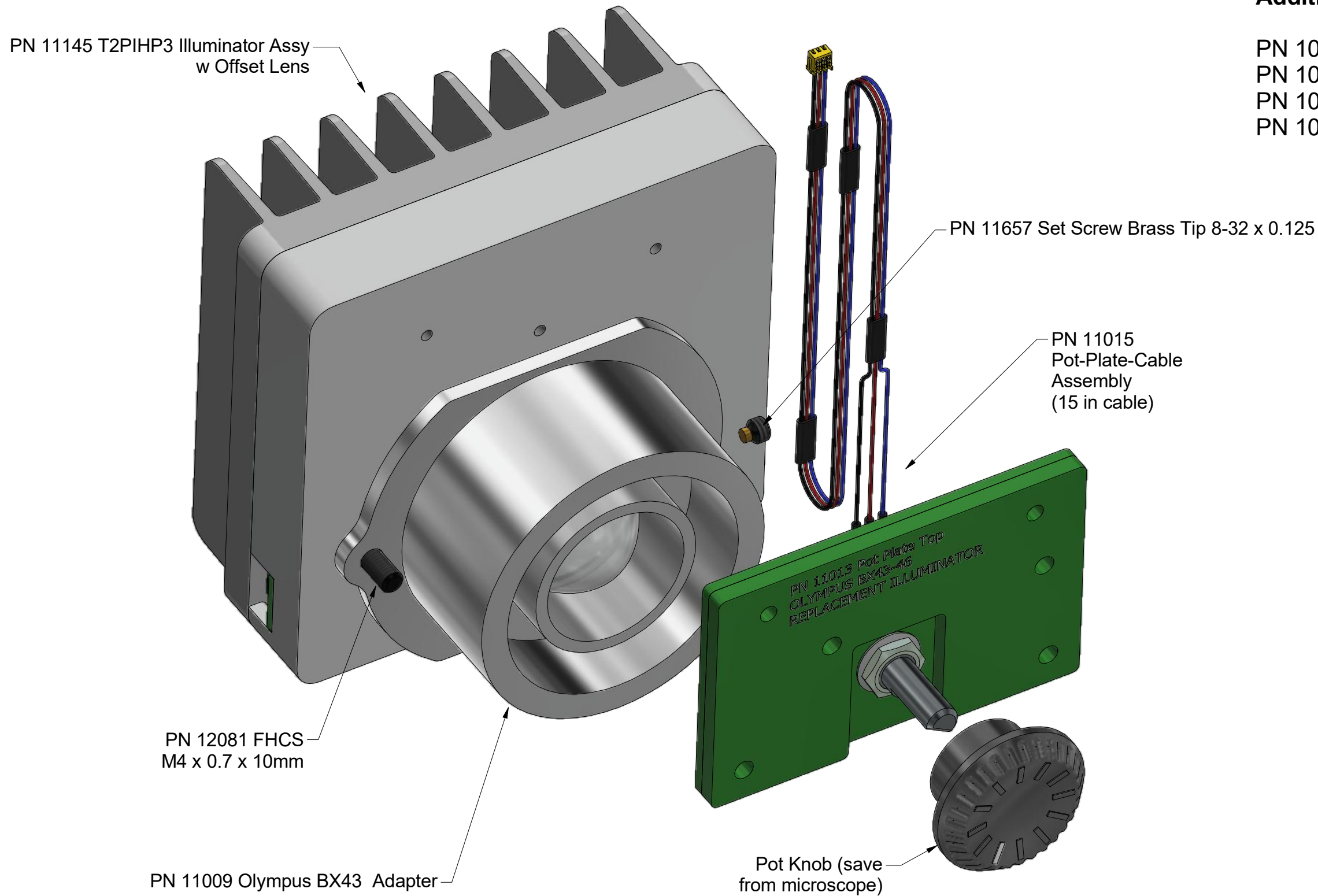


Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust): Included Items



Additional Items Included But Not Shown:

- PN 10490 Hex Key 5/64 inch (for set screw)
- PN 10566 Hex Key 2.5mm Long Arm (for M4 screw)
- PN 10747 Hex Key 3mm
- PN 10460 Hex Key 4mm



Tape to secure wires.



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

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.

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 BX53 Microscope Installation Instructions (OEM adjust) - Step 1. Remove old illuminator.



Place the microscope upside down, unplug the existing BX53 illuminator cable, and unscrew the existing illuminator unit from microscope port as shown, using the 3mm hex key provided.

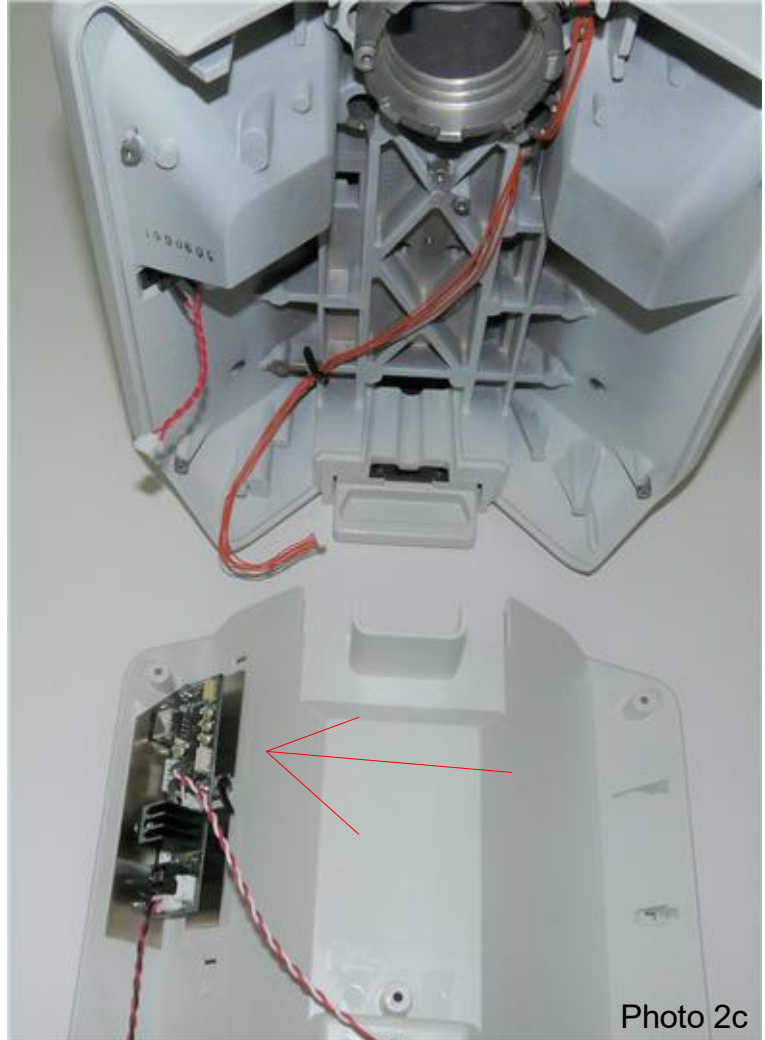
Photo 1a

Photo 1b

Photo 1c

Photo 1d

Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 2. Remove back cover and old circuitry.



