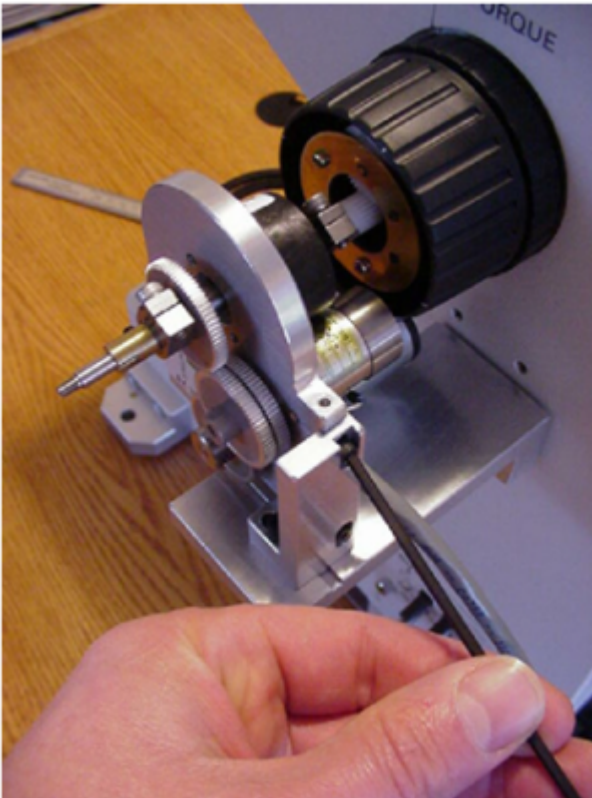


Figure 8: Vertical adjustment screws should still be loose.

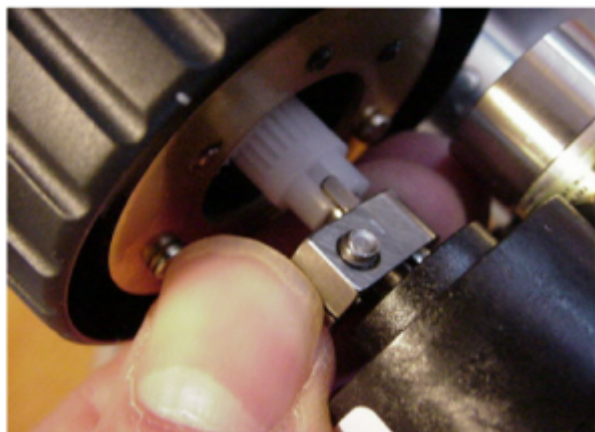


Figure 9: Metal tab on drive shaft clamp slides into slot on plastic gear

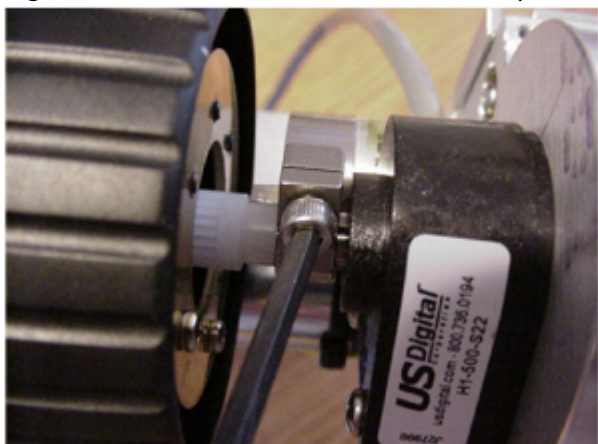


Figure 10: While holding drive shaft clamp in place securely tighten the drive shaft clamp. This clamp must be securely tightened or slippage may occur.

As shown in figures 5-10 above, install the ASI z-axis drive onto the microscope's fine focus shaft. Once you have securely tighten the drive shaft clamp as shown in figure 10 rotate the left fine focus knob. No drag should be felt. If no drag is felt tighten the Horizontal and Vertical adjustment screws as shown in figures 7 & 8. Recheck the alignment by turning the left fine focus knob. No noticeable drag should be felt. If drag is felt at any one point with in a full rotation loosen the Horizontal and Vertical adjustment screws. Then slide the motor drive up and down, forward and backward slightly while turning the left fine focus knob until it is in the position where minimum drag is felt. Secure the motor drive into position by tightening the horizontal and vertical adjustment screws at this point. Since the drive is usually self aligning this second set is usually not required.

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

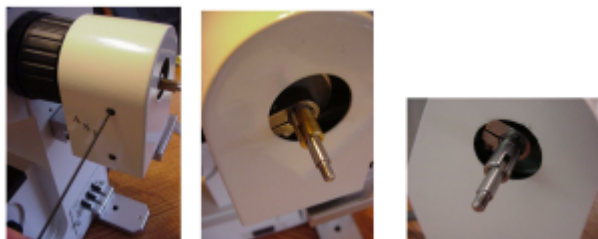


Figure 11

Locate the cover and install it on the drive as shown using the Allen wrench and the supplied screws that are in the drive plate. Before tightening the screws make sure the cover is positioned so that it does not rub against the outer clamp as shown. Once the cover has been installed the original knob can be installed onto the protruding shaft. Note that the slots on the shaft mate with the plastic tabs on the 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. Refer to figure 1 if necessary.

This completes the procedure for installing the ASI motor drive on to the Nikon E600FN Microscope.

[nikon](#), [eclipse600FN](#), [zdrive](#)

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