

Olympus BX43 Z Drive Installation Procedure

The procedure below outlines the steps necessary to install the ASI Microscope Focus Controller Drive onto the Olympus BX43 microscope.

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

Medium flat blade screwdriver 1.5 mm, 2.5 mm, 3mm, and 5/64 hex wrenches ASI provides the hex wrenches.

The procedure has three parts:

1. Removing the left fine focus knob & Installing the clutch & flex coupler
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& installing the Flex Coupler



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

Use the 3mm Allen wrench to remove the large knob from the fine focus knob. Firmly hold the right fine focus knob with your right hand and turn the left fine focus knob counter clockwise to unscrew it from the fine focus shaft.

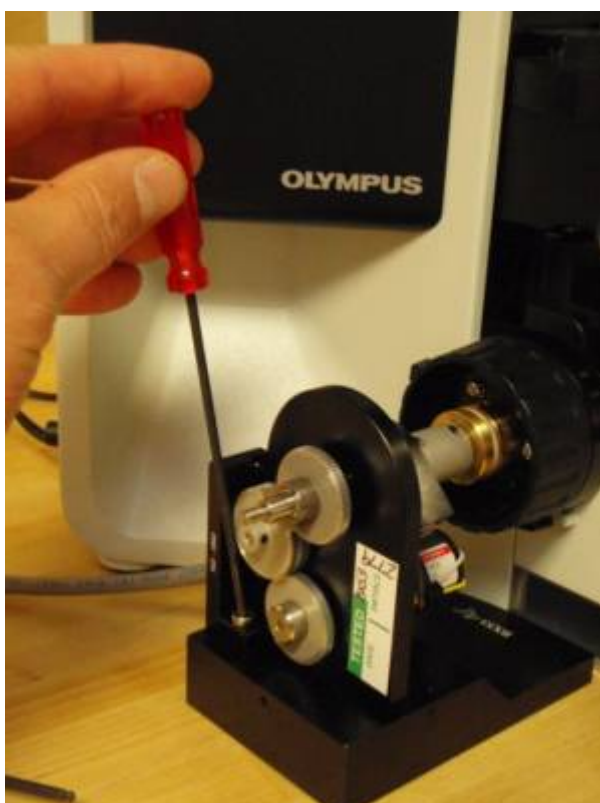


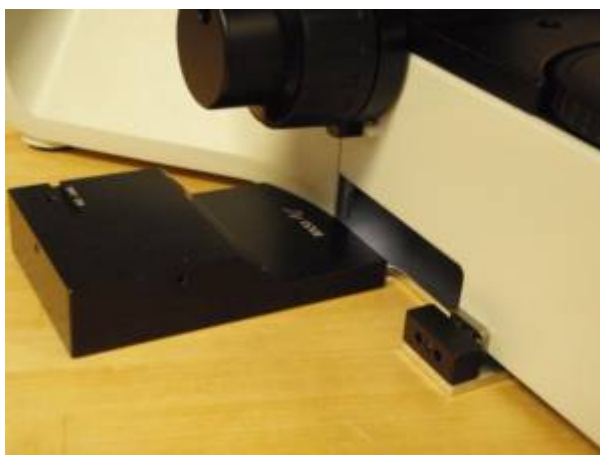
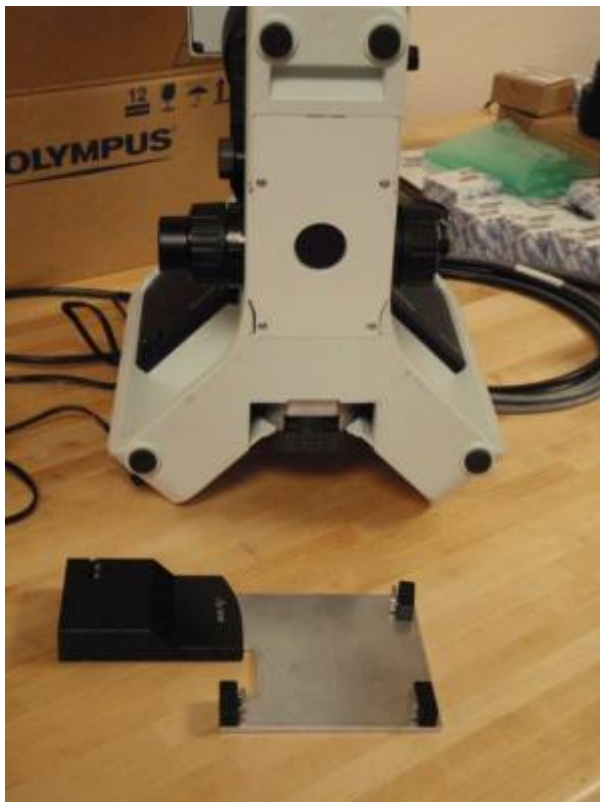


Locate the brass clutch plate and securely screw it on to the fine focus shaft. When installing the clutch insure that it is pressed all the way against the wave washer without pushing the right focus knob out at all. Check for any play in the focus shaft by pushing & pulling the right focus knob - there should be no play. Install the flex coupler as shown & fasten the flex coupler using a 1.5 mm Allen wrench.

Part 2 - Installing the Baseplate

Locate the baseplate and remove the ASI drive from it if it is attached by using the 2.5 mm Allen wrench to remove the Horizontal adjustment screw. Position the base plate assembly 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 base plate under the microscope so that angled portion of the base plate is aligned with the contour of the microscope.



