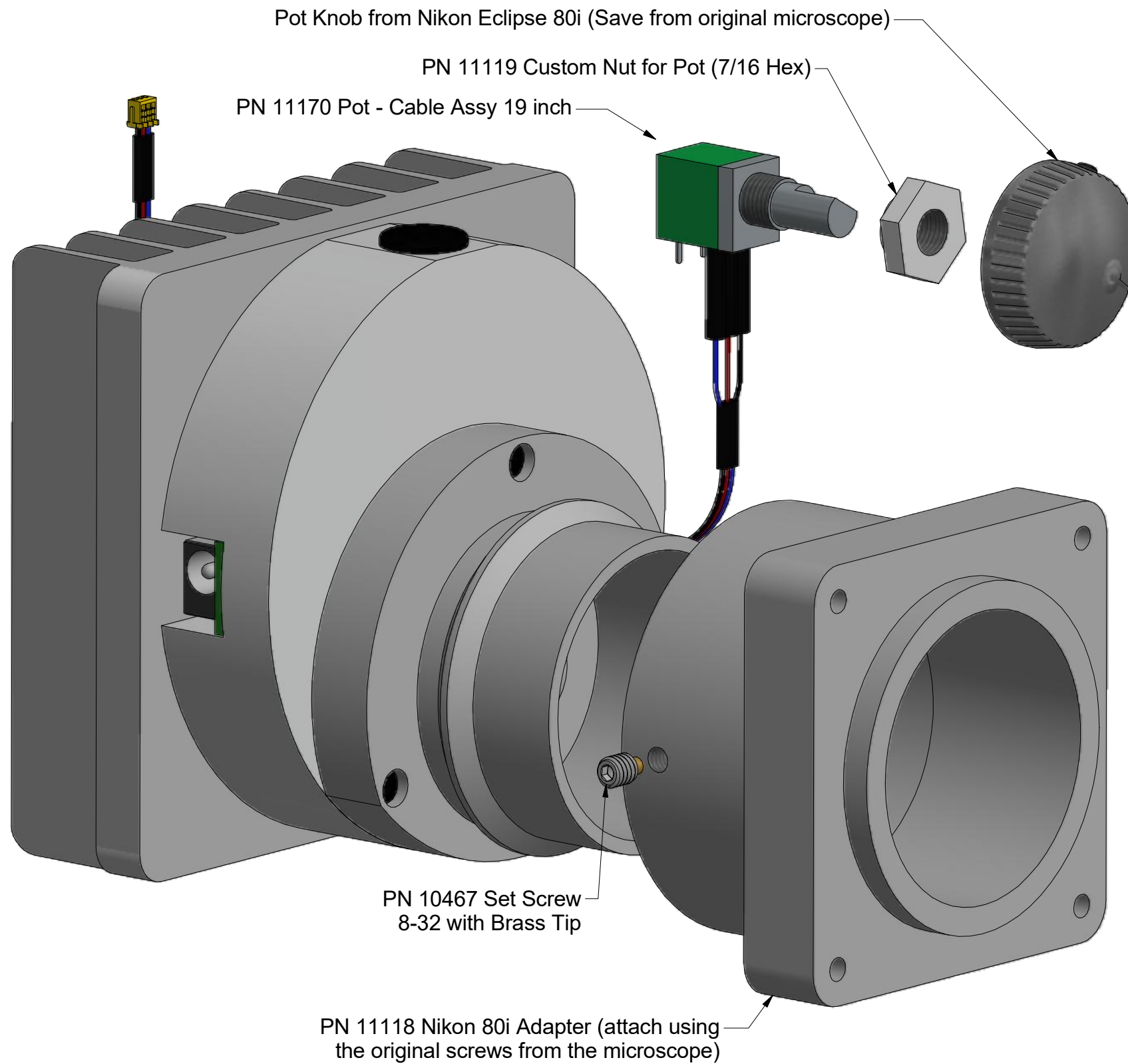


Nanodyne Replacement Illuminator for Nikon 80i Installation Instructions- Included Items



Additional Items Included But Not Shown:

- PN 10456 Hex Key 1.5mm (for pot knob)
- PN 10457 Hex Key 2.5mm Short Arm L
- PN 10337 Hex Key 2mm Short Arm (for set screw)

Needed but not included:

- 12mm socket to remove original pot
- 7/16 socket to install new pot

IMPORTANT NOTE - Possibly needed (depends on your microscope):

9mm or 23/64 drill to enlarge the hole for the new pot

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.



PN 11163 Power Supply 5V 2.1A and PN 10734 Power Cable 1.35mm ID/3.5mm OD x USB A 6 ft.

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



PN 10736 Rubber plug to block unused AC power receptacle.



3M VHB tape to secure pot cable

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Photo 1. Unplug the original lamp cable.



Photo 2. Release original set screw.



Photo 3. Remove the original lamp house.

Step 1: Be sure AC power is disconnected. Remove original lamp house from microscope.

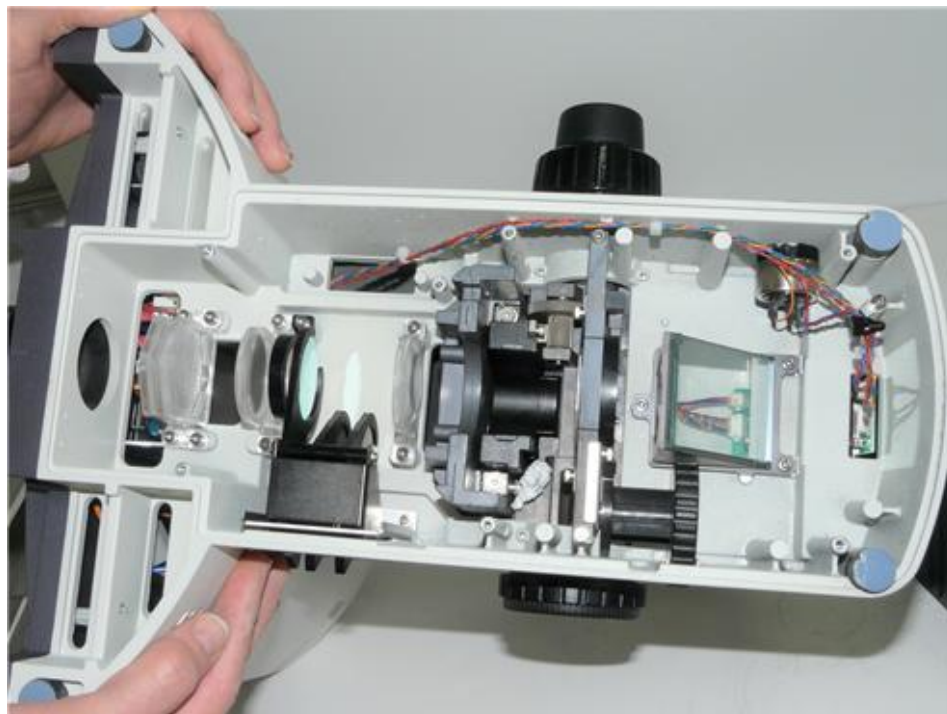


Photo 4. Bottom of microscope after bottom cover removed.

