

Nanodyne Replacement Illuminator for Olympus BX41/45 Microscope Installation Instructions - Included Items

Additional Items Included But Not Shown:

PN 10334 Olympus T2PI BX40 Series Illuminator Assy

***Note:** Nanodyne's Illuminator System PN 10472 is used for both the Olympus BX41 and BX45.

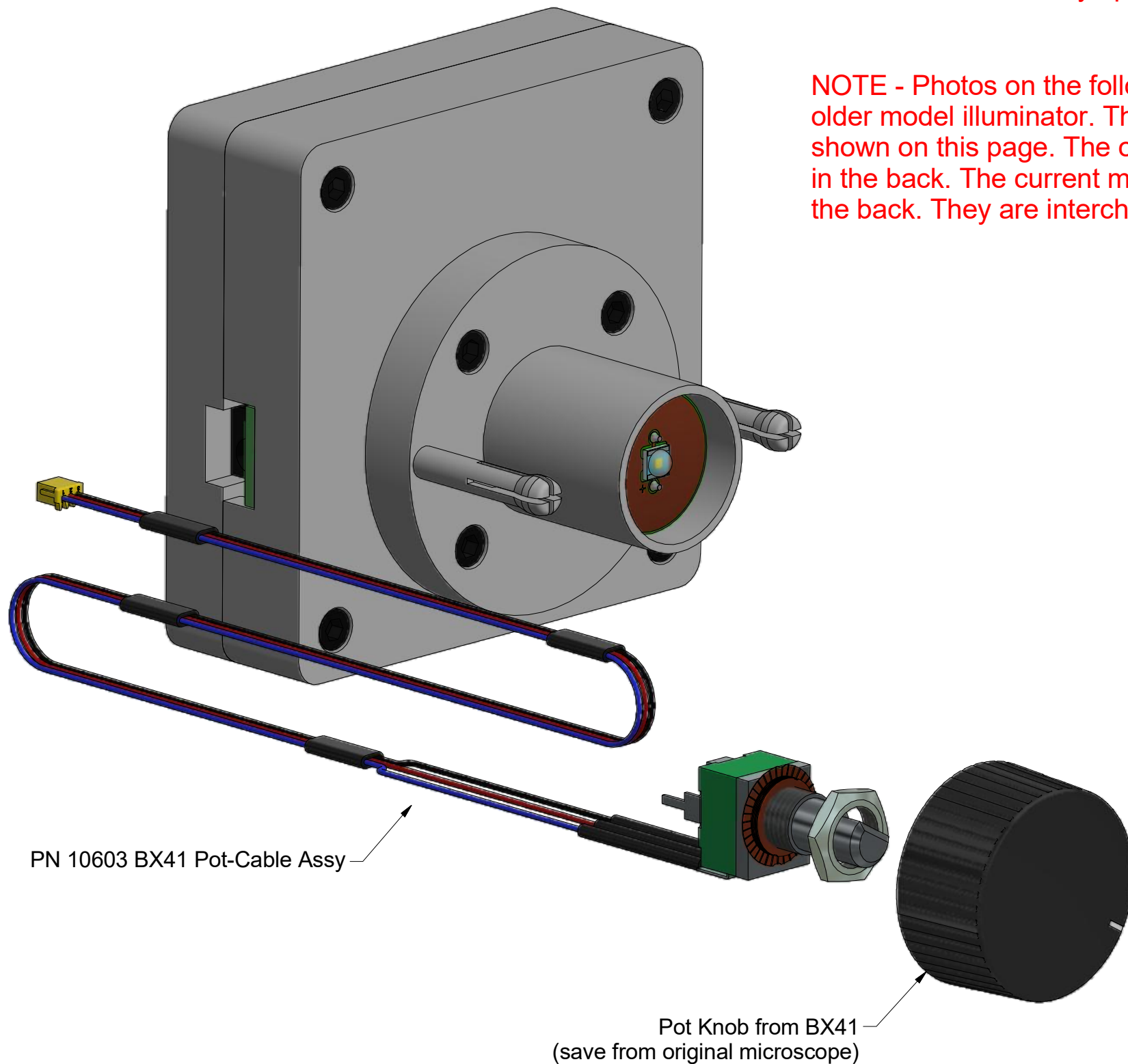
PN 10456 Hex Key 1.5mm
3 pcs PN 10610 cable ties

NOTE - Photos on the following sheets show an older model illuminator. The current model is shown on this page. The old model has 8 holes in the back. The current model has no holes in the back. They are interchangeable.

