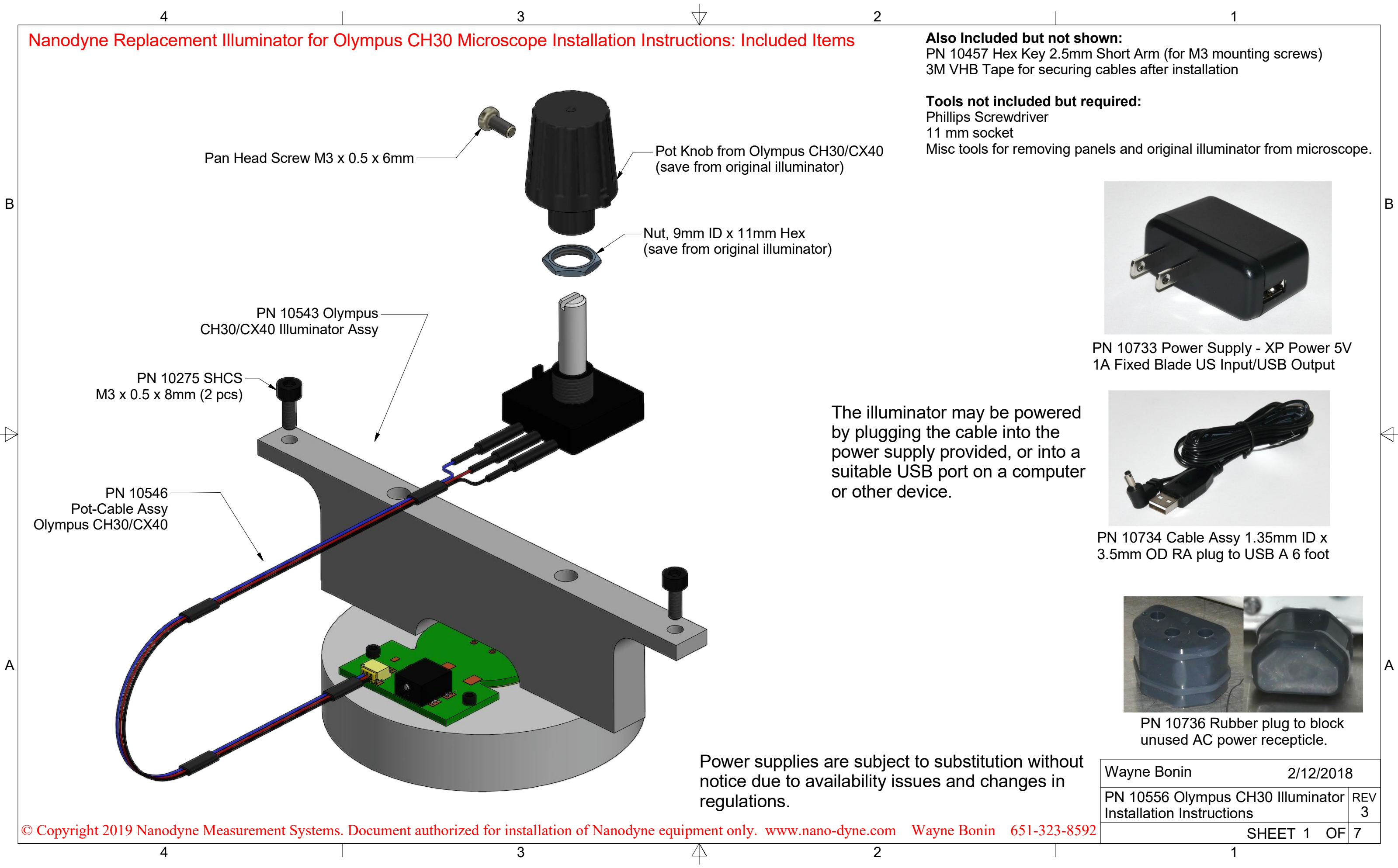


Nanodyne Replacement Illuminator for Olympus CH30 Microscope Installation Instructions: Included Items



**Also Included but not shown:**  
PN 10457 Hex Key 2.5mm Short Arm (for M3 mounting screws)  
3M VHB Tape for securing cables after installation

**Tools not included but required:**  
Phillips Screwdriver  
11 mm socket  
Misc tools for removing panels and original illuminator from microscope.



