DEAN®

PowerRunner™

Gas Fryers (PRG50T and FPRG50T)

Installation, Operation and Maintenance Manual

This manual is updated as new information and models are released. Visit our website for the latest manual.

FOR YOUR SAFETY

Do Not Store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

⚠ CAUTION

READ THE INSTRUCTIONS BEFORE USING THE FRYER.

Read these instructions for use carefully to familiarize yourself with the appliance before connecting it to its gas supply.

Keep these instructions for future reference.

8197939

Part Number: FRY_IOM_8197939 04/2025

Original Instructions

WELBILT an Ali Group Company

NOTICE

IF, DURING THE WARRANTY PERIOD, THE CUSTOMER USES A PART FOR THIS FRYMASTER DEAN EQUIPMENT OTHER THAN AN OEM UNMODIFIED NEW OR RECYCLED PART PURCHASED DIRECTLY FROM FRYMASTER DEAN OR ANY OF ITS AUTHORIZED SERVICERS, AND/OR THE PART BEING USED IS MODIFIED FROM ITS ORIGINAL CONFIGURATION, THIS WARRANTY WILL BE VOID. FURTHER, FRYMASTER DEAN AND ITS AFFILIATES WILL NOT BE LIABLE FOR ANY CLAIMS, DAMAGES OR EXPENSES INCURRED BY THE CUSTOMER WHICH ARISE DIRECTLY OR INDIRECTLY, IN WHOLE OR IN PART, DUE TO THE INSTALLATION OF ANY MODIFIED PART AND/OR PART RECEIVED FROM AN UNAUTHORIZED SERVICER.

NOTICE

This appliance is intended for professional use only and is to be operated by qualified personnel only. A FRYMASTER DEAN Factory Authorized Servicer (FAS) or other qualified professional should perform installation, maintenance, and repairs. Installation, maintenance, or repairs by unqualified personnel may void the manufacturer's warranty. See Chapter 1 of this manual for definitions of qualified personnel.

NOTICE

This equipment must be installed in accordance with the appropriate national and local codes of the country and/or region in which the appliance is installed. See NATIONAL CODE REQUIREMENTS in Chapter 2 of this manual for specifics.

NOTICE TO U.S. CUSTOMERS

This equipment is to be installed in compliance with the basic plumbing code of the Building Officials and Code Administrators International, Inc. (BOCA) and the Food Service Sanitation Manual of the U.S. Food and Drug Administration.

NOTICE

Drawings and photos used in this manual are intended to illustrate operational, cleaning and technical procedures and may not conform to onsite management operational procedures.

NOTICE

This appliance is intended to be used for commercial applications, for example in kitchens of restaurants, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc., but not for continuous mass production of food.

NOTICE TO OWNERS OF UNITS EQUIPPED WITH CONTROLLERS

U.S.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) This device may not cause harmful interference, and 2) This device must accept any interference received, including interference that may cause undesired operation. While this device is a verified Class A device, it has been shown to meet the Class B limits.

CANADA

This digital apparatus does not exceed the Class A or B limits for radio noise emissions as set out by the ICES-003 standard of the Canadian Department of Communications.

⚠ DANGER

Improper installation, adjustment, maintenance or service, and unauthorized alterations or modifications can cause property damage, injury, or death. Read the installation, operating, and service instructions thoroughly before installing or servicing this equipment. Only qualified service personnel may convert this appliance to use a gas other than that for which it was originally configured.

⚠ DANGER

No structural material on the fryer should be altered or removed to accommodate placement of the fryer under a hood. Questions? Call the Frymaster/DEAN Service Hotline at 1-800-551-8633.

⚠ WARNING

After installation of a gas fryer and after any maintenance to the gas system of a gas fryer-manifold, valve, burners, etc. – check for gas leaks at all connections. Apply a thick soapy solution to all connections and ensure there are no bubbles. There should be no smell of gas.

NOTICE

The Commonwealth of Massachusetts requires any and all gas products to be installed by a licensed plumber or pipe fitter.

⚠ DANGER

Instructions to be followed in the event the operator smells gas or otherwise detects a gas leak must be posted in a prominent location. This information can be obtained from the local gas company or gas supplier.

⚠ DANGER

Adequate means must be provided to limit the movement of this appliance without depending upon the gas line connection. Single fryers equipped with legs must be stabilized by installing anchor straps. All fryers equipped with casters must be stabilized by installing restraining chains. If a flexible gas line is used, an additional restraining cable must be connected at all times when the fryer is in use.

⚠ CAUTION

No warranty is provided for any Frymaster/DEAN fryer used in a mobile or marine installation or concession. Warranty protection is only offered for fryers installed in accordance with the procedures described in this manual. Mobile, marine or concession conditions of this fryer should be avoided to ensure optimum performance.

⚠ DANGER

The front ledge of the fryer is not a step! Do not stand on the fryer. Serious injury can result from slips or contact with the hot oil.

⚠ DANGER

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

⚠ DANGER

Do not spray aerosols in the vicinity of this appliance while it is in operation.

⚠ WARNING

Operation, installation, and servicing of this product may expose you to chemicals/products including [Bisphenol A (BPA), glass wool or ceramic fibers, and crystalline silica], which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

⚠ DANGER

The crumb tray in fryers equipped with a filter system must be emptied into a fireproof container at the end of frying operations each day. Some food particles can spontaneously combust if left soaking in certain shortening material.

⚠ WARNING

Do not bang fry baskets or other utensils on the fryer's joiner strip. The strip is present to seal the joint between the fry vessels. Banging fry baskets on the strip to dislodge shortening will distort the strip, adversely affecting its fit. It is designed for a tight fit and should only be removed for cleaning.

⚠ CAUTION

Do not melt solid shortening in the fryer unless shortening is packed firmly below, between, and above heat tubes; or operate fryer if shortening/oil is not up to the lower oil mark in vessel. Failure to do this may damage vessel and void warranty.

⚠ WARNING

This appliance is not intended for use by children under the age of 16 or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision concerning use of the appliance by a person responsible for their safety. Do not allow children to play with this appliance.

NOTICE

The appliance must be installed and used in such a way that any water cannot contact the fat or oil.

⚠ DANGER

Prior to movement, testing, maintenance and any repair on your Frymaster/DEAN fryer; disconnect ALL electrical power cords from the electrical power supply.

⚠ WARNING

If the electrical power supply cord is damaged, it must be replaced by a Frymaster/DEAN Factory Authorized Servicer or a similarly qualified person in order to avoid a hazard.

⚠ WARNING

Use caution and wear appropriate safety equipment to avoid contact with hot oil or surfaces that may cause severe burns or injury.

⚠ WARNING

NEVER drain boil out or cleaning solution into a shortening disposal unit (SDU), a built-in filtration unit, or a portable filter unit. These units are not intended for this purpose and will be damaged by the solution and void the warranty.

⚠ WARNING

Do not leave the fryer unattended during use.

⚠ WARNING

Use caution when dropping wet food or water into the hot oil. It may cause spattering of the oil, which may cause severe burns

⚠ WARNING

Do not overfill the frypot to avoid overflow of hot oil that may cause severe burns, slipping and falling.

⚠ WARNING

Use caution and wear appropriate safety equipment when adding oil to the fryer, to prevent splashing of hot oil, which may cause severe burns.

DEAN®

PowerRunner™ Gas Fryers
Installation and Operation Manual

TABLE OF CONTENTS

POWERRUNNER™ GAS FRYERS
CHAPTER 1: GENERAL INFORMATION

1.1 Applicability and Validity

The PowerRunner™ Gas Fryer has been approved by the European Union for sale and installation in all EU countries.

This manual is applicable to and valid for all PowerRunner™ Gas Fryers, including those in the European Union. Where conflicts exist between instructions and information in this manual and local or national codes or regulations of the country in which the equipment is installed, installation and operation shall comply with those codes.

This appliance is only for professional use and shall be used by qualified personnel only, as defined in Section 1.7.

1.2 Safety Information

Before attempting to operate your unit, read the instructions in this manual thoroughly. Throughout this manual, you will find notations enclosed in double-bordered boxes similar to the ones that follow.

⚠ DANGER
HOT OIL CAUSES SEVERE BURNS. NEVER ATTEMPT TO MOVE A FRYER CONTAINING HOT OIL OR TO TRANSFER HOT OIL FROM ONE CONTAINER TO ANOTHER.

⚠ **CAUTION** boxes contain information about actions or conditions that ***may cause or result in a malfunction of your system*.**

⚠ **WARNING** boxes contain information about actions or conditions that ***may cause or result in damage to your system***, and which may cause your system to malfunction.

⚠ **DANGER** boxes contain information about actions or conditions that ***may cause or result in injury to personnel***, and which may cause damage to your system and/or cause your system to malfunction.

Your fryer is equipped with automatic safety features:

1. High temperature detection shuts off gas to the burner assembly should the controlling thermostat fail.
2. Drain switch prevents burner ignition with the drain valve even partially open.

1.3 Controller Information (Applicable to Digital and CM3.5 controllers only)

FCC COMPLIANCE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. While this device is a verified Class A device, it has been shown to meet the Class B limits. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of the equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

If necessary, the user should consult the dealer or an experienced radio and television technician for additional suggestions.

The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

1.4 European Community (CE) Specific Information

The European Community (CE) has established certain specific standards regarding equipment of this type. Whenever a conflict exists between CE and non-CE standards, the information or instructions concerned are identified accordingly.

1.5 Equipment Description

PowerRunner™ Gas Fryers are energy efficient, tube-style, gas fired fryers. Some models have a built-in filtration system.

PowerRunner™ Gas Fryers have four different options for controllers (Millivolt, Thermatron, Digital Timer or CM3.5. The millivolt fryer has a standard manual spark ignition. The Thermatron, Digital Timer and CM3.5 controller have electronic ignition and melt cycle mode.

The fryers with electronic ignition and/or filtration system require an external source of 120VAC-240VAC electrical power.

PowerRunner™ Gas Fryers are shipped completely assembled. All fryers are shipped with a package of standard accessories. Each fryer is adjusted, tested, and inspected at the factory before crating for shipment.

1.5.1 Principles of Operation

The incoming gas flows through orifices and is mixed with air in the burners to create the correct ratio for proper combustion. The mixture is ignited at the front end of each heat tube. Internal diffusers slow the flame as it goes through the burner tube. This slow, turbulent flame increases heat transfer to the walls of the tubes to heat the oil more efficiently.

1.6 Installation, Operating, and Service Personnel

Operating information for Frymaster equipment has been prepared for use by qualified and/or authorized personnel only, as defined in Section 1.7. **All installation and service on Frymaster equipment must be performed by qualified, certified, licensed, and/or authorized installation or service personnel, as defined in Section 1.7.**

1.7 Definitions

QUALIFIED AND/OR AUTHORIZED OPERATING PERSONNEL

Qualified/authorized operating personnel are those who have carefully read the information in this manual and have familiarized themselves with the equipment functions, or who have had previous experience with the operation of the equipment covered in this manual.

QUALIFIED INSTALLATION PERSONNEL

Qualified installation personnel are individuals, firms, corporations, and/or companies which, either in person or through a representative, are engaged in and are responsible for the installation of gas-fired appliances. Qualified personnel must be experienced in such work, be familiar with all gas precautions involved, and have complied with all requirements of applicable national and local codes.

QUALIFIED SERVICE PERSONNEL

Qualified service personnel are those who are familiar with Frymaster/Dean equipment and who have been authorized by Frymaster, L.L.C. to perform service on the equipment. All authorized service personnel are required to be equipped with a complete set of service and parts manuals, and to stock a minimum amount of parts for Frymaster equipment. To locate a Frymaster/Dean Factory Authorized Servicer go to www.frymaster.com/service. ***Failure to use qualified service personnel will void the Frymaster warranty on your equipment.***

1.8 Receiving and Unpacking Equipment

A. Check that the container is upright. Use an outward prying motion - ***no hammering*** - to remove the carton. Unpack the fryer carefully and remove all accessories from the carton. Do not discard or misplace these, as they will be needed.
B. After unpacking, immediately check the equipment for visible signs of shipping damage. If damage has occurred, contact the carrier and file the appropriate freight claims. Do not contact the factory. Shipping damage responsibility is between the carrier and the dealer (see section 1.9).
C. Remove all plastic skin from sides, front, and doors of the fryer(s). Failure to do this prior to initial fryer operation will make it very difficult to remove later.
D. **Frying systems with built-in filtration:** Take off the filter support brace and remove the filter pan from the cabinet.

E. **Initial Installation:** If installed with legs, do not push against the fryer's side to adjust its position. Use a pallet or lift jack to lift the fryer slightly and place it where it is to be installed.

F. **Relocating the Fryer:** If relocating a fryer installed with legs, remove all weight from each leg before moving.

Note: If a leg becomes damaged during movement, contact your service agent for immediate repair/replacement.

⚠ CAUTION

Frymaster/Dean appliances equipped with legs are for stationary installations. Appliances fitted with legs must be lifted during movement to avoid damage to the appliance and bodily injury. For moveable installations, optional equipment casters must be used. Questions? Call 1-800-551-8633.

