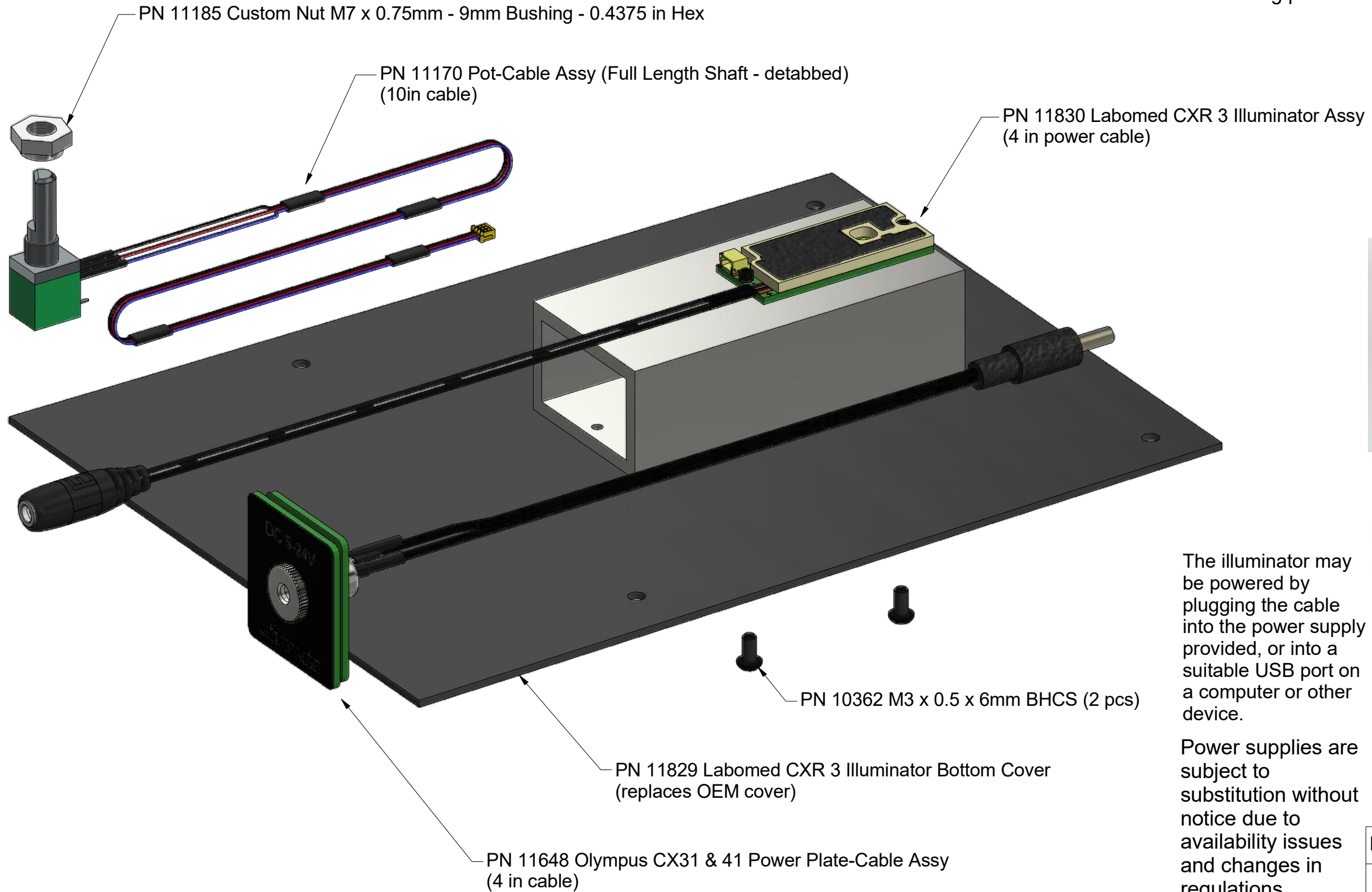


Nanodyne Replacement Illuminator for Labomed CXR 3 Microscope Installation Instructions: Included Items

Tools not included but required:
 PN 10337 Hex Key 2mm Short Arm for M3 BHCS
 Phillips Screwdriver
 11 mm socket
 Misc tools for removing panels and original illuminator from microscope.



3M VHB Tape to secure wires.



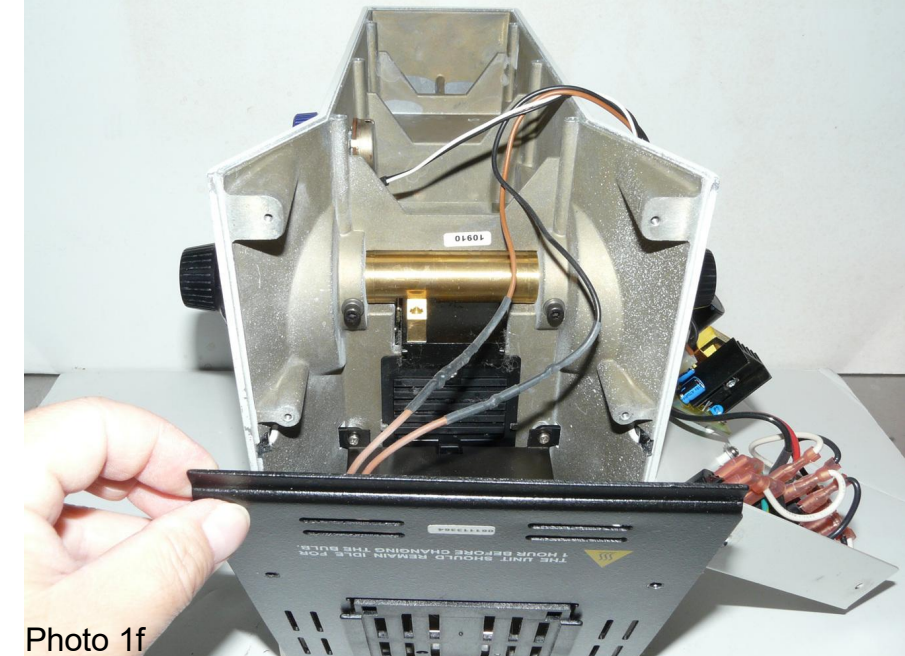
PN 10733 Power Supply & PN 10734 Cable Assy 1.35mm ID x 3.5mm OD RA plug to USB A 6 ft.

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.

Han-Seung Yang	12/20/2023
PN 11831 Labomed CXR 3 Illuminator Installation Instructions	REV 2
SHEET 1 OF 10	

Nanodyne Replacement Illuminator for Labomed CXR 3 Microscope Installation Instructions - Step 1. Remove bottom and back cover.



Be sure AC power is disconnected. Remove bottom cover (photos 1b & 1c), and back cover (photos 1d & 1e). Save the original screws for later installation. Original wires are shown in photo 1f.

Han-Seung Yang	12/20/2023
PN 11831 Labomed CXR 3 Illuminator Installation Instructions	REV 2
SHEET 2 OF 10	

Nanodyne Replacement Illuminator for Labomed CXR 3 Microscope Installation Instructions - Step 2. Remove old potentiometer.



