## G2844F/G2845F PREMIX FRYERS

## CAUTION: Read the instructions before using the appliance

## INSTALLATION, SERVICING and USER INSTRUCTIONS



These appliances must be installed and serviced by a qualified person as stipulated by the Gas Safety (Installation & Use) Regulations.



IMPORTANT: The installer must ensure that the installation of the appliance is in conformity with these instructions and National Regulations in force at the time of installation.

Particular attention MUST be paid to – Gas Safety (Installation & Use) Regulations, Electricity at Work Regulations I.E.E. Regulations for Electrical Installations, Health and Safety at Work etc. Act Local and National Building Regulations, Fire Precautions Act

Detailed recommendations are contained in **Institute of Gas Engineers** published documents : **IGE/ UP/ 1, IGE/ UP/ 2, BS6173** and **BS5440** 

These appliances have been UKCA/CE-marked based on compliance with the Gas Appliance Regulations/ Product Safety and Metrology Regulations for the Countries, Gas Types and Pressures as stated on the data plate.

#### WARNING: THIS APPLIANCE MUST BE EARTHED.

On completion of the installation, these instructions should be left with the Engineer-in-Charge for reference during servicing. Further to this, the user instructions should be handed over to the user, having had a demonstration of the operation and cleaning of the appliance.

#### PREVENTATIVE MAINTENANCE CONTRACT

To obtain maximum performance from this unit regular servicing of the appliance should be undertaken to ensure correct operation, it is functioning as intended, and safe to use. We recommend servicing in accordance with SFG20 Maintenance Schedules and as a minimum, after 2,500 hours of use, or annually, whichever comes first and that a maintenance contract be arranged with an appointed service contact. Visits may then be made at agreed intervals to carry out adjustments and repairs.



#### WEEE Directive Registration No. WEE/DC0059TT/PRO

At end of unit life, dispose of appliance and any replacement parts in a safe manner, via a licenced waste handler. Units are designed to be dismantled easily and recycling of all material is encouraged whenever practicable.

This equipment is **ONLY FOR PROFESSIONAL USE**, and shall be operated by **QUALIFIED** persons. It is the responsibility of the supervisor or equivalent to ensure that users wear **SUITABLE PROTECTIVE CLOTHING** and to draw attention to the fact that some parts will, by necessity, become **VERY HOT** and will cause burns if touched accidentally.

#### Falcon Foodservice Equipment

Wallace View, Hillfoots Road, Stirling, FK9 5PY, Scotland Phone: 01786 455200

T100742 Ref 14

## S.0 SAFETY GUIDANCE

## S.1 GENERAL SAFETY

- S.1.1 These instructions are only valid if the country code appears on the appliance. If the code does not appear on the appliance, refer to the technical instructions for adapting the appliance to the conditions for use in that country.
- S.1.2 These appliances have been UKCA/CE-marked based on compliance with the Gas Appliance Regulations/Product Safety and Metrology Regulations, Electrical and Electromagnetic Compatibility (EMC) Regulations/Directives for the Countries, Gas Types and Pressures as stated on the data plate.
- S.1.3 This equipment is for professional use only and must be used by qualified persons.
- S.1.4 Never leave this appliance unsupervised when in use and always turn products off at the end of service.



- S.1.5 The installer must instruct the responsible person(s) of the correct operation and maintenance of the appliance.
   S.1.6 Observe that we demonstrate the compliance of the appliance of the second during the complement of the second during the second dur
- S.1.6 Check that no damage has occurred to the appliance or supply cord during transit. If damage has occurred, do not use this appliance.
- S.1.7 If fitted to the appliance, ensure the supply cord is routed free from the appliance to avoid damage.
- S.1.8 Min-Level Mark: Medium should never be allowed to drop below the mark. Should this occur, top up immediately or switch off the fryer.
- S.1.9 Suitable Protective clothing must be worn when topping up whilst the fryer is hot.
- S.1.10 To prevent surge boiling. DO NOT EXCEED recommended loads or charge pan with over-wet food items. NEVER leave a working appliance unattended.
- S.1.11 If the appliance is fitted with an oil bucket, take care when removing as oil bucket is heavy when full.
- S.1.12 Training and Competence: To help ensure the safe use of this appliance there is a requirement for you to provide whatever information, instruction, training and supervision as is necessary to ensure, so far as is reasonably practicable, the health and safety of all users.
- S.1.13 For further help and information on training and competence we refer you to the Health & Safety Executive website; <u>www.hse.gov.uk</u> document ref: health and safety training INDG345. International customers should default to the health and safety guidelines provided by your government body.
- S.1.14 Risk Assessment: As part of managing the health and safety of your business you must control any risks identified in your commercial kitchen. To do this you need to think about what might cause harm to people and decide whether you are taking reasonable steps to prevent that harm. This is known as risk assessment. It is important to consider the environment around the product as well as the product itself. For example, oil or food spills will present a significant risk so users so the need to immediately clean up such spills must be reflected in staff training.
- S.1.15 Record the training that you provide and support it by providing safe system of work (SSOW) documents that set out procedures to be followed for potentially hazardous tasks.





For further help and information on risk assessments we would refer you to you S.1.16 the Health and Safety Executive website; www.hse.gov.uk document ref: risk assessment INDG163. International customers should default to the health and safety guidelines provided by your government body.

## S.2 INSTALLATION SAFETY

- S.2.1 Installation must meet national or local regulations. Attention must be paid to: safety (installation & use) regulations, health and safety at work act, local and national building regulations, fire precautions act.
- S.2.2 The installer must instruct the responsible person(s) of the correct operation and maintenance of the appliance.
- S.2.3 On gas appliances, only competent persons are allowed to service or convert the appliance to another gas type.
- S.2.4 Put a documented system in place for periodic inspections, testing and maintenance of our gas/ electrical appliances. Check that the fixed electrical installation has been inspected and tested by a competent electrical contractor (e.g. NICEIC-approved or ECA member) as prescribed in BS7671, within the last 5 years.



- S.3.1 To prevent shocks, this appliance must be earthed.
- S.3.2 This unit is fitted with an equipotential connection at the rear on the base.
- S.3.3 Before attempting any maintenance, isolate the appliance at the mains switch and take steps to ensure that it is not inadvertently switched on.
- S.3.4 We recommend, Supplementary electrical protection with the use of a type A residual current device (RCD).
- S.3.5 Fixed wiring appliances incorporate a locally situated switch disconnector to connect to, which is easily accessible for switching off and safe isolation purposes. The switch disconnector must meet the specification requirements of IEC 60947.



- S.4.1 Gas appliances must have a stop cock fitted in the supply pipe work. The user must be familiar with the location and operation of this device in order to turn off the supply of gas in the event of an emergency.
- S.4.2 Before Inspection, Servicing or Conversion, Turn Off Gas at isolator.

## S.5 FIRE SAFETY

Fryers can present various hazards in the catering environment if not correctly used, operated, and maintained. Hazards including fire, burns from hot oil, contact with hot surfaces, fumes from boiling cleaning chemicals, eye injuries from splashes and slips from oil spillages.

### **Operator Competency and Training**

- S.5.1 Ensure you are trained in the safe and proper use of the fryer and know how to turn it off and switch the power or gas off at the mains.
- S.5.2 Ensure you are familiar with the kitchen fire safety procedures and the location and proper use of correct fire safety equipment.

### Fryer Safety Equipment

S.5.3 1.5.3 Provide an appropriate BS compliant fire blanket, and an adequate number of fire extinguishers that comply with BS EN 3 (parts 1-6) and carry a BAFE or LPCB approval mark. At least one must be appropriate for use on electrical fires, and one for deep-fat fryers (Class F).

#### **Fryer Suppression System**

- We recommend kitchen equipment and extraction systems are protected with a S.5.4 fire suppression system. Check your insurance as this may also be a condition of your policy.
- S.5.5 1.5.5 Protect cooking and extraction equipment (including any associated extraction ductwork and hoods inside the building) by having an extinguishing system installed, in line with (or the equivalent of) LPS 1223. The system should include a local alarm, automatic activation by a detection system and manual activation – located a safe distance away from the cooking equipment, preferably by a fire escape route door.

#### **Operational Fryer Safety**

- S.5.6 Do not leave the fryer unattended when powered on or when it is in use.
- S.5.7 Always switch the fryer off and replace the pan cover/ lid when not in use.

### Cleaning

- S.5.8 Ensure fryers are regularly cleaned serviced and maintained by a gualified and competent service provider, and there is enough room around the appliance to do so.
- Ensure that the appliance, surrounding work area and extraction system are S.5.9 regularly cleaned, (at least weekly) to avoid the build-up of fats oils and greases that could present a fire risk. A deep clean should be undertaken at least every 6 months by a specialist contractor.

### **Oil Safetv**

- **S.5.10** Do not operate the fryer with no or low oil levels.
- **S.5.11** Solid Fat (e.g. Beef Tallow) must be melted using the fat melt mode in order to avoid fire caused by burning of the fat and/or overheating. We do not recommend using Solid Fat if the fryer control does not have a Fat Melt Cycle.
- **S.5.12** Regularly change your cooking oil. Use colour charts to check on oil quality.



