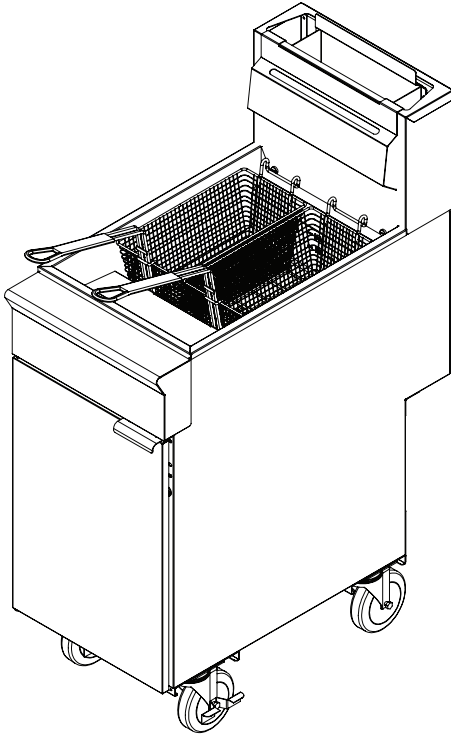


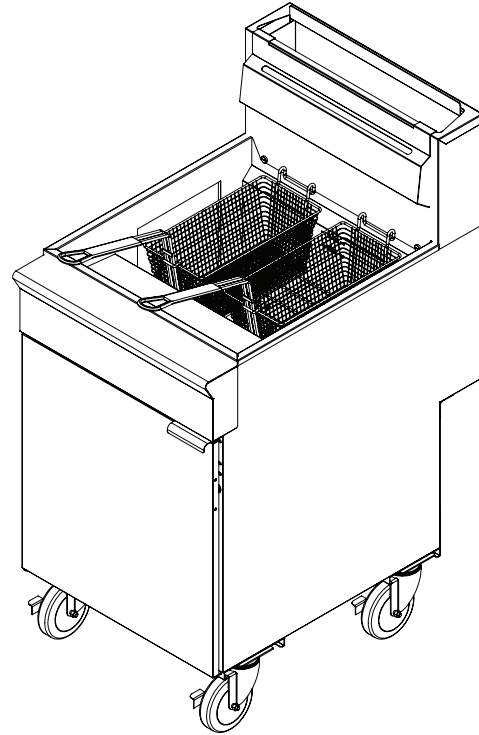
BLACK◆DIAMOND®

Energy Star Gas Fryer Instruction Manual



35 lb, 65K BTU, 3 Burner
BDGF-ES35-NG - Natural Gas
BDGF-ES35-LP - Liquid Propane Gas

45 lb, 84K BTU, 4 Burner
BDGF-ES45-NG - Natural Gas
BDGF-ES45-LP - Liquid Propane Gas



60lb, 105K BTU, 5 Burner
BDGF-ES60-NG - Natural Gas
BDGF-ES60-LP- Liquid Propane Gas

This manual contains important information, please read the manual thoroughly prior to equipment set-up, operation and maintenance. Failure to comply with regular maintenance guidelines outlined in this manual may void the warranty. Please make sure this manual is always available for reference and operation. Save these instructions for future reference. Save the original box and packaging. Use this packaging to ship the equipment if repairs are needed.

IMPORTANT SAFEGUARDS

Please pay close attention to the safety notices in this section. Disregarding these notices may lead to serious injury and/or damage to the unit.



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

DANGER: If gas odor is detected, shut unit down at main shutoff valve and contact service company. Do not try to light the burner; do not use a telephone within close proximity. Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other equipment.

WARNINGS

- **DO NOT** store or use gasoline or other flammable vapors or liquids in the vicinity of this appliance.
- **NEVER** use an open flame to check for gas leaks. Fire and explosion may result.
- If the pilot light should be extinguished, turn off the gas shut-off valve and remove the grate and drip pan. Allow the appliance to vent for five minutes before attempting to re-light.
- This unit should be stored in a well ventilated area that contains no corrosive gases.
- Equipment should be installed by a qualified installer in accordance with all federal, state and local codes.
- Any incorrect installation, alterations, adjustments and/or improper maintenance can lead to property loss and injury. All repairs should be done by authorized professionals only.
- **DO NOT** install or use without all 4 casters.
- **DO NOT** obstruct the flow of combustion and ventilation air.
- **DO NOT** spray controls or the outside of the equipment with liquids or cleaning agents
- This equipment should only be used in a flat, level position. **ALWAYS** use on a firm, dry and level surface at least 12" (31cm) from walls or any other obstruction.
- **DO NOT** ship or store upside down.
- **DO NOT** operate unattended.
- **DO NOT** touch any hot surfaces.
- Allow for hot parts to cool before cleaning or moving.
- Keep children and animals away from unit.
- Any loose dirt or metal particles that are allowed to enter the gas lines on this equipment will damage the valve and affect its operation.
- **NEVER** attempt to move machine or grate while cooking.
- **DO NOT** get this unit wet.
 - * **DO NOT** spill or pour water into burners or controls.
 - * **DO NOT** submerge unit cabinet in water. Damage to internal components will occur. Damage to internal components from water damage is NOT covered by warranty.
 - * **DO NOT** immerse unit in liquid at any time.
- **DO NOT** use this unit for anything other than intended use.
 - * This product is for commercial use only.
 - * This equipment is for use in non-combustible locations only.
 - * **DO NOT** use outdoors.

