

Waldorf Gas Fryer

Installation and Use and Care Manual

FN8120GE, FN8226GE, FN8130GE
Gas Fryer with
Digital controller



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THANK YOU

Thank you for purchasing this Waldorf fryer. Your Waldorf fryer is designed to provide years of reliable service.

This manual will provide you with the information you need to operate and maintain your fryer in the best possible way. Please read this manual carefully and refer to it frequently.

This manual must be kept for the entire life of the fryer. The manual must remain with the fryer, even if the fryer is transferred, sold, leased, or shared.

This manual must be stored carefully in the place where the fryer is used so that it is readily available to operators for consultation.

For your records

Model number	_____
Serial number*	_____
Date of purchase	_____
Date installed	_____
Installer	_____

* Find the serial number on your fryer's rating plate.

General information

These instructions are only valid if the country code appears on the fryer. If the code does not appear on the fryer, refer to the supplier of this fryer to obtain the technical instructions for adapting the fryer to the conditions for use in that country.

The drawings and diagrams in this manual are representative only and not to scale. They supplement the written instructions and specifications that they refer to.

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IMPORTANT

The reproduction or copying of any part of this manual by any means whatsoever is strictly forbidden unless authorised previously in writing by Moffat Limited.

Warranty requirements

IMPORTANT

Installations must be carried out by a certified or licensed service person only. Failure to comply will void any written or implied warranty.

IMPORTANT

Unauthorised alterations to the fryer may void warranties and approvals.

Intended use and restrictions

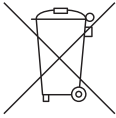
IMPORTANT

This fryer is intended for commercial use only, in kitchens of restaurants, canteens, and so on. It is not intended to be used as follows:

- In residential, outdoor, marine environments, or for the continuous mass-production of food.
 - By persons with limited physical, sensory, or mental abilities.
 - By persons who are not adequately trained in the operation and use of the fryer.
 - By children.
- This fryer must only be used by operators who are adequately trained in the purpose, limitations, and

hazards of its operation. To avoid the risk of accidents or damage, operators should be regularly trained.

Product disposal



This symbol on the fryer indicates that this fryer should not be treated as domestic or regular commercial waste, but must be correctly disposed of in order to prevent any negative consequences for the environment and human health. For further information on the recycling of this fryer, contact your local city office or your waste disposal service.

- This fryer is built with common electrical, electromechanical, and electronic parts. No batteries are used.
- The owner and operator are responsible for the proper and safe disposal of the fryer.

Safety information

Read the safety messages in this manual and follow the instructions carefully. Review them frequently.

Safety messages cannot cover every potential cause of injury or equipment damage but can highlight common causes of hazards. Read and understand all instructions in this manual prior to installing or servicing the fryer and seek advice before operating the fryer in a manner other than that described in this manual. Consult your authorised service technician before performing maintenance.

- Ensure that you and all users of this fryer understand every safety message.
- Know and observe all safety rules that may apply to your work situation and your work site.
- Replace the user manuals and safety labels immediately if they are missing or damaged.

Recognize safety information



Safety alert symbol.
When you see this symbol in the manual or on the fryer, pay special attention to the instructions.



Read the instructions before using the fryer.



Risk of electric shock.



Risk of burns—hot surface.



Equipotential bonding terminal—must be connected to equipotential bonding system.

This manual uses the following safety symbols to indicate the level of caution required when using the fryer.

⚠ DANGER

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

⚠ WARNING

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

⚠ CAUTION

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates information considered important, but not hazard-related (for example, messages relating to property damage).

General safety

⚠ WARNING

Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operation, and maintenance instructions thoroughly before installing or servicing this fryer.

⚠ DANGER

Instructions to be followed in the event that the fryer operator smells gas must be posted in a prominent location. Obtain this information from your local gas supplier.

⚠ DANGER

Fire hazard. Do not use or store flammable materials in or near this fryer. Do not spray aerosols in the vicinity of this fryer while it is in operation.

⚠ WARNING

Fire hazard. The fryer operator shall take great care to use the fryer safely and guard against risk of fire. The fryer must not be left unattended during use.

NOTICE

The fryer shall be regularly inspected by a competent service person to ensure that it is in safe and correct order for operation.

⚠ CAUTION

Do not operate this fryer without the supplied legs fitted to it.

⚠ WARNING

Do not place articles on or against this fryer.

⚠ WARNING

Do not modify this fryer.

Warranty

Moffat warrants all equipment supplied by Moffat against defects in material and workmanship.

Visit www.moffat.com for warranty terms and conditions or contact our Customer Care team.

SPECIFICATIONS

Product information

This Waldorf fryer is a commercial heavy duty, gas fired fryer with the following features:

- Two 45 MJ/h infrared burners with pilot.
- An over-temperature safety cut out system with full flame failure safety controls.
- A mechanical thermostat (90 - 190 °C).
- An open tank design to make cleaning a simple and easy task.

Model identification

Your fryer may have additional features. The model code on the fryer's rating plate identifies the model type.

FN8120GEH[1]	<i>Single-tank fryer with digital controller</i>
FN8226GEH[1]	<i>Twin-tank fryer with separate digital controllers</i>
FN8130GEH[1]	<i>Single-tank fryer with digital controller</i>

- [1] Front finish options
- Standard finish
- Bx - Bold colour finish
- Cx - Control panel colour finish

Product specifications

Model Series	Tank capacity	Width	Net Weight
FN8120G	20 L 37 lbs (16 kg)	450 mm	77 kg
FN8226G	13 L (per tank) 46.5 lbs (21 kg)	600 mm	82 kg
FN8130G	31 L 24 lbs (11 kg)	450 mm	88 kg

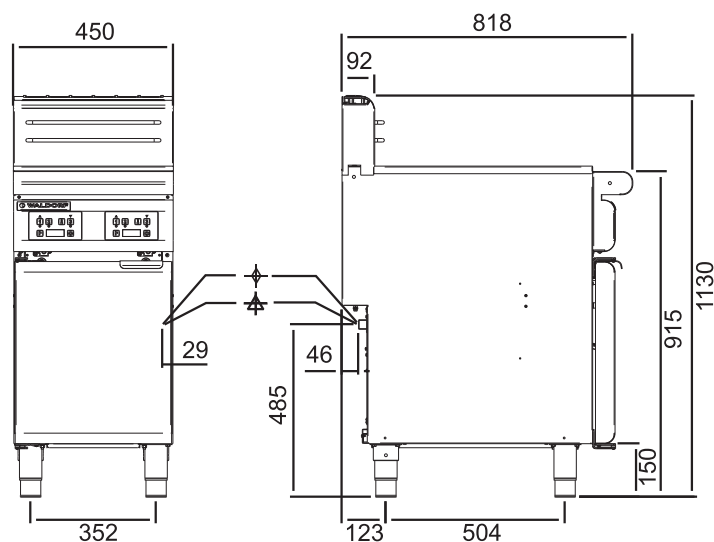
Dimensions

☑ All dimensions are in mm.

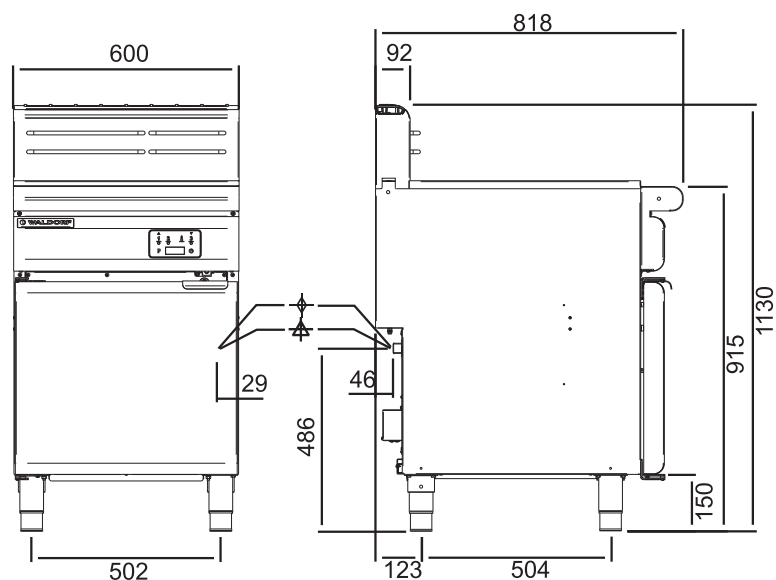
⚡ Gas supply entry point ⚡ Electrical supply entry point

FN8120GE / FN8226GE

FN8226GE shown below



FN8130GE



Supply requirements

Gas-type specifications

❗ IMPORTANT

No separate gas regulator supplied.

A natural gas / LP gas regulator is incorporated in this fryer. A separate regulator is not required to be connected.

- ☑ Standard models can only be converted between natural gas, LP gas and butane, but not town gas.
- ☑ The burner operating pressure is factory set and must not be adjusted unless the gas type is converted. See [Converting the gas type on page 35](#).
- ☑ This fryer requires an electrical connection.
See [Electrical supply on page 9](#).

Australia

	Natural gas	LP gas / Propane
Input rate (N.H.G.C)	90 MJ/hr	90 MJ/hr
Supply pressure	1.13-2.0 kPa	2.75-3.0 kPa
Burner operating pressure†	0.95 kPa	2.50 kPa
Gas connector	¾" BSP (male)	¾" BSP (male)
Main burner injector diameter	3.10 mm	1.85 mm
Pilot burner injector size	0.62	0.35
Pilot screw adjustment	Fully out (CCW)	1½ turns out (CCW)
Combustion air	24 m³/hr	24 m³/hr

New Zealand

	Natural gas	LP gas
Input rate (N.H.G.C)	90 MJ/hr	88 MJ/hr
Supply pressure	1.13-2.0 kPa	2.75-3.0 kPa
Burner operating pressure†	0.95 kPa	2.50 kPa
Gas connector	¾" BSP (male)	¾" BSP (male)
Main burner injector diameter	3.10 mm	1.80 mm
Pilot burner injector size	0.62	0.35
Pilot screw adjustment	Fully out (CCW)	1½ turns out (CCW)
Combustion air	24 m³/hr	24 m³/hr

United Kingdom / Ireland

	Natural gas (G20)	Propane (G31)
Category	II ₂ H ₃ P(20, 37)	II ₂ H ₃ P(20, 37)
Flue type	A ₁	A ₁
Heat Input (Net.)	22.5 kW	22.5 kW
Input rate (Net.)	2.26 m³/hr	1.75 kg/hr
Supply pressure	20 mbar	37 mbar
Burner operating pressure†	9.8 mbar	25 mbar
Gas connector	¾" BSP (male)	¾" BSP (male)
Main burner injector diameter	3.10 mm	1.85 mm
Pilot burner injector size	0.45	0.30
Pilot screw adjustment	Fully out (CCW)	1½ turns out (CCW)
Combustion air	24 m³/hr	24 m³/hr

All other markets

	Natural gas	LP gas	Butane	Town gas†
Category	11 ₂ H3P(20, 37)	11 ₂ H3P(20, 37)	11 ₂ H3B(20, 28-30)	
Flue type	A ₁	A ₁	A ₁	A ₁
Heat Input (Net.)	22.5 kW (81 MJ/hr)	22.5 kW (81 MJ/hr)	24.2 kW (87.12 MJ/hr)	22.5 kW (81 MJ/hr)
Input rate (N.H.G.C)	2.26 m ³ /hr	1.75 kg/hr	1.75 kg/hr	5.81 m ³ /hr
Supply pressure	1.13-2.0 kPa	2.75-3.0 kPa	2.75-3.0 kPa	0.75-1.5 kPa
Burner operating pressure†	0.98 kPa (9.8 mbar)	2.50 kPa (25 mbar)	2.50 kPa (25 mbar)	0.63 kPa (6.3 mbar)
Gas connector	¾" BSP (male)	¾" BSP (male)	¾" BSP (male)	¾" BSP (male)
Main burner injector diameter	3.10 mm	1.85 mm	1.80 mm	6.3 mm
Pilot burner injector size	0.62	0.35	0.35	0.75
Pilot screw adjustment	Fully out (CCW)	1½ turns out (CCW)	1½ turns out (CCW)	Fully out (CCW)
Combustion air	24 m ³ /hr	24 m ³ /hr	24 m ³ /hr	24 m ³ /hr

† Measure burner operating pressure at the Operating Pressure test point on the gas controller with the main burner operating. See [Gas supply test and adjustment on page 17](#).