- If you see the cooking oil or fat smoking, switch the fryer off, allow to cool, drain S.5.13 oil, clean and dry fryer pan thoroughly and replace with fresh oil. If the clean fryer oil smokes when heated, switch off immediately and contact service engineer. Do not switch fryer back on.
- **S.5.14** Never add water to the fryer medium at any time.

### Gas and Electrical Isolation Points

**S.5.15** Ensure any separate gas shut off switches and electric switches provided for cooking equipment and/or extractor fans are accessible and clearly labelled.

### Care and Maintenance of Thermal and Operational Safety Devices

**S.5.16** Your fryer is fitted with a thermal safety device. This will stop heating of medium if it becomes overheated. This appliance will always fail safe so long as there is no damage to the thermal safety device.



- S.5.17 Failure to clean and check the safety and operational thermostats can impact the performance of the appliance and increase the risk of an appliance fire.
- **S.5.18** Damage to the thermostat sensors or their capillaries can increase the risk of overheating or fire.
- Do not operate the fryer if the safety devices located within the fryer pan appear S.5.19 to be dislodged or damaged.

## S.6 MAINTENANCE SAFETY



- S.6.1 Unless otherwise stated, parts which have been protected by the manufacturer must not be adjusted by the installer or end user.
- S.6.2 Before any cleaning is undertaken, isolate appliance from mains power supply at isolator switch.
- S.6.3 Suitable protective clothing must be worn when cleaning this appliance.
- If filtration is fitted, never pump water through the filtration pump at any time! S.6.4 Water and hot oil are an explosive mixture.
- S.6.5 Oil must be allowed to cool to a safe temperature before draining. Do not overfill oil bucket. All spills onto the product and on the floor should be cleaned up immediately.
- The appliance must not be cleaned with a jet of water or be steam cleaned. S.6.6 Do not use acid or halogen-based (e.g. chlorine) descaling liquids, flammable liquids, cleaning aids or cleaning powders.
- S.6.7 Failure due to lack of proper cleaning is not covered by warranty.
- S.6.8 Particular attention must be paid to cleaning the Thermostat bulb and Capillaries.
- S.6.9 Take care when cleaning not to dislodge or damage thermostat sensors mounted on the base and side of the pan.
- **S.6.10** If the thermostats or capillaries are damaged then do not turn the appliance on and contact Falcon or you approved service provider to undertake the necessary repairs.
- S.6.11 To obtain maximum performance from this unit regular servicing of the appliance should be undertaken to ensure correct operation, it is functioning as intended, and safe to use. We recommend servicing in accordance with SFG20 Maintenance Schedules and as a minimum, after 2,500 hours of use, or annually, whichever comes first and that a maintenance contract be arranged with an appointed service contact. Visits may then be made at agreed intervals to carry out adjustments and repairs.



S.6.12 During Servicing of the appliance, where applicable, please ensure seals are checked. If the integrity of the seal is compromised, it must be replaced.







## **IMPORTANT INFORMATION**

### ELECTRICAL SAFETY AND ADVICE REGARDING SUPPLEMENTARY ELECTRICAL PROTECTION

Commercial kitchens and foodservice areas are environments where electrical appliances may be located close to liquids, or operate in and around damp conditions or where restricted movement for installation and service is evident.

The installation and periodic inspection of the appliance should only be undertaken by a qualified, skilled and competent electrician; and connected to the correct power supply suitable for the load as stipulated by the appliance data label.

The electrical installation and connections should meet the necessary requirements to the local electrical wiring regulations and any electrical safety guidelines.

#### We recommend:-

- Supplementary electrical protection with the use of a type A residual current device (RCD)
- Fixed wiring appliances incorporate a locally situated switch disconnector to connect to, which is easily accessible for switching off and safe isolation purposes. The switch disconnector must meet the specification requirements of IEC 60947.

#### Your attention is drawn to:-BS 7671:2018–Guidance Note 8 - 8.13 : Other locations of increased risk

It is recognized that there may be locations of increased risk of electric shock other than those specifically addressed in Part 7 of BS 7671. Examples of such locations could include laundries where there are washing and drying machines in close proximity and water is present, and commercial kitchens with stainless steel units, where once again, water is present.

Where because of the perception of additional risks being likely, the installation designer decides that an installation or location warrants further protective measures, the options available include:

- Automatic Disconnection of Supply (ADS) by means of a residual current device having a residual operating current not exceeding 30mA;
- Supplementary protective equipotential bonding; and
- Reduction of maximum fault clearance time.

The provision of RCDs and supplementary bonding must be specified by the host organization's appointed installation designer or electrical contractor and installed by a suitably qualified and competent electrician so as to comply with Regulations 419.2 and 544.2

## SECTION 1 - INSTALLATION

UNLESS OTHERWISE STATED, PARTS WHICH HAVE BEEN PROTECTED BY THE MANUFACTURER ARE NOT TO BE ADJUSTED BY THE INSTALLER.

Please ensure that any plastic coatings are removed prior to use. Before operation, pan requires to be thoroughly cleaned and dried. This includes inside of Drain Valve (*Open and Close drain valve several times to loosen excess water that may still be inside. Run a cloth through the valve several times and finally when dry, close Drain valve).* 

Discolouration of heated parts is caused by factory testing to ensure a satisfactory unit. It does not affect quality or performance.

#### 1.1 MODEL NUMBERS, NETT WEIGHTS and DIMENSIONS.

Model	Width (mm)	Depth (mm)	Height <i>(mm</i> )	Weight (kg)
G2844F Fryer	400	840	1200	94
G2845F Fryer	400	840	1200	94

#### Pan oil capacity: 16 litres cold, good quality oil (to -MIN- mark)

#### 1.2 SITING

Each unit must be installed on a firm level floor in a well-lit draught free position. The fryer should be installed in a freestanding position to prevent any possibility of sideways tipping under force. The means of restraint may be the manner of installation, such as connection to a battery of appliances or installing the fryer in an alcove, or by separate means, such as adequate ties.

#### 1.2.1 Anti-tipping Accessory

An anti-tipping mechanism is also available as an accessory. If these are to be fitted, the brackets must be fitted to locate the fryer in the correct position relative to any walls as detailed below. Fixing holes are provided in the fryer base to accommodate the bracket. The bracket should be fitted as detailed in Figure 1. The retaining chain has a quick release eyelet. Secure to fixing point and secure bracket to floor after alignment with anti-tipping device attached to the fryer. Adjust to slide below floor bracket.



Figure 1 - Anti-tipping Bracket

#### 1.2.2 Clearances

The unit requires a clearance of at least 150mm all round between unit and any combustible wall. A minimum vertical clearance of 750mm should be allowed between top edge of flue outlet and any overlying combustible surface.



#### Important

If fryer is to be installed with other appliances then instructions for every model should be consulted to determine necessary clearance to any combustible wall or overlying surface. Some appliances require greater clearance distances than others. The largest clearance will therefore determine overall distance for a complete suite of adjoining appliances.

#### **1.3 VENTILATION**

The appliance ventilation requirements should be in line with national and local regulations applying at the time. The ventilation rate for these models is 26m<sup>3</sup>/min.

The appliance MUST be installed level in a well lit and draught free position. Adequate ventilation, whether natural or mechanical, must be provided to ensure sufficient air for combustion and removal of combustion products and cooking vapours, which may be harmful to health.

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

The fresh air requirement for this appliance at a rate of 2M<sup>3</sup>/hour per kW is 44 M<sup>3</sup> of fresh air per hour.

Care must be taken not to disturb the air for combustion admission and evacuation of products of combustion.

Recommendations for Ventilation of Catering Appliances are given in BS5440:2.

For multiple installations the requirements for individual appliances should be added together. A competent qualified installer MUST BE employed.

The appliance flue discharges vertically through the grille at the top of the unit. There must be no direct connection of the flue to any mechanical extraction system or the outside air. Siting the unit under a ventilated canopy is the ideal arrangement. Remember, dirty extraction filters and drip trays may become a fire hazard due to drip-down on to equipment below. Regular cleaning of extraction filters and drip trays must be carried out.

#### 1.4 GAS SUPPLY (Both models)

Inlet pressure			
Natural Gas (I <sub>2</sub> H)	20mbar		
Propane Gas (I₃P)	37mbar		

The incoming service must be of sufficient size to supply full rate without excessive pressure drop. A gas meter is connected to service pipe by gas supplier. Any existing meter should be checked preferably by the gas supplier to ensure that it is adequate to deal with the rate of gas supply required.

Installation pipe work should be fitted in accordance with IGE/UP/2. The size of the pipes from meter to appliance must not be less than that of appliance inlet connection. A <sup>3</sup>/<sub>4</sub>" BSP inlet connection is fitted to the unit.

An isolating valve must be located close to the appliance to facilitate shut down during an emergency or routine servicing. The cock must be easily accessible to the user. The installation must be tested for gas tightness as stated in IGE/UP/1.

