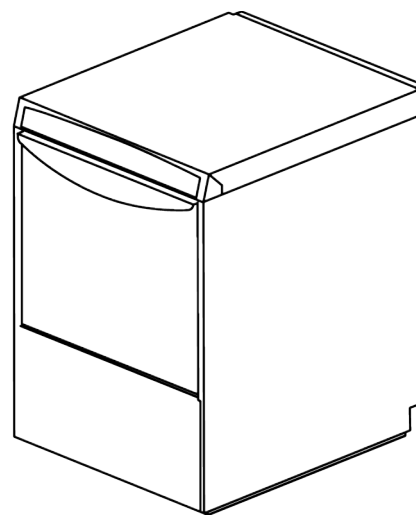


Undercounter dishwasher

Electronic Smart Interface - ESI



EN

User manual



Foreword



Read the following instructions, including the warranty terms before installing and using the appliance.

The installation, use and maintenance manual (hereinafter Manual) provides the user with information necessary for correct and safe use of the appliance.

The following must not be considered a long and exact list of warnings, but rather a set of instructions suitable for improving appliance performance in every respect and, above all, preventing injury to persons and animals and damage to property due to improper operating procedures.

All persons involved in appliance transport, installation, commissioning, use and maintenance, repair and disassembly must consult and carefully read this manual before carrying out the various operations, in order to avoid wrong and improper actions that could compromise the appliance's integrity or endanger people. Make sure to periodically inform the user regarding the safety regulations. It is also important to instruct and update personnel authorised to operate on the appliance, regarding its use and maintenance.

The manual must be available to operators and carefully kept in the place where the appliance is used, so that it is always at hand for consultation in case of doubts or whenever required.

If, after reading this manual, there are still doubts regarding appliance use, do not hesitate to contact the Manufacturer or the authorised Service Centre to receive prompt and precise assistance for better operation and maximum efficiency of the appliance. During all stages of appliance use, always respect the current regulations on safety, work hygiene and environmental protection. It is the user's responsibility to make sure the appliance is started and operated only in optimum conditions of safety for people, animals and property.

IMPORTANT

1. The manufacturer declines any liability for operations carried out on the appliance without respecting the instructions given in this manual.
2. The manufacturer reserves the right to modify the appliances presented in this publication without notice.
3. No part of this manual may be reproduced.
4. This manual is available in digital format by:
 - Contacting the dealer or reference customer care;
 - Downloading the latest and up to date manual on the web site;
5. The manual must always be kept in an easily accessible place near the appliance. Appliance operators and maintenance personnel must be able to easily find and consult it at any time.

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A WARNING AND SAFETY INFORMATION

A.1 General information

To ensure safe use of the appliance and a proper understanding of the manual it is necessary to be familiar with the terms and typographical conventions used in the documentation. The following symbols are used in the manual to indicate and identify the various types of hazards:



WARNING

Danger for the health and safety of operators.



WARNING

Danger of electrocution - dangerous voltage.



CAUTION

Risk of damage to the appliance or the product.



IMPORTANT

Important instruction or information on the product



Equipotentiality.



Read the instructions before using the appliance



Clarifications and explanations

- Only specialised personnel are authorised to operate on the appliance.
- This appliance is intended to be used for commercial applications, for example in kitchens of restaurants, canteens, hospitals. It must be used for washing or drying plates, dishes, glassware, cutlery and similar articles.
- This appliance is not intended for use by persons (including children) with reduced physical, sensor or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of appliance by a person responsible for their safety.
- Do not let children play with the appliance.
- Keep all packaging and detergents away from children.
- Cleaning and user maintenance shall not be made by children without supervision.
- For your safety do not store or use gasoline or other flammable materials, vapours and liquids in the vicinity of this or any other appliance.
- Do not store explosive substances, such as pressurized containers with flammable propellant, in this appliance.
- Refer to the data given on the appliance's data plate for relations with the Manufacturer (e.g. when ordering spare parts, etc.).
- When scrapping the appliance, the marking CE must be destroyed.
- Save these instructions carefully for further consultation by the various operators.

A.2 Personal protection equipment

Summary table of the Personal Protection Equipment (PPE) to be used during the various stages of the appliance's service life.

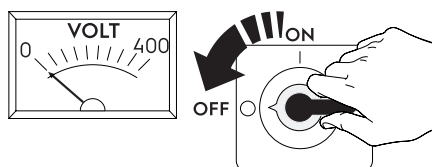
Stage	Protective garments 	Safety footwear 	Gloves 	Glasses 	Safety helmet 
Transport	-	●	○	-	○
Handling	●	●	○	-	-
Unpacking	○	●	○	-	-
Installation	○	●	● ¹	-	-
Normal use	●	●	● ²	○	-
Adjustments	○	●	-	-	-
Routine cleaning	○	●	● ¹⁻³	○	-
Extraordinary cleaning	○	●	● ¹⁻³	○	-
Maintenance	○	●	○	-	-

Stage	Protective garments	Safety footwear	Gloves	Glasses	Safety helmet
					
Dismantling	○	●	○	○	-
Scrapping	○	●	○	○	-
Key:					
●	PPE REQUIRED				
○	PPE AVAILABLE OR TO BE USED IF NECESSARY				
-	PPE NOT REQUIRED				

- During these operations, gloves must be cut-resistant. Failure to use the personal protection equipment by operators, specialized personnel or users can involve exposure to damage to health (depending on the model).
- During these operations, gloves must be heatproof and suitable for contact with water and the substances used (refer to the safety data sheet of the substances used for the information regarding the required PPE). Failure to use the personal protection equipment by operators, specialised personnel or users can involve exposure to chemical risk and cause possible damage to health (depending on the model).
- During these operations, gloves must be suitable for contact with chemical substances used (refer to the safety data sheet of the substances used for information regarding the required PPE). Failure to use the personal protection equipment by operators, specialized personnel or users can involve exposure to chemical risk and cause possible damage to health (depending on the model).

A.3 General safety

- The appliances are provided with electric and/or mechanical safety devices for protecting workers and the appliance itself.
- Never operate the appliance, removing, modifying or tampering with the guards, protection or safety devices.
- Do not make any modifications to the parts supplied with the appliance.
- Several illustrations in the manual show the appliance, or parts of it, without guards or with guards removed. This is purely for explanatory purposes. Do not use the appliance without the guards or with the protection devices deactivated.



Disconnect the appliance from the power supply before carrying out any installation, assembly, cleaning or maintenance procedure.

- Do not remove, tamper with or make illegible the CE marking, the safety, danger and instruction signs and labels on the appliance.
- The A-weighted emission sound pressure level does not exceed 70 dB(A).
- The following operations have to be carried out by specialised authorised personnel or Customer Care Service provided with all the appropriate personal protection equipment (A.2 Personal protection equipment), tools, utensils and ancillary means, who can ask the manufacturer to supply a servicing manual:
 - Installation and assembly
 - Positioning
 - Electrical connection
 - Appliance cleaning, repair and extraordinary maintenance
 - Appliance disposal
 - Work on electrical equipment

A.4 Protection devices installed on the appliance

Guards - The appliance has:

- Fixed guards (e.g. casings, covers, side panels, etc.), fixed to the appliance and/or frame with screws or quick-release connectors that can only be removed or opened with tools; therefore the user must not remove or tamper with such devices. The Manufacturer declines any liability for damage due to tampering or their non-use;
- Interlocked movable guards (door) for access inside the appliance;
- Appliance electrical equipment access panels or doors, made from hinged panels openable with tools. The panel or the door must not be opened when the appliance is connected to the power supply.