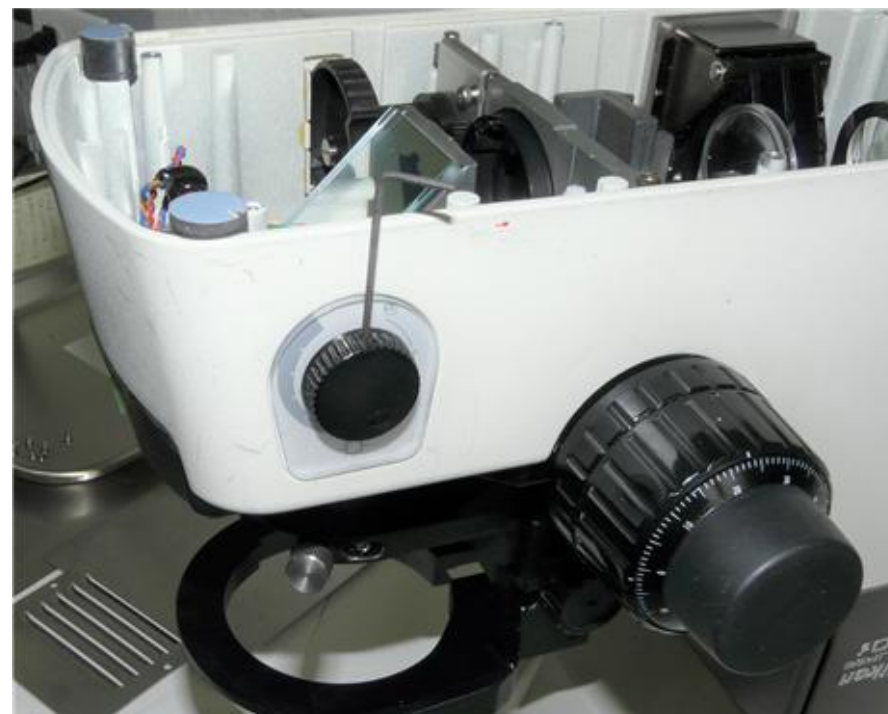


Photo 5. Remove original pot knob by releasing set screw and save it for the new illuminator installation.



Photo 6. Remove hex nut (red arrow) by using 12mm hex socket.

Step 2: Remove bottom cover plate and original pot knob from microscope.

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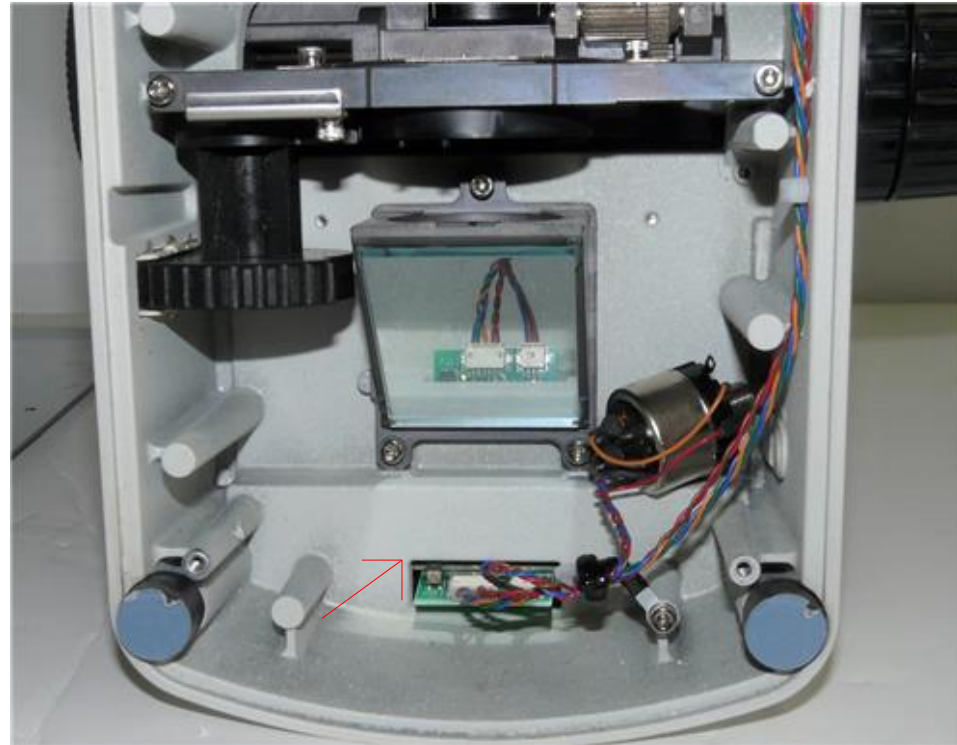


Photo 7. Disconnect existing cables from original circuit board (red arrow).

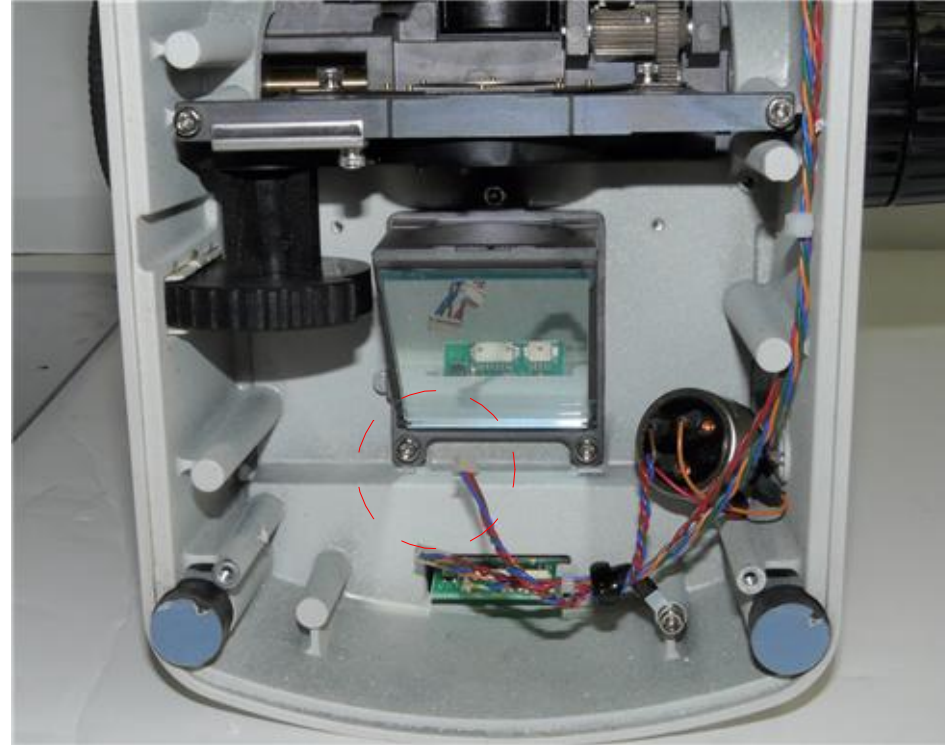


Photo 8. Disconnected cables (red circle).

Step 3: Disconnect original cables and remove potentiometer.

