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JADE DEEP FAT FRYERS

MODELS: JSFF and JTFF Series

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

NOTE: Instructions must be posted in a prominent location which will instruct the user in the event he detects the smell of gas. This information shall be obtained from your local gas company.



FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.



WHAT TO DO IF YOU SMELL GAS

- Open windows
- Do not touch electric switches
- Extinguish any open flame
- Immediately call your gas company

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

Adequate clearances must be provided in front, rear and at sides of appliance for servicing. The appliance area must be kept free and clear from combustibles. There must be no material or obstacles obstructing the flow of combustion and ventilation air.

RETAIN THIS MANUAL FOR FUTURE REFERENCE

CLEARANCES/INSTALLATIONS – Model JSFF

For installation in noncombustible locations only with zero inch clearances.

For installation with or without six-inch-high adjustable legs or with casters.

CLEARANCES/INSTALLATIONS – Model JTFF

	Combustible Constructions	Noncombustible Construction
Left Side	4 inches	0 inches
Right Side	4 inches	0 inches
Rear	2 inches	0 inches
Floor	Combustible (when using six-inch-high legs or casters.	

For installation with six-inch-high adjustable legs or casters on combustible floors.

For installation without legs or casters on noncombustible floors.

1.1.0

Hazard Notices

1.1.1

WARNING! Once the fryer reaches operating temperature, the shortening in the kettle may be hotter than 375 degrees F. This hot, melted shortening can burn you very badly. Do not let the hot shortening touch your skin or clothing. Do not try to move the fryer until the shortening has cooled to 135 degrees F. or less.

1.1.2

WARNING! The fryer may be equipped with a three-prong electrical plug. This three-prong plug is part of a system that will protect you if something goes wrong with the electrical wiring in the fryer. Be sure the three-prong plug is plugged into a matching three-prong socket. Do not cut or break off the large third prong in this plug, or the protective system won't work.

1.1.3

WARNING! There is an open gas flame inside this fryer. The fryer can get hot enough to set nearby materials on fire. Keep all combustible materials away from the fryer.

1.1.4

WARNING! Make sure the fryer can get enough air to keep the flame burning right. Provide adequate clearance around air openings into the combustion chamber. When the flame is "starved" for air, it can give off a dangerous gas called "carbon monoxide." Even though you cannot see or smell this gas, it can still hurt you.

1.1.5

WARNING! The fryer can also give off carbon monoxide if the flue vent is blocked. See diagram 1. Blocking the flue vent can also cause the fryer to overheat and cause a fire hazard. Do not set anything on top of the flue vent, or block it in any way.

Diagram 1

Do not block the flue vent!

1.2.0 Lighting and Shutdown

WARNING! Be sure the burner tubes are completely covered with fluid before you try to light either the pilot or main burners. See diagram 2. If the burners are lit without fluid in the kettle, the fryer may overheat. This may damage the kettle and void the warranty, and also may create a fire hazard.

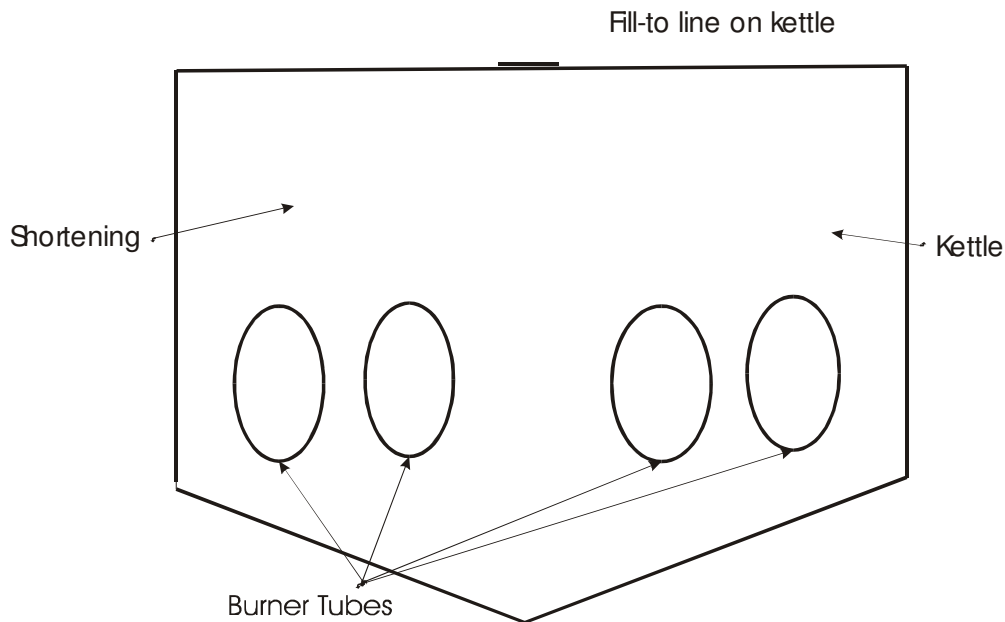


Diagram 2

Be sure the burner tubes are covered before you light the burners!

1.2.1

Lighting the Pilot

- a) Open all the gas cocks that supply gas to the fryer. (Some installations may not have these valves.)
- b) Turn the thermostat control knob counterclockwise to the lowest setting.
- c) Turn the gas valve knob to the “Pilot” position and push it inward. See diagram 3.
- d) While you’re holding the knob in, light the pilot burner.
- e) Keep pushing the knob in, and let the pilot burn for 30 to 60 seconds.
- f) Release the knob. The pilot should keep burning.
- g) If the pilot goes out when you release the knob, repeat Steps d), e) and f).

