

Nanodyne Illuminator Replacement for Olympus BX50 & BX51 Top Illuminator - Installation Instructions

Step 1. Refer to the photos below to determine which type of illuminator is required, or that you have the correct items if already purchased. The basic Nanodyne illuminator is the same for both, but there are different options for intensity control, and different mounting screws.



Top Illuminator for viewing the sample by reflected light off the surface.

For this configuration, the intensity control pot is normally located on the top of the Nanodyne illuminator, and the installation does not require opening the microscope itself, (but the condenser lens must be removed from the original lamp housing and attached to the the Nanodyne illuminator). The original controls are left in place, but no longer used. (BX50 shown, also for BX51)

Follow the instructions in this document to install the Nanodyne replacement for the top illuminator.

If desired, the same intensity control as used for the lower illuminator may be requested. This does make the installation a bit more involved. See the instructions for the lower illuminator configuration.



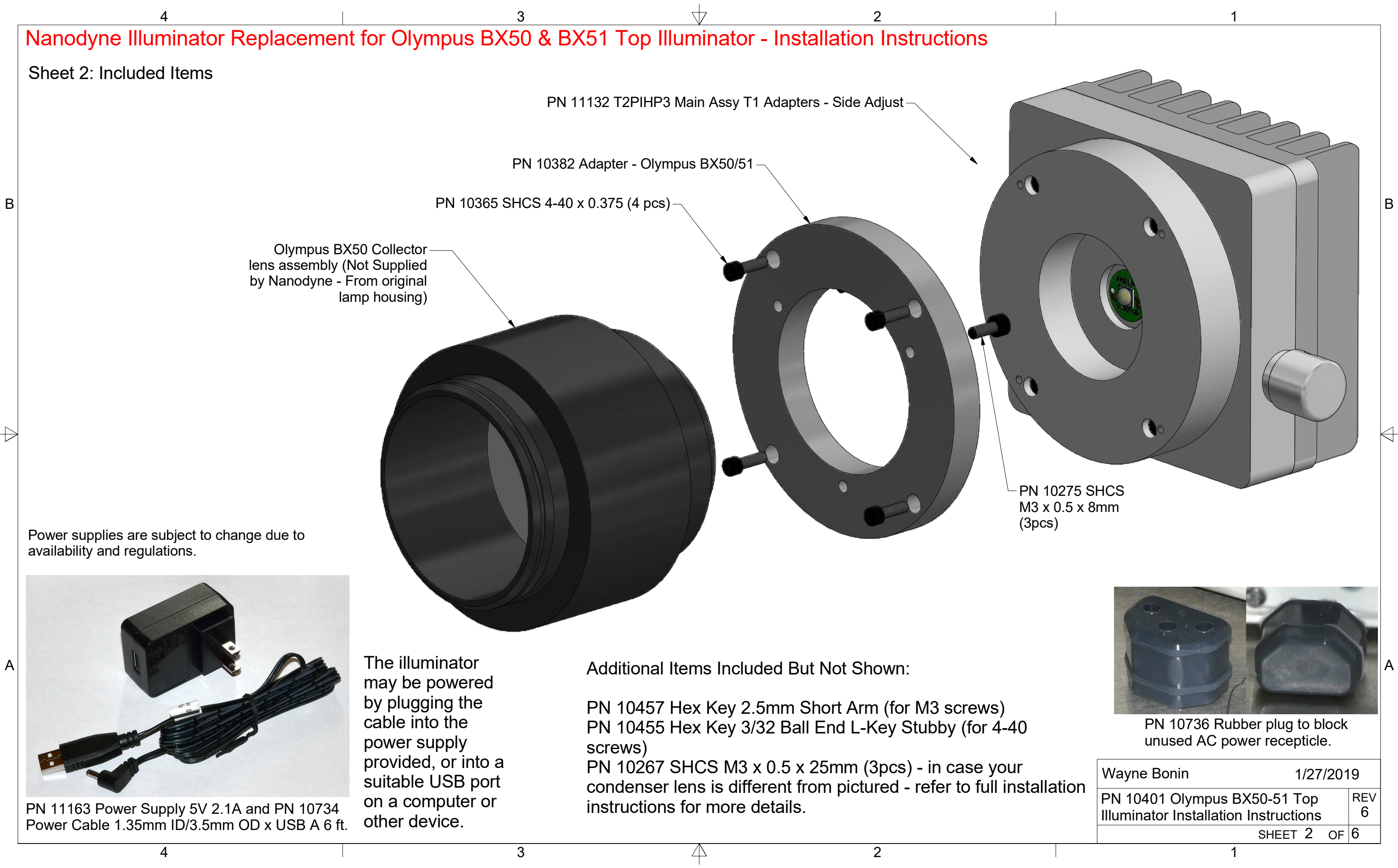
Bottom illuminator for viewing by light transmitted through the sample.

