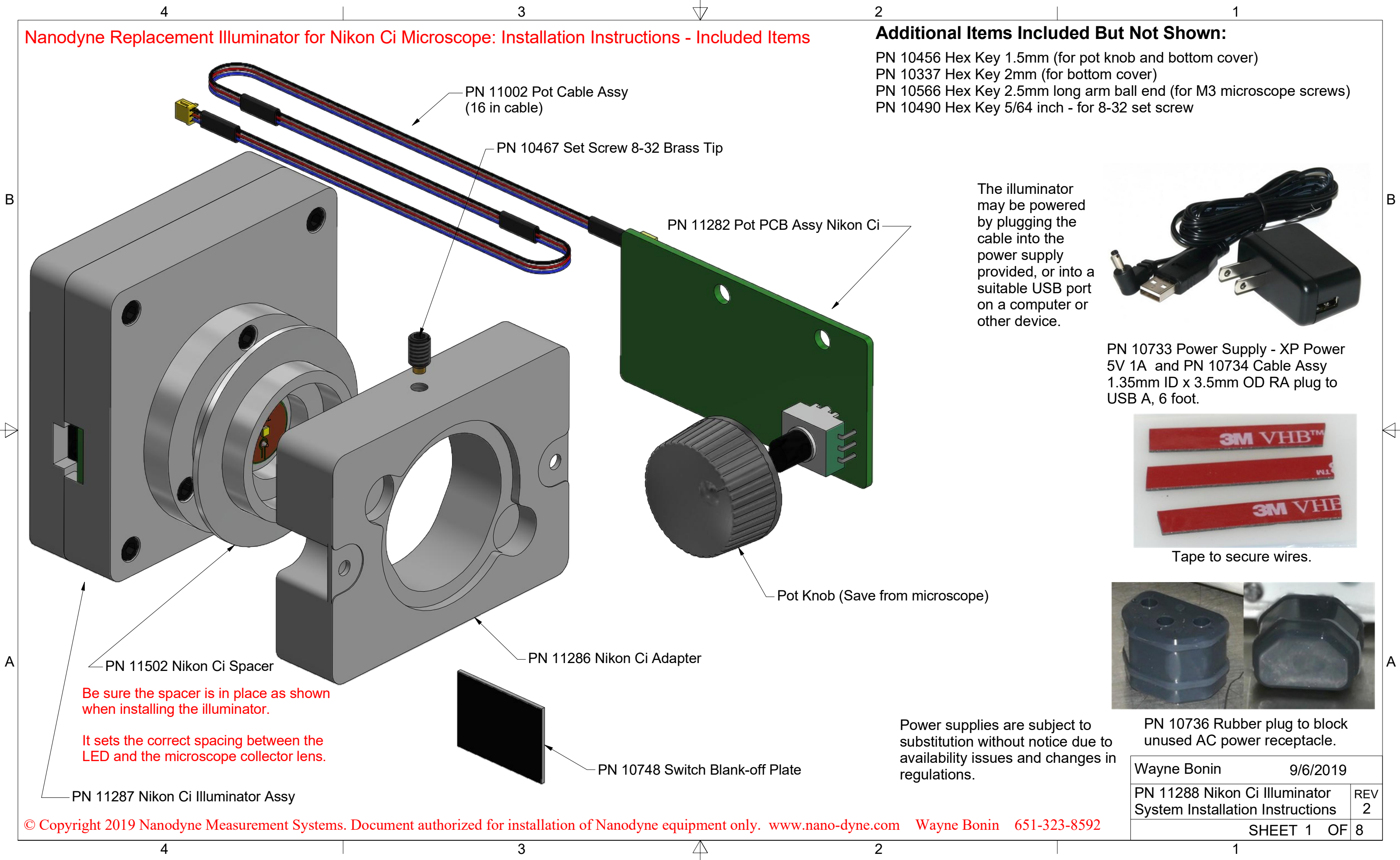


Nanodyne Replacement Illuminator for Nikon Ci Microscope: Installation Instructions - Included Items

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 10566 Hex Key 2.5mm long arm ball end (for M3 microscope screws)
- PN 10490 Hex Key 5/64 inch - for 8-32 set screw



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.



PN 10736 Rubber plug to block unused AC power receptacle.

Be sure the spacer is in place as shown when installing the illuminator.

It sets the correct spacing between the LED and the microscope collector lens.

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

Wayne Bonin	9/6/2019
PN 11288 Nikon Ci Illuminator System Installation Instructions	REV 2
SHEET 1 OF 8	

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

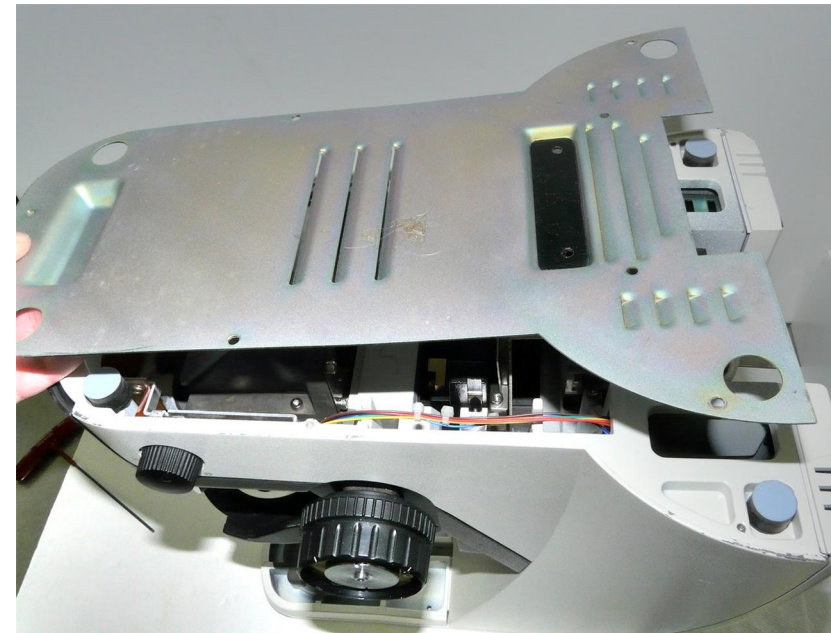
Be sure the AC power is disconnected.

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

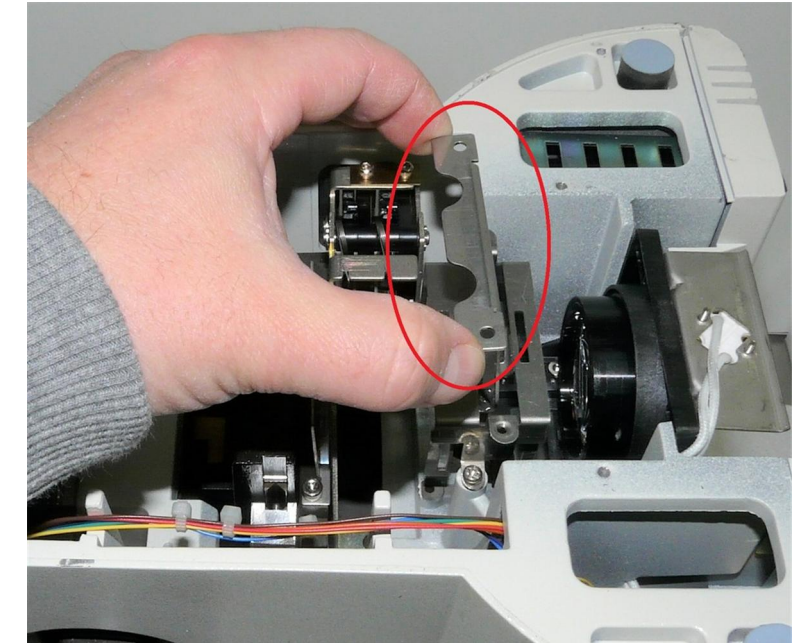
Use the 2mm hex key (included, but not as shown) on the two black screws.

