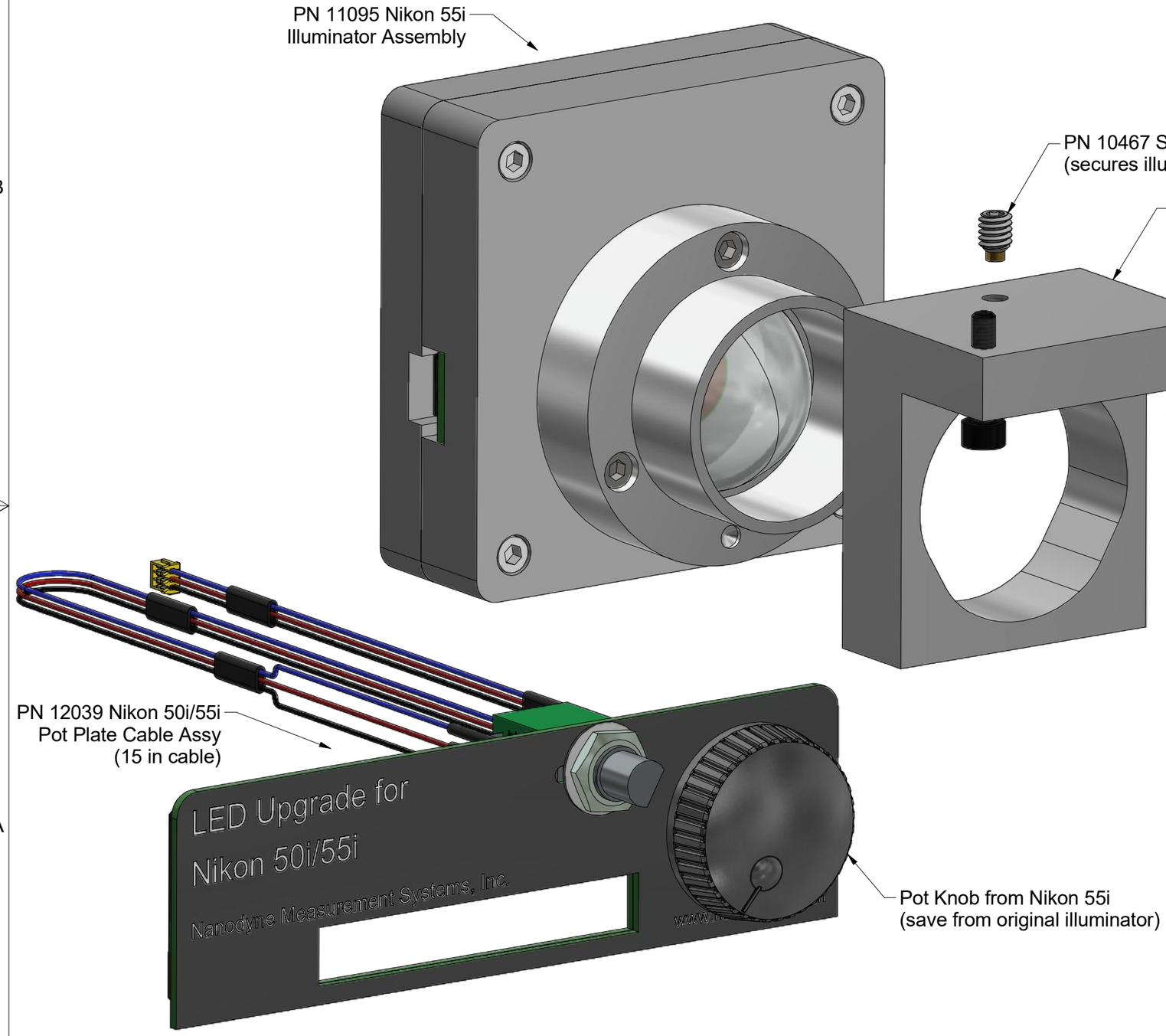
Nanodyne Replacement Illuminator for Nikon 55i Microscope Installation Instructions - Included Items



Additional Items Included But Not Shown:

PN 10456 Hex Key 1.5mm (for pot knob)
PN 11497 Hex Key 5/64 inch Ball End (for 8-32 set screw)
PN 10566 Hex Key 2.5mm long arm ball end (for M3 mounting screws)

Tape to secure wires.

PN 10733 Power Supply - XP Power 5V 1A and PN 10734 Cable Assy 1.35mm ID x 3.5mm OD RA plug to USB A, 6 foot.

Power supplies are subject to substitution without notice due to availability issues and changes in regulations.

The illuminator may be powered by plugging the cable into the power supply provided, or into a suitable USB port on a computer or other device.

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Nanodyne Replacement Illuminator for Nikon 55i Microscope Installation Instructions - Step 1. Remove Covers and OEM Illuminator.

Be sure AC power is disconnected before starting.

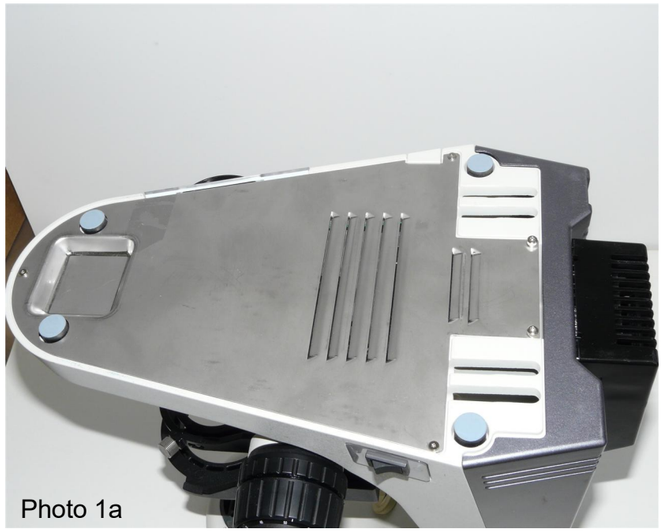
Photo 1a

Bottom of microscope before bottom cover removed.

