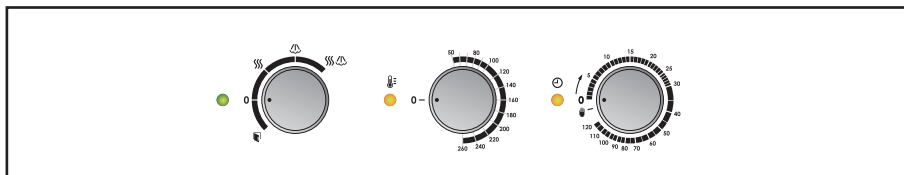
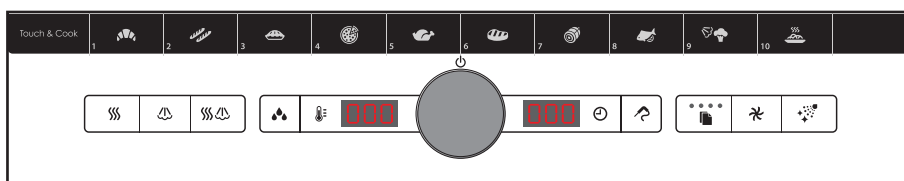


turbofan

COMBINATION OVEN WITH DIRECT STEAM



INSTALLATION AND MAINTENANCE MANUAL

CAUTION: Read the instructions prior to using the equipment

MOFFAT

turbofan[®]
CONVECTION OVEN SYSTEMS

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MODELS

Each letter of the model number identifies an oven feature followed by a number that identifies the capacity of the model.

EC40D5 = Turbofan Combi Oven Electric - 5 Tray Digital.

EC40D7 = Turbofan Combi Oven Electric - 7 Tray Digital.

EC40D10 = Turbofan Combi Oven Electric - 10 Tray Digital.

EC40M5 = Turbofan Combi Oven Electric - 5 Tray Manual.

EC40M7 = Turbofan Combi Oven Electric - 7 Tray Manual.

EC40M10 = Turbofan Combi Oven Electric - 10 Tray Manual.

CAPACITY

EC40D5 / M5	5 x GN 1/1 - 5 x 600 x 400
EC40D7 / M7	7 x GN 1/1 - 7 x 600 x 400
EC40D10 / M10	10 x GN 1/1 - 10 x 600 x 400

The manufacturer accepts no liability for any inaccuracies in this manual attributable to printing or copying errors. We reserve the right to modify our products as we deem fit, without impairing their basic features.



The reproduction or copying of any part of this manual by any means whatsoever is strictly forbidden unless authorized previously in writing by the manufacturer.

- ORIGINAL INSTRUCTIONS -

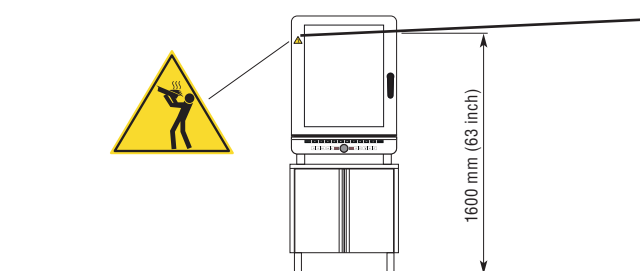
1 • GENERAL REMINDERS

- 1.1 • **The oven must be installed, commissioned and maintained only by an authorized service agent.**
- 1.2 • **Carefully read** the directions given in this manual; they contain important information on safety during installation, operation and maintenance.
Keep this manual in a safe place for future consultation!
- 1.3 • This appliance must be put **only to the use for which it is specifically intended**, i.e. cooking foods; any other type of use is improper and therefore dangerous.
- 1.4 • Having removed the packing **check that the appliance is not damaged in any way.** If in doubt, proceed no further with installation of the appliance and contact the Customer Service or your dealer immediately.
- 1.5 • Packing materials **are potentially dangerous and must not be left where children** can play with them.
- 1.6 • Packaging elements **must be disposed of according to instructions dictated by local legislation in relation to waste disposal.**
- 1.7 • Before positioning and connecting the appliance, check that the utilities (electrical power and water supplies) **are as indicated on the data plate.**