⚠ CAUTION

Fryers must be at room temperature, empty of oil, and if fitted with legs, lifted during movement to avoid damage and possible bodily injury.

⚠ DANGER

Hot oil can cause severe burns. Avoid contact. Under all circumstances, oil must be removed from the fryer before attempting to move it to avoid oil spills, and the falls and severe burns that could occur. This fryer may tip and cause personal injury if not secured in a stationary position.

1.9 Shipping Damage Claim Procedure

Your Frymaster equipment was carefully inspected and packed before leaving the factory. The transportation company assumes full responsibility for safe delivery upon its acceptance of the equipment for transport.

What to do if your equipment arrives damaged:

1. **File a claim for damages immediately**, regardless of the extent of damages.
2. **Inspect for and record all visible loss or damage** and ensure that this information is noted on the freight bill or express receipt and is signed by the person making the delivery.
3. **Concealed loss or damage** that was unnoticed until the equipment was unpacked should be recorded and reported to the freight company or carrier **immediately** upon discovery. A concealed damage claim must be submitted within 5 days of the date of delivery. Ensure that the shipping container is retained for inspection.

Frymaster/DEAN **DOES NOT ASSUME RESPONSIBILITY FOR DAMAGE OR LOSS INCURRED IN TRANSIT.**

1.10 Rating Plate

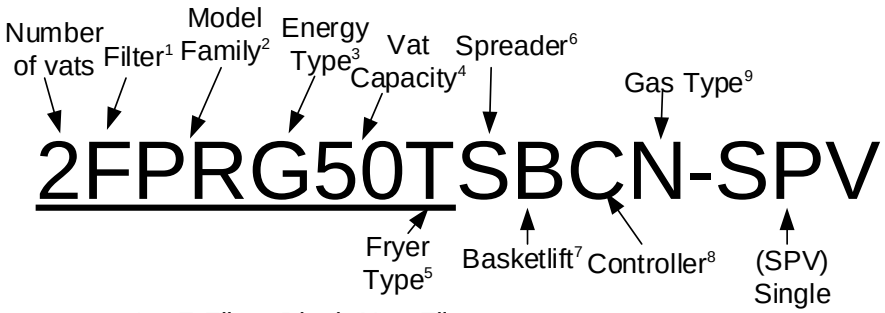
This is attached to the inside front door panel. Information provided includes the model and serial number of the fryer, BTU/hr input of the burners, outlet gas pressure in mbars (inches

W.C.0 and configuration: natural or propane gas. Rating plate data is essential for proper unit identification, communicating with the factory or requesting special parts and/or information.

⚠ DANGER

Fryers MUST be connected ONLY to the gas type identified on the attached rating plate.

1.11 Reading Model Numbers



1 = F-Filter, Blank-Non-Filter
2 = Power Runner
3 = G-Gas, E-Electric
4 = 50lb frypot capacity
5 = T-Tube Fryer, U-Open Fryer
6 = S-Spreader; Blank-None
7 = B-Basket Lift; Blank-None
8 = M-Millivolt, T-Thermatron, D- Digital, C-Computer
9 = N-Natural Gas, P-Propane Gas, B-Butane Gas

1.12 Parts Ordering and Service Information

To assist you quickly, the Frymaster/Dean Factory Authorized Servicer (FAS) or Service Department representative requires certain information about your equipment. Most of this information is printed on a data plate affixed to the inside of the fryer door. Part numbers are found in the Parts Manual. Parts orders may be placed directly with your local FAS or distributor. A Frymaster Factory Authorized Servicer can be located on the Frymaster website at www.frymaster.com/service.

Service information may be obtained by contacting your local FAS/Distributor. Service may also be obtained by calling the Frymaster/Dean Service Department at 1-800-551-8633 or 1-318-865-1711 or by e-mail: fryservice@welbilt.com. When requesting parts or service, please have the following information ready:

Model Number: _____
Serial Number: _____
Type of Gas and voltage: _____
Item Part Number: _____
Quantity Needed: _____

In addition to the model number, serial number, and type of gas, please be prepared to describe the nature of the problem and have ready any other information that you think may

be helpful in solving your problem. Additional information such as cooking environment, time of day, and other pertinent information may be helpful in solving your service problem.

RETAIN AND STORE THIS MANUAL IN A SAFE PLACE FOR FUTURE USE.

POWERRUNNER™ GAS FRYER
CHAPTER 2: INSTALLATION INSTRUCTIONS

⚠ DANGER

Do NOT connect this appliance to the gas supply before reviewing all information in this chapter.

2.1 General Installation Requirements

Only qualified, licensed, and/or authorized installation or service personnel, as defined in Section 1.7 of this manual, should perform all installation and service on Frymaster/Dean equipment.

Conversion of this appliance from one type of gas to another should only be performed by qualified, licensed, and/or authorized installation or service personnel as defined in Section 1.7 of this manual.

Failure to use qualified, licensed, and/or authorized installation or service personnel (as defined in Section 1.7 of this manual) to install, convert to another gas type or otherwise service this equipment will void the Frymaster/Dean warranty and may result in damage to the equipment or injury to personnel.

Where conflicts exist between instructions and information in this manual and local or national codes or regulations, installation and operation shall comply with the codes or regulations in force in the country in which the equipment is installed.

Parts protected by the manufacturer or its agent shall not be adjusted by the installer.

⚠ DANGER

Building codes prohibit a fryer with its open tank of hot oil being installed beside an open flame of any type, including those of broilers and ranges.

Upon arrival, inspect the fryer carefully for visible or concealed damage. (See **Shipping Damage Claim Procedure** in Chapter 1.)

2.1.1 Clearance and Ventilation

The fryer(s) must be installed with a 6" (150 mm) clearance at both sides and back when installed adjacent to combustible construction; no clearance is required when installed adjacent to noncombustible construction. A minimum of 24" (600 mm) clearance should be provided at the front of the fryer.

⚠ DANGER

The appliance area must be kept free and clear of combustible material at all times.

⚠ WARNING

Do not block the area around the base or under the fryers

The fryer(s) must be installed on non-combustible floors equipped with factory-supplied legs or casters.

⚠ DANGER

No structural material on the fryer should be altered or removed to accommodate placement of the fryer under a hood. Questions? Call the Frymaster/Dean Service Hotline at 1-800-551-8633.

One of the most important considerations of efficient fryer operation is ventilation. Make sure the fryer is installed so that products of combustion are removed efficiently, and that the kitchen ventilation system does not produce drafts that interfere with burner operation.

A commercial, heavy-duty fryer must vent its combustion wastes to the outside of the building. A deep-fat fryer must be installed under a powered exhaust hood, as exhaust gas temperatures are approximately 800-1000°F (427-538°C). Check air movement during installation. Strong exhaust fans in the exhaust hood or in the overall air conditioning system can produce slight air drafts in the room.

Do not place the fryer's flue outlet directly into the plenum of the hood, as it will affect the gas combustion of the fryer. The fryer flue opening must not be placed close to the intake of the exhaust fan, and the fryer must never have its flue extended in a "chimney" fashion. An extended flue will change the combustion characteristics of the fryer, causing longer recovery time. It also frequently causes delayed ignition. To provide the airflow necessary for good combustion and burner operation, the areas surrounding the fryer front, sides, and rear must be kept clear and unobstructed.

⚠ DANGER

This appliance must be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to the health of personnel in the room in which it is installed.

Fryers must be installed in an area with an adequate air supply and adequate ventilation. Adequate distances must be maintained from the flue outlet of the fryer to the lower edge of the ventilation filter bank. Filters should be installed at an angle of 45º. Place a drip tray beneath the lowest edge of the filter. For U.S. installation, NFPA standard No. 96 states, "A minimum distance of 18 in. (450 mm) should be maintained between the flue outlet and the lower edge of the grease filter." *Frymaster recommends that the minimum distance be 24 in. (600 mm) from the flue outlet to the bottom edge of the filter when the appliance consumes more than 120,000 BTU per hour*. The duct system, the exhaust hood and the filter bank must be cleaned on a regular basis and kept free of grease.

For installations in the United States, information on construction and installation of ventilating hoods can be found in the NFPA standard cited above. A copy of the standard may be obtained from the National Fire Protection Association, Battery March Park, Quincy, MA 02269.

Never use the interior of the fryer cabinet for storage or store items on shelving over or behind the fryer. Exhaust temperatures can exceed 800°F (427°C) and may damage or melt items stored in or near the fryer.

2.1.2 National Code Requirements

The type of gas for which the fryer is equipped is stamped on the data plate attached to the inside of the fryer door. Connect a fryer stamped "NAT" only to natural gas and those stamped "PRO" only to propane gas.

Installation shall be made with a gas connector that complies with national and local codes, and, where applicable, CE codes. A manual gas shut-off valve must be installed in the gas supply line ahead of the fryers for safety and ease of future service. Ensure the shut-off valve is in a position where it can be

reached quickly in the event of an emergency. Quick-disconnect devices, if used, shall likewise comply with national, local, and, if applicable, CE codes. In the absence of local codes, installation must conform to the national Fuel Gas Code, ANSI Z223.1/NFPA 54, ANSIZ83.11, NFPA96,211 or the Natural Gas and Propane Installation code, CSA B149.1, as applicable including:

1. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of ½ psi (3.5 kPa).
2. The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psi (3.5 kPa).

2.1.2.1 Installation Standards

1. U.S. installations must meet:	2. Canadian installations must meet:
American National Standard Institute ANSI Z83.11 American Gas Association 8501 E. Pleasant Valley Road Cleveland, OH 44131 National Electrical Code ANSI/NFPA #70 American National Standard Institute 1430 Broadway New York, NY 10018 NFPA Standards #96 and #211 National Fire Protection Association 470 Atlantic Avenue Boston, MA 02110	CAN 1-B149 Installation Codes Canadian Gas Association 55 Scarsdale Road Don Mills, ONT, M3B 2R3 Canadian Electric Code c22.1, part 1 Canadian Standards Association 178 Rexdale Blvd. Rexdale, ONT, M9W 1R3
3. CE/Export Standards: Fryer installation must conform with local codes, or, in the absence of local codes, to the appropriate national or European Community (CE) standards.	

2.1.3 Power Requirements

PowerRunner™ gas fryers operating on millivolts do not require an external electric power supply (unless equipped with a built-in filtration system).

PowerRunner™ gas fryers with filtration or electronic controls and ignition require 120VAC-240VAC 60 cycle or 230VAC single-phase 50 Hz (International) electrical service and are equipped with a 16-3 SJT grounded flexible power cord for a direct connection to the power supply. Amperage draw for each unit depends on the accessories supplied with the unit/system.

⚠ DANGER

This appliance must be connected to a power supply having the same voltage and phase as specified on the rating plate located on the inside of the appliance door.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

2.1.4 Electrical Grounding Requirements

All electrically operated appliances must be grounded in accordance with all applicable national and local codes, and, where applicable, CE codes. In the absence of local codes, the appliance must be grounded in accordance with National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.2, as applicable. All units (cord connected or permanently connected) should be connected to a grounded power supply system. Do not cut or remove the ground prong from the power cord plug. A wiring diagram is located on the inside of the fryer door. Refer to the rating plate on the inside of the fryer door for proper voltages.

The equipotential grounding lug allows all the equipment in the same location to be electrically connected to ensure there is no electrical potential difference between the units, which could be hazardous.

⚠ DANGER

This appliance is equipped with a special (grounding) plug for your protection against electrical shock and must be plugged directly into a properly grounded receptacle. Do not cut, remove, or otherwise bypass the grounding prong on this plug!

⚠ DANGER

This appliance may require electrical power for operation. Place the gas control valve in the OFF position in case of a prolonged power outage. Do not attempt to operate this appliance during a power outage.

Place the gas control valve in the OFF position in case of a prolonged power outage. Do not attempt to operate this appliance during a power outage. Do not attempt to start the fryer(s) until the power is restored.

2.1.5 Australian Requirements

To be installed in accordance with AS 5601 and AS/NZS 3000:2007, local authorities, gas, electricity, and any other relevant statutory regulations.

If casters are fitted, the installation must comply with AS5601 and AS1869 requirements.

2.2 Caster/Leg Installation

⚠ WARNING

Fryers equipped with legs are for permanent installations. Fryers fitted with legs must be lifted during movement to avoid damage and possible bodily injury. For a moveable or portable installation, Dean optional equipment casters must be used.
Questions? Call 1-800-551-8633.

⚠ CAUTION

Fryers may not function properly if curb mounted. <u>Do NOT</u> curb mount PowerRunner gas fryers.

2.2.1 General

1. Install legs and rear rigid casters near where the fryer is to be used, as neither is secure for long transit. Unit cannot be curb mounted and must be equipped with the legs and/or casters provided.
2. When positioning the fryer, gently lower the fryer into position to prevent undue strain to the legs and internal mounting hardware. Use a pallet or lift jack to lift and position the fryer if possible. Tilting the fryer may damage the legs.
3. Rigid casters must be installed on the fryer rear-channel assembly only.
4. Proceed to section 2.3, Leveling the Fryer, after legs and rear rigid casters are installed to ensure the fryer is level before using.