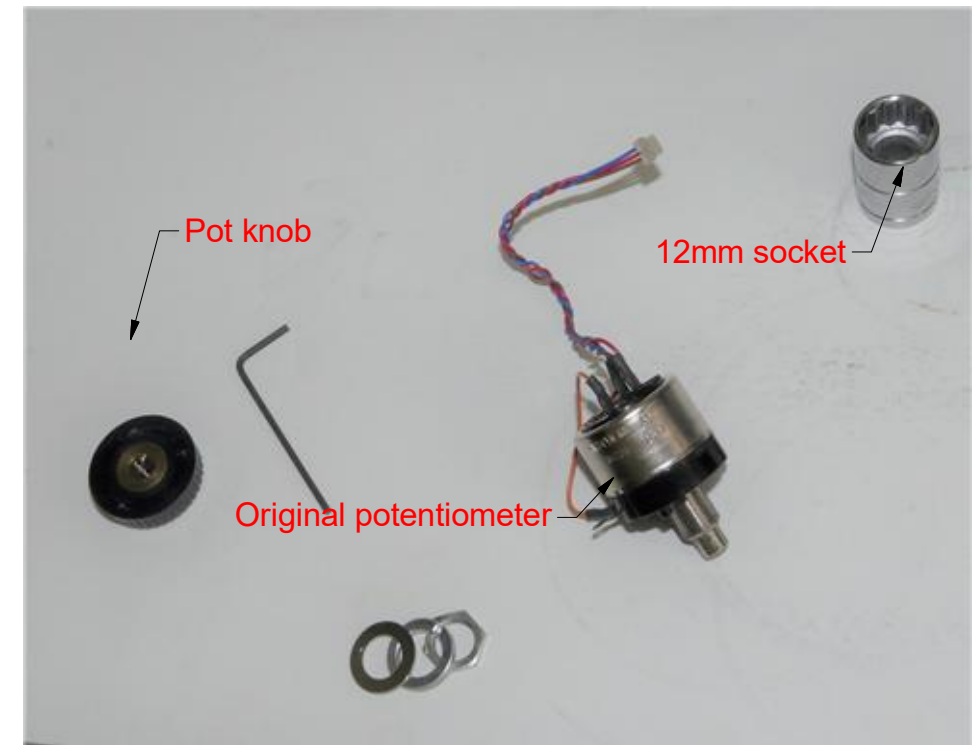


Photo 9. Removed original potentiometer and pot knob.

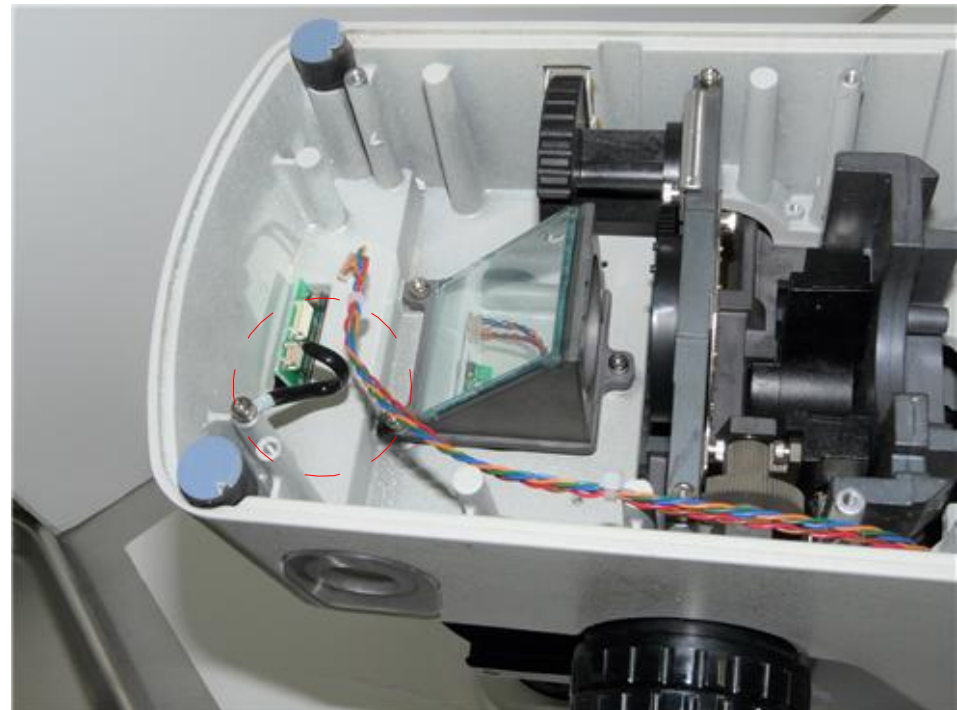


Photo 10. Release original cable from built-in cable tie (red circle).



Photo 11. Remove back cover by loosening screws.



Photo 12. Back cover removed.

Step 4: Remove back cover. You may either just cut the cables to the original circuit board with a wire cutter, or if you want to keep the old lamp useable, you may disconnect them. If you prefer to just cut the cable, the remaining wires should be insulated with electrical tape to prevent a short circuit.

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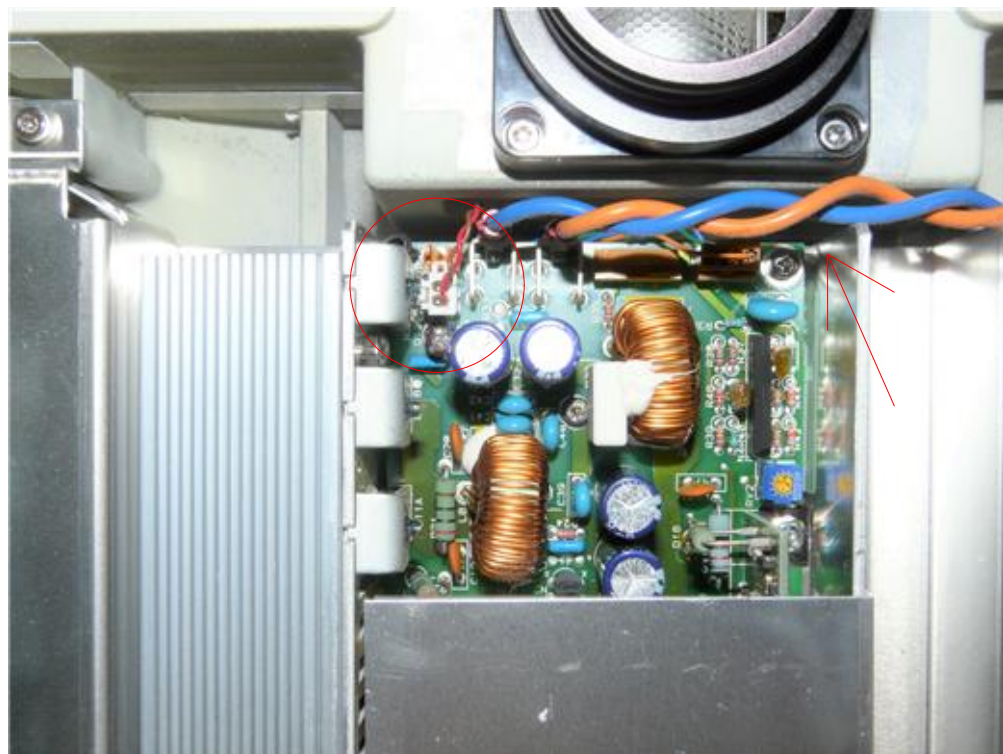


Photo 13. Disconnect another end of cable (red circle) from the back circuit board.

