



INSTRUCTION REF: IN145

ISSUE No. 2

DATE 25.02.09

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TELEPHONE:

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- INSTALLATION INSTRUCTIONS
  - SAFETY INSTRUCTIONS
  - USER INSTRUCTIONS

## PARAGON GAS FRYER

MODEL : PDGF/PDGFP



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## **IMPORTANT**

**PLEASE READ INSTRUCTIONS FULLY BEFORE USE**

**MODEL PDGF FRYER & PDGFP LPG FRYER**

## **INSTALLATION INSTRUCTIONS**

**IMPORTANT-** YOUR ATTENTION IS DRAWN TO THE GAS SAFETY REGULATIONS. THIS APPLIANCE MUST ONLY BE USED IN A WELL VENTILATED AREA. IT IS RECOMMENDED THAT A MINIMUM AREA OF 450mm<sup>2</sup> PER 1 Kw (3400 Btu/HR) OF TOTAL INPUT MUST BE ALLOWED. PARTICULAR ATTENTION SHOULD BE PAID TO THE SUPPLY OF CLEAN FRESH AIR AT LOW LEVEL TO THE APPLIANCE.

Attention is drawn to the requirement of the fryer to be fixed to the floor by means of fixing holes in the flanged feet.

The data plate on the rear of the appliance must be checked to ensure the appliance is suitable for the gas supply available. This appliance must be installed in accordance with the rules in force.

**BS5440 Part 2 – (Air supply)**

**BS6891 (Installation of low pressure gas pipe work)**

**BS5482 (Codes of practise for Butane and Propane gas burning installations)**

Read the user instructions, read the installation instructions and ensure the correct ventilation requirements are met. Attention should also be drawn to the need for regular servicing.

In normal use parts of the catering equipment may become hot, suitable precautions must be taken to avoid accidental burns, therefore the appliance should be positioned to minimise the risk of accidental touching. It is the responsibility of supervisors to warn users of this and ensure the operators of this equipment are trained in safe operation of this appliance. It is recommended the appliance be fitted below a ventilating hood, preferably of the extractor type, incorporating a grease filter.

## **POSITIONING**

The appliance must not be installed on or against combustible surfaces – minimum clearances must be:

**Rear 150mm (6")**

**Sides 150mm (6") FROM ANY ADJACENT WALL**

The minimum distance between the top of the appliance and any over shelf or ceiling constructed of combustible material must be 1525mm (60"). All local fire regulations must be observed before the appliance is commissioned the gas safety regulations require that all gas connections on the gas line are tested for gas soundness between the gas meter and the appliance. All packing and protective film must be removed from the panels etc. prior to commissioning the appliance.

## **GAS CONNECTION**

The gas connection is ½" B.S.P.T. on the left hand side rear of the fryer. The supply pipe must not be less than ½", an easily accessible isolation cock should be fitted in the pipework as close as possible to the fryer. An approved flex may be used in conjunction with a straining cable.



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## **MODEL PDGF FRYER**

### **USER INSTRUCTIONS**

The attention of the user is drawn to the current Gas Safety (Instructions and Use) Regulations in force. This appliance must be used in accordance with these, also the need for regular servicing which must be carried out by a competent and qualified person.

### **SAFETY NOTE**

Some parts and surfaces of this appliance can get hot in use. It is the responsibility of the Kitchen Supervisor to inform and warn every user of this and to ensure the user wears any necessary protective clothing when operating the fryer.

### **LIGHTING INSTRUCTIONS**

#### **WARNING: DO NOT LIGHT BURNERS WHEN THE PAN IS EMPTY**

- 1) Open the compartment door, ensure the drain valves are closed and check the level of cooking oil (between maximum and minimum markings). The oil required to fill the pan to the correct level is 12 litres per pan.
- 2) Turn on the gas supply.
- 3) Turn the thermostat to OFF position.
- 4) Press the pilot knob (A) in and rotate anti-clockwise to igniter position ★  
Ignite pilot. If pilot fails to ignite, repeat the procedure.
- 5) After the pilot is lit, hold knob in for 20-30 seconds to ensure pilot flame is fully established.
- 6) Release the knob and turn fully anti-clockwise to 'ON' position. If appliance fails to operate, repeat steps 3-5. The main burner is now controlled by the thermostat (B).
- 6) To operate burner, turn thermostat knob (B) to required temperature.

#### **NOTE: LIDS SHOULD NOT BE USED WHILST FRYING**

### **SHUT DOWN OF THE FRYER**

- 1) When appliance is not required, turn thermostat (B) fully anti-clockwise to off position, this will leave only the pilot lit ready for when the fryer is next required.
- 2) To turn the unit off completely, turn the thermostat fully anti-clockwise and the pilot knob (A) fully clockwise.



