



EPF4-25L Electric Pressure Fryer (with pump)

Electric Pressure Fryer

INSTRUCTION MANUAL



Read this manual carefully prior to use.

Technology is subject to change without notice.

Character and usage

The series of EPF4-25L American style pressure fryer that my plant produced absorb the advanced technique from abroad and learn the production process of western chicken frying and traditional Chinese style chicken frying. . It has the characteristics of stainless steel material, use the electronics to adjust time, control temperature and expel the air automatically; it is used to fry chicken, fish, sparerib, mutton, and all kinds of meat and vegetable. This machine is applicable for hotel, guest houses, restaurants, factories, dining room. It has the advantage of low energy consume, free from pollution, convenient usage and high efficiency. It is indeed the newest food machinery equipment in domestic. The machine the oil filter can filter the dirty of the oil efficiently; it is useful to improve the quality of the fried food.

I. Main Technical Parameters

1. Rated Voltage: 3N~415V
2. Rated Frequency: 50Hz
3. Rated Input Power: 15.3kW
4. Rated Working Pressure: 0.085MPa
5. Output: 25kg/h
6. Range of Temperature Control: 90-190℃(adjustable)
7. Electronic Timing: 99.99min (adjustable)
8. Oil Capacity of the Fry: 25L
9. Weight:135kg
10. Overall Dimensions: 463Wx968Dx1210Hmm

II. Installation and Debugging

1. The machine shall be placed at a dry clean and ventilated place. At operation, cushion the movable castor horizontally, make it balanced, and fasten it. The relative humidity of indoor environment shouldn't be too high, otherwise it will decrease the electricity insulation. When necessary, there should be an exhaust device to be installed.

This machine adopts 3N~415V power supply. There shall be a special purpose cutoff installed on the input line front end, and its accessional facilities shall conform to the requirements of the electricity capacity of the machine and ask the eligible technician to install. 4x3+1wire should be connected with ground terminal W, V, U while connecting the three-phase power supply. The specified power of this machine is 13.35kw, ground terminal PE should be connected with high quality ground wire. After checking, close the power switch. It shows "OFF" in the controlling panel and the power is ok and can be used now.

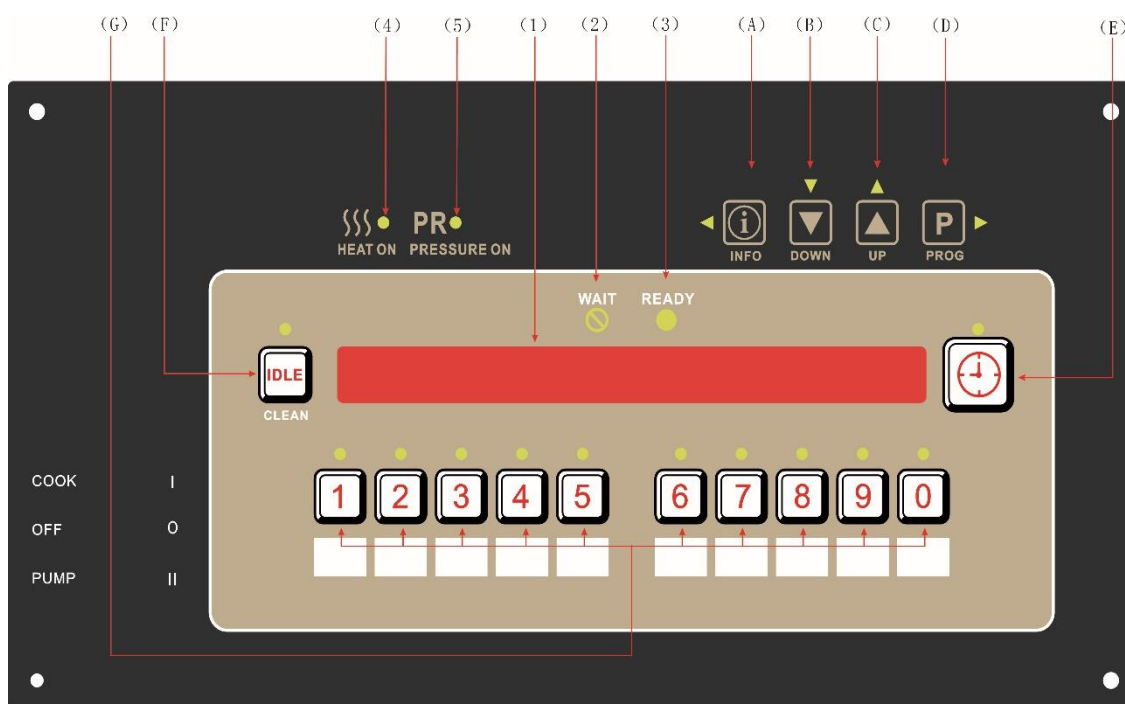
2. The grounding terminal of the machine shall be grounded reliably, its section $\geq 2.5 \text{ mm}^2$. If many machine is working at the same time, an equipotential device should be equipped between each set.
3. During the conveyance of the machine, the vibration will cause the loose or removal of the spare parts, so when installation and debugging, please tighten each loosening parts.
4. Pour oil before heating, and its oil level can't be lower or higher than the oil level line. (In oil level==). It is forbidden to heat if there is no oil in the boiler, otherwise the electro thermal pipe will be burned out.
5. The temperature is set between 150°C and 180°C , the user can set it depending on the production, timing set, cold oil to heat for 20 to 30 min, hot oil to fry 10 to 15 min, before frying the food, the oil temperature must be over 150°C .
6. When cold oil heating, you'd better not lid the cover. Mix up manually the oil continuously to heat it fast and well-proportioned.
7. When its delivery, the pressure of the automatic overflow valve is usually set at 0.07Mpa to 0.09KPa, if the indication of the pressure gauge exceeds 0.09MPa and continues to increase, discharge the air manually, and unbolt moderately the air-release valve to discharge the air, making the air pressure keep at 0.08Mpa to 0.09Mpa.

