

Nikon AZ100 Installation Procedure

The procedure below outlines the steps necessary to install the ASI Microscope Focus Controller Drive onto the Nikon AZ100 microscope.

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

- Medium flat blade screwdriver
- 5/64, 7/64, 1/16 and 0.05 hex wrenches (provided)
- 5/64 long handled ball driver (provided)

The procedure has three parts:

1. Removing the left fine focus knob
2. Installing the base plate.
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

- Pull off the black rubber boot covering the fine focus knob. Remove the round slotted nut from the end of the knob using the medium slotted screwdriver.
- 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 Base plate



Figure 4: Uninstalled base plate

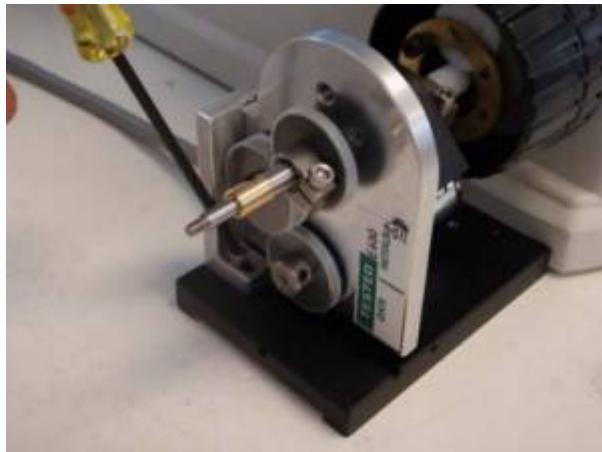


Figure 5 : Installed base plate

Locate the base plate and motor drive assembly. If the drive is attached to the base plate, remove it by removing the vertical adjustment screw (7/64" wrench). Position the base plate as shown, so that the horizontal adjustment bar is on the left side of the microscope. Lift the front of the microscope up and slide the base plate under the microscope so that the horizontal adjustment bar is centered under the left focus knob.

Part 3 - Installing & Aligning the Motor Drive

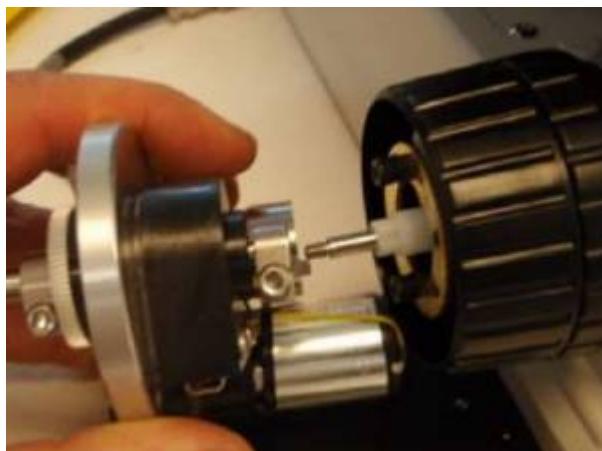


Figure 6: Slide ASI drive shaft over knob



Figure 7: Base plate must be against scope

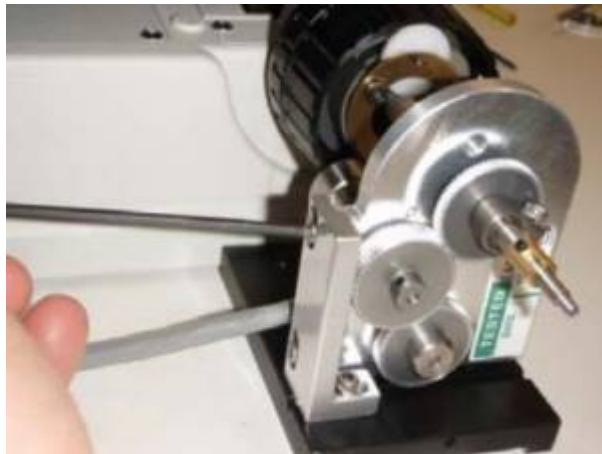


Figure 8: Secure but do not tighten adjustments

a) Locate the ASI fine focus motor drive and vertical adjustment 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 as shown in figure 6. Align the key on the bottom of the adjustment bar so that it slides into the groove on the base plate. Use the vertical adjustment screw to secure the drive in place, but do not tighten this screw at this time. Please note that the base plate may need to be moved to properly align the adjustment bar.