- 1.8 • Example of a data plate:

LOGO		
TYP. XXXXXXXXX		
2008	NR XXXXXXXXXXX	
3N AC 400V 50Hz		
1 x 0.25 kW	TOT 8 kW	kPa 200 - 500 
IPX 5		

- 1.9 • The positions of the inlet and drain connections are clearly labelled. For further details, see the installation diagram attached to this manual.
- 1.10 • In the event of breakdown or faulty operation, **switch off the oven immediately!**
- 1.11 • During installation and/or maintenance operations, it is recommended to use personal protective equipment such as hand gloves etc.



- 1.12 • Safety sticker
- Maximum height for inserting containers with liquids.
ATTENTION: to avoid scalding, do not use the containers filled with liquid or food which, through cooking become fluid, at levels higher than those which can be observed.

2 • TECHNICAL DATA

TABLE 1: GENERAL DATA - ELECTRIC OVENS

Model	Supply Voltage	Frequency	Total Input	Amps
EC40M5 EC40D5	220-240 Vac, 1P+N+E 380-415 Vac, 3P+N+E	50Hz	7,25kW	32 11
	220-240 Vac, 1P+N+E 380-415 Vac, 3P+N+E	60Hz	7,25kW	32 11
EC40M7 EC40D7	380-415 Vac, 3P+N+E	50Hz	12,5kW	18
	380-415Vac, 3P+N+E	60Hz	12,5kW	18
EC40M10 EC40D10	380-415 Vac, 3P+N+E	50Hz	14,5kW	22
	380-415Vac, 3P+N+E	60Hz	14,5kW	22

Warning: The safety device (RCD to be fitted on the power line to the appliance) must be sized for a leakage of 1 mA x kW of power installed.

(*) Flexible cable underneath sheath resistant to oil with designation 60245-IEC-57

TABLE 2: GENERAL WATER DATA

Model	Water pressure kPa (psi)	Softened water consumption max. l/h	Water connection
EC40M5 EC40D5	200 - 500 (30 - 72)	8	1 x R 3/4 ⁽¹⁾
EC40M7 EC40D7	200 - 500 (30 - 72)	16	1 x R 3/4 ⁽¹⁾
EC40M10 EC40D10	200 - 500 (30 - 72)	16	1 x R 3/4 ⁽¹⁾

Hardness: **between 60 and 90 ppm**
 PH: **greater then 7.5**
 Chlorides **less than 30 ppm**

⁽¹⁾ Ovens with cleaning kit are fitted with two water inlets, one for non-softened cold water and the other for hot water (max. 50°C) or cold softened water.

TABLE 3: GENERAL DATA - NET WEIGHT

Model	Net Weight Kg.
EC40M5	74
EC40M7	90
EC40M10	104

Model	Net Weight Kg.
EC40D5	74
EC40D7	90
EC40D10	104

3 • SPECIAL REQUIREMENTS FOR THE INSTALLATION SITE

- 3.1 • The environment where the oven will be installed must be well ventilated and in compliance with national and local legislation.
- 3.2 • In addition, it is good policy to locate the appliance under an extractor hood so that cooking vapours can be removed rapidly and continuously.
- 3.3 • Current Electrical Safety regulations require the installation of a multiple pole switch between the oven and the electrical power supply; the switch must have a contact gap of at least 3mm on each pole.
- 3.4 • The water supply serving the vaporizer, must meet the appropriate flow and pressure specifications (see technical data and water connections heading). A shutoff valve must be installed on each of the water supply pipelines to the appliance.
- 3.5 • A water drainage system must be available in the room, positioned in the immediate vicinity of the appliance with the characteristics described in the chapter “Water connection and drainage” of this manual.
- 3.6 • The electrical isolating switch and the water shutoff valves must all be located near to the appliance, within easy reach for the user.

