



Executive standard: IEC 60335-2-37-2017

Freestanding Electric Open Fryer

DGF-26L/DFG-D26L/Auto-D26L

INSTRUCTION MANUAL

Read this manual carefully prior to use.

Technology is subject to change without notice.

Main technical parameters

	DGF-26L	DGF-D26L	Auto-D26L
DIMENSIONS (WxDxH):	400 x 780 x 1160 mm	790 x 780 x 1160 mm	860 x 800 x 1210 mm
CAPACITY:	26 L (21.5 L oil)	2 x 26 L (21.5 L oil)	
TIMER:		00:00 ~ 59:59	
TEMPERATURE:		20 ~ 200°C	
POWER:	14 kW / 415 V / 50 Hz	2 x 14 kW / 415 V / 50 Hz	
WEIGHT:	86 KG	145 KG	197 KG
CONNECTION:		Three-phase four-wire	

SAFETY WARNING

In order to ensure the user's safety and prevent personal injury, electric shock, poisoning, or fire and machine malfunction, please be sure to observe and clarify the following precautions:

1. Please read the instruction manual carefully before use, and keep it safe in case of operator change, future maintenance or other reference.
2. Fully understand and familiarise yourself with the symbols, graphics and warning signs marked on the fryer before use and strictly abide by them.
3. Keep in mind the manual warnings, cautions and other signs attached to the fryer and within the manual.

ANNOTATION:

△ **WARNING** – Ignoring this mark and misusing, can result in personal injury or fire risk.

△ **CAUTION** – Ignoring this mark and misusing, will cause personal injury.

△ **ATTENTION (NOTICE)** – Ignoring this mark and misusing/mis-operation will cause the fryer to malfunction and affect the performance.

WARNING:

1. Please do use air-brake switch correspondent to power rate of this machine.
2. Don't touch power cable with wet hand to avoid possible electrical shock.
3. Don't put power cable under any table or chair or any other hard object, especially don't put cable under any location, which might be under potential hazard of stress of being damaged by sharp corner of metal part. Please also note not to put cable on passageway.
4. Food shall not be too wet for frying as it will cause the hot oil to splash, which might result personal injury.
5. To avoid possible spill of oil by overloading with food, which might result in fire hazard, quantity of food being placed within has to be under suggested limitation.
6. Cable must be changed as soon as scratch, breakage or damage is discovered, or it may result in electrical shock or fire hazard. Replace the power cord with the same type of YCW or YZW flexible oil-resistant soft cable, and the wire diameter should meet the requirements of power consumption.
7. Power switch of all pole disconnection function, fuse shall be fixed nearby for the fryer; grounding end  has to function correctly correspondent to relevant standard and regulation to ensure personal safety. Neglecting the above instruction might result personal injury.
8. Socket, plug and cable have to be correspondent to specific requirement of power rate of this machine. Make sure that power cable is made for Maximum current stated for this machine. Fire hazard may result in working current exceeding capacity of cable fixed.

9. Cover of power unit box shall not be opened or it has to be opened by licensed technician, or it might result in personal injury.
10. The waterproof level is: IPX4. Therefore, it is strictly forbidden to wash with water or flush with jet water. Otherwise, the machine will be seriously damaged, and the risk of personal injury will occur.
11. Frying temperature shall not exceed 200°C, or it would result in fire hazard and food safety problem.
12. The power supply voltage used by the device must match the voltage on the product nameplate. Voltage fluctuations is allowed in range of +5%-10%. Ignoring this, this fryer will not work properly. 3 phases 4 cables to be connected to the machine, neutral line has to be connected correctly.
13. The power plug should be in good contact when plugged into the socket. The middle pole of the three plugs must be well grounded, otherwise risk electric shock.
14. To prevent accidents, unplug the power cord when thunderstorms occur or when it is not in use.

↓

15. Voltage pole  of this machine is located at the bottom of the machine. It is connected with several electrical units to avoid voltage deviation.
16. Disconnect main power switch of power supply line in case connecting, dismantling or unplugging cable.
17. Check connection and control of all electrical components before start machine.
18. All electrical related parts must be installed, wired and serviced by licensed technician.