Domestic type, flexible rubber tube connections must NOT be used with this appliance.

Only tube complying with BS669 Part 2, Specification for corrugated metallic flexible hoses for catering appliances, shall be used. These hoses must be no longer than 1.5 Metres, and should be periodically checked / replaced as necessary.

#### **1.5 ELECTRICAL SUPPLY**

The unit is equipped with a 3-core flexible cord with standard 3 pin plug fitted with a 13A fuse. A regular 13A socket outlet can be used.

If supply is through a distribution fuse box, this must be via a fuse with a maximum rating of 13A.

In the event of mains cable being replaced, any new cable should comply with 60245 IEC 57 designations. (H05 RN - F)

Model	Rated Voltage	Rated Current
G2845F	230V~	1.37amps
G2844F	230V~	1.37amps

THE APPLIANCE MUST BE EARTH BONDED.



Check that no damage has occurred to the appliance, power cable and plug face during transit. If damage has occurred do not use the appliance. Ensure that the mains power cable is routed free from the appliance to avoid damage. We recommend supplementary electrical protection with the use of a residual current device (RCD). Periodical testing, repair and fixing wiring connection should only be undertaken by a skilled and competent electrician.



This appliance is also provided with a terminal for connection of an external equipotential conductor. This terminal is in effective electrical contact with all fixed exposed metal parts of the appliance and shall allow the connection of a conductor having a normal cross-sectional area of up to 10mm<sup>2</sup>.

It is located on the rear panel and is identified by the following symbol and must only be used for bonding purposes.

#### **1.6 TOTAL RATED HEAT INPUTS**

Natural (I<sub>2</sub>H) and Propane (I<sub>3</sub>P) Gas 22kW (*net*), 82,500 btu/hr (*gross*).

## SECTION 2 - ASSEMBLY and COMMISSIONING

The gas supply piping and connection to appliance must be installed in accordance with the various regulations listed on the cover of this manual.

#### 2.1 ASSEMBLY

- a) Unpack appliance
- b) Unpack fryer baskets and accessories.
- c) Place basket support grid and basket in pan.
- d) Level appliance and fit all service protection kits. (*Anti-tilt kit, if ordered as accessory*).

#### 2.2 CONNECTION TO A GAS SUPPLY. (also refer to section 1.4 above)

Connect gas supply and test for gas tightness.



Caution - Ensure that pan contains an acceptable level of liquid before igniting burner.

(G2845F models only): If the fryer is in the fat melting Knob position and loading solid fat for the first time, always remove basket support plate as detailed in Section 9. Solid fat should be in direct contact with fryer pan. Refer to Section 9.

(G2844F Models) Do not use Solid Fats in these models.

Due to the presence of mains electrics, integral pipe work should be checked for gas tightness using an appropriate gas leak detector.

**Caution** - Installation engineers should note that for first time connection of appliance to supply, **it is essential** that inlet gas supply to fryer is completely purged of air prior to first lighting attempt. Otherwise initial lighting attempts may fail, resulting in burner reset switch having to be used. This should not initially be treated as a fault.

Please note that several attempts will still be required after air purge to fryer for first time lighting. This is due to capacity of valve and governor.



#### 2.4 STARTING UP

(G2845F models only) If the fryer is in the fat melting cycle *and* loading solid fat for the first time, always remove basket support plate as detailed in Section 9. Solid fat should be in direct contact with fryer pan. Refer to Section 9.

(G2844F Models) Do not use Solid Fats in these models.

## 2.4.1 G2844F Fryer Control Panel (See Figure 2)



#### Figure 2 – G2844F Control Panel

#### 1) Four Digit LED Display

Displays Set temp, Actual temp, cook time remaining and also used for programming purposes.

#### 2) Program Button

Used to enter timer program mode (to change each of the 4 pre-set timer select channels - See Section 6).

#### 3) Temperature Button

Used to view actual/Set temperature and also to enter Set temperature mode (See Section 6).

#### 4) Timer Keys (1 – 4)

Used to start/cancel pre set cook times. Buttons 1 & 4 also used to change times or temperatures when in Either set mode (See Section 6).

#### 5) Burner Lit LED indicator

This indicator will illuminate when thermostat demands heat and the burner lights successfully, i.e. oil temperature is more than 2 °C below the temperature setting. The burner and indicator will turn off when the desired temperature is reached.

## 2.4.2 G2845F Fryer Control Panel (See Figure 3).



#### Figure 3 – G2845F Control Panel

#### 1. ON/OFF and Temperature Control Knob

Temperature Selection (140 - 190°C). (Unit is off when in position indicated).

#### 2. Fat Melt Position

Feature for slow pulsed heating of solid fats.

#### 3. Power on indicator.

#### 4. Burner Lit Indicator

This indicator will illuminate when thermostat demands heat and the burner lights successfully, i.e. oil temperature is more than 5 °C below the temperature setting.

The indicator will extinguish when desired setting is reached.

#### 5. Burner Lock-Out Indicator

Indicates flame failure (burner is not lit).

#### Filtration Pump Switch (G).

(See Figure 4.)

Energizes filtration pump when burner switch D is in OFF (O) position.

#### **Temperature Safety Limiter Reset Button (C)**

(See Figure 4.)

Inside red recess.



Figure 4 – G2844 & G2845 - Additional Controls

#### 2.5 PRE-COMMISSIONING CHECK

1) Clean out pan thoroughly using hot water and detergent. Rinse out and dry thoroughly. (Open and close drain valve several times to loosen excess water that may still be inside. Run a cloth through the valve several times and finally when dry, close Drain valve).

#### Note

For further detail with regard to cleaning, refer to Section 8.

- 2) Ensure drain valve is closed. Fill pan with clean cooking oil to -MIN- (*maximum cold fill mark*) indicated on basket hanging rail. (See Figure 6). Note: -MAX- refers to maximum hot fill mark.
- 3) With gas supply still shut off, turn on electrical mains supply.
- 4) Open door and press temperature Safety limit thermostat reset button C *(red)* refer to Section 2.6. Set burner switch D to Position 'I' *(ON position)*.
- 5) Turn control knob to desired temperature (140°C) (G2845F only).
- 6) G2844 Programmable controller: Set Temperature on controller.
- 7) Fryer premix fan will run and spark ignition may be heard before unit locks out.
- 8) After three unsuccessful lighting cycle attempts, an indicator (5 on G2845F, F on G2844F *figures 3 and 4 respectively*) will illuminate to indicate that lockout has occurred and that no burner flame is present.
- 9) Turn on gas supply.
- 10) Press lockout reset switch. See Figure 4 (Lock out indicator will extinguish).
- 11) Burner will ignite and heat indicator will illuminate to signify that Thermostat is calling for heat.

Note: If lockout should occur, repeat Steps 9 -10 until air is bled from supply.

#### 2.5.1 Checking Controller Operation

To check operation of controls, refer to "Appliance controls" - Section 6.1.

#### 2.5.2 Checking Oil Filtration Pump

To check operation of oil filtration pump, refer to Section 7.



#### Important

After installation, the responsible technician should check for gas leaks and ensure the appliance is operating safely and satisfactorily before handing over to the user.

#### 2.6 TEMPERATURE SAFETY LIMIT THERMOSTAT

The unit is equipped with an additional temperature Safety limit thermostat, independent of the main controller.

In the case of operating thermostat failure, allowing oil temperature to rise above predetermined legislation safe zone (230°C), limit device will activate and stop the flow of gas to burner. The Fan will still operate to help cool fryer To re-set temperature Safety limit thermostat, refer to Figure 4.

#### G2844F and G2845F Models

- 1) Turn burner and temperature controls ON/OFF switch to OFF position.
- 2) Allow oil to cool below 180°C
- 3) Reset red button on Safety limit thermostat with a pen or similar item. The button is located behind cabinet door at upper RH, below facia panel. A positive click should be heard.
- 4) Turn burner and temperature controls ON/OFF switch to ON position.
- 5) Reselect temperature.
- 6) If Safety limit thermostat reactivates carry out fault finding on temperature control circuitry.

#### 2.7 INSTRUCTION TO USER

After installing and commissioning appliance, please hand Instructions to user or purchaser and ensure that the person(*s*) responsible understands the instructions to correctly operate and clean unit in a safe manner. Emphasis should be given to safe operation and use of drain valve and oil bucket. **Oil bucket should not be overfilled to allow safe movement. Oil should be allowed to cool before any manual handling**.



**Note:** The oil bucket may be heavy. Drain small amounts at a time if necessary, before lifting bucket. Manual handling regulations should be observed.

Weight of Empty oil bucket + filter – 4.25kg Each litre of oil – approx 1kg.

It is important to ensure that location of gas shutoff valve is made known to user and that procedure for operation in an emergency be demonstrated.

## SECTION 3 -SERVICING, MAINTENANCE AND CONVERSION

#### SERVICE INFORMATION

This unit carries an extensive mainland UK warranty. The warranty is in addition to and does not change your statutory or legal rights.