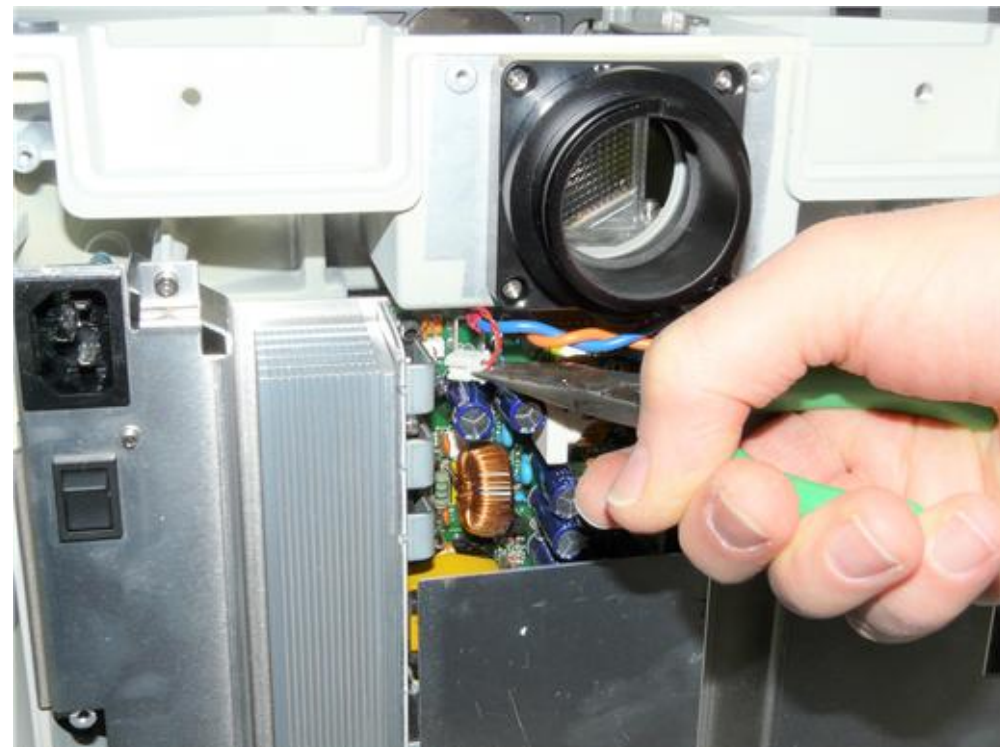


Photo 14. May use small tool such as pleyer.



Photo 15. Disconnect orange color connector from circuit board.

Step 5: Disconnect all the rest of cables. You may either just cut the original illuminator cable (red arrow) with a wire cutter, or if you want to keep the old lamp useable, unplug the sockets. If you prefer to just cut the cable, the remaining wires should be insulated with electrical tape to prevent a short circuit.

A

A



Photo 16. Disconnected cables (red circle).

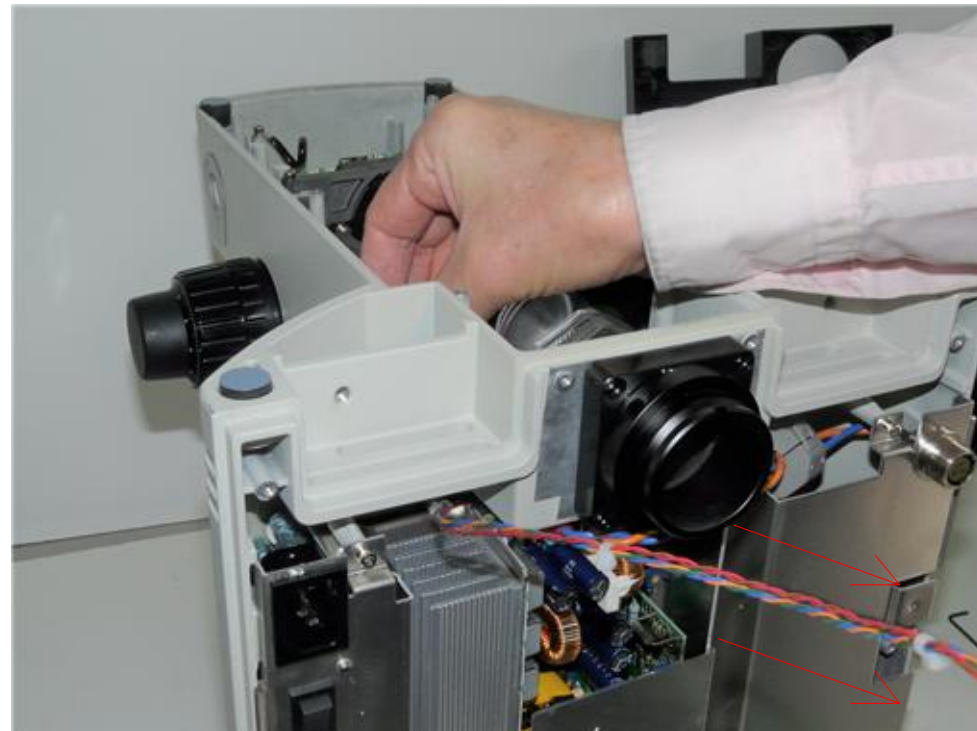


Photo 17. Remove original cables from the microscope.

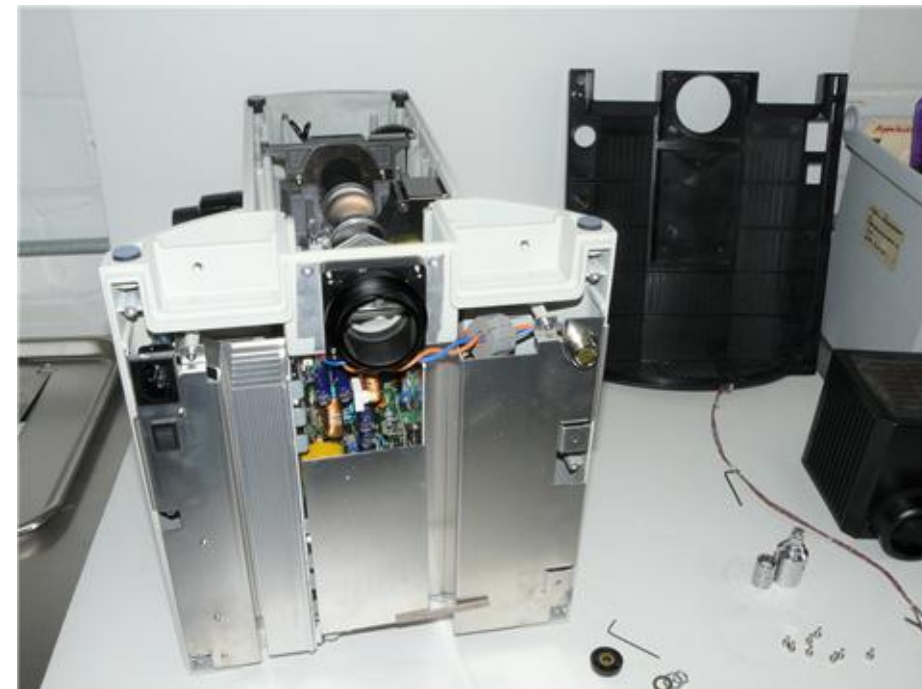


Photo 18. Cables completely removed.

Step 6: Remove all the disconnected cables from the microscope.

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Photo 19. Remove original illuminator adapter.



Photo 20. Install Nanodyne adapter.