PN 10733 Power Supply - XP Power 5V 1A Fixed Blade US Input/USB Output



PN 10734 Cable Assy 1.35mm ID x 3.5mm OD RA plug to USB A 6 foot



PN 10736 Rubber plug to block unused AC power receptacle.

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.

Wayne Bonin		2/12/2018	
PN 10556 Olympus CH30 Illuminator		REV 3	
Installation Instructions		SHEET 1 OF 7	



Nanodyne Replacement Illuminator for Olympus CH30 Microscope Installation Instructions - Step 1. Remove back cover and old lamp housing.



Photo 1a



Photo 1b



Photo 1c



Photo 1d



Photo 1e

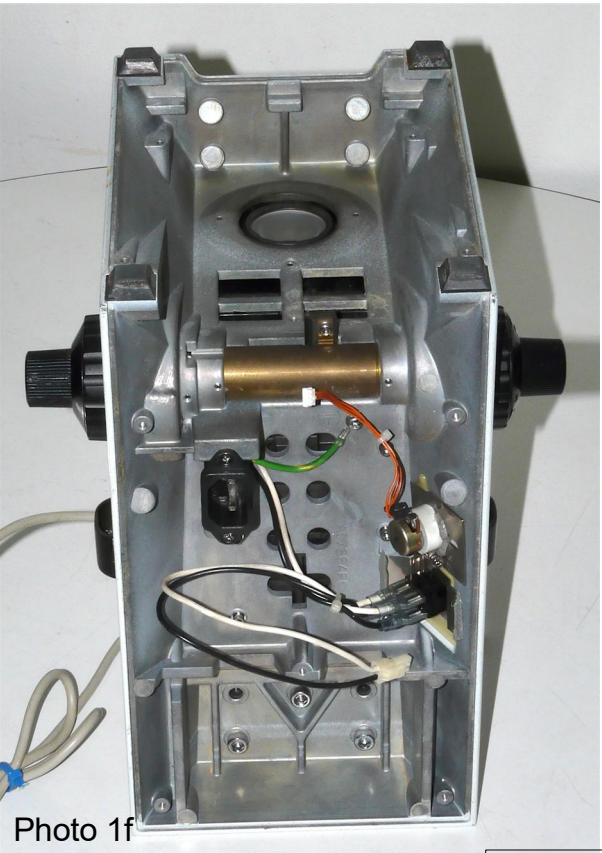


Photo 1f

Be sure AC power is disconnected. Remove back cover, and original illuminator from the bottom of microscope.

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



# Nanodyne Replacement Illuminator for Olympus CH30 Microscope Installation Instructions - Step 2. Remove old potentiometer.