The warranty policy can be found on our website which details the conditions of the warranty and the exclusions.

https://www.falconfoodservice.com/info-centre/policy



Service calls to equipment under warranty will be carried out in accordance with the conditions of sale.

Warranty calls can be made between 8:30 am and 5:00 pm weekdays only.

To ensure your warranty enquiry is handled as efficiently as possible, ensure you have the following appliance information prior to calling us:

- 1. Model number found on data plate
- 2. Serial number found on data plate
- 3. Brief description of the issue

To contact Falcon for a warranty issue dial (UK only) 01786 455 200 and select Warranty Issues from the menu.



BEFORE ATTEMPTING ANY SERVICING, TURN OFF GAS SHUT-OFF VALVE AND ELECTRICAL SUPPLY. TAKE STEPS TO ENSURE THAT THESE CANNOT BE INADVERTENTLY TURNED ON.

AFTER ANY MAINTENANCE TASK, CHECK UNIT TO ENSURE THAT IT PERFORMS SAFELY AND CORRECTLY AS DESCRIBED IN SECTION 2.5.

ALWAYS CHECK FOR GAS LEAKS.

Always use correct Personal Safety Equipment and Tools when servicing this Appliance.



#### MAINTENANCE CHECK

Regular servicing of the appliance should be undertaken to ensure correct operation, it is functioning as intended, and safe to use. We recommend servicing after 2,500 hours of use, or annually, whichever comes first.

Any maintenance schedule should be carried out in accordance with SFG20 Maintenance Schedule. Should any issues with the integrity of the components be identified these should be replaced. If the appliance is not considered safe the unit should be removed from service and the responsible person advised why the unit is not safe to use and what remedial action is needed. Contents of the maintenance schedule should be agreed with the maintenance provider.

#### **3.1 GAS CONVERSION**

(*Natural to propane or propane to natural*) This model is suitable for field conversion. Instructions for conversion are supplied with conversion kit.

#### **3.2 INTEGRAL COMPONENTS**

The following parts must be checked and serviced regularly:

- 1) Premix fan check for dust, grease ingress.
- 2) Oil ingress to electrical components.
- 3) Flue for any blockages.
- 4) Visual inspection of components, gaskets and fryer pan.

#### **3.3 ACCESS PROCEDURES**

Before removal of any fryer components:

a) Ensure appliance electrical and gas supply has been shut off and cannot be accidentally turned back on.

- b) Allow oil to cool before any operation that requires pan to be drained.
- c) Only use parts specified by the manufacturer.
- d) All components replaced MUST be fully checked after fitting to ensure safe operation.
- e) A full pre-commissioning check as detailed in Section
  - 2.5 should be carried out.

#### 3.4 PREMIX FAN (Preset venturi must not be changed)

- a) Remove mains pipework from rear then remove back panel to gain access to fan.
- b) Disconnect plug from fan.
- c) Remove bolts at flange of pipework.
- d) Undo fixing that secures ignition control box to gas valve and remove.
- e) Fan and valve assembly may now be lifted clear.
- f) Remove fixings that secure fan to valve/venturi system. Replace in reverse order. **Check system for gas leaks.**

#### 3.5 GAS CONTROL VALVE (Preset Venturi Must Not Be Changed)

- a) Remove premix fan and valve assembly as detailed in Section 3.4 and lift clear.
- b) Remove bolts to disconnect valve from fan assembly.
- c) Replace parts in reverse order and check system for gas leaks.
  - . (Propane appliances ensure orifice is in place in valve when re-assembling).

#### 3.6 BURNER

- a) Remove both sides and back panel.
- b) Split pipework from both fan and burner.
- c) Remove igniter/sensor. Refer to Section 3.9.
- d) Disconnect burner bolts and carefully drop burner.
- e) Fit new gasket and replace burner.
- f) Reconnect in reverse order.
- g) Check gasket connection is sealed where fitted.
- h) Check all gas connections for leaks.

#### 3.7 BURNER RESET SWITCH

- a) Remove drain handle and front panel fixings.
- b) Remove electrical connections and remove switch by squeezing side fixings to push it through aperture.
- c) Replace part in reverse order.

#### 3.8 CONTROL BOARD

- a) Remove bolts from top and bottom of control panel.
- b) Pull control panel forward then drop down.
- c) Disconnect electrics and remove fixings enabling controller to be removed. Replace part in reverse order.

#### 3.9 IGNITER/SENSOR

- a) Remove side panels and undo connection wires from ignition control box.
- b) Undo electrode/igniter nuts from underside of burner.
- c) Pull igniter and gasket out of location.
- d) Fit new gasket to igniter and replace parts in reverse order. Ensure that a good earth connection is made.
   Note: This can be achieved by removing LH side panel only and/or access plate. Refer to Section 2, Figure 4.

#### 3.10 DRAIN VALVE

- a) Ensure fry pan is empty. Refer to Section 8.
- b) Remove nut from handle and lift handle off.
- c) Remove front panel fasteners.
- d) Disconnect wiring, noting all connections.
- e) Remove front panel to access drain valve.
- f) Undo drain pipe and using appropriate size of spanner, remove drain valve.
- g) Replace in reverse order and check for oil leaks.

#### **3.11 FILTRATION PUMP**

- a) Remove back panel and remove flexi-hose at filtration pump.
- b) Disconnect electrical coupling plug.
- c) Undo bolts from below base panel that secure pump bracket to base and lift clear.
- d) Disconnect pump from bracket and replace in reverse order. Check for oil leaks before replacing panels

#### 3.12 FILTRATION PUMP PIPEWORK

- a) Remove back panel and flue bolts from rear.
- b) Undo quick release connection from top of outer flue.
- c) Remove flexi-hose at filtration pump.
- d) Lift entire flue assembly clear.
- e) Replace in reverse order. Check for oil leaks before replacing panels.

#### 3.13 IGNITION CONTROL BOX

- a) Remove LH side panel at rear of side enclosure.
- b) Remove fixing from control box lid.
- c) Slide control box from pins on valve and pull clear of case.
- d) Undo electrical connections.
- e) Replace in reverse order & test.

#### Note: Control is in "lock-out" when new.

#### 3.14 USER THERMOSTAT, temperature sensor.

- a) Drain Pan.
- b) Open and drop control panel. Remove cover box and undo thermostat nuts to remove thermostat sensor.
- c) Disconnect thermostat sensor wires from board
- d) Carefully replace in reverse order. Check for any oil leaks.

#### 3.15 Temperature Safety Limit thermostat.

- a) Drain Pan.
- b) From Inside Pan, Disconnect fixings securing limit thermostat Guard and Phial Bulb.
- c) Open and drop control panel. Remove cover box and undo thermostat nuts to remove thermostat bulb.
- d) Disconnect wires from limiter body.
- e) Disconnect Limiter body.
- f) Replace in reverse order.

## **SECTION 4 – SPARES**

When ordering spare parts, always quote appliance type and serial number. This information will be found on unit data plate, located inside the fryer door on LH leg support face.

Component	G2844 (Programmable Controller)	G2845 (Manual controller)	
Burner reset switch	1	1	
Control knob	N/A	1	
Drain valve	1	1	
Fuse anti surge 5A	1	1	
Fuse anti surge 2A	1	1	
Neon (Amber)	1	2	
Neon Mains (Red)	N/A	1	
On/off switch	1	1	
Pump switch	1	1	
Timer	1	1	
Thermistor probe (G2844)	1	N/A	
Thermistor probe (G2845)	N/A	1	
Thermostat/Controller	N/A	1	
Safety Limit Thermostat	1	1	
Transformer 24V	1	N/A	
CTT Controller	1	N/A	
Filter bag / micro filter	1	1	
Filter Support	1	1	
Strainer Basket	1	1	
Oil Bucket	1	1	
Ignition Control Box	1	1	

### **SECTION 5 - TROUBLESHOOTING and CRITICAL DIMENSIONS**

#### 5.1 TROUBLESHOOTING

#### G2844F

**PROBLEM** - No power

**Cause:** Circuit breaker off. **Solution:** Check and reset.

**Cause:** Appliance not plugged in. **Solution:** Plug cord in.

**Cause:** Defective 24V AC transformer. **Solution:** Replace transformer and/or controller.

PROBLEM - No sound

**Cause:** Inoperable speaker. **Solution:** Replace controller.

**PROBLEM** – Button

**Cause:** Inoperable key. **Solution:** Replace controller.

PROBLEM: PROB is displayed.

**Cause:** Defective temperature probe. Solution: Replace temperature probe

**Cause:** Probe not plugged in Solution: Plug probe in

**PROBLEM:** Reading Wrong Temperature

**Cause:** Defective temperature probe. **Solution:** Replace temperature probe.

PROBLEM: Not Heating.

**Cause:** Check gas circuit. **Solution:** Replace defective part.

**Cause:** Defective controller. **Solution:** Replace controller.

#### **Condition - The filtration pump is not working.** (*Refer to Figure 5*)

Action 1 - Burner ON/OFF control must be switched to OFF before pressing filter pump switch.