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### **MODEL PDGF FRYER**

#### **DRAINAGE**

- 1) Always allow the oil to cool to a maximum 55°C before draining.
- 2) Remove the blanking nut from drain tap, fit discharge pipe into tap, drain oil into suitable receptacle, taking care not to overfill so that it is not difficult to handle.
- 3) Excess oil in the base of the tank can be removed with kitchen paper.
- 4) For best results oil should be drained and filtered everyday the fryer had been used. This will prolong the life of the oil.

#### **CLEANING INSTRUCTIONS**

The appliance should be cleaned with hot water and a mild detergent,  
**DO NOT USE ABRASIVES.**

- 1) Isolate the appliance from the gas supply.
- 2) Allow oil to cool to maximum 55°C.
- 3) Drain as per instructions for draining.
- 4) Wash tank and top surface of the fryer body.
- 5) Clean the drain tube assembly, using a tube or flue brush suitable for 15mm tube, with the drain tap in the open position. Clean by inserting brush into inlet and outlet of drain tube.
- 6) Wash all parts thoroughly.
- 7) Ensure all parts are thoroughly rinsed and dried. To ensure there is no water left in the drain tube, flush with a small amount of clean cooking oil.
- 8) Re-assembly in reverse order.



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## USER INSTRUCTIONS continued

### Use of solidified Oil or Fat

#### 1) In an empty pan

**IMPORTANT:** If solidified oil or fat is to be used, remove the grid from the bottom of the pan, break the solidified oil or fat into small pieces and fill the V shaped bottom of the pan.

Light the appliance and turn the thermostat knob to 130°C. Continue to add pieces of fat into the pan until the V shaped bottom is filled with the molten fat. If the fat appears to be overheating, turn the thermostat OFF, continue to add fat and turn the thermostat ON when the fat has cooled.

Refit the grid and put the remaining oil or fat into the pan until the level is up to the mark. Allow to heat up slowly until all the fat has melted, then turn the thermostat knob to the required cooking temperature.

#### 2) Already Solidified In the Pan

Light the appliance and turn the thermostat ON for approximately 5-10 seconds, and then turn OFF again. Leave it for 30 seconds before repeating the 5-10 seconds cycle.

Continue to repeat until the fat has melted so that any remaining unmelted pieces are free floating, then turn the thermostat to the required temperature.

### **Cooking Instructions:**

With the thermostat knob turned to the required cooking temperature, allow the oil or fat to heat up for about 20 minutes before starting to cook. After each load is removed from the fryer always allow 2½ minutes for the temperature of the oil to recover before the next load is put into the oil.

#### The Frying Medium

Ensure oil is always maintained at the level indicated. Good quality vegetable oil is recommended. The life expectancy of oils will be lengthened if they are filtered regularly – food particles not removed turn rancid and reduce oil quality. The life of the oil will also be extended if the temperature is turned down when the fryer is not in use.

“Please note also, using old oil will reduce the flash point and therefore present a greater fire hazard and be more prone to surge boiling. Attention should also be drawn to the effect of over-wet food and too large a charge on surge boiling”.



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**MODEL PDGF FRYER**

**Cooking Instructions cont...**

**Chip Frying**

The recommended load for each batch is 1.4 kg (3 lbs) for each basket. This will fill the basket about 2/3<sup>rd</sup> full and it is important that this load should not be exceeded.

**Fish Frying**

Cook fish by free floating them. Four or five 100g pieces may be cooked at one time. Slide the fish into the pan slowly to avoid splashing of the oil or fat and prevent the fish sinking and sticking to the base of the pan.

**Cooking Chart** – the following chart is for guidance only.

Maximum basket load not to exceed 3 lbs

FOOD	TIME	TEMPERATURE
Chicken pieces	5-8 mins	175°C
Chipped potatoes (Blanched)	3 mins	165°C
Chipped potatoes (Browning)	1-2 mins	190°C
Chipped potatoes (Raw)	4-5 mins	190°C
Doughnuts	3-4 mins	170°C
Fish Fillets	5-7 mins	175°C
Fritters	3-4 mins	175°C
Potato Chips	2 mins	190°C
Scampi	3-4 mins	175°C

STAT No.	TEMPERATURE
1	60°C
2	75°C
3	90°C
4	105°C
5	120°C
6	135°C
7	150°C
8	165°C
9	180°C
10	195°C

**ALL THE ABOVE ARE +/- 5°C**

**To Obtain Best Results**

Keep the pan clean

Use good quality oil or fat which has high breakdown temperature

Use only clean oil or fat and strain daily.

