

Executive standard: IEC60335-2-37.2002

OFE321 (OFG321) Series

Open Fryer

INSTRUCTION MANUAL

Read this manual carefully prior to use.

Technology is subject to change without notice.

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I . Electric and gas open fryer safety precautions

In order to prevent injuries, electric shock or fire and machine troubles, please observe the following precautions:

Before using the machine, please read this instruction manual and kept it well, so that you can refer to it during using or inquiring.

Please carefully read and fully understood the machine on the marking symbols and signs and comply with it strictly.

Notes about the warnings, warns and noting sign in the instruction manual and on the machine.

WARNING Ignore this mark, misoperation will cause personal injury or fire danger.

WARNING Ignore this mark, misoperation will cause Personal injury.


ATTENTION Ignore this mark, misoperation will cause the machine failure, affect the use performance

WARNING

1. Be sure to use air switch which match with the machine's specified power.
2. Please do not use your wet hand to touch the power line.
3. Do not put power line under the tables, chairs or other hard compression facilities, especially the sharp edges of metal
4. The power line is easily damaged under pressed place. Specially, you can't put the power line on the passage.
5. When frying food, food should not be too wet. Too much water will cause oil splash and hurt people.

WARNING

5. The food you fried each time should not be too much. The quantity must be proper to prevent fire disaster caused by oil spilling.
6. Once you found the power line damaged or scratched, it should be replaced immediately. Otherwise, it may cause electric shock or fire. When you change it, YCW model and YZW model flexible oil soft cable is suggested, Wire diameter must meet the electrical specified power requirements.
7. The user needs to install a power switch which can cut off the electric fully

near the equipment. And power safety wire or fuse also need to be equipped. To ensure use the electric safely and security of the person, the ground terminal  must be connected with ground wire which is high performance and met with the safety regulation. The one who ignore this rule, an accident which loss of life will happen.

8. The socket and the power line that connecting into the switches must meet with the electrical power requirements for machine. Make sure the power cable is able to withstand the equipment's maximum current. If the using current exceeds the power line's capacity, a fire disaster will be caused.

9. Don't open the electric box cover. If needed, it should be opened by a qualified electrician operator, or the danger of inquiry.

10. The equipment is ordinary waterproof appliance with waterproof grade: IXP3. So don't washing it with flood of water or spraying waters, or it will cause person casualties and serious damage to the machine.


11. The oil temperature shall not be more than 200 °C, if not fire will be caused. It will also affect the taste of food, and even affect the hygiene and safety of food.

12. The electric voltage the equipment used must be in accordance with the voltage that listed in the date plate. Allowable voltage fluctuation: +5%-+10%, Ignore this rule can't use the equipment normally. (Air switch is suggested to be used)

1. If you use the power supply plug, when you insert it into the socket, please make sure it is connected quite good, if not, it may cause a fire.

2. In order to prevent accidents, you need to unplug the plug in thunder thunderstorm season or when you don't use it.

3. When you unplug the plug, your hands should be dry enough. You'd better not pull the power wire, otherwise the power line will break off.

4. The equipotent connection terminal  is in the back side. If a numbers of equipments is using in the same time, it should be connected with each other in order to avoid potential difference and affect the safety of using.

5. When connect, remove or pull the plug, you should disconnect the general power supply first.

6. Before starting up the equipment, you should check all the electronic components.

7. Please ask a qualified electrician for installation, electrical connections and repair

ATTENTION

8. When the machine is heating, your hands are not allowed to touch the heating elements inside the pot in case of scalded.

9. This equipment should be prevented from rain and moisture
10. It can't be placed in a corrosive place. And you should prevent it from shaking. Put it inverted is not allowed.
11. You should pour the liquid edible oil into the pot before using or power on. The oil level should be higher than the "MIN" level line, But not over the "MAX" level line, Otherwise, an accidents will be caused and affect life safety
12. Be far away from inflammable and explosive goods and keep far away from the open fire place.
13. The second hand oil that full of impurities is not suggested to be used. It may reduce the boiling point, resulting in excessive smoke and easily boiling.

Installation notes

ATTENTION

Please do not put or leave this equipment in the following location, so as to avoid the misoperation failures

1. The unsteady table or counter
2. The place that the temperature is too high or too low.
3. The place that the humidity is too large and the dust is too low.
4. The place that the supply voltage is unstable
5. The place that there is no good grounding device
6. The place that children or juveniles and physical senses handicapped people can easily touch
7. Pay attention to the environmental pollution. A discharge smoking device should be installed in the place that the equipment located.

Operation note

ATTENTION

1. The equipment should be operated by designated personnel who master the equipment's instruction manual skillfully. This manual is not suitable for people who are not quite well in physical sense and children.
2. The lid is equipped for the pot's clean and keeping warm inside. When you close the lid, make sure there is no water-drop on the lid in case of dropping in the hot oil, splashing out and hurt people.
3. When the fryer is under working, it can't be touched by customers. If not, the customer is easily hurt.
4. Please be careful when you move the equipment. When it is suddenly breakdown, check it carefully and beating is not allowed.
5. The handle for the basket is at the back side. When it is finished frying, lift the basket by the handle, hanging it on the lid and filter out the remaining oil. If you fire some big food, you can put it directly into the pot.