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.



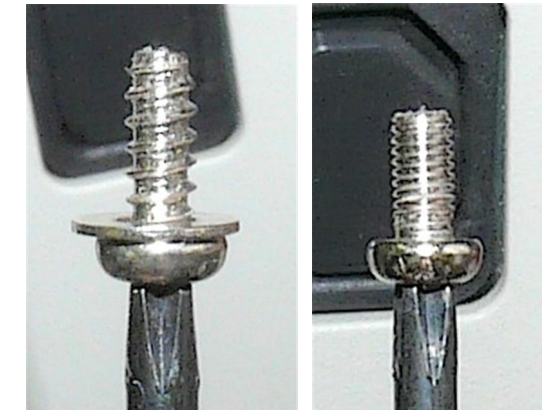
(4) Remove the back cover (6 screws).



(5) Remove the lamp assembly (2 screws circles at left).

Note warning at right

Disconnect lamp cable by unplugging it from the power supply (lower circle). There is a locking tab built into the plug that needs to be depressed while pulling it out.

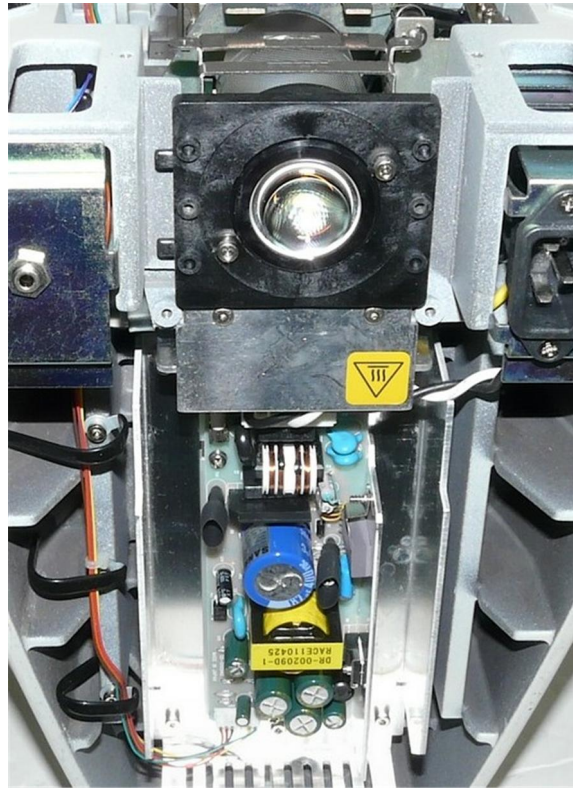


WARNING

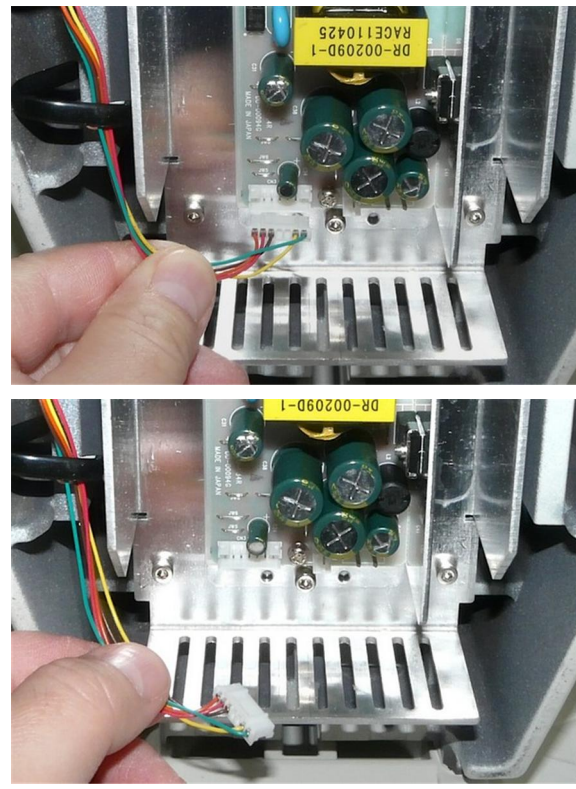
On our microscope the two screws holding the lamp assembly were different. These same screws are used to attach the Nanodyne adapter. If your screws are different as shown above, each one must go back in the same hole it came out of.

Wayne Bonin	9/6/2019
PN 11288 Nikon Ci Illuminator System Installation Instructions	REV 2
SHEET 2 OF 8	

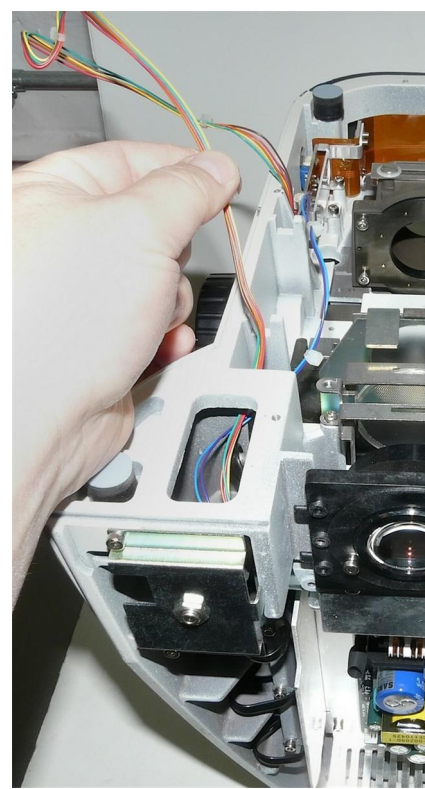
Nanodyne Replacement Illuminator for Nikon Ci Microscope Installation Instructions: Step 2 - Remove Old Control Cables and Pot Knob.



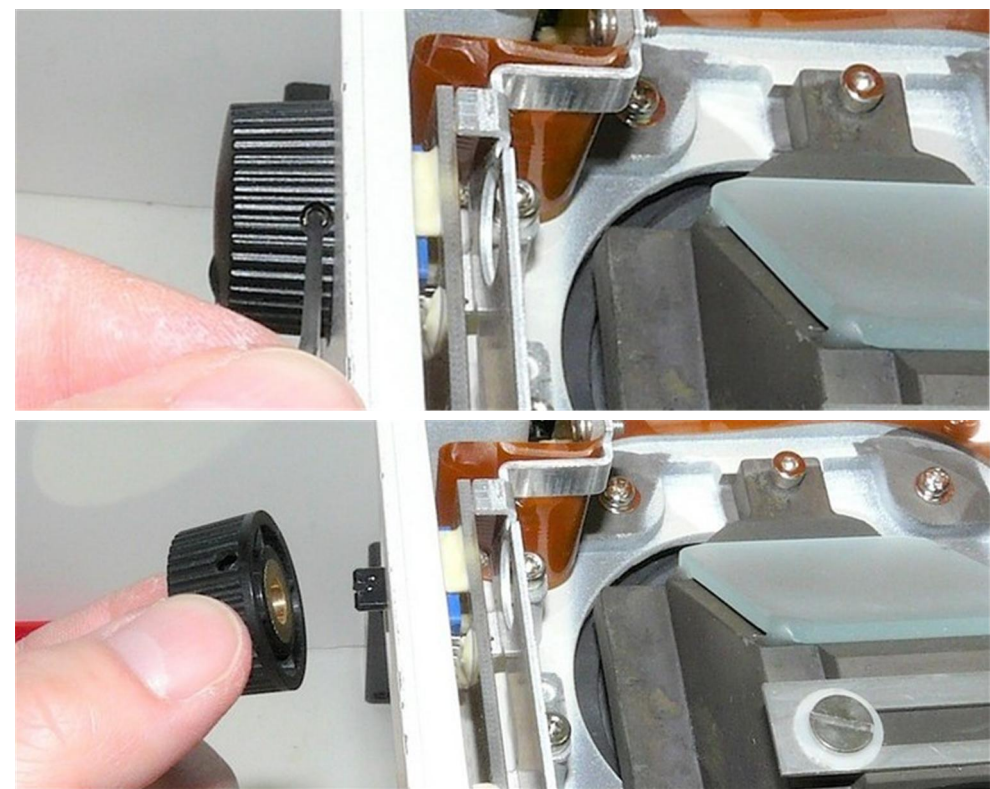
(1) Original illuminator removed.



