



**CROWN  
VERITY  
INC**

## **PRO SERIES GAS FRYERS OWNER'S MANUAL**

MODELS: PF-1 PRO-FRYER, PF2 DUAL PRO-FRYER  
REVISED OCTOBER, 2009  
\*PLEASE RETAIN FOR FUTURE REFERENCE



This appliance has been tested according to ANSI Z83.116-2009/CSA1.86-2009. This outdoor cooking gas appliance is not intended to be installed in or on recreational vehicles and/or boats.


Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.


CROWN VERITY INC., 37 ADAMS BLVD., BRANTFORD, ON. CAN. N3S 7V8  
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## IMPORTANT FOR YOUR SAFETY

 **WARNING** Hot oil and parts can cause burns. Use care when operating, cleaning and servicing the fryer.

 **WARNING** Spilling hot frying compound can cause severe burns. Do not move the fryer without draining all frying compound from the tank.

INSPECT HOSES BEFORE EACH USE.

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT THE MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

NEVER CHECK FOR LEAKS WITH A MATCH OR OPEN FLAME.

AN LP CYLINDER NOT CONNECTED FOR USE SHALL NOT BE STORED IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

THIS APPLIANCE SHALL ONLY BE USED IN A WELL VENTILATED SPACE AND SHALL NOT BE USED IN A BUILDING, GARAGE, OR ANY OTHER ENCLOSED AREA.

DO NOT OBSTRUCT THE FLOW OF COMBUSTION AND VENTILATION AIR TO THE FRYER.

DO NOT LEAVE YOUR FRYER UNATTENDED WHILE IN OPERATION.

DO NOT ALLOW CHILDREN TO PLAY ON OR NEAR YOUR FRYER.

DO NOT USE THIS FRYER UNTIL YOU HAVE READ AND UNDERSTOOD ALL OF THE INFORMATION IN THIS MANUAL.

PROPER BURNER POSITIONING IS CRITICAL TO SAFE OPERATION. DO NOT ATTEMPT BURNER ADJUSTMENT OR REPLACEMENT. CONTACT QUALIFIED PERSONNEL.

 **WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death.

**FOR YOUR SAFETY**

IF YOU SMELL GAS:

- 1) Shut off gas supply to appliance.
- 2) Extinguish any open flame.
- 3) If odor continues, immediately call your gas supplier.


## INTRODUCTION


### GENERAL

Crown Verity Inc. Fryers are produced with quality workmanship and material. Proper installation, usage and maintenance will result in years of satisfactory performance.

Before using the fryer, thoroughly read this manual and carefully follow all instructions.

This manual is applicable to models listed on the cover page. Procedures in this manual will apply to all models unless otherwise specified.

 **WARNING** Hot oil and parts can cause burns. Use care when operating, cleaning and servicing the fryer.

 **WARNING** Spilling hot frying compound can cause severe burns. Do not move the fryer without draining all frying compound from the tank.

### ORDERING PARTS

Customers may order parts directly from Customer Service at 888-505-7240.

To speed up your order, provide the model number, serial number, gas type, part needed, item part number (if known) and quantity needed.

**NOTE:** Hoses must be rated min. 140° F. Do not replace hoses, regulators, valves or burners with other than original equipment. Do not attempt to replace or adjust burners. Contact qualified personnel.

### UNPACKING

This fryer was carefully inspected and tested before leaving the factory. Upon acceptance of the shipment, the transportation company assumes full responsibility for safe delivery.

Immediately after unpacking the fryer, check for possible shipping damage. If the fryer is damaged, save the packaging material and contact the carrier immediately.

Check that the following have been included:

- Crumb Rack
- Basket Hanger
- Drain Pipe Extension
- Twin Fry Baskets (2)
- Manual and Warranty

Do not use the fryer's door or its handles to lift the fryer at any time.

## INSTALLATION

### WARNING!

DO NOT OPERATE THIS OUTDOOR APPLIANCE UNDER OVERHEAD,  
UNPROTECTED CONSTRUCTION.

