

EVOLINE

INSTALLATION, USER AND MAINTENANCE MANUAL



REGENERATION OVENS

F0460523 - F0470523

F0460611 - F0470611

F0461011 - F0471011

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1. INTRODUCTION

This document has been carefully prepared and controlled in order to provide reliable information of help in the use of the equipment. The manufacturer declines any implicit or explicit responsibility regarding any errors or omissions that it may contain.



Please read this entire manual carefully before handling or using the equipment.



The equipment owner **must ensure** that this manual is read by those who will be using and maintaining the equipment and that it is kept in a safe place where it can be accessed and used for future reference by equipment users.

2. GENERAL SAFETY AND ACCIDENT PREVENTION STANDARDS

2.1 Personnel in charge of using the equipment



This equipment must be used by trained personnel only. Personnel must be aware of the safety standards and user instructions.



Do not allow UNAUTHORISED personnel to use, handle or clean the machine.

2.2 Electric hazard



Only qualified personnel may work on the electrical power part and access live parts at their own responsibility. Under all circumstances, the appliance must be disconnected from the mains before live parts are accessed.

2.3 Heat hazard



Keep the vents unblocked.

Do not install the equipment near flammable products.

2.4 General safety warnings



Accident hazard. Take special care when using food containers in the regenerator when the top tray is at the 160 cm position or higher. The hot contents of GN trays poses a risk of injury.



The door exterior can reach temperatures of up to 60 °C.

3. TECHNICAL SPECIFICATIONS

3.1 Main specifications

The main specifications of the appliance are as follows:

- Intuitive, user-friendly panel with touch keypad
- Regeneration with or without humidity at 140°C - 160°C
- Maintains temperature with or without humidity at 65°C
- Timed end-of-cycle control
- Digital humidity and time indicators
- Automatic pre-heating system
- Turbine automatically switches off on opening the door
- Visual and acoustic end of cycle indicator
- Safety thermostat
- Humidity control from 0% to 100%
- Direct draught humidity extraction
- Hygienic cooking chamber with rounded corners.
- Designed for a range of temperatures up to 160°C
- Stainless steel construction
- Easy-to-remove guide rails
- Mains water connection
- Direct water injection
- Adjustable feet

Model	Without packaging			With packaging		Capacity GN 1/1	Voltage	Power (kW)
	Chamber dimensions. Length x Depth x Height (mm)	External dimensions. Length x Depth x Height (mm)	>Weight (kg)	Dimensions. Length x Depth x Height (mm)	>Weight (kg)			
F0460523	471x497x468	573x666x816	60	700x800x1016	75	5*	230V; 50 Hz	3.1
F0470523								
F0460611	670x514x527	772x716x888	90	1200x1000x1088	105	6**	400V, 3L+N; 50 Hz	7.8
F0470611								
F0461011	670x514x815	772x716x1181	105	1200x1000x1381	130	10**		9
F0471011								

Table 1. Measurements and specifications

*2/3 TRAYS HEIGHT 65mm

**GN 1/1 TRAYS HEIGHT 65mm

The maximum recommended food load is 5 Kg on GN 1/1 trays and 3.5 Kg on GN 5 2/3 trays.

MODEL	CAPACITY	HUMIDITY
F0460523	5 GN 2/3 TRAYS	NO
F0470523		YES
F0460611	6 GN 1/1 TRAYS	NO
F0470611		YES
F0461011	10 GN 1/1 TRAYS	NO
F0471011		YES

Table 2. EVOLINE Models

4. INSTALLATION

On receiving the equipment, carefully remove the packaging, checking the label to make sure the equipment is the same as that ordered. Once the equipment has been checked, read this “*Installation, use and maintenance manual*”, taking the following warnings into account:

- Personnel responsible for the installation must be qualified in machine installation.
- Check that the equipment components are correctly positioned and have not been damaged during transport.

