Operations & Service Manual

GGF Series Fryer

Model
GGF-400
GGF-720

GILES™
Responsive. Reliable.

ISO 9001 Registered • Committed to Quality
2750 Gunter Park Drive West • Montgomery, AL 36109 USA
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IN A PROMINENT LOCATION, post instruction for actions to be taken in the event users smells gas. This information can be obtained by contacting the local gas utility company.

FOR YOUR SAFETY

DO NOT store or use flammable liquids or materials, or those which may produce flammable vapors, in the vicinity of this or any other appliance.

⚠WARNING

- **DO NOT install and/or use gas fired appliances in areas without sufficient ventilation to provide an adequate room air exchange rate to prevent accummulation of combustion flue gases (carbon monoxide & CO2). Improper installation and use can cause personal injury, even death.**

- **Read the installation, operating, and maintenance instructions thoroughly before installing and attempting to operate or service this appliance.**

Responsive. Reliable.

LIMITED WARRANTY

- Subject to the terms and conditions of this Limited Warranty as herein stated, all Giles Enterprises Inc. (hereafter referred to as "Giles") food service equipment and parts purchased new from an authorized Giles representative are warranted as to defects in material or workmanship for a period of twenty-four (24) months from the date of installation, provided, however, that with regard to labor costs in connection with this warranty, see below. All installations must be made by a qualified installing agency in accordance with all applicable codes and/or regulations in the jurisdiction in which installed. Limited warranty coverage is extended only to the original owner and is void if the unit is resold.

- During the Limited Warranty period, Giles will replace or recondition, at its factory, any part or parts of this unit which Giles inspectors judge defective, provided the unit has been properly installed, subjected to normal usage, and operated and maintained in accordance with specified procedures. This Limited Warranty does not cover cosmetic damage, and damage due to acts of God, accident, misuse, alteration, negligence, abuse, or use of unorthodox repair methods. All parts replaced under this Limited Warranty carry only the unexpired term of this Limited Warranty. Limited Warranty service may be furnished only by an authorized Giles service representative.

- If Limited Warranty service is requested, Giles will dispatch factory-authorized service representatives to inspect, repair, recondition, or replace units of its manufacture with such labor being rendered without cost to owner for twenty-four (24) months from the date of installation. Otherwise, service, including labor and transportation charges or other expenses, in connection with the removal or installation of any part or parts supplied under this Limited Warranty, are specified on the original sales contract between the purchaser and the authorized Giles representative.

- **Failure to use Giles OEM replacement parts and Giles OEM filters may void this Warranty.**

- Giles reserves the right to change or improve its equipment and/or parts in any way without obligation to alter such equipment or parts previously manufactured.

- Giles makes no further warranties, express or implied, including implied warranties of merchantability or fitness for a particular purpose, and has no other obligation or liability not specifically stated herein.

- Repair or replacement as provided under this limited warranty is the exclusive remedy. Giles shall not be liable for any incidental or consequential damages for breach of any express or implied warranty on this product, except to the extent prohibited by applicable law. Any implied warranty of merchantability or fitness for a particular purpose on this product is limited in duration to the duration of this limited warranty.

- Used Giles food service equipment or parts, or Giles food service equipment or parts not purchased from an authorized Giles representative, carry no warranties, express or implied.

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Safety

Safety Overview:

The instructions contained in this manual have been prepared to aid in learning the proper procedures for installing, operating and servicing ***Giles Model GGF Series Gas Fryer***.

Throughout the manual, safety precautions are identified by a hazard alert symbol and key words such as **DANGER, WARNING** or **CAUTION**. Alert information precedes the tasks to which it applies. Suggested, recommended, or other noteworthy information is identified as **NOTES**, or will be noted as **IMPORTANT!**. Additionally, certain words are used to indicate a specific meaning, or to add emphasis as follows:

Shall: understood to be mandatory.
Should: understood to be advisory.
May: understood to be permissive.
Will: indicates a future event or condition to occur.

Hazard Alert Symbols are used in conjunction with key words, such as **DANGER, WARNING**, or **CAUTION,** to alert users of potential personal injury hazards and/or poor operating practices. These will immediately precede precautionary measures pertaining to avoiding such hazards or practices. Adhere to all information following these symbols to avoid possible injury, or even death. Failure to do so may also void the factory warranty.

This product can expose Users to chemicals including lead, nickel, cobalt, aluminum, cadmium, brass, carbon, copper or BPA which are known in the state of California to cause cancer, birth defects and other reproductive harm. For more information go to: www.p65warnings.ca.gov.

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in serious personal injury, even death.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in serious injury, even death.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor to moderate injury. This notification is also used as an alert to unsafe practices.

CAUTION

If used without the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, may result in equipment and/or property damage, and may void the factory warranty.

NOTE or IMPORTANT!
Identifies suggested, recommended, or other important information.

Specific Safety Precautions:

For your safety, please observe the following precautions when operating or servicing the **GGF Series Gas Fryer**. Adhering to the following important safety precautions will help Users to avoid personal injury and/or damage to the equipment.

⚠ DANGER

- Before cleaning or performing maintenance, place power switch in the **[OFF]** position. Unplug power cord or turn **OFF** power at the electrical panel supplying power to remove all power from the appliance. Close gas supply valves and place the fryer gas valve in the **[OFF]** position.
- **DO NOT** wash down the fryer with water from a spray hose.
- Failure to comply with **DANGER** notices will result in serious injury, even death; or damage to equipment and/or property and may void the factory warranty.

⚠ WARNING

- **Fryer must be installed and used in locations that have ventilation to the outside and be sufficient to provide an adequate fresh air exchange rate necessary to prevent accummulation of hazardous combustion gases (carbon monoxide & CO2). Combustion gases produced by this appliance must be vented to the outside in accordance with the prevailing National Fuel Gas Code, ANSI Z223.1. Failure to comply can result in personal injury, even death.**
- Prior to installation, consult a qualified electrician to ensure that installation complies with all electrical requirements and codes.
- **Appliance must be installed and electrically grounded in accordance with local code, or in the absence of local code, in accordance with the National Electrical Code, NFPA 70. Improper grounding may result in electrical shock to users. Always refer to local electrical code to ensure proper grounding of this or any other electrical equipment.**
- **Check the rating label on the unit to determine the proper power supply required. Always consult with an electrician, or other qualified service technician, to ensure that circuit breakers and wiring are of sufficient rating and gauge to power this equipment. A wiring diagram is provided.**
- Improper installation, adjustment, alteration, service, or maintenance could result in serious injury, even death; equipment and/or property damage; and will potentially void the factory warranty.
- **DO NOT** use or store flammable liquids, or materials that produce flammable vapors, in the vicinity of this or any other appliance!
- **DO NOT (or ALLOW OTHERS) for any reason, stand or step onto the top of the appliance**. Cooking oil in Fryers can be **EXTREMELY HOT (excess of 330°F [166°C]).** Bodily contact will cause extremely serious injury. Lids used to sometimes cover cooking vats/pots are not designed to, and **WILL NOT**, support the weight of a person.

- Failure to comply with **WARNING** notices could result in serious injury, even death; damage to equipment and/or property; and will potentially void the factory warranty.

⚠CAUTION

- The appliance must remain in an upright position.
- Exercise care when removing the unit from shipping pallet.
- **DO NOT** operate the appliance, unless its components and their intended functions are fully understood (see **Section 3**). After reading and fully understanding **Section 3**, closely follow the presented procedures and instructions in order to avoid equipment damage or malfunction.
- **To avoid personal injury, it is recommended that thermal hand protection (gloves or mitts) be worn while tended the appliance**. Certain parts of the Fryer will become very **HOT** during operation; temperatures inside cabinet may exceed **150°F (65.5°C)!** Exercise caution when operating and cleaning.
- Placing foods containing excessive moisture into hot oil, or attempting to load larger than recommended batch sizes can cause *"surge boiling"* and result in an overflow of **HOT** cooking oil. Proceed slowly and exercise due care when loading food to observe how hot oil reacts before continuing.
- Be sure the appliance is positioned in a stable, safe location with the casters in the locked position. **DO NOT** operate appliance if not secured. Some jurisdictions may require special anchoring for this type appliance; check local code.
- Allow the appliance to cool for 15-20 minutes before cleaning or servicing.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given adequate instruction and/or supervision concerning its use by a person responsible for their safety. Children should not be allowed to play with, or around, this appliance.
- Prior to sale, cooked food products must be maintained at a minimum temperature of 150°F (65.5°C), or in accordance with governing health regulations.

CAUTION

- Components exposed on the control panel surface are impact-sensitive. To avoid damage and maintain proper operation, exercise care when working around, or using rolling carts or tables, near the appliance.
- The control panel contains a high-tech electronic microprocessor controller. ***While the front panel is liquid-resistant, it is not completely wash-down safe***. When cleaning, avoid spraying directly with high pressure spray.
- **DO NOT** install the unit near combustible walls and materials. Failure to maintain safe distance may result in fire.
- When cleaning the appliance:
  - **DO NOT** steam clean.
  - **DO NOT** use products containing chlorine, or other corrosive chemicals.
  - **DO NOT** use abrasive products, steel wool or scouring pads.
  - **DO NOT** use oven cleaners.
- **DO NOT** alter, add attachments, or otherwise modify this equipment!
- Failure to comply with **CAUTION** notices may result in damage to equipment or property, and void the factory warranty.

NOTE:

- If upon receipt, the palletized unit showed any signs of damage, you should immediately inspect the appliance and associated accessories, and notify the freight carrier of any and all damages.
- Comply with all appropriate state and/or local heath regulations regarding cleaning and sanitization of foodservice equipment.

1. Introduction

THANK YOU for purchasing the ***Giles Model GGF Series Gas Fryer***, manufactured by *GILES Food Service Equipment;* Montgomery, Alabama (USA), hereafter referred to as "Giles". Every unit is thoroughly inspected and tested prior to shipment in efforts to ensure that it will operate flawlessly when installed. With proper care and maintenance the appliance will provide years of trouble-free service.

To help protect your investment in this state-of-the-art cooking equipment, we recommend that you take a few moments to become familiar with the procedures for installation, operation, cleaning, and maintenance contained in this Manual. Adherence to the recommended procedures will minimize the potential for costly “downtime” and future repair expense. Please retain this manual for future reference.

NOTE: Due to continuing improvements and product enhancements, some of the illustrations shown in this manual might not exactly depict current models.

1.1 Construction

Constructed of 18 and 20 Ga. 430 Stainless Steel.

1.2 Standard Features

Computer Controller - Accurately controls cooking oil temperature and cooking time. Provides for up to fifty (50) programmable menu item cooking presets. Monitors fryer status; displays operational instructions, warnings and errors (**DRAIN OPEN**, **LOW OIL LEVEL**, **MAX. ELEMENT TEMP**, etc). Features **BOIL-OUT** program, **COOL MODE**, **FORCE FILTER** control, available password protection, multiple languages, and enhanced safety.

Dual Burner system *(Model GGF-720 only)* - Unique dual burner system delivers maximum BTU’s when needed, while saving energy during light load cooking and idle periods.

Automatic Basket Lift - Automatically lowers product when cook cycle is started ... lifts cooked product from hot oil at the conclusion of the cook cycle.

Built-in Oil Filtration System - Completely self-contained system helps to extend the life of cooking oil. Features 1/2 HP pump; designed to perform a filter cycle within approximately five (5) minutes.

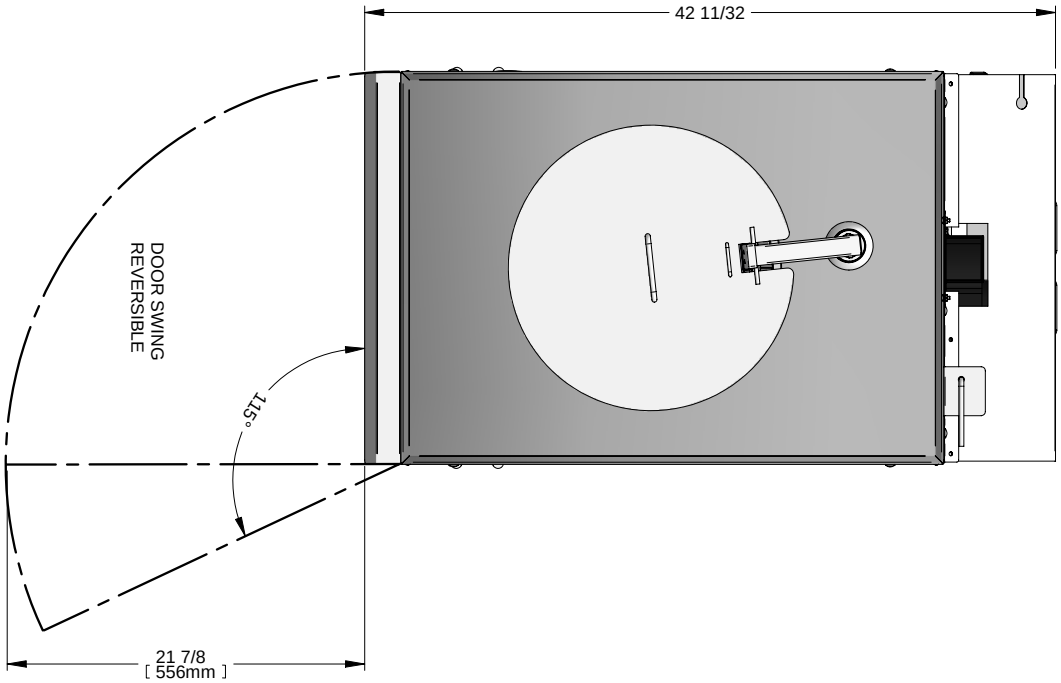
Push-To-Start Feature - After any power interruption, the User must press a **[START]** key to power-up the appliance. This feature will comply with code requirements in some jurisdictions.

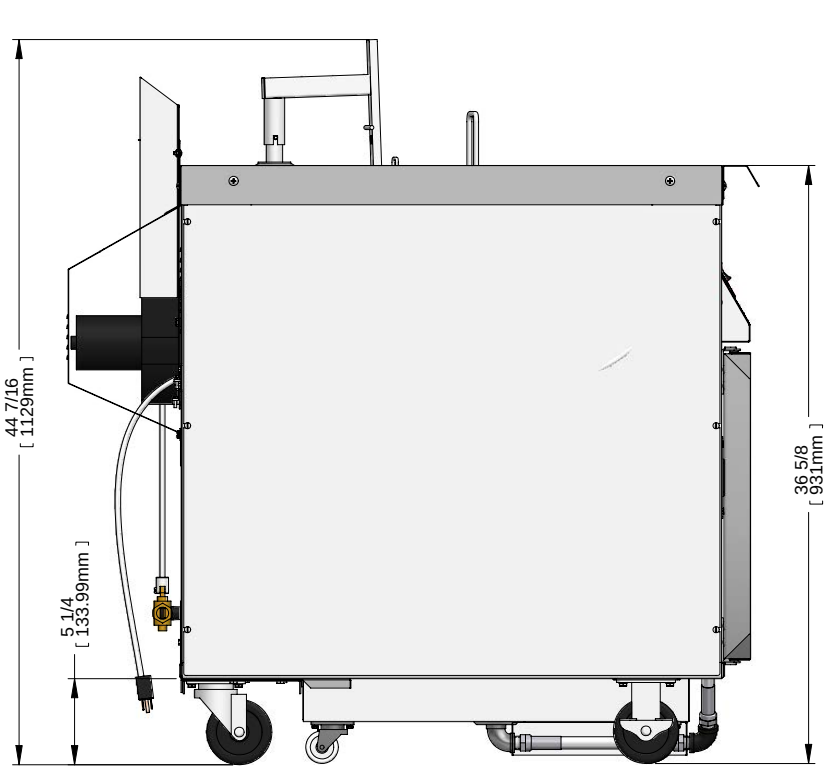
1.3 Optional Features

Filter Screen Media [purchased separately] - Stainless steel micro-mesh, cleanable, filter screen used as a direct replacement for Filter Paper. Reusable and durable; with proper care can last for many months. Helps to reduce cost of operation and minimize the waste stream. ***Order Item Number: 41014***

1.4. Specifications

1.4.1. Overall Dimensions: GGF-400 & GGF-720





1.4.2. Agency Certifications

1.4.3 Basket Sizes

Model	Basket Size		Volume
	Diameter: in [mm]	Height: in [mm]	Cubic inch [Cu m]
GGF-400	12-3/8 [314.2]	10-1/4 [260.4]	1,231.8 [.020]
GGF-720	14-3/4 [374.7]	12-3/4 [323.9]	2,178.6 [.036]

1.4.4 Cooking Capacity

Model	Cooking Oil Capacity**		Product Capacity (*Chicken)
	Lbs [kg]	Gal [l]	Lbs [kg]
GGF-400	45 [21]	5.8 [21.9]	14 [6.3]
GGF-720	75 [34]	9.7 [36.7]	24 [10.8]

** Never exceed **[MAX]** oil level

* **8-way cut, bone-in**

⚠CAUTION

Exceeding the product load capacity or over-filling fry pot with oil may result personal injury and/or damage to equipment or property.

2. Installation

This section summarizes procedures necessary for proper installation of the ***GGF Series Gas Fryer***. To prevent personal injury or damage to the equipment, please ensure the following steps are taken and the following check sheet is initialed and dated.

CAUTION

Various installation tasks described in this Manual **MUST** be performed only by a Licensed Electrician and a Qualified Gas Appliance Technician.

NOTE:

This appliance must be electrically grounded in accordance with the local codes, or in the absence of local codes, with the ***National Electrical Code, ANSI/NFPA 70***, or ***Canadian Electrical code, CSA C22.2***, as applicable.

INSTALLATION CHECK SHEET				
Check	**Date**	**Initial**	**Section**	**Description**
X	8/18/05	CSY	0.0	Completely read Manual (EXAMPLE)
			2-01.	Inspect crate for damage
			2-01.	Uncrate
			2-02.	Proper clearances
			2-04.	Proper ventilation
			2-05.	Proper circuit breaker installed (Licensed Electrician Only)
			2-06.	Proper electrical connections (Licensed Electrician Only)
			2-07.	Unit has power (Licensed Electrician Only)
			2-08.	Gas line connected (Qualified Gas Technician Only)
			2-09.	Correct gas orifice installed (Qualified Gas Technician Only)
			2-10.	Correct gas pressure setting (Qualified Gas Technician Only)
			2-11.	Correct blower vacuum switch setting (Qualified Gas Technician Only)
			2-12.	Filter Pump operating
			2-13.	Restraint device installed
			2-14.	Performed Boil-Out procedure
			2-15.	Cleaned Filter Pan

2.1. Appliance Location

WARNING

DO NOT MODIFY, ADD ATTACHMENTS OR OTHERWISE ALTER THIS EQUIPMENT.

DO NOT install or use the appliance in a location or kitchen space that does not have ventilation to the outside. Ventilation must be sufficient to provide a adequate fresh air exchange rate to prevent accummulation of hazardous combustion gases (carbon monoxide & CO2). Failure to comply can result in personal injury, even death.

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2.1. Appliance Location - continued

1. Installation location must comply with clearances to combustibles described in ***Section 2.3***.
2. Allow adequate space for easy access when operating or servicing.
3. Verify that electrical power available in the intended location is the proper voltage and amp rating adequate to power the appliance.
4. A stable fuel gas supply must be available at the intended location. 1/2" supply line, fitted with "service" shutoff valve is required.
5. Be sure unit is installed in a stable position and will not unintentionally move. Unit has locking brakes on front casters ... be sure they are locked. Some jurisdictions may require special anchoring of the appliance; check local codes. See ***Section 2.13, Restraining Device***.
6. This appliance is to be installed, used and maintained in accordance with the **Standard for Ventilation Control, and Fire Protection of Commercial Cooking Operations, NFPA 96**.

The above will help to ensure proper installation. If there are questions concerning installation procedures, contact ***Giles Technical Support*** at ***800.554.4537*** or email ***services@gfse.com***.

2.2. Unpacking

CAUTION

- The fryer must remain in an upright (vertical) position.
- Exercise care when lifting or moving the unit.
- Exercise care when removing the wooden crate and shipping materials from around the unit.
- Failure to comply with **CAUTION** notices may result in minor to moderate injury, damage to equipment or property, and voiding of the factory warranty.

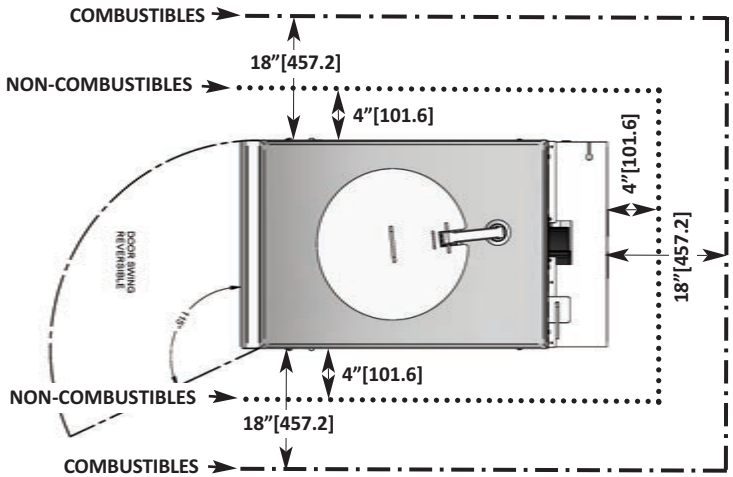
IMPORTANT!

If crate exhibited evidence of damage or mishandling, immediately inspect the unit and all accessory items and notify the freight carrier of any damages. Typically it is the purchaser's responsibility to file and negotiate freight damage claims.

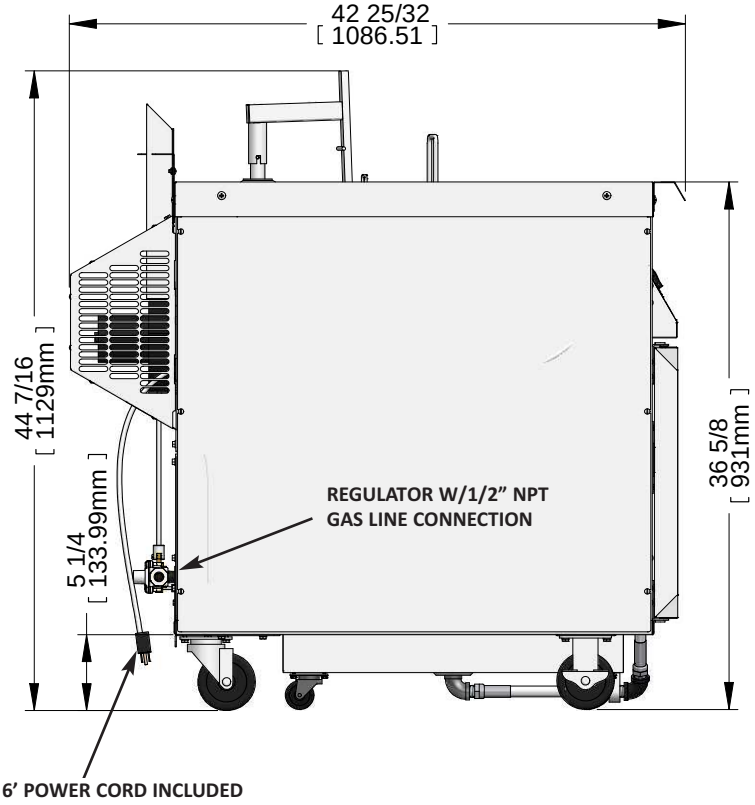
Giles is not liable for damages to the unit caused by use of improper material handling equipment or poor work practices, or for personal injuries or property damage which may be incurred during installation of this equipment. Installation is the sole responsibility of the purchaser, unless previous arrangements have been made in writing.

1. The appliance is palletized on a wooden pallet, secured with high-tensile plastic strapping and protected by a wooden framework. The entire unit load is wrapped with machine applied stretch wrap.
2. Carefully cut and remove the plastic shipping wrap.
3. Carefully remove the wooden crate framework and cut plastic strapping. Secure and remove all accessory items (basket & cover, brushes & tools, filter pan & cover, etc.). Set aside in a safe place and properly dispose of shipping materials.
4. Carefully remove the fryer from the shipping pallet. The appliance is very heavy [approximately 280 lbs (127 kg) uncrated]. Extreme care should be taken when lifting or moving the unit to prevent personal injury and/or damage to the equipment. Use sufficient manpower and appropriate handling equipment.