If you are replacing this illuminator, you need PN 10408 Olympus BX50 Full Illuminator System (bottom illuminator). Please refer to installation document PN 10408 Olympus BX50 Bottom Illuminator Installation Instructions.

Important Note: This illuminator is intended to replace halogen (white light) illuminators. It is NOT intended as a replacement for mercury vapor (UV) lamps used for fluorescence.

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Sheet 2: Included Items



Olympus BX50 Collector lens assembly (Not Supplied by Nanodyne - From original lamp housing)

PN 11132 T2PIHP3 Main Assy T1 Adapters - Side Adjust

PN 10382 Adapter - Olympus BX50/51

PN 10365 SHCS 4-40 x 0.375 (4 pcs)

PN 10275 SHCS M3 x 0.5 x 8mm (3pcs)

Power supplies are subject to change due to availability and regulations.



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.

Additional Items Included But Not Shown:

- PN 10457 Hex Key 2.5mm Short Arm (for M3 screws)
- PN 10455 Hex Key 3/32 Ball End L-Key Stubby (for 4-40 screws)
- PN 10267 SHCS M3 x 0.5 x 25mm (3pcs) - in case your condenser lens is different from pictured - refer to full installation instructions for more details.



PN 10736 Rubber plug to block unused AC power receptacle.

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Sheet 3: Remove original lamp housing and salvage original condenser lens.



Remove the lamp housing from the microscope.



Open the lamp housing and remove the three socket head cap screws (use the 2.5mm hex key) to remove the condenser lens.



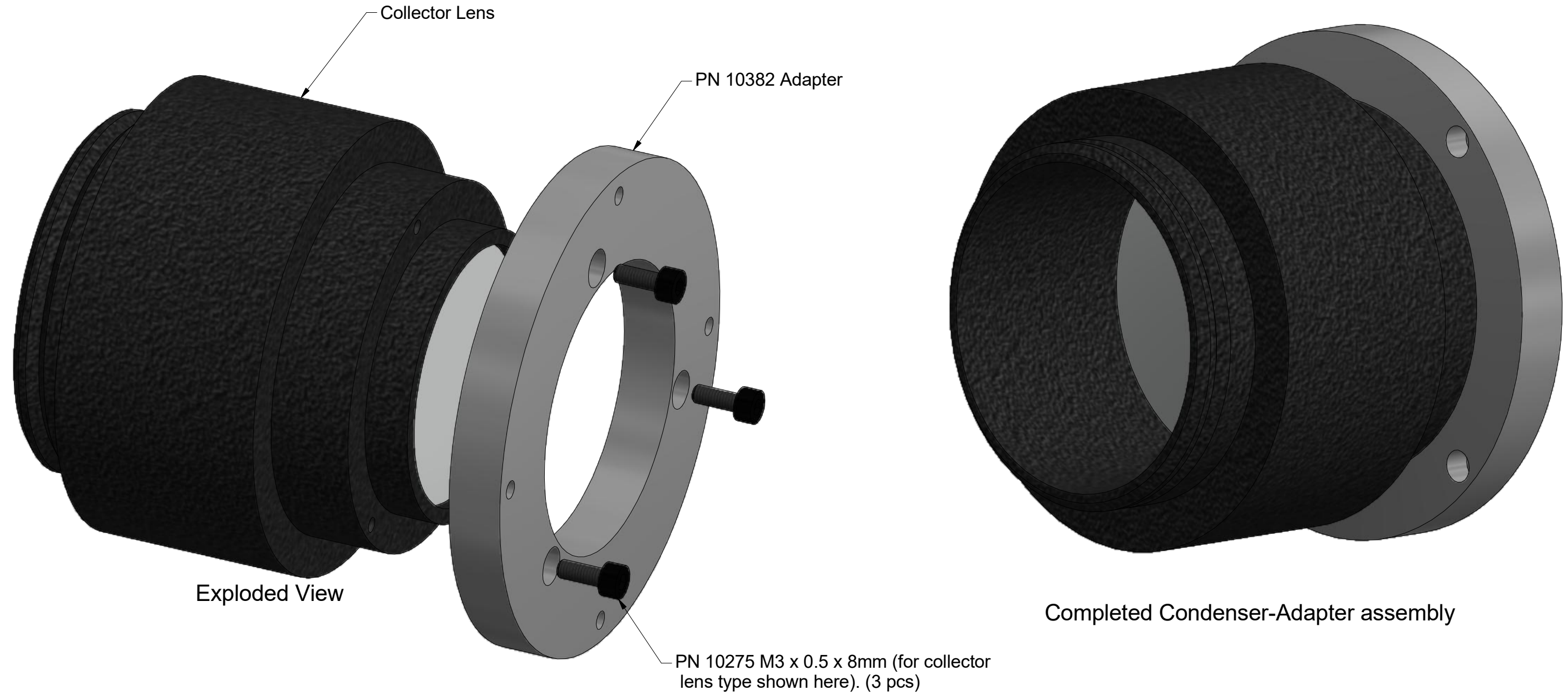
Condenser lens ready to attach to Nanodyne illuminator. (the original screws will be replaced by new ones included with the system)