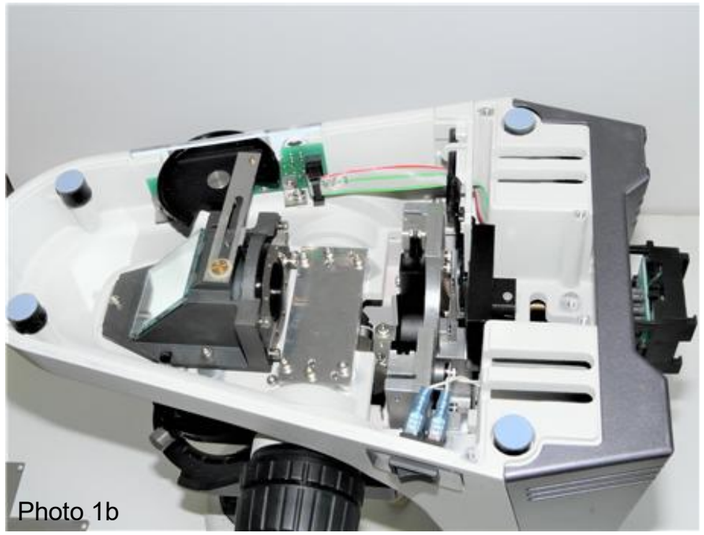
Photo 1b

Bottom of microscope after bottom cover removed.

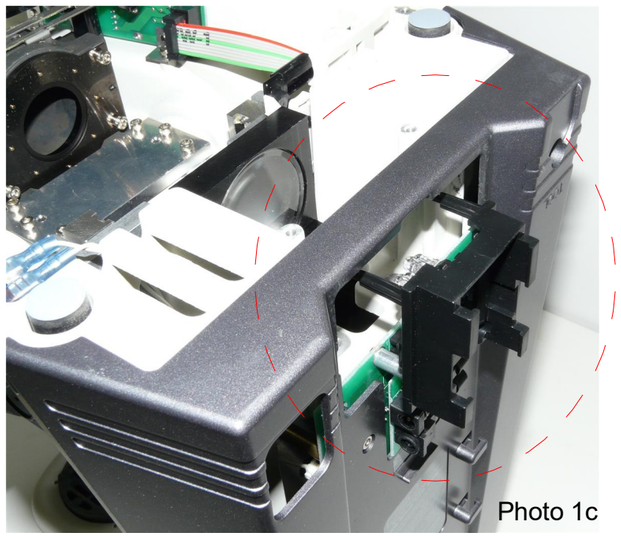
Photo 1c

Original Nikon LED illuminator (red circle).

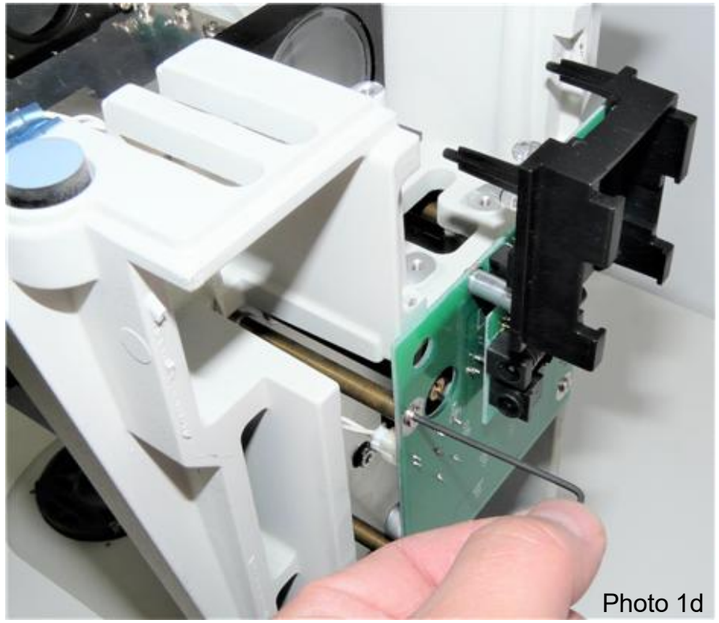
Photo 1d

Remove back cover, then remove the mounting screws for OEM illuminator assembly.

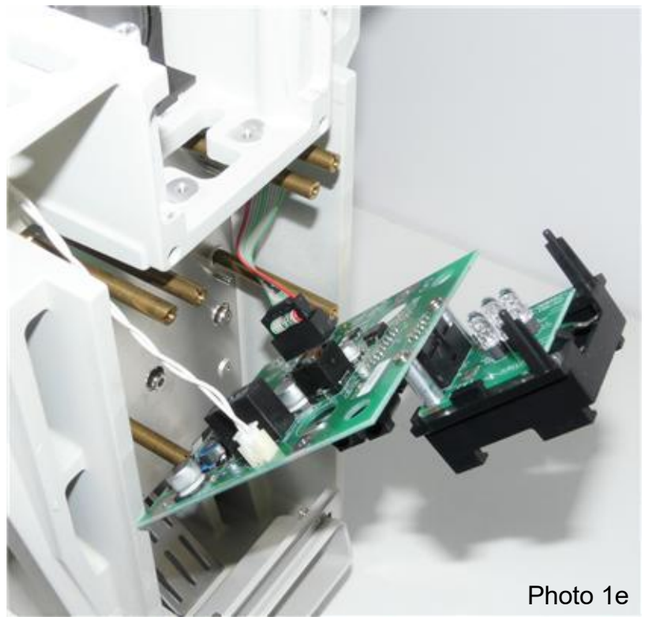
Photo 1e

Disconnect the cables to remove the OEM illuminator circuit board. If you don't care about keeping the OEM illuminator functional, you can just cut the cables.