III. Operation Principle and Process

EPF4-25L Pressure Fryer Operating Instructions

This paper provides basic operating procedures for the EPF4-25L Pressure Fryer Control Panel.

1. Operation keyboard panel diagram (see the figure below)



2. Description of display window and indicator light

Indicator Light (NO.)	Instructions for Use
 [1]	control display window;
WAIT  [2]	waiting indicator;
READY  [3]	done indicator
 HEAT ON [4]	heating indicator;
PR PRESSURE ON [5]	pressure indicator light;

3. Function Key Description

Button (Serial Number)	Instructions for Use
 (A)	information view key;
 (B)	parameter setting minus key;
 (C)	parameter setting plus key;
 (D)	programming key;
 (E)	set the right key;
 (F)	when working, long press this key to enter idle mode; when melting oil, long press this key to enter cleaning mode
 (G)	program group key

4. Off State

When the controller is powered on, it displays "OFF" as the shutdown state.

When the power switch is turned to the oil pump, the controller displays "PUMP", and the oil pump can be turned on to filter the oil.

When the power switch is closed, it enters the power-on state, and the controller

displays "IS POT FILLED" "1=YES 2=NO". Is the fryer full of oil?

Press  key to select "NO", the controller displays "TURN OFF UNTIL FILLED" and turn off the controller until it is filled with oil.

Press  key to select "YES", which means that the heating oil has been installed and can work.

5. Oil Melting Mode

After power on, if the oil temperature exceeds 110°C, it will directly enter the working mode. Otherwise, enter the melt mode. in melt mode

The controller displays "MELT 50°C", "50°C" means the current oil temperature.

At this time, long press any program key to skip the oil melting mode and directly enter the working mode. The controller displays "EXIT MELT?",

"1-YSE 2-NO". press  key to skip the melt mode, press  to cancel.

6. Cleaning Mode

In the oil melting mode, to enter the cleaning mode, long press the key  enter, the controller displays "CLEAN-OUT?"

Press  key to enter cleaning mode, press  to return to melting mode.

Enter the cleaning mode, the controller displays "CLEAN 40°C 5:00". "40°C" indicates the cleaning temperature, and "5:00" indicates the cleaning time. (The cleaning temperature and cleaning time are set by the internal parameters SP-7 and SP-8)

When the oil temperature reaches the cleaning temperature, the countdown starts. When the time is up, the controller displays "CLEAN DONE" and gives an alarm. During the cleaning process, you can temporarily adjust the cleaning temperature by pressing

  the key .

7. Working Mode

When the timer is not started, the controller displays "PROG 01 WT 126°C", the program name of "PROG 01", "WT" means the waiting state has not reached the proper oil temperature, and "126°C" means the current oil temperature. When "RY" is displayed, it means the proper oil temperature has been reached.