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 10733 Power Supply and PN 10734 Cable Assy 1.35mm ID x 3.5mm OD RA plug to USB A 6 foot



Tape to secure wires.



PN 10736 Rubber plug to block unused AC power receptacle.

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

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Nanodyne Replacement Illuminator for Olympus BX41/45 Microscope Installation Instructions - Step 1. Check safety and misc.

The original 120/220VAC powered illuminator circuitry is completely replaced by the Nanodyne equipment which is powered by a universal input wall plug power supply with low voltage DC output.

The original circuitry may be left in place, or removed as it is no longer used.

Regardless whether the original circuitry is left in place or removed, be sure there is no possibility of electrical hazard in case an unfamiliar user connects power to the old high voltage AC input.

We recommend removing the power leads (usually one black and one white wire) from the AC input connector. They should be cut short so there is no possibility they could contact the power inlet, or insulated with heat shrink tubing or electrical tape.



Photo 1a



Photo 1b

After installation of the Nanodyne illuminator, there should be no power connections left in place to the AC power inlet. The ground wire should be left connected.

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Nanodyne Replacement Illuminator for Olympus BX41/45 Microscope Installation Instructions - Step 2. Remove back and bottom cover, pot knob and adjustment pot.



Photo 2a

The scope used for these photos was a boneyard unit with parts scavenged from it.

(FYI for those who might wonder why certain parts are missing)



Photo 2b

Remove the back and bottom covers from the microscope (not shown).

Loosen the set screw in the adjustment knob with the 1.5mm hex key and remove the knob from the pot.