2.2.2 Leg and Rigid Caster Installation

1. Remove unit from pallet.
2. Carefully raise unit with forklift, pallet jack, or other steady means.
3. Place one lock washer on each hex head screw.
4. Insert hex head screws with lock washers [1/4-20 threads by ¾" (19 mm) long] through bolt holes of leg mounting plates and mount to the front channel. Mount rigid casters to the rear channel following the same procedure. A locknut has been attached to the topside of the base mounting plates at the factory to capture the hex head screw as it is screwed in.
5. Tighten the bolts to 50 inch-lbs. (5.65 Nm) torque.

2.3 Leveling the Fryer

Place a carpenter's level across the top of the fryer and level the unit front to back. If the fryer is not level from side to side, a platform or other surface adjustment is needed; there is no side-to-side level adjustment on a fryer equipped with caster/leg combinations. (If a fryer is equipped with legs only, side-to-side level adjustments can be made. If a fryer is equipped with casters only, no level adjustments can be made.). If the fryer is not level, the unit may not function efficiently, the oil may not drain properly for filtering and in a multi-fryer battery, it may not match adjacent units.

Level fryers by adjusting the casters so that the fryer is level and at the proper height in the exhaust hood. Frymaster recommends that the minimum distance from the flue outlet to the bottom edge of the hood be 24 in. (600 mm) when the appliance consumes more than 120,000 BTU per hour.

2.3.1 Legs (Only)

1. Adjust leg height with an adjustable or 1-1/16-inch (27 mm) open-end wrench by turning the hex bullet on the bottom of the leg.
2. The hex bullet is for minor leg height adjustment only. **Do not adjust more than 1-inch (25.4 mm)**.
3. When leveling the unit, the leg body should be held firmly to keep the leg from bending or rotating while turning the hex bullet foot to the required height.

2.3.2 Rigid Casters (Only)

1. Install the rigid casters on the fryer rear channel only. Legs must be installed on the front channel.
2. There are no level adjustments for the rigid casters.

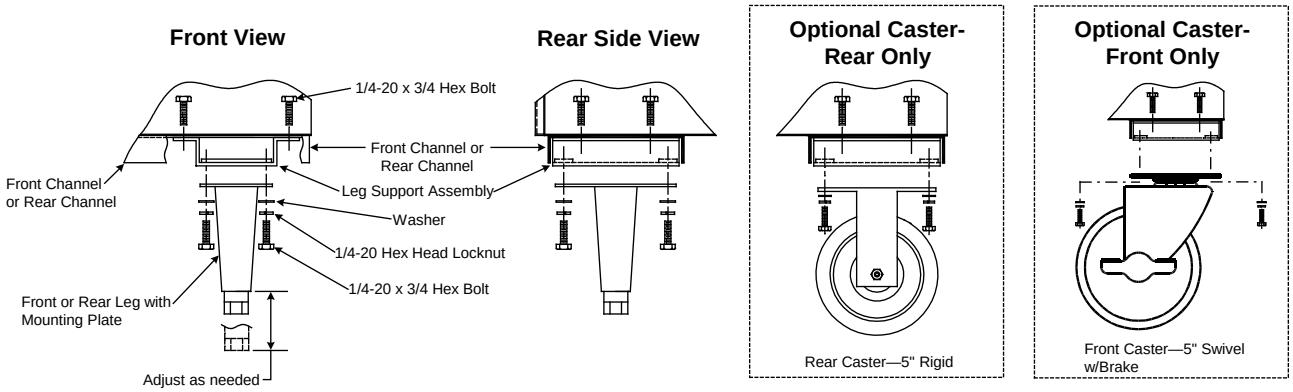
A. If the floor is uneven or has a decided slope, place the fryer on a smooth, level platform.
B. If the fryer is moved, re-level the fryer following the instructions given in section 2.3.

⚠ WARNING

For caster retrofit, the unit must be at room temperature and drained of shortening before installing the casters.

2.4 Installing Optional Swivel Casters:

1. Install non-locking casters only at the rear of the unit.
2. Locking casters must be installed at the front of the unit. Locking casters allow the fryer to be "locked" in position for safe operations.
3. Follow the same instructions for leg installations as given above in section 2.3.



Leg and Caster (Optional) Mounting Installation

NOTE: The installation must be inspected after it is complete to ensure it meets the intent of these instructions.

On an appliance with casters, the installation shall be made with a connector that complies with the Standard for Moveable Gas Appliances, ANSI Z21.69 • CSA 6.16, and a quick disconnect device that complies with the Standard for Quick-Disconnect Devices for Use with Gas Fuel, ANSI Z21.41 • CSA 6.9.

2.5 Pre-Connection Preparations

⚠ DANGER

DO NOT connect this appliance to the gas supply before completing each step in this section.

After the fryer has been positioned under the exhaust hood, ensure the following has been accomplished:

1. An installed fryer must be restrained to prevent tipping, which could splash hot oil. Restraints can be straps or chains anchored to an immovable object (wall, floor anchor), or the manner of installation (installing the fryer in an alcove, battering to other appliances, etc.). Adequate means must be provided to limit the movement of fryers without depending upon the gas line connections. If a flexible gas hose is used, a restraining cable must be connected at all times when the fryer is in use. A restraining cable and installation instructions are available from your distributor.

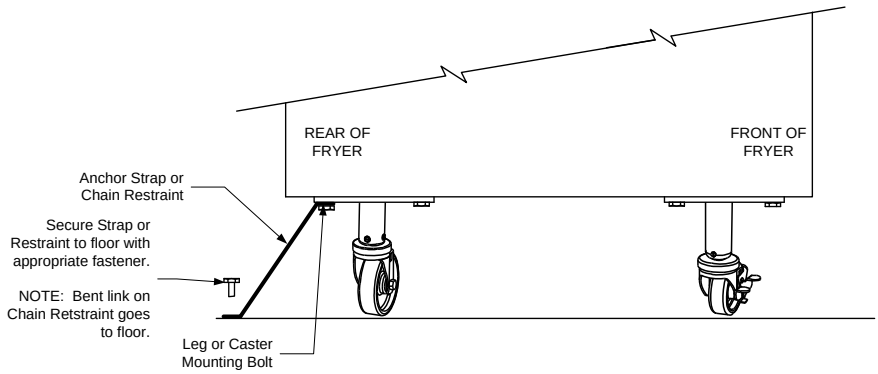
The on-site supervisor and/or operator(s) should be informed that the appliance is installed with restraints. If restraints are removed to move fryer (for service or other reasons, they must be reconnected before the fryer is used.)

⚠ DANGER

Hot oil can cause severe burns. Avoid contact. Under all circumstances, oil must be removed from the fryer before attempting to move it to avoid spills, falls, and severe burns. Fryers may tip and cause personal injury if not secured in a stationary position.

⚠ DANGER

Adequate means must be provided to limit the movement of this appliance without depending on the connector and the quick-disconnect device or its associated piping to limit the appliance movement.



⚠ DANGER

Do not attach an apron drainboard to a single fryer. The fryer may become unstable, tip over, and cause injury. The appliance area must be kept free and clear of combustible material at all times.

2. Test the fryer electrical system (if applicable):
   a. Plug the fryer electrical cord(s) into a grounded electrical receptacle behind the fryer.
   b. Ensure the fryer controller powers up.
   c. Verify that the display indicates the fryer is in the off state and not heating.
3. Refer to the data plate on the inside of the fryer door to determine if the fryer burner is configured for the proper type of gas before connecting the fryer quick-disconnect device or piping from the gas supply line.
4. Verify the minimum and maximum gas supply pressures for the type of gas to be used in accordance with rating plate on the door.

⚠ DANGER

Fryers MUST be connected ONLY to the gas type identified on the attached rating plate located on the back of the fryer door.

⚠ WARNING

If gas odors are detected, the gas supply MUST be shut off at the main shut-off valve. The local gas company or FAS should be contacted immediately to rectify the problem.

Non- CE Standard for Incoming Gas Pressure		
	(F)PRG50T	
Gas Type	**Nat**	**LP**
Min Pressure W.C/kpa/mbar	6/1.49/14.93	11/2.74/27.37
Max Pressure W.C/kpa/mbar	14.00/3.48/34.84	14.00/3.48/34.84

CE Standard for Incoming Gas Pressure				
	(F)PRG50T			
Gas Type	**G20**	**G25**	**G30**	**G31**
Pressure (mbar) (1) mbar=10,2mm H_20	20	20 or 25	28/30 or 50	37 or 50

Australia Standard for Incoming Gas Pressure		
	(F)PRG50T	
Gas Type	**Nat**	**LP**
Min Pressure W.C/kpa/mbar	4.54/1.13/11.30	11.05/2.75/27.50
Max Pressure W.C/kpa/mbar	14.00/3.48/34.84	14.00/3.48/34.84

Korea Standard for Incoming Gas Pressure		
	(F)PRG50T	
Gas Type	**LNG (Natural)**	**LPG (Propane)**
Min Pressure W.C/kpa/mbar	4/1.00/10.00	9.2/2.30/23.00
Max Pressure W.C/kpa/mbar	10/2.50/25.00	13.2/3.30/33.00

⚠ DANGER

When pressure-testing incoming gas supply lines, disconnect the fryer from the gas line if the test pressure is ½" PSI [3.45 kPa (14 inches W.C.)] or greater to avoid damage to the fryer's gas piping and gas valve(s).

NOTE: External gas regulators are not normally required on this fryer. A safety control valve protects the fryer against pressure fluctuations. If the incoming pressure is in excess of ½" PSI (3.45 kPa/35 mbar), **a step-down regulator is required**.

2.6 Connection to Gas Line

⚠ DANGER

Before connecting new pipe to this appliance, the pipe must be blown out thoroughly to remove all foreign material. Foreign material in the burner and gas controls will cause improper and dangerous operation.

⚠ DANGER

The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of ½ PSI (3.45 kPa, 13.84 inches W.C.) to avoid damage to the fryer's gas tubes and gas valve(s).

⚠ DANGER

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ PSI (3.45 kPa, 13.84 inches W.C.)

⚠ DANGER

"Dry-firing" your unit will cause damage to the frypot and can cause a fire. Always ensure that cooking oil or water is in the frypot before firing the unit.

⚠ DANGER

All connections must be sealed with a joint compound suitable for the gas being used and all connections must be tested with a solution of soapy water before lighting any pilots.

⚠ DANGER

Never use matches, candles, or any other ignition source to check for leaks. If gas odors are detected, shut off the gas supply to the appliance at the main shut-off valve and immediately contact the local gas company or an authorized service agency for service.

The size of the gas line used for installation is very important. If the line is too small, the gas pressure at the burner manifold will be low. This may cause slow recovery and delayed ignition. The incoming gas supply line should be a minimum of 1½" (38 mm) in diameter. Refer to the chart below for the minimum sizes of connection piping.

Gas Connection Pipe Sizes
(Minimum incoming pipe size should be 1 1/2" (41 mm))

Gas	Single Unit	2 - 3 Units	4 or more units*
Natural	3/4" (22 mm)	1" (28 mm)	1 1/4" (36 mm)
Propane	1/2" (15 mm)	3/4" (22 mm)	1" (28 mm)
Manufactured	1" (28 mm)	1 1/4" (36 mm)	1 1/2" (41 mm)

* For distances of more than 20 feet (6 m) and/or more than 4 fittings or elbows, increase the connection by one pipe size.

2.6.1 Gas Specifications

NON-CE (Altitudes of 2000 feet or less)

MODEL	INPUT (BTU)	GAS TYPE	ORIFICE (MM)	ORIFICE PART NO.	QTY	EQUIPMENT PRESSURE	
						MBAR	INCH W.C.
(F)PRG50T	120000	NAT LP	2.53(#39) 1.51(#53)	8102048 8102059	4 4	10 27.5	4 11

NOTE: Outlet gas pressure must be adjusted strictly within the above requirements 5 to 10 minutes after the appliance is operating. (Pilot Flame Adjustment: Turn the pilot adjustment screw clockwise/counter-clockwise until the desired flame-volume is achieved.)

CE ONLY (Altitudes of 2000 feet or less)

MODEL	INPUT (kW)	GAS TYPE	ORIFICE (MM)	ORIFICE PART NO.	QTY	PILOT ORIFICE (MM)	EQUIPMENT PRESSURE	
							MBAR	INCH W.C.
(F)PRG50T	30,0	G20	2,40	8102060	4	.46	10,0	4,0
		G25	2,40	8102060	4	.46	15,0	6,0
		G31	1,51	8102059	4	.33	27,0	10,8

NOTE: Outlet gas pressure must be adjusted strictly within the above requirements 5 to 10 minutes after the appliance is operating. (Pilot Flame Adjustment: Turn the pilot adjustment screw clockwise/counter-clockwise until the desired flame-volume is achieved.)

The PowerRunner™ gas fryers have received the CE mark for the countries and gas categories indicated in the table on the following page. **NOTE:** The nominal heat input (QN) is 21kW except for AT, DE, LU and category 3P/B, which is 23kW.