At this time, select any edited program group key   , press  key to

start the work and enter the preheating stage, the controller displays "PROG 01 PRE 01:00". "PROG 01" indicates the program group name and "PRE 01:00" indicates the warm-up time. (Refer to parameter editing PRE LOAD for preheating time setting)

After the preheating is over, it will prompt "DROP", indicating that it can be unloaded. At this time, press the key  to start timing work. The controller displays "PROG 01 1 01:00". Among them, "1" represents the first program, and a total of 10 programs can be set.

After the work is over, it will prompt "AT DONE", and the controller will give an alarm. At this time, press the key  to exit the alarm and enter the quality timing state, the controller displays "QU 01:00", indicating that there is still 1 minute left. After the quality time is over, the controller prompts "QU DONE" and alarm, press  to exit, controller displays "FILTER: 3 REMIAN", "3" indicates that the oil needs to be filtered after 3 working.

At special moments in the working process, alarm reminders can be set (see parameter editing ALARM). In addition, load compensation can also be performed for the working time. (see parameter editing LOAD COMP)

8. Idle Mode

If the idle state is used, (refer to the internal parameter SP-4), the idle mode can be entered in a certain working state.

"IDLE" is displayed in idle mode. (Please refer to the internal parameter SP-4A for the heating temperature setting in idle mode)

When in standby, you can manually press the key  to enter the idle mode, you can also set the time to automatically enter the idle mode in standby, and you can also set the oil melting mode to enter the idle mode immediately after the end of the melt mode. (See internal parameters SP-4B, SP-4C for details)

As well as entering idle mode immediately after work is over. (See parameter editing IDLE MODE for details)

9. Oil Filter Lock

After the oil filter lock function is turned on, when the cumulative number of work or the cumulative percentage reaches the upper limit, the controller will display the oil filter lock prompt.

When the filter oil is locked, when the oil temperature exceeds the filter oil temperature, "FILTER LOCK 125°C" will be displayed, and "125°C" indicates the set filter oil temperature. In the oil filter lock state, the oil filter valve switch must be opened to filter the oil, and then restart the machine to work normally. The filter lock function of each program group needs to be turned on in the parameter editing FILTER INC or FILER AFTER.

10. Information Query and Alarm Prompt

Press  key to view the information status

Code	Illustrate
"--106°C--"	actual temperature
"SETPT = 105°C"	set temperature
"FILTER: 0% USED"	Oil filter reminder remaining cycle
"01: 46P WED OCT-06"	time and calendar

Code	Illustrate
E-6 TEMP BREAK	Burnout alarm
E-5 TEMP HIGH	Over temperature alarm
E-15 DRAIN IS OPEN	Drain valve open alarm
FILTER LOCKOUT	Filter lock
FILTER SUGGESTED	Oil filter reminder
CHANGE OIL SOON	oil change reminder

11. Parameter Editing

Press and hold  key for 2 seconds , The controller displays "PROG ENTER CODE" to enter the password 123 to enter the parameter setting of the program group.

After the setting is completed, press  and hold to save and exit. (Group 0~9, press the corresponding program group key to set the parameters of this group)

Code	Illustrate
NAME	program name
PRE LOAD	Preheat time
TIME AT	operating hours
TEMP	Operating temperature
PRESSURE	pressure selection
2 TIME AT....	A total of 10 programs can be set
ALARM-1	Alarm prompt
	reminder type

	Up to 4 can be set: 5 alarm types in total
QUAL TIME	quality time
LOAD COMP	Temperature compensation sensitivity (taking LCOMP REF as the reference point, if the actual temperature is lower than the compensation point temperature, the timing will slow down; if the actual temperature is higher than the compensation point temperature, the timing will be accelerated)
LCOMP REF	temperature compensation point
IDLE MODE	Whether to switch to idle mode at the end of the program
FILTER INC	When the oil filter is in GLOBAL mode, set the parameter FILTER INCL to select the number of times of oil filtering; when the oil filter is in MIXED mode, set the parameter FILTER AFTER how many times

12. Date Setting

Choose CLOCK SET menu, enter the password 123 to enter the set. Press   to adjust, press   the key to change set, press  key to exit after finishing the setting.

