

Nanodyne Replacement Illuminator for Nikon Ci-L Microscope: Installation Instructions - Included Items

Additional Items Included But Not Shown:

PN 10456 Hex Key 1.5mm (for pot knob and bottom cover)
PN 10337 Hex Key 2mm (for bottom cover)
PN 10457 Hex Key 2.5mm Short Arm (for M3 screws)

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

Tape to secure wires.

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

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Nanodyne Replacement Illuminator for Nikon Ci-L Microscope Installation Instructions: Step 1 - Remove Covers and Old Illuminator.

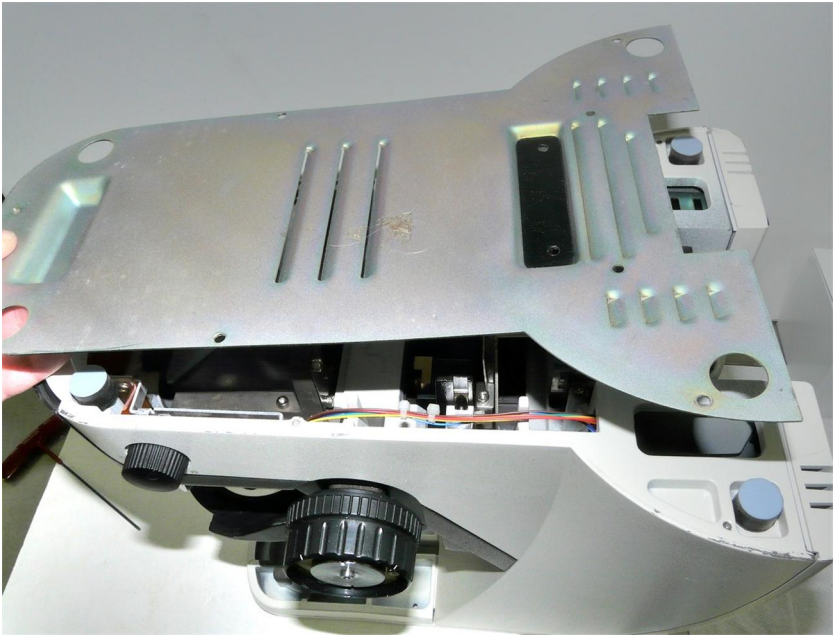
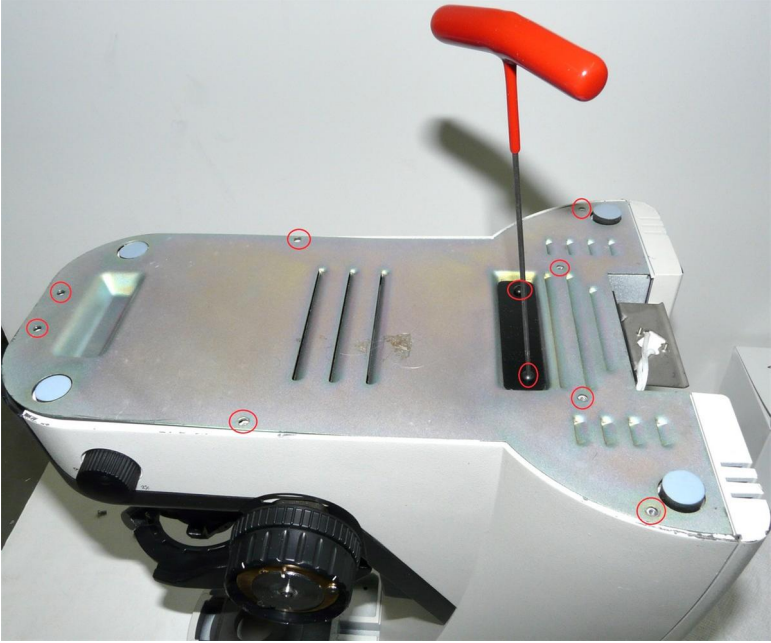
Be sure the AC power is disconnected.

(1) Remove the 10 screws holding the bottom cover.

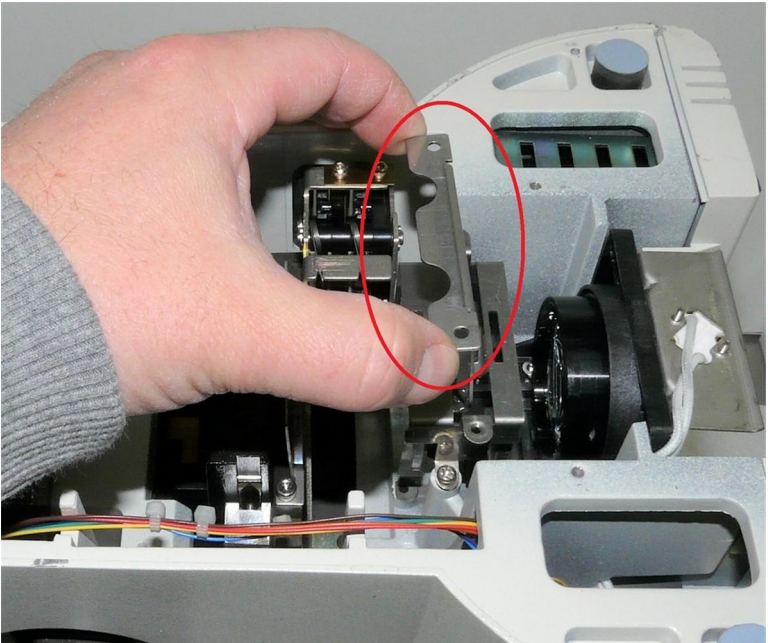
Use the 2mm hex key (included, but not as shown) on the two black screws.

Use the 1.5mm hex key on the two screws just to the right of the black ones.

Use a phillips screwdriver (not included) on the rest.



(2) Remove the bottom cover.



(3) Remove the filter (red circle) so it does not fall out if you turn the scope over.



(4) Remove the back cover (6 screws).

* **Note:** Microscope shown above is the halogen version, but the procedure is the same.



(5) Ci-L OEM illuminator (LED).



(6) Remove the lamp assembly (4 screw holes circles at left).