4.1 Positioning and safety distances

Using a level, ensure the equipment is placed in a completely horizontal position whilst respecting the following safety clearance distances:

- Sides: 100mm
- Top part: 500mm (for ventilation)
- Rear part: 100mm

Despite the fact that the minimum distance on the left-hand side is 100mm, a distance of over 500mm is recommended for service access.

If the equipment is positioned near a heat source (e.g. ovens or burners), the safety clearance distance between the equipment and the source should be increased by a further 500mm.

The door of the unit opens 180°, we therefore recommend that no other unit or item of furniture which may obstruct the door is positioned beside the equipment.

4.2 Electrical connections

4.2.1 EVOLINE 6GN and 10 GN

The appliance is fitted with an H05RN-F-type five-wire cable measuring approximately 2m in length so that it can be correctly connected once in position. Its phases (L1, L2 and L3) are brown, grey and black. The order of the phases can be reversed. Neutral is blue and the earthing connection is yellow-green.

Colour	Wire
■ Green-yellow	Earth
■ Blue	Neutral
■ Brown	L1
■ Grey	L2
■ Black	L3


Table 3. Wiring colour assignment



Never connect a phase to neutral or earth. Check that the installation voltages are the same as those of the appliance.

The appliance must be connected to the mains using a single-pole (three phases and neutral) circuit breaker with a contact aperture distance of over 3mm. An RCD and surge protection device should also be installed.

Always ensure effective earthing.

Connect the appliance to an equipotential system  using the contact fitted for this purpose (see equipotential sign at the bottom left of the appliance).



Connection to an equipotential system guarantees additional safety in the event of earth leaks and RCD failure at the same time.


The cross-section of the wiring and other safety devices used for the electrical installation must be appropriate for the appliance in question.



All electrical connections of the equipment to the low-voltage network must comply with the applicable regulations in force.

4.2.2 EVOLINE 5 2/3 GN

To facilitate the electrical connection of the appliance once it is correctly positioned, it is equipped with a connector that can be connected to the mains, whilst observing the following precautions:

- a) Check that the supply voltage/current of your electrical installation is the same as that required by the appliance (230V/16A).
- b) A connection to earth is compulsory. Check that the socket is earthed.
- c) Connect the appliance to an equipotential system  using the contact fitted for this purpose (see equipotential sign at the bottom left of the appliance).



Connection to an equipotential system guarantees additional safety in the event of earth leaks and RCD failure at the same time.

4.3 Water connection

Cold water (max. 40°C) ¾ inch from 100 to 400 kPa flow pressure.

Drinking water quality with the following characteristics:

- Hardness between 3° and 6° FH
- PH between 6.5 and 8.5
- Chlorides below 30ppm

A water filter must be used (BRITA Purity Steam 450 recommended)

4.4 Drainage

It must be connected to a drainage system with drain trap or other anti-odour device through a non-flexible, heat resistant tube (DN40).

The tube must remain at a gradient of at least 5°.

A discharge pipe should be installed between the appliance's drainage pipe and the installation's trap.

5. **CONTROL PANEL**

5.1 **EVOLINE WITH HUMIDITY SYSTEM**

The following figures show the keypad on the control panel. The panel consists of display sections for seven segments and membrane controls.