†† When converting to town gas, replace the Operating Pressure adjustment screw on the gas controller with the knock-out plug supplied in conversion kit. Measure and adjust the operating pressure at the gas regulator. Both the knock-out plug and external regulator are supplied in the town gas conversion kit. See [Converting the gas type on page 35](#).

Gas hose connection

NOTICE

If a gas hose assembly is used to connect this fryer, the hose and all fittings must comply with the gas hose connection requirements.

The gas flow rate must be verified by testing the operating pressure at the maximum gas supply demand.

Gas assembly compliance standard	AS/NZS 1869 Class B or D (or equivalent as below)
Class B	
Max working pressure at 23 ± 2 °C	7.0 kPa
Working temperature range	-20 °C to +125 °C
Oil resistance	Oil resistant lining and cover.
Class D	
Max working pressure at 23 ± 2 °C	2.6 MPa
Working temperature range	-20 °C to +125 °C
Oil resistance	Oil resistant lining and cover.
Gas hose inner diameter (minimum)	
Natural gas	¾"
LP gas / propane	½"

Electrical supply

Model	Electrical supply			Nominal rating			
	Power	Voltage [Vac]	Frequency [Hz]	Power input [kW]	Current [A]		
					L1	L2	L3
FN8120GE	1P+N+E	220-240	50†	0.12	0.5	-	-
FN8226GE	1P+N+E	220-240	50†	0.15	0.7	-	-
FN8130GE	1P+N+E	220-240	50†	0.12	0.5	-	-

† 60 Hz compatible models available on special request.

Electrical connection requirements

- An isolation switch shall be fitted within 2 m of the fryer, but not on the fryer and in such a position that the user does not have to reach across the cooking surface.
- The supply cord shall be oil-resistant, sheathed flexible cable and not lighter than ordinary polychloroprene, or other equivalent synthetic elastomer sheathed cord (as per AS / NZS 3191 part 2.10.11. or IEC 60245-IEC-57); for example, H05 RN-F type.
- The branch supply line shall be individually overload protected to the correct current rating and the supply cord shall be protected against any mechanical or thermal damage.
- All wiring connections must be tight.
- The size of the cable supply to the fryer shall be appropriate for the current drawn on the line. Refer to the appropriate wiring standards for the cable size required.
- A Residual Current Device (RCD) is recommended for protection of the power supply to this fryer.

Clearances

⚠ CAUTION

The air for the combustion of the fryer's burner is supplied from the bottom. Legs or plinth kit must always be fitted and no obstructions placed beneath or around the base of the fryer, as obstructions will cause incorrect operation or failure of the fryer.

NOTICE

This fryer should only be placed in close proximity to walls, partitions, furniture, or other surfaces if they are made of or clad with non-combustible material.

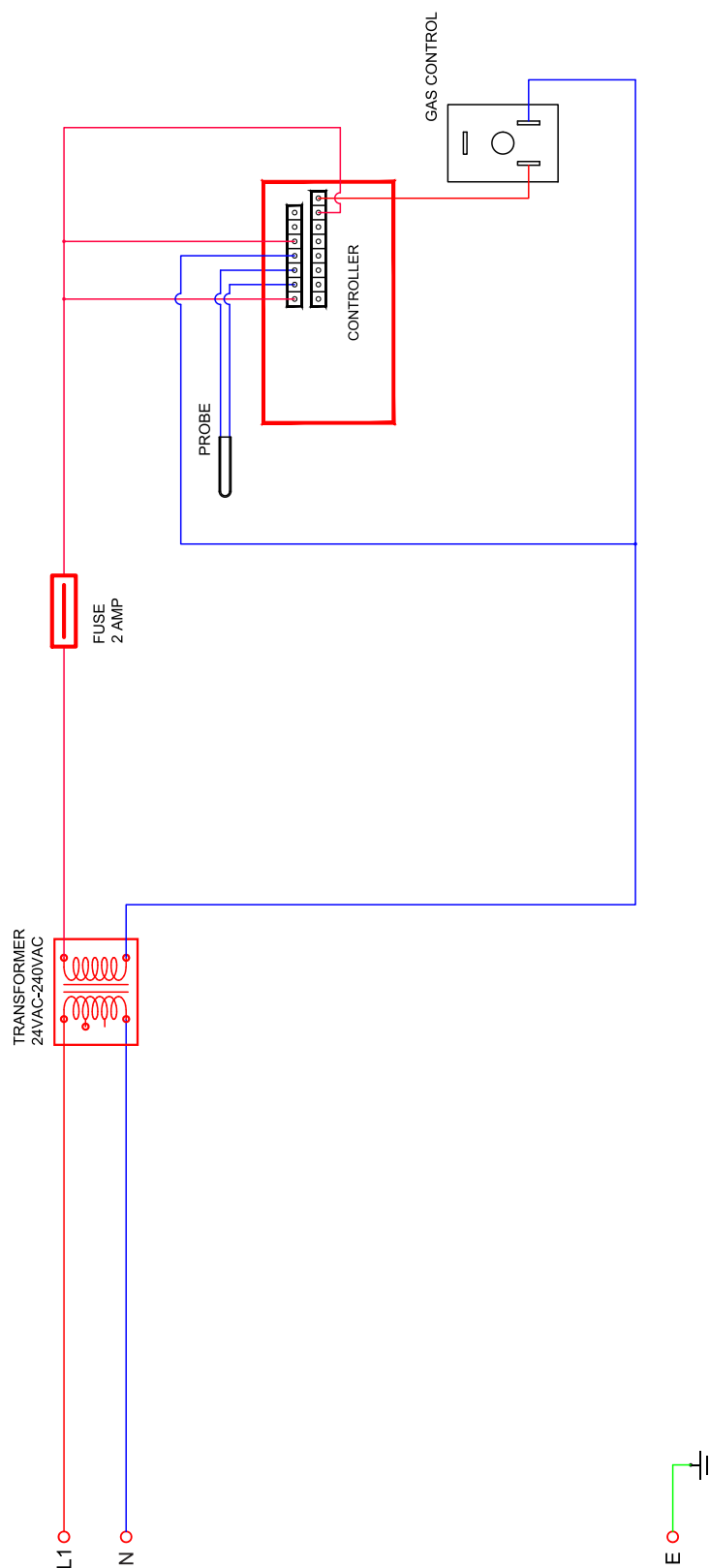
Position the fryer with the following minimum clearances:

	Non-combustible surface	Combustible surface
Left / Right	0 mm	50 mm
Rear	0 mm	50 mm

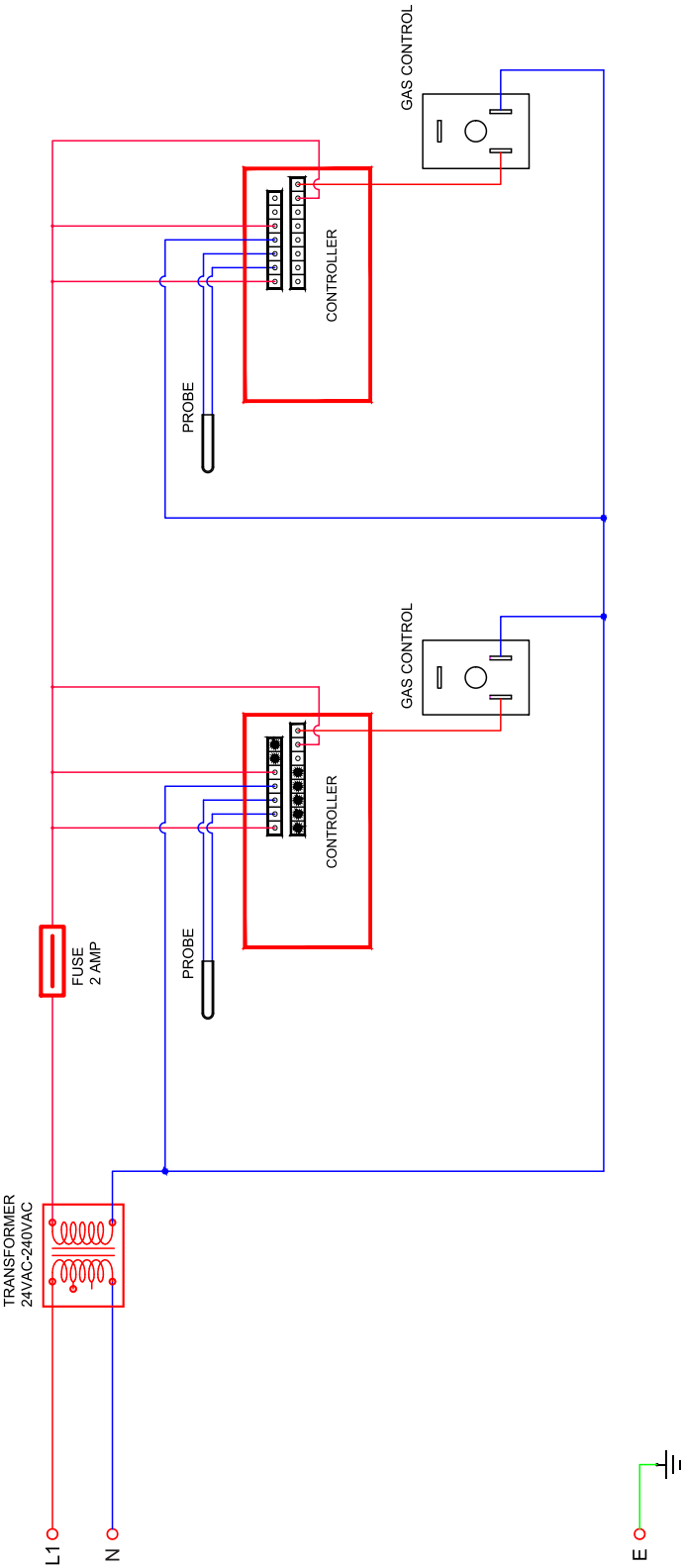
☑ To facilitate easy operation, drainage, and servicing of the appliance, a minimum of 600 mm clearance should be maintained at the front of the appliance.

☑ A minimum of 610 mm clearance must be maintained from flue outlet to any above surface.