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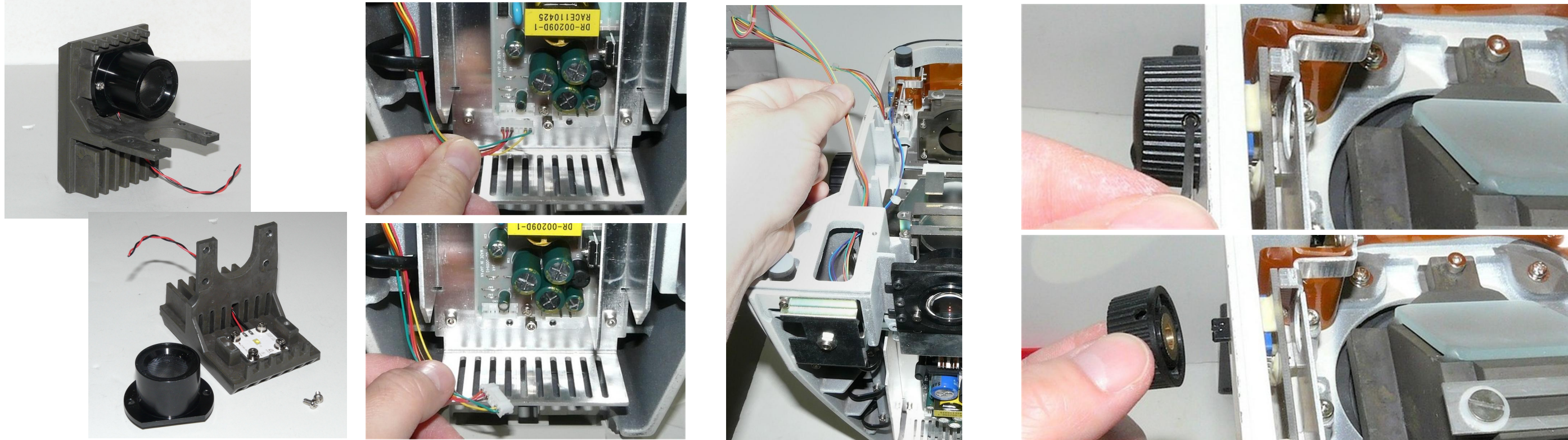
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Nanodyne Replacement Illuminator for Nikon Ci-L Microscope Installation Instructions: Step 2 - Remove Old Control Cables and Pot Knob.



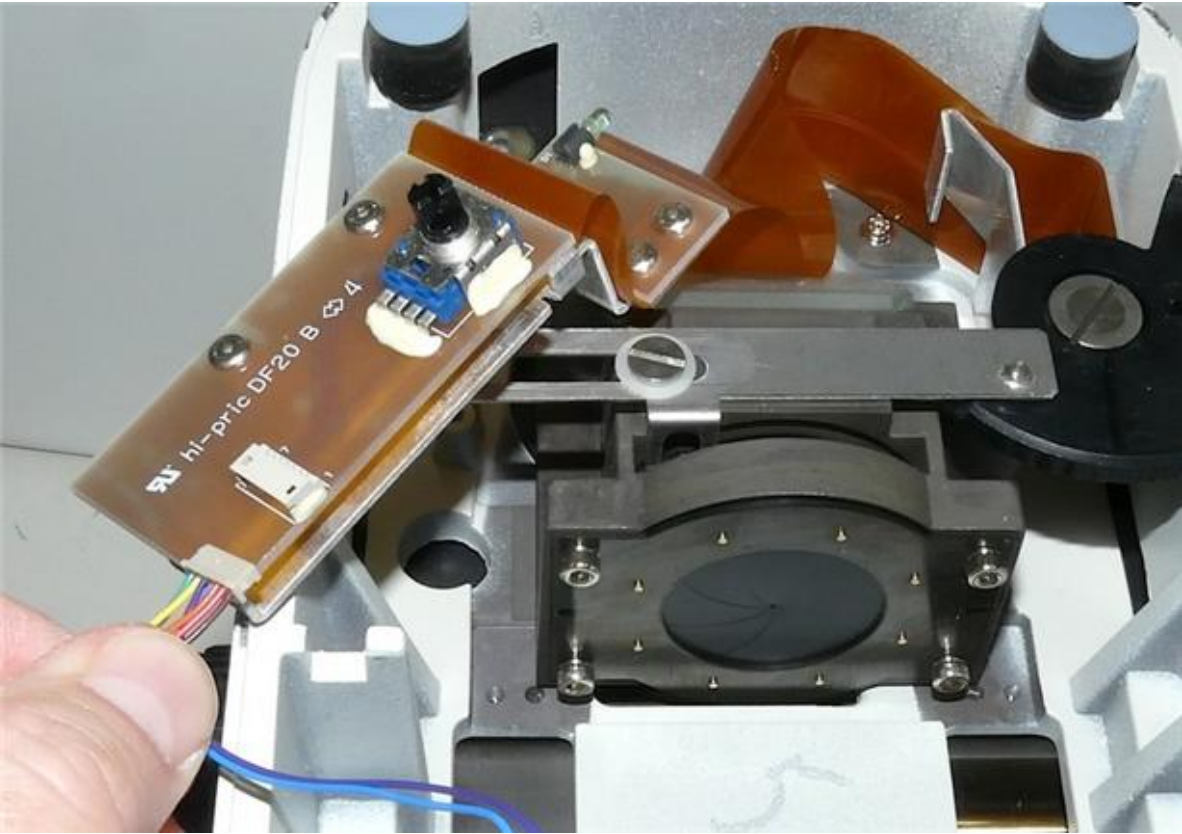
(1) Original illuminator removed.

(2) Unplug the intensity cable and pull it out of the microscope as shown.

(3) Loosen the set screw on the pot knob. Remove and save it.



Placing a small but powerful magnet near the tip of the hex key wrench to hold the screws in place will eliminate much frustration in getting the screws in and out where there is no room for fingers.