4 • STATUTORY REQUIREMENTS, TECHNICAL REGULATIONS AND DIRECTIVES

Throughout installation it is vital to observe the following requirements:

- 4.1 • any health and hygiene standards applicable to kitchens and eating places;
- 4.2 • local and/or territorial building regulations and fire prevention standards;
- 4.3 • current accident prevention guidelines;
- 4.4 • requirements relating to electrical systems;
- 4.5 • the regulations of the electrical power supply company or agency;
- 4.6 • any other local regulations.

5 • POSITIONING

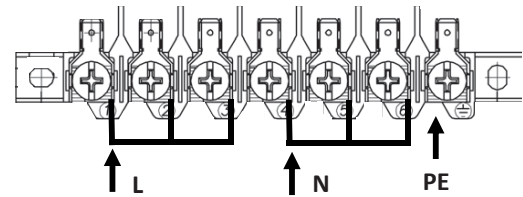
- 5.1** • When positioning the appliance, it is recommended to use the stand suggested by the manufacturer; if you decide differently, the weight of the appliance must be taken into consideration, along with the need to fasten it to the supporting surface.
- 5.2** • Prior to fixing the oven in its final place of installation, the water connection and drainage pipes must be connected (see paragraphs relative to water connection and drainage).
- 5.3** • Safe distances from other appliances or walls, necessary to allow technical assistance, can be found in the installation diagram corresponding to the oven being connected. In the event the oven is positioned in the immediate vicinity of a flammable wall, suitable thermal insulation must be provided.
Current fire regulations should be meticulously observed and respected. The openings and slots in the outer casing of the oven must not be blocked, as these allow heat to escape from the compartment housing the electrical components.
Keep strictly to the installation diagrams.
- 5.4** • Once the appliance is installed, the electrical power cable must be protected, and never stretched or tugged.
- 5.5** • The appliance must be level: any difference in level or sloping of the supporting surface should be eliminated. Differences in level or sloping negatively affect oven operation.
- 5.6** • Remove all packing materials and peel away the protective plastic film from all external and internal surfaces of the oven.

6 • ELECTRICAL CONNECTIONS AND EQUIPOTENTIAL BONDING

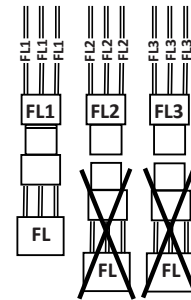
- 6.1 • As this oven is a type X appliance (oven without power cable and plug), the cable and other hardware needed to make the connection to the electrical power supply must be provided by the installer. The cable must satisfy the requirements indicated in “*Table 1: General Data-Electric Ovens*”. As already mentioned, the oven must be connected to the power supply by way of a multiple pole main isolating switch ensuring a gap between open contacts of at least 3mm on each pole.
- 6.2 • To access the power terminal block, the oven panel must be removed by unscrewing the fastening screws.
- 6.3 • The cable must be fed in through the clamp from the back. The individual wires are then fastened to the corresponding terminals of the terminal board. The earth wire must be longer than the other wires, so that in the event of the cable being jerked or the clamp broken, the live wires will disconnect first. Check the efficiency of the isolating switch.
- 6.4 • Connect the power cable according to the following diagrams:

220-240Vac, 1P+N+E
(Only for EC40M5 / EC40D5)

Terminal block:

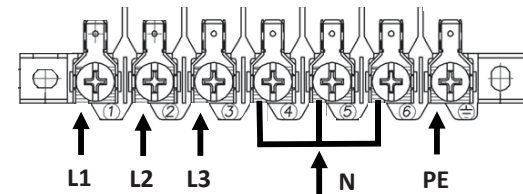


Filters:

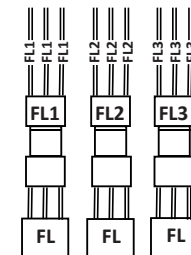


380-415Vac, 3P+N+E

Terminal block:



Filters:



The manufacturer shall not be liable for any connections which differ from those indicated in the present diagrams.