CE Approved Gas Categories by Country

COUNTRIES	CATEGORIES	GAS	PRESSURE (MBAR)
AUSTRIA (AT)	II2H3B/P	G20	20
		G30, G31	50
BELGIUM (BE)	I2E(R)B	G20, G25	20, 25
	I3+	G30, G31	28-30, 37
DENMARK (DK)	II2H3B/P	G20	20
		G30, G31	30
FRANCE (FR)	II2Esi3+	G20, G25	20, 25
		G30, G31	28-30, 37
	II2Esi3P	G20, G25	20, 25
		G31	50
FINLAND (FI)	II2H3B/P	G20	20
		G30, G31	30
GERMANY (DE)	II2ELL3B/P	G20, G25	20
		G30, G31	50
	I3P	G31	50
GREECE (GR)	II2H3+	G20	20
		G30, G31	28-30, 37
ITALY (IT)	II2H3+	G20	20
		G30, G31	28-30, 37
IRELAND (IE)	II2H3+	G20	20
		G30, G31	28-30, 37
LUXEMBOURG (LU)	II2E3B/P	G20	20
		G30, G31	50
NETHERLANDS (NL)	II2L3P	G25	25
		G31	50
	II2L3B/P	G25	25
		G30, G31	30
NORWAY (NO)	I3B/P	G30, G31	30
PORTUGAL (PT)	II2H3+	G20	20
		G30, G31	28-30, 37
SPAIN (ES)	II2H3+	G20	20
		G30, G31	28-30, 37
	II2H3P	G20	20
		G31	37, 50
SWEDEN (SE)	II2H3B/P	G20	20
		G30, G31	30
UNITED KINGDOM (UK)	II2H3+	G20	20
		G30, G31	28-30, 37

CE Standard

Required airflow for the combustion air supply is 2m^3/h per kW.

1. Connect the quick-disconnect hose to the fryer quick-disconnect under the fryer and to the building gas line.

   NOTE: Some fryers are configured for a rigid connection to the gas supply line. These units are connected to the gas supply line at the rear of the unit.

   When using thread compound, use very small amounts on male threads only. Use a pipe thread compound that is not affected by the chemical action of LP gases (Loctite™ PST56765 Sealant is one such compound). DO NOT apply compound to the first two threads. Doing so may allow some of the compound to enter the gas stream, resulting in clogging of burner orifices and/or the control valve.
2. Open the gas supply to the fryer and check all piping, fittings, and gas connections for leaks. A soap solution should be used for this purpose.

3. Plug in the fryer to ensure the fryer drain valve is closed and fill the frypot with water or oil to the bottom OIL LEVEL line at the rear of the frypot. Light the fryer described in the "Lighting Instructions" topics found in Chapter 3 of this manual.

⚠ DANGER

"Dry-firing" your unit will cause damage to the frypot and can cause a fire. Always ensure that cooking oil or water is in the frypot before firing your unit.

4. The burner manifold pressure should be checked with a manometer at this time by the local gas company or an authorized service agent.
5. Check the rating plate for specific manifold gas pressures.
6. Confirm that the arrow forged into the bottom of the regulator body, which indicates gas flow direction, is pointed downstream towards the fryers. The air vent cap is also part of the regulator and should not be removed. If a vent line from the gas pressure regulator is used, it should be installed in accordance with local codes or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1- (latest edition) in the U.S. and appropriate national or European harmonized standards (EN) in the European Union.
7. The tables list the burner manifold gas pressures for the various gas types that can be used with this equipment.

Non-CE Standard
Burner Manifold Gas Pressures

Gas	Pressure
Natural	3.20" W.C. 0.80 kPa
Propane	8.25" W.C. 2.5 kPa

CE Standard
Burner Manifold Gas Pressures

Gas	Pressure (mbar)
Natural Gas Lacq (G20) under 20 mbar	7
Natural Gas Gronique * (G25) under 25 mbar	10
Natural Gas Gronique (G25) under 20 mbar	10
Butane/Propane (G30) at 28/30 or 50 mbar	17
Propane (G31) under 37 or 50 mbar	20.6

AUSTRALIA ONLY
Burner Manifold Gas Pressures

Natural Gas			Propane Gas		
Orifice	MJ/h	TPP	Orifice	MJ/h	TPP
2.53mm	73.8	1.0 kPa	1.51mm	73.8	2.05 kPa

⚠ WARNING

Use a leak detection fluid to find potentially dangerous gas leaks when making new connections.

A. Regulators can be adjusted in the field, but it is recommended that qualified service personnel adjust a regulator only if it is known to be out of adjustment or serious pressure fluctuations have been found and cannot be solved another way.

B. Only qualified service personnel should make adjustments to the regulators.

C. Orifices: The fryer can be configured to operate on any available gas. The correct safety control valve, appropriate gas orifices, and pilot burner are installed at the factory. While the valve can be adjusted in the field, only qualified service personnel should make adjustments with proper test equipment.

8. Check the programmed temperature thermostat setting.

2.6.2 Equipment Installed at High Altitudes

1. The fryer input rating (BTU/hr) is for elevations up to 2,000 ft (610 m). For elevations above 2,000 ft (610m), the rating should be reduced four percent for each additional 1,000 ft (305m) above sea level.
2. The correct orifices are installed at the factory if operating altitude is known at time of the customer's order.

2.7 Converting to another Gas Type

⚠ DANGER

This appliance was configured at the factory for a specific type of gas. Converting from one type of gas to another requires the installation of specific gas-conversion components. Conversion instructions are included with conversion kits.

Switching to a different type of gas without installing the proper conversion components may result in fire or explosion. NEVER ATTACH THIS APPLIANCE TO A GAS SUPPLY FOR WHICH IT IS NOT CONFIGURED!

Conversion of this appliance from one type of gas to another should only be performed by qualified, licensed, and authorized installation or service personnel, as defined in Section 1.7 of this manual.

Non-CE Gas Conversion Kits
826-2937 — Natural to Propane
826-2938 — Propane to Natural

CE Gas Conversion Kits
826-2939 — Natural to Propane
826-2940 — Propane to Natural

2.7.1 CE UNITS ONLY:

See page 2-13 for gas valve illustration and gas valve, burner and orifice location when performing the following conversions.

When converting from G20 to G25 gas, the following procedures apply:

- Equipment replacement is not required.
- Adjust orifice gas pressure to the appropriate value listed in the table on page 2-9 by turning the gas valve "adjustment screw".
- After adjustment, replace the adjustment-screw cover.

When converting from G20 (or G25) gas to G31 propane (or vice-versa), the following procedures apply:

- Burner orifices and pilot orifice **MUST** be replaced.
- Adjust orifice gas pressure to the appropriate value listed in the table on page 2-9 by turning the gas-valve adjustment screw.
- After adjustment, replace the adjustment-screw cover.
- Affix the new rating plate included with the conversion kit. If a new rating plate was not included contact your local FAS to obtain one.

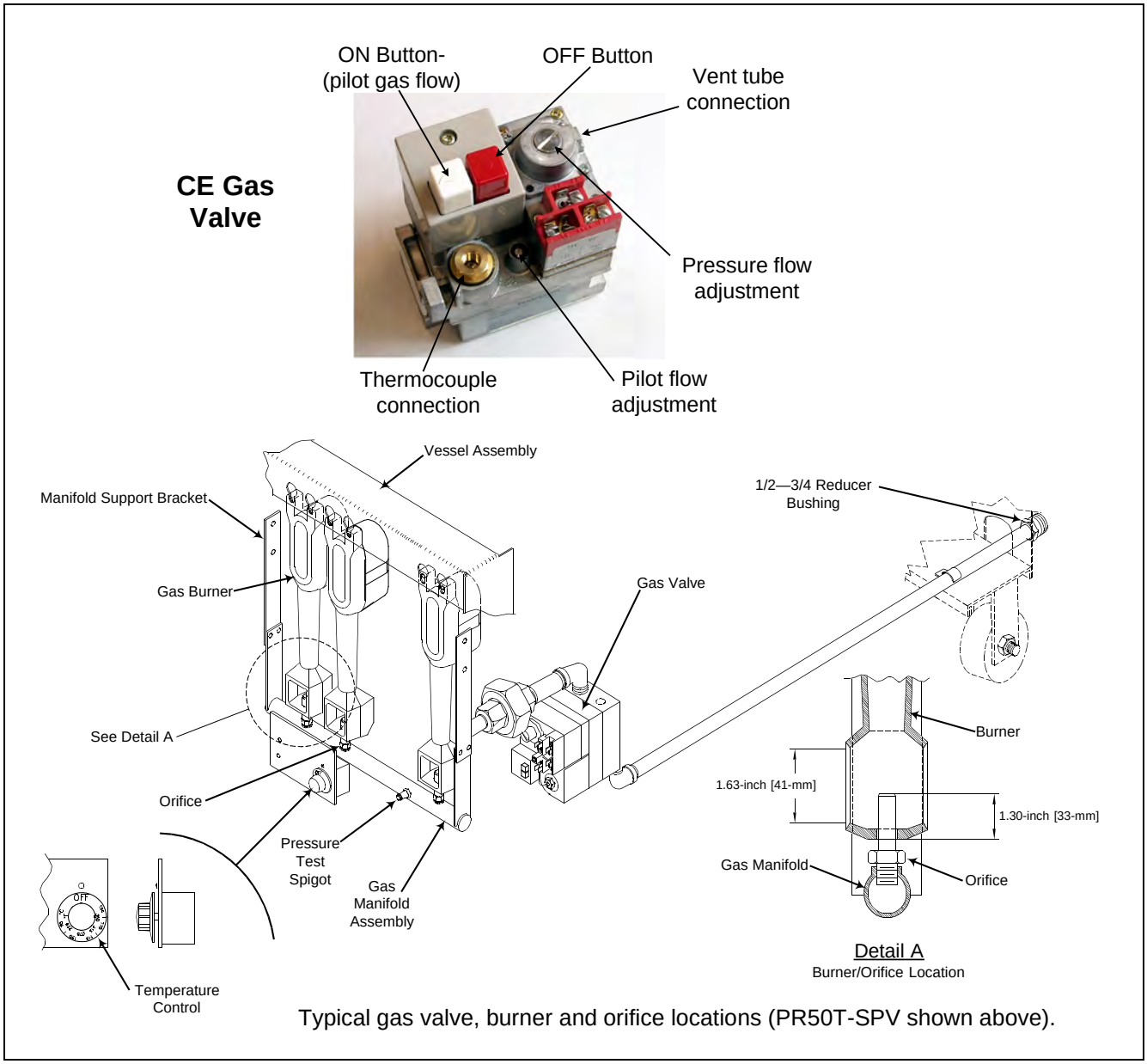
- If the destination language changes, replace the rating plate. Call your local service agency or KES for a label kit. The language of reference will be on the corner of the label

When converting from G20 (20 mbar) to G25 (25 mbar), or vice-versa, the following procedures apply:

- Check pilot-adjustment and adjust as necessary.
- Other adjustments are not necessary.

Conversion from one gas family to another (i.e. changing from natural gas to propane) requires special components. Obtain the necessary components using the cross-reference in Section 2.6.1 or 2.7.

Conversions can only be executed by qualified, factory-authorized personnel.



Typical gas valve, burner and orifice locations (PR50T-SPV shown above).

2.7.2 NON-CE UNITS ONLY:

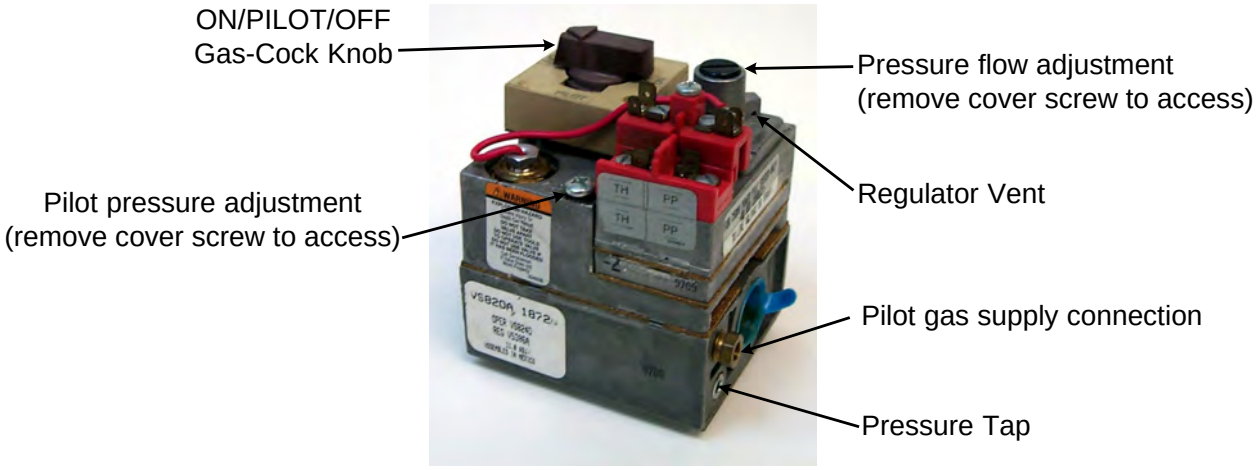
See gas valve illustration below and gas valve, burner and orifice location on page 2-14 when performing the following conversions.