CAUTION:

1. Do not touch the heated unit to avoid possible injury after machine is connected to power.
2. The machine must be protected from exposure to rain and humid environments.
3. The machine shall not be placed in corrosive environment, shall be protected from vibration and shall not be put upside down.
4. Before using or energising and heating, the cooking oil must be added to the pot. The amount of oil should not exceed the maximum oil level. Disregarding this will cause equipment accidents and risk to personal safety.
5. Keep away from flammable and explosive materials, and from places with open flames.
6. Do not use old oil containing impurities, so as not to lower the boiling point. This will easily cause boiling or excessive soot.

INSTALLATION PRECAUTIONS

Please do not install or store the device in the following locations to avoid malfunctions:

1. Unsteady table or counter.
2. Where there is explosive or flammable substance.
3. Where there is too high or too low temperature, humidity and dust.
4. Where voltage might be unsteady.

5. Where there might be no correct grounding facilities.
6. Where children or handicapped people, people with mental illness may possibly reach.
7. Pay attention to possible pollution lead by frying. Cooker hood shall be fixed wherever fryer locates.

OPERATIONAL PRECAUTIONS

1. The machine should be operated by the designated personnel to master the correct use of equipment. This manual does not apply to persons who are vulnerable, minors or have sensory impairments.
2. The lid should be kept in place to ensure the pot is kept clean, and to preserve heat whilst in use. When adding the lid, please pay attention to ensuring there are no water droplets on the lid, that can drip into the hot oil, causing splashing and injuries.
3. When the pot is in operation, it should not come into contact with untrained users and customers. The countertop and the outer casing of the pot will have a high temperature, and the operator should also be especially careful when handling as to avoid burns.
4. Machine must be moved with care, locating error with care, don't slam or hammer the machine.
5. Once frying is finished, operators should utilise the handle at the top of the basket to help prevent the basket from getting too hot. A hook is placed outside the pot to allow you to hang the basket above to filter out the remaining oil. The basket can be fried directly in the pot, but it is necessary to prevent the suspended matter from clogging the exhaust device.
6. The maximum working temperature of the fryer is 200°C. When the temperature control fails, or the oil temperature exceeds 230°C, the over-temperature protector (temperature limiter/high-limit thermostat) will kick in, and the heating power will automatically be cut off. This protector will need to be reset manually and is located at the bottom front of the pot. Only when the oil temperature is cooled to below 150°C, can the reset button be pressed to restart the electric heating.
7. It is recommended to wear insulated gloves when operating the machine to avoid burns and other serious injuries.

PRECAUTIONS WHEN FAULT OR ABNORMAL CONDITIONS OCCUR

1. If the fault or abnormal situation occurs, please stop using the device, disconnect it from the power supply.
2. Please do not use the fryer when it is in an abnormal state. Do not disassemble, repair or perform maintenance as specified in the manual. Other maintenance and

debugging should be carried out by certified professionals to avoid electric shock, severe injuries and greater malfunction.

- When the oil leak is found, cease using the device immediately, and have employ a qualified engineer to review and repair.

CLEANING PRECAUTIONS

The pot body of the fryer is moulded by aluminium and requires cleaning every day after use. If not cleaned, the oil stains and sediments left are prone to coking, and this is very difficult to clean and remove later.

The inside of the fryer should be cleaned daily. If left, oil and breading deposits can become burnt on and be very difficult to clean.