THIS APPLIANCE SHALL BE USED ONLY IN A WELL VENTILATED SPACE AND SHALL  
NOT BE USED IN A BUILDING, GARAGE, OR ANY OTHER ENCLOSED AREA.

Before installing the fryer, verify that the type of gas (natural or propane) agrees with the specifications on the fryer data plate, which is located on the inside of the door panel.

Record your fryer model, device, and serial numbers for future reference in the space provided below. This information can be found on the fryer data plate.

Fryer Model No: \_\_\_\_\_

Fuel Type: \_\_\_\_\_

Serial #(s): \_\_\_\_\_

### Clearances

- Minimum clearance from combustible construction:  
6" (15 cm) from the sides of the fryer  
6" (15 cm) from the back of the fryer  
The fryer may be installed on combustible floors free of debris.
- Minimum clearance from non-combustible construction:  
0" from the sides of the fryer  
0" from the back of the fryer
- Between the fryer and any open-top flame units:  
16" (41 cm)

### Location

- Minimum ambient temperature for safe use is -25°C
- Install fryer outdoors only, on level ground, free of debris
- Do not obstruct the flow of combustion and ventilation air.
- Provide adequate clearance for air openings into the combustion chamber.
- Do not install near open windows and doors.
- CASTERS MUST BE LOCKED AT ALL TIMES DURING OPERATION.

## CODES AND STANDARDS

The fryer must be installed in accordance with:

### In the United States:

- State and local codes, or in the absence of local codes, with:  
National Fuel Gas Code, ANSI-Z223.1/NFPA #54 (latest edition).

### In Canada:

- Local codes
- CAN/CSA-B149.1 Natural Gas and Propane Code (latest edition).


## NATURAL GAS CONNECTIONS

**NOTICE** All gas supply connections and any pipe joint compound must be resistant to the action of propane gases.

Codes require that a gas shutoff valve be installed in the gas line ahead of the fryer.

The NATURAL GAS supply line must be at least the equivalent of 1/2" (12.7 mm) iron pipe for single units and 1-1/4" (31.75 mm) dual units. If using the optional quick-disconnect flex hose, 3/4" (19 mm) iron pipe for single units and 1-1/4" (31.75 cm) iron pipe for dual units.

Make sure the pipes are clean and free of obstructions, dirt, and piping compound. A dual unit requires one or two connections of appropriate size for the gas requirement.

 **WARNING** Prior to lighting, check all joints in the gas supply line for leaks. Use soap and water solution. Do not use an open flame.

After piping has been checked for leaks, fully purge gas pipes to remove air.

**NOTICE** Inspect hose(s) frequently. Replace with original manufacturer's parts only.

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## **GAS PRESSURES (ALL MODELS):**

The gas pressure should be set at 4" W.C. (Water Column) (0.8 kPa) for natural gas and 11" W.C. (2.75 kPa) for propane gas. If incoming pressure exceeds 1/2 PSI (3.45 kPa), an additional pressure regulator may be required.

## **TESTING THE GAS SUPPLY PIPING SYSTEM:**

When test pressures exceed 1/2 PSI (3.45 kPa), the fryer and its individual shutoff valve must be disconnected from the gas supply piping system.

When test pressures are 1/2 PSI (3.45 kPa) or less, the fryer must be isolated from the gas supply piping system by closing its individual shutoff valve.

## **PROPANE CYLINDERS AND REGULATORS**

❖ Pressure regulators and hose assemblies supplied with this appliance must be used. Replacement pressure regulators and/or hose assemblies must be original manufacturers parts.

The standard, self-contained propane system fryer is designed for use with 13.6 kg. (30 lb.) propane cylinders, equipped with a Type I cylinder valve.

❖ Do not store propane cylinders in or on the appliance, explosion, fire or injury may result.

The Type I (Q.C.C.1) cylinder valve is recognizable by the large external thread on the outlet part of the valve. Standard valves do not have these exterior threads. Any attempt to fit the regulator(s) with anything other than the mating Type I (Q.C.C.1) connector, (recognized by the large plastic coupling nut) will negate the important safety features designed into the Type I (Q.C.C.1) system. Fitting a standard #510 P.O.L connector, will not provide the flow control or temperature shut-off safety features built into the complete Type I (Q.C.C.1) system.