2.3. Clearances, Gas Supply and Electrical Locations



PLUG CONFIGURATION
NEMA 5-15P



INCHES [mm]

2.4. Ventilation

NOTE:
Guidelines for ventilation system requirements may differ by locale. Always consult with local authorities to ensure compliance for this appliance.

- **The combustion gases produced by this appliance must be vented to the outside in accordance with the prevailing National Fuel Gas Code, ANSI Z223.1 and terminate with a UL listed outside vent terminal. For Canadian installations reference CSA-B149.1 or .2, Installation Codes for Gas Burning Appliances and Equipment.**
- This appliance is to be installed, used and maintained in accordance with the **Standard for Ventilation Control & Fire Protection of Commercial Cooking Operations, NFPA 96**.
- Consult a professional, certified, HVAC company for assistance in designing and specifying a ventilation hood system for this unit.

2.5. Utility Requirements

⚠ CAUTION

- **Fryers must be adequately and properly grounded. Improper grounding may result in electrical shock. Always refer to local electrical code to ensure proper grounding of this or any other electrical equipment. Always consult with a qualified electrician or service technician to ensure breakers and wiring are of sufficient rating and gauge to supply power for the equipment.**

Table 2.5.1 Electrical Specifications

Model	Voltage	Hz	Ph	Amps	Breaker Required
GGF-400, 720	120	60	1	7.0	15

Table 2.5.2 Fuel Gas Specifications

Fuel Type	Max. Incoming Supply Pressure	Regulated Pressure to Fryer Gas Valve	Supply Line Size
Nat. Gas	13.85” w.c. [3.45 kPa]	5” w.c. [1.23 kPa]	1/2”
LP Gas	13.85” w.c. [3.45 kPa]	11” w.c. [2.74 kPa]	1/2”

2.6. Electrical Connections

1. Connect Fryer power cord to an appropriate receptacle ... the circuit must have properly sized circuit breaker and wiring of sufficient gauge to power the appliance, See ***Table 2.5.1***.
2. Fryer is equipped with power cord with molded plug.

IMPORTANT!
When installed, appliance must be electrically grounded in accordance with local code, or in the absence of local code, with the **National Electrical Code, ANSI/NFPA 70**, or **Canadian Electrical Code, CSA C22.2**, as applicable.

2.7. Gas Line Connection

⚠WARNING

- **Combustion gases produced by this appliance must be vented to the outside in accordance with the prevailing National Fuel Gas Code, ANSI Z223.1 and terminate with a UL listed outside vent terminal. For Canadian installations reference CSA-B149.1 or .2, Installation Codes for Gas Burning Appliances and Equipment.**
- **Quick-disconnect devices must comply with the Standard for Quick-Disconnect Devices for Use with Gas Fuel, ANSI Z21.41 [in Canada CSA 6.9-2014].**
- **Gas Connectors and Lines must comply with Standard for Movable Gas Appliance, ANSI-69, and Addenda Z21.69 [in Canada CSA 6.10-2015].**
- **This unit MAY require installation of a secondary in-line gas pressure Regulator (customer supplied), see *Section 2.5, Utility Requirements & Table 2.5.2, Fuel Gas Specifications*.**
- **This unit MUST only be installed by a Qualified Gas Technician.**
- **Ensure both the Facility Shut-Off Valve and the Fryer Shut-Off Valve are in the [OFF] position.**

Verify that a proper facility gas supply line (1/2" min.) is install and equipped with a "service" Shut-Off Valve **(not provided)**. See ***Section 2.8.1, Typical Gas Supply Line Connections***.

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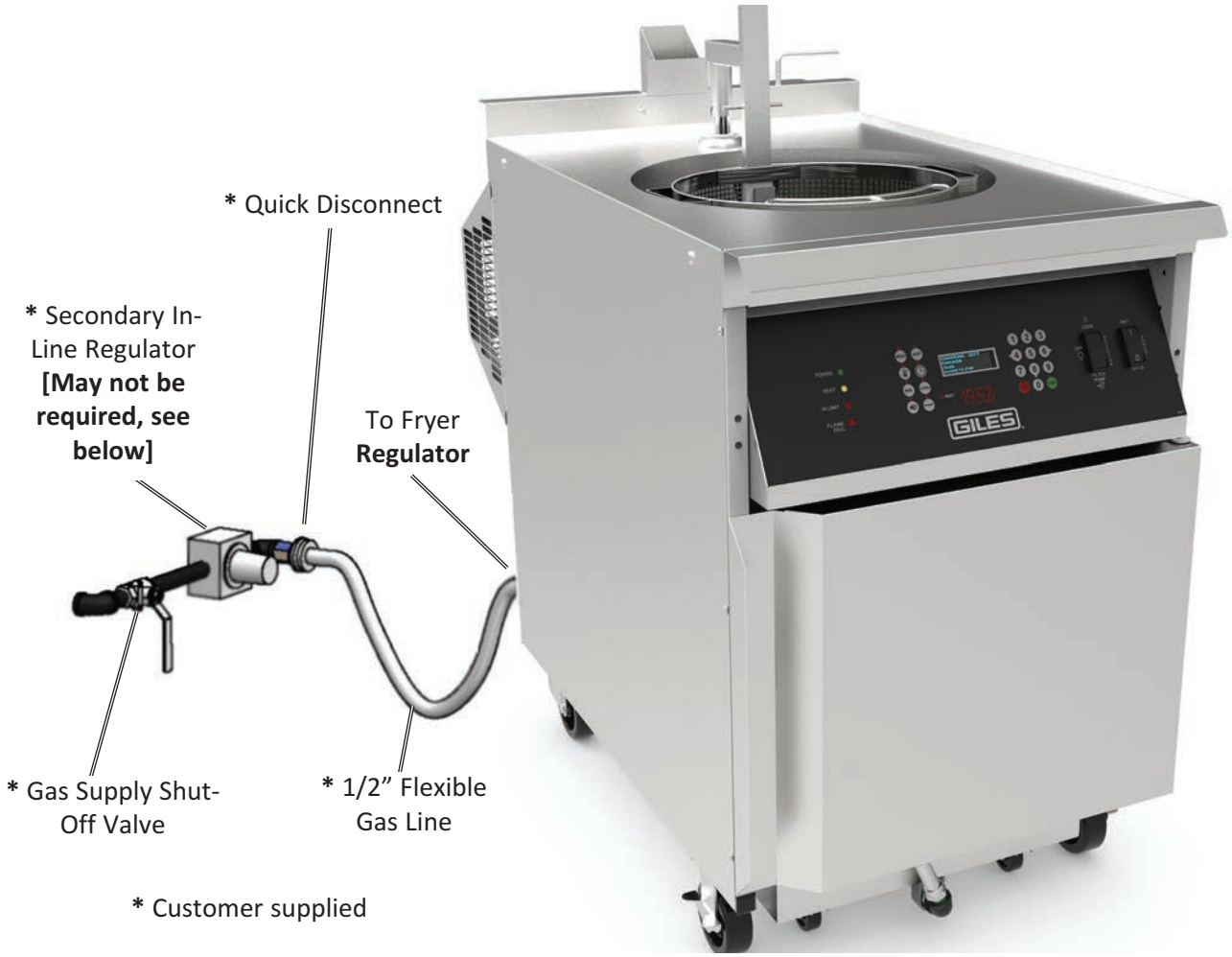
2.7.1 Typical Gas Supply Line Connection

IMPORTANT!

- **Installation must comply with local code, or in the absence of local code, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54 [in Canada, Natural Gas and Propane Installation Code, CSA B149.1] including:**
- The appliance must be disconnected from the incoming gas supply line at the main shut-off valve, during any testing of the piping at test pressures **in excess of 1/2 psi (3.5kPa).**
- The appliance must be isolated from the incoming gas supply line by closing the fryer Gas Shutoff Valve, during any testing of the piping at test pressures **equal to or less than 1/2 psi (3.5kPa).**

1. Check pressure of the incoming gas supply and compare to ***Table 2.5.2.*** If necessary install a secondary pressure regulator on the supply line to regulate supply pressure to a maximum of 13.85" W.C. [3.45 kPa].
2. Install an appropriate Quick-Disconnect fitting on the gas line.
3. Connect an approved 1/2" flexible gas line **(not provided)** between the supply line disconnect and the Fryer gas regulator located on the rear of the unit.
   Note: The flexible gas line should be long enough to allow for the Fryer to be moved away from wall for any servicing and cleaning.
4. ***WHEN TIGHTENED, CHECK ALL CONECTIONS FOR LEAKS USING A SUITABLE METHOD!***



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2.7.1 Typical Gas Supply Line Connection - continued

IMPORTANT!

The factory-installed regulator on the fryer controls gas pressure supplied to the gas valve as shown in **Table 5-2.2**. This regulator is rated for max. input pressure of 13.85" W.C. [3.45 kPa]. **If supply line pressure exceeds this maximum, a secondary regulator must be installed in the supply line, upstream of the installed regulator, to maintain pressure at or below the maximum rating.**

2.8. Gas Orifices: Information & Replacement Procedure

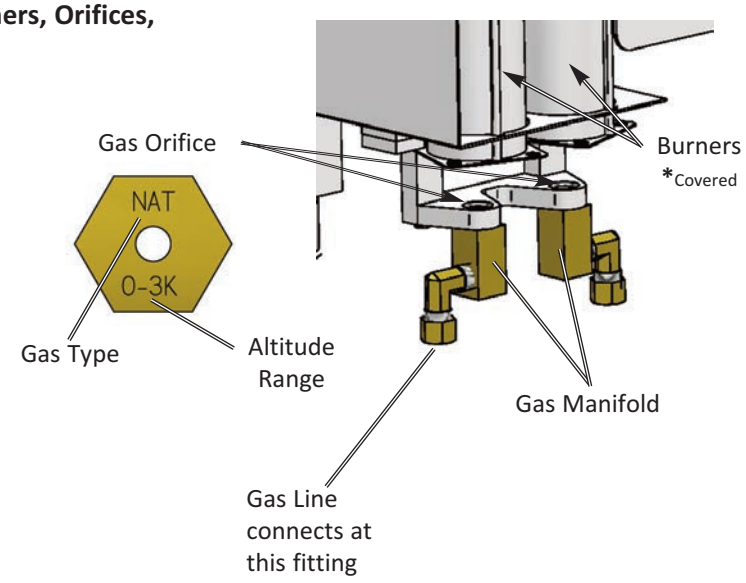
IMPORTANT!
Fryer is shipped with factory-installed standard gas Orifices for operation with **Natural Gas at 0 - 3,000 feet AMSL**, or **LP Gas at 0 - 4,000 feet AMSL**.

Gas flow varies at different elevations. Verify the elevation at the installation site. If the elevation is greater than noted above for the fuel type, orifices must be changed. To confirm that proper orifices are installed or to exchange, follow the steps below. Orifices are available from Giles **(call factory at 800.554.4537)** and it is possible that they may also be sourced locally; consult charts below.

⚠CAUTION **Changing the type of fuel gas will require a proper Conversion Kit, contact factory.**

NOTE: The model GGF-720 is equipped with (2) Burners, Orifices, Gas Manifolds & gas lines.

1. Ensure power to the unit is disconnected.
2. Confirm that gas valves are in the **[OFF]** position.
3. Remove rear Fan Guard & Back Panel.
4. It should be possible to examine the ID stamp on orifice head without removing parts.
5. If Orifice is incorrect for the actual installation altitude, disconnect Gas Line and remove the Gas Manifold.
6. Remove & replace Orifice in the Manifold with the proper size. **See charts below.**
7. Re-install Gas Manifold with installed orifice, reconnect gas line, and replace Panel & Guard. Proceed to ***Section 2-10; Gas Pressure Setting and Adjustment***.



IMPORTANT! [Model GGF-720 with 2 Burners]
When removing and reattaching gas lines, for any service or maintenance event, be sure that they are reattached to the same burner manifold from which they were removed. Inadvertently switching these lines will result in ignition failures.

NATURAL GAS			
ALTITUDE IN FEET	INPUT RATING	DRILL SIZE #	ORF P/N
0– 999	45000	30(.1285)	46719
1000–1999	45000	30(.1285)	46719
2000–2999	43200	30(.1285)	46719
3000–3999	41500	31(.120)	46720
4000–4999	39800	31(.120)	46720
5000–5999	38200	31(.120)	46720
6000–6999	36700	31(.120)	46720
7000–7999	35200	32(.116)	46721
8000–8999	33800	32(.116)	46721

PROPANE			
ALTITUDE IN FEET	INPUT RATING	DRILL SIZE #	ORF P/N
0– 999	45000	48(.076)	46723
1000–1999	45000	48(.076)	46723
2000–2999	43200	48(.076)	46723
3000–3999	41500	48(.076)	46723
4000–4999	39800	49(.073)	46724
5000–5999	38200	49(.073)	46724
6000–6999	36700	49(.073)	46724
7000–7999	35200	50(.070)	46726
8000–8999	33800	50(.070)	46726

Orifice chart for GGF-400 Fryer

NATURAL GAS			
ALTITUDE IN FEET	*INPUT RATING	DRILL SIZE #	ORF P/N
0– 999	85000	30(.1285)	46719
1000–1999	85000	30(.1285)	46719
2000–2999	81600	30(.1285)	46719
3000–3999	78300	31(.120)	46720
4000–4999	75200	31(.120)	46720
5000–5999	72200	31(.120)	46720
6000–6999	69300	31(.120)	46720
7000–7999	66500	32(.116)	46721
8000–8999	63900	32(.116)	46721

PROPANE			
ALTITUDE IN FEET	*INPUT RATING	DRILL SIZE #	ORF P/N
0– 999	85000	48(.076)	46723
1000–1999	85000	48(.076)	46723
2000–2999	81600	48(.076)	46723
3000–3999	78300	48(.076)	46723
4000–4999	75200	49(.073)	46724
5000–5999	72200	49(.073)	46724
6000–6999	69300	49(.073)	46724
7000–7999	66500	50(.070)	46726
8000–8999	63900	50(.070)	46726

Orifice chart for GGF-720 Fryer

2.9. Gas Pressure Setting & Adjustment

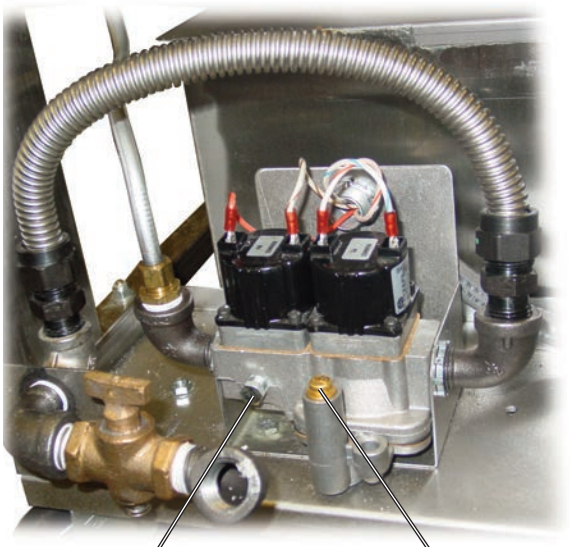
The following procedure is for setting the Fryer gas valve to the proper incoming gas pressure. This ensures that the BTU output of the burners is at the correct level. **Requires a digital Manometer capable of reading Inches W.C. (water column).**

⚠CAUTION **DO NOT ever check or adjust the gas pressure without first filling the Fry Pot.**

1. Fill Fry Pot with clean water to the **FULL** mark.
2. Remove the Lower Rear Panel from Fryer Cabinet.
3. Remove the Pressure Tap Plug from the Gas Valve. Install a fitting appropriate for attaching a Manometer.
4. Remove the Pressure Adjustment Cover Plug on the Gas Valve.
5. Connect a digital manometer (reading inches w.c.) to the Gas Valve Pressure Tap and tighten.
6. **Open** the gas supply line valve. Place the Fryer Gas Shut-Off Valve in the **[OPEN]** position.
7. Place the Power Switch in the **[ON]** position and allow Controller to power-up. Press **[ALARM]** key to silence alarm, then press **[START]** key. Place Selector Switch in the **[COOK]** position.
8. The burner(s) should ignite and the unit will begin heating.
9. While burner(s) are **ON**, check the Manometer pressure reading and compare to table below. If pressure matches for the type gas, **NO** adjustment is needed. If not, use a screwdriver to adjust pressure ... turn to right (clockwise) to increase, turn to left (counterclockwise) to decrease. **Observe pressure for several minutes to confirm that it remains stable.**

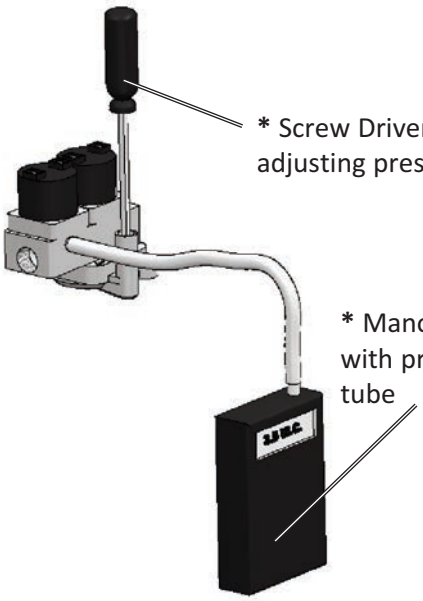
GAS TYPE	IN. WATER COLUMN [w.c.]
NATURAL	3.5”
LP	10.5”

10. Return Selector Switch and Power Switch in the **[OFF]** position.
11. Remove manometer tube; replace and tighten the Pressure Tap Plug.
12. Replace the adjustment screw cover plug.
13. Replace the Rear Fryer Panel.
14. **Do not drain water** ... Restart the Fryer as described in ***Step-7*** and continue set-up in ***Section 2.11, Blower Vacuum Switch Setting***.



Pressure Tap Plug

Pressure Adjustment Cover Plug



* Screw Driver for adjusting pressure

* Manometer with pressure tube

* Not supplied with unit

2.10. Blower Vacuum Switch Setting & Adjustment

The Blower Vacuum Switch ensures that the unit has proper draft air-flow before allowing the gas valve to open for ignition. The switch has been factory set, but differences in conditions at the installation site may affect the setting. Use the following steps to confirm that the Blower Vacuum Switch is adjusted properly for local conditions.

⚠CAUTION

DO NOT EVER check or adjust the Blower Vacuum Switch without having fry pot filled with water, or cooking oil.

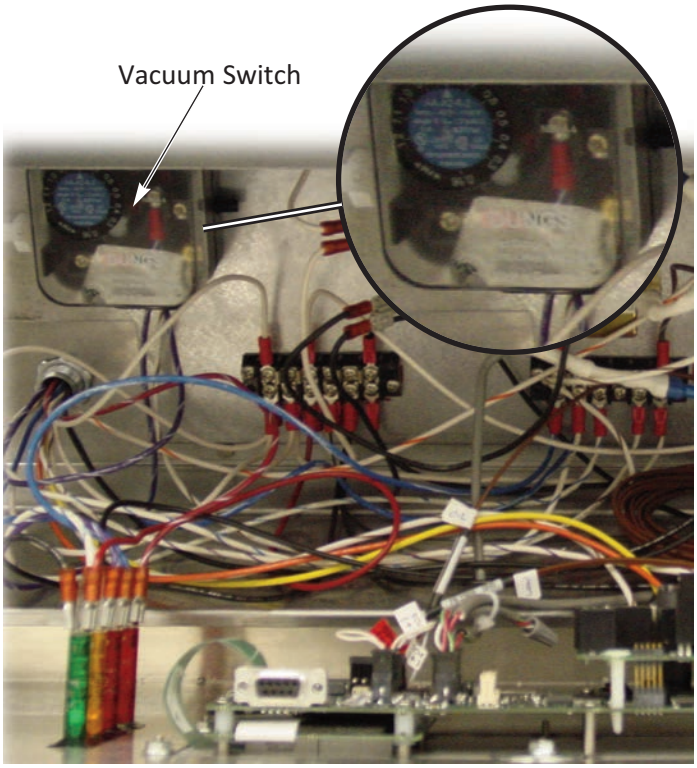
⚠CAUTION

During the next steps use great caution and wear thermal hand protection. The air exhausted from the flue stack is EXTREMELY HOT!!

1. Fryer should remain **ON** and continue heating water from the previous procedure.
2. While the burner(s) are **ON, u**se a piece of **non-combustible material** to diagonally block, from corner to corner, about half of the flue stack opening.
3. The burner(s) and the draft fan should shutdown. When the opening is unblocked, the fan should restart and burner(s) should relight. If this occurs, the setting is satisfactory, go to ***Step-8***.

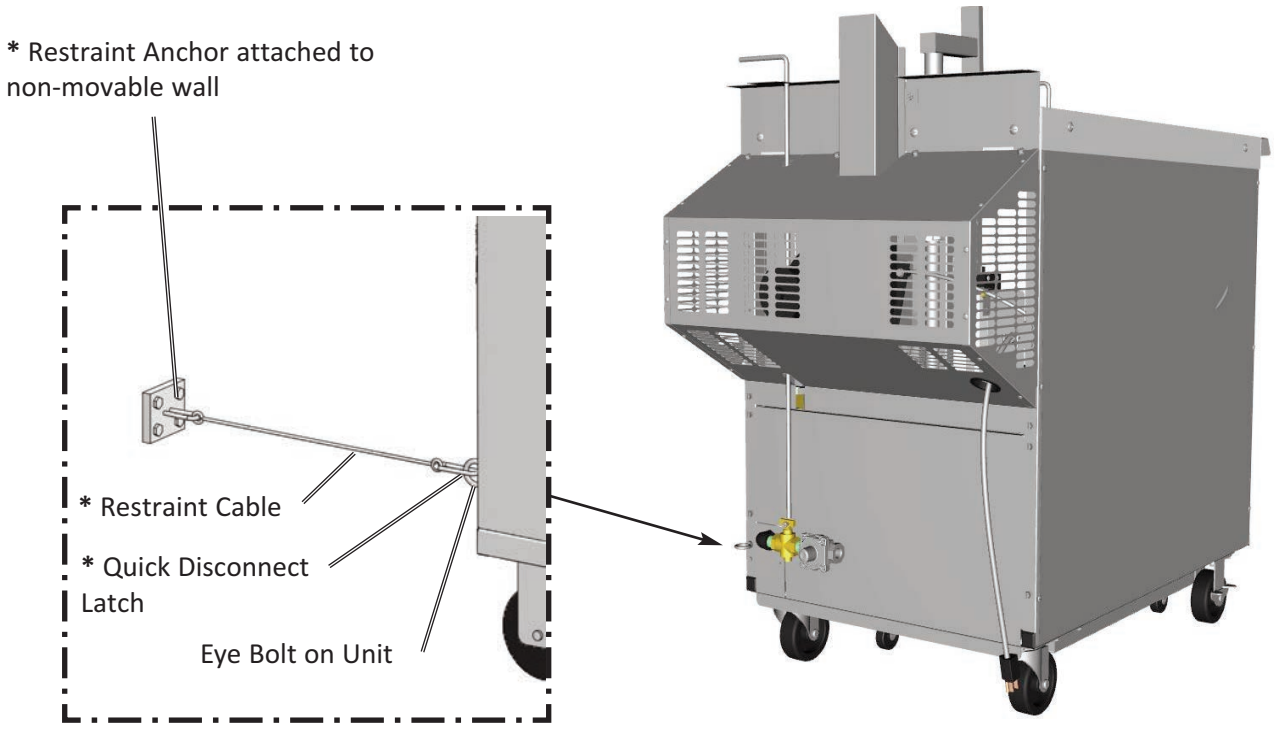
   If burner(s) fail to shutdown, the Blower Vacuum Switch must be adjusted as follows:
4. Shutdown Fryer.
5. Remove retaining screws at the top of the Control Panel and lower panel.
6. Locate pressure switch on left side of the Control Box; remove plastic cover, if still in place.
7. Slowly rotate the pressure switch adjustment dial to the right (clockwise) to increase sensitivity ... to the left (counter-clockwise) decreases. Restart Fryer and repeat ***Step-2 thru 3***. As necessary, continue incremental adjustments until the burner(s) consistently shutdown when approx. half of the stack opening is blocked.

   Shutdown Fryer and secure Control Panel.
8. Drain water from the Fry Pot into a suitable container **(NOT Filter Pan)**. Proceed to ***Section 2-12***.