Safety devices - The appliance has:

- interlocks on the door(s) giving access to inside the appliance;

A.5 Safety signs to be placed on the appliance or near its area

Danger	Meaning
	Danger of crushing hands
	Caution hot surface
	Danger of electrocution (shown on electrical parts with indication of voltage)

A.6 Reasonably foreseeable improper use

Improper use is any use different from that specified in this manual. During appliance operation, other types of work or activities deemed improper and that in general can involve risks for the safety of operators and damage to the appliance are not allowed. Reasonably foreseeable improper use includes:

- Lack of appliance maintenance, cleaning and periodical checks;
- Structural changes or modifications to the operating logic;
- Tampering with the guards or safety devices;
- Failure to use personal protection equipment by operators, specialised personnel and maintenance personnel;
- Failure to use suitable accessories (e.g. use of unsuitable equipment or ladders);
- Keeping combustible or flammable materials, or in any case materials not compatible with or pertinent to the work, near the appliance;
- Wrong appliance installation;
- Placing in the appliance any objects or things not compatible with its use, or that can damage the appliance, cause injury or pollute the environment;
- Climbing on the appliance;
- Non-compliance with the requirements for correct appliance use;
- Other actions that give rise to risks not eliminable by the Manufacturer.

A.7 Residual risks

The appliance has several risks that were not completely eliminated from a design standpoint or with the installation of adequate protection devices. Nevertheless, through this manual the Manufacturer has taken steps to inform operators of such risks, carefully indicating the personal protection equipment to be used by them. In order to reduce the risks, provide for sufficient spaces while installing the unit.

To preserve these conditions, the areas around the appliance must always be:

1. Kept free of obstacles (e.g. ladders, tools, containers, boxes, etc.);
2. Clean and dry;
3. Well lit.

For the Customer's complete information, the residual risks remaining on the appliance are indicated below: such actions are deemed improper and therefore strictly forbidden.

Residual risk	Description of hazardous situation
Slipping or falling	The operator can slip due to water, any liquid or dirt on the floor
Catching, dragging or crushing	Catching or dragging of the operator or other persons in the drive, during the appliance work phase, due to improper actions, such as: • Placing an arm inside the appliance to remove a stuck rack without stopping the appliance by operating an emergency switch; • Accessing the rack handling system without stopping the appliance by operating an emergency switch. Use of improper clothing with loose parts (e.g. necklaces, scarves, shawls, ties, etc.) or long hair not gathered, which could get caught up in moving parts.
Burns/abrasions (e.g. heating elements, cold pan, cooling circuit plates and pipes)	The operator deliberately or unintentionally touches some components inside the appliance without using protective gloves.
Stab wounds	The operator deliberately or unintentionally touches some components with sharp edges during the appliance cleaning without using protective gloves.
Burns	The operator deliberately or unintentionally touches some components inside the appliance or dishes at the outfeed without using gloves or without allowing them to cool.
Electrocution	Contact with live parts during maintenance operations carried out with the electrical panel powered
Falling from above	The operator intervenes on the appliance using unsuitable systems to access the upper part (e.g. rung ladders, or climbs on it)
Crushing or injury	The specialised personnel may not correctly fix the control panel when accessing the technical compartment. The panel could close suddenly.
Crushing or shearing	Possible risk of injury to upper limbs during the hood closing operation.
Tipping of loads	When handling the appliance or the packing containing it, using unsuitable lifting systems or accessories or with the unbalanced load
Chemical	Contact with chemical substances (e.g. detergent, rinse aid, scale remover, etc.) without taking adequate safety precautions. Therefore always refer to the safety cards and labels on the products used.
Shearing of upper limbs	The operator for normal appliance use could suddenly and deliberately close the doors/front panels (if present, depending on the appliance type).

A.8 **Water connection**

- The operating water pressure (minimum and maximum) must be between:
 - 2 bar [200 kPa] and 5 bar [500 kPa] for appliances without rinse pump;
- Make sure that there are no visible water leaks during and after the first use of the machine.

A.9 **Electrical connection**

- If the power cable is damaged it must be replaced by the Customer Care Service or in any case by specialised personnel, in order to prevent any risk.

A.10 **Appliance cleaning**

- Do not touch the appliance with wet hands or feet or when barefoot.
- Use a ladder with suitable protection for work on appliances with high accessibility.
- Put the appliance in safe conditions before starting any cleaning operation.
- Respect the requirements for the various routine and extraordinary maintenance operations. Non-compliance with the instructions can create risks for personnel.
- Do not spray water or use water jets, steam cleaner or high pressure cleaner.

A.11 **Preventive Maintenance**

In order to ensure the safety and performance of your equipment, it is recommended that service is undertaken by authorised engineers every 12 months, in accordance with manufacturer's service manuals. Please contact your local service centre for further details.

A.12 **Parts and accessories**

Use only original accessories and/or spare parts. Failure to use original accessories and/or spare parts will invalidate the original manufacturer warranty and may render the appliance not compliant with the safety standard.

A.13 **Precautions for use and maintenance**

- Risks mainly of a mechanical, thermal and electrical nature exist in the appliance. Where possible the risks have been neutralised:
 - Directly, by means of adequate design solutions.
 - Indirectly by using guards, protection and safety devices.
- Any anomalous situations are signalled on the control panel display.
- During maintenance several risks remain, as these could not be eliminated, and must be neutralised by adopting specific measures and precautions.
- Do not carry out any checking, cleaning, repair or maintenance operations on moving parts. Workers must be informed of this prohibition by means of clearly visible signs.
- Make sure to periodically check correct operation of all the safety devices and the insulation of electrical cables, which must be replaced if damaged.

In case of a significant anomaly (e.g. short circuits, wires coming out of the terminal block, motor breakdowns, worn electrical cable sheathing, etc.) the operator for normal appliance use must:

- Immediately deactivate the appliance.
- If present, close the appliance water supply by shutting off the water.

A.14 **Appliance maintenance**

- The inspection and maintenance intervals depend on the actual appliance operating conditions and ambient conditions (presence of dust, damp, etc.), therefore precise time intervals cannot be given. In any case, careful and periodical appliance maintenance is advisable in order to minimise service interruptions.
- It is advisable to stipulate a preventive and scheduled maintenance contract with the Customer Care Service.
- Put the appliance in safe conditions before starting any maintenance operation.
- To guarantee appliance efficiency and correct operation, periodical maintenance must be carried out according to the instructions given in the manual.