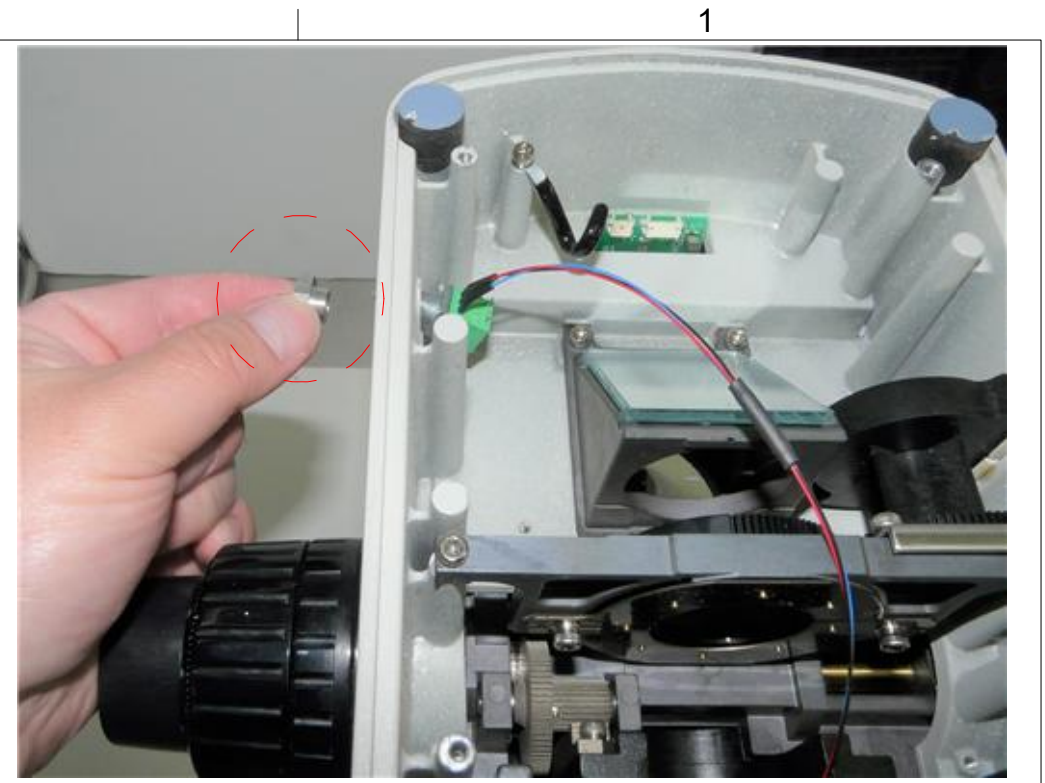


Photo 21. Install Nanodyne potentiometer.

Step 7: Remove original illuminator adapter and install a new one using original screws. Note the orientation of set screw hole (red arrow). Place a new potentiometer using PN 11119 custom nut (red circle).

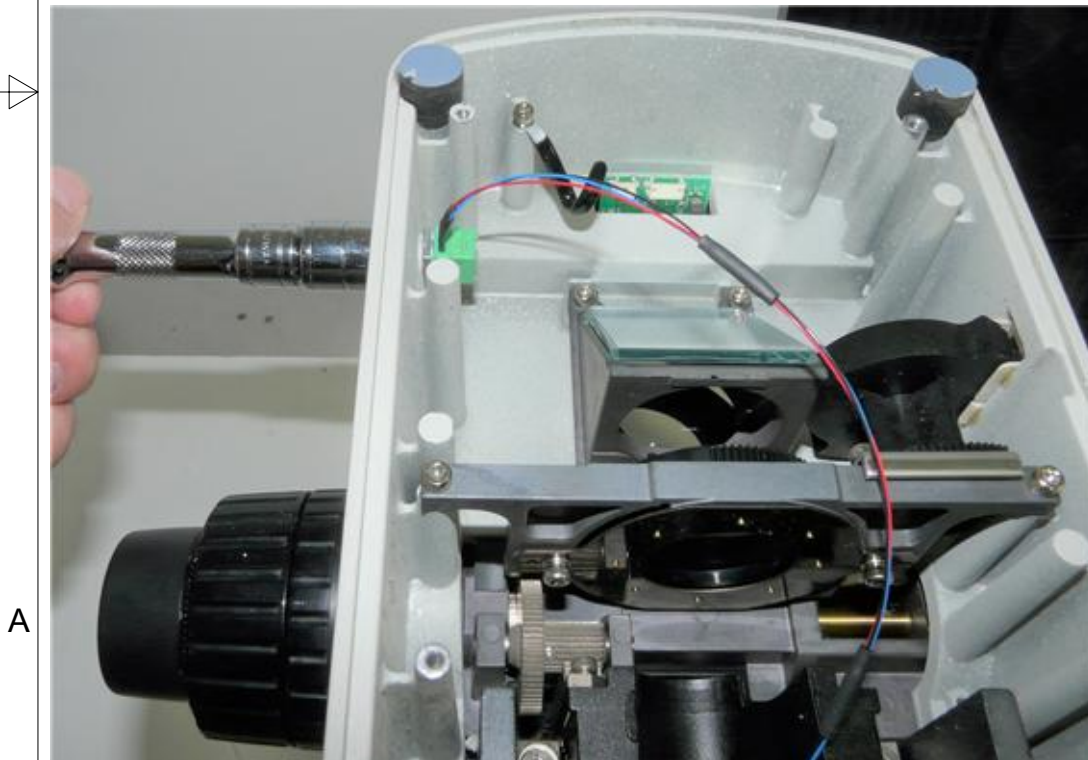


Photo 22. Tighten the custom nut by using a 7/16 inch hex socket.

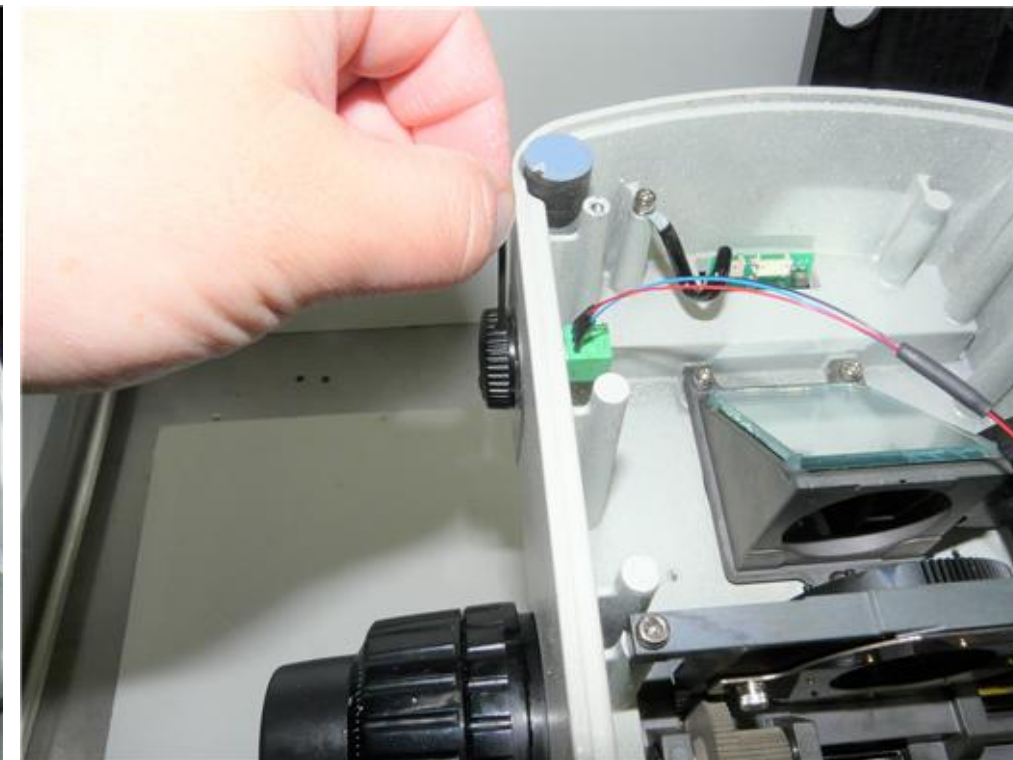


Photo 23. Re-install original pot knob.

