

Nanodyne Replacement Illuminator for AO One-Ten Microscope: Included Items

Also Included but not shown:

- PN 10703 Hex Key 0.05 inch
- PN 10337 Hex Key 2mm Short Arm (for M3 BHCS)
- PN 11918 Hex Key 9/64 short arm

The illuminator should be powered by plugging the cable into the power supply provided.



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.



3M VHB Tape to secure wires.

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

Han-Seung Yang		1/21/2020	
PN 11575 AO One-Ten illuminator System Installation Instruction			REV 1
SHEET 1		OF 5	

4

3

2

1

B

B

A

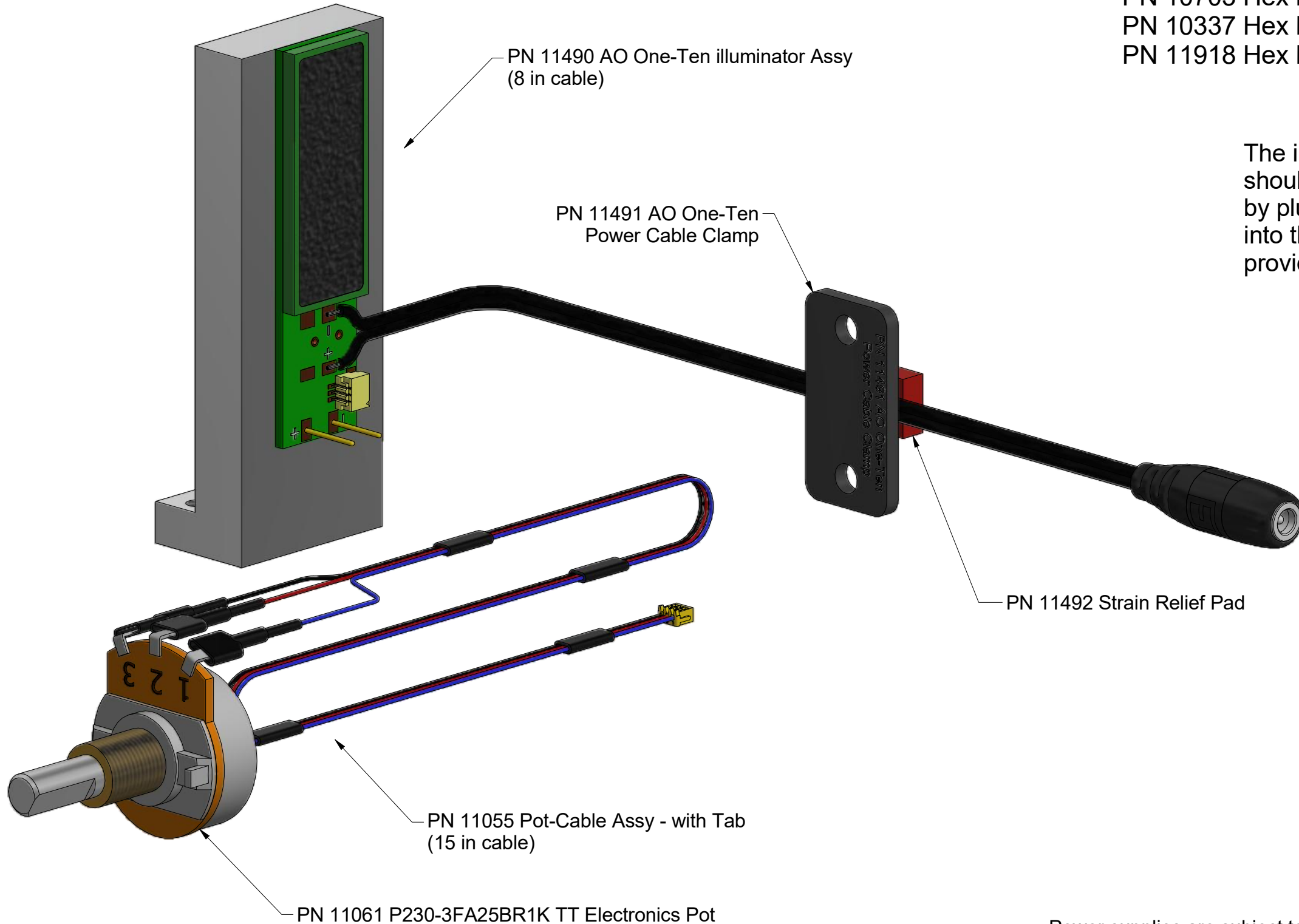
A

4

3

2

1



PN 11490 AO One-Ten illuminator Assy (8 in cable)