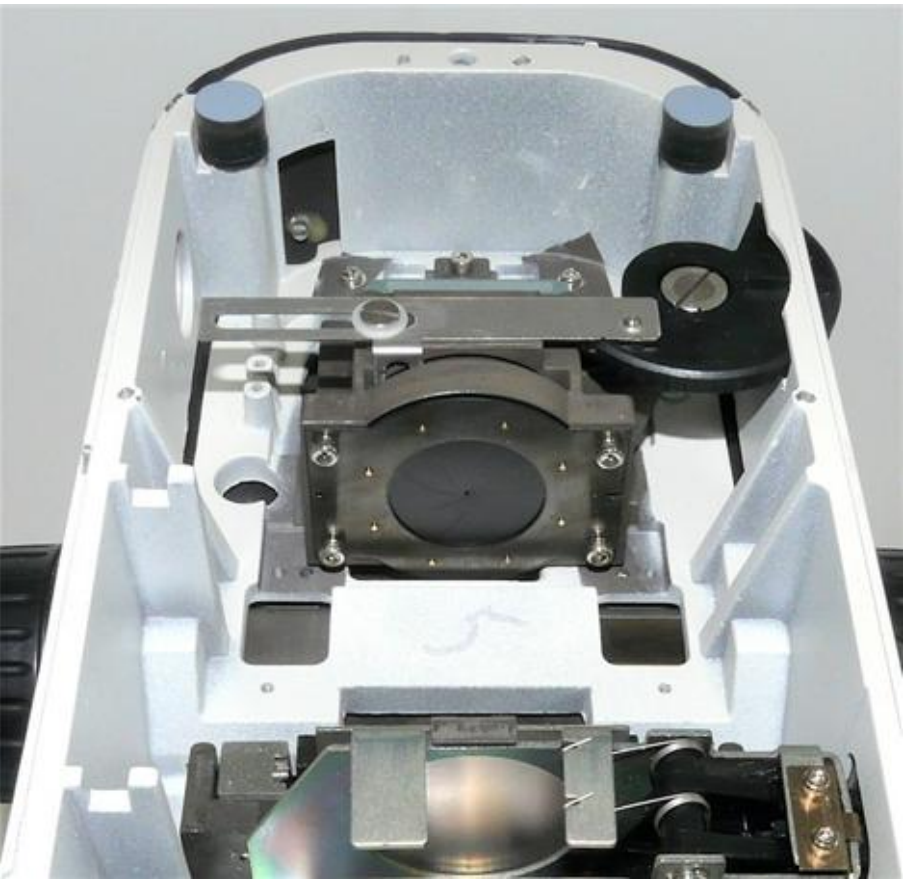
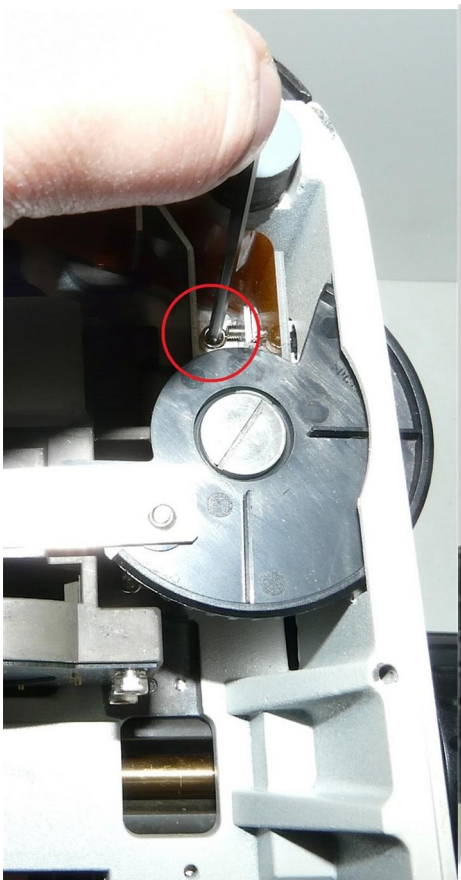
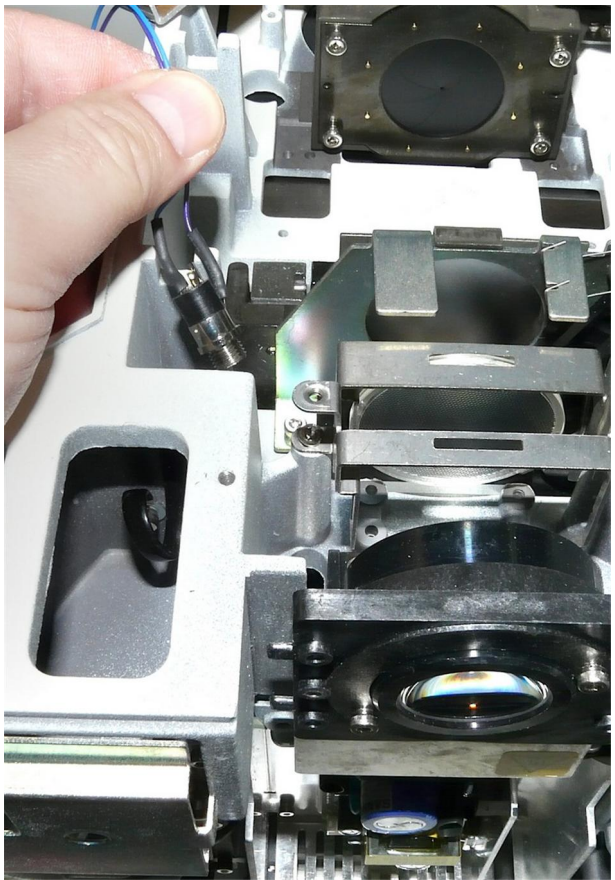
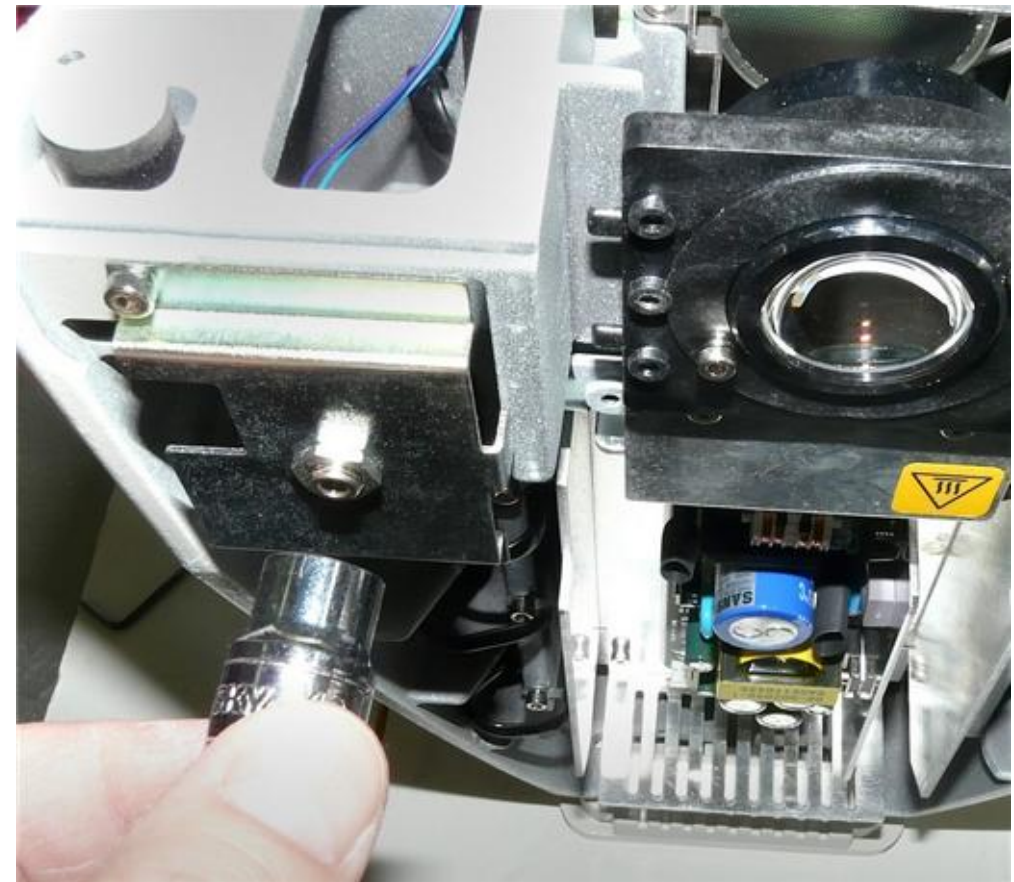


(5) Pull the intensity adjust pot PCB assembly out of the microscope as shown at left.

Unplug the cable from the connector on the intensity adjust PCB.