When purchasing a cylinder for your PRO-FRYER, it must be constructed and marked in accordance with the specifications of:

The U.S. Department of Transportation (DOT), or CAN/CSA B339.

The cylinder must also be equipped with:

- a) A shut-off valve terminating in a proper cylinder valve outlet specified in current standards.
- b) A safety relief valve having direct communication with the vapor space of the cylinder.
- c) A collar to protect the cylinder shut-off valve.
- d) An arrangement for vapor withdrawal only.
- e) A bottom ring for securing to the cylinder support assembly.

❖ Protect regulator vent openings from the elements. Do not expose regulators to rain, snow or ice. Store regulators in cabinet when not in use.

❖ Only install and operate cylinders in the retaining brackets on the appliance. Cylinders must be secured against tip-over and from heat sources at all times.

## **FIRE EXTINGUISHERS**

At least one UL/ULC approved, portable, dry chemical fire extinguisher must be available to the operator(s) at all times while the fryer is in operation.

## **TRANSPORTATION AND STORAGE OF LP CYLINDERS**

Handling, storage and transportation of propane cylinders must be in accordance with Storage and Handling of Liquid Petroleum Gases, ANSI/NFPA 58 or Natural Gas and Propane Installation Code, CSA B149.1.

THEREFORE:

Always use the protective cap provided with your cylinder whenever it is not connected to your fryer.

- Do not store in a building, garage or any other enclosed area. Store only in a well ventilated area.
- Do not store in the vicinity of any gas burning apparatus or in any high heat area such as a closed car or trunk.
- Do not smoke while transporting a cylinder in your vehicle.
- Transport and store cylinder(s) in an upright position only.
- Store out of reach of children.
- Allow only qualified LP gas dealer to fill or repair cylinder(s).
- Do not allow the cylinder to be over filled.
- Make sure the LP gas dealer checks the cylinder for leaks after filling.

## **OPERATION**



**WARNING** Hot oil and parts can cause burns. Use care when operating, cleaning and servicing the fryer.



**WARNING** Spilling hot frying compound can cause severe burns. Do not move the fryer without draining all frying compound from the tank.

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## LEVELING THE FRYER

Check the level of the fryer by placing a level on top of the fryer. Ensure that the fryer is level front-to-back and side-to-side in the installed position. Lock the wheels after unit is level.

## OVER-TEMPERATURE SHUTDOWN

If the shortening becomes overheated, a high-temperature shutoff device will turn the gas valve off and extinguish the pilot.

If the fryer shuts down due to overheating, DO NOT re-light the pilot until the shortening temperature is below 300° F (149° C).

If an overheating situation persists, contact Crown Verity Inc. service office at 1-888 505 7240.

## BEFORE FIRST USE

### Cleaning

New units are wiped down at the factory to remove any visible signs of dirt, oil, grease, etc. remaining from the manufacturing process.

Before any food preparation, thoroughly wash the protective oil from all surface parts and the tank interior with hot soapy water to remove any film residue and dust or debris.

**NOTICE** Do not use chlorine or sulfate/sulfide cleaners.

- Wash any accessories shipped with unit.
- Rinse fryer and accessories thoroughly and drain the fryer.
- Wipe tank completely dry with a soft, clean cloth.