Content	Function
C5-1	Year
C5-2	Month
C5-3	Day
C5-4	Hour
C5-5	Minute
C5-6	24 hour/12 hour
C5-7	Second
C5-8	Week

In the time and date setting, the year, month, day, hour, minute and hour system use blinking to indicate the current parameters. month code like

Below: JAN-1, FEB-2, MAR-3, APR-4, MAY-5, JUN-6, JUL-7, AUG-8, SEP-9, OCT-10, NOV-11, DEC-12. The week codes are as follows: MON-Mon, TUE-Two, WED-Wed, THU-Four, FRI-Five, SAT-Six, SUN-Day.

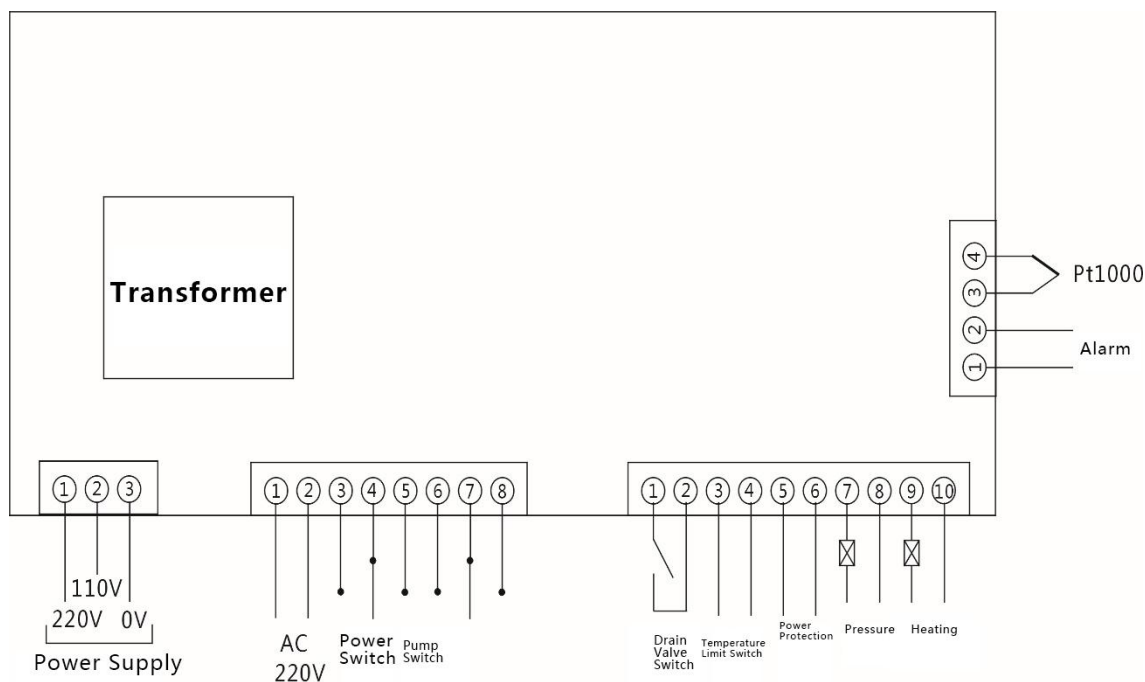
13. Oil Change Reset

Press  and  to enter the REVIEW USAGE interface of oil change reset.

Press **P** to view the accumulated parameters until you enter the RESET-USG interface. In this interface, enter the oil change reset password to reset the oil change accumulation parameters, record the date, and then start accumulating from the beginning. In the oil change interface, press **i** and **P** at the same time to exit. The initial reset password is 123, which can be modified through the internal parameter "SP-12 Modify oil change password".

Content	Function
REVIEW USAGE SINCE NOV-14	Displays the date of the last oil change reset
PWR ON HRS 6	Cumulative heating time
TOTAL CK 20	Cumulative cooking times
OIL WEAR 'A' 40%	Percentage of fuel consumption based on cumulative cooking times
OIL WEAR 'B' 20%	Percentage of fuel consumption by cumulative heating time
USAGE _____	Please enter the oil change reset password here. The password is displayed correctly -USAGE RESET-

14. Oil Change Reset



15. Internal Parameter

Press **P** and hold for 5 seconds, the controller displays L-2, select the PROG menu,

and enter the password 123 to enter the setting.