If your original illuminator is NOT as pictured above, you probably have a lower illuminator lamp housing. In that case you will use the 25 mm long PN 10267 screws, rather than the 8 mm long screws to attach the adapter, PN 10382 to the condenser lens. Also beware that the condenser lens has three parts that can come apart when the screws are removed, so be careful not to let the lens fall out and break.

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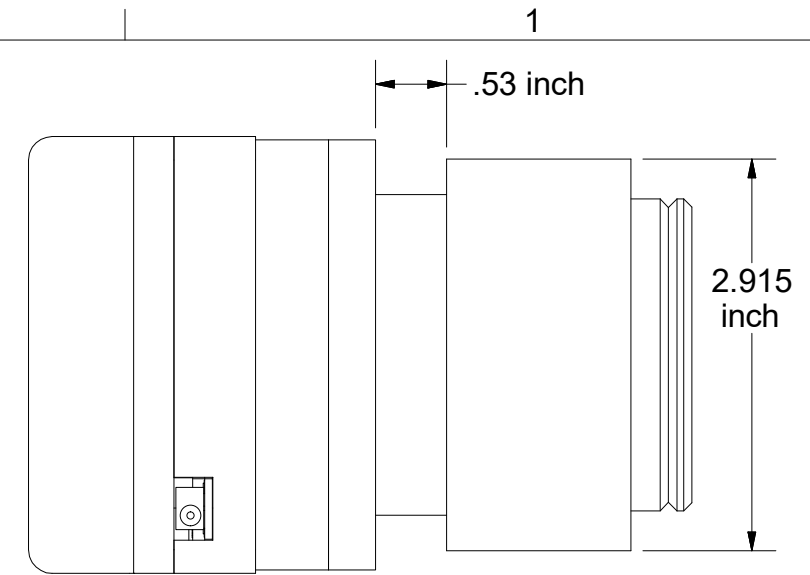
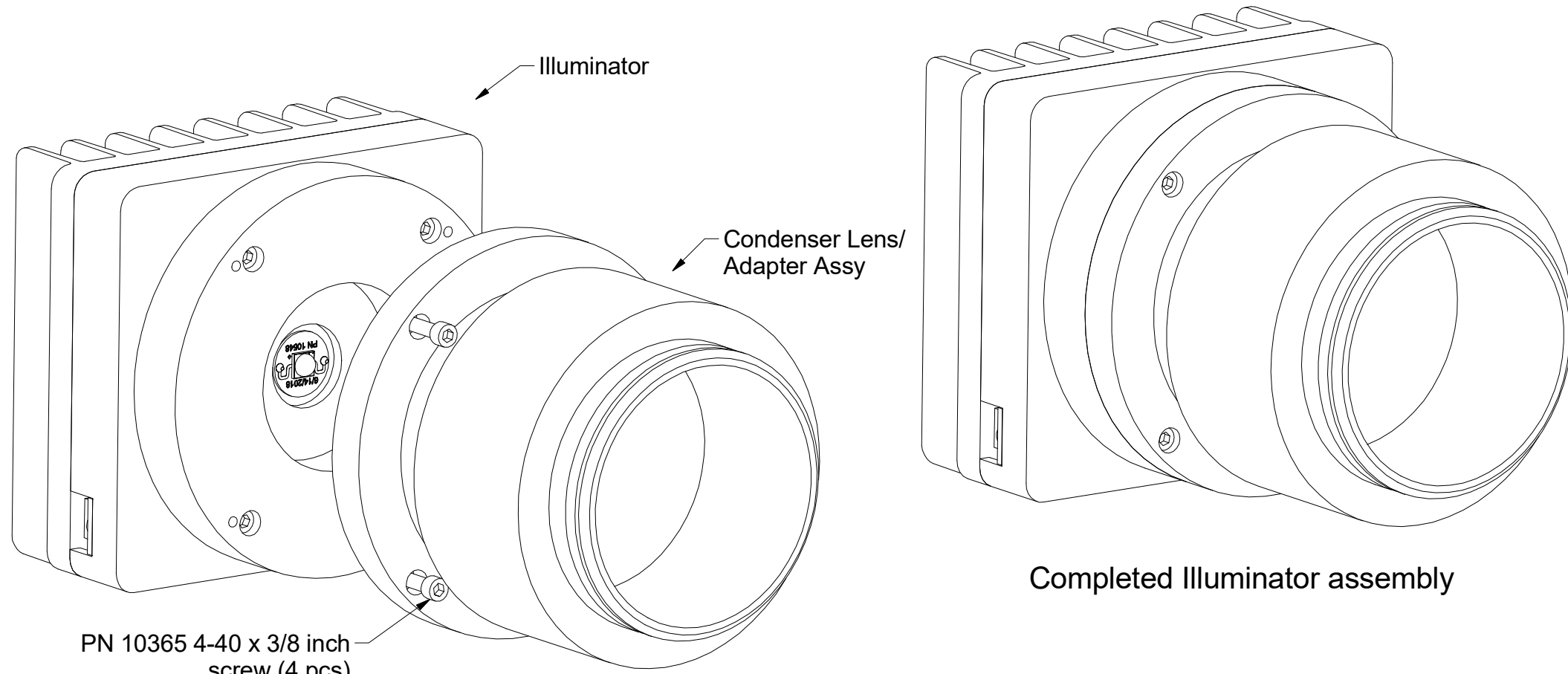
Sheet 4: Attach condenser lens to PN 10382 adapter.