Maintain the oil or fat at the correct level

Do not start to fry until the oil has reached the correct temperature

Do not exceed the temperature of the oil or fat as recommended by the supplier.

Do not overload the fryer.

Remove the crumbs or pieces floating on the surface of the oil.

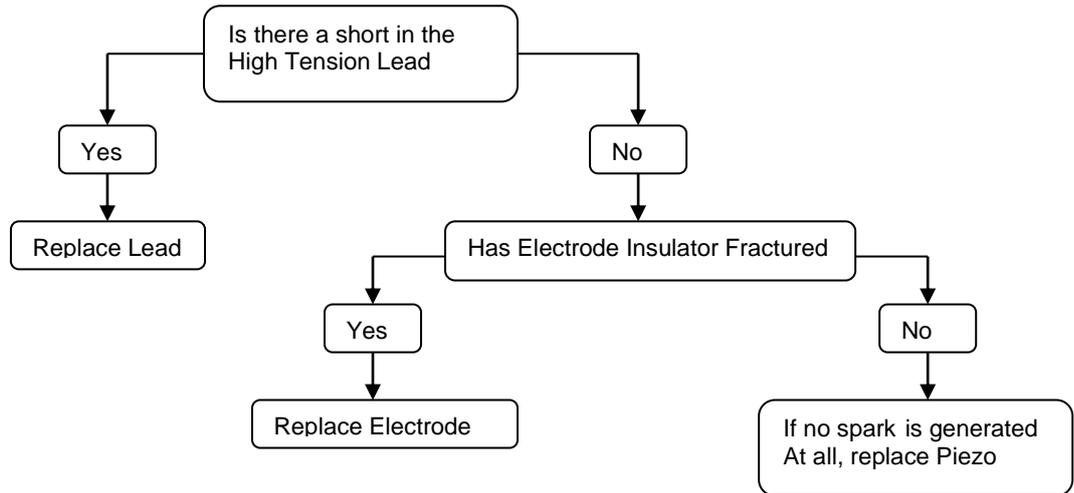
When using frozen foods follow the food manufacturers cooking instructions carefully

To conserve energy, turn the thermostat knob to the OFF position during breaks in frying.