1.2.2

Lighting the Main Burner

- a) Be sure the pilot is lit.
- b) Turn the gas valve knob to “ON.” See diagram 4.
- c) Set the thermostat control knob to the desired temperature. (You may want to check the calibration of the thermostat control. Section 2.6 of the Operator’s Manual tells you how to do this.)
- d) If your fryer is equipped with an electrical power switch, turn this switch “ON” also.
- e) The main burners should light and stay on until the shortening in the kettle is heated to the temperature you set earlier.

Diagram 3
“Pilot” Position

Diagram 4 -
“On” Position

Diagram 5
“Off” Position

1.2.3.1

Complete Shutdown

Shut down the fryer completely whenever you leave it unattended for a long time – especially overnight. Do not leave the pilot burning.

- a) If your fryer is equipped with an electrical power switch, turn this switch to the “OFF” position.
- b) Turn the thermostat control knob counterclockwise to the lowest setting.
- c) Turn the gas valve knob clockwise to the “Pilot” position. See diagram 3.
- d) Push in the knob and turn it clockwise just a bit more.
- e) Depress the knob. Continue turning it clockwise to the “Off” position. See diagram 5.
- f) Do not relight the fryer for at least 5 minutes. This allows time for extra gas to clear from the fryer.

1.2.3.2

Standby Shutdown

You can leave the fryer on “standby” for a short time. Do not leave the fryer this way overnight.

- a) If your fryer is equipped with an electrical power switch, turn this switch to the “OFF” position.
- b) Turn the thermostat control knob counterclockwise to the lowest setting.
- c) Turn the gas valve knob clockwise to the “Pilot” position. See diagram 3.

1.3.0

Assembly Instructions

1.3.1

Receiving

- a) Unpack the fryer from its packing container. Check the fryer and any accessories to be sure they weren't damaged during shipment.
- b) If you do notice damage, report it to the trucking company that brought the fryer. You should report any damage within 15 days of the time you receive the fryer.

1.3.2.1

Assembling Legs

The legs may be installed at the factory. If they are not, be sure to install them before you connect the gas supply line. This will meet sanitation requirements, and will assure an adequate supply of air to the burners. Section 1.1.4 explained the danger from carbon monoxide when the fryer can't get enough air.

- a) Attach each leg using four 1/4-20 x 5/8 hex-head cap screws, with hex nuts and lockwashers. These parts are supplied with the fryer. Be sure the screws are tight.
- b) Mount the screws so the heads are inside the fryer, and the points face outward.

- c) It may be easier to attach the legs if you set the fryer on its side or back. If you do this, be sure to protect the outside of the fryer with cardboard when you lay it down. When you stand the fryer up again, be careful not to put too much weight on any one leg or pair of legs.

1.3.2.2

Heat Deflector

- a) If your fryer requires a heat deflector, you will find a removeable label at the rear top edge of the fryer. This label will tell you where to put the heat deflector.
- b) Attach the heat deflector as shown on the label. Use two #8 x ½ self-tapping screws. These screws are supplied with the fryer.
- c) The angled part of the deflector should extend toward the front of the fryer, over the flue opening. Be careful not to let anything block the flue opening itself. Section 1.1.5 explained why this is dangerous.

1.3.2.3

Splash Guard and Flue Pipe

(applies to models 20, 24, 24P, 26, 26P, 34 and 34P.)

- a) Remove the two 10-24 x ½ flat head machine screws which are located on each cabinet side just to the rear of the kettle.
- b) Remove the three #10 x 5/8 self-tapping screws located at the top corners and top center of the cabinet back.
- c) Place the splashguard over the top edge of the rear of the kettle, and over the top rear corners of the fryer cabinet.
- d) Align the five holes in the splashguard with the matching holes in the fryer, and replace the screws you removed in Steps a) and b). Tighten the screws.
- e) Fit the flue pipe down inside the opening in the top of the splashguard. The top of the flue pipe fits over the collar at the top of the flue box, behind the kettle. The top of the flue pipe should sit about ½ inch below the top edge of the splashguard.

1.3.2.4

Installing the Drainboard

- a) Lay the drainboard assembly face down on the top of the fryer. The 3/8" holes will attach to the legs. If you're going to attach the drainboard to the left side of the fryer, set the drainboard so these holes are at the left end of the board. To attach the drainboard to the right side of the fryer, set the drainboard so these holes are on the right side of the board.
- b) Slide the hinge rod through the clearance holes in the drainboard, sliding from front to back.

- c) The spacer is a hollow tube that is ½ inch in diameter and 2-5/8 inches long. Slide this spacer over the part of the hinge rod that protrudes from the rear hole in the drainboard. Insert the rear end of the hinge rod through the matching hole on the splashguard.
- d) Your fryer may include a 3/8-16 x ¾ hex-head cap screw on the top front corner of the kettle. If your fryer includes this screw, remove it.
- e) Locate the 3/8-16 x 2-1/2 hex-head screw that is supplied with the fryer. Fit the matching washer under the head of this screw, then slide the screw through the hole in the hinge rod post, and thread the end of the screw into the matching hole in the side of the fryer. Tighten the screw securely.
- f) Pivot the drainboard to the right (or left, depending on the direction you want the drainboard to extend from the fryer). Both support legs should drop into position against the cabinet side. The pitch of the drainboard can be adjusted. To adjust the drainboard, support the weight of the board. Loosen the thumb screws holding the support legs in place. Slide the support legs toward the cabinet side to increase the pitch, and away from the cabinet side to decrease the pitch. Once the desired setting has been obtained, retighten the thumbscrews into the appropriate adjustment hole of the support legs.
- g) When you're not using the fryer, swing the board back over the kettle as a protective cover.