When converting from natural gas to propane (or vice-versa), the following procedures apply:

- Burner orifices and pilot orifice **MUST** be replaced (see page 2-9 for required component part numbers).
- Adjust orifice gas pressure by turning the gas-valve adjustment screw (see page 2-9 for gas types and pressures).
- After adjustment, replace the adjustment-screw cover.
- Affix the new label included with the conversion kit next to the existing rating plate stating that the gas type has been converted. Remove any references to the previously used gas from the existing rating plate.

Conversion from one gas family to another (i.e. changing from natural gas to propane) requires special components. Obtain the necessary components using the tables on page 2-15.

Conversions can only be executed by qualified, factory-authorized personnel.



Typical gas valve (Millivolt- Non-CE).

Typical non-CE gas valve for Electronic-Ignition equipped fryers.

2.8 Gas Conversion Components

Use the following components to convert from natural gas to propane and vice-versa. See Section 2.6.1 for orifice quantities required for conversion.

Natural Gas to Propane Components		**Propane To Natural Gas Components**	
REF	**DESCRIPTION**	**REF**	**DESCRIPTION**
8102400	Pilot orifice (16LP)	8100811	Pilot orifice (26N)
Burner orifice* (See Tables on Page 2-9)		Burner orifice* (See Table on Page 2-9)	
New Rating Label	**Contact factory at time of conversion. PN 8022144**	New Rating Label	**Contact factory at time of conversion. PN 8022144**

* Burner orifices listed on page 2-9 are for fryers operating at altitudes of 2000 feet (610 meters) or less. For altitudes greater than 2000 feet (610 meters), contact the factory for the correct orifice size.

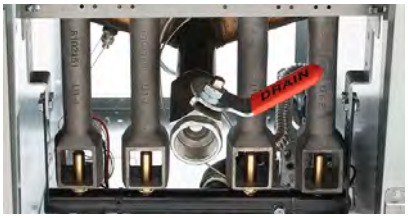
POWERRUNNER™ GAS FRYER
CHAPTER 3: FRYER OPERATION

3.1 Initial Start-up

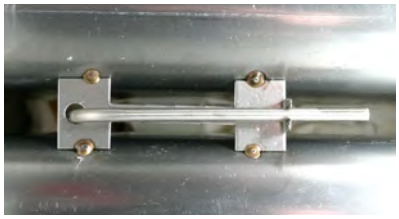
⚠ WARNING

The on-site supervisor is responsible for ensuring that operators are made aware of the inherent hazards of operating a hot oil frying system, particularly the aspects of system operation, oil filtration, draining and cleaning procedures.

Cleaning: New units are wiped clean with solvents at the factory to remove any visible signs of dirt, oil, or grease remaining from the manufacturing process, and then coated lightly with oil. Before any food preparation, wash thoroughly with hot, soapy water to remove any film residue and dust or debris then rinse out and wipe dry. Also wash any accessories shipped with the unit. Close the drain valve completely and remove the crumb screen covering the heating tubes. Ensure the screws holding the thermostat and high-limit control sensing bulbs into the frypot are tight.



Drain Valve



Typical high-limit/sensor probe locations and mounting hardware.

⚠ DANGER

Remove all drops of water from the frypot before filling with cooking oil or shortening. Failure to do so will cause spattering of hot liquid when the oil or shortening is heated to cooking temperature and may cause injury to nearby personnel.

⚠ WARNING

Do not bang fry baskets or other utensils on the fryer's joiner strip. The strip is present to seal the joint between the frypot. Banging fry baskets on the strip to dislodge shortening will distort the strip, adversely affecting its fit. It is designed for a tight fit and should only be removed for cleaning.

⚠ DANGER

Never operate this appliance with an empty frypot. The frypot must be filled with water or cooking oil/shortening before lighting the burners. Failure to do so will damage the frypot and may cause a fire.

⚠ DANGER

Do not go near the area directly over the flue outlet while the fryer is operating.

Always wear oil-proof, insulated gloves when working with the fryer filled with hot oil.

Always drain hot oil into a metal stockpot of sufficient size to safely hold the entire contents of the frypot.

3.1.1 Pilot Lighting Procedures, Standing Pilot Only

Initial Pilot Lighting: All Dean fryers are tested, adjusted and calibrated to sea level conditions before leaving the factory. Adjustments to assure proper operation of pilot may be necessary on installation to meet local conditions, low gas pressure, differences in altitude and variations in gas characteristics. These adjustments correct possible problems caused by rough handling or vibration during shipment and are to be performed only by qualified service personnel. These adjustments are the responsibility of the customer and/or the dealer and are not covered by the Dean warranty.

The inlet pipe at the lower rear of the fryer brings incoming gas to the pilot safety control valve, then to the pilot and main burners. The pilot is located high in the cabinet center, at the base of the frypot.

⚠ WARNING

When checking for burner ignition or performance, do not get too close to the burners. Slow ignition can cause possible flashback, increasing the potential for facial and body burns.

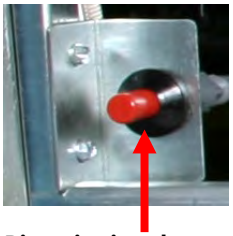
⚠ CAUTION

If the pilot and main burner go out, the fryer(s) MUST be left completely shut down at least 5 minutes before lighting.

Light the pilot as follows:

1. Turn off the manual shut-off valve on the incoming service line.
2. Turn the operating thermostat or the controller off.
3. Depress the pilot gas cock dial on the combination control valve and turn to "OFF".
4. Wait approximately 5 minutes for accumulated gas to disperse.
   Note: Inspect high-limit thermostat/temperature probe location prior to filling frypot with water or oil. Ensure that connecting hardware is intact and bulbs are properly attached.
5. Fill the frypot with oil or water to the bottom OIL LEVEL line scribed on the frypot back. Ensure that heating tubes are covered in liquid prior to engaging burners.
6. Open the manual shut-off valve on the incoming service line.
7. Apply lighted match or taper to the pilot burner head.
8. Turn the gas cock dial on the control valve to "Pilot", then depress and hold the dial until the pilot stays lit for approximately 1 minute after the flame appears on the pilot. Release the knob. The pilot should remain lit.
   Piezo Ignitor: Turn the gas cock dial on the control valve to "Pilot", and then repeatedly press the piezo ignitor button while depressing the gas valve knob until the pilot lights. Continue to hold the knob in for 1 minute. Release the knob. The pilot should remain lit.
9. If the pilot fails to stay lit, depress the dial and re-light the pilot, depressing the dial longer before releasing.
10. When the pilot stays lit, turn the gas cock dial to "ON".
11. Turn the operating thermostat or controller on, and then ensure the main burners ignite from the pilot.

Pilot in normal operation.



Piezo ignitor button

3.1.2 Pilot Lighting Procedures, Electronic Ignition Systems

⚠ WARNING

Never use a match or taper to light pilot on this ignition system.

1. Turn gas "ON".
2. Turn electric power "ON" with the appropriate rocker switch or controller/controller.
3. The ignition module will energize the pilot gas supply and the igniter. The igniter spark will ignite the pilot gas. The presence of the pilot flame is then proved by a flame sensor, which sends a signal to the main gas supply, opening the valve. The operating thermostat or controller/controller controls the fryer after ignition.

⚠ CAUTION

If the pilot and main burner go out, the fryer(s) MUST be left completely shut down at least 5 minutes before lighting.

⚠ WARNING

In the event of prolonged power failure, the ignition module will shut down and lock out the system. Turn the unit power "OFF" and then back "ON" after power has been re-established.

4. If the pilot flame fails, the ignition module will shut down and lock out the system. To restart, turn the electric power "OFF", wait approximately 5 minutes for the system to recycle itself, and then turn the power "ON" again. Repeat Steps 1-3.

3.2 Shutting the Fryer Down

For short-term shut down during the workday, place the controller ON/OFF switch in the **OFF** position and put the frypot covers in place (if the fryer is so equipped).

When shutting the fryers down at closing time, filter the oil and clean the fryers. Place the controller ON/OFF switch in the **OFF** position. Then place the gas valve in the off position. Place the frypot covers on the frypots.

3.3 Boil-Out Procedure

⚠ DANGER

Never leave the fryer unattended during the boil-out process. If the boil-out solution boils over, turn the fryer off immediately and let the solution cool for a few minutes before resuming the process. To lessen the chance of boil over, turn the fryer's gas valve knob to the PILOT position occasionally.

⚠ WARNING

Do not drain boil-out solution into a shortening disposal unit, a built-in filtration unit, or a portable filter unit. These units are not intended for this purpose and will be damaged by the solution.

A. Pour cleaning solution into the frypot and add water to the bottom OIL LEVEL line scribed in the back of the frypot.
B. Operating thermostat-equipped fryers: Set dial/temperature controller to 225°F (107°C), just above that of boiling water.

C. Filtration/Boil-Mode equipped fryers: Turn fryer power switch to "ON". Press the fryer- reset switch (if applicable). Turn the boil-out switch "ON".

⚠ CAUTION

If the pilot and main burner go out, the fryer(s) MUST be left completely shut down at least 5 minutes before lighting.

D. The main burner will ignite.
E. When the solution nears boiling point, reset the temperature controller to 200°F (93ºC).
F. The burners should shut off just as the water starts to boil.

⚠ CAUTION

Do not leave fryer unattended. The boil-out solution may foam and overflow if fryer is left unattended. Press ON/OFF switch to the "OFF" position (Filtration/Boil-Mode equipped fryers) or reduce temperature (Operating Thermostat equipped fryers) to control this condition.

G. The burners will heat the boil-out solution to a simmer. Simmer the solution for approximately 45 minutes. Wearing protective gloves, scrub the sides of the frypot and the tubes with the L-shaped Teflon brush, being careful not to disturb the temperature sensing probes and the high-limit thermostat.
H. Do not allow the water level to decrease below the bottom OIL LEVEL line in frypot during boil-out operation.

⚠ WARNING

Water or boil-out solution MUST not be allowed to drain into the filter pan or filter system. Irreversible damage will result if water is allowed into the system.

I. Operating Thermostat equipped fryers: After boil out is complete, turn the thermostat dial to "OFF". Filtration/Boil-Mode equipped fryers: After boil out is complete, turn the boil-out and fryer switches to "OFF". Drain the solution from the frypot. Place a metal stockpot of sufficient size to safely hold the entire contents of the frypot under the drain port to collect the water/boil-out solution. Do not allow water or boil-out solution to drain into the filter pan. The filter pump is not designed for water operation, and will be irreparably damaged (see warning statement above).
J. Close the drain, add fresh water (without boil-out solution) and wash all surfaces of the frypot. Drain again.
K. Refill the frypot with fresh water and vinegar to neutralize any residual boil-out solution. Wash all surfaces of the frypot. Drain completely and wipe down all surfaces of the frypot to completely remove all water.

Controller-equipped fryers: See controller manual for boil-out programming and follow the above procedures for boil-out.

NOTE: It is recommended that the boil-out procedure be performed each time the oil is changed.

3.4 Final Preparation

⚠ DANGER

Remove all drops of water from the frypot before filling with cooking oil or shortening. Failure to do so will cause spattering of hot liquid when the oil or shortening is heated to cooking temperature and may cause injury to nearby personnel.

⚠ WARNING

NEVER set a complete block of solid shortening on top of heating tubes. To do so will damage the heating tubes, frypot and void the warranty.

⚠ CAUTION

Do not melt solid shortening in the fryer unless shortening is packed firmly below, between, and above heat tubes; or operate fryer if shortening/oil is not up to the lower oil mark in vessel. Failure to do this may damage vessel and void warranty.

3.4.1 Filling the Fryer with Oil or Shortening

A. When using a liquid shortening, fill the fryer to the bottom OIL LEVEL line scribed into the back of the frypot.
B. When using a solid shortening, first melt it in a suitable container, or cut it into small pieces and pack it below the heat tubes, between the tubes and on top of the tubes, leaving no air spaces around the tubes. Do not disturb or bend the sensing bulbs.
C. Electronic Thermostat Controller with Melt Cycle Option Enabled: Set the controller to the working temperature. The burners will cycle on approximately 5 seconds, and off for approximately 15 seconds until the temperature reaches 150°F (66°C). The electronic thermostat will then switch to normal operation.
D. Operating Thermostat: Turn the burners "ON" for about 10 seconds, "OFF" for a minute, etc., until the shortening is melted. If you see smoke coming from the shortening while melting this way, shorten the "ON" cycle and lengthen the "OFF" cycle. Smoke indicates potential scorching of the shortening, which will shorten its useful life.
E. CM3.5 Controller: Press the controller on/off switch to "ON". The burners will initially operate in the MELT CYCLE mode until the shortening reaches 180°F. It will then automatically switch to normal operation.
F. When the frypot is filled and the shortening is melted, carefully replace the crumb screen over the heat tubes. Wear oil-proof insulated gloves to avoid the potential for burn injury when placing crumb screen in frypot.
G. Before starting operation, set the electronic thermostat/operating thermostat or program the controller to the probable working temperature and wait for the temperature to stabilize.

For additional controller operational procedures, see controller manual that shipped with fryer.

For filtration instructions and troubleshooting, consult the operating manual or instructions provided with the filtration equipment.