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SPECIFICATIONS:

Type	65K BTU	84K BTU	105K BTU
Assembled Dimension (Inches)	30.24" x 15.51" x 46.29"	30.24" x 15.51" x 46.29"	30.19" x 21.07" x 46.28"
Item Weight (lbs)	134.2	147.5	176.4
Power - BTU/hr	65000	84000	105000
Capacity (lbs. of oil)	35 lbs	45 lbs	60 lbs
Fry Basket Capacity *Recommended pounds per basket	1.5 lbs. (0.7 kg).	2.5 lbs. (1.1 kg)	3.0 lbs. (1.4 kg)

BEFORE INSTALLATION

- Equipment installation and startup must be completed by licensed, trained technicians.
 - * An Equipment Start Up Form must be completed and returned for warranty to be in effect.
- This device is suitable for an area whose altitude is 0-2,000 ft. If it is higher than this altitude, please contact the manufacturer.
- Installation of this unit should conform to provisions of gas safety, installation and usage
- This device should be kept at a minimum clearance of 4" away from non-combustible objects on both sides and 8" at the back (e.g. walls, windows etc.).
- **DO NOT** install on a flammable floor or around other combustible objects.
- This item is intended to sit on a solid and level floor

UNPACKING & INSPECTION:

- Carefully remove the appliance from the carton.
- Remove all protective plastic film, packing materials and accessories from the appliance before connecting performing any installation procedure.
- Carefully read all instructions in this manual and the Installation Instruction Sheet packed with the appliance before starting any installation.

TO INSTALL

1. Level the device with a level gauge.
2. Screw the 4 feet into the bottom of the unit. The height can be adjusted with the adjustable feet.
3. The mounting position should be well-ventilated with proper hood exhaust system that will ensure that all the burnt gases produced during use are completely disposed of.
4. After installation, level the device and keep stable. Do not sway or tilt during operation.
5. A quick-acting gas shut off valve should be installed near the device where it's easily reached.
6. Make sure you are using the correct gas supply that is specified for this model. If the gas supply is not intended for this model, do not proceed with installation.
7. This unit is applicable to low pressure regulating valves only. High pressure regulating valves and medium pressure regulating valves are not to be used.
8. Check to make sure the connection pipe to the unit has no leaks
9. If the connecting pipe pressure is 10% higher or lower than the rated pressure, please install a pressure regulator.
10. After connecting the appliance to the gas system, check for leaks at joints and pipe fittings; to do so, use soapy water or a specific leak detector (spray).
11. Check the gas supply pressure after installation.
12. Gas supply pressure can be measured with a liquid-filled pressure gauge (e.g. a U-shaped pressure gauge, minimum scale division 0.1mbar) or a digital gauge.

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TO CHECK THE GAS SUPPLY PRESSURE:

1. Remove the panel and unscrew the screw on the pressure port
2. Place the pressure gauge
3. Start up the appliance by following the instructions in this owner's manual
4. Check supply pressure
5. After the check, remove the pressure gauge
6. Replace the sealing screw

CODES AND STANDARDS

This item must be installed in accordance with:

- In the United States: State and local codes, or in the absence of local codes, with:
 - * National Fuel Gas Code, ANSI-Z223.1/NFPA #54 (latest edition). Copies may be obtained from The American Gas Association Accredited Standards Committee Z223, @ 400 N. Capital St. NW, Washington, DC 20001 or the Secretary Standards Council, NFPA, 1 Batterymarch Park Quincy, MA 02169-7471.
 - * NFPA Standard #96 Vapor Removal from Cooking Equipment, latest edition, available from the National Fire Protection Association, Batterymarch Park, Quincy, MA. In the commonwealth of Massachusetts, all gas appliances vented through a ventilation hood or exhaust system with a damper or with a power means of exhaust shall comply with 248 CMR.
- In Canada: Local codes:
 - * CAN/CSA-B149.1 Natural Gas Installation (latest edition).
 - * CAN/CSA-B149.2 Propane Installation Code (latest edition), available from the Canadian Gas Association 178 Rexdale Blvd., Etobicoke, Ontario Canada M9W 1R3.
- The installer of this unit should be aware of state, county or local code for connecting this equipment to determine if an external regulator is required.