2.11. Restraint Device

This unit requires use of a Restraint Device **(not provided)** to prevent Fryer from being unintentionally moved and prevent strain on electrical and gas connections. The Restraint Cable length must be shorter than both electrical cord (or conduit) and the flexible gas line. A Restraint Anchor must be fastened to a immovable wall, or other structure. Use a quick disconnecting latch on one end of the Restraint Cable so that cable can be easily removed during servicing. After installation of the Restraint Device proceed to ***Section 2-13; Perform Boil-Out Procedure***.

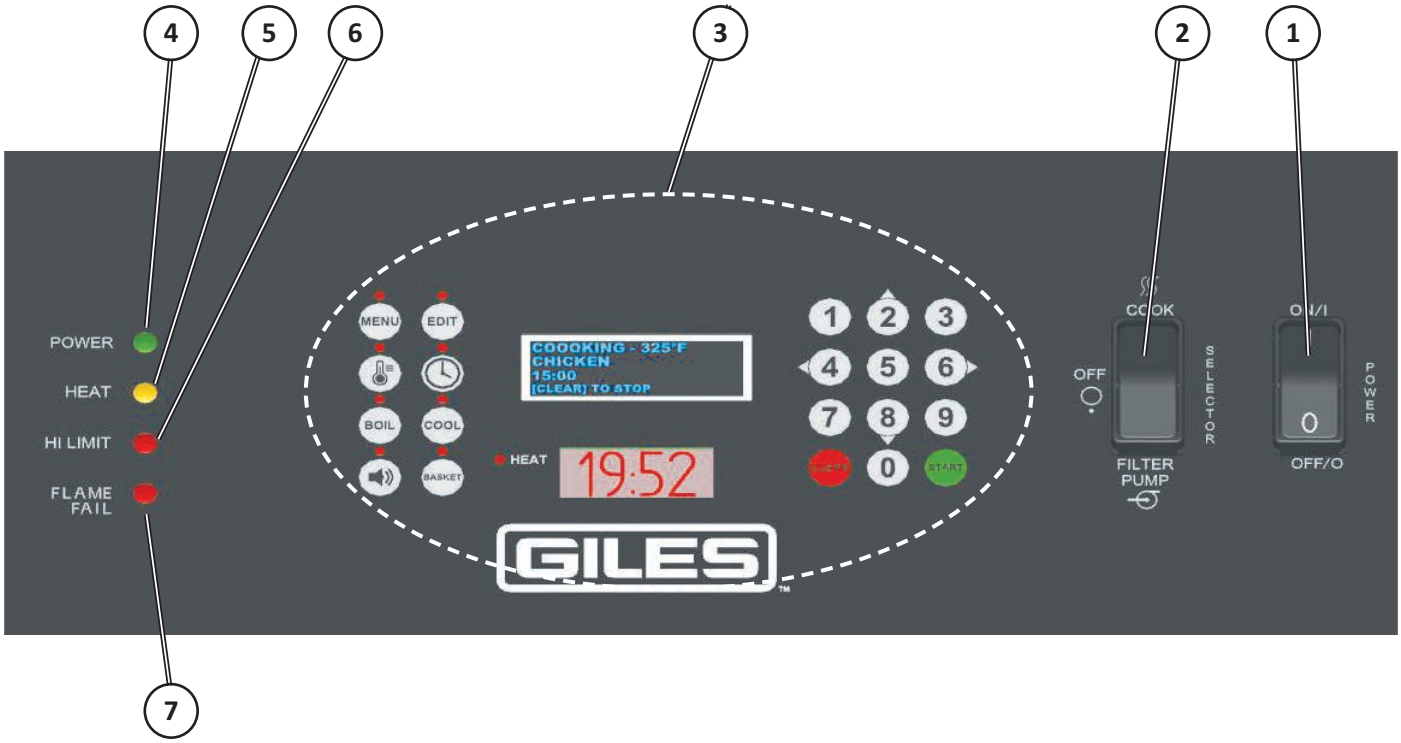


* Customer supplied

3. Overview

The following section provides a brief overview of components, features and accessories associated with the ***Giles GGF Series Fryer***. Please review this section completely before attempting to use the appliance.

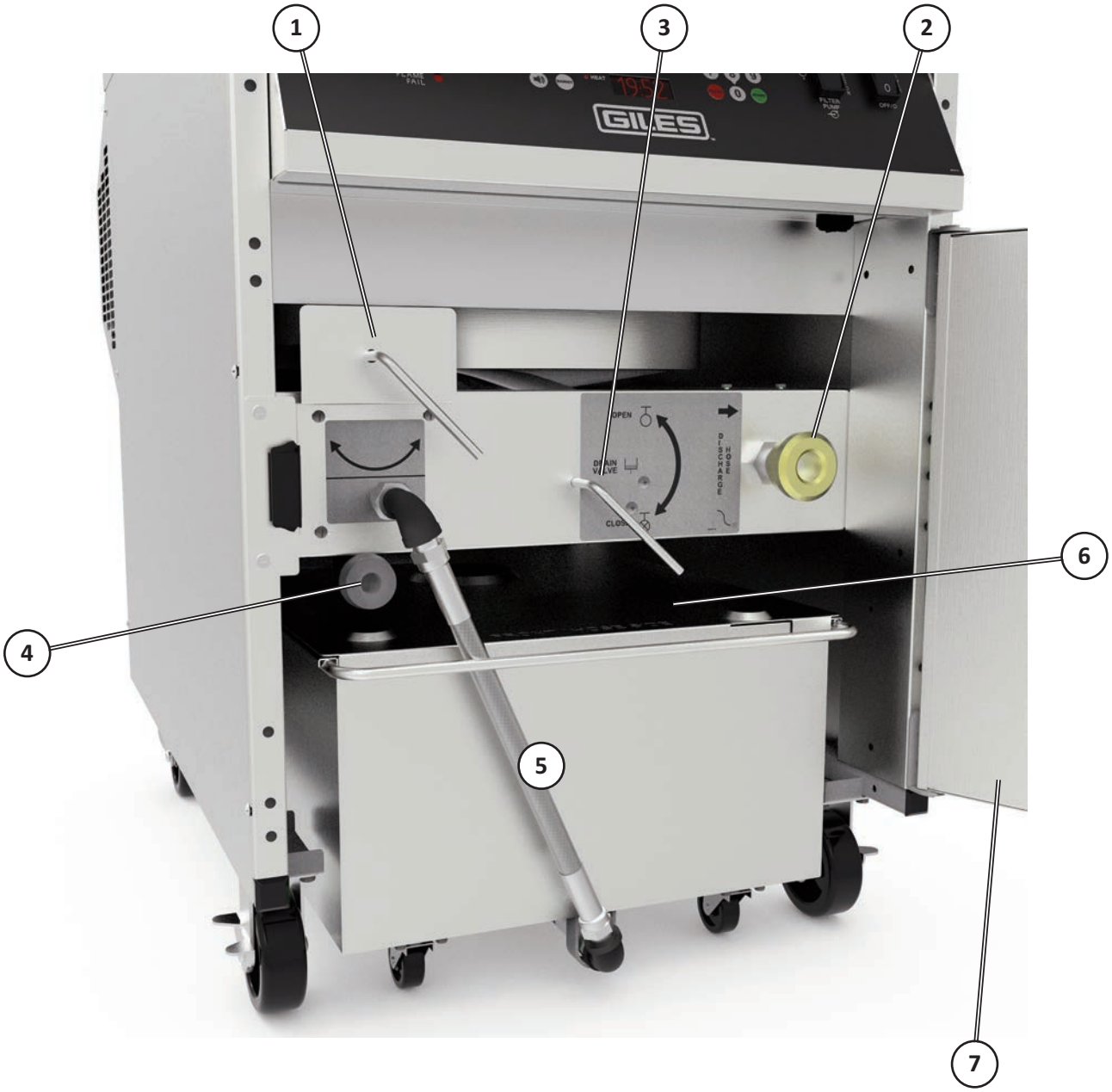
3.1. Control Panel



3.1. Control Panel

Item	Description	Function
1	Power Switch	2-position rocker switch, turns appliance power **ON** & **OFF.** Pressing top of switch powers **ON**, pressing bottom powers **OFF**.
2	Selector Switch	3-position rocker switch, selects appliance mode of operation ... **[COOK]-[OFF]-[FILTER PUMP]**. Centered switch position is **[OFF]**. Pressing top of switch places unit in **[COOK]** mode and enables the burner system. Pressing bottom turns **ON** the Filter Pump; place in this position only for filtering or removing used oil.
3	Computer Controller	Computer Controller regulates cooking oil temperature and controls the cooking cycle time. Features fifty (50), programmable menu item presets for various cooking conditions. Monitors Fryer operation and displays alarm conditions and various operational instructions.
4	Power Indicator Light	Green light is illuminated whenever the appliance Power Switch is in the **[ON]** position.
5	Heat Indicator Light	Amber light illuminates whenever Fryer burner(s) are **ON** and heating the cooking oil. Cycles **ON** & **OFF** while cooking, as the Controller regulates oil temperature to setpoint.
6	Hi-Limit Indicator Light	The red **High-Limit** light illuminates to signal an uncontrolled overheating situation and indicates that the safety system has disabled the burner system. Should this light come on during operation, refer to the ***Section 7, Troubleshooting*** in this Manual. **DO NOT ATTEMPT TO COOK IN A FRYER WHEN THE HIGH-LIMIT LIGHT IS ON!**
7	Flame Fail Indicator Light	The red **Flame Fail** light illuminates whenever the burner control system detects that there is no flame at the burner. The electronic gas control valve stops gas flow.

3.2. Lower Cabinet



3.2. Lower Cabinet

Item	Description	Function
1	Diverter Valve Handle	Directs the discharge from the Filter Pump either to the Fry Pot, or to the Waste Oil Discharge Hose.
2	Waste Oil Discharge Hose Quick-disconnect	Connects the Waste Oil Discharge Hose to the Fryer Filter Pump system for removal of waste oil.
3	Drain Valve Handle	Operates the Fry Pot Drain Valve. Always ensure the valve is **[CLOSED]** before adding cooking oil or boil out solution to Pot. **NOTE: Fryer will NOT heat unless Drain Valve is completely closed.**
4	Filter Pan Quick-disconnect	Connects the Filter Pan hose to the Oil Filtration System.
5	Fryer Filter Pan	Collects used cooking oil drained from the Fry Pot. Contains media for filtering oil. See ***Section 3.3*** for more detail.
6	Filter Pan Cover	Helps to contain splash and splatter as oil is being drained into the Filter Pan. Helps keep floor and inside Cabinet area cleaner. Also, provides some degree of protection against contamination of oil while it is temporarily contained in the Filter Pan.
7	Cabinet Door	Access for lower Cabinet valves and Filter Pan. Door is field reversible, if desired.

3.3. Filter Pan Assembly

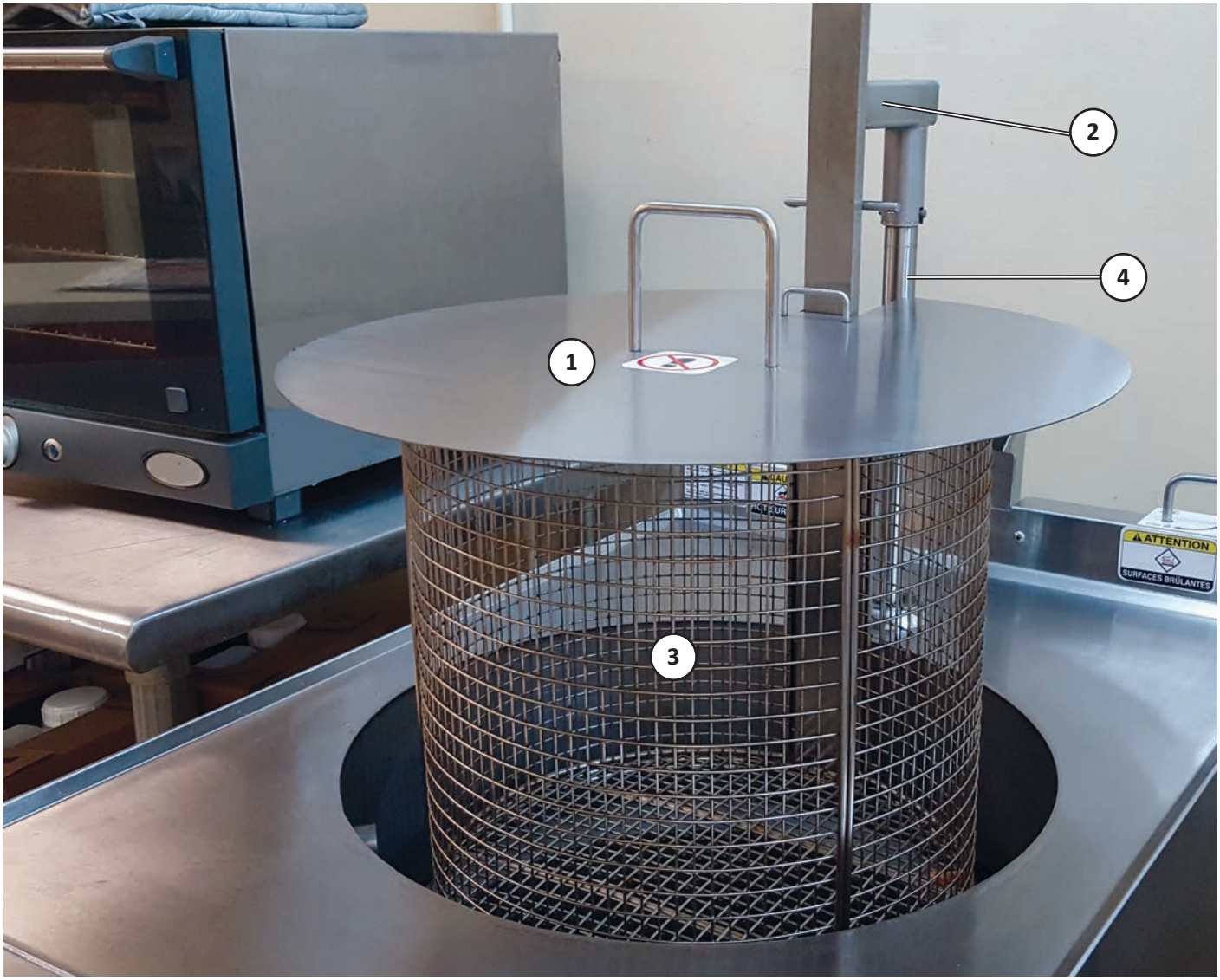
* Non-standard; Sold separately; Not Included

3.3. Filter Pan Assembly

Item	Description	Function
*1	Crumb Screen	***OPTIONAL, SOLD SEPARATELY, NOT INCLUDED** Designed to capture larger breading crumbs, cooking offal and residue as oil drains into the Filter Pan.
2	Hold-Down Frame	Secures filter media tightly against Filter Pan bottom to provide a good suction seal. Improper placement will likely affect Filter Pump performance.
3	Filter Paper	Standard, disposable. paper filter media. Filters fine sediment and residue from cooking oil during the filtering cycle.
4	Hold-Down Levers [4}	Holds the Hold-Down Frame firmly against the filter media in the Filter Pan. Not having these Levers properly engaged will potentially cause poor filter pump performance.
5	Filter Pan Quick-disconnect Hose	Connects the Filter Pan to the Fryer oil filtration system. This hose must be disconnected before the Filter Pan can be removed.
6	Filter Pan	Collects used cooking oil for filtering; contains filter media which filters and reconditions oil during the filter cycle. The Filter Pan features casters and is removable for cleaning and changing of filter media. Features a permanently attached perforated screen which supports the filter media while the pump is running, and will prevent large particle residue from entering the filter system should media be accidentally torn. **THIS IS NOT A FILTER; MEDIA MUST BE USED!**
*7	Stainless Steel Micro-mesh Filter Screen	***OPTIONAL, SOLD SEPARATELY, NOT INCLUDED** A cleanable, reuseable Filter Screen used as a direct substitute for standard paper media. Durable, can be used many times.

*** Non-standard; Sold separately; Not Included**

3.4. Basket and Elevator Assembly



3.4. Basket and Elevator Assembly

Item	Description	Function
1	Basket Cover	Covers Fry Pot during the cooking cycle. When in place prevents hot cooking oil from splashing or splattering out of Pot.
2	Basket Carrier	Holds Fry Basket as it is lower and raised by the Auto-Basket Lift.
3	Basket	Contains product while cooking.
4	Auto-Basket Lift	Lowers Basket into cooking oil, then automatically raises cooked product out of hot oil at end of cooking time.

3.5. Accessories Included

Part	Description/Part Number	Function
	Kettle Drain Brush P/N 71025	Use to clean Fry Pot Drain and between back the Heat Exchanger Ring and pot wall.
	Stirring Utensil P/N 77775	Use to stir cooking oil and product in the pot as it is cooked.
	Pot Brush P/N 71100	Heat-resistant brush for clean Fry Pot and Heat Exchanger surfaces.
	Crumb Shovel P/N 30059	Use to remove filter sediment from Filter Pan.

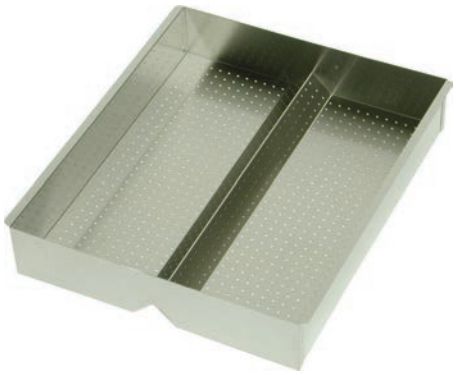
3.5. Accessories Included

Part	Description/Part Number	Function
	Discharge Hose Assembly P/N 33667	Use for removing liquid shortening from unit. **NOTE: DO NOT USE TO WASH DOWN THE COOK VAT!**

3.6. Accessories Not Included

Part	Description/Part Number	Function
	Filter Paper P/N 60810	Filter media to be use in Filter Pan fo filtering cooking oil.
	Filter Powder P/N 72004	Filter aid for use when filtering cooking; helps recondition oil by removing soluble impurities.
	Fryer Boil-Out P/N 72003	Fry pot cleaning agent, add to water during boil-out procedure.

3.6. Accessories Not Included

Part	Description/Part Number	Function
	Giles Oil Caddy P/N 79187	A portable oil disposal container with a capacity of 80-lbs of liquid shortening. Intended to handle only warm, filtered oil, containing no crumbs or debris.
	Filter Pan Crumb Screen P/N 39246	Filter Pan insert helps prevent larger crumb particles or cooking debris from getting into the Filter Pan.

Notes:

4. Preparation for Operating Fryer

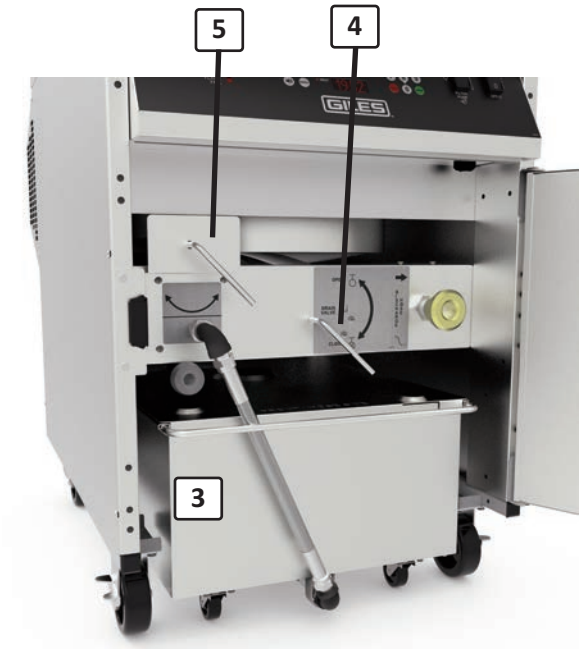
Giles takes pride in quality of workmanship. Every effort has been made to ensure that new equipment is in perfect operating condition when received. Every unit must pass rigorous quality control testing prior to shipment and to further ensure that it meets your expectations, it is recommended that this operational checkout and preparation be performed prior to using the fryer for the first time.

Before attempting to perform these steps, please refer to *Section 3* and become familiar with various controls and their function, and after fully understanding that information, perform the steps described in the following sections to confirm the unit's functionality and prepare it for operation. Precisely adhere to these instructions, otherwise equipment damage or malfunction could result.

4.1 Initial Fryer Set-up

Be sure that the unit is set-up as follows before proceeding.

1. Place ***Power Switch*** ① and the ***Selector Switch*** ② in the **[OFF]** position.
2. Open the cabinet door, if needed, disconnect and remove the *filter pan* ③.
3. Place the **Drain Valve Handle** ④ in the **[CLOSED]** position (down).
4. Place the **Oil Diverter Valve** ⑤ in the **[VAT]** position (left).
5. If in place, remove basket cover, basket carrier, and basket.
6. Before operating the appliance, take time to remove all of the adhesive poly-film from all surfaces where it remains. This film is left on the unit to provide some degree of safeguard against damage during shipping. If not removed now, over time it will become increasingly difficult to remove.



4.2. Power Test

The following verifies that the appliance is receiving power.

1. Be sure the circuit breaker in the electrical panel powering the fryer is **ON**.
2. Place the ***Power Switch*** ① in the **[ON]** position. The green **POWER** light ② should come **ON** and the controller ③ will power-up. An alarm sounds and a ***"POWER FAILURE"*** message is shown on the ***Upper Display***. If all of this occurs, return ***Power Switch*** to **[OFF]** and continue to ***Section 4.3***.

   If it does not, refer to ***Section 8, Troubleshooting***.

4.3. Burner System Test

The following test will verify that gas burner system is receiving fuel and operating.

⚠WARNING

<u>DO NOT</u> touch the Heat Exchanger Ring during this test. It becomes very hot and contact may result in severe burn injury.

⚠CAUTION

This test causes the burners to ignite and burn with no oil in Pot. <u>DO NOT</u> allow unit to remain ON for more than 10 seconds. Failure to observe this precaution may result in damage to the heat exchanger.

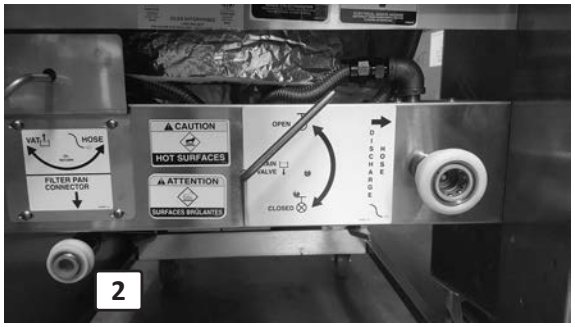
1. Be sure that main gas supply line valve is **OPEN** and that fryer **Gas Valve Handle** is in the **[ON]** position.
2. Heat exchanger ring inside pot should be at ambient temperature. Wipe the ring with a soaked wet sponge; so that visible moisture remains on the surface.
3. Place ***Selector Switch*** in the **[COOK]** position. The draft fan should start and you should hear the ignitor sparking ... burners should light.
   NOTE: If burner does not ignite within an allowed time, fryer enters FLAME FAIL error. Return *Selector Switch* to [OFF], wait 10 seconds and try again .
4. After ignition, the surface of the heat exchanger should dry quickly (within approximately 15 seconds) and noticeable heat should be felt rising from the pot, indicating acceptable operation.
4. If burners do not light after two (2) attempts, or appear not to be heating, refer to ***Section 8, Troubleshooting***.
5. If the burner system appears to be operational, return ***Selector Switch*** to **[OFF]** and proceed with the next test as described in ***Section 4.4***..

4.4. Filter Pump Test

The following test will verify that the Filter Pump is operating correctly.

1. Place the ***Power Switch*** ① in the **[ON]** position.
3. Open cabinet door.
4. With the filter pan disconnected, place the palm of the hand tightly over the **Filter Pan Hose Quick-Disconnect** ② opening.
5. Briefly place the ***Selector Switch*** ③ in the **[FILTER PUMP]** position, then return to the centered **[OFF]** position. If suction is felt, the pump is operating correctly; continue to ***Section 4.5***.

   If the pump does not run or no suction is felt, refer to the ***Section 8, Troubleshooting***.