Photo 2a



Photo 2b



Photo 2c



Photo 2d

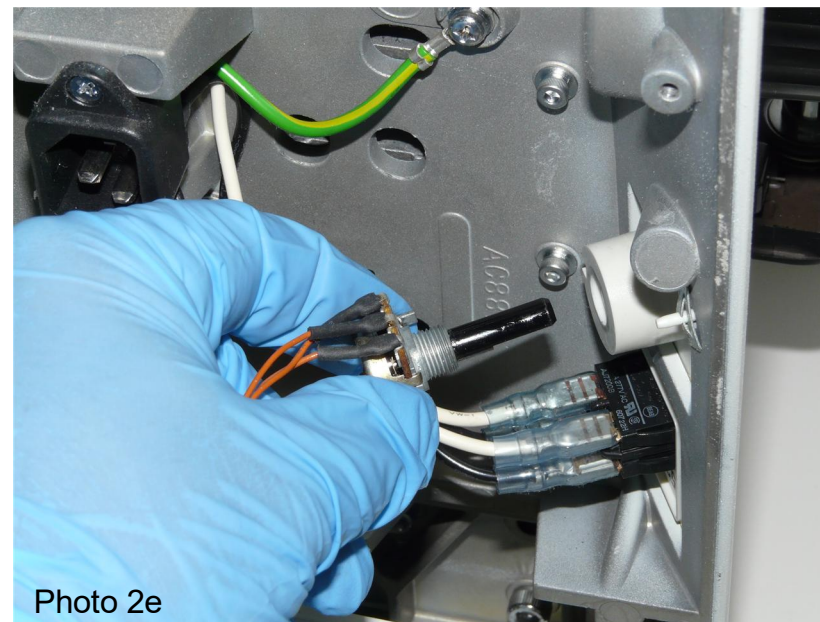


Photo 2e

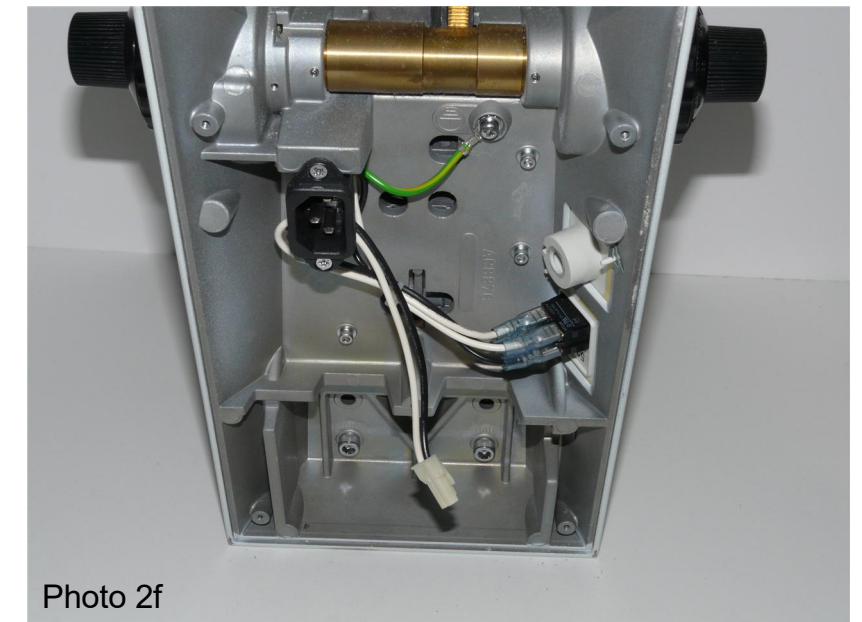


Photo 2f

Remove the original adjustment pot. First remove the knob by loosening the screw with a phillips screwdriver. Then remove the nut with an 11mm hex socket. You should be able to turn the socket by hand. If it is too tight a deeper socket than shown will be required.

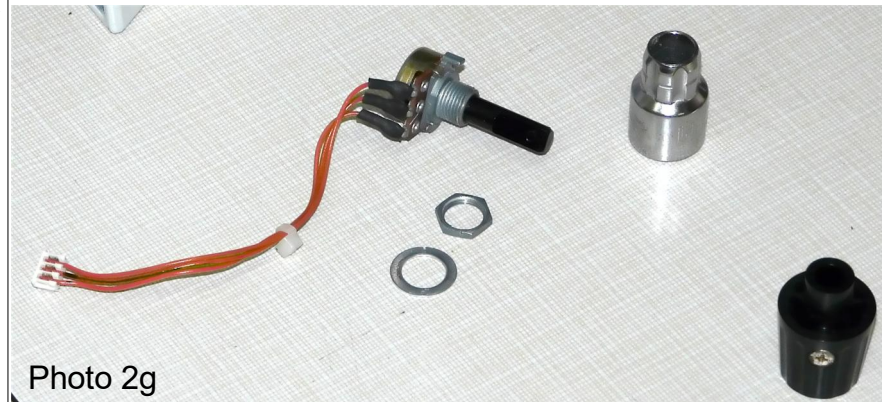


Photo 2g

Keep the original nut, washer, and knob shown at left to install the new pot. (The nut that comes with the new pot is too large to fit)

We don't know exactly what the screw in the photo 2h is for. It is only on the CH30, not on the CX40 as in photo 2e. Do not unscrew it.

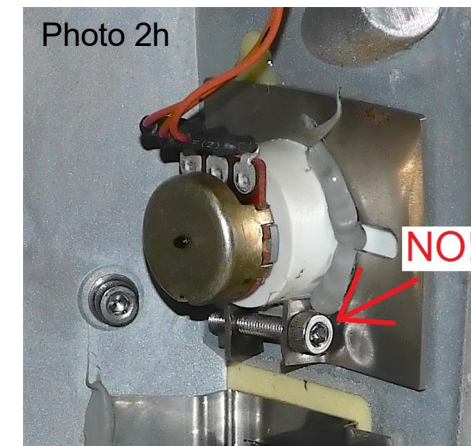


Photo 2h

Wayne Bonin	2/12/2018
PN 10556 Olympus CH30 Illuminator Installation Instructions	REV 3
SHEET 3	OF 7



Nanodyne Replacement Illuminator for Olympus CH30 Microscope Installation Instructions - Step 3. Attach Nanodyne illuminator and pot cable assembly.