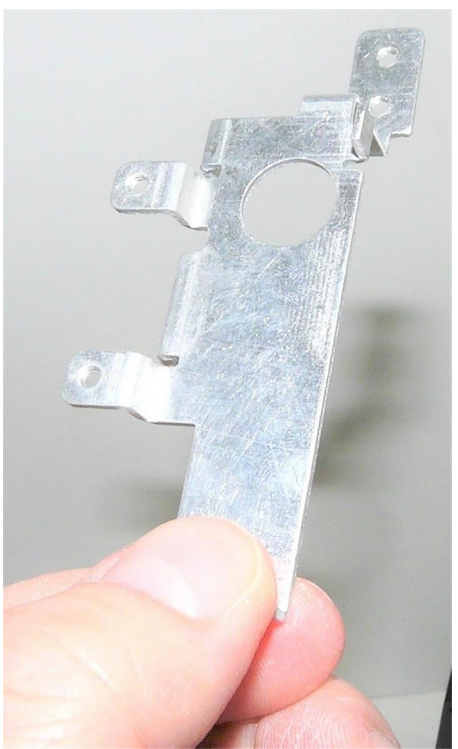
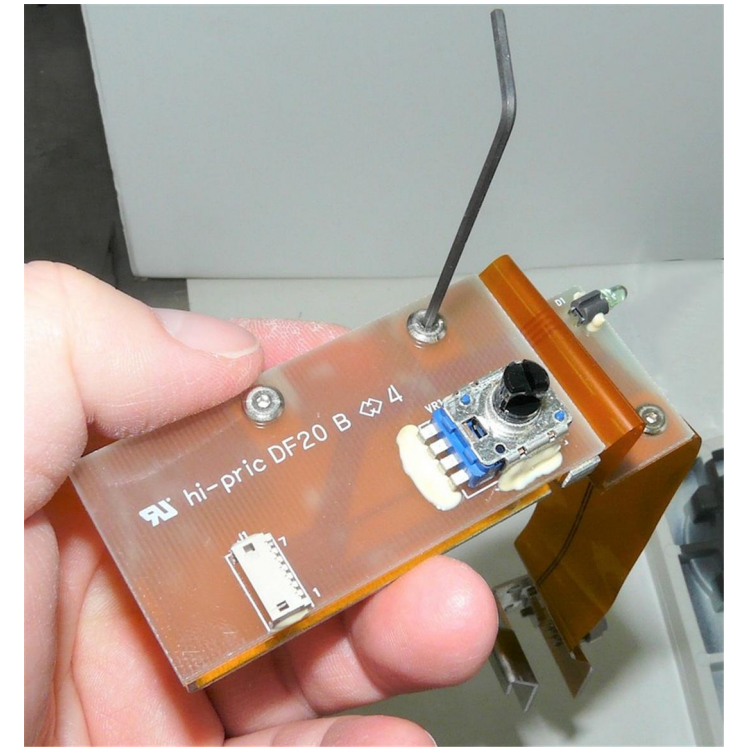
The intensity control assembly is still connected by the ribbon cable to the capture switch.

Nanodyne Replacement Illuminator for Nikon Ci-L Microscope Installation Instructions: Step 3 - Remove Ribbon Cable and Capture Switch, Install New Pot.



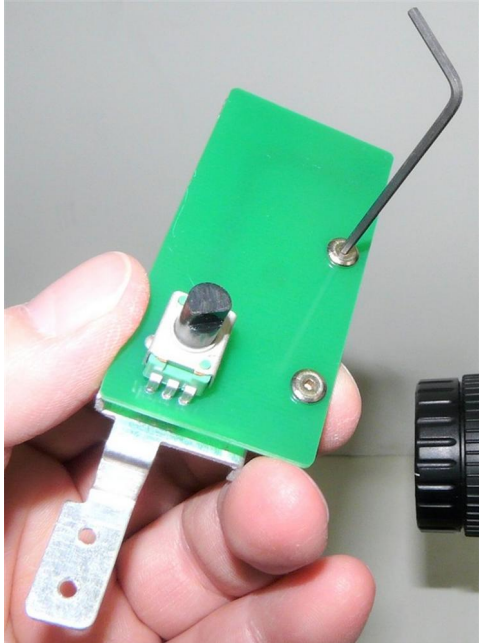
(1) Remove the nut on the DSC jack with a 10mm hex socket. Pull the jack out of the microscope by the blue and purple wires. It is not used with the new illuminator.

(2) Unscrew the bracket holding the capture switch. (two screws - use 2.5mm hex key) Remove it along with the ribbon cable and pot board assy.

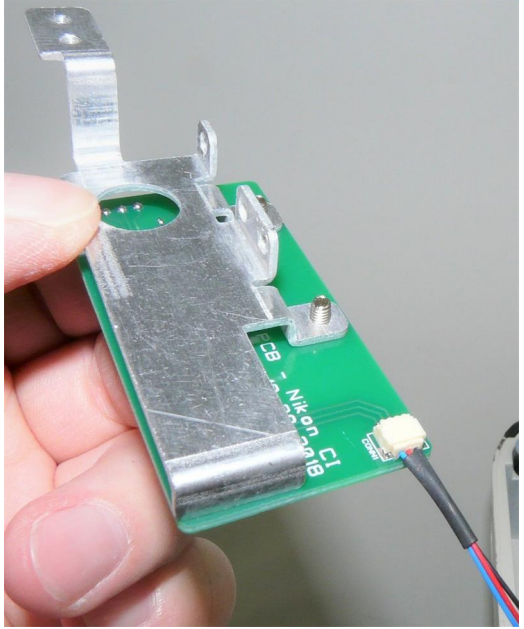


(3) Remove the screws as shown at far left to recover the bracket shown at left.

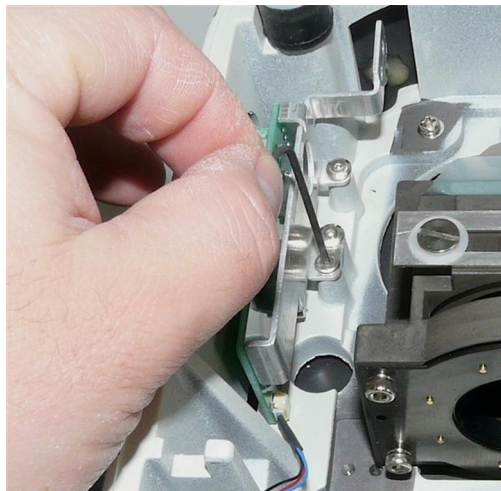
The bracket and screws will be used later to install the Nanodyne intensity adjust pot.



(4) Attach the Nanodyne pot PCB to the bracket.



(5) Plug the pot cable into the socket on the pot PCB if not yet done. See details on sheet 6.