- The maximum temperature of the equipment is 200°C. When temperature controller is damaged, the oil temperature go up to 230 °C , the overtemperature protection device will work now. It will cut the heating power supply automatically. You should reset it by hand. You can only reset it when the oil temperature is go down to 150°C and now the equipment is heating again.

Faults or abnormal situation notes

WARNING

- When the equipment is suddenly breakdown or some abnormal situation has happened, stop using the machine immediately and cut off the power supply. You must contact with the factory you bought from and tell them your equipment's name, model and the faults has happened. Then the problems can be solved in time.
- If the equipment is not in a good situation, don't use it. Don't dismantle and repair it by yourself except the daily maintenance. Other repair work should be done by qualified technicians. If not, electric shock or some big accident will be happened.
- You should stop using the equipment if oil is leaking. Contact with the distributors or ask some people who have experience in repairing.

II .Main technical parameters

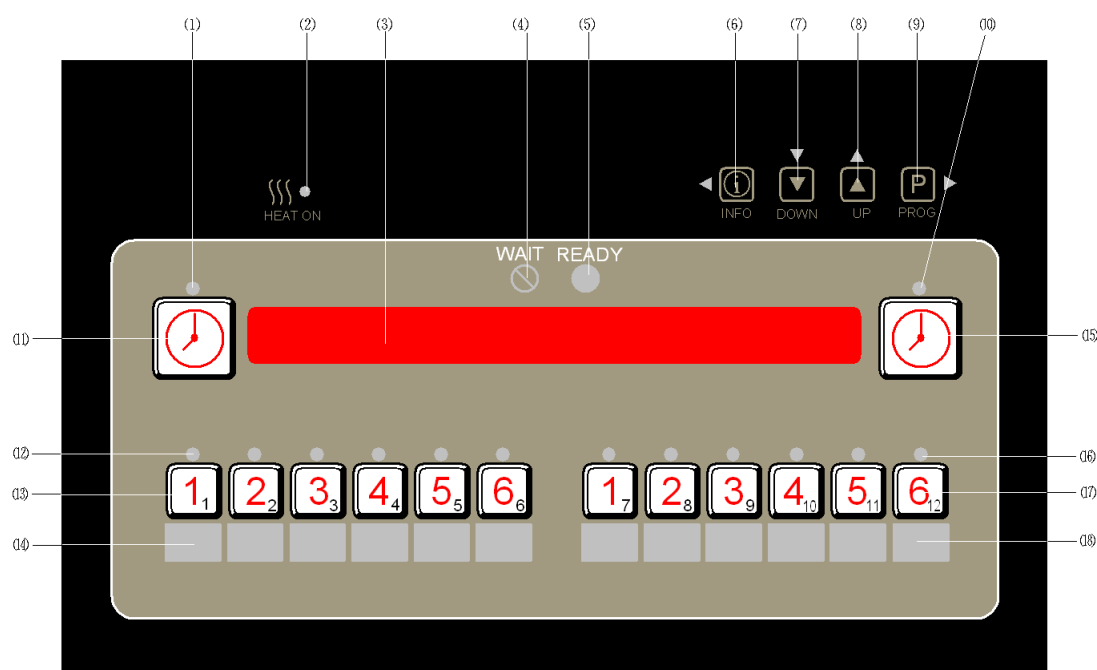
model	OFE-321	OFE-322	OFG-321	OFG-322
Parameter				
Specified voltage	~3N400V	~3N400V	~220V	~220V
Rated input power	14.2kw	14.2+13.5kw	700W	900W
Temperature range	Room temperature-200°C	Room temperature -200°C	50-200°C	50-200°C
capacity	25L	25L+25L	25L	25L+25L
Specified frequency	50Hz	50Hz	50Hz	

Instructions for use

1. Make sure the power installation is normal and check one more time according to the installation notes.
2. When frying food, make sure the oil level in the frying pot is suitable. Keep it between “MIN” and “MAX” level. The minimum oil level should be 2 or 3 mm higher than heating elements.

III .Controlling panel operation instruction for OFE-321/322 Open Fryer

1. Panel description



- (1) Timer indicator lamp on the left side. When timing, it is light.
- (2) Heating indicator lamp. When heating, it is light
- (3) Information display window shows the related parameters for setting and working
- (4) Wait indicator lamp. When the heating temperature is not reach to the required working temperature, it is light. If it is 3°C lower than the setting temperature, it turns to be dark.
- (5) Ready indicator lamp. When the heating temperature is 3°C lower than the setting temperature, it is light.
- (6) Information Inquiry button which can query related working parameters information. The information displays in information display window.
- (7) “+” key for message items or parameter setting
- (8) “-“ key for message items or parameter setting
- (9) Parameter setting key, press it at least 3 seconds then you can go into parameter setting status.
- (10) Timer indicator lamp on the right side. When timing, it is light.

