BID80 Series Gas Fryers

Installation & Operation Manual

BID80 Series With Built-In Filtration

PARTS LIST INCLUDED

Frymaster

CFESA

Frymaster, a member of the Commercial Food Equipment Service Association, recommends using CFESA Certified Technicians.

24-Hour Service Hotline 1-800-551-8633

Price: $8.00

819-5896
APRIL 2002

Please read all sections of this manual and retain for future reference.

This product has been certified as commercial cooking equipment and MUST be installed by professional personnel as specified. Installation, maintenance and repairs should be performed by your FRYMASTER FACTORY AUTHORIZED SERVICE CENTER.

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

⚠ CAUTION
Instructions explaining procedures to be followed MUST be posted in a prominent location in the event the operator detects a gas leak. This information can be obtained from the local gas company or gas supplier.

⚠ 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.

⚠ WARNING
Safe and satisfactory operation of your equipment depends on proper installation. Installation MUST conform with local codes, or in absence of local codes, with the National Fuel Gas Code, ANSI Z223.1; The Natural Gas Installation Code, CAN/CGA-B149.1; The Propane Installation Code, CAN/CGA-B149.2; or The latest edition of the National Electric Code, N.F.P.A. 70.

⚠ CAUTION
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. Additional information can be obtained in the filtration manual included with the system.

⚠ 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.

⚠ 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.

⚠ WARNING

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.

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 Food and Drug Administration.

COMPUTERS

FCC

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.

Cet appareil numerique n'emet pas de bruits radioelectriques depassany les limites de classe A et B prescrites dans la norme NMB-003 edictee par le Ministre des Communcations du Canada.

⚠ DANGER

THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND/OR BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

Operation, installation, and servicing of this product could expose you to airborne particles of glasswool or ceramic fibers, crystalline silica, and/or carbon monoxide. Inhalation of airborne particles of glasswool or ceramic fibers is known to the State of California to cause cancer. Inhalation of carbon monoxide is known to the State of California to cause birth defects or other reproductive harm.

⚠ CAUTION

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.

BID80 Series Gas Fryers
Installation & Operation Manual

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BID80 SERIES GAS FRYERS
CHAPTER 1: INTRODUCTION

1.1 After Purchase

In order to improve service, have the following chart filled in by the Frymaster Authorized Service Technician who installed this equipment.

Authorized Service Technician/FASC	_____
Address	_____
	_____
Telephone/Fax	_____
Model Number	_____
Serial Number	_____
Gas Type	_____

1.2 Ordering Parts

Customers may order parts directly from their local factory authorized service center. For this address and phone number, contact your factory authorized service center or call the Frymaster Service Hotline phone number, 1-800-551-8633.

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

1.3 Service Information

Call the Frymaster Service Hotline, 1-800-551-8633, for the location of your nearest factory authorized service center. To assist you more efficiently, always provide the service technician with the model number, gas type, serial number, and the nature of the problem.

1.4 Computer Information

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 his own expense.

1.4 Computer Information (cont.)

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.

1.5 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 below.

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

⚠ CAUTION
Example of a CAUTION box.

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.

⚠ WARNING
Example of a WARNING box.

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.

⚠ DANGER
Hot cooking oil causes severe burns. Never attempt to move a fryer containing hot cooking oil or to transfer hot cooking oil from one container to another.

BID80 SERIES GAS FRYERS
CHAPTER 2: IMPORTANT INFORMATION

2.1 Product Description

Frymaster BID80 Series gas fryers are energy-efficient, tube-style, gas-fired units, design-certified by the International Approval Services (AGA/CGA), National Sanitation Foundation (NSF), and manufactured to their basic performance and application specifications.

All units are shipped completely assembled with accessories packed inside the fryer vessel. All units are adjusted, tested and inspected at the factory before shipment. Sizes, weights and input rates of all models are listed in this manual.

NOTE: The on-site supervisor is responsible for ensuring that operators are made aware of inherent dangers of operating a deep fat fryer, particularly aspects of oil filtration, draining, and cleaning of the fryer.

2.2 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 by the pilot light. Internal diffusers slow the flame as it goes through the burner tube. This slower and more turbulent flame gives much better heat transfer to the walls of the tubes, thereby heating the oil better.

2.3 Rating Plate

This is attached to the inside right-hand corner of the front door panel. Information provided includes the model and serial number of the fryer, BTU/hr input of the burners, outlet gas pressure in inches W.C. (mbars) and whether the unit has natural or propane gas orifices.

⚠ DANGER

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

2.4 Pre-Installation

A. **General**: Only a licensed gas fitter should install any gas-fired equipment.

1. 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.

2.4 Pre-Installation (cont.)

2. Frymaster BID80 Series gas fryers require 120VAC 60 cycle or 230VAC single-phase 50-hertz (International/CE) 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.

B. **Clearances**: The fryer area must be kept free and clear of all combustibles. This unit is design-certified for the following installations:

1. Commercial installation only (not for household use).

2. Non-combustible floor installation equipped with factory-supplied 6-inch (15-cm) adjustable legs or 5-inch (13-cm) casters;

3. Combustible construction with a minimum clearance of 6-inches (15-cm) side and 6-inches (15-cm) rear, and equipped with factory-supplied 6-inch (15-cm) adjustable legs or 5-inch (13-cm) casters.

⚠ CAUTION
Local building codes usually prohibit a fryer with its open tank of hot oil from being installed beside an open flame of any type, whether a broiler or the open burner of a range.

C. **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	CAN 1-B149 Installation Codes Canadian Gas Association 55 Scarsdale Road Don Mills, ONT, M3B 2R3
National Electrical Code ANSI/NFPA #70 American National Standard Institute 1430 Broadway New York, NY 10018	Canadian Electric Code c22.1, part 1 Canadian Standards Association 178 Rexdale Blvd. Rexdale, ONT, M9W 1R3
NFPA Standards #96 and #211 National Fire Protection Association 470 Atlantic Avenue Boston, MA 02110	

2.4 Pre-Installation (cont.)

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.

2.5 Air Supply and Ventilation

Keep the area around the fryer clear to prevent obstruction of combustion and ventilation airflow as well as for service and maintenance.

A. Do not connect this fryer to an exhaust duct.

B. Correct installation and adjustment will ensure adequate airflow to the fryer system.

C. 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, or an exhaust fan must be provided in the wall above the unit, 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.

D. 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.

E. Never use the interior of the fryer cabinet for storage or store items on shelving over or behind the fryer. Exhaust temperatures can exceed 425ºC and may damage or melt items stored in or near the fryer.

F. Adequate distance must be maintained from the flue outlet of the fryer(s) to the lower edge of the filter bank. Per NFPA Standards No. 96, a minimum of 18-inches (45-cm) should be maintained between the flue(s) and the lower edge of the exhaust hood filter.

G. Filters and drip troughs should be part of any industrial hood, but consult local codes before constructing and installing any hood. The duct system, the exhaust hood and the filter bank must be cleaned on a regular basis and kept free of grease.

2.6 Equipment Installed at High Altitudes

A. The fryer input rating (BTU/hr) is for elevations up to 2,000 feet (610-m). For elevations above 2,000 feet (610-m), the rating should be reduced four percent for each additional 1,000 feet (305-m) above sea level.

B. The correct orifices are installed at the factory if operating altitude is known at time of the customer's order.

2.7 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.

If your equipment arrives damaged:

1. File claim for damages immediately, regardless of extent of damage.
2. Visible loss or damage: Be sure this is noted on the freight bill or express receipt and is signed by the person making the delivery.
3. Concealed loss or damage: If damage is unnoticed until equipment is unpacked, notify freight company or carrier immediately, and file a concealed damage claim. This should be done within 15 days of date of delivery. Be sure to retain container and all packing materials for inspection.

NOTE: Frymaster Does Not Assume Responsibility for Damage or Loss Incurred in Transit.

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.

BID80 SERIES GAS FRYERS
CHAPTER 3: INSTALLATION

3.1 Installing the Fryer

A. Initial Installation: If the fryer is installed with legs, do not push the fryer to adjust its position. Use a pallet or lift jack to lift the fryer slightly, then place the fryer where it is to be installed.

B. Relocating the fryer: Remove all weight from each leg before moving a fryer with legs installed. Do not slide the fryer on the legs.

C. If a leg becomes damaged, contact your service agent for immediate repair/replacement.

3.2 Leveling the Fryer (fryers equipped with legs only)

A. **All Installations**: If the floor is uneven or has a definite slope, it is recommended to place the fryer on an even platform.

B. Place a spirit level across the top of the fryer and level the unit both front-to-back and side-to-side. If it is not level, the unit may not function efficiently, the oil may not drain properly for filtering and in a line-up it may not match adjacent units.

C. Adjust to the high corner and measure with the spirit level. If floor is uneven, level the unit with the screw adjustments on each leg (**ensure minimum clearances as discussed in Chapter 2 are maintained during the leveling procedure**).

D. **Re-leveling**: If the fryer is moved, re-level the fryer following the above instructions.

E. The install must be reviewed at the time of installation to ensure it meets the intent of these instructions.

⚠ 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 shortening 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.

3.3 Installing Casters and Legs

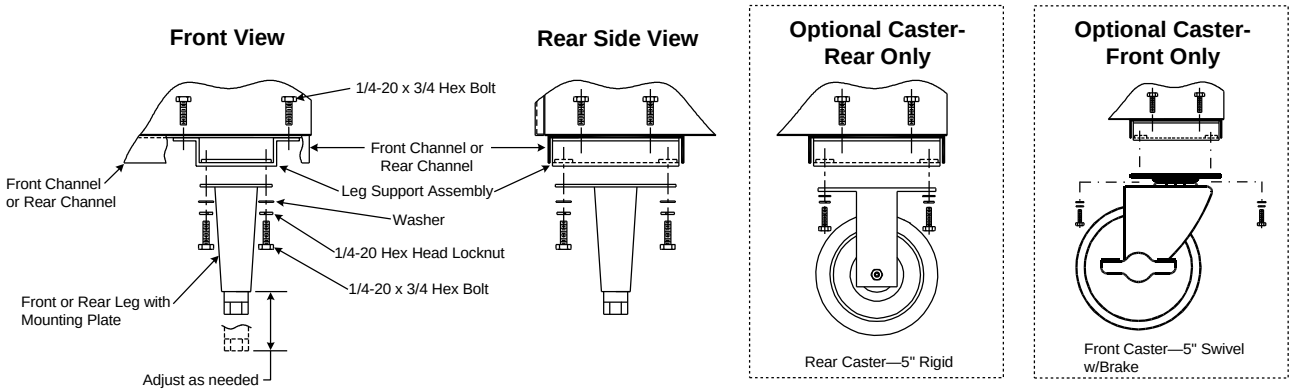
A. Install casters and/or legs near where the fryer is to be used, as neither is secure for long transit. BID80 Series gas fryers cannot be curb mounted and must be equipped with either legs or casters provided.

B. After unpacking, use a pallet or lift jack to raise the unit before installing the casters.

C. Align the caster or leg base holes with the leg support assembly and insert bolt. Install the washers and nut hand tight, and repeat for all four holes in caster/leg base assembly.

D. Tighten the caster/leg against the leg support assembly by using appropriate tools. Ensure that all four bolts are evenly tightened.

E. **For fryers <u>with casters</u>, there are no built-in leveling devices**. The floor where the fryers are installed must be level.



Caster/Leg Installation and Adjustment

⚠ WARNING

Frymaster 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, Frymaster optional equipment casters must be used.

Questions? Call 1-800-551-8633

3.4 Gas Connections

A. The gas supply (service) line must be the same size or greater than the fryer inlet line. This fryer is equipped with a 3/4" (19 mm) male inlet. The gas supply line must be sized to accommodate all the gas-fired equipment that may be connected to that gas supply. Consult your contractor, gas company, supplier, or other knowledgeable authorities.