3.5 Extending Shortening/Oil Life

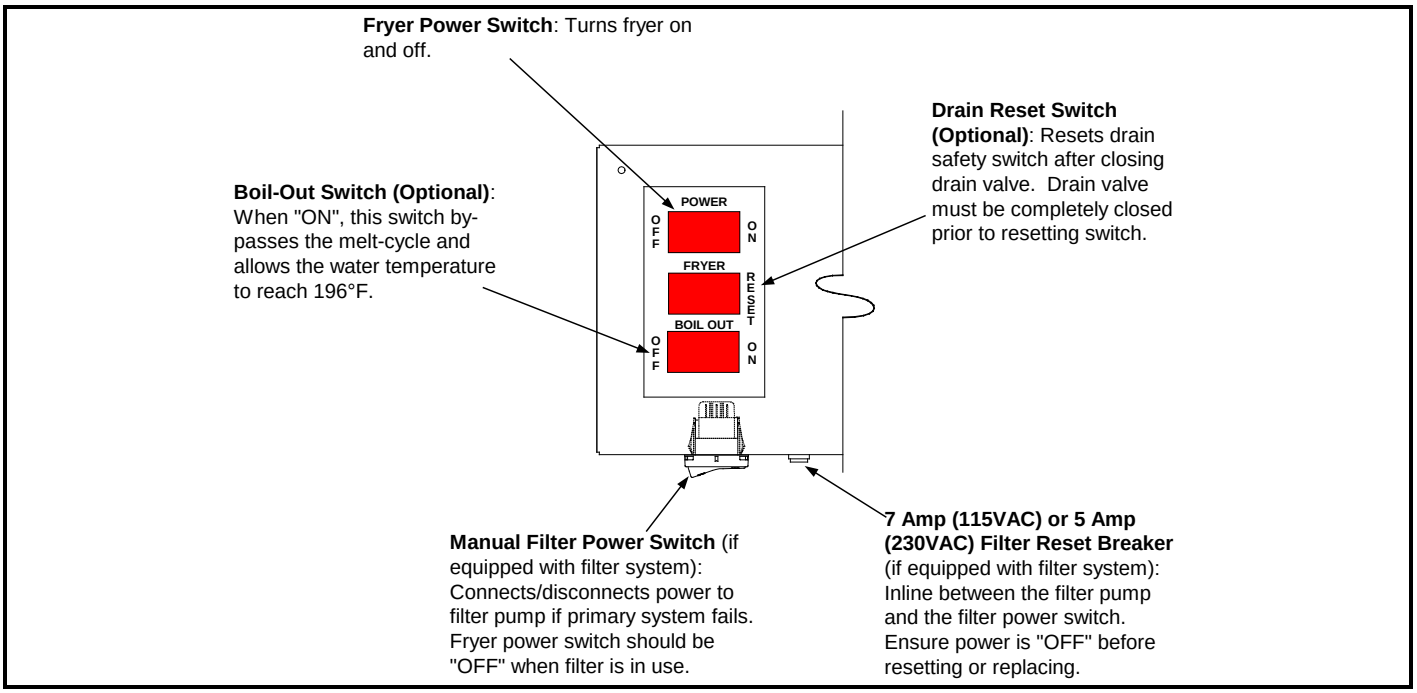
Although 350°F (177°C) is the recommended temperature for most cooking operations, set the fryer at the lowest possible temperature which produces a high-quality product. This ensures maximum life of shortening.

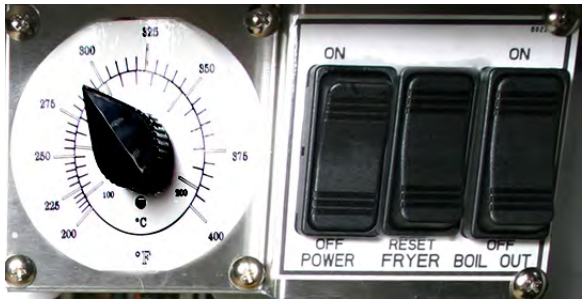
When the fryer is not in use, set the thermostat to a lower temperature from that used during cooking. Light loads may be cooked at lower temperatures. Experiment to determine the optimum temperature and load conditions for various food items being cooked.

POWERRUNNER™ GAS FRYER
CHAPTER 4: THERMATRON OPERATION

4.1 Operating Instructions: Thermatron Controller

PowerRunner™ gas fryers have the optional Thermatron controller, which incorporates a temperature-control circuit board, a potentiometer, and a temperature probe. The potentiometer knob is turned to the desired temperature setting, similar to a standard thermostat. Various switch options for the controller are available, based on fryer options at the time of order. Typical switch options are illustrated below.





Electronic thermostat controller with power switch, reset drain switch and boil-out option.

FRYER POWER SWITCH – This switch turns the fryer on and off. When the power switch is in the "ON" position, the indicator light will be lit when calling for heat.

BOIL-OUT SWITCH (Optional) – When the boil-out switch is "ON", it will bypass the electronic thermostat melt-cycle, and allow the water temperature to reach approximately 196°F (91°C).

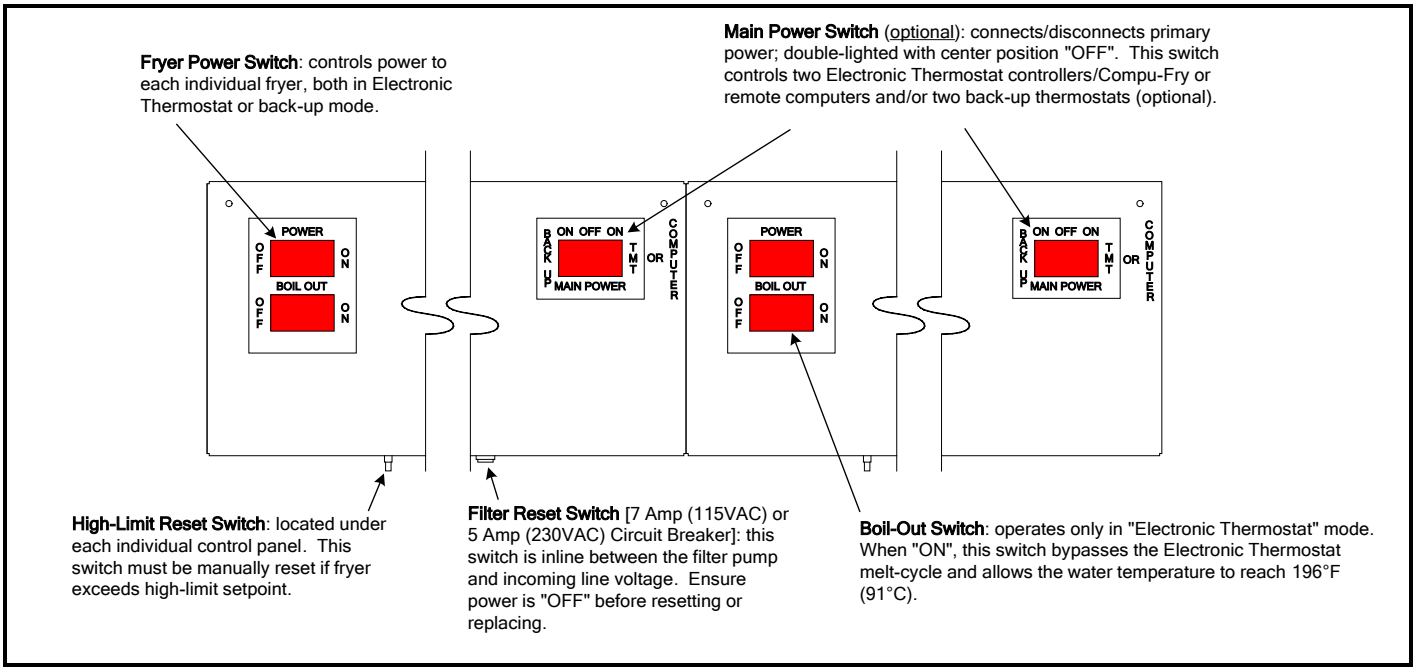
DRAIN RESET SWITCH (Optional) – Resets drain safety switch after draining the fryer. Drain valve must be closed completely before resetting switch.

MANUAL FILTER POWER SWITCH (if equipped with filter system**)** – Controls power to the filter pump in the event the primary system fails. **Fryer Power Switch should be in "OFF" position when in use.**

FILTER RESET BREAKER (7 Amp Circuit Breaker- 120VAC or 5 Amp Circuit Breaker- 230VAC) – the breaker is inline between the filter switch and the pump. Ensure filter power is off prior to resetting or replacing.

5 AMP (115VAC) or 2 AMP (230VAC) FUSE – each fryer circuit is protected by a 5 amp (115VAC) or 2 amp (230VAC) fuse located under the control panel.

4.2 Thermatron Controller with manual high limit



MAIN POWER SWITCH – connects/disconnects primary power; double-lighted with center position "OFF". One main switch controls two electronic thermostats/Compu-Fry or remote computers. When the main power switch is in the center position, power is removed from the two fryers controlled by the electronic thermostats/Compu-Fry or remote computers. When the main power switch is pressed to the right, power is supplied to the electronic thermostat/Compu-Fry or remote computer of each fryer.

INDIVIDUAL FRYER POWER SWITCH – this switch controls power to the individual fryer. When the power switch is in the "ON" position, the indicator light will be lighted when calling for heat. The power switch only removes power from the temperature control circuit (electronic thermostat controller). The power switch should be in the "OFF" position during filtering.

BOIL-OUT SWITCH – **operates only when the electronic thermostat controller is enabled**. When the boil-out switch is "ON", it will bypass the melt cycle, and allow the water temperature to reach approximately 196°F (91°C).

HIGH-LIMIT RESET – this reset button is located under each individual control panel, and must be manually reset if the fryer exceeds high-limit setpoint.

FILTER RESET BREAKER (7 amp circuit breaker- 120VAC, or 5 amp circuit breaker- 230VAC) – the breaker is in line between the filter switch and the pump. Ensure filter power is off prior to resetting or replacing.

5 AMP (115VAC) or 2 AMP (230VAC) FUSE – each fryer circuit is protected by a 5 amp (115VAC) or 2 amp (230VAC) fuse located under the control panel.

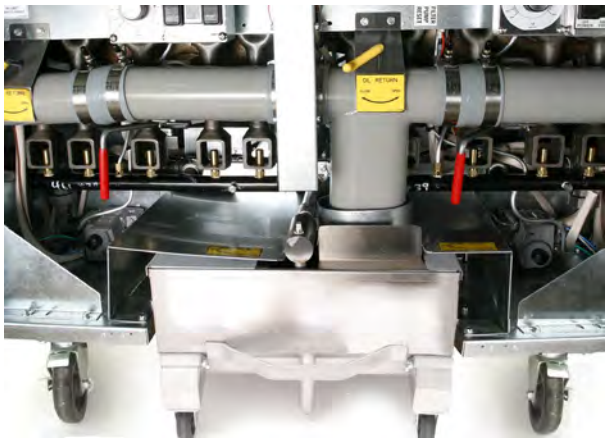
POWERRUNNER™ GAS FRYER
CHAPTER 5: FILTRATION

⚠ WARNING

Drawings and photos used in this manual are intended to illustrate operational, cleaning and technical procedures and may not conform to on-site management operational procedures.

5.1 General

Most systems use filter paper as the filter medium. Some filter systems can be special ordered with a filter-leaf assembly, which eliminates the need for filter paper. Both types require the use of filter powder to enhance the filtration process. Photos used in the procedural illustrations may or may not resemble the filter unit that came with the frying system. The following procedures apply to all fryers equipped with SUFF/UFF filter systems. Filter system design depends on the frying system configuration (single or multi-batteried systems- see photos below).



Typical Under Fryer Filter (UFF) installed in a multi-batteried frying system.

Typical Single Under Fryer Filter (SUFF) installed in a single fryer.

5.2 Filter Preparation

On initial installation and before each use, clean the filter:

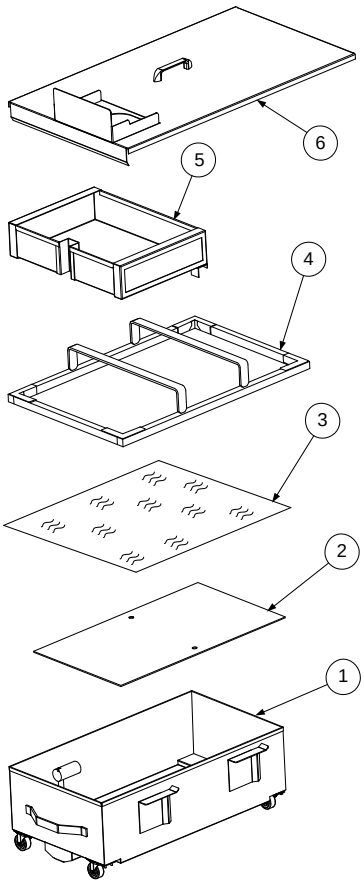
a. Remove all loose parts from the filter,
b. Wash the filter pan and all accessories in hot, soapy water,
c. Dry thoroughly.

5.2.1 Filter Unit Types

5.2.1.1 Filter Paper and Hold Down Ring

Filter paper is held in place by a hold-down ring. Oil moves through the paper, leaving behind impurities.