4.5. Perform Boil Out Procedure

Perform a Boil-out Procedure to remove dirt that may have accumulated during shipping and any residue which may remain from manufacturing processes. See ***Section 6.1, Boil-Out Procedure***. After completion proceed to ***Section 4.6***.

4.6. Clean Filter Pan and Fryer Accessories

Thoroughly clean the filter pan to remove dirt/debris that may have accumulated during shipment, or residue remaining from manufacturing processes. See ***Section 6.2, Cleaning the Filter Pan and Replacing Filter Paper after Boil Out***.

Wash accessory items (cook basket, basket lift carrier, stirring utensil, crumb shovel, etc) in warm soapy water, rinse and dry thoroughly.

Inspect unit for protective adhesive film which may remain on the appliance. Some of this film typically remains on some surfaces as added protection during shipment. Remove all such material from surfaces and clean the entire exterior of the unit with a good quality stainless steel cleaner/polish. ***DO NOT use cleaners that are abrasive or contain caustic chemicals.***

Fryer is now ready for use. Please refer to *Section 5, Fryer Operation*.

5. Fryer Operation

This section describes operating procedures for the Giles Model GGF-400 & GGF-720 Gas Fryer.

⚠ DANGER

- Turn off the fryer power switch and the main supply power at the main circuit breaker panel, or remove plug for receptacle before cleaning or servicing.
- **DO NOT** wash down with water from a spray hose, or any pressure-type washing equipment.
- **DO NOT** operate this, or any other gas burning appliance, in an enclosed space without proper ventilation and a means of effectively venting combustion gases to the outside.
- Failure to comply with **DANGER** notices will result in serious injury, even death, damage to equipment or property and void the factory warranty.

⚠ WARNING

- **DO NOT** use or store flammable liquids, or materials that produce flammable vapors, in the vicinity of this or any other appliance!
- **DO NOT (or ALLOW OTHERS) for any reason, stand or step onto the top of the appliance**. Cooking oil in Fryers can be **EXTREMELY HOT (excess of 330°F [166°C]).** Bodily contact will cause extremely serious injury. Lids used to sometimes cover cooking vats/pots are not designed to, and **WILL NOT**, support the weight of a person.

- Failure to comply with **WARNING** notices could result in serious injury, even death; damage to equipment and/or property and will void the factory warranty.

⚠ CAUTION

- Be sure the fryer is positioned in a stable, safe location with the casters in the locked position.
- Consult an electrician to be certain that all electrical specifications have been met and the unit is properly grounded. A wiring diagram is provided with the unit to aid an electrician.
- Due to the high temperature of cooking oil in the fryer during cooking, it is extremely important that users exercise due caution when operating this equipment to avoid personal injury. **To avoid personal injury, it is recommended that thermal hand protection (gloves or mitts) be worn while tended the appliance**.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given adequate instruction and/or supervision concerning its use by a person responsible for their safety. Children should be supervised, or otherwise restricted, to ensure they do not play with or around this appliance.

5.1 Computer Cooking Controller

The following sections explain the functions, features, programming, and operational procedures for the Computer Cooking Controller.

5.1.1 Keys and Functions

Numeric Keypad: Used for entering Fryer settings and to edit preset Menu Item cooking parameters. The [**2-4-6-8]** keys are also used as **[ARROW KEYS**] for operating Basket Lifts (if installed), selecting timer, navigating lists, moving cursor for editing, etc. **[2-8] = UP/DOWN ... [4-6] = LEFT/RIGHT**. The keys will illuminate to indicate when they are active as **ARROW KEYS**.

[START]: Function key used to start cook cycles, select items, save settings, and exit editing, etc.

[CLEAR]: Function key used to cancel cook cycles, exit certain functions, etc.

5.1.1 Keys and Functions - continued

MENU Key: Action key which is pressed in combination with other keys to access programmed menu presets. Fifty (50) different Menu Item cooking presets can be programmed.

EDIT Key: This is an action key which is pressed in combination with other keys to enter edit mode for changing or creating Menu preset settings.

TEMP Key: Press this key to set the cooking oil temperature setpoint. Pressing this key twice (2x) will display **ACTUAL OIL TEMPERATURE** on the **Lower Display** for approximately 20 seconds.

CLOCK Key: Press this key to begin manually setting a cooking time (mm:ss).

Press this key during preheat phase to enter **BOIL OUT** mode. Temperature setpoint and time changes to the **BOIL TEMP** and **BOIL OUT TIME** as specified in **USER SETTINGS (see *Section 5.1.7, Access & Edit User Settings*). Default = 200°F & 30 minutes**.

Press this key to enter **COOL** mode. Energy-saving feature, allows Fryer to idle at a lower temperature during inactive periods. Temperature setpoint changes to the **COOL TEMP** specified in **USER SETTINGS (see *Section 5.1.7, Access & Edit User Settings*). Default setting = 275°F**.

ALARM Reset Key: Pressing this key silences the Controller alarm and acknowledges certain status messages.

BASKET Key: Activates the **UP/DOWN [2 - 8]** keys used to manually operate the Fryer Basket Lift. Key is disabled during **PREHEAT** phase to prevent lowering product into oil that is not yet at cooking temperature.

Upper OLED Display: Displays menu preset information, certain Fryer status information, and operational instruction messages.

Lower 7-Segment Display: Displays various status information, cook cycle time countdown, temperature, etc.

[HEAT] indicator will illuminate when the Controller is calling for the burners to ignite.

5.1.2 General Operation - Fryer Controller

The following is general operational information only. Detailed procedures and instructions are covered in subsequent sections. During operation, certain instructions and prompts will be shown on the **Upper OLED Display** to step Users through processes. Some Controller keys and indicator lights will illuminate to further guide the User.

- **POWER UP:**
  Place **Power Switch** in **[ON]** position. Controller will power up, then an alarm sounds. The message ***"POWER FAILURE [PRESS START TO PREHEAT]"*** is shown on the **Upper Display**. **This is normal**, intended to prevent Fryer from beginning to heat after power interruptions until attended by an operator. Pressing the **[START]** key silences the alarm and places Fryer into **PREHEAT** mode. If the **Selector Switch** is in the **[COOK]** position, and temperature setpoint is higher than the current actual oil temperature, burners will ignite and cooking oil will begin to heat

- **PREHEAT:**
  During the **PREHEAT** phase, the real-time actual oil temperature is displayed on the **Lower 7-Segment Display**. When oil reaches the programmed setpoint, an alarm tone sounds, the **Upper OLED Display** will display message ***"ALARM, STIR OIL"***. Vigorously stir the cooking oil, and press **[ALARM]** key. Typically, oil temperature will drop when stirred. Controller has a 10 second delay and if oil temperature drops below setpoint, **PREHEAT** state continues until oil returns to setpoint. **This process helps ensure that temperature is more uniform throughout the total volume of oil, leading to better cooking performance.** Upon reaching setpoint, the alarm sounds again and the **Upper Display** reads ***"ALARM - SETPOINT REACHED"***. Pressing the **[ALARM]** key, places the Fryer in **READY** state.

- **READY STATE:**
  Fryer is ready for cooking. The current cooking temperature setpoint will be shown on the **Lower Display** and the last used cooking parameters (preset or manual inputs) are shown on the **Upper Display**.

While in **PREHEAT** or **READY** state, User can select (or change) a Menu Item Preset, see ***Section 5.1.4.2, Selecting a Menu Preset***, which automatically changes cook temperature and cooking time to the Menu setting **-OR-** User can manually set a cooking time and/or cook temperature, see ***Section 5.1.3, Setting a Manual Temperature & Cook Time***.
NOTE: If the PASSCODE ENABLE parameter is set to [ON], User *cannot* manually set Time or Temperature without entering a password. This lockout feature helps ensure consistent cooking procedures across multiple user locations.

- **START:**
  Information for a selected Menu Preset, or a manually set time and temperature, is shown on the **Upper OLED Display**. To start the cooking cycle, press the **[START]** key.

5.1.3 Manually Setting a Cook Time & Cooking Temperature

The following explains the process for manually entering a cooking time and temperature.

CAUTION **Before setting a Temperature, be sure the Selector Switch is in the [OFF] position and that Pot is filled with cooking oil..**

NOTE: Manually inputting a cook **Time** and/or **Temperature** causes the **Upper Display** to read **[MANUAL]** instead of displaying a specific Preset Menu Item name.

IMPORTANT!
If the **PASSCODE** feature is enabled, Time and Temperature settings ***cannot*** be manually input without entering the required password. Operators are limited to only choosing from the list of available programmed Menu Item Presets, see ***Section 5.1.4, Working with Menus***.

Set Cook Time: (mm:ss)

Press the **[CLOCK]** key

Use keypad to enter Cook Time (mm:ss).
Ex: 1530 = 15:30

Press the **[START]** key.

Set Cook Temperature: (°F)

Press the **[TEMP]** key

Use keypad to enter cooking temperature setpoint (°F).
Ex: 325 = 325°F

Press the **[START]** key to save setpoint.

NOTE:
Pressing the **TEMP** key twice (2x) will display the actual oil temperature for 20 seconds

- Oil will not actually begin heating unless **Selector Switch** is in the **[COOK]** position. Place switch in **[COOK]** position.
- After pressing **[START]**, if actual oil temperature is lower than the entered setpoint, Controller enters **PREHEAT** mode; **[HEAT]** indicator beside **Lower Display** turns **ON.** If Selector Switch is in **[COOK]**, the amber **[HEAT]** indicator on the Control panel should turn **ON** ... burners ignite and oil begins to heat.
- If oil temperature is already equal to or greater than the entered setpoint, an alarm sounds and the message ***"STIR OIL"*** is displayed. Press the **[ALARM]** key and stir. If oil remains at setpoint, when oil returns to setpoint, alarm sounds again and message ***"SETPOINT REACHED"*** is display. Press **[ALARM]** key. Controller enters **READY** state and Fryer is ready for cooking.

While heating, the real-time actual oil temperature will show on the **Lower 7-Segment Display**. After setpoint is reached, the display changes to show the **temperature setpoint**.

5.1.4 Working with Menu Item Presets

Fifty (50) **Menu Item Preset** cook settings are stored in the Controller, each includes:

- **Menu #** - Sequential ID number
- **Menu Name** - Name of the food item assigned to the preset.
- **Cooking Time** - Cook time setting for the specific food item. Time automatically changes to this setting when Preset is selected for use.
- **Cooking Temperature** - Cooking oil temperature setting for the specific food item. Temperature setpoint is automatically changed to this setting when the Preset is selected for use.
- **STIR OVERRIDE** - Users may wish to override the Controller global **STIR ALARM** setting in ***USER SETTINGS*** for certain menu items**. Factory default = [NORMAL], use global setting**
- **FISH FILTER** - To prevent flavor transfer, establishments cooking seafood products may wish to force an oil filtering after only **one (1) batch** of a particular seafood item is cooked. The setting overrides the global **FORCE FILTER** setting in ***USER SETTINGS***. **Factory default = [OFF], use global setting.** Also**,** a **SNOOZE** feature can be selected which will allow **two (2) batches** of the product to be cooked before filtering is forced.

All 50 **Menu Presets** are factory-programmed with default settings. The first ten (10) are set to specific menu names and settings for some popular menu offerings (Table below). All others contain the general settings as shown on the last line of the table. Users can edit any settings as needed to customize for specific applications and menus.

Details for working with Menu Item Presets are covered in the following sections.

MENU NO.	MENU NAME	TEMP (F°)	TIME (MM:SS)	STIR OVERRIDE	FISH FILTER
1	BONE-IN-CHICKEN	335°	13:00	NORMAL	OFF
2	TENDERS	335°	7:00	NORMAL	OFF
3	WEDGES	335°	6:00	NORMAL	OFF
4	BONE-IN-WINGS	335°	8:00	NORMAL	OFF
5	BONELESS WINGS	335°	7:00	NORMAL	OFF
6	POPCORN CHICKEN	335°	3:00	NORMAL	OFF
7	LIVERS	335°	4:00	NORMAL	OFF
8	CORNDOGS	335°	10:00	NORMAL	OFF
9	CHEESE STICKS	335°	3:00	NORMAL	OFF
10	FISH	335°	3:00	NORMAL	OFF
11 thru 50	**MENU XX**	**335°**	**2:00**	NORMAL	OFF

5.1.4.1 Editing a Menu Item Preset

Press the **[MENU]** key twice (2x)

Use **Up [2] - Down [8]** to scroll through list to the Menu No. to edit.

Press the **[EDIT]** key to select **(NOT START)** ... current settings will be displayed.

Use arrow keys **[2] & [8]** to scroll the list of settings until the cursor **[-->]** points to the item you wish to edit:

NAME
—>TIME
TEMP
STIR OVERRIDE
FISH FILTER

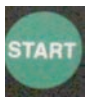
When editing **[NAME], [TIME] or [TEMP]**, press **[START]** key to select the item.

NOTE: When editing [STIR] & [FISH], pressing [START] only toggles through the available settings.

Pressing the **[4]** key backs-up to a previous preset item or pressing the **[6]** key advances to a next item to allow editing.

Two different methods can be used to edit the item NAME.

Editing [NAME] - Method 1:
Enter NAME letter by letter.



Select the **NAME** as shown on left. A flashing cursor is positioned at 1st letter. Use arrow keys **[2] - [8]** to scroll through alphabet. Character at cursor changes while scrolling ... stop at desired character. Use arrow key **[6]** (right) to move cursor to next character and repeat.

When finished editing, press **[START]** to **Save - OR -** press **[CLEAR]** to **Cancel** and **Exit** without saving

Editing [NAME] - Method 2:

Select a Name from catalog of programmed names.

Select **NAME** as shown on left. A flashing cursor is positioned at 1st letter. Press **[0]** key to open **Catalog** of programmed Names and use arrow keys **[2] - [8]** to scroll through list. Press **[START]** to copy choice to the item being edited and return to previous display.

If done, press **[START]** to **Save**

- OR -

Press **[CLEAR]** to **Cancel** and **Exit** without saving **- OR -** Press **[0]** to re-open catalog.

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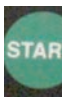
5.1.4.1 Editing a Menu Item Preset - continued

Edit COOKING TIME:

Scroll to and select TIME for edit as shown on previous page.



Current time setting will be displayed.
Use numeric keypad to enter new **TIME (mm:ss)**
NOTE: All digits must be entered, e.g. 1000 = 10:00.
While entering time, [CLEAR] key backspaces to erase an incorrect input.

After entering new **TIME** value press **[START]** to **Save**
- OR -
Press **CLEAR** to exit without Saving 

Edit COOKING TEMPERATURE:

Scroll to and select TEMP for edit as shown on previous page.

Current temp setting will be displayed. Use keypad to enter new cooking **TEMP setpoint (°F)**. **335 = 335°F**
While entering temp, [CLEAR] key backspaces to erase an incorrect input.

NOTE: TEMP unit can be changed to [°C] in User Settings, see Section 5.1.7

After entering new **TEMP** value press **[START]** to **Save**
- OR -
Press **CLEAR** to exit without Saving 

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5.1.4.1 Editing a Menu Item Preset - continued

Edit STIR OVERRIDE Setting:

Regardless of the global ***STIR ALARM*** setting in ***User Settings*** **(*Section 5.1.7*)**, a menu item may, or may not, need to be stirred during the cook cycle. ***STIR OVERRIDE*** setting allows user to override global setting only for a specific Menu Item, if desired. Available settings = **[NORMAL] • [SKIP] • [FORCE]**.

[NORMAL] = stir alarm is issued as specified.

[SKIP] = controller ***DOES NOT*** issue the alarm for this Menu Item, regardless of global setting.

[FORCE] = controller ***ALWAYS*** issues the alarm for this Menu Item, regardless of global setting.

Factory-default = [NORMAL]

To edit ***STIR OVERRIDE*** setting, scroll to and select as described previously **... [—>]** pointing to **[STIR]**

Press the **[START]** key to toggle between the available options, stop at desired setting.

Edit FISH FILTER Setting:

To minimize potential for flavor transfer, establishments cooking seafood items may wish to force operators to filter oil after only ***one (1) batch*** is cooked. When ***FISH FILTER*** is set to **[ON]**, the unit will enter ***FILTER MODE*** after completing (1) load of the specific item. If ***FORCE FILTER SNOOZE*** is set to **[ON]** in ***User Settings*** **(*Section 5.1.7*)**, one (1) additional batch may be cooked before filtering is forced. If ***FORCE FILTER*****=[OFF]** only a filter warning message is displayed on controller; if ***FORCE FILTER*****=[ON],** the fryer is locked out of continued operation until the filter cycle is completed.

To edit ***FISH FILTER*** setting, scroll to and select as described previously **... [—>]** pointing to **[FISH FLTR]**

Press the **[START]** key to toggle between **[ON] & [OFF]** stop at desired setting.

5.1.4.2 Selecting a Menu Preset for Cooking

CAUTION **Before selecting a *menu preset*, be sure that *Selector Switch* on control panel is in the [OFF] position and that pot is filled with cooking oil.**

Direct Entry: The two (2) methods described below can be used when a desired *Menu No*. is known.

Method (A)

Press the **[MENU]** key once.

Enter desired *Menu No. [1-50]*.

Press **[START]** key to select.

Method (B)

Enter desired *Menu No. [1-50]*.

Press **[START]** key to select.

Selected menu Item information is shown on the *Upper Display*.
After selecting the menu preset, place *Selector Switch* in [COOK] position.

If actual oil temperature is lower than the temperature setting of the *menu item preset* selected and the ***Selector Switch* is in the [COOK] position**, heating elements turn **ON** and oil begins heating. If the *preset* temperature happens to be lower than actual oil temperature, controller will immediately enter **READY** state and cooking may begin.

NOTE:
Basket Lift is inoperable while fryer is in PREHEAT mode. Lift is enabled when setpoint is reached and fryer enters READY state.

5.1.5 Cooking Cycle - General Overview

COOKING TEMPERATURE • MENU NAME • COOK TIME • STIR OVERRIDE • FISH FILTER settings are shown on the ***Upper Display***. **READY** message indicates that cooking oil is at set temperature and fryer is ready for cooking.

When in **READY** state the ***TEMP*** setpoint is displayed on the ***Lower Display***.

To start the cook cycle, press the **[START]** key once. Basket will automatically lower into the cooking oil and cook ***TIME*** will begin counting down on the ***Lower Display***.

STIR ALARM: When active, an audible alarm tone is sounded at a specific time during the cook cycle, signaling the operator to stir the cooking product. Stirring helps to promote even cooking and prevent sticking. This feature must be enabled in ***User Settings, Section 5.1.7*** and the parameter set. **[STIR ALARM %] =** amount of elapsed time when the alarm sounds. e.g. if **[STIR ALARM %]** = **60**, then during a **10 min.** cook cycle, the alarm will sound after **6 mins.** of time have elapsed.

Factory-set default: [STIR ALARM ENABLE] = ON • [STIR ALARM %] = 62.

The menu item ***STIR OVERRIDE*** setting overrides the **[STIR ALARM ENABLE]** setting, see ***Section 5.1.4.1***.

When cooking cycle time is complete, an alarm will sound and the message ***"DONE COOKING"*** is displayed and the cook basket is automatically raised from the oil. Pressing the **[ALARM]** key silences the alarm and fryer returns to ***READY*** state, ready to cook the next load of product.

x 2

To cancel a running cook cycle press the **[CLEAR]** key once, then press it again to cancel **-OR-** press **[4]** to continue the cook cycle.

5.1.6 Other Controller Features

5.1.6.1 Manually Operating the Basket Lift

Press the **[BASKET]** key once

- OR -

Use [**2**] **UP** & [**8**] **DOWN** keys to raise or lower the Basket Lift

NOTE:

- Manual lift operation is disabled while the controller is in ***PREHEAT*** state. This is a safeguard against attempting to cook product in oil that is not yet at the proper cooking temperature.
- Once activated, lift cannot be actuated again for approximately **20 secs**.

5.1.6.2 COOL Mode

COOL MODE is an energy-saving feature that changes oil temperature setpoint to a lower valve. Places Fryer into an idle standby state during periods of inactivity.

Enter ***COOL MODE*** by pressing the **[COOL]** key. The temperature setpoint changes to the ***COOL TEMP*** setting specified in ***User Settings*****,** see ***Section 5.1.7, Edit User Settings***. **Factory-set default = 275°F**. The setting can be edited in the range **200°F to 350°F**.

To exit *COOL MODE* press the **[CLEAR]** key, then press **[<4]** to exit
- OR -
Press **[CLEAR]** again to continue with ***COOL*** Mode.
Upon exit, the temperature setpoint will return to the previous active value and fryer will enter ***PREHEAT*** until temperature is reached.

5.1.6.3 AUTO-COOL Feature

When the ***AUTO-COOL*** feature is turned **[ON]**, fryer automatically enters ***COOL MODE*** if ***no cook cycles are started*** within the amount of time specified by the **[AUTOCOOL TIME]** setting in ***User Settings*****,** see ***Section 5.01.7, Edit User Settings.***

Factory-default: [AUTOCOOL] = OFF ... [AUTOCOOL TIME] = 30. TIME setting can be edited in range of **1 to 510 mins.**

Exit *AUTO-COOL* same as ***COOL* ...** press the **[CLEAR]** key, then press **[<4]** to exit
- OR -
Press **[CLEAR]** again to continue ***COOL*** Mode.

Upon exit, the temperature setpoint will return to the previous active value and fryer will enter ***PREHEAT*** mode until temperature is reached.

5.1.6.4 BOIL OUT Mode

Pressing the **BOIL** key while Controller is in **PREHEAT** state enters **BOIL OUT Mode**. Temperature and time change to the **BOIL TEMP** and **BOIL OUT TIME**, respectively, as specified in ***USER SETTINGS (see Section 5.1.7)***.
Factory-Default Setting:
BOIL TEMP = 200°F ... editable in the range of 185° to 208°F.
BOIL OUT TIME = 30 minutes ... editable in the range of 1 to 45 mins.

IMPORTANT! Fryer must be properly drained, rinsed and prepared for cooking after a Boil Out cycle. See ***Section 6, Cleaning***.

5.1.7 User Settings - Access & Edit

Accessing the ***User Settings*** menu is as follows:

Press the **[TIME]** key

Input

9999

Press the **[START]** key

To view current settings, use numeric keypad **[4] - [6]** (left/right) to scroll through and display each setting in the ***Upper Display***.

- To edit a Setting when displayed, press the **[EDIT]** key.
- Use numeric keypad **[2] - [8]** (up/down) to change the value.
- Press **[EDIT]** again to save the new setting.

To exit ***User Settings*** menu, press the **[CLEAR]** key.

NOTE:
*The message **"TOO LOW"** or **"TOO HIGH"** is displayed if an entered value is outside the allowable range and will cause a controller error.*

NAME	DESCRIPTION	RANGE	DEFAULT
TEMP SCALE	Temperature scale	°F or °C	°F
FORCE FILTER	When **ON**, forces user to filter oil after the specified number of cook cycles are complete ... locks-out Fryer.	ON - OFF	ON
FORCE FILTER SNOOZE	Allows (1) more cook cycle after FORCE FILTER count exceeded when FORCE FILTER = ON.	ON -OFF	OFF
FILTER COUNT	Number of cook cycles before user is required to filter.	1 to 20	4
GUARD BAND	Cooking not allowed if oil temperature is outside of the setpoint by amount of guard band	1 to 990	900
MAX SETPOINT	Maximum oil setpoint allowed.	32°F to 350°F	350°
AUTOCOOL	After a specified amount of time, unit will go into COOL mode.	ON - OFF	OFF
AUTOCOOL TIME (MINUTES)	If **AUTOCOOL** is **ON**, then after fryer is idle for the amount of time specified here, the unit will go into **COOL** mode.	1 to 510 minutes	30
AUDIBLE ALARM (SECONDS)	Duration of the audible alarm in seconds.	5 to 120 seconds	10
COOL TEMP	Temperature of the **COOL** mode	200°F to 350°F	275°F
BOIL TEMP	Temperature of the **BOIL OUT** mode	185°F to 208°F	200°F
FILTER RESET	Temperature that allows exiting of filter mode	200°F to 325°F	290°F
BOIL OUT TIME	Time (in minutes) for **BOIL OUT** mode	1 to 45 minutes	30
STIR ALARM ENABLE	If enabled, allows the stir alarm to come on during a cook cycle.	ON - OFF	ON
STIR ALARM %	When **STIR ALARM** is **ON**, the alarm will sound after this % of the cooking cycle is complete.	10% to 90%	62%
KEY BEEP ENABLE	If enabled, audible sound generated with each key press.	ON - OFF	OFF
LANGUAGE	Sets the Controller language	English-Spanish-French	English

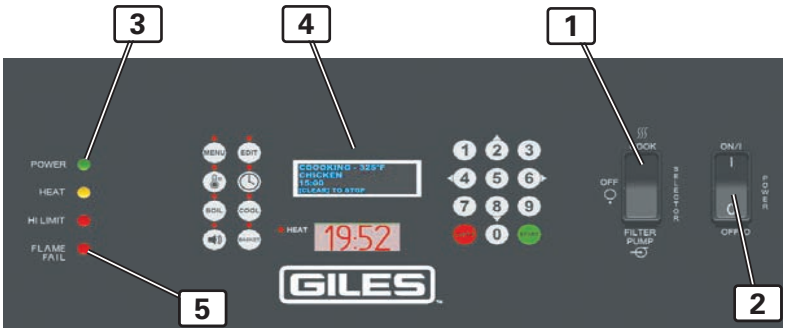
5.1.8 PASSWORD Protection

It is possible to enable **PASSWORD** protection for controller functions and settings. Generally, this feature is factory-set to **[OFF]**. When **PASSCODE ENABLE =** [**ON]** in ***Factory Settings***, the controller will prompt user for a password before they can add or edit *Menu Item Presets*, manually enter a temperature setpoint, manually enter or change a cook time, or access the ***User Settings Menu***.

