

# **PhotoFluor<sup>®</sup> II and PhotoFluor II NIR**

## **LAMP REPLACEMENT GUIDE**

*This manual contains important information. Please read the manual in its entirety and heed all safety warnings before attempting to replace the lamp.*

### **Follow all safety precautions!**

The 89 North<sup>®</sup> PhotoFluor<sup>®</sup> II (10999-000-000) and PhotoFluor II NIR (10998-000-000) light sources are designed and tested in accordance with ANSI/UL 61010-1, CAN/CSA C22.2 Number 61010-1, CENELEC EN 61326-1:2006, and FCC Part 15 Subpart B, Class B.

89 North customer service or your authorized 89 North distributor should be informed immediately in the event of any damage or malfunction in the equipment.

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# Safety First

The PhotoFluor II family of light sources use a powerful lamp that produces heat as well as visible and UV light. Proper care must be taken in the setup and operation to prevent injury.



**The lamp should only be handled wearing gloves and suitable eye protection.**



**When operating, the lamp produces significant amounts of ultraviolet radiation. Never look directly at the lamp or at light reflected from the lamp or the output from the liquid light guide. Do not expose skin directly to the output of the liquid light guide.**

**WARNING:** Use only the recommended bulb replacement. Never substitute the bulb with another manufacturer's bulb.

**WARNING:** ***DON'T BE A FOOL, LET IT COOL.*** The lamp produces significant amounts of heat. Always allow the light source components to cool to ambient temperature before attempting any adjustments or replacement of parts.

**WARNING:** After 1500 hours of operation, the metal halide lamp must be replaced to ensure suitable performance and safety. The light source will alert the user at 1500 hours that the lamp is due for replacement. At 1600 hours, the engine will cease operation as the bulb is no longer safe to use.

**WARNING:** Used lamps should not be discarded in the conventional waste stream. The lamps contain metals that must be handled as potentially toxic.

Please consult the following web address for current information: [www.lamprecycle.org](http://www.lamprecycle.org).

**WARNING:** LAMP EXPLOSION HAZARD - The lamp contains toxic gasses under high pressure. In the event of an explosion, mercury vapor, high temperature gasses, and very fine glass may exit the unit.

All persons should leave the surrounding area at once to prevent mercury inhalation.

The area should be ventilated for 30 minutes.

The area surrounding the light source should be cleaned using an appropriate absorbent such as Mercurisorb® or Mercon™ Mercury Spill Kit II or Mercury Spill Clean-Up Kit.

**WARNING:** Inhaling mercury vapor or small particles of mercury or its compounds can be harmful to lungs, kidneys, and the nervous system. Injuries to one's health can also arise due to penetration of the skin or resorption via the gastro-enteric tract.

**WARNING:** To prevent risk of explosion:

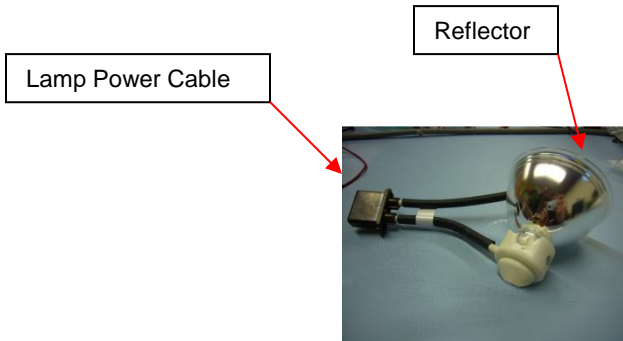
- Replace lamp after 1500 hours of use with the required bulb only
- Do not bump the unit while in use
- Do not touch any portion of the bulb except the ceramic base and power wires as improper handling may shorten bulb life and may lead to catastrophic failure of the lamp.

# And now . . . Replacing the Lamp

The PhotoFluor II and PhotoFluor II NIR 200 Watt lamps must be properly installed to allow ignition, proper cooling and alignment to assure the longevity of the bulb. Your unit is shipped with the lamp installed. **When removing the lamp, take care not to touch the reflector surface (inside or outside) as finger oils or contaminants will harm the bulb.** The lamp's connector must be properly installed.

After installing the bulb and the unit is turned on, you must reset the lamp counter.

The bulb is pictured below:



**Figure 1: Lamp**



**The lamp should only be handled wearing gloves and suitable eye protection.**

## STEP 1 DISCONNECT POWER

Unplug the power cord before attempting to open the outer casing.