EXTERNAL STEP DOWN PRESSURE REGULATOR

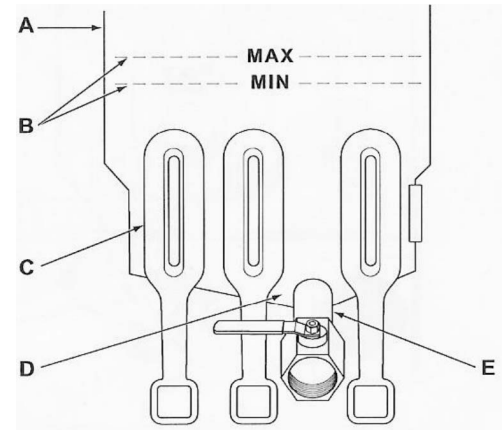
- All liquid propane fryers must have a pressure step-down regulator on the incoming gas line for safe and efficient operation.
- Prior to connecting the regulator, check the incoming line pressure.
 - * The regulator can only withstand a maximum pressure of ½ PSI (14" WC). If the line pressure is beyond this limit, a step down the regulator will be required.
 - * The arrow on the bottom shows gas flow direction and should point downstream to the equipment.

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FILLING TANK WITH SHORTENING

Solid shortening must NOT be used with fryers. Melting solid shortening will damage the tank and void your warranty.

1. Close the drain valve (E).
2. Fill the fryer tank with liquid shortening.
3. Shortening level should be between the min and max lines in the fryer tank.
4. Shortening will expand when heated.
* **DO NOT** fill the fryer tank past the **MAX** line.
5. Add fresh shortening as needed to maintain oil level.



LIGHTING THE PILOT

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

TURNING ON THE FRYER

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

TURNING OFF THE FRYER

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

WARNINGS - HIGH TEMPERATURE SHUTDOWN

- If the shortening becomes overheated, a high-temperature shutoff device will turn the gas valve off and extinguish the pilot.
- If the fryer shuts down due to overheating, **DO NOT** relight the pilot until the shortening temperature is below 300°.

EXTENDED SHUTDOWN


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

EXTENDING SHORTENING LIFE

Shortening life can be extended by the following guidelines:

1. Do not salt foods over the fryer.
2. Use good-quality shortening.
3. Filter shortening daily (at a minimum).
4. Replace shortening if it becomes poorly flavored.
5. Keep equipment and surroundings clean. Use tank covers when not in use.
6. Set thermostat correctly.
7. Remove excess moisture and particles from food products before placing in fryer.
8. Use a fitted tank cover to keep oil covered from light and oxygen.

DRAINING THE OIL

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

1. Turn the thermostat knob to the OFF position.
2. Insert the drain extension into the drain valve. Tighten only hand tight.
3. Direct the drain extension into the mobile filtering device or bucket that you want to use.
4. Slowly open the drain valve to allow oil to flow from the fry tank to the filter pan. Then open the drain valve all the way.
5. When fry tank is empty use the tank brush to remove any additional debris.
6. Close the drain valve.
7. Fill tank with new shortening. Fill to a minimum of the MIN level but no higher than halfway between MIN and MAX. Oil will expand as it is heated.
8. After the fry tank is filled with new oil, turn the thermostat knob to the desired set temperature. The burners will come on and will heat the oil.

MAINTENANCE & CLEANING

- **NOTE:** It is important to clean and maintain the unit daily.
 - * Checking the unit daily can help avoid serious accidents.
 - * **Stop** using if there are problems with the unit.
- Check the condition of the unit before and after each use.
 - * Before using:
 1. Is the machine tilted?
 2. Is the control panel damaged?
 - * During use:
 1. Is there a strange smell or noise?
 2. Is the flame color normal?
 3. Any light back or flameout?
- **BEFORE** cleaning, turn off all gas valves.
- It is important to clean the burners and drip tray(s) regularly.
- Clean the stainless steel surface with warm soapy water daily and rinse it dry.
- **DO NOT** clean the stainless steel surface with abrasive detergent, brush or scraper etc. The residual iron scale may cause rusting.
- **DO NOT** clean the surface with a chlorine cleanser (bleach, hydrochloric acid etc.).