**WARNING** Hot oil and parts can cause burns. Use care when operating, cleaning and servicing the fryer.



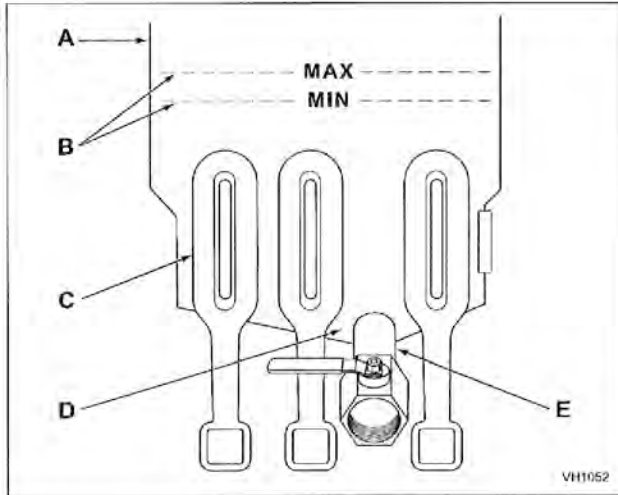
**WARNING** Spilling hot frying compound can cause severe burns. Do not move the fryer without draining all frying compound from the tank.

## FIRE EXTINGUISHERS

At least one UL/ULC approved, portable, dry chemical fire extinguisher must be available to the operator(s) at all times while the fryer is in operation.

## FILLING TANK WITH SHORTENING

**NOTICE** Solid shortening should NOT be used with PRO-FRYERS. Melting solid shortening will damage the tank and void your warranty.



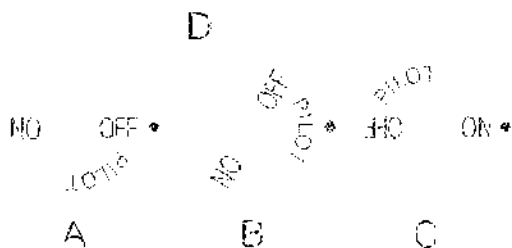
- Close the drain valve.
- Check the level of the fryer
- Fill the fryer tank with liquid shortening.
- Shortening level should be between the min and max lines in the fryer tank.
- Shortening will expand when heated. Do not fill the fryer tank past the MAX line.
- Add fresh shortening as needed to maintain oil level.

- A Fryer Tank**
- B MIN and MAX Fill Level Lines**
- C Heat Pipes**
- D Cold Zone**
- E Drain Pipe**

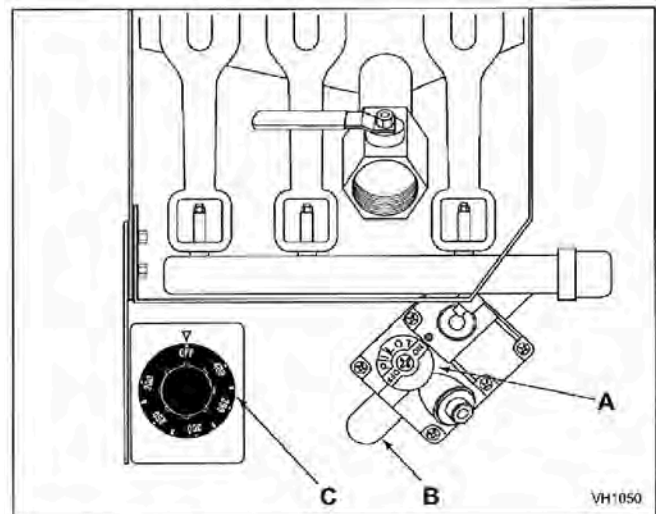
**Before Start-Up** • Inspect hose(s) for evidence of excessive wear, cuts or cracks. If evient, replace only with manufacturer's original parts before operation.

## LIGHTING THE PILOT

1. Open the door
2. Turn the thermostat OFF (see figure below, view A). The thermostat is located behind the door.
3. Push the gas control valve knob and turn to OFF. Wait 5 minutes for unburned gas to vent.
4. Push and turn gas control valve knob to the "L" in PILOT (see figure below, view B).
5. While still holding the knob in, light the pilot with a lit flame. Continue to depress the knob until pilot remains lit when knob is released. If the pilot does not remain lit, repeat step 3 through 5.
6. Depress and turn gas control knob to ON (See figure below, view C).
7. If gas supply is interrupted, repeat steps 2 through 6.