Disassemble back cover. Note that after installation of the Nanodyne illuminator, there should be no power connections left in place to the DC power inlet (red circle).

**** Safety and misc. ****

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 DC input.

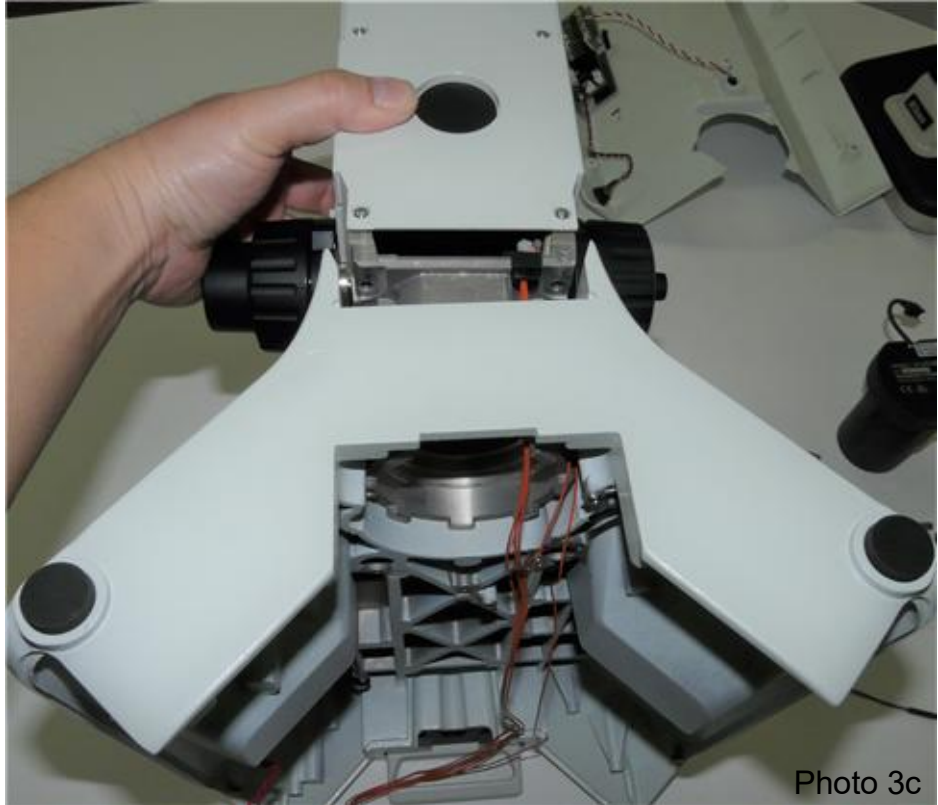
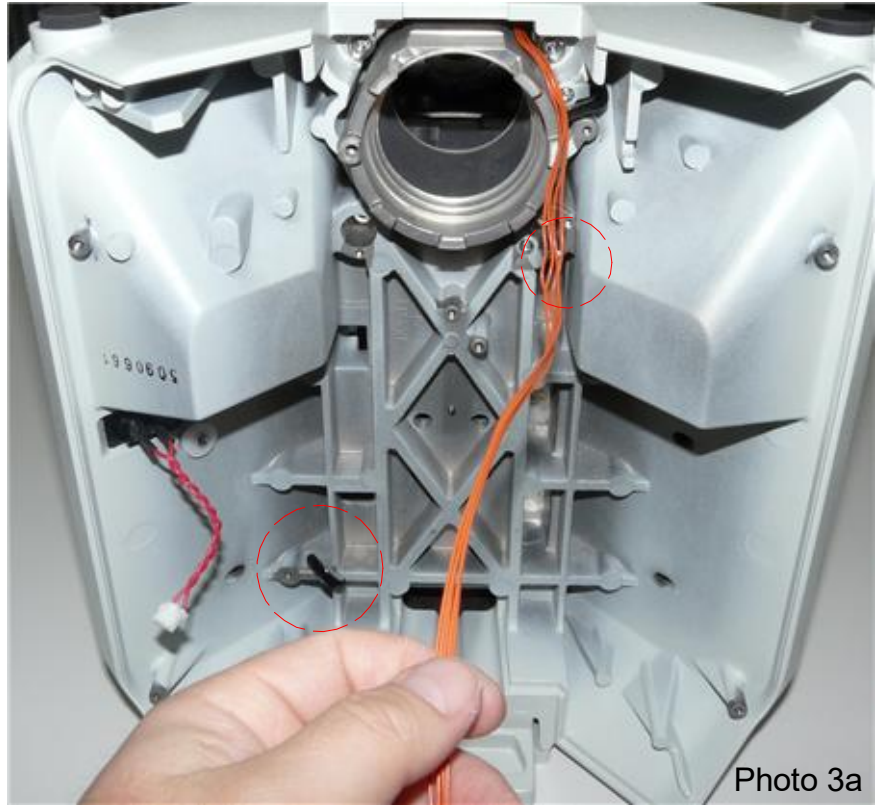
We recommend removing the power cable from the DC input connector. It should be cut short so there is no possibility it could be connected to the original circuitry, or insulated with heat shrink tubing or electrical tape.

The original illuminator circuitry (red arrow) is completely replaced by the Nanodyne equipment which is powered by a universal input wall plug power supply with low voltage DC output.

