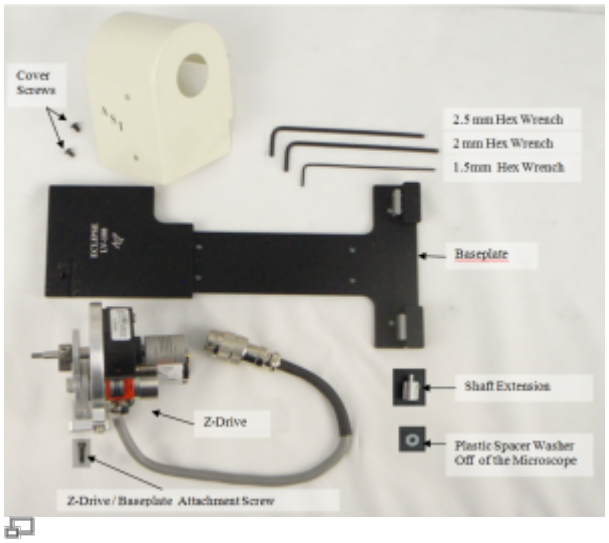
Nikon Eclipse LV100 LV150 microscope Z-Drive Installation

The procedure below outlines the steps necessary to install the ASI Microscope Focus Controller Drive onto the Nikon Eclipse LV100 microscope.

Z-Drive Kit Should have:



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You will Need:

- Small flat blade screw driver
- 1.5mm, 2mm, 2.5mm hex wrenches (supplied by ASI).

The procedure has five parts:

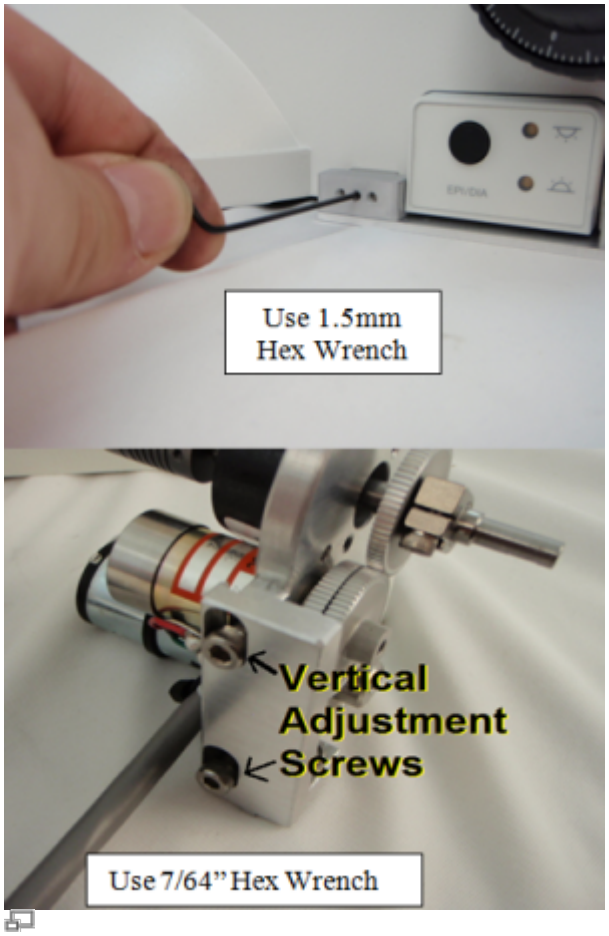
1. Installing the baseplate.
2. Removing the right fine focus knob
3. Installing the motor drive assembly.
4. Align the motor drive assembly.
5. Installing the motor drive cover plate & fine focus knob.

Part 1 - Installing the Baseplate

Figure 1a

Figure 1b

a) Place the Baseplate assembly under the microscope so that the two set screw clamps are on either side of the EPI/DIA controls, with the Z-Drive pad on the right as shown in Figure 1a&b. Note, for the LV100DAU the clamps should attach just to either side of the buttons as shown in Figure 1b.



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b) Using a 1.5mm hex wrench lightly tighten both of the two adjustment bar set screws (figure 1b), on the left side of the microscope, so that it holds onto the microscope - but can still be moved around to adjust position for proper alignment.

c) Use a 2.5mm hex wrench to slightly loosen two baseplate vertical adjust screws to allow for aligning Z-Drive unit. Loosen the screw just enough so that the adjustment bar can slide easily.

Part 2 - Removing the Left Fine Focus Knob& Install Extension Shaft.