(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.



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

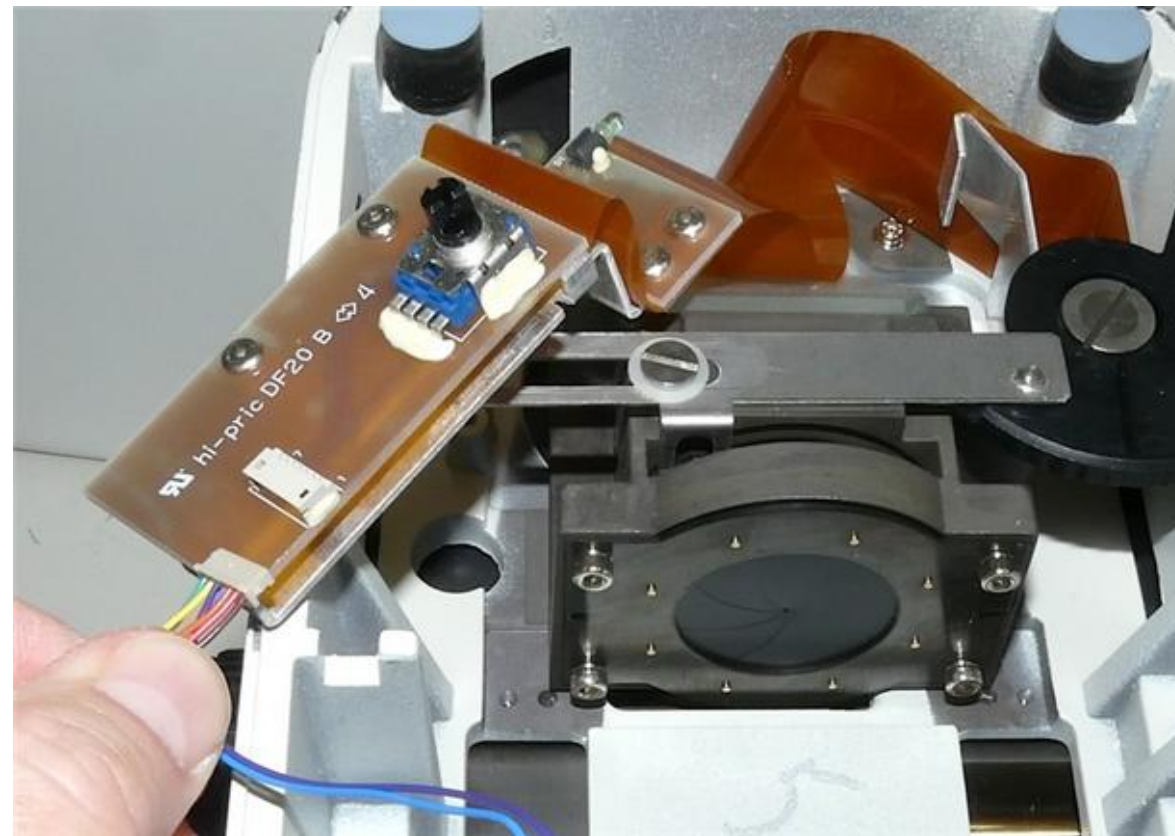
Unplug the cable from the connector on the intensity adjust PCB.

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



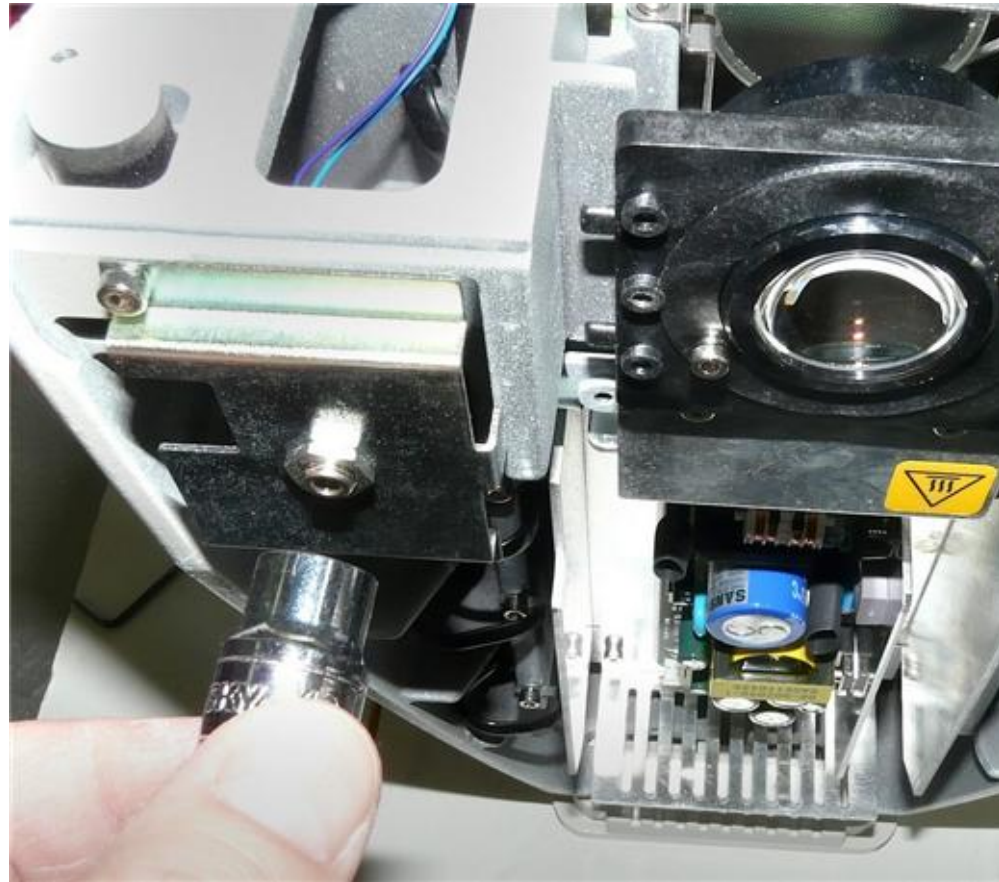
Placing a small but powerful magnet near the tip of the hex key wrench to hold the screws in place will eliminate much frustration in getting the screws in and out where there is no room for fingers.

(4) Remove the mounting screws for the pot plate PCB.