1. Filter pan.
2. Filter support grid.
3. Filter paper.
4. Hold-down ring.
5. Crumb screen.
6. Filter pan lid.

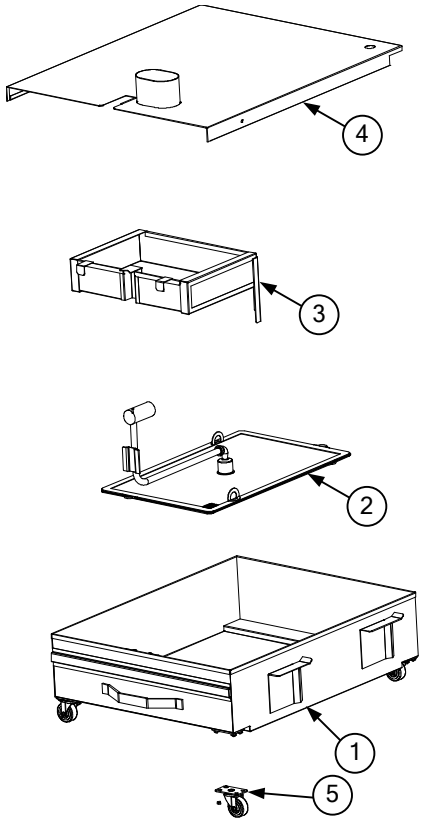


A filter unit which utilizes disposable filter paper to filter oil.

5.2.1.2 Filter Leaf

A filter leaf is a fine mesh screen which is reusable and takes the place of disposable paper. Oil moves through the leaf, leaving behind impurities.

1. Filter pan.
2. Filter leaf.
3. Crumb Screen.
4. Filter pan lid.
5. Caster.

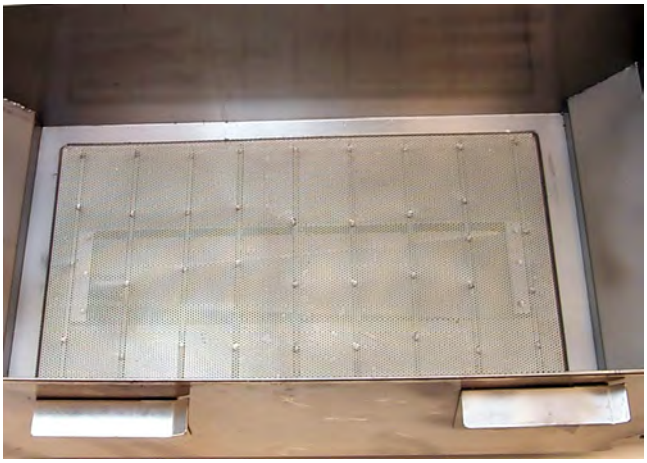


A filter unit which utilizes a filter leaf to filter the oil.

5.2.2 Assembling the Filter

5.2.2.1 Filter Paper and Hold Down Ring

1. Place the support grid in the bottom of filter pan.

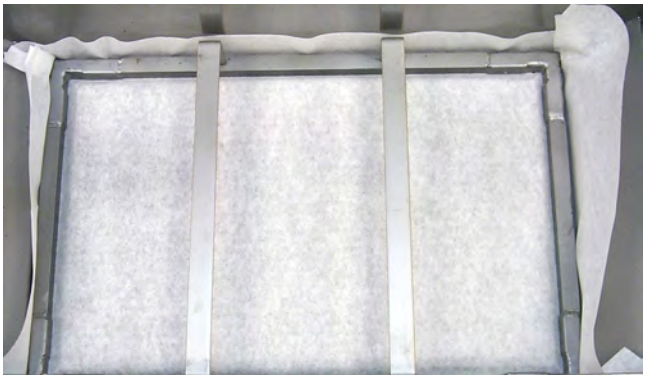


Support grid properly placed in filter pan.

2. Put one filter paper sheet on top of the support grid. Be sure the paper covers the filter pan bottom and laps two inches onto the pan wall.

Ensure filter paper overlaps two inches on all sides and is evenly distributed under the hold-down ring.

3. Position the hold-down ring on top of the filter paper. Ensure the hold-down ring seals around the support grid. This prevents air from getting into the system.



Hold-down ring positioned correctly over filter paper in filter pan.

4. Sprinkle 8 ounces (227g) of filter powder on the filter sheet. Ensure the powder covers the filter paper evenly.

Sprinkle the proper amount of filter powder evenly over the paper.

5. Place the crumb screen in the filter pan. Allow the crumb screen to rest on the top edges of the hold-down ring.

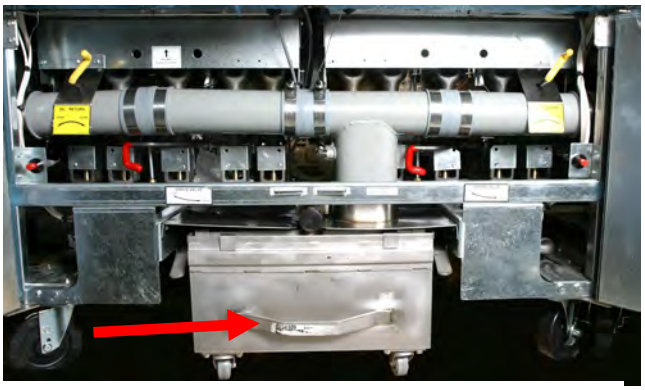
Crumb screen properly placed.

6. Place filter pan cover onto the filter pan assembly. Ensure the pickup tube is properly positioned in the pan lid access hole.

Fully assembled pan with pickup tube properly positioned in pan lid access hole. Position may vary between models.

5.2.2.2 Filter Leaf

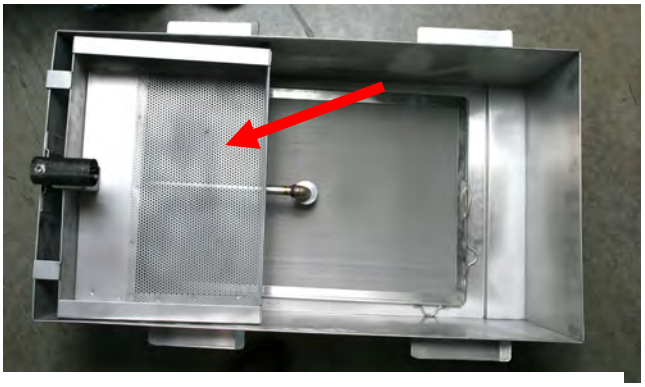
1. Remove the filter pan from the fryer by pulling out on the filter pan handle.



Pull out on the handle to remove the filter pan.

2. Remove the filter pan lid picking it up off of the pan.

3. Remove the crumb basket by lifting it up and out of the filter pan. Be careful not to damage the tubes or connectors in the pan.



Remove the crumb screen by lifting it up and out.

4. Remove the filter leaf by lifting up on the pickup tube and raising the filter leaf assembly gently out of the filter pan.

Carefully remove the filter leaf assembly.

Disassembly

1. Using Figure 1 as a guide, grasp the frame with your thumbs on the handles at the corner of the assembly and pull outward in opposite directions to separate the frame at the corner. Continue to open the frame (it will pivot at the opposite corner) until the outer screens and grid can be removed from the frame.

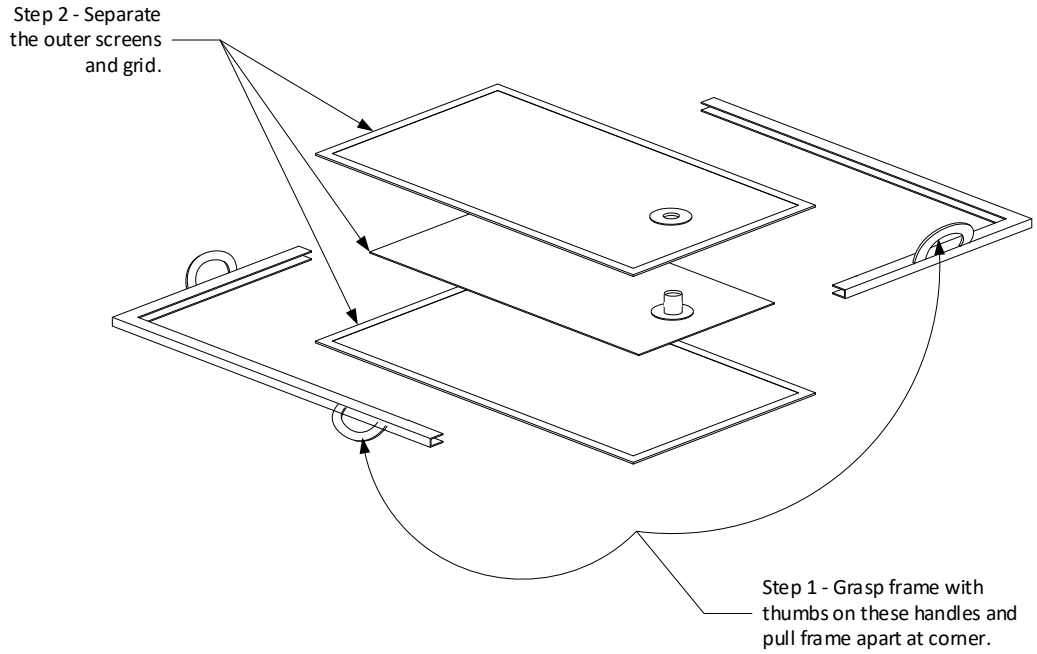


Figure 1

2. Separate the outer screens and grid.

Cleaning

1. **Clean the two frame pieces, outer screens, and grid using a good quality degreaser and hot water from a spray nozzle. The groove in the seal frame pieces can be cleaned with the edge of a Scotch-Brite™ or similar cleaning pad.**
2. **At each scheduled boil-out, disassemble the leaf filter assembly and place in the frypot being boiled out. Follow the boil-out procedure in Section 3.3 of this manual.**
3. **Allow all filter assembly components to air dry or thoroughly dry with clean towels before reassembling.**

Reassembly

1. Using Figure 6 as a guide, place the inner insert screen between the filter screens and place either stainless steel channel onto the screens by placing the small corner with the pin and hinged channel over the other side (see Figure 7). Repeat with second channel. NOTE: Channel must be put back starting with the comer pin.

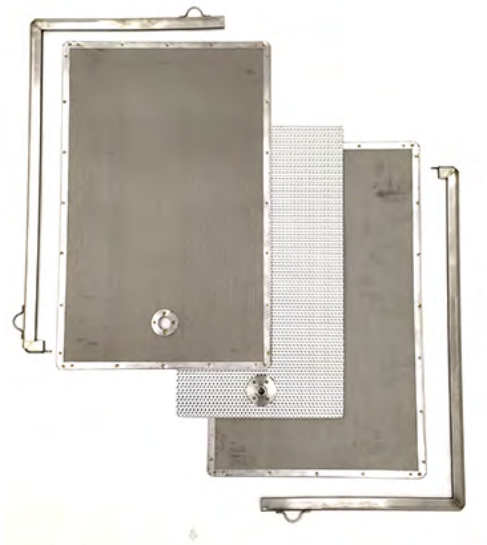


Figure 6

Figure 7

2. If using a filter envelope, insert the assembly into the filter envelope. The rough side of the envelope should face up (see Figure 8).

3. Ensure the fitting is lined up with the opening and fold over the envelope tab (if applicable) (see Figure 9).

4. Carefully screw the pickup tube assembly onto the filter leaf assembly (see Figures 10 and 11).

Figure 8

Figure 9

Figure 10

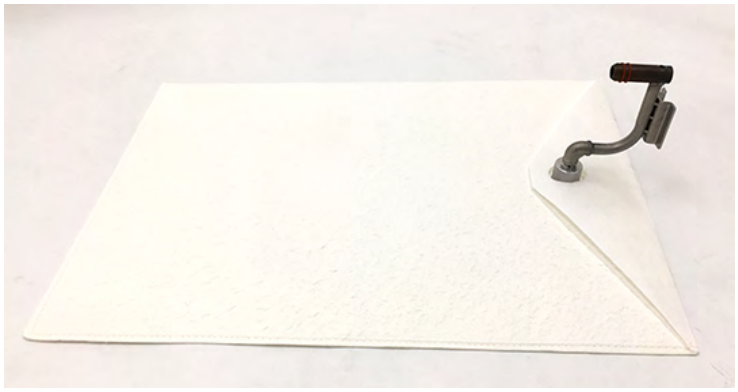
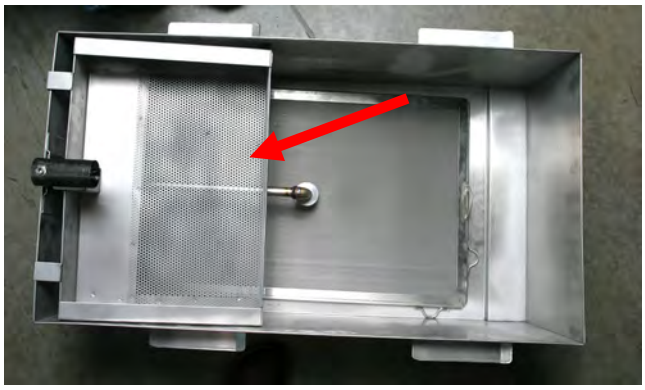


Figure 11

5. When it is clean, place the filter leaf with the filter carefully back into the filter pan.

6. If using filter powder, sprinkle 8 ounces (227g) of filter powder on the filter leaf. Ensure the powder covers the mesh evenly.