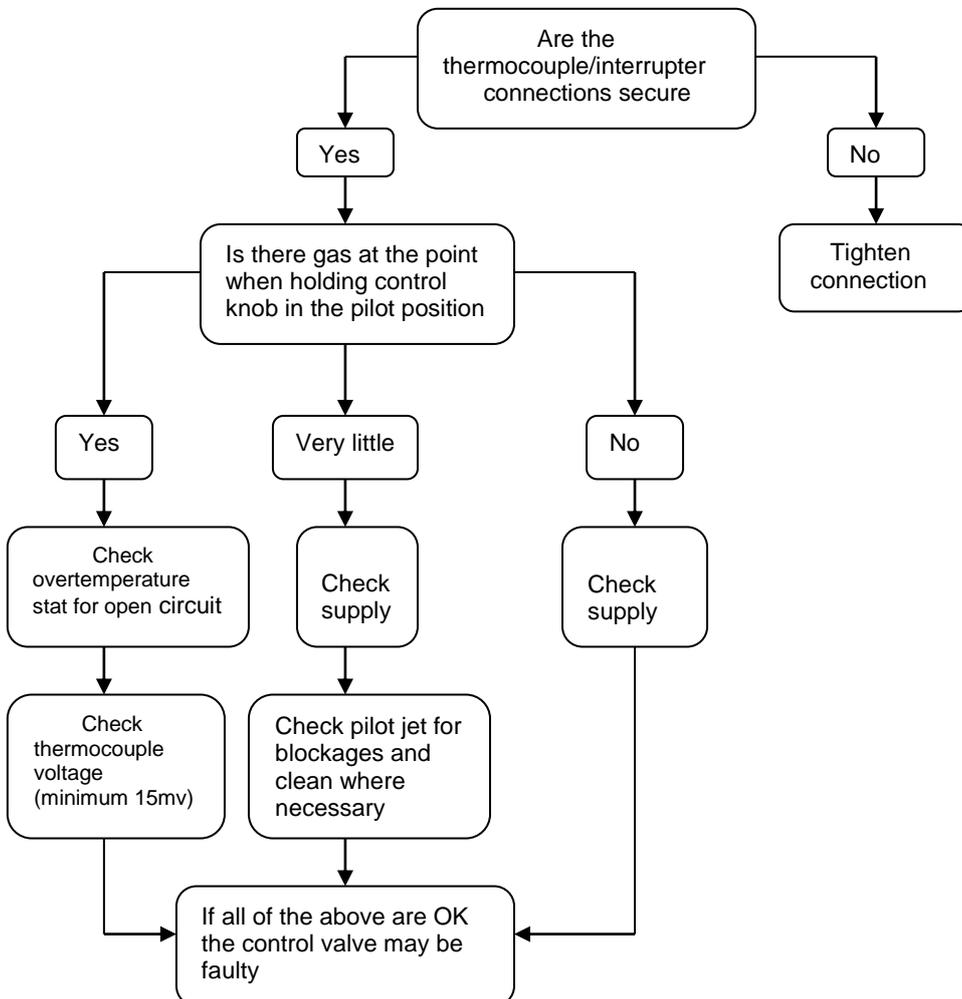


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**MODEL PDGF FRYER**  
**TROUBLESHOOTING**  
**Piezo Ignitor not sparking**



**Pilot Burner will not light or stay lit**



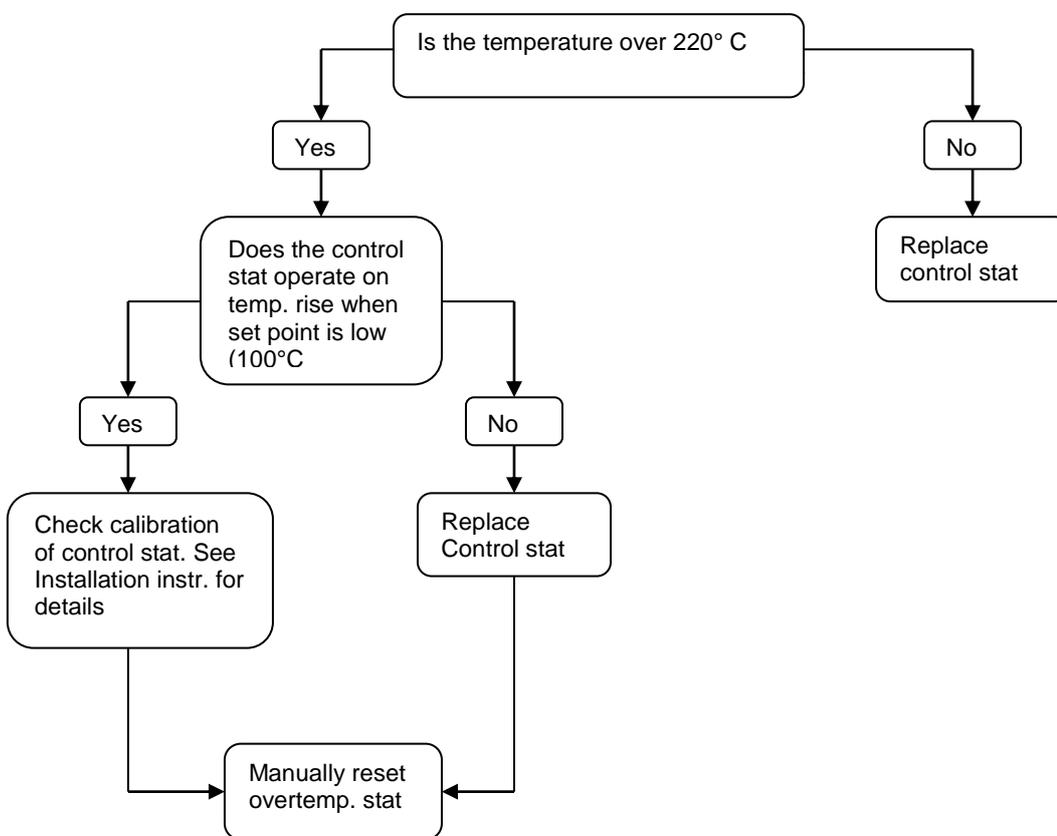


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**MODEL PDGF FRYER**

**TROUBLESHOOTING**

**Over temperature stat operates**





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**MODEL PDGF FRYER**

**TEST DATA PDGF FRYER**

**TOTAL HEAT INPUT (NETT)**

NATURAL GAS G20 @ 20mbar	26.7kw
PROPANE GAS G31 @ 37mbar	24.80kw
BUTANE GAS G30 @ 28mbar	24.80kw
G25 @ 25mbar	25.00kw
G25 @ 20mbar	24.00kw

**TOTAL GAS RATE**

NATURAL GAS G20 @ 20mbar	2.45 M <sup>3</sup> /hr
PROPANE GAS G31 @ 37mbar	0.94 M <sup>3</sup> /hr
BUTANE GAS G30 @ 28mbar	0.72 M <sup>3</sup> /hr
G25 @ 25mbar	2.45 M <sup>3</sup> /hr
G25 @ 20mbar	2.10 M <sup>3</sup> /hr

**APPLIANCES FOR USE ON G25 GAS WILL BE FACTORY BUILT TO INCLUDE A SEALED AIR RESTRICTOR.**



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### MODEL PDGF FRYER

#### MAINTENANCE AND SERVICE

Servicing is recommended every 6-12 months depending on usage. All service or repair work must be carried out by a competent gas engineer. Failure to do this could invalidate your warranty.