Circuit schematic FN8120GE / FN8130GE

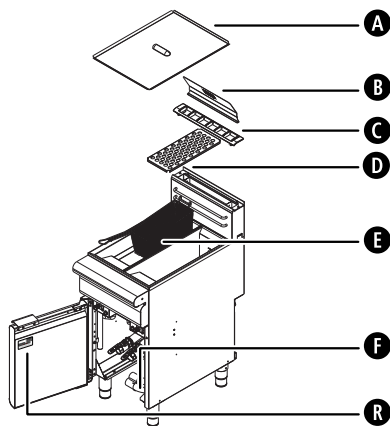


FN8226GE



OVERVIEW

General overview

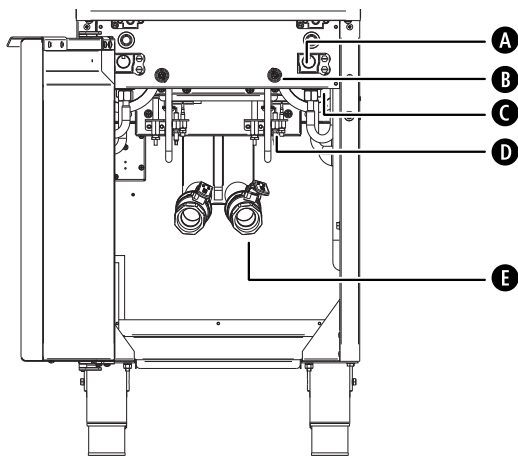


A	Lid
C	Splashback casting
E	Basket
R	Rating plate

B	Flue diverter
D	Basket tray
F	Drain extension

Inside your fryer

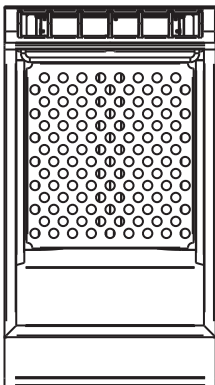
FN8224GE shown below



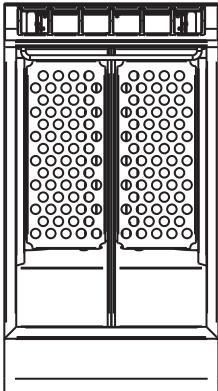
A	Gas control valve
C	Main burner
E	Drain valve

B	Piezo ignitor
D	Pilot burner

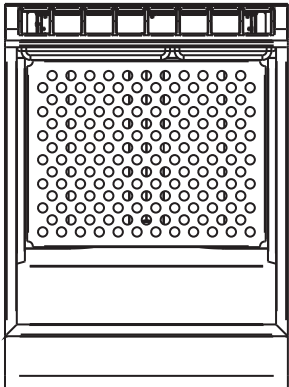
Fryer tank options



FN8120GE



FN8226GE



FN8130GE

INSTALLATION AND SETUP

Your fryer is designed to provide years of satisfactory service, and correct installation is essential for the best performance, efficiency, and trouble-free operation. It is of utmost importance that this fryer is installed correctly and that operation is correct before use.

- ☑ Complete the commissioning checklist in this manual before commissioning the fryer.

⚠ WARNING

Installations must be carried out by qualified service persons only. Failure to install equipment to the relevant codes and the manufacturer's specifications in this manual will void the warranty.

⚠ WARNING

Components that are paint-sealed during manufacture shall only be adjusted by an authorised service technician. They shall not be adjusted by the installer.

⚠ WARNING

The fryer installation must conform to national installation codes and local and national codes for gas and fire safety.

Australia and New Zealand

AS 5601.1 Gas Installations
AS/NZS 3000 Wiring Rules

United Kingdom

Gas Safety (Installation & Use) Regulations 1998.

BS 6173 Installation of Catering Appliances.
BS 5440 1 & 2 Installation Flueing & Ventilation.
BS 7671 Requirements for Electrical Installation.

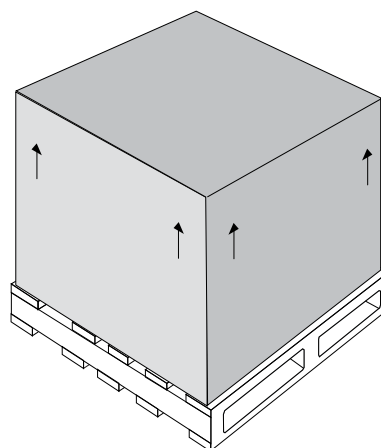
Ireland

IS 820 Non-Domestic Gas Installations.

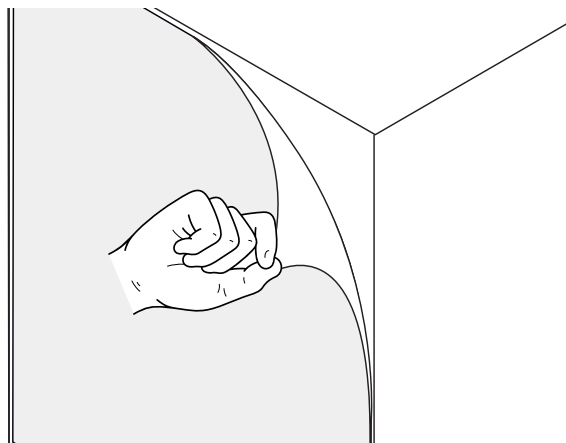
US and Canada

ANSI 223.1 / NFPA 54 National Fuel Gas Code.
ANSI / NFPA70 National Electrical Code.
CSA B149.1 National Gas and Propane Installation Code.
CSA C22.2 Canadian Electrical Code.

Unpacking the fryer



1. Carefully remove all packaging and transit protection from the fryer including all protective plastic coating from the exterior stainless steel panels.
 - ☑ Do not discard the carton and other packaging material until you have inspected the appliance for transit damage and have tested it for proper operation.
2. Remove the protective film from the stainless steel panels, taking care not to scratch the surface if using a blade or shim.



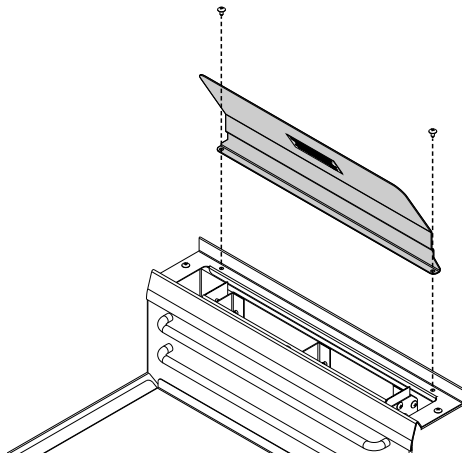
3. Check equipment and parts for damage. Report any damage immediately to carrier and distributor.
4. Check that the supply specifications on the rating plate are correct for your location and installation requirements.
5. Check that all parts are supplied with the product. See [Parts on page 37](#).

Assembling the fryer

This fryer is delivered fully assembled. No further assembly is required.

This fryer is fitted with adjustable feet to enable the fryer to be positioned securely and level. Level the fryer only after you have completed the supply connections. See [Levelling the fryer on page 18](#).

Fitting the flue diverter



- ✎ Remove the flue casting from the top of the flue.
- ✎ Remove the two screws at the rear of the casting support.
- ✎ Fit the flue diverter to the rear of the casting support and secure it with the two screws removed in the previous step.
- ⦿ Ensure that the flue diverter is fitted to the fryer with its curved edge facing inward from the front of the fryer.

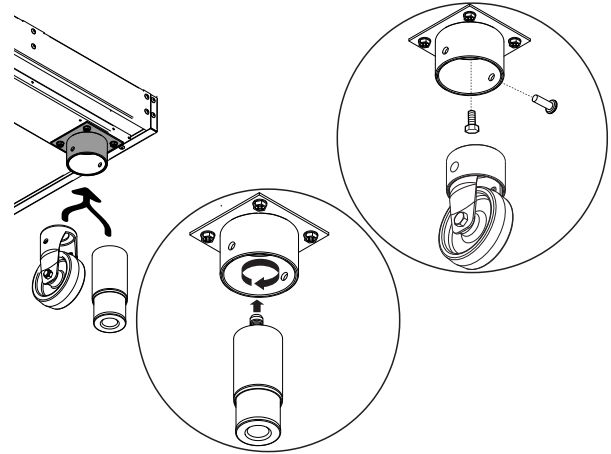
Fitting optional accessories

This fryer can be fitted with optional accessories. See [Accessories on page 40](#) for more information.

- ☑ Refer to the instructions provided with the optional accessories to fit them to the fryer.

Fitting rear rollers

This fryer can be fitted with either rear rollers or adjustable feet.



To fit rear rollers to the base of the fryer.

1. Raise the fryer from the floor by approximately 75 mm using suitable lifting equipment (for example, palletiser or forklift) to allow rear adjustable feet to be removed.
2. Unscrew and remove both rear adjustable feet from the rear leg housings.
3. Fit the roller into the leg support and secure it in place with the locating screw. Tighten this screw using a 10 mm spanner.
4. Lower the fryer back to the floor and adjust the front adjustable feet to level the fryer.

Positioning the fryer

⚠ WARNING

Do not obstruct or block the fryer's flue. Never directly connect a ventilation system to flue outlet.

⚠ CAUTION

This fryer shall be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of health harmful substances in the room that the fryer is installed in.

NOTICE

The installation of this fryer must allow for sufficient flow of fresh air for combustion. See [Supply requirements on page 7](#).

⚠ CAUTION

Position the fryer so that the control panel and fryer cooking area is easily reachable for loading and unloading.

Clearances

⚠ CAUTION

The air for the combustion of the fryer's burner is supplied from the bottom. Legs or plinth kit must always be fitted and no obstructions placed beneath or around the base of the fryer, as obstructions will cause incorrect operation or failure of the fryer.

NOTICE

This fryer should only be placed in close proximity to walls, partitions, furniture, or other surfaces if they are made of or clad with non-combustible material.

Position the fryer with the following minimum clearances:

	Non-combustible surface	Combustible surface
Left / Right	0 mm	50 mm
Rear	0 mm	50 mm

☑ To facilitate easy operation, drainage, and servicing of the appliance, a minimum of 600 mm clearance should be maintained at the front of the appliance.

☑ A minimum of 610 mm clearance must be maintained from flue outlet to any above surface.

Connecting the electrical supply

Ensure that you meet the electrical connection requirements. See [Electrical connection requirements on page 9](#)

⚠ WARNING

All electrical connections must only be carried out by a suitably qualified person.

⚠ WARNING

The fryer must be earthed (grounded).

⚠ WARNING

If the power supply cord is damaged, it must be replaced by a suitably qualified person in order to avoid a hazard.

NOTICE

Each fryer should be connected to an adequately protected power supply with an appropriate power cord.

☑ Check that the electricity supply is correct as shown on the fryer's rating plate.

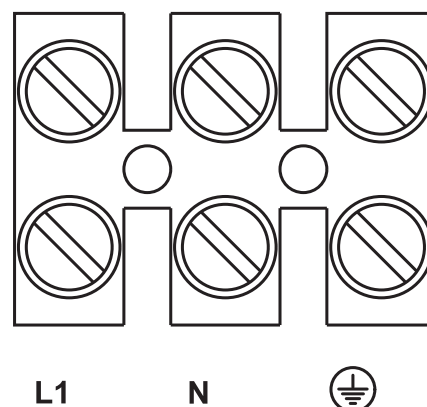
☑ Ensure that a cable gland is fitted around the wiring entry hole into the fryer.

☑ Electrical connection is required for FN8120GE, FN8226GE, and FN8130GE models only.

Electrical supply connection

1. Connect supply plug to mains outlet.
2. Turn on the mains supply and ensure that the fryer is powered-up.

Terminal block wiring connection



1. Connect the mains supply according to the terminal block label that is fitted to the fryer.
 2. Ensure that the conductors are secure and appropriately terminated for all connections.
 3. Tighten the cable entry gland to secure the cable to the fryer.
- ⓘ IMPORTANT**

Check that the cable is securely connected and fastened by pulling the cable from the outside of the fryer.
4. Check that the polarity of each connection is correct and matches the terminal markings on the fryer.