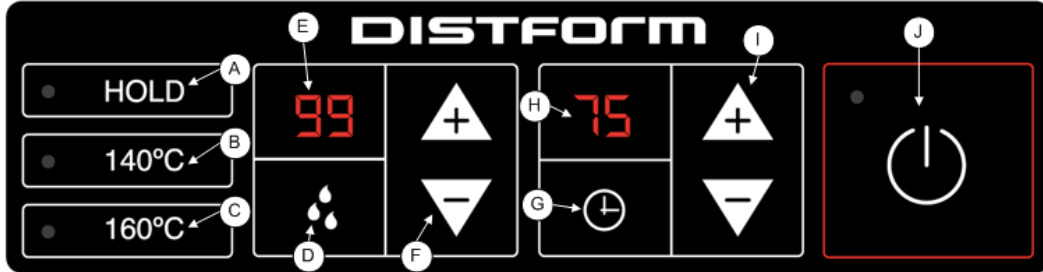


Figure 1. Control panel for model with humidity system




Figure 2. Control panel for model without humidity system

Function		Description
A	HOLD button	HOLD mode selection button.
B	140° button	140° temperature selection button.
C	160° button	160° temperature selection button.
D	Humidity button*	Humidity percentage selection button.
E	Humidity display*	Shows the percentage of humidity in the chamber.
F	Humidity change button*	Allows the user to change the level of humidity inside the chamber.
G	Time button	Shows the time selection.
H	Time display	Indicates the time remaining until the end of the programme.
I	Change time button	Time selection button. Allows the user to set the operation time to start once the chamber has reached the indicated temperature.
J	ON/OFF button	Button used for switching the appliance on or off.

*Not available on models without humidity system.

6. OPERATING

6.1 Switching on the machine

The appliance can be turned on or off using the “ON/OFF” button . As soon as the appliance is turned on you will hear an acoustic signal. The appliance will then turn to maintenance mode (maintaining the temperature inside the chamber at 65°).

The regeneration parameters can be set immediately afterwards.



6.2 Regeneration



Once the regeneration oven is turned on, you can then start to programme the regeneration process following the steps indicated below. First select the required regeneration



temperature (140° or 160°). The selected temperature indicator light will flash until the required temperature is reached.

Table 4. Description of control panel functions

If required, after selecting the temperature setting you can also select the level of humidity inside the chamber (models with humidity system only). To do so you will need to activate the humidity control  and change the symbol  to set the required level of humidity. You can select a humidity value between “1” and “99”.

After selecting the temperature and humidity level, you must then select the regeneration time. To do so, activate the time control  and select a time setting between “1” and “- -“, with , this last value indicates indefinite time.

The time indicator will only start to count down the time specified once the temperature setting selected earlier has been reached.

6.3 End of cycle

At the end of any timed regeneration process, an acoustic signal will sound and the appliance will automatically switch to maintenance mode until the user takes further action.

6.4 Door open

When the appliance is switched on with any time, humidity or temperature configuration, an acoustic and visual signal will be activated on the control panel whenever the door is opened. This warning will be repeated every 10 seconds until the door is closed.

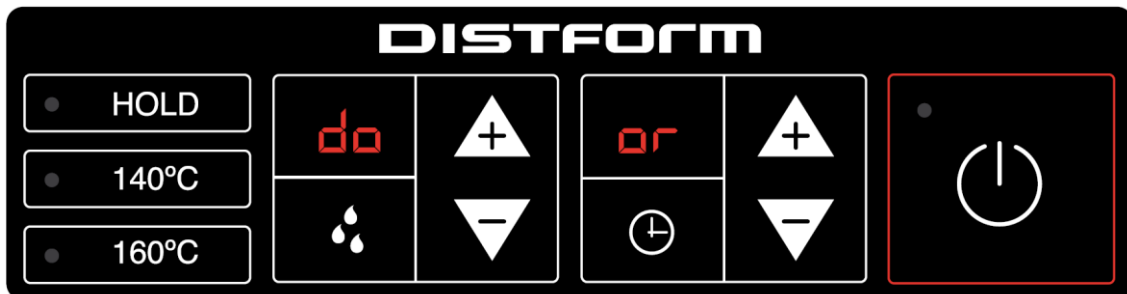


Figure 3. Control panel for model with humidity system when the door is open



Figure 4. Control panel for model without humidity system when the door is open

7. ERRORS AND FAULTS

7.1 Serious errors

The machine includes algorithms to detect abnormal situations that could lead to a machine malfunction. In such cases, an acoustic signal will sound and the LEDs will flash to indicate an anomaly. The user is notified of such situations on an error screen like the ones shown below for both models, with or without humidity system:

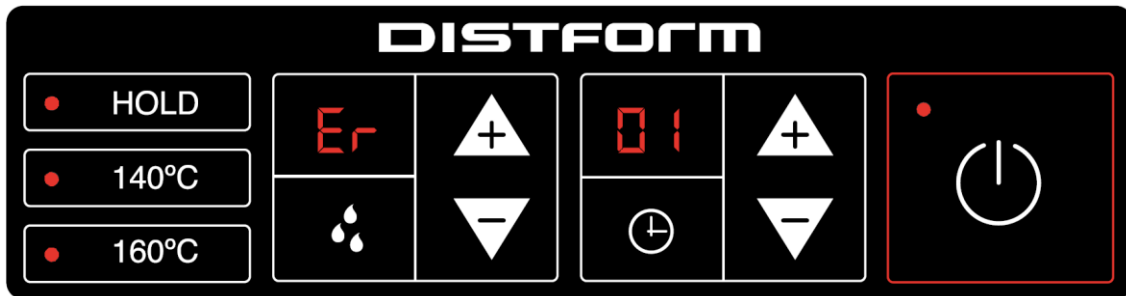


Figure 5. Error signals for models with humidity system

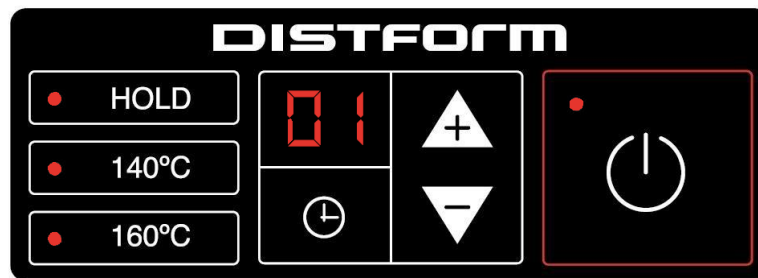


Figure 6. Error signals for models without humidity system

The table below shows the errors:

Err 01	Short-circuited chamber probe	The system has detected that the chamber probe cable has been shorted. Call the after-sales service for repair.
Err 02	Chamber probe in open circuit	The system has detected that the chamber probe cable has been cut or disconnected. Call the after-sales service for repair.
Err 16	Internal error	The system has detected an internal error. Unplug the appliance and plug it back in after one minute. If this is unsuccessful, call the after-sales service for repair.
Err 17	E01+E16	Errors E01 and E16 have occurred simultaneously.
Err 18	E02+E16	Errors E02 and E16 have occurred simultaneously.

Table 5. Troubleshooting

Once the machine has detected a serious error it will be unable to operate normally until repaired.

As a result of automatic checks, the appliance could switch itself off to avoid a serious fault. In this case, switch it on again normally.

8. MAINTENANCE



The equipment must be unplugged from the mains before any cleaning, maintenance or repair work is carried out.



Any damaged power cables must be replaced by the manufacturer, by its after-sales service or by similar qualified personnel in order to avoid hazards.

8.1 Cleaning

Clean the regeneration oven regularly and carefully.



Washing the regeneration oven using pressurised equipment could **DAMAGE** the equipment and cause breakage, leading to loss of its **WARRANTY**.

Use a damp cloth and detergent to clean the stainless steel housing.



Never use cold water to wash the inside of the cooking chamber when it is at a temperature of over 70°C. The difference in heat could **DAMAGE** the equipment, leading to loss of its **WARRANTY**.



During the cleaning process, never exceed 70°C when cleaning with a cleaning product. The cleaning product may damage the cooking chamber at higher temperatures. This **DAMAGE** is not covered by the **GUARANTEE**.



After cleaning, rinse inside the cooking chamber well with lots of water to ensure that all remains of cleaning products are removed. We also recommend leaving door open for at least 1 hour for ventilation purposes.

8.2 Door seal

Regularly check the condition of the door seal. In the event of steam leakages, contact the after-sales service for replacement.

8.3 Owner's Responsibility

THE OWNER IS RESPONSIBLE FOR REGULAR MAINTENANCE. IT MUST BE POSSIBLE TO VERIFY MAINTENANCE WORK HAS BEEN CARRIED OUT FOR THE WARRANTY TO REMAIN VALID.