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- **DO NOT** clean the floor where the unit is installed with corrosive substances (e.g. KCL).
- Clean off the dirt and debris on the burners and baffle regularly.
- **DO NOT** modify the ventilation volume needed during combustion.
- Accumulation of the iron substance (e.g. Material that formed by iron rust dissolving in water in the pipe, especially when the device is not used for a long time.). Therefore, to avoid accumulation of such substance, clean the food swill that is difficult to clean with stainless steel scraper or a brush containing no iron substances instead of steel brush.
- Keep substances containing acidic ingredients (vinegar, lemon juice, spices, salt, etc.) away from the stainless steel components. Acidic vapor from these solutions will damage the surface of the device.
- **DO NOT** clean the device with steel brush, which may cause rust. Keep parts that are made of iron dry or will rust.

A complete cleaning EVERY DAY will ensure good usage and extend the life of the unit.

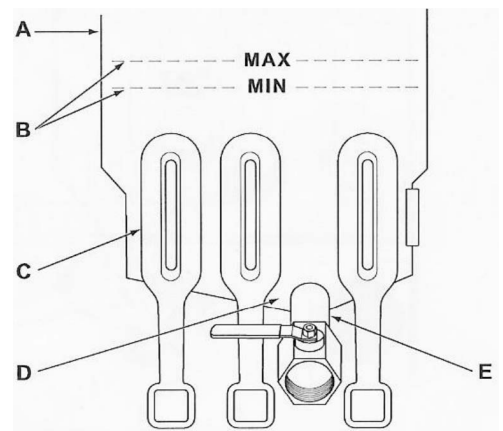
- Clean the unit with a wet, soapy cloth. Rinse with water and dry it with a clean cloth.
- Cleaning the stainless steel surface: grease stains can be wiped away with sponge.
- To avoid rusting of the unit, make sure that the residual salt inside or outside the device is cleared away.
- After cleaning, to avoid short-time incomplete combustion, the fire hole of the burner should be clear.

If item is not going to be used for an extended period of time:

- Turn OFF the main gas valve.
- It is best to clean fully and store in a well ventilated area.

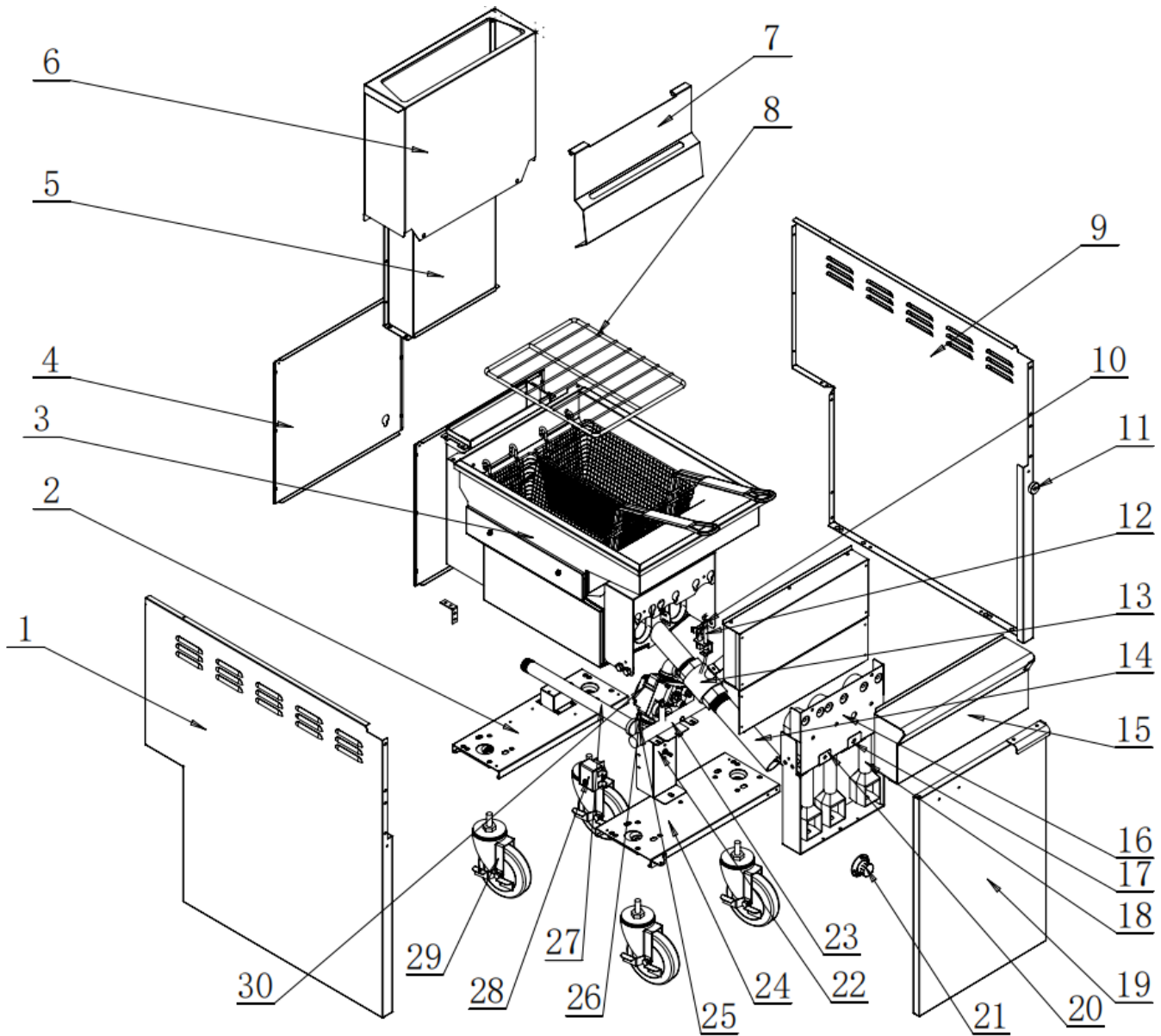
BOIL OUT PROCEDURE:

1. Drain the tank as described under DRAINING THE OIL.
2. Once the shortening has been drained, flush out scraps and sediment using the provided tank brush.
3. Close the drain valve and fill tank with water.
 - * Use a low foaming cleaner/degreaser to clean the fry tank. Follow the instructions on the side of the package.
4. Solution level must be between the MIN and MAX levels on the fryer tank.
5. Set the temperature knob to 200°F or for the recommended solution being used. Allow solution to simmer for about 15 to 20 minutes.
6. Drain the cleaning solution from the tank.
7. Close the drain valve and refill the tank with water.
8. Add 1 cup (1/4 L) of vinegar to neutralize alkaline left by the cleaner. Solution level must be between the MIN and MAX level on the fryer tank.
9. Bring the solution to a simmer only, turn the thermostat off. Allow to stand for a few minutes.
10. Drain the tank according to DRAINING THE OIL (page 6). Rinse thoroughly with clear, hot water.
 - * All traces of cleaner must be removed.
 - * Dry the tank thoroughly.
11. Close the drain valve and add shortening. Follow the FILLING TANK WITH SHORTENING (page 5) procedure in this manual. The fryer is now ready for use.



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EXPLODED DRAWING - 35# FRYER - 3 BURNER



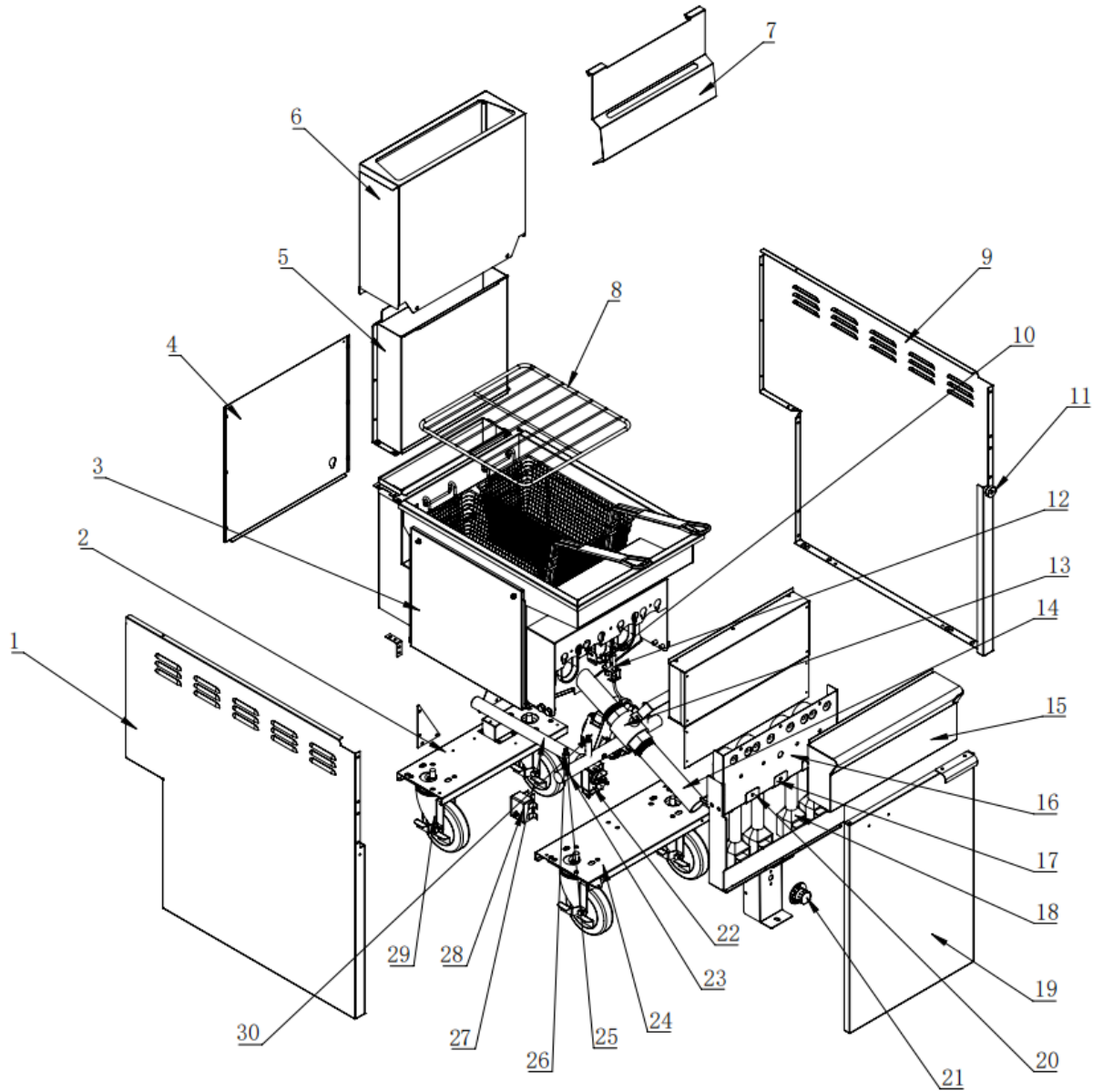
NO	DESCRIPTION	QTY
1	Left Board	1
2	Rear Lower Beam	1
3	Oil Tank Assembly	1
4	Rear Cover Board	1
5	Upper Flue Box Assembly	1
6	Rear Board	1
7	Fixing Plate for Hanger	1
8	Rack	1
9	Right Board	1
10	NG Pilot Assembly	1
	LPG Pilot Assembly	1
11	Door Magnet	1