6 • ELECTRICAL CONNECTIONS AND EQUIPOTENTIAL BONDING

- 6.5 • The oven must also be bonded equipotentially to other equipment in the kitchen. This connection is made by wiring a conductor of nominal cross section 10mm² to the corresponding terminal at the back of the oven, which is marked with the internationally recognized symbol. All appliances in the room are bonded in this way and connected to the earth system of the building.
- 6.6 • The electrical safety of this appliance can be guaranteed only when it is connected correctly to an efficient earth system, in compliance with current standards.

7 • POINTS TO REMEMBER WHEN MAKING THE ELECTRICAL CONNECTION

- 7.1 • As all ovens of the series are fitted with an alternating fan motor (clockwise and anticlockwise rotation), there is no need for the fan to rotate in any particular direction. Simply verify, when commissioning the appliance, that the fan is balanced and rotates freely.

8 • WATER AND DRAIN CONNECTIONS

8.1 • WATER PRESSURE

The pressure of the water in the network must be between 200 and 500 kPa, (30 - 72 psi) as already stated under the heading "*Table 2: General Water Data*". If the supply pressure is higher than this, a pressure reduction valve must be installed between the oven and the main.

8.2 • WATER CONNECTION TO THE VAPORIZER

The water supplied to the vaporizer must be either cold and softened, or hot (max 50 °C), as described below. The water connection is R 3/4". The hose for connection to the water supply must be provided by the installer. A shutoff valve must be installed on the line between the oven and the supply.

8.3 • WATER SPECIFICATIONS

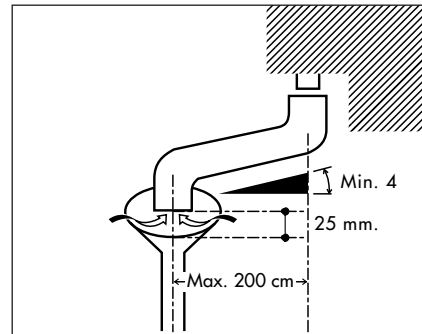
The characteristics of the water must come within the limits given below, in order to prevent both corrosion, which is extremely damaging for the appliance, due to supplying water that is too softened or too aggressive, and scaling in the oven and in the water system in the case of supplying water that is too hard.

Hardness: **between 60 and 90ppm**
PH: **greater then 7.5**
Chlorides **less than 30ppm**

These values are important in ensuring that the water used by the appliance is suitably treated!

8.4 • DRAIN

It is imperative to fit a drain cup to ensure a minimum air drop of 25mm. between the appliance's plastic drain elbow and drain line. **A direct connection is not permissible.**



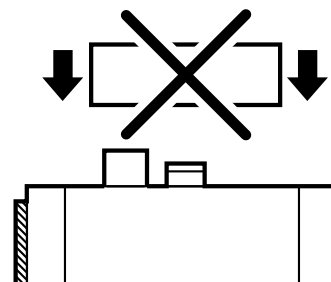
WARNING:

The drain line must be outside the perimeter of the oven.

It is prohibited to reduce the diameter of the drain pipe shown in the installation diagram.

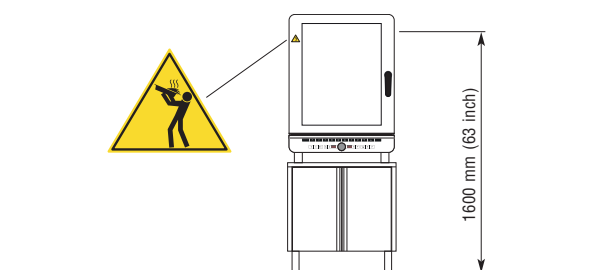
9 • VENTS

- 9.1 • Under no circumstances must the vents be shut, blocked or ducted into other pipes.