Photo 2a

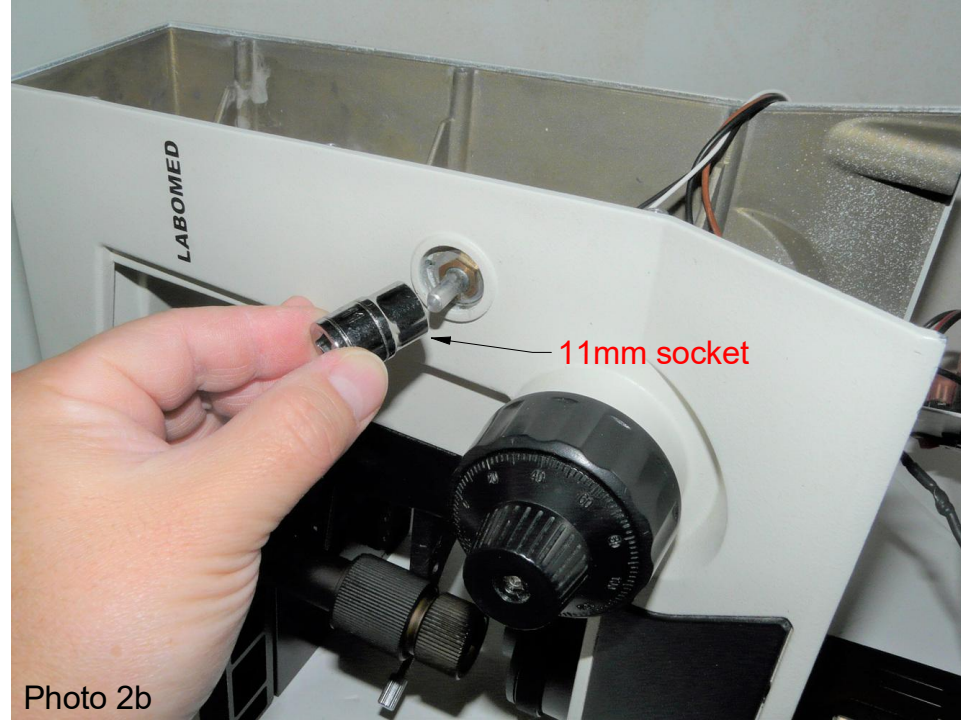


Photo 2b

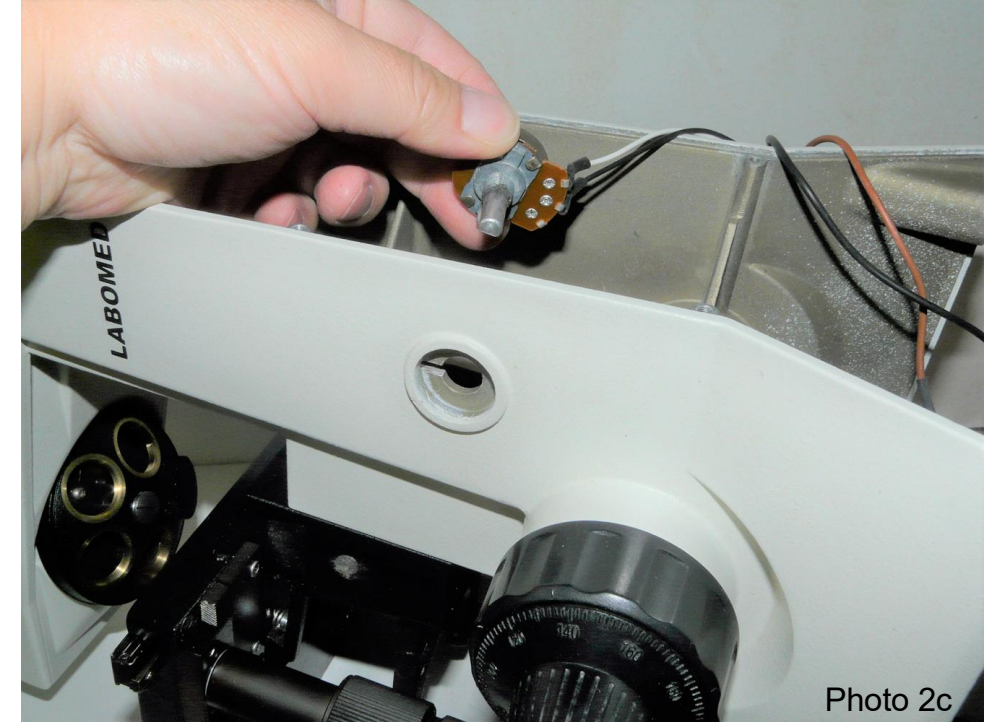


Photo 2c

Keep the original knob to install the new pot. First remove the knob by hand (photo 2a). Then remove the nut with an 11mm hex socket (photo 2b). You should be able to turn the socket by hand. If it is too tight a deeper socket than shown will be required. Remove original adjustment pot cable assembly (photo 2c).

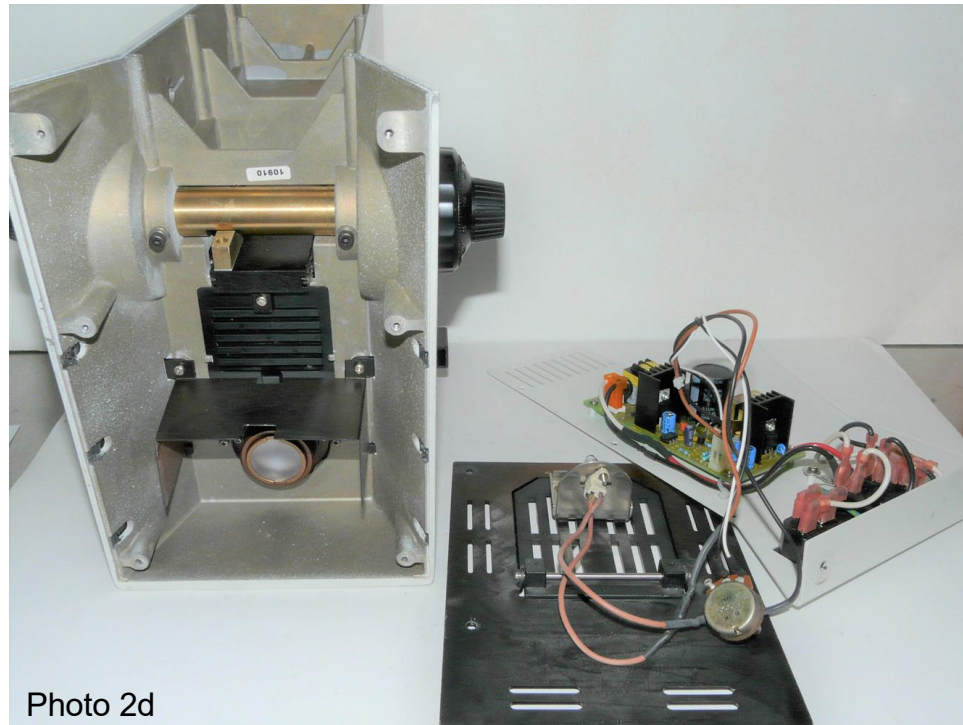


Photo 2d

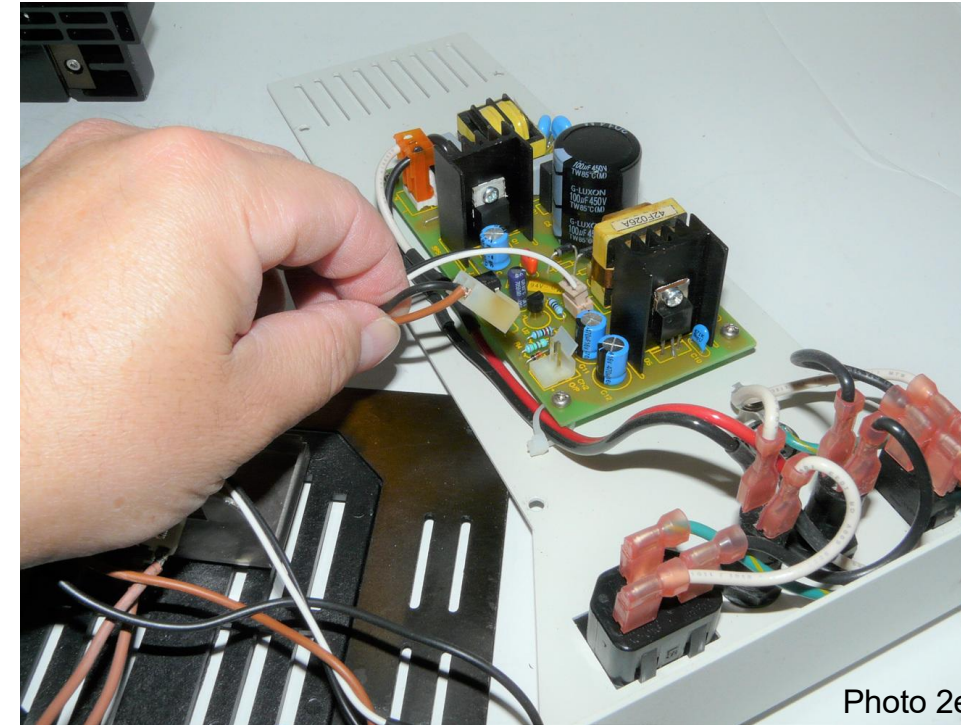


Photo 2e



Photo 2f

Original adjustment pot and electrical wires removed from the microscope base (photo 2d). Disconnect wires from the original circuit board (photo 2e). Original lamp, pot and wires completely removed (photo 2f).

Han-Seung Yang	12/20/2023
PN 11831 Labomed CXR 3 Illuminator Installation Instructions	REV 2
SHEET 3 OF 10	

4

3



2

1

Nanodyne Replacement Illuminator for Labomed CXR 3 Microscope Installation Instructions - Step 3. Remove unneeded wires from the original circuit board.