NO	DESCRIPTION	QTY
12	Thermocouple	1
13	Oil Drainage Valve	1
14	Oil Extension Pipe	1
15	Front Decoration Facial Assembly	1
16	Burner Air Intake Damper	1
17	Burner Air Intake Damper (3)	1
18	Burner	3
19	Door Assembly	1
20	Burner Air Intake Damper (2)	1
21	Thermostat Knob	1
22	Thermostat Valve	1

NO	DESCRIPTION	QTY
23	Gas-distributing Pipe	1
24	Front Lower Beam	1
25	Hose Nozzle	3
26	Orifice, NG	3
	Orifice, LPG	3
27	Gas Inlet Pipe	1
28	High-limit	1
29	5 in. Casters without Brake	2
	5 in. Casters with Brake	2
30	NG Safety Valve	1
	LPG Safety Valve	1

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EXPLODED DRAWING - 45# FRYER - 4 BURNER



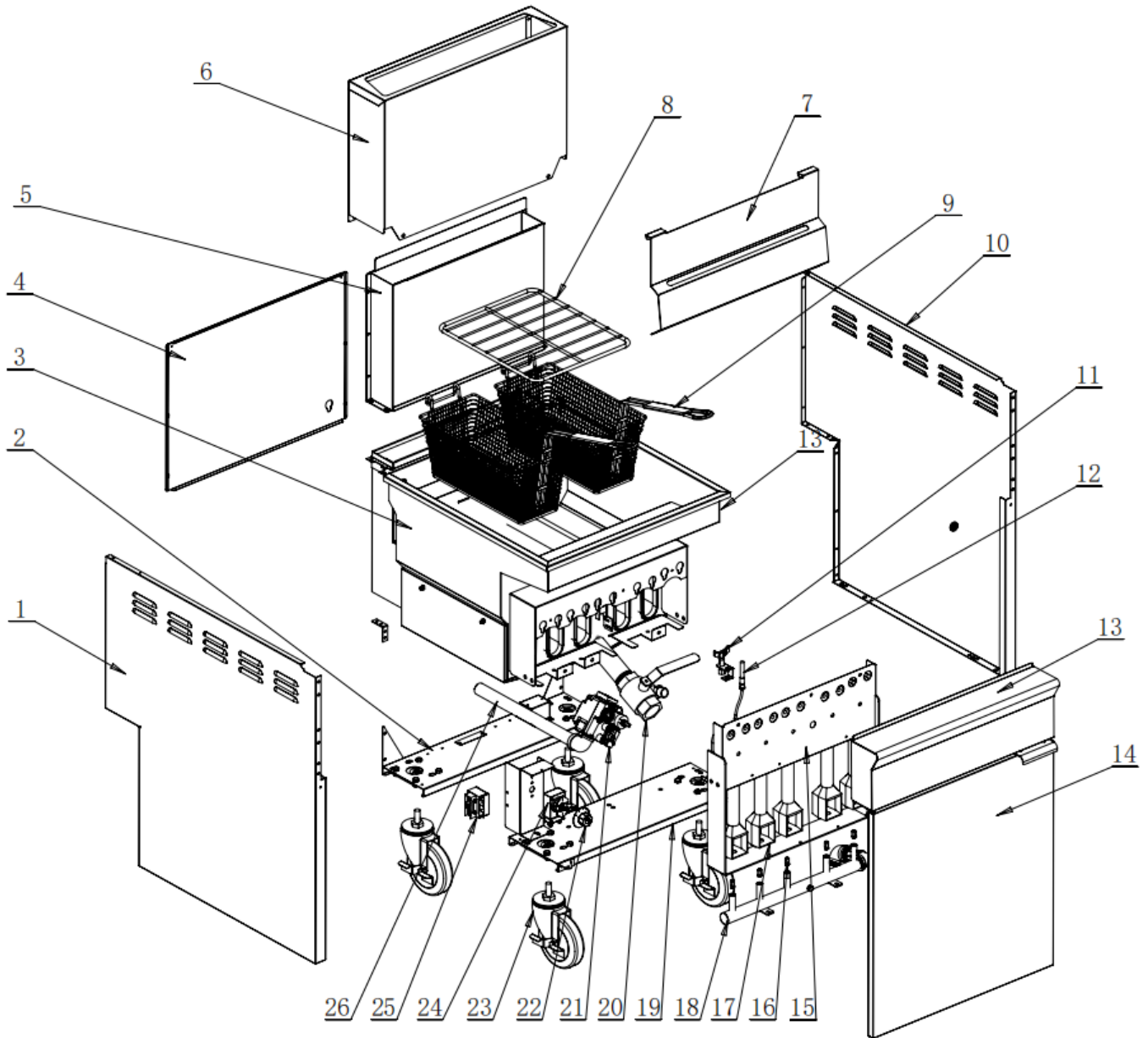
NO	DESCRIPTION	QTY
1	Left Board	1
2	Rear Lower Beam	1
3	Oil Tank Assembly	1
4	Rear Cover Board	1
5	Upper Flue Box Assembly	1
6	Rear Board	1
7	Fixing Plate for Hanger	1
8	Rack	1
9	Right Board	1
10	NG Pilot Assembly	1
	LPG Pilot Assembly	1
11	Door Magnet	1

NO	DESCRIPTION	QTY
12	Thermocouple	1
13	Oil Drainage Valve	1
14	Oil Extension Pipe	1
15	Front Decoration Facial Assembly	1
16	Burner Front Baffle Plate	1
17	Burner Air Intake Damper (3)	1
18	Burner	4
19	Door Assembly	1
20	Burner Air Intake Baffle	2
21	Thermostat Knob	1
22	Thermostat Valve	1

NO	DESCRIPTION	QTY
23	Gas-distributing Pipe	1
24	Front Lower Beam	1
25	Hose Nozzle	4
26	Orifice, NG	4