PN 11491 AO One-Ten Power Cable Clamp

PN 11492 Strain Relief Pad

PN 11055 Pot-Cable Assy - with Tab (15 in cable)

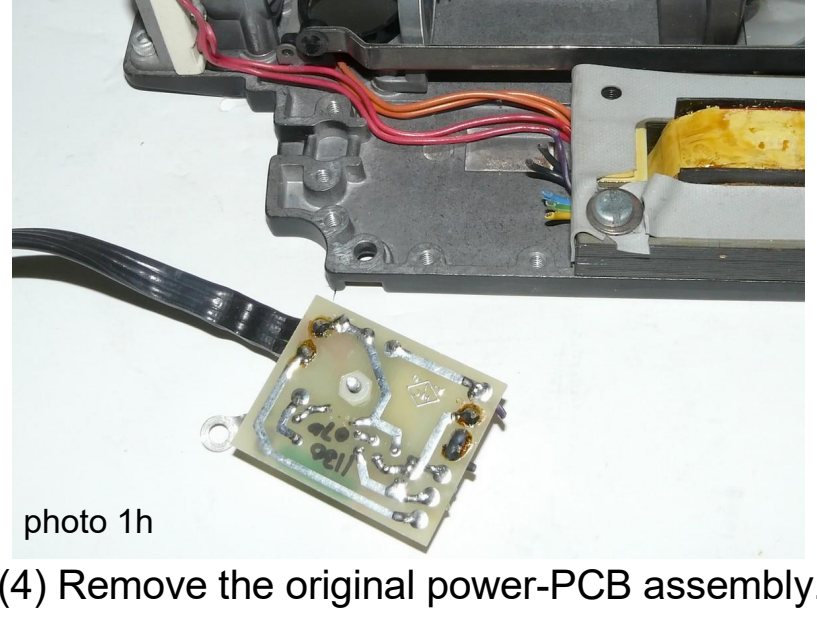
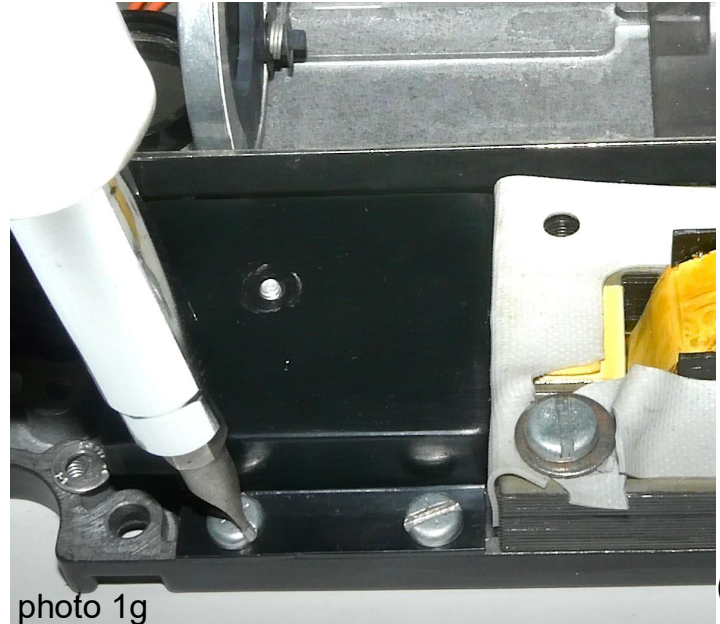
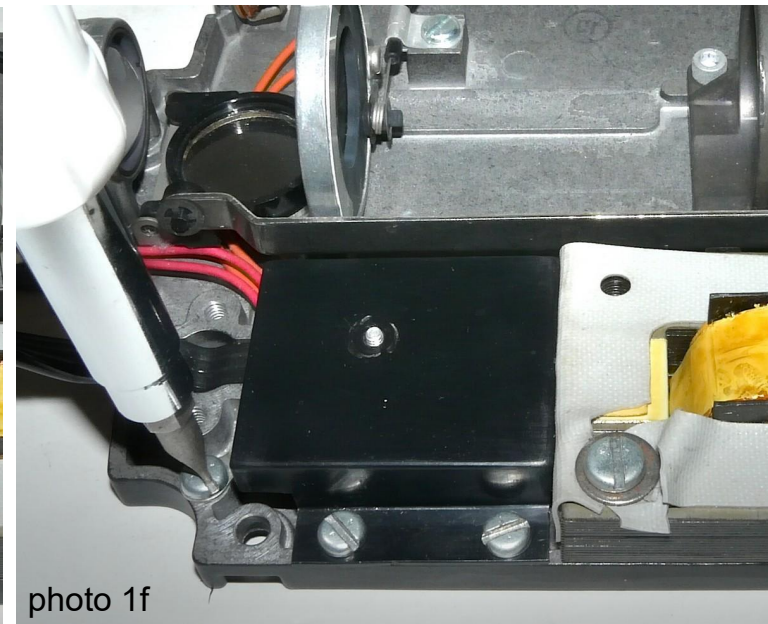
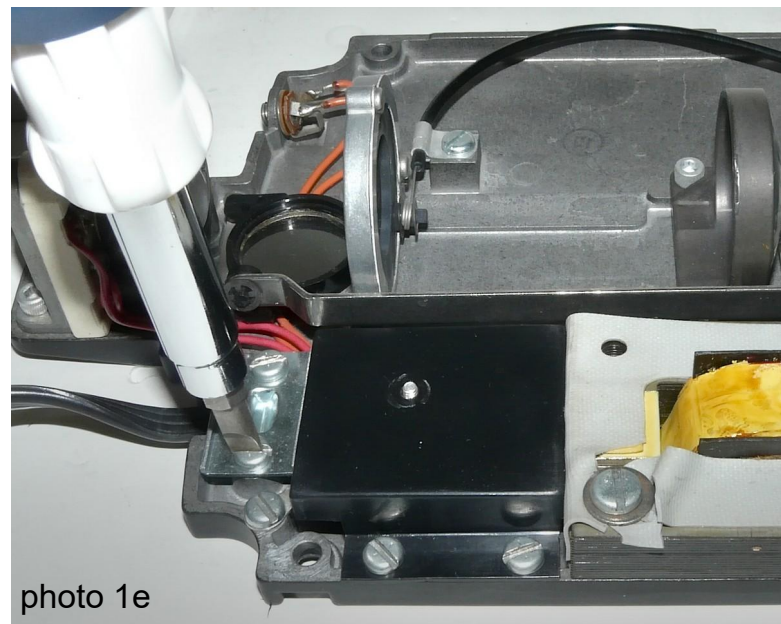
PN 11061 P230-3FA25BR1K TT Electronics Pot