- A Gas Valve Knob, View A**
- B Gas Valve Knob, View B**
- C Gas Valve Knob, View C**
- D Indicator Point, All Views**



- A Gas Valve Knob**
- B Gas Supply**
- C Thermostat Knob**

## TURNING ON THE FRYER

- Set the temperature knob to desired temperature.
- After the set temperature has been reached, the thermostat shuts off the gas flow to burners.
- The pilot remains lit. The burners will cycle on and off, maintaining the set temperature.

## TURNING OFF THE FRYER

1. Turn the thermostat OFF.
2. To keep the pilot lit, turn the gas valve to "L" in Pilot.
3. To shut off all gas to the system, including the pilot, turn the gas valve knob to OFF.
4. Turn off gas supply at cylinder valve or supply pipe..

## EXTENDED SHUTDOWN

1. Turn the thermostat knob to OFF.
2. Push in the pilot knob and turn to OFF.
3. Thoroughly drain the fryer. Refer to DRAINING THE FRYER.
4. Clean the fryer according to CLEANING.
5. Turn off the main gas shutoff valve.

## BASIC FRYING INSTRUCTION



**WARNING** Hot oil and parts can cause burns. Use care when operating, cleaning and servicing the fryer.



**WARNING** Spilling hot frying compound can cause severe burns. Do not move the fryer without draining all frying compound from the tank.

- Set the desired temperature and allow shortening to heat up to that temperature.
- Fry items that are the same size to ensure equal doneness.
- Drain or wipe dry raw or wet foods to minimize splatter when lowering into hot shortening.
- Add fresh shortening as needed.

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### **Fry Basket Guidelines**

- Do not overfill baskets. (See table for recommended basket capacities below) Carefully lower basket into oil.
- When frying doughnuts and fritters, turn product only once during frying.
- When cooking French fries or onion rings, shake the basket several times.
- Batter-covered foods should be dropped carefully, one by one, into shortening or basket. If you use the basket, first dip the basket into the shortening to reduce batter-build up on basket surfaces.
- When frying is completed, remove basket or product. Hang basket on rear hanger.

### **Fry Basket Capacity:**


Recommended pounds per basket are 1.5 lbs. (0.7 kg).


## **EXTENDING SHORTENING LIFE**

Shortening life can be extended by the following guidelines:

- Do not salt foods over the fryer.
- Use good-quality shortening.
- Filter shortening daily (at a minimum).
- Replace shortening if it becomes poorly flavored.
- Keep equipment and surrounding clean.
- Set thermostat correctly.
- Remove excess moisture and particles from food products before placing in fryer.

## **DRAINING THE TANK**

 **WARNING** Hot oil and parts can cause burns. Use care when operating, cleaning and servicing the fryer.

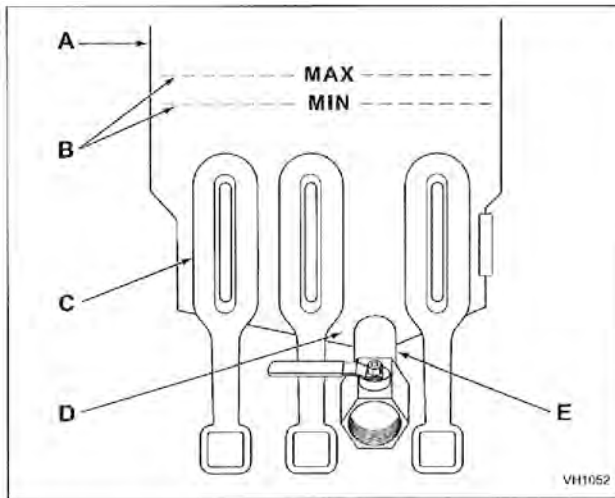
 **WARNING** Spilling hot frying compound can cause severe burns. Do not move the fryer without draining all frying compound from the tank.

1. Turn the thermostat to OFF.
2. Turn the gas valve to OFF.
3. Let the shortening cool completely before draining.
4. Direct the drain spout into the container that you want to drain the shortening into.
5. Open the drain valve. The oil will drain into the container. When the container is full or the fryer tank is empty, close the drain valve. Repeat this step until the fryer is empty.
6. If desired, perform routine clean-out as described under CLEANING.
7. Once tank is completely clean and empty, add new shortening and set thermostat to desired temperature.

