

# Liquid Fuel Stove Maintenance



## *Coleman 2-burner liquid fuel stove*

1. Fill the tank 7/8ths full with white gas (Coleman fuel). Check the tank cap seal by holding the fuel tank upside down and looking for leaks.
2. Pump the tank 10 to 20 times, with the control valve closed. Plug the tank and generator into the stove so that it fits securely in the proper spot. (The generator rod should be plugged into burner body).
3. Make sure that the secondary burner-regulating key (on left side of stove) is turned off.
4. Turn the lighter stem on the generator/valve assembly to the Up position.
5. Open the control valve and light the primary (right) burner. After one minute of burning, turn the lighter stem to the down position. Adjust the flame with the control valve and by pumping up the tank.
6. The second (left) burner can now be ignited by turning on the regulating key on the left side of the stove and lighting the burner with a match.

**Note:** You can effectively preheat this stove by putting Coleman fuel or Meta-paste in the primary burner bowl under the generator stem, lighting it, and allowing it to burn down before turning on the stove and lighting the stove.

# Five Major Stove Problems

1. Insufficient preheating.
2. Clogged jet.
3. Air leak in the system (seals and “O” rings).
4. Wrong jet. (Multi-fuel models)
5. Contaminated fuel.

## Stove Troubleshooting

### Fuel Leakage:

- At fuel bottle: Fuel cap (or pump) not tight.
- At connectors: Seals or “O” rings damaged.
- At pump: Pump valve or seals are damaged.
- At jet: Control valve is stripped.
- 1” to 1 ½” flame at the gas tip/ manifold connection behind the burner:  
Though not hazardous, the flame can leave soot on pans used on the stove. Remove tank and generator assembly, allow it to cool down then loosen the brass gas tip about half a turn and tighten it back down. This will re-seal the threads and prevent the leak.

### Limited or No Fuel:

- No pressure: Pump up fuel tank.
- No fuel: Tank is empty; jet is clogged; fuel tube is clogged; and/or fuel is too cold.

### Pump won't work:

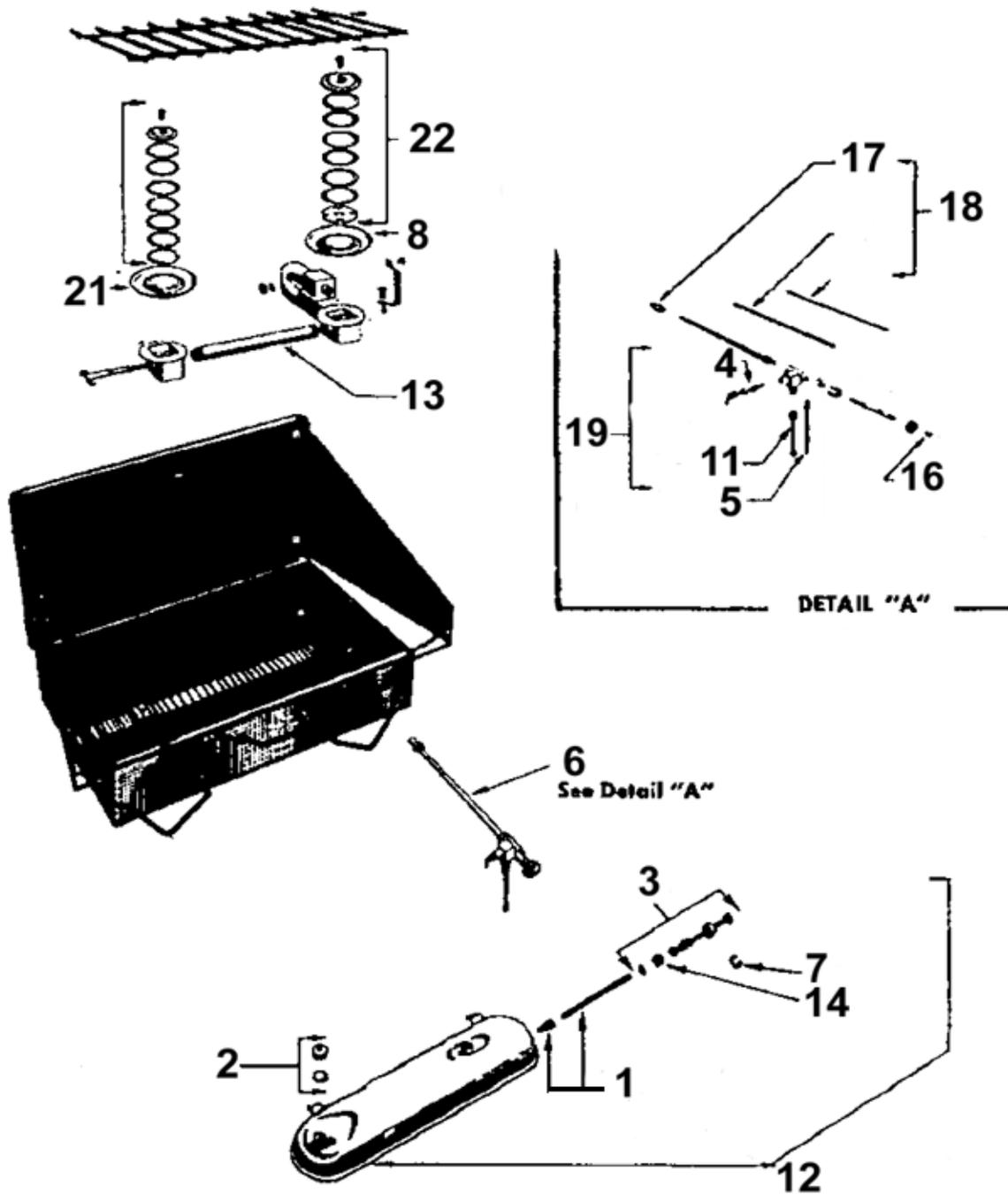
- Dry cup: Oil the pump cup.
- Dirty pump: Clogged check valve.