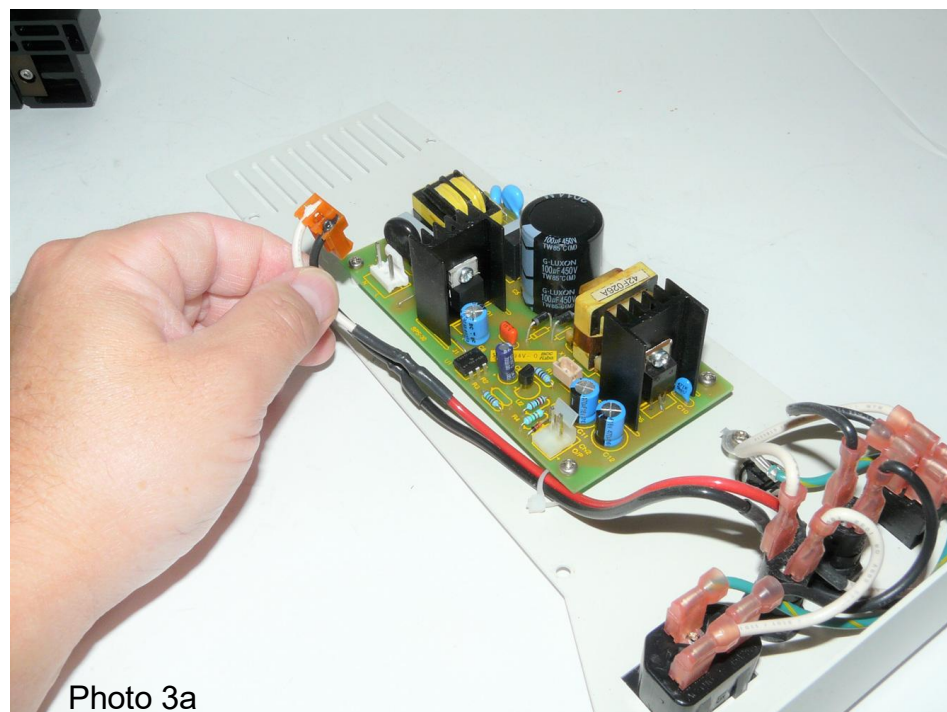


Photo 3a

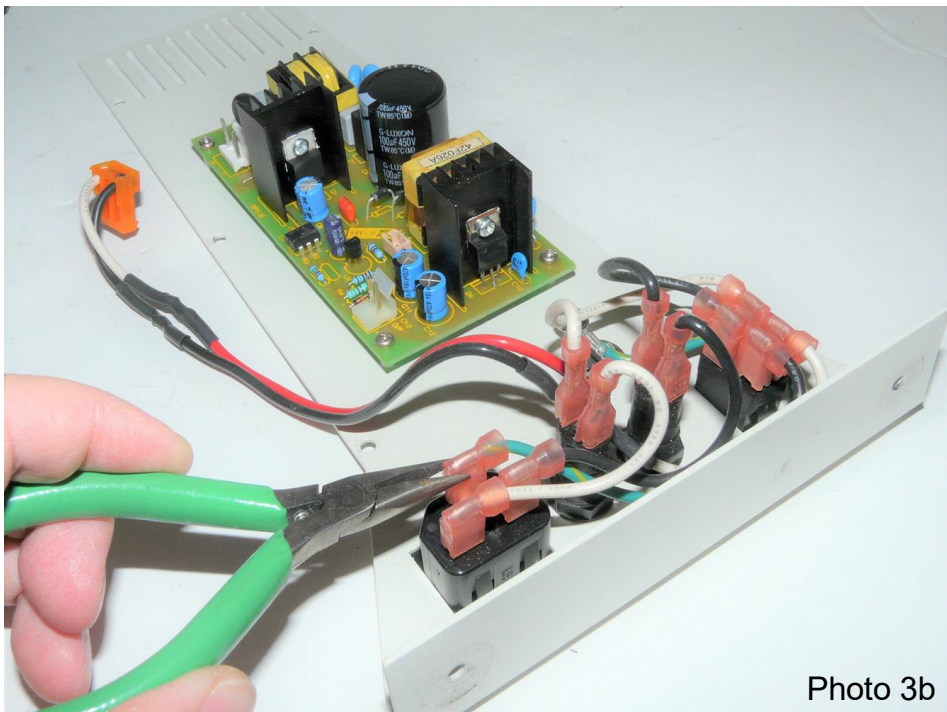


Photo 3b

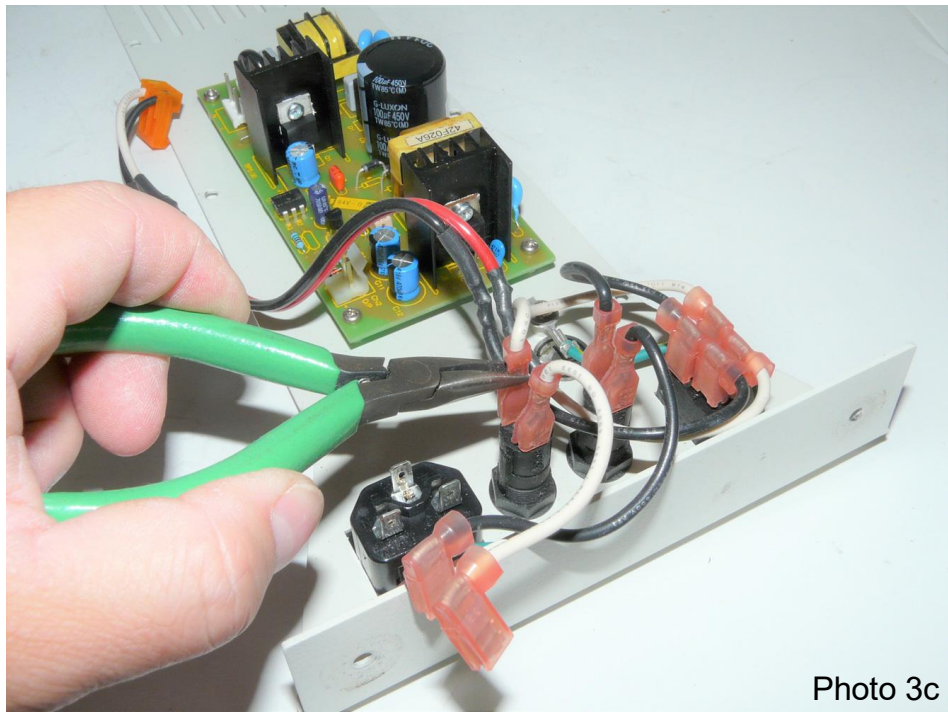


Photo 3c

Remove original electrical wires from the AC power receptacle, fuses and power switch.

