



AUTHENTIC KITCHEN EQUIPMENT

INSTALLATION MANUAL

DEEP FAT FRYER

PRO900



INSTALLATION MANUAL
EN PRO800-900_G1-FR-28-HR_REV 0
FM ECE: - Date: 25/10/18
Revision N°: ...by ECE Date 25/10/18

APPLY TO :

V03169

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INTRODUCTION

1- Foreword

Thank you for choosing Charvet. Our equipment is designed and manufactured in France by our teams, focussed on five main objectives:

- Robustness
- Performance
- Hygiene
- Ergonomics
- Safety

If, despite our commitment and efforts, you encounter a problem with one of our products, our after-sales service is at your disposal

- After Sales Service and Information: sales@charvet.co.uk
- Tel : +44 (0) 1342 717 936

 INFORMATION	Our equipment is for professional use only and must be used by qualified staff. It is imperative to hire a qualified installer for all new installations or modifications of existing equipment. The warranty is discussed in our sale contract. Only an authorized reseller certifies the validity of the warranty. This warranty does not cover damage due to faulty installation, misuse or inadequate maintenance.
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2- About the symbols used in this manual

This manual uses different pictograms and colour codes to indicate a specific point of vigilance or particularly relevant information

Pictogram	Meaning	Pictogram	Meaning
	General information		Operating characteristic
	Information linked to temperature		Gas information
	Special attention		Electrical information
	Advice		Recycling information

Linked colours:

[PICTO]	Advice
[PICTO]	Remark or reminder
[PICTO]	Risk information
[PICTO]	Danger

3- Notice regarding the recycling of the equipment

 INFORMATION	The packaging of the equipment shall be treated and recycled according to the relevant regulation of the country of installation At the end of its life, the equipment shall be eliminated and recycled according to the regulation of the country of installation
--	--

I- Data plate

(See section 3 to find the location of the data plate)



CHARVET S.A.

38850 CHARAVINES



Réf.

Code: **Type:**

N°FC: **Rep.**

Cat.		
Gaz		
P (mbar)		
ΣQ_n (kW)		
ΣV_n (m³/h)		
ΣM_n (kg/h)		

U **V** **lp**

f **Hz** **P** **kW**



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2- Operator stamp

3- Notes

INSTALLATION

1- General

The appliance must be installed in a room with adequate ventilation, equipped with an air extraction system, in compliance with the regulations and standards in force in the country of installation, and with the instructions contained in this manual.
Special attention must be paid to the local fire prevention regulations of the organization concerned (see [Public Access Premises]).
Please train every user in the operation of the equipment after installation.

2- Handling

It is imperative to leave the appliance on its wooden pallet during the handling process until the final installation.
Unpack and check the appliance for damage upon receipt

 AVERTISSEMENT	If there is any damage claim must be sent to the carrier within 24hrs in writing by registered post. You should include all reference/order numbers and include a copy of the delivery note.
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3- Installation

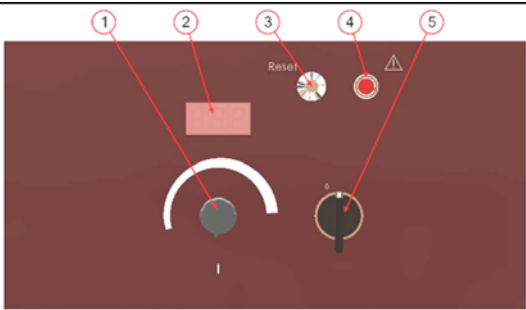
The appliance must be installed under a suitable ventilation hood.
If the apparatus is to be installed against a wall or partition, near a piece of furniture or decorative borders, it is recommended that these are made of fireproof material. If this is not the case, they must be protected by an appropriate fireproof, insulating material. If in doubt of the fireproof construction of adjacent walls, the distance to combustible material should be no less than 10 cm.
Remove all plastic protection.
Install the appliance in its work place in the cooking zone.

4- Special precaution

The appliance must be precisely levelled. This requirement is achieved by adjusting the height of each leg.



5- Control panel



Parts list	
Item	Description
1	Temperature setting button
2	Temperature display
3	Reset button
4	Failure indicator light
5	ON/OFF Switch

Fig. 1.
Control panel

6- Data plate

The appliance has a data plate which information are useful for any communication during maintenance operation.

The location of the data plate is shown on Fig 2.

Open the door (Fig. 2 – Mark 1) and remove the protection cover (Fig 2 – Mark 2)

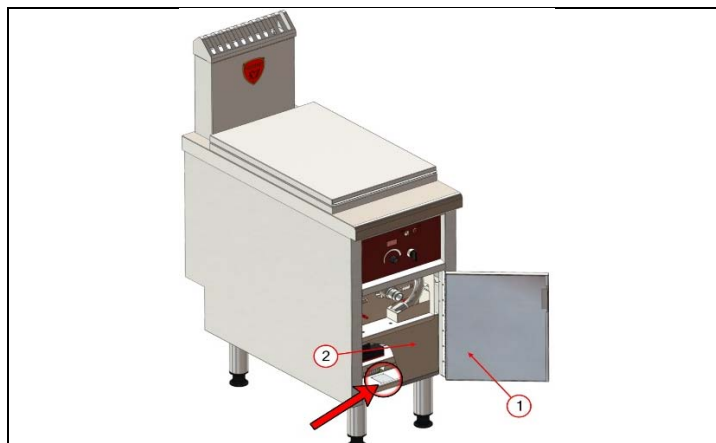


Fig. 2.
Location of the data plate

7- Fixing the flue

Before fixing the flue on the top of the appliance ensure that there is no obstruction nor blockage in the combustion gas circuit or in the flue itself.