Action 2 - The oil suction pipe has become blocked. Clean it and dry thoroughly. Note: This is caused by debris in the bottom of oil bucket. The microfilter and strainer have not been cleaned or have been damaged.

This can cause unfiltered oil to overflow into the oil bucket.

Action 3 - The pipework has become blocked (*refer to Action 2*) or has been inserted incorrectly into one of the quick release connections.

Action 4 - The oil is too hot. Pump is fitted with a thermal safety device. This must be allowed to cool before Pump will automatically restart.



#### Key to components

Figure 5

- A Oil return pipe
- B Flue quick release connection C Internal filter pipework
- D Strainer basket
- D Strainer basket
- E Suction pipe
- F Oil pump
- G Oil decant hose (not illustrated)
- H Pump motor
- I Micro filter J Suction pipe filter
- K Oil bucket
- K Oil bucket

#### **5.1 CRITICAL DIMENSIONS**





5.2 Oil Filter Pump Timer Setting: G2844F & G2845F. Ensure Timer is set as follows: <u>Note: Timer will automatically set for 240v,</u> <u>CHECK SETTINGS BEFORE INITIAL POWER UP.</u>

## **Pump Timer Setting**



## SECTION 6 -OPERATING INSTRUCTIONS

#### Training and competence

To help ensure the safe use of this appliance there is a requirement for you to provide whatever information, instruction, training and supervision as is necessary to ensure, so far as is reasonably practicable, the health and safety of all users.

For further help and information on training and competence we would refer you the Health and Safety Executive website; <u>www.hse.gov.uk</u> document ref: health and safety training INDG345. International customers should default to the health and safety guidelines provided by your government body.

#### **Risk assessment**

As part of managing the health and safety of your business you must control any risks identified in your commercial kitchen. To do this you need to think about what might cause harm to people and decide whether you are taking reasonable steps to prevent that harm. This is known as risk assessment. It is important to consider the environment around the product as well as the product itself. For example oil or food spills will present a significant risk so users so the need to immediately clean up such spills must be reflected in staff training.

For further help and information on risk assessments we would refer you to you the Health and Safety Executive website; <u>www.hse.gov.uk</u> document ref: risk assessment INDG163. International customers should default to the health and safety guidelines provided by your government body.



## PARTICULAR ATTENTION MUST BE PAID TO CLEANING THE THERMOSTAT PROBE AND CAPILLARIES.

ENSURE FOOD DEBRIS DOES NOT BUILD UP, WHICH COULD DETRIMENTALLY AFFECT THE PERFORMANCE AND SAFETY OF THE APPLIANCE.



## PARTS WHICH HAVE BEEN PROTECTED BY THE MANUFACTURER ARE NOT TO BE ADJUSTED BY THE USER.

The fryers are of single pan type and the following units are covered by this manual.

- G2845F Manual control model with built-in filtration. (Solid Fat Melt Setting).
- G2844F Four product key electronic control model with built-in filtration. (No Solid Fat Melt Setting).



#### Note:

The oil bucket may be heavy. Drain small amounts at a time if necessary, before lifting container. Manual handling regulations should be observed.

Weight of Empty oil bucket + filter – 4.25kg Each litre of oil – approx 1kg.



#### Warning: Appliances on castors.

When the fryer is supplied with castors it should be connected to supply piping by means of a connector for moveable appliances. In addition, a restraining chain should be connected between appliance and wall. Ensure this restraint is re-connected when unit is returned to original position.

Moving the fryer with hot or cold oil in fryer can be dangerous to the operator. Scalding could occur. Spilled oil or fat on the kitchen floor could cause slipping accidents and any such deposit should be cleaned up straight away.

To prevent any such hazard, DO NOT move fryer until all liquid has been drained from fryer.

### USE OF OILS (SHORTENING) / SOLIDS (G2845F MODELS ONLY).



These are highly flammable in their liquid state, caution should always be taken when using cooking medium.

Medium should not be overheated as this will increase the risk of fire.

**Note:** Fryer is fitted with a thermal safety device. This will stop heating of medium if it becomes overheated.

Under normal use, this appliance will always fail safe

**Note:** If the fryer is to be used with Solid fat (*G2845F models only*) and loading solid fat for the first time, always remove basket support plate as detailed in Section 9. Solid fat should be in direct contact with fryer pan. Use Fat Melt knob setting (*G2845 models only*.) Refer to Section 9.

Note: G2844F - Do not use Solid Fats in this fryer.

#### Recommendation

(COOKING MEDIUM)

PPE (*Personal Protective Equipment*) should be used when cleaning or handling medium within this fryer.

**Note**: NEVER leave a working fryer unattended. Medium must always be maintained within fry pan. Always turn the fryer controls off at the end of service.

#### Filling the fryer;

**Cold Medium** - when filling with cold medium (*see Figure 6*), DO NOT FILL MEDIUM PAST -MIN-LEVEL MARK (*this is the Maximum cold fill mark*) *also*, for Solid Medium - See Section 10.

#### Hot Medium and Topping up Medium:

DO NOT FILL MEDIUM PAST -MAX- LEVEL MARK (this is the <u>Maximum Hot fill</u> mark)

CAUTION: SUITABLE PROTECTIVE CLOTHING MUST BE WORN when topping up whilst fat in fryer is hot.

#### Medium and Foodstuffs:

As foodstuffs increase volume during cooking - follow these rules:

DO NOT ADD WATER TO FRYING MEDIUM AT ANY TIME! Do not introduce excessively wet food into the fryer

-MIN- Level Mark: Medium should NEVER be allowed to drop below this mark. Should this occur, top up immediately or switch fryer OFF. Never operate fryer with empty fry pan.



(See Figure 6).



#### WARNING

No attempt must be made to operate this appliance during a power supply failure. Please ensure that any plastic coated items are removed prior to use. Before operation, pan requires to be thoroughly cleaned and dried.

Discolouration of heated parts is caused by factory testing to ensure unit is satisfactory. It will not affect quality or performance.

All Models

A neon indicator is incorporated to indicate flame failure when illuminated.

An electronic thermostat with temperature probe is fitted. The operating thermostat automatically controls oil temperature. The temperature limit thermostat ensures that the oil will not reach a dangerous temperature level. If limit thermostat should activate during operation, <u>an investigation to determine the reason must be carried out by a qualified technician.</u>

Burner is protected by an electronic flame sensor device.

#### 6.1 APPLIANCE CONTROLS

Refer to Sections 2.4.1, 2.4.2 and 2.4.3 for control layout. (Figure 4)



#### 6.2 LIGHTING and OPERATION Safety Precautions

The installer must fit a gas shut-off valve in gas pipe that supplies the unit. The user MUST be familiar with the location and operation of the valve for shutting off gas in the event of an emergency.

- IF A SMELL OF GAS IS EVIDENT:
- a) TURN OFF GAS SUPPLY.
- b) VENTILATE AREA.
- c) CALL YOUR LOCAL GAS SUPPLIER.

NEVER USE AN OPEN FLAME TO CHECK FOR GAS LEAKS!

#### 6.2.1 Lighting Instructions

Remove lid (*if fitted*) and baskets and set these aside. Ensure fryer pan is clean and completely dry (*including inside Drain valve*). Ensure also that drain valve is closed. Pour clean, cold oil to -MIN- pan level mark on basket hanging rail.

**Note:** If the fryer is to be used with solid fat (*G2845F models only*) and loading solid fat for the first time, always remove basket support plate as detailed in Section 9. Solid fat should be in direct contact with fryer pan. Use Fat Melt knob setting (*G2845F model only.*) Refer to Section 9.



#### Warning: G2845F Models only;

Do not select any knob setting other than Fat Melt when using solid fats as this will trip safety thermostat or in the worst case scenario, ignite liquefied oils.

G2844F Models: Solid Fats should not be used in this fryer.

#### 6.2.1.1 G2845F Model Only (for switch locations, see figures 3 and 4)

- a) Ensure pan is filled with Oil (shortening) or solid fat to indicated level and gas supply is established.
- b) Ensure burner switch (fig 4, D) is in off position (O).
- c) Press burner switch (fig 4, D) to on position (1).
- d) Turn knob to select temperature.

(If solid fat is used - Select fat melt knob position)

- e) Controller will attempt three lighting cycles. If after this, burner fails to light, lock-out indicator will illuminate.
- f) Reset burner by turning control knob to off position. Press lock-out switch (fig 4, E) and wait 30 seconds then repeat from Step d).
- g) If burner repeatedly fails to light, switch off electrical and gas supplies. Call service engineer.
- h) When burner lights, Burner on indicator (*fig* 3, 4) will illuminate.



#### Warning: G2845F Models only;

Do not select any knob setting other than Fat Melt when using solid fats as this will trip safety thermostat or in the worst case scenario, ignite liquefied oils.

#### 6.2.1.2 G2844F model only (for switch locations, see figure 4)

a) Ensure pan is filled with oil (shortening) to indicated level and gas supply is established.