Recommended Gas Supply Line Sizes			
Gas Types	**Number of Fryers**		
	1	2 to 3	4 or more (*)
Natural Gas	3/4" (19 mm)	1" (25 mm)	1 1/4" (33 mm)
Propane Gas	1/2" (13 mm)	3/4" (19 mm)	1" (25 mm)
(*) When exceeding 18 feet (6 meters) for a configuration of more than four fryers, it is necessary to provide a 1 1/4" (33 mm) rigid gas connection.			

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

B. Rigid Connections: Check any installer-supplied intake pipe(s) visually and clean threading chips, or any other foreign matter before installing into a service line. If the intake pipes are not clear of all foreign matter, the orifices will clog when gas pressure is applied. Seal pipe joints with a sealant resistive to LP gas. When using thread compound on gas piping, use very small amounts and only on male threads. Use a pipe thread compound that is not affected by the chemical action of LP gases. DO NOT apply thread compound to the first two pipe threads—doing so will cause clogging of the burner orifices and control valve.

C. Manual shut-off valve: This gas service supplier-installed valve must be installed in the gas service line ahead of the fryers in the gas stream and in a position where it can be reached quickly in the event of an emergency.

D. Regulating Gas Pressure: The fryer and shut-off valve must be disconnected from the gas supply during any pressure testing of the system.

1. 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 will be required**.

3.4 Gas Connections (cont.)

⚠ CAUTION

The fryer must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at pressures equal to or less than ½ PSI (3.45 kPa/35 mbar).

The fryer and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of the gas supply system at test pressures in excess of ½ PSI (3.45 kPa/35 mbar).

E. Manifold Pressure: Only qualified personnel should check the manifold pressure with a manometer**.**

1. Check the rating plate for manifold gas pressures. Natural gas units normally require 4" W.C., and propane units normally require 11" W.C. gas pressure.
2. Double check the arrow forged into the bottom of the regulator body, which shows gas flow direction. It should point downstream towards the fryers. The air vent cap is also part of the regulator and should not be removed.
3. 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).

⚠ WARNING

Use a diluted soap solution to find potentially dangerous gas leaks when making new connections.

F. Regulators can be adjusted in the field, but it is recommended that they not be tampered with unless the part is known to be out of adjustment or serious pressure fluctuations are found to exist and can be solved no other way.

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

H. 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 any adjustments with the proper test equipment.

3.4 Gas Connections (cont.)

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

I. Flexible Couplings, Connectors and Casters:

1. If the fryer is to be installed with flexible couplings and/or quick-disconnect fittings, the installer must use a heavy-duty AGA design-certified commercial flexible connector of at least 3/4" NPT (with suitable strain reliefs), in compliance with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69-(latest edition) and Addenda Z21.69a-(latest edition). Quick disconnect devices must comply with the Standard for Quick-Disconnect Devices for Use with Gas Fuel, ANSI Z21.41-(latest edition).

⚠ WARNING
Do not attach accessories to this fryer unless fryer is secured from tipping. Personal injury may result.

2. The fryer must be restrained by means independent of the flexible coupling or connector in order to limit the movement of the fryer. Clips are located on the back panel of the fryer for the attachment of restraints.

3. If disconnection of the restraint is necessary, this restraint must be reconnected after the fryer has been returned to its originally installed position.

J. After hook-up, bleed the gas line of air to ensure that the pilot light will ignite quickly.

K. CE Standards: If the unit is to be installed with flexible coupling, use a commercial flexible coupling certified as NF D 36123 (or other national standard) or a quick disconnect device certified NF D 36124 (or other national standard).

3.5 Electrical Connections

The fryer when installed must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70-(latest edition).

⚠ WARNING

This fryer is equipped with a three-prong (grounding) plug for protection against shock hazard. It should be plugged directly into a properly grounded, three-prong receptacle. DO NOT CUT, REMOVE, OR OTHERWISE BYPASS THE GROUNDING PRONG ON THIS PLUG.

The rating plate and wiring diagram are located inside the front door. The fryer is equipped with a 120VAC single-phase 60-hertz system (Domestic), or 230VAC single-phase 50-hertz system (International/CE). Do not cut or remove the ground prong from the power cord plug. Do not attempt to use the fryer during a power outage.

BID80 SERIES GAS FRYERS
CHAPTER 4: FRYER OPERATIONS

4.1 Initial Start-up

A. Cleaning: New units are wiped clean with solvents at the factory to remove any visible signs of dirt, oil, grease, etc. remaining from the manufacturing process, 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 vessel are tight.

⚠ CAUTION
Do not bang fry baskets or other utensils on the fryer's joiner strip (if applicable). 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.

4.1.2 Pilot Lighting Procedures, Electronic Ignition Systems

⚠ 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.

⚠ 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/computer.

3. The electric module will turn on the pilot gas supply and the electric ignition spark. The spark will ignite the pilot gas. The presence of the pilot flame is then proved by the electric flame sensor, which in turn allows the main gas supply to be turned on. The operating thermostat or computer/controller controls the fryer after ignition.

⚠ 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 them back "ON" after power has been re-established.

4.1.2 Pilot Lighting Procedures

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, then turn the power "ON" again. Repeat Steps 1-3.

4.2 Boil-Out Procedure

⚠ 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 to control this condition.

⚠ CAUTION
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, and all applicable warranties will be voided.

⚠ CAUTION
All drops of water MUST be removed from fry vessel before filling with cooking oil. Do not turn fryer on to dry…extensive damage will occur to fry vessel and burner tubes, and ALL applicable warranties will be voided.

A. Before switching the fryer(s) "ON", close the fry-vessel drain-valve(s). Fill the empty fry vessel with a mixture of cold water and boil-out solution. Follow instructions when mixing.

B. To program computer for Boil Feature, press either ⓘ switch.

C. Press the ☑ switch. CodE will appear in the left display.

D. Enter 1 6 5 3 (1 6 5 3) in that sequence. The right display will read boIL. The temperature is automatically set for 195°F (91°C). The fryer will attain this temperature and remain there until either ⓘ switch is pressed, which cancels the boil-out mode. In high-altitude locations, constantly monitor the fryer for over boil. If over-boil occurs, turn off fryer immediately, allow to cool, and re-enter boil-out mode to continue the boil-out operation.

4.2 Boil-Out Procedure (cont.)

E. 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 fry vessel and the tubes with the L-shaped Teflon brush, being careful not to disturb the temperature sensing probes and the high-limit thermostat.

F. Do not allow the water level to decrease below the bottom OIL LEVEL line in fry vessel during boil-out operation.

G. After boil out is complete, press the ⏻ switch to turn fryer off, and then drain the solution from the fry vessel. Place a metal pan or bucket under the drain port to collect the water from the fry vessel. DO NOT ALLOW BOIL-OUT SOLUTION TO DRAIN INTO FILTER PAN!

H. Close the drain, add fresh water (without boil-out solution) and wash all surfaces of the fry vessel. Drain again.

I. Refill the fry vessel with fresh water and vinegar to neutralize any residual boil-out solution. Wash all surfaces of the fry vessel. Drain completely and wipe down all surfaces of the fry vessel to completely eliminate water from the vessel.

4.3 Final Preparation

⚠ WARNING

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 container. Hot oil can melt plastic buckets and crack glass containers.

⚠ WARNING

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

A. When using a liquid shortening (cooking oil), fill the fryer to the bottom OIL LEVEL line scribed into the back of the fryer vessel.

4.3 Final Preparation (cont.)

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

C. Press the ⏻ switch to turn fryer on. The burners will initially operate in the MELT CYCLE mode until the shortening reaches 180°F (82°C). It will then automatically switch to normal operation.

D. When the fry vessel is filled and the shortening is melted, carefully replace the frypot crumb screen over the heat tubes. Wear oil-proof insulated gloves to avoid the potential for burn injury when replacing crumb screen.

E. Before starting operation, program the computer to the probable working temperature and wait for the temperature to stabilize.

BID80 SERIES GAS FRYERS
CHAPTER 5: BUILT-IN 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

Frymaster BID80 Series fryers come equipped with a built-in filtration system. Photos used in the procedural illustrations may differ slightly from the filter unit that came with the frying system. The following procedures apply to all BID80 Series fryers equipped with built-in filter systems.

Typical built-in filter installed in a single fryer unit.

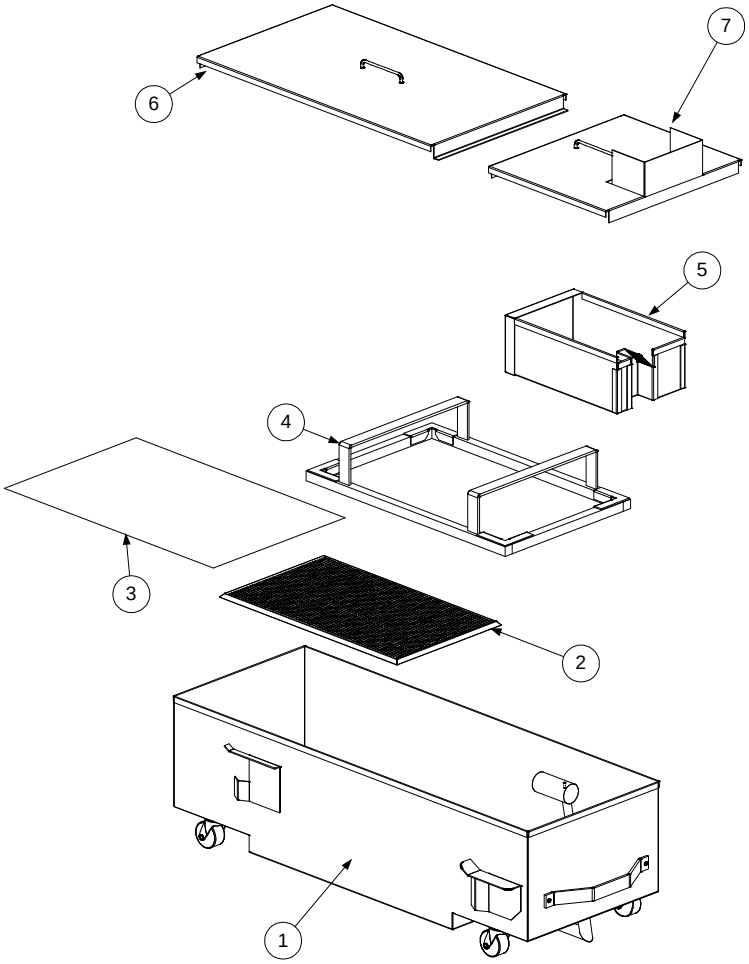
5.2 Filtration Preparation

On initial installation and before each use, remove all loose parts from the filter, wash the filter pan and all accessories in hot, soapy water and dry thoroughly.

5.2.1 Assembling the Filter

The BID80 Series filter system uses filter paper held in place by a hold-down ring to filter impurities and debris from the cooking medium. The filter pan is assembled with the following components (see illustration below):

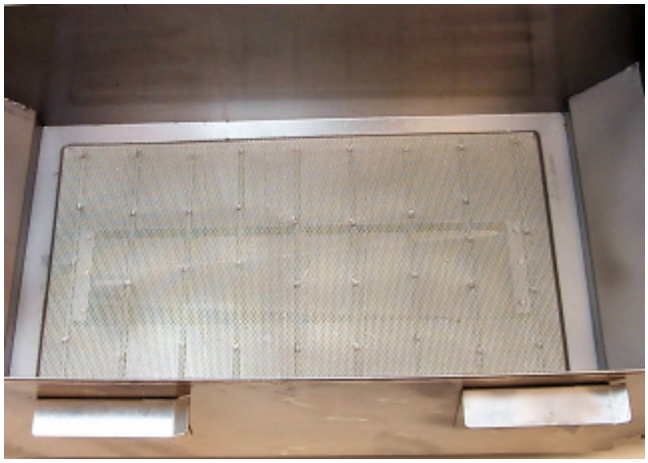
1. Filter pan.
2. Filter support grid.
3. Filter paper.
4. Hold-down ring.
5. Crumb screen.
6. Rear pan cover.
7. Front pan cover.