Connecting the gas supply

⚠ WARNING

Gas supply connection should only be carried out by a qualified service agent. All connections must be checked for gas leaks before commissioning the fryer.

Gas supply check

⚠ WARNING

Ensure that the gas supply at the installation location is correct for your fryer and that the supply pressure and volume are adequate for its operation.

Check that the gas supply meets the following requirements of your fryer:

- Gas type - The gas type of the supply is correct for the gas type of your fryer.
 - ☑ The gas type for your fryer is indicated on the coloured stickers that are placed above the gas entry point and next to the rating plate.
 - ☑ The conversion supply connections can be adjusted for your supply requirements. See [Converting the gas type on page 35](#).
- Supply pressure - The supply pressure is adequate for your fryer. See [Supply requirements on page 7](#).
- Input rate - The input rate of the supply should meet the requirements for your fryer indicated on the rating plate. See [Supply requirements on page 7](#).
 - ☑ Check the input rate of the supply against the available gas supply line capacity, especially when the fryer is added to an existing installation.

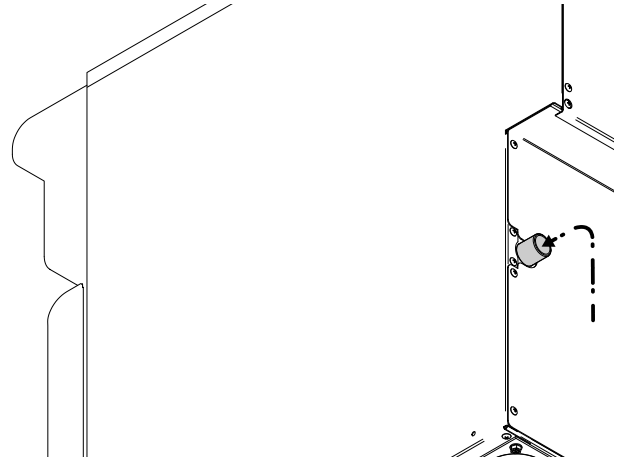
Gas supply connection

❗ IMPORTANT

No separate gas regulator supplied.
A natural gas / LP gas regulator is incorporated in this fryer. A separate regulator is not required to be connected.

⚠ WARNING

The gas supply connection shall comply with the national requirements in force and shall be periodically examined and replaced as necessary.



- ☛ Connect the gas supply to the connection point at the rear of the fryer.
- ☛ Fit a gas supply isolation device (for example, a manual shut-off valve or a quick connect device) on the inlet connection to this fryer.

❗ IMPORTANT

The gas supply isolation device must be accessible within the area where the fryer is installed.

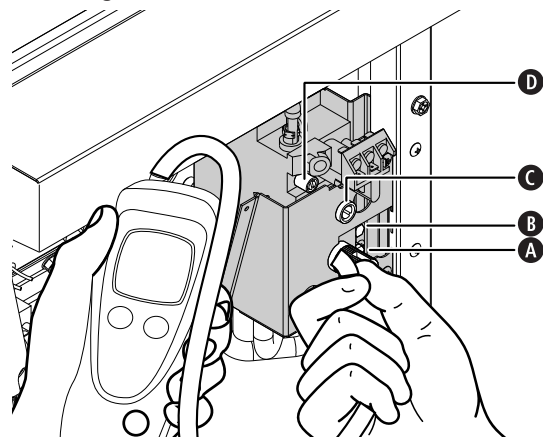
Gas supply test and adjustment

Check all gas connections for leakages using soapy water or other gas detecting equipment.

⚠ DANGER

Do not use a naked flame to check for gas leakages.

- ☑ The gas controllers for models with double tanks operate independently. The main and pilot adjustment needs to be carried out separately for each gas controller.



Supply pressure test:

1. Remove the blanking screw from the Supply Pressure test point (A) on the gas controller.
2. Connect a manometer to the Supply Pressure test point (A) on the gas controller.
3. Turn on the gas supply and ensure that the pressure is within the specifications. See [Gas-type specifications on page 7](#).

Adjust the main burner operating pressure:

1. Remove the blanking screw from the Operating Pressure test point (B) on the gas controller.
2. Connect a manometer to the Operating Pressure test point on the gas controller.
3. Remove the slotted cap to reveal the Operating Pressure adjustment screw (C).
4. Light the main burner and rotate the Operating Pressure adjustment screw (C) to obtain the correct burner pressure for the gas being used. See [Gas-type specifications on page 7](#).

- ☑ For town gas applications, adjust the operating pressure using the gas regulator. See [Converting the gas type on page 35](#)

Adjust the pilot burner flame:

If required, adjust the pilot burner supply so that the pilot flame impingement onto the thermocouple and thermopile is correct and the main burner pilot flame ignites the main burner satisfactorily.

NOTICE

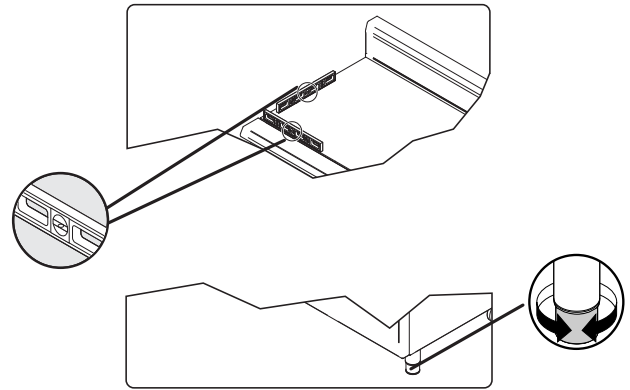
The pilot flame size is factory set and paint sealed.
The pilot flame size should only be adjusted by a qualified service agent.

- ☑ Ensure that the main burner operating pressure is set before adjusting the pilot burner flame.
- 🔧 Rotate the pilot burner adjusting screw (D) until the pilot burner flame is approximately 1" long for main burner ignition.
 - Rotate the pilot adjusting screw anticlockwise to increase the pilot flame.
 - Rotate the pilot adjusting screw clockwise to decrease the pilot flame.

Levelling the fryer

Correctly locate the fryer into its final operating position and, using a spirit level, adjust the fryer feet so that the fryer is level and at the correct height.

- ☑ Check that all feet are securely fitted.



OPERATION

⚠ CAUTION

Immediately stop using and schedule this fryer for service by a qualified service person if the following occurs:

- The fryer does not ignite.
- The fryer flame is abnormal.
- The fryer controls do not function correctly.
- There is partial or full loss of the flame during normal operation.

⚠ CAUTION

Risk of injury or fire.

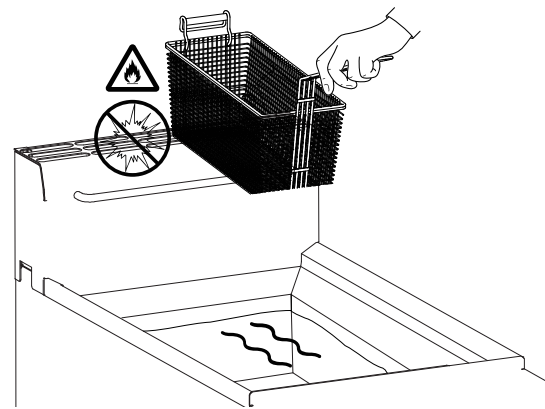
- Do not leave the fryer unattended during operation.
- Do not fill cooking medium in the fryer above the upper fill level mark.
- Do not allow the cooking medium in the fryer to fall below the lower fill level mark.
- Do not replenish the cooking medium in the fryer when the fryer is hot.
- Do not introduce wet food or water into the fryer when the cooking medium is hot.
- Do not use flammable solvents and cleaning aids on or in close proximity to the fryer while the fryer is still hot.
- Do not attempt to move the fryer while the tank is filled with oil due to its increased weight and the risk of splashing.

NOTICE

Heating the empty fryer tank may damage the tank. Ensure that the tank is filled with oil before igniting the burner.

⚠ WARNING

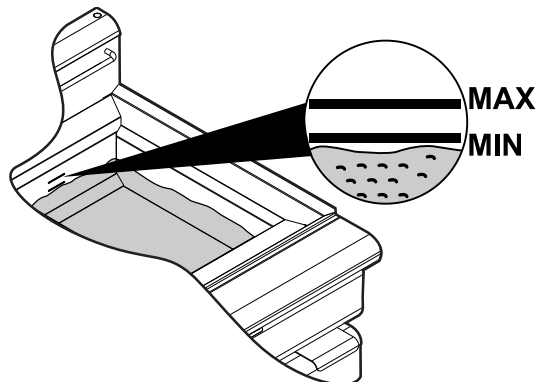
The flue outlet is highly flammable. Do not bang, shake, or hold fryer baskets in the flue outlet area as the oil or fat and debris from baskets could ignite here.



⚠ WARNING

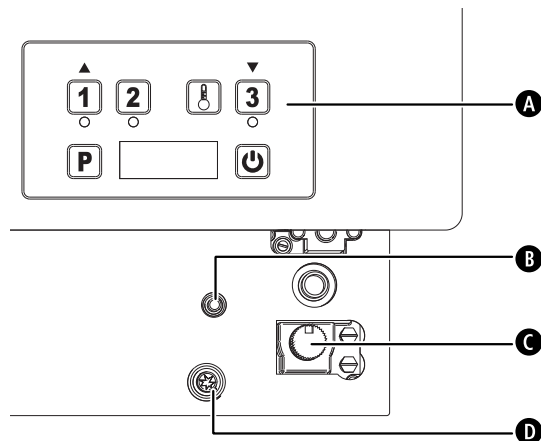
Fire hazard.

Danger of fire exists if the level of frying medium in the tank is below the minimum level indicator.



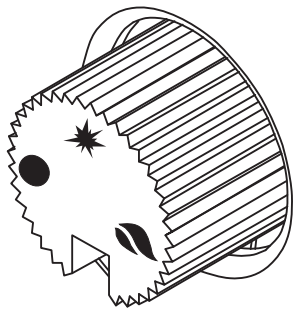
Fryer operation (models with digital controller)

Using the controls



A	Digital controller	B	Flame-failure button (single-tank models only)
C	Gas control	D	Piezo ignitor

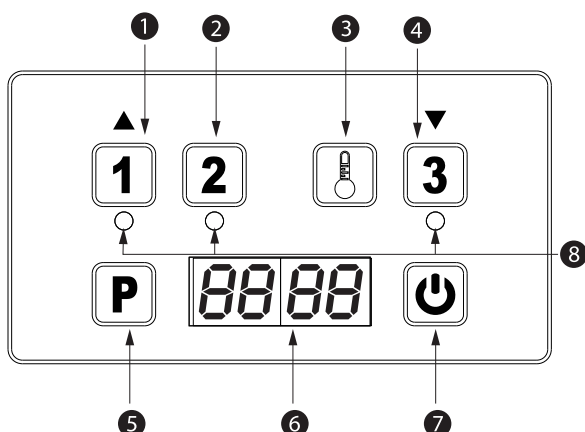
Gas control



The control knob settings are as follows:

- ★ Pilot burner
- ☹ Main burner
- Off

Digital controller



1	Timer 1 / up navigation button	2	Timer 2 button
3	Temperature reading button	4	Timer 3 / down navigation button
5	Program button	6	Display
7	On / off button	8	

Depending on the settings you have configured for the controller, the display shows different operational parameters. See [Configuring the controller on page 25](#) for more information.