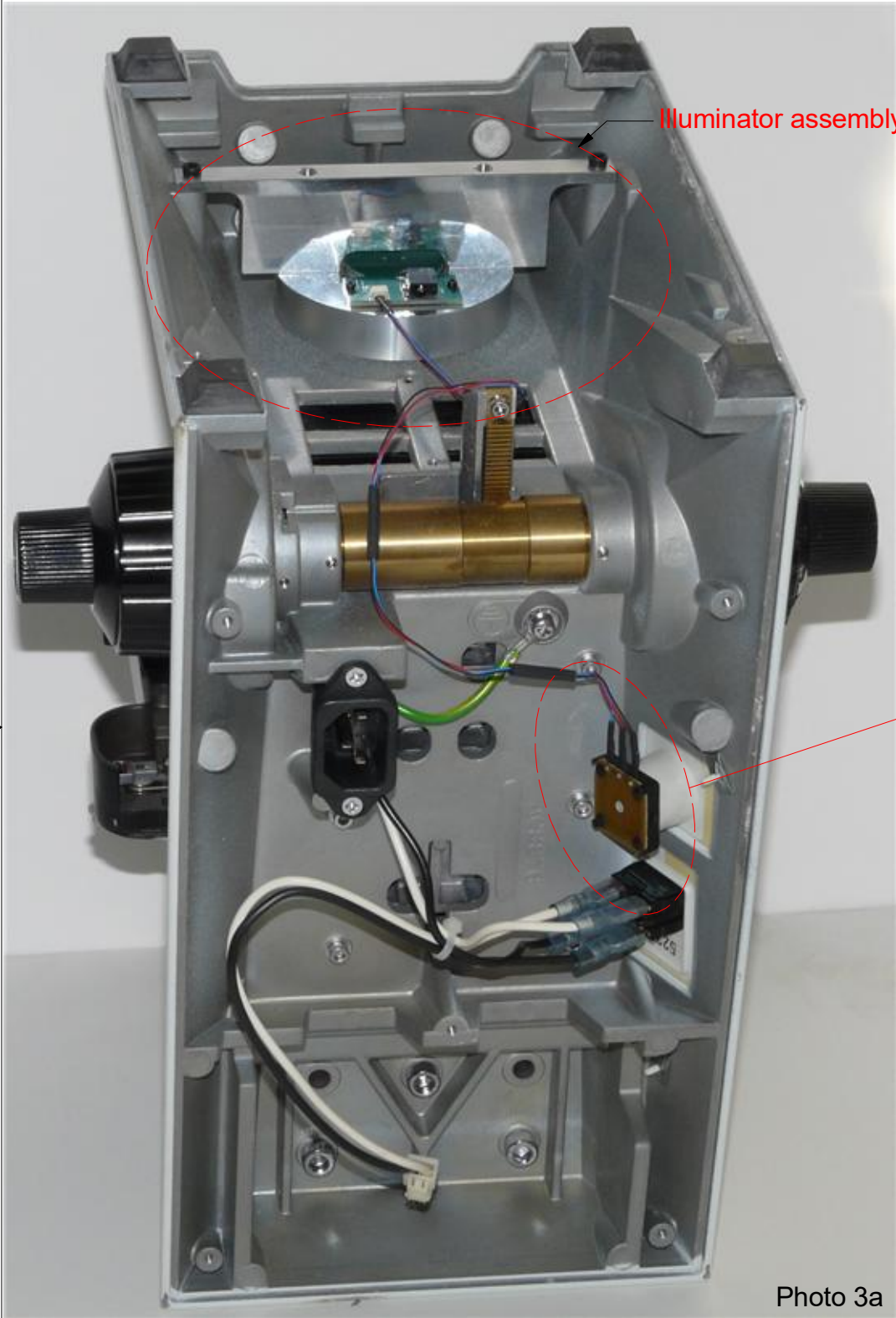


Photo 3a

Position the illuminator assembly as shown in the photo 3a, and secure with the two 3mm diameter x 8mm long cap screws using the 2.5mm hex key.