## FILTERING

**⚠ WARNING** Hot oil and hot parts can cause burns. Use care when operating, cleaning, and servicing the fryer.

- Filter shortening as required. Refer to the instructions provided with your filtering equipment.



- A Fryer Tank
- B MIN and MAX Fill Level Lines
- C Heat Pipes
- D Cold Zone
- E Drain Pipe

## CLEANING

**⚠ WARNING** Hot oil and hot parts can cause burns. Use care when operating, cleaning, and servicing the fryer.

Clean your fryer regularly with the tank brush along with a damp cloth, and polish with a soft dry cloth. If regular cleaning is neglected, grease will be burned on and discolorations may form.

Fingerprints are sometimes a problem on highly polished surfaces of stainless steel. They can be minimized by applying a cleaner that will leave a thin oily or waxy film.

- Clean all exterior surfaces of your fryer at least once daily.
- Use a damp cloth with warm water and a mild soap or detergent.

**NOTICE** Do not use chlorine or sulfate/sulfide cleaners.

- Rinse thoroughly, and then polish with a soft dry cloth.
- Keep the fryer exterior clean and free of accumulated grease to prevent stubborn stains from forming. If regular cleaning is neglected, grease will be burned on and discolorations may form.
- Remove discolorations by washing with any detergent or soap and water.
- Use a self-soaping, non-metallic scouring pad for particularly stubborn discolorations.
- Always rub with the grain of the stainless steel.
- Do not use a metallic scouring pad or harsh cleaners.

## **BOIL OUT PROCEDURE**

### **As required:**

1. Drain the tank as described under DRAINING THE TANK.
2. Once the shortening has been drained, flush out scraps and sediment with a small amount of warm shortening, using tank brush. Allow the tank to drain thoroughly.
3. Close the drain valve and fill tank with water. Use recommended Boil-Out solid degreaser low foaming cleaner tablets which can be ordered from your local dealer. Follow the instructions on the package.

**NOTICE** Do not use chlorine or sulfate/sulfide cleaners.

4. Add commercial boil-out solution. Solution level must be between the MIN and MAX levels on the fryer tank.
5. Set thermostat to the temperature recommended for the solution being used. Allow solution to simmer for about 15 to 20 minutes.
6. Drain the cleaning solution from the tank.
7. Close the drain valve and refill the tank with water. Add 1 cup (1/4 L) of vinegar to neutralize alkaline left by the cleaner. Solution level must be between the MIN and MAX level on the fryer tank.
8. Bring the solution to a simmer only, turn the thermostat off. Allow to stand for a few minutes.
9. Drain the tank according to DRAINING THE TANK. Rinse thoroughly with clear, hot water. All traces of cleaner must be removed. Dry the tank thoroughly.
10. Close the drain valve and add shortening. Follow the FILLING TANK WITH SHORTENING procedure in this manual. The fryer is now ready for use.

## **FIRE EXTINGUISHERS**

At least one UL/ULC approved, portable, dry chemical fire extinguisher must be available to the operator(s) at all times while the fryer is in operation.

## TROUBLESHOOTING

### For Service and Repairs in the US and Canada

Contact Crown Verity Inc. at 1-888 505 7240

<b>Troubleshooting Chart:</b>	
Problem:	Probable Cause:
No Heat:	Gas valve not set to ON. Thermostat dial not turned on. Pilot not lit. Gas supply not turned on, or connected. Wire connections loose Wire connections need cleaning Thermopile
Insufficient or too much heat:	Thermostat dial not set to desired temperature. High limit tripped (call service) Temperature probe (call service)
Tank will not drain:	Shortening too cold. Drain pipe clogged with debris.

**NOTE:** Hoses must be rated min. 140° F. Do not replace hoses, regulators, valves or burners with other than original equipment. Do not attempt to replace or adjust burners. Contact qualified personnel

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