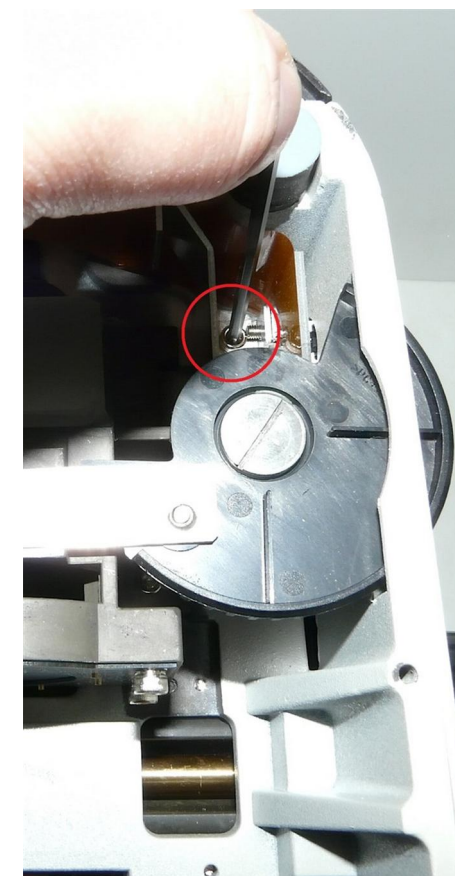
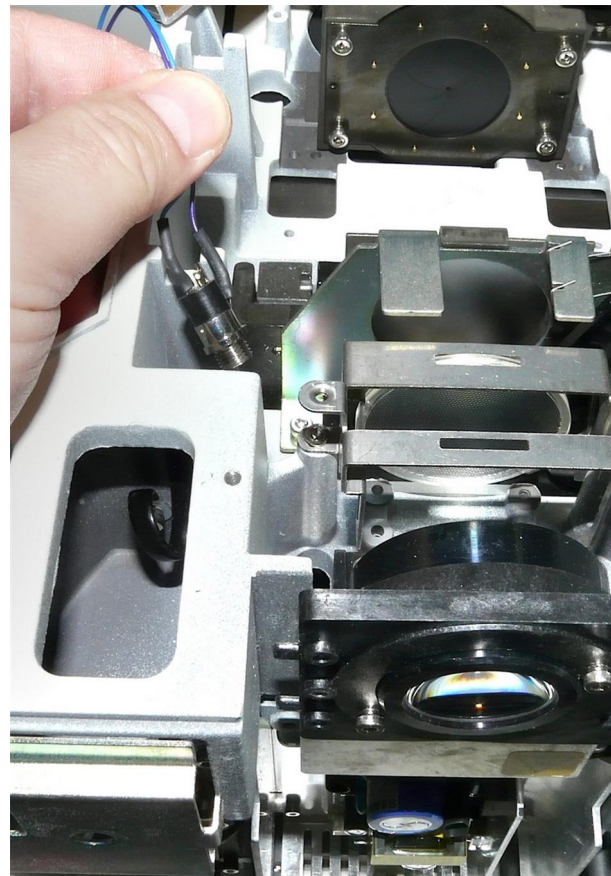


Wayne Bonin	9/6/2019
PN 11288 Nikon Ci Illuminator System Installation Instructions	REV 2
SHEET 3 OF 8	

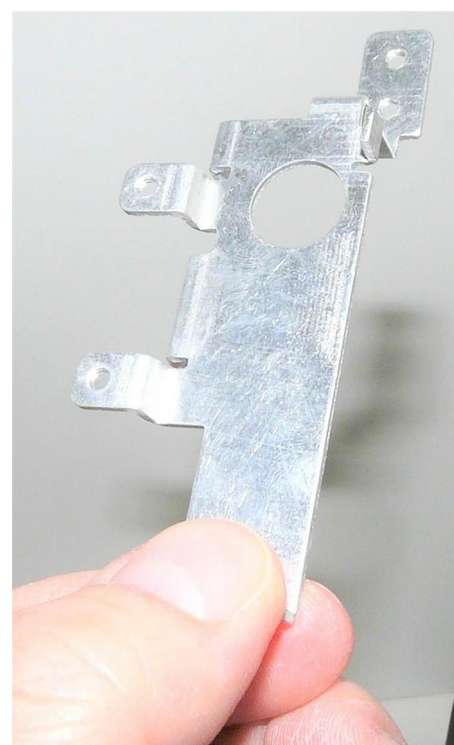
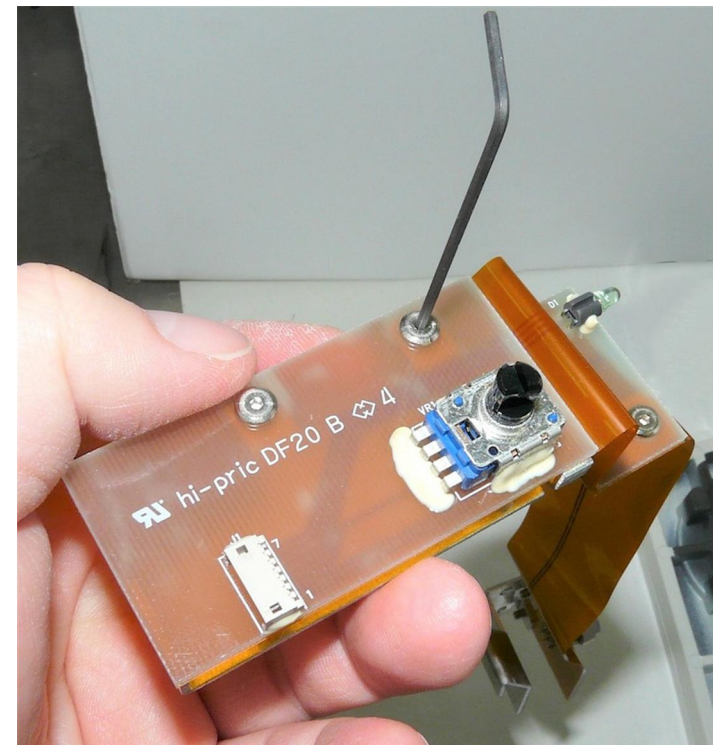
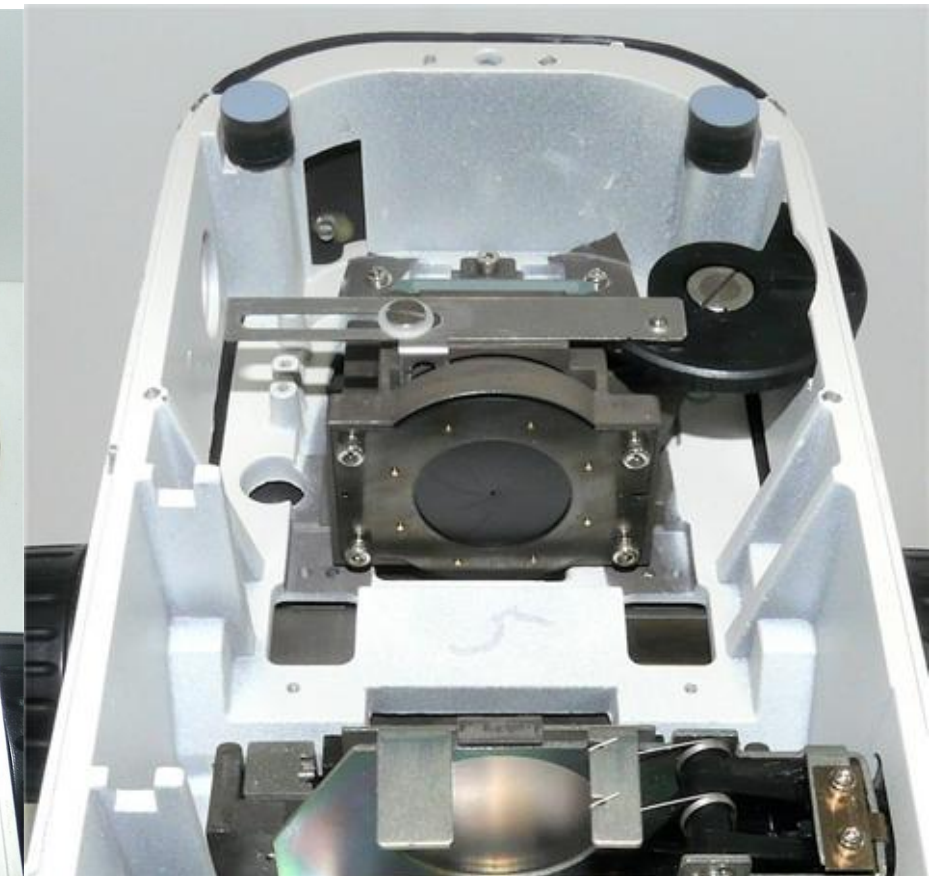
Nanodyne Replacement Illuminator for Nikon Ci Microscope Installation Instructions: Step 3 - Remove Ribbon Cable and Capture Switch, Install New Pot.