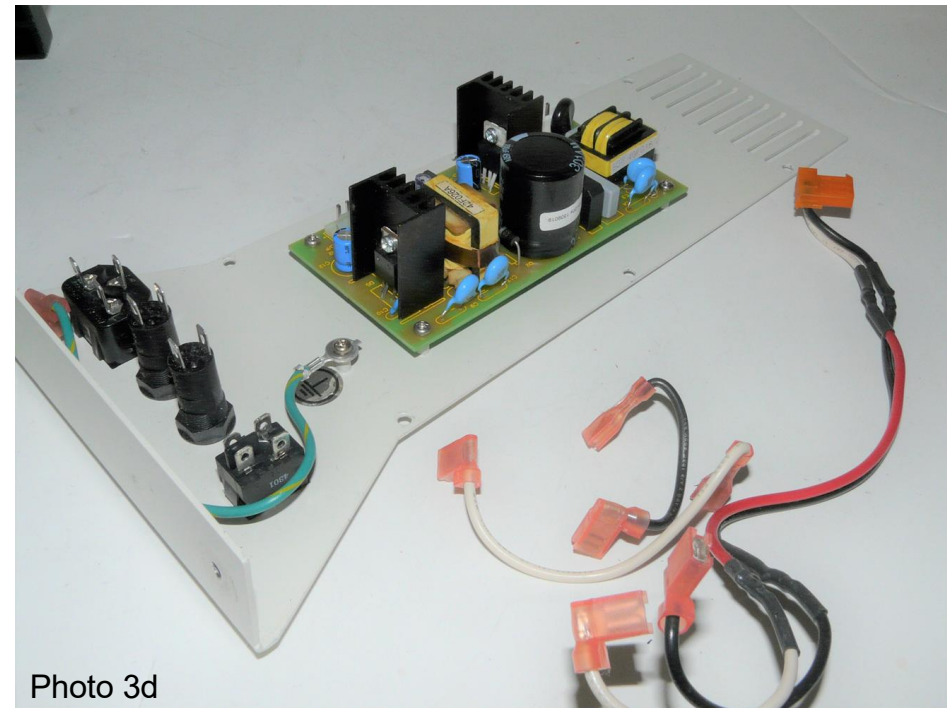


Photo 3d

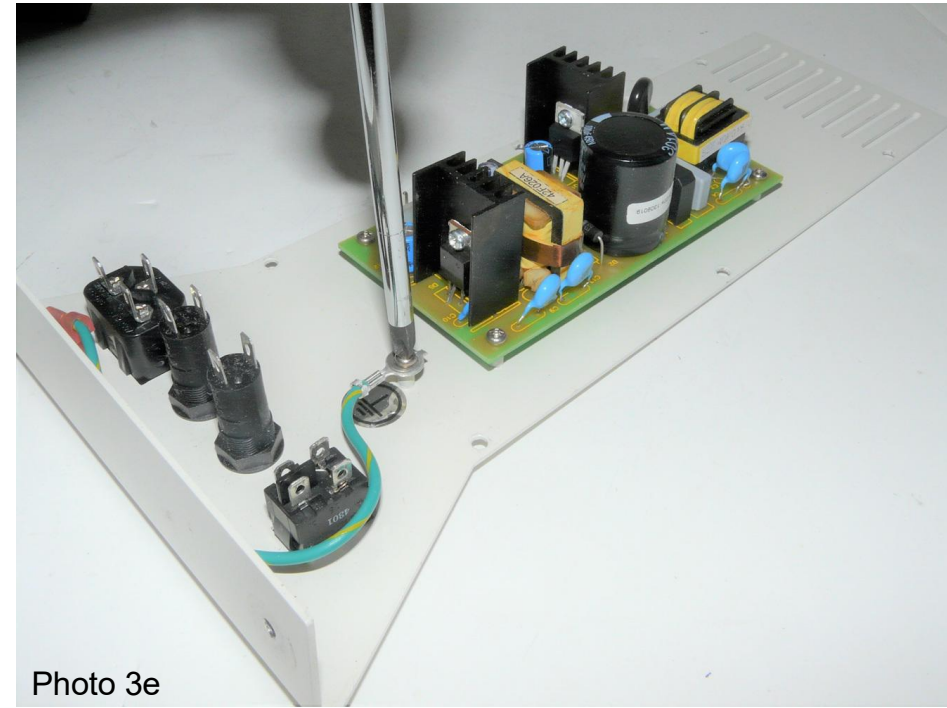


Photo 3e

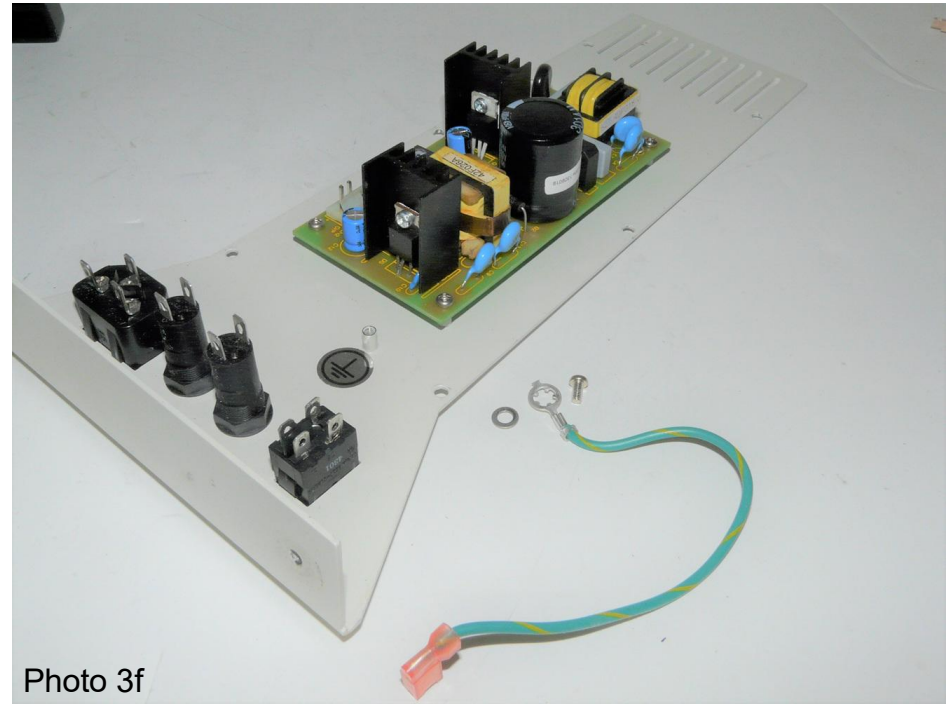


Photo 3f

Be sure that the now unneeded 115/230 VAC wiring (white, red and black wires) cannot cause a short circuit in case AC power is connected by mistake sometime. They can be completely removed if desired.

Unscrew the ground cable from back cover using screw driver.

Han-Seung Yang		12/20/2023
PN 11831 Labomed CXR 3 Illuminator Installation Instructions		REV 2
		SHEET 4 OF 10

4

3



2

1

Nanodyne Replacement Illuminator for Labomed CXR 3 Microscope Installation Instructions - Step 4. Remove AC power receptacle & install DC power plate.

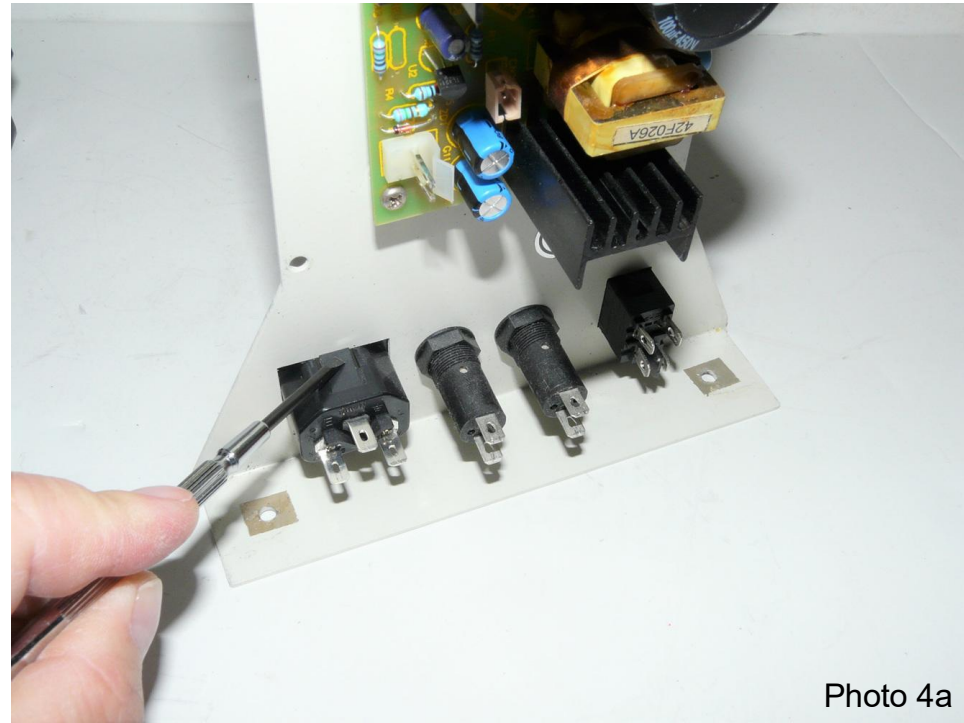


Photo 4a



Photo 4b

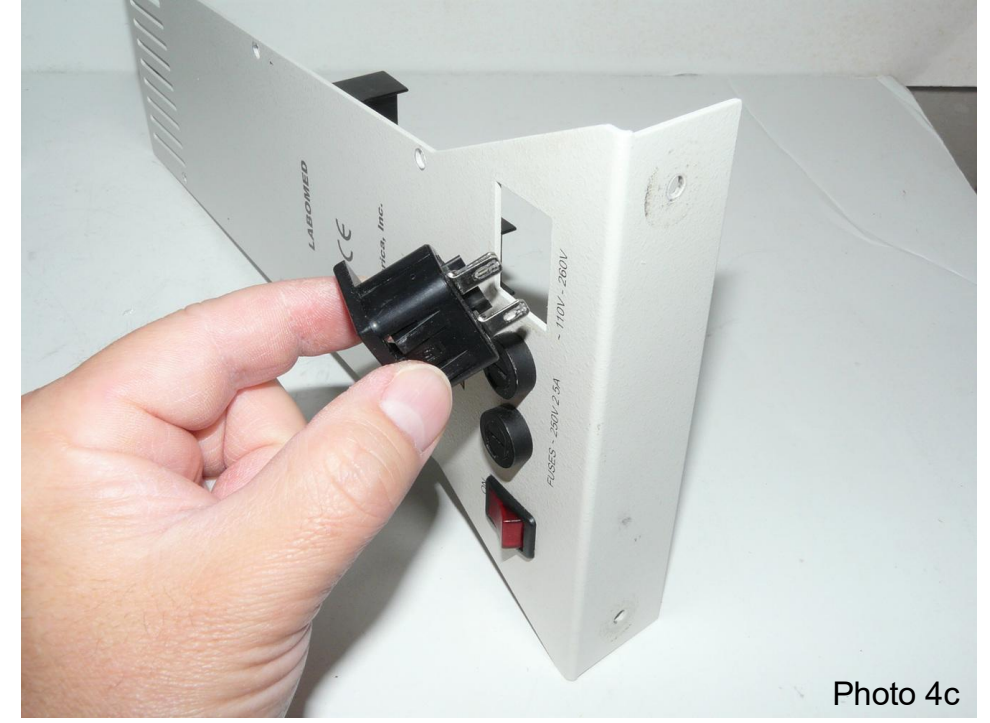


Photo 4c

Remove the old AC power receptacle by pushing the plastic clip using the Philips screw driver.



Photo 4d

AC power receptacle completely removed.



Photo 4e

Insert the DC power plate middle piece, then outside piece and power cable assembly.