- When cleaning the fryer, fill 3/4 way with water and add dishwashing detergent. Whilst it is still warm, use a hard bristle brush or a cleaning ball to clean the inside, but do not use hard cleaning tool (metal cleaning ball) to avoid damage to the inner pot.
- When cleaning, be sure the unit is switched off and there is no power on, otherwise the material inside will heat up or cause the pan to overheat and get burnt.
- Beware of using chemical cleaners that are suitable for use with aluminium. Corrosion can occur with many products. Particularly those containing caustic soda.
Hamoki cannot accept responsibility for damage caused using corrosive cleaning products.
- Be careful when cleaning the drainpipe and drain valve. There will be debris in the drainpipe. Before cleaning the drainpipe, the drain valve should be fully open, taking care not to damage the ball valve or its seal.
- Be careful to remove all the water and any remains of cleaning materials before use.
- Clean the outside of the cabinet with a damp cloth and detergent. Abrasive cleaning products such as wire wool and scouring pads will scratch the finish.
- The fryer is designed to be splash proof. On no account should you use a water jet or a steam jet on the cabinet. If it is suspected that the control circuit has been affected by water, switch off at the control circuit has been affected by water, switch off at the mains, and leave the fryer in a warm place to dry out. Do not wash in water before cleaning.

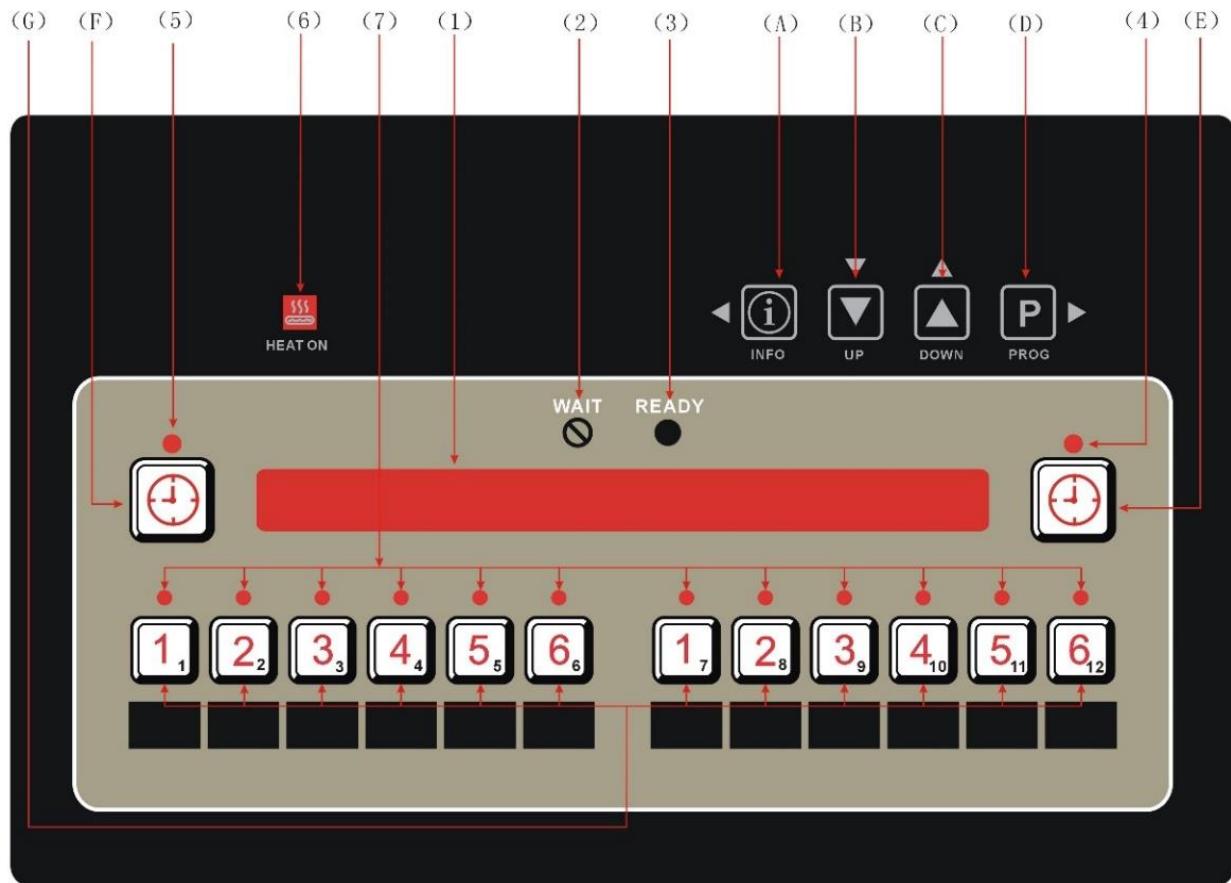
Before re-energizing after damp, a qualified electrician is required to check the electrical insulation degree of the fryer, and then reopen after confirming correctness, otherwise it will be dangerous to use.