	Orifice, LPG	4
27	Gas Inlet Pipe	1
28	High-limit	1
29	5 in. Casters without Brake	2
	5 in. Casters with Brake	2
30	NG Safety Valve	1
	LPG Safety Valve	1

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EXPLODED DRAWING - 60# FRYER - 5 BURNER



NO	DESCRIPTION	QTY	NO	DESCRIPTION	QTY	NO	DESCRIPTION	QTY
1	Left Board	1	11	NG Pilot Assembly	1	19	Front Lower Leam	1
2	Rear Lower Beam	1		LPG Pilot Assembly	1	20	Oil Drainage Valve	1
3	Oil Tank Assembly	1	12	Thermocouple	1	21	NG Safety Valve	1
4	Rear Cover Board	1	13	Front Decoration Facial Assembly	1		LPG Safety Valve	1
5	Upper Flue Box Assembly	1	14	Door Assembly	1	22	Thermostat Knob	1
6	Rear Board	1	15	Burner front baffle plate	1	23	5 in. Casters without brake	2
7	Fixing Plate for Hanger	1		Orifice, NG	5		5 in. Casters with brake	2
8	Rack	1	16	Orifice, LPG	5	24	Thermostat	1
9	Basket	2	17	Burner	5	25	High-limit	1
10	Right Board	1	18	Gas-distributing Pipe	1	26	Gas Inlet Pipe	1

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FAILURE ANALYSIS & TROUBLE SHOOTING

TROUBLESHOOTING

Before requesting any service on the unit, please check the following chart. Service calls resulting from lack of maintenance or misuse is not covered under the warranty and may also void the warranty. Please note that this guide serves only as a reference for solutions to common problems