(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.

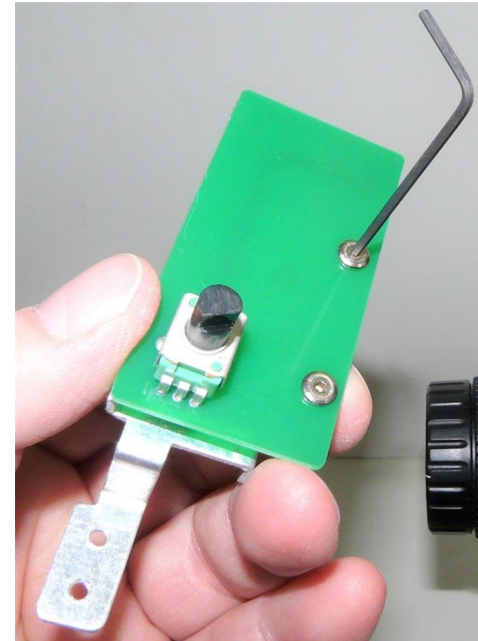


(2) Unscrew the bracket holding the capture switch. (two screws - use 2.5mm hex key) Remove it along with the ribbon cable and pot board assy.

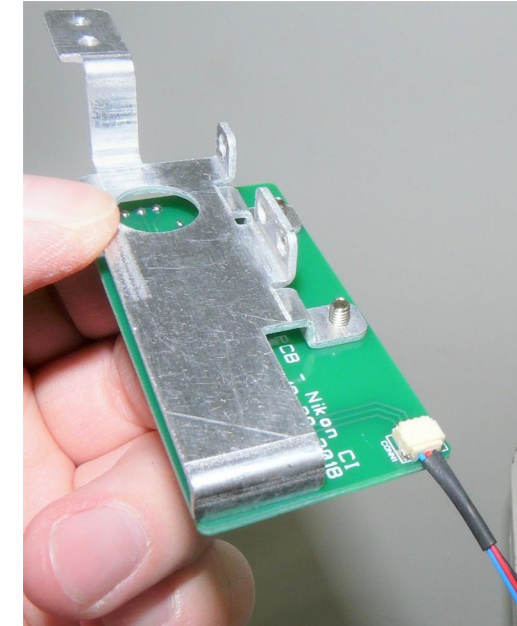


(3) Remove the screws as shown at far left to recover the bracket shown at left.

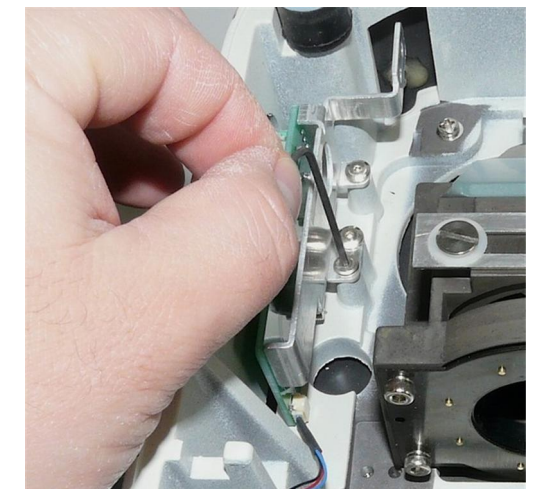
The bracket and screws will be used later to install the Nanodyne intensity adjust pot.



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

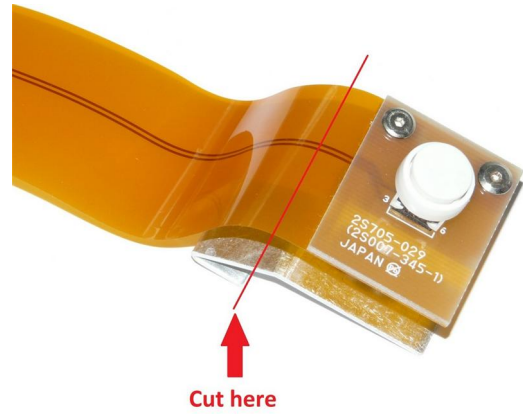


(5) Plug the pot cable into the socket on the pot PCB if not yet done. See details on sheet 6.



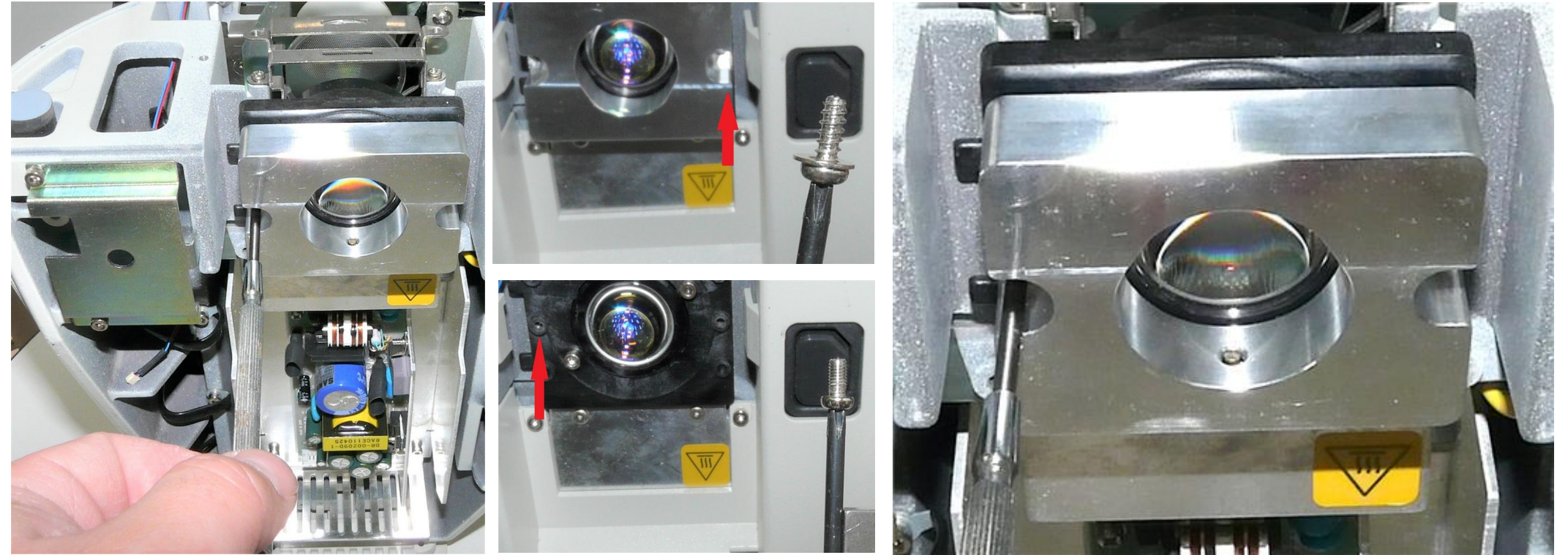
(6) Install the new pot plate like the old one, using the original screws.