B WARRANTY

B.1 Warranty terms and exclusions

If the purchase of this product includes warranty coverage, warranty is provided in line with local regulations and subject to the product being installed and used for the purposes as designed, and as described within the appropriate equipment documentation. Warranty will be applicable where the customer has used only genuine spare parts and has performed maintenance in accordance with the maintenance documentation made available in paper or electronic format. It is strongly recommended to use cleaning, rinse and descaling agents approved by the manufacturer to obtain optimal results and maintain product efficiency over time.

The manufacturer's warranty does not cover:

- Service trip costs to deliver and pick up the product;
- Installation;
- Training on how to use/operate;
- Replacement (and/or supply) of wear and tear parts unless resulting from defects in materials or workmanship reported within one (1) week from the failure;
- Correction of external wiring;
- Correction of unauthorized repairs as well as any damages, failures and inefficiencies caused by and/or resulting from;
 - Insufficient and/or abnormal capacity of the electrical systems (current/voltage/frequency, including spikes and/or outages);
 - Inadequate or interrupted water supply, steam, air, gas (including impurities and/or other that does not comply with the technical requirements for each appliance);
 - Plumbing parts, components or consumable cleaning products that are not approved by the manufacturer;
 - Customer's negligence, misuse, abuse and/or non-compliance with the use and care instructions detailed within the appropriate equipment documentation;
 - Improper or poor: installation, repair, maintenance (including tampering, modifications and repairs carried out by third parties not authorized) and modification of safety systems;
 - Use of non-original components (e. g.: consumables, wear and tear, or spare parts);
 - Environment conditions provoking thermal (e. g. over- heating/freezing) or chemical (e.g. corrosion/oxidation) stress;
 - Foreign objects placed in or connected to the product;
 - Accidents or force majeure;
 - Transportation and handling, including scratches, dents, chips, and/or other damage to the finish of the product, unless such damage results from defects in materials or workmanship and is reported within one (1) week of delivery unless otherwise agreed;
- Product with original serial numbers that have been removed, altered or cannot be readily determined;
- Replacement of light bulbs, filters or any consumable parts;
- Any accessories and software not approved or specified by the manufacturer.

The warranty will be void and manufacturer shall have no liability related thereto in case of any modification of the product or related hardware/ software/programming.

Warranty does not include scheduled maintenance activities (including the parts required for it) or the supply of cleaning agents unless specifically covered within any local agreement, subject to local terms and conditions.

C GENERAL SAFETY RULES

C.1 Introduction

The machines are provided with electric and/or mechanical safety devices for protecting workers and the machine itself.

C.2 Mechanical safety characteristics, hazards

The machine does not have sharp edges or protruding parts. The guards for the moving and live parts are fixed to the cabinet with screws, to prevent accidental access.

C.3 Protection devices installed on the appliance

C.3.1 Guards

The guards on the appliance are:

- Fixed guards (e.g. casings, covers, side panels, etc.), fixed to the appliance and/or frame with screws or quick-release connectors that can only be removed or opened with tools;
- Interlocked movable guards (door) for access inside the appliance;
- Appliance electrical equipment access doors, made from hinged panels openable with tools. The door must not be opened when the appliance is connected to the power supply.

C.3.2 Safety devices

The appliance has:

- Interlocks on the front panels giving access to inside the appliance;

C.4 Safety signs to be placed on the appliance or near its area

Danger	Meaning
	Danger of crushing hands
	Caution hot surface
	Danger of electrocution (shown on electrical parts with indication of voltage)

C.5 Instructions for use and maintenance

Risks mainly of a mechanical, thermal and electrical nature exist in the appliance.

Where possible the risks have been neutralised:

- Directly, by means of adequate design solutions.
- Indirectly by using guards, protection and safety devices.

Any anomalous situations are signalled on the control panel display. During maintenance several risks remain, as these could not be eliminated, and must be neutralised by adopting specific measures and precautions. Do not carry out any checking, cleaning, repair or maintenance operations on moving parts. Workers must be informed of this prohibition by means of clearly visible signs.

To guarantee appliance efficiency and correct operation, periodical maintenance must be carried out according to the instructions given in this manual. Make sure to periodically check correct operation of all the safety devices and the insulation of electrical cables, which must be replaced if damaged.

C.6 End of use

When the appliance is no longer to be used, make it unusable by removing the mains power supply wiring.

D GENERAL INFORMATION

D.1 Introduction

This manual contains information relevant to various appliances. The product images in this guide are only an example. The drawings and diagrams given in the manual are not in scale. They supplement the written information with an outline, but are not intended to be a detailed representation of the appliance supplied. The numerical values given on the appliance installation diagrams refer to measurements in millimeters and/or inches.

D.2 Testing and inspection

Our appliances have been designed and optimized, with laboratory testing, in order to obtain high performance and efficiency. The appliance is shipped ready for use. Passing of the tests (visual inspection - electrical test - functional test) is guaranteed and certified by the specific enclosures.

D.3 Definitions

Listed below are the definitions of the main terms used in the manual. It is advisable to read them carefully before use.

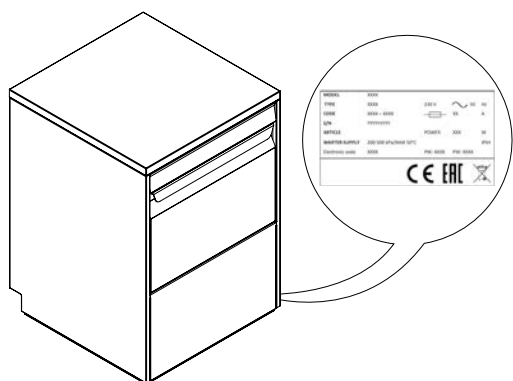
Operator	Appliance installation, adjustment, use, maintenance, cleaning, repair and transport personnel.
Manufacturer	Manufacturing company or any other service centre authorised by the manufacturer.
Operator for normal appliance use	An operator who has been informed and trained regarding the tasks and hazards involved in normal appliance use.
Customer Care service or specialised personnel	An operator instructed/trained by the Manufacturer and who, based on his professional and specific training, experience and knowledge of the accident prevention regulations, is able to appraise the operations to be carried out on the appliance and recognise and prevent any risks. His professionalism covers the mechanical, electrotechnical and electronics fields etc.
Danger	Source of possible injury or harm to health.
Hazardous situation	Any situation where an operator is exposed to one or more hazards.
Risk	A combination of probabilities and risks of injury or harm to health in a hazardous situation.
Protection devices	Safety measures consisting of the use of specific technical means (guards and safety devices) for protecting operators against risks.
Guard	An element of an appliance used in a specific way to provide protection by means of a physical barrier.
Safety device	A device (other than a guard) that eliminates or reduces the risk; it can be used alone or in combination with a guard.
Customer	The person who purchased the appliance and/or who manages and uses it (e. g. company, entrepreneur, firm).
Electrocution	An accidental discharge of electric current on a human body.
Emergency stop device	A group of components intended for the emergency stop function; the device is activated with a single action and prevents or reduces damage to persons/appliances/property/animals.