1.4.0 Utilities

All gas service, electric service, and ventilation must comply with local codes.

1.4.1 Electrical Connections

If local electrical codes do not apply, follow the National Electrical Code as you install the electrical service. In Canada, follow C.S.A. Standard C22.1 and/or local codes. The wiring diagram(s) will be located on the inside of the door.

1.4.1.1 Electrical Grounding

- a) **WARNING!** This fryer is equipped with a three-prong (grounding) plug for your protection against shock hazard. This plug should be plugged directly into a properly grounded three-prong socket. Do not cut or remove this grounding prong from this plug.
- b) Fryers shipped to Canada are not equipped with power supply cords. Be sure the fryer is correctly grounded.
- c) The fryer, when installed, must be electrically grounded in accordance with local codes, or in absence of local codes, with the National Electric Code, **ANSI/NFPA 70-1990**.

1.4.2 Fuel Gas Service

If local codes do not apply, install the fuel gas service in accordance with the National Fuel Gas Code, ANSI Z223.1-1988. In Canada, install the fryer in accordance with CAN1-B149.1 and .2 and/or local codes.

1.4.2.1

Fuel Gas Supply Line

- a) Contact the local Gas Company to find out the right size for the gas supply line. The fryer won't work properly if the gas line is too small.
- b) When making the gas supply connections, use a pipe joint compound that resists the action of liquefied petroleum gasses.

1.4.2.2

Fuel Gas Type

- a) Each fryer is equipped to work with one type of fuel gas. The type of fuel gas on which the appliance is intended to operate is stamped on the data plate that is attached to the inside of the door.
- b) **WARNING! Do not supply the fryer with any kind of fuel gas other than the kind indicated on the data plate.**

1.4.2.3

Fuel Gas Leak Testing

- a) Before operating the fryer, test all fuel gas connections for leaks. Use a solution of soap and water, or a similar solution. Ask the gas supplier for an approved substance.
- b) **WARNING! Do not use an open flame to test for gas leaks!**

1.4.2.4

Fuel Gas Adjustments

With the unit installed, have your local gas company or a competent gas service company check the fryer's operating systems, and perform adjustment where necessary, to ensure proper operation of your fryer.

- a) The pilot flame should be sized to produce thermopile output of 300-500 millivolts.
- b) The burner manifold operating pressure should be as specified for the fuel gas for which the fryer is equipped. Proper manifold operating pressures are indicated on the data plate attached to the inside of the door of the unit.
- c) The main burner flame should be adjusted using the air collars located at the lower portion of the burner. The air collar should be raised or lowered to provide a soft blue flame with well-defined inner cones visible. The flames should enter the heat tube without touching the outside rim of the tube. A properly adjusted flame should not exhibit "lifting-off" from the burner face, (indicative of excessive flow), nor should yellow tips be seen on the flames, (indicative of insufficient combustion air). Once the flames are properly adjusted, the air collar should be locked in place using the locknut or setscrew provided.

1.4.2.5

Pressure Testing

- a) If the gas supply piping system is going to be tested at a test pressure in excess of ½ psig (3.45 kPa), the fryer and its individual shutoff valve must be disconnected from the supply line.
- b) If the gas supply piping system is going to be tested at a test pressure equal to or less than ½ psig (3.45 kPa), the individual manual shutoff valve must be closed during testing.

1.5.0

Venting, Grease Extractors, Fire Extinguishing Systems, etc.

- a) Refer to local codes as you install these accessories. In the absence of local codes, refer to the latest edition of the following standards:

Grease Extractor	ANSI/UL 710	ANSI/NFPA 96
Ventilating Hood	ANSI/UL 507	ANSI/NFPA 96
Filter Unit	ANSI/UL 900 and ANSI/UL 586	ANSI/NFPA 96
Fire Extinguishing	(Co2) - UL154	ANSI/NFPA 12
	(Dry Chemical) - UL299	ANSI/NFPA 17
	(Water) - UL626	ANSI/NFPA 13
	(Foam) -	ANSI/NFPA 11
	(Sprinklers) - UL199	ANSI/NFPA 13
Smoke Detectors	UL 268	ANSI/NFPA 72B
Fire Detection Thermostat	ANSI/UL 521	ANSI/NFPA 72B

- b) The selection of listing and installation standards in Section 1.5.a is not necessarily complete, and other nationally recognized standards may be equally appropriate. For additional information, contact the American Gas Association, 8501 East Pleasant Valley Road, Cleveland, Ohio 44131.

1.5.1

Ventilation and Flue Exhaust

- a) The fryer must have adequate ventilation to prevent the formation of carbon monoxide gas. We explained this problem in Section 1.1.4. Excessive ventilation can cause drafts, which may interfere with the proper operation of the burner and pilot.
- b) Leave at least 18 inches of open space between the fryer's flue opening and the intake of the exhaust blower. Do not connect the blower directly to the flue opening. This will cause poor temperature recovery, poor ignition, may cause the pilot to go out, and will generally make the fryer work inefficiently.
- c) The vent system should be designed so that it can be cleaned easily. Clean out grease and dirt on a regular schedule. This will reduce any possible fire hazard.