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



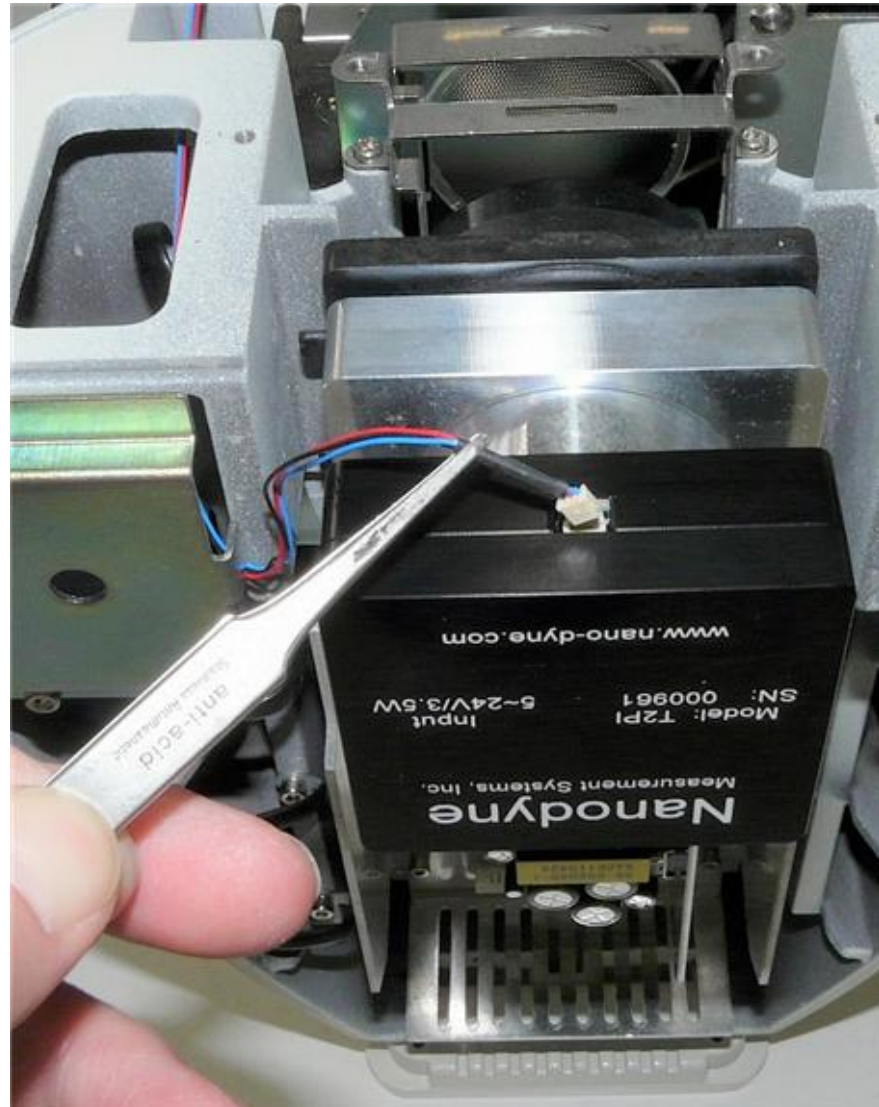
Cut here

(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) Attach the Nanodyne adapter using the original screws. As also shown on sheet 2, be sure they go back in the same hole if they are different.

(close up of adapter installation)



(3) (left photo)

Install the illuminator. It is secured by tightening the set screw in the adapter.

Connect the pot cable to the illuminator.

See sheet 6 for detailed instructions



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



(5) Install the intensity adjustment knob.

Wayne Bonin	9/6/2019
PN 11288 Nikon Ci Illuminator System Installation Instructions	REV 2
SHEET 5 OF 8	