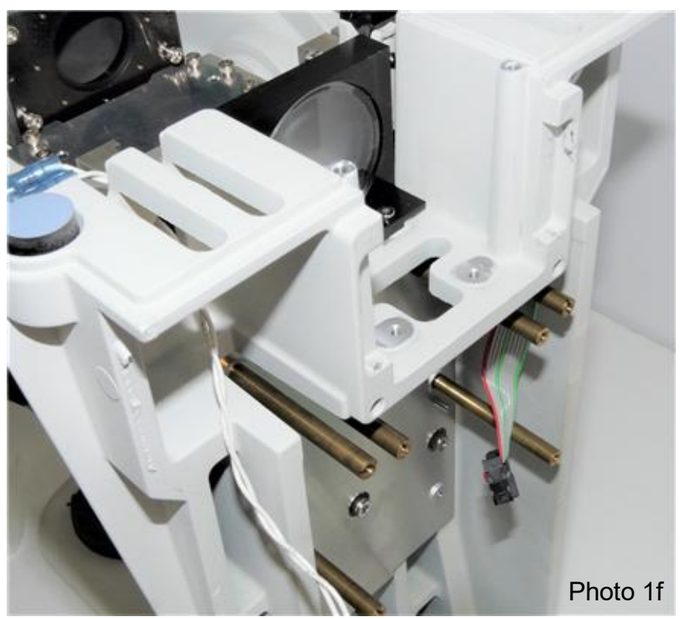
Photo 1f

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Nanodyne Replacement Illuminator for Nikon 55i Microscope Installation Instructions - Step 2. Attach Nanodyne Adapter.

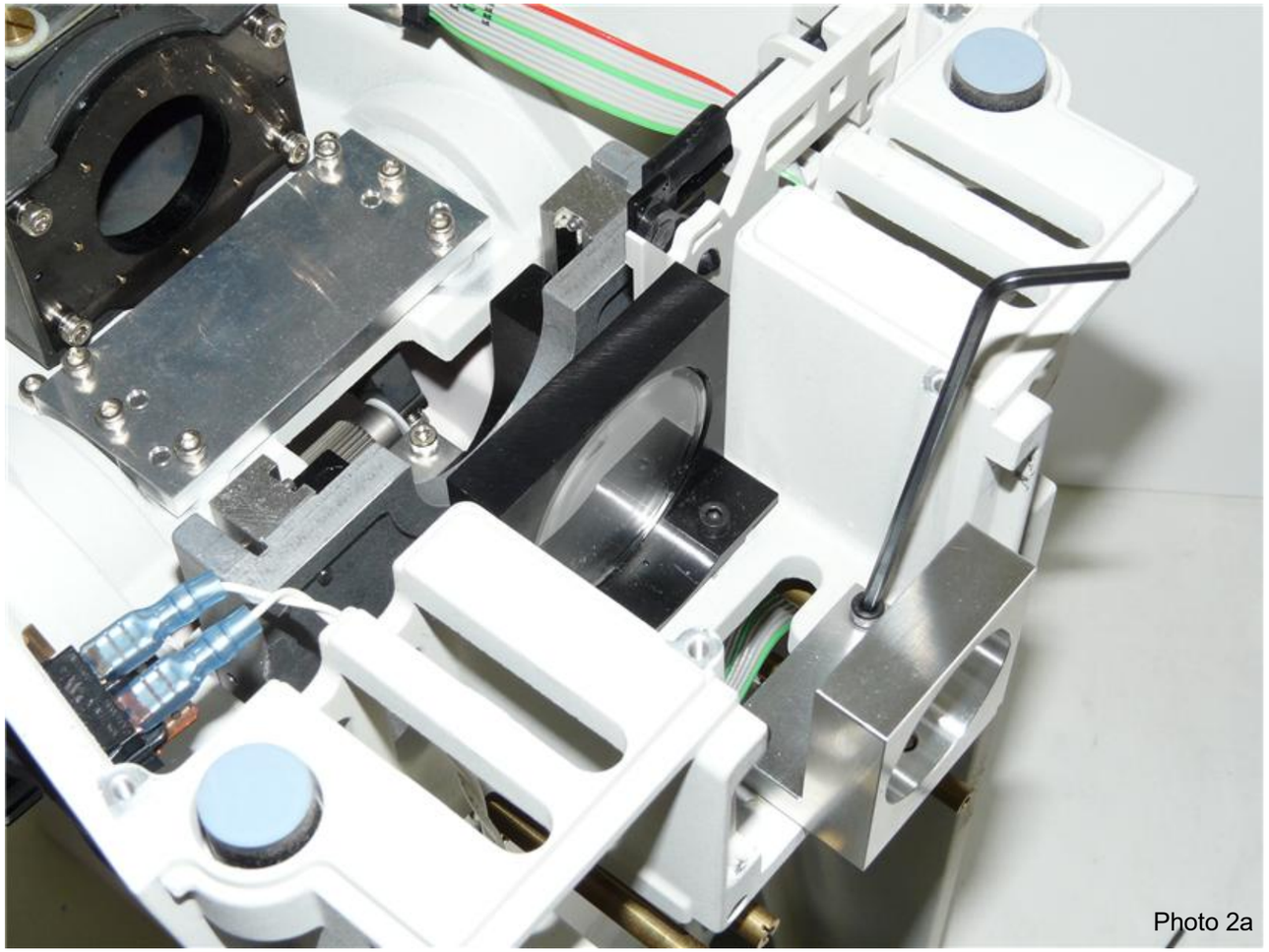

Photo 2a

Attach the Nanodyne adapter to the microscope using the two M3 screws provided. Tighten the screws securely.

The screws are extra long to ensure the threads in the microscope will not strip out.

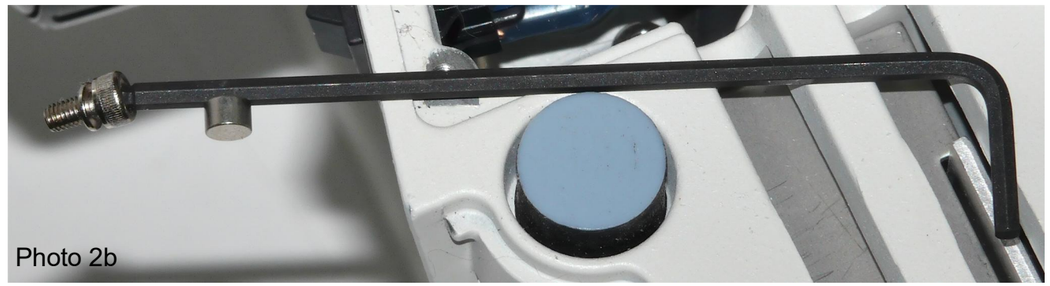

Photo 2b

For any screws that are difficult to reach with your fingers, Photo 2b shows a trick to make it easier.