Nanodyne Replacement Illuminator for AO One-Ten Microscope Installation Instructions: Step 1. Separate Microscope Base and Remove Electrical Wiring.



(1) Use the 0.05 inch hex key to remove the adjustment knob. Keep the knob to install on the replacement adjustment potentiometer.

(2) Unscrew to separate the microscope base.



(3) Remove the power cable pad, ground wire and unscrew the black plastic housing.

(4) Remove the original power-PCB assembly.

Be sure that the now unneeded electrical wiring cannot cause a short circuit in case AC power is connected by mistake sometime. They can be completely removed.

Han-Seung Yang		1/21/2020
PN 11575 AO One-Ten illuminator System Installation Instruction		REV 1
SHEET 2		OF 5

Nanodyne Replacement Illuminator for AO One-Ten Microscope Installation Instructions: Step 2. Remove old Collector Lens, Lamp Holder Assembly and Unneeded Wires.



photo 2a

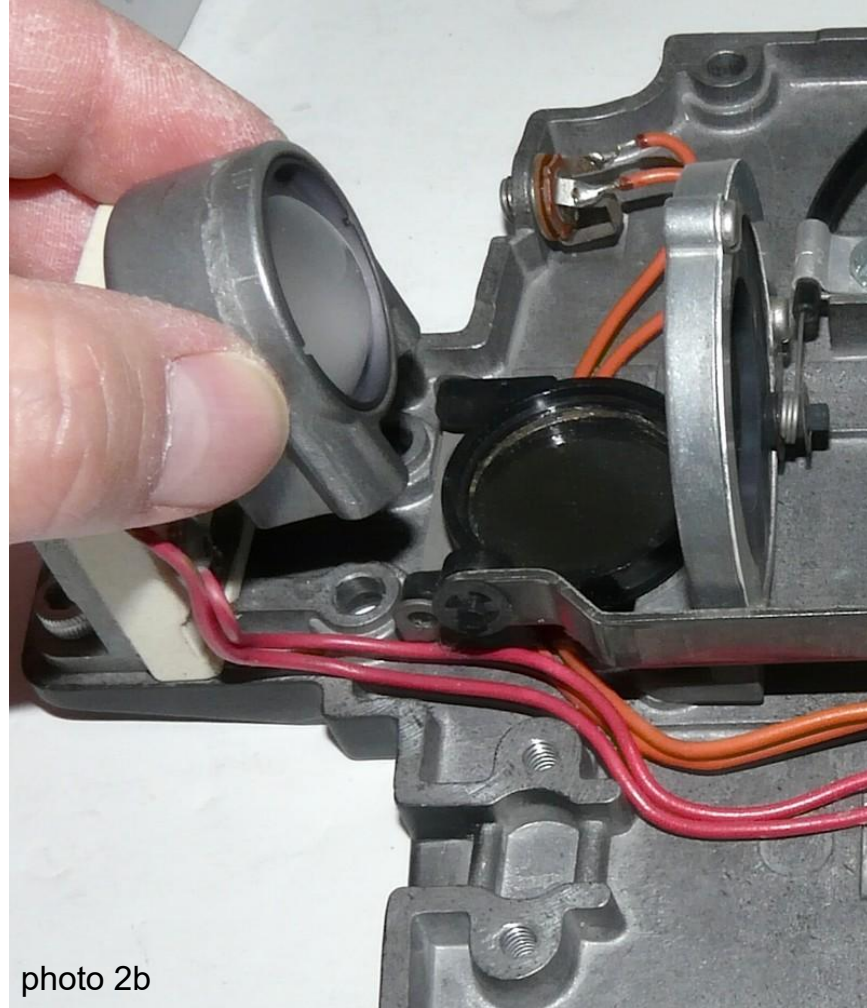


photo 2b

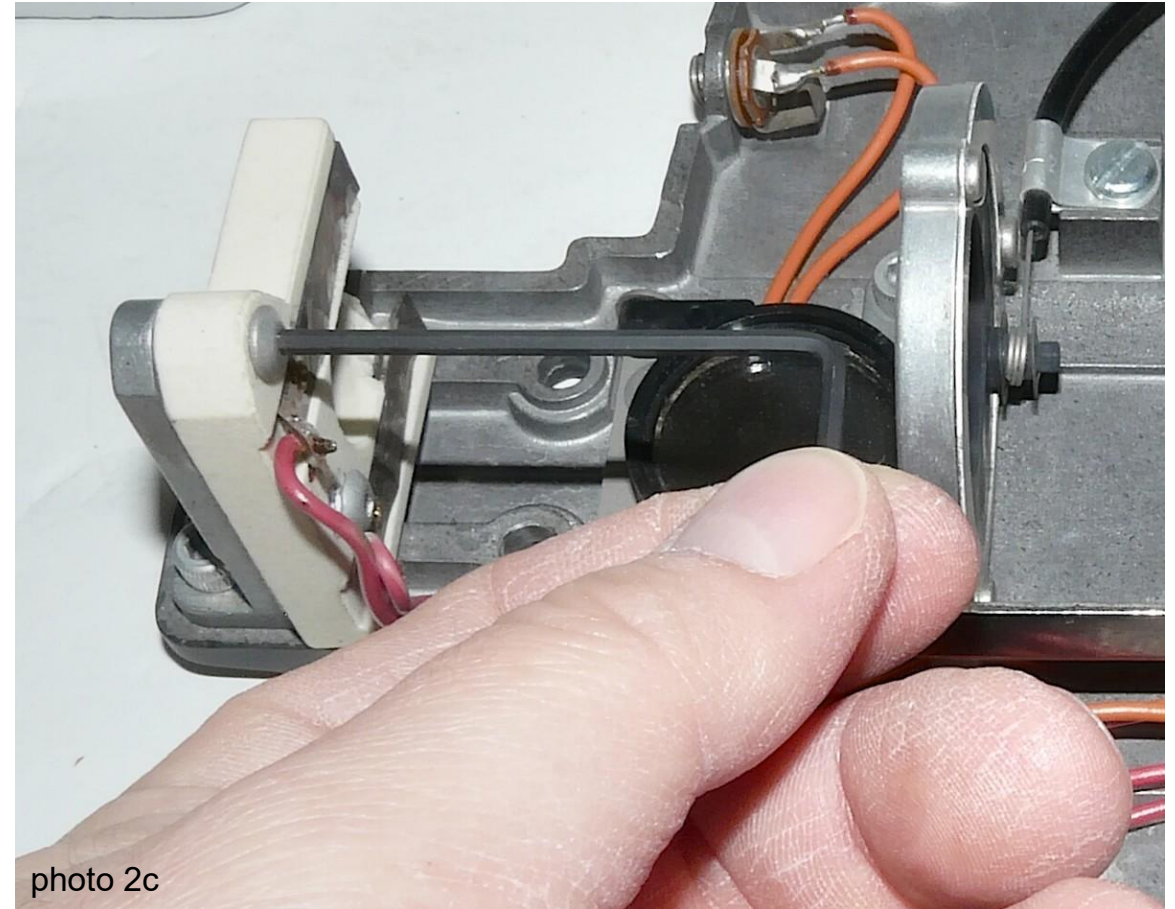


photo 2c

(2) Unscrew and remove the OEM lamp holder assembly.