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

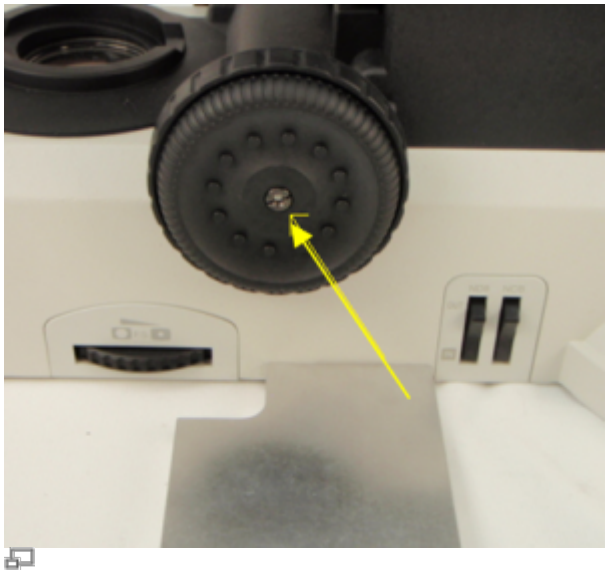

Figure 2a

Figure 2b

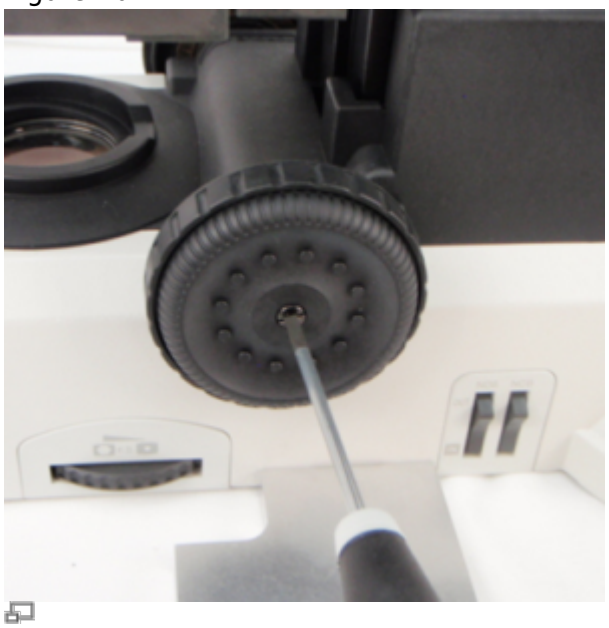

Figure 2c

a) Locate right hand fine focus knob slotted nut fig 2a

b) While holding the fine focus knob on the left side of the microscope (figure 2b), use a small flathead screwdriver to unscrew and remove the shaft nut (figure 2c).

c) While holding the left hand fine focus knob on the other side of the microscope (figure 2b), unscrew the right hand fine focus knob (figure 2d).

d) Carefully remove fine focus knob(figure 2d). This will expose the fine focus threaded shaft.

e) Put the White Plastic Spacer Washer on the exposed shaft and then screw on the Shaft Extension (figure 2e).

f) Use 1.5 mm Hex Wrench to tighten the shaft extension set screw (figure 2f).

Figure 2d

Figure 2e

Figure 2f

Part-3 Installing the Motor Drive

Figure 3a

Figure 3b

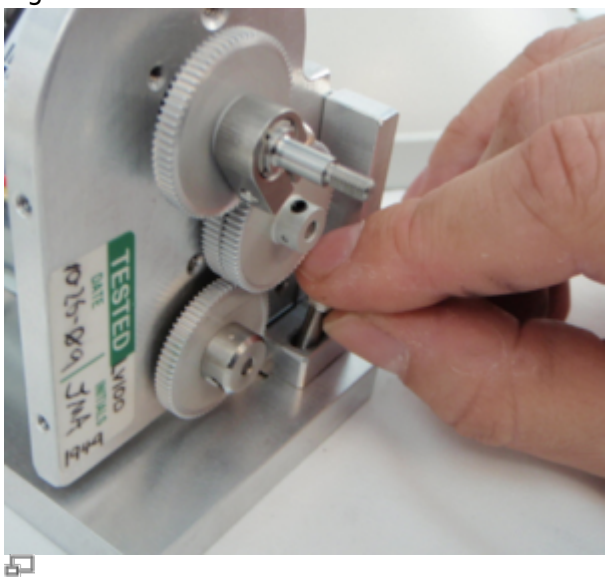

Figure 3c

a) Locate the Slot on the baseplate (fig. 3a). When installing the Z-Drive the adjustment bar tab will go into this slot.

b) Holding the fine knob on the left side of the microscope, carefully slide the flex shaft coupler over the fine focus shaft extension till the Z-Drive adjustment bar tab fits into the slot on the baseplate (figure 3b).

c) Insert the Baseplate Attachment Screw through the

d) Tighten the attachment screw till it holds the Z Drive in place but can still be adjusted.