1.5.2

Fire Fighting System

- a) The installation of an approved fire fighting system is recommended.
- b) Exhaust gas temperatures in the fryer may be as high as 1200°F. The sensing device that activates a fire fighting system should be chosen and located properly to reduce "false alarms."

1.6.0

Before You Operate the Fryer

1.6.1

Set the fryer in position. Allow space behind the fryer so someone can clean and service the machine.

WARNING! To avoid a possible fire hazard, keep all combustible materials at least 6 inches away from the fryer's sides and back.

1.6.2

Be sure the fryer is level. Use the adjustments located in the base of each leg.

1.6.3

Before you operate a new fryer, clean it according to the instructions in Section 2.3 of the Operator's Manual.

1.7.0

Safety Instructions

- a) To avoid a possible fire hazard, keep all combustible materials at least 6 inches away from the fryer's sides and back.
- b) Do not use fryer until the fryer itself and the installation have been checked and approved for conformance with all local building, gas and/or electric codes. If the local codes do not apply, reference to the national codes may be found elsewhere in this manual.
- c) Do not use the fryer until it has been cleaned. Test the thermostat for proper operation according to Section 2.6 of the Operator's Manual.
- d) Do not light the burners unless the burner tubes are completely covered with fluid. For testing purposes, you may use water. Be sure to remove the water completely, and replace with shortening. If you're filling the kettle with solid shortening, be sure to pack the shortening below, between and above the tubes. Do not leave any air spaces – these could cause a fire hazard.
- e) Do not set a solid block of shortening on top of the burner tubes and try to melt it. Cut the shortening into blocks. Pack it around the burner tubes as described in step d) above.
- f) Do not move the fryer when it contains hot shortening. Wait for the shortening to cool to 135°F. or less.
- g) Do not work on the fryer until the shortening in the kettle has cooled to 135°F. or less.
- h) When the fryer is operating, do not touch any part of the machine that touches the burners or the kettle.
- i) Do not touch the flue outlet, or go near the area over the flue outlet while the burners are operating.
- j) Do not let the hot shortening in the kettle touch your skin or clothing.

- k) Do not let water touch the hot shortening in the kettle. A drop of water could turn to steam, and splatter some of the shortening out of the kettle.
- l) Read the Hazard Notices in Section 1.1, and the other Warning! Notices throughout this manual.

CAUTION: Before servicing this appliance, turn OFF gas to the appliance and disconnect electrical supply to the appliance.

1.8.0

This appliance is serviceable to the front. It is suggested to provide at least 36 inches to the front of the appliance for servicing and for proper operation.

When the appliance is equipped with casters, the installation shall be made with a connector that complies with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69-1987, and Addenda, Z21.69-1989, and a quick-disconnect device that complies with the Standard for Quick-Disconnect Devices for Use with Gas Fuel, ANSI Z21.41-1989. Adequate means must be provided to limit the movement of the appliance without depending on the connector and the quick-disconnect device or its associated piping to limit the appliance movement.

The connector or restraining device must always be installed when the appliance is in use. Should it become necessary to remove this device for cleaning and servicing the appliance, be sure to reconnect this restraining device after the appliance is returned to its originally installed position.

2.1.0

Hazard Notes

2.1.1

WARNING! Once the fryer reaches operating temperature, the shortening in the kettle may be hotter than 375°F. This hot, melted shortening can burn you very badly. Do not let the hot shortening touch your skin or clothing. Do not try to move the fryer until the shortening has cooled to 135°F. or less.

2.1.2

WARNING! The fryer may be equipped with a three-prong electrical plug. This three-prong plug is part of a system that will protect you if something goes wrong with the electrical wiring in the fryer. Be sure the three-prong plug is plugged into a matching three-prong socket. Do not cut or break off the large third prong in this plug, or the protective system won't work.

2.1.3

WARNING! There is an open gas flame inside this fryer. The fryer can get hot enough to set nearby materials on fire. Keep all combustible materials away from the fryer.

2.1.4

WARNING! Make sure the fryer can get enough air to keep the flame burning right. Provide adequate clearance around air openings into the combustion chamber. When the flame is "starved" for air, it can give off a dangerous gas called "carbon monoxide." Even though you can't see or smell this gas, it can still hurt you.

2.1.5

WARNING! The fryer can also give off carbon monoxide if the flue vent is blocked. See diagram 1. Blocking the flue vent can also cause the fryer to overheat and cause a fire hazard. Do not set anything on top of the flue vent, or block it in any way.

2.1.6

WARNING! When a fryer is installed on casters, there is a restraint attached to the fryer. If disconnection of the restraint is necessary, ensure that the restraint is reconnected after the fryer has been returned to its originally installed position.

Diagram 1 Do not block the flue vent!

2.2.0

Lighting and Shutdown

WARNING! Be sure the burner tubes are completely covered with fluid before you try to light either the pilot or main burners. See diagram 2. If the burners are lit without fluid in the kettle, the fryer may overheat and cause a fire hazard.