- (11) Timer start key on the left side, press it one time, the timer is starting working.
- (12) 1-6 program indicator lamps on the left side, it is light when you choose each program.
- (13) 1-6 program button on the left side, you can choose each program by pressing each button.
- (14) Instruction window for program items on the left side. When it is noted, it shows the product name of each program.
- (15) Timer start key on the right side, press it one time, the timer is starting working.
- (16) 1-6 program indicator lamps on the right side, it is light when you choose each program
- (17) 1-6 program button on the right side, you can choose each program by pressing each button.
- (18) Instruction window for program items on the right side. When it is noted, it shows the product name of each program.

2. Information services

Press the (6) "i" button again and again, information window displays successively as following:

- (1) "SETPT" ----- Set temperature
- (2) "CURR TEMP"----- Actual temperature
- (3) "CLOCK"-----Present time

3. Parameter setting

Press the "P" key more than 3 second, and then go into parameter setting status. Information window displays as following:

"PROD"----- Please select the program number, you can choose the program 1-6 by press"(7)" or "(8)", then press (9) "P" key. Information window displays:

"SETPT"----- Set temperature (Temperature range0—200. Press (7) or (8), Plus and minus temperature, then press (9) "P" key, information window displays:

"SETTIME" -----set timer time, (time range 0----59min 59 sec), Plus or minus time parameter by press (7) or (8), after finish setting the parameter, press (9)"P" for quite a long time, then you quit the parameter setting status.

(Note:1~3 program item can only set one temperature and one time which means the left one and the right one's parameter is same. Program 4~6 can set the time separately for the left and right side. The information window displays" SETTIME1" and "SETTIME2" to show the different setting time at left and right.

4. Clock set

Press (6) "i" key for more than 3 second when the equipment is cutoff, then you can set present clock.

5. Working process

Starting up the machine, information window displays:

“OIL FILLED 1-YES”----- The pot is full of oil or not? Press “1” show it is filled, after press “1”, information window displays:

“MELTING 1- EXIT” ----- Melting the oil or not? Quit melting oil by press “1” key, if not controlling panel is going to heat in melt oil state. When the temperature is reach to 110 °C , it will quit the melting oil progress, information window displays:

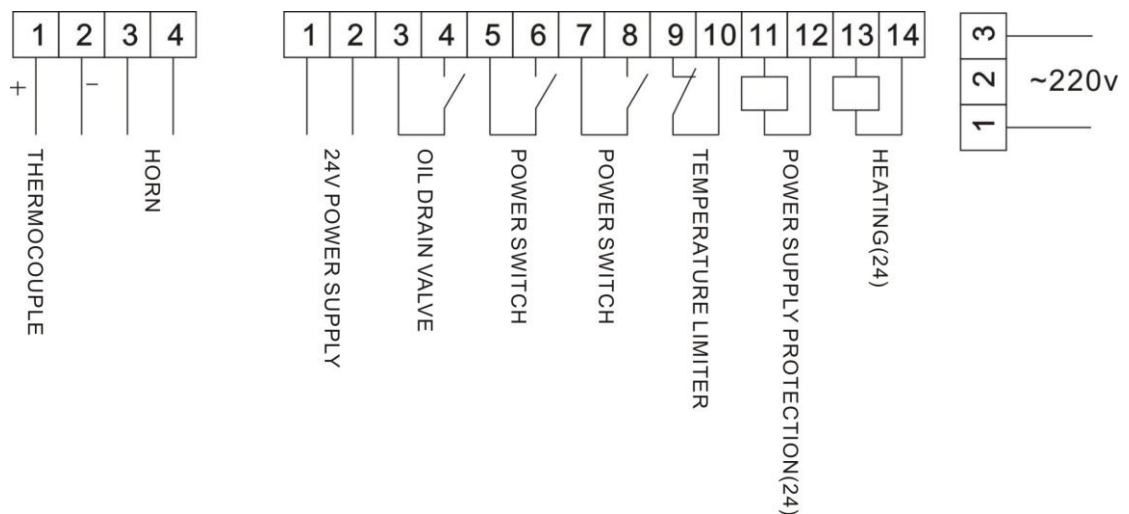
“ WAITING ” ----It shows waiting. Wait lamp is light, the controlling panel enter into the normal heating state. When temperature is 3 °C lower than the setting temperature, enter into the ready state. The ready lamp is light and shows you it can go on working now.

6. Warning

(1) Temperature: The temperature window displays “-----” buzzer and alarm is warning continuously.

(2) Setting time is over: the time window displays “donE”, buzzer and alarm is warning continuously.