7. Replace the crumb tray in the pan.



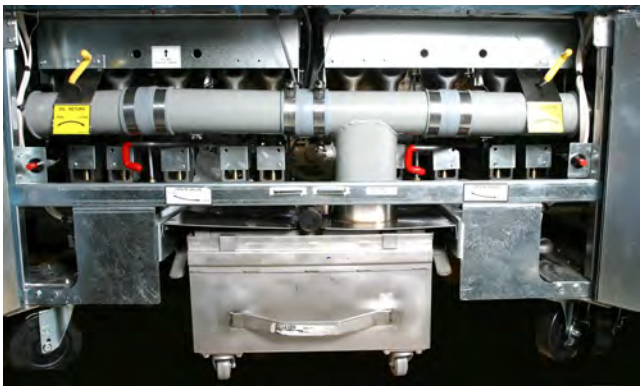
Crumb screen properly placed in filter pan.

8. Replace the pan lid. Ensure the pickup tube is properly positioned in the pan lid access hole.

Fully assembled pan with pickup tube properly positioned in pan lid access hole. Position may vary between models.

5.2.3 Installing the Filter

Slide the filter inside the fryer cabinet. Ensure the male-female pickup tubes are fully engaged. Ensure the filter pan opening is directly under the center dump tube.



The filter pan slides under the fryer (left), connecting with a male connector (right). Ensure that the pickup tube is securely coupled with this connector. Its location may vary based on model. Inspect the filter pan connection fitting to ensure that both O-rings are present and in good condition.

5.3 Daily Filter Operation

⚠ WARNING

Use caution and wear proper protective clothing. The oil to be filtered is at or near 350°F (177°C). Ensure all hoses are connected properly and drain handles are in their proper position prior to operating any switches or valves. Failure to do this can result in severe burns.

⚠ WARNING

Drawings and photos used in this manual are intended to illustrate operational, cleaning and technical procedures and may not conform to on-site management operational procedures.

5.3.1 General Overview

Only filter oil at operating temperature (~350°F/~177°C). When filtering begins, the filter motor engages, and oil is drawn through filter paper or a filter-leaf assembly and pumped back into the frypot through oil return plumbing or an optional filter wand. The frypot's drain remains open during the filtering process, allowing oil to filter through the frypot and back into the filter unit. Allow the oil to cycle through this process for approximately 5 minutes. At the end of 5 minutes, close the drain valve and allow the frypot to fill to the top OIL LEVEL line. Leave the pump running for 10-15 seconds after bubbles appear in the frypot or the optional wand sputters to ensure all oil is pumped from the drain pan and the lines. Close the oil return valve and, if an optional filter wand is used, press the wand toggle switch to OFF position.

5.3.2 Filtering Tools

Assemble tools to be used for filtering. These are supplied with the filter starter kit included with the fryer/filter system:

- Frypot/Filter Brush - used to clean frypot and filter pan sides and bottom, heating elements, and to dislodge sediment during filtration or oil change.
- Clean-out Rod (design may vary) - used to dislodge heavy debris in the drain tube (when needed).
- Filter Powder.
- Filter Paper (not used in filter-leaf equipped filter systems).

The following tools are not required but are recommended to make the filtering task easier.

- Measuring Cup - used to measure filter powder.
- Stainless Steel Crumb Scoop - for removing large debris from oil prior to filtering.

> Note: Always wear oil-resistant, insulated gloves and/or protective gear when working with hot oil.

5.4 Operating the Filter

5.4.1 Pan Preparation and Operation

See Section 5.2.2, *Assembling the Filter*, and Section 5.2.3, *Installing the Filter*, for the appropriate filter preparation procedure. For optional filter hose and wand, see Section 5.4.3, *Optional Filter Hose and Wand Operation*.

> **⚠ CAUTION**
> **NEVER operate the filter unit unless cooking oil is at operating temperature (~350°F/ ~177°C).**

1. Ensure the filter pan assembly is prepared as described in Section 5.2.2, *Assembling the Filter*, and ensure fryer is turned off.
2. Remove fry baskets from frypot and skim any large debris from the oil (see Figure 1). Use extreme caution, as oil is at or near operating temperature (~350°F/~177°C).
3. Remove the support grid from the frypot using the clean-out rod (see Figure 2). Stir the oil with the frypot/filter brush to suspend debris prior to draining.
4. After ensuring the filter pan is correctly positioned under the drain tubes, move the red handle to the open position (right) to drain the frypot into the filter pan (see Figure 3). **Drain ONLY one frypot at a time. The filter pan is designed to hold the contents of one frypot only.**

Figure 1

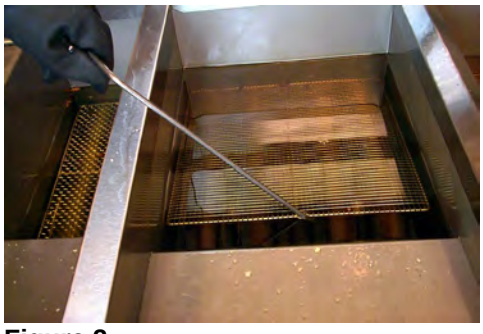


Figure 2

Figure 3

5. After all oil has drained from the frypot into the filter pan, pull the yellow handle (see Figure 4) to open the oil return lines and activate the filter pump. Leave the red handle in the open position.

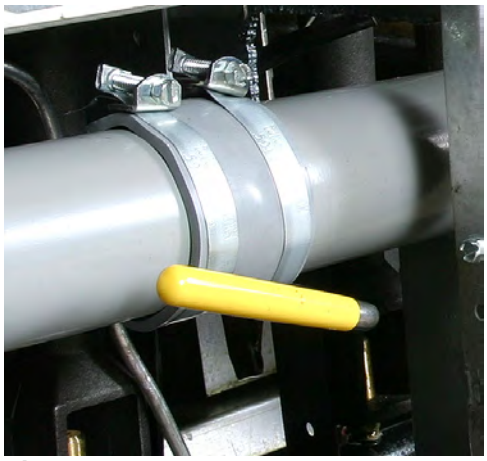


Figure 4

NOTE: A drain-flush option is available on some 3-battery and larger frying systems, according to model. The drain-flush prevents sediment from clogging the drain line in multi-battery systems. After draining the third (or fourth) frypot, close the drain valve (red handle) to all frypots. Ensure all other valves (red and yellow handles) are closed. Pull the blue handle to open the flush valve. After the drain line is clear of sediment (approximately 2 minutes), push the blue handle to close flush valve. Re-open the drain valve (red handle) on the drained frypot and continue with Step 5.

5.4.2 Filter Operation

6. Oil will begin to pump from the filter pan into the frypot. If the frypot tubes, sides and bottom have sediment deposits, clean the frypot with the cleaning brush included with the fryer (see Figure 5). Clean beneath and under the burner tubes, using care not to disturb the probes (arrow).

Figure 5

7. Allow the oil to circulate for approximately 5 minutes (process known as "polishing") to remove suspended particles (see Figure 6).

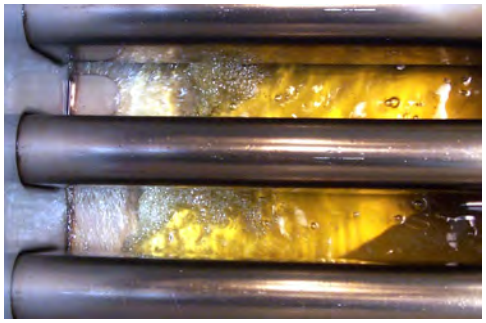


Figure 6

8. After the filter cycle is complete, close the drain valve (push the red handle to the left until it stops) (see Figure 7) and allow the fryer to refill (see Step 4 above for additional reference).

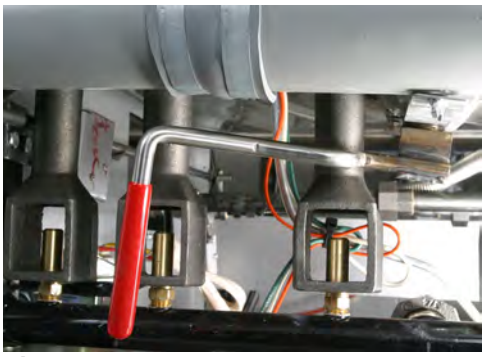


Figure 7

9. After all oil is pumped back into the frypot, bubbles will form, indicating air in the oil return lines (see Figure 8). Allow the oil to bubble for 10-15 seconds to ensure all oil is evacuated from the return lines. Push the yellow handle to close the oil return valve and deactivate the filter pump (see Step 5 above for additional reference).

Figure 8

10. If the oil level is low, add oil until the level is at the top OIL LEVEL line (see Figure 9).

DO NOT OVERFILL THE FRYPOT. This may cause oil to splash out of the frypot during cooking and may cause burns or damage.

Figure 9

11. Replace the frypot grid (see Figure 10), using care not to splash hot oil. Turn the fryer on.
12. Do not allow crumbs to accumulate in the crumb tray (see Figure 11). The crumb tray MUST be emptied into a fireproof container at the end of frying operations EACH DAY (see DANGER statement below).

Figure 10

Figure 11

⚠ DANGER

The crumb tray in fryers equipped with a filter system must be emptied into a fireproof container at the end of frying operations each day. Some food particles can spontaneously combust if left soaking in certain shortening material.

⚠ WARNING

Do not bang fry baskets or other utensils on the fryer's joiner strip. The strip is present to seal the joint between the fry vessels. Banging fry baskets on the strip to dislodge shortening will distort the strip, adversely affecting its fit. It is designed for a tight fit and should only be removed for cleaning.

5.4.3 Optional Filter Hose and Wand Operation

Some frying systems come equipped with an optional filter hose, wand, and toggle switch to facilitate the removal of debris from the frypot. The hose attaches to a no quick-disconnect on the bottom front of the fryer and is controlled using a toggle switch on the fryer control panel.

1. Ensure the oil is at operating temperature (~350°F/~177°C). Turn the fryer off and open the fryer drain valve (see Figure 12). Allow the oil to drain into the filter pan.

Figure 12

2. When all the oil has drained from the frypot, connect the hose/wand assembly to the quick-disconnect on the front bottom of the fryer cabinet (see Figure 13). Ensure the hose is properly connected before proceeding.

Figure 13

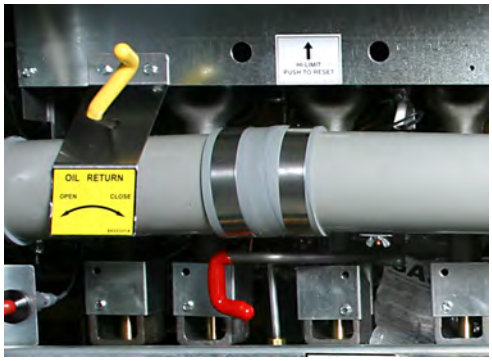
3. Place the wand into the open frypot and activate the filter with the wand/disposal switch (rocker switch) on the front of the cabinet (see Figure 14).

Figure 14

⚠ WARNING

DO NOT PROCEED UNLESS THE WAND IS INSIDE THE FRYPOT. Hot oil can immediately flow from the wand when it is attached, causing burns if the wand is not in the frypot.

4. The oil will start to flow immediately into the frypot. **Keep the wand inside the frypot at all times while the filter pump is activated.**
5. Rinse debris from the frypot into the filter pan with the wand (see Figure 15). Always maintain a firm grip on the wand handle. When cleanup is complete, close the drain valve (red handle) and press the wand/disposal switch to OFF. Allow hose/wand to drain into the filter pan.
6. Disconnect the hose/wand from the fryer. Hang up to allow any additional shortening to drain from the hose to prevent clogging.



The red handle is attached to the drain valve. The yellow handle is attached to the oil return valve.

Figure 15

5.5 Complete Filtering

1. Refill the frypot by pulling the yellow handle to open the oil-return valve (see Figure 16) (this activates the filter pump automatically).
2. After the frypot refills, allow the oil to bubble for 10-15 seconds to ensure evacuation of all oil from the oil return lines. Push in the yellow handle to close the oil-return valve and de-activate the filter pump. Filtration is complete. Filter another frypot or return the fryer to operation.

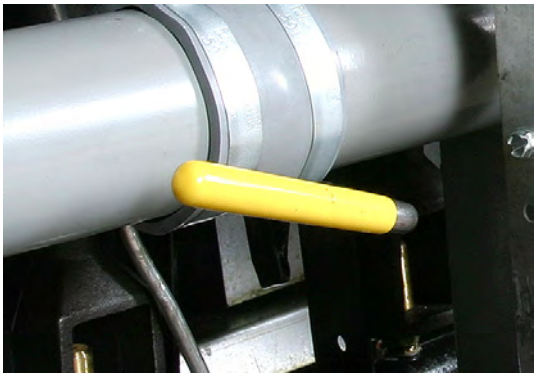


Figure 16

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