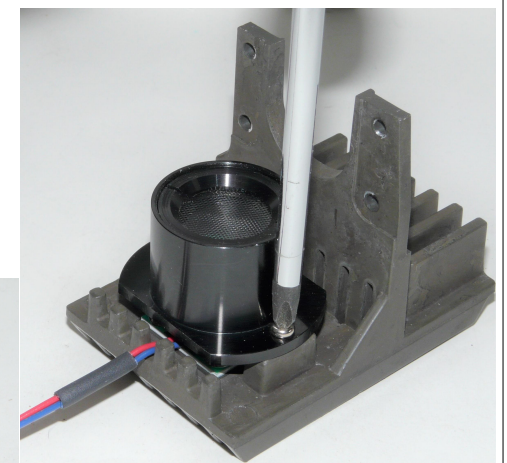
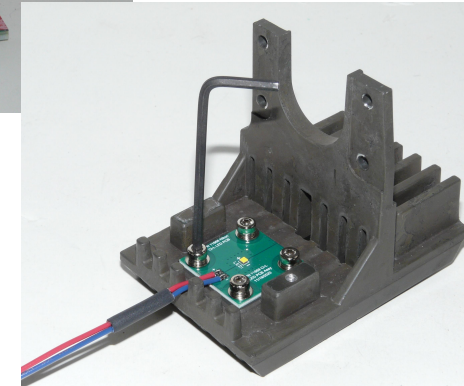
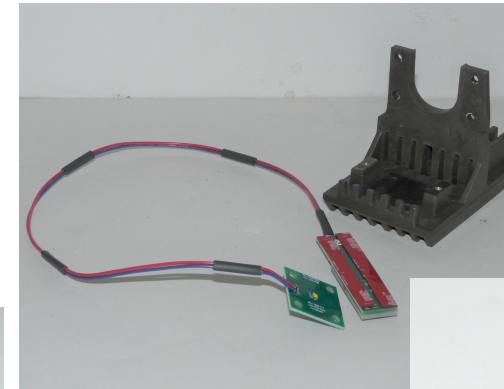
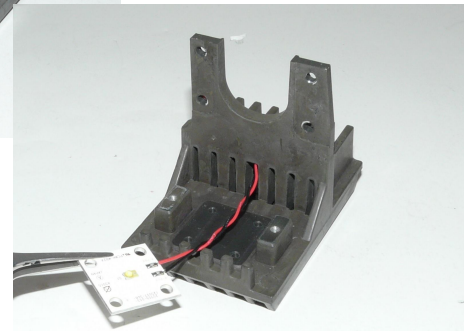
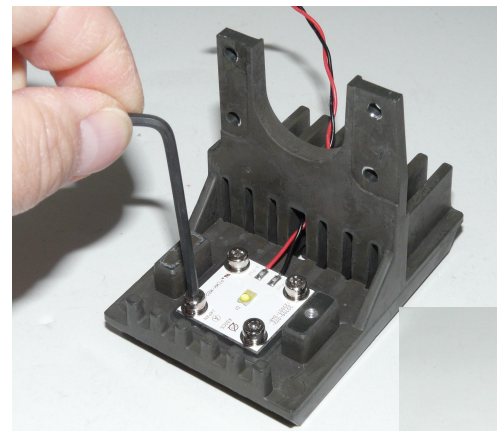


(6) Install the new pot plate like the old one, using the original screws.

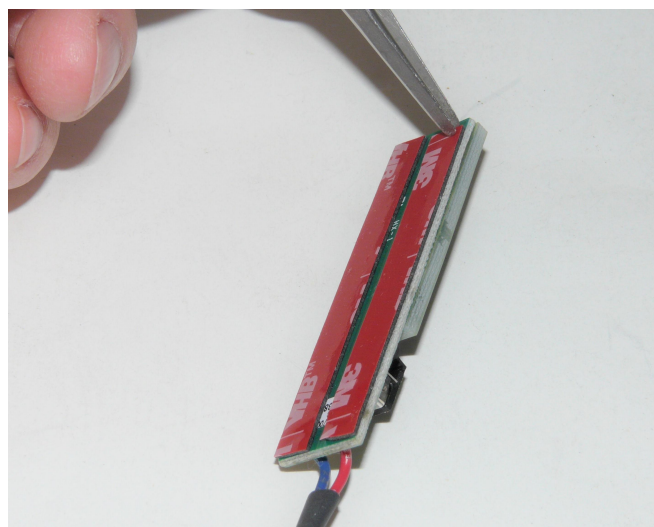
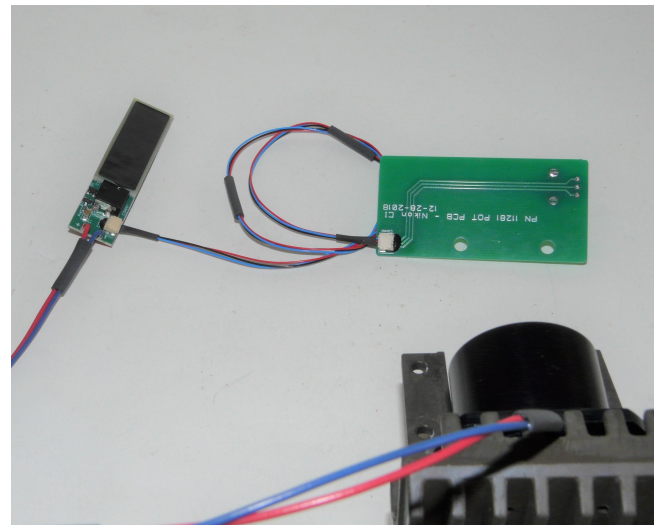
Nanodyne Replacement Illuminator for Nikon Ci-L Microscope Installation Instructions: Step 4 - Finish Removal of Old Parts, Install Nanodyne Illuminator.



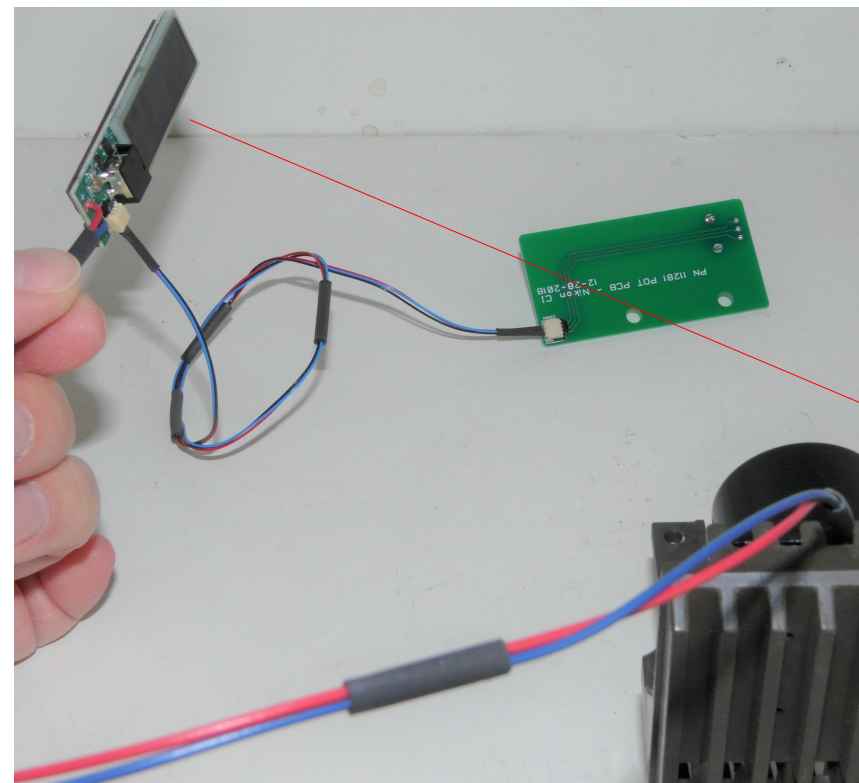
(1) If desired, the capture switch may be re-installed by removing it from the rest of the assembly as shown above and attaching it to the microscope with the original 2 screws. (If replaced it will only serve to fill the otherwise empty hole)



