

# Nikon TE2000 Right Hand Z-Axis Drive Installation Procedure

The procedure below outlines the steps necessary to install the ASI Microscope Focus Controller Drive onto the Nikon Eclipse TE2000 microscope.

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

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

**The procedure has four 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 & Brass Adapter plate

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

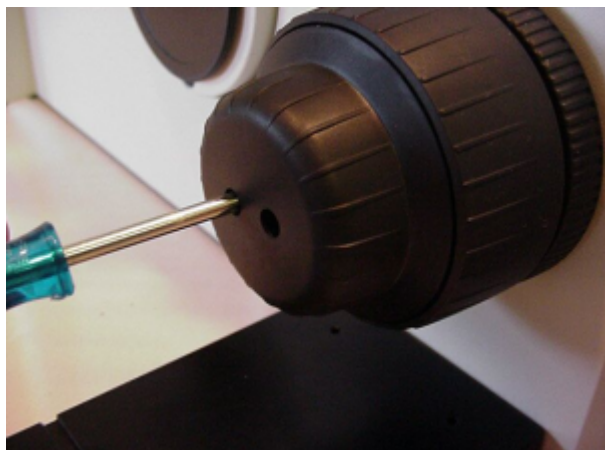


Figure 1: Use screwdriver to remove two screws



Figure 2: Pull knob straight off to expose brass adapter screws & remove brass adapter plate.

Use screwdriver to remove two screws. Remove the fine focus knob by grasping it firmly and pulling it straight off.

Use Allen wrench to loosen two set screws & remove brass adapter plate.

## Part 2 - Installing the Baseplate

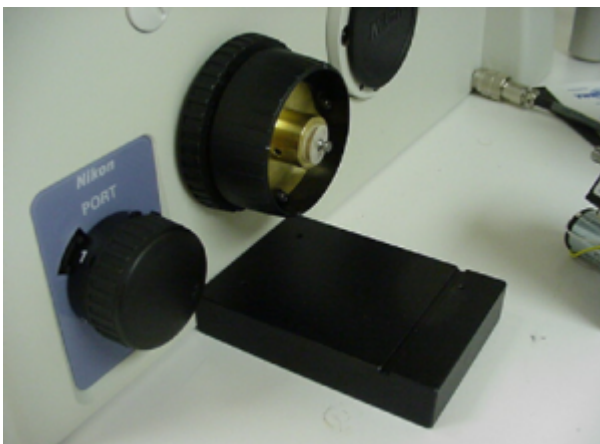


Figure 3: Installed baseplate



Figure 4: Baseplate clearance holes



Figure 5: Baseplate clamp

Locate the baseplate. If the motor drive is attached to the base plate use the 3mm Allen wrench to remove the horizontal adjustment screw to remove the drive from the base plate. Position the base plate so that the large baseplate is on the right 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 right focus knob as shown in figure # 3. There are two clearance holes, as shown in figure # 4, for two screws on the bottom of the microscope. When the baseplate is “about” in the correct position you will feel the screw drop into the holes. Leave the clamp shown in figure # 5 loose at this time.

## Part-3 Installing & Aligning the Motor Drive



Figure 6 Loosen Vertical adjustment screws

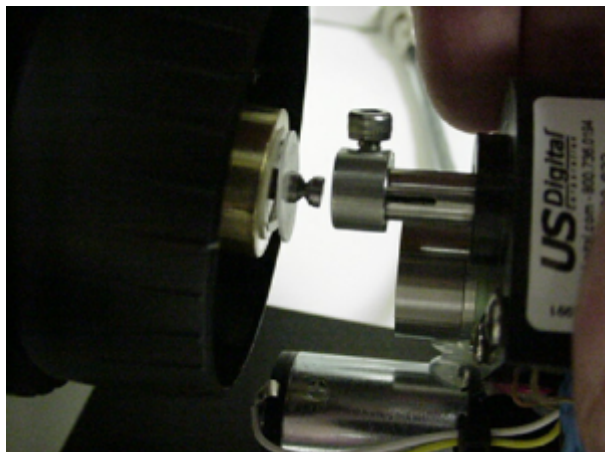


Figure 7 Install Z-drive over fine focus shaft



Figure 8 Press clamp against washer & tighten clamp securely to attach drive.

Loosen the two Vertical screws that secure the drive to the adjustment bar as shown in figure #6. Use the 7/64" hex wrench. Loosen the screws just enough so that the drive can slide easily in the groove in the adjustment bar.