#### ROUTINE MAINTENANCE

To be done by engineer

- 1) Ensure fryer is filled with oil.
- 2) Fit pressure gauge to multifunction valve and go through lighting procedure, check flame failure device opens in no more than 30 seconds.
- 3) Turn thermostat to 150°C and check that the pressure at the test point is:

**NATURAL GAS 20mb ( 8" W.G.)**

**PROPANE GAS 37mb (14" W.G.)**

**BUTANE GAS 28mb (11.2" W.G.)**

Adjust governor if necessary.

Only leave burner on for a minimum amount of time to ensure fryer does not get too hot.

- 4) Turn the thermostat to off and ensure both burners extinguish completely within 3-4 seconds.
- 5) Turn the thermostat on again to 150°C and ensure both burners cross light smoothly from the pilot.
- 6) Check burner flames are uniform and there is no spillage of the flames away from the heat exchanger.
- 7) Turn the thermostat off and blow out the pilot. Check that the flame failure valve closes within 60 seconds. This can be done by feel or sound.
- 9) Turn off the gas, remove pilot and withdraw burner assembly, clean the burner parts and ensure the injectors are clear.
- 10) Reassemble the pilot and main burners.
- 11) Go through the lighting up procedure, turn the thermostat to 150°C and allow to heat up. Check the thermostat cuts out the gas, turn the thermostat to 190°C, allow to heat up and note the oil temperature is 190°C±5°C.



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## **MODEL PDGF FRYER**

### **REPLACEMENT OF PARTS**

#### **PILOT JET AND ELECTRODE**

Undo pilot feed from gas valve, undo thermocouple from valve, remove screw from pilot bracket, pilot assembly, c/w thermocouple and ignitor can now be removed.

#### **THERMOCOUPLE**

Undo thermocouple from gas valve; release probe end from spring clip on pilot assembly. Fit new in reverse order.

#### **CONTROL THERMOSTAT**

- 1) Drain fryer
- 2) Remove screws from mounting bracket
- 3) Remove the thermostat gland nut
- 4) Release thermostat phial from clip inside tank
- 5) Pull stat through tank, there will be some resistance felt due to the packing gland being compacted.
- 6) Re-assemble in reverse order
- 7) Calibration of the thermostat where necessary is made by the screw in the centre of the thermostat spindle. Clockwise to decrease temperature. Anti-clockwise to increase.

#### **CONTROL VALVE**

- 1) Disconnect the gas supply pipe work and pipe to burners.
- 2) See previous notes for removal of pilot/thermocouple assembly, also thermostat assembly.
- 3) Remove screws securing valve to bracket.
- 4) Remove fittings from valve to fit into replacement valves, as these are not supplied with new valve.
- 5) Refit in reverse order.

#### **SAFETY THERMOSTAT**

- 1) Drain fryer
- 2) Remove spade connections on thermostat
- 3) Remove the two screws securing thermostat to bracket
- 4) Undo the gland nut on the tank and withdraw thermostat phial from bracket, through the wall of the tank.
- 5) Fit new thermostat in reverse order.



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**MODEL PDGF FRYER**

**SPARES LIST PDGF FRYER**

<b>No. off</b>	<b>PARTS DESCRIPTION</b>	<b>PART No.</b>
2	MULTI FUNCTION GAS VALVE	VALVE7000
2	PILOT ASSEMBLY C/W ELECTRODE	PILOT7000
2	SAFETY LIMIT THERMOSTAT	TMSTL7000
2	THERMOCOUPLE	THERM7000
4	INJECTORS NATURAL GAS	INJECT205
4	INJECTORS L.P.GAS	INJECT135
2	PILOT INJECTOR NATURAL GAS	PINJ27268
2	PILOT INJECTOR L.P.GAS	PINJ76362
2	THERMOCOUPLE INTERRUPTER LEAD	LEADT7000
4	BURNERS	BURNR7000
2	CONTROL KNOB	KNOBC7000
2	THERMOSTAT KNOB	KNOBT7000