BEFORE USE

- Check if power is firmly connected, according to installation guide.

2. Proper height of oil level is expected during operation, oil level shall be in between "MIN" and "MAX" mark in the machine.

CONTROL PANEL OPERATION INSTRUCTIONS



INDICATOR LIGHT (NO.)	INSTRUCTIONS FOR USE
[1]	control display window;
WAIT [2]	waiting indicator;
READY [3]	waiting done indicator
[4]	right basket running indicator;
[5]	left basket running indicator;
[6]	heating indicator;
[7]	program indicator;
(A)	information key/left shift key;

	(B)	plus key;
	(C)	minus key;
	(D)	program key/right key
	(E)	right basket run key
	(F)	left basket run key
	(G)	program key

BASIC OPERATING PROCEDURES

POWER OFF: When the controller is powered on, it will display "OFF". After the controller is fully lit and reset, it will display "FRYER CONTROLLER" and the fryer controller will enter the ON state.

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.

After booting, if the temperature exceeds 110°C, it will directly enter the working mode. Otherwise, enter the melt mode. In oil melting mode, long press the workgroup key to directly enter the work mode. The digital tube displays MELT EXIT AT 110°C as the setting temperature for oil-dissolving, MELT 56°C is actual temperature. Enter idle mode after melting oil.

Press the number key  ~  to select a programme  ~  for the

left basket  ~  for the right basket.

Press  key to start the work, the digital window starts to count down, when the time is up, the controller flashes *DONE*. Press  key to reset.



STANDBY MODE: Press the key  to display "IDLE---", which means the idle mode is turned on. (Idle mode is not required, internal parameter SP-8 is set to ON).

CLEAN-OUT MODE: Long press the key  to enter the cleaning mode. After the temperature reaches the cleaning temperature, the timer starts. When the time is up, the controller alarms and needs to be shut down and exited. (Internal parameters SP-20, SP-21 set the cleaning time and cleaning temperature).

PRODUCT PROGRAMME MODE: Press and hold the key  for 3 seconds, the controller displays "PROG -----ENTER CODE" to enter the password; 1,1,1 to enter the programme setting menu. Controller displays "FOR OPTIONS SELECT PRODUCT...PRESS "PROG DOWN"

After selecting the programme, you want to set (groups 1~12, press the corresponding key to display the corresponding value to select group).

Press  key and the controller will display "NAME "-----" to enter the name of the program number, up to 7 letters.

Press   keys to select a letter, and the corresponding letter flashes to indicate that the letter is to be modified.

Press   to modify and switch, press the key  to save after setting.

If no letter flashes, press key  to enter program parameter setting.

The controller displays the specified parameters, press the   key to adjust, and press the key   to change the parameters up and down.

CODE	DESCRIPTION
COOK TIME	Operating hours
TEMP	Operating temperature
COOK ID	Programme mark
LOAD COMP	Heating compensation
LCOMP REF	Heating compensation temperature point
ALARM-1 AT	Alarm time
ALARM-1 TYPE	Alarm type: 4 types of alarm time
QUALITY TMR	Quality time
FILTER AFTER/	Oil filter setting; when the oil filter reminder mode SP-9 is MIXED, set the parameter FILTER AFTER how many times; when the oil filter reminder mode SP-9 is GLOBAL, set the parameter FILTER INCL ON or OFF

INFORMATION VIEW: Press  to check the information,

CODE	DESCRIPTION
--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

MENU FUNCTION: Press and hold  key for 5 seconds, the controller displays "L-2". Press  key to choose the menu, enter password 1,1,1, press  to enter the set.