- Loosen the screws (Fig. 3 – Mark 4), to release the fixing fasteners (Fig. 3 – Mark 3) located on the left and right underside the flue.
- Align the flue with the hole of the combustion gas circuit (Fig. 3 – Mark. 2), slide the fasteners under the top of the appliance (Fig. 3 – Mark. 5).
- Tighten the screws (Fig. 3 – Mark. 4) to secure position of the flue.

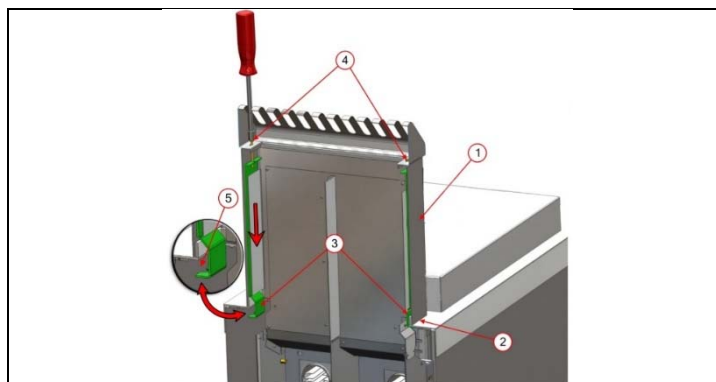


Fig. 3.
Fixing the flue

POWER CONNECTION



ATTENTION

The appliance must be earth wired. It is dangerous to connect the appliance unless it is earthed. Use a standardized cable (245 IEC 57 or 245 IEC 66) or other approved cable with the same characteristics. The cable used to connect the appliance to the mains supply shall have a minimum section of 1.5mm². Check that the electric network is equipped with all-pole circuit breakers having a cross section in compliance with the European Standard EN 60335-1

Mobile appliances are equipped with an electrical plug of the correct wattage; the socket should be appropriate and accessible at all times.

1- Checks before connection

Before connecting the appliance, check that:

- The electrical voltage of the supply is compatible with the voltage of the appliance (see data plate)
- The cable is fixed properly and the connections are tight enough
- The gauge of the cable is compatible with the voltage of the appliance.
- Locate the terminal box at the back of the device (See Fig. 4. – Mark.1) and the equipotential bounding terminal (See Fig. 5. – Mark. 2)

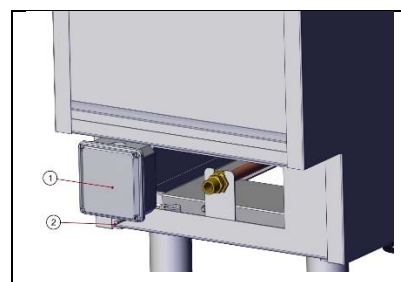


Fig. 4.

Location of the terminal box and equipotential bounding terminal

2- Power connection

1. Open the terminal box (Fig 5)
2. Connect the mains supply using the terminal block (Fig 5), the cable shall pass through cable gland
3. Close the terminal box

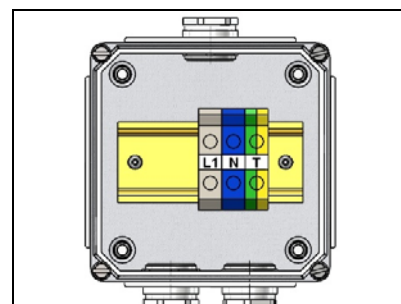
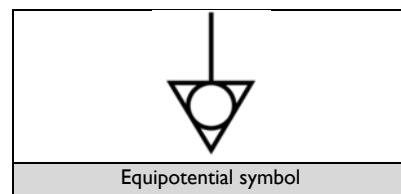


Fig. 5.

Terminal box

Bounding

The appliance must be included in an equipotential bounded system whose operation must be checked in accordance with local rules. The location of the equipotential bounding terminal is marked with the standardized symbol (CEI60417-502) shown in the adjacent illustration.



Equipotential symbol

3- Check after connection

After connection, ensure that:

- The appliance is correctly earthed
- The good electrical isolation.



ATTENTION

The appliance must be installed in a room with adequate ventilation, equipped with an air extraction system, in compliance with the regulations and standards in force in the country of installation, and with the instructions contained in this manual.
This appliance is an A-type and should not be connected to a flue gas pipe.
The required fresh air input for the air combustion supply is $P_N \times 2 \text{ m}^3/\text{h/kW}$ (P_N : Gas nominal output)

1- Control before connection

Before connection ensure that:

- The mains are free of obstructions, and clean.
- The gas supply pipe is of the correct size for minimum pressure drop, and the diameter is defined according to gas pressure, length and number of elbows, and total unit capacity.
- The appliance is set for the type of gas supplied (nature/pressure); please refer to the label next to the gas coupling.

Model Nr	Model name	Power (kW)	Required fresh air input ($\text{m}^3/\text{h/kW}$)
V03169	PRO900 GI-FR-28-HR	27	54

Table – Required fresh air input

2- Connection the appliance to the gas mains

Connect the gas mains to the M1/2" coupling located on the rear of the appliance as shown on Fig. 6

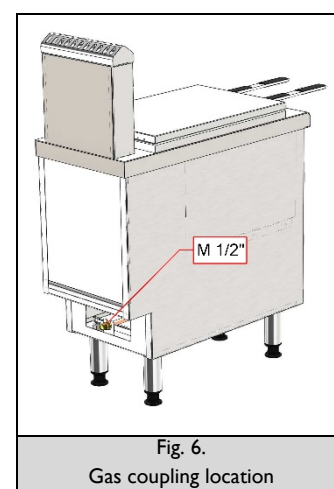


Fig. 6.
Gas coupling location

3- Control after connection

After connection ensure that:

- The gas circuit is airtight to the valve.
- The gas pressure measured on the appliance while all the appliances connected on the same gas mains are in a working state is nominal.
- Flames are correct.
- Good operation of the appliance.

OPERATION ON BURNERS



Before any intervention, make sure that the main shut off valve is closed.

I- Changing the injectors

1. Open the door (Fig. 7. – Mark. 1)
2. Remove the protection cover (Fig. 7. – Mark 2)

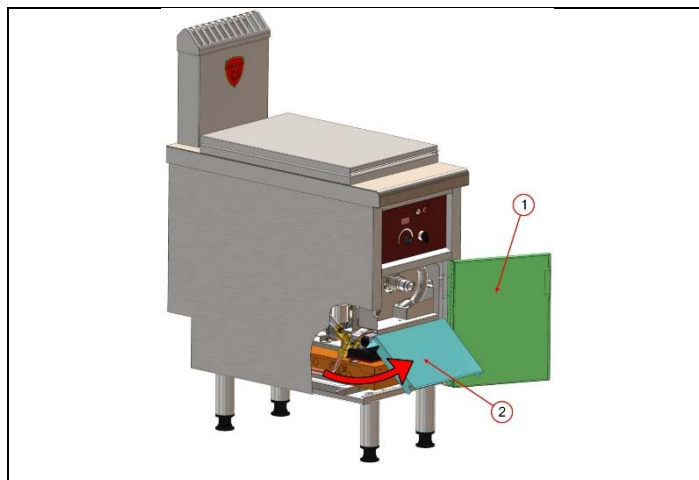


Fig. 7.

3. Loosen the fixing screw of the electrical box (Fig. 8. – Mark 3).
4. Pull out the electrical box (Fig. 8. – Mark 4).
5. Replace the cross-lighting burner injector (Fig. 8. – Mark 5) according to the data given in the paragraph 3.
6. Replace the main burner injectors (Fig. 8 – Mark 6) according to the data given in the paragraph 3
7. Adjust the distance injector/air ring according to Paragraph 2 for each burner.

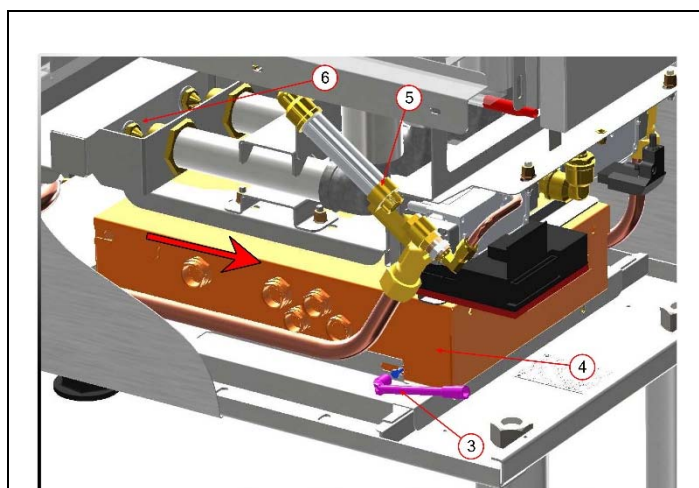


Fig. 8.

2- Setting the air ring

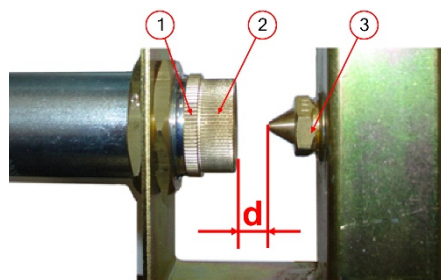


Fig. 9.
Main burner

1. Loosen locknut (Fig. 9. – Mark 1)
2. Adjust the setting of the air ring (Fig. 9. – Mark 2) using the data in the table below.
3. Tighten the locknut

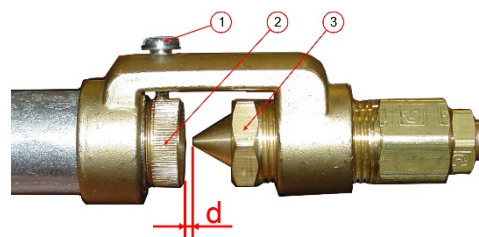


Fig. 9. bis
Cross-lighting burner

1. Loosen the locknut (Fig. 9.bis – Mark. 1)
4. Adjust the setting of the air ring (Fig. 9 bis. – Mark. 2) using the data in the table below.
2. Tighten the locknut

3- Gas setting table

Gas type under nominal pressure	No engrave on injector		Air setting d (mm)		Nominal calorific output (kW)
	Main burner	Cross-lighting	Main burner	Cross-lighting burner	
G110 – Pn : 8 mbar	4 x 440	130	Max	Max	17
G120 – Pn : 8 mbar					18
G20 – Pn : 20 mbar	4 x 185	80			25
G25 – Pn : 25 mbar					25
G25 – Pn : 20 mbar	4 x 210	80			24
G31 – Pn : 37 mbar	4 x 130	50			27
G31 – Pn : 50 mbar	4 x 120				27

4- Checking the pressure



INFORMATION

All the appliances connected to the same gas supply should be in a working state while controlling the pressure.

The gas valve is located behind the protection cover accessible after having open the door (See Paragraph I – Changing the injectors)

- Checking the inlet pressure:
 - Remove the screw (Fig. 10. – Mark 2), plug the pressure gauge on the pressure test point (Fig. 10 – Mark 1).
 - Turn on the appliance to the high rate
 - Check the measurement (see the Table below).
 - Turn off the appliance, refit the screw in its original place.
- Checking the outlet pressure:
 - Remove the screw (Fig. 10 – Mark 4), plug the pressure gauge on the pressure test point (Fig. 10 – Mark 3).
 - Turn on the appliance to the high rate
 - Check the measurement (see the Table below).
 - Turn off the appliance

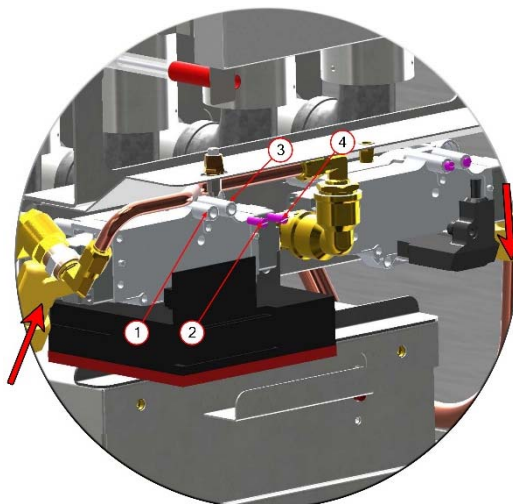


Fig. 10.
Gas valve

Nominal pressure	Inlet pressure	Outlet pressure
20 mbar	18-20mbar	17-18 mbar
37 mbar	37 mbar	35-37 mbar

TROUBLESHOOTING

1- Reset the burner

In case of burner failure, the red light switches on. In this case, please push the reset button (See Fig.1) to reset the burner. The operation may be renewed in case it hasn't worked. If so, please wait around 5~6 seconds before pushing the reset button again. If the burner doesn't start after a few tries, please shut off the equipment and call the installer for proper repair work.

2- Reset the safety thermostat

In order to rearm the safety thermostat :

1. Pull out the drain tap hose and its container (Fig.11 – Mark 1)
2. Release the two screws (Fig. 11 – Mark 2)
3. Remove the front panels (Fig. 11 – Mark 3 & 4) to access the electric box.
4. The reset button (Fig.11 – Mark 5) is on the front of the box. Press it to reengage the safety thermostat.

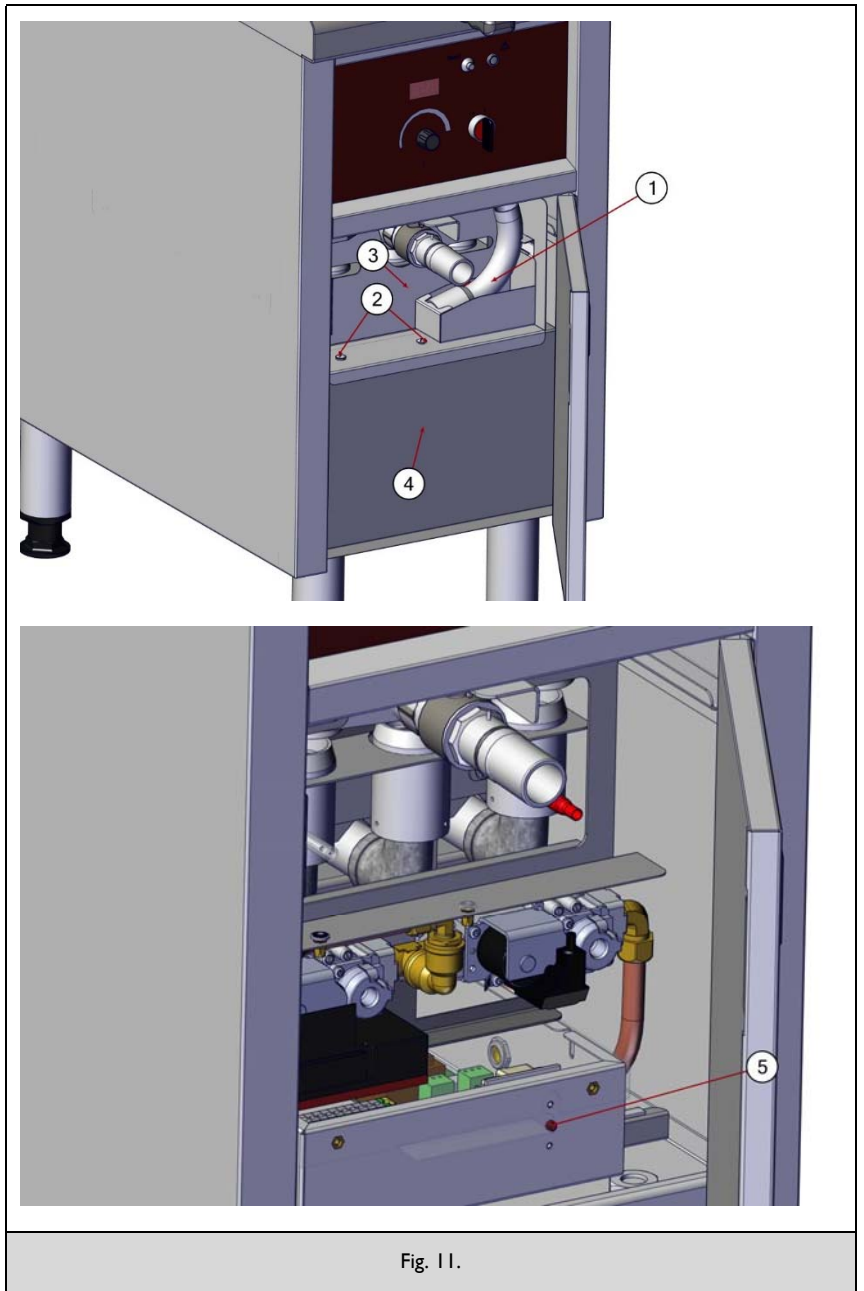
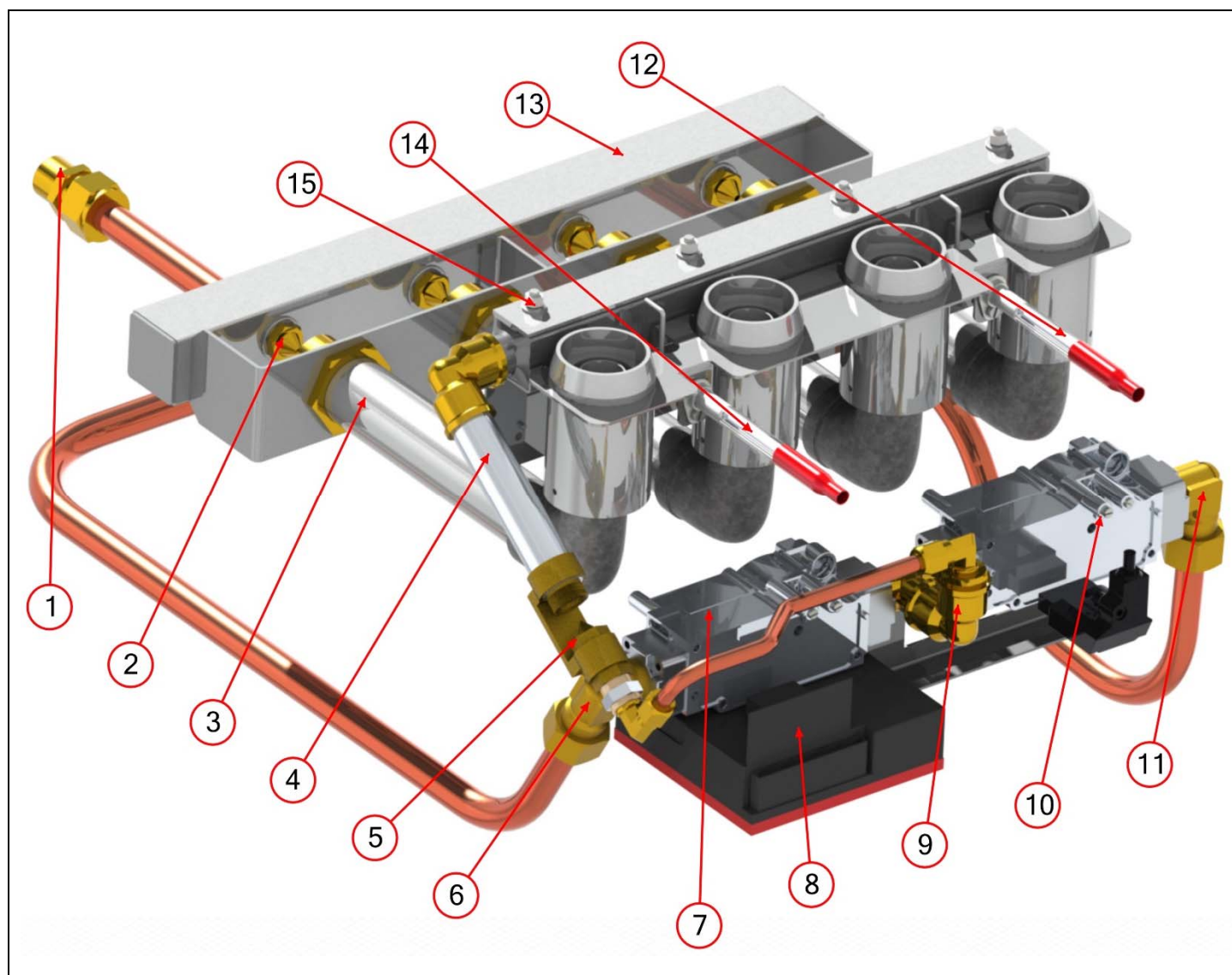


Fig. 11.

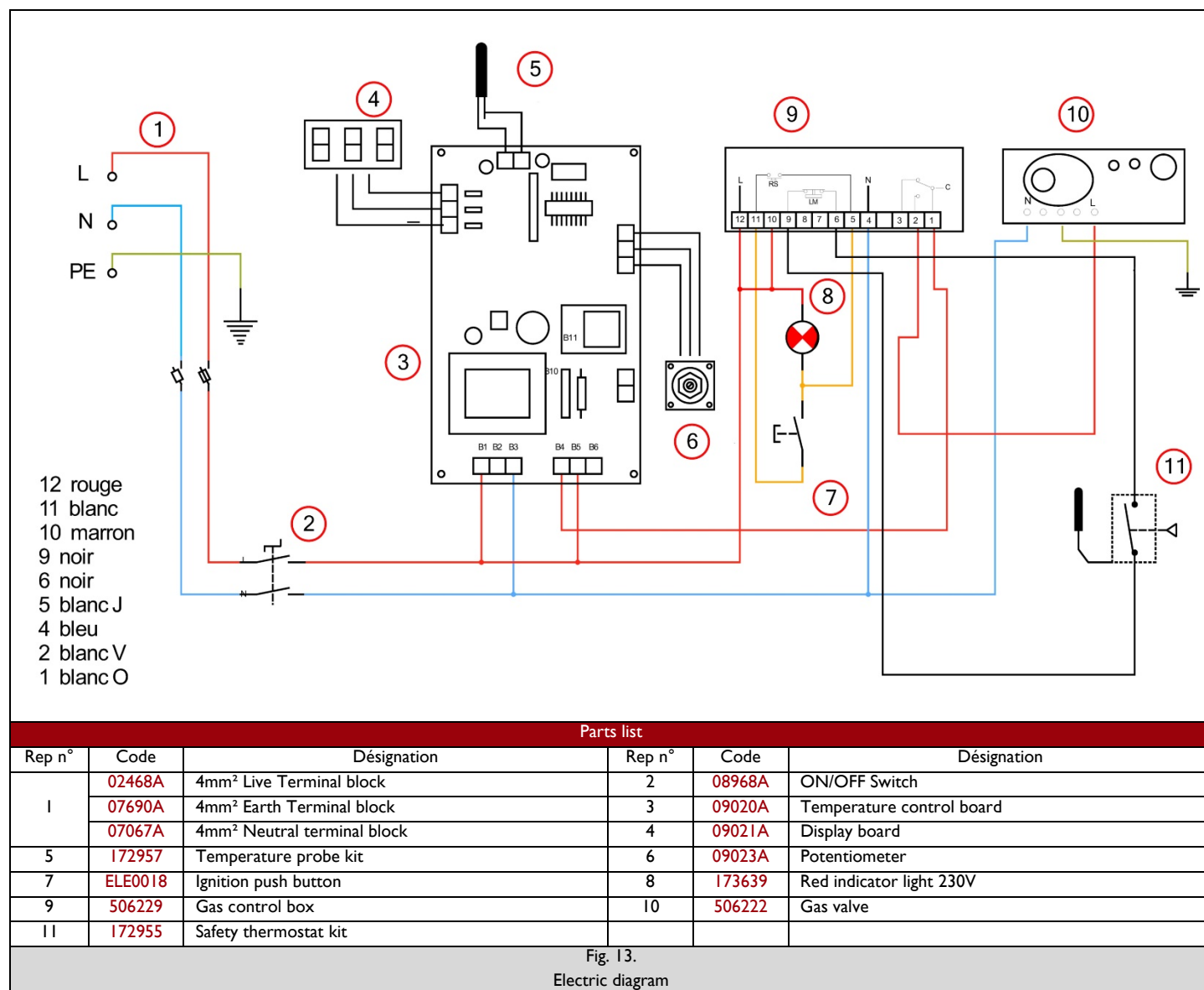


Parts list

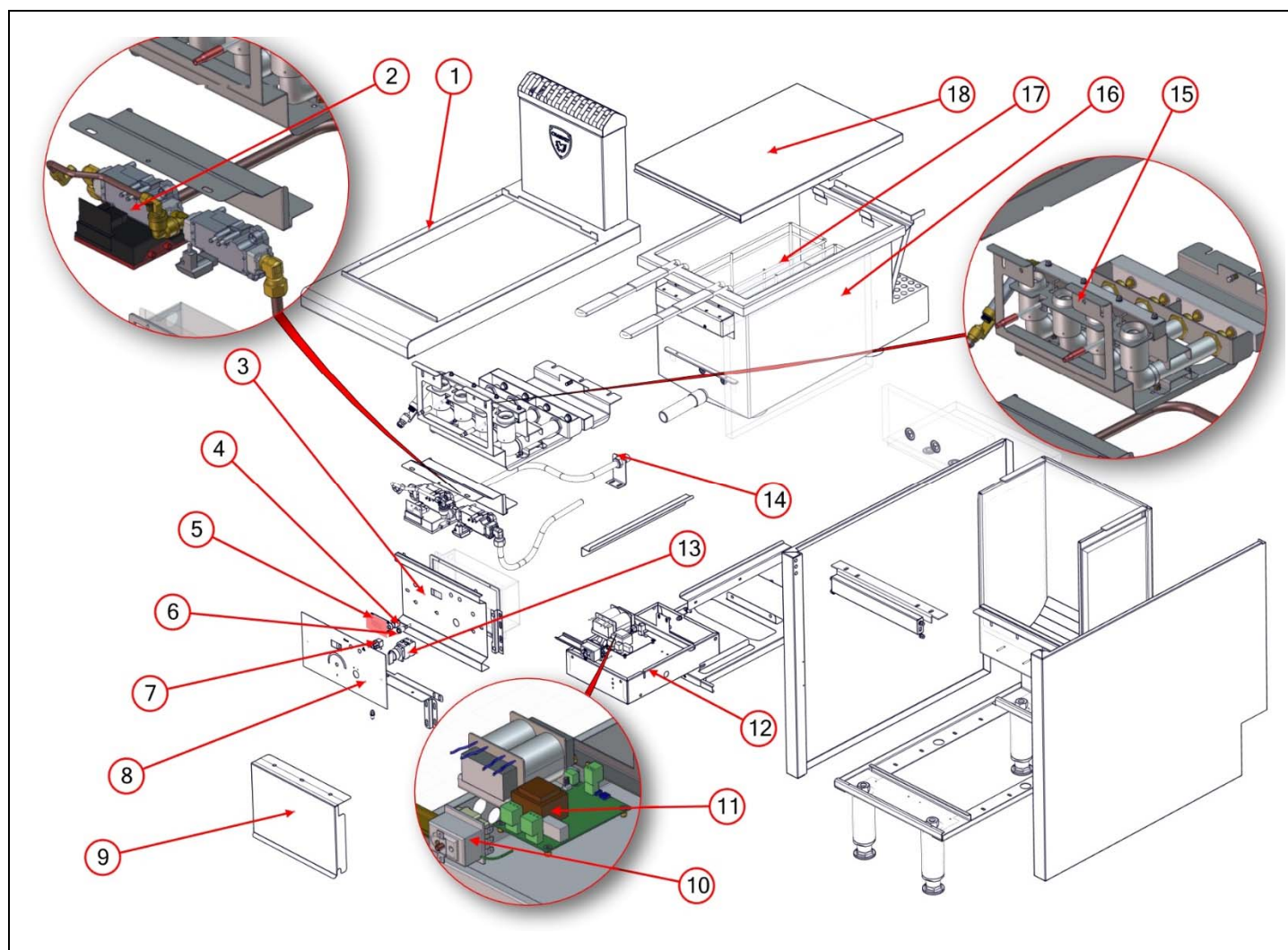
Mark	Code	Description	Mark	Code	Description
1	08755A	Gas coupling M 1/2"	2	-	Min burner injector
3	00120A	Torch burner	4	00161A	Cross-lighting burner Venturi
5	-	Cross-lighting burner injector	6	08959A	Brass elbow MM 1/2"
7	506222	Gas valve	8	506229	Gas control box
9	500986	Brass elbow FF 15x21	10	-	Pressure test pointz
11	08959A	Brass elbow MM 1/2"	12	171364	Flame sensor
13	F04331	Main burner	14	171364	Spark plug
15	173364	Cross-lighting burner			

Fig. 12.
Gas diagram

ANNEX 2 – WIRING DIAGRAM



ANNEX 3 – EXPLODED VIEW

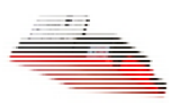
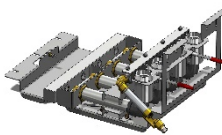
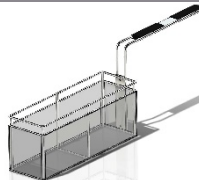


Parts list

Mark	Code	Description	Mark	Code	Description
1	F11155	½ PRO900 GFR28HR Top frame	2	173130	Gas valve set for 28HR Evolution
3	173018	Stainless steel control panel	4	ELE0018	Ignition push button
5	09021A	Display board	6	173639	Red indicator light 230V
	05922A	Display lexan			
7	09023A	Potentiometer	8	506261	Enamelled control panel ½ GFR28HR
9	173156	Gas valve protection cover	10	172955	Safety thermostat kit
11	09020A	Temperature control board	12	173136	EElectrical box
13	08968A	ON/OFF switch	14	08755A	Gas coupling M1/2"
15	173127	Burner fixation kit for GFR28HR	16	06837A	Fryer tank GFR28HR
17	00079A	Fryer basket	18	F08370	Fryer lid

Fig. 14.
Exploded view

ANNEX 4 – BASIC SPARE PARTS

ON/OFF Switch		Gas valve		Spark plug / Flamme sensor	
08968A		506222		171364	
Ignition push button		Gas control box		Potentiometer	
ELE0018		506229		09023A	
Filter mesh		Burner fixation kit		Temperature control board	
02273A		173127		09020A	
Drain tap		Safety thermostat kit		Display board	
507059		172955		09021A	
Fryer basket GFR28HR		Temperature probe kit		Red indicator light	
00079A		172957		173639	



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INTRODUCTION

1- Foreword

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	Advice		Recycling information

Linked colours;

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[PICTO]	Remark or reminder
[PICTO]	Risk information
[PICTO]	Danger

3- Notice regarding the recycling of the equipment

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PRODUCT IDENTIFICATION

I- Data Plate

(See section 3 to find the location of the data plate)



CHARVET S.A.

38850 CHARAVINES



Réf.

Code: Type:

N°FC: Rep.

Cat.		
Gaz		
P (mbar)		
ΣQ_n (kW)		
ΣV_n (m ³ /h)		
ΣM_n (kg/h)		

U V Ip

f Hz P kW



1

2

MADE IN FRANCE

2- Installer Stamp

3- Notes

[illegible]

1- Warning



1. Always keep oil between the marks Mini and Maxi as show on the figure beside. Heating oil while the level is under the Mini or above the Maxi. The lack or excess of oil can lead to the risk of burns of the user or the inflammation of the oil bath
2. Do not overheat the oil or reuse oil that has been overheated.
3. The deep fryer is intended for the cooking of food in the baskets provided any other use can present a risk.
4. Do not add wet food to hot oil – risk of burns caused by oil erupting from contact with water.
5. Do not use flammable cleaning products. Always rinse tank thoroughly with freshwater after cleaning.
6. The introduction of food containing a important quantity of water can lead to oil bath inflammation or splashing which can lead to severe burns.

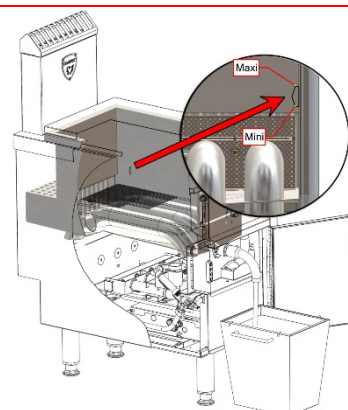


Fig. 15.
Min. & Max. oil level

2- Control panel

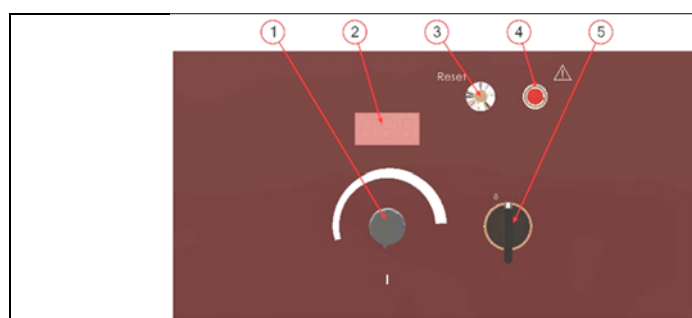


Fig. 16.
Control panel

Part list	
Item	Description
1	Temperature setting button
2	Temperature display
3	Reset button
4	Failure indicator light
5	ON/OFF Switch

3- Prior to starting up

- Prior to starting up, it is advisable to clean the appliance in order to eliminate all dust and impurities that have accumulated during storage.
- Remove all plastic protection wrapping from the stainless steel panels.
- Make sure that all controls are in good working condition.

4- Normal use



Do not exceed the normal load of the fryer basket:

Model name	Basket	Quantity of fresh blanched chips per basket	Quantity of blanched frozen chips per basket
G1-FR-28-HR	½ basket	2.5 Kg	2.5 Kg
	Large basket	5.0 Kg	5.0 Kg



A too long period of heating the oil without cooking or salting over the oil bath will lead to a premature deterioration of the cooking oil.

- Fill the tank with the cooking oil. (Oil level shall be between the mini and maxi marks (see Fig.15).
- Turn the switch to the "ON" position.
- Turn the potentiometer to the setting temperature.
- The setting temperature flashes on the display.
- While the display is no longer flashing, the temperature shown on the display is the measured temperature in the oil bath.

5- Switching off the appliance

Turn all controls to the 'OFF' position.
At the end of the day, switch off the gas valve or/and electricity at the mains.

CLEANING – BASIC MAINTENANCE

1- Warnings

 INFORMATION	For best results, have your equipment serviced and cleaned on a regular basis by a qualified installer. In case of malfunction, any intervention can be made by an authorized installer. The manufacturer and the installer cannot be held responsible if the user fails to ask for assistance in case of malfunction.
 INFORMATION	Change the cooking oil on a regular basis. Used cooking oil has a lower inflammation temperature. Before doing anything on the appliance, wait until cooking areas have cooled down. Before emptying the tank wait until the cooking oil has cooled down
 ATTENTION	Some parts of this appliance are factory sealed; in case of malfunction, call an authorized installer
 ATTENTION	Operation of the safety thermostat must be analysed before reactivation

2- Cleaning

 ATTENTION	This appliance must not be cleaned with mechanical water jets or be subject to a spray of water under pressure. Check that the appliance is disconnected from the mains supply. Before emptying the tank wait until the cooking oil has cooled down
--	---

A - Cleaning of the stainless steel surfaces

- Switch off the appliance. After each service and before each cleaning operation, we advise you to disconnect the appliance from the mains (gas and electric supplies).
- Wash with a sponge and soapy water (or any other neutral cleaning product).
- After each cleaning, rub with an oily rag.
- Do not use bleach or any other acidic product –even well diluted.

B - Cleaning the tank

- Switch off the appliance
- Remove the lid (Fig. 17 – Mark 1)
- Remove the fryer basket(s) (Fig. 17 – Mark 2)
- Fill the tank with soap water
- Warm up to around 60°C
- Switch off the appliance, drain the tank, clean with a sponge rinse and dry

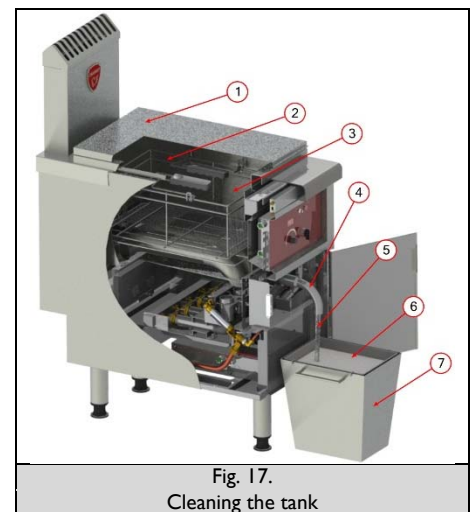


Fig. 17.
Cleaning the tank

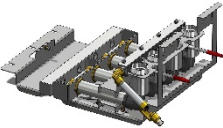
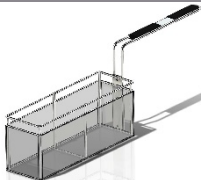
C - Oil cleaning (Decantation method)

After each period of use it is recommended to let settle the water and partially drain. Place a collection bucket under the drain tap and partially open the drain tap (Fig. 17. – Mark 4) until the oil starts to run out.

3- Daily operation

It is recommended to filter the cooking oil on a daily basis. Fully drain the tank in a collection bucket equipped with a filter mesh. Once the tank is refilled with the filtered oil, adjust the level using new oil. Charvet suggests to use its mobile filtration unit (Model No V01149). Please contact your installer for further information.

ANNEX I – BASIC SPARE PARTS

ON/OFF Switch		Gas valve		Spark plug / Flamme sensor	
08968A		506222		171364	
Ignition push button		Gas control box		Potentiometer	
ELE0018		506229		09023A	
Filter mesh		Burner fixation kit		Temperature control board	
02273A		173127		09020A	
Drain tap		Safety thermostat kit		Display board	
507059		172955		09021A	
Fryer basket GFR28HR		Temperature probe kit		Red indicator light	
00079A		172957		173639	