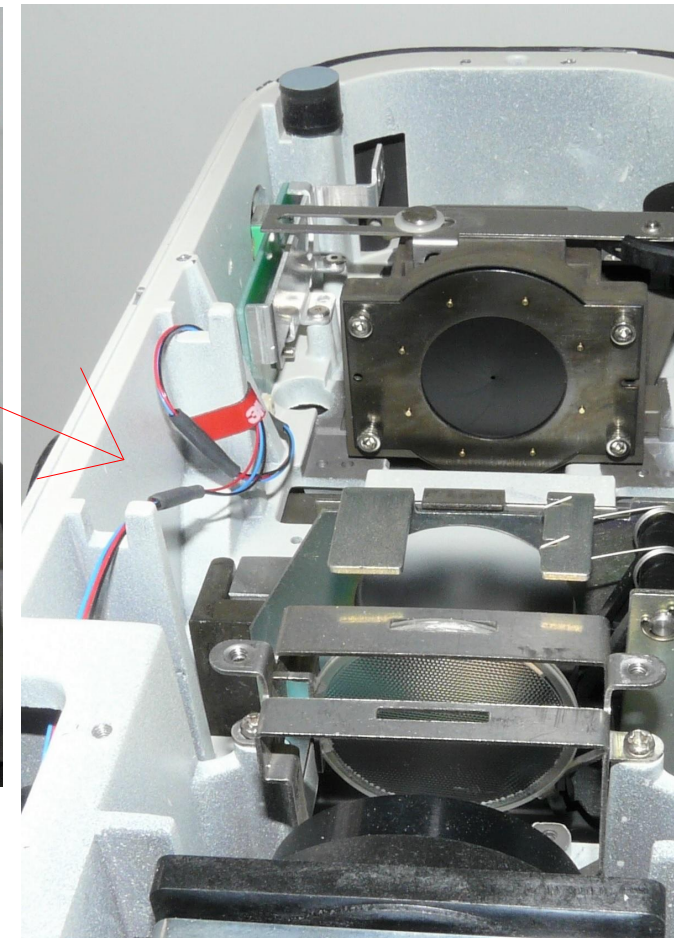
(2) Unscrew and remove white OEM LED PCB then attach the Nanodyne LED PCB using the original screws. Re-install collector lens holder.



(3) Connect the pot cable to the main PCB. See sheet 6 for detailed instructions. Peel out the film from 3M VHB tapes.



(4) Attach Nanodyne main PCB to the wall (see red arrow) and lamp house to the microscope (not shown in the photos).



(5) The pot cable installation should look something like this when done. Use the red tape to secure any extra length inside the microscope.



(6) Install the intensity adjustment knob.

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Nanodyne Replacement Illuminator for Nikon Ci-L Microscope Installation Instructions: Pot Cable Connection Details.

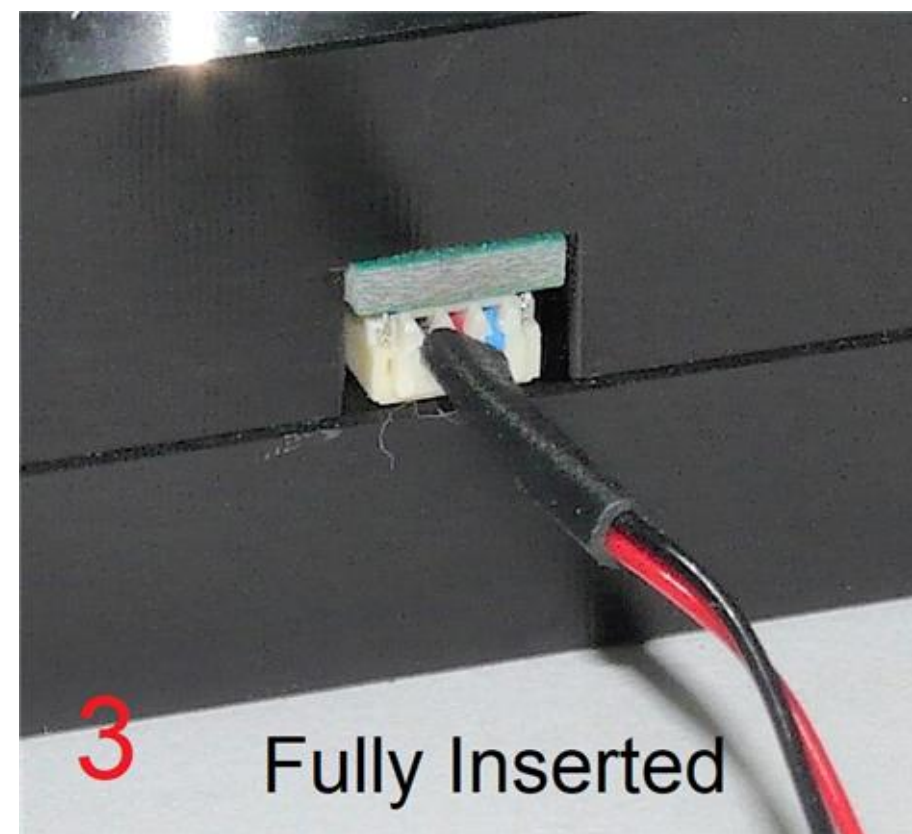
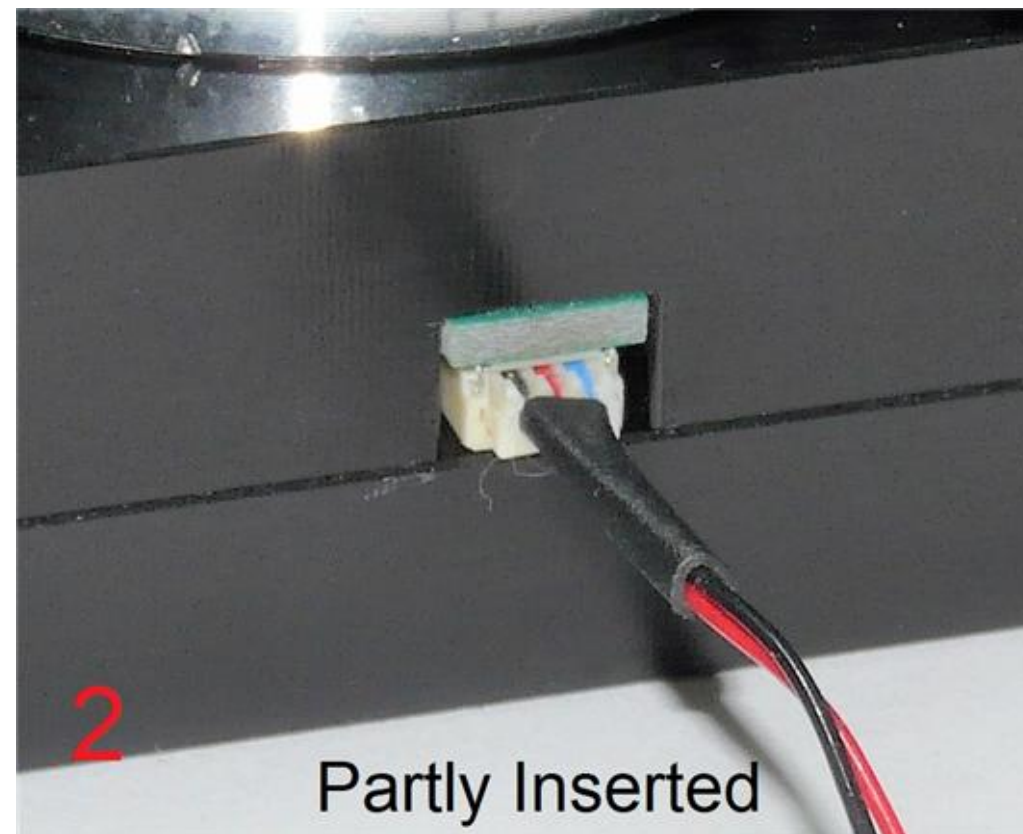
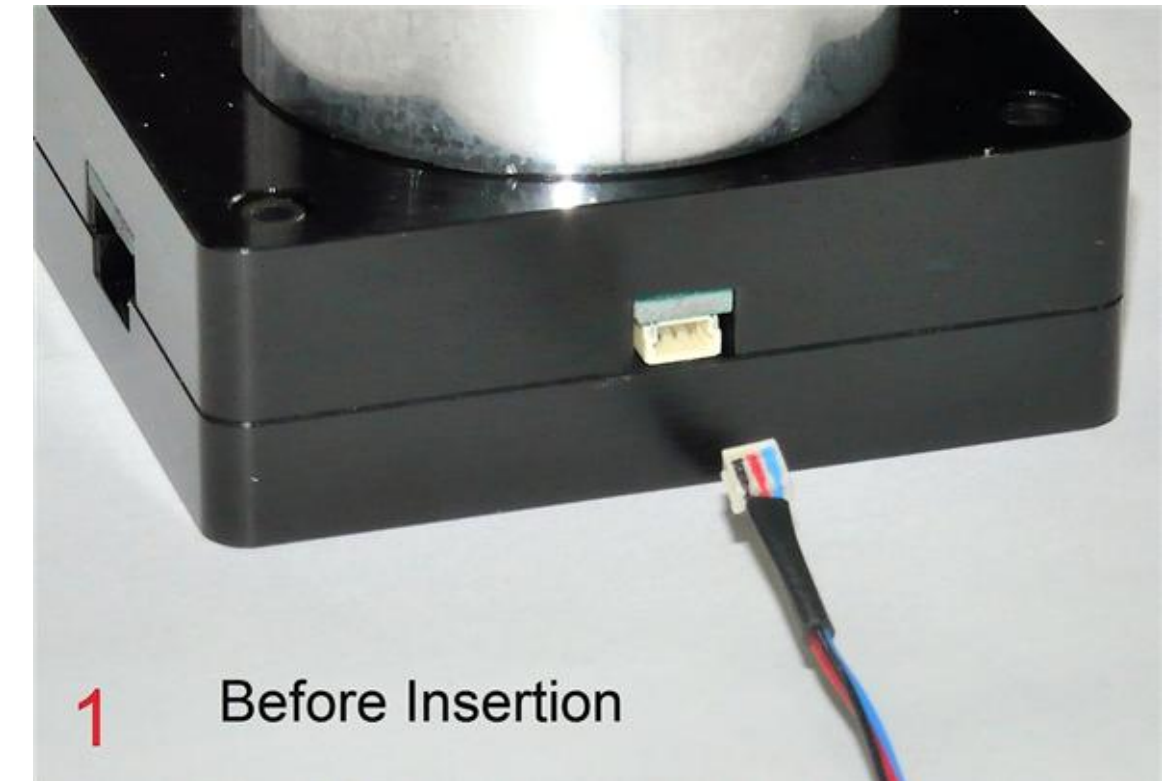
Connect the plug at the end of the Pot Cable Assembly to the mating socket of the illuminator, as shown in the pictures on this page. NOTE THAT THE PLUG IS KEYED TO ONLY GO INTO THE SOCKET ONE WAY, AS SHOWN.