7. Connection diagram



8. The internal parameter setting

Press P key, then it will be in Password setting status”----0000----“

Input password “0005” Press P key, then it will be in internal parameter setting status. Now you can choose different parameter by press “P” key; it will quit if you don’t press the key for 20 seconds. After setting, press P key to quit

perature proportion (0~99) Set it 0 means two digits control the factory valve:15

SETDB: Heating dead zone (0~9.9) Dead zone downward the factory valve: 2.0

SETTCM: Temperature calculation (0~1) 0: Proportional control 1: PID the factory valve:1

MELTOUT: Melting oil heating output value (0~100) % the factory valve:50

SETTOC: The temperature output mode (0-3) 0: Electric relay output cycle is 30S
 1: Electric relay output cycle is 40S
 2: Electric relay output cycle is 50S
 3: Electric relay output cycle is 60S the factory
 valve: 0

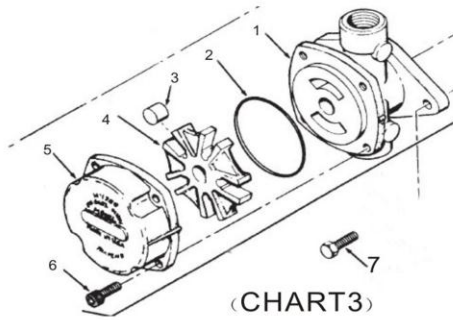
SETFILN: oil filtering frequency (0-999) 0: nonuse the factory valve: 10
 SETCF: Celsius Fahrenheit temperature switchover (°C/F) the factory valve: °C
 SETMELT: Melting temperature (0-220) °C/(0-428) F the factory valve: 110°C
 LOADCOMP: Time amending ratio (ON/OFF) OFF: nonuse
 SETRT: Temperature amending (-99~99) the factory value: 0
 SETTMAX: The highest temperature setting(0~220)°C/ (0-428) F the factory valve:200°C
 SETHP: Tem the factory valve: OFF

9. The lid is movable. It can be removed when using. After using. Close it well.
10. When the open fryer is not in use, cut off the power supply to ensure the safety.
11. If you want to clean and drain out the oil in the pot, cut off the power supply first. Equip the oil tank well under the pot, when the oil temperature is near to the ordinary temperature, open the drain valve and clean it. The methods you can refer to Installation Notes (10).
12. In order to make sure the open fryer's safety and durability, the user should clean the oil residue and the dirt on the heating elements regularly, which can keep the oil clean and the heating element is heating normally for quite a long time. You need to set the detailed filtering program well in advance on the controlling panel. When you want to clean, the controlling panel will remind you at that time.
13. On the back side, an oil pump is equipped in lower parts. If you want filter the oil, turn off the drain valve first. Press the "PUMP" button on the controlling panel to ON position, now you can start filtering the oil now. To make sure the oil's clean and filter up the residue, a clean filter envelop should be equipped in oil-filter screen. You should change the filter envelop every time you are filtering. When you turn on the switch and the pump can't start up, you must turn off the power immediately. The pump head may get stuck or the oil in the pot may get frozen. At this time, you must take the cover for the pump head and clean it, if it can't start up for a long time, the motor will burnt out. Dismounting Illustration you can refer to (1-4).



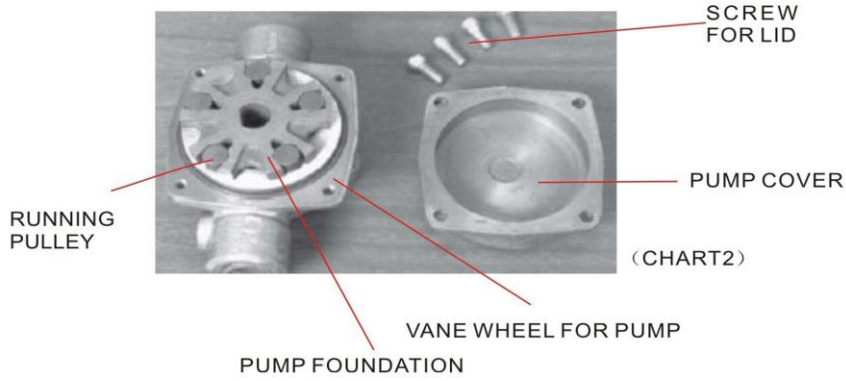
PUMP HEAD IS THE MAIN PART FOR OIL PUMP IT NEEDS TO BE CLEANED AND KEPT MAINTENANCE DAILY. WHEN YOU DISASSEMBLE IT, FOLLOW UP THE FOLLOWING CHART

(CHART 1)
DISASSEMBLE THE OIL PUMP COVER



- 1. PUMP FOUNDATION
- 2. SEAL RUBBLE
- 3. RUNNING PULLEY
- 4. VANE WHEEL
- 5. PUMP COVER
- 6. FASTENING SCREW FOR PUMP
- 7. FIX SCREW FOR PUMP HEAD

(CHART3)



(CHART2)

ELECTRONIC CONNECTION BOX



OIL PIPE LINE

MOTOR

(CHART4)