Figure 3d

Part-4 Aligning the Motor Drive

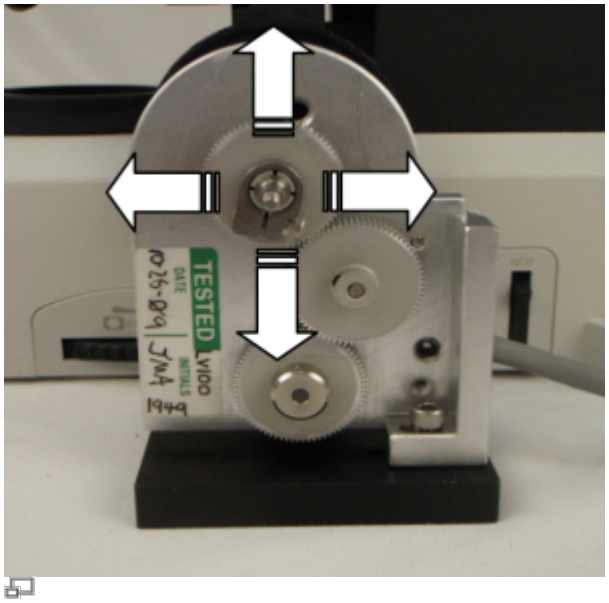

Figure 4a

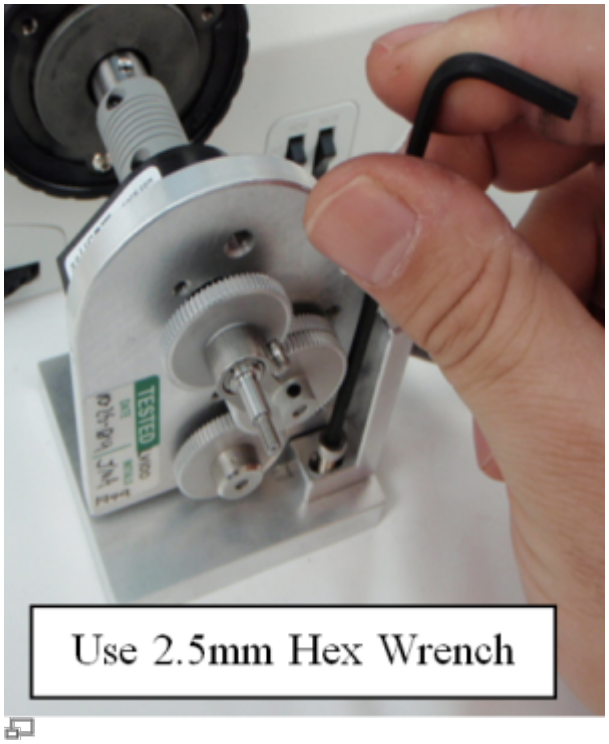

Figure 4b

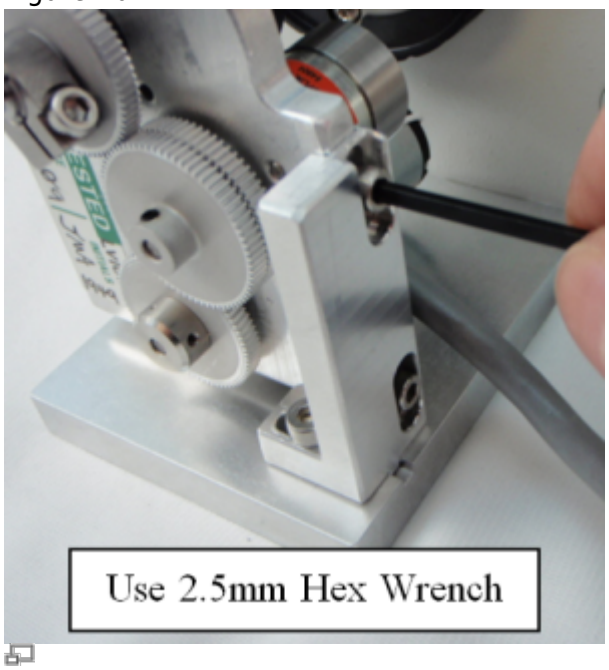

Figure 4c

a) 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 (figure 4a).

b) Once aligned, secure the motor drive into position by tightening the horizontal and vertical adjustment screws (figures 4b & 4c).

c) Once aligned, lock the baseplate into position by tightening the set screw on the right hand side of the scope with a 1.5mm Hex wrench (figure 4d).

d) Once the drive unit is aligned, and alignment screws tightened; verify proper alignment by loosening the two set screws on the flex coupler with a 2mm Hex wrench. If properly aligned the flex coupler should easily slide back and forth without having to bend (figure 4e). If the alignment is not correct, loosen the alignment screws and do steps a-d till a proper alignment is achieved.

e) Tighten up all alignment screws including the 2 set screws on the flex shaft (figures: 4b, c, d, &f).