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).

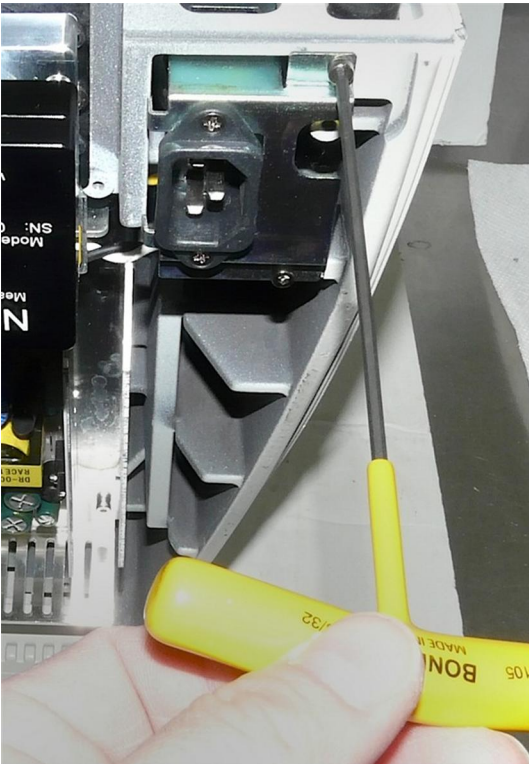
The socket cannot be fully engaged by pushing on the wires, as the wires would just collapse.