D.4 Machine and Manufacturer's identification data

A reproduction of the marking or dataplate on the machine is given below:

MODEL	XXXX	230 V	50 Hz
TYPE	XXXX	XX	A
CODE	XXXX - XXXX		
S/N	YYYYYYYY		
ARTICLE		POWER	XXX W
WATER SUPPLY	200-500 kPa/MAX 50°C		IPX4
Electronic code	XXXX	PW: XXXX	
			

MODEL	Machine name
TYPE	Machine type
CODE	Machine code
S/N.	Machine serial number
230V ~ 50 Hz	Power supply
	Absorbed current
POWER	Total power
IPX4	Dust and water protection rating
Electronic code	PCB code
PW	Password to access menu parameters



The dataplate is located on the right side panel of the equipment.



WARNING

Do not remove, tamper with or make the machine marking illegible.

IMPORTANT

When scrapping the machine, the marking must be destroyed.

NOTE!

Refer to the data given on the machine marking for relations with the Manufacturer (e.g. when ordering spare parts, etc.).

D.5 Responsibility

The Manufacturer declines any liability for damage and malfunctioning caused by:

- Non-compliance with the instructions contained in this manual;
- Repairs not carried out in a workmanlike fashion, and replacements with parts different from those specified in the spare parts catalogue (the fitting and use of non-original spare parts and accessories can negatively affect appliance operation and invalidates the original manufacturer warranty);
- Operations carried out by non-specialised personnel;
- Unauthorized modifications or operations;
- Missing, lack or inadequate maintenance;
- Improper appliance use;
- Unforeseeable extraordinary events;
- Use of the appliance by uninformed and / or untrained personnel;
- Non-application of the current provisions in the country of use, concerning safety, hygiene and health in the workplace.

The Manufacturer declines any liability for damage caused by arbitrary modifications and conversions carried out by the user or the Customer. The employer, workplace manager or service technician are responsible for identifying and choosing adequate and suitable personal protection equipment to be worn by operators, in compliance with regulations in force in the country of use.

The Manufacturer declines any liability for inaccuracies contained in the manual, if due to printing or translation errors. Any supplements to the installation, use and maintenance manual the Customer receives from the Manufacturer will form an integral part of the manual and therefore must be kept together with it.

D.6 Copyright

This manual is intended solely for consultation by the operator and can only be given to third parties with the permission of the manufacturer.

D.7 Keeping the manual

The manual must be carefully kept for the entire life of the appliance, until scrapping. The manual must stay with the appliance in case of transfer, sale, hire, granting of use or leasing.

D.8 Recipients of the manual

This manual is intended for:

- The employer of appliance users and the workplace manager;
- Operators for normal appliance use;
- Specialised personnel - Customer Care service (see service manual).

E NORMAL APPLIANCE USE

E.1 Characteristics of personnel enabled to operate on the appliance

The Customer must make sure the personnel for normal appliance use are adequately trained and skilled in their duties. The operator must:

- Read and understand the manual;
- Receive adequate training and instruction for their duties in order to operate safely;
- Receive specific training for correct appliance use.



IMPORTANT

The Customer must make sure his personnel have understood the instructions received and in particular those regarding work hygiene and safety in use of the appliance.

E.2 Basic requirements for appliance use

- Knowledge of the technology and specific experience in operating the appliance.
- Adequate general basic education and technical knowledge for reading and understanding the contents of the manual, including correct interpretation of the drawings, signs and pictograms.
- Sufficient technical knowledge for safely performing his duties as specified in the manual.
- Knowledge of the regulations on work hygiene and safety.

F TECHNICAL DATA

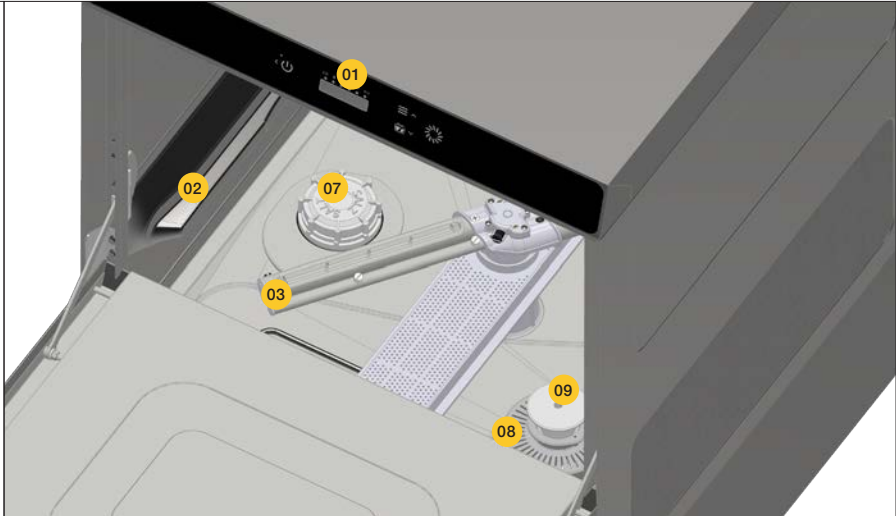
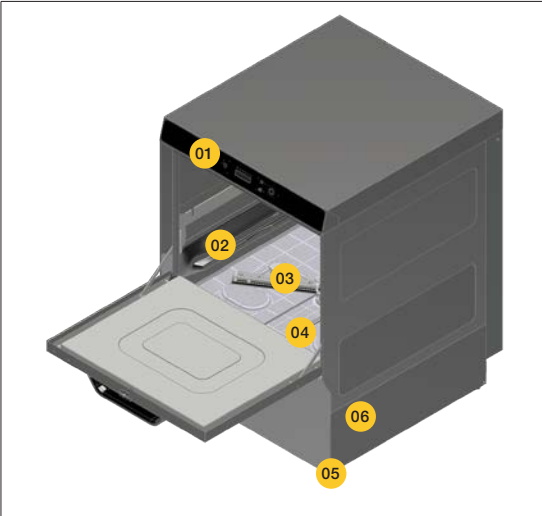
Power supply voltage	V	Please refer to dataplate
convertible to		
Frequency	Hz	Please refer to dataplate
Power	kW	Please refer to dataplate
Power supply cable		H07RN-F
Water supply pressure	kPa [bar]	2 ÷ 5 bar [200 ÷ 500 kPa] - Pressure boiler 1 ÷ 5 bar [100 ÷ 500 kPa] - Atmospheric boiler
Water supply temperature:	°C	10 ÷ 60
Rinse cycle water consumption	l	2
Water supply hardness for models without incorporated continuous water softener	°f/°d	14/8 max
Water supply hardness for models with incorporated water softener		35/19,7 max
Electric conductivity of water for models without incorporated continuous water softener	µS/cm	<400
Concentration of chlorides in water	ppm	<20
Legal noise level Leq	dB[A]	<70db
Protection rating	IP	Please refer to dataplate

G DESCRIPTION, CHARACTERISTICS AND INTENDED USE

G.1 Machine introduction

Dishwashers are designed to be used to wash dishes, glasses, and various types of kitchenware, found in gastronomic businesses such as cafés, restaurants, canteens, etc. Any other use, without specific permission or failure to follow the indications included in this manual, will void the warranty.