#### G2844F Models: Solid Fats should not be used in this fryer.

- b) Ensure burner switch (fig 4, D) is in off position (O).
- c) Press burner switch (fig 4, D) to on position (1).
- d) **G2844** Has a temperature range of between 130°C of 190°C
- e) Display will illuminate with figures 8888 for 2 secs, CTT for 2 secs, r 02 for 2 secs and Set Deg flashes.
- f) Press ↓1 or 4↑ on control panel, last set temperature will display, if temperature acceptable press <temperature button 3> to activate. If temperature is not acceptable see section 6.3 for instructions on how to change to set temp. When temperature is set Louu displays. Heat demand LED indicator will illuminate (small dot between L and O).
- g) If burner fails to light, after three attempts, lockout reset indicator will illuminate.
- h) Wait 30 seconds and reset burner by pressing lock-out reset switch.
- i) If burner repeatedly fails to light, switch off electrical and gas supplies and call a service engineer.

#### 6.2.2 Operating Instructions.

#### 6.2.2.1 G2845F Models Only - Manually Operated

When unit has been lit as above, fryer may be operated as following:

- a) If using solid fat, turn control knob clockwise to select (Fat Melt Cycle).
- b) When solid fat has liquefied, ensure correct liquid level, and then select desired temperature.
- c) Fat or oil temperature will then be governed by controller to desired set temperature, selected by user.



#### Warning:

Do not select any setting other than fat melt when using solid fats as this will trip safety thermostat or in worst case scenario, ignite liquefied oils.

#### 6.2.2.2 G2844F Models only – Programmable

When unit is lit as detailed in Section 6.2.1 lighting instructions above, fryer may be operated as follows:-

#### NOTES:

- 1) There is NO solid fat melt pulsing cycle (FMC) incorporated in this controller. Do not use Solid fat, use only liquid oils (shortening).
- 2) Select temperature (See Section 6.3 for instructions on how to display actual or set temperature). When actual temperature is within 10°C of set point the display reads **redy**.
- 3) Before carrying out any cooking operations, controller should be set up for particular application of use (*e.g. up to four timer programmes, product frying temperature, °C/°F*). This can all be carried out using the following guide in Section 6.3.

#### 6.2.2.3 Operating the G2844F Controller:

a) **Start a timing cycle**: Press any product key (*1 to 4*) to start a timing cycle. If key is programmed, the correct time will be displayed and will immediately start to count down and LED above key will flash. DONE will display when cook cycle has ended and alarm will sound. If DONE is displayed immediately and alarm sounds, the key has not been programmed See Section 6.3 for programming details.

- b) **Stop a timing cycle**: Press and hold an active product key for 3 seconds, or press key 3 times within 2 seconds.
- c) Respond to a **DONE** alarm: Cancel signal by pressing same product key used to start timing cycle.
- d) Multiple timing cycles: If a second or third product key is pressed while the first is still active, the shortest time remaining key is displayed and only the LED above key flashes, the other(s) remain constantly lit. Once shortest time program ends and is accepted, next shortest is displayed and LED above flashes. Note: All product key timers will count down although not displayed until shorter one ends.
- e) Action Alarms (*Shake, etc.*): If control is programmed for action alarm, they will signal at a preset time during the timing cycle. The signal, a dual-rhythm beeping, will last 5 seconds and then self-cancel. The display will flash action alarm time and then will continue counting towards **0:00**.
- f) Viewing Actual/Set Temperatures: Pressing the temperature key once will display "AXXX" where XXX is actual temperature in degrees (C or F depending on how controller is programmed See Section 6.3). Pressing the temperature key again within 5 seconds will display "PXXX" where XXX is the programmed Set temperature of the controller in degrees (C or F depending on how controller is programmed See Section 6.3). If temperature key is not pressed again within 5 seconds, display returns to idle or timer mode.

#### 6.3 PROGRAMMING THE G2844F Display Descriptions

#### Louu

Controller is in operating mode. Actual vat temperature is more than 10° below programmed vat temperature.

#### rEdy

Controller is in operating mode. Actual vat temperature is within proper cooking temperature range. The vat is ready to start a cook cycle.

HI

Controller is in operating mode. Actual vat temperature is more than 10° above highest programmed vat temperature.

#### Prob

Control probe is either open circuited or short circuited. Display will be accompanied by an audible alarm if shorted. Check or replace probe.

#### 2:30

The control is in operating mode and a cook cycle is in progress.

#### done

The control is in operating mode and a cook cycle has been completed. Display will be accompanied by a pulsing audible alarm.

## 6.3.1 Programming temperature set point and temperature scale. (Range available is between 130°C to 190°C)

- a) Press and hold temperature key for 3 seconds. "*Prog*" will be displayed. Then press **DOWN** (key 1) or **UP** (key 4) key.
- b) The display will show either "<sup>o</sup>C" or "<sup>o</sup>F" (*degrees celsius or degrees fahrenheit*). Once desired temperature scale is displayed, press temperature key to accept/enter.
- c) Display will now alternate between "Sett" and "XXXZ" (where X denotes temperature and Z indicates temperature scale).
- d) Adjust temperature using **DOWN** (key 1) and **UP** (key
  4) keys. The longer key is pressed, the faster temperature scrolls.
- e) When desired temperature has been reached, press temperature key to accept/enter.
- f) To exit temperature programming, press temperature key again.

#### 6.3.2 Programming a Product Cycle Time and Action Alarm

- a) Press and hold **P** key for 3 seconds. "*Prog*" will be displayed. **Note**: Programming mode will exit automatically if no keys are pressed within 2 minutes.
- b) Select a product key to program (1 to 4). The display will alternate between "ti-z" and "X:XX" where z is the number of the key pressed and X:XX is the set time in minutes and seconds.
- c) Adjust the time up or down using the **DOWN** (*key 1*) and the UP (*key4*) keys. The longer key is held, the faster the time will scroll.
- d) Once desired time is reached, press P key to accept/enter.
- e) The display will now alternate between "*PrEz*" and "*X:XX*" where z is the number of the key pressed and X:XX is action alarm time in minutes and seconds.

**NOTE**: The time entered here is the time action is required before the end of the total cycle time entered above. If NO Action time is required, leave at *"0:00"*. Adjust time as c) above.

- f) Once desired time is reached, press P key to accept/enter.
- g) "Prog" will again be displayed and another product key can be selected for programming. Repeat above steps. When no more keys are required to be programmed and "Prog" is displayed, press P key to exit programming mode and return to idle mode.

### **SECTION 7 - CHANGING/ FILTERING THE OIL**

temperature and is prone to surge boiling.

#### Warning;



After filtering, wait 30 seconds before removing oil bucket. (*fig 5,* K) It is dangerous to use cooking medium that is too old. This medium has a reduced flash point

over-wet food items. NEVER LEAVE a working appliance unattended.

Caution TO PREVENT SURGE BOILING, DO NOT EXCEED recommended loads or charge the pan with



Warning: When draining solids or oils (shortening), ensure that the oil has time to strain through micro filter and strainer basket. Heavily unfiltered oil may overflow. (*fig 5,* I and D ) This could cause pump to block over a period of time and is considered as misuse of equipment

Warning: When pumping solids or oils (shortening) back into fryer pan. Ensure all traces a r e emptied from receptacle (bucket) (fig 5, K).

If oil is not emptied on a regular basis or if oil is left in the receptacle (*bucket*), it may solidify and overflow or spill on to the kitchen floor to create a hazard.

#### 7.1 STARTING THE FILTRATION PROCESS

Refer to Figure 5 for details of filtration components.

- 1. With burner switch (*fig 4*, D) in OFF position, allow oil to cool below 170°C (*or if cold, heat to minimum temperature of 60°C*). Open cabinet door and pull oil filter bucket (*fig 5*, K) forward.
- 2. Ensure o i I bucket is clean and emptied of all solid / oil and debris. Refer to Section 8 for details of how to clean filter components.
- 3. Ensure that strainer and micro filter are clean. (fig 5, D, I respectively)
- 4. With strainer and micro filter in position, slide oil filter bucket back on to runner cradle and back into fryer.



Warning: Do not handle filter components or adjacent surfaces when pump is operating. Components will remain hot for a period after filtering. Allow cooling. Use of PPE is recommended.

**Note**: Burner and temperature controls ON/OFF switch (*fig 4,* D), must be in OFF position before operation of filter pump can begin.

#### 7.2 G2845F and G2844F MODELS Filtering Oil into Receptacle (Oil Bucket).

- 1. Slide drain locking pin to left before turning drain handle clockwise with care as handle may be hot.
- 2. Fryer Pan will drain through micro filter and strainer basket into oil bucket and will pump back into pan.
- 3. Clear debris from fryer pan.
- 4. If fryer pan drain becomes blocked, ensure pump is off and clear using drain prod.
- 5. When debris has been removed from fryer pan, turn valve handle anti-clockwise to close valve.
- 6. Press filtration pump switch to turn on pump. (fig 4, G)

**Note**: With cabinet door open, switch is located at RH side of drain valve.

- 7. Allow pan to refill.
- 8. When pan has re filled completely, switch off pump.