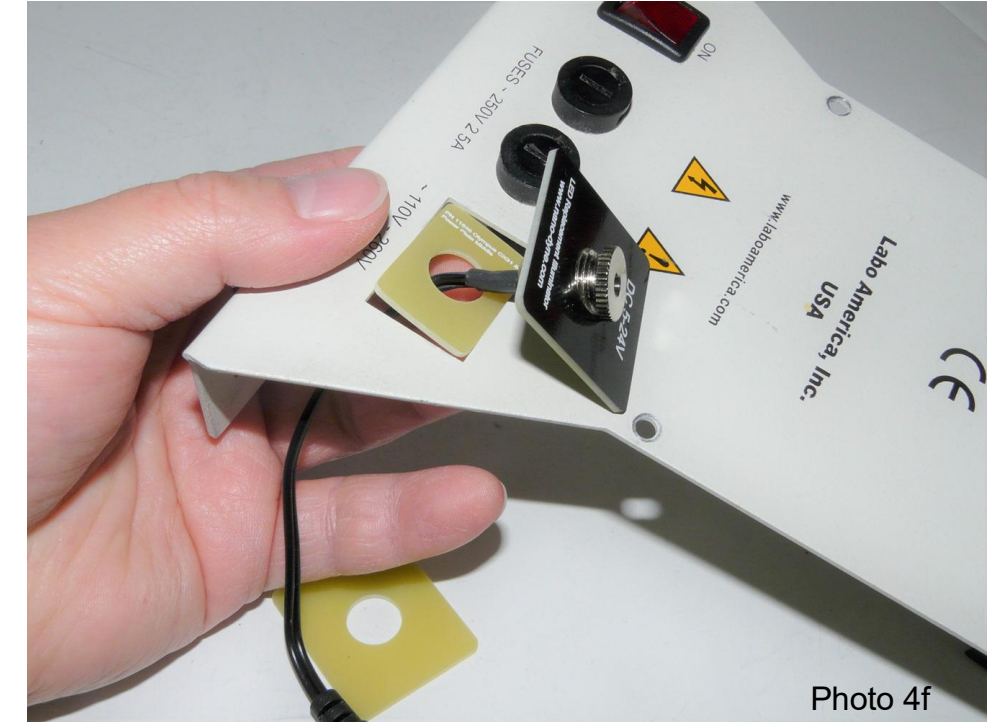
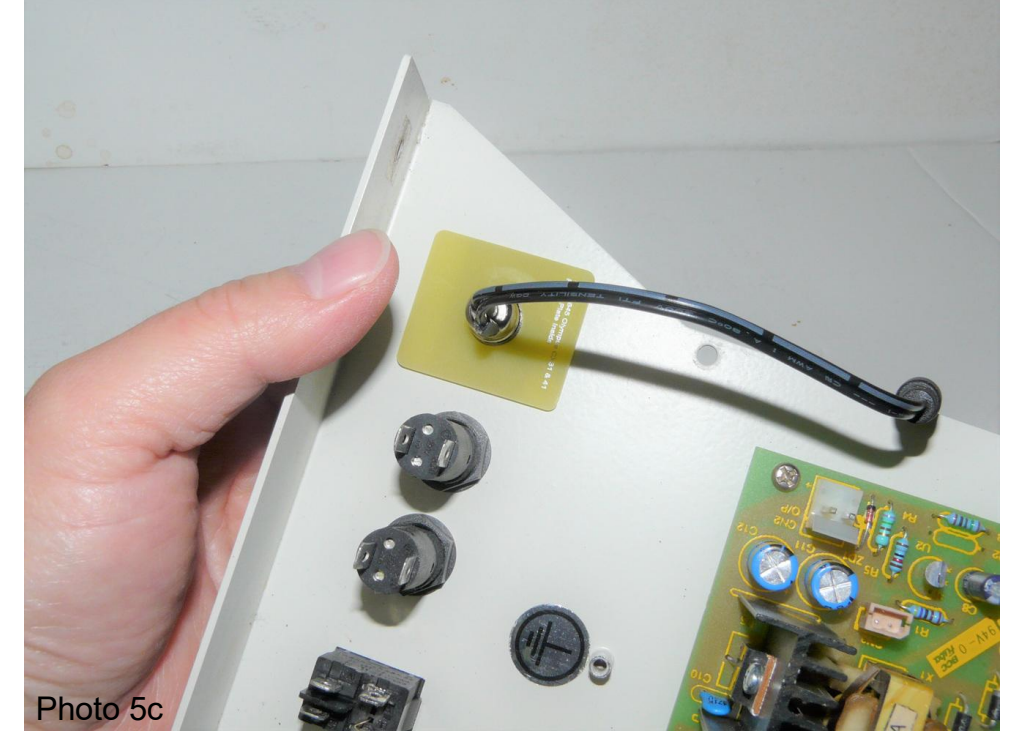
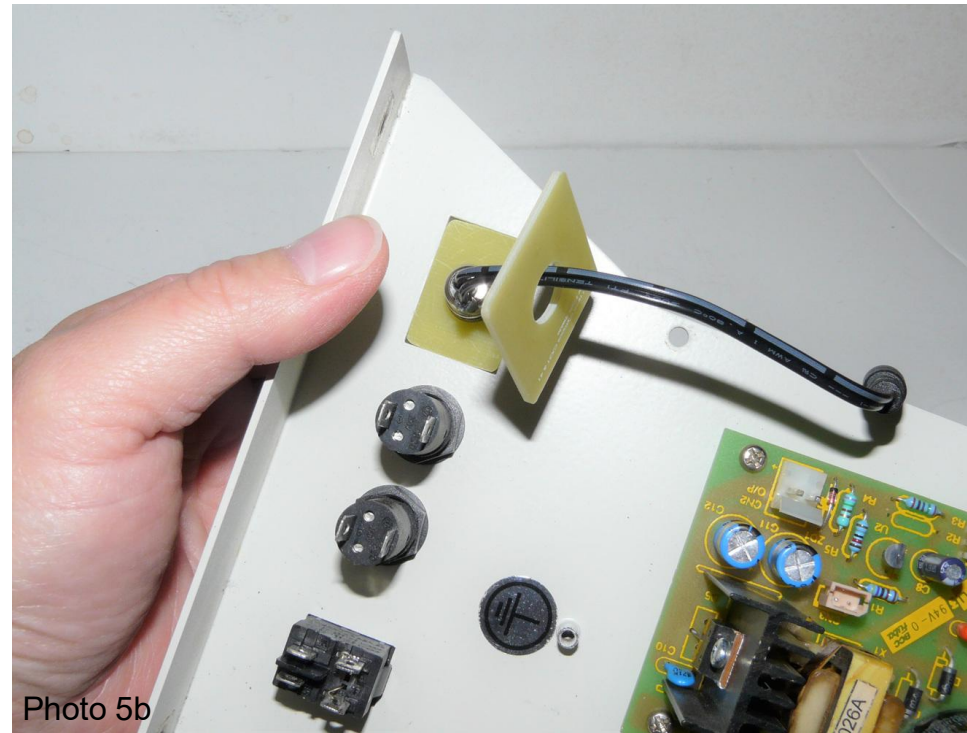
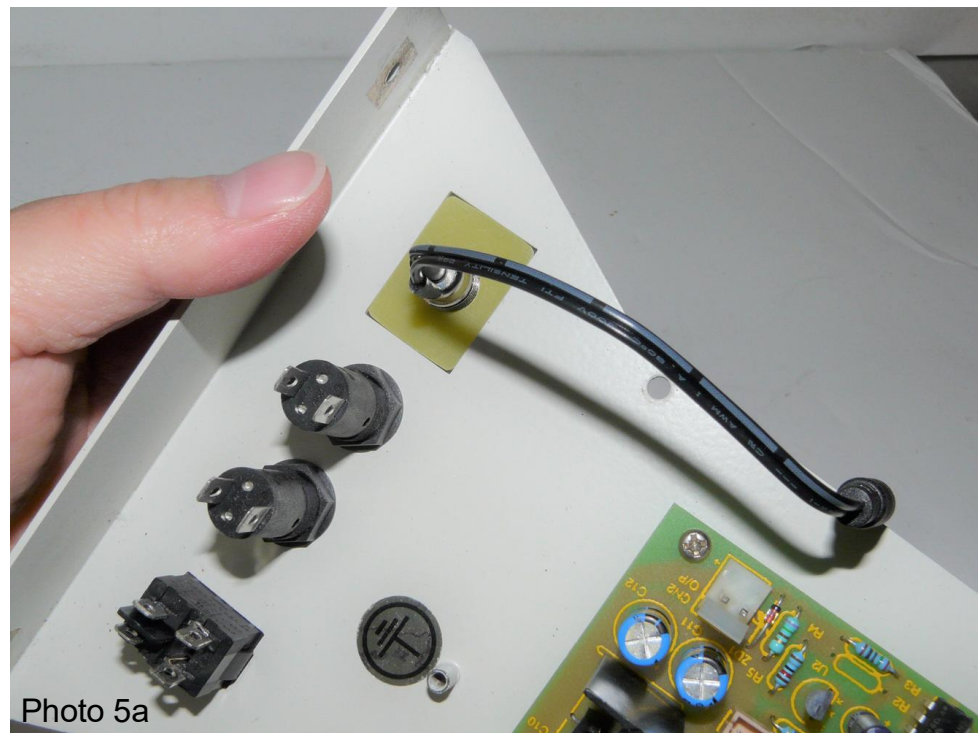