5.2.1 Assembling the Filter (cont.)

Assemble the filter as follows:

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

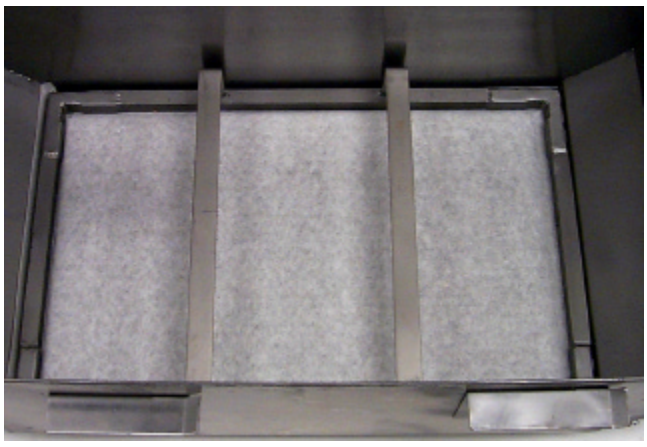


Support grid properly placed in filter pan.

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.

5.2.1 Assembling the Filter (cont.)

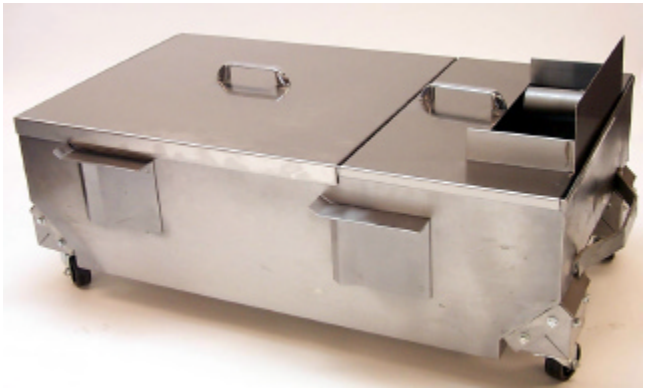
4. Sprinkle 8 ounces of filter powder on the filter sheet. Ensure the powder covers the filter paper evenly.

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.

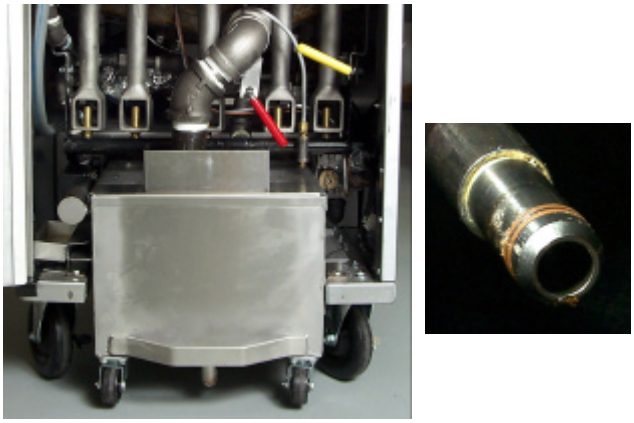
6. Place filter pan covers (2) onto the filter pan assembly. Ensure the front cover is correctly positioned over the slip fitting.



Fully assembled pan with proper placement of lid over slip fitting.

5.2.2 Installing the Filter

Slide the filter inside the fryer cabinet. Ensure the male-female slip-fitting coupling is fully engaged.



The filter pan slides under the fryer (left), connecting with a slip fitting (right). Slip fitting location will vary (above or to the side of the filter pan), according to fryer system.

5.3 Daily Filtration 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

The filter pump is turned on only after the shortening/oil is brought to operating temperature and drained into the prepared filter pan. The filter motor is then engaged and oil is drawn through filter paper and pumped back into the fry vessel. The fry vessel's drain remains open during the filtering process. Allow the oil to cycle through the filter paper for approximately 5 minutes. At the end of 5 minutes, close the drain valve and allow the pump to fill the fry vessel to the top OIL LEVEL line. Leave the pump running for 10-15 seconds after bubbles appear in the fry vessel to ensure all shortening/oil is pumped from the drain pan and the lines.

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 shortening/oil change.
- Clean-Out Rod (design may vary)- used to dislodge heavy debris in the drain tube (when needed).
- Filter Powder.
- Filter Paper.

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 shortening/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

See Section 5.2.1– Assembling the Filter, and Section 5.2.2– Installing the Filter

5.4.2 Filter Operation

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

1. Turn the fryer off. Ensure the filter pan assembly is prepared as described in Section 5.2.1– Assembling the Filter.

2. Remove fry baskets from frypot. Prior to filtering, skim any large debris from the shortening/oil. Use extreme caution, as shortening/oil is at or near operating temperature [~350°F (~177°C)].

Prior to filtering, skim any large debris from oil in frypot.

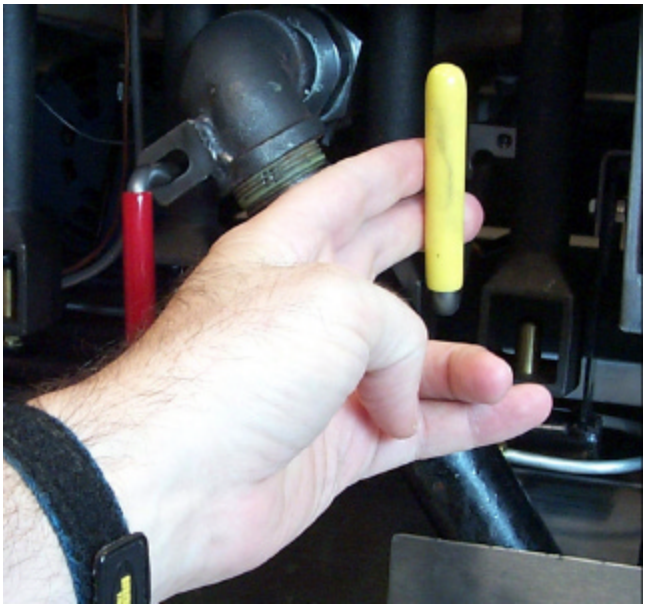
3. Remove the support grid from the frypot using the clean-out rod. Stir the oil with the L-shaped Teflon brush to suspend debris prior to draining.

Removing support grid from fry vessel prior to filtering.

4. After ensuring the filter pan is correctly positioned under the drain tube, and the disconnect is properly connected, pull the red handle to drain the frypot into the filter pan.

Pull the red handle to open the drain valve.

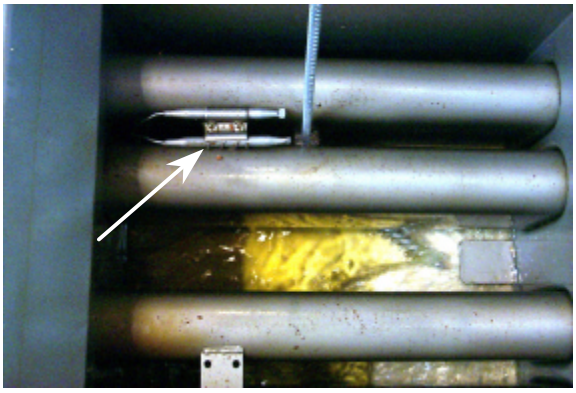
5. After all oil/shortening has drained from the frypot into the filter pan, pull the yellow handle to open the oil return line and activate the filter pump.



Pull the yellow handle to open the oil return valve and activate the filter pump.

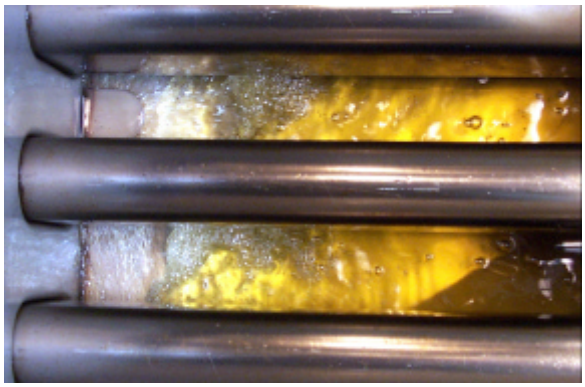
5.4.2 Filter Operation (cont.)

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. Clean beneath and under the burner tubes, using care not to disturb the probes (arrow). Probe location will vary according to fryer system.



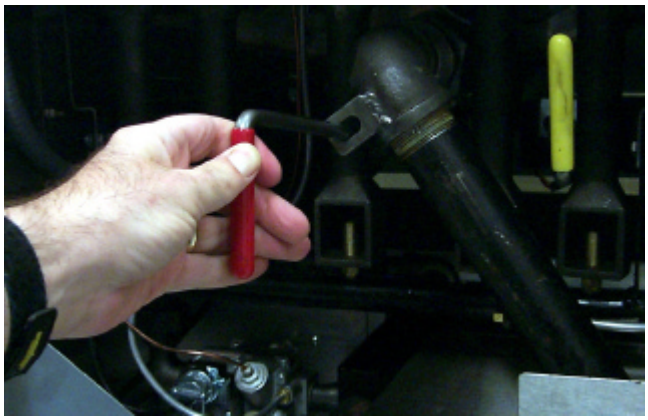
Clean all sediment and suspended particles from the burner tubes and frypot as the oil begins to circulate. Use care not to disturb the probes (arrow) on the burner tube.

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



Polishing the oil removes suspended particles, which increases the life of the oil.

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



After filtering is complete, close the red drain handle to start refilling the frypot.

5.4.2 Filter Operation (cont.)

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

Allow the shortening/oil to bubble for 10-15 seconds to ensure evacuation of all shortening/oil in the return lines.

10. If the oil level is low, add oil until the level is at the top OIL LEVEL line.

Add oil/shortening until the oil level is at the top OIL LEVEL line. DO NOT OVERFILL THE FRYPOT.

11. Replace the frypot grid, using care not to splash hot oil. Turn the fryer on.

Replace the frypot grid, using care not to splash hot oil.

5.4.2 Filter Operation (cont.)

12. Do not allow crumbs to accumulate in the crumb tray. The crumb tray MUST be emptied into a fireproof container at the end of frying operations EACH day (see CAUTION statement below).

Empty the filter pan crumb tray into a fire-proof container at the end of frying operations each day. DO NOT ALLOW CRUMBS TO ACCUMULATE IN TRAY.

⚠ CAUTION

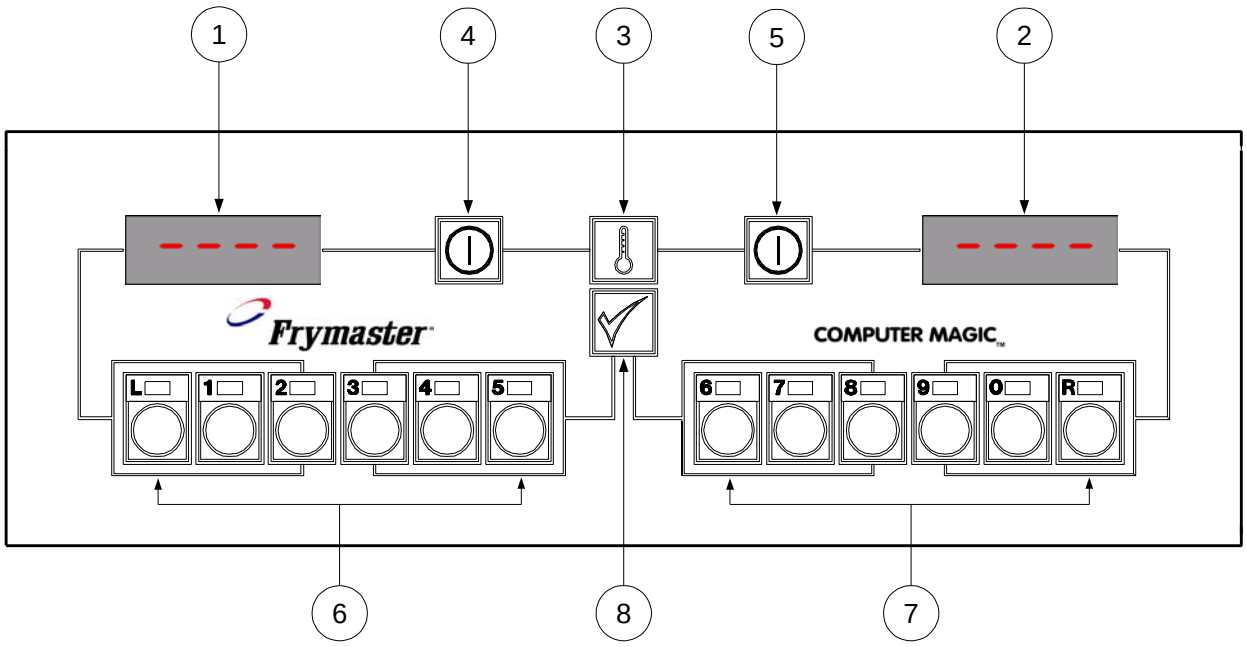
The crumb tray in fryers equipped with a filter system must be emptied into a fireproof container at the end of frying operations each day. Some food particles can spontaneously combust if left soaking in certain shortening material.