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

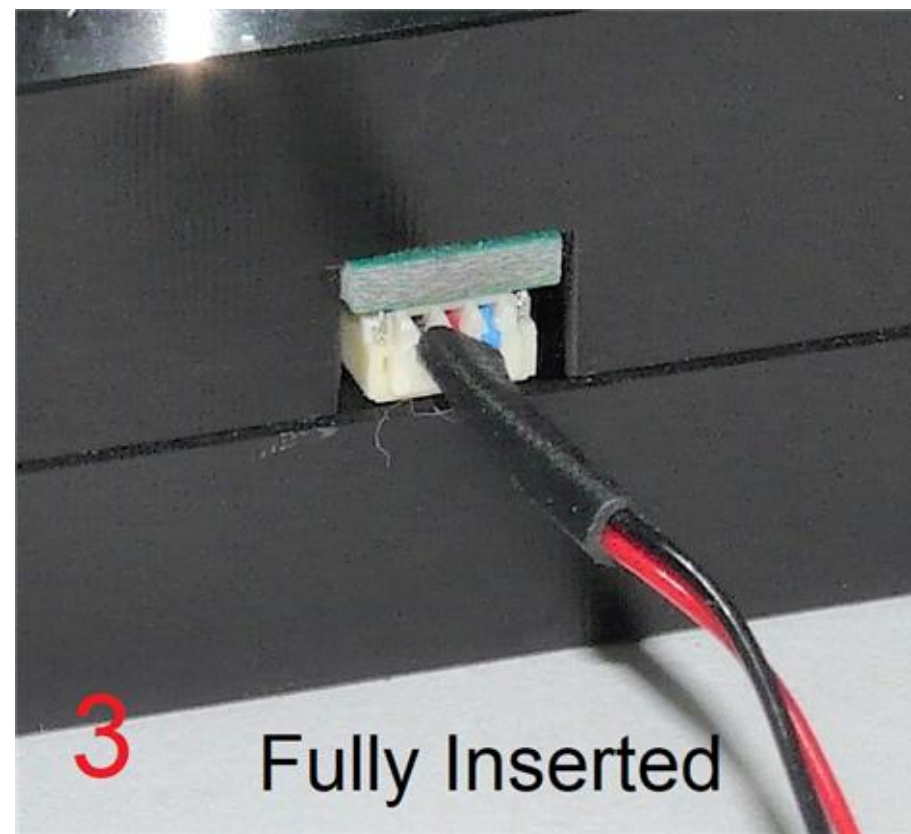
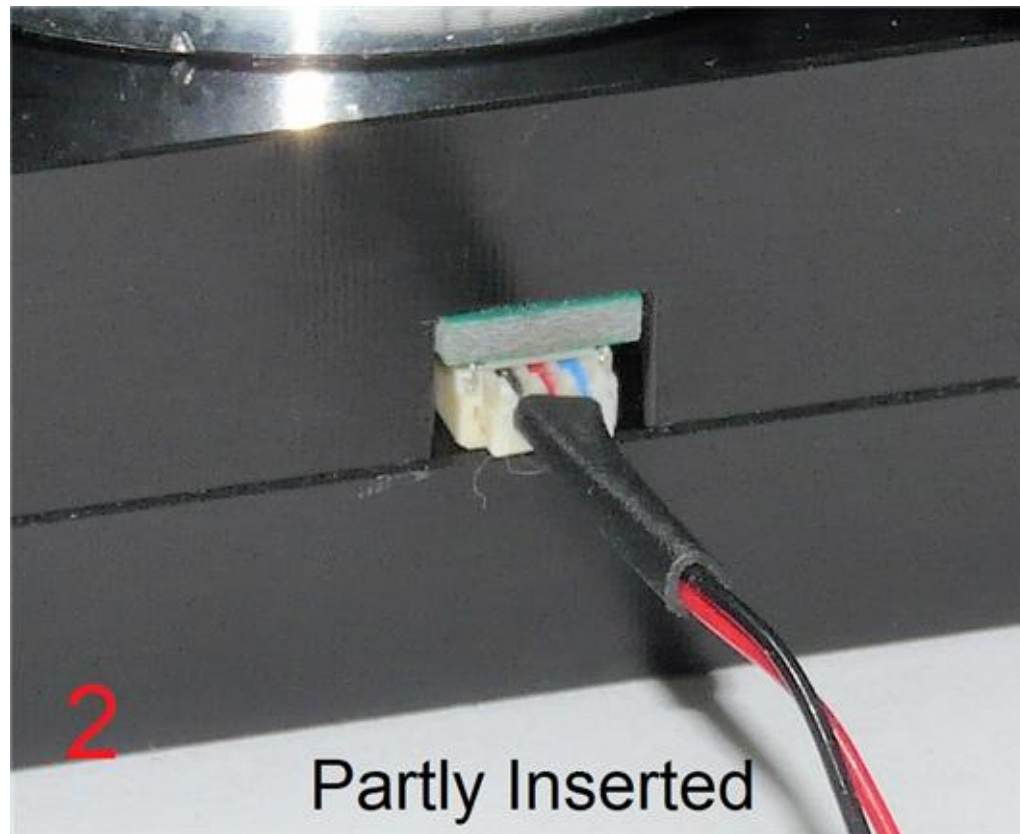
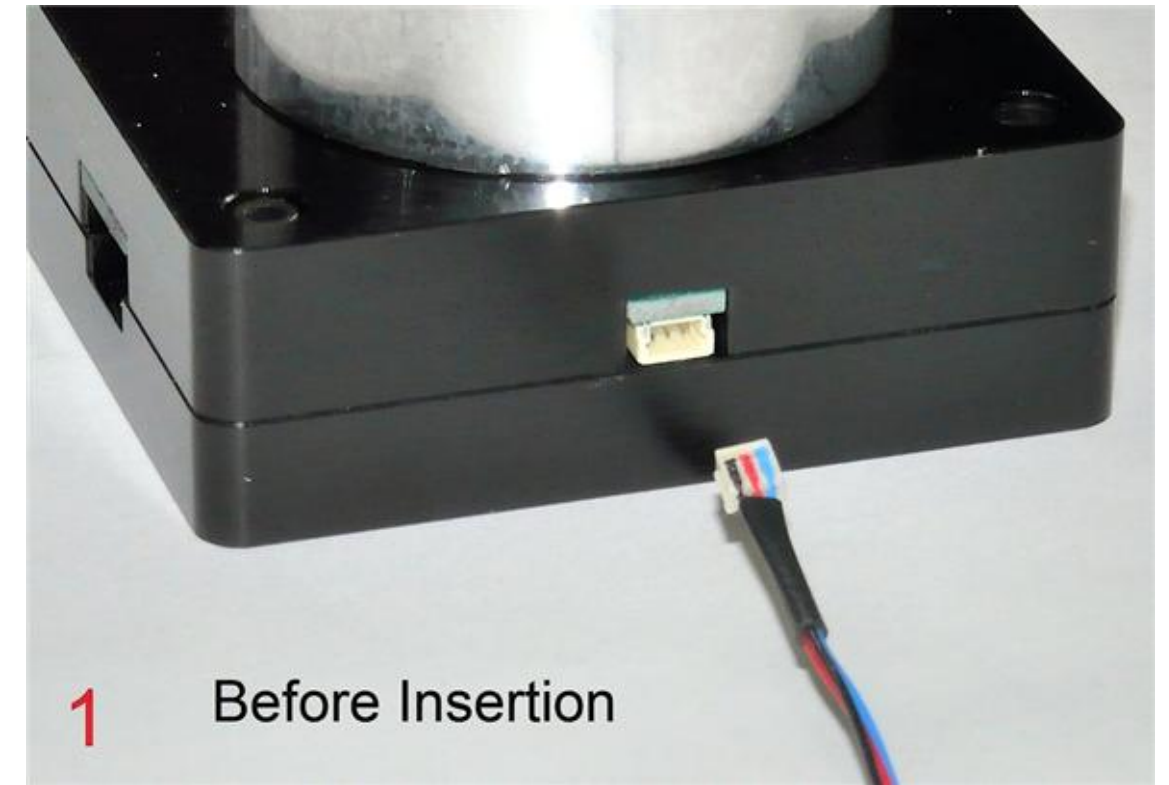
Connect the plug at the end of the Pot Cable Assembly to the mating socket of the illuminator, as shown in the pictures on this page. NOTE THAT THE PLUG IS KEYED TO ONLY GO INTO THE SOCKET ONE WAY, AS SHOWN.

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).

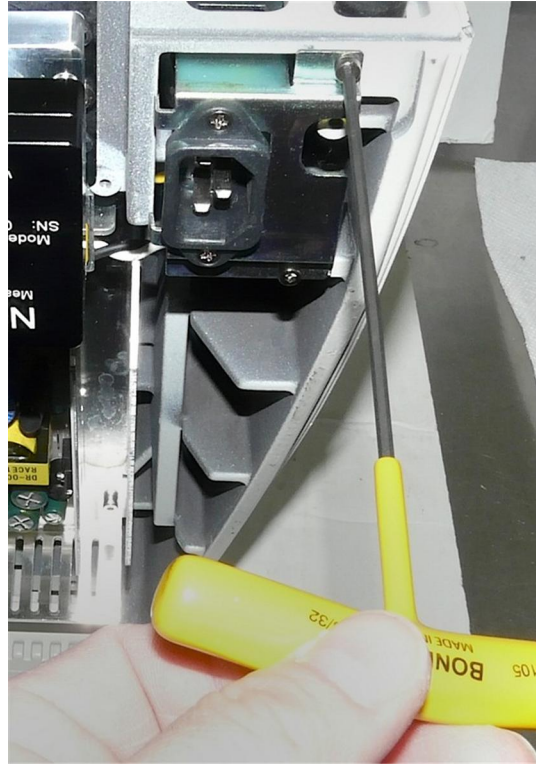
The socket cannot be fully engaged by pushing on the wires, as the wires would just collapse.