  *Items contaminated by petrol or varnishes, pieces of steel or iron, corrosive or alkaline chemicals and solvents must not be washed in the dishwasher. Aluminium items must be washed using appropriate chemicals suitable for aluminium.*



1	Control panel	6	CE data plate
2	Rack support	7	Salt cap (only applicable to dishwashers with incorporated water softener.)
3	Lower wash arm	8	Pump filter
4	Tank filters	9	Overflow pipe (not applicable to dishwashers with SD system)
5	Adjustable foot		-

During installation, connection and starting up, strictly respect the following indications.



The dishwasher must be installed by specialised personnel, in compliance with the local safety regulations relevant to the place of use and carefully complying to the following indications.

Always wear personal protective equipment to carry out this type of operation.



Failure to follow these indications will void the manufacturer's warranty on the functional performance and/or damage to the machine.



If your dishwasher presents any damage upon removal of the packaging, contact the dealer prior to using it.

The machine must be transported to the installation site using the supplied pallet by means of a pallet truck or a forklift. The space intended for installation must be a professional and not a domestic environment equipped with suitable industrial type wall or floor drains with a drain pit allowing an outflow of at least 3 l/sec. It is necessary to check that the floor of the installation site is level and capable of supporting the weight of the machine filled with water and with a full loaded rack (+40% of the net weight).

H.1 Storage

Prior to installation, the machine may be stored in a sheltered dry space, isolated from humidity with temperatures ranging between 5 and 40 °C. At the first installation or following long periods of inactivity, it is recommended to manually rotate the wash and rinse pump impeller (rinse pump for the PRS versions) to unblock it preventing it from potentially adhering.

H.2 Handling the machine



The machine must be handled by qualified personnel with suitable skills and experience relating to:

- Applicable safety regulations.
- The ability to determine potential hazards and risks therefore to act accordingly in the most suitable manner.

A. 	The packed machine needs to be unloaded and transported using a forklift, paying particular attention to inserting the forks into the pallet frontally. Once on the ground, before positioning it, remove the packaging, insert the forks between the pallet and the base keeping a diagonal and posterior position, lift, remove the pallet and place on the ground.	B.  Using a pallet truck (suitable to the weight to be lifted, see net weight specified in the data table), insert the forks under the base of the machine, lodge a piece of cardboard between the pallet truck and the machine in order to avoid damaging the machine. Do not elevate the machine excessively from the ground during transport and make sure that the path to be followed is level and free of any obstructions. Before proceeding with shifting the machine, verify the clearance space of doors and the manoeuvring space.
---	---	--



Pay particular attention to the forks: they need to protrude by at least 10cm on the opposite side of the base, so that the machine can be lifted safely. Wear protective gloves and safety footwear before removing the packaging.

H.3 Water connection



The connections must be carried out by qualified personnel in compliance with current regulations relevant to the location of installation.

Verify that the value of the dynamic water pressure of the water supply is between 100÷500 kPa (1÷5 Bar) for the atmospheric boiler version, between 200÷500 kPa (2÷5 Bar) for the version with the mains pressure boiler. This measurement must be carried out during the first water filling; if the pressure is higher, install a pressure regulator at the source.



In the event of a high content of calcium and magnesium salts in the water, showing hardness >15°f, it is advisable to install a water softener. Every machine is supplied with a water filling hose with a 3/4" connection which must be connected to the mains water supply. Substitute eventual pre-existing hoses or connectors with a new set of gaskets.



The incoming water temperature must be between 10 e 60 °C. In the event that the "ES" energy saving system or the "S" water softener, has been installed the incoming water temperature must not exceed 25 °C.

The drain hose must be connected to the main drain of the venue; it is advisable to make use of a siphon pit. In the version with the incorporated drain pump (option) the drain hose already includes an internal syphon (max drain height H600mm.)

H.4 Electrical connection

Make sure the equipment is connected to an efficient earthing system and that the line voltage matches that specified on the machine's data plate.



The electrical connection must be carried out by a qualified electrician in compliance with local applicable regulations.



To connect directly to the power supply, it is necessary to include a device which assures the disconnection to the power supply, with a distance of aperture of the contacts to allow for the complete disconnection in the conditions of a category III overvoltage, in compliance with the installation regulations.

Verify that the power cable has not been damaged or crushed during handling. An H07RN-F type power cable is supplied with the machine.



In the event you should find a damaged power cable it is strictly prohibited to connect and operate the dishwasher. Have the cable replaced by a qualified electrician referring to the following table.

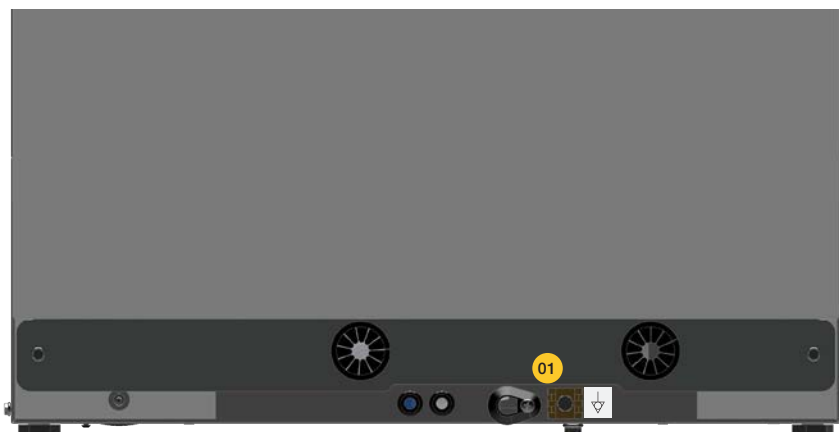
Acceptable cables:	N.B. the electrical specifications are shown on the data plate of the dishwasher.	
Power voltage	Input power	H07RN-F Cable
400V3N+T	8130W ÷ 9080W	5x4,0mm ²
	3030W ÷ 6680W	5x2,5mm ²
230V3	5050W ÷ 6680W	4x4,0mm ²
230V	3550W ÷ 6680W	3x4,0mm ²
	2890W ÷ 3250W	3x2,5mm ²



Do not plug the power cable in before completing installation and fitting the cover panels.



The machine must be connected to an equipotential system connecting the cable to the designated rear terminal next to the symbol:



01

Connect with min. 10mm² section cable

H.5 Installation of detergents

If the dishwasher has automatic dispensers for detergent and rinse aid, on the rear side of the machine there will be two small pipes to be inserted into the tanks of the respective products:

- The blue pipe is to be inserted into the rinse aid tank
- The clear pipe is to be inserted into the detergent tank

Before inserting the pipe make sure the suction filter and the ballast have been installed which allow the intake to take place from the bottom of the tank



CAUTION

The use of "foaming/non-specific" detergents or in any case detergents used in a different way other than that prescribed by the manufacturer, can cause damage to the dishwasher and compromise the washing results.