Attach a small powerful magnet to the hex key near the tip to keep the screw attached magnetically.

This will be especially usefull for step 3 on the next page at photo 3a.

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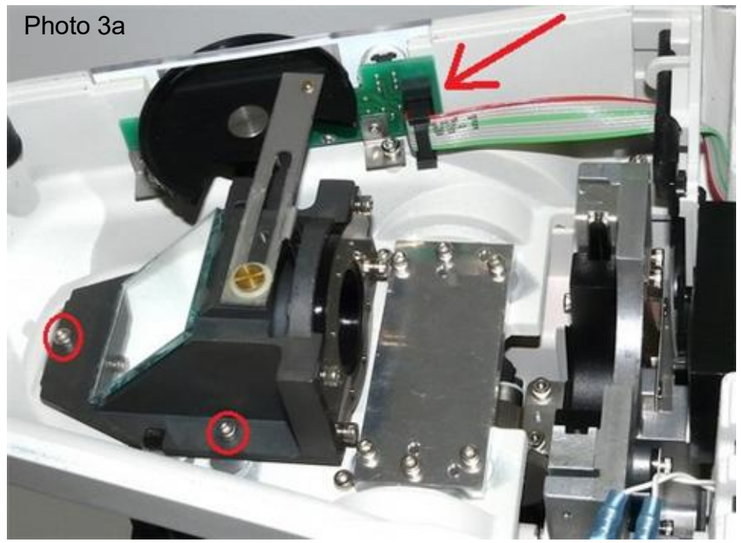
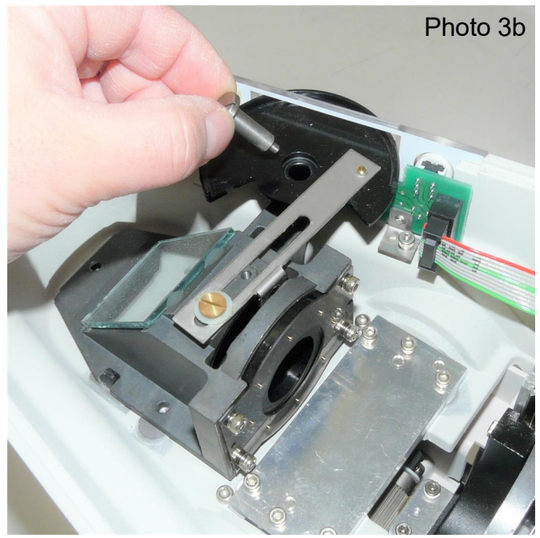
Nanodyne Replacement Illuminator for Nikon 55i Microscope Installation Instructions - Step 3. Remove OEM intensity Control PCB.

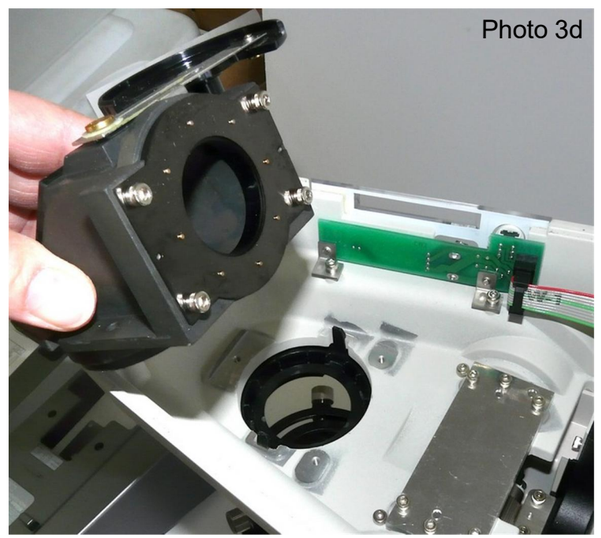


Access to remove OEM intensity control pcb (red arrow) is blocked by diaphragm wheel and mirror assembly. Remove the 3 screws holding the mirror assembly (2 circled, 1 hidden).

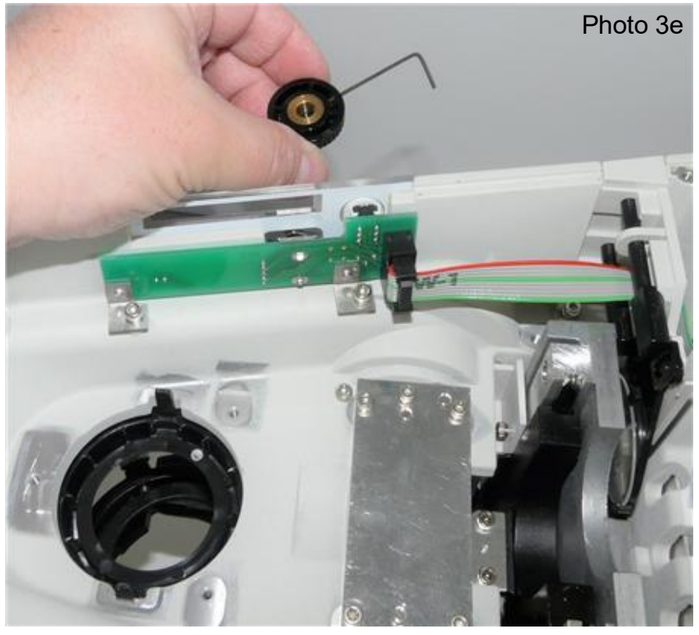


Remove the screw holding the diaphragm wheel.