⚠ CAUTION

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.

BID80 SERIES GAS FRYERS
CHAPTER 6: COMPUTER OPERATION

6.1 Operating Fryers with Computer Magic III.5 Computers



ITEM	DESCRIPTION
1	Lighted Display — left display of various functions and operations.
2	Lighted Display — right display of various functions and operations.
3	Program Lock and Temperature Check Switch — locks program in computer and/or displays frypot temperature when depressed.
4/5	Power Switches — either switch turns power "ON" or "OFF".
6/7	Product and Coding Switches — provides access to computer and programming functions.
8	Programming Switch — used when reprogramming the computer memory.

⚠ WARNING
Before turning on computer, ensure the fryer is filled with cooking oil/shortening or water. NEVER allow water to enter the Filtration System (if applicable).

6.1.1 Equipment Setup and Shutdown Procedures

Setup

⚠ WARNING
Fill the frypot to the bottom OIL LEVEL line with vegetable oil before pressing the ON/OFF switch ⏻ to the "ON" position. Failure to do so could damage the frypot.

1. Fill the frypot with vegetable oil to the bottom OIL LEVEL line located on the rear of the frypot. This will allow for oil expansion as heat is applied. Do not fill cold oil any higher than the bottom line; overflow may occur as heat expands the oil. If solid shortening is used, pack solid shortening into the cool-zone of the frypot. Continue to pack shortening in frypot to the bottom OIL LEVEL line.

2. Ensure that the power cord(s) is/are plugged into the appropriate receptacle(s). Verify that the face of the plug is flush with the outlet plate, with no portion of the prongs visible.

3. Ensure that the vegetable oil level is at the *top* OIL LEVEL line when the vegetable oil *is at its programmed cooking temperature*. It may be necessary to add vegetable oil to bring the level up to the proper mark, *after the oil has reached the programmed cooking temperature*. If solid shortening is used, the MELT cycle **MUST** be used to melt the shortening. It may be necessary to add solid shortening to bring the level up to the proper mark after the packed shortening has melted. DO NOT DISABLE OR CANCEL THE MELT CYCLE UNTIL ALL SOLID SHORTENING HAS MELTED.

Shutdown

1. Press the ON/OFF switch ⏻ to the "OFF" position (the display will show "OFF").

2. Filter vegetable oil (if applicable) and clean fryers. See Chapter 7.

3. Place the frypot covers on frypots.

Operating the Fryer

A. Turn the computer on by pressing the ⏻ switch.

   1. One of the following displays will appear:

      a. CYCL, indicating that the burners are operating in the melt-cycle mode. Fryer will remain in the melt-cycle mode until it reaches 180°F (82°C) or is canceled manually.

      b. HI, indicating that the pot temperature is 21°F (12°C) or higher than the setpoint.

      c. LO, indicating that the pot temperature is 21°F (12°C) or lower than the setpoint.

6.1.1 Equipment Setup and Shutdown Procedures (cont.)

d. " – – – – " indicating that the fryer temperature is in the cooking range. NOTE: For best results, do not cook product until the display reads " – – – – ".

e. HELP, indicates a heating problem.

f. HOT, indicates that the pot temperature is more than 410°F (210°C) [395°F (202°C) for CE (European Community) fryers].

g. Prob, indicates that the computer has detected a problem in the temperature measuring circuits, including probe.

NOTE: "." decimal point between digits 1 and 2 in either display area indicates that the burners are on.

B. Melt-Cycle Cancel Feature (built-in computers only).

⚠ CAUTION
Do not cancel the melt cycle mode if using solid shortening.

The computer will display CYCL during melt-cycle operation. To cancel melt cycle on a full pot, depress the "R" button. To cancel the melt cycle on a split pot, use the "L" button for left-side pot and the "R" button for right-side pot. CYCL will be replaced by CU. The decimal point between digits 1 and 2 will illuminate indicating that the burners are on.

C. Cook-cycle operation is initiated by pressing the product switch:

1. The basket lift (on fryers so equipped) will lower the product into the cooking oil/ shortening.

2. The display will indicate the programmed cook time and begin countdown.

3. If shake time is programmed, you will be notified to shake the product "**X**" seconds after the cook cycle begins (**X**= amount of time programmed). An alarm will sound and the display will read SH- and the product number selected. If no shake time is programmed SH- will not appear during the cook cycle.

4. At the end of cooking cycle, an alarm will sound; COOC will be displayed and the associated product switch indicator will flash. To cancel the cook alarm, press the flashing product switch.

6.1.1 Equipment Setup and Shutdown Procedures (cont.)

5. At this time, the hold time will be displayed (if programmed greater than 0) and countdown will begin. When the hold time counter reaches 0, an alarm will sound. Hd- and the product number selected is displayed. The hold alarm is canceled by pushing the ☑ switch. If display is in use, hold time will count down invisibly until display is free.

6.1.2 Checking Temperature

A. Check the cooking oil/shortening temperature at any time by pressing the 🌡 switch once. Check the setpoint by pressing the 🌡 switch twice.

B. During the idle periods, when the fryer is on but not in use, " - - - - " should appear on both displays on a single frypot computer. " - - - - " will appear on the display of the side that is turned on in a split-vat computer. If not, check actual temperature and setpoint.

C. If you suspect a defective probe, check the cooking oil/shortening temperature with a thermometer. Insert the thermometer within 1-inch of the vessel-mounted probe. Verify that the computer readout is within ±5°F (±2°C) of the thermometer reading.

NOTE: The electronic circuitry can be affected adversely by current fluctuations and electrical storms. If for no apparent reason the computer does not function or program properly, reset the computer by unplugging the power cord and plugging it back in.

6.2 Programming the Computer Magic III.5 Computer

1. Activate the computer by pressing either ⏻ switch.

2. To enter the program mode, first press the ☑ switch. CodE will appear in the left display. If you have pressed this switch in error and do not wish to program, press the ☑ switch again. Note: The computer will flash BUSY if cooking is in progress.

3. Press 1 6 5 0 (1 6 5 0) in that sequence to enter the program mode.

4. SP-r (Setpoint) will appear in the left display. This is for setting the cooking temperature. The temperature previously selected will be displayed in the right display. Enter new temperature. Press the ☑ switch to lock in temperature setting. If the setting is correct, press the ☑ switch to cancel the selection.

5. SELP (Select Product) will appear in the left display. Press the product button to be programmed.

6. SENS will appear in the left display. The sensitivity number previously selected will be displayed in the right display. Enter the new desired sensitivity number, the range is 1 to 9. Enter "0" for no sensitivity. Press the ☑ switch to lock in the setting.

6.2 Programming the Computer Magic III.5 Computer (cont.)

Sensitivity adjusts computer-cooking time to compensate for the drop in cooking oil/shortening temperature when a basket of product is placed into the fryer. Sensitivity decreases or increases cooking time to counterbalance variances in product density, basket-load size, and initial temperature. A proper sensitivity setting will ensure a high quality product. For example: 4 ounces of fries can be programmed to cook to the same quality as 2 pounds. A good initial setting is 4 or 5. Some experimenting with the range of 1 to 9 may be required to achieve optimum quality.

7. COOC will now appear in the left display. A previously entered cook-time will appear in the right display. If that time is correct, press the ☑ switch. If you wish to change the time, enter the desired time in minutes and seconds. (The new time will be displayed in the left display.) Press the ☑ switch to lock in the setting.

8. SH- now appears in the left display. The previous shake time (if any) will appear in the right display. If a product requires shaking during the cooking process, set the shake time by pressing the number of minutes to cook before shaking. Press the ☑ switch to lock in the time. If no shake time is required, press "0" and press the ☑ switch. Example: Total cook time 3:00 minutes, shake after cooking 1:00 minute.

   At the end of 1:00 minute, a beeper will sound and the product button indicator will flash for three seconds.

9. Hd- will now appear in the left display. Set the time to hold the cooked product from 13 seconds to 60 minutes. Press the ☑ switch. If you do not wish to use the hold time, enter "0" and press the ☑ switch.

10. SELP will appear in the left display. If you desire to program more products, return to Step 5. If no more programming is required, lock in program by pressing the 🌡 switch.

6.2.1 Boil Feature

⚠ CAUTION
Do not drain water or boil-out solution into the filtration system (if applicable). Irreparable damage to the filter system will result and all applicable warranties will be voided.

1. Before switching the fryer "ON", close the frypot drain valve. Fill empty frypot with mixture of cold water and detergent. Follow detergent instructions when mixing.

NOTE: Boil Mode will not turn on both sides of computer. Each side will have to be turned on separately.

6.2.1 Boil Feature (cont.)

2. To program computer for boil feature, press either ⓘ switch.

3. Press the ☑ switch. CodE will appear in the left display.

4. Enter 1 6 5 3 (1 6 5 3) in that sequence. The right display will read boiL. The temperature is automatically set for 195°F (91°C). The fryer will attain this temperature and remain there until either ⓘ switch is pressed, which cancels the boil-out mode. In high-altitude locations, constantly monitor the fryer for over-boil conditions. If over-boil occurs, turn off fryer immediately, allow to cool, and re-enter boil-out mode to continue the boil-out operation.

SEE CHAPTER 4.2 FOR ADDITIONAL BOIL-OUT PROCEDURES.

6.2.2 Temperature Selection—Fahrenheit to Celsius

1. To change the computer temperature from Fahrenheit to Celsius or Celsius to Fahrenheit, press either ⓘ switch.

2. Press the ☑ switch. CodE will appear in the left display.

3. Enter 1 6 5 8 (1 6 5 8) in that sequence. The computer will automatically convert the temperature from Fahrenheit to Celsius or Celsius to Fahrenheit.

4. Press the 🌡 switch to display the temperature in the newly selected mode.

6.2.3 Constant Oil Temperature Display Mode

1. To program constant temperature display, press the ⓘ switch.

2. Press the ☑ switch. CodE will appear in the left display.

3. Enter 1 6 5 L (1 6 5 L) in that sequence. The cooking oil/shortening temperature will display constantly in the right display on a full-pot and in both displays on a split-pot.

NOTE: During the product cooking process, the cooking time will not be displayed but timing will be taking place.

4. To remove the constant oil-temperature display and display the cooking time, repeat Step 2 and Step 3.

BID80 SERIES GAS FRYERS
CHAPTER 7: PREVENTATIVE MAINTENANCE

7.1 General

Any equipment works better and lasts longer when maintained properly and kept clean. Cooking equipment is no exception. The BID80 Series gas fryer should be kept clean during the working day and thoroughly cleaned at the end of each day. Below are recommendations for daily, weekly and periodic preventative maintenance.