# Â

#### Warning:

Ensure all frying medium has been pumped completely from receptacle *(bucket)*, before topping up fryer pan.

Top up fryer pan if required.

#### 7.3 REMOVAL OF SPOILED/USED OIL

This can be easily removed into a transport container or a special barrel for used oil.

#### 7.3.1 Filter Oil into Receptacle (Oil Bucket) as 7.2 Above



#### Warning

<u>Removal of fryer oil must be carried out under controlled circumstances</u>. Refer to Health and Safety, Manhandling and Local Dispensing of Oil regulations.

#### 7.3.2 Manual Removal of Oil from Receptacle (Oil Bucket) (refer to figure 5 for components)

1. Slide receptacle (Oil Bucket) forward, and remove strainer basket and micro filter.

## Note: The oil Bucket may be heavy. Drain small amounts at a time if necessary, when lifting bucket. Manual handling regulations should be observed. <u>This practice should be carried out when oil is lukewarm.</u>

Weight of Empty oil bucket + filter – 4.25kg Each litre of oil – approx 1kg.

2. Using handles provided, lift receptacle (oil bucket) clear by pulling up and forward.

#### Note

#### <u>Care should be taken not to pull runner cradle out during this operation</u>. Be careful also, not to spill oil.

3. Lift oil bucket and dispense according to local regulations.

- 4. Replace strainer basket and micro filter.
- 5. Replace oil bucket in reverse order.

#### Note

Cleaning of filters and oil bucket should be carried out on a regular basis as required.

#### 7.3.3 Using Oil Decanting Hose

(Refer to Figure 5)



#### Warning

The decanting hose must ONLY be used to decant oil from fryer oil bucket to recommended disposal vessel. Always wear the recommended Personal Protective Equipment *(PPE)* to prevent injury as the hose and components will be HOT.

#### DANGER

NEVER operate decanting hose for purposes other than recommended.

With pump OFF and fry pan empty: **Note:** PPE is recommended as components may be HOT.

- a) Pull back ring from flue quick-release connection (fig 5, B) and disconnect oil return pipe (fig 5, A).
- b) Connect decanting hose to flue quick-release connection and connect oil return pipe to other end of hose.
- c) Using handle, point hose into disposal vessel.
- d) Press filtration pump switch to switch pump on (with burner on / off switch (fig 4, D) to off position).
- e) When oil has decanted, press filtration pump switch to switch pump off.
- f) <u>When cooled to touch temperature</u>, disconnect decanting hose from flue quick-release and oil return pipe.
- g) Reconnect oil return pipe to quick release connection.

## SECTION 8 -CLEANING and MAINTENANCE

When removing heavy items to aid cleaning or maintenance, particular care should be taken. A manual handling risk assessment is the best way to determine the level of risk to anyone using or maintaining this equipment. To help with such an evaluation we have included the weights of individual components that may present significant risk.

For further help and information on manual handling and associated risk assessment we would refer you to you the Health and Safety Executive website; <u>www.hse.gov.uk</u> document ref: manual handling at work INDG143. International customers should default to the health and safety guidelines provided by your government body.

The cleaning of fryers or other products that use hot oil present significant risks to end users and particular care should be taken. **Cold water and hot oil for example are an explosive mix and should be avoided at all costs**.

Other useful references for health and safety issues

www.hse.gov.uk

Essentials of health and safety at work ISBN978 Noise at work INDG362 Safe systems of work Other notes added to the body of the instructions

#### Warnings

The fryer is supplied with castors at rear and should be connected to supply piping by means of a connector for moveable appliances. An anti-tipping restraint can be attached to unit and, if so, this must be disconnected before fryer is moved. Ensure restraint is re-connected when fryer is returned to original position.



Moving the fryer with hot or cold oil in the fryer can be dangerous to the operator. Scalding could occur.

To prevent any such hazard, DO NOT move fryer until all liquid has been removed from fryer.



BEFORE ANY CLEANING IS UNDERTAKEN, ISOLATE APPLIANCE FROM MAINS POWER SUPPLY AT ISOLATOR SWITCH.

SUITABLE PROTECTIVE CLOTHING MUST BE WORN WHEN CLEANING THIS APPLIANCE.

NEVER PUMP WATER THROUGH THE FILTRATION PUMP AT ANY TIME! WATER AND HOT OIL ARE AN EXPLOSIVE MIXTURE.

OIL MUST BE ALLOWED TO COOL TO A SAFE TEMPERATURE BEFORE DRAINING. DO NOT OVERFILL OIL BUCKET. ALL SPILLS ONTO THE PRODUCT AND ON THE FLOOR SHOULD BE CLEANED UP IMMEDIATELY.

THE APPLIANCE MUST NOT BE CLEANED WITH A JET OF WATER OR BE STEAM CLEANED. DO NOT USE ACID OR HALOGEN-BASED *(E.G. CHLORINE)* DESCALING LIQUIDS, FLAMMABLE LIQUIDS, CLEANING AIDS OR CLEANING POWDERS.

FAILURE TO CLEAN AND CHECK THE SAFETY AND OPERATIONAL THERMOSTATS CAN IMPACT THE PERFORMANCE OF THE APPLIANCE AND INCREASE THE RISK OF AN APPLIANCE FIRE

FAILURE DUE TO LACK OF PROPER CLEANING IS NOT COVERED BY WARRANTY.

Note: All surfaces are easier to clean if spillage is removed before it becomes burnt on, cleaned daily.

#### **Stainless Steel Surfaces**

It should be noted that certain scouring pads including nylon types, could easily mark stainless steel. Care should be exercised during cleaning process.

When rubbing stainless steel with a cloth, always rub along in grain direction.

#### **8.2 CLEANING THE APPLIANCE**

The following procedure should be undertaken, **AT LEAST DAILY**.

- 1) All spills on to this product and on the floor should be cleaned up immediately.
- 2) Fryer should be switched **OFF** and fry pan drained of oil.
- 3) Remove baskets and fish plate. Soak these components in hot soapy water.
- 4) With drain valve open, remove any traces of debris from fry pan using a clean, damp cloth.

NOTE: Care should be taken not to damage sensors located at pan front.

- 5) Remove strainer basket and micro filter from oil bucket. Soak these in hot soapy water.
- 6) Wash, rinse and dry all removed items thoroughly. Set these aside.
- 7) Close drain valve.
- 8) Fill fry pan 3/4 full with hot water.
- 9) Clean pan using a soft, clean cloth and hot soapy water, rub away any stubborn staining with a scouring pad and suitable detergent.
- 10) Clean the safety and operating thermostats removing any food debris from around the thermostats which could detrimentally affect the performance and safety of the appliance.



## TAKE CARE WHEN CLEANING NOT TO DISLODGE OR DAMAGE THERMOSTAT PROBES MOUNTED ON THE BASE AND SIDE OF THE PAN.

DISLODGING OR DAMAGING THE THERMOSTAT PROBES OR THEIR CAPILLARIES CAN INCREASE THE RISK OF OVERHEATING OR FIRE.

IF THE THERMOSTATS OR CAPILLARIES ARE DAMAGED THEN DO NOT TURN THE APPLIANCE ON. CONTACT FALCON OR YOUR APPROVED SERVICE PROVIDER TO UNDERTAKE THE NECESSARY REPAIRS.



#### Location of Safety and Operating Thermostat Probes

- 11) Open drain valve. Drain water into bucket below.
- 12) Use clean water to rinse fry pan and dry thoroughly (including inside of drain valve as point 12 below).
- 13) Open and Close drain valve several times to loosen excess water that may still be inside. Run a cloth through the valve several times and finally when dry, close Drain valve.
- 14) Return fish plate and baskets to pan, after thoroughly dried.
- 15) Remove oil bucket by pulling forward then upward.
- 16) Use handles to lift oil bucket to empty.
- 17) Pour away soiled water.
- 18) Wash, rinse and thoroughly dry oil bucket and oil suction pipe (ensure no water left in pipe).
- 19) Replace strainer and micro filter in oil bucket and return oil bucket to cradle.
- 20) Fill fry pan with clean oil/solid fat (G2845F only) to -MIN- mark. To relight, refer to Section 6.2.



Warning. Ensure that all fitments are thoroughly dry and clear of water before returning to appliance. This includes inside of drain valve (see *point 12 above*)

No water should ever be allowed to mix with the oil.

## SECTION 9 - PREPARATION OF SOLID FATS (G2845F Only). / OII (SHORTENING)

#### **COOKING HINTS**

Allow approximately 10 minutes for fryer to heat up from cold to required operating temperature.

#### CHOICE OF FRYING MEDIUM

#### (G2845F models only);

Select a top quality medium to obtain optimum results. Solid fats can be used if necessary.

Solid fats MUST be heated carefully as these have a lower smoke point temperature than Oils.

The fryer is equipped with a fat melt cycle that will pulse heat into the fryer.

A quality Oil (shortening) is a more stable frying medium. It allows longer periods of use without smoking or foaming. It will also give food a better flavour.