Photo 2c

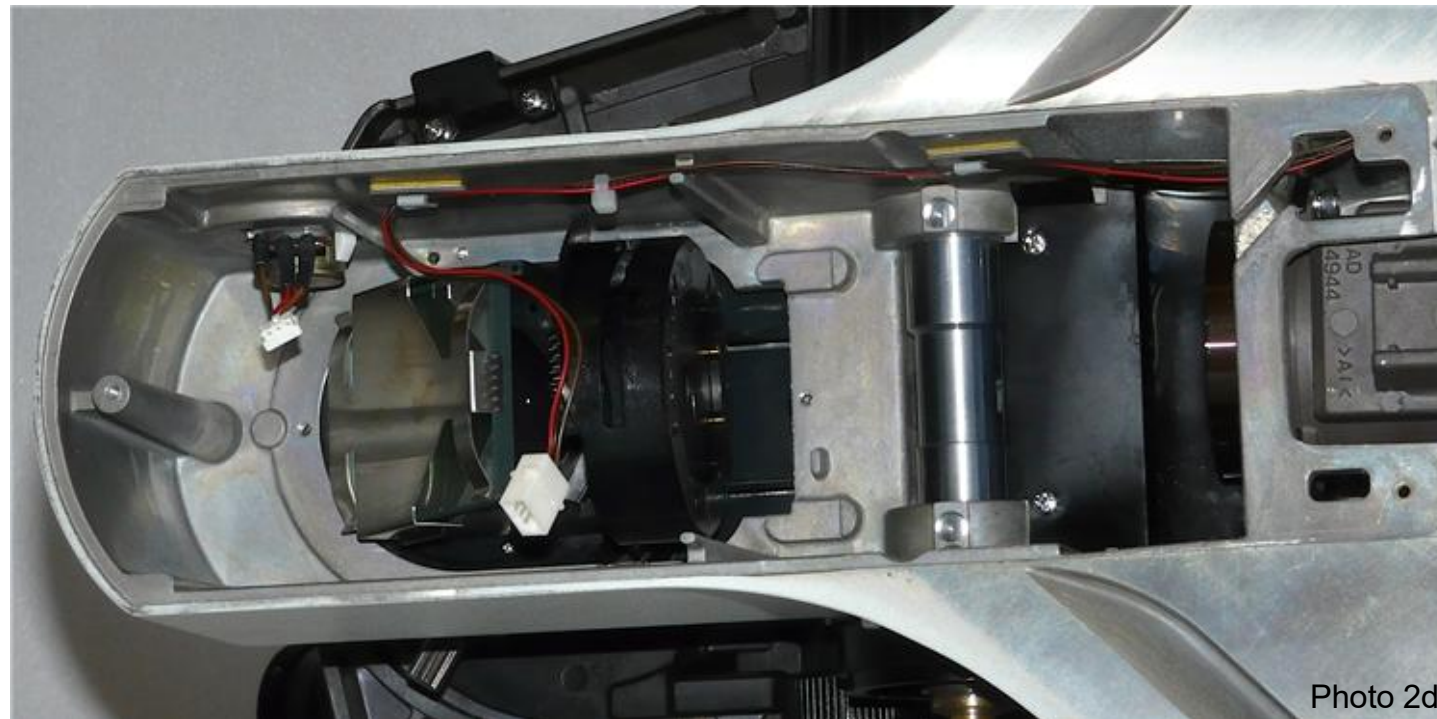


Photo 2d

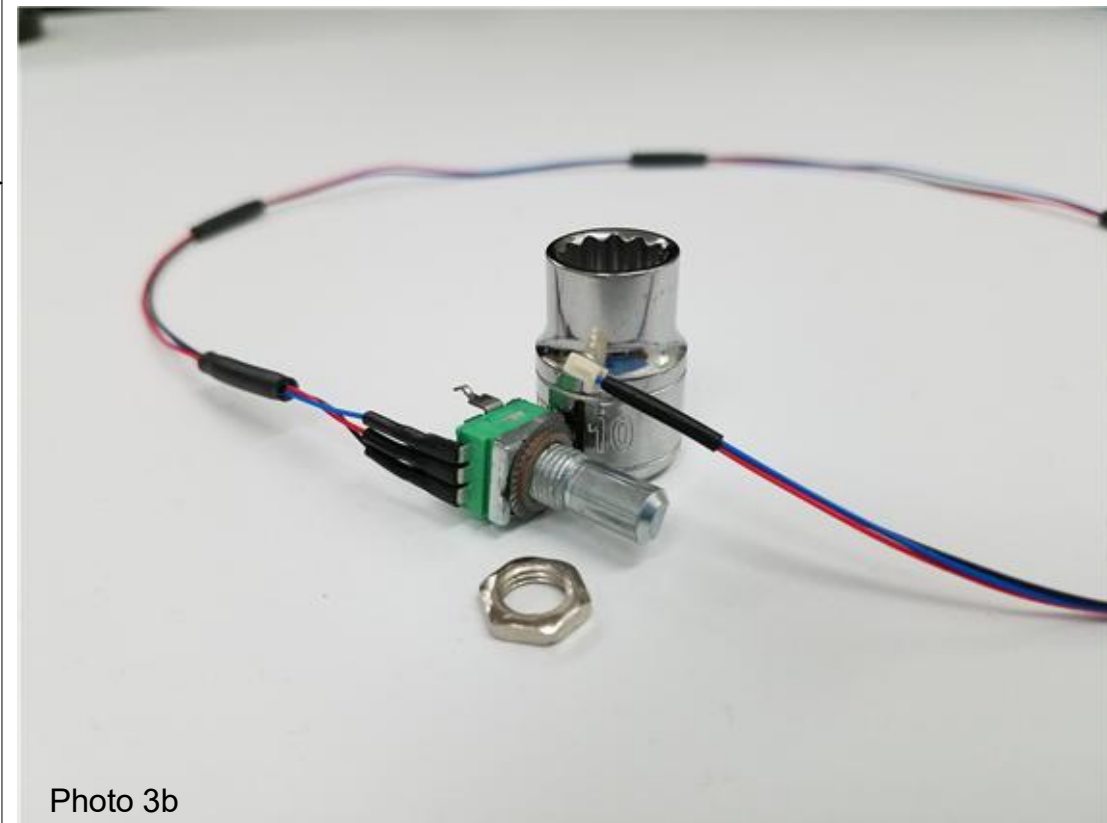


Photo 2e

Disconnect the Adjustment pot from the cable as shown above, remove the nut holding the pot in place with an 11mm socket, and remove the original pot.

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Nanodyne Replacement Illuminator for Olympus BX41/45 Microscope Installation Instructions - Step 3. Install new pot-cable assembly.



Install the new pot-cable assembly. Remove the nut from the pot. Do not attempt to remove the washer. It is glued in place. It was designed specifically for this microscope to prevent the pot from rotating while tightening the nut. Place the pot as shown in the upper left photo (photo 3a), and install the nut with a 10 mm socket. Tighten securely by hand without tools other than the socket.

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Nanodyne Replacement Illuminator for Olympus BX41/45 Microscope Installation Instructions - Step 4. Re-install pot knob and secure cables.