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

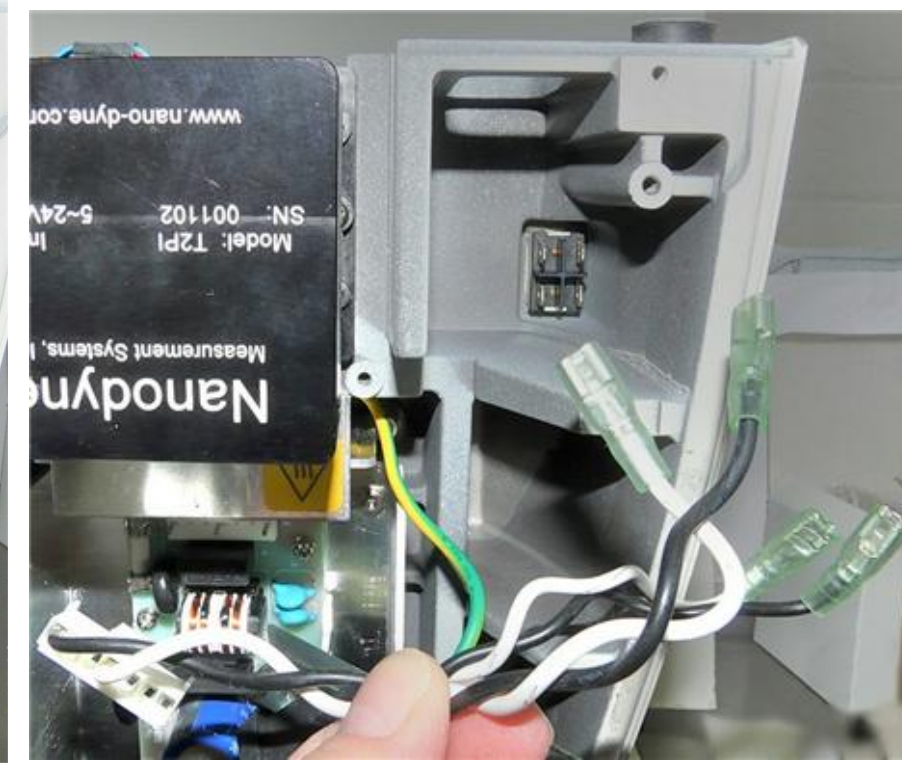
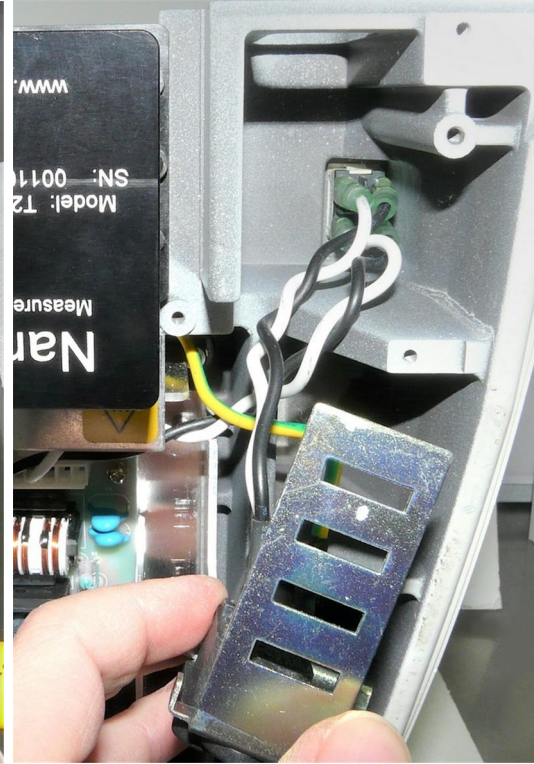


Wayne Bonin	9/6/2019
PN 11288 Nikon Ci Illuminator System Installation Instructions	REV 2
SHEET 6 OF 8	

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



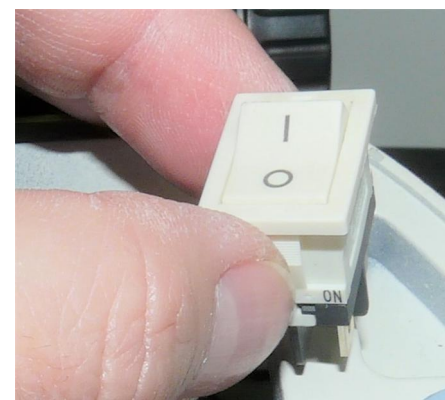
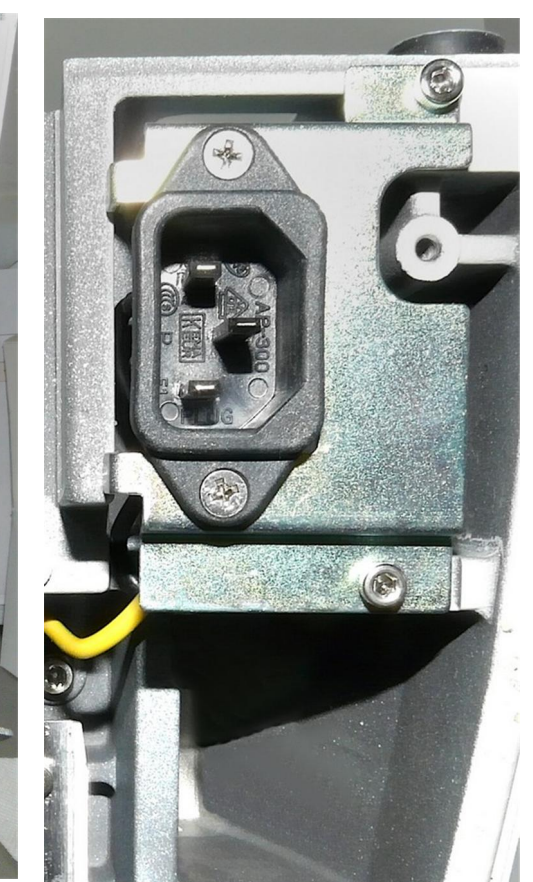
(1) Unscrew the obsolete AC power bracket and pull it away from the microscope.



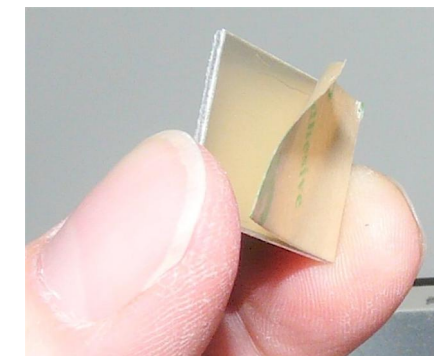
(2) Unplug the 4 wires at the power switch and the connector at the power supply. Cut the 2 wires (1 black, 1 white) at the back of the AC power receptacle.



(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.



(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.



(7) Blank-off plate installed in microscope.

Wayne Bonin	9/6/2019
PN 11288 Nikon Ci Illuminator System Installation Instructions	REV 2
SHEET 7 OF 8	

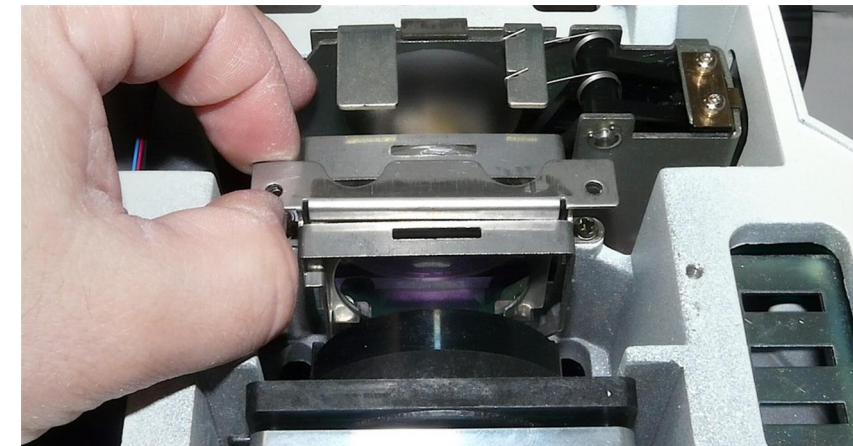
Nanodyne Replacement Illuminator for Nikon Ci Microscope Installation Instructions: Step 6 - Replace Covers and Connect New Power Supply.



(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.



(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)



(5) Install the silicone rubber AC blocking plug provided.



(6) Plug in the power supply and the installation is complete.

Wayne Bonin	9/6/2019
PN 11288 Nikon Ci Illuminator System Installation Instructions	REV 2
SHEET 8 OF 8	