



Garrett Wade

Technical Memo T24

Re: 25S11.01

To: Customers of the NATO Pressure Lamp
From: Garrett Wade Customer Service

Congratulations on getting the very best Pressure Lamp we have ever come across. Our staff has considerable experience with pressure lamps and the quality of this one is superb.

First, read and understand the instructions that come with the lamp. You can ignore the text referring to *paraffin*, *vaporizing oil*, and *power kerosine*. These are English terms that are not relevant here. The fuel to use is good quality kerosene, which is commonly available in North America.

As the catalog copy specifies, this Lamp burns kerosene, which is cheaper, easier to transport, safer, and more available than alternatives such as naphtha and "camp fuel". As a result however, the lighting procedure for this Lamp is different from what you may be familiar with. The procedure, described in the instructions that come with the Lamp, is simple and easy and involves pre-heating the Lamp using alcohol in the "cup" underneath the burner. (You can get alcohol at any drug store.) This preheating procedure is very important and ensures that the fuel vaporizes as it rises into the mantle (or burner).

This process may initially seem a bit involved but it is straightforward and you will quickly get the hang of it.

You should also know that each and every Pressure Lamp is tested for leaks before being packed up.. Kerosene is poured into the bowl and the Lamp is pressurized for 4 hours to make sure there are absolutely no leaks anywhere. If there is a small residue of kerosene in your lamp when it arrives, this is simply a residue of the testing procedure and you should not be concerned.

Lighting Procedure

Prior to lighting, make sure the bowl contains sufficient kerosene (if in doubt, pour more in). Then:

- **Loosen the pressure release knob on the filler cap.** (This is very important. If this knob is not left loose during the preheat process while the alcohol is burning off (see #4 below), pressure will build up in the bowl and prematurely force partially vaporized kerosene into the burner. The result of this partially vaporized condition will be "flare up" (flame) in the burner once you light it, which is not desired. (Basically, some liquid kerosene will be burning, not completely vaporized kerosene.)

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- **Turn the front black plastic knob clockwise and counterclockwise 2 or 3 times.** (The black plastic knob on the front is used only to clean the tiny vaporizer nozzle. You will find that it is alternatively "easy and tight". This action is lifting and lowering the "pricker" and cleans the tiny nozzle of any residual carbon deposit from the previous time the lamp was used).
- **Using the metal container that comes with the Lamp, squirt enough alcohol in the cup beneath the burner to fill it completely. Then light the alcohol. Allow the alcohol to almost completely burn away.** (Be patient with the alcohol. Allow it to almost burn away. Its function is to make the burner in the hood as hot as necessary. This vaporizes the kerosene. You cannot get the burner too hot, so if in doubt use some more alcohol).
- **Next, tighten the pressure release knob and pump the pressure up. After a few pumps the lamp will light. Then pump it up (about 20 strokes) to maximum brightness.** (If you pump up too early, the kerosene will not properly vaporize because the burner will not be hot enough. The result will be "flare up" (that is, some flame). If this happens, don't be alarmed. Just reopen the pressure release knob to extinguish the flame and repeat the preheating procedure for a while longer. The next time you will get it right. After you have pumped the lamp to the maximum brightness, if you want to lower the brightness, slightly loosen that pressure release knob on top of the filler cap on the bowl. Re-tighten this knob as the desired lower brightness is achieved. The method can be used to keep the Lamp lit for long periods. It could run this way for up to 24 hours on one tank of kerosene).

You may need to practice the above procedure a few times to get the hang of it. Patience and an understanding of how the lamp works will lead to success. Though the lamp is quite sturdy, its inner workings are delicate and it is essential to follow the correct procedure to insure the lamp does not become fouled.

To turn the lamp off, simply loosen the pressure release knob and leave it loose. The lamp will gradually go out.

And remember, **carefully dispose of any used rags, and only operate the lamp in a well ventilated area.**

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