PROBLEM	CAUSE
No Heat	Thermostat dial not turned on. Pilot not lit.
	Gas supply not turned on.
	Wire connections loose (call service)
Insufficient or too much heat	Thermostat dial not set to desired temperature.
	High limit tripped (call service)
	Temperature probe (call service)
Tank will not drain	Shortening too cold
	Drain pipe clogged with debris

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FRYER WARRANTY

Gas and Electric Deep Fryers

ONE (1) YEAR LIMITED WARRANTY ON PARTS AND APPROVED STRAIGHT-TIME LABOR, FIVE (5) YEAR WARRANTY ON STAINLESS STEEL FRY TANK

(subject to limitations below)

The Legacy Companies (the "Company") warrants this product (the "Product") will be free from defects in material and workmanship under normal use and service as specified by the Company for duration of:

- One (1) Year Limited Warranty on Parts and Approved Straight-Time Labor
- Five (5) Year Warranty on Stainless Steel Fry Tank

This Limited Warranty is non-transferable.

During the Warranty Period, your exclusive remedy is repair or replacement without charge of the Product or any component found to be defective at the Company's discretion. If the Product or any component is no longer available, the Company will replace it with a similar one of equal or greater value.

The Warranty Period begins on the earliest of: (a) documented installation date; (b) date of purchase; or (c) date of shipment from the Company. In all cases, the Warranty Period shall not begin later than six (6) months after shipment.

The obligation of the Company under this warranty is limited to the repair or replacement, at the Company's sole discretion, of defective parts or assemblies that are reported during the Warranty Period and determined by the Company to be defective but excluding all labor charges (except as provided in the next paragraph).

The Company will cover approved straight-time labor only, performed during normal business hours, for covered defects reported within the applicable labor warranty period. Labor coverage excludes overtime, premium rates, travel exceeding one hundred (100) miles round-trip, multiple service trips, and access delays.

Costs expressly excluded from this warranty include, but are not limited to:

- Adjustments
- Cleaning and/or sanitizing
- Consumable/wearable items, such as gaskets, filters, light bulbs, legs, casters, hinges, non-stick cooking surfaces, etc.
- Labor to remove and/or install replacement equipment
- Disposal of defective equipment
- Improper or inadequate utility connections, including but not limited to:
 - * Voltage outside of data plate specifications
 - * Improper gas pressure
 - * Improper gas supply
 - * Water pressure outside of specified range
 - * Poor water quality
 - * Non-use or incorrect use of water filtration system
- External drain malfunction.
- Adverse operating conditions as set forth in the owner/user manual for the product.
- Non-authorized modification of the product.
- Improper installation of the product, including installation in a hostile environment
- Improper maintenance, abuse or misuse of the product.
- Causes beyond the reasonable control of the Company, including without limitation fires, freezing, floods and other natural disasters.
- Damage during transit.

No warranty shall apply to any product on which the model or serial number has been altered or removed. Adjustments or modifications to any equipment manufactured by the Company are not covered by this warranty.

This Warranty only extends to the original owner/end user and is not transferable or applicable to products sold through unauthorized channels.

This Warranty covers installations for Commercial use only. Installation or use in any residential or non-commercial setting voids all warranty coverage.

This warranty applies to the original installation location only.

IMPORTANT INSTALLATION NOTICE: Equipment installed outdoors or in mobile or non-permanent environments (including food trucks, trailers, RVs, or boats) is limited to a thirty (30) day warranty unless expressly approved in writing by the Company.

All warranty requests are to be made through the Company's Warranty and Technical Service team. All warranty requests shall include the product model and serial number, original installation date and/or Proof of Purchase, photo of the equipment serial number data plate and complete customer identification and location.

Replacement parts may be new or rebuilt at the Company's discretion and are warranted for the longer of ninety (90) days or the remaining original Warranty Period. Company and its agents are expressly permitted to specify rebuilt parts as suitable replacement parts. All replacement parts must be approved Company parts obtained through the Company or a Company approved parts distributor.

THIS WARRANTY IS IN LIEU OF ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE, OR OTHERWISE, WHICH ARE HEREBY EXCLUDED. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY DAMAGES, WHETHER DIRECT, INDIRECT, INCIDENTAL, FORESEEABLE, CONSEQUENTIAL, OR SPECIAL ARISING OUT OF OR IN CONNECTION WITH THIS PRODUCT INCLUDING DAMAGES ARISING FOR LOSS OF PROFIT, FOOD OR BEVERAGE SPOILAGE CLAIMS, OR OTHER COMMERCIAL LOSS.

You may have other legal rights depending upon where you live. Some States or Provinces do not allow limitations on warranties so the foregoing may not apply to you.