Controller display	Description	Operation
OFF	Displayed when the fryer is powered on and the controller is off. Press  to turn on the display.	Turn on the display to use or configure the controller.
.	A flashing dot is displayed, along with other characters, when the fryer is heating up.	
C.P L	Displayed when the melt cycle is enabled and set to the liquid mode.	Food may be cooked using oil or other liquid cooking medium.
C.P S	Displayed when the melt cycle is enabled and set to the solid mode.	Food may be cooked using shortening or other solid cooking medium.
H.EAT	Displayed when the fryer is heating up to the set temperature and the Temperature display mode is set to  .  If the Temperature display mode is set to  , the actual temperature of the oil is displayed.	The oil in the tank is not ready for cooking. Wait for the oil to reach cooking temperature
d.r oP	Displayed when the fryer is 10° of the set temperature and the Temperature display mode is set to  .  If the Temperature display mode is set to  , the actual temperature of the oil is displayed.	The oil in the tank is ready for cooking. Place food into the tank for cooking.
L .	Displayed when Timer 1 duration is complete and the audible beeper is sounding. See Using the timers below for more information.	The food has been cooked for the duration set for Timer 1. Remove the food from the tank.
L	The display is blank when the Timer 2 duration is complete and the audible beeper is sounding. See Using the controls on the previous page for more information.	The food has been cooked for the duration set for Timer 2. Remove the food from the tank.
. r	Displayed when Timer 3 duration is complete and the audible beeper is sounding. See Using the controls on the previous page for more information.	The food has been cooked for the duration set for Timer 3. Remove the food from the tank.

Using the timers

- Press , , or  to use Timer 1, Timer 2, or Timer 3 respectively to cook food for the cooking times configured for each timer. See [Configuring the controller on page 25](#) for more information.
-  When the timer is counting down, the countdown time is displayed and the light below the timer button flashes.
-  When the timer duration is complete, the fryer beeps and the display indicates which timer has completed. See table above.

Viewing the temperature on the display

- Press  to display the actual temperature of the oil in the tank.
- Press and hold  for three seconds while the actual temperature is displayed to view the Cooking Temperature that has been configured. See [Configuring the controller on page 25](#).

General operation

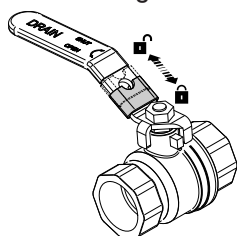
Filling the tank

⚠ CAUTION

Never fill a hot tank. Always turn off the fryer and let the fryer cool before filling the tank or topping up frying medium.

MAX	Upper fill level indicator. Indicates the correct level of frying medium in the tank when the fryer is at the frying temperature.
MIN	Lower fill level indicator. Indicates the correct level of frying medium when the fryer is cold.

- ☑ Always keep the cooking medium in the tank topped up to the upper fill level mark (MAX) while cooking. Never let the cooking medium level in the tank fall below the lower fill level mark (MIN).
- ☑ Ensure that the drain valve is closed and locked with the locking tab before filling the tank.

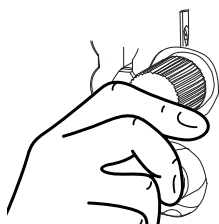


- ☞ Carefully fill the tank with oil or pre-melted shortening up to the lower fill-level mark (MIN) on the inside of the tank.
- ☑ When the oil or shortening is heated, its volume expands to the upper fill-level mark (MAX).
- ☑ Only fill the tank to the rated capacity. See [Specifications on page 5](#).
- 💡 Use a boiling table burner to melt shortening in a suitable vessel until it is just liquefied.
- ☑ Avoid heating shortening to a high temperature as handling hot shortening is dangerous.
- ☑ If you cannot pre-melt shortening, you may melt it in the fryer.

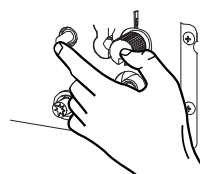
Lighting the burners

Lighting the pilot burner

1. Rotate the gas control valve to the pilot (★) position.



2. Direct the gas supply to the pilot burner.



FN8120GE,
FN8130GE

- ☞ Press the and hold the gas control knob and flame failure buttons simultaneously.

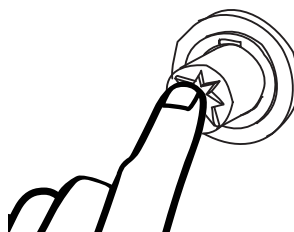


FN8226GE

- ☞ Press and hold the gas control knob.

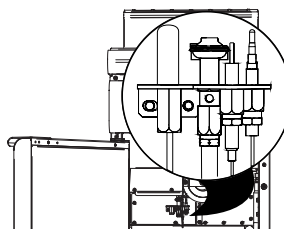
3. Press the piezo igniter to ignite burner while continuing to direct the gas supply according to Step 2 above.

- ☑ Push and release the piezo igniter quickly to create the ignition sparks that light the pilot burner.



4. Release the pilot burner gas supply knob in approximately 10-15 seconds after the pilot burner ignites.

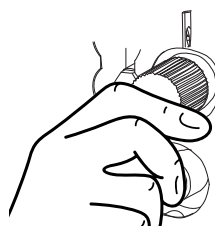
- ☑ Repeat the above procedure if the pilot does not ignite.



Lighting the main burner

- ☑ Ensure that the pilot burner is ignited.

- ☞ Push down and turn the gas control valve to the full flame (☛) position.



The main burner ignites automatically off the pilot burner.

- ☑ If the main burner is turned on immediately after the pilot burner is lit, a delay of approximately 30 seconds will occur before the main burner ignites. This delay is required for the pilot burner to heat the thermopile, which provides power to open the main valve, to the required temperature.
- ☑ The main burner will not light if frying medium's temperature is above the set temperature of the thermostat.

Pre-heating shortening (optional)

- ☞ Carefully cut the shortening into small pieces and pack into the tank.
- ☞ Light the main burners. See [Lighting the burners on the previous page](#).
- ☞ Turn on the controller and ensure that it is operating in the Melt Cycle. See [Configuring the controller on page 25](#).

L . H

 - ☑ Heating will automatically cycle at a lower temperature to gently melt the shortening.
 - ☉ The flashing dot (•) on the display indicates that the fryer is heating.
- ☞ Add more shortening until the tank is filled to the lower fill-level mark (2) on the inside of the tank.

Cooking product in the fryer

- ☑ Ensure that the Cooking Temperature is set. See [Configuring the controller on page 25](#)
- If operating in the Melt Cycle, the display first shows the Melt Cycle phase. See [Configuring the controller on page 25](#).

L . H

 - ☞ Fill the tank with oil or shortening to melt and heat your cooking medium before you fry product. See [Pre-heating shortening \(optional\) above](#)
- If the Melt Cycle is not set, the fryer tank directly heats to the cooking temperature.
 The display shows the different outputs depending on the Temperature Display mode selected. See [Configuring the controller on page 25](#).
 - ☉ A flashing dot (•) on the display indicates that the fryer is heating.
 - ☉ If the Temperature Display mode is set to E - F, the display shows the following:

H . E F L

- ☉ If the Temperature Display mode is set to E - L, the display shows the actual temperature of the oil in the tank.

1.58 L

- ☞ Press  to display the actual temperature of the oil in the tank.
- ☞ Press and hold  for three seconds while the actual temperature is displayed to view the Cooking Temperature that has been configured. See [Configuring the controller on page 25](#)

- Once the fryer tank heats to the cooking temperature, you can begin cooking product in the tank.

- ☉ If the Temperature Display mode is set to E - P, the display shows the following:

d r o P

- ☉ If the Temperature Display mode is set to E - L, the display shows the actual temperature of the oil in the tank.

1.90 L

Use timers while cooking

Three cooking timers can be configured for this fryer. See [Configuring the controller on page 25](#).

When these timers are configured, they can be activated while cooking as follows:

- ☞ Press , to activate Timer 1, Timer 2, and Timer 3 respectively. The display shows a countdown timer.

.2:53

- ☉ A flashing dot (•) on the display indicates that the fryer is heating.

- ☉ When a timer completes, a beep sounds and the display indicates which timer has completed.

- Timer 1

L .

- Timer 2

. L

- Timer 3

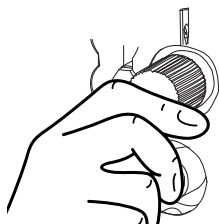
. r

- ☑ When the Timing Mode is set to Flexible F - L, product may cook longer than the duration of the timer. See [Configuring the controller on page 25](#).

Turning off the fryer

To turn off the main burner but keep the pilot burner lit:

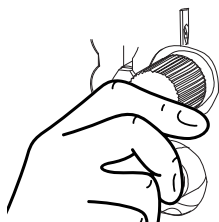
- ☛ Depress and rotate the gas control knob to the pilot position ★.



- 💡 Set the gas control valve to the pilot (★) position to turn off the main burner between cooking cycles.

To turn off the main and pilot burners:

- ☛ Depress and rotate the gas control knob to the off position ○.



Configuring the controller

The fryer has two sets of parameters that can be configured separately.

- Basic parameters are required for regular operation of the fryer and are configured in the controller's Basic programming mode.
- Advanced parameters are used to set up the fryer for operation and are configured in the controller's Advanced programming mode.

Programming modes

Basic programming mode

Accessing Basic programming mode

- Press **P** to activate programming mode.
- If **L o C** is displayed, programming mode is locked to prevent accidental change to the operating mode. Enter the pass code (**1 133**) while **L o C** is displayed to unlock controller configuration.

Use the basic programming mode to change the following parameters of the controller.

Basic programming parameters

The controller parameters are configured in the order within the table below.

In Basic programming mode, the controller cycles through the programmable parameters once.

- Use the **1** and **3** buttons to set or change the values for each parameter.
- Press **P** to save or accept the parameter setting and continue to the next parameter.
- Press and hold **P** to exit programming mode.
- If you do not press any buttons on the controller for more than two minutes while in programming mode, the controller automatically exits programming mode and any unsaved changes are lost.

The controller parameters are configured in the order specified below.

Parameter	Range or options	Default	Description
Timer 1	0:0 1:59:59 (minutes)	3:00 (minutes)	Sets the timer duration for Timer 1.
Timer 2	0:0 1:59:59 (minutes)	3:00 (minutes)	Sets the timer duration for Timer 2.
Timer 3	0:0 1:59:59 (minutes)	3:00 (minutes)	Sets the timer duration for Timer 3.
Cooking temperature	190-380(°F) -or- 88 - 193(°C)	350 (°F) -or- 177 (°C)	Sets the temperature at which the fryer cooks. When the operator presses 1 twice, the temperature value set is displayed on the controller.
Controller parameter password protection	—	(Unlocked)	If set to L o C , programming mode is locked to prevent accidental change to the operating mode.

Advanced programming mode

Accessing Advanced programming mode

- Press **P** to activate programming mode.
- Press **P** and **1** simultaneously to activate advanced programming mode.
- If **L o C** is displayed, programming mode is locked to prevent accidental change to the operating mode. Enter the pass code (**1 133**) while **L o C** is displayed to unlock controller configuration.

Use the advanced programming mode to change the following parameters of the controller.

Advanced programming parameters

In Advanced programming mode, the controller cycles through the programmable parameters once.

- Press **P** to cycle through the parameters.
- Use the **1** and **3** buttons to set or change the values for each parameter.
- Press **P** to save or accept the parameter setting and continue to the next parameter.

- Press and hold **P** to exit programming mode.