OIL PUMP HEAD

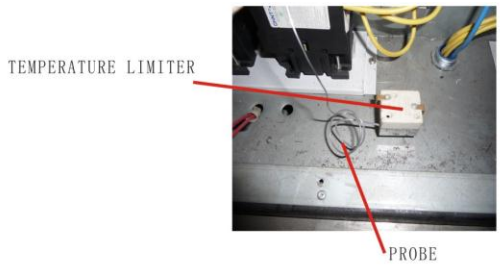


图5

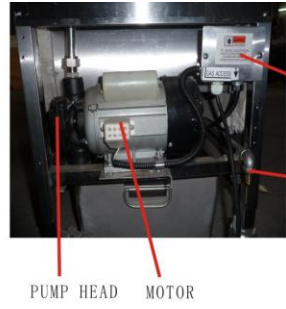


图6

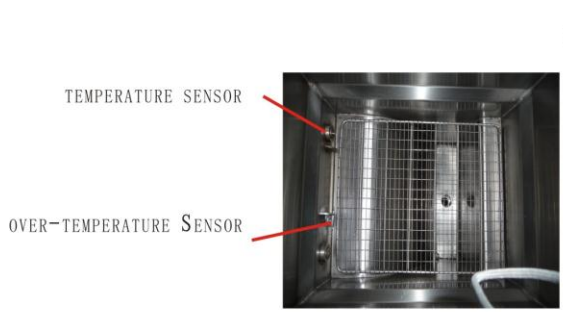


图7

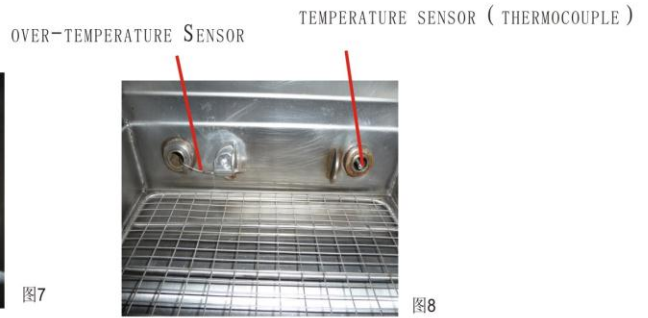


图8

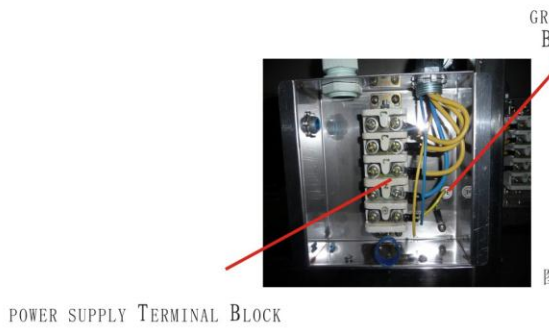


图9

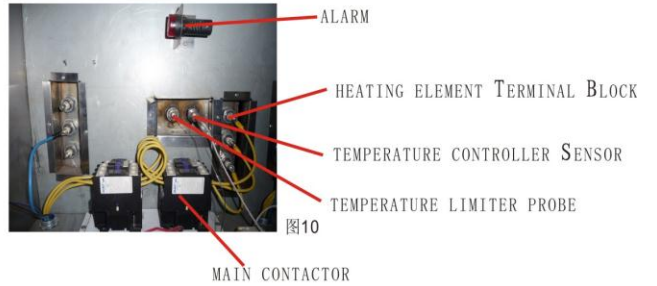


图10

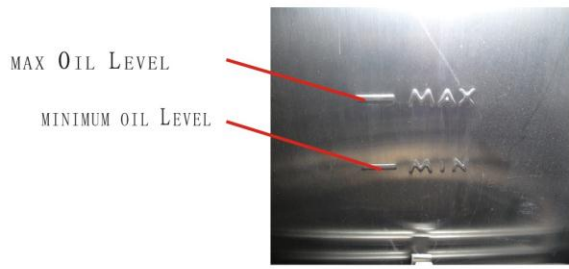


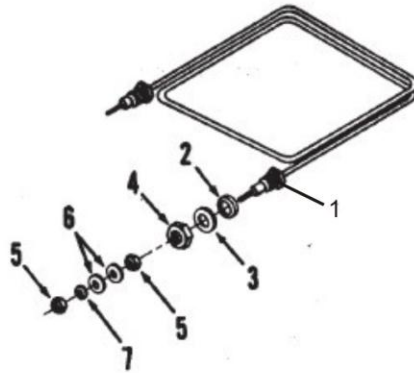
图11

HEATING ELEMENT EXPLODE VIEW

When you pour into the oil, take notes of the oil level. You'd better not add too much or too little. It should be in the level range showed by Chart(11).