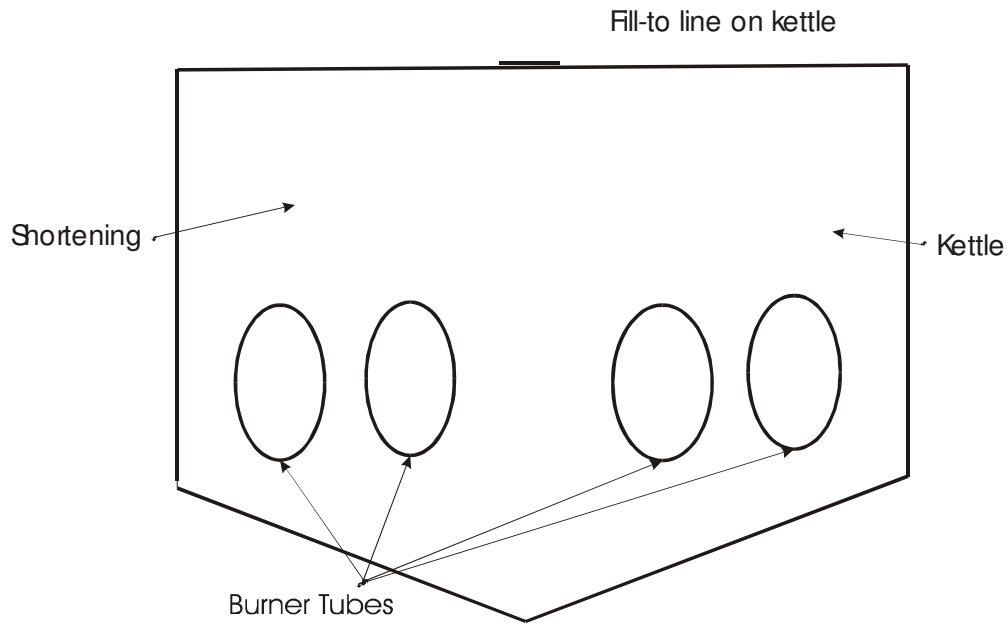


Diagram 2

Be sure the burner tubes are covered before you light the burners!

2.2.1 Lighting the Pilot

- Open all the gas cocks that supply gas to the fryer. Some installations may not have these valves.
- Turn the thermostat control knob counterclockwise to the lowest setting.
- Turn the gas valve knob to the "Pilot" position and push it inward. See Diagram 3.
- While you're holding the knob in, light the pilot burner.

- e) Keep pushing the knob in, and let the pilot burn for 30 to 60 seconds.
- f) Release the knob. The pilot should keep burning.
- g) If the light goes out when you release the knob, repeat Steps d), e) and f).

2.2.2

Lighting the Main Burner

- a) Be sure the pilot is lit.
- b) Turn the gas valve knob to “ON.” See Diagram 4.
- c) Set the thermostat control knob to the desired temperature. (You may want to check the calibration of the thermostat control. See Section 2.6.0).
- d) If your fryer is equipped with an electrical power switch, turn this switch “ON” also.
- e) The main burners should light and stay on until the shortening in the kettle is heated to the temperature you set earlier.

Diagram 3 - “Pilot” Position

Diagram 4 - “On” Position

Diagram 5 – “Off” Position

2.2.3.1

Complete Shutdown

Shut down the fryer completely whenever you leave it unattended for a long time – especially overnight. Do not leave the pilot burning.

- a) If your fryer is equipped with an electrical power switch, turn this switch to the “OFF” position.
- b) Turn the thermostat control knob counterclockwise to the lowest setting.
- c) Turn the gas valve knob clockwise to the “Pilot” position. See Diagram 3.
- d) Push in the knob and turn it clockwise just a bit more.

- e) Depress the knob. Continue turning it clockwise to the “OFF” position. See Diagram 5.
- f) Do not relight the fryer for at least 5 minutes. This allows time for extra gas to clear from the fryer.

2.2.3.2

Standby Shutdown

You can leave the fryer on “standby” for a short time. Do not leave the fryer this way overnight.

- a) If your fryer is equipped with an electrical power switch, turn this switch to the “OFF” position.
- b) Turn the thermostat control knob counterclockwise to the lowest setting.
- c) Turn the gas valve knob clockwise to the “Pilot” position. See Diagram 3.

2.3.0

Cleaning

- a) When the fryer is shipped from the factory, many of the metal parts are covered with a thin layer of protective oil. Before you use the new fryer, be sure to clean it carefully to remove this coating. This will also remove any dirt, dust, or foreign matter that may have accumulated during storage and shipment.
- b) Once a day, clean the fryer according to the instructions in Section 2.3.1. Once a week, follow the instructions in Section 2.3.2. Section 2.3.3 gives general cleaning instructions.
- c) If your fryer is equipped with a plain steel kettle, the kettle’s surfaces should be coated with shortening after it is washed, to prevent rust formation, until it is seasoned.

2.3.1

Cleaning – Do this once a day

- a) Turn off the main gas supply. (See paragraph 2.2.3.1.)
- b) **Wear insulated gloves.** Screw the drain nipple into the drain valve. Find a clean container that is big enough to hold all of the shortening in the kettle, and won’t be melted by the hot fluid. Put this container under the drain outlet and drain the shortening into it.
- c) Remove the tube screen. Use hot oil to flush out any remaining sediment from the bottom of the kettle.
- d) While the fryer parts are still warm (135°F. or less), wipe off the tube screen and the inside of the kettle.
- e) Close the drain valve. Pour the melted shortening back into the kettle. Pour the shortening through a filter to strain out particles that may remain. If your fryer includes a separate power filter assembly, pump the shortening through that filter.
- f) Replace the tube screen and remove the drain nipple. The fryer is ready to operate.

2.3.2

Cleaning – Do this once a week.