Quality oil (shortening) has a higher flashpoint temperature and will reduce gumming around the pan.

#### G2844F Programmable Models;

This fryer is <u>not</u> equipped with a fat melt cycle. Solid Fat must NOT be used.

#### General;

Regular filtering will help improve lifespan of the medium.



WARNING - NEVER MIX OILS (SHORTENING) AND SOLID FAT!

#### **Charging The Pan**

Prior to operation, clean fry pan out using hot water and detergent.

Rinse out and dry thoroughly. (including inside of drain valve. See point 12 above).

Ensure drain valve is closed. Fill fry pan with cold o i I to MIN level mark on basket hanging rail.

Approximate maximum oil level capacity is 18 litres.

#### Solid Fat (G2845F Only.

If solid fat is to be used, remove fish plate and cut fat into small pieces. Place 17kg in fry pot and pack it down. **Position fish plate upon top of the fat**. Push front end into fat lightly until front edge is below temperature probe. Ensure that control setting FAT MELT CYCLE (*G2845F*) is selected for this process.

#### Note

Fish plate will lower slowly into fry pot as solid fat melts.

#### Warning

Check correct level is achieved when all solid fat has melted. Required temperature may then be set.

Solid fat should always be heated this way to prevent overheating and burning.



**WARNING**: It is dangerous to use medium that is too old. This has a reduced flash point temperature and is prone to surge boiling.

**CAUTION**: To prevent surge boiling. **DO NOT EXCEED** recommended loads or charge pan with over-wet food items. **NEVER leave a working appliance unattended**.

## **SECTION 10 - COOKING HINTS**

Frying food involves many variables and the following information is a guide only.

- 1. Ensure frying medium is clean and free of debris.
- 2. When topping up with oil, ensure oil level does not exceed -MIN- line when cold and -MAX- line when hot.
- 3. Never overfill baskets with food product.
- 4. Filter oil as often as is practically possible. Remember, this can be done whilst oil is below 180°C.
- 5. It is advised that a skimmer is used continuously between frying batches to remove any floating debris. Failure to do this can result in a shorter effective oil life.
- 6. During quiet spells, it is recommended that thermostat is turned down to a lower setting. This will conserve energy in addition to extending expected frying medium life.
- 7. To ensure a good eating experience, fry food as near to serving time as possible.
- 8. After serving and when fryer has been turned off, replace lid to ensure that no foreign bodies can contaminate frying medium.

## **SECTION 11**

### G2844F CIRCUIT DIAGRAM











## SECTION 5 - TROUBLESHOOTING and CRITICAL DIMENSIONS:

Possible Reasons Supply Trip activated	Actions	Investigate
Supply Trip activated		
-	Check Installation. Is power being supplied to fryer?	Check Installation
Electrical short circuit	Check Internal Fuses	Cause of blown fuse
Control thermostat failing. Solid fat not used with fat melt setting ( <i>G2845F models only</i> ). Solid Fat used in G2844F. Limit thermostat set point too low.	Check temperature limit thermostat tripped, (Refer to Section 2.6).	Investigate reason for limit thermostat trip. Check oil temperature at trip.
a) Valve not operating b) Spark igniter fault c) Flame sensor fault	Check all wiring to Ignition unit, Spark Igniter and Flame Sensor. Replace faulty component.	<ul><li>a) Is gas flowing?</li><li>b) Is gas lighting?</li><li>c) Is gas lighting but burner not staying on?</li></ul>
Burner ON/OFF switch ( <i>fig4 D</i> ) not set to OFF	Ensure On/Off switch ( <i>fig 4 D</i> ) is set to OFF	
Pump Thermal trip has operated.	Trip will automatically Re-Set in a few minutes, and automatically start pumping again.	Is oil being pumped at too high temperature? Check Supply voltage to Pump.
Timer cycle setting wrongly set	Ensure Pump Timer is correctly set, otherwise replace.	Check Pump Timer Settings. (Section 5).
Pump supply wiring faulty	Re Connect or Replace damaged wiring.	Check pump wiring
Faulty Pump Capacitor.	Replace Capacitor.	Check Capacitor
Faulty Pump	Replace Pump.	
The oil suction pipe has become blocked <b>Note:</b> This is caused by debris in the bottom of oil bucket. The micro filter and strainer have not been cleaned or have been damaged. This can cause unfiltered oil to overflow into the oil bucket. The pipe work has become blocked or has been inserted incorrectly into one of the quick release connections.	Clean it and dry thoroughly. Warning: Do not pump water through this system at any time. Water and Oil are an explosive mix.	
	Control thermostat failing.         Solid fat not used with fat melt setting         G2845F models only).         Solid Fat used in G2844F.         _imit thermostat set point too low.         a) Valve not operating         b) Spark igniter fault         c) Spark igniter fault         c) Flame sensor fault         Burner ON/OFF switch (fig4 D) not set         c) OFF         Pump Thermal trip has operated.         Timer cycle setting wrongly set         Pump supply wiring faulty         =aulty Pump Capacitor.         =aulty Pump         The oil suction pipe has become         blocked         Note: This is caused by debris in the bottom         of oil bucket.         The micro filter and strainer have not         been cleaned or have been damaged.         This can cause unfiltered oil to overflow into         the oil bucket.         The pipe work has become blocked or has         been inserted incorrectly into one of the         quick release connections.	Control thermostat failing.       Check temperature limit thermostat         Solid fat not used with fat melt setting       Check temperature limit thermostat         Solid fat not used with fat melt setting       Check temperature limit thermostat         Solid Fat used in G2844F.       init thermostat set point too low.         a) Valve not operating       Check all wiring to Ignition unit, Spark         b) Spark igniter fault       Igniter and Flame Sensor. Replace         c) Spark igniter fault       Flame sensor fault         3urner ON/OFF switch ( <i>fig4 D</i> ) not set       Ensure On/Off switch ( <i>fig 4 D</i> ) is set to         OFF       OFF         Pump Thermal trip has operated.       Trip will automatically Re-Set in a few minutes, and automatically start pumping again.         Timer cycle setting wrongly set       Ensure Pump Timer is correctly set, otherwise replace.         Pump supply wiring faulty       Re Connect or Replace damaged wiring.         Faulty Pump       Replace Capacitor.         Faulty Pump       Replace Pump.         The oil suction pipe has become slocked       Clean it and dry thoroughly.         Vote: This is caused by debris in the bottom of oil bucket.       Warning: Do not pump water through this system at any time. Water and Oil are an explosive mix.         The pipe work has become blocked or has been inserted incorrectly into one of the quick release connections.       Warning: Do not pump

G2844F (Programmable controller)				
Symptom	Possible reasons	Actions	Investigate	
No Sound	Inoperable controller	Replace board	<b></b>	
Button Press not responding	Inoperable controller	Replace Board		
PROB is displayed	Probe Defective. Probe loose connections.	Replace Probe, or secure connections.	Defective probe. Loose connections.	
Wrong Temperature being Displayed.	Defective Probe	Replace Probe		
Oil cycling but not reaching correct temperature.	Wrong Temperature Programmed	Set Required Temperature ( <i>see section</i> 6)	All Required Board Settings.	
	Temperature Probe problem.	Check probe tip is clean. Check Probe connections Check oil level is within limits.		
	Gas Supply Inadequate.	Check Supply Pressure to Fryer is 17 – 20mb for Natural appliances and 37mbar for Propane appliances.	Check Installation gas arrangements	
	Throttle Screw Incorrectly set.	*WARNING: Throttle Setting Only to be done by Trained and Qualified Engineers. Propane Appliances – Check that Orifice is in place in valve.	*Check that CO <sub>2</sub> Setting is correct for appliance gas category. Natural: 9.2% - 9.5% Propane: 10.2%-10.5%	
	Faulty Ignition Controller giving wrong fan speed	No way of changing fan speed – Change Ignition Controller.	Fan Speed incorrect.	
	G2845F (Ma	anual controller)		
Symptom Possible Reasons Actions			Investigate	
	Fat Melt Position selected.	Turn Knob to Desired Temperature. (Note: if using Solid fats, ensure Fat is fully melted before de-selecting Fat Melt setting.	Check Knob setting.	
	Temperature Probe problem.	Check probe tip is clean. Check Probe connections Check oil level is within limits.		
Oil Cycling but not reaching correct temperature	Gas Supply Inadequate.	Check Supply Pressure to Fryer is 17 – 20mb for Natural appliances and 37mbar for Propane appliances.	Check Installation gas arrangements	
	Faulty Control Thermostat. (G2845 models)	Replace Thermostat / Check connections.	Correct Knob / Spindle function.	
	Throttle Screw Incorrectly set.	*WARNING: Throttle Setting Only to be done by Trained and Qualified Engineers. Propane Appliances – Check that Orifice is in place in valve.	*Check that CO <sub>2</sub> Setting is correct for appliance gas category. Natural: 9.2% - 9.5% Propane: 10.2%-10.5%	

Faulty Ignition Controller giving wrong fan	No way of changing fan speed – Change	Fan Speed incorrect.
speed	Ignition Controller.	