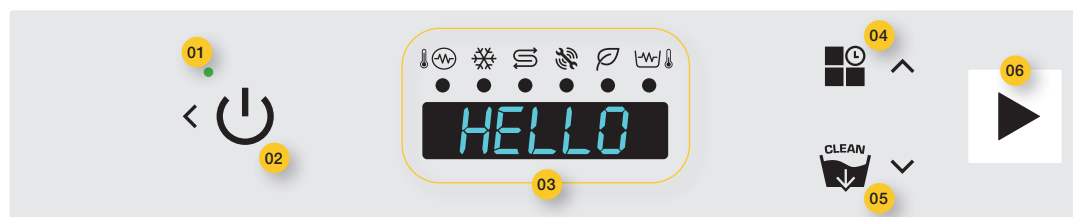
H.6 Safety devices installed

The machine has a number of safety devices in place to enable a safe use.

1. The pump is equipped with an internal thermal protection.
2. A micro magnetic sensor stops the wash cycle in case the door is accidentally opened.
3. Manual reset thermostats disconnect the heating elements in case of water overheating.
4. An overflow pipe enables the tank water level to be kept to a standard constantly.
5. A safety pressure switch prevents the water inside the machine from exceeding the maximum level.

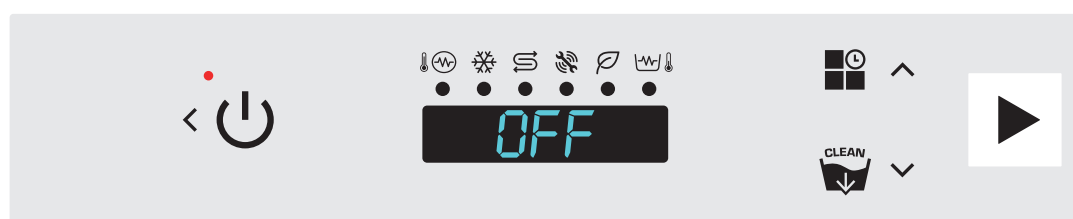


The manufacturer declines any liability for damage or injury resulting from tampering with or the failure to use these devices or due to non-compliance to the above instructions and the electrical safety regulations relevant to the country of installation.



Symbology	Icon	Function
01		Led showing power connected. Led will be red if machine is OFF. Led will be green if machine is ON
02		ON/OFF button. Self-clean upon switching OFF (if activated)
03		Display used to show status of the machine
		Boiler temperature led: flashing led=heating in process; fixed led=set temperature has been reached
		Led indicating rinsing/ cold prewash activated (optional)
		Led indicating salt needed (optional)
		Led indicating requested maintenance
		Led indicating GREEN function activated
		Tank temperature led: flashing led=heating in process; Fixed led=set temperature has been reached
04		Wash cycle selection button
05		Drain/self-clean cycle selection button
06		Multicoloured wash cycle start button

Upon supplying power, the display on the dishwasher will show the message "HELLO" for a few seconds followed by the version of the installed firmware. Following this, the dishwasher moves into a standby state displaying the message "OFF". The message "OFF" remains visible for 10 minutes, then the display switches off altogether.



Led light "1" stays red while the dishwasher is connected to a power source but is switched off (standby).

I.1 Colour codes of the START button

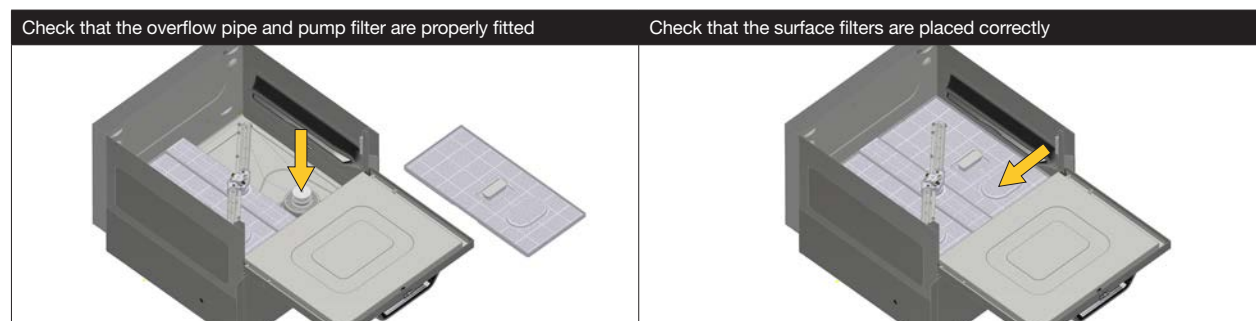
	YELLOW: filling, heating, draining FLASHING YELLOW: door open, active warning		PURPLE: auto clean cycle in progress
	GREEN: dishwasher ready for a wash cycle FLASHING GREEN: wash cycle finished, rack to be removed		RED: alarm FLASHING RED: bypassable alarm
	BLUE: wash cycle in progress FLASHING BLUE: door open during wash cycle		WHITE: inside menu FLASHING WHITE: active menu exit TEST- IN / OUT
	LIGHT BLUE: cold pre-rinse cycle or cold pre-wash cycle		

The user must have sufficient knowledge and experience in order to read and comprehend the information in this manual, interpret the signs and symbols on the machine and carry out safety operations (e.g., turn off the main switch if water leaks are detected inside the technical compartment or in case of malfunction causing unusual noises).

J.1 Checks and adjustments

In setting up the dishwasher, carry out the following checks:

Verify that all the cover panels and safety devices are fitted and functioning.



Make sure the power cable is connected to the control panel.

Verify the dishwasher's water loading tube is correctly inserted and the water faucet is open.

Make sure the drain hose is correctly inserted and on a slope into the drain pit.

Verify that the detergent and rinse aid pipes are properly inserted into their respective tanks.



The initial start-up of the dishwasher must be carried out by an authorised technician who has been trained accordingly and can carry out all the necessary checks to ensure the correct functioning of the dishwasher. The adjustments of the detergent and rinse aid dosages and the eventual water softener setting (where applicable) will be carried out directly by the technician during the initial installation.



Inverting the detergent and rinse aid pipes can cause irreversible damage to the internal dispensers. It is strongly recommended to pay particular attention to inserting the pipes into the correct containers.

At the initial installation the authorised technician must:

- Fill the detergent and rinse aid pipes. This is an automatic procedure which is activated directly from the dishwasher control panel.
- Set the correct dosage of detergent and rinse aid. The correct setting is achieved by following the indications shown on the packaging of the chemical products. The adjustment will be based upon the hardness of the water. This setting is carried out on the control panel of the dishwasher.



Every time the type of detergent or rinse aid is changed it will be necessary to completely empty the tank and the boiler, connect the suction pipes to a container of hot water (max. 65°C) and run 3 wash cycles.

This operation is necessary to avoid that the pipes crystallise causing possible damage to the dispenser.