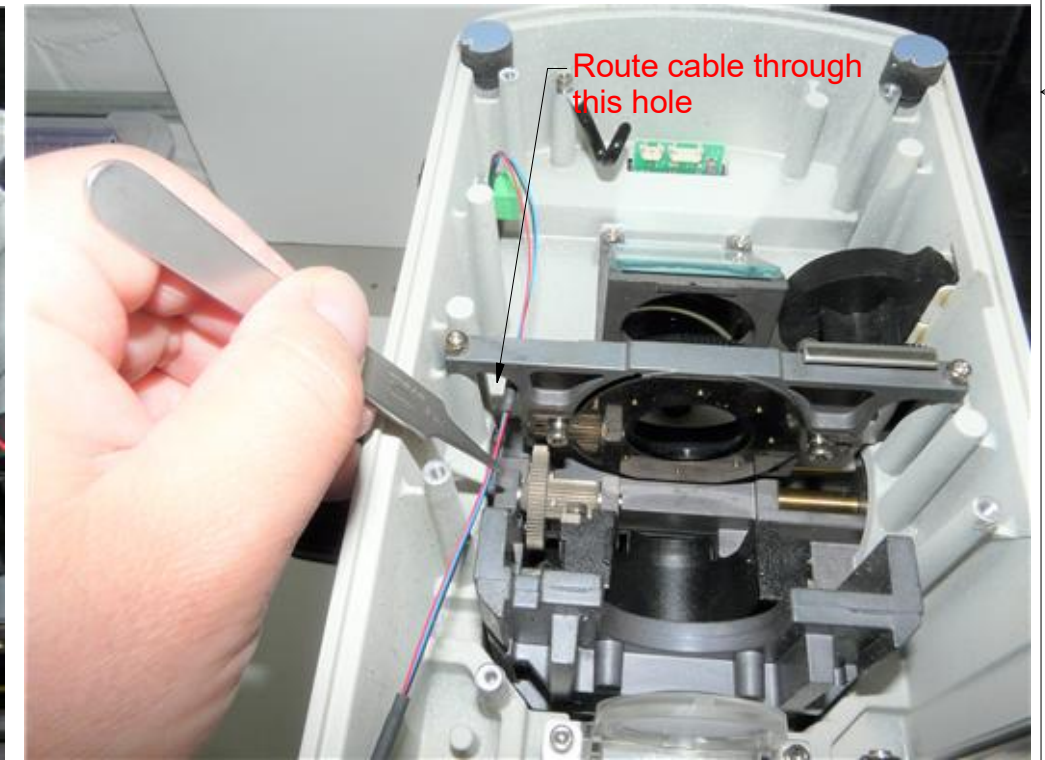


Photo 24. Route the cable properly.

Step 8: Tighten PN 11119 custom nut by using a 1/2 or 7/16 inch socket to secure potentiometer and re-install original pot knob saved from the beginning. Secure the cable proper way to prevent blocking light or interrupt moving parts. Be sure the cable cannot get caught in the gears.

NOTE - Some microscopes used a different size pot with a smaller diameter. If the new pot won't fit in the hole it needs to be drilled out with a 9mm or 23/64 drill.

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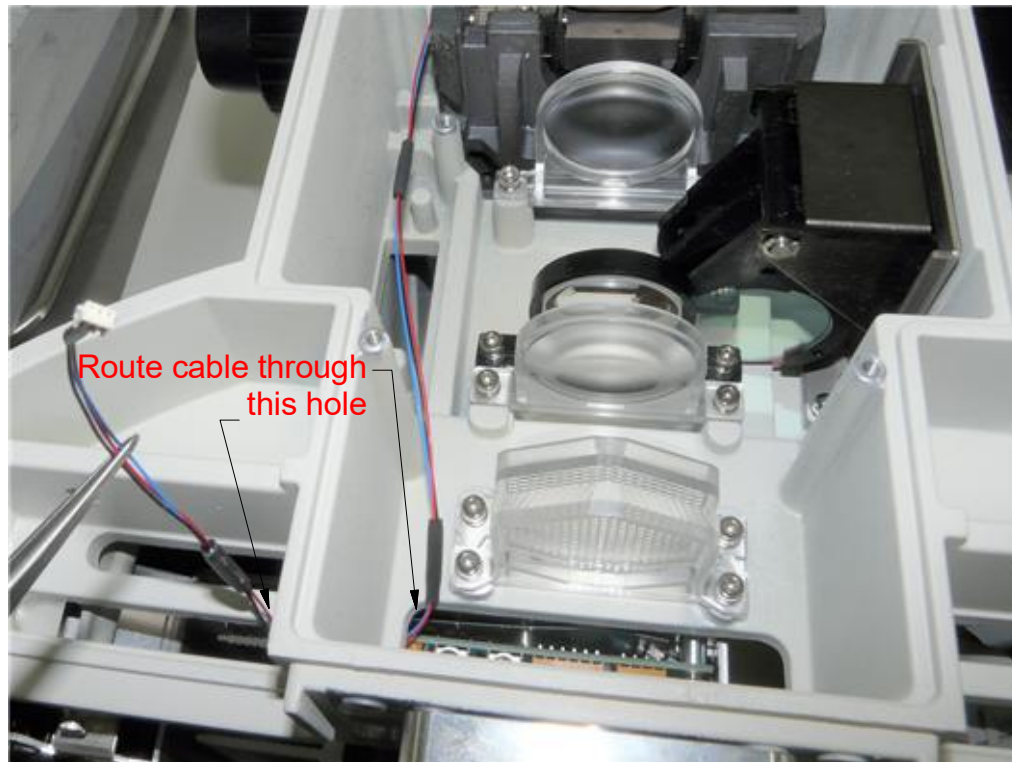


Photo 25. Route the cable to outside.



Photo 26. Re-install the back cover.



Photo 27. Insert Nanodyne illuminator to the port.

Step 9: Secure the cable properly and route to outside. Re-install the back cover and insert the Nanodyne illuminator in place.

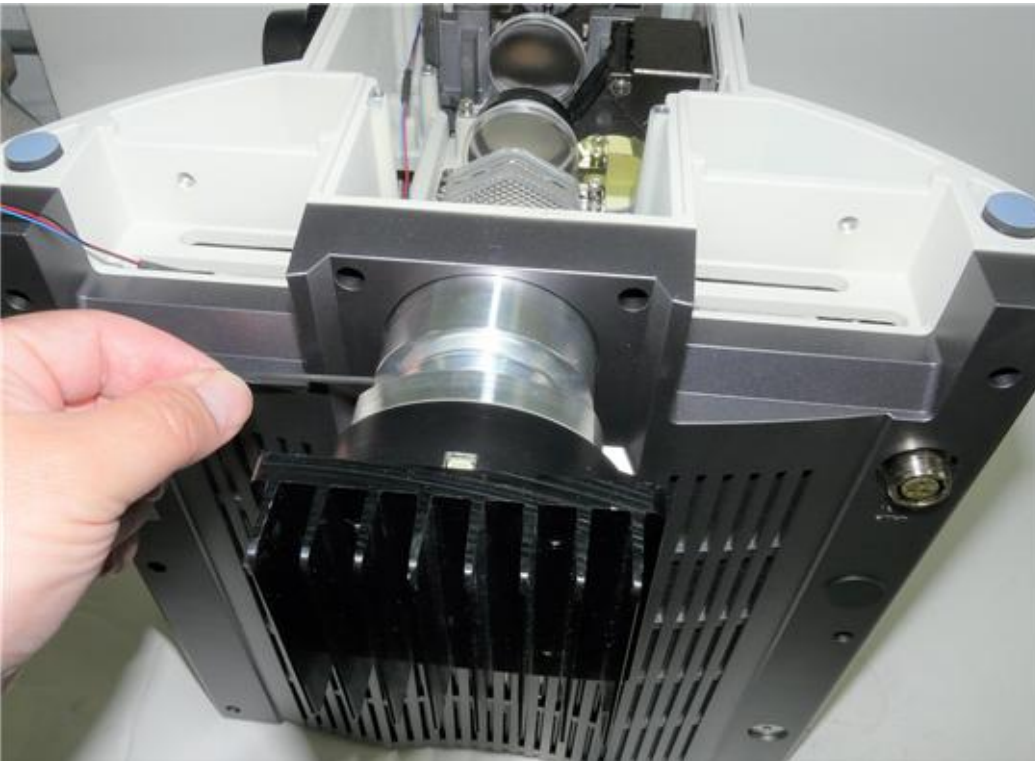


Photo 28. Tighten the set screw to secure illuminator.