If you desire to have Password protection enabled, or have questions concerning this feature, call **Giles Technical Services at 800.554.4537** to request the passcode and instructions as to how to enable this feature.

5.1.9 Start-up Procedure

1. Initially, ensure that the ***Selector Switch*** ① is in the center **[OFF]** position.



2. Place the Power Switch ② in the **[ON]** position. The green Power Light ③ will illuminate, Computer Cooking Controller will power-up, perform a memory check and then sound an alarm tone. The message ***"POWER FAILURE [PRESS START TO PREHEAT]"*** is shown on the ***Upper Display*** ④. **This is normal**, intended to prevent the fryer from beginning to heat after a power interruption until attended by the operator. Pressing the **[START]** key silences the alarm and places the fryer to enter **PREHEAT** state. The settings shown on the ***Upper Display*** are the last used. The controller indicates the fryer is heating, but until the ***Selector Switch*** is placed in the **[COOK]** position, the burner system does not ignite.

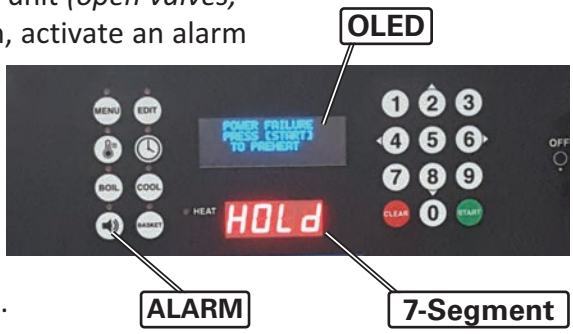
4. ⚠ **DO NOT** place **Selector Switch** in **[COOK]** position unless pot is filled with cooking oil, see ***Section 5.2, Cooking Procedures***.

3. **IF POT IS FILLED**, place the ***Selector Switch*** ① in the **[COOK]** position. The draft fan starts running and burner will ignite. If burner does not ignite after the allowed amount of time, the red **Flame Fail Light** ⑤ will turn **ON** and the fryer gas valve closes. If this occurs, return ***Selector Switch*** to **[OFF]**, wait 2 -3 minutes to allow accumulated gas to dissipate, then try again

IMPORTANT! If the appliance continues failing to ignite, refer to ***Section 7, Troubleshooting***. A service technician may be required to correct certain issues.

5.1.10 Controller Errors & Alarms

Conditions which can cause unsafe operation or damage to the unit *(open valves, low oil level, high temp, hood problems, etc.)* will halt operation, activate an alarm tone and display error codes/messages. Error Codes are shown on the ***Lower 7-Segment Display***; error messages and prompts are shown on the ***Upper OLED Display***. Generally, heating elements are disabled until error condition has been corrected. Pressing the **[ALARM]** key silences the alarm tone, but does not clear error. Error Codes are shown in the Table below and further details are discussed in the following section.



ERROR CODE	DESCRIPTION *(Upper Display)*	PROBLEM
OPEN	DRAIN IS OPEN	Drain valve is open, or not completely closed. Basket will be raised, if down. Close drain to clear error.
----	CHECK OIL LEVEL, ENSURE VAT IS FULL, IF FULL THEN PRESS [START]	This is a secondary error displayed after closing drain clears the OPEN error; confirmation of oil level.
ER03	LOW OIL LEVEL – ENSURE VAT IS FULL (Element/Add Level Differential Warning)	The oil level is below the **[ADD]** line in the vat. Add oil to the **[FULL]** level mark & stir. Error will remain in effect until probe temp differential is resolved.
ER06	LOW OIL LEVEL – ENSURE VAT IS FULL – PRESS [START] (Post ER03 Warning)	After an **ER03** is cleared, this is displayed until user presses **[START]** to confirm oil level.
ER07	MAX ELEMENT TEMP – PRESS [START] (Post Warning)	Error is displayed after ***MAX*** element temperature **(ER19)** has occurred and element has cooled below ***MAX*** temperature, .
ER13	OIL PROBE Error	Problem with the *variable oil temp probe*. **Service technician generally required.**
ER15	ELEMENT PROBE Error	Problem with *element temp probe*, attached directly to heating element. **Service technician generally required.**
ER17	ADD LEVEL PROBE Error	Problem with *add level probe* at vat **[ADD]** mark. Fryer without this probe should have **ELMT-ADD DIFF ENABL**E setting **[OFF]** in ***Factory Settings***. ***Probe cannot be bypassed***. **Service technician generally required.**
ER19	MAX ELEMENT TEMP Error	The maximum heating element temperature has been exceeded. ***This is a safety device; NEVER bypass this Probe*.**
ER25	GUARD BAND EXCEEDED	Actual oil temperature deviates from setpoint by the Guard Band amount. Allow oil to cool, or heat, to within range. Factory
ER37	EEPROM Error	An error occurred while saving settings to the EEPROM. **Contact Giles Tech Service (800.554.4537).**
ER38	Internal ADC Error	The ADC (Analog-to-Digital Converter) chip has stopped working. MCB1 board must be replaced. **Contact Giles Tech Service (800.554.4537).**

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5.1.10.1 Resolving Controller Errors & Alarms

- **DRAIN OPEN (Error Code OPEN) -** If the pot Drain Valve is open (even slightly) while Fryer power is **ON,** an alarm tone sounds, **Lower 7-Segment Display** shows **" ",** and the **Upper OLED Display** reads ***"ERROR ALARM - DRAIN IS OPEN".*** If the Basket Lift is down, it will be raised. Fryer heat is disabled as long as the condition exists.

  Press the **[ALARM]** key to silence alarm tone. Securely close the Drain Valve to clear the error. When error is cleared, alarm tone sounds again and the **Upper OLED Display** reads ***"CHECK OIL LEVEL, ENSURE VAT IS FULL, IF FULL THEN PRESS [START]".*** This is a post-error alarm to alert User to confirm that cooking oil in the pot is still at the **[FULL]** level. Add oil if needed, then press the **[START]** key to return to **PREHEAT** mode.

- **LOW OIL LEVEL (Error Code 03) -** Alarm tone sounds, **Lower 7-Segment Display** shows ***"Er03",*** and the **Upper OLED Display** reads ***"ERROR ALARM - CHECK OIL LEVEL - ENSURE VAT IS FULL".*** Fryer heat is disabled until the condition is corrected. The temperature differential between the **[ADD]** Level Probe and the probe on the Heat Exchanger Ring exceeds the acceptable value, indicating a low oil level. **Low level greatly increases the possibility of oil fire!** Press the **[ALARM]** key to silence alarm tone, and place Selector Switch in **[OFF]** position. Allow the Fryer to adequately cool and then add oil to raise level to the **[FULL]** level.

- **LOW OIL LEVEL Post-error Warning (Error Code 06)** - After **Error 03** clears, a warning alarm occurs. The **Lower Display** shows ***"Er06",*** and the **Upper Display** reads ***"CHECK OIL LEVEL - ENSURE VAT IS FULL - PRESS [START]".*** This alarm alerts user to confirm that cooking oil in the pot is at the **[FULL]** level. If no oil is required press **[START]**, otherwise press **[ALARM]** key to silence tone, add oil, then press **[START]** key to enter **PREHEAT** mode.

- **MAX. ELEMENT TEMP (Error Code 19) -** Heat Exchanger has exceeded the maximum temperature allowed by the Controller. The alarm tone sounds, **Lower Display** shows ***"Er19",*** and the **Upper Display** shows ***"ERROR ALARM - MAX ELEMENT TEMPERATURE".*** Fryer heat is automatically turned **OFF.** It must cool to an acceptable temperature to clear the error. Typical cause of this error is low oil level, which has exposed the Heat Exchanger. It is possible for a false alarm to occur when preheating cold oil at the initial startup of a new day. Vigorously stirring oil during preheat will usually prevent, or clear, a false alarm of this type.

- **MAX ELEMENT TEMP Post-error Warning (Error Code 07)** - After **Error 19** is cleared, a warning alarm occurs. The **Lower Display** shows ***"Er07",*** and the **Upper Display** reads ***"MAX ELEMENT TEMP - PRESS [START]".*** This alarm alerts user that a maximum element temperature error occurred and is now cleared. Press **[START]** key to enter **PREHEAT** mode. Heating Element will not turn **ON** until **[START]** is pressed.

NOTE: If an error condition cannot be resolved, please contact a factory-authorized service agent, or call 800.554.4537 for Giles Technical Support.

5.2 Cooking Procedures

Prior to starting the fryer for cooking operations do the following:

- Be sure that installation is complete and that the fryer has been prepared and cleaned as described in ***Section 4.***
- Position the ***Gas Valve Handle*** located at the rear, right-hand side of the unit in the **[ON]** position (parallel to back of unit).
- Be sure that proper ventilation is provided in the operation space.
- Be certain that gas supply line valve is **OPEN,** power cord is plugged into an appropriate outlet and that main supply power for the outlet is **ON**.

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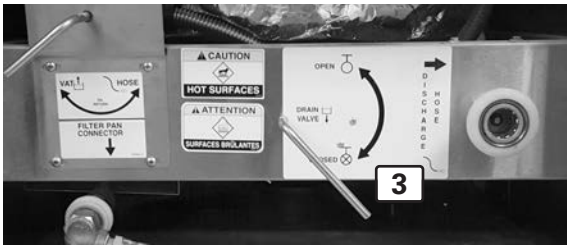
5.2 Cooking Procedure - continued

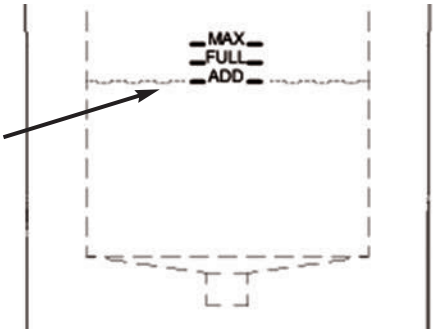
The following explains typical cooking procedures; assumes starting with a clean empty fryer, which has been properly prepared for use; Basket Lift in the raised position. These procedures may vary slightly depending on actual operating practices or when frying subsequent loads.

1. If necessary, remove basket from lift and set aside.
2. Place the ***Power Switch*** ① in the **[OFF]** position.
3. Be sure the ***Selector Switch*** ② is in the centered **[OFF]** position.
4. Be sure the Drain Valve ③ is in the full **[CLOSE]** position (handle down to stop).



5. Place the Power Switch ② in the **[ON]** position. The Power Light ④ will illuminate and Controller proceeds through the power-up sequence described in ***Section 5.1.9, Start-Up Procedure***.

NOTE: If alarm sounds during power up and the message *"ERROR ALARM DRAIN IS OPEN"* is displayed, verify that the Drain Valve is tightly closed and press the [ALARM] Reset key and follow Controller prompts.



6. Fill the fry pot with fresh liquid frying shortening to the **[ADD]** mark. As cooking temperature is reach, expansion should bring oil level to near the **[FULL]** mark.

⚠CAUTION Overfilling Pot can result in overflow, excessive splatter, and potentially cause personal injury and/or damage to equipment.

7. <u>Set Controller for cooking</u>:
   Use keypad ⑥ to manually set temperature and cook time, see ***Section 5.1.3, Manually Setting a Temperature & Cook Time ...*** **OR ...** select a desired Menu Item Preset, see ***Section 5.1.4.2, Selecting a Menu Preset for Cooking***.
   Controller enters **PREHEAT** mode ... current cook settings are shown on the ***Upper Display***, and real-time oil temperature is shown on ***Lower Display***.
8. Place the ***Selector Switch*** ② in the **[COOK]** position to enable the burner system. The **HEAT** light ⑥ will illuminate, the draft fan starts, and the burner ignites to begin heating cooking oil to temperature.

Continued on Next Page

5.2 Cooking Procedure - continued

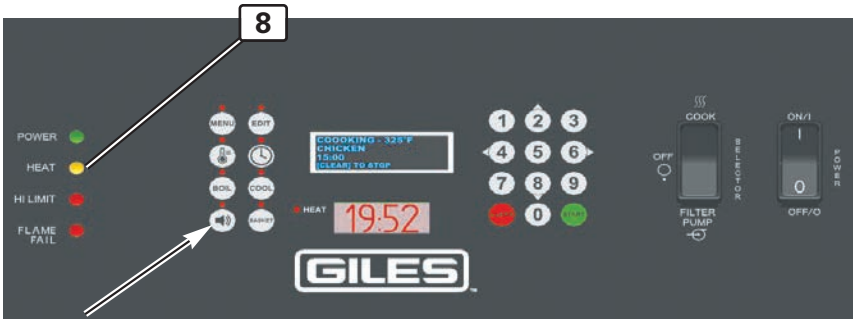
NOTE: If no flame is detected at the burner within a few seconds, the ignition module will shutdown, the gas control valve closes and the red **FLAME FAIL LIGHT** ⑦ turns **ON**.

Return the ***Selector Switch*** ② to the **[OFF]** position. Wait 2 -3 minutes to allow any gas to dissipate and return switch to **[COOK]** to retry ignition.

If there are repeated ignition failures, see ***Section 7, Troubleshooting*****. Service technician may be required.**

⚠CAUTION **Cooking oil is extremely HOT! Always wear thermal protection, such as oven mitts, when stirring hot oil.**

9. As the cooking oil heats, use the provided ***Stirring Utensil*** to frequently stir oil from the pot bottom up. Doing so will prevent formation of cool zones, promote more even heating and help prevent occurrence of a false **HI-LIMIT** alarm while heating.



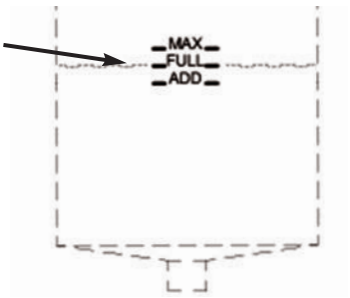
10. When oil initially reaches setpoint temperature, heating will shutdown and **HEAT** light ⑧ will turn **OFF**.

11. **An alarm sounds and the message *"ALARM - STIR OIL"* is displayed on the *Upper Display*.**

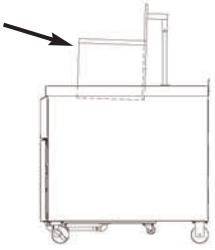
Press the [ALARM] key and vigorously stir oil. There is a 10 second delay and if oil temperature drops below setpoint while stirring, controller returns to PREHEAT. A second alarm sounds when setpoint is reached again and message *"ALARM - SETPOINT REACHED"* is displayed. Press [ALARM] key and controller enters READY state. Temperature displayed in the *Lower Display* changes to show setpoint temperature.

Oil is now ready for cooking ...

12. Check oil level. It should now be at, or near, the **[FULL]** level mark. Add oil if needed and stir. If the **HEAT** light turns **ON** after adding additional oil, continue stirring and wait until it turns **OFF** again before cooking.



13. Place the Cooking Basket onto the Basket Lift Carrier.



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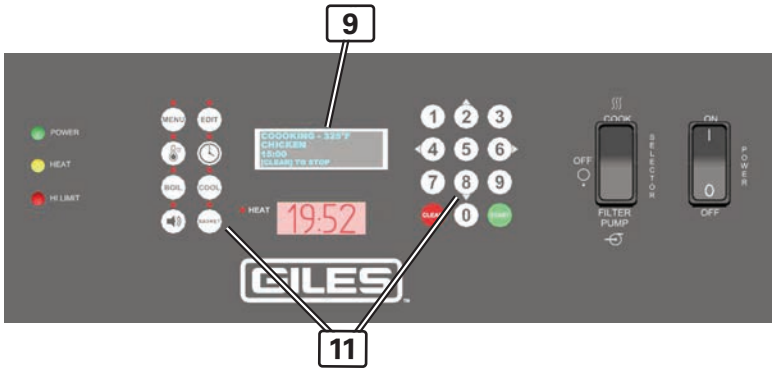
5.2 Cooking Procedure - continued

14. Manually input cooking settings **... OR ...** Menu Item Preset settings selected in *Step-7* will be shown on the ***Upper Display*** ⑨ along with message ***"[START] TO COOK"***. ***"READY"*** message indicates fryer is ready for cooking. A different Menu Preset -or- manual settings may be selected or set by following the steps in ***Section 5.1.4.1*** **or** ***Section 5.1.3***, respectively.

Recommended full fryer load (bone-in, 8-way cut chicken, 2-3/4 lb. bird):

GGF-400: 14 Lbs.

GGF-720: 24 Lbs.

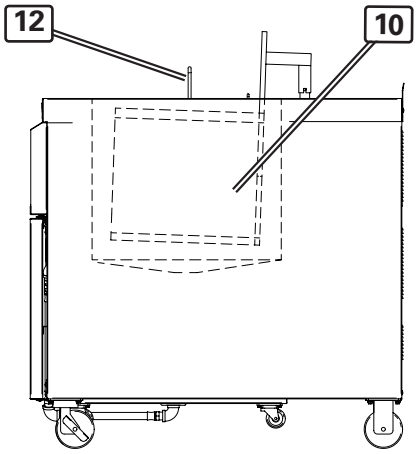


CAUTION **If basket is lowered before loading, use extreme caution when placing product into HOT oil. Skin contact, or oil splash, can cause severe burn injury.**

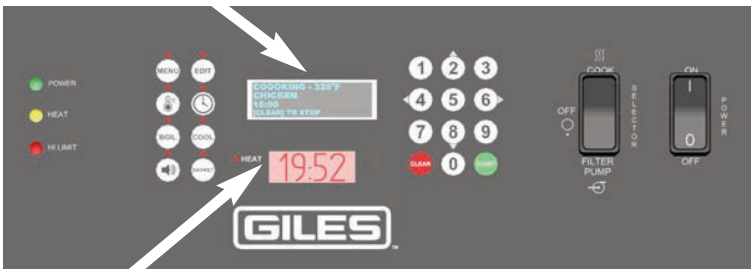
15. Uncooked product may be placed into cook basket ⑩ either before or after it has been lowered into the hot cooking oil.
    - To manually lower basket before loading, press **BASKET** key ⑪**,** then press **[8]** on keypad to lower basket. **NOTE: Basket Lift <u>will not</u> operate unless controller indicates READY**.
    - Load basket while in **[UP]** position. Basket automatically lowers when cooking cycle is started.

    Controller <u>must</u> be in the READY state before the cooking cycle will start. Press the **[START]** key. If in up position, basket lowers and the cooking time will begin to countdown in the ***Lower Display***.

    Place the Basket Cover ⑫ over the fry pot.



16. Controller displays show time remaining in the cook cycle and the current cook settings.

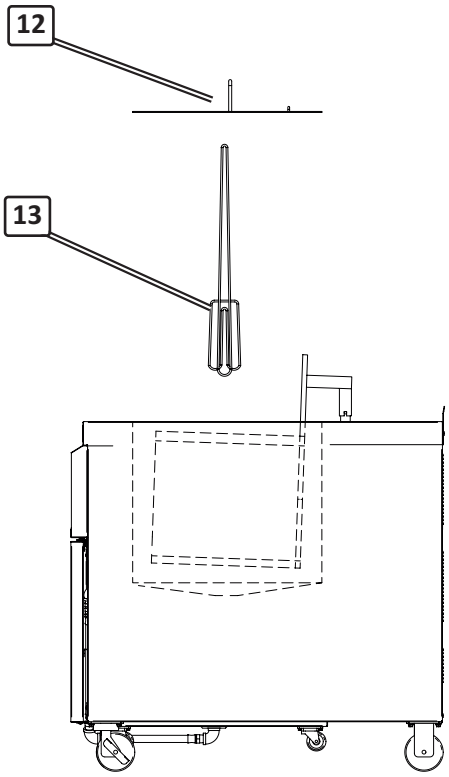


5.2 Cooking Procedure - continued

STIR ALARM NOTE:
***Step #17* applies only when *User Settings* are as follows:**

- **Global STIR ALARM=[ON] & STIR OVERRIDE setting for the specified Menu Item=[NORMAL].**
  - OR -
- **Global STIR ALARM=[OFF] & STIR OVERRIDE setting for the specified Menu Item=[FORCE].**

Otherwise, STIR ALARM alarm WILL NOT sound, however it is recommended that product be stirred/agitated during the latter half of the cook cycle to help promote even cooking and prevent product from sticking together.



17. **STIR ALARM** sounds after a preset amount of programmed cook time has elapsed. The ***Upper Display*** reads ***"ALARM - STIR"*** Press the **[ALARM]** key to silence alarm. **Wear oven mitts, or other thermal protection**, remove the basket cover ⑫ and stir/agitate the cooking product with the provided stirring utensil ⑬ to separate pieces. Replace the cover.

18. At the end of the cooking cycle, the basket ⑭ with cooked product will automatically be raised from the oil. An alarm sounds and message ***"DONE COOKING"*** is displayed. Press the **[ALARM]** key to silence alarm.
    Fryer returns to **READY** state for next load.

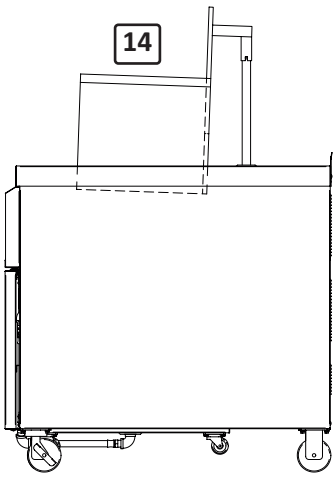
19. Allow product to adequately drain. **Wear oven mitts, or other thermal protection;** remove the cover and hang it onto the basket carrier hanger.

20. Lift basket off of the carrier and dump cooked product into an appropriate food pan container, or dump station.

21. a.) To cook another load - return to ***Step #12*** of this procedure.

    b.) To place Fryer into standby **COOL Mode** - see ***Section 5.1.6.2, Cool Mode***.

    c.) To shutdown Fryer - see ***Section 5.5, Normal Shutdown***.



IMPORTANT!
DO NOT forcefully strike a full basket of product on the cabinet edge, pot edge, or the basket carrier, in an attempt to promote oil drainage. This may damage the basket or fryer, and may void the warranty.

5.3 Filtering Cooking Oil

This section explains use of the on-board *Oil Filtration System* for reconditioning used cooking oil. The system circulates oil through filter media in the *Filter Pan* and back to the fryer pot. Routinely performing this procedure can increase useful life of cooking oil by as much as 50%.

GGF gas fryers are equipped with a configurable ***FORCE FILTER*** feature, which can be set to force operating personnel to perform the oil filtering process after a prescribed number of cooking cycles have been completed. This feature can be configured in ***User Settings***, see ***Section 5.1.7:***

- **FORCE FILTER - [ON] or [OFF]** • ***Factory default = [ON].***
  [ON] = After completing a set number of cook cycles **(FILTER COUNT)**, alarm sounds and message ***"ALARM - MUST FILTER OIL"*** is displayed on ***Upper Display*** screen. Pressing the **[ALARM]** key silences alarm and fryer enters ***FILTER MODE***. Unit will be disabled from continued operation until the filtering process is properly completed, as described.