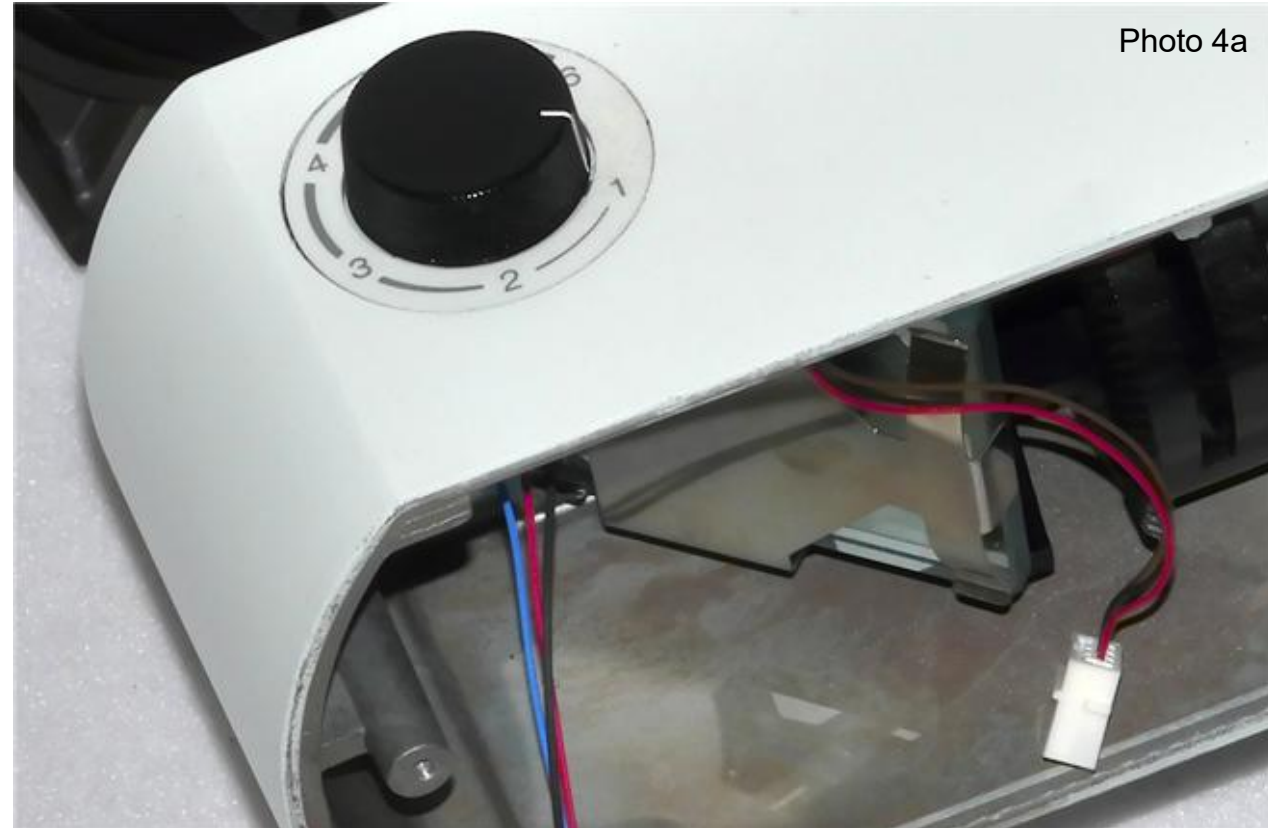


Photo 4a

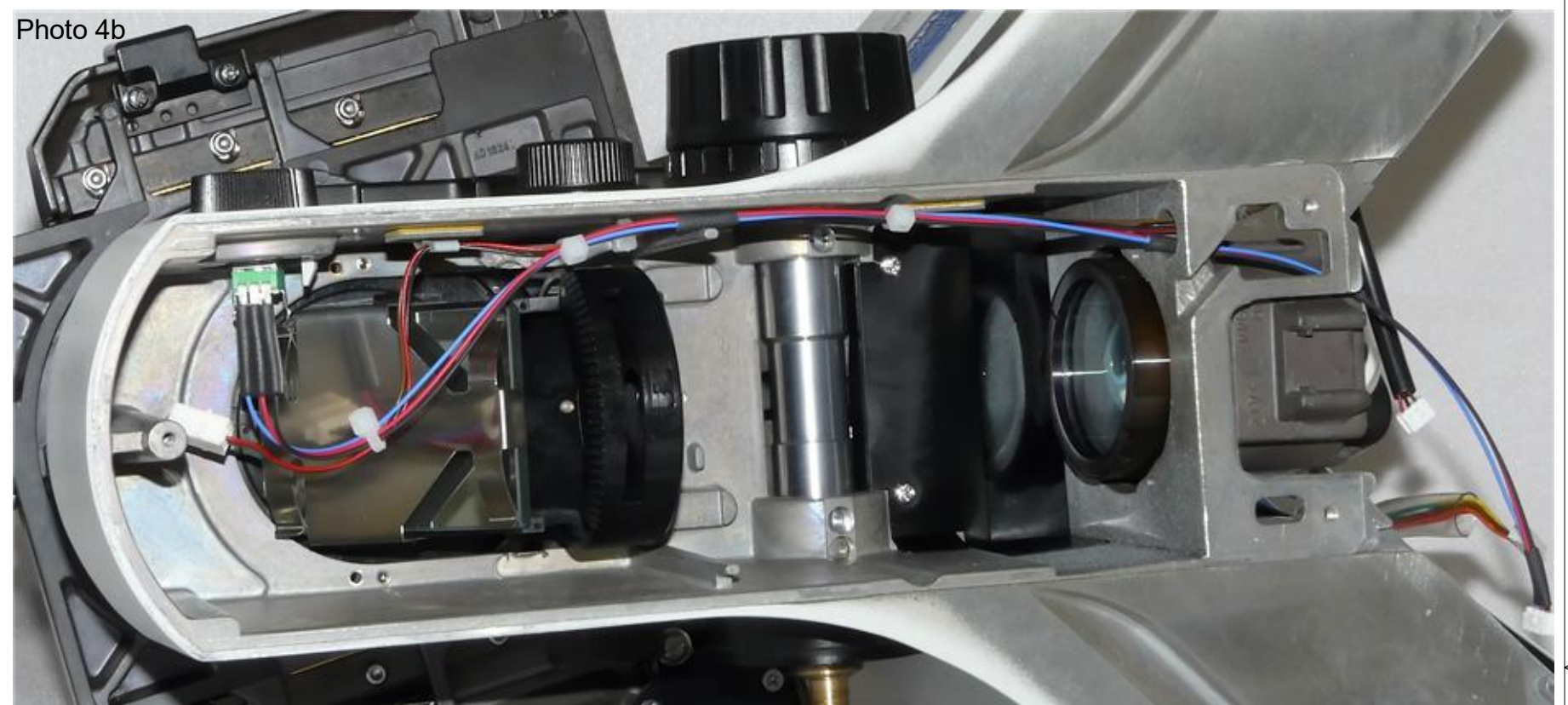


Photo 4b

Re-install the knob on the pot with the 1.5mm hex key.

Secure the cables as shown above with the 3 tie wraps, to keep the cables out of the moving parts of the microscope, and the optical path from the illuminator.

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Nanodyne Replacement Illuminator for Olympus BX41/45 Microscope Installation Instructions - Step 5. Insert Nanodyne illuminator and secure cables.



Plug the Nanodyne illuminator into the microscope port, and secure the cables out of the way as shown above, using the strip of 3M VHB tape provided.

*Note: Detailed Pot Cable insertion procedure to the T2PI Main Assembly is shown in step 6.

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Nanodyne Replacement Illuminator for Olympus BX41/45 Microscope Installation Instructions - Step 6. Connect the Pot Cable to the Illuminator.