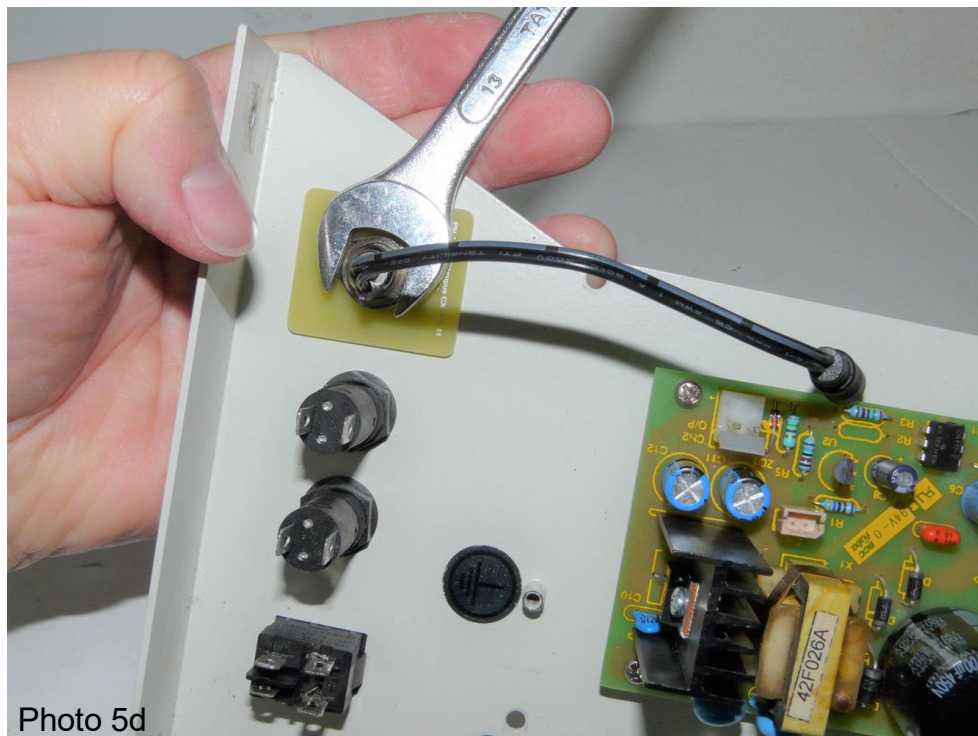
Photo 4f

Han-Seung Yang		12/20/2023
PN 11831 Labomed CXR 3 Illuminator Installation Instructions		REV 2
SHEET 5 OF 10		

Nanodyne Replacement Illuminator for Labomed CXR 3 Microscope Installation Instructions - Step 5. Install DC power plate (continued).



Attach DC power plate inside piece (photo 5b) and align properly (photo 5c).



Tighten the nut (photo 5d) to secure power plates. The new illuminator system runs on its own DC power supply, so the AC connections are no longer needed. In addition, removing the AC power lines is a safety measure to avoid electrical shock if the microscope was plugged in by mistake while being maintained.

Han-Seung Yang	12/20/2023
PN 11831 Labomed CXR 3 Illuminator Installation Instructions	REV 2
SHEET 6 OF 10	

Nanodyne Replacement Illuminator for Labomed CXR 3 Microscope Installation Instructions - Step 6. Remove old lamp cover and assemble Nanodyne illuminator.

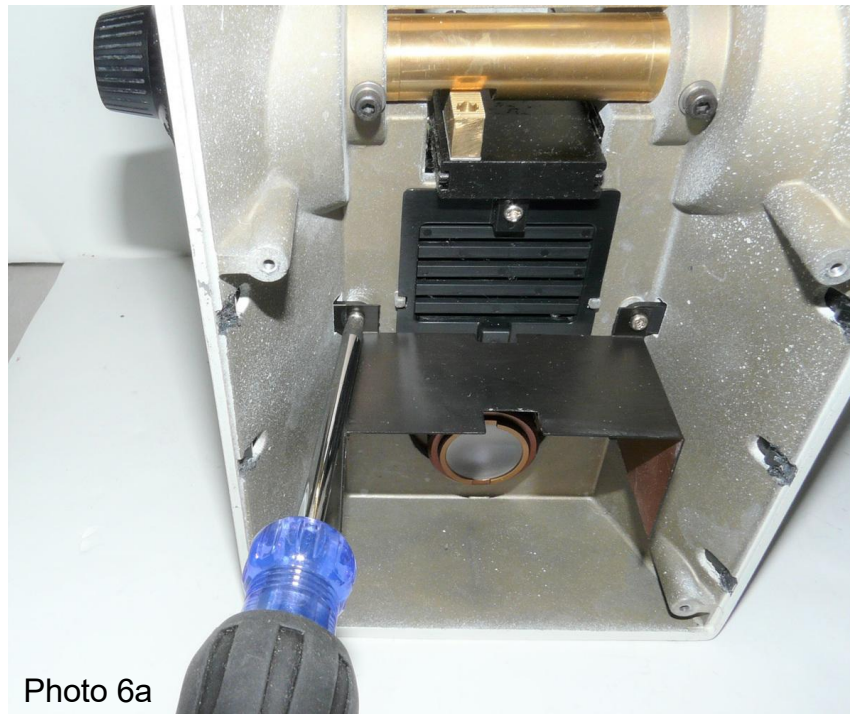


Photo 6a

Unscrew and remove the metal cover for old lamp.

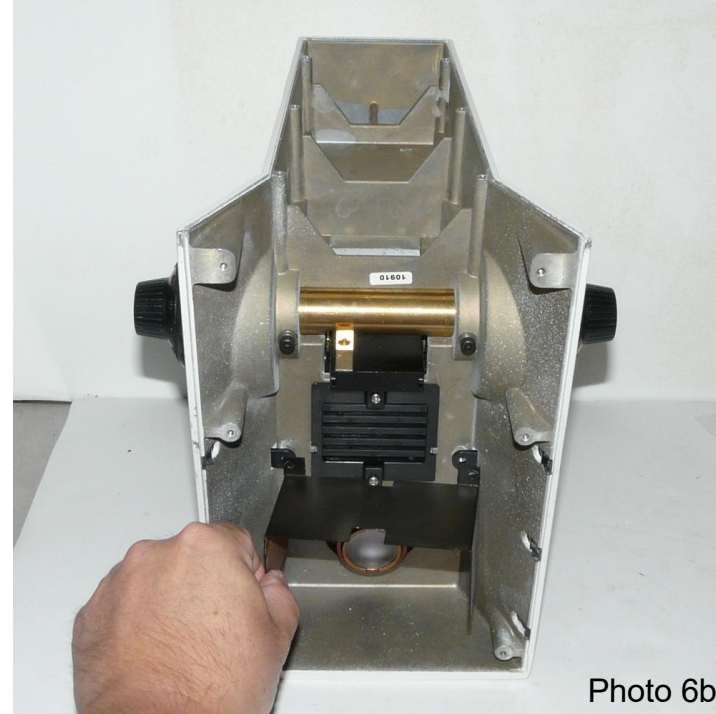


Photo 6b



Photo 6c

Unneeded old parts completely removed.

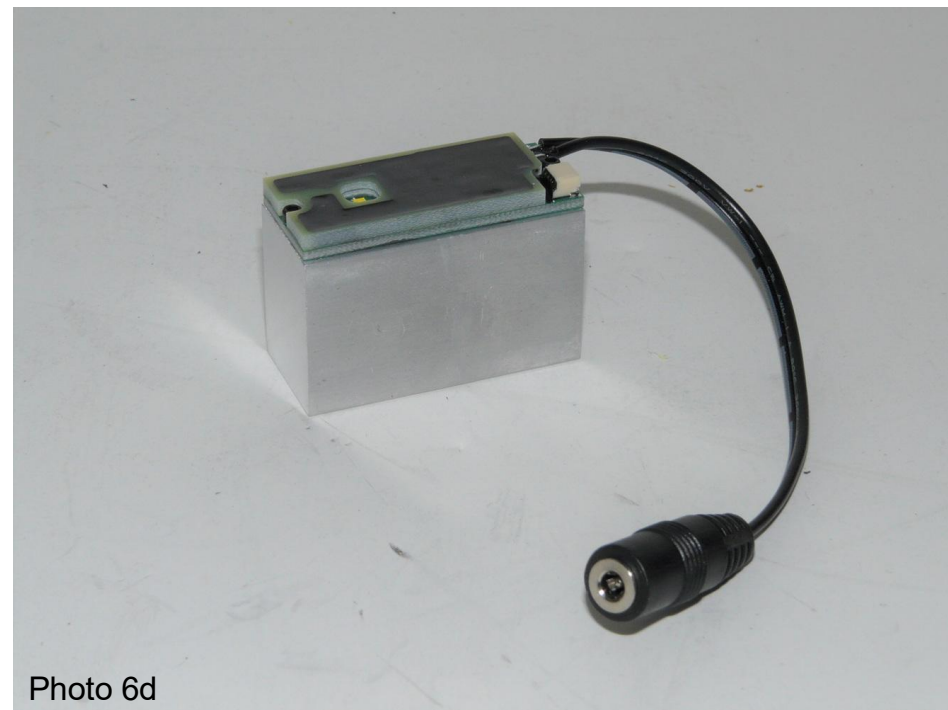


Photo 6d

Nanodyne illuminator assembly.