Photo 29. Plug the pot cable in.

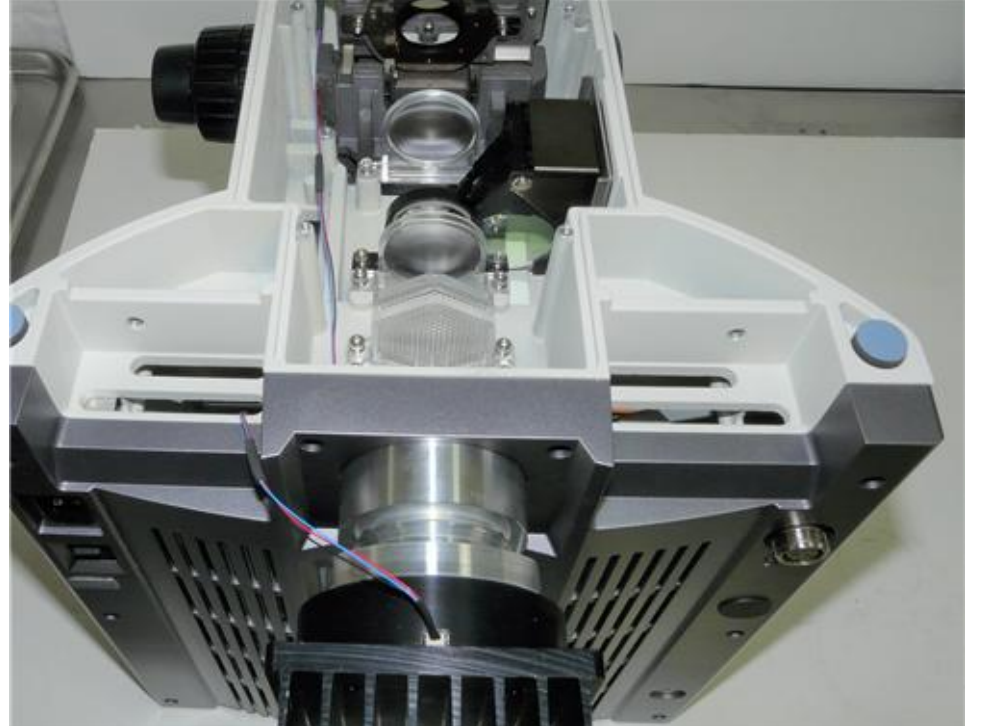


Photo 30. After the Nanodyne illuminator installed.

Step 10: Secure the set screw and plug the pot cable in. Make sure the pot cable routed securely.

Detailed pot cable insertion procedure will be shown in next page (sheet 7).