  [OFF] = After completing a set number of cook cycles **(FILTER COUNT)**, alarm sounds and messuage ***"ALARM - FILTER OIL"*** is displayed on ***Upper Display*** screen. Pressing the **[ALARM]** key silences alarm and fryer returns to ***READY*** state ... fryer is not disabled. The unit can continue being used, however the alarm sounds and the prompt is displayed after every subsequent cook cycle until filtering is performed.
- **FILTER COUNT - 1 to 20** • ***Factory default = 4.***
  The number of cook cycles that can be performed before fryer enters ***FILTER MODE.***
- **FORCE FILTER SNOOZE - [ON] or [OFF]** • ***Factory default = [OFF].***
  Effective only when **FORCE FILTER** is **[ON].**
  [ON] = Allows operator to cook ***one (1) additional load of product*** after **FILTER COUNT** has been reached, before unit enters ***FILTER MODE*** and is disabled.
  [OFF] = ***No*** additional cook cycle is allowed.

In addition to global ***FORCE FILTER***, each ***Menu Item Preset*** contains a ***FISH FILTER*** setting which, when set to **[ON],** overrides the global setting and enters ***FILTER MODE*** after cooking **only (1) batch** of the particular *Menu Item*. This additional feature is typically used for seafood items in attempt to minimize possibility of flavor transfer. See ***Section 5.1.4.1, Editing a Menu Item Preset*** for more detail.

⚠CAUTION **DO NOT attempt to filter cold, congealed oil. The Filter Pump can clog and be damaged. Oil must be a minimum of 200°F (93°C) before attempting to pump.**

1. After cooking the preset number of loads **[FILTER COUNT]**, an alarm will sound.

2a. If **FORCE FILTER = OFF**, display ① reads ***"ALARM - FILTER OIL"***, press **[ALARM]** key ② to continue. As an alert to operator that oil needs filtering, this *alarm reminder* will occur after each subsequent load cooked until oil is filtered.

2b. If **FORCE FILTER = ON**, display ① reads ***"ALARM - MUST FILTER OIL"***, press **[ALARM]** key ②.
The fryer is ***disabled from further operation*** until a filtering cycle is performed.

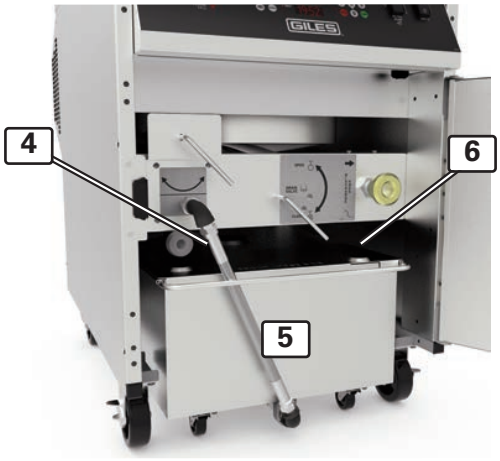
3. Place the ***Selector Switch*** ③ in **[OFF]** position. ***Power Switch must remain ON throughout filter cycle.***

Continued on Next Page

5.3 Filtering Cooking Oil - continued

⚠CAUTION **Always wear thermal protection, such as Gloves or Oven Mitts, while performing the filtering process. Fryer parts inside the cabinet will be extremely HOT!**

4. Open the cabinet door, disconnect the ***Filter Pan Hose*** ④ *(push white slip-ring in, and pull hose from connector)* ... remove ***Filter Pan*** ⑤ from unit.

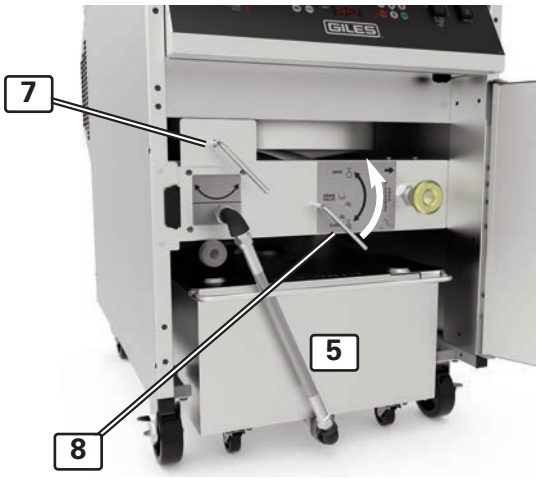


5. Remove ***Pan Cover*** ⑥ and check that filter media (typically, 1 sheet of filter paper) is in place and that residue from previous filter cycles has been cleaned from the surface. Ensure that ***Hold-down Frame*** is properly locked in place.
6. Evenly distribute approximately ***5 ozs*** of a suitable ***filter aid*** product over the media surface. Use of a quality filter aid is essential for removing soluble impurities and reconditioning the oil. ***Portion packed Filter Powder is available through Giles dealers or distributors ... Item #72004.***

7. Replace ***Pan Cover*** and reposition assembled ***Filter Pan*** under the unit; reconnect ***Filter Pan Hose*** ④ *(push in white slip-ring while inserting brass fitting into connector)*. ***Ensure that hose fit is tight and secure***.

⚠DANGER ***The next steps require that cooking oil be drained into the filter pan, thus exposing the heating elements. Fryer is equipped with safety interlocks which disable heating elements anytime the drain valve is opened. As further safeguard to reduce risk of oil fire, always place Selector Switch in the [OFF] position prior to draining. NEVER CONSIDER THE DRAIN VALVE AS AN "ON/OFF SWITCH".***

8. Ensure ***Selector Switch*** is in the **[OFF]** position ... ***Power Switch*** must remain **[ON]**. Place the ***Oil Diverter Valve*** ⑦ in the **[TO FRYPOT]** position. Slowly turn the ***Drain Valve Handle*** ⑧ to the **[OPEN]** position. Allow used oil to completely drain into ***Filter Pan*** ⑤.



NOTE:
Be sure filter pan cover is in place while draining to contain any oil splash and splatter.

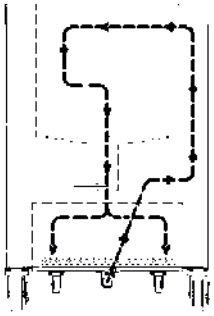
If pot does not readily drain, use the provided ***Kettle Drain Brush*** to break up crumbs or debris that might be blocking the drain opening. ***Be careful not to push brush so far down as to puncture filter media in the Filter Pan. Doing so could allow excessive debris to enter the filter pump, potentially clogging and damaging it.***

5.3 Filtering Cooking Oil - continued

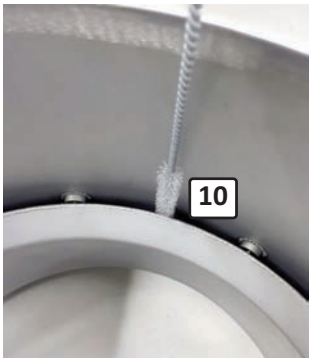
9. When pot has completely drained into the ***filter pan***, place the ***Selector Switch*** ⑨ in the **[FILTER PUMP]** position.

10. Pump starts, oil is drawn through the filter media *(and filter aid coating)*, and is pumped back into the pot. ***Leave drain valve open and allow oil to continually recirculate, acting as a "crumb wash" to flush residue into the filter pan***. During this time use the provided heat-resistant ***Brushes*** to scrub residue from pot surfaces, as well as heat exchanger ring. Allow recirculating oil to flush the pot.

    During this time, use the provided brushes to clean crumbs and cooking residue from pot wall and heat exchanger, allowing it to be flushed into filter pan. Use large utility brush to clean large open surfaces ... use straight round-bristle brush to clean out space between pot wall and heat exchanger ⑩.

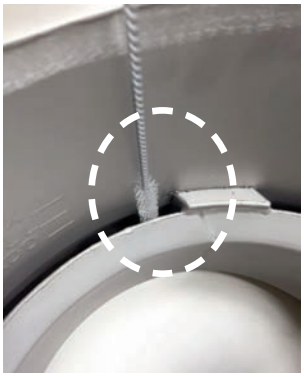


⚠WARNING **Failure to properly clean heat exchanger, as described below, can result in excessive carbon build-up between the pot wall and heat exchanger ring, which can lead to premature failure of the pot and heat system, and will void the factory warranty.**



EXTREMELY IMPORTANT!!

- Each time fryer oil is filtered, it is important that the front and back of the heat exchanger be cleaned thoroughly. Use the heat-resistant utility brush to scrub the front surface and top edge.
- Use the straight round-bristle, heat-resistant brush ⑩ to clean the surfaces on either side of the space between the pot wall and the outside of the heat exchanger.
- Move brush up and down, and side to side, around the entire pot, inserting brush until it touches the pot bottom ... ensure that the entire depth to the ring is cleaned.
- ***The area adjacent to the heat exchanger entrance requires special cleaning attention.*** If crumbs and cooking debris are allowed to accumulate in this area, hard carbon deposits will form over time. If not removed, these deposits will potentially cause excessive heat build-up and result in irrepairable damage to the metal, leading to fatal failure of the heat exchanger and pot.



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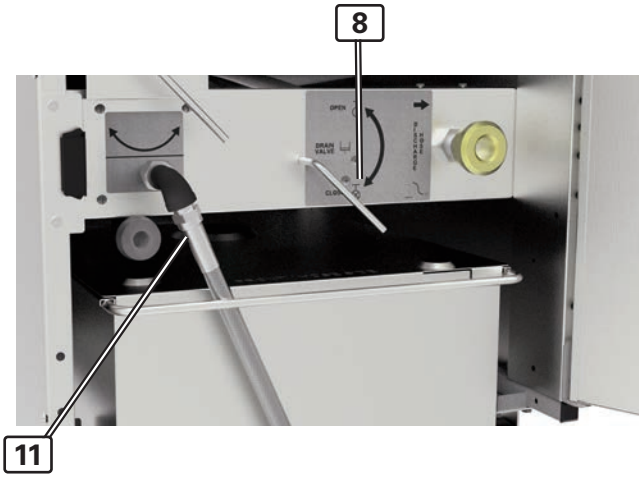
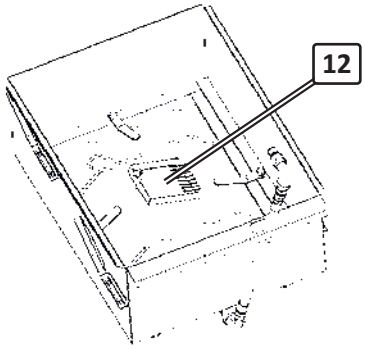
5.3 Filtering Cooking Oil - continued

11. After approx. ***5 mins***, turn the ***Drain Valve Handle*** ⑧ to the **[CLOSE]** position, down full to stop. Allow the pump to run until the pot is refills with filtered oil.
12. When oil has been completely pumped back to the pot, place the ***Selector Switch*** ⑨ in the **[OFF]** position (centered) to stop pump.
13. Be sure oil level is at the **[FULL]** mark, add if needed.
14. ***Wearing thermal hand protection***, disconnect ***Filter Pan Hose*** ⑪, remove the ***filter pan*** and lift off ***cover***.
15. Using the provided ***Crumb Scoop*** ⑫, remove filter sediment from the surface of the filter media and discard. *Unless there are obvious holes or tearing, it is not necessary to replace the filter media after every filtering cycle*.

    IMPORTANT! *At a minimum, filter pan should be thoroughly cleaned and media refreshed DAILY, see Section 6.2, Cleaning Filter Pan & Replacing Filter Media.*
16. Replace cover and reinstall filter pan.
17. To continue cooking, See ***Section 5.2, Cooking Procedure***.

    To discontinue cooking, ***See Section 5.5, Normal Shutdown*.**





IMPORTANT!
If FORCE FILTER is [ON], the fryer will not exit FILTER MODE and return to normal operation unless actual oil temperature is less than the [FILTER RESET] temperature setting in *User Settings* ... Default = 290°F. Typically, oil will be cooled sufficiently during the filtering process to reset the controller.

For controller to sense oil temp & valve open/close and then reset from FILTER MODE, the *Power Switch* must remain [ON] throughout the filter process. If switch is turned [OFF], controller does not read oil temperature and drain valve opening/closing, and it *will NOT reset from FILTER MODE*.

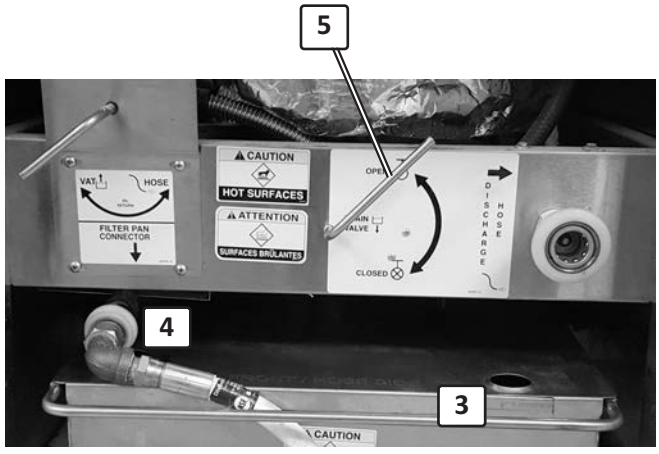
5.4. Removing Waste Oil from Fryer

This section explains the procedure for removal and disposal of waste cooking oil from fryer. To maintain the quality of cooked foods, oil should be changed every ***7 to 10 days***, depending on filtering practices, types of food, and quantities regularly cooked. Oil removal must also precede performance of ***Boil-Out*** procedures.

In this section a ***Giles Oil Caddy (not provided)*** is referenced as waste oil handling equipment.

⚠CAUTION ***DO NOT attempt to pump cold, congealed oil. The filter pump can clog and be damaged. Oil should be at a minimum of 200°F (93°C) before pumping.***

1. If cooking oil is cold, ***preheat to 200°F (93°C)***.
2. Be sure the ***Power Switch*** ① and ***Selector Switch*** ② are both in the **[OFF]** position.
3. Open cabinet and ensure ***Filter Pan*** ③, with filter media, is in place and the ***Filter Pan Hose*** ④ is properly connected to fryer.
4. Slowly turn the Drain Valve Handle ⑤ to the **[OPEN]** position (fully up to stop), and allow the pot to completely drain.



NOTE: If pot does not readily drain, or drains very slowly, use the supplied ***Drain Brush*** to break up crumbs and clean them from in the drain. **Be careful to not push brush far enough to possibly puncture the filter media in the filter pan, which could cause the pump to clog and be damaged.**

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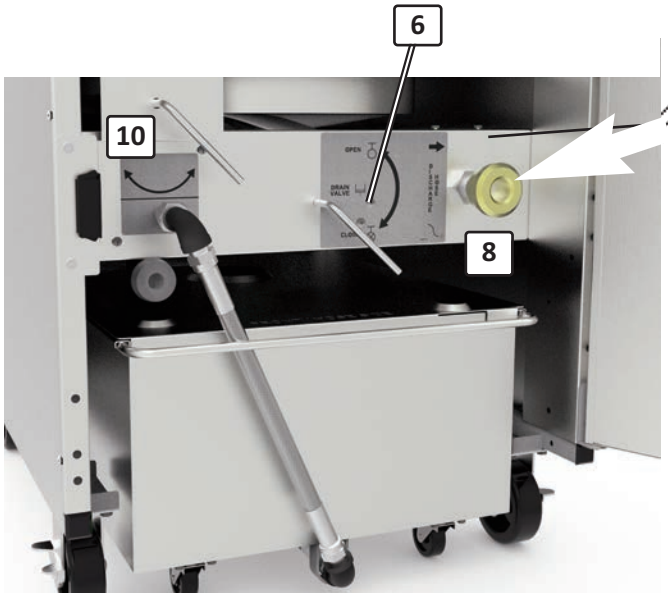
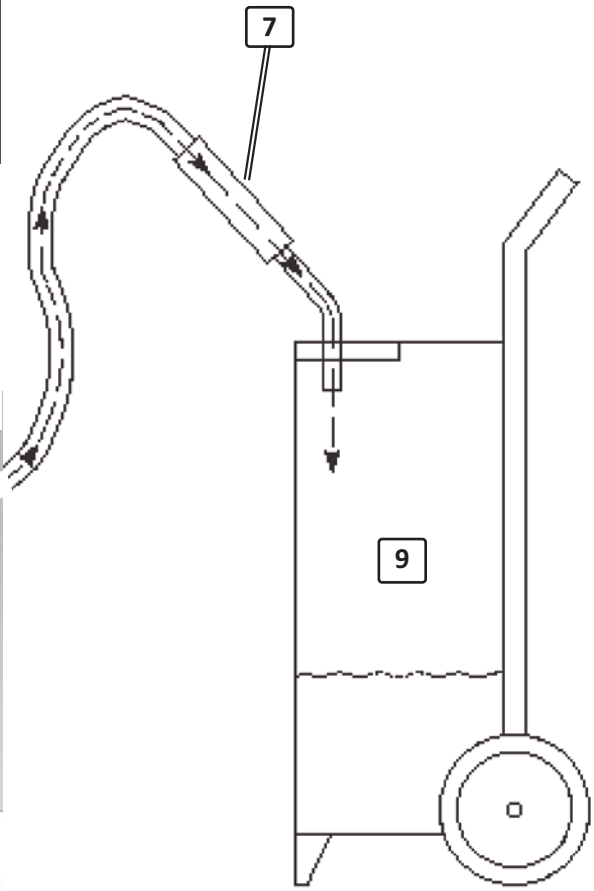
5.4. Removing Waste Oil from Fryer - continued





5. After the pot has completely drained, turn the ***Drain Valve Handle*** ⑥ to the **[CLOSE]** position (down fully to stop).
6. Connect the provided ***Oil Discharge Hose*** ⑦ to the quick-disconnect coupling ⑧.
7. Place the *discharge wand* into a suitable heat-resistant waste oil disposal container ⑨ *(Giles Oil Caddy is depicted, not included)*.
8. Place the ***Oil Diverter Valve*** ⑩ in the **[HOSE]** position (right to stop).
9. ***Wear some type of thermal protective gear if holding the Discharge Hose is necessary ... it will become very hot while pumping oil.*** Set the ***Selector Switch*** ⑪ to the **[FILTER PUMP]** position. The waste oil is pumped into the disposal container.
   IMPORTANT! Always attend this process to avoid the possibility of hose falling out of container while pump is running.

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5.4. Removing Waste Oil from Fryer - continued

10. After all waste oil has been pumped from the filter pan, return ***Selector Switch*** to **[OFF]**.
11. Place ***Power Switch*** in the **[OFF]** position.
12. Return the ***Oil Diverter Valve handle*** ⑩ to the **[VAT]** position (left to stop).
13. **Wearing thermal protective gear,** remove the discharge hose from the quick-disconnect coupling and drain any oil remaining in the hose into waste oil container.
14. Thoroughly clean the filter pan as described in ***Section 6.2, Cleaning Filter Pan & Replacing Filter Media.***

15. After removal of waste oil, a ***Boil-Out Procedure*** should be performed promptly. See ***Section 6.1, Boil-Out Procedure***. ***DO NOT*** allow oil residue to remain in the pot for an extended period of time without *boiling out or refilling with fresh oil*, as over time it will become more difficult to remove and eventually can lead to an undesireable build-up that may negatively impact fryer performance and food quality.

    ◊ At a minimum if *boil-out* must be postponed, while oil is still warm, use absorbent paper wipes to clean as much residue as possible from pot surfaces and heat exchanger, and then refill with fresh oil. Restart fryer as described in ***Section 5.2, Cooking Procedures*** and continue operation.

16. To perform the *boil out*, see ***Section 6.1, Boil-Out Procedure***.

    To shut down the unit, see ***Section 5.5, Normal Shut-Down***.

5.5. Normal Fryer Shutdown

1. Place the ***Selector Switch*** ① in the center **[OFF]** position.
2. Place the ***Power Switch*** ② in the **[OFF]** position, **POWER** light ③ turns **OFF**.
3. Place the ***Gas Valve Handle*** ④ in the **[OFF]** position, *handle pointing toward front of fryer*.
4. If required to disconnect all supply power from the appliance, unplug power cord from receptacle or turn **OFF** circuit breaker in the electrical panel supplying power to unit.
5. If required, turn off main gas supply line valve.

5.6. Emergency Fryer Shutdown

In case of emergency, remove power to the unit by turning off the facility circuit breaker and shut off main gas supply line.

6. Cleaning

This section describes procedures for cleaning and maintaining ***GEF & GEF-VH Series Fryers***, which are necessary to keep them in good operating condition. ***General cleaning of the appliance should be performed daily*** and other activities should be preformed as described by the following.

⚠ DANGER ***DO NOT* wash down the interior or exterior of fryer with water from a spray hose, or any pressure-type washer.**

Failure to comply with DANGER notices will result in death or serious injury, equipment or property damage, and void the warranty.

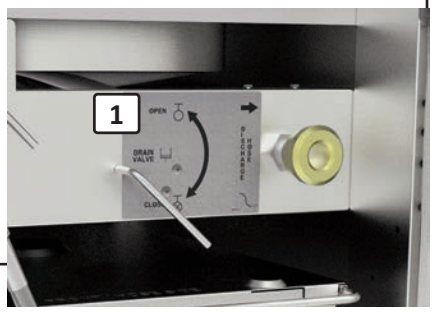
6.1 Boil-Out Procedure (Cleaning the Fryer Pot)

The following explains a ***Boil-Out Procedure*** for cleaning the fryer pot and heating elements. This procedure must be performed before cooking with on the new fryer, and should be performed promptly before refilling fryer with fresh cooking oil after old is removed and discarded.

For proper maintenance and to ensure satisfactory operation and food quality, the procedure should be performed every 7 to 10 days, however, exact timing of oil replacement is highly dependent on many factors. Oil testing kits, which can help accurately determine oil condition and when replacement is needed, are available from most restaurant supply providers.

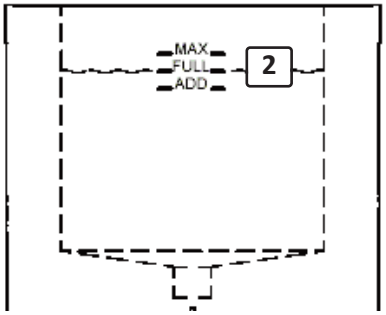
⚠ CAUTION

- **The *Boil-Out* process does not require a rolling boil ... nevertheless, *DO NOT leave fryer unattended during the procedure*. It should be carefully monitored for accidental overflow, which can result in serious equipment damage.**
- **The boil-out solution and fryer will become very HOT ... always wear thermal hand protection when draining and cleaning, as well as, other personal protective equipment, such as face-shield and latex apron.**
- **When using *fryer degreaser/cleaner products*, closely follow the manufacturer's instructions for use. Many available products may contain chemicals, which require special precautions. If used improperly, equipment damage and/or personal injury could result.**



1. Remove waste cooking oil from the fryer as described in ***Section 5.4, Removing Waste Cooking Oil***.
2. Confirm that the ***Drain Valve Handle*** ① is in the fully **[CLOSE]** position.
3. Ensure ***Selector Switch*** is in the **[OFF]** position.
4. Use absorbent wipes to clean as much waste oil residue as possible from pot and heat exchanger. Begin filling pot with clean ambient water.
5. Use a reputable ***fryer cleaning*** product and carefully follow the manufacturer's usage directions. Add the recommended amount to pot while filling, stir to mix, and continue filling to the **[FULL]** level mark ②.

   Fryer Boil Out cleaner is available through *Giles equipment dealers and distributors* ... Item number: **#72003-1, 8-lb Jar** or **#72003, Case of 4 Jars**.



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6.1. Boil-Out Procedure - continued

5. Place the ***Power Switch*** ③ in the **[ON]** position.
6. Place the ***Selector Switch*** ④ in **[COOK]** position.
7. After controller powers-up and the alarm sounds, press **[START]** key to enter ***PREHEAT***; amber **HEAT** light on control panel turns **ON**, solution begins heating. Note ***Upper Display*** reads ***"PRESS [BOIL] - GO TO BOIL-OUT"***. Press the **[BOIL]** key ⑤ to place fryer into ***BOIL OUT mode.*** Temp setting changes to ***200°F (93°C)*** and time begins countdown from ***30 mins***. Allow the boil out cycle to run completely. ***These values can be changed in User Settings, Section 5.1.7***.