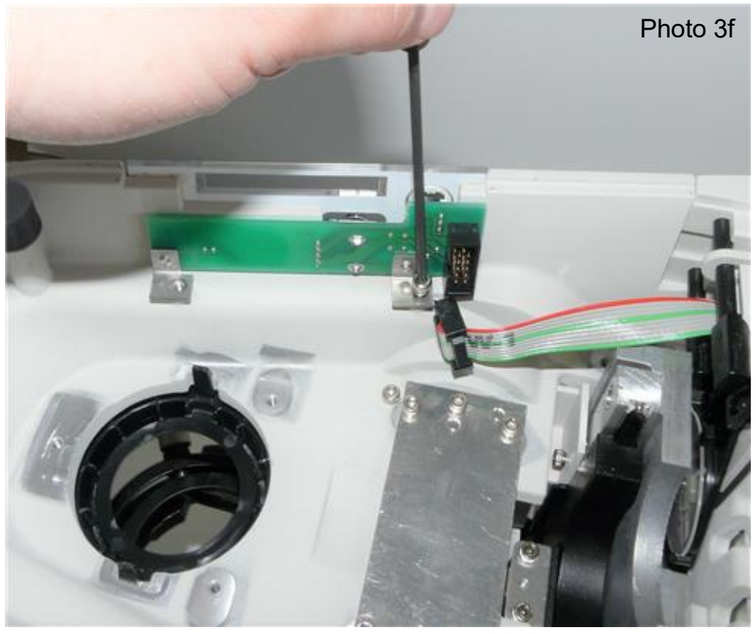
Slide the diaphragm control wheel away from the slot in the side of the microscope.



Remove the diaphragm/mirror assembly to access the intensity control PCB.



Remove the knob from the intensity adjust pot.



Unplug the cable from the intensity adjust PCB and remove the 2 screws holding it in place.

Original intensity control pot PCB removed.

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Nanodyne Replacement Illuminator for Nikon 55i Microscope Installation Instructions - Step 4. Install Nanodyne Intensity Control PCB.

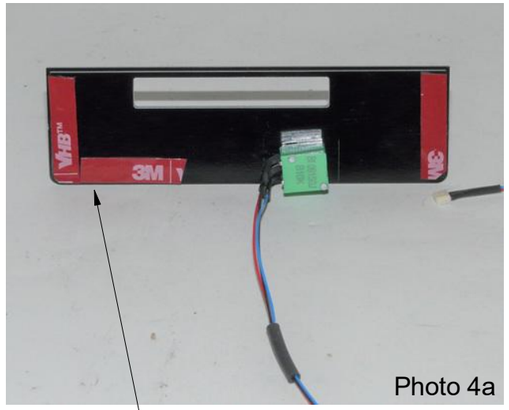


Photo 4a

Remove the release film

Photo 4b

Remove the release film from the tape on the Nanodyne pot PCB.

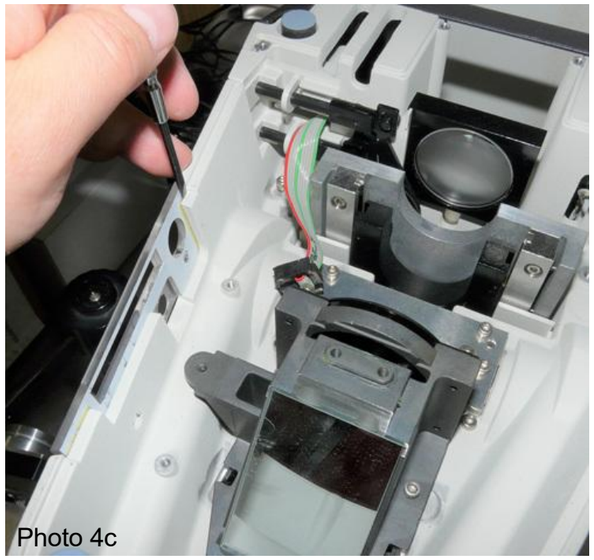


Photo 4c

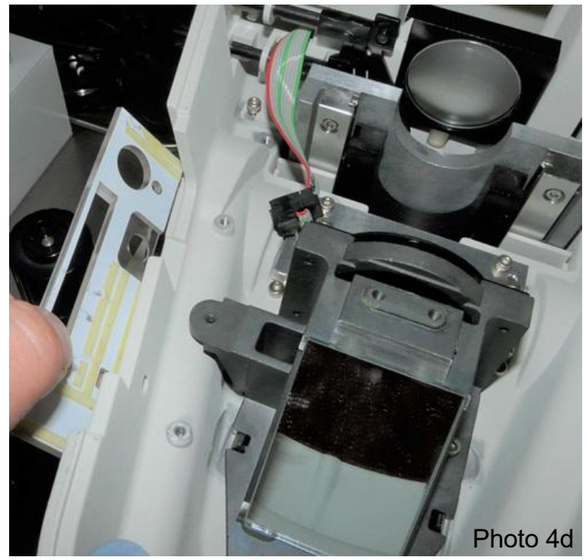


Photo 4d

Pry OEM face plate out of the microscope frame.