Figure 4d

Figure 4e

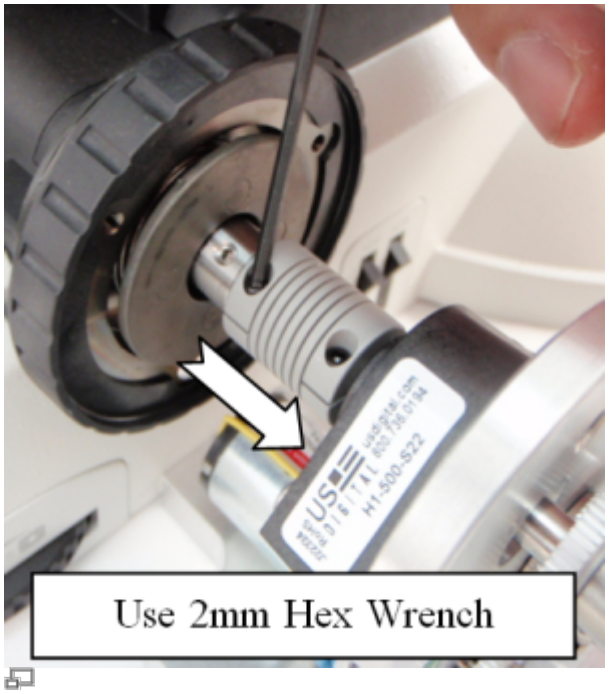

Figure 4f

Part 5-Installing the motor drive cover plate & fine focus knob.

Figure 5a

Figure 5b

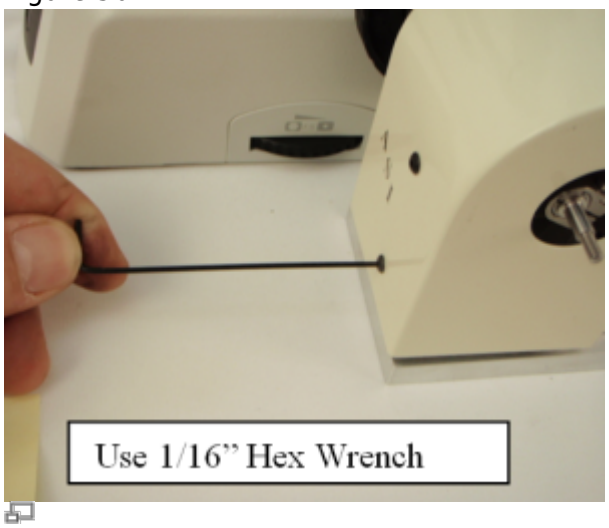

Figure 5c

a) Locate the motor drive cover and the 2 3mm button head screws shown in figure 5a. You might have to remove the 2 screws from the baseplate holes. Place the cover over the motor drive.

b) Using one of the 3mm button head screws, secure the cover to the Z drive plate on the front/top hole as shown in figure 5b.

c) Use the other 3mm button head screw, secure the cover to the Z drive plate on the front/bottom hole as shown in figure 5c.

d) Screw on the microscope fine focus knob on to the Z-Drive shaft extension and screw it on all the way (figure 5d).

e) Use the 1.5mm screwdriver to tighten the knob set screw as shown on figure 5e.

Figure 5d

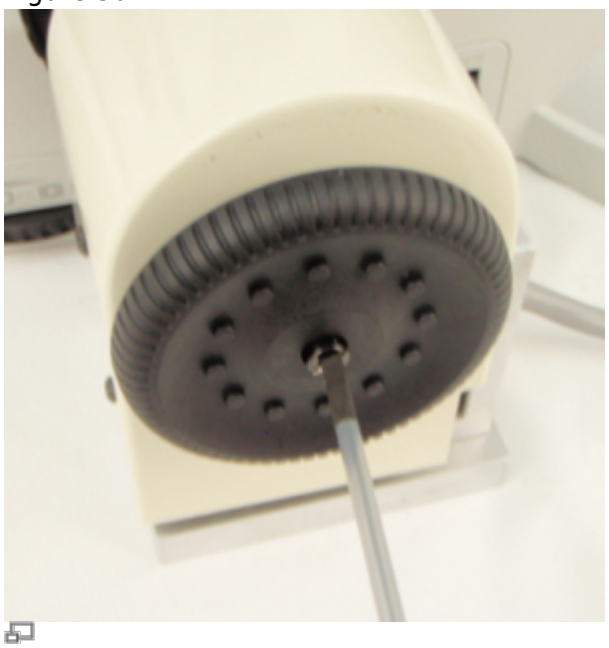

Figure 5e

Install Finished

This completes the procedure for installing the ASI motor drive on to the Nikon LV100 Microscope.

nikon, LV100, LV150, zdrive