## STEP 2 REMOVE EXISTING BULB

Remove the outer top cover by removing the four screws with a Phillips screwdriver and pulling the cover up and off. Next, remove the inner lamp chamber cover by removing the thumbscrew and sliding the plate off. *See Figure 2.*

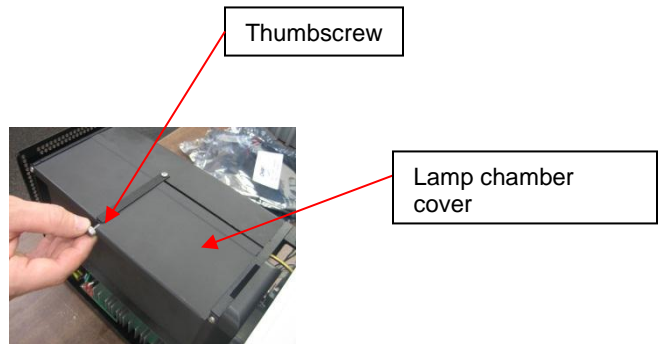


Figure 2: Lamp chamber cover

**STEP 3 DISCONNECT** the lamp power cable (brown connector). Next, locate the lamp mount and disengage the metal retaining wire from the tabs. *See Figures 3 & 4.* Remove the lamp and dispose of properly.

## STEP 4 INSTALL NEW BULB

While holding the white ceramic lamp base (**Note: do not touch reflector surfaces**), place the new lamp flush against the lamp mount's recessed circular opening. The lamp power cable that connects to the rim of the lamp **must be placed in the upright (12 o'clock) position**. See *Figure 3*. Try to move the lamp side to side to assure it is properly seated in the recessed circular opening.

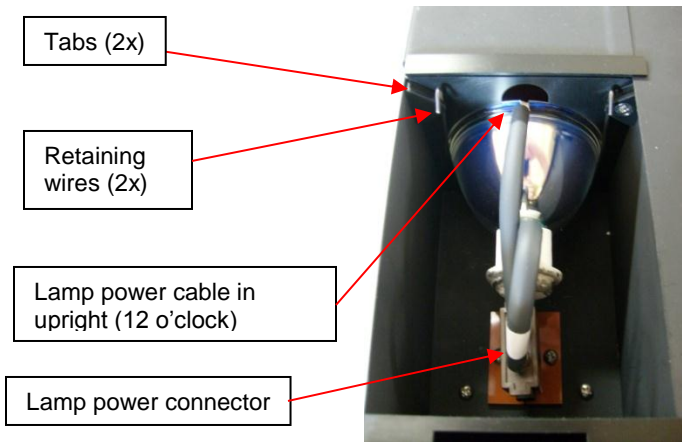
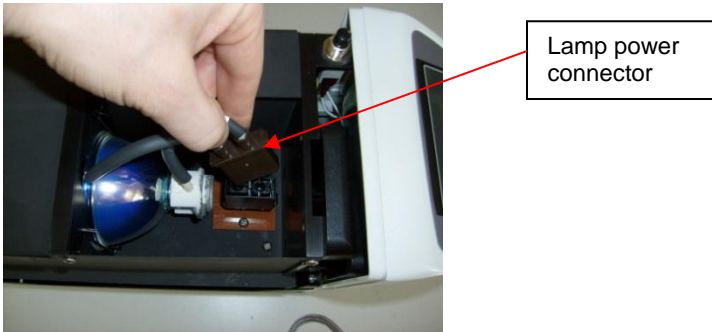


Figure 3: Top view of lamp chamber

**STEP 5** **ENGAGE** the metal retaining wire and place them within the tabs. The “spring action” wire will secure the lamp in place.

**STEP 6** **CONNECT** the lamps power cable (brown connector). See *Figures 3 & 4*.



**Figure 4: Lamp connector**

**STEP 7**     **REATTACH** the lamp chamber cover with the thumbscrew. Carefully reposition the outer cover and reattach the four screws.

**STEP 8**     **PLUG THE UNIT IN AND TURN ON** the power switch. Reset the lamp hour counter by pressing and holding the up arrow button during warm-up. A message appears on the display asking if you want to reset the counter; **“YES”** or **“NO”** (flashing **“NO”** is default). Select response using left and right arrow keys and press the green center **“Enter”** button. If **“YES”** is selected, a message will appear on the display asking if you are sure; **“YES”** or **“NO”** (flashing **“NO”** is default). Select response using left and right arrow keys and press the green center **“Enter”** button. The lamp hour counter is now reset.

**NOTE:**     *The lamp hour reset menu can only be accessed during the 3 minute lamp warm-up period. Pressing and holding the up arrow button in normal operating mode will not initiate the lamp hour reset sequence.*

## Limited Guarantee / Warranty

The PhotoFluor II and PhotoFluor II NIR light engines are under warranty for one year from the date of delivery as long as it is operated as described in this manual. The lamps have an expected life span of at least 1500 hours and will be replaced if they fail or provide poor performance during that time, provided they are handled as described herein. The liquid light guide is under warranty for one year from delivery.

### Contact Information:

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