Photo 4e

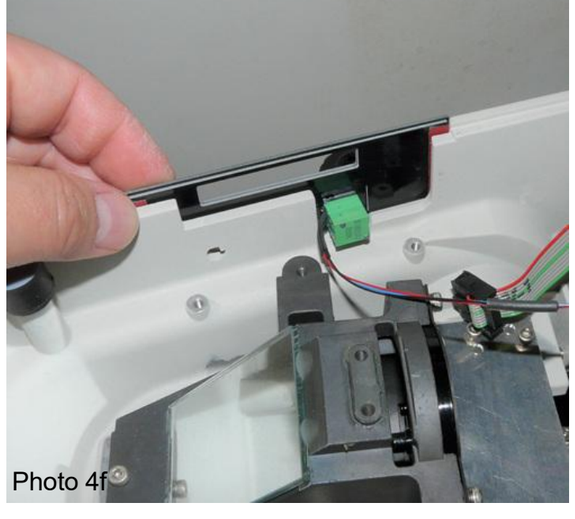


Photo 4f

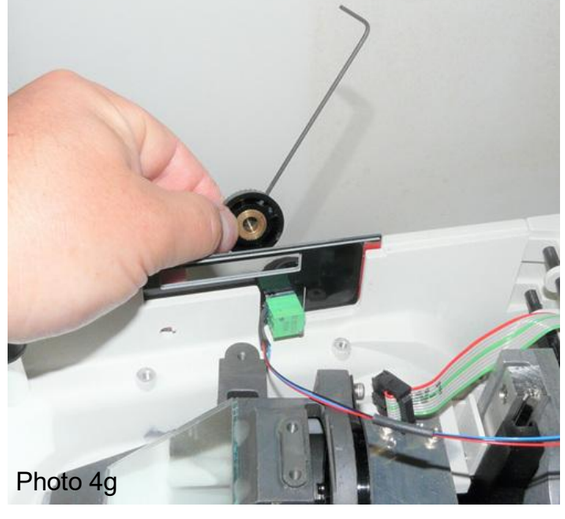
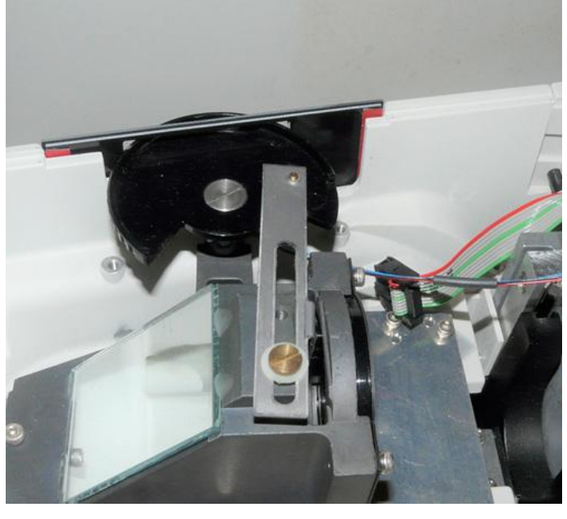


Photo 4g

Press the tape surface against the groove of the microscope frame to secure the Nanodyne pot PCB. Place the original knob on the new pot.

Photo 4h



Replace the mirror/diaphragm assembly.

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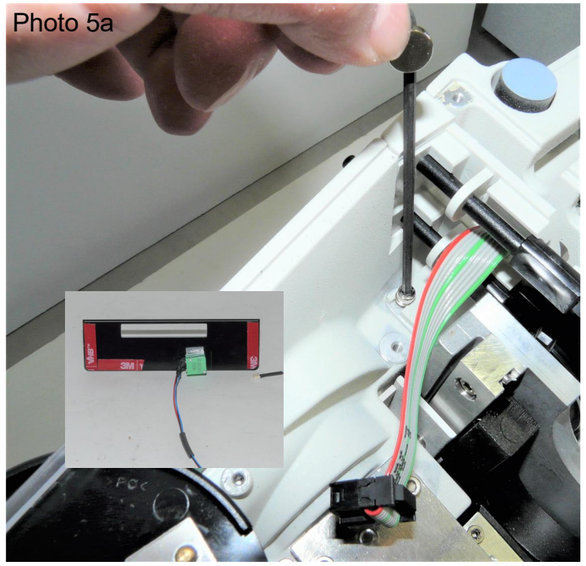
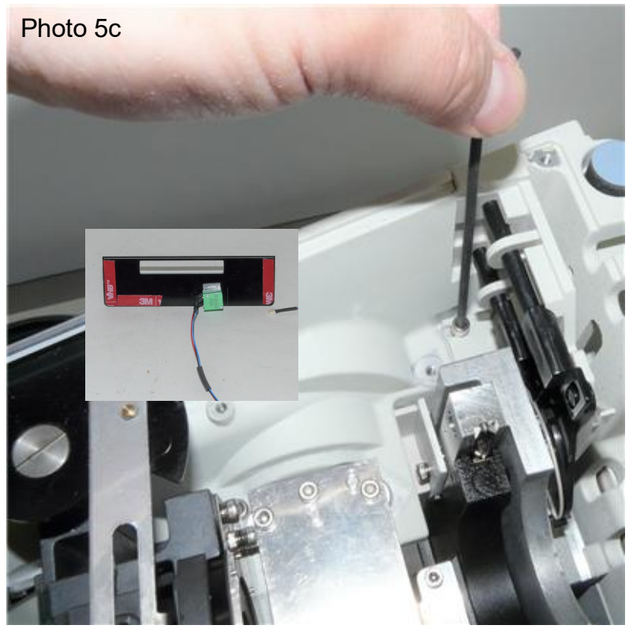
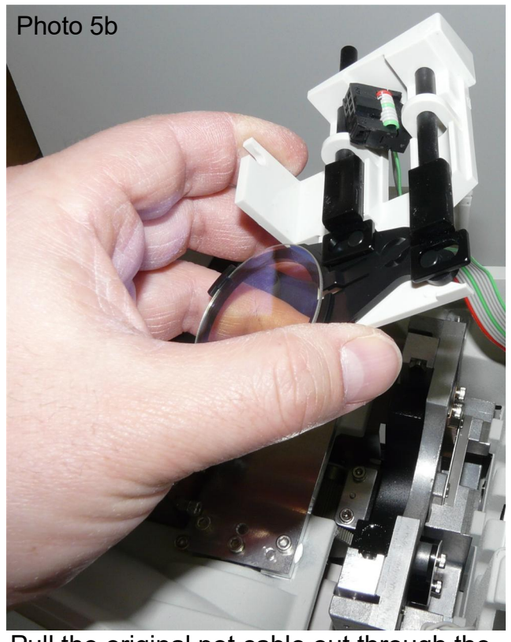
Nanodyne Replacement Illuminator for Nikon 55i Microscope Installation Instructions - Step 5. Remove OEM Pot Cable.



Remove the screw holding the filter assembly.



Replace the filter assembly.



Pull the original pot cable out through the filter assembly.

NOTE - If you are not saving the original illuminator parts you can skip the operations shown in Photos 5a-5c.

Just cut the cable in half and pull it out.

Reinstall the back cover and attach Nanodyne illuminator.