CODE	DESCRIPTION
SP PROG	Internal parameters
CLOCK SET	time setting
FACTORY	Factory parameters

CLOCK SET: Choose CLOCK SET menu, enter the password 1,1,1 to enter the time setting. The controller displays the specified parameters, press  to adjust,

press  to change the parameters up and down.

After setting, long press  to save and exit.

CODE	DESCRIPTION
C5-1	Year
C5-2	Month
C5-3	Day
C5-4	Hour
C5-5	Minutes
C5-6	24 hour clock/12 hour clock
C5-7	Second
C5-8	Week

ALARM:

CODE	DESCRIPTION
E-6 PT BREAK	Burnout alarm
E-8 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

FILTER LOCK: If the oil filter function is used, the oil filter prompt will appear when the number of frying or the cumulative percentage reaches the reminder time limit. If the oil filter lock function is used, when the number of times of frying or the cumulative percentage reaches the reminder time limit, the oil filter lock state will be entered. At this time, it will not work properly. You need to open the oil change valve to perform oil change work. Oil lock resets automatically.

OIL CHANGE RESET: Press the INFO+PROG keys at the same time on the working interface to enter the oil change reset interface. Then press the PROG key to view the accumulated parameters one by one. On the RESET-USG interface, enter the reset password 18 or open the oil change valve to change the oil to reset the oil change parameters and record the time. Automatically exit after 10 seconds of inactivity or press INFO+PROG simultaneously to exit.

CODE	DESCRIPTION
REVIEW USAGE	Date of last oil change reset
PWR ON HRS	Cumulative working time
TOTAL CK	Cumulative cooking times
QUIT COOK	Cumulative frying termination times
OIL WEAR A	The percentage of fuel consumption calculated from the cumulative number of cooking times
OIL WEAR B	Percentage of fuel consumption calculated from cumulative cooking hours
RESET USG	Reset password output

HEATING METHOD:

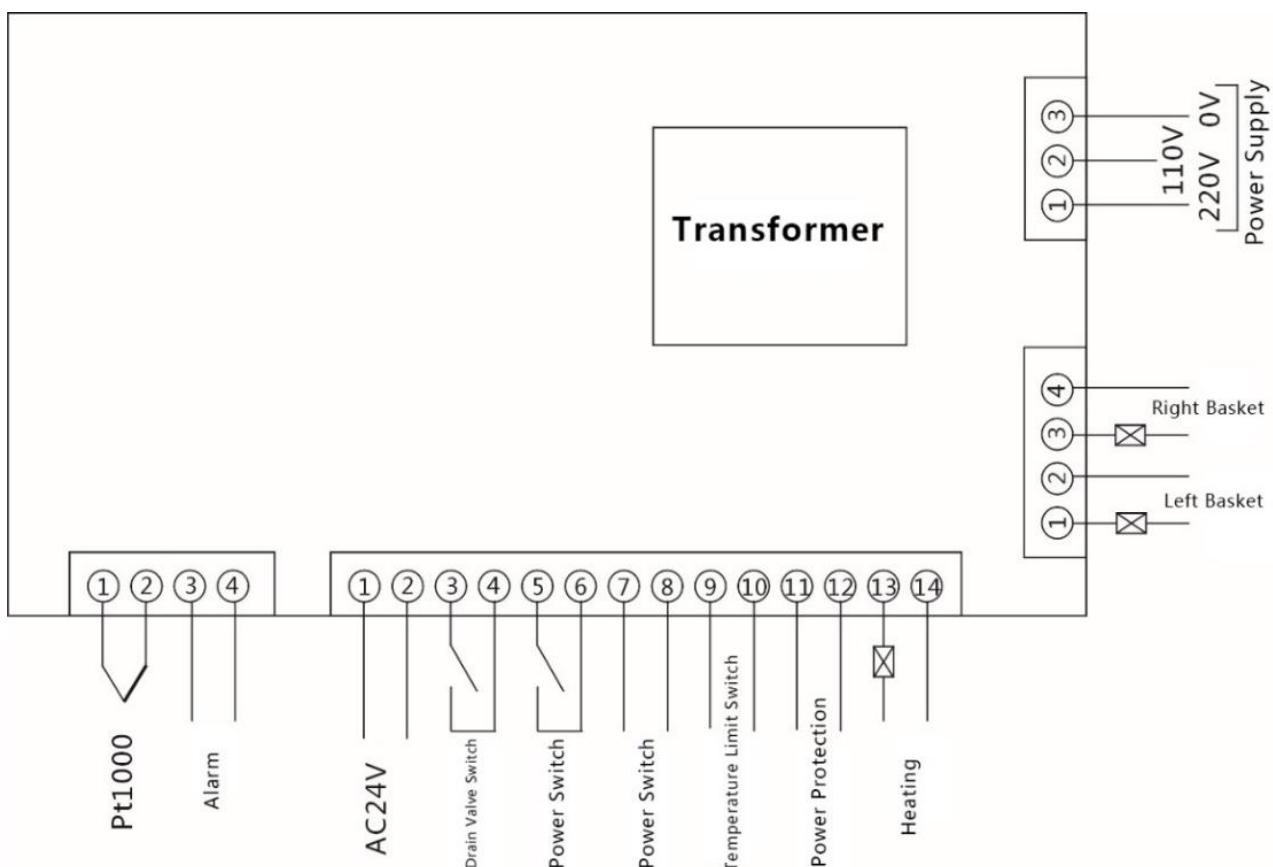
1. The heating method of liquid oil is fixed time heating, continuous heating for 12S, and stop for 12S.
2. The heating method of solid oil is lower than 80°C, heating for 4 seconds, and stopping for 14 seconds; higher than 80°C, it is the same as liquid oil.