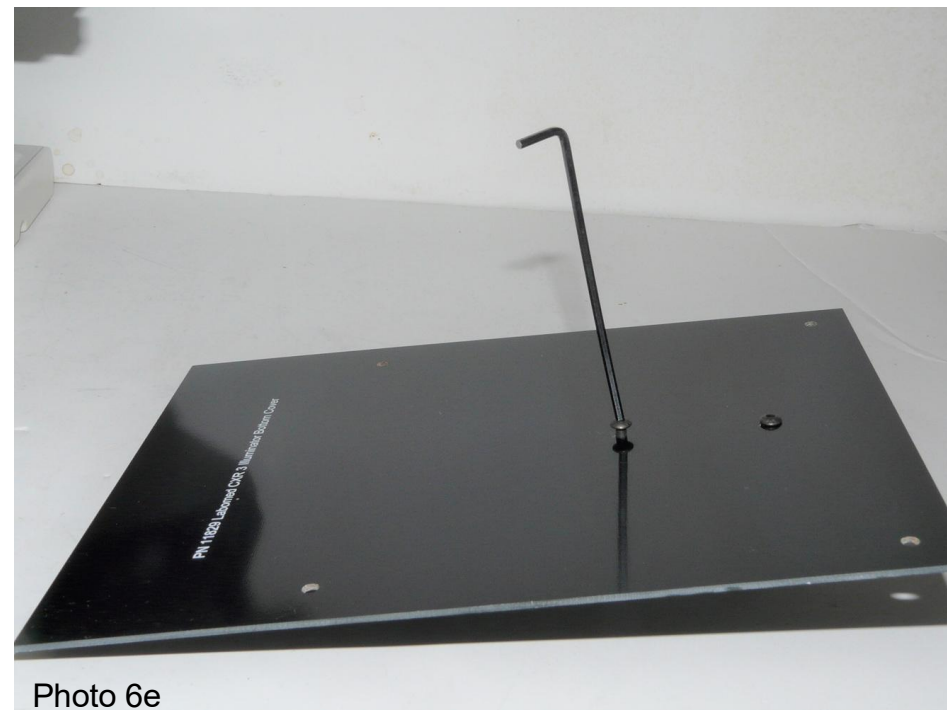


Photo 6e

Assemble Nanodyne illuminator and bottom cover using M3 button head screws provided. Note that LED aligns one way as shown in photo 6f (we probably will pre-assemble it).

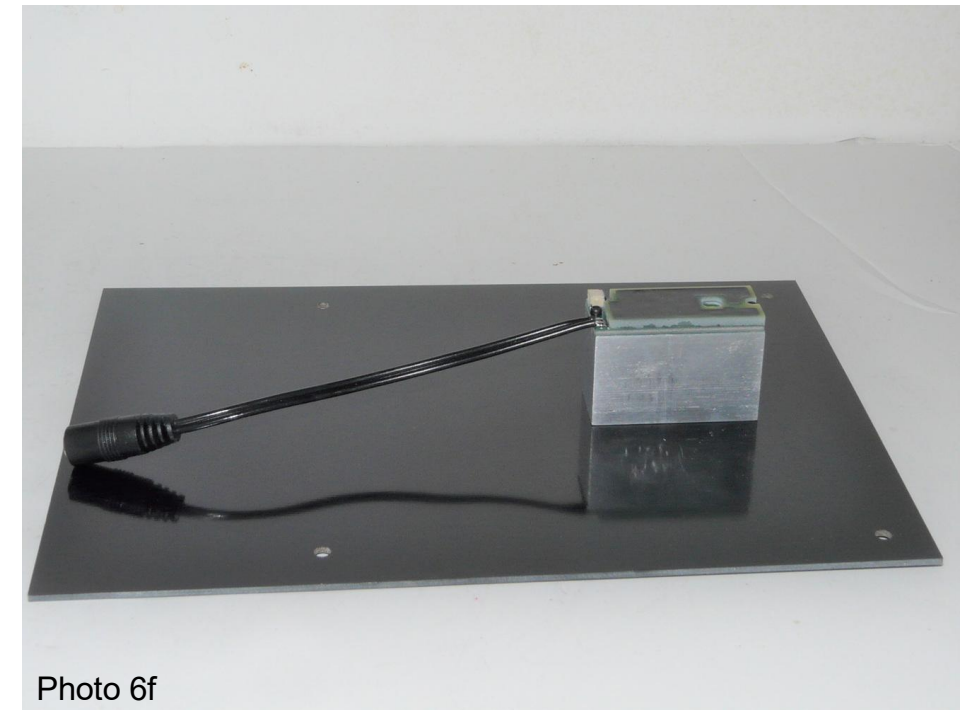
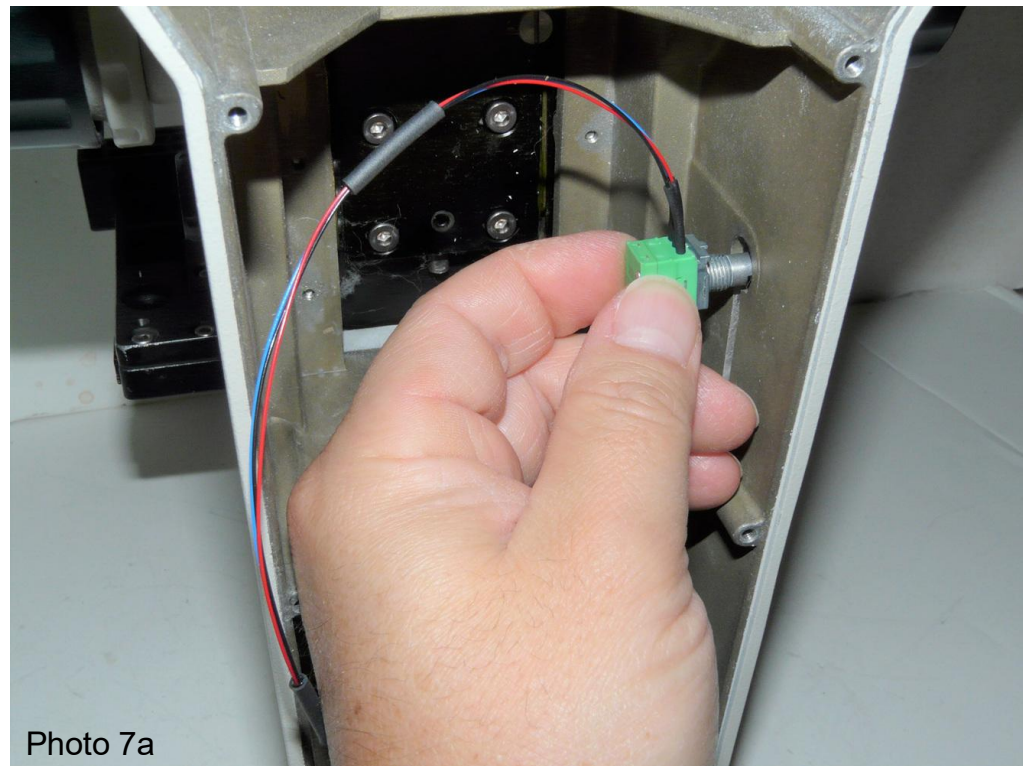


Photo 6f

Han-Seung Yang	12/20/2023
PN 11831 Labomed CXR 3 Illuminator Installation Instructions	REV 2
SHEET 7 OF 10	

Nanodyne Replacement Illuminator for Labomed CXR 3 Microscope Installation Instructions - Step 7. Attach new pot cable assembly.



Install the new adjustment pot as shown in photos 7a & 7b, securing it in place with the custom nut provided as shown in photo 7c.



After getting the nut started on the threads of the pot, tighten it snugly by hand with the 11mm socket as shown in photo 7d. Re-install the pot knob (saved from the original pot) as shown in photo 7e & 7f by hand.

Han-Seung Yang	12/20/2023
PN 11831 Labomed CXR 3 Illuminator Installation Instructions	REV 2
SHEET 8 OF 10	

Nanodyne Replacement Illuminator for Labomed CXR 3 Microscope Installation Instructions - Step 8. Attach Nanodyne illuminator assembly and secure cables.