- a) Turn off the main gas supply. (See paragraph 2.2.3.1.)
- b) **Wear insulated gloves.** Screw the drain nipple into the drain valve. Find a clean container that is big enough to hold all of the shortening in the kettle, and won't be melted by the hot fluid. Put this container under the drain outlet and drain the shortening into it.
- c) Remove the tube screen. Use hot oil to flush out any remaining sediment from the bottom of the kettle.
- d) While the fryer parts are still warm (135°F. or less), wipe off the tube screen and the inside of the kettle.
- e) Close the drain valve and fill the kettle with a mixture of warm water and non-caustic detergent.
- f) Relight the main burner. (Follow the instructions in Sections 2.2.1 and 2.2.2 if you do not know how to do this.) Bring the water/detergent mixture to a slow boil.
- g) Let the kettle soak until the shortening deposits are softened.
- h) Scrub kettle and tubes to remove any residue.
- i) Turn off the gas supply. (Follow the instructions in Section 2.2.3.1 if you do not know how to do this.) Drain the kettle and rinse it with clean warm water.
- j) Refill the kettle with clean warm water.
- k) Relight the burners. (Refer to Sections 2.2.1 and 2.2.2.) Let the water reach a slow boil.
- l) Turn off the gas supply. (Refer to Section 2.2.3.1.) Drain and rinse the kettle.
- m) Wipe the kettle dry with a clean cloth.
- n) Close the drain valve. Pour the melted shortening back into the kettle. Pour the shortening through a filter to strain out particles that may remain. If your fryer includes a separate power filter assembly, pump the shortening through the filter.
- o) Replace the tube screen and remove the drain nipple. The fryer is ready to operate.

2.3.3

Cleaning as needed

- a) If any shortening spills or splashes onto the outside of the fryer, wipe it up while it is still warm with a clean soft cloth.
- b) If you have to clean any painted surface, use warm water and mild detergent.
- c) If you have to scrub to remove tough spots or stains, use a non-abrasive scouring powder and/or pads.

2.3.4

Basket Lift Maintenance

Fryers equipped with automatic basket lifts have permanently lubricated bearings, shafts and lift motors.

2.4.0

Filling the Fryer

- a) **WARNING!** Do not light the pilot unless the kettle is full of liquid shortening. If you have to melt solid shortening, be very careful. Pay close attention to the instructions in Steps e) and f).
- b) **Wear insulated gloves.** Before you fill the kettle, check the parts shown in diagram 6. Be sure these parts are not loose.

Diagram 6 – Be sure these parts are not loose!

- c) Close the drain valve completely and remove the tube screen. (On doughnut fryers, also raise the submerged screen to the “Up” position.)
- d) If you’re using liquid shortening, fill the kettle to the “Oil Level” line marked on the back. (On doughnut fryers, fill the kettle to about four inches above the top of the burner tubes.)
- e) If you’re using solid shortening, it should be pre-melted on another appliance. If you can’t do this, you can melt the shortening in the fryer, but you must do it carefully. Be sure to pack the solid shortening below, between, and above the burner tubes.

WARNING! Do not leave any air spaces around the burner tubes. This can leave “hot spots” which may scorch the solid shortening and cause a fire. See Diagram 7.

NO!