7.1.1 Daily

A. Remove and wash all removable parts.

B. Clean all exterior surfaces of the cabinet. Do not use cleaners, steel wool, or any other abrasive material on stainless steel.

C. Filter the cooking oil (See Chapter 5) and replace if necessary. The oil should be filtered more frequently when under heavy use.

7.1.2 Weekly

A. Completely drain the oil from the fryer into a suitable container for disposal. Do not use a glass or plastic container.

B. Clean the fry-vessel by following boil-out procedures in Chapter 4-2.

⚠ CAUTION
Never allow water to boil down and expose the heating tubes. Fry vessel damage will result.

7.1.3 Periodic

The fryer should be inspected and adjusted periodically by qualified service personnel as part of a regular kitchen maintenance program.

7.1.4 Stainless Steel Care

⚠ WARNING
DO NOT let water splash into the tank of hot oil. It will splatter and can cause severe burns.

All stainless steel fryer cabinet parts should be wiped regularly with hot, soapy water during the day, and with a liquid cleanser designed for stainless steel at the end of each day.

A. Do not use steel wool, abrasive cloths, cleansers or powders.

B. Do not use a metal knife, spatula or any other metal tool to scrape stainless steel! Scratches are almost impossible to remove.

C. If it is necessary to scrape the stainless steel to remove any encrusted materials, soak the area first to soften the deposit, then use a wood or nylon scraper only.

BID80 SERIES GAS FRYERS
CHAPTER 8: TROUBLESHOOTING

8.1 General

⚠ CAUTION
This appliance may have more than one power supply connection point. Disconnect all power cords before servicing.

The problems and possible solutions covered are those most commonly encountered.

To troubleshoot, perform the test set-up at the beginning of each condition. Follow each step in sequence.

⚠ WARNING
Inspection, testing, and repair of gas or electrical equipment should be performed by qualified personnel.

Use EXTREME CARE when testing Live Electrical Circuits.

8.2 Pilot Burner Malfunction

A. Pilot will not ignite; no evidence of gas at pilot burner.

1. Check that gas valve is open and gas is present at the gas valve.
2. Check pilot burner orifice for dirt or lint.
3. Remove pilot burner gas-supply line and check for contamination; blow out if necessary, then reinstall.

B. Pilot burner ignites but will not remain lit when gas valve manual knob is released.

1. Check that thermocouple lead is properly screwed into thermocouple connection bushing on gas valve.
2. Remove end of thermocouple lead from thermocouple connection bushing and clean with fine sandpaper or emery cloth.
3. Pilot flame may be too high or too low. Adjust pilot flame adjustment screw so that pilot flame extends about ¾-inch (19-mm) above the top of the pilot burner.
4. Check all connections for cleanliness and security.

8.2 Pilot Burner Malfunction (cont.)

C. Pilot flame of proper size, but is unstable. Flame wavers and does not envelop the thermocouple completely at all times.

1. Check for drafts that might be caused by air conditioning equipment or make-up air apparatus. Turn air-moving equipment off and recheck the pilot.

8.3 Main Burner Malfunctions

A. Main burner will not come "ON"; gas not detected at main burner.

1. Check that the gas valve is open.

2. Check that the pilot is ignited and is operating properly.

3. Check the high limit switch for continuity.

4. The combination gas valve may be defective; replace if necessary.

B. Main burner flames are small and appear lazy; shortening does not come up to temperature quickly.

1. Check gas pressure at the pressure tap of the gas valve. Use dial type or standard water-type U-gauge manometer. With burner in operation, the pressure should be 4" W.C. (10 mbar) for natural gas, and 11" W.C. (27.5 mbar) for propane.

2. If not, remove the pressure regulator adjustment cover. Use screwdriver to turn the adjusting screw for proper pressure. Replace cover, re-check pressure and re-install pressure tap plug.

C. Signs of excessive temperature; shortening scorches and quickly becomes discolored.

1. Check gas pressure as outlined above.

2. Shortening used is of inferior quality and/or shortening has been used too long. Replace shortening.

3. Ensure vessel is clean when refilling with new shortening.

8.3 Main Burner Malfunctions (cont.)

D. Fryer will not reach the temperature setting and/or runs erratically.

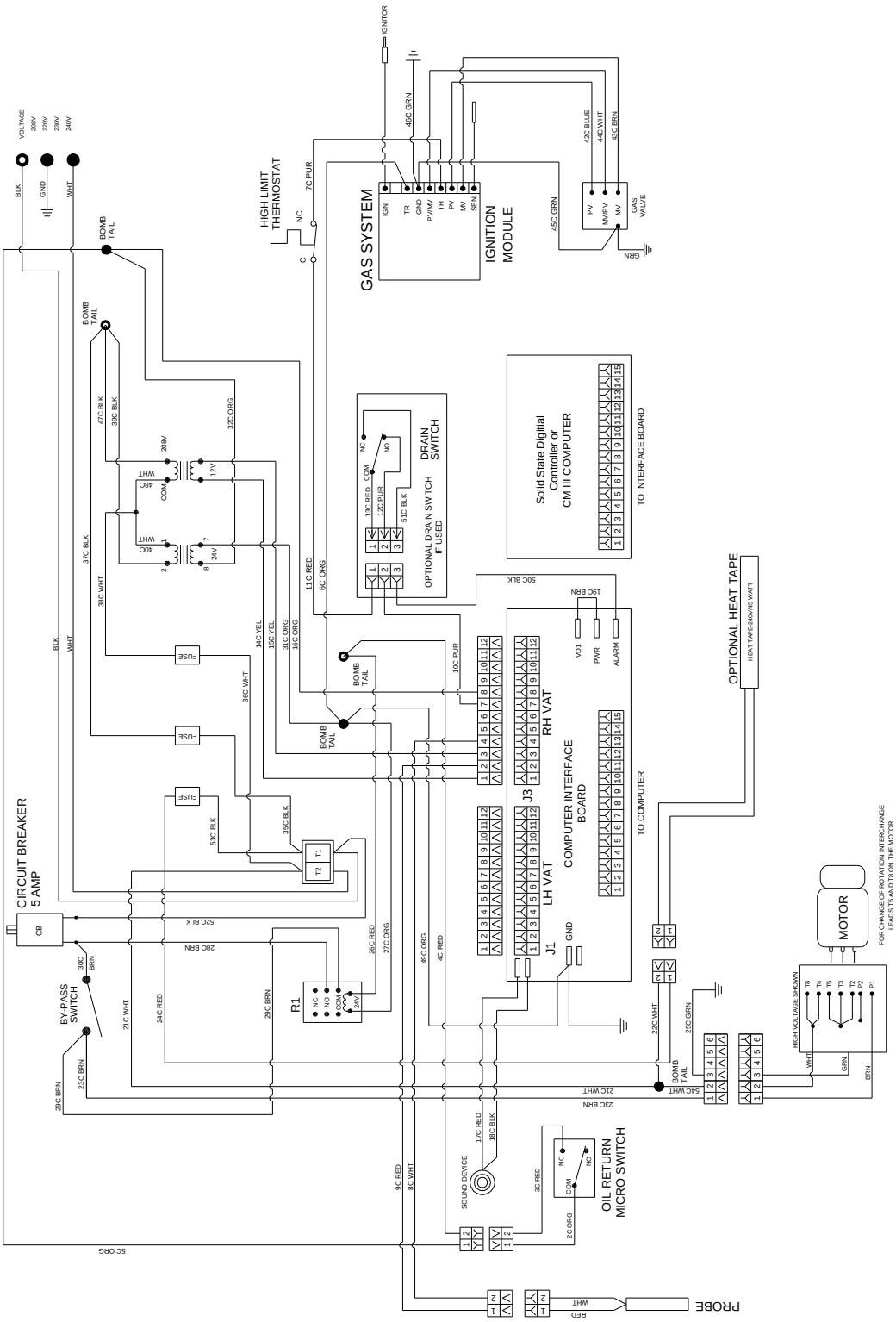
1. Incorrect location of sensor probe or defective temperature sensor.
2. Loose wiring/wire connection

E. Fryer shortening temperature cannot be controlled; fryer runs at high-limit temperature.

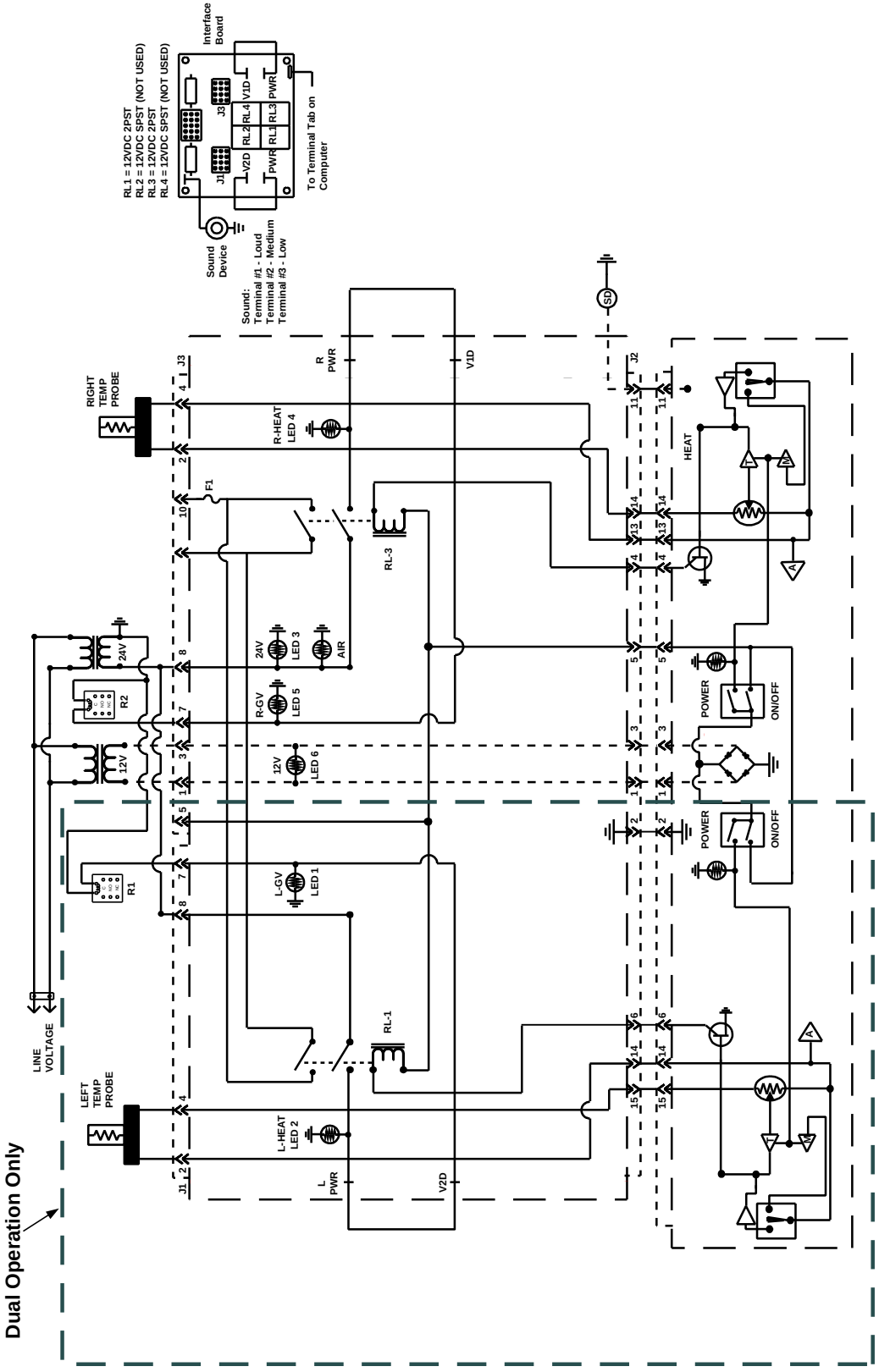
1. Defective operating thermostat or temperature probe.
2. Call Service Technician.