### Reduced Performance through Jet:

- Lack of fuel: Check fuel level -- pump up pressure-tank.
- Obstructions: Clean jet. Improper jet.
- Too cold: Improperly insulated from snow -- warm fuel tank in sleeping bag.

### Erratic Burning/Surging:

- Pressure too great: Control valve opened too far.
- Improper jet: Kerosene being burned in “G” jet.
- Gas being burned in ”K” jet: Stove is cold. Burner not adequately preheated.



- 1 CHECK VALVE & AIR STEM
- 2 FILLER CAP
- 3 PUMP PLUNGER
- 4 LIGHTING LEVER
- 5 BLOCK & NEEDLE
- 6 VALVE & GENERATOR ASSY
- 7 PUMP CLIP
- 8 BURNER ASSY
- 9 BURNER ASSY
- 10 VALVE WHEEL
- 11 TUBE ASSY
- 12 TANK

- 13 MANIFOLD ASSY
- 14 PUMP CUP LEATHER
- 16 SCREW
- 17 GAS TIP
- 18 GENERATOR
- 19 VALVE ASSY
- 20 SCREW
- 21 BURNER BOWL
- 22 BURNER CAP & FILLERS
- 23 GRATE
- 99 Pump Lube

# Cleaning your Stove

**A cleaner Coleman stove works better and looks better. The benefits of regular cleanings include better fuel efficiency, flame control and no rust or corrosion.**

Although there isn't a set schedule for cleaning your stove, you should clean it whenever it is dirty or after a boil-over that causes build-up in the burners. Annual cleanings are recommended before storing your stove at the end of camping season.

Under most conditions, stoves can be wiped out with warm water and dishwashing soap and then dried before storing. For a deeper cleaning, here are a few suggestions:

- ✓ If there has been a boil-over, remove the screw from the centre of each burner and lift off the burner rings and bowl to check the manifold for fluid or food debris. If there is a build-up, clean it with dishwashing soap and warm water before rinsing with clean water.
- ✓ If the stove has a massive amount of grease and dirt build-up inside the case, on the grill or burners, you can take the stove to a car wash and use a high-pressure hose on it. Don't use any type of tire, oven or engine cleaner because it can damage the paint on the inside of the case and the metal of the grate and manifold.
- ✓ If a stove has been cleaned with any type of water hose, turn the stove upside down to ensure all the water is removed from inside the manifold. Any water left inside the manifold can cause it to rust and disturb the flow of fuel to the burner, preventing the stove from burning properly.
- ✓ After cleaning, proper storage of your Coleman stove is also important. Put it into a plastic bag, sealing with a twist tie to prevent spiders or other insects from crawling in the unit, which can block the fuel and airflow.
- ✓ With a liquid fuel stove, transfer as much fuel as possible out of the fuel tank and back into the fuel can to prevent a lacquer build-up on the tank's fuel tube. Keep in mind that storing a liquid fuel appliance with fuel in the tank can eventually cause a build-up on the fuel tube, which restricts fuel flow to the generator and burner.
- ✓ When it's time to take out your stove, remember to oil the pump cup on the tank's pump plunger at least twice a year with light machine oil. This allows the cup to seal against the inside of the pump barrel and insures the pump will work smoothly and push air into the tank properly.



New fuel bottles require warning labels and child-resistant caps to meet Health Canada regulations. Be aware that the new, aluminium water bottles may resemble older fuel bottles, and care must be taken not to get them confused.

# Stove Safety

Liquid-fuel stoves are potentially hazardous due to the flammability of the fuels used and the toxicity of the vapours they produce (carbon monoxide). Deaths have occurred due to improper stove use. When using a stove in the field, make sure to follow the safety measures listed below.

- ✓ Use only the fuel(s) that your stove is designed to burn. Don't use old fuel that has been stored for a long period of time.
- ✓ Do not use stoves without adequate ventilation.
- ✓ Do not release fuel tank pressure near an open flame.
- ✓ Use extreme caution when refuelling. Skin contact with supercooled fuel will cause instant frostbite. Fill the stove or fuel bottle only to the safe fill line.
- ✓ Check for leaks before every use.
- ✓ Ensure the pump is well lubricated and functioning.
- ✓ Release pressure in the fuel tank before packing and storing.
- ✓ Pack stoves and fuel away from food.
- ✓ Prepare a stable location for the stove, and remove all trip hazards from the kitchen site.
- ✓ Clear away any flammable debris near the stove before lighting.
- ✓ In winter, remove snow from the area beneath and around the stove to prevent melting and upset.
- ✓ Never cook inside a tent or in a confined space. Fire and carbon monoxide poisoning are significant hazards.
- ✓ Test all stoves before your camping trip.
- ✓ Insulate the base of the stoves so that they won't melt through tent floors.
- ✓ Empty your stove before you store it.

Should a person's clothing become ignited, **Stop, Drop, and Roll** to extinguish flames. Residues left from evaporated gasoline are combustible.

11,500 BTU's on main burner and 9,500 BTU's on auxiliary burner

Fuel tank holds about 1 Litre of fuel, and will operate both burners on high for 2 hours or 7 1/2 hours on low.

Primary burner will boil 1 Litre of water in 4 minutes.