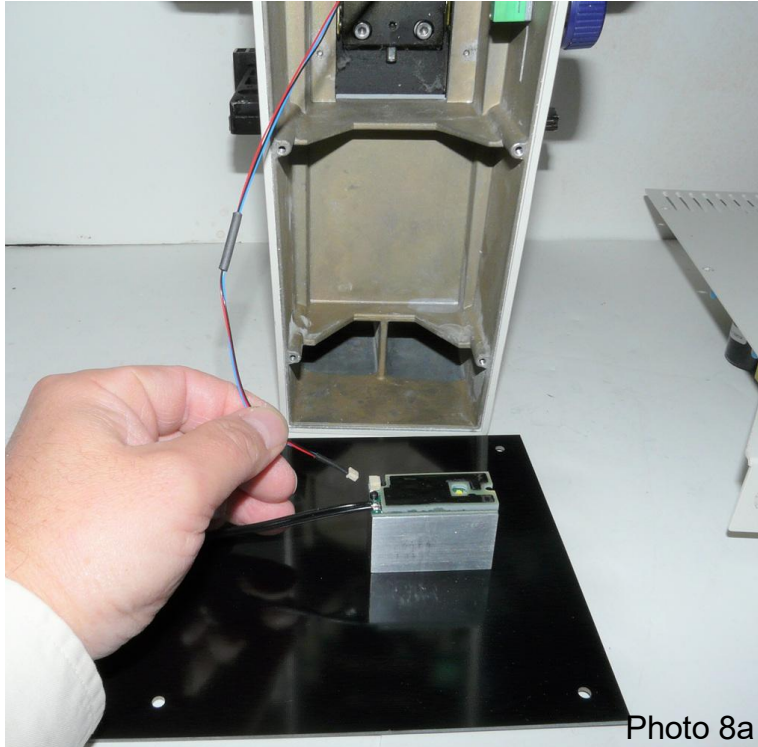


Photo 8a

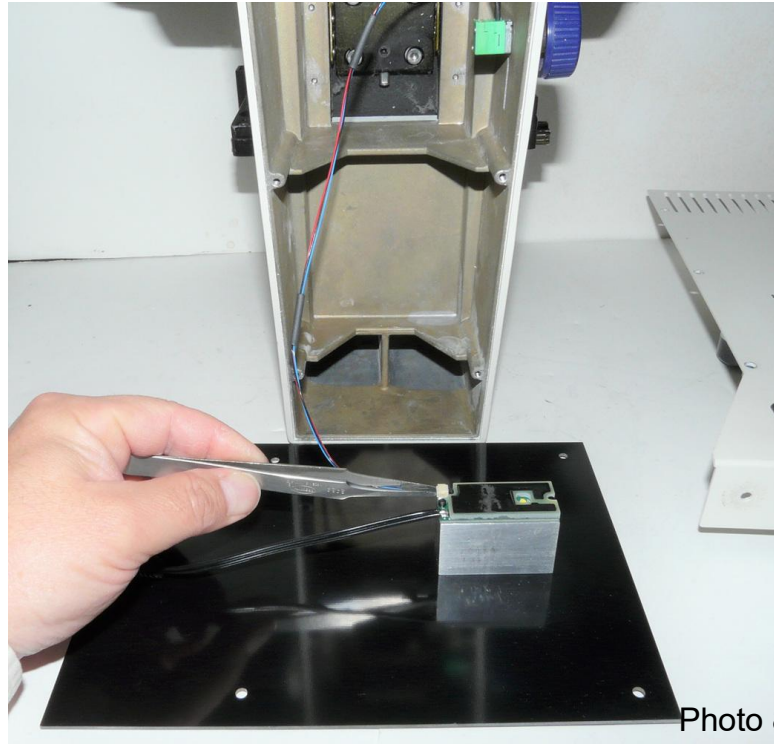


Photo 8b

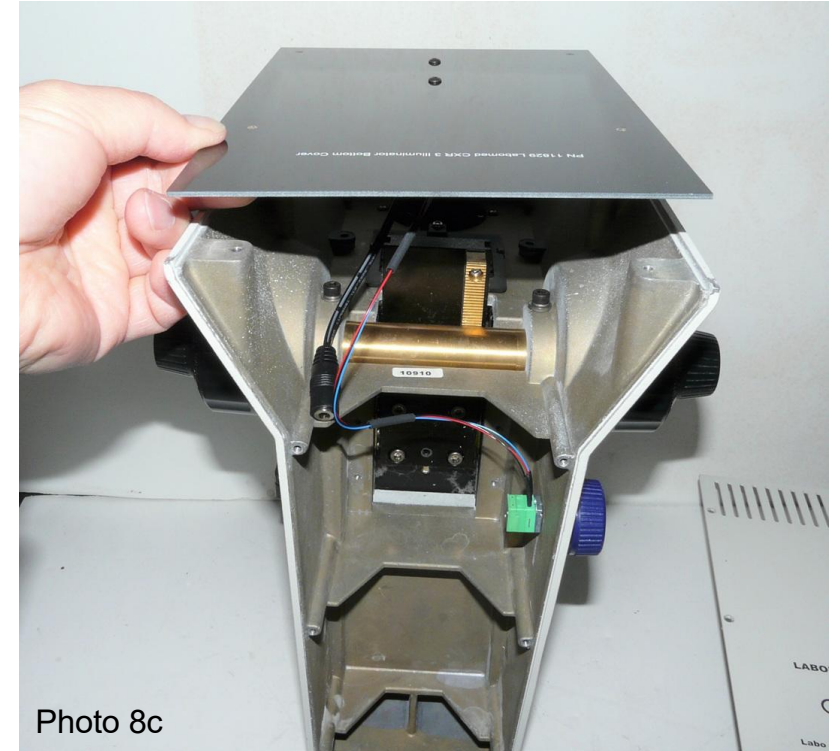


Photo 8c

Connect the pot cable to the white connector on the illuminator circuit as shown in photos 8a & 8b. Note that the connector is keyed to fit only one way. If it doesn't fit, do not force it but turn 180 degree. Place the bottom cover & illuminator assembly as shown in photo 8c.

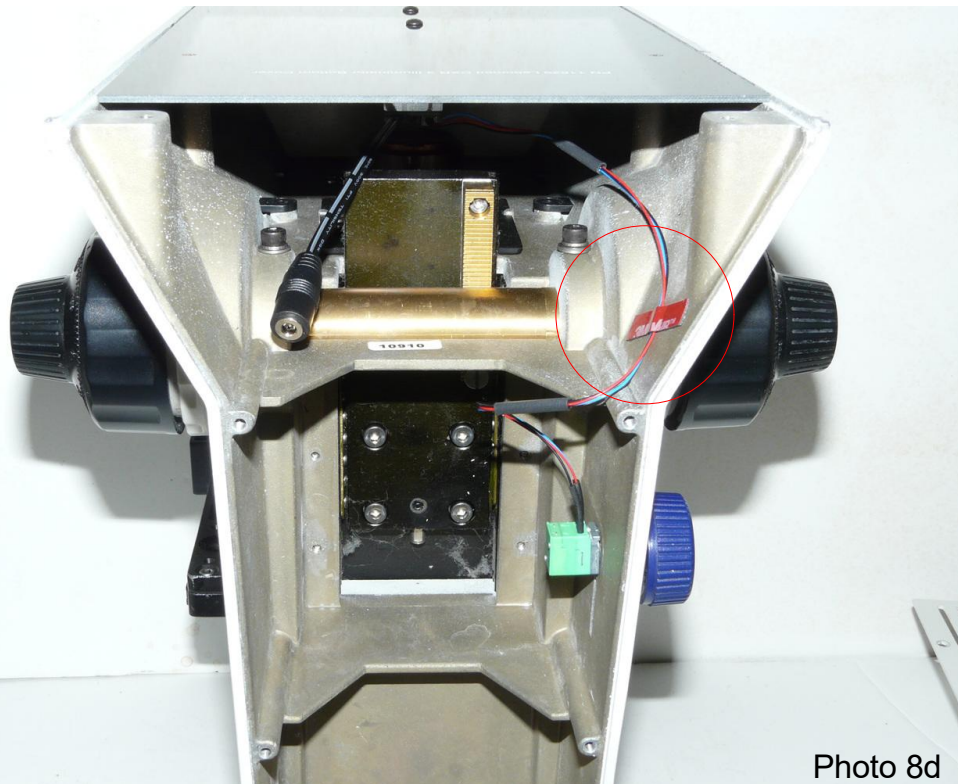


Photo 8d



Photo 8e



Photo 8f

Secure the cables with the 3M VHB tape provided (red circle in photo 8d), so the cables cannot get caught in the rack and pinion mechanism, or hang out the bottom. Connect the inner power cable as shown in photos 8e & 8f.

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Han-Seung Yang		12/20/2023
PN 11831 Labomed CXR 3 Illuminator Installation Instructions		REV 2
SHEET 9 OF 10		

Nanodyne Replacement Illuminator for Labomed CXR 3 Microscope Installation Instructions - Step 9. Re-install back and bottom covers and connect new power supply.



Place the back cover on the microscope (photo 9a). The original bottom cover is integral with the old illuminator, and will not fit with the new illuminator installed without extensive modification. Secure the bottom & back covers using original M3 screws saved (photos 9b & 9c).



Plug the power supply cable into the DC power plate (photos 9e & 9f). Now it is ready to operate.

Han-Seung Yang	12/20/2023
PN 11831 Labomed CXR 3 Illuminator Installation Instructions	REV 2
SHEET 10 OF 10	