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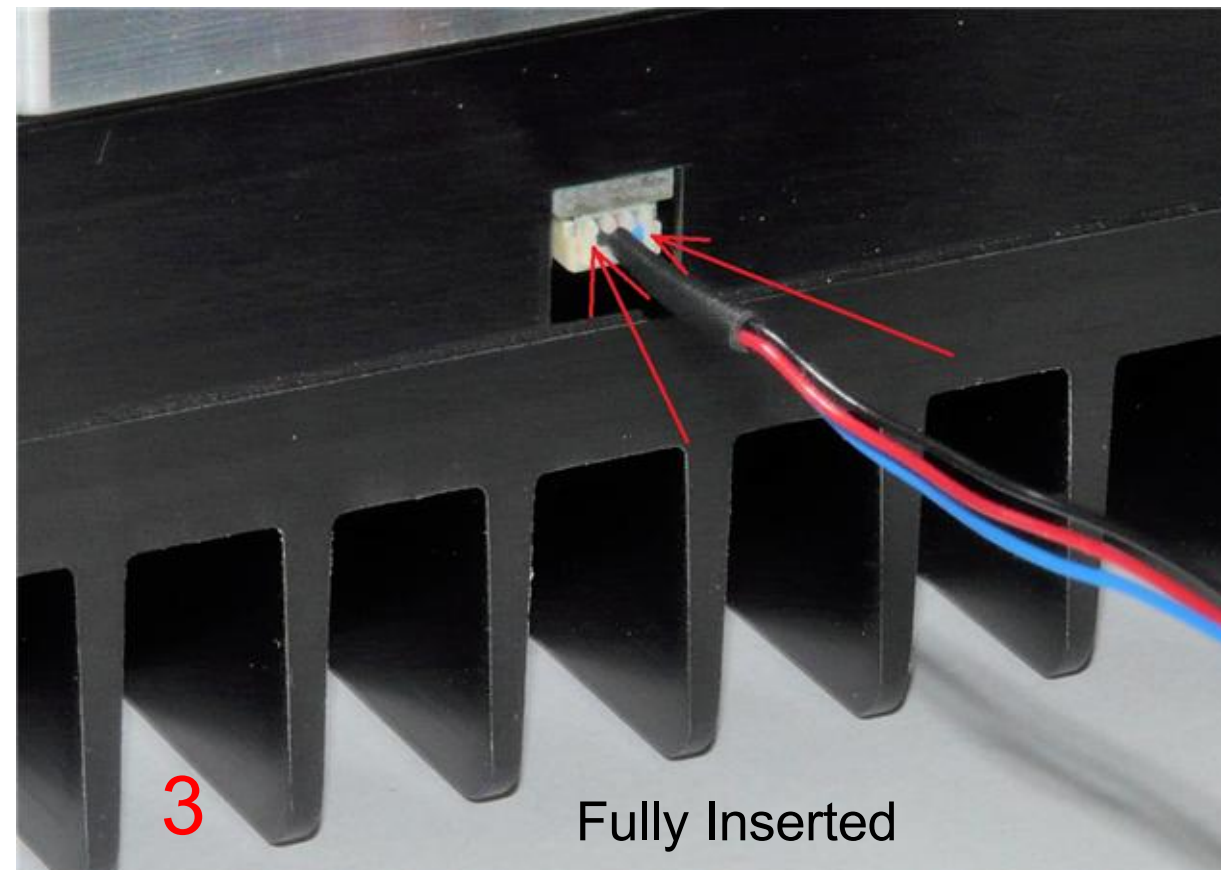
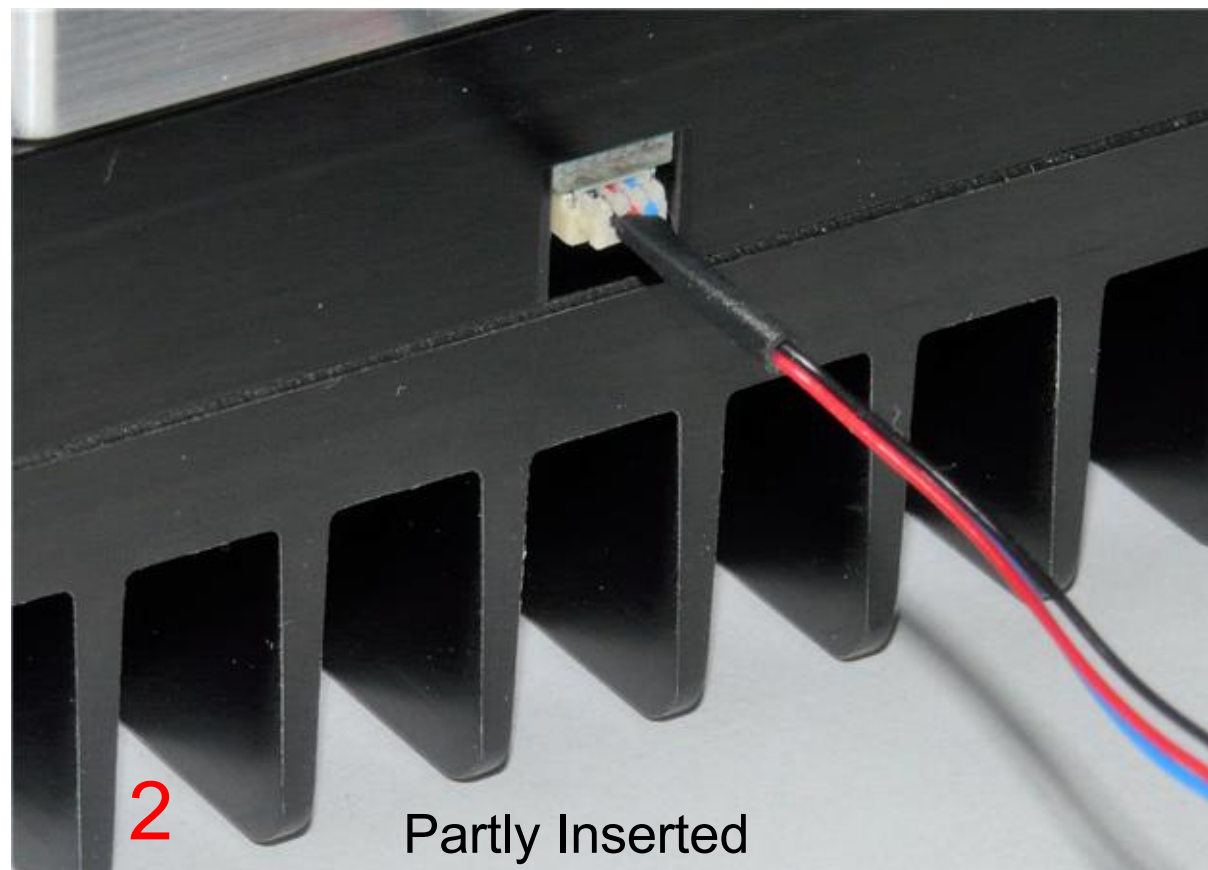
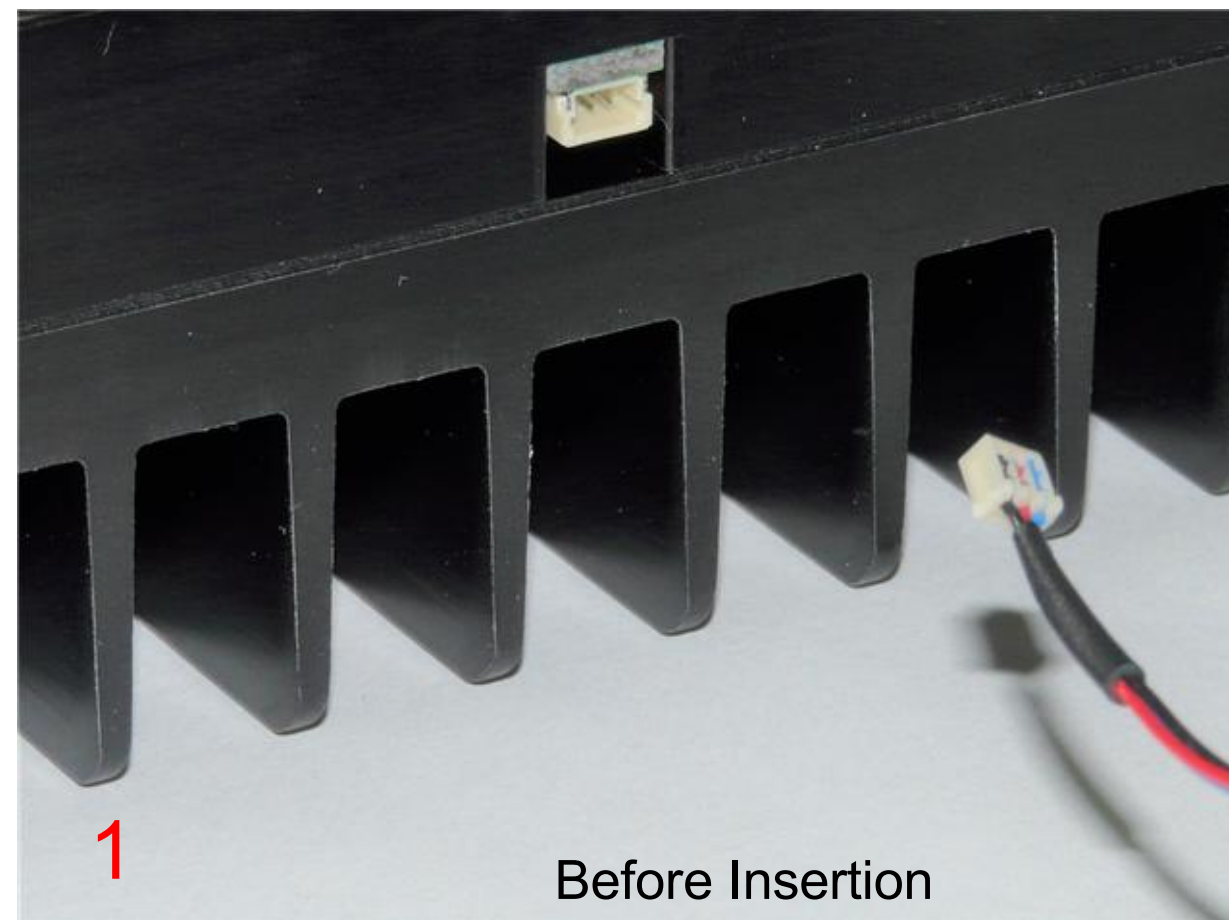
Step 11: Connect the plug at the end of the Pot Cable Assembly to the mating socket of the illuminator, as shown in the pictures on this page. NOTE THAT THE PLUG IS KEYED TO ONLY GO INTO THE SOCKET ONE WAY, AS SHOWN.

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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Photo 31. Screw the bottom cover back in place.



Photo 32. Secure the wire using provided 3M VHB tape if needed.



Photo 33. Install PN 10736 rubber plug in the AC receptacle.

Step 12: Replace the bottom cover of the microscope and secure the wire using 3M VHB tape (red circle) if needed. Install PN 10736 rubber plug in the now-obsolete AC receptacle as shown in the photos.



Photo 34. Turn the microscope right side up.



Photo 35. Plug the power cable in.



Photo 36. Installation completed. Now it is ready to operate.

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