8.4 Wiring Diagrams

8.4.1 BID80 Series With Built-In Filtration

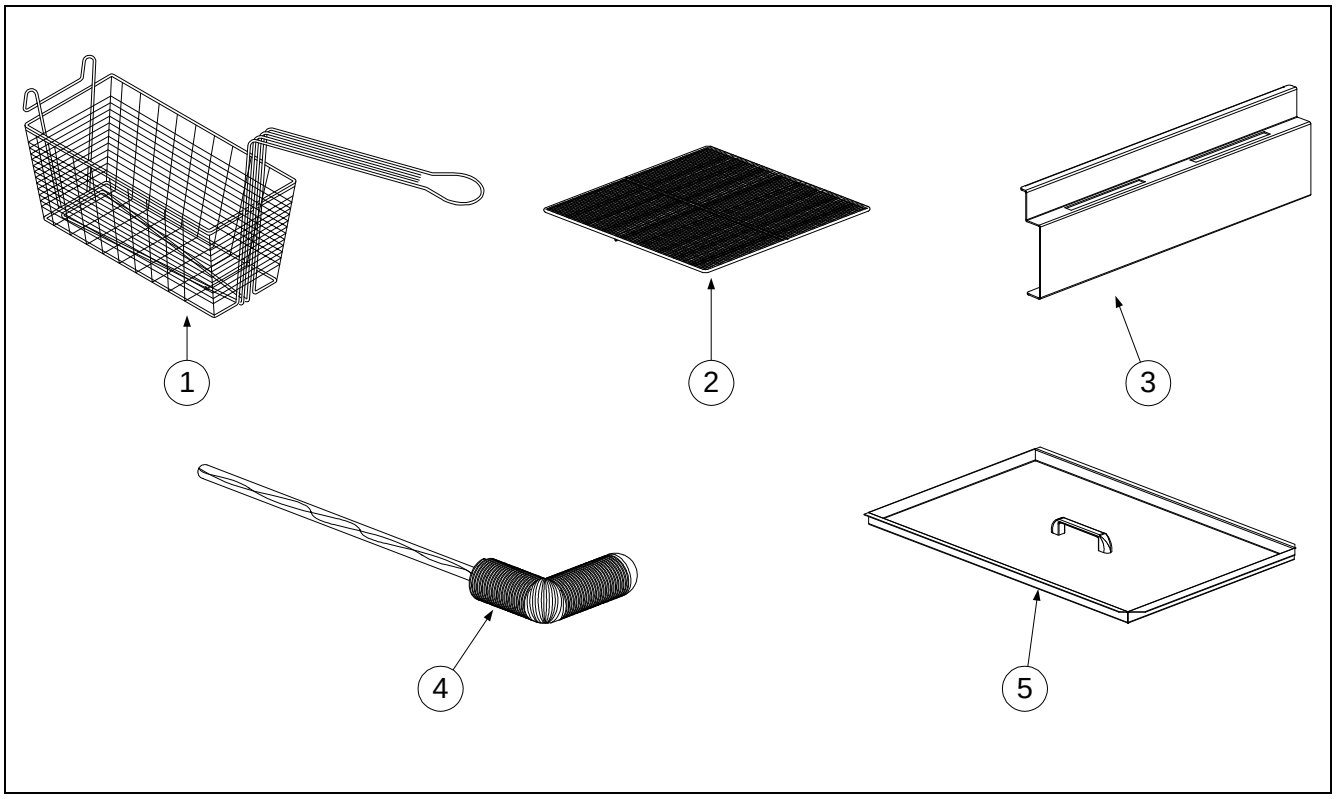


8.4.2 BID80 Series Interface Board (Enlarged View)



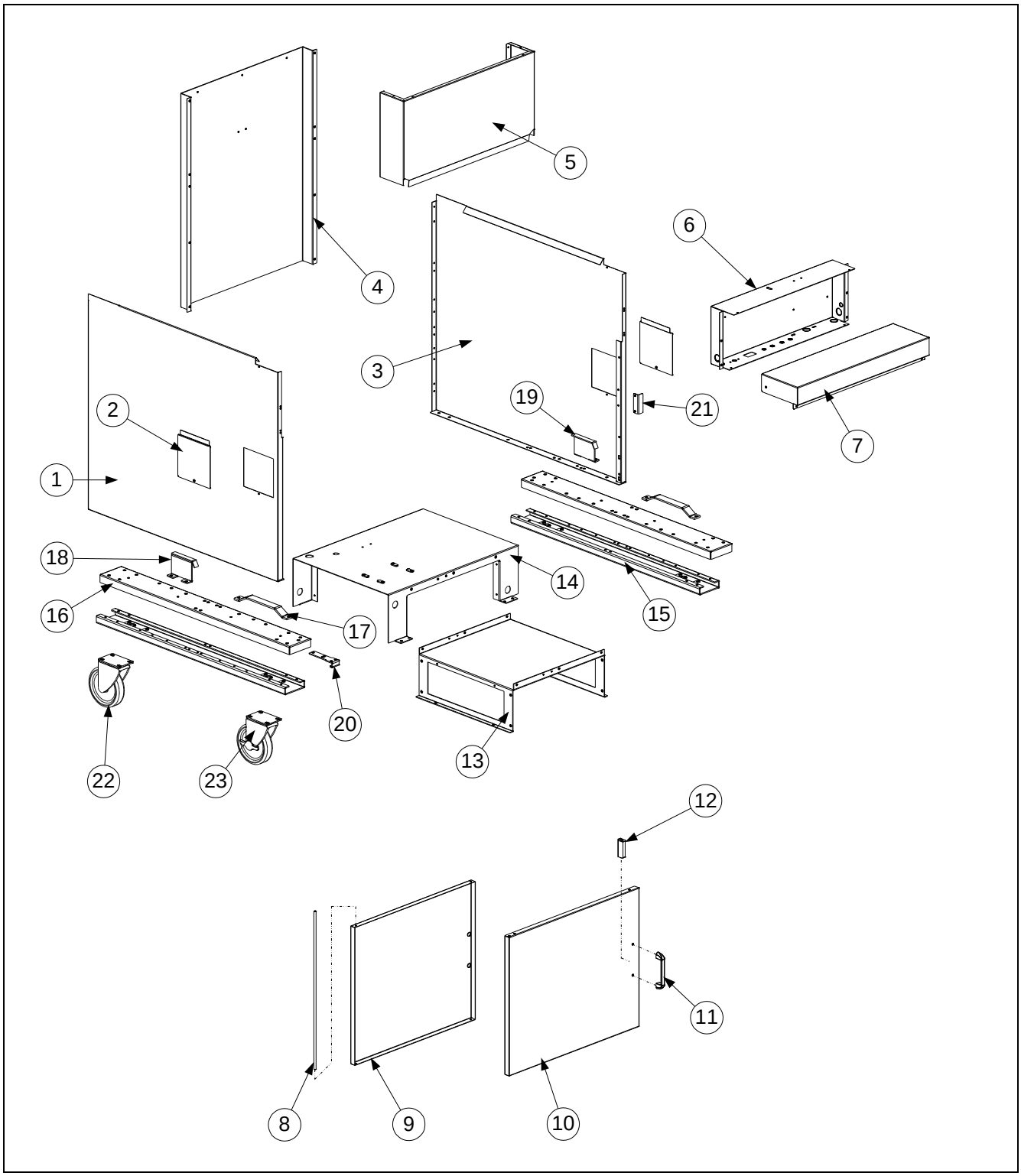
BID80 SERIES GAS FRYERS
CHAPTER 9: PARTS LIST

9.1 Accessories



ITEM	PART #	COMPONENT
1	803-0301	Basket, Fry- 6 x 8-¾ x 16-¾ (Optional)
2	810-2122	Grid Assembly, Frypot
3	210-3458	Basket Hanger, D180
4	803-0278	Brush, Teflon- L-Shaped
5	80021	Vat Cover, Frypot (Optional)

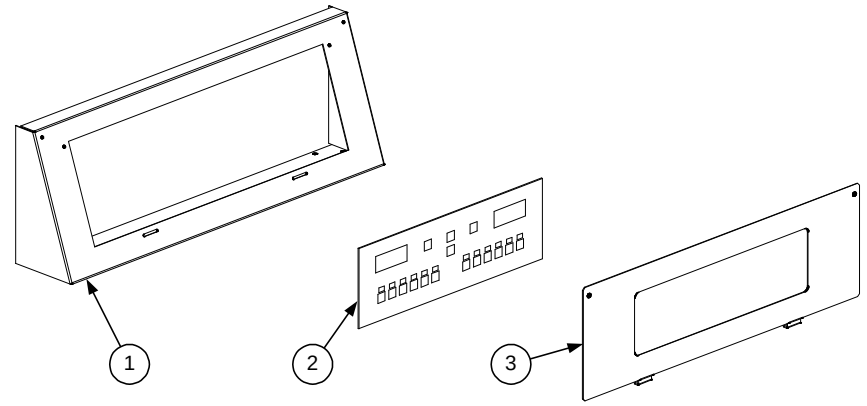
9.2 Cabinetry and Related Components

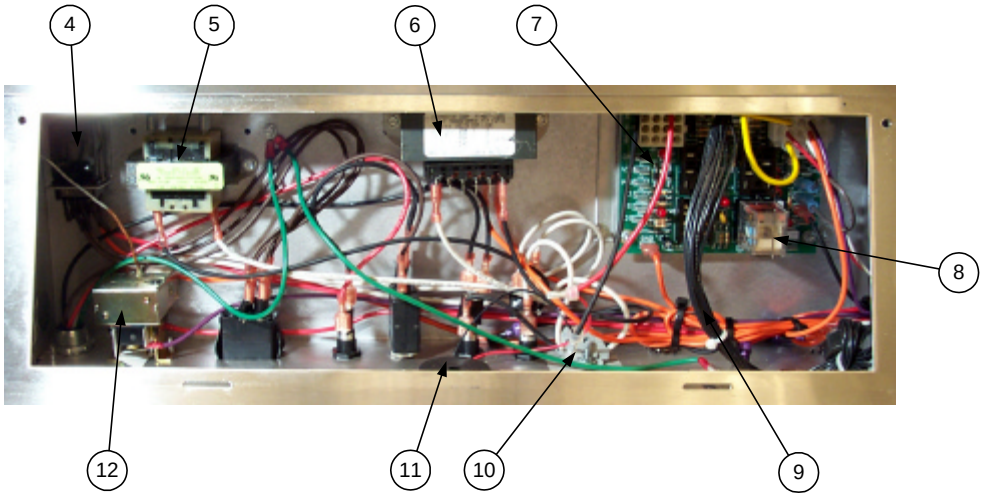


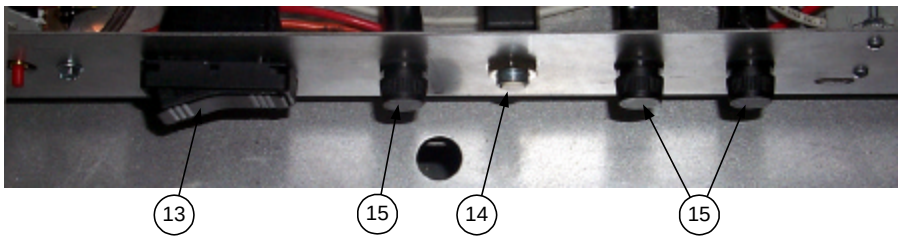
9.2 Cabinetry and Related Components (cont.)