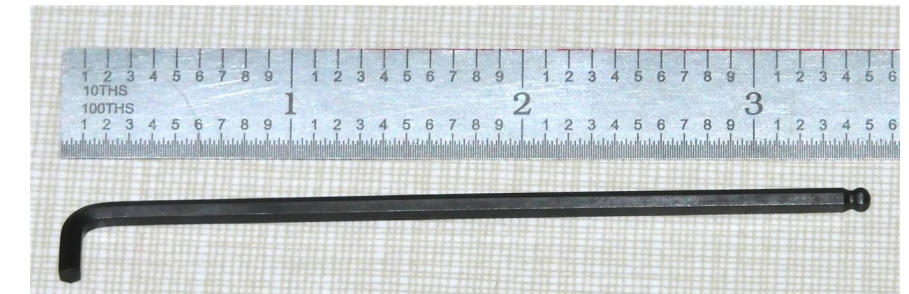
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Sheet 5: Attach Condenser lens/Adapter Assy to Illuminator.



Completed Illuminator assembly Side View



Special stubby/ball end hex key

Exploded View

Completed Illuminator assembly

Attach the condenser lens/Adapter assembly to the Illuminator using the four 4-40 x 3/8 inch screws. Direct access to the screws is partially obstructed by the 2.915 inch diameter of the condenser lens, but using the ball end of the special hex key allows the key to be angled enough to clear the lens. That allows the four screws to be quickly snugged down. Then use the short end (which will fit in the 0.53 inch space between the Adapter and the full diameter portion of the lens) to secure the screws.

Once fully assembled as shown here, attach to the microscope in the same manner as the original. Connect the power supply and the unit is ready to use.

Please refer to the safety warnings on the next page.

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BX50-51 Top Illuminator Replacement Safety Warnings, optional if you are not opening the back cover, but recommended.

If you also have a lower halogen illuminator that you are not replacing IGNORE THIS SECTION, as you still need the AC power for that illuminator.