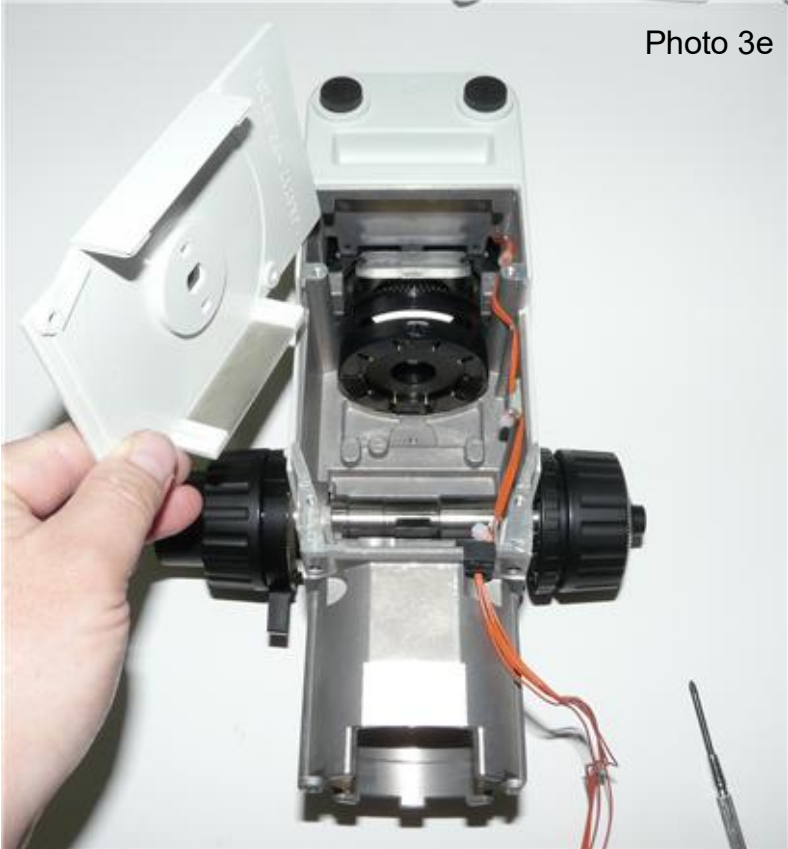
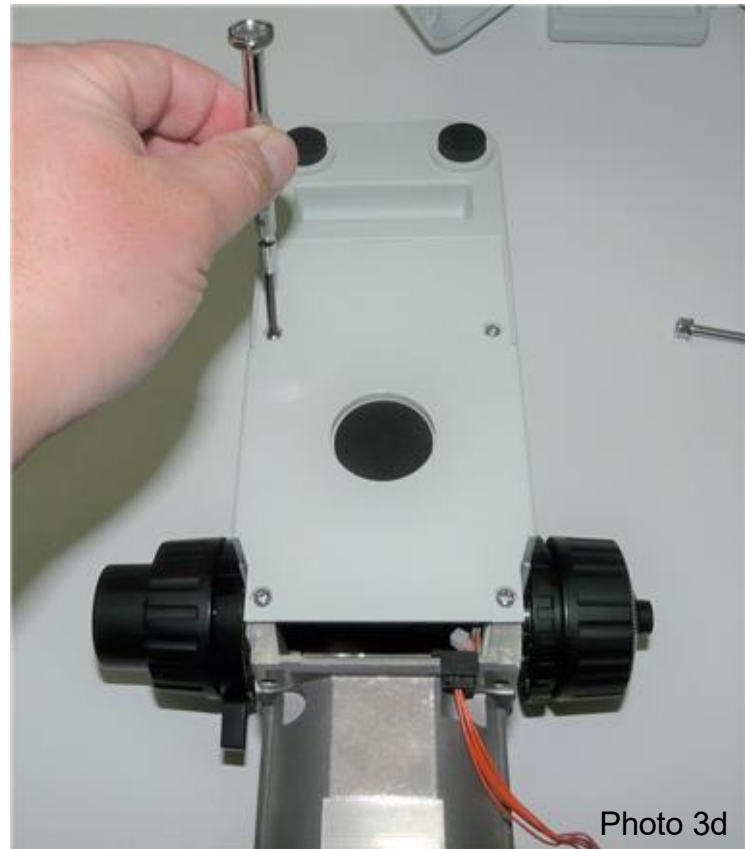
The original circuitry may be left in place, or removed as it is no longer used.

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Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 3. Remove original cables and pull out base unit.



Pull out original pot cable from the existing cable ties (red circles). Unscrew using 4mm hex key and pull out the base unit as shown above.



Unscrew and pull out the base cover as shown in left.

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Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 4. Remove diaphragm.



Photo 4a



Photo 4b



Photo 4c



Photo 4d



Photo 4e



Photo 4f

Lift up the iris diaphragm cover (it is taped as shown), unscrew and pull out the iris diaphragm unit, and remove another piece of taped cover from the base unit as shown in left.

Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 5. Remove original PCB.



Photo 5a



Photo 5b



Photo 5c



Photo 5d

Open the front panel, disconnect pot cable as shown, and remove the knob from the pot. Unscrew original PCB panel as shown below.