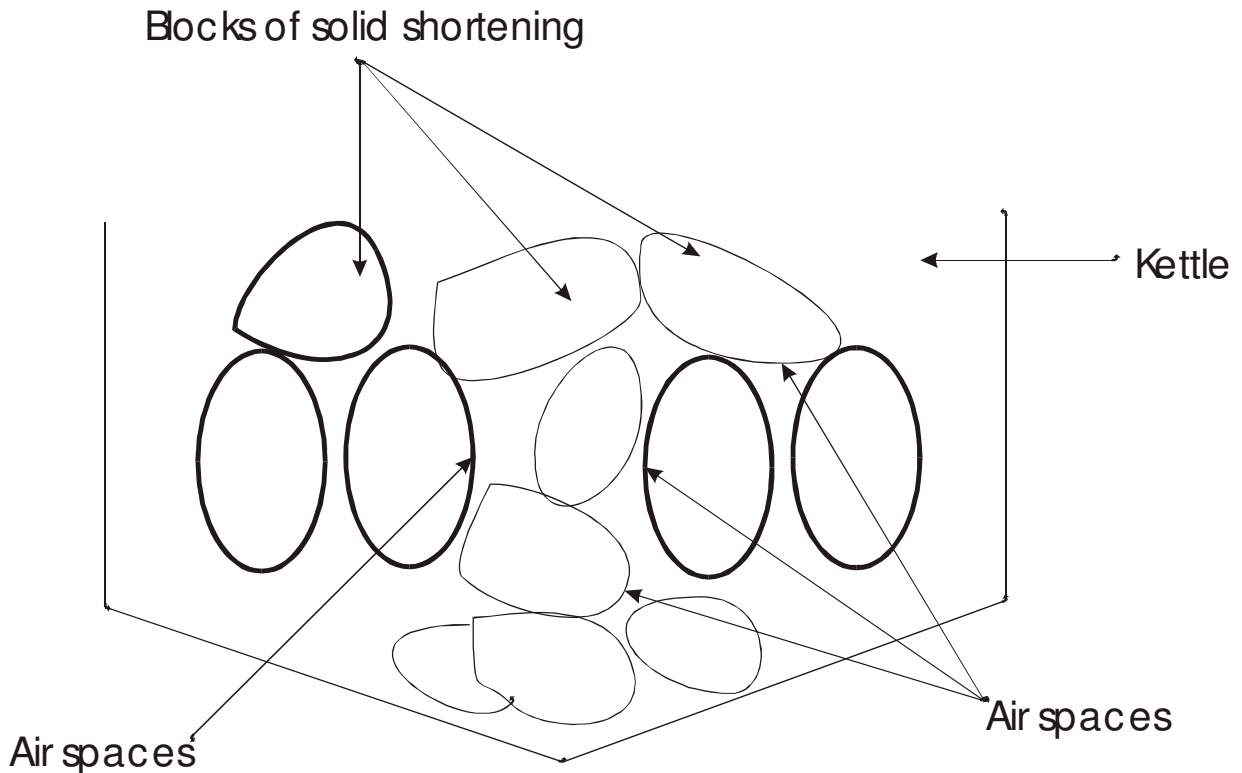


Diagram 7 – Do not leave air spaces around the burner tubes!

WARNING! When you're packing the solid shortening around the burner tubes, be careful not to bend or break the thin tubes running to the temperature sensors. See diagram 8. If you damage these tubes, the fryer won't work correctly.

NO!

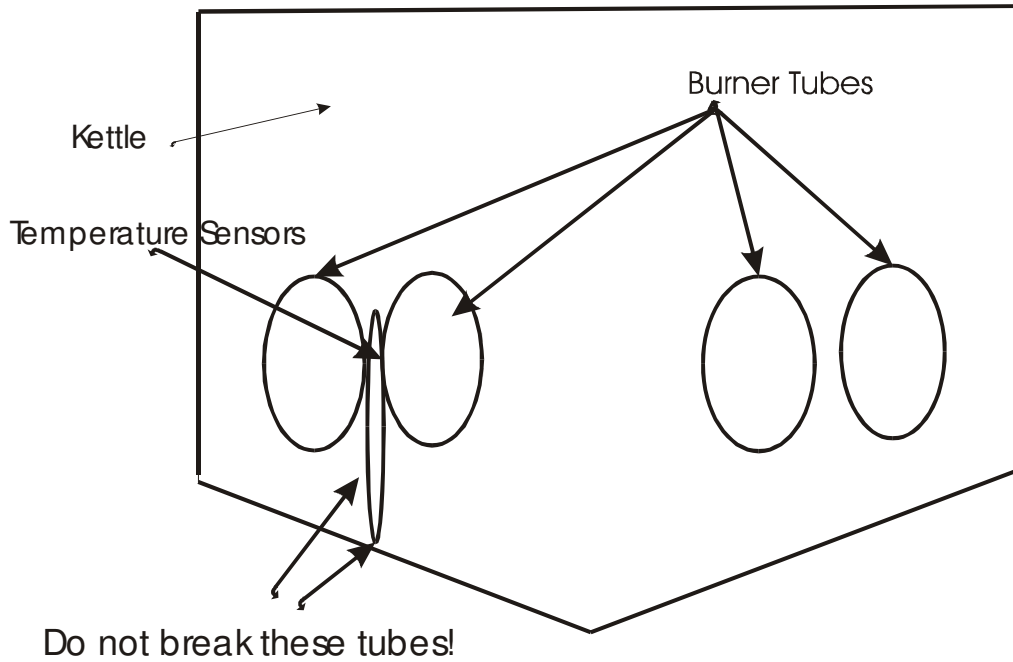


Diagram 8 – Do not break the tubes for the temperature sensors!

WARNING! Do not try to melt a solid block of shortening by putting it on top of the burner tubes. See diagram 9. This can cause a fire. This will also void the warranty on the kettle. (See paragraph 2.4.0.e.)

NO!

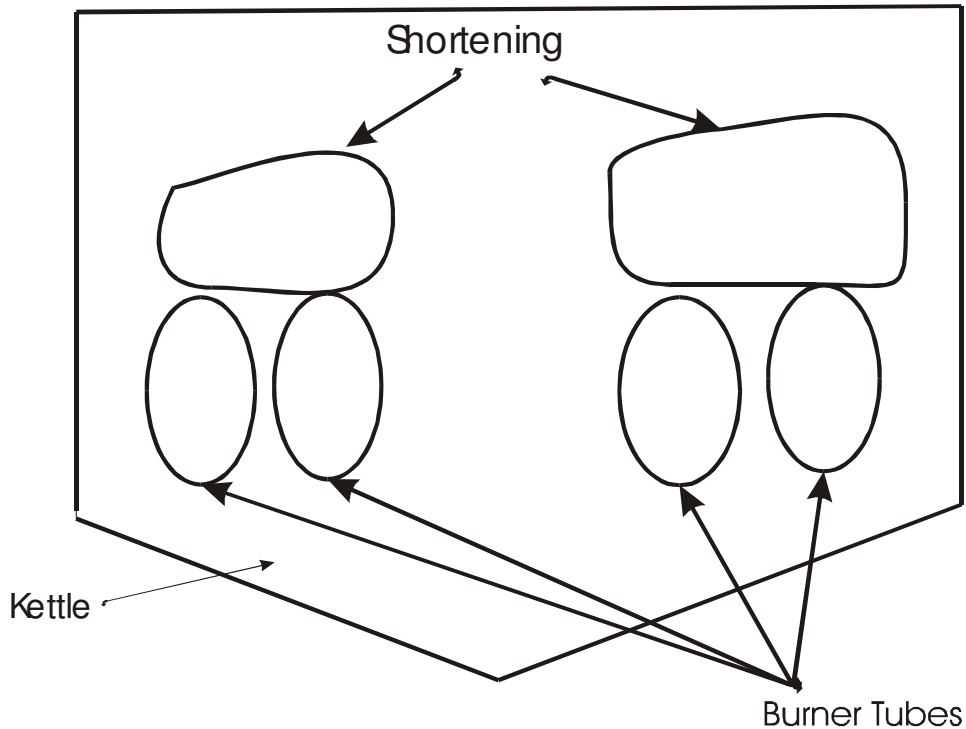


Diagram 9 – Do not melt a block of shortening on top of the burner tubes!