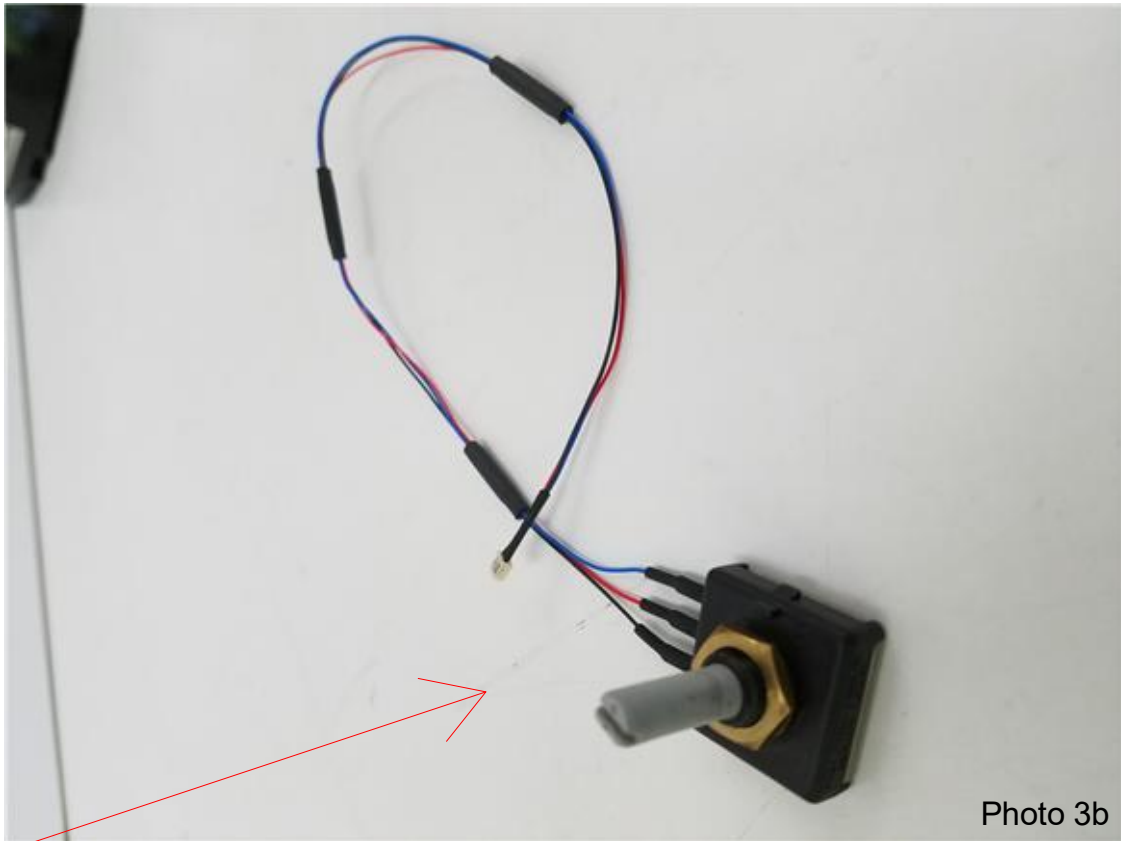


Photo 3b

Note: The new Pot Cable Assembly is shown in photo 3b.



Photo 3c

Install the new adjustment pot as shown in photo 3a, securing it in place with the nut and washer saved from the original pot. Getting the nut started may be rather difficult. Tilting the microscope so that the shaft of the pot points straight up will help, as gravity is then helping rather than fighting you.

After getting the nut started on the threads of the pot, tighten it snugly by hand with the socket as shown in photo 3c. Then replace the knob.

Connect the pot cable to the white connector on the illuminator circuit as shown in photo 3a. Note that the connector is keyed to fit only one way.



Nanodyne Replacement Illuminator for Olympus CH30 Microscope Installation Instructions - Step 4. Remove unneeded AC power switch and cable.