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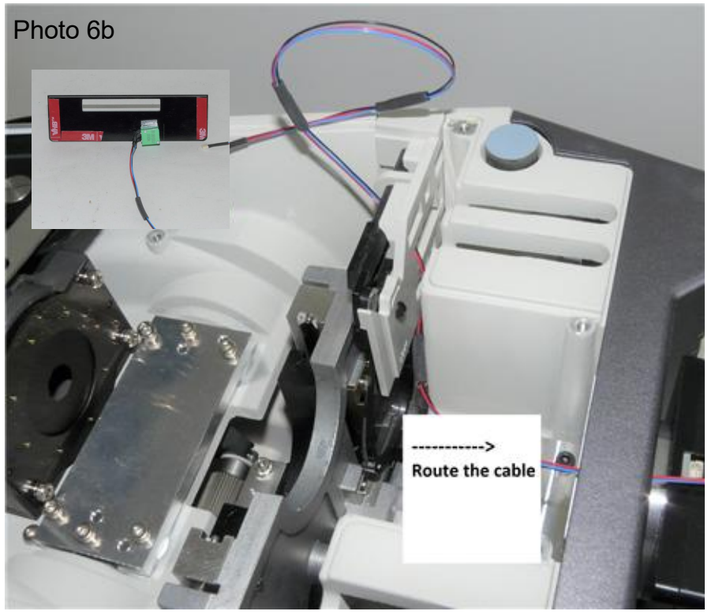
Nanodyne Replacement Illuminator for Nikon 55i Microscope Installation Instructions - Step 6. Install Nanodyne Pot Cable.

Photo 6a

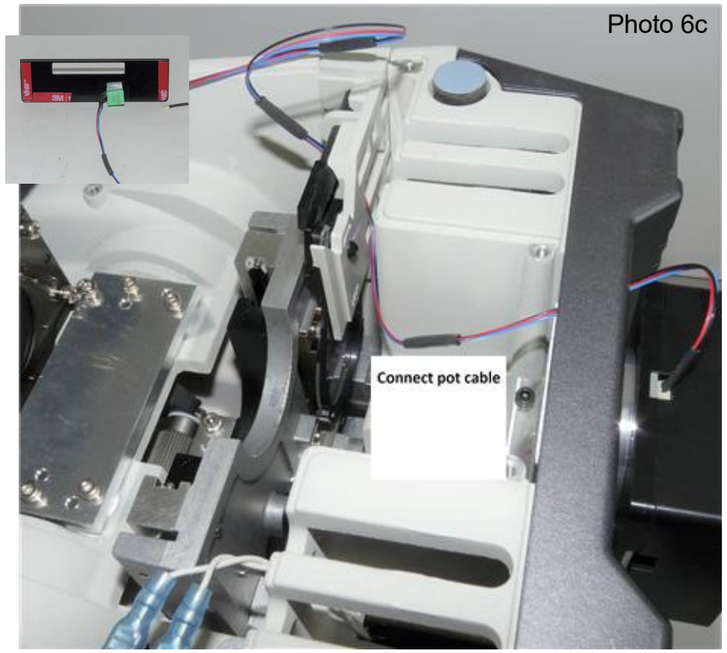
Route pot cable through the filter unit.

Photo 6b



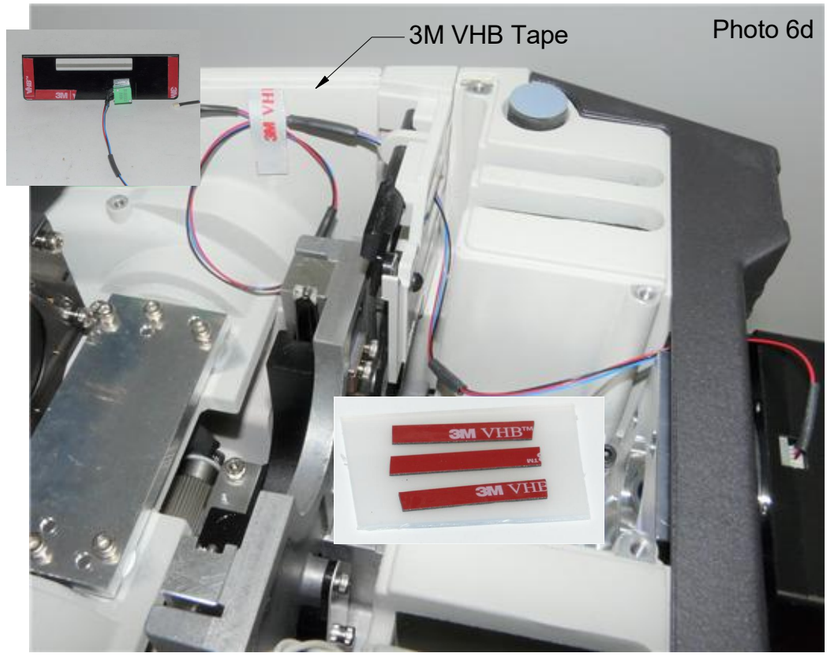
Route the Nanodyne pot cable out through the back cover of the microscope.

Photo 6c



Connect pot cable to the Nanodyne illuminator.

Photo 6d



Complete pot cable routing.

Route the pot cable between the Adapter Plate and microscope back cover as shown in photo 6b and plug it to the Nanodyne illuminator (photo 6c).

Route the pot cable as shown in photo 6d. Note that the connector is keyed with a narrow slot at the top and wider slot at the bottom (as oriented in the photo in next page). Fold a loop in the cable as required, to take up any extra length, and secure it to the microscope frame with the 3M VHB tape provided.

Detailed pot cable insertion procedure will be shown in next page (sheet 8).

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Nanodyne Replacement Illuminator for Nikon 55i Microscope Installation Instructions - Step 7. Connect the Pot Cable to the Illuminator.