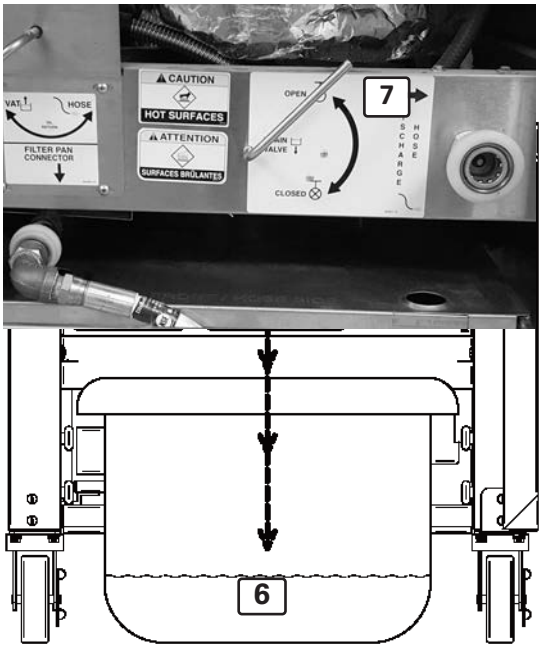
8. When boil out cycle time expires, a ***"DONE COOKING"*** alarm sounds; place both ***Selector Switch*** ④ and ***Power Switch*** ③ in the **[OFF]** position.

9. Disconnect and remove ***Filter Pan*** from fryer.

IMPORTANT!!
DO NOT drain boil-out solution into the filter pan or run through filter pump! **It is corrosive and can cause damage to components. Equipment failures and/or malfunctions caused in this manner, are not be covered by the factory warranty**

NOTE:
As a safeguard, when the boil out cycle ends, the controller temperature setpoint automatically changes to 50˚F. Before cooking activities can resume, a *menu item preset* must be re-selected, or temperature setpoint must be re-entered manually.

10. Position a suitable ***heat resistant catch container*** ⑥ ***(not provided)*** beneath the fryer drain.



⚠CAUTION **The container used for this step should be heat resistant up to 300°F (148°C). Plastic is generally not safe, as it may soften and break open. A leak-proof metal container should be used. Failure to comply with this caution may result in personal injury.**

If a floor drain is available in a suitable nearby location, slowly draining solution onto floor and squeegeeing the liquid into the drain is an acceptable alternative *(may require a helper)*.

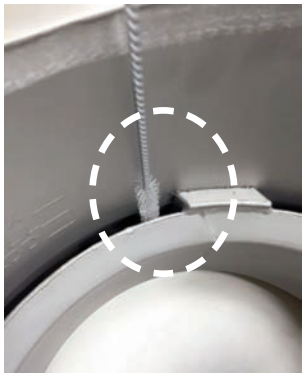
11. Slowly turn the ***Drain Valve Handle*** ⑦ to the **[OPEN]** position, allowing boil-out solution to drain from pot. If using catch container, carefully monitor and empty as needed. As solution drains, clean heating elements and pot surfaces, by scrubbing with the provided brushes.

Continued on Next Page

6.1. Boil-Out Procedure - continued

⚠WARNING **Failure to routinely clean the area of the pot shown below in order to avoid excessive carbon build-up between the wall and heat exchanger, can lead to premature failure of the pot and combustion chamber, and will void the pot warranty.**

EXTREMELY IMPORTANT!!



The area adjacent to the heat exchanger entrance requires special cleaning attention. If hard carbon deposits are allowed to form in this area, excessive heat build-up can cause severe metal fatigue, resulting in irrepairable damage and the fatal failure of the heat exchanger. Such damage may not be covered by the factory warranty.

Use the straight round-bristle brush to scrub and clean this area during a boil-out procedure.

12. Rinse and flush pot thoroughly with clean hot water. ***Empty catch container as often as needed or continue to squeegee to floor drain.***

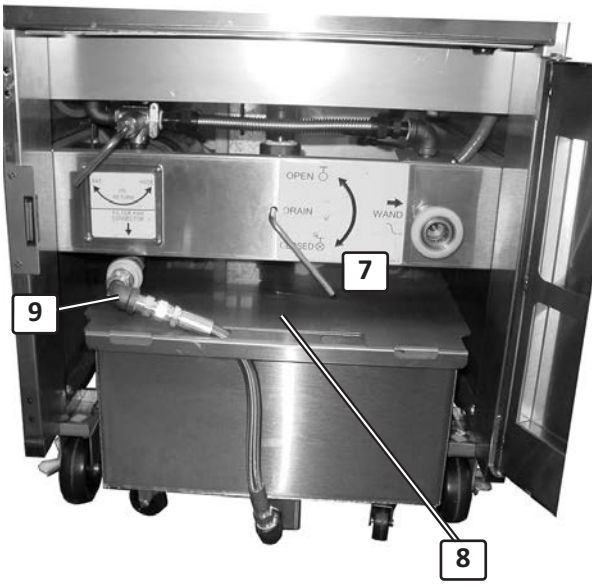
13. Dry the pot with clean dry, sanitized, towels. Ensure surfaces are completely dry before adding fresh cooking oil.

14. Return ***Drain Valve Handle*** ⑦ to the **[CLOSE]** position (fully down to stop).

15. Clean ***filter pan*** and replace ***filter media*** as described in **Section 6.2, Cleaning Filter Pan Components**.

16. Place ***cover*** ⑧ on filter pan, repositon it under fryer and connect the ***filter pan hose*** ⑨ to the fryer coupling.

17. To resume cooking, refill pot with fresh liquid frying shortening and restart fryer as described in ***Section 5.2, Cooking Procedures***



IMPORTANT! Be certain that the pot is completely rinsed and dried before adding fresh cooking oil. Give particular attention to the drain valve, as residual water will accumulate in the space above the valve. Water in the pot will cause boiling and foaming of cooking oil when heated, which could result in overflow.

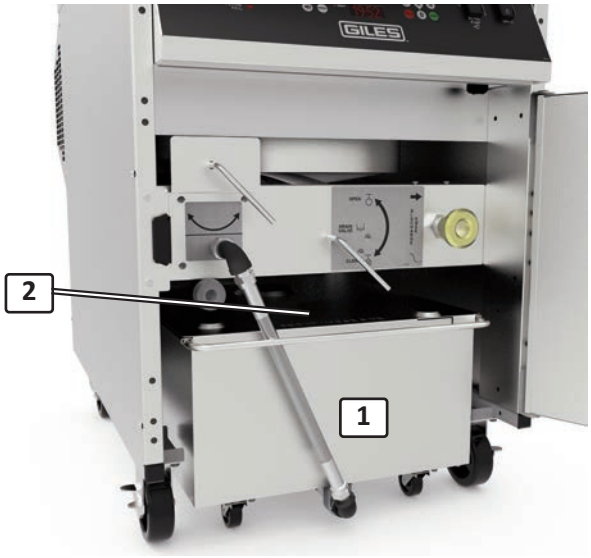
6.2. Cleaning the Filter Pan & Replacing Filter Media

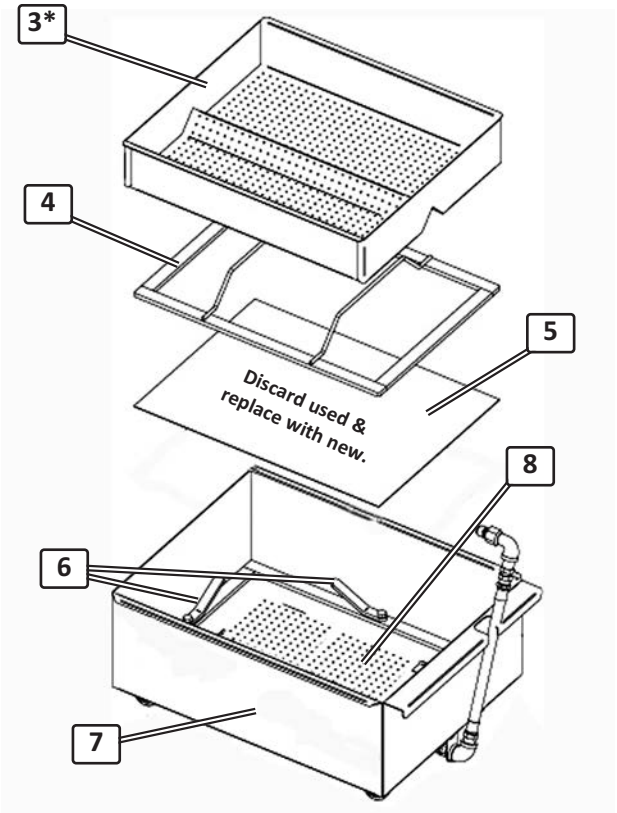
This section describes the procedure for cleaning the ***filter pan*** and replacing ***filter media***. Perform this after each ***Boil-Out Procedure (Section 6.1),*** as well as part of a ***daily cleaning routine***.

GILES recommends using a non-toxic, non-detergent, biodegradable degreaser cleaner, such as SIMPLE GREEN® Crystal Foaming Spray Cleaner/Degreaser along with hot water, to clean the filter pan and components.

⚠CAUTION Wear thermal hand protection as safeguard from hot parts.

1. Shutdown fryer using ***Normal Shut-Down***, see ***Section 5.5***
2. Remove ***filter pan*** ① from fryer and lift off ***pan cover*** ②. Clean and dry cover thoroughly.
3. If equipped, remove the ***Crumb Screen*** ③*, clean and dry thoroughly.
4. Using the provided metal ***Crumb Scoop***, remove accumulated filter residue from the surface of the media ⑤, especially around the edge of the ***hold-down frame*** ④.
5. Turn locking ***levers*** ⑥ to disengage the ***hold-down frame*** from pan bottom. Remove frame, clean and dry thoroughly.
6. Grasp edge of ***soiled sheet of filter paper*** ⑤, carefully roll it up, taking care not to allow filter debris to fall through *perforated screen* ⑧ in the pan bottom, and discard.
7. Clean ***filter pan***, rinse thoroughly and dry completely. Be certain to drain all water from the filter pan hoses.
8. Reassemble ***filter pan***, ***using one (1) fresh sheet of filter paper (proper size 15-1/2" x 21-3/8")***. Close all locking levers, be sure they securely engage ***hold-down frame***.
9. Replace ***pan cover*** and place assembled ***filter pan*** under fryer. Reconnect hose at quick-disconnect coupling.





NOTE:
A stainless steel, micro-mesh ***Filter Screen (P/N 41041)*** is available as a direct substitute for paper filter media. It is cleanable and reuseable; designed to reduce cost of operation and eliminate the refuse associated with use of filter paper. Using it along with a good filter aid, such as ***Giles Filter Powder (P/N 72004)***, gives the same result as filter paper.

*** Accessory, not included, purchased separately**

7. Troubleshooting

This section describes troubleshooting procedures for model *GGF Gas Fryers*. Refer to the wiring diagram provided with the unit, as needed. Generally, troubleshooting and repair must be performed by a qualified kitchen equipment service technician. Users should only attempt to correct issues dealin with operating procedures.

7.1. Temperature Control System

Problem	Probable Cause	Repair Procedure
FRYER WILL NOT TURN ON: No power light	A. Not connected to power source.	Connect to power source.
	B. Faulty fuse or circuit breaker.	Check fuse or breaker.
	C. Fuse holder cracked.	Replace fuse holder.
	D. Faulty Power Switch.	Replace Power Switch.
	E. Improper supply voltage.	Connect to proper power supply.
FRYER WILL NOT HEAT: **POWER** light **ON**. **HEAT** light not **ON ...** no alarm sounding	A. Selector Switch not in **[COOK]** position.	Place Selector Switch in **[COOK]** position.
FRYER WILL NOT HEAT: **POWER** light is **ON** *Selector Switch* is in **[COOK]** position **HEAT** light is **OFF**	A. Temp setpoint is lower than actual oil temperature.	Check setting & oil temp; correct if needed, or if temp is satisfactory begin cook cycle.
	B. ***"DRAIN OPEN"*** message; alarm sounding	Close valve fully to reset alarm
	C. Faulty cooking Controller.	Replace Controller.
	D. Temperature sensor faulty; Er13 displayed	Check wiring; replace sensor
	E. Selector Switch is faulty	Check/replace Switch
	F. Vacuum switch out of adjustment.	Adjust Vacuum Switch.
	H. Faulty draft blower.	Replace Blower.
	I. Power-up procedure not completed	Press **[START]** to begin **PREHEAT**

7.1. Temperature Control System - continued

Problem	Probable Cause	Repair Procedure
FRYER WILL NOT HEAT (IGNITE): **POWER** light **ON**. **HEAT** light **ON** **FLAME FAIL** light **ON**	A. Main gas supply line valve Is **CLOSED**.	Open gas valve.
	B. Fryer gas valve is **CLOSED**.	Move gas valve handle to **[OPEN]** position.
	C. Flame Sensor faulty, dirty or mis-aligned.	Clean, adjust or replace Flame Sensor.
	D. Incorrect gas pressure.	Correct gas pressure.
	E. Orifice size incorrect.	Install proper orifice.
	F. Faulty Gas Control Valve.	Replace Gas Valve.
	G. Faulty Ignitor.	Replace Ignitor.
	H. Faulty Ignition Module.	Replace Ignition Module.
	I. Faulty Gas Valve Transformer.	Check & replace Transformer
	J. Dirty burner.	Clean burner
FRYER WILL NOT HEAT: **POWER** light **ON**. **HEAT** light not **ON**. Alarm sounding or Error Message displayed.	A. Drain Valve open.	Close valve completely.
	B. Loose wiring.	Check & repair wiring.
	C. Low oil level	Add oil to **FULL** level.
	D. Heat exchanger exceeded max temp	Allow unit to cool, error will automatically clear.
	E. Fryer is in *FILTER MODE*	Consult Operations Manual

7.1. Temperature Control System - continued

Problem	Probable Cause	Repair Procedure
FRYER WILL NOT HEAT: **POWER** light **ON**. **HIGH LIMIT** light **ON**	A. Power surge.	Turn fryer power **OFF** for 5 seconds to reset.
	B. Plug loose in wall receptacle.	Check & insert plug firmly.
	C. Low oil level	Add oil to **FULL** level.
	D. Faulty High-Limit board	Replace board.
	F. Faulty or mis-positioned High-Limit probe.	Replace Probe; check & reposition if needed..
	G. Line noise or voltage spikes.	Install line filter.
	H. Faulty controller	Replace controller
	I. Faulty temp sensor	Replace probe
FRYER HEATS SLOW: Slow recovery **HEAT** light stays **ON**.	A. Improper cooking procedure.	Consult Operations Manual for proper operating procedures.
	B. Burner system problem.	Inspect system/repair.
	C. Incorrect gas pressure.	See ***Sections 2.8, Gas Line Connection*** and **2.*10, Gas Pressure Setting & Adjustment*.**
FRYER HEATS SLOW: **HEAT** light **OFF/ON CONTINUOUSLY**. Short cycling	A. Low voltage.	Check incoming power supply and connections.
	B. Variable temp sensor is touching, or too close to heat exchanger ring.	Correct probe location.
	C. Faulty cooking controller.	Replace controller.
	D. Loose wiring.	Inspect wiring and repair.
OIL TEMPERATURE ERRATIC:	A. Faulty variable temp sensor.	Replace faulty probe.
	B. Burner system problem.	Inspect system/repair.
	C. Faulty cooking controller.	Replace controller.
	D. Loose wiring.	Inspect wiring and repair.

7.1. Temperature Control System - continued

Problem	Probable Cause	Repair Procedure
OIL SMOKING:	A. Cooking oil is old.	Change cooking oil.
	B. Cooking temp too high.	Check settings.
	C. Low oil level.	Maintain oil at **[FULL]** level.
	D. Cooking oil has been contaminated.	Change cooking oil.

7.2. Oil Filtration System

Problem	Probable Cause	Repair Procedure
OIL NOT RETURNING TO FRY POT:	A. *Selector Switch* not placed in **[FILTER PUMP]** position.	Place switch in proper position.
	B. Air leak in system.	Check hoses and connections.
	C. Faulty pump motor.	Inspect; replace if needed.
	D. Pump head clogged or bound.	Remove head cover; clean out pump as needed.
	E. *Diverter Valve* not in **[FRYER]** position.	Place valve handle in proper position.
	F. Oil has congealed inside pump head.	Run clean hot oil through system.
	G. Oil is too cool to be pumped efficiently (below 200°F/93°C).	Remove filter pan from fryer and manually remove cool oil.
	H. Filter Pan is assembled incorrectly.	Assembly Filter Pan correctly; see ***Section 6.2***.
	I. Pump has been damaged by pumping boil-out solution through it.	Disassemble pump head; clean and re-oil.

7.3. Basket Lift System

Problem	Probable Cause	Repair Procedure
BASKET LIFT DOES NOT OPERATE:	A. Power is not **ON**.	Place Power Switch in **[ON]** position.
	B. **BASKET** key or **Keypad Arrow keys [2 & 8]** on controller are faulty.	Perform key function diagnostics.
	C. Cook cycle is running.	Cancel running cycle.
	D. Elevator micro-switches out of adjustment.	Adjust switches.
	E. Oil temp has not yet reached setpoint during **PREHEAT**.	Allow oil to heat to setpoint and fryer to enter **READY** state.
	F. Basket Lift motor is faulty.	Inspect, replace if needed.
	G. Controller is faulty.	Check; replace if needed.
	I. Loose wiring in lift control circuit.	Inspect; repair as needed

8. Parts List

This section lists various parts that are, typically, field replaceable on GGF Gas Fryers. It is provided to aid qualified service technicians who are servicing or repairing this equipment. Repair of this equipment should only be attempted by training kitchen equipment service technicians.

8.1 Parts Ordering & Service Information

Giles is an equipment manufacturer and does not sell parts direct. Parts are available through authorized service agents, part distributors, and/or kitchen equipment dealers. If assistance with sourcing parts or equipment repair service is required, please contact a *GILES* Manufacturer's Representative to assist with locating a parts source or authorized service provider near you. For further assistance you may contact the ***GILES Technical/Customer Service Support*** as follows:

IN THE UNITED STATES & CANADA call: 800.554.4537

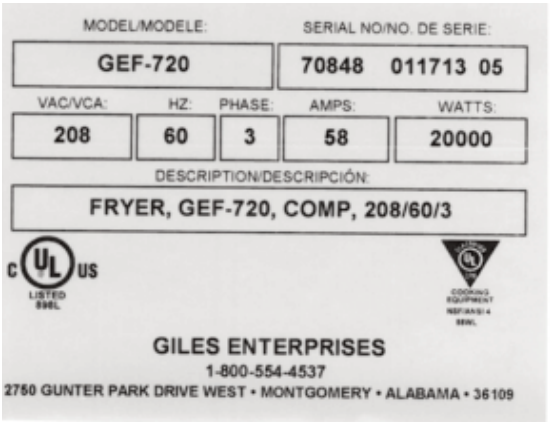
ALL OTHERS call: 334.272.1457

Normal business hours are 8:00 AM to 5:00 PM Central Time ... calls are handled by an automated answering system. Please follow the recorded prompts to reach appropriate support. If necessary after hours, leave voicemail message ... a representative should respond within 30 minutes.

Website: **www.gfse.com** Email: **services@gfse.com**

Our goal at Giles is to provide the highest possible quality of service and assistance. To help us accomplish this, please have the following information readily available when calling, along with a brief description of the problem being experienced. Please record the unit information in the table below for quick reference.

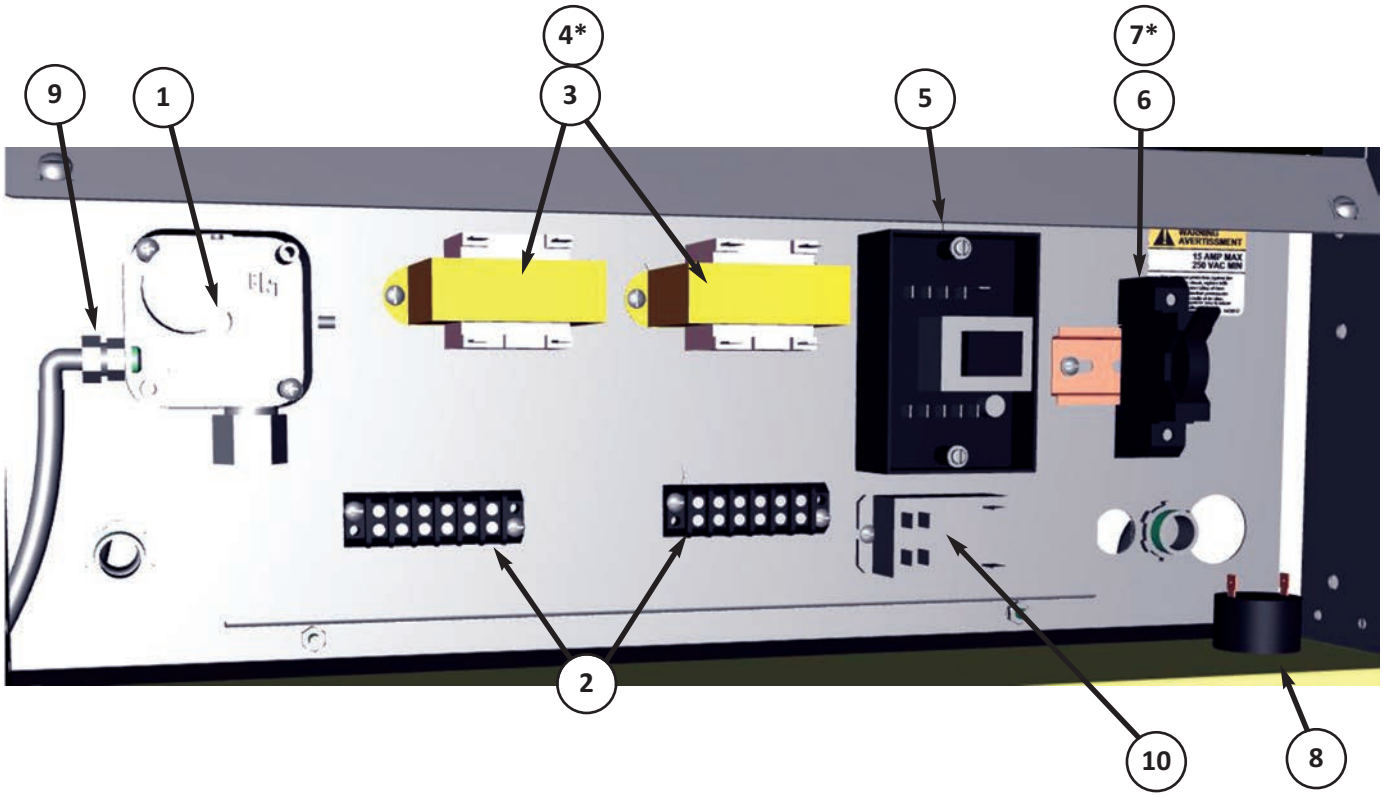
Model:	
Serial Number:	
Voltage:	
Phase:	



The information can be found on the Serial/Data Label located inside the Fryer cabinet, or on the rear cabinet panel.

