



# Model 2000 Instructions

U.S. Patent No.: 6,474,443 B2

Thank you for purchasing the LiquiVac Oil Changing System. Please read the following instructions for proper operation and use.

**Warnings:** • *Do not use with hot liquids!* • *Never use with gasoline or other flammable liquids.*

1. For best results, run cold engine for approximately 3 to 4 minutes to slightly warm oil. Do not use with hot engines (no more than 105 degrees Fahrenheit). Failure to comply may result in tank distortion and/or collapse.
2. Close vacuum hose pinch clamp.

### ***Engines with larger dipstick tubes***

(Lawn and garden equipment, ATV's, motorcycles, go-karts, etc.)

3. Use 20-30 pump strokes to develop a vacuum for oil changes 3 quarts or less.
4. Remove dipstick from engine. Since most small engines have larger dipstick tubes, the larger diameter clear plastic hose may be used without the narrower white suction probe/hose. The larger diameter hose can make oil changes even faster.

***Careful: Do not to force this hose into a tight fitting dipstick tube because it may become lodged.***

In most cases extracting the oil through the fill tube works fine (i.e. American made motorcycles such as Harley's and many makes of ATVs). With other types of engines, the fill tube may have obstructions (such as clutch components), therefore, it is important to be sure that nothing obstructs the suction hose/probe prior to inserting (check your service manual or dealer).

5. Open vacuum hose pinch clamp and watch for oil flow through suction hose
6. Open vacuum hose pinch clamp and watch the oil flow through the hose and into the tank. For 3 quarts or less of oil or less, allow approximately 4 minutes for the LiquiVac to work.

### ***Engines with smaller dipstick tubes***

(Boats, cars, trucks, etc.)

3. To extract a larger volume of oil (4-5 quarts) use 45 to 50 pump strokes (max. 50) to develop optimum vacuum pressure in the tank.
4. Remove dipstick from engine. Straighten the narrow white colored suction hose and measure the length of the dipstick against the suction probe. In fact we highly recommend that you mark with a pen this length. Slowly insert the marked suction probe into dipstick tube. When you reach you mark on the probe then insert it carefully another 2 to 4 inches until you feel it "bump" into the oil pan. Stop inserting.

***Careful: Do not insert the suction probe more than 4 inches beyond dipstick length. Suction probe may become lodged in the engine cavity.***

5. Open vacuum hose pinch clamp and watch for oil flow through suction hose
6. Open vacuum hose pinch clamp and watch the oil flow through the hose and into the tank. For 4-5 quarts of oil or less, allow approximately 8-10 minutes for the LiquiVac to work.

7. If you hear a gurgling sound and perhaps see bubbles in the clear hose, immediately move the suction hose in a slow up and down (just a fraction of an inch and in a circular motion) to ensure the most efficient removal of oil. If more vacuum power is needed to remove oil, close the pinch clamp and pump 10 to 15 times (repeat if needed or when vacuum suction stops).
8. Remove the suction probe. Wipe probe with clean cloth. Replace dipstick in engine
9. Unscrew cap/spout assembly from tank. Insert plastic disc inside cap/spout and replace cap for easy storage. Please dispose used oil at with you local oil recycling center. To find a recycling center nearest you, visit [www.recycleoil.org](http://www.recycleoil.org)
10. Carefully replenish oil supply following manufacturer's recommended engine oil type and capacity. Recheck dipstick after oil change to ensure proper fill level.

### **Trouble Shooting**

- The key problem most people have operating the LiquiVac is that the gaskets not sealing properly to hold the vacuum. We recommend that you slightly tighten the large and small caps (but, do not over tighten them; this could cause the gasket to distort and not seal). You can check this by listening for air leaks. If a leak is detected, check gaskets for wear and misalignment. Lubricate with motor oil, replace gaskets and tighten cap until slightly snug.
- Check to see if pinch clamp has been closed and is sealing properly (If you see bubbles in clear tube, after creating vacuum in tank, the pinch clamp is not closed properly.) Also, it is recommended that when stored to release the pinch clamp so the hose does not become distorted due to prolonged pressure (a distorted hose could reduce the oil flow).
- If you accidentally over filled your tank or if the oil happens to enter the pump, you can unscrew the pump from the tank and let the oil flow into a container (knob side down and unscrewed). After the oil is drained pump the handle a few times to get the remaining drops of oil out. Keep in mind a small amount of oil in the pump is good for the unit and actually prolongs the life of the pump by adding lubricity.
- If you use the LiquiVac to extract water, please take the pump assembly off after use and allow water to drain out, then add oil in the hole at the pump knob end. This is necessary because the seals in the pump are made of leather.

### **LiquiVac Oil Change System Parts List, Model 2000**

If you need further assistance or replacement parts, call the makers of the LiquiVac (toll-free) at 1.800.225.2224 or visit our web site: [www.liquivac.com](http://www.liquivac.com)

**Parts Kit:** Hose reducer, pour spout, pinch clamp, black rubber spacer, plastic disc, 1 1/4" gasket, pour spout cap

**Hose Kit:** Clear vacuum hose, suction probe/hose, black rubber spacer, pinch clamp

**Pinch Clamp/Gasket Kit:** Pinch clamp, 1 1/4" gasket, 2 1/4" gasket

**Pump Assembly:** Complete pump assembly with 2 1/4" gasket