☑ If you do not press any buttons on the controller for more than two minutes while in programming mode, the controller automatically exits programming mode and any unsaved changes are lost.

The controller parameters are configured in the order specified below.

Parameter	Range or options	Default	Description
Timing mode	S.T F.L	S.T	Sets the cooking process. • Select straight cook time (S.T) to continuously cook for the set duration or for up to the set temperature. • Select flexible cook time (F.L) to automatically adjust the cooking time to compensate for the quantity being cooked.
Temperature offset	-14-14	0	Sets the offset to be applied to get an accurate temperature reading on the controller. Set this value after calibrating the Control Temperature for the fryer.
Temperature display mode	E - I E - 0	E - 0	Sets whether the temperature displayed on the controller is the actual value or indicative only. • Select E - I to display the actual temperature on the controller. • Select E - 0 to display the following statuses on the controller instead of the actual temperature. ■ HEAT, when the fryer is heating to the set temperature; or ■ d-o-P, when the fryer is within 10° of the set temperature and is ready for loading.
Melt cycle program	E P L E P S E P o	E P L	Sets or disables the preconfigured melt cycle before frying. • Select Liquid (E P L) melt cycle when using oil for frying. • Select Solid (E P S) melt cycle when using shortening for frying. • Select override (E P o) to disable the melt cycle.
Temperature unit	F C	C	Sets the unit of temperature for the controller. • Fahrenheit (F) • Celsius (C)

Configure timers

Three cooking timers can be configured for this fryer.

1. Access Basic programming mode on the controller and ensure that you are on the timer 1 setting. See [Basic programming mode on the previous page](#)
1:00

2. Use the **1** and **3** buttons to adjust the timer. For example:
1:55

3. Press **P** to save the timer.

4. Configure Timer 2 and Timer 3 similarly, using the above steps.

☑ When the Timing Mode is set to Flexible F.L., product may cook longer than the duration of the timer.

Configure the cooking temperature

1. Access Basic programming mode on the controller and ensure that you are on the cooking temperature setting. See [Basic programming mode on the previous page](#)
90

2. Use the **1** and **3** buttons to adjust the cooking temperature.
3. Press **P** to save the cooking temperature.

Configure the controller access passcode

The controller settings can be locked to prevent changes.

☑ When the controller is locked, the passcode is 1133 to unlock it.

1. Access Basic programming mode on the controller and ensure that you are on the parameter lock / unlock setting. See [Basic programming mode on the previous page](#)
Use the **1** and **3** buttons to toggle the setting.

A blank screen indicates that the controller parameters are not locked. A locked setting is indicated as below.

2. L o C
3. Press **P** to save the cooking temperature.

Configure the timing mode

The cooking time can be set to a fixed duration or to automatically adjust for the quantity of product in the fryer.

1. Access Advanced programming mode on the controller and ensure that you are on the timing mode setting. See [Advanced programming mode on page 25](#)
`S.t`
 or
`F.L`
2. Use the **1** and **3** buttons to select either `S.t` or `F.L`.
3. Press **P** to save the timing mode.

Calibrate the temperature offset

For increased accuracy of temperature readings on the controller you can calibrate the controller's temperature offset as follows:

1. Set Cooking temperature to 170 °C (338 °F). See [Basic programming mode on page 25](#).
2. Measure the oil temperature that the control is cycling at.
3. Access Advanced programming mode on the controller and ensure that you are on the temperature offset setting. See [Advanced programming mode on page 25](#).
`. 0C`
4. Use the **1** and **3** buttons to enter the difference between the oil temperature and set temperature as the Temperature Offset in the advanced programming mode settings.
 - If the oil temperature is higher than the reading on controller, enter the difference as a positive value. For example:
`. 4C`
 - If the oil temperature is lower than reading on the control panel, enter the difference as a negative value. For example:
`. -4C`
5. Press **P** to save the Temperature Offset.

Configure the temperature display mode

The controller's display can be configured to show the actual temperature of the oil while cooking or to indicate cooking stages.

1. Access Advanced programming mode on the controller and ensure that you are on the temperature display mode setting. See [Advanced programming mode on page 25](#)
`E . - 0`
 or
`E . - 1`
2. Use the **1** and **3** buttons to select either:
 - `E . - 1` to display the actual temperature of the oil on the operator's screen. For example:
`1.58C`
 - `E . - 0` to display the cooking stages on the operator's screen. For example:
 When the fryer is heating to the set temperature.
`H.E.R.E`
 When the fryer is at the cooking temperature.
`drOP`
3. Press **P** to save the Temperature Offset.

Configure the Melt Cycle

The fryer can be configured to use either oil or shortening in the tank. When shortening is used, the fryer runs through a pre-cooking stage to melt the shortening.

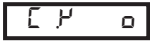
1. Access Advanced programming mode on the controller and ensure that you are on the melt cycle mode setting. See [Advanced programming mode on page 25](#)

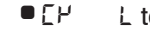
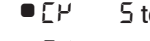
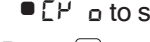


or



or



2. Use the **1** and **3** buttons to select either:
 -  to set the cooking medium to oil.
 -  to set the cooking medium to shortening.
 -  to set the cooking medium to be selectable during operation.
3. Press **P** to save the Temperature Offset.

Configure the unit of temperature

Set the temperature unit to either Celsius (C) or Fahrenheit (F).

1. Access Advanced programming mode on the controller and ensure that you are on the temperature units setting. See [Advanced programming mode on page 25](#)



or



2. Use the **1** and **3** buttons to select the temperature unit required.
3. Press **P** to save the Temperature Offset.

TROUBLESHOOTING

This section provides a reference to the more common problems that may occur during the operation of your fryer. This fault finding guide is intended to help you correct and accurately diagnose problems with your fryer.

💡 When fault finding a problem, always use a process of elimination starting with the simplest solution and working through to the most complex. Never overlook the obvious.

Cooking problems

Problem	Possible causes	Remedy
Frying medium foaming.	Presence of soap or detergent residue from cleaning the tank.	• Rinse the fryer thoroughly three times with clean water. • Ensure that the fryer is perfectly dry before re-filling with frying medium.
	Excessive breakdown of frying medium.	Add fresh frying medium daily to replace contents every 3 - 5 days.
	Continual frying of food with excess moisture.	Remove excess moisture from foods to be fried.
	Continued overheating of oil.	Check thermostat setting. Turn down heat to around 140°C (Standby) when use is reduced.
	Overloading	Maintain a 1:8 ratio of food to frying medium.
Frying medium gumming.	Heating frying medium too rapidly.	When charging fryer or starting up, melt frying medium gradually.
	Continued overheating of frying medium.	Check the oil temperature using a thermometer or thermocouple.
	Frying oil broken down.	Check that the amount of fresh frying medium added to the fryer is adequate and there is sufficient turnover.
	Using wrong frying medium.	Some frying mediums form gums when used in a deep fryer (for example, safflower oil).
Cooked food is greasy.	Frying at too low a temperature.	Increase temperature and check the thermostat setting.
	Food is inadequately prepared before cooking.	Ensure that food (especially potatoes) is cured correctly before cooking.
	Food has excessive quantities of breading or batter.	Remove the surplus breading or batter.
	Food is placed in frying medium directly from the freezer.	Allow frozen foods to thaw before frying.
	Excessive moisture in and on surface of food.	Drain and dry foods before frying.
	Frying medium in advanced stages of breakdown.	Discard the old frying medium and refill the tank with new medium.
	Dripping or other unrefined oil used as the frying medium.	Dripping and other unrefined oils have a low smoking point. Cooking in these oils at lower temperatures will result in greater oil absorption by food.
	Using wrong frying medium.	Always use a completely refined and deodorised cooking oil.
Rapid oil breakdown.	Insufficient oil turnover.	Adjust procedures to fry more food in fryer to increase turnover.
	Oil overheating.	Check the oil temperature using a thermometer or thermocouple.
	Food is contaminated.	Filter or strain the oil daily.
	Poor cleaning practice.	• Clean the fryer thoroughly daily or at least once per week. • Ensure fryer is perfectly dry before re-filling with frying medium.
	Presence of copper or brass in the tank.	Prevent all copper or brass fittings from contact with the oil.
	The fryer is overloaded.	Maintain a 1:8 ratio of food to frying medium.
	Food excessively moist.	Drain and dry food before frying.
	The oil is overheated while the fryer is on standby.	Turn the control to the Pilot position during idle (standby) periods.

Problem	Possible causes	Remedy
Oil smoking.	Insufficient oil turnover.	Maintain a minimum quantity of oil in the tank for more rapid turnover or increase the quantity of food fried. Replace the tank with fresh oil every 3 - 5 days.
	Continual frying with excess moisture on food.	Drain and dry food before frying.
	The cooking oil is contaminated.	Filter or strain the oil daily to remove contaminants.
	The oil used is breaking down rapidly.	Use a stable frying oil.
	Use of unrefined oils.	Dripping smokes at lower temperature than refined and deodorised oils.
Darkening of oil.	Presence of salt on the food.	Salt food after frying and away from fryer.
	Foods dipped in batter high in egg yolk.	Reduce the egg content of batter. ✳ Replace part of the egg quantity with milk.
	Oil is contaminated.	Filter or strain the oil daily to remove contaminants.
	Poor cleaning practice.	• Clean the fryer thoroughly daily or at least once per week. • Ensure fryer is perfectly dry before re-filling with frying medium.
	Oil overheating.	Check the oil temperature using a thermometer or thermocouple.
	Insufficient oil turnover.	Top up daily to replace contents of fryer in 3 to 5 days.
	Cooking foods with high sugar levels.	Potatoes are usually high in reduced sugars at the end of a season. When fried, they will darken quickly and discolour the oil.
Excessive oil usage.	High absorption of oil into the food.	Oil absorption is determined by the cooking temperature and the nature of the cooking product. The type of oil being used does not affect the absorption, unless refined oils are being used.

Fault finding

Fault	Possible causes	Remedy
The piezo ignitor does not spark.	Short in high tension lead.	Call for service.
	The piezo ignitor is faulty.	Call for service.
Pilot burner will not light.	There is no gas supply to the fryer.	Ensure that the gas supply is connected and that the gas bottles are not empty.
	Insufficient gas supply pressure.	Check the gas supply pressure and adjust if necessary. See Gas-type specifications on page 7 .
	The piezo ignitor is faulty.	Call for service.
	The pilot injector is blocked.	Call for service.
	The flame failure valve pilot button cannot be pushed fully in. (FN8120GE and FN8130GE only)	Call for service.
	The gas control valve cannot be pushed fully in.	Call for service.
The pilot burner lights then goes out when the gas control knob is released.	The gas control knob is released before the thermocouple is heated.	Hold the gas control knob depressed for 10 seconds or longer to ensure that the pilot stays lit.
	The pilot flame is small.	See fault-finding below.
	The thermocouple is faulty.	Call for service.
	The overtemperature thermostat is faulty.	Call for service.
	The flame failure valve is faulty. (FN8120GE and FN8130GE only)	
	The gas control valve is faulty.	Call for service.
The pilot flame is yellow / lazy.	Insufficient gas supply pressure.	Check the gas supply pressure and adjust if necessary. See Gas-type specifications on page 7 .
	The pilot injector is blocked or the aeration is insufficient.	Call for service.

