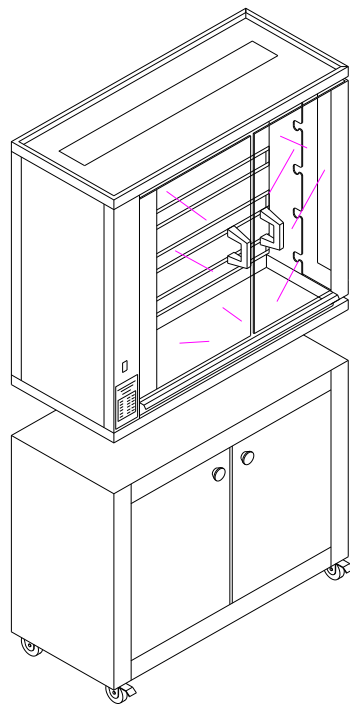


**GAS
VERTICAL OVENS**

INSTRUCTIONS MANUAL



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CHAPTER 1

GENERAL DESCRIPTION

INDICATIONS.

This apparatus should be installed in compliance with legislation in force and should be used in well ventilated areas only. Read the instructions prior to installation and use.

When installing the oven, you should follow the instructions and requirements of the gas supplier and, in any case, contract an authorised technician to install it.

The apparatuses described below are for collective use and should only be handled by suitably qualified personnel.

DESCRIPTION OF THE APPARATUS

Basically, the following elements are present in the various model comprising the range of vertical ovens

- a) Structure
- b) Transmission
- c) Electric controls panel
- d) Gas equipment
- e) Doors
- f) Accessories

STRUCTURE.

The dimensions of the part meant to support the various elements of the oven will depend on the number of spits in the oven and on whether or not it is to be assembled on a base.

TRANSMISSION

The transmission of the apparatus is be chain which will make all the spits turn synchronically. Transmission is moved by a motor reducer whose turnover speed is 4.5 r.p.m.

ELECTRIC EQUIPMENT.

This comprises the motor described in the previous section and a luminous control switch situated at the bottom left of the apparatus.

WARNING: The oven is connected to the mains at 230V for the gas models

GAS EQUIPMENT

This consists of as many infrared burners, with their corresponding safety valves and thermocouples situated one above the other and separated by an inter-burner sheet, as there are spits in the specific oven model.

It is all fed through a battery with a feed input of $\frac{3}{4}$ " gas for the apparatuses running on Natural Gas or $\frac{1}{2}$ " gas for those running on Butane/Propane.

DOORS

The doors consist of two panes of tempered glass with insulated handles. The glass panels are assembled on the front of the oven. Their purpose is to protect you from the heat while the oven is in operation and to protect the food from external agents.

WARNING: Try not to hit the glass as they could break either at that moment or else later without any apparent reason for their doing so.

Do not leave any burner on when the doors are closed unless there is food roasting on the spit in question.

Keep the glass clean and check that it is dry before each operation.

ACCESSORIES

The oven is equipped with a series of accessories such as the spits, skewers, hook for removing the spits and tray.

a) Spits

Their purpose is to fix, through the skewers, the food to be roasted. Their cross-section is square so that they will rotate when placed in the drag axles. The spits are equipped with insulated handles to avoid burns. The number of spits depends on the oven model.

b) Tray

The tray is situated inside the roasting chamber beneath the spits with the purpose of collecting all the juices from the roast.

INSTALLATION

SPACE.

To be installed correctly, the oven requires a space at least equal to its own dimensions plus the necessary distance from a wall or any other apparatus as described in **Fig. 2**. The installation should be made in compliance with the safety standards in force in your area. The oven is a Type A appliance meaning that forced extraction of the combustion gases is not required. However, the installation of a smoke extractor bell is recommended to prevent any damage to the ceiling of the premises in which it is installed as well as any deterioration caused by the heat, smoke and fats expelled during operation.

WARNING: Check the measures indicated in Chapter 5, section "Technical Data", prior to setting up or installing the oven"

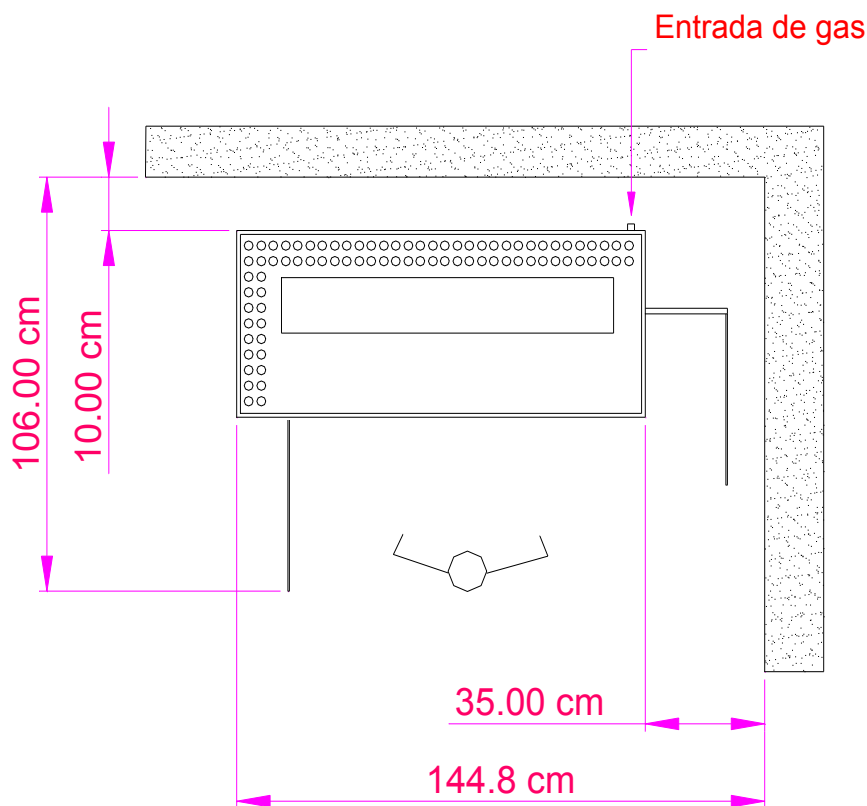


FIG. 2.

WARNING:

Before operating the oven, make sure that the voltage as well as the pressure and type of gas coincide with the indications on the characteristics plate situated bottom left on the front of the apparatus.

Do not place any object on top of the oven or along its sides that could obstruct the ventilation grilles.

CHAPTER 3

DESCRIPTION OF THE CONTROLS

GAS OVENS

LIGHTING THE BURNERS

The oven should be connected to a mains plug with an earth and neutral connection. The type and pressure of the gas should correspond to what is indicated on the characteristics plate.

Once this has been checked, proceed as follows:

- a) Open the general gas tap
- b) Press in the control of the required burner and make a quarter turn anti-clockwise until the "maximum" position is reached (**Fig. 3**).
- c) Without releasing, approach the burner with an open flame until it lights up. Wait 10 to 15 seconds before releasing; the burner should remain alight.
- d) To set the control to "minimum", turn the control anticlockwise from the "maximum" position until reaching the "minimum" one, without pressing (**Fig. 3**).
- e) To switch the burner off, turn the control from any position in a clockwise direction to the "off" indicator.

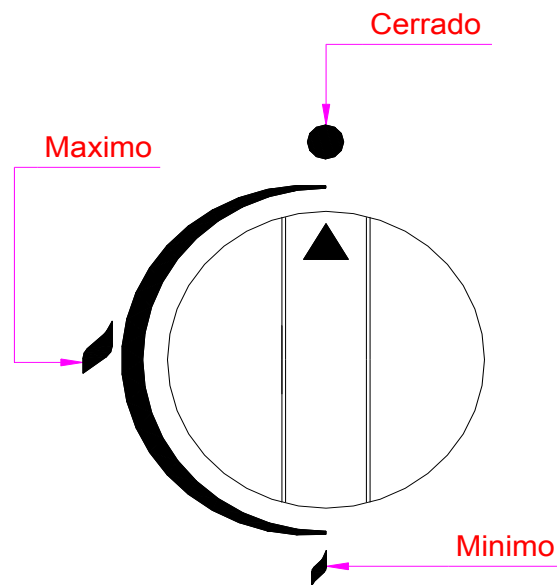


Fig. 3

ORDER FOR LIGHTING

Always start at the top of the oven downwards until you reach the bottom layer.

WARNING: *You should never leave a burner on for roasting when the one below it is off. Close the regulators and taps when the oven is not in use.*

ROTATION OF THE SPITS

When you press the switch at the bottom left of your oven, this will light up and the spits will start to turn. Upon pressing it again, the pilot lamp will go out and the spits will stop turning.

CHAPTER 4

LOADING AND CLEANING THE OVEN

LOADING THE OVEN

- a) Put the simple skewer (1) in the spit (3) until it reaches the safety limit of the spit. Then fix it with the screw (2). (See fig. 5).
- b) Then place a chicken on the spit and hold it in place with the skewer already in position. Put the double skewer (4) on the spit and in a chicken. Repeat this operation until the spit is fully loaded and finally put a simple skewer in place and fix it with its screw.

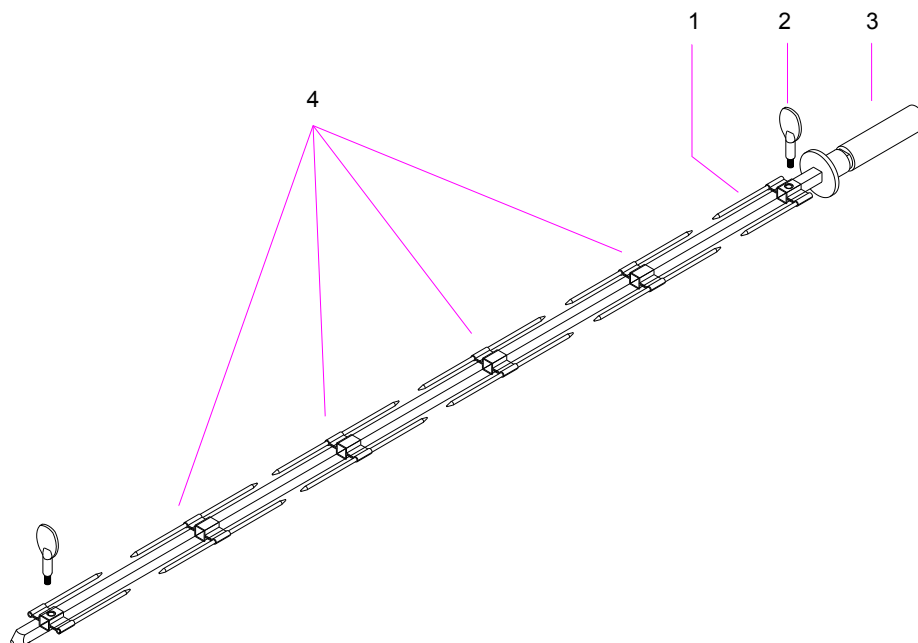


Fig. 5

Cleaning

You can use any product on the market for cleaning your oven. Take care not to spill any cleaning liquid on the perforated surface of the burner. Do not use abrasive products as they could damage the painted surfaces of stainless steel.

The quality of your roasts depends on the cleanliness of your oven.

Cleaning the inter-burner sheet (for gas and EE electric ovens only)

This sheet, situated between the burners, can be removed to facilitate cleaning. To do this, proceed as follows: **(fig. 6)**.

- a) Pull the bottom of the sheet towards you until it is horizontal.
- b) Lift it until you notice that the sheet has reached a limit.
- c) Then pull it outwards and the sheet will have been extracted from the oven.

To replace it, proceed as follows:

- a) Enter the sheet horizontally so that its side grooves coincide with the pivots on each side.
- b) Let the sheet swing downwards.

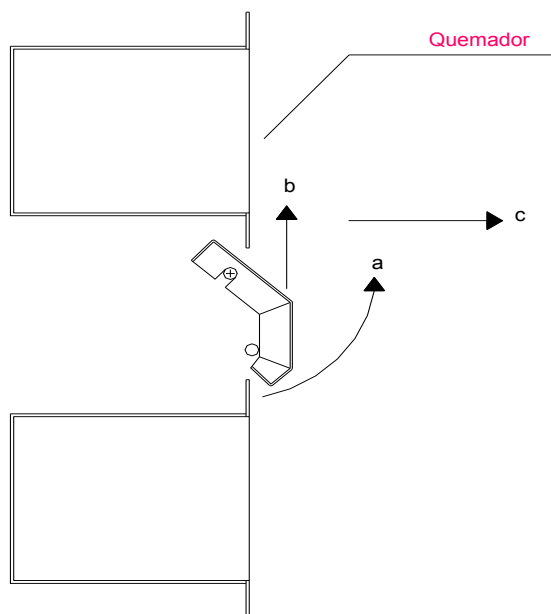


Fig. 6

NOTE: It is advisable to have your oven inspected regularly by an authorised technician. By doing so, you will be sure that your oven is always in perfect working condition.

Technical installation and adjustment instructions

Connect the oven

At the bottom right at the back of the oven you will find the female $\frac{3}{4}$ " gas inlet. This inlet incorporates a $\frac{1}{2}$ " gas connector for ovens using Butane/Propane gas. This connector should be removed for use with Natural Gas. Next to the gas inlet is the cable for connecting to the electricity mains.

WARNING:

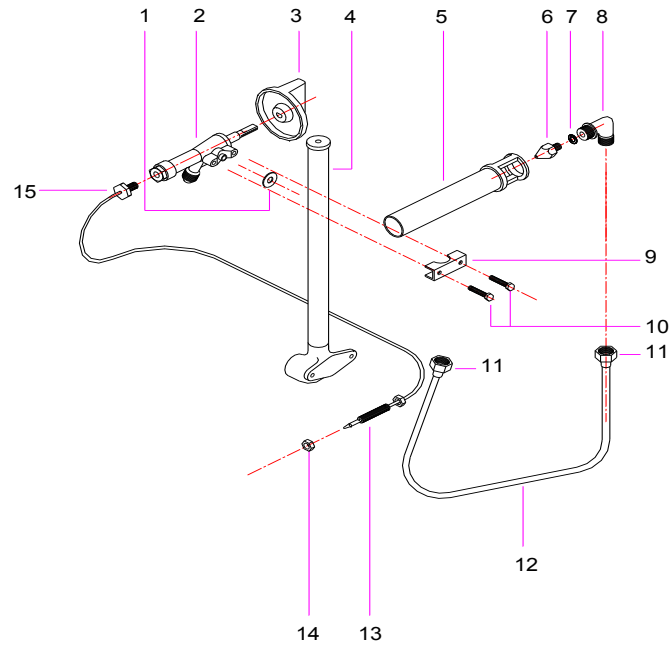
Make sure that the voltage of the mains supply corresponds to that indicated on the characteristics plate and that it has an appropriate earth connection.

CHANGING THE GAS

WARNING: This operation can only be done by an authorised technician

- a) Make sure that the gas supply to the oven is closed.
- b) Change the apparatus inlet pipe. This should only be done in the case of changing from Butane or Propane to Natural Gas. In this case, the interior diameter of the pipe should ***never be less than 1,8mm***.
- c) Remove all the controls (3) (See fig. 7) of the valves by pulling them outwards.
- d) Then remove all the screws fastening the controls panel.
- e) Remove all the nuts (11) and remove the tube (12)
- f) Pull the elbow piece outwards (8) and the set formed by parts (5), (6) and (7) will come out of the burner.
- g) Unscrew the elbow piece (8) from said set and replace the injector (6) with the one suited for the type of gas to be used. The diameter of the injector is indicated on its casing. Do not forget to replace the washer of the joint (7) with a new one.
- h) Proceed in reverse order to that described in points e) to g) to reassemble.
- i) Repeat this operation for each burner in your oven.
- j) **Once you have done this MAKE SURE that there are no gas leaks and replace the controls panel.**

WARNING: Do not forget to adjust the burner minimum once you have changed the type of gas and change the label reading "Apparatus prepared for:..." situated above the oven's gas inlet



Minimum burner adjustment.

- Remove the control of the valve of the burner you wish to adjust.
- Put a screwdriver through the hole in the control panel and loosen the screw (1) **Fig. 8** in a clockwise direction to reduce the minimum or anticlockwise to increase the minimum.
- Replace the control once the minimum has been adjusted

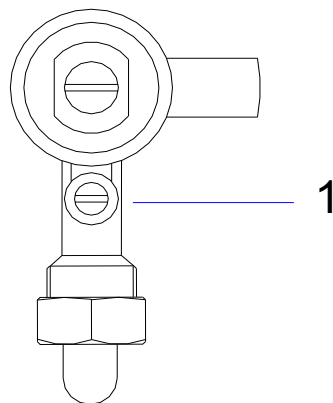
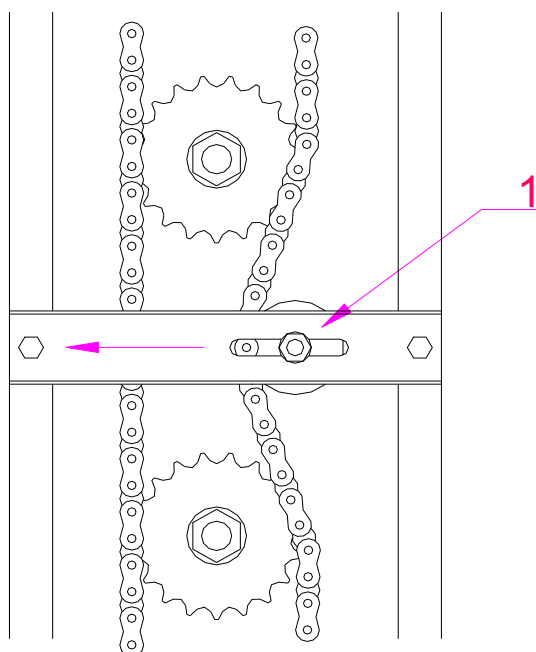


Fig 8

Tautening the chain

- a) Remove totally the screws fastening the transmission cover and remove it
- b) Loosen slightly screw (1) fig. 9 and move the tautener to the left. Fasten the tautener again by tightening the screw (1) once the chain is properly tautened.

Fig. 9



TECHNICAL DATA - GAS OVENS

MODELO	Largo x Fondo x Alto	PESO NETO	GAS	PRESIÒN	CONSUMO	CONSUMO		POTENCIA Hs
							Minimo	
GM16E-B	1098 X 480 X 460	50 Kg	G30	28/30/50	0,47 Kg/h	3,9 Kw	5,9 Kw	
			G31	30/37/50	0,38 Kg/h	3,9 Kw	5,2 Kw	
			G20	20	0,65 m3/h	3,9 Kw	6,2 Kw	
GM212E-B	1098 x 480 x 640	66 Kg	G30	28/30/50	0,94 Kg/h	7,8 Kw	11,8 Kw	
			G31	30/37/50	0,76 Kg/h	7,8 Kw	10,4 Kw	
			G20	18/20	1,30 m3/h	7,8 Kw	12,4 Kw	
GM318E-B	1098 x 480 x 820	86 Kg	G30	28/30/50	1,41 Kg/h	11,7 Kw	17,7 Kw	
			G31	30/37/50	1,15 Kg/h	11,7 Kw	15,6 Kw	
			G20	18/20	1,95 m3/h	11,7 Kw	18,6 Kw	
GM424E-B	1098 x 480 x 1000	103 Kg	G30	28/30/50	1,88 Kg/h	15,6 Kw	23,6 Kw	
			G31	30/37/50	1,52 Kg/h	15,6 Kw	20,8 Kw	
			G20	18/20	2,60 m3/h	15,6 Kw	24,8 Kw	
GM636E-B	1098 x 480 x 1860	170 Kg	G30	28/30/50	2,82 Kg/h	23,4 Kw	35,4 Kw	
GM1166F	1098 x 660 x 1860	204 Kg	G31	30/37/50	2,30 Kg/h	23,4 Kw	31,2 Kw	
			G20	18/20	3,90 m3/h	23,4 Kw	37,2 Kw	
GM848E-B	1098 x 480 x 1920	193 Kg	G30	28/30/50	3,76 Kg/h	31,2 Kw	47,2 Kw	
GM1590F	1098 x 660 x 1920	230 Kg	G31	30/37/50	3,04 Kg/h	31,2 Kw	41,6 Kw	
			G20	18/20	5,20 m3/h	31,2 Kw	49,6 Kw	

BURNER INJECTORS

Gas	Pressure	Diameter
Butano	28/30/50 mbar	120
Propano	30/37/50 mbar	120
Gas Natural	18/20/25 mbar	190

Note: The diameter of the injectors is indicated on their casing (hundredths of a mm.)

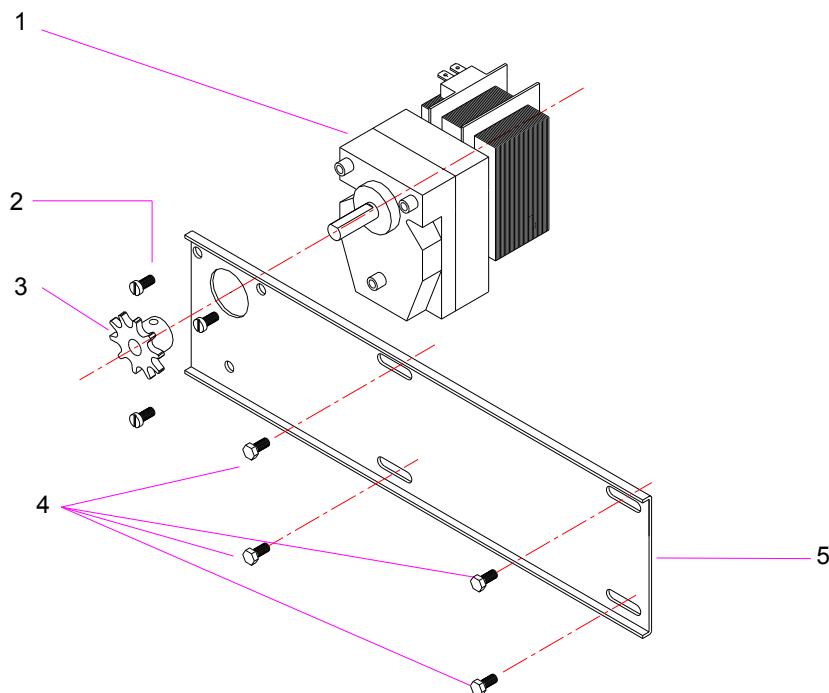
ASSEMBLY OF SPARE PARTS

WARNING: These operations can only be done by an authorised technician

Changing the motor reducer.

- a) remove the Disconnect the oven from the mains. Remove the cover of the transmission on the left side of the oven by loosening the screws fastening it.
- b) Loosen the screws (4) Fig. 10 to remove the chain that joins the pinion (3) and the axle of the first spit.
- c) Once the chain has been removed, totally remove the screws (4) to take out the motor support (5) along with the motor reducer.
- d) Loosen the screw fastening the pinion (3) to the axle of the motor reducer to remove it from the axle. Totally screws (2) to dismount the motor reducer from the support.
- e) Change the motor reducer and proceed in reverse order to what is explained above to assemble it.

WARNING When correctly tautened the motor chain should have a flexion in the centre of about 1 cm. An excessively taut chain produces unnecessary work stress on the motor reducer.



Changing a valve.

- a) Disconnect the oven from the mains and close the gas supply.
- b) **Make sure the gas supply is closed before you continue with this operation.**
- c) Remove all the valve controls (on the right of the oven) by pulling them outwards.

- d) Remove totally the screws fastening the controls panel and remove it
- e) Loosen the tube (12) (See Fig. 7) by loosening the nuts (11) of the valve you wish to change. Then dismount the thermocouple of the valve by loosening the nut (15).
- f) Totally loosen the screws (10) which, together with the bracket (9), fasten the valve to the battery.
- g) Proceed in reverse order to what is explained above to assemble the new valve. Do not forget to replace the washer of the joint (1) with a new one.
- h) Make sure there are no gas leaks. Then adjust the minimum of the burner and finally replace the controls panel.

Changing a thermocouple.

- a) Disconnect the oven from the mains and close the gas supply. ***Make sure that the gas supply is closed before you continue with this operation.***
- b) Remove all the valve controls (on the right of the oven) by pulling them outwards.
- c) Loosen totally the screws fastening the controls panel and remove it
- d) Loosen the nuts (15) and (9) (See Fig. 7) of the thermocouple you wish to change and remove it.
- e) Assemble the new thermocouple by proceeding in reverse order to what is explained above. Then replace the controls panel and controls.

Changing a burner.

- a) Disconnect the oven from the mains and close the gas supply. ***Make sure that the gas supply is closed before you continue with this operation.***
- b) Remove all the valve controls (on the right of the oven) by pulling them outwards. Then remove the top and bottom inter-burner sheets of the burner you wish to change.
- c) Remove totally the screws fastening the controls panel and remove it
- d) Remove totally the screws fastening the rear panel and pull it towards the left to remove it
- e) Remove the tube (12) and thermocouple (13) (See Fig. 11) corresponding to the valve of the burner you wish to change by loosening the nuts (11) and (14).
- f) Pull the elbow piece (8) outwards to remove the Venturi burner. Totally loosen the screws fastening the burner (16) to its support (17).
- g) Replace the burner and assemble the new one in its support.
- h) Proceed in reverse order to what is explained above to assemble it. ***MAKE SURE*** there are no gas leaks. Replace the panels and do not forget to adjust the minimum of the burner.

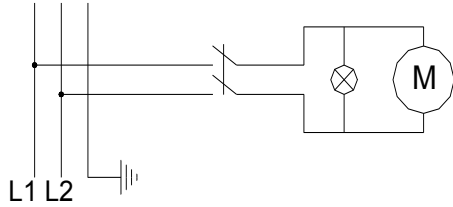
APPENDIX A

List of spare parts that may require changing.

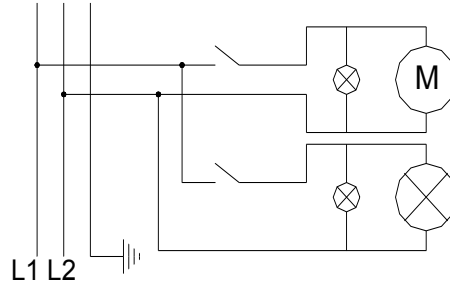
Denomination	Code
Burner	030001
Safety valve	030112
Safety valve bracket	030113
Klingerit valve washer	030114
Thermocouple of 350 mm	030115
Thermocouple nut	030135
Valve coil	030116
Butane/Propane injector (28-30 mbar)	030117
Butane/Propane injector (50 mbar)	030119
Natural Gas injector	030118
Motor reducer 220V for EM Simple switch	020112
Double switch (ovens with light)	06004
Steatite switch	060006
Quartz light (ovens with light only)	030138-E
Burner element fixing rod	010013
	030144-E
Spit without skewers	
Simple Skewer (without screw)	0500001
Double Skewer	050107
Skewer screw	050110
Spit handle	050116
Hook for removing spits	050112
	050114
Oven glass, model. M16E-B, EM16E-B	040105
Oven glass, model. M212E-B, EM212E-B	040205
Oven glass, model. GM318E-B, EM318E-B	040305
Oven glass, model. GM424E-B, EM424E-B	040405
Oven glass, model. M636E-B, EM636E-B, 6EEND	040605
Oven glass, model. GM848E-B, EM848E, EM1590F	080805

Esquemas electricos

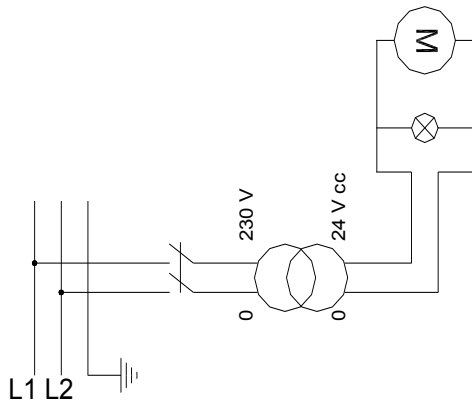
Asadores GM636E-B sin luz



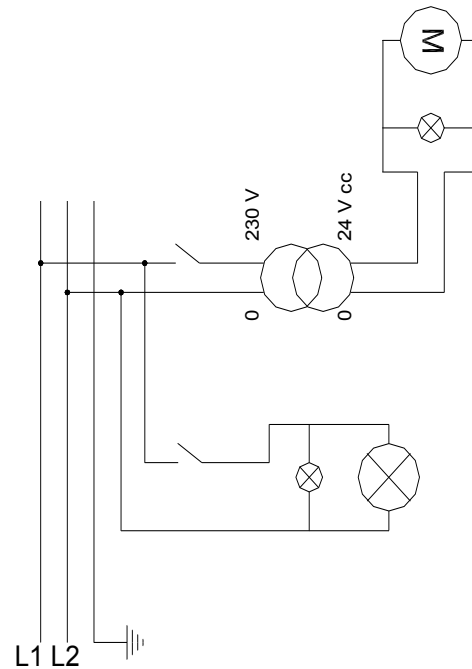
Asadores GM636E-B con luz



**Asadores GM848E-B
sin luz**



**Asadores GM848E-B,
GM1166F y GM1590F
con luz**



Conexión a 230v 50Hz

APPENDIX B

GAS TYPES AND PRESSURES

ES	CAT	I12H3+	BE	CAT	I12E+3+	IT	CAT	I12H3+
	mbar	18-28/37		mbar	20/25-28/37		mbar	20-30/37
DE	CAT	I12E3B/P	FR	CAT	I12E+3+	NO	CAT	I12H3B/P
	mbar	20/50		mbar	20/25-28/37		mbar	20/30
AT	CAT	I12H3B/P	LU	CAT	I12E+3+	NL	CAT	I12L3B/P
	mbar	20/50		mbar	20/25-28/37		mbar	25/30
FI	CAT	I12H3B/P	DK	CAT	I12H3B/P	PT	CAT	I12H3+
	mbar	20/30		mbar	20/30		mbar	20-30/37
GR	CAT	I12H3+	CH	CAT	I12H3+	GB	CAT	I12H3+
	mbar	20-28/37		mbar	20-28/37		mbar	20-28/37
IE	CAT	I12H3+				SE	CAT	I12H3B/P
	mbar	20-28/37					mbar	20/30