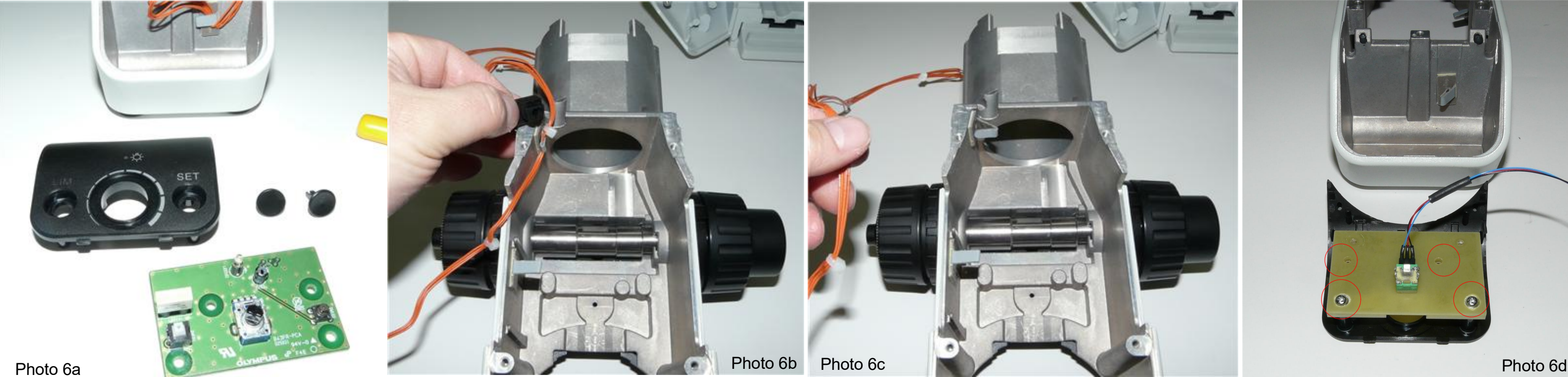


Photo 5e

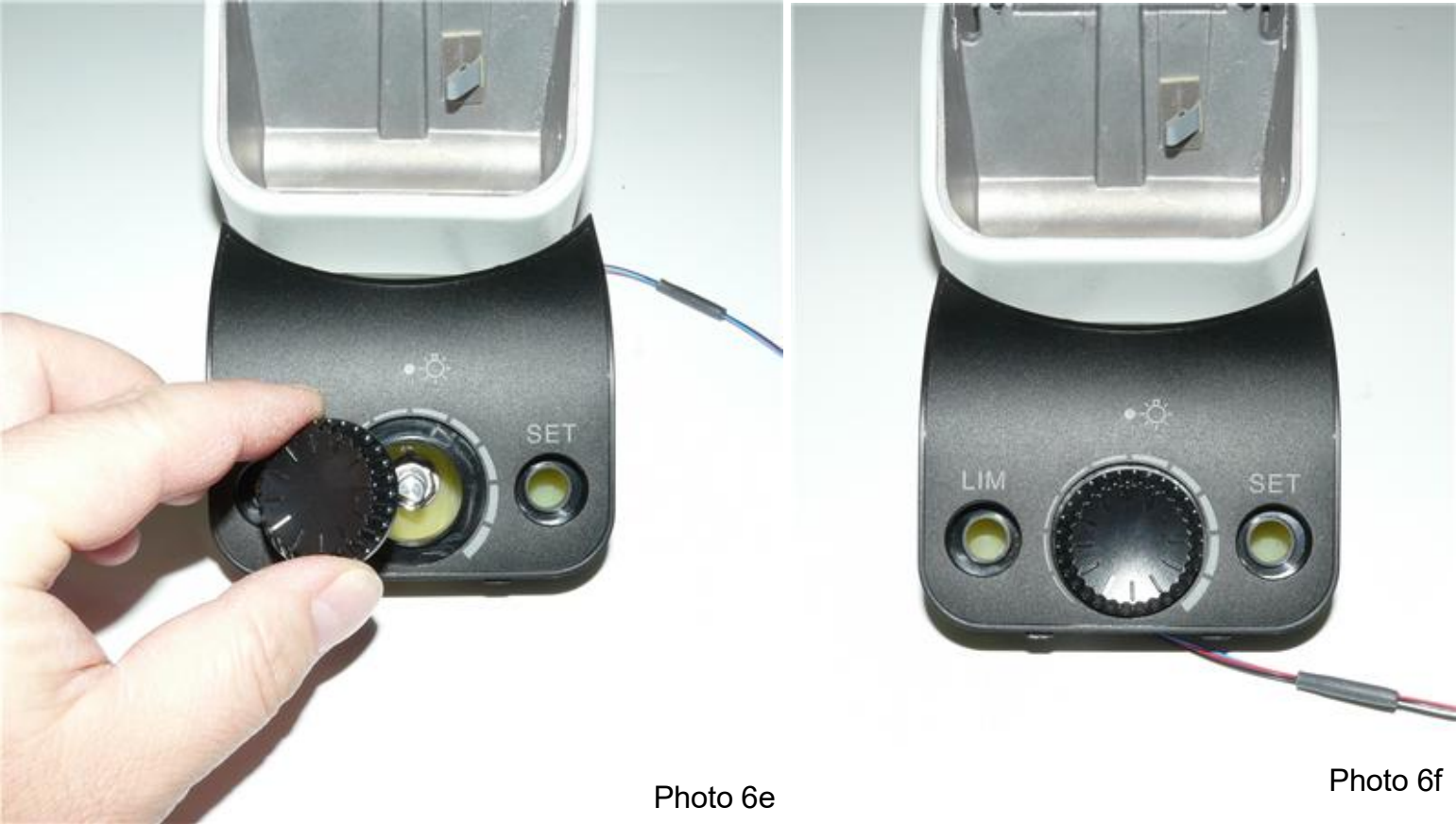


Photo 5f

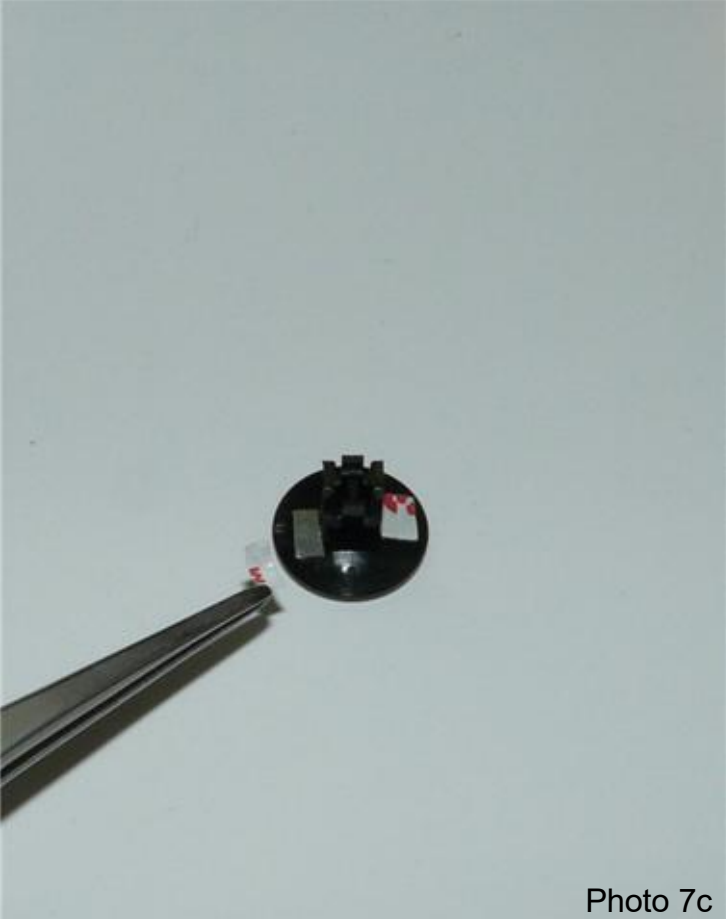
Save the screws. 2 of them will be needed to attach the Nanodyne pot plate.



Remove the original PCB panel and pot cable as shown above. Place Nanodyne Pot Plate Cable Assembly using original screws (red circles in photo 6d), then reinstall original Pot Knob (saved from existing system) as shown below.