(1) Unscrew and remove the collector lens. Keep the original screws for Nanodyne illuminator installation.

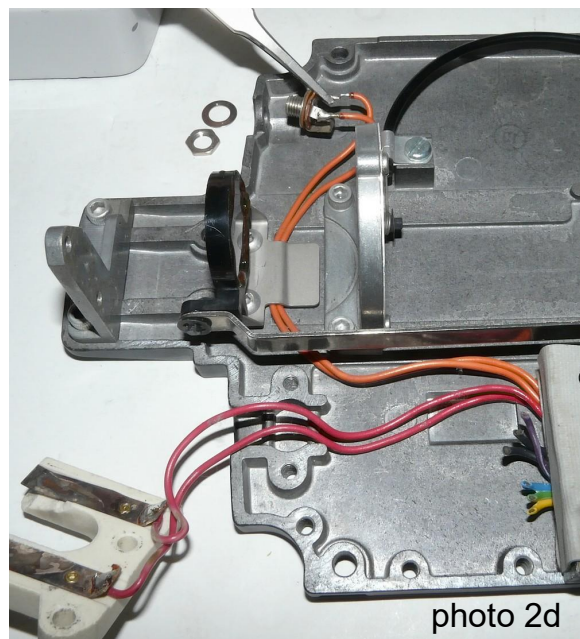


photo 2d

(3) Remove the OEM lamp wires and other unneeded wires.

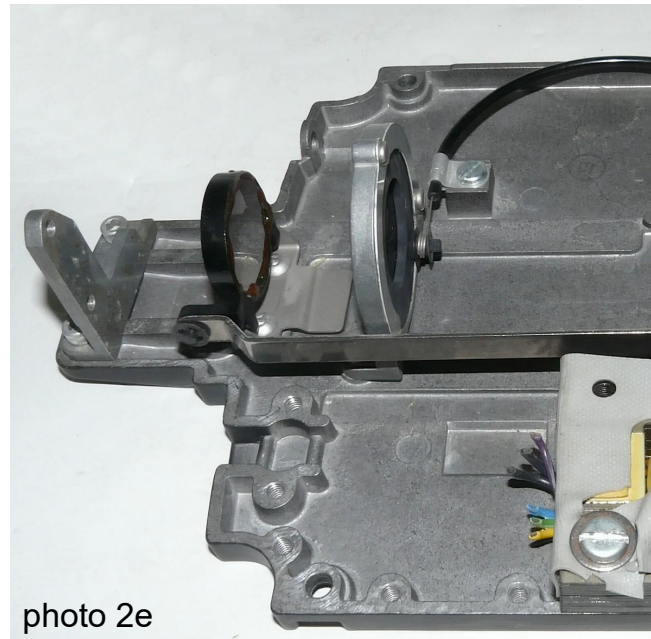


photo 2e

(4) Obsolete components removed.

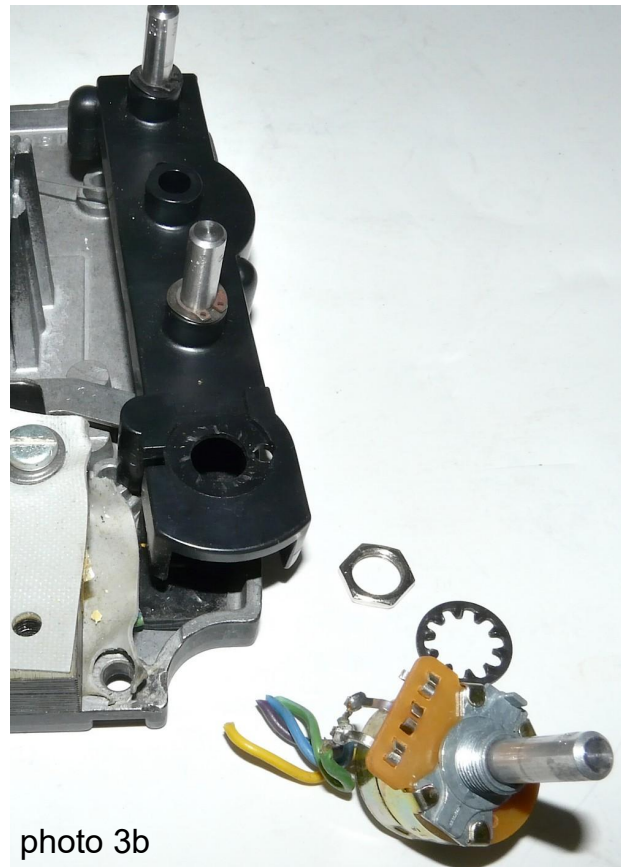
Ready to begin install the new illuminator (photo at left).