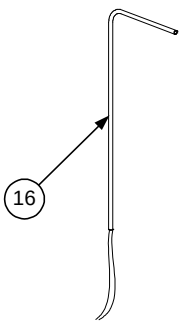
ITEM	PART #	COMPONENT
1	211-2532	Side, Cabinet- Left
2	210-1365	Duct, Door Access
3	212-2532	Side, Cabinet- Right
4	200-2683	Back, Cabinet
*	200-1376	Bracket, Restraining
*	200-3635SP	Crossbrace, Cabinet Back, Lower
5	823-3512	Flue Cap
6	824-0954	Box, Component (Wireway Control)
7	824-0986	Top Cap
8	200-1301	Pin, Door
9	200-2688	Panel, Inner- Door
*	810-0179	Plug, Handle-Screw Access
*	816-0529	Bumper, Rubber (Self-Adhesive)
*	809-0193	Bushing, Nylon (Door Pin)
10	210-1151	Panel, Outer- Door
11	810-2105	Handle, Chrome (With Screws)
12	810-0066	Magnetic Catch, Door
13	200-3403	Base, Lower Frame
*	200-3461	Cover, Access- Lower Frame Base (2 Required)
14	823-3745	Base, Upper Frame
15	823-3724	Channel, Leg Support (Right and Left)
16	200-3459	Base, Leg Channel
17	210-3588	Slide, Front- Filter Pan
18	823-3751	Slide, Rear **Left**- Filter Pan
19	823-3752	Slide, Rear **Right**- Filter Pan
20	200-1675	Bracket, Lower Door Hinge
21	210-2870	Plate, Door Magnet
22	810-0356	Caster, Without Brake
23	810-0357	Caster, With Brake
* Not Illustrated		

9.3 Computer and Related Components







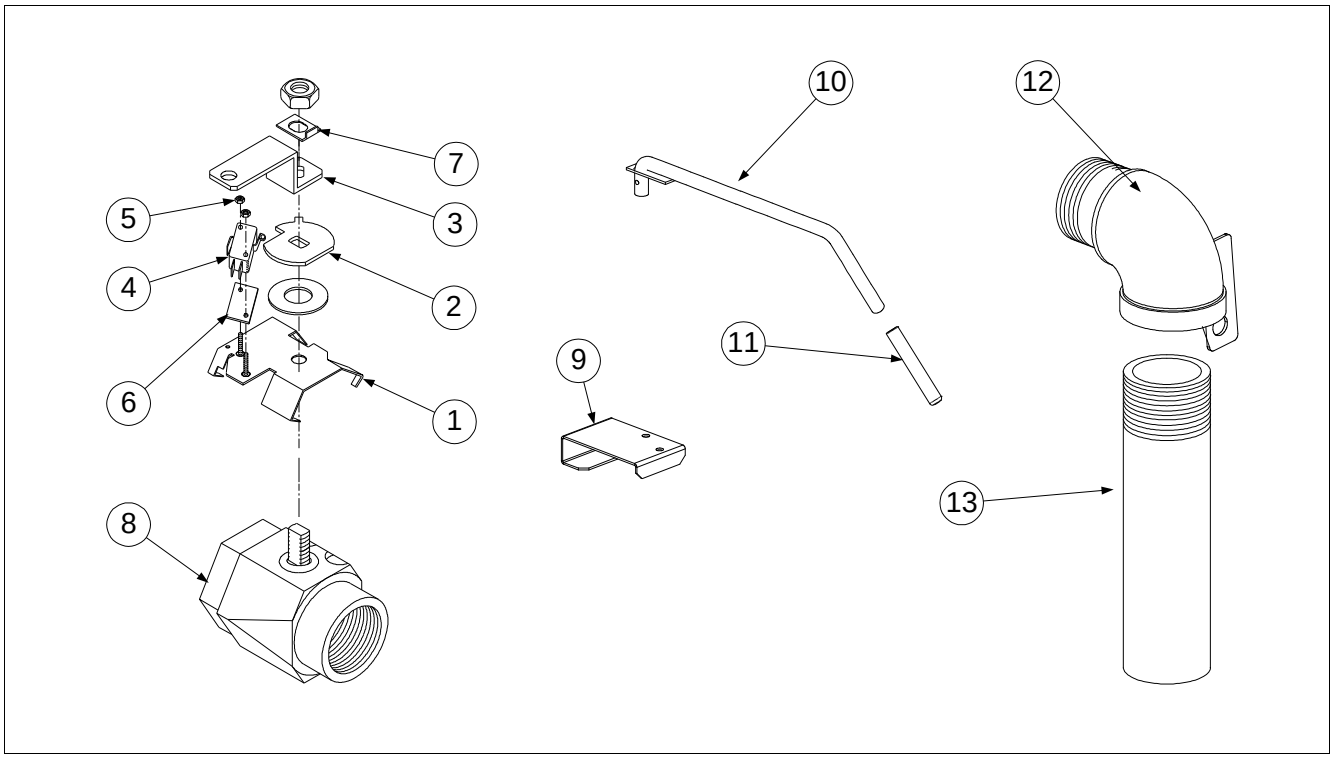


9.3 Computer and Related Components (cont.)

ITEM	PART #	COMPONENT
1	210-3463	Panel, Control- BID80
2	106-2334	Computer, CMIII.5- BID80
3	823-3433	Bezel, Computer
4	807-3611	Relay, 24 Amp (Filter Circuit)
5	807-0979	Transformer, 208/240V - 12V- Secondary
6	807-1999	Transformer, 208/240V – Dual Voltage
7	806-4549	Board, Interface
8	807-0833	Relay, 5 Amp (Latch Relay- Interface Board)
9	806-2071	Harness, Wire- Computer To Interface Board
10	810-1164	Block, Terminal (Power In)
*	816-0217	Insulation, Terminal Block
11	806-7179SP	Sound Device
12	807-3680	Thermostat, High-Limit- 450°F Manual Reset
*	810-2046	Spring, Spacer- High-Limit Bulb
13	807-3580	Switch, Rocker- Filter Pump Bypass Switch
14	807-3538	Circuit Breaker, 5 Amp
15	807-1321	Holder, Fuse- Buss Fuse
*	807-3592	Fuse, 2 Amp
16	106-1424	Probe Assembly, Sensor
*	210-1386	Clamp, Probe Bulb and High-Limit Bulb
*	810-2164	Spring, Spacer- Probe Bulb
*	809-0448	Clip, Tinnerman (Sensor Probe and High-Limit Probe Clamp)
*	809-0360	Screw, Probe/H-Limit Bulb Clamp- #8 x 3/8 Slotted Hex Head