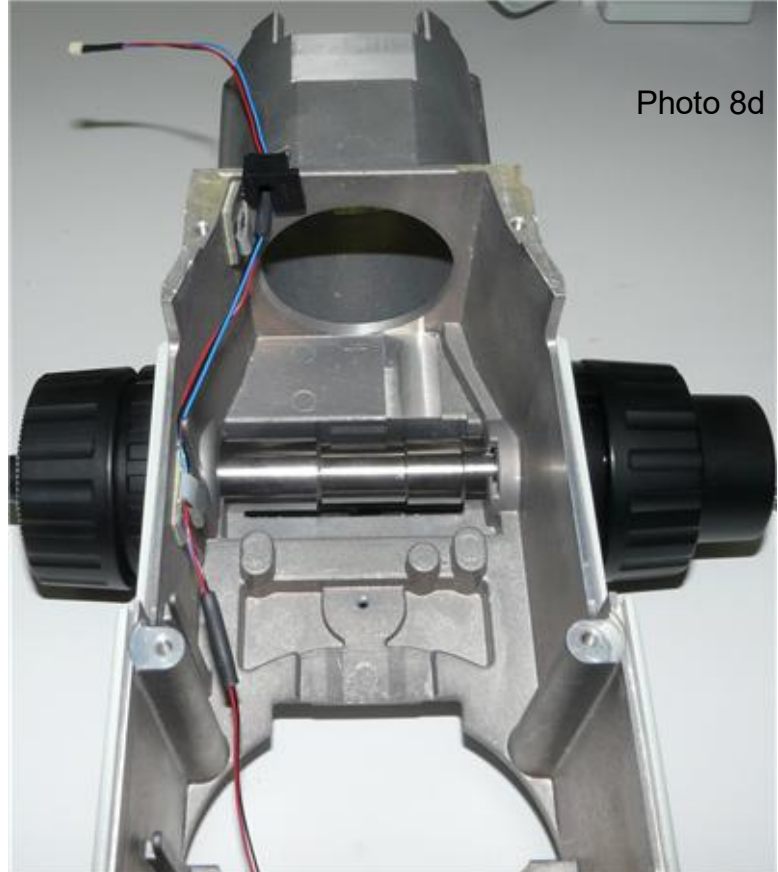
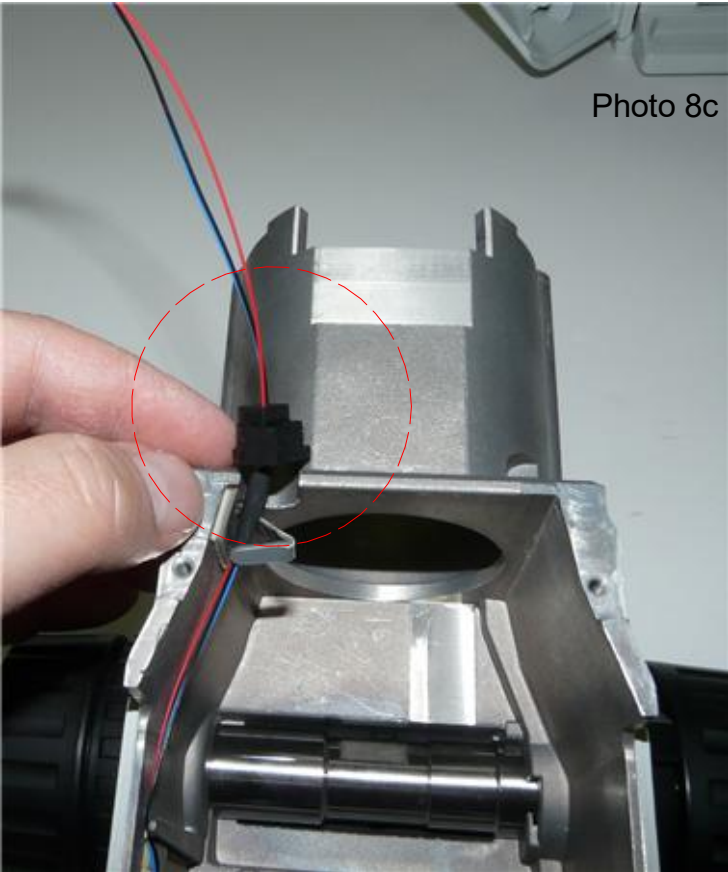
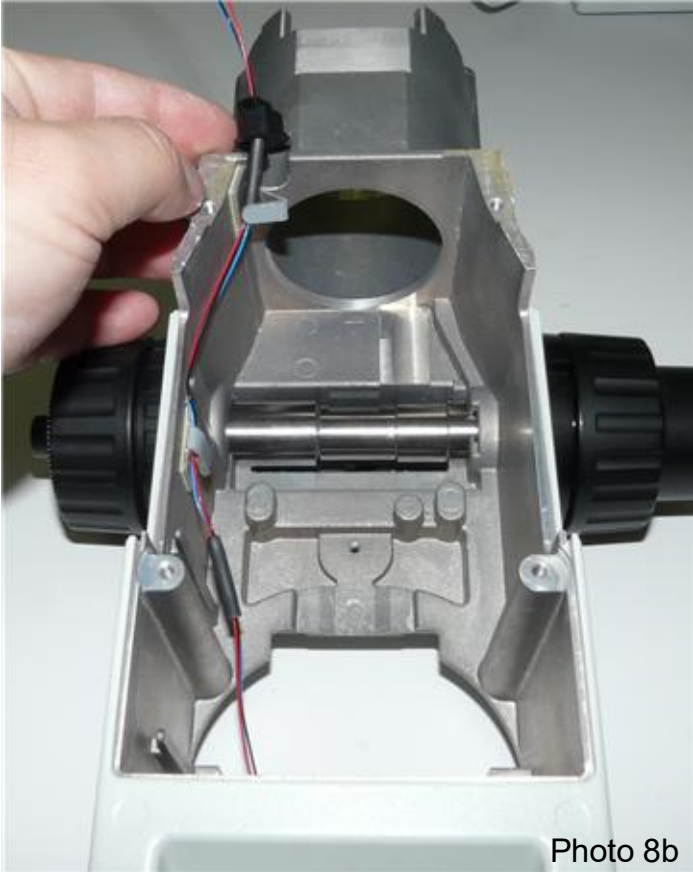


Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 7. Re-install original buttons.



Cut small pieces of 3M VHB tapes, attach to the back sides of the LIM and SET buttons, then put them back in the original places. They are now just used to cover the holes.

Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 8. Re-install front panel and secure cables.



Re-install front panel and secure the cables as shown above with the existing tie wraps, to keep the cables out of the moving parts of the microscope, and the optical path from the illuminator. Insert black rubber guide (red circle) to the right place and attach the original taped cover from the base unit as shown in left.