Heaters assembly diagram(12-13)

HEATER SKETCH DIAGRAM



1. SCREW FOR HEATER
2. PTFE PAD FOR SEALING
3. PAD
4. FASTENING SCREW
5. TERMINAL NUT
6. PAD
7. SPRING PAD

CHART12

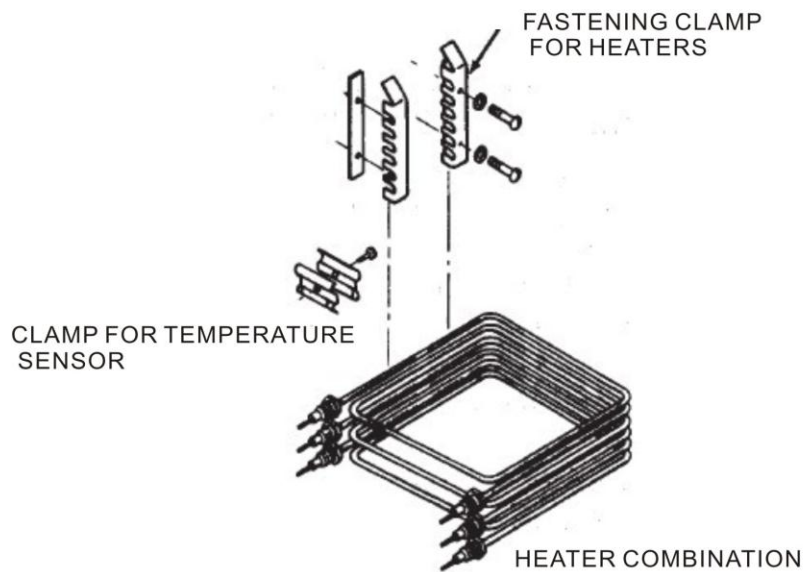
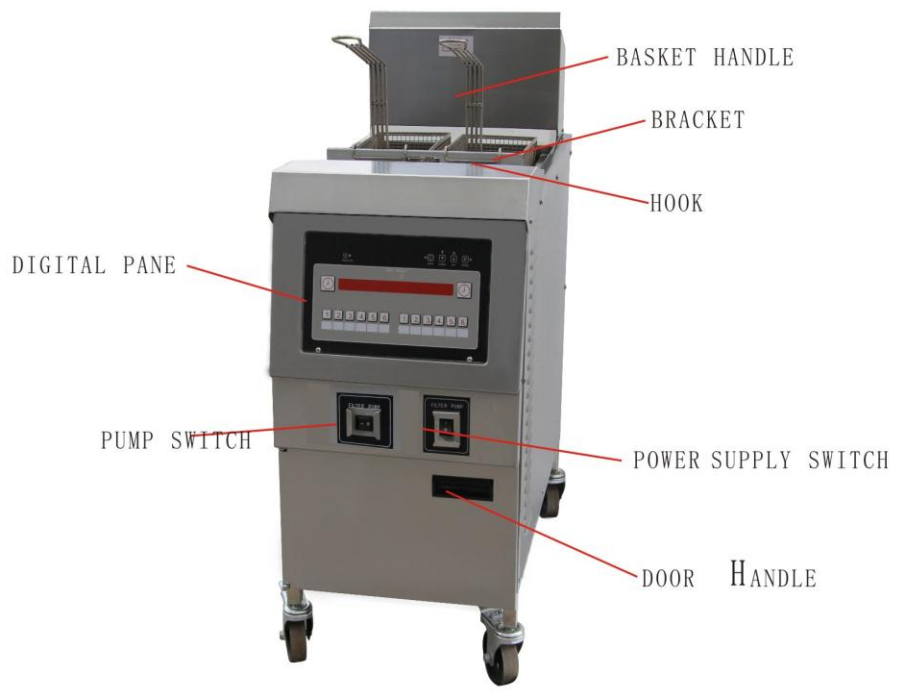
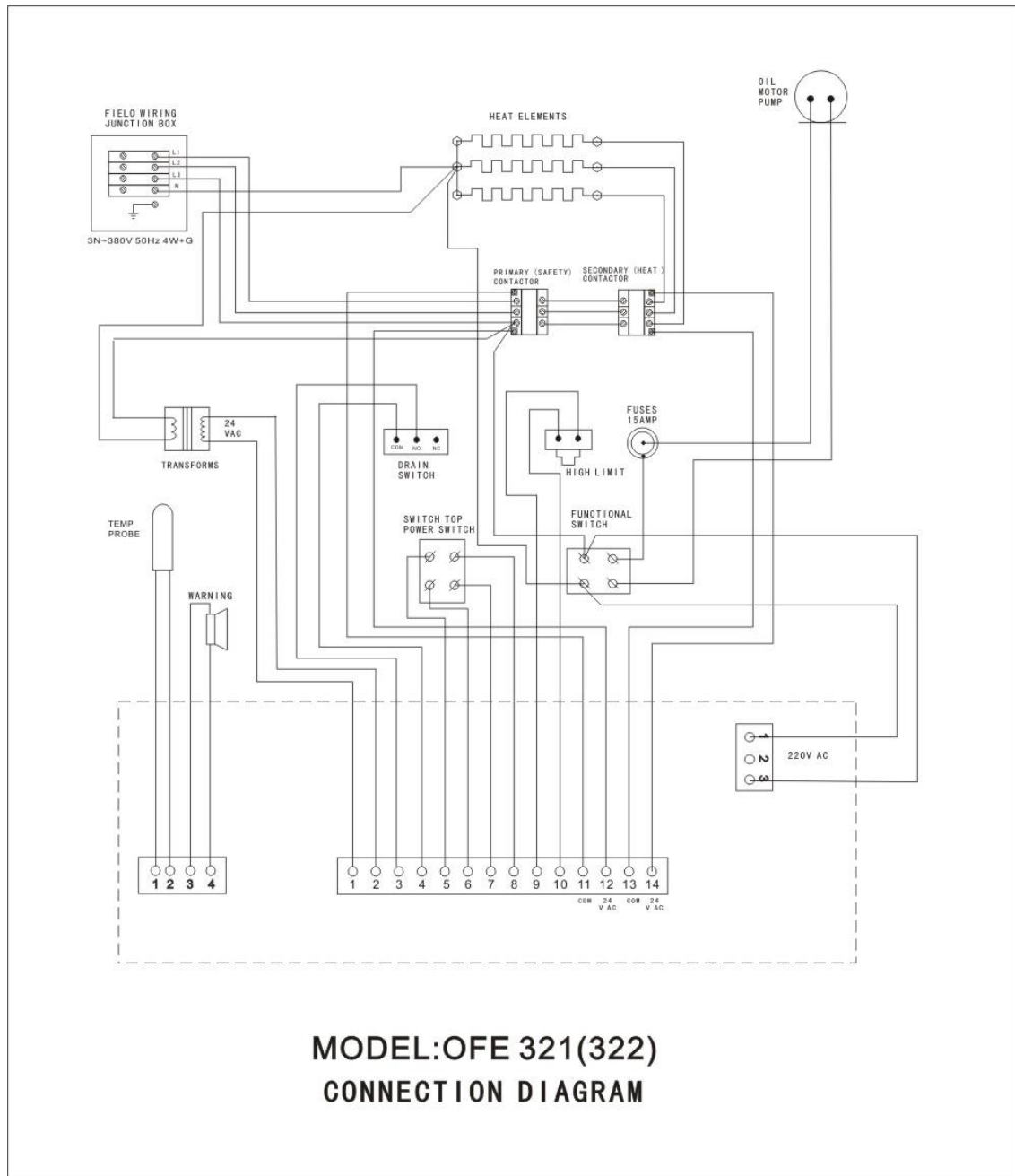