Fault	Possible causes	Remedy
The pilot goes out when main burner is ignited.	Insufficient gas supply pressure.	Check the gas supply pressure and adjust if necessary. See Gas-type specifications on page 7 .
	The gas control valve is faulty.	Call for service.
The pilot is extinguished during use and cannot be re-lit.	Oil temperature is below 205 °C (40 °F): The overtemperature thermostat is faulty.	Call for service.
	Oil temperature is above 205 °C (401 °F): The thermostat is out of calibration.	Call for service.
The pilot is extinguished during use but can be re-lit.	Insufficient gas supply pressure.	Check the gas supply pressure and adjust if necessary. See Gas-type specifications on page 7 .
	The pilot is extinguished by a draft in the kitchen.	The fryer should be shielded from excessive air flow.
	The thermocouple is faulty.	Call for service.
	Safety cut-out thermostat faulty.	Call for service.
	The flame failure valve is faulty. (FN8120GE and FN8130GE only)	Call for service.
	The gas control valve is faulty.	Call for service.
The pilot flame is small	Insufficient gas supply pressure.	Check the gas supply pressure and adjust if necessary. See Supply requirements on page 7
	The pilot injector is blocked.	Call for service.
One or more burners will not ignite.	Insufficient gas supply pressure.	Check the gas supply pressure and adjust if necessary. See Gas-type specifications on page 7 .
	The main injectors are blocked.	Call for service.
	The main injectors are the wrong size.	Call for service.
	The thermostat is faulty.	Call for service.
	The gas control valve is faulty.	Call for service.
Main burners do not burn correctly	Insufficient gas supply pressure.	Check the gas supply pressure and adjust if necessary. See Gas-type specifications on page 7 .
	The main injectors are blocked.	Call for service.
	The main injectors are the wrong size.	Call for service.
The set temperature is not reached.	Insufficient gas supply pressure.	Check the gas supply pressure and adjust if necessary. See Gas-type specifications on page 7 .
	The thermopile is faulty.	Call for service.
	The pilot flame is small.	See fault-finding above.
	The thermostat is out of calibration.	Call for service.
	Food is placed into the oil too soon.	Give the fryer more time to come up to temperature before inserting food.
	Too large a load.	Reduce the load size to allow the fryer to recover temperature quicker.
The oil is too hot.	The thermostat is out of calibration.	Call for service.
The digital controller display is blank.	The digital controller's fuse is blown.	Call for service.

CARE AND MAINTENANCE

To achieve the best results, clean your fryer regularly and thoroughly. If small faults occur, have them attended to promptly. Don't wait until they cause a complete breakdown.

⚠ CAUTION

Always turn off the electrical power at the mains supply before cleaning the fryer.

⚠ CAUTION

Always turn off the gas supply before cleaning the fryer.

⚠ WARNING

Do not use flammable solvents and cleaning aids on or in close proximity to, the fryer when the fryer is still hot.

NOTICE

- This fryer is not water proof. Do not use water jet spray or steam cleaner to clean interior or exterior of the fryer.
- Carefully read and follow the safety instructions on the label of the cleaning product to be used.
- Do not use cleaning products with an acidic base or those containing chlorine.
- Do not use saline or sulphuric acid preparations to descale the fryer.
- Do not use sharp scrapers or harsh abrasive scourers as they could damage the fryer.
- Immediately clean alkaline spills (such as salty liquids) or acidic spills (such as lemon juice or vinegar) from cooking surfaces or enamel.
- Ensure that any detergent or cleaning material has been completely removed after each cleaning.

Maintenance schedule

	Daily	Weekly	Periodic
Drain the tank(s)	✓ [*]	-	-
Clean the tank(s)	-	✓ ^{**}	-
Clean the stainless steel surfaces	-	✓	-
Clean the outer body	✓	-	-
Check and adjust controls and mechanical parts [†]	-	-	Every 6 months
Clean the gas exhaust flue [†]	-	-	Every 6 months
Full product service [†]	-	-	Every 6 months

^{*} For a heavy cooking schedule, perform this task after each shift.

^{**} For a heavy cooking schedule, perform this task daily.

[†] To be conducted by a Moffat authorized service technician in full compliance with local and safety inspection and testing requirements.

Maintenance tasks

General cleaning guidelines

- ☑ After cleaning, always wipe the cooking area dry with a soft cloth.

Cleaning light soil

Clean light soil on the cooking surface with solution of hot water and mild detergent.

Cleaning baked-on soil (stainless steel surfaces)

Clean heavy, baked-on soil using a good quality stainless steel cleaner or stainless steel wool.

- ☑ Only apply stainless steel cleaner when the fryer is cool and rub in the direction of the grain.

Cleaning baked-on soil (enamel surfaces)

Use an ammonia-based cleaner or an oven cleaner. Follow the cleaner manufacturer's instructions.

General cleaning tasks

Draining the tank

⚠ WARNING

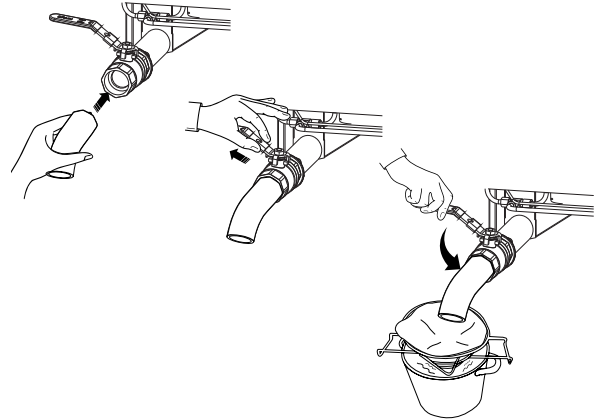
Do not attempt to move the fryer while the tank is full of oil.

⚠ CAUTION

Never drain the fryer without first disconnecting the power supply and turning the burners off.

- ☛ Screw drain extension pipe onto end of drain valve and position a suitable container and filter under drain extension pipe.
- ☛ Place a suitable drain container at the outlet of the pipe.
 - ☑ Do not empty the entire contents of the tank into one large container as this will be dangerous and may be difficult, when lifted up to pour hot oil back into tank.
- ☛ Fit a muslin cloth or other suitable filter bag over the end of the drain valve to catch the crumbs in the drained oil before it reaches the container.
- ☛ Lift the locking slide on the valve handle to release the valve.

- ☛ While holding the locking slide in the withdrawn position, rotate the handle anticlockwise to open the valve.

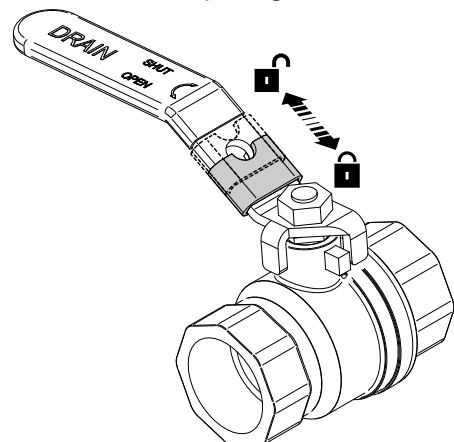


- 💡 If necessary, use the drain stick to dislodge any blockages in the drain.
- ☛ When the tank has drained, use a ladle or small pan with a handle to pour the hot oil from a drainage container around the sides and bottom of tank to wash out crumbs and particles adhering to tank.
- ☛ Unscrew the extension pipe and check for any particles or crumb residue lodged inside the drain valve using a stiff nylon brush.

NOTICE

Do not use a wire brush as this may damage the valve seating and will eventually lead to leakage. If obstruction cannot be removed with a brush, use a wooden probe to dislodge obstruction.

- ☛ While holding the locking slide in the withdrawn position, rotate the valve handle clockwise to close the valve.
- ☛ Ensure that the locking slide is over locking valve to prevent accidental opening of valve.



- ☛ Pour the filtered frying medium back into the tank and continue cooking with it. Draining and filtering the frying medium takes less time than frying a load of potatoes and enables you to use your frying medium more economically.

Cleaning the drain valve

- ☉ Ensure that the tank is empty.
- ☛ Open the drain valve fully and check for any particles or residue lodged in the valve.
- ☛ Clean the interior of the drain valve with a stiff nylon brush.

NOTICE

Do not use a wire brush or metal rods as this will damage the seating in the valve and lead to valve leakage.

- ☑ If the obstruction in the valve cannot be removed with a brush, use a wooden probe to dislodge any obstruction.

Cleaning the tank

Follow the general cleaning guidelines while cleaning the tank. See [General cleaning guidelines on the previous page](#).

NOTICE

Ensure that the water circuit is free of ferrous particles. Such metal debris at the bottom of the tank may cause it to rust.

Deep-cleaning the cooking area

A more rigorous cleaning procedure is recommended to be carried out weekly on the tank. If the fryer usage is very high, carry out this procedure more frequently.

- ☑ Ensure that the tank is drained.

1. Fill the fryer with cold water to the normal fill level and add a high quality commercial cleaner that has been specifically formulated for fryers.

NOTICE

Do not use abrasive detergents, sharp scrapers, strong solvents, or caustic detergents as they could corrode or damage the fryer.

NOTICE

Do not use a caustic or lye solution as this will leave a fat-destroying film on the tank.

2. Turn on the fryer and heat the water to approximately 80-90 °C (176-194 °F).

3. Immerse the fryer baskets into the cleaning solution.
4. Allow the fryer tank and baskets to soak for 5-10 minutes or as directed on the cleaning product.
5. Remove the baskets and turn off the main burners.
6. Scrub the baskets and fryer tank with a stiff nylon bristle brush to remove any remaining deposits.

NOTICE

Do not use a wire brush as this will scratch the surfaces.

7. Drain the tank and rinse them thoroughly with water.
8. Use a solution of 1 part vinegar to 15 parts to rinse the tank and naturalize any cleaner residue.
 - ☑ If this proves unsuitable for cleaner being used, use a weaker solution of up to 1 part vinegar to 25 parts water.
9. Rinse the tank thoroughly with water.
10. Drain the tank and dry it thoroughly.
11. Refill the tank with new and filtered frying medium.

Cleaning the outer body

- ☛ Thoroughly clean the exterior surfaces of the fryer with hot water, a detergent solution, and a soft scrubbing brush.
- ☛ Clean the control panel with a damp cloth lightly moistened with a solution of mild detergent and water. Dry the control panel thoroughly with a dry cloth and polish with a soft dry cloth.
- ☛ Dry the appliance thoroughly with a dry cloth and polish with a soft dry cloth.

ADJUSTMENT AND CALIBRATION

⚠ WARNING

Always turn off the electrical power at the mains supply before you access the fryer's internal components.

Testing the thermostat

Before using the fryer in the work environment, ensure that the thermostat operates correctly.

☑ Follow the operation instructions when performing this procedure. See [Operation on page 19](#)

1. Fill the fryer with oil or shortening up to the correct level.
2. Set the thermostat to 180 °C.
3. Light the pilot burner and turn on the main burner.
4. Check the thermostat calibration once the oil is up to temperature.

Contact the supplier if there is a discrepancy in the temperatures.

Converting the gas type

If required, the gas type can be converted to accommodate the gas supply installation requirements.

⚠ CAUTION

Ensure that the fryer is isolated from the gas supply before servicing.

NOTICE

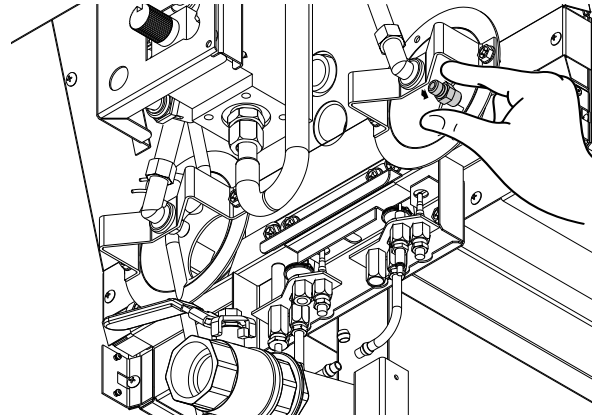
Gas-type conversion should only be carried out by a qualified service agent. All connections must be checked for gas leaks before re-commissioning the fryer.