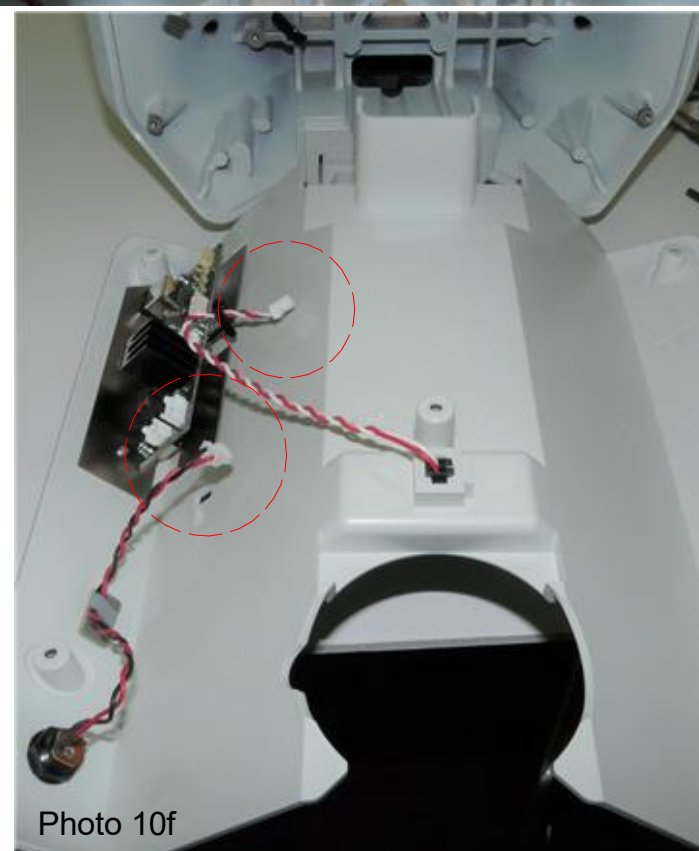
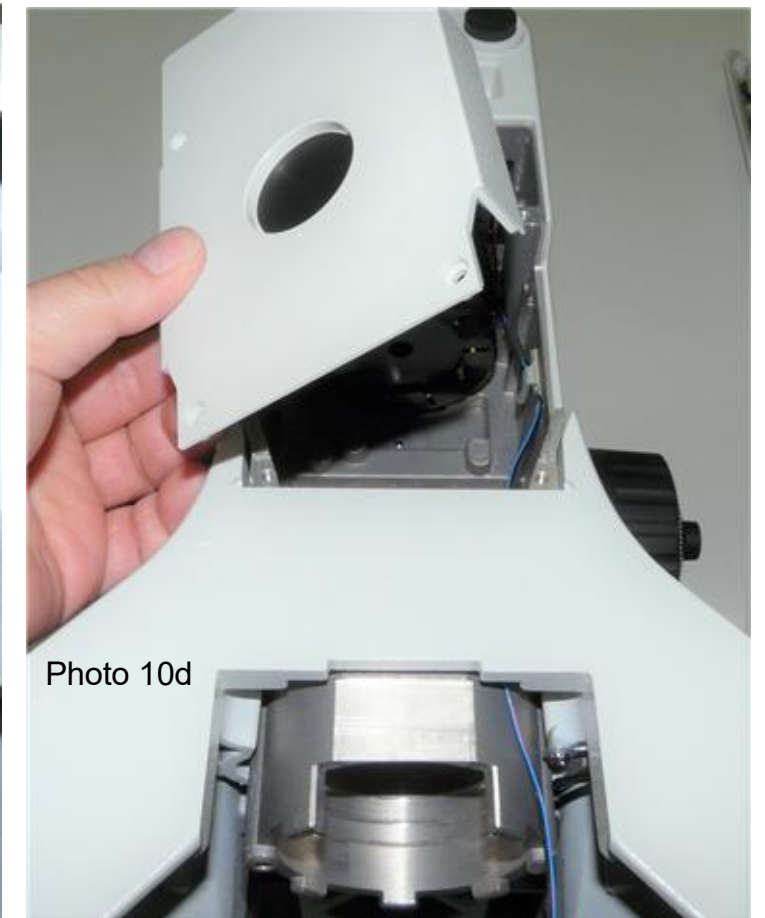
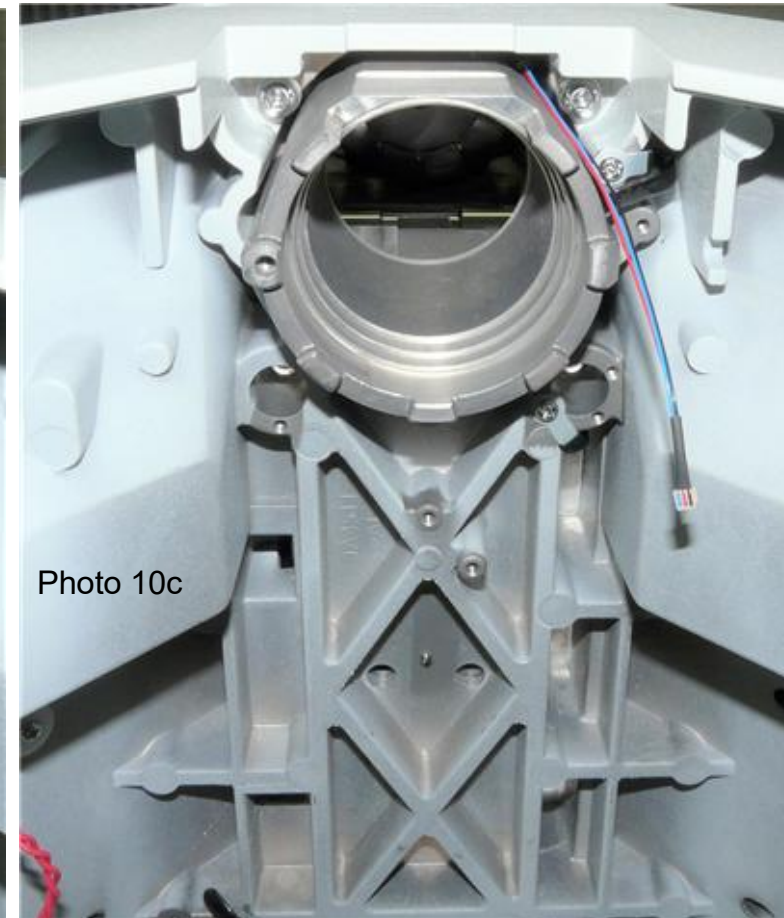
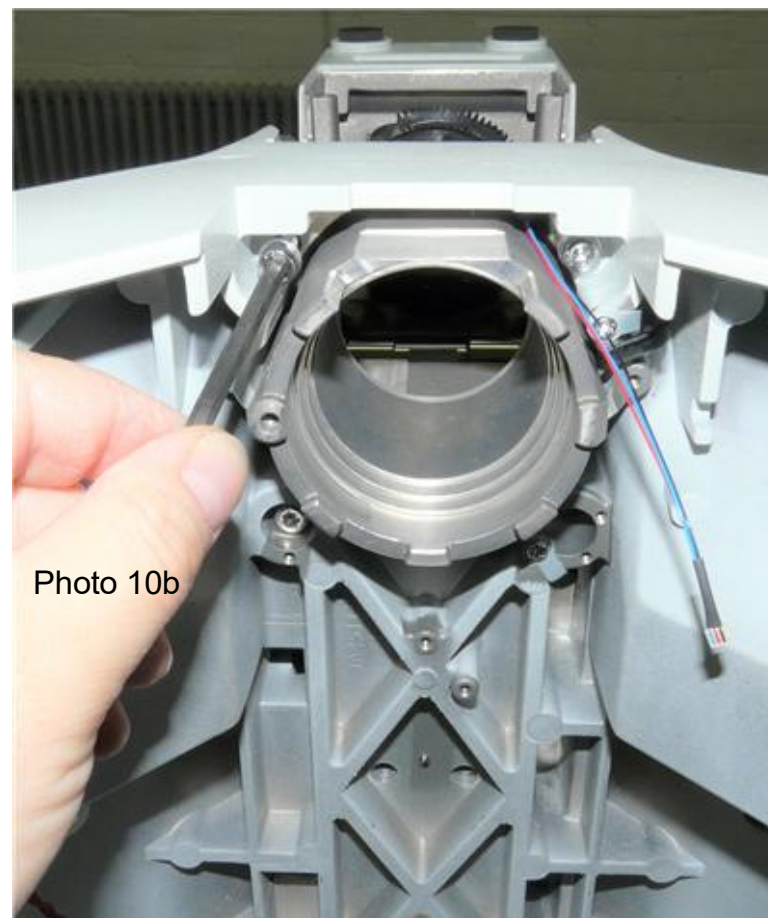
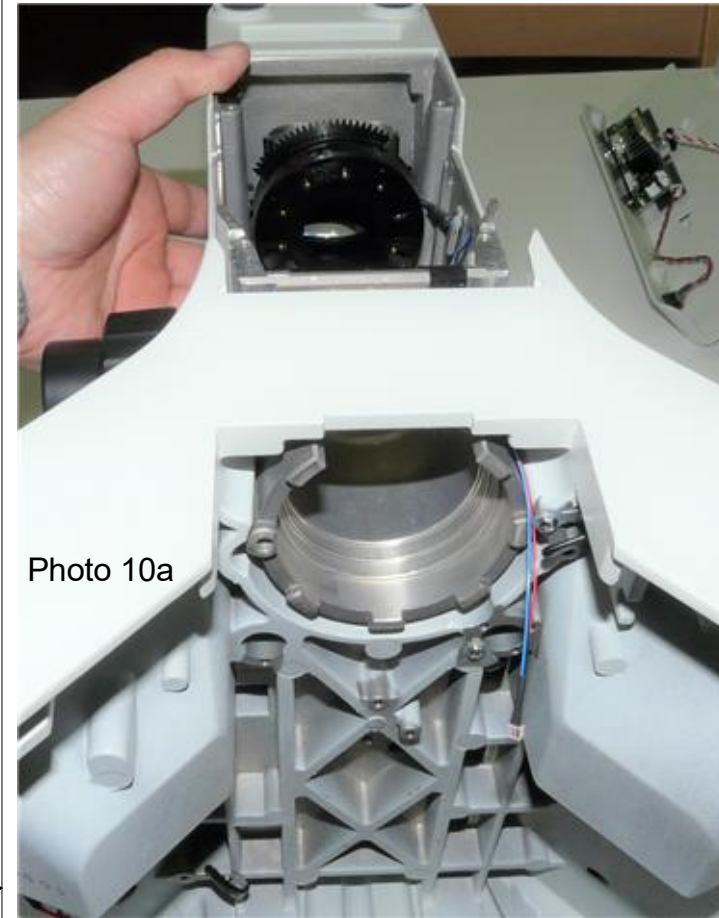
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Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 9. Re-install diaphragm.