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

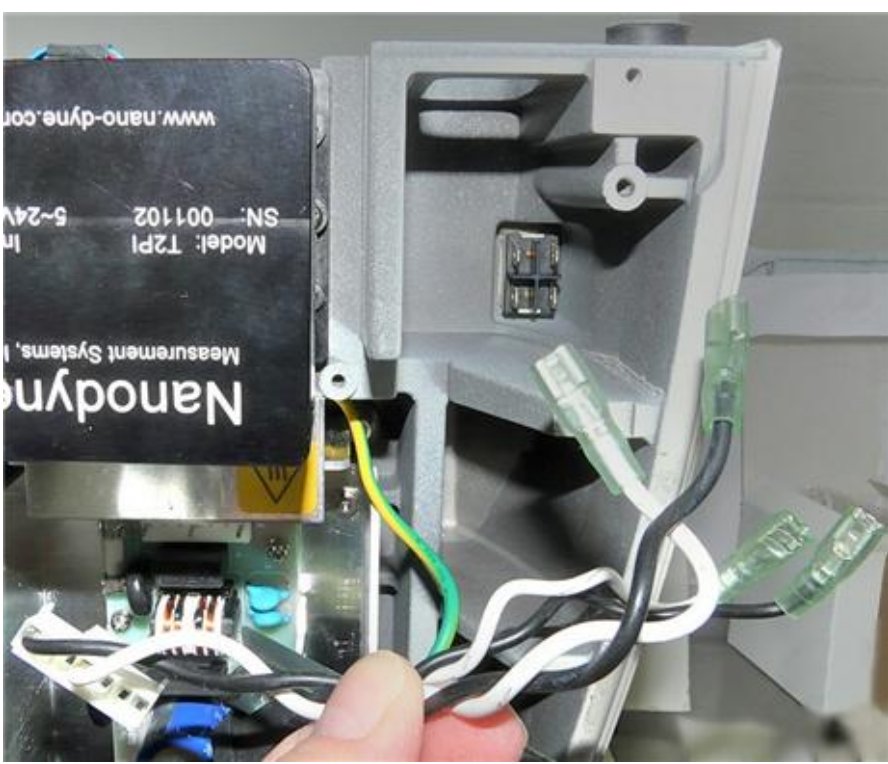


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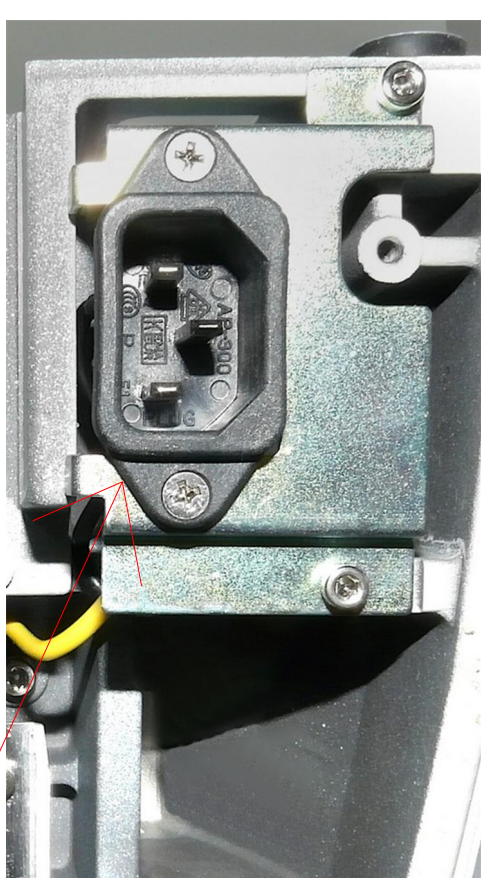
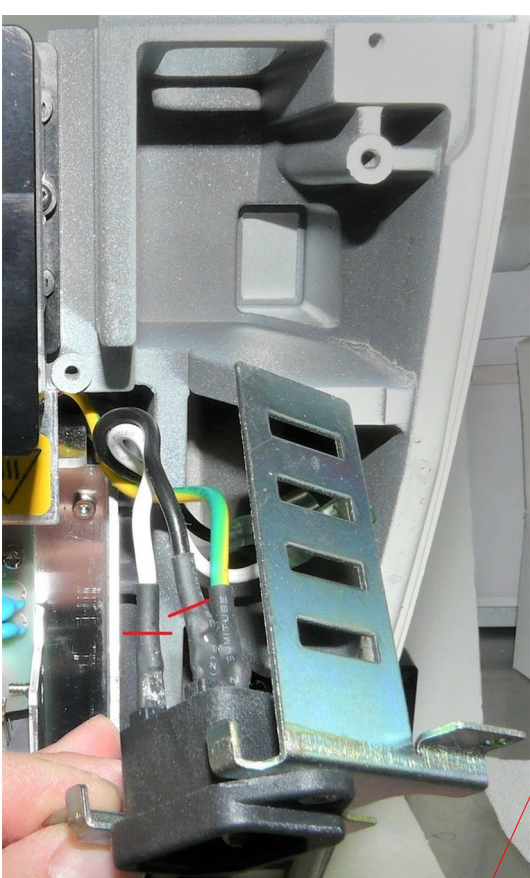
Nanodyne Replacement Illuminator for Nikon Ci-L Microscope Installation Instructions: Step 5 - Remove Obsolete AC Power Wiring and Switch.



(1) Unscrew the obsolete AC power bracket and pull it away from the microscope.



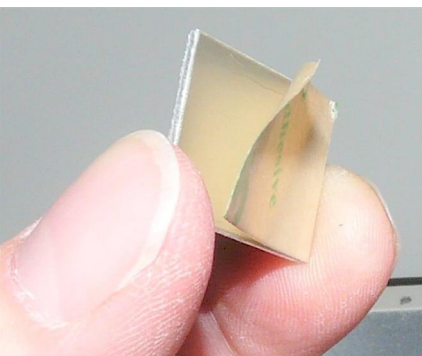
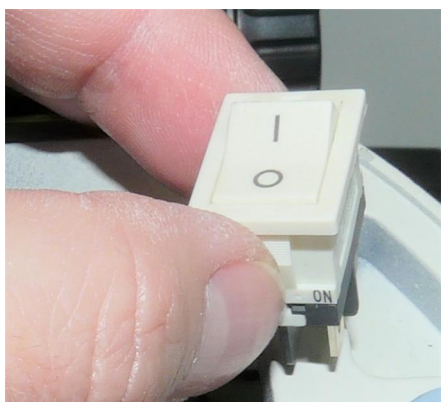
(2) Unplug the 4 wires at the power switch and the connector at the power supply. Cut the 2 wires (1 black, 1 white) at the back of the AC power receptacle.



(3) Cut the white and black AC power leads at the red lines in the above photo and discard the AC wires. Replace the AC power receptacle with Nanodyne power plate (see red arrow). Connect power cable to the main PCB.



(4) Remove the power switch. Use tweezers or a small screw driver to compress the plastic retainers holding it in place while pushing it out.



(5) Remove the release film from PN 10748 blank-off plate.



(6) Install the blank-off plate in place of the power switch. Press firmly in place.

* **Note:** Microscope shown above is the halogen version, but the procedure is the same.

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Nanodyne Replacement Illuminator for Nikon Ci-L Microscope Installation Instructions: Step 6 - Replace Covers and Connect New Power Supply.

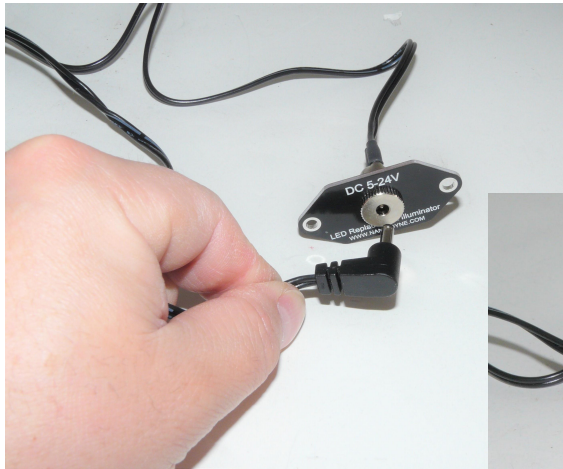
B



(1) Replace the back cover.



(4) Install the rest of the screws. The two just under the black filter holder need a 1.5mm hex key. The other 6 need a phillips screwdriver.

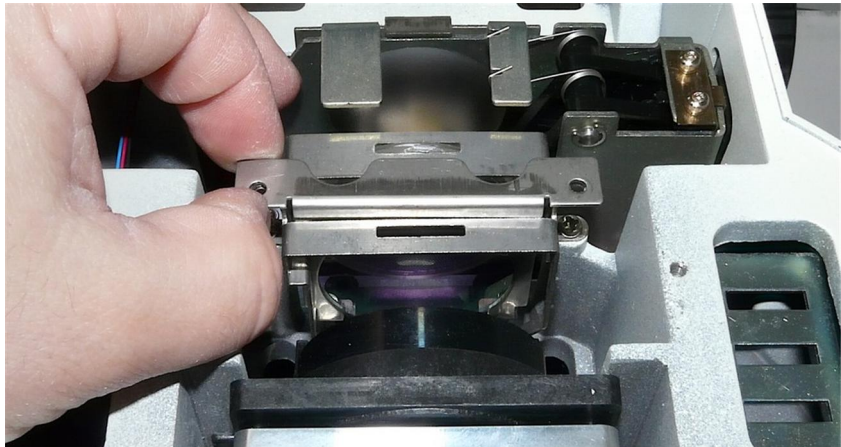


(5) Plug in the power supply.



(6) Installation is complete.

A



(2) Replace the filter. Be sure the screw holes are aligned.



(3) Replace the bottom cover and tighten the black screws for holding the filter. (use a 2mm hex key)

* **Note:** Microscope shown above is the halogen version, but the procedure is the same.

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