CHART13

WHEN YOU ASSEMBLE THE HEATERS, MAKE SURE THE FIXING OF CLAMP.
IT IS MORE SECURITY AND STEADY USING OF HEATING COMBINATION.



OFE321 Electric Open fryer electric connection diagram



III.OFG321-322 model Gas Open fryer operation methods

1. Gas open fryer combustion controlling system

This system adopts the liquefied petroleum gas, natural gas, and artificial gas as heat source, by using the four in one gas control valve (open fryer, thermocouple, electronic lighting and gas volume adjustment) temperature controller and gas solenoid valve. In order to achieve a safety and reliable

combustion controlling system, you can ignite the purpose-made M mould's furnace end electrically, constant temperature controlled, flameout protection as well as the heat power adjustment.

The principle of operation is as following: ignite by hand pressing to the piezoelectric conduction type igniter, which can transmit the instantaneous high pressure to the ignition probe and make it electric discharging by a certain electric space, then light the gas by electric spark and ignite the open fire. Heat the thermocouple by igniting the open fire's flame and thermoelectric effect will be produced by heating thermocouple, which can open the gas switch automatically and supply the gas to the burner. The open fire flame which equipped on the furnace end will light on the furnace end completely and then you can adjust the gas adjustment valve to make the fire burning normally. If the equipment's actual temperature exceeds the setting temperature, the temperature controller will turn off the gas solenoid valve automatically and the burner stops burning for the lack of gas. If the temperature is lower than the setting temperature, the temperature controlling system will give a new order and the gas solenoid valve open automatically. Now the gas is opened and it is burning again. The machine controls the temperature automatically by working like this way again and again.

In order to prevent the danger caused by gas leakage of accidental flameout of gas burner, the constant open fire structure is adopted and it can ignite the burner in time. As long as the open fire is not flameout, the burner can be burnt normally. If the open fire is flameout unexpectedly, the thermocouple can't be heated, the thermoelectric effect will become invalid. To be safely controlled, the gas adjustment valve will close automatically.

This system is simply operated, reliable, economical and safe. It can be used widely for automatic controlling of gas heating equipment.

2. Technical parameters

Voltage: ~**220V50Hz**

Gas type: liquefied petroleum gas, natural gas, pipeline gas

Gas pressure: **2800Pa**

Maximum working temperature: **200°C**

3. Operation Instruction(program's setting please refer to the controlling panel instruction on 8-11 page)

Connect the equipment with gas pipeline when the handed gas valve is totally closed. Make sure all the joints are sealing well and open the gas switch when there is no gas leakage. A few second later, press the electronic igniter button and turn round anticlockwise. Refer to chart 1 and chart 2