Locate the ASI fine focus motor drive and vertical adjustment screw (M4 x 12 hex head screw removed when the base plate was installed). Align the drive shaft on the ASI drive with the microscope fine focus shaft and slide the motor drive over the fine focus shaft as shown in figure #7.

Rotate the drive so that the tab on the bottom of the adjustment bar fits into the groove on the base plate. Install, but do not completely tighten the vertical adjustment screw ( figure # 9 ) to hold the drive in place. Please Note the baseplate may need to be moved to properly align the adjustment bar. Press the clamp all of the way against the washers as shown in figure 8. The clamp must depress the wave washer completely as shown. When the clamp & drive are properly aligned use the 7/64" Allen wrench to securely tighten the drive shaft clamp as shown in figure # 8



Figure 9 Horizontal Adjustment screw



Figure 10 Tightening the base plate clamp

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.

Use the 5/64" Allen wrench to tighten the base plate clamp set screw shown in figure # 10 to secure the base plate to the microscope

Recheck the alignment by noting the drag on the right fine focus knob. No noticeable drag should be felt at any point within the full 360 degrees of rotation. If any noticeable drag is felt loosen the Vertical & Horizontal adjustment screw and repeat the step d above if necessary.

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



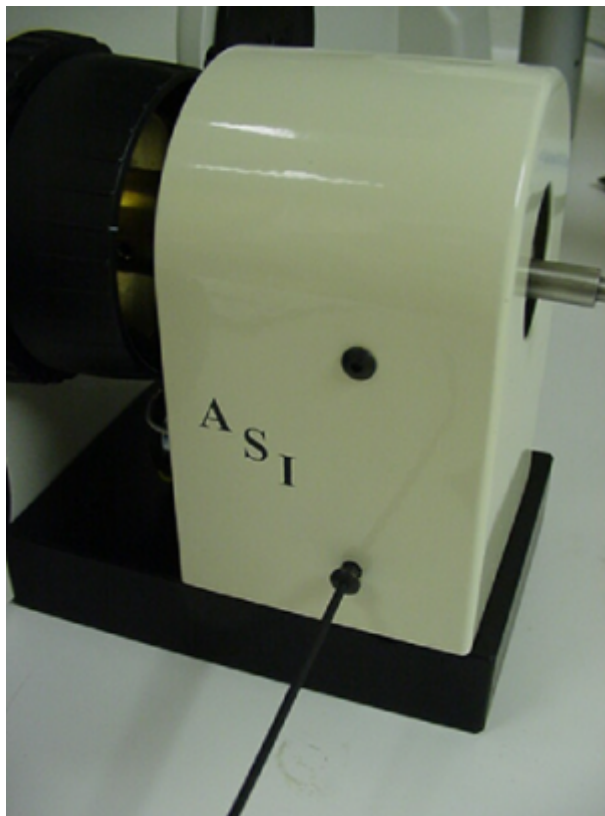


Figure 11 Installing cover

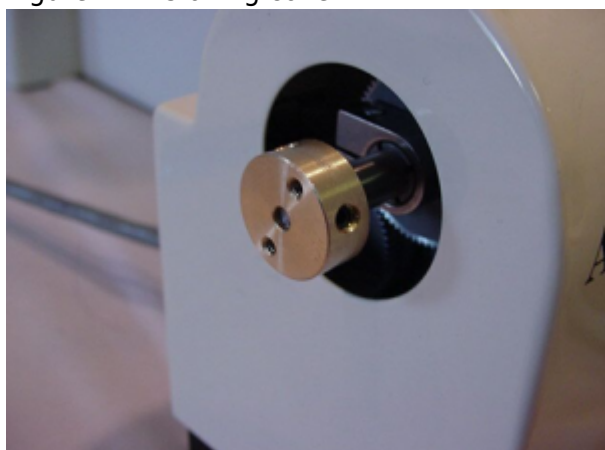


Figure 12 Installing brass knob adapter

Locate the motor drive cover. Remove the 4/40 button head screws from the base plate with the 1/16" Allen wrench. Position the motor drive cover over the motor drive assembly and secure in place using the 4/40 button head screws as shown in figure # 11. Slide the microscope brass knob adapter over the shaft extension and press it on all the way. Secure it in place by tightening the set screws. Install the knob onto the brass adapter plate.

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

[nikon](#), [te2000](#), [right](#), [zdrive](#)

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