- Set the regeneration frequency of the automatic water softener (if installed) referring to the table below. The regeneration frequency varies according to the hardness of the water supplied as shown in this table:

Water hardness (°f)	Water hardness (°d)	Regeneration frequency
> 35	> 19,7	Install external water softener
31 ÷ 35	17,5 ÷ 19,7	16
28 ÷ 30	15,3 ÷ 17,4	20
24 ÷ 27	13 ÷ 15,2	22
20 ÷ 23	10,8 ÷ 12,9	26
16 ÷ 19	8,5 ÷ 10,7	30
11 ÷ 15	5,7 ÷ 8,4	35
0 ÷ 10	0 ÷ 5,6	No water softener

The value is to be set on the control panel of the dishwasher.

After having carried out all the preliminary operations it will be possible to switch on the dishwasher.

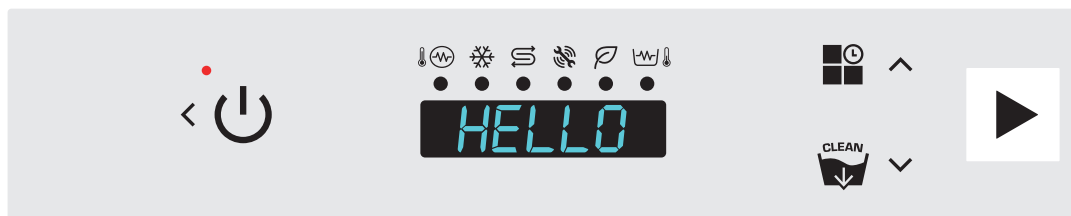


IMPORTANT

The first time the dishwasher is started after installation, make sure to run a couple of cycles without dishes to flush out any industrial grease which has remained in the tank and piping.

Starting the dishwasher

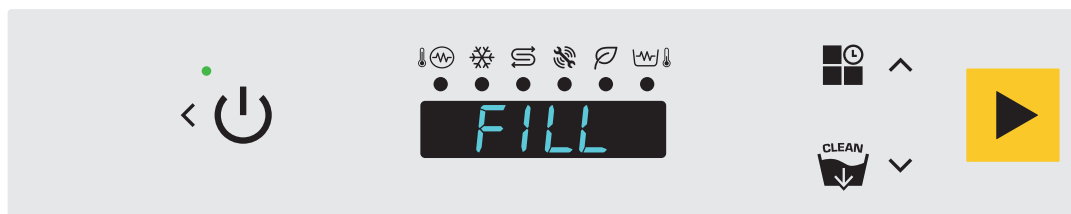
Close the dishwasher door and press the ON/OFF  button to switch on the machine.



A greeting message will appear on the display and the dishwasher will start filling with water.

J.2.1 Filling

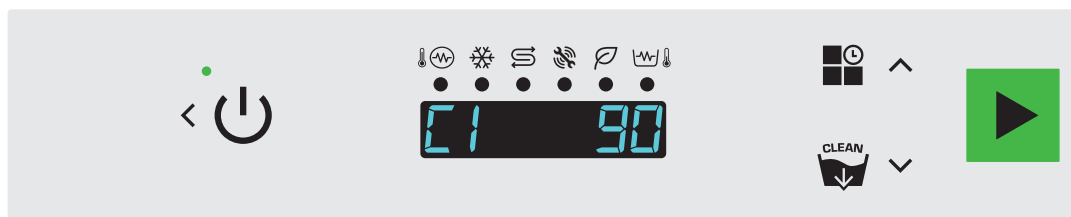
Once the machine has been switched on, the filling will start. During the water filling process, the display will show the message "FILL" and the **START**  button will turn yellow:



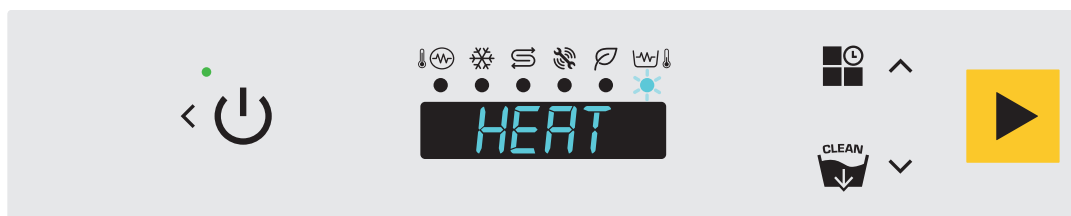
Once the filling process is completed, the heating process begins and the chemical dispensing process (if applicable)

J.2.2 Heating

The display will show the last cycle run. If a minimum wash temperature hasn't been set, the dishwasher will be ready and the **START**  button will be green.



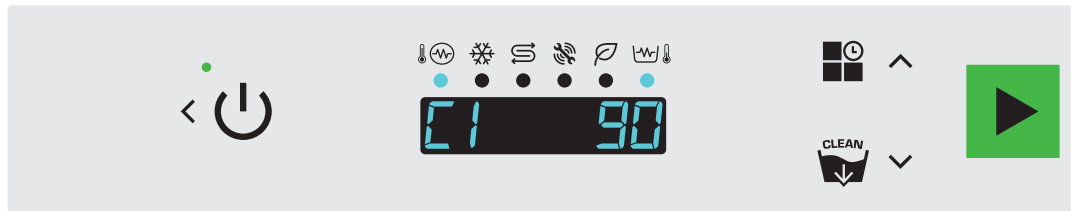
If however, a minimum wash temperature has been set (this function can be enabled only by an authorised technician) and the temperature in the tank is inferior to the set temperature, the dishwasher will move on to the heating phase and the display will read "HEAT" with intermissions of the temperature displayed:



During the heating process the indicator lights  and/or  will flash. Once the temperature has been reached these lights will stop flashing and will remain fixed. The wash cycle cannot start unless the tank temperature has reached the minimum temperature. Upon trying to start the cycle, the message "WAIT" will appear on the display:



Once the minimum temperature has been reached in the tank, the dishwasher will be ready and the **START** button  will be green whilst the display will show the last activated cycle.



J.2.3 Auto-start function

All dishwashers as a standard include the Auto-start function. Auto-start enables to start a wash cycle upon closing the door. The Auto-start function is enabled and disabled by pressing and holding the **MENU** button  with the dishwasher “ready” (green **START** button ) or in heating phase (yellow **START** button ). The confirmation of enabling or disabling is given by the following messages appearing on the display:



J.2.4 Starting the wash cycle

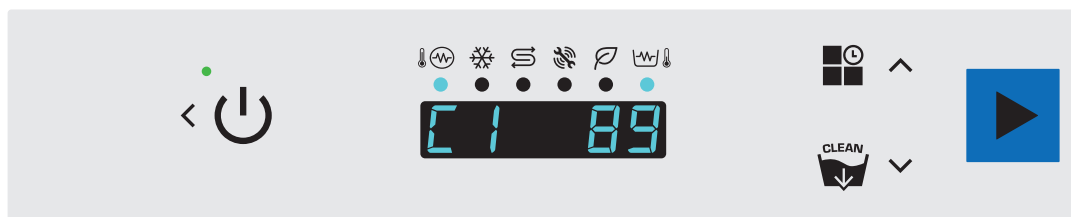
Open the door and insert the rack filled with items to be washed. By repeatedly pressing button **MENU** , the 4 wash cycles scroll. The cycles are identified with codes **C1**, **C2**, **C3** and **C4** followed by the duration of the cycle in seconds.