Han-Seung Yang	1/21/2020
PN 11575 AO One-Ten illuminator System Installation Instruction	REV 1
SHEET 3	OF 5

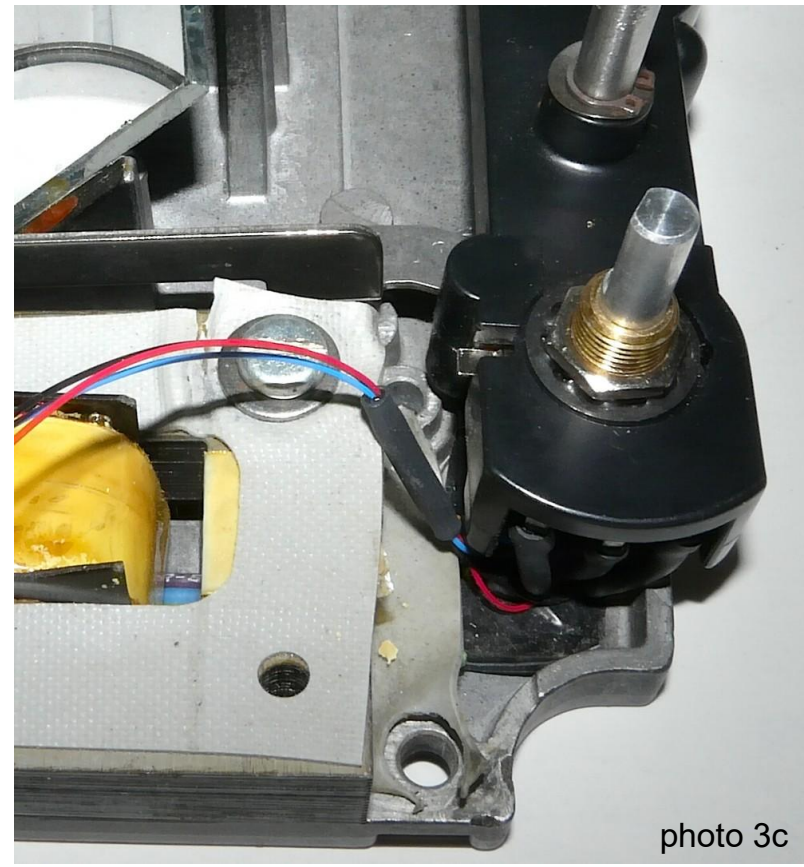
Nanodyne Replacement Illuminator for AO One-Ten Microscope Installation Instructions: Step 3. Install the new Potentiometer and Mount Nanodyne illuminator.



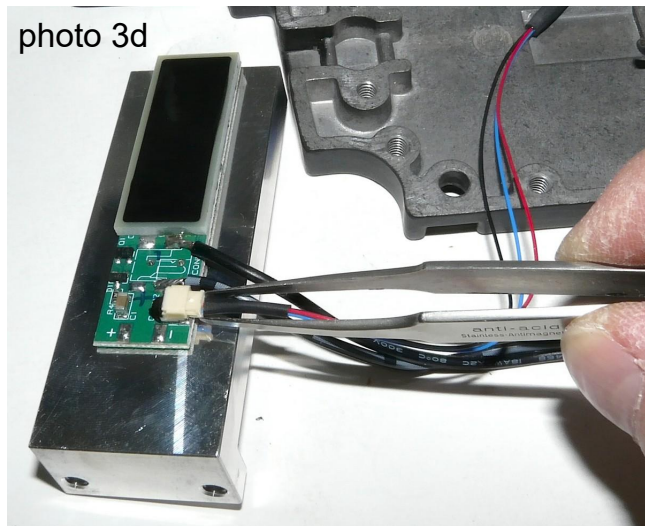
(1) Remove the two screws holding the black plastic housing to remove original potentiometer. Leave the housing in place.