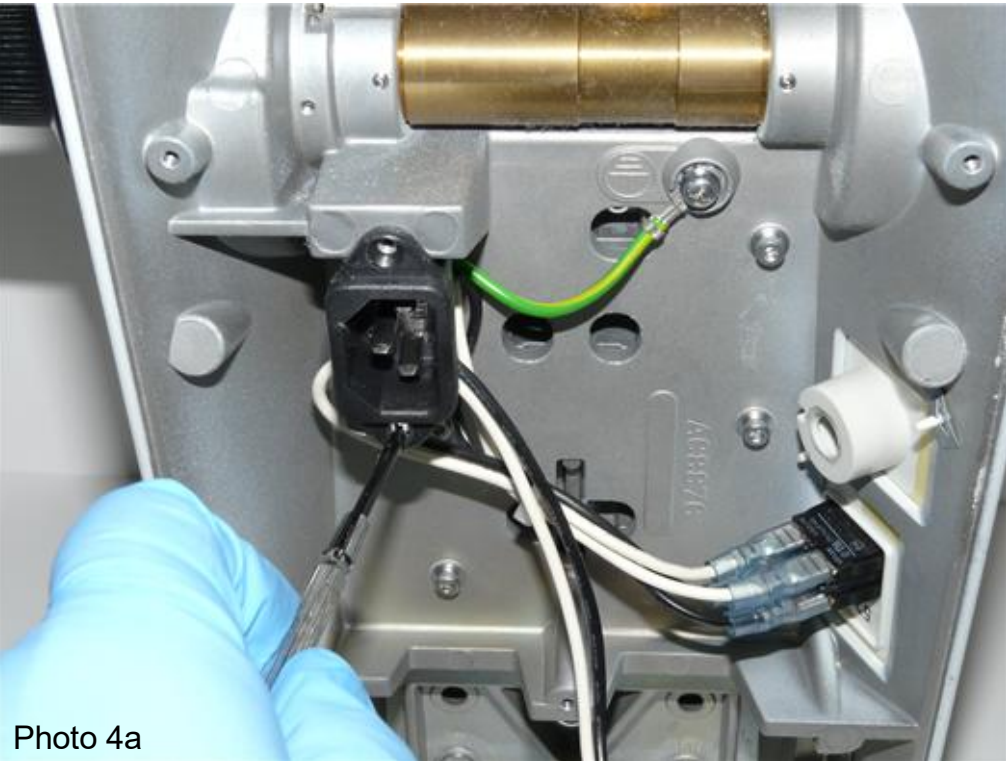


Photo 4a



Photo 4b



Photo 4c

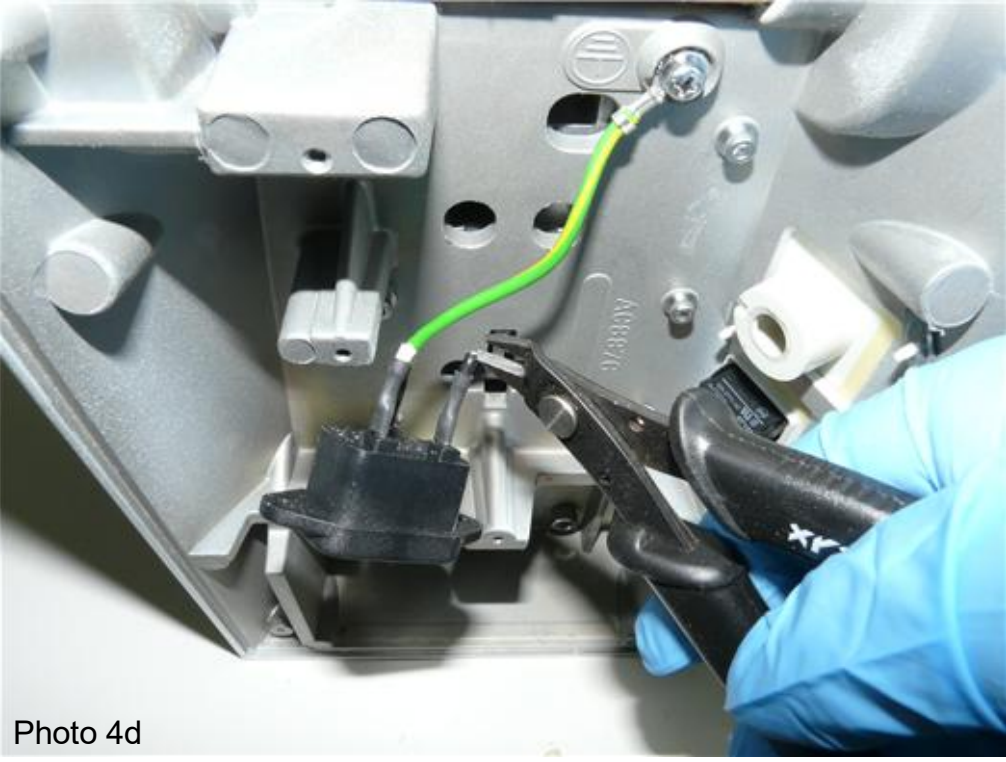


Photo 4d

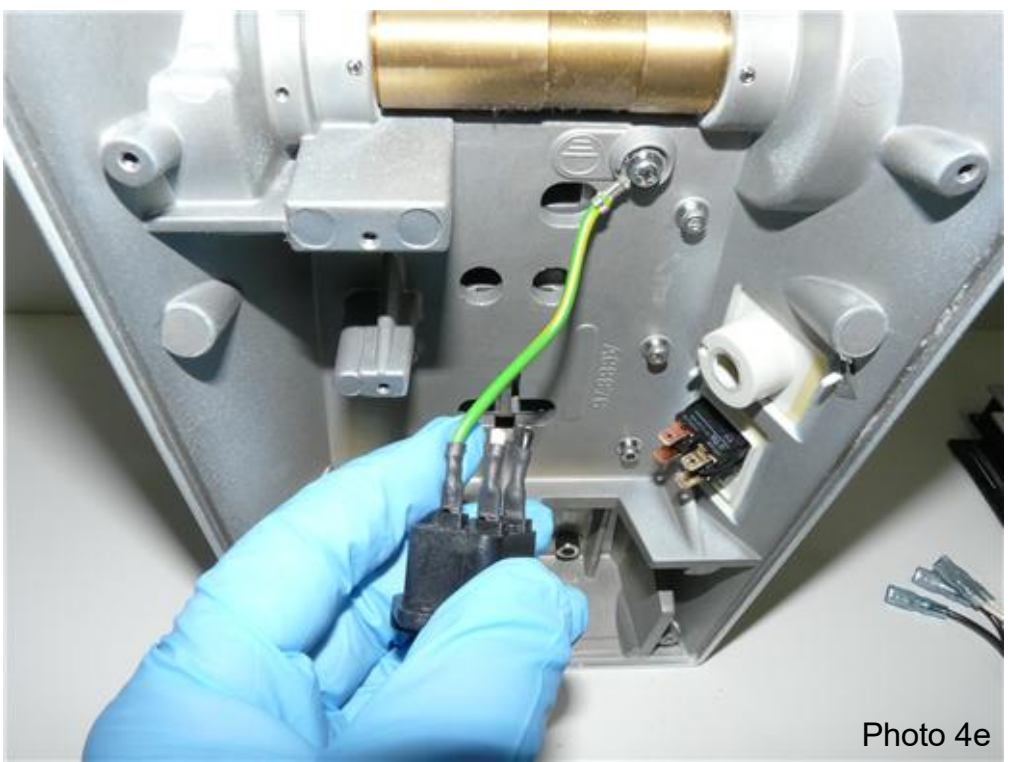


Photo 4e



Photo 4f

Unscrew AC power connector (photo 4a) and unplug the power cable from the power switch (photo 4b). Cut the connections (black and white wires) going to the AC power line (photos 4c & 4d) except ground cable (green) just in case. 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. Screw AC power connector again (photo 4f).



Nanodyne Replacement Illuminator for Olympus CH30 Microscope Installation Instructions - Step 5. Re-install back cover, connect new power supply and secure cables.