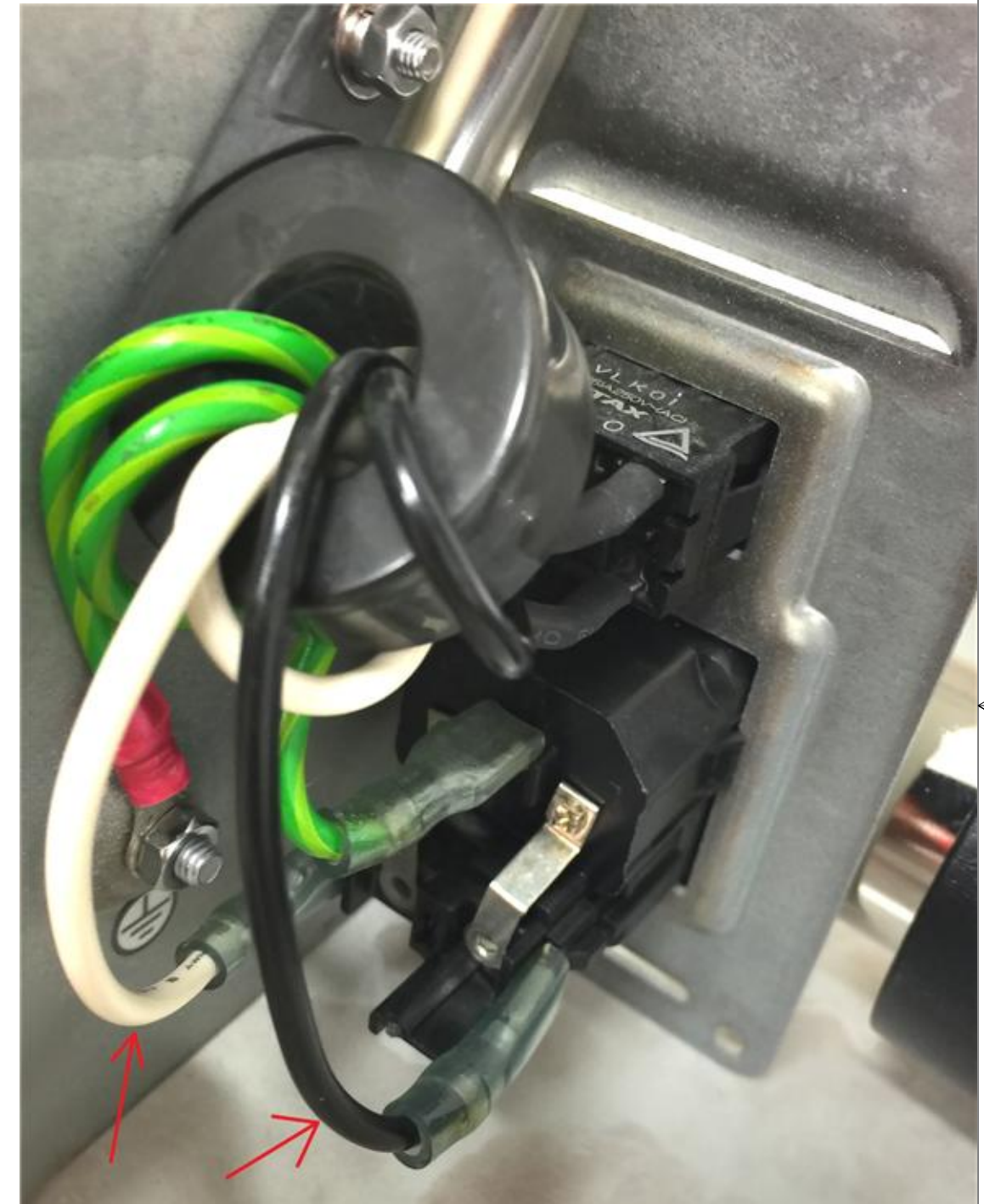
The original 120/220VAC powered illuminator circuitry is completely obsolete by the Nanodyne equipment which is powered by a universal input wall plug power supply with low voltage DC output.

We recommend completely removing the original power supply circuitry to eliminate any possibility of an electrical or fire hazard in case someone mistakenly connects AC power to the microscope in the future.

AT THE VERY LEAST, remove the power leads (red arrows in photo at right) 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.



(Optional) Installation of PN 10736 rubber plug is shown above.



Inside view of BX50 obsolete AC power input.

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