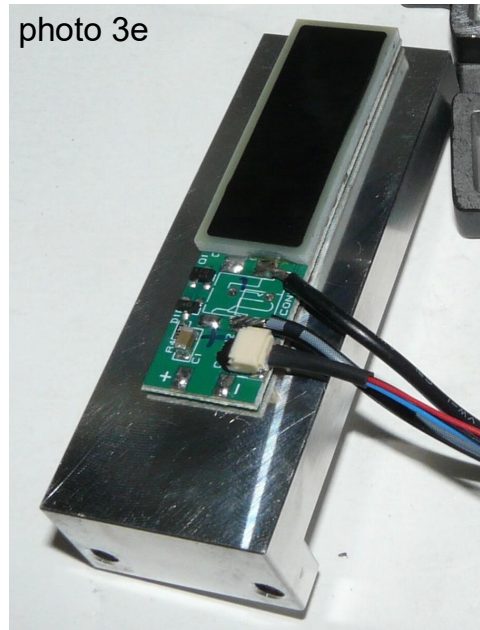
(2) Remove the original potentiometer. Keep the washer and nut for later.



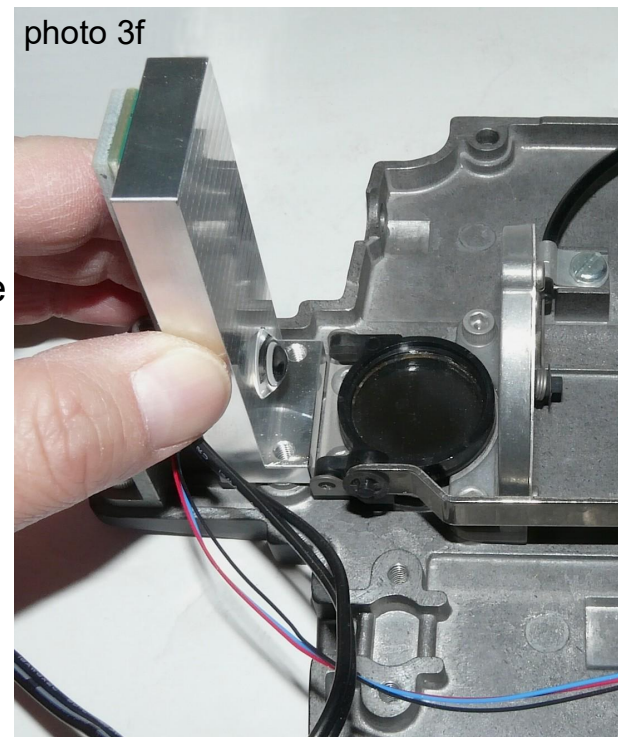
(3) Install the new adjustment pot using original washer and nut then route the cable accordingly.



(4) Connect the potentiometer cable to the illuminator. The connector is keyed to go in one way as shown above. It can be inserted part way holding it by the wires as shown.



(5) Fully inserting the connector to engage the electrical contacts needs more force than the wires can support. Use your fingernail or a tiny screwdriver or tweezers.



(6) Attach the Nanodyne illuminator with the OEM screws.

Nanodyne Replacement Illuminator for AO One-Ten Microscope Installation Instructions: Step 4. Install Microscope Frame and Pot Knob. Connect Power Supply.

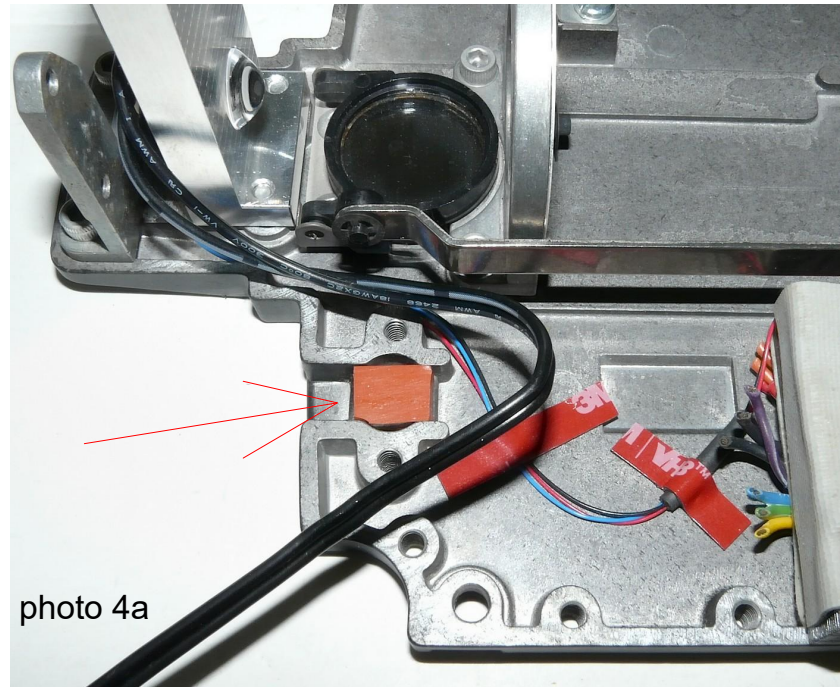


photo 4a

(1) Route the pot cable as shown in photo 4a. The red VHB tape holds it in place. Place the silicon strain relief pad (red arrow) and route the power cable out.