Photo 5a

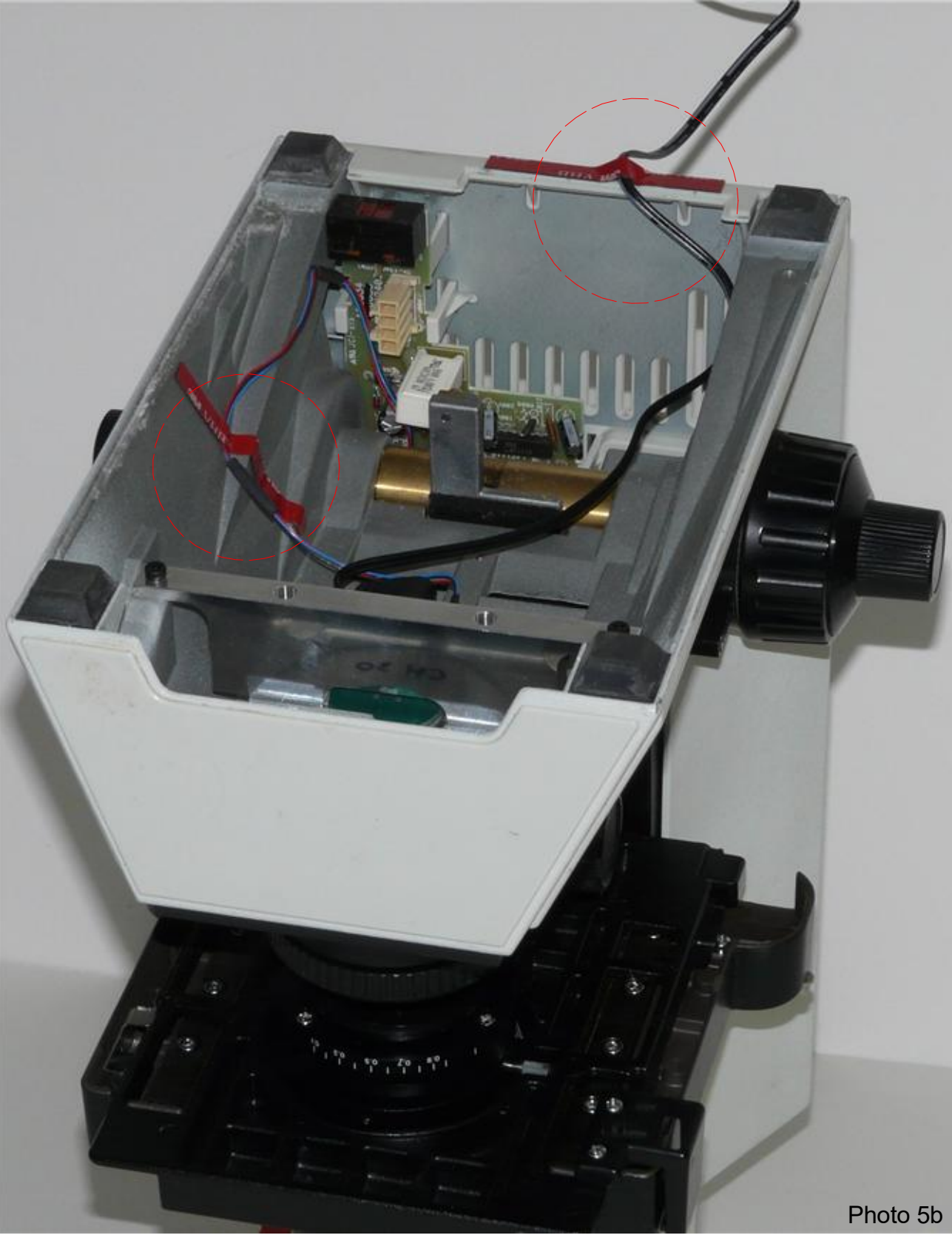


Photo 5b

Replace the back cover on the microscope, and plug the power supply cable into the black connector on the illuminator circuit board (red circle in photo 5a).

Secure the cables with the 3M VHB tape provided, so the cables cannot get caught in the rack and pinion mechanism, or hang out the bottom (red circles in photo 5b).

The original bottom cover is integral with the old illuminator, and will not fit with the new illuminator installed without extensive modification. We recommend simply leaving the old bottom cover off.

Since the operating temperature of the LED illuminator is so much lower than the original halogen, it will not be sucking in dust by convection like the original.

Nanodyne Replacement Illuminator for Olympus CH30 Microscope Installation Instructions - Step 6. Install AC power blocking rubber plug.



**\* SAFETY:**

Completely removing any connection to the now obsolete AC power receptacle is highly recommended as the old original power supply is no longer needed, and could cause problems if ever connected the AC power, as it is likely defective and could present a fire or shock hazard. The old power supply can be completely removed, or just remove the internal connections to the AC receptacle.

Installing PN 10736 rubber plug in the AC receptacle will help deter connection of an AC power cord in the future by operators not familiar with the new illuminator.

Installation of PN 10736 rubber plug is shown above. Finally, we recommend installing the PN 10736 rubber plug in the AC receptacle to deter future attempts to connect an AC power cord to the now obsolete AC power.

Wayne Bonin	2/12/2018
PN 10556 Olympus CH30 Illuminator Installation Instructions	REV 3
SHEET 7	OF 7