Re-install the iris diaphragm unit using original hex screws as shown above and attach the original taped iris diaphragm cover as shown in left.

Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 10. Re-install base unit.



Insert and secure the base unit using original hex screws as shown above. Place the bottom cover and make sure all the original circuitry cables are disconnected (red circles) as shown in left.

Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 11. Re-install back cover and insert Nanodyne illuminator.



Photo 11a



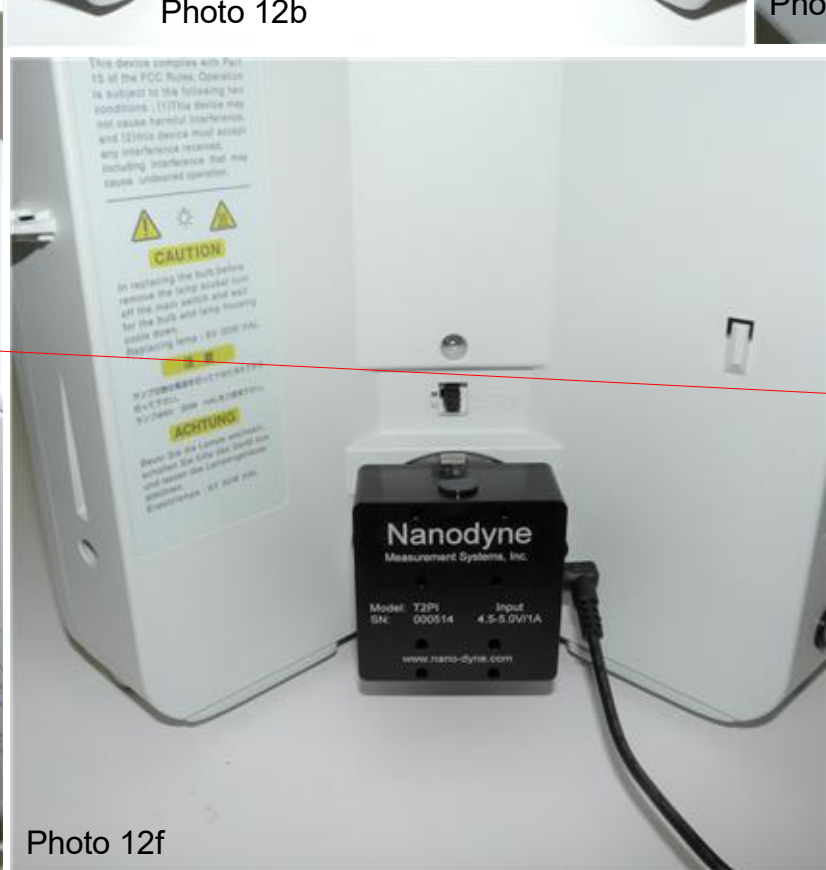
Photo 11b

NOTE: Your current illuminator is BX53 while the one in the photos is BX43/46. However, the installation procedure is identical.

Re-install the back cover, insert PN 11021 hex screw (red circle) to the screw hole of the Nanodyne adapter as shown above, and insert Nanodyne adapter to the microscope port.

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Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 12. Secure Nanodyne illuminator and connect power supply.



Tighten the hex screw to secure Nanodyne adapter in place, insert Nanodyne illuminator, tighten the set screw, connect the pot cable, and secure the cables as shown in left (using 3M VHB tape if needed). Plug AC adapter to the Nanodyne illuminator and now it is ready to use.

***Note:** The detailed Pot Cable insertion procedure will be shown in next page.



Tape to secure wires.

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Nanodyne Replacement Illuminator for Olympus BX53 Microscope Installation Instructions (OEM adjust) - Step 13. Connect the Pot Cable to the Illuminator.