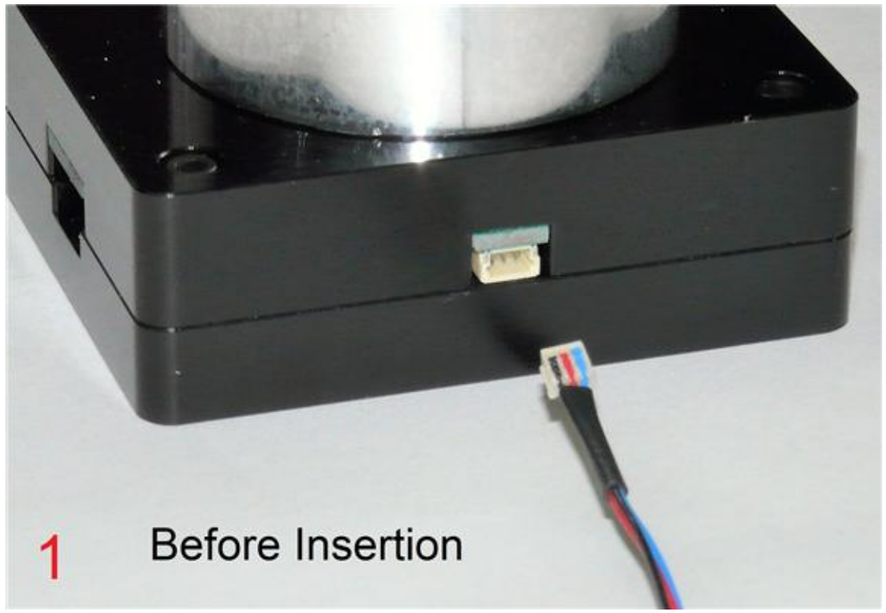
Connect the plug at the end of the Pot Cable Assembly to the mating socket of the illuminator, as shown in the pictures on this page. NOTE THAT THE PLUG IS KEYED TO ONLY GO INTO THE SOCKET ONE WAY, AS SHOWN.

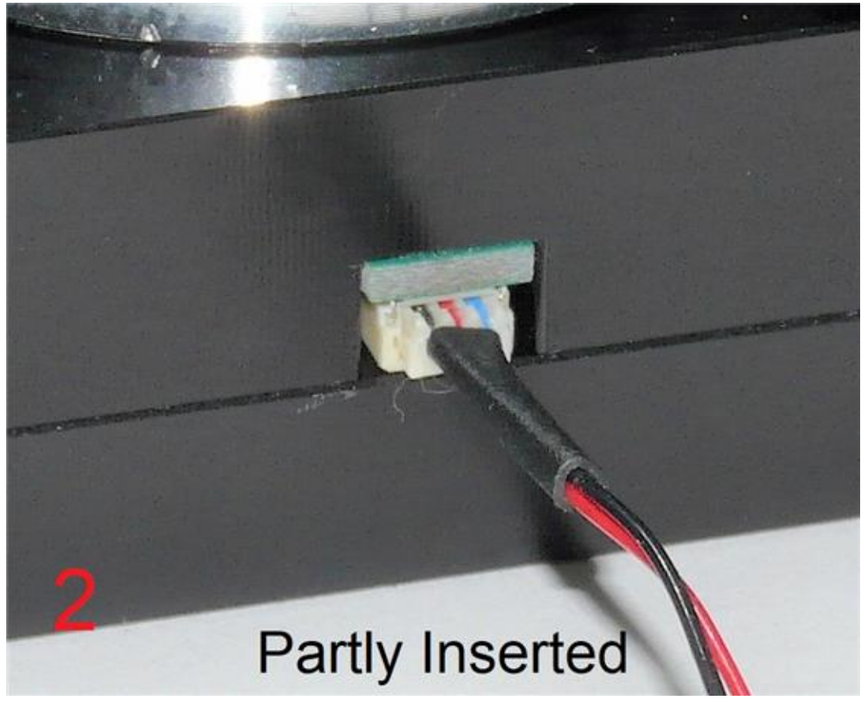
Partially insert the plug into the mating socket of the illuminator by holding the wire next to the plug with your finger (photo 2).

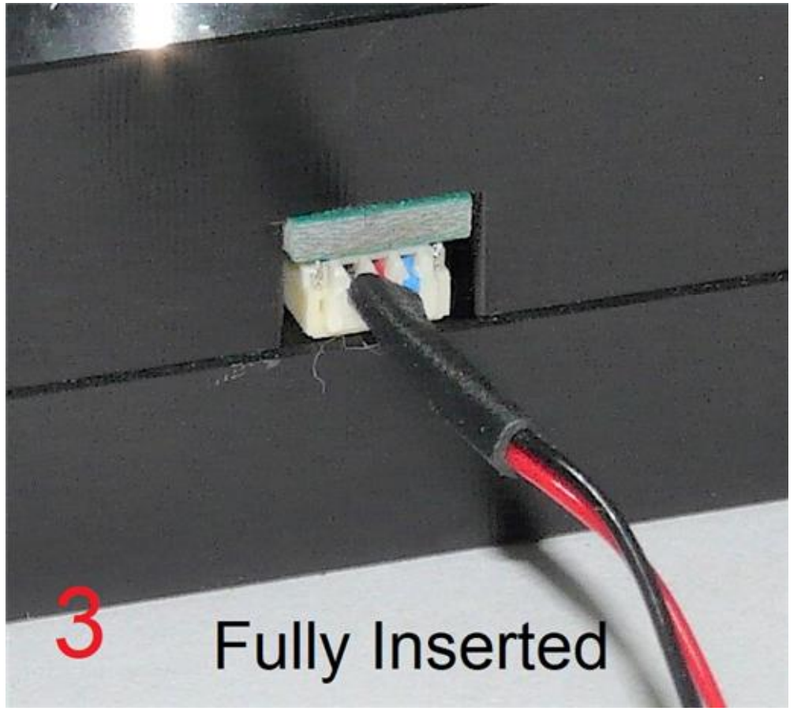
Use your fingernails, if you have them, or tools like a tiny screwdriver or tweezers pushing on the side of the plug to fully insert it (photo 3).

The socket cannot be fully engaged by pushing on the wires, as the wires would just collapse.

To disconnect it if needed, pull the wire straight out by firmly gripping the black heat shrink tubing.







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Nanodyne Replacement Illuminator for Nikon 55i Microscope Installation Instructions - Step 8. Final Details.

Photo 8a

Screw the bottom cover back in place.

Reinstall the bottom cover of the microscope as shown in photo 8a, and plug in the power supply. The Illuminator is now ready to operate.

Photo 8b

Plug in power supply and the installation is complete.

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