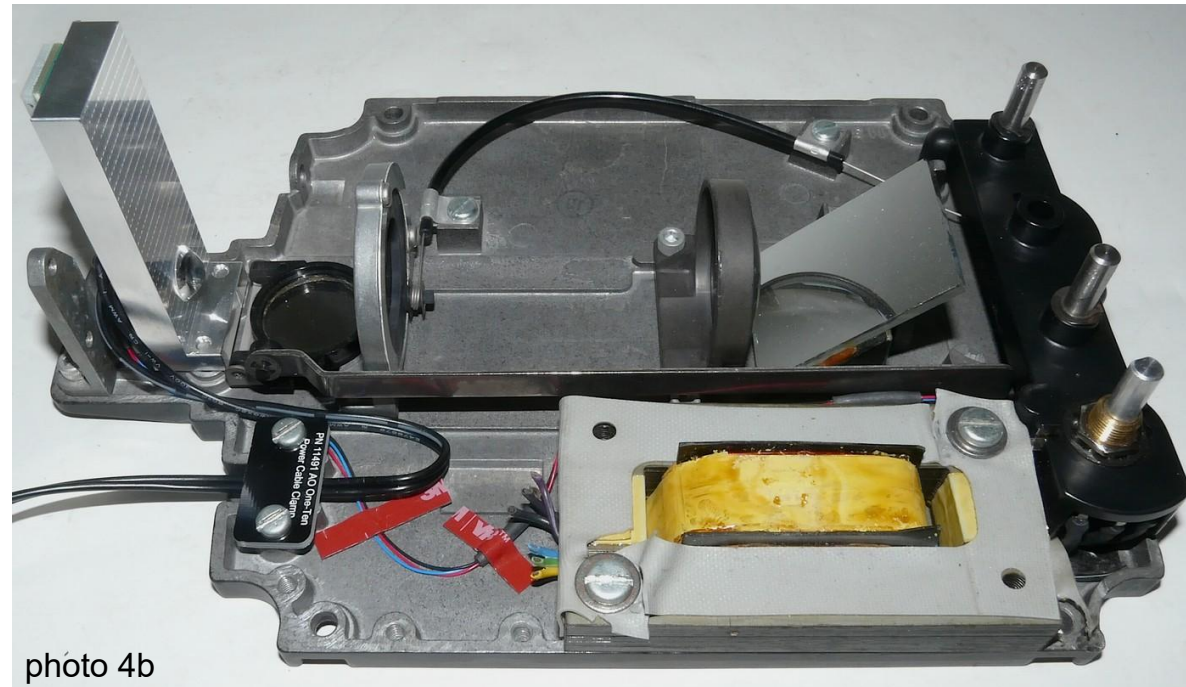


photo 4b

(2) Screw the power cable clamp as shown above. Keep clear of wires from any moving part.



photo 4c

(3) Replace the microscope frame.



photo 4d

(4) Tighten four screws to secure microscope base.



photo 4e

(5) Replace the original knob using the 0.05 inch hex key.

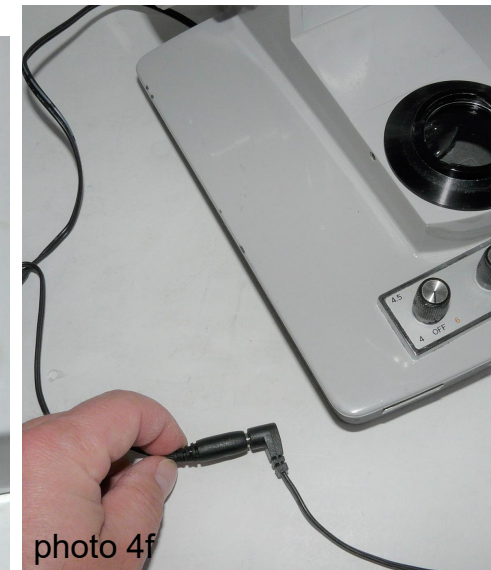


photo 4f

(6) Plug in the power supply and the new illuminator is ready to operate.



photo 4g

Han-Seung Yang	1/21/2020
PN 11575 AO One-Ten illuminator System Installation Instruction	REV 1
SHEET 5	OF 5