Code	Illustrate	Factory Default
SP-1	Select temperature units in Celsius or Fahrenheit (°F or °C)	°C
SP-2	System initialization, press and hold the “P” key to initialize, initialize internal parameters	
SP-3	Select the oil melting mode, 1-liquid oil 2-solid oil, in the liquid oil option, the heating is turned on for 12 seconds, and the heating is off for 12 seconds; in the solid oil option, when the temperature is lower than 80°C, the heating is reduced to ON 2 seconds, stop for 14 seconds, over 80°C with liquid oil	SOLID
SP-4	Enable idle mode, the following parameters are not available in NO state:	YSE
SP-4A	Set idle heating temperature 90~190°C (194~374°F)	140
SP-4B	Set the automatic entry idle time OFF~60m, OFF means no automatic idle entry function	60
SP-4C	Enter idle mode after melting oil	YSE
SP-5	There are three situations for selecting the oil filter reminder mode: 1-OFF means no oil filter reminder or locking function; 2-MIXED means that each product sets the oil filter limit separately; 3-GLOBAL means that each product sets the oil filter limit uniformly	OFF
SP-5A	When 2-MIXED, it is the percentage of oil filter reminders (75~100%) When 3-GLOBAL, it is the limit of times of oil filter reminders (1~99)	
SP-5B	Enable filter lock	
SP-5C	When 2-MIXED, it is filter oil lock percentage (100~200%) When 3-GLOBAL, it is filter oil temperature (120~190°C (248~374°F)	
SP-5D	2-MIXED has this parameter, which is the oil filter temperature (120~190°C (248~374°F)	
SP-6	Select the timing start mode, 1-COOK 2-SELECT, in COOK mode, the product key starts directly, the timing key has no start function; in SELECT mode, the product key only selects the product, and the timing key starts the timing	COOK
SP-7	Set the cleaning time, OFF~99min, OFF means to close the cleaning mode	10
SP-8	Set cleaning temperature 40~90°C (104~194°F)	60
SP-9	When the number of frying times reaches or exceeds the upper limit specified by this parameter, it will remind you	1000

	to change the oil, the maximum is 5000, and OFF means to close this function	
SP-10	When the accumulated time of normal heating reaches or exceeds the upper limit specified by this parameter, it will remind you to change the oil, the maximum is 999hr, and OFF means to close this function	200
SP-11	Modify the setting parameter password	
SP-12	Modify the oil change password	

16. Factory Parameter:

Press  and hold for 5 seconds, the controller displays L-2, select the FACTORY menu, and enter the password 0005 to enter the setting.

Code	Illustrate	Factory Default
F-1	Temperature correction (-25~+25) °C	0
F-2	Timing PID temperature proportional coefficient (0~99)	15
F-3	Proportional coefficient of preheating PID temperature (0~99)	35
F-4	Timing PID operation time (0~99)S	0 (=0 means P mode , >0 means PID mode
F-5	Preheating PID operation time (0~99)S	0 (=0 means P mode , >0 means PID mode
F-6	Timing heating output cycle (0~99)S	10
F-7	Preheating heating output cycle (0~99)S	30
F-8	Timing heating output minimum (0~99)S	1
F-9	Preheating heating output minimum (0~99)S	5
F-10	Timing into the proportion of buffer time (according to the heating speed automatic adjustment, maximum 100%, minimum 50%)(1~99)S	10
F-11	The maximum time of preheating into the proportional belt buffer (automatically adjusted according to the heating speed, the maximum is 100%, the minimum is 50%)(1~99)S	20
F-12	Timing advance into the minimum output (0~99)S	0
F-13	Preheating in advance into the minimum output (0~99)S	15
F-14	Temperature dead zone (0~10)°C	2

IV. Method of oil filtering

Open the fryer lid, taking the basket out of the pot. Use a knife or some other tools, like the handle of the basket to remove the residue left to the inside of the pot. Open the vent valve, pouring the oil into the oil pot. If the oil drainage hole is not unobstructed or it is jammed, you can use brush or some other tools to clean up the oil drainage hole to avoid jamming. (Attention, do not use some metal tools that are too hard). When filtering the oil, using the brush to clean up the residue in the pot and fully filtering the oil in the pot. Close the lid of the machine to avoid the splash of the oil and turn off the vent valve. As soon as you make the oil strainer, fabric and connector ok, you can open the Filter Valve and press the power switch down side to start the oil pump, the oil is pullback to the pot of the machine. At this time, the residue in the oil is left in the oil cylinder. After filtering the oil, turning off the Filter Valve, then to make the power switch (functional switch) to the position “0”. Remove the connector for the oil filtering, cleaning up the oil cylinder and change the oil filter bag.