9. CE MARKING

The EVOLINE regeneration oven is fitted with a nameplate that contains the following specifications and references:

Manufacturer: Distform, S.L.

Item:

Serial number

Electrical specifications

Year of manufacture.



Figure 7. CE Marking Label

This regeneration oven has been manufactured according to the following standards:

- EN 60335-1
- EN 60335-2-42
- EN 55014-1
- EN 55014-2
- EN 61000-3-2
- EN 61000-3-3

and is compliant with the low-voltage (2006/95/EC), electromagnetic compatibility (2004/108/EC) and machinery (2006/42/EC) directives



The equipment nameplate/identification plate must not be damaged, removed, modified, covered or altered and must remain visible. Altering or removing it could lead to loss of warranty.

10. GENERAL WIRING DIAGRAM

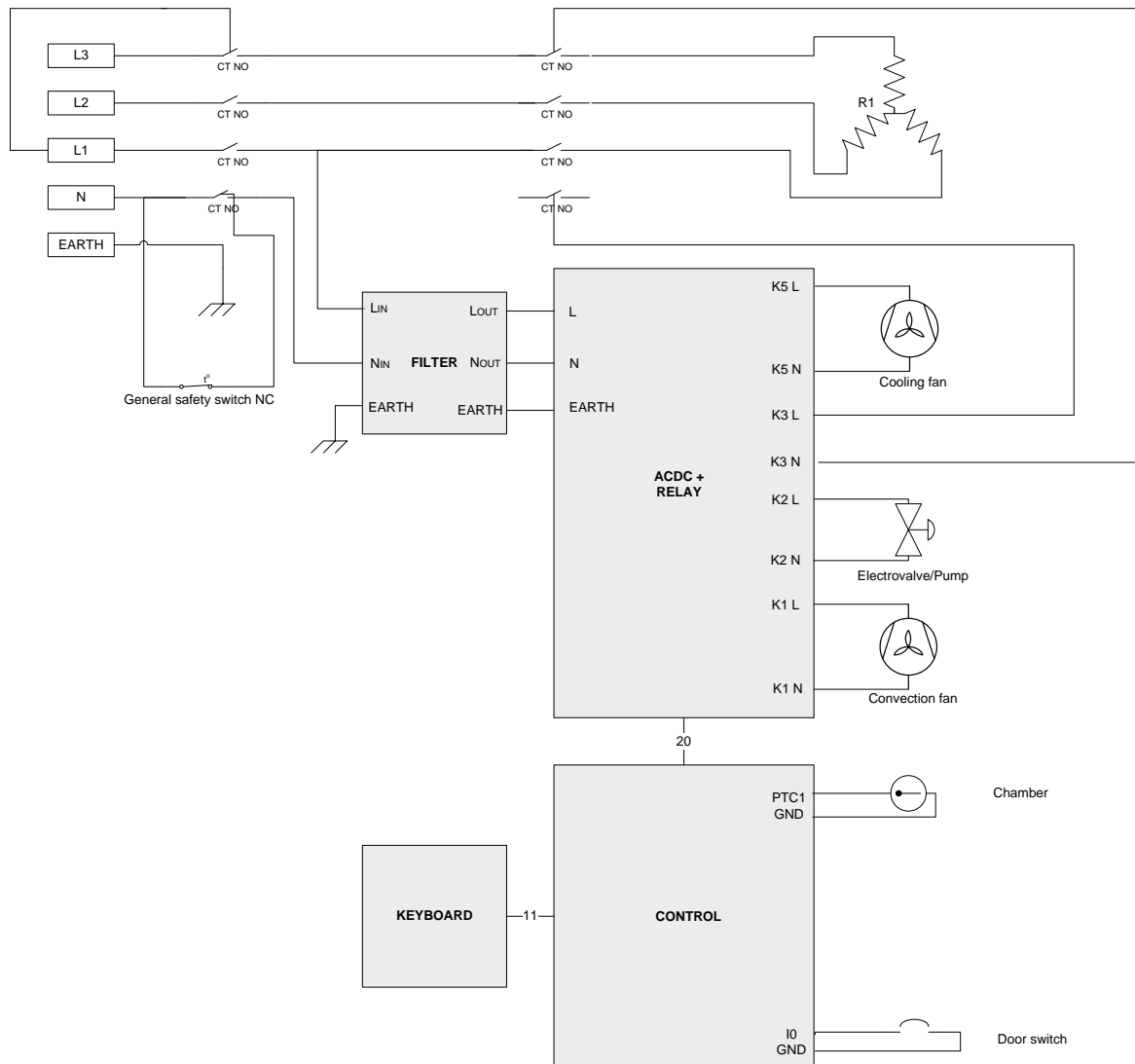


Diagram 1. EVOLINE 6 GN electrical circuit

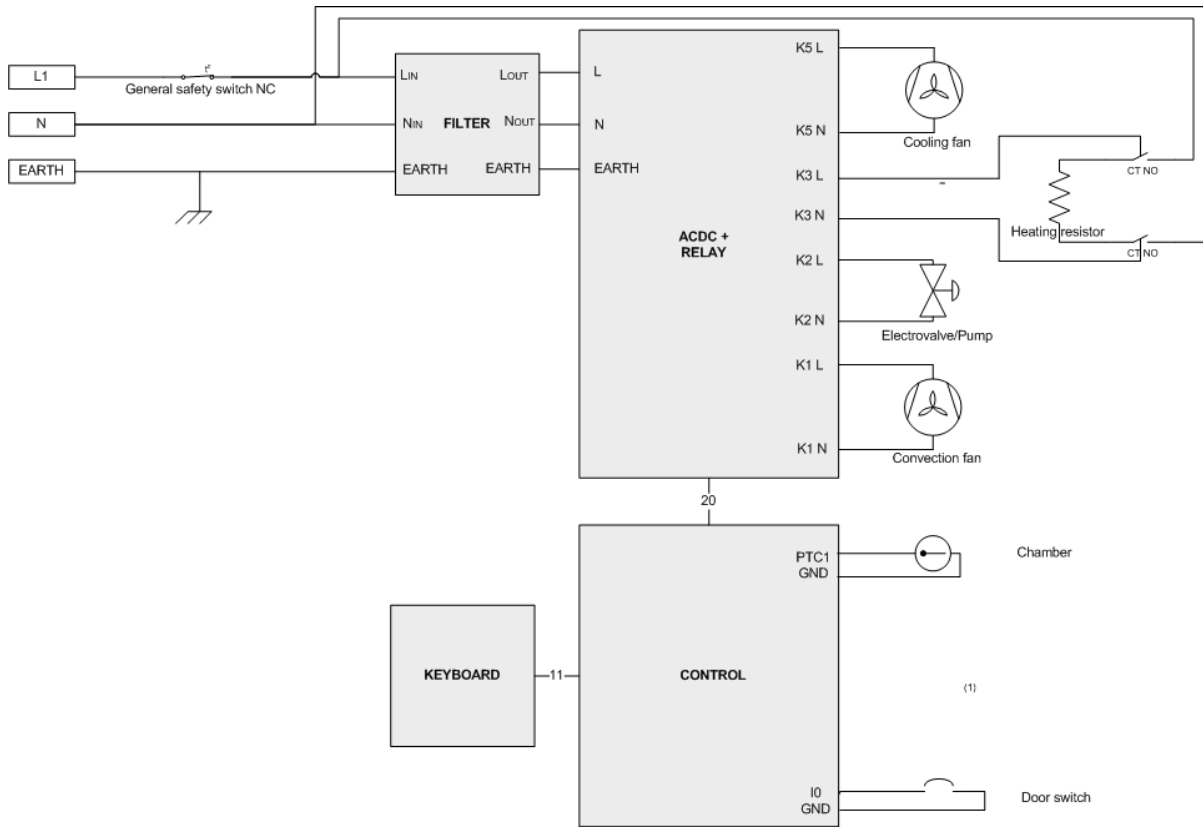


Diagram 2. EVOLINE 5 2/3 GN electrical circuit