Cleaning: The heating method is the same as that of liquid oil heating.

Idle mode and working mode: The heating mode is PID heating.

Heating compensation mode: The heating method is position heating, the temperature is lower than the compensation point, and the temperature exceeds the compensation point to PID heating.

WIRING DIAGRAM:



INTERNAL PARAMETERS: Select the SP PROG menu, enter the password 1,1,1, and enter the internal parameter setting. The controller displays the specified parameters, press adjust, press to change the parameters.

After setting is completed, press and hold key to save and exit.

PARAMETER SETTING

CODE	DESCRIPTION	RANGE
SP-1	temperature unit selection °F or °C	
SP-2	no such function	
SP-3	no such function	
SP-4	no such function	
SP-5	no such function	
SP-6	no such function	
SP-7	type of melt	1、LIQ 2、SOLID
SP-8	Whether to use the idle mode function	YSE
SP-8A	Idle mode set temperature	140
SP-8B	Time to enter idle mode automatically (min)	60

SP-8C	Enter idle mode when oil is melted	YSE
SP-9	oil filter	1. OFF 2. MIXED, 3. GLOBAL
SP-9A	Percentage of oil filter reminder	75%
SP-9B	Is the oil filter unlocked?	YES
SP-9C	Filter lock percentage	100%
SP-9D	Operating temperature with oil filter locked	121
SP-10	Program selection key function	1. COOK 2. 2. SELECT
SP-11	no such function	
SP-12	no such function	
SP-13	Basket selection	1 BSKT , 2 BSKT
SP-14	no such function	
SP-15	no such function	
SP-16	no such function	
SP-17	oil changes	
SP-18	oil change time	
SP-19	no such function	
SP-20	cleaning time	10
SP-21	cleaning temperature	60

FACTORY PARAMETERS

Select the FACTORY menu, enter the password 1,1,1, the digital tube displays “0000”, enter the password “5” and press  to enter the setting. The controller displays the specified parameters, press   to adjust, press   to change the parameter. After setting is completed, press  and hold button to save and exit.