- f) Melt the shortening slowly. Light the pilot. (Refer to Section 2.2.1 if you do not know how to do this.) Once the pilot is burning, use the gas supply valve to turn the burners “On” for four seconds, then “OFF” for 30 seconds. Keep turning the burners “ON” and “OFF” like this until the shortening is melted.

WARNING! Watch carefully for smoke as you do this. If you do notice any smoke, you know the shortening is scorching. In each ON/OFF cycle, turn the burners “ON” for a shorter time.

- g) When the kettle is filled with melted shortening, replace the tube screen.

WARNING! Always check the thermostat calibration before you operate the fryer, after filtering the oil.

2.5.0

Recommended Frying Practices

2.5.1

Shortening

Use only the best quality shortening – it will last longer than cheap grades. Good shortening will also produce foods that taste and look better.

2.5.2

Fryer Size

Two small fryers are better than one large fryer since you can shut down one fryer during quiet periods. You will extend the life of the shortening and conserve energy.

2.5.3

Making the Shortening Last

- a) The shortening will break down if it gets too hot, or if it is exposed to air or light, or if it is mixed with water or salt. Fry food at the lowest temperature setting which will provide a good product. Keep the kettle covered when you're not using the fryer. Do not salt any food while it is in the fry basket, on the preparation table, or above the kettle.
- b) Run the shortening through a filter at least once a day. You may have to do this more often if you're cooking a lot of breaded or battered food.
- c) Clean the kettle according to the instructions in Section 2.3.0. Be sure to keep the fry baskets clean as well.
- d) Try to keep water out of the shortening. Do not try to thaw frozen foods by holding them over the hot shortening.

2.5.4

Overloading

Do not fry too much food at one time. Put in just enough food so the fryer can heat the shortening back to normal temperature by the time the food is done. You can fry different amounts of food per batch, depending on the size of the fryer and the kind of food you're working with.

2.6.0

Calibrating the Thermostat

- a) These instructions apply to fryers with Robertshaw series K and GS thermostats with center stem adjustments.
- b) Before you fill the kettle, check the parts shown in diagram 6. Be sure these parts are not loose.

2.6.1

Checking the Calibration

- a) Fill the kettle according to the instructions in Section 2.4. Skip step 2.4.4 – replacing the tube screen.
- b) Use a thermometer that is designed to measure the temperature of hot shortening. Lower the tip of the thermometer into the shortening and touch the parts shown in diagram 6.

- c) Light the pilot and the main burners. (Follow the instructions in Sections 2.2.1 and 2.2.2 if you do not know how to do this.)
- d) Set the thermostat control knob to 325°F. Wait until the burners shut off.

WARNING! Watch the thermometer closely. If the shortening reaches 350°F. and the main burners do not go out, turn the thermostat control knob to a lower setting. Keep turning the control knob down until the burners go out.

- e) Let the shortening cool. Allow the fryer to cycle 4 to 6 times, and check the thermometer. The temperature shown on the thermometer when the burners come on should match the setting on the thermostat control knob. If the two temperatures do match, the thermostat is calibrated correctly. If the temperatures are more than five degrees different, you should recalibrate the thermostat according to the instructions in the next section.

Diagram 10 – Calibrating the Thermostat

2.6.2

Recalibrating the Thermostat

- a) Remove the thermostat control knob. Pull it straight out.
- b) The adjusting screw is located inside the hollow shaft. See diagram 10. You may have to scrape away some of the sealing compound to get a good “grip” on the adjusting screw.
- c) Find a thin screwdriver with a 1/8-inch wide blade. Fit this tool into the slot in the adjusting screw, and hold the outside of the shaft so it can't turn.
- d) Turn the adjusting screw to change the thermostat adjustment setting. Turn the screw clockwise to set the thermostat at a lower temperature. Turn the screw counterclockwise to increase the thermostat setting; one-quarter turn will change the setting about 25°F.
- e) Replace the knob. Check the calibration according to the instructions in Section 2.6.1.

- f) Repeat the Steps a) through e), if necessary, until the knob setting is within 5°F. of the thermometer reading.
- g) Replace the tube screen.

2.7.0

Power Failure

- a) Fryers with gas-operated thermostats will continue to work if electrical power is cut off. Other parts of the system, such as vent blowers, will stop working. For this reason, you shut off the fryer if power is cut off. Follow the instructions in Section 2.2.3. Be careful not to relight the fryer for at least five minutes after shutdown. This allows extra gas to clear from the fryer.
- b) Fryers with electric thermostats will stop working if the power is cut off. Shut off the fryer according to the instructions in Section 2.2.3. Be careful not to relight the fryer for at least five minutes after shutdown. This allows extra gas to clear from the fryer.

2.8.0

Service

For service, assistance or explanation of any procedure described in this manual, contact your dealer, your local service company, the factory representative in your area, or the factory.