IV. Safety Points for Attention

1. In order to protect people from hurt, the machine can not be used if a grounding device is not equipped. (use 2.5mm² copper wire to contact with the ground bolt)
2. Don't start to heat when there is no oil in frypot or the oil level lower than element, otherwise the elements will be burn. Please don't wash the heating element by cool water until they are cooling, or it will explode
3. Latch the lid before heating. Don't operate the securing hook and draining the oil. Before you open the fryer lid, to make sure there is no pressure in the frypot, that means the pressure gauge shows “0”. After 30 second, you can open the fryer lid to avoid explosion for the pressure.
4. In order to keep the good sealing between fryer pot and fryer lid, do not use handle or some other hard tools to strike the fryer lid and mouth of fryer.
5. The rubber seal of the fryer lid can not be dismantled of yourself. For it may effect the sealing. While it is not working, you should close the fryer lid, but not too tight to avoid the aging of the seals.
6. You should cut off the power if the machine is not working in order to avoid explosion for the wrong operation.

V. Maintenance and Upkeep of the Machine

1. Clean the overflow valve twice weekly, screw the screw lid, and clean the gravity block, making it jump freely and open and close flexibly. Check the general electricity and screws of power line, and joints monthly. If any loose, fasten them to make them contact well and control sensitively.
2. Clean the smear away from the electro thermal pipe in the boiler and cabinet after daily work is over to keep clean and sanitary and enhance the use life span of the machine.

3. After a relatively long time use, the rubber gasket shall be replaced in time if it is found aging and ineffective. Loosen the glue bar fastening screws of four sides on the cover, take out the glue bar from the groove slowly, put new sealing rings into the groove, and fasten the screws.
4. The machine is equipped with overheating protector. If the temperature controller is out of work and the oil temperature is up to 250 °C, temperature limiter can cut off the heating power to make sure of the safe. Operator should check the reason for overheat and try to get rid of it. If needed, you should press the reset key in the “temperature limiter” to restart the machine.

VI. TROUBLESHOOTING

No	problem	Cause	correction
1	Machine not work	Check the electric power on or off, see the fuse whether burn, miss phase or neutral wire not install well.	Reinstall the wire
2	Not Heating	contactor failure, or the wire loose	Reinstall the contactor or have wires tightened
		Time relay failure	Adjust it or reset it
		Panel not work well or the temperature sensor failure	Adjust it or reset them
3	Heating slowly	Weak or burnt out element	Reset the element (checked by multi-meter)
		Elements not meet well	Adjust the wire's contact
4	Not controlling temperature automatically	Temperature sensor failure	Mend it or reset it
		Circle not contacting well	Adjust the wire's contact
5	Not timing	Circle not contacting well	Adjust the wire's contact
		Time Controller not work	Reset the controller
6	Operating pressure too high	Deadweight clogged	Turn unit off and allow fryer to cool to release pressure from frypot; remove deadweight and clean, per cleaning the deadweight valve section
		Exhaust line to stack clogged	Clean Exhaust line to stack
7	Pressure does not build or too low	Pressure gauge failure	Reset it, don't mend it
		Solenoid valve leaking or not closing	Have solenoid valve checked or cleaned
		Lid gasket leaking	Reverse gasket or lid needs adjusted
		Lid open or not latched	Close and latch lid
		Product not fresh or not enough product in fryer	Place proper quantity of fresh product within frypot to generate steam

		Metal shipping spacer not removed from deadweight	Remove shipping spacer
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For your convenience, please scan the QR code and complete the product registration online.

Product Registration

To register your product for warranty with Federal Hospitality Equipment, please fill out this form.

Person Details			
Contact Name:			
Email:			
Contact Number 1:		Contact Number 2:	
The equipment is for	☐ Business Use	Business Name:	
	☐ Residential Use		

Product Details			
<i>Where the equipment is located</i>			
Street Address:			
Suburb:		State:	
Postcode:		Country:	
Purchase From:			
Purchase Date:			
Invoice Number from Whom You Purchased the Equipment:			

Please attach a copy of your invoice with this form.

Model Number		Serial Number	
Model Number		Serial Number	
Model Number		Serial Number	
Model Number		Serial Number	
Model Number		Serial Number	

If you have purchased gas units, please supply certificate of compliance and provide the fully licenced gas fitter details below:

Gas equipment warranty will not be valid until your commissioning certification has been submitted.

Was the gas equipment installed by a certified gas fitter/Plumber?

☐ Yes ☐ No

Please attach the gas commission certification with the form if any.