TIMING MODE TEMPERATURE CONTROL PARAMETERS

Code	Description	Range	Factory Default
F-1 TEMP CORRECT	temperature correction	(-25~+25) °C	0
F-2 TEMP PROPORTION	PID temperature proportional coefficient	(0~99) °C	10 (0= bit type heating)
F-3 PID CYCLE TIME	PID operation time	(0~99) S	0 (1 = PID control, 0 = P control)
F-4 OUTPUT CYCLE TIME	Heating output cycle	(0~99) S	30

F-5 OUTPUT MIN TIME	Minimum heating output	(0~99) S	5
F-6 TEMP CONTROL DEAD	temperature dead zone	(0~10) °C	2

PREHEAT/IDLE MODE TEMPERATURE CONTROL PARAMETERS

F-7 TEMP PROPORTION	PID temperature proportional coefficient	(0~99) °C	40(0= bit type heating)
F-8 PID CYCLE TIME	PID operation time	(0~99) S	0 (1 = PID control, 0 = P control)
F-9 OUTPUT CYCLE TIME	Heating output cycle	(0~99) S	30
F-10 OUTPUT MIN TIME	Minimum heating output	(0~99) S	1

INITIALISATION PARAMETERS

Select the FACTORY menu, enter the password 111, the digital tube displays 0000, and press  key to initialize all parameters after entering 18.

OTHER INSTRUCTION FOR OPERATIONS

1. Take off lid if it is detachable, cover pot when cook finishes.
2. Cut off power when fryer is not in use to ensure safety.
3. Cut off power; wait until oil inside of fryer cools down before cleaning up oil from pot. Put oil sink under the fryer. Open oil relief valve, same when installation is processed.
4. To make sure that the fryer is safe and durable, users shall clean residual in oil and contaminations on heaters to ensure oil and heater functions correctly and in clean status. Use may set oil filtration procedure in control panel and follow the procedure when oil filtration is processed.
5. An oil filter pump is installed at the rear and bottom of the machine. If oil needs to be filtered, close the oil drain valve, press the pump oil switch on the front panel to the "I" position, and open the oil release valve handle switch to start oil filtering. In order to clean the oil and remove the dregs, the oil filter should be covered with clean oil filter paper, and a new oil filter paper should be replaced each time it is used, please refer to the " Oil filter paper placement diagram" section.
6. Power shall be cut off as soon as we find pump motor can't be started. The reason might be pump head is clogged by oil residuals. In this case pump head shall be dissemble for cleaning, motor maybe damaged when it can't start for a period of

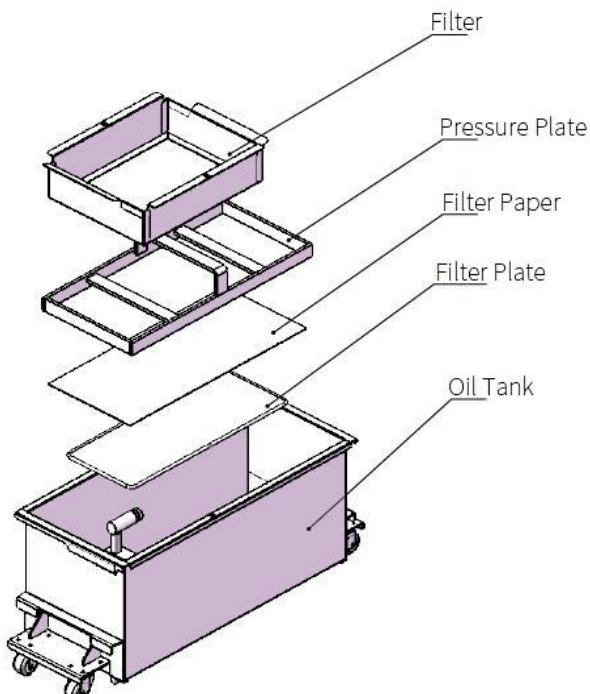
time. For the disassembly of oil pump, please refer to the "Oil pump diagram" section.

7. Pay attention to oil level when oil is filled, oil level filled shall be controlled in between top and bottom limit.
8. It is strictly forbidden to pump oil without oil filter paper installed.