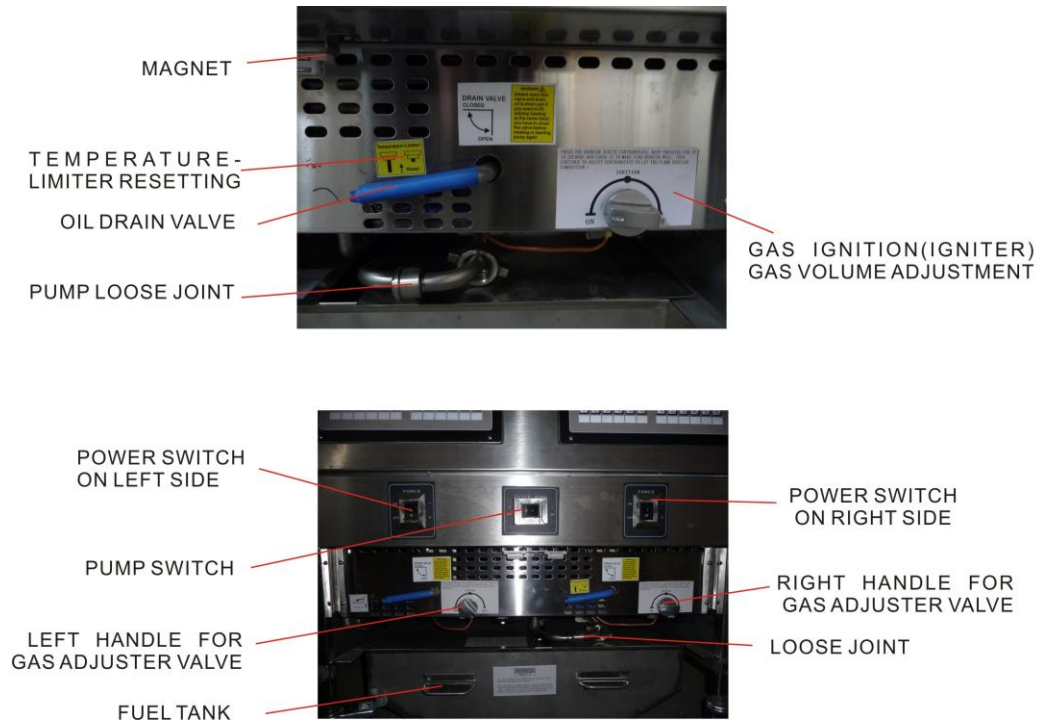
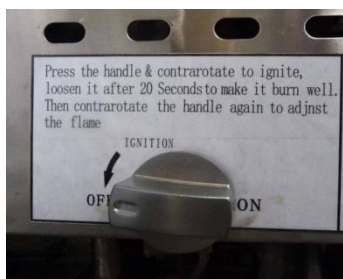


图 2 chart 2 OFG-322 Diagram

When you hear clicking sound, it shows it is ignited and now the open fire should be on fire. Press the button a few minutes, then the open fire should be burning normally. Now the thermocouple on the open fire of the burner will keep burning (If it can't be lighted for one time, you can ignite it for two or three times. If it can't be ignited for several times, there may some problems with the gas circuit and the igniter device. When it is lighting, turn round the button anticlockwise and adjusts the fire to keep the flame on the burner in a vigorous state.



电子打火、气量调节
chart 3

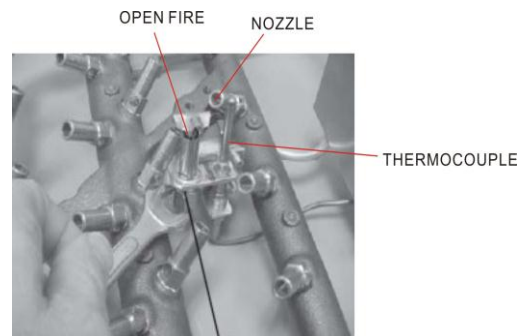


chart 4

The oil drain valve must be turned off when ignition.

1.The temperature will rise steadily when it is burning normally. When it gets to the setting temperature, you can put into the food for frying. The time for frying is depended on the food you fry. One fryer can hold two baskets, so you can fry different food at same time. The time for frying different food is different, so you can set two different times on the two timers in the controlling panel.(each controlling panel has 6 keys). It is working properly in the setting time.

CONNECTOR FOR OIL
TRANSMISSION TUBE

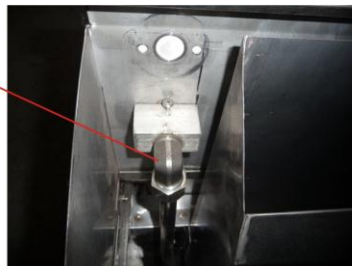
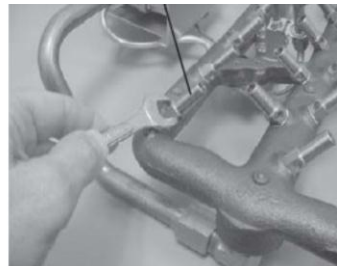


chart 5



BY TWISTING THE UNDER PART OF THE NOZZLE ANTICLOCKWISE WITH SPANNER, YOU CAN DISMANTLE THE NOZZLE. WHEN YOU FIT IT ON, YOU NEED TO COAT THE STRIPES WITH SEALANT THAT IS HIGH TEMPERATURE RESISTANT.

chart 6

4、 OFG321Gas open fryer wiring diagram