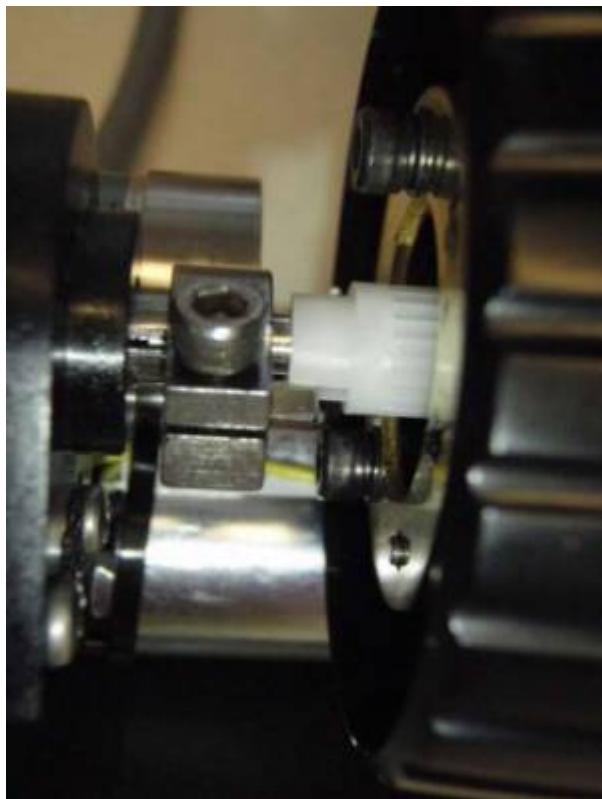


Figure 9a: Installing the tab in the slot & tightening the drive shaft clamp

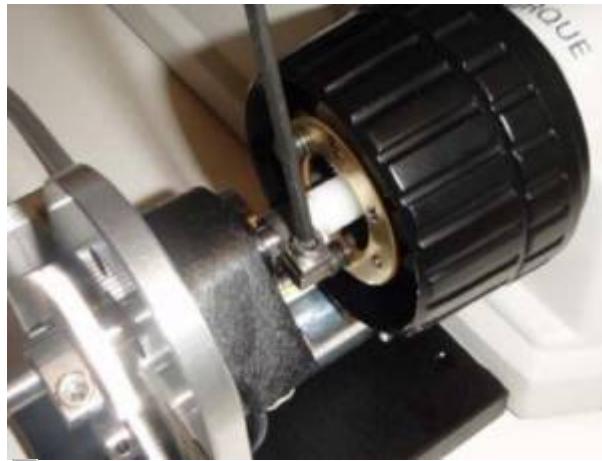


Figure 9b: Installing the tab in the slot & tightening the drive shaft clamp



Figure 10: Tighten base plate clamp after drive is installed & roughly aligned

- b) As shown in figure 8, insure that the vertical adjustment screws are loose enough so that the drive plate can slide up and down. Use the 3 mm hex wrench.
- c) As shown in figure 9, slide the tab on the drive shaft clamp into the slot on the white gear. Use the 7/64 Allen wrench to securely tighten the clamp as shown. Please note that if this clamp is not securely tightened the drive may slip.
- d) As shown in figure 10, use the 5/64 Allen wrench to tighten the setscrew located on the right side of the base plate. Tightening this setscrew will cause the silver clamp to press against the microscope and this will secure the base plate 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.
- f) 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 cover 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 AZ100 Microscope.

[nikon, az100, zdrive](#)

From:

<https://asiimaging.com/docs/> - Applied Scientific Instrumentation

Permanent link:

https://asiimaging.com/docs/nikon_az100_zdrive_install

Last update: **2021/09/23 17:15**