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 are loose, fasten them.
2. Clean smear away from the electro thermal pipe in the boiler and cabinet after daily work is over, to keep clean and sanitary and enhance life span of the machine.
3. After a period of long time use, the rubber gasket will need to be replaced if 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 overheating and try to resolve. If needed, you should press the reset key in the temperature limiter to restart the machine.

OIL FILTER PAPER PLACEMENT DIAGRAM



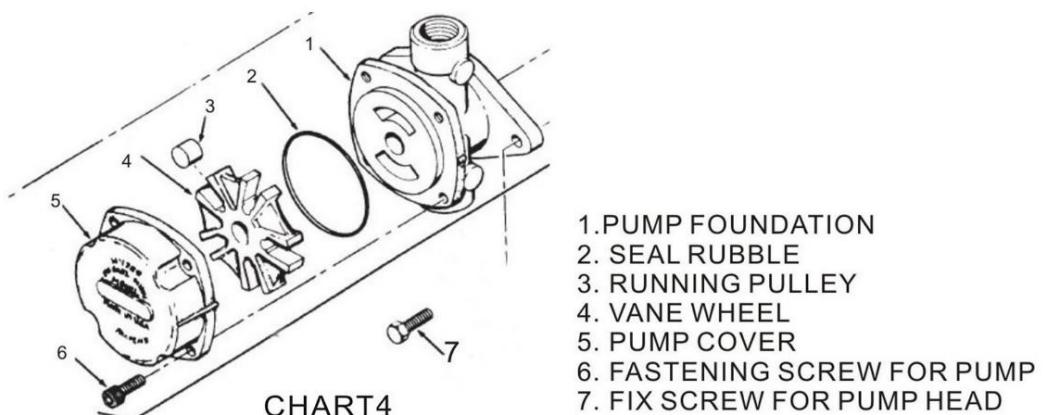
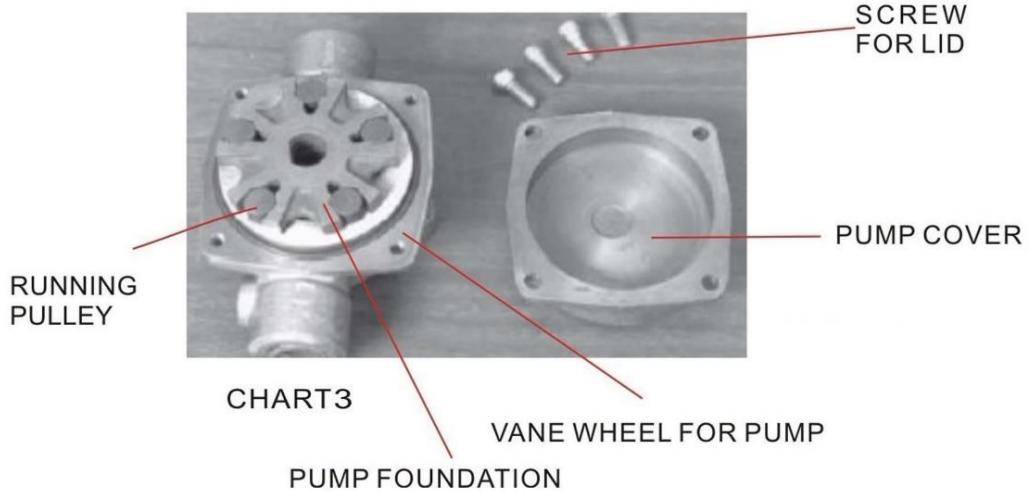
OIL PUMP DIAGRAM



PUMP HEAD IS THE MAIN PART FOR OIL PUMP IT NEEDS TO BE CLEANED AND KEPT MAINTENANCE DAILY. WHEN YOU DISASSEMBLE IT, FOLLOW UP THE FOLLOWING CHART

CHART2

DISASSEMBLE THE OIL PUMP COVER



Electric Principle Diagram