8.2. Front Header & Control Panel

FRONT HEADER PANEL



FRONT CONTROL PANEL

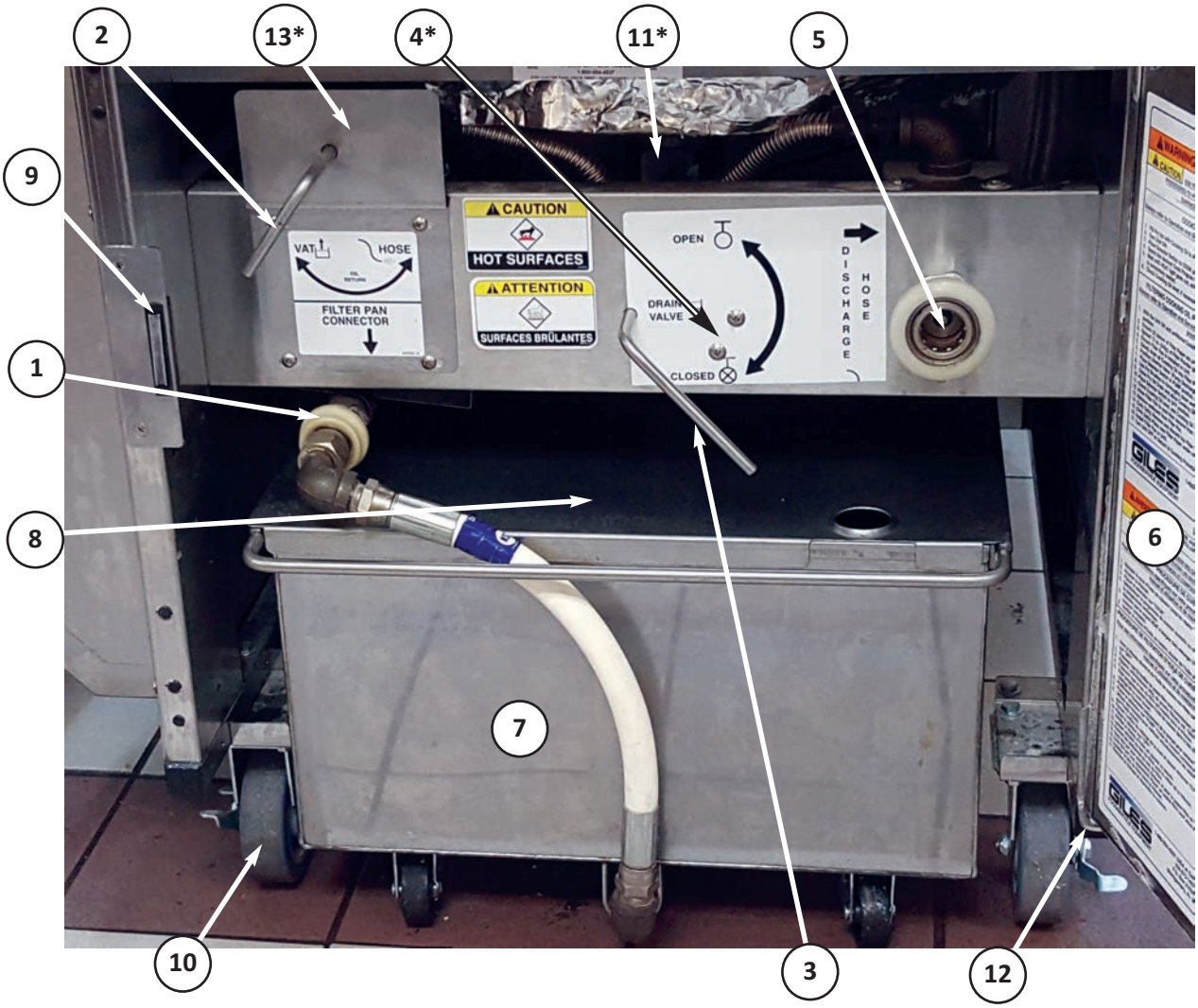
* Not Shown

8.2. Front Header & Control Panel

Item	Part Number	QTY.	Description
1	20390	1	SWITCH, VACUUM
2	23751	2	TERMINAL BLOCK
3	24276	2	TRANSFORMER, 24VAC
4*	38365	2	IN-LINE FUSE, 1A, HEAT SHRINKED
5	23749	1	THERMOSTAT, HI-LIMIT, 425DEG
6	20411	1	FUSE HOLDER, DIN RAIL MOUNT
7*	21900	1	FUSE, 15-AMP, SC-15
8	23782	1	SONALERT
9	40877	1	FITTING, 1/4 BARBED, 90-EL, NYL, 1/8 NPT
10	21423	1	RELAY, POWER SWITCH, 30A/2.5HP
11	20403	1	INDICATOR LIGHT, GREEN
12	20429	1	INDICATOR LIGHT, AMBER, LED, 28V
13	20428	2	INDICATOR LIGHT, RED, LED, 28V
14*	20307	4	RETAINING CLIP, INDICATOR LIGHT
15	21374	1	COMPUTER CONTROLLER, CC10
16	21189	1	SWITCH, ROCKER, ON-OFF-ON, 250V,20A,S.P.
17	21190	1	SWITCH, ROCKER, ON-OFF, 250V, 20A, D.P.
18	66131	1	LABEL, CONTROL PANEL, CC10, GGF

* Not Shown

8.3. Front Lower Cabinet



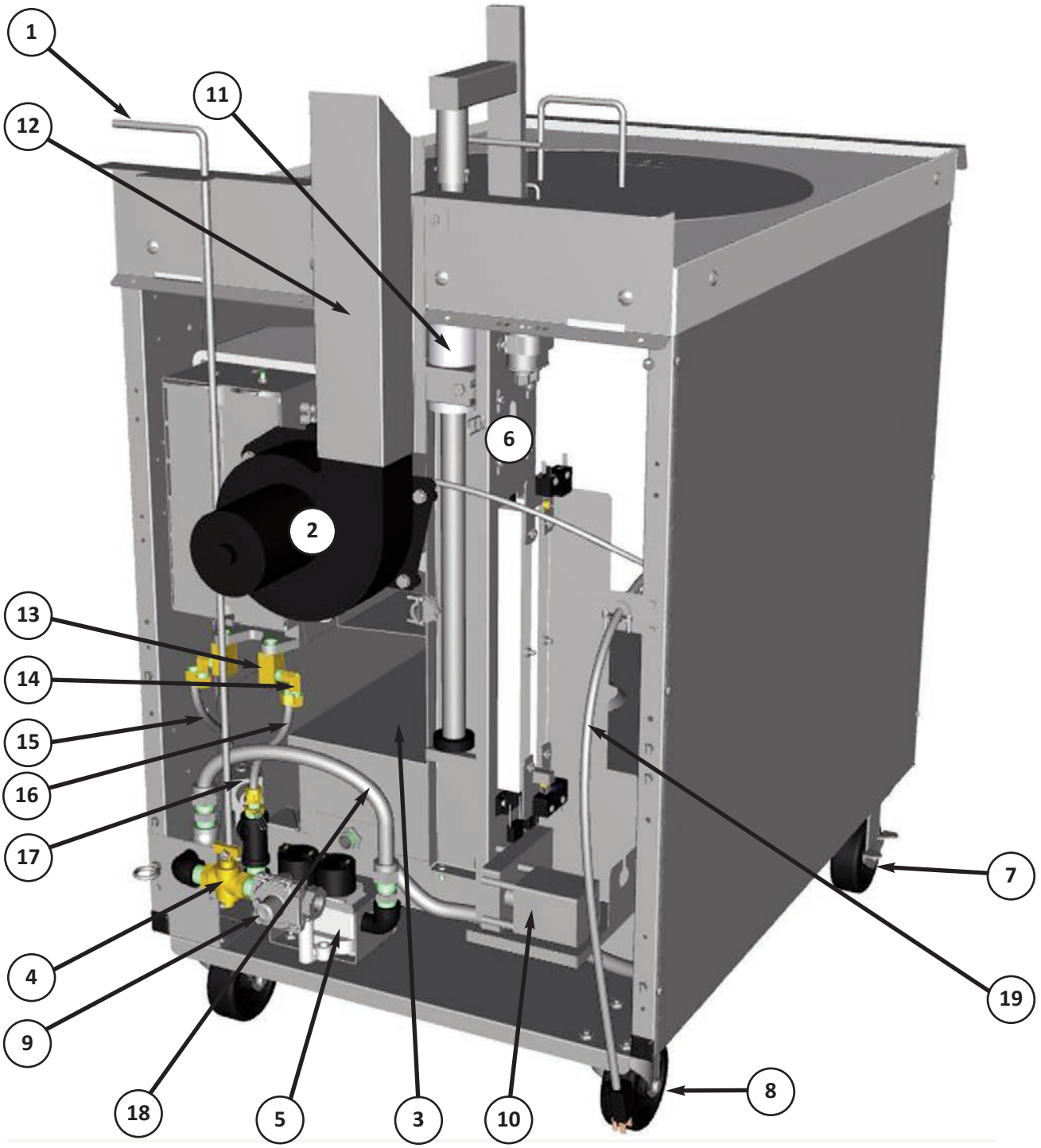
* Not shown

8.3. Front Lower Cabinet

Item	Part Number	Qty	Description
1	41900	1	COUPLING, QUICK DISCONNECT,FEMALE,FILTER PAN
2	35108	1	DIVERTER VALVE HANDLE, WELD ASSY
3	91017	1	VALVE HANDLE, DRAIN, WELD ASSY, GGF
4*	21386	2	LIMIT SWITCH, DRAIN, SPDT
5	41699	1	COUPLING, QUICK DISCONNECT, FEMALE
6	38845	1	DOOR, WELD ASSY, GGF
7	91823	1	FILTER PAN, ASSEMBLY, GGF
8	95555	1	FILTER PAN COVER, GEF/GGF
9	40851	1	CATCH, MAGNET, DOOR, SNAP IN, 2.3IN
10	40806	2	CASTER, 5.000, RIGID, W/BRAKE, GEF
11*	45876	1	DRAIN VALVE, 1-1/2”NPT, GGF
12	90943	2	DOOR HINGE PIN, WELD ASSY, GGF
13*	45755	1	VALVE, 3-WAY, 1/2-NPT, NICKEL PLATED

*** Not shown**

8.4. Rear Cabinet

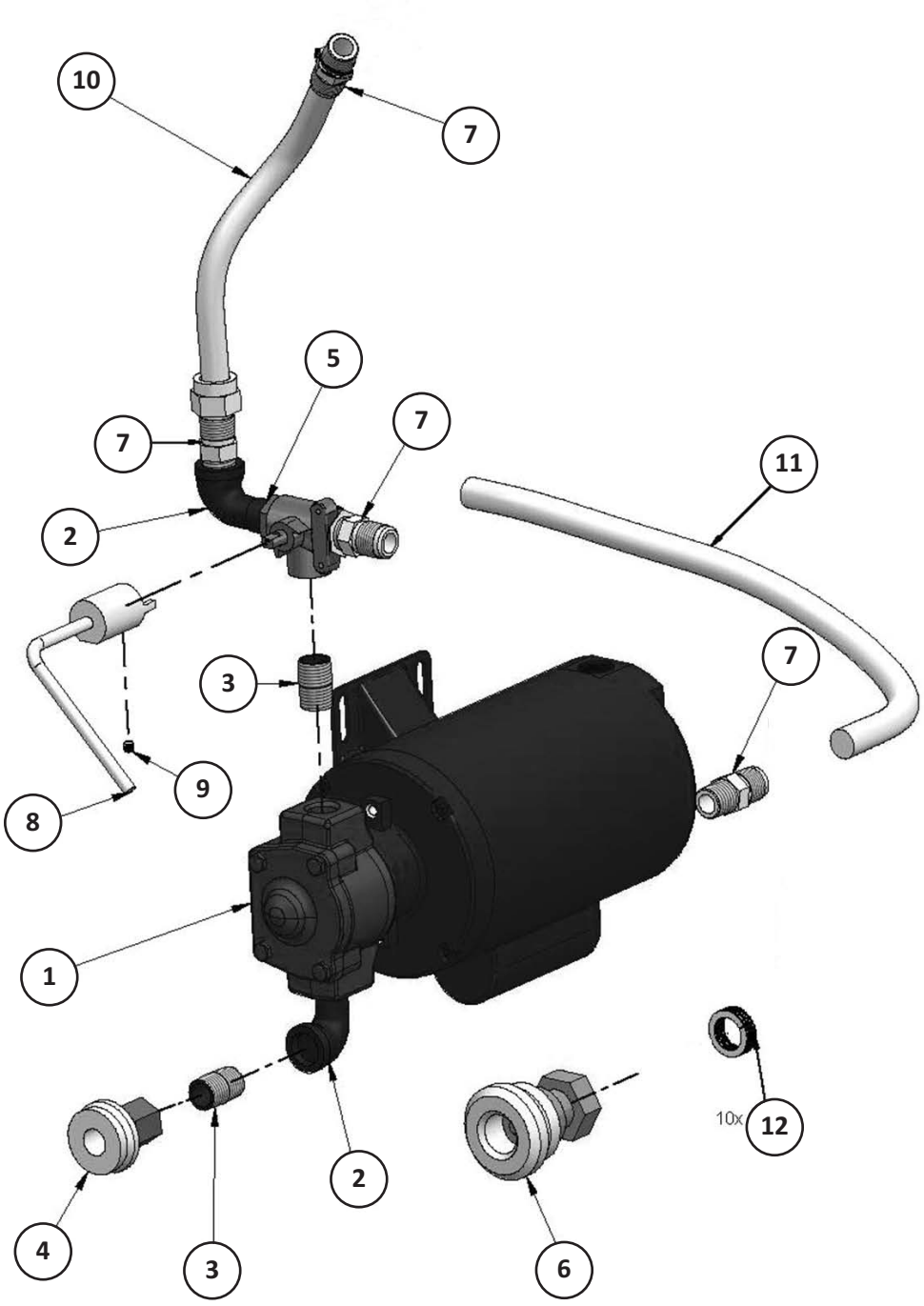


8.4. Rear Cabinet

Item	Part Number	Qty.	Description
1	90893	1	HANDLE, GAS SHUT OFF VALVE
2	20440	1	BLOWER, DRAFT, 115V **(GGF-720, NAT. GAS)**
	21801	1	BLOWER, DRAFT, 115V **(GGF-720. LP GAS + ALL GGF-400)**
3	90872	1	COVER, FILTER PAN
4	34955	1	GAS COCK, SHUTOFF VALVE
5	45108	1	GAS CONTROL VALVE
6	91186	1	ELEVATOR ASSEMBLY, 120V
7	40806	2	CASTER, 5.0, RIGID W/BRAKE
8	40807	2	CASTER, 5.0, SWIVEL W/O BRAKE
9	41468	1	REGULATOR, PRESS, NAT. GAS, 1/2-NPT
	41472	1	REGULATOR, PRESS, LP GAS, 1/2-NPT
10	20423	1	MOTOR, ELEVATOR, 115V
11	40770	1	SHAFT & CYLINDER ASSY, ELEVATOR
12	90882	1	FLUE PIPE **(ALL GGF-400 + GGF-720, LP)**
	91493	1	FLUE PIPE **(GGF-720, NAT)**
*13	46727	1 or 2	GAS ORIFICE MANIFOLD **(GGF-400 = 1; GGF-720 = 2)**
14	40920	1 or 2	90˚ FITTING, BRASS, 3/8 CMPRSS to 1/4 NPT **(GGF-400 = 1; GGF-720 = 2)**
15	40912	1	GAS LINE, 3/8 OD X 10-1/4, CMPRSS w/NUTS **(GGF-400; GGF-720)**
16	40911	1	GAS LINE, 3/8 0D X 7-1/8, CMORSS w/NUTS **(GGF-720 ONLY)**
17	40890	1	SOLENOID VALVE, N/C, 24VAC, 2-WAY **(GGF-720 ONLY)**
18	40909	1	HOSE, CORRUGATED, SS, 1/2 ID X 15
19	21285	1	CORDSET, 120V, 8-FT W/PLUG, SJOW

*** See *Section 2.9, Gas Orifice Installation & Replacement*. Table shows Gas Orifice part numbers for various elevations. Factory-installed orifices are satisfactory for use at: 0-3000 ft AMSL (Nat gas) & 0-4000 ft AMSL (LP gas).**

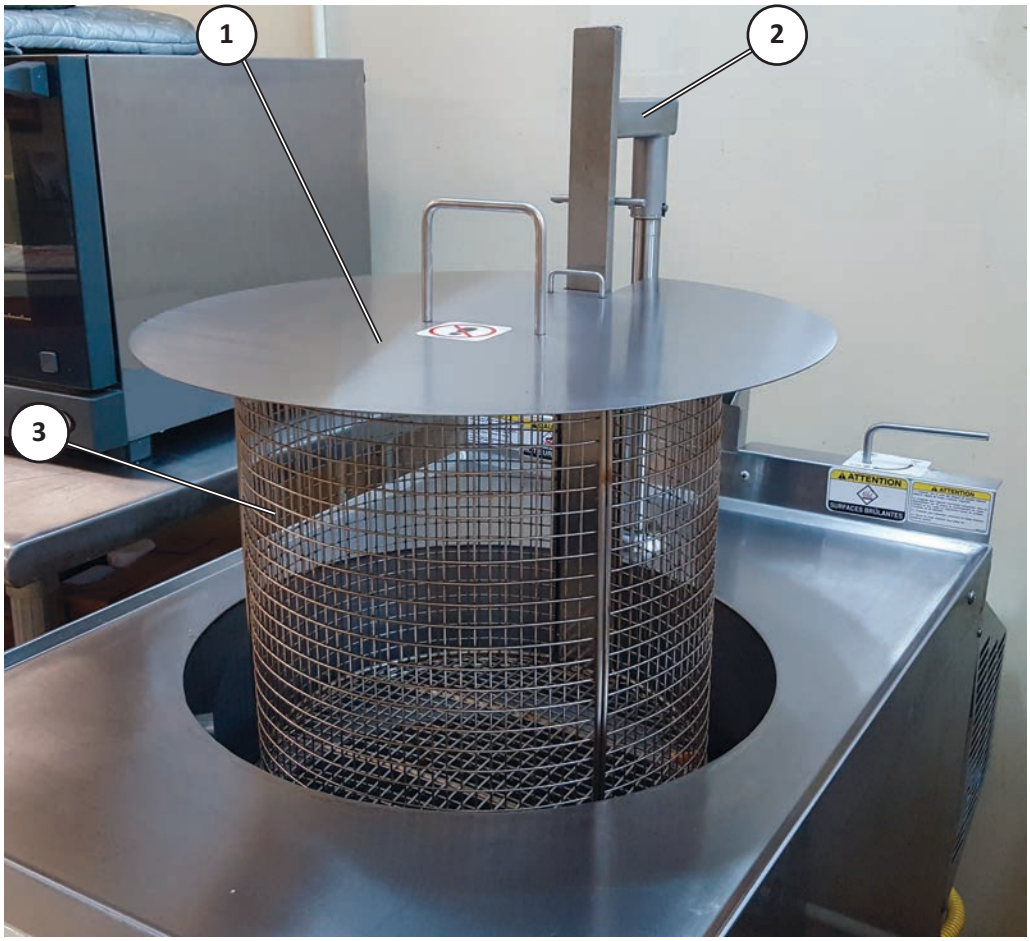
8.5. Plumbing



8.5. Plumbing

Item	Part Number	Qty.	Description
1	71754	1	PUMP & MOTOR ASSY, 5-GPM, 1/2 HP
	76923	1	PUMP HEAD ONLY, 5-GPM
	71824	1	MOTOR ONLY, 1/2 HP
2	42250	2	STREET ELL, BLACK, 1/2”
3	43850	2	NIPPLE, 1/2” CLOSE
4	41900	1	QUICK DISCONNECT, 1/2”
5	45755	1	3-WAY VALVE
6	41699	1	COUPLING, FEMALE QUICK DISCONNECT
7	40889	4	ADAPTER, 1/2” COMPRESSION X 1/2” PIPE THREAD -
8	35108	1	VALVE HANDLE, DIVERTER VALVE
9	10098	1	SET SCREW, 1/4-20 X 1/4, SOC HD, CUP PT
10	40909	1	HOSE, CORRUGATED, SS, 1/2 ID X 15
11	41119	1	HOSE, CORRUGATED, SS, 1/2 ID X 24
12	10524	10	WASHER, .843 X 1.190 X .036, THK

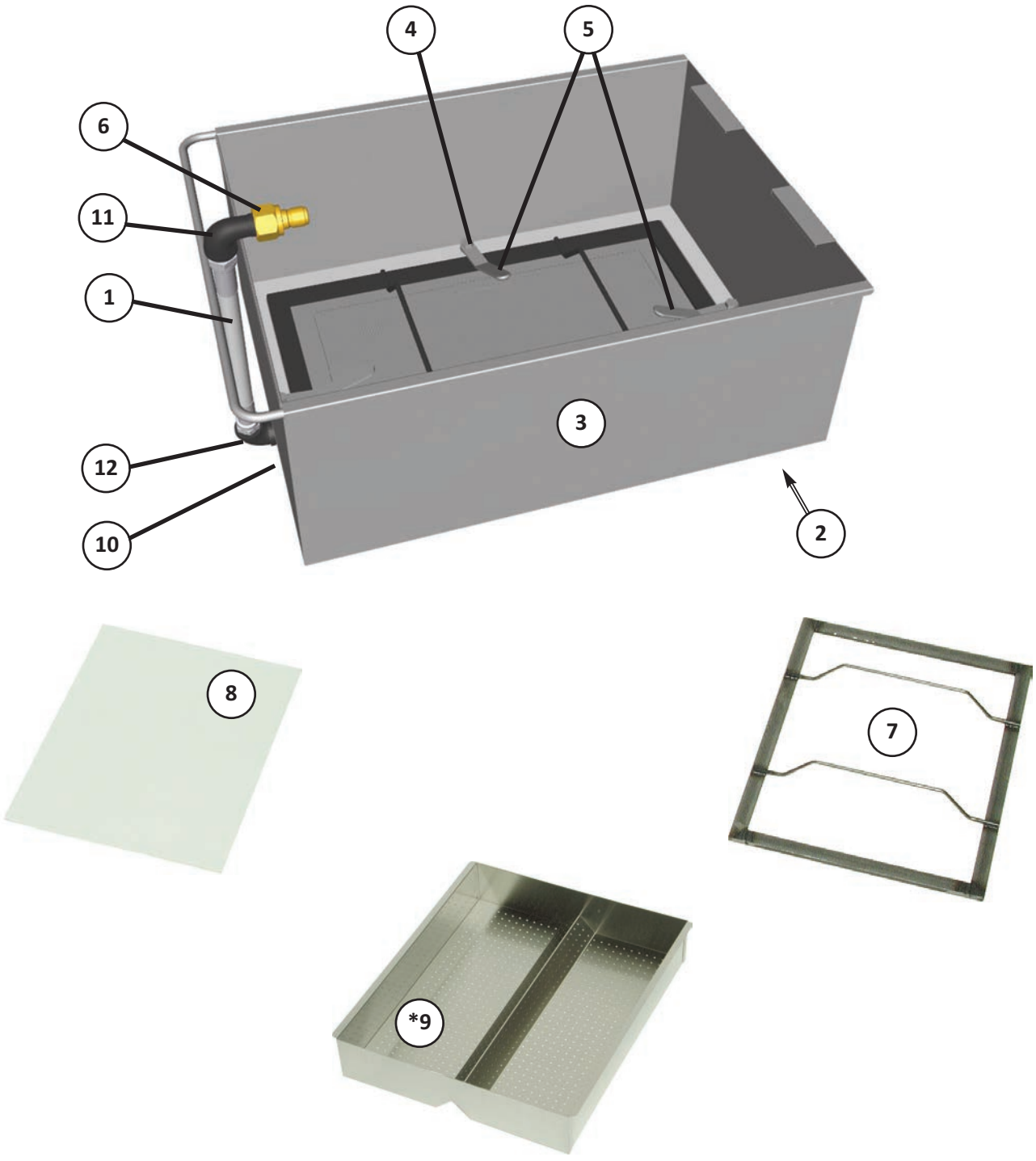
8.6. Basket & Basket Cover



8.6. Basket & Basket Cover

Item	Part Number	Qty.	Description
1	33883	1	BASKET COVER, ASSY, GGF-720
	33884	1	BASKET COVER, ASSY, GGF-400
2	38930	1	BASKET CARRIER, ASSY, GGF-720
	39165	1	BASKET CARRIER, ASSY, GGF-400
3	91811	1	BASKET, GGF-720
	33718	1	BASKET, GGF-400

8.7. Filter Pan



* Accessory, Purchased Separately

8.7. Filter Pan

Item	Part Number	Qty.	Description
1	40955	1	HOSE, 1/2NPT X 15.75
2	40649	4	CASTER, SWIVEL, 2-9/16, FILTER PAN
**3	91823	1	FILTER PAN, COMPLETE ASSEMBLY
4	30040-4	4	STUD, FILTER PAN HOLD DOWN FRAME
5	38841	4	HANDLE, SUPPORT FRAME, FILTER PAN, GGF
6	44150	1	FITTING, BRASS,MALE,1/2NPT,QUICK DISCONNECT
7	38830	1	HOLD DOWN FRAME, WELD ASSY
8	60810	1	PAPER, FILTER, 21.375 X 15.500, GGF
*9	39246	1	CRUMB SCREEN, FILTER PAN, GGF
10	40956	1	HOSE, 1/2NPT X 11.500
11	42250	1	ELL, BLACK, STREET, 1/2, 90-DEG
12	42200	1	ELL, BLACK, 1/2, 90-DEG

**** DOES NOT include Item #9, Crumb Screen**

* Accessory, Purchased Separately

Notes

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