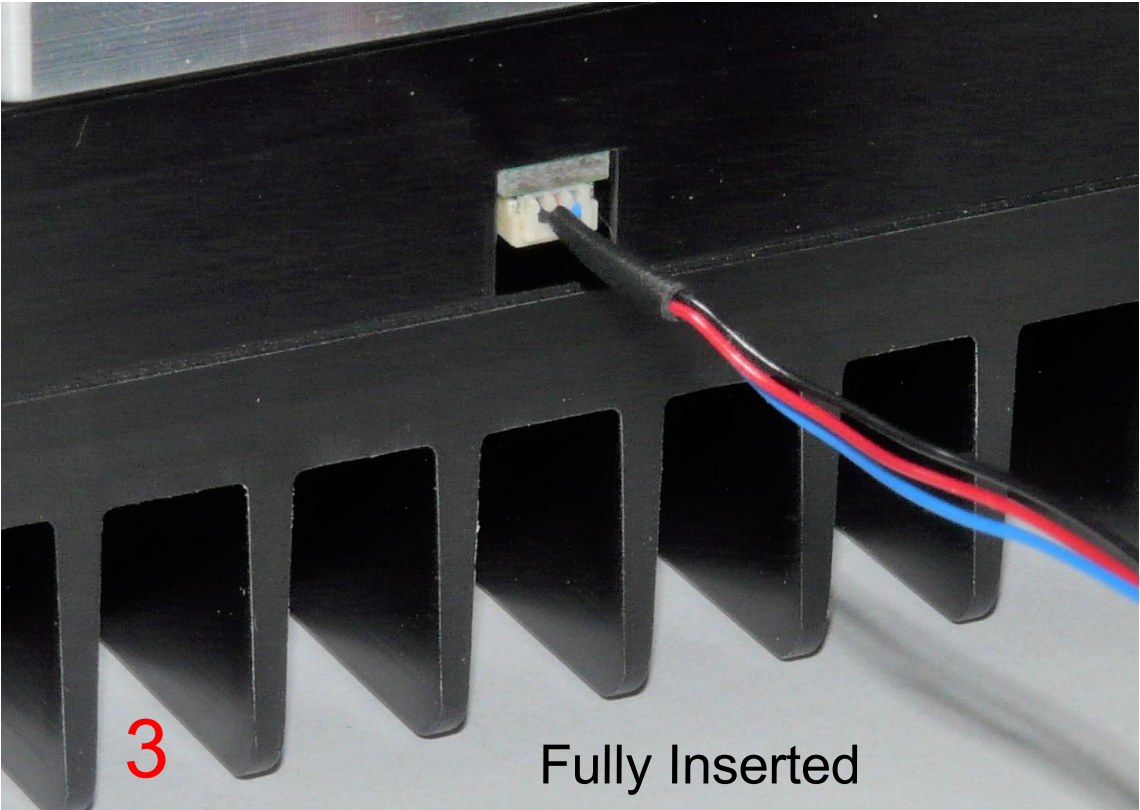
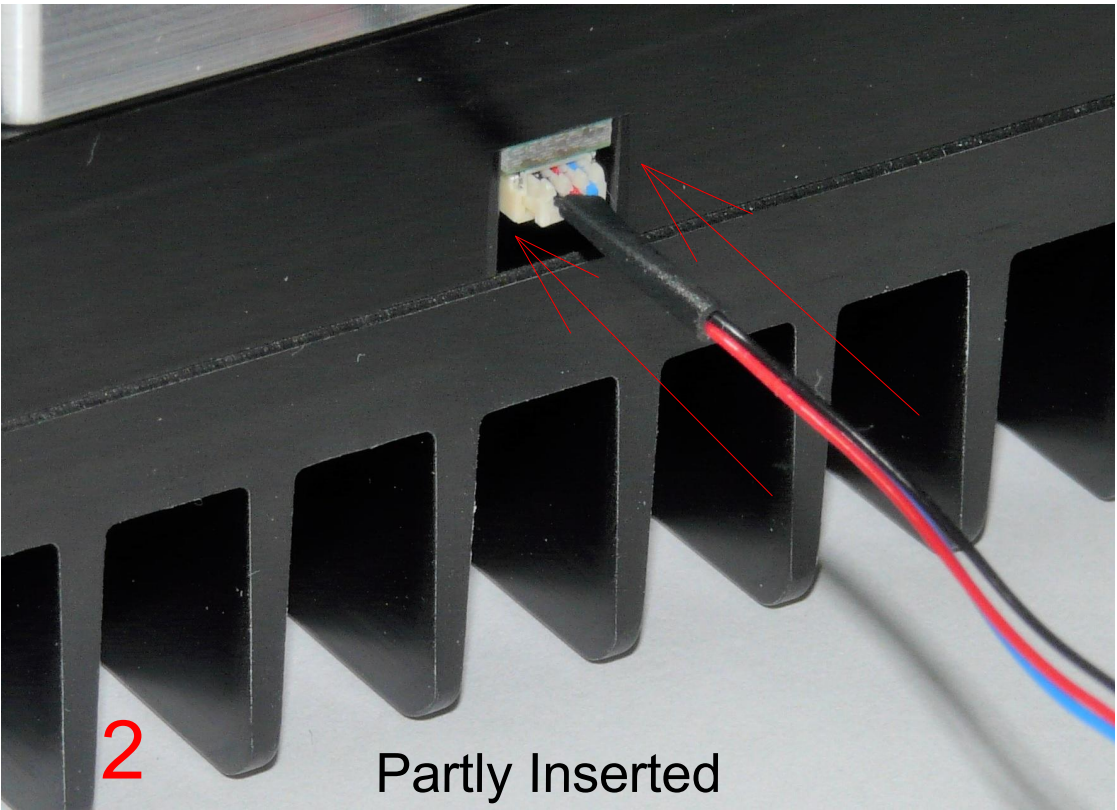
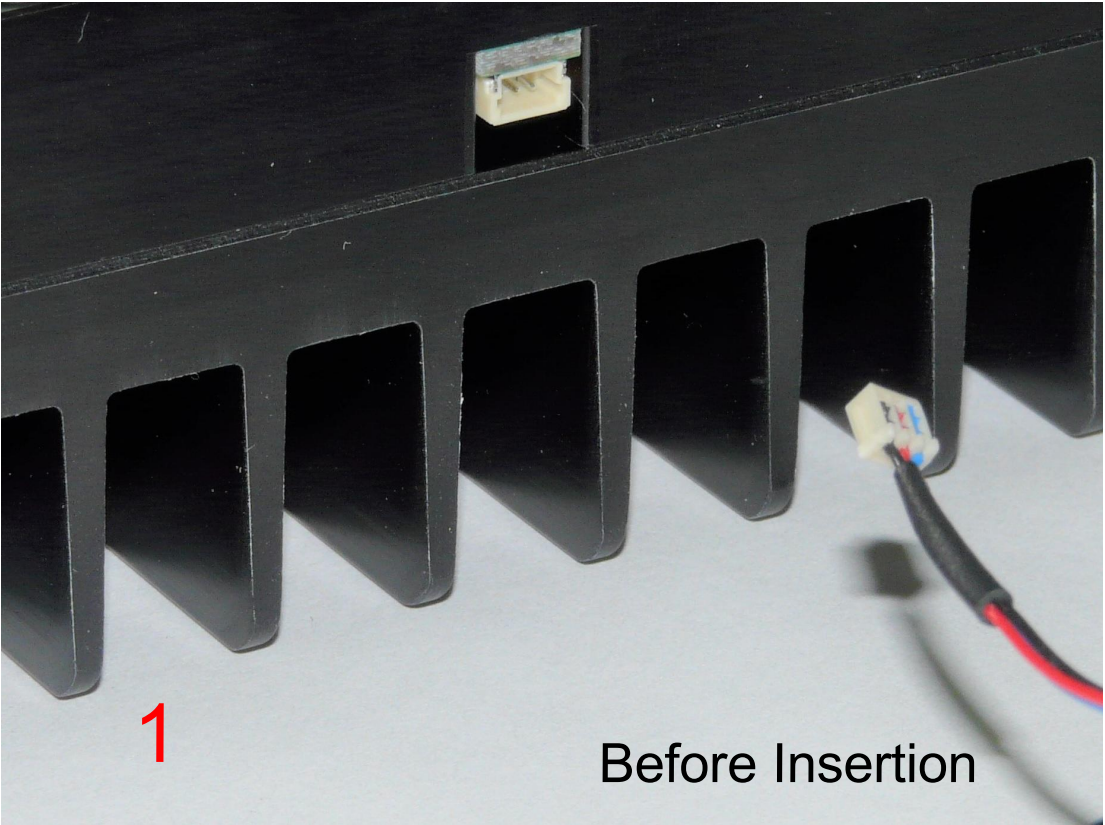
Connect the plug at the end of the Pot Cable Assembly to the mating socket of the illuminator, as shown in the pictures on this page. NOTE THAT THE PLUG IS KEYED TO ONLY GO INTO THE SOCKET ONE WAY, AS SHOWN.

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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