Gas-type conversion procedure

- ☛ Open the fryer door and locate the main and pilot burners inside the cabinet.

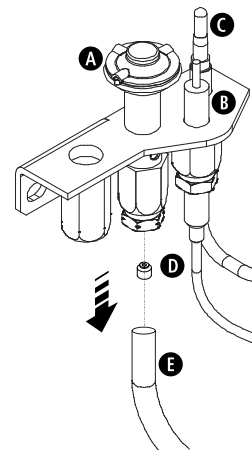
Main burners

1. Remove the main burner injector.



2. Fit the correct size injector for your gas supply type. See [Gas-type specifications on page 7](#).
3. Adjust the main burner supply and operating pressure. See [Gas-type specifications on page 7](#).

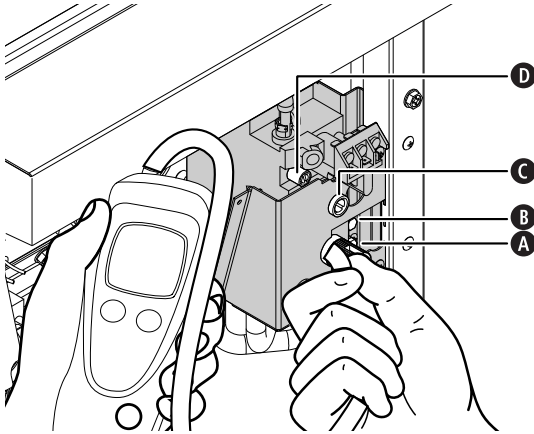
Pilot burners



1. Remove the gas supply tube (E) from the pilot burner (A).
 ⚡ For easier access, remove the piezo igniter electrode (B) from mounting bracket before unscrewing pilot supply tube.
2. Remove the pilot burner injector (D) from the pilot burner (A).
3. Fit the correct size injector for your gas supply type. See [Gas-type specifications on page 7](#).
4. Refit all removed parts.

Adjust the pilot burner flame. See [Gas supply test and adjustment on page 17](#).

Town gas conversion

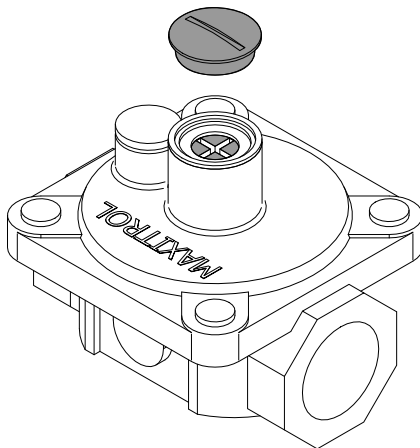


For town gas applications:

- Replace the Operating Pressure adjusting screw (C) on the gas controller with the knock-out plug that is supplied with town gas conversion kit; and
- Adjust the operating pressure at the gas pressure regulator. See [Gas regulator conversion below](#).

Gas regulator conversion

Town gas regulator



1. Remove the slotted cap from the regulator.
2. Turn on the gas supply and the fryer.
3. Adjust the pressure adjusting screw to achieve the correct burner operating pressure. See [Gas-type specifications on page 7](#).
4. Verify that the operating pressure is correctly maintained and re-adjust the regulator if necessary.
5. Fit the slotted cap back into the regulator

Update the gas type identification label

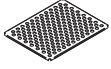
After completing the gas-type conversion, replace the gas-type identification label in the following locations:

- The rear of appliance, above the gas connection point.

PARTS

Supplied parts

The following parts are supplied with your fryer.

	Part No.	Description	Quantity supplied
	246439	Basket tray - 450 mm single-tank models	1
	236768	Basket tray - 450 mm twin-tank models	2
	236768	Basket tray - 600 mm models	1
	018019	Fryer basket	2
	246230	Fryer lid - 450 mm models	1
	246401	Fryer lid - 600 mm models	1
	018176	Drain stick	1
	018147	Drain extension	1
	245591	Flue diverter - 450 mm models	1
	246404	Flue diverter - 600 mm models	1

Gas system

Parts list

Part No.	Description
022450	Main burner ☑ 2 required.
022575	Burner kit
018090K	Pilot burner (includes natural gas & LPG injectors) ☑ Not for UK.
025630K	Pilot burner (includes natural gas & propane injectors) ☑ For UK only.
019487	Pilot olive ¼"
018740	Olive nut
018093	Thermopile
018094	Interrupted Thermocouple - Main Gas Valve
227865	Thermocouple - Flame Failure Valve ☑ For single-tank fryer only.
018021K	Thermostat
242757K	Overtemp Thermostat Kit 2019
235492	Gas Control SIT 820 MV
228617	Gas valve Nova ☑ Digital controller models only.
018095	Piezo H.T. lead
227508	Piezo ignitor

Burner injectors - fryer

Part No.	Description
032185	Main burner injector - LPG, Ø 1.85 mm
032180	Main burner injector - LPG, Ø 1.80 mm
032170	Main burner injector - butane, Ø 1.70 mm
032310	Main burner injector - natural gas, Ø 3.10 mm
032630	Main burner injector - town gas, Ø 6.30 mm
018092	Pilot injector - LPG, butane, Ø 0.35 mm (non-UK)
018091	Pilot injector - natural gas, Ø 0.62 mm (non-UK)
018972	Pilot injector - natural gas (G20), Ø 0.45 mm (UK only)
018971	Pilot injector - propane (G31), Ø 0.30 mm (UK only)
026393	Pilot injector - town gas, Ø 0.75 mm

Gas conversion kits

Model	Country code	Gas-type to convert to	Conversion kit
FN8120G	AU	LPG (Propane)	251783
FN8226G	NZ, XP	LP Gas	251784
FN8130G	AU, NZ, XP	Natural Gas	251785
	XP	Butane	251786
	XP	Town Gas	251787
	UK	Propane (G31)	251788
	UK	Natural Gas (G20)	251789

Replacement parts

Quote the part number and description when ordering replacement parts. If the part required is not listed here, request the part by its description and quote your fryer's model number and serial number as shown on the rating plate.

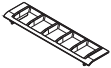
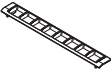
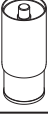
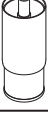
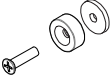
NOTICE

Only genuine Waldorf parts should be used for servicing or repair of this fryer.

NOTICE

Follow the instructions supplied with the replacement part when you install it. Contact a Waldorf authorised service centre or our Customer Care team for additional information and service instructions.

Replacement parts - general

	Part No.	Description
	246113	Splashback casting ☑ For 450 mm models.
	246476	Splashback casting ☑ For 600 mm models.
	227747	Basket hanger 305 mm ☑ For 600 mm models (2 required)
	227748	Basket hanger 195 mm ☑ For 600 mm models (2 required)
	227441	Basket hanger 370 mm ☑ For 450 mm models (2 required)
	227850	Adjustable leg, 150 mm (flush stud)
	240534	Adjustable leg, 150 mm C/W plate (front)
	229674	Rear roller assembly
	247754	Door magnet
	247755	Door magnet spacer

Accessories

Accessories - plinth kits

Part No.	Description	Notes
251257	Plinth kit	450 mm wide models only.
251261	Plinth kit	600 mm wide models only.

Accessories - kick panels

Part No.	Description	Notes
251571	Kick panel 450 mm x 140 ¹	For 450 mm models.
251572	Kick panel 450 mm x 125 ²	
251573	Kick panel 450 mm x 75 ³	
251574	Kick panel 600 mm x 140 ¹	For 600 mm models.
251575	Kick panel 600 mm x 125 ²	
251576	Kick panel 600 mm x 75 ³	
251568	Kick panel ends pair x 140 ¹	
251569	Kick panel ends pair x 125 ²	
251570	Kick panel ends pair x 75 ³	

¹ 140 mm height kick panel for 915 mm fryer operating height.

² 125 mm height kick panel for 900 mm fryer operating height.

³ 75 mm height kick panel for 850 mm fryer operating height.

COMMISSIONING CHECKLIST

Before leaving the new installation, check that the fryer functions in accordance with the operating instructions in this manual. Complete the following checklist.

☒ If the fryer does not operate correctly, turn off the fryer, disconnect the power supply at the mains and contact the supplier of this fryer.

Date _____

Installer _____

Pre-installation

- ☐ Delivered intact with all parts and accessories.
- ☐ No noticeable damage to the interior or exterior of the fryer.

Installation

- Positioning and fitting
 - ☐ Adequate separation and/or isolation from other appliances and/or heat sources.
 - ☐ Adequate ventilation in installation area.
 - ☐ The fryer is level with respect to the floor.
- Electrical connection
 - ☐ Adequate supply voltage.
 - ☐ Correctly grounded outlet.
 - ☐ Correct current draw and loading.
- Gas connection
 - ☐ Correct gas type and connection.
 - ☐ Correct gas supply pressure.
 - ☐ Correctly sized gas supply line.
 - ☐ Gas transmission lines and connections have been tested for leaks using soapy water or other gas detecting equipment.

⚠ DANGER
Do not use a naked flame to check for gas leakages.

- General
 - ☐ Correct door alignment.
 - ☐ All removable panels and receptacles have been refitted.

■ First use

⚠ CAUTION
Ensure that all packaging material has been removed from the fryer before operation.

- ☐ Before using the fryer for cooking, fill the fryer with oil and operate for about one hour at the full flame setting to remove any fumes or odours which may be present.

NOTICE
Heating the empty fryer tank may damage the tank.
Ensure that the tank is filled with oil before igniting the burner.

Operation

- Functionality
 - ☐ All burners ignite correctly.
 - ☐ Thermostat functions correctly.
 - ☒ Check the thermostat operation and calibration. See [Adjustment and calibration on page 35](#) for more information.
 - ☐ Correct low fire burner operation.
 - ☐ The controls operate correctly. See [Operation on page 19](#).
- Operational readiness
 - ☐ All connections are correct and all covers are fitted.
 - ☐ The drain extension is retained with the fryer.
- Operator training
 - ☐ The operator has been instructed in correct operation and safe shutdown of the fryer.

WALDORF CUSTOMER CARE

New Zealand

Moffat Limited
www.moffat.co.nz
Tel: +64 (3) 983 6600
Fax: +64 (3) 983 6660
Email: sales@moffat.co.nz

Australia

Moffat Pty Ltd
www.moffat.com.au
Tel: +61 (03) 9518 3888
Service: 1300 264 217
Fax: +61 (03) 9518 3833
Email: vsales@moffat.com.au

Canada

Serve Canada
www.servecanada.com
Sales: 800 551 8795
Service: 800 263 1455
Email: info@servecanada.com

United Kingdom

Blue Seal Limited
www.blue-seal.co.uk
Tel: 0121 327 5575
Service: 0121 332 6647
Fax: 0121 327 9711
Email: sales@blue-seal.co.uk

International

Moffat Limited
www.moffat.com
Tel: +64 (3) 983 6600
Fax: +64 (3) 983 6660
Email: export@moffat.co.nz

United States

Moffat Inc
www.moffat.com
Tel: 1 800 551 8795
Fax: 336 661 9546
Email: sales@moffat.com

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