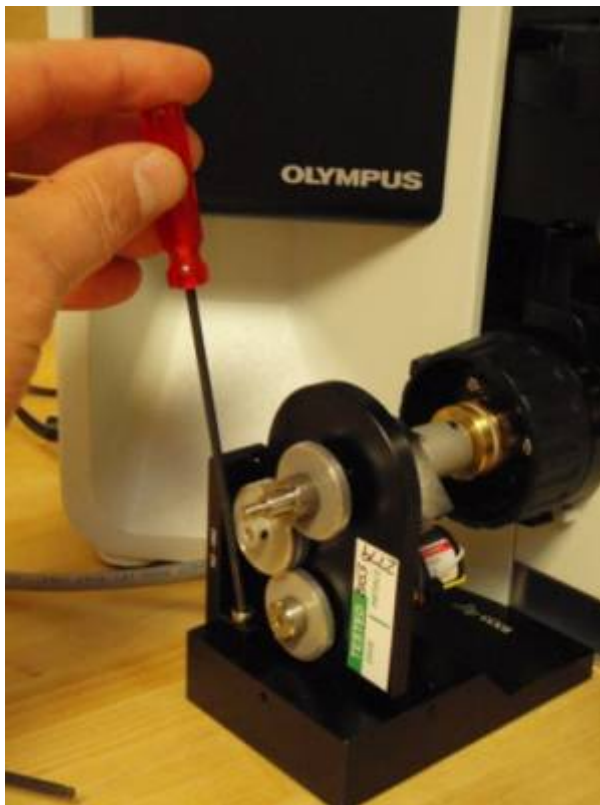




Part-3 Installing & Aligning the Motor Drive

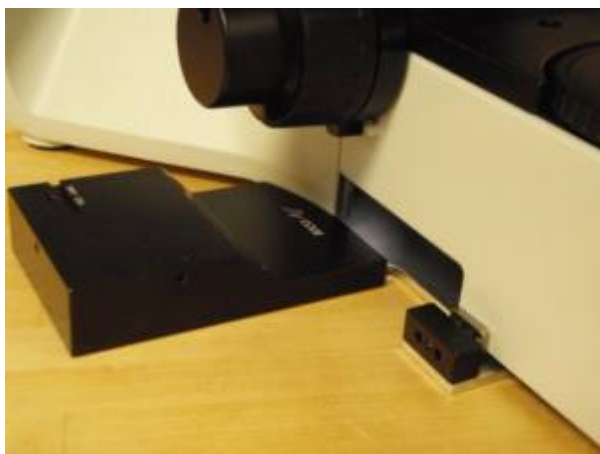
As shown in the above photos install the Z-drive onto the base plate by sliding the drive shaft into the flex coupler, and installing the horizontal adjustment screw that was removed in Part 2. Use the 2.5 mm Allen wrench to lightly tighten this screw. Leave it loose enough so that the vertical adjustment bar assembly can slide within the groove. Please note that the base plate may need to be moved slightly to align everything correctly. Use the 1.5 mm Allen wrench to securely tighten the flex coupler onto the ASI Z drive shaft. Please note that this screw must be securely tightened to prevent slippage.





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

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.



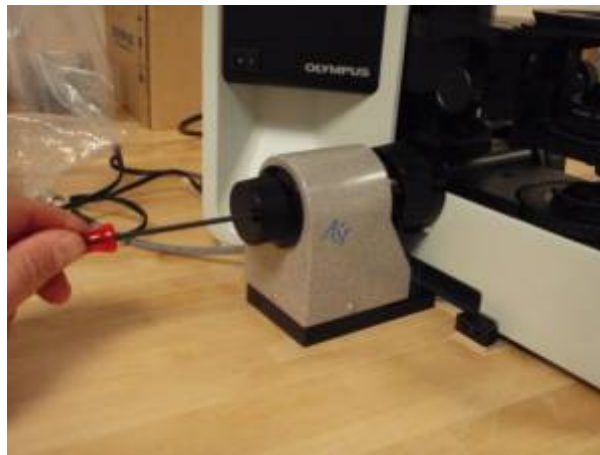
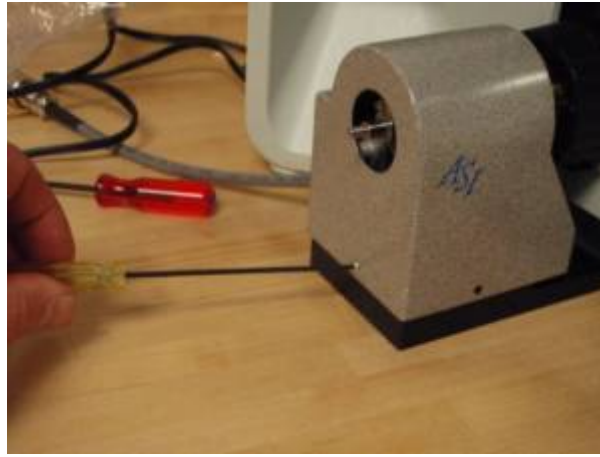


Use the 1.5 mm Allen wrench to tighten the base plate clamps as shown above.

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

1. Locate the motor drive cover. Remove the 4/40 button head screws from the drive with the 5/64 " Allen wrench. Position the motor drive covert over the motor drive assembly and secure in place using the 4/40 button head screws.
2. Slide the new black microscope fine focus knob over the shaft extension and press it on all the way. Use the 1/16" Allen wrench to tighten the setscrews to secure the knob on the shaft.

This completes the procedure for installing the ASI motor drive on to the Olympus BX53 Microscope.



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