CYCLES	TYPE OF KITCHENWARE (*)
C1	Glasses
C2	Cups, and crockery slightly soiled
C3	Plates
C4	Intensive cycle

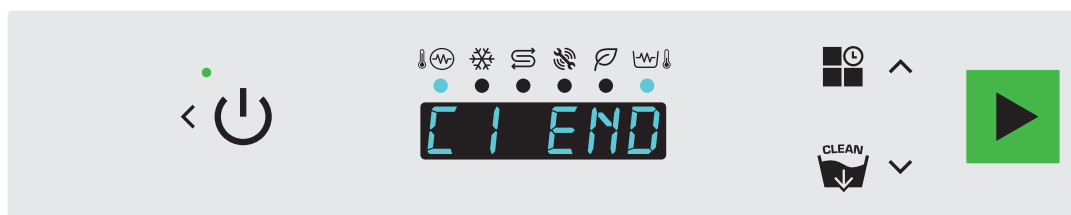
 *The duration of the cycle may vary according to the inlet water temperature with the Thermostop option active. In the dishwashers with incorporated water softener, the selected cycle may be longer, on a regular basis during the phase of automatic regeneration.*

(*) It is advisable to always select the most suitable cycle based upon the type of soiled condition to treat. Select longer cycles for my insistent type of dirt and full racks to ensure the correct removal of all residues.

The wash cycle is actioned by pressing the **START** button  or alternatively, by simply closing the door, if the “Auto-start” function has been enabled.



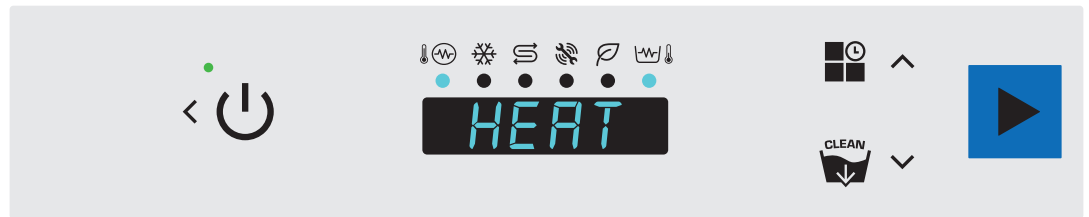
During the wash cycle the display will show the countdown and the **START** button  will be **BLUE**. It is possible to cancel the wash cycle by holding the **START** button  pressed or by switching off the dishwasher by holding the **ON/OFF**  button pressed. At the end of the cycle the **START** button  will be flashing green and on the display will read “**END**” with the code of the cycle which has just finished.:



This visual will remain active until the door is opened.

J.2.5 Thermostop function

If the Thermostop function is active (option which can be enabled only by an authorised technician) the wash cycle will be extended until the minimum rinse temperature has been reached. On the display the countdown will be substituted with "HEAT". Once the set temperature has been reached the cycle will proceed with the pause/drain and rinse phases.



J.2.6 Door opening

Opening the door will interrupt the cycle.



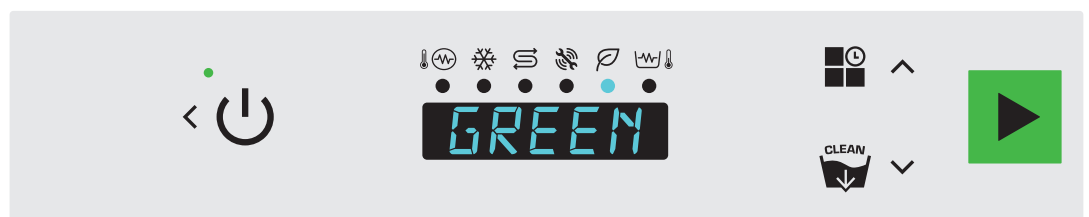
If the door is closed within 10 seconds the cycle restarts from the beginning, however if the door remains open longer than 10 seconds, the cycle is annulled. The indication on the display of the door being open will read "DOOR" with the **START** button  flashing blue in the case of a suspended wash cycle or with the **START** button  flashing yellow in every other case:



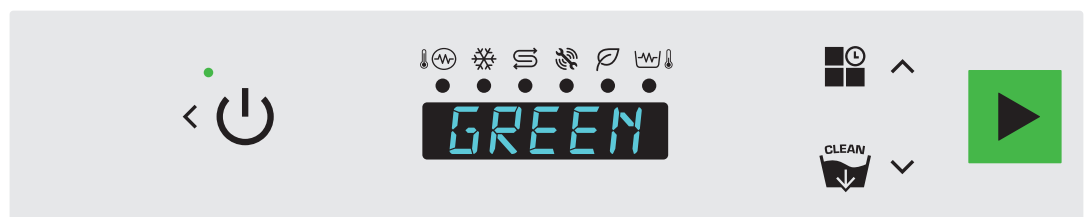
J.3 Green function

The **GREEN**  function enables the heating of the boiler to be managed in an intelligent manner in order to reduce energy consumption. At the end of the wash cycle the boiler temperature is not taken to its set value but rather to a lower temperature. It will be sufficient to open the door to introduce a new rack or to launch a new wash cycle to reactivate the heating of the boiler temperature. During the wash cycle the boiler will automatically reach the correct temperature for rinsing.

This function is advisable when there are not so many consecutive wash cycles to run. To activate it scroll through the programs with the **MENU** button  until the message **GREEN**  appears. Press the **START** button  to enable or to disable this function. The activation of the **GREEN**  function is identified by the  indicator light switched on.



Green function activated



Green function disactivated



J.4.1 Dishwasher version with overflow pipe

Switch off the dishwasher by pressing and holding the **ON/OFF**  button until the message "**DRAIN**" appears. Open the door, extract the surface filters (if present), and remove the overflow pipe. Re-close the door and wait for the drain and self-clean processes. At the end, the dishwasher will switch off automatically. At any moment it is possible to cancel the drain cycle by pressing and holding the **ON/OFF**  button.

J.4.2 Dishwasher version without overflow pipe

Press and hold the **CLEAN**  button (see figure ref. 5) until the "**DRAIN**" message is displayed. Wait for the drain and self-clean processes. At the end the dishwasher will switch off automatically. At any moment it is possible to cancel the drain cycle by pressing and holding **ON/OFF**  button.

J.4.2 Self-clean

The Self-clean function of the wash chamber is activated automatically once the chamber has emptied. The self-clean function will only proceed if the door is closed. During the cleaning operation the display will read "**CLEAN**" with the **START**  button coloured purple until the cycle is complete, following which the dishwasher will switch off.



N.B: In dishwashers without overflow pipe (SD system), the self-clean cycle will last longer.



To avoid damaging the pump and/or clogging the drain, it is advisable to remove the pump filter only at the end of the drain and self-clean operations.

K

AUTOMATIC WATER TREATMENT (OPTIONAL)

K.1

Automatic Water