10 • COMMISSIONING AND TESTING

- 10.1** • Check the appliance and the entire installation straight after connecting. Check in particular:
- there are no traces of the protective film on the outside walls and the oven is empty;
 - all the vents are clear;
 - the connections are made as required and instructed in this handbook;
 - all the safety requirements of the current standards, laws and directives are met;
 - there is no leakage from the water connections;
 - water drainage is unrestricted.
- Apply the adhesive with the warning signal against the scalding danger at a height from the ground of 1.6m.
- 10.2** • Now proceed to operate the oven as directed in the user manual.
- 10.3** • You should moreover check that the silicone joints and sleeves of the water circuit (oven vent, oven outlet, drip tray) do not leak.
- 10.4** • Carefully refit the side and/or back that was removed for the above work.



11 • IMPORTANT INFORMATION FOR THE USER

- 11.1** • With the user manual to hand, show the user the functions, safety devices, appropriate use and, above all, the time intervals for servicing the oven. Maintenance operations should be carried out at least once a year. With this in mind, customers are recommended to sign a service agreement.
- 11.2** • **Ensure the user is fully aware that such repair and/or maintenance operations as may become necessary over time must be carried out only by an authorized service agent.**
- 11.3** • Explain clearly to the user that in the event of breakdown or faulty operation, all connected utilities (water and electricity) should be shut off immediately.
- 11.4** • Keep the installation manual and the wiring diagram for future reference. Explain to the user that the user manual supplied with the oven must be kept near the oven in a place where it can be seen. It is good policy to make a note, in the user manual, of the name and contact numbers of the selected Service Agent.
- 11.5** • Explain to the user that certain faults in operation are often due to simple errors or oversights such as failure to switch on or connect utilities. Accordingly, kitchen staff should be trained in such a way that they can use the appliance confidently and understand how it operates. Faults of a recurring or persistent nature must be investigated by an authorized Service Agent.

12 • DISMANTLING AND DISPOSAL

“Implementation of Directives 2002/95/EC, 2002/96/EC and 2003/108/EC relating to the use of hazardous substances in electrical and electronic equipment, as well as waste disposal.”

12.1 • DISPOSAL

The barred bin symbol on the equipment indicates that at the end of its useful life it must be collected separately from other waste.

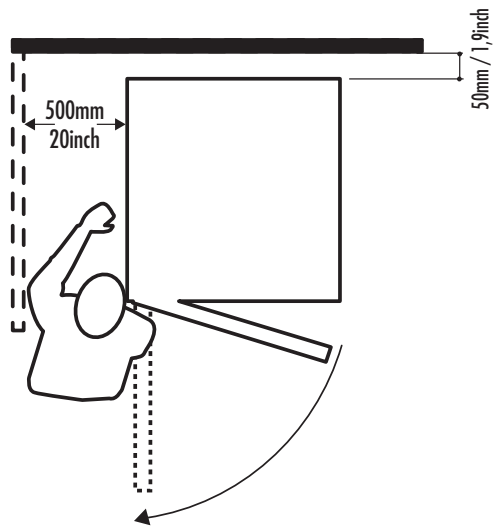


12.2 • The user must therefore dispose of the equipment at the end of its useful life at the appropriate centres for the separate collection of electronic and electrical waste, or return it to the dealer when purchasing a new equivalent product, on a one to one basis.

12.3 • Proper separate collection for subsequent recycling treatment and environmentally friendly disposal of the equipment helps prevent possible negative effects on health and the environment and promotes the recycling of the materials that make up the equipment.

12.4 • Illegal dumping of the product by the user will result in the application of administrative sanctions according to the current law.