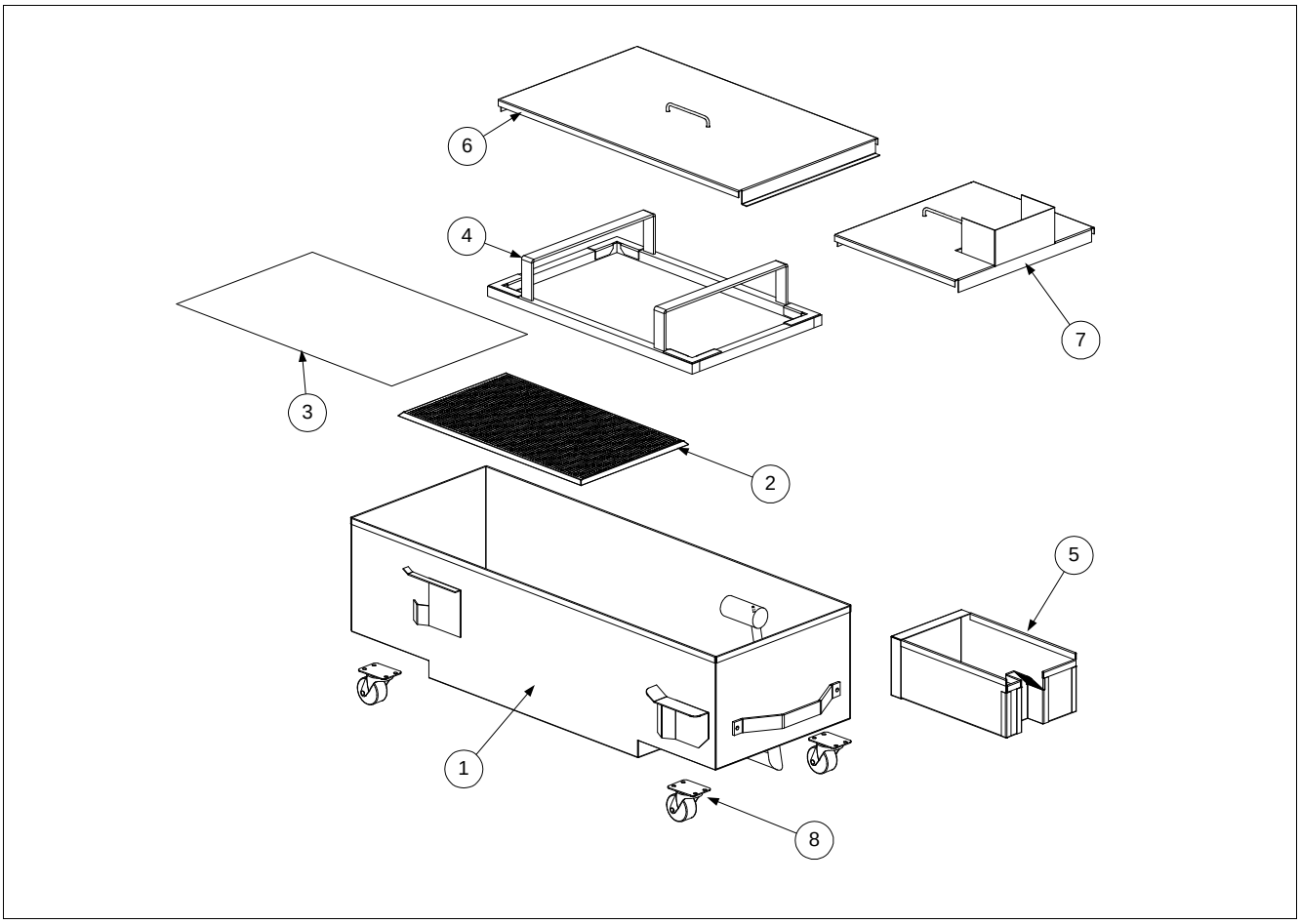
* Not Illustrated

9.4 Drain Valve Components



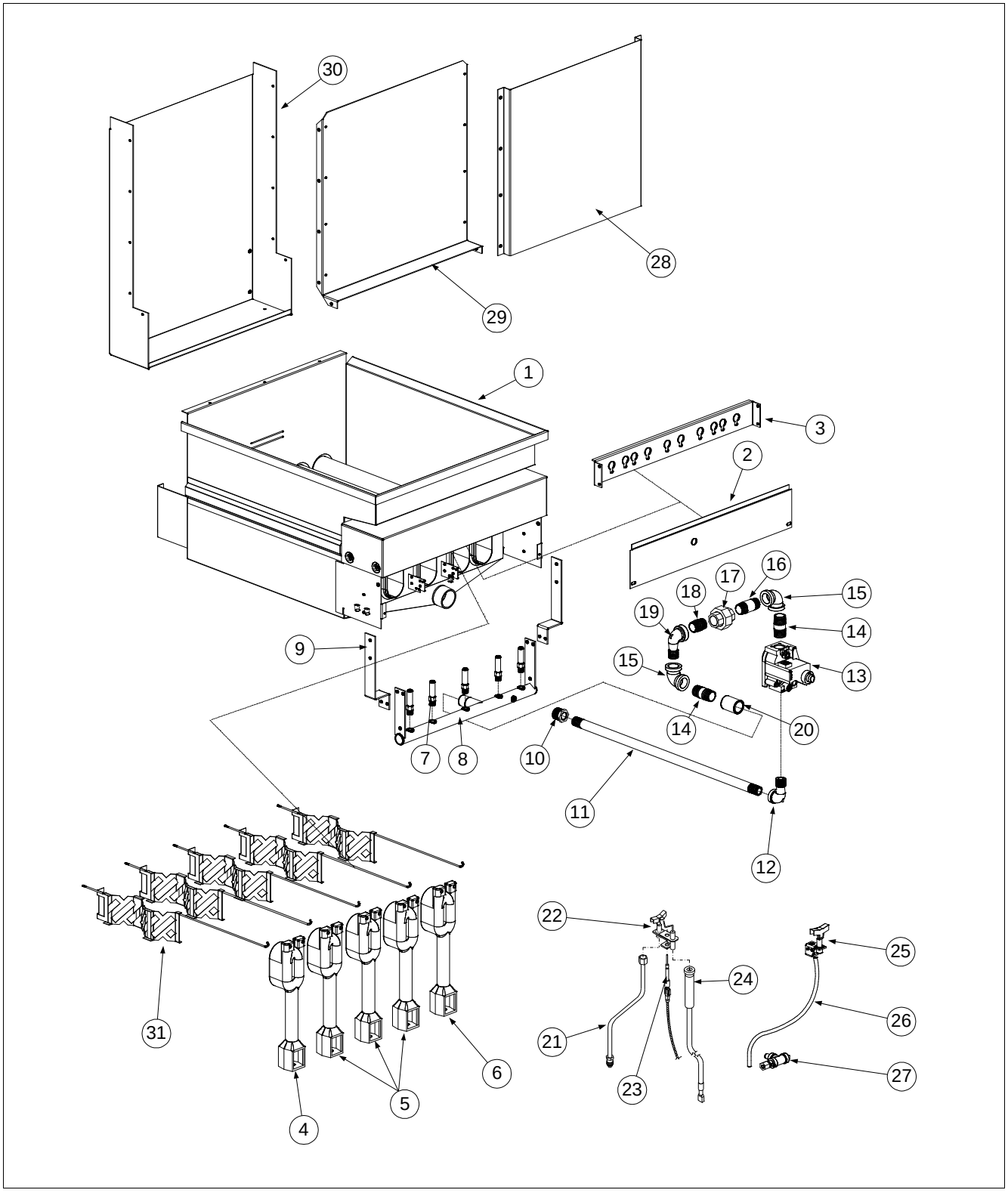
ITEM	PART #	COMPONENT
1	106-1401	Bracket, Microswitch
2	210-2029	Activator, Microswitch
3	200-1940	Handle, Drain Arm- Push/Pull
4	807-2104	Microswitch
5	809-0842	Nut, Nylock #4-40
6	816-0220	Insulation, Microswitch
7	200-1257	Retainer, Nut- Drain Valve Arm
8	810-2127	Drain Valve, 1-½"
9	200-1269	Guard, Microswitch
10	823-3429	Handle, Drain Valve
11	816-0547	Cap, Handle- Red
12	823-3747	Elbow/Bracket Assembly, Drain Valve
13	813-0784	Drain Nipple- 6"
* Not Illustrated		

9.5 Filter Pan Components



ITEM	PART #	COMPONENT
1	823-3750SP	Filter Pan Assembly
*	813-0684	Plug, Hex Socket, 3/8" NPT
*	813-0679	Plug, 1/8" SS Square Head (Female Disconnect)
2	823-3748	Grid, Bottom- Filter Pan
3	803-0289	Paper, Filter- 22 x 34" (100 Sheets)
*	803-0002	Powder, Filter (Carton)
4	823-3742	Ring, Hold-Down (Weighted)
5	823-3736	Basket (Tray), Crumb
6	823-3741	Lid, Pan- Rear
7	823-3739	Lid, Pan- Front
8	810-2141	Caster, 2"- Filter Pan
* Not Illustrated		

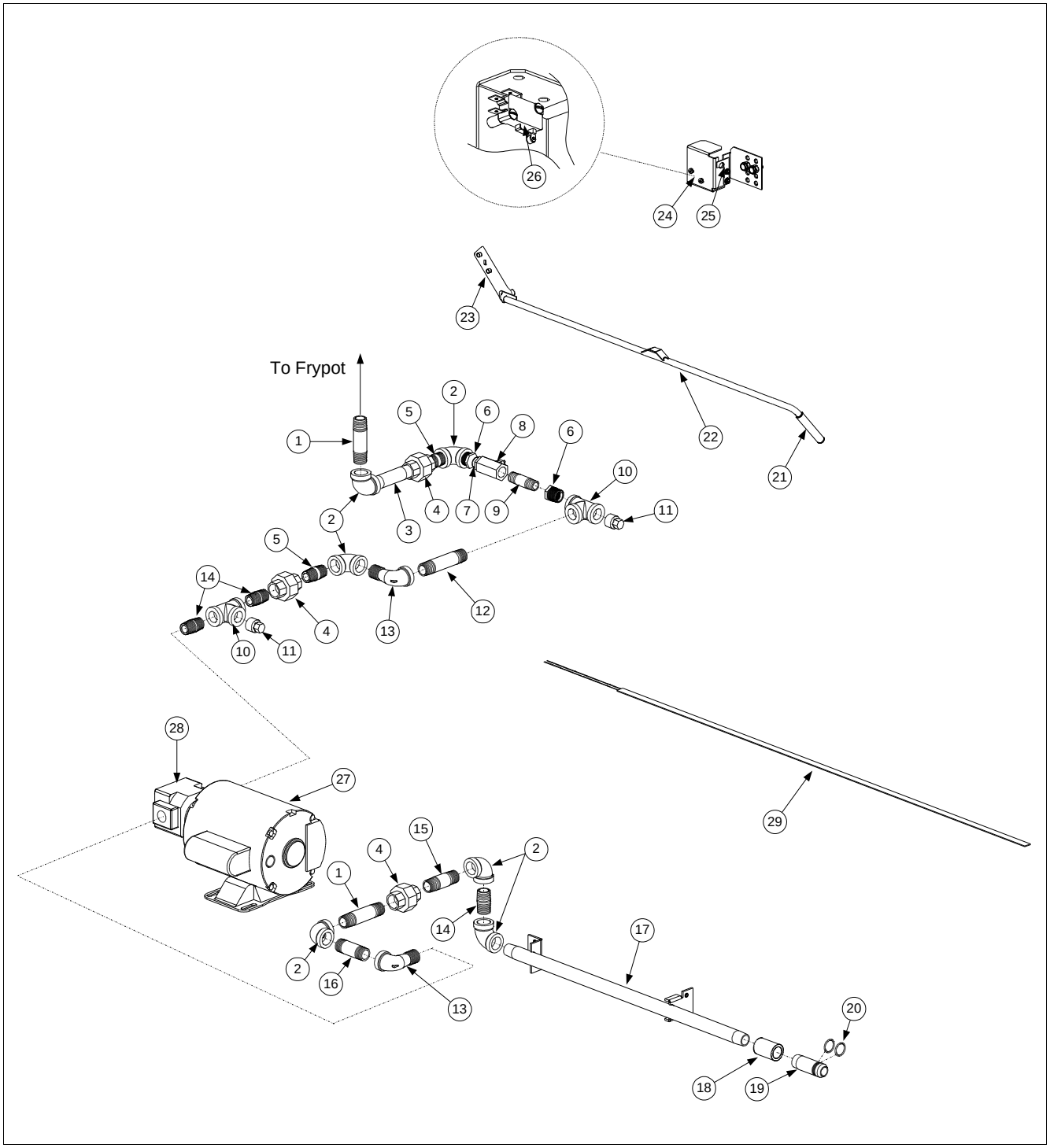
9.6 Frypot, Burners and Related Components



9.6 Frypot, Burners and Related Components (cont.)

ITEM	PART #	COMPONENT
1	823-3396SP	Frypot, SS- 1-½" Drain System
2	200-2707	Shield, Heat- Front
3	200-2734	Bracket, Burner Mounting
4	810-2151	Burner, Left
5	810-2149	Burner, Center
6	810-2150	Burner, Right
7	810-2365	Orifice #56 (1.19 mm)
8	810-2072	Manifold, Gas
9	200-1314	Support, Manifold- Left and Right
10	813-0031	Bushing, Hex- ½ to ¾" NPT BM
11	813-0607	Nipple, ½ x 23-½" NPT BM
12	813-0165	Elbow, Street- 90° ½" NPT BM
13	807-3628	Valve, Gas- Honeywell ½ x ¾" 10" W.C.
14	813-0112	Nipple, ¾ x 2" NPT BM
15	813-0066	Elbow, 90° NPT BM
16	813-0635	Nipple, ¾ x 2-¼" NPT BM
17	813-0174	Union, ¾" NPT BM
18	813-0109	Nipple, ¾" x Close NPT BM
19	813-0168	Elbow, Street- 90° ¾" NPT BM
20	813-0359	Coupling, ¾ x 1.62" NPT
21	810-0705	Gas Line, Pilot- One Piece- 23"
22	807-1553	Pilot Assembly, LP
23	807-1310	Sensor, Flame
24	807-1315	Cable, Ignition
25	810-2155	Pilot Burner Assembly, Trailing Pilot-LP
26	810-0703	Gas Line, Trailing Pilot- One Piece- 17-½"
27	810-2138	Valve, Trailing Pilot
28	200-1316	Shield, Flue
29	200-1347	Front, Flue
30	200-1349	Rear, Flue
*	809-0167	Screw, Sheet Metal- 10A x 5/8"
31	823-3513	Diffuser, BID80
* Not Illustrated		

9.7 Oil Return Components



9.7 Oil Return Components (cont.)

ITEM	PART #	COMPONENT
1	813-0460	Nipple, ½ x 3" NPT MB
2	813-0062	Elbow, ½" 90° NPT BM
3	813-0247	Nipple, ½ x 3-½" NPT BM
4	813-0173	Union, ½" NPT BM
5	813-0087	Nipple, ½ x 1-½" NPT BM
6	813-0006	Bushing, ½" to 3/8 NPT BM
7	813-0625	Nipple, 3/8" x Close NPT BM
8	810-2125	Valve, Oil Return- 3/8"
9	813-0644	Nipple, 3/8 x 1-½" NPT BM
10	813-0003	Tee, ½" NPT BM
11	813-0156	Plug, ½" NPT BM
12	813-0247	Nipple, ½ x 3-½" NPT BM
13	813-0165	Elbow, Street- 90° NPT BM
14	813-0022	Nipple, ½" x Close NPT BM
15	813-0265	Nipple, ½ x 2-½" NPT BM
16	813-0661	Nipple, ½ x 2-¼" NPT BM
17	823-3754	Manifold, Suction- Oil Return
18	813-0608	Coupling, ½" x Full NPT BM
19	810-0697	Disconnect, Male- Suction Manifold
20	826-1392	O-Ring, Suction Manifold Disconnect (Qty:5)
21	816-0548	Cap, Handle- Yellow
22	823-3187	Handle, Oil Return
23	823-3344	Handle, Oil Return Arm- Push/Pull
*	809-0885	Washer, 3/8 x 1 x 0.83" Type A Plain
24	202-1233	Bracket, Oil Return Microswitch (RH)
*	826-1389	Screw, ¼-20 x ¾" Hex Head (Qty:10)
*	809-0823	Nut, Nylock- ¼-20
*	809-0825	Nut, Spacer- Kep ¼-20 Hex Head SS
25	200-1341	Bracket, Microswitch Rod
*	826-1371	Screw, Microswitch Rod Bracket (Qty: 25)
26	807-2104	Microswitch, Oil Return
*	809-0846	Screw, 4-40 x 1 Slotted Head- Microswitch
*	826-1366	Nut, 4-40 Keps Hex with External Teeth (Qty: 25)
*	810-2144	Spacer, Aluminum- ¼" O.D. x 3/8"L 4-40
27	810-2100	Motor, 1/3HP 120/230V/50/60Hz
28	810-2252	Pump, Filter- 5GPM
29	807-1419	Strip, Heater- 240V/45W 36"L
* Not Illustrated		

Frymaster, L.L.C., 8700 Line Avenue, PO Box 51000, Shreveport, Louisiana 71135-1000
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