

Operating Instructions for Wickless Alcohol Burner

Warning: Read the following instructions thoroughly before using the burner. Use only under adult supervision at all times. Never leave the burner unattended while it is lit. Use this device only in a well-ventilated place where a fire extinguisher is accessible.

Introduction

The wickless alcohol burner is all metal without the traditional fiber wick. It is unbreakable and spill-resistant. The parts of the burner are shown below.

This spill-resistant alcohol burner uses a one or two loop copper torch instead of a wick to provide even heat distribution. The chrome plated steel tank has a screw type top with a synthetic gasket for a tight seal. Even when tipped, the burner will not leak. The tank holds up to 90ml of denatured alcohol which will allow it to burn for over one hour. Each burner comes with a snuffer cap and heat shield. **For best results, we recommend you use denatured or ethyl alcohol with an alcohol content of 90% or higher**



Operation

1. Unpack the unit and check to make sure all parts are present. (The heat shield is usually packed inside the burner tank. This shield must be removed before filling the tank with alcohol.)
2. Remove the black rubber stopper from the copper torch, if one is present.
3. Remove the top from the tank by turning it counter-clockwise. Examine the way the top attaches to the tank until you fully understand it. The four locking lugs on the top fit into the four cutouts on the tank. When you twist the top clockwise, the four lugs lock the top to the tank and fully seal the top and tank. Note that the further you turn the top clockwise, the more securely the top is attached to the tank and the tighter the seal. This is an important safety feature of the burner. Practice attaching and removing the top several times.
4. Fill the tank about two-thirds full with denatured alcohol.



Warning: Do not use any fuel other than denatured ethyl alcohol. Using other fuels with this burner could result in serious injury. Denatured alcohol can cause serious injury if misused. Read and follow the safety instructions on the alcohol container. Do not open fuel can or fill burner around an open flame. Wipe up all alcohol spills immediately.

5. Replace the top and attach it securely to the tank by turning it clockwise. Tighten the top as much as you can by hand. Verify that the top is fully sealed against the tank by turning the filled burner on its side and rotating it so the liquid is in contact with the seal all around. If alcohol leaks out the seal then the top is not tightened sufficiently. Retighten if necessary.

Warning: Fire hazard. Do not light the burner if the seal leaks alcohol when tested as described above. Failure to tighten the top so it seals properly may result in flames shooting out the side of the top once the burner warms up. Do not use tools to tighten the top. Do not use the burner unless you get a tight, leak-proof seal: call 800-860-6272 for a replacement burner.

6. The burner tank gets very hot during operation. Place the burner on a ceramic pad or non-combustible surface before lighting. Use in a well-ventilated area.
7. Light the burner by putting a wooden match under the torch loop. (Wait five minutes after filling the burner before lighting so that the alcohol can move up into the copper torch tubing.)
8. Wait about one minute until the flame has stabilized before using the burner.
9. Place the heat shield on the top of the burner to direct flame and heat upward.

Warning: The burner, heat shield, and snuffer cap get very hot during use and can cause burns. Always use tongs to put accessories on or take them off the burner. Do not touch any part of the burner with your hands until the burner fully cools.

10. Place the snuffer cap on top of the burner when finished to extinguish the flame.
11. When cooled, the rubber stopper can be re-inserted into the copper tubing to reduce evaporation of the alcohol. If the burner will not be used for more than a week, empty the alcohol tank. Dry the tank and top with a paper towel or cloth before storing the burner.
12. Do not tamper with or modify the alcohol burner in any way. Do not use tools to tighten the lid. If the unit does not work properly, please contact Home Science Tools at 1-800-860-6272 for a replacement.

Denatured ethyl alcohol, sold separately, is readily available in the paint section at most hardware stores. It can also be purchased in 30ml bottles from Home Science Tools. The item number is UN-ETHYALC.