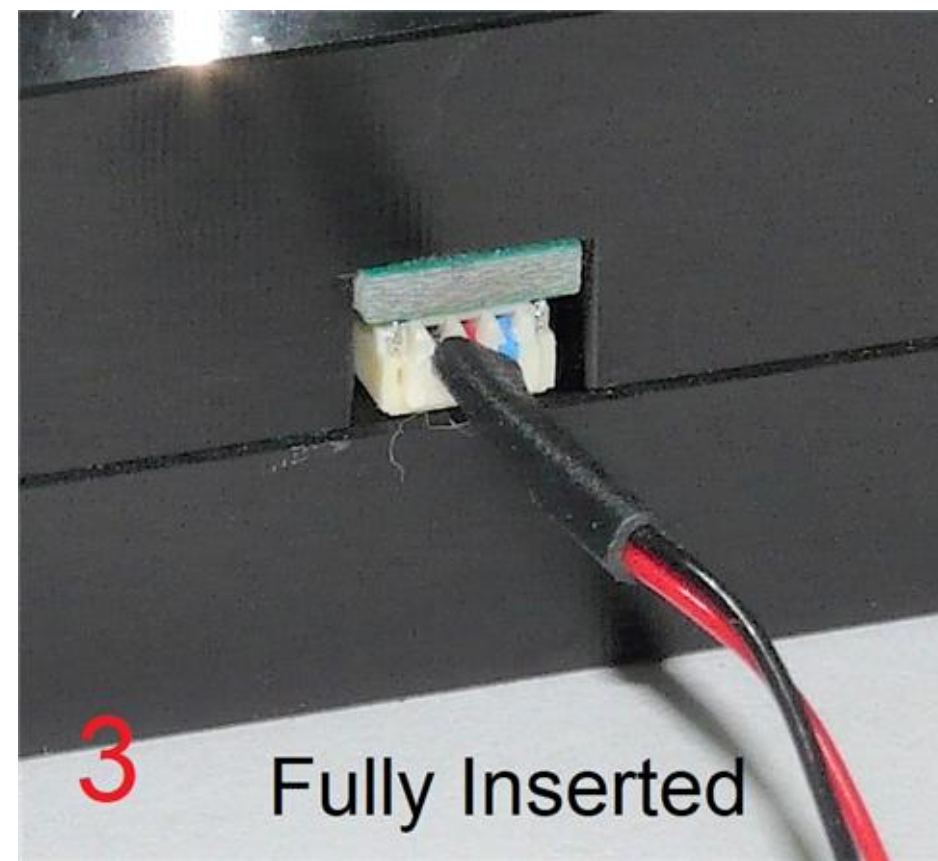
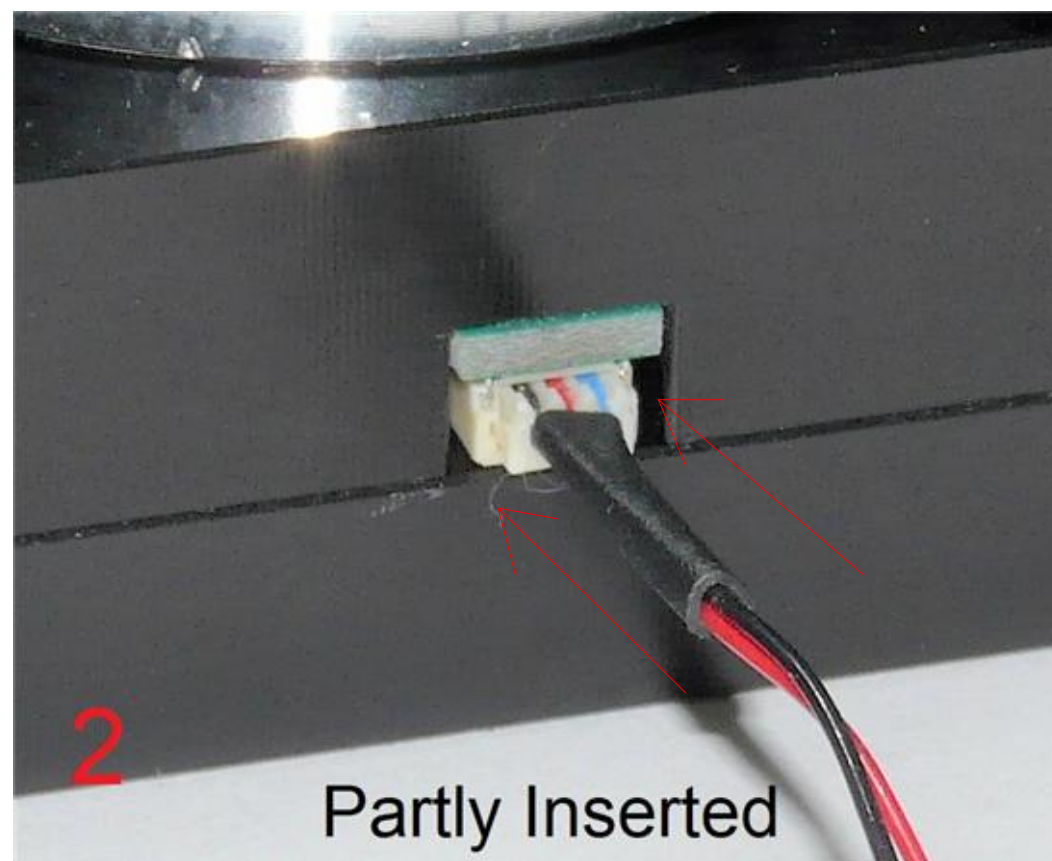
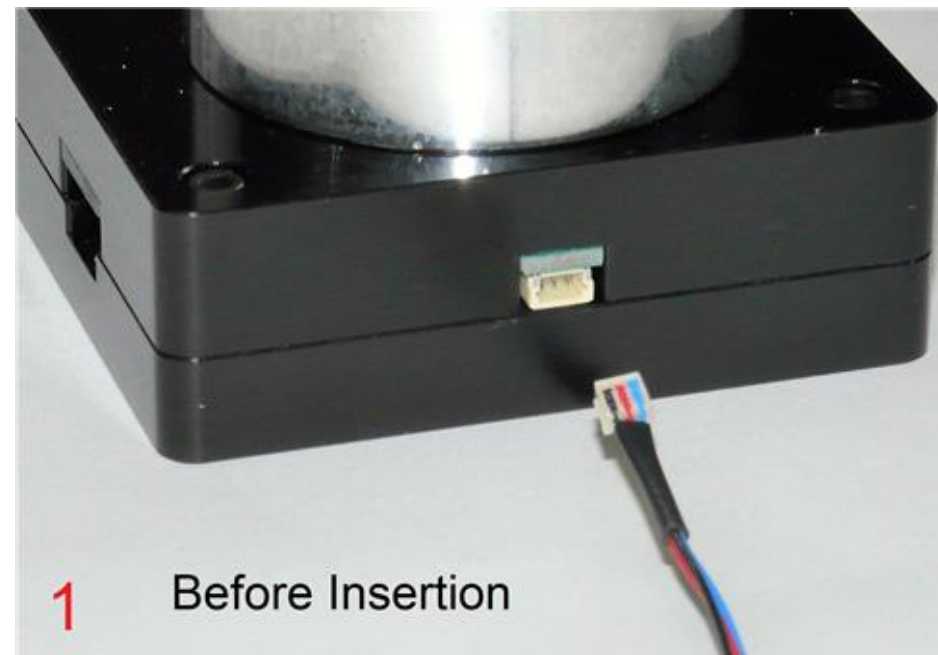
Connect the plug at the end of the Pot Cable Assembly to the mating socket of the illuminator, as shown in the pictures on this page. NOTE THAT THE PLUG IS KEYED TO ONLY GO INTO THE SOCKET ONE WAY, AS SHOWN.

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 Olympus BX41/45 Microscope Installation Instructions - Step 7. Re-install back cover and insert rubber plug into AC receptacle.



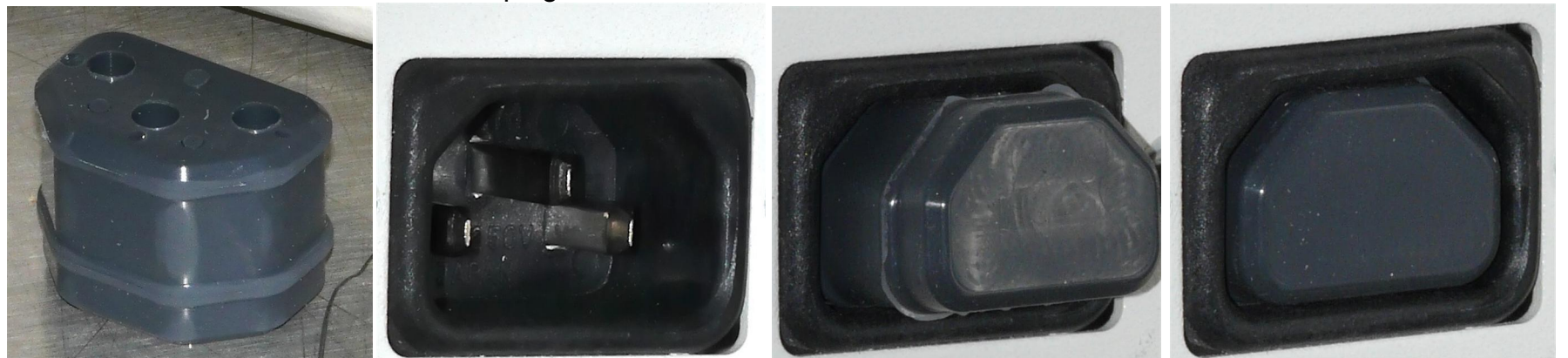
Photo 6a



Photo 6b

Replace the microscope covers, insert PN 10736 rubber plug into AC receptacle (red circle) to deter attachment of unneeded AC power cord, plug in the power supply, and the installation is complete.

Note: Installation of PN 10736 rubber plug is shown below.



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