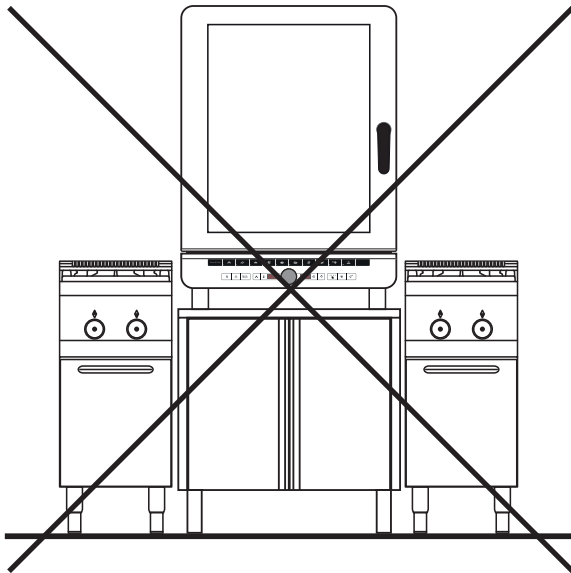
13 • INSTALLATION DIAGRAMS



DISTANCES TO BE ADHERED TO

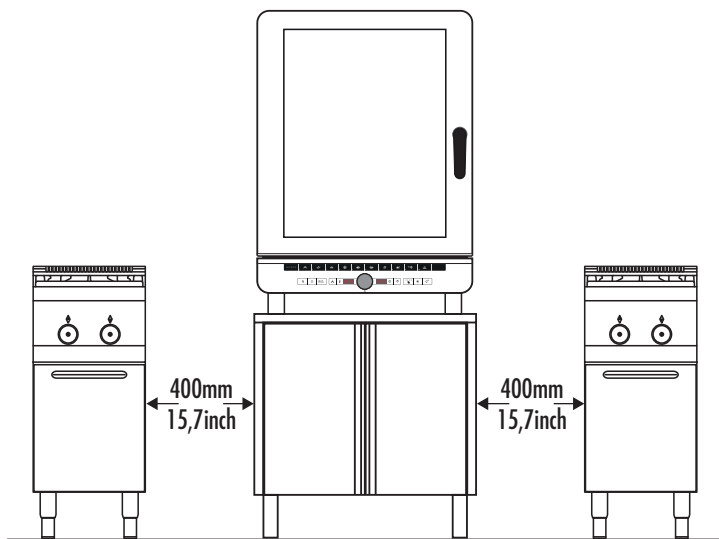
The appliance cannot be recessed. One of the two sides must be exposed.

Minimum distance from wall: 50mm / 1.9 inches



AVOID POSITIONING HEAT-RADIATING APPLIANCES ON EITHER SIDE OF THE OVEN

ATTENTION: if the temperature on the sides of the appliance is excessively high, as a safety precaution the oven will switch off.



Minimum distance from heat sources on both sides: 400mm / 15.7 inches.

14 • REMOVING THE CONTROL PANEL (Version D)

The following are the instructions for removing the control panel to replace the control board or the glass panel.

14.1 • REMOVING THE CONTROL PANEL

Disconnect the power supply to the oven.

To remove the control panel, first remove the plastic covers inside the front tray that protect the 3 mounting screws (pry up using a flat head screwdriver) and loosen the 3 screws.



On the lower part of the control panel, loosen and remove the two black mounting knobs.

Once removed, the panel slides down.



14.2 • REPLACING THE CONTROL BOARD KEYPAD

Disconnect the control board keypad connector and the encoder connector.

Unscrew the 4 mounting screws on the panel of the control board keypad/frame and remove them.

Insert the new control board keypad/frame assembly, replace the 4 screws and reconnect the wiring.

Replace the control panel.

14.3 • REPLACING THE GLASS PANEL

Remove the encoder knob and unscrew the mounting nut.

Disconnect the control board keypad connector and the encoder connector.

Unscrew the 4 mounting screws on the panel of the control board keypad/frame and remove them.

Remove the encoder board.

Put the encoder board on the new glass panel and screw the mounting nut. Replace the knob.

Replace the control board keypad/frame assembly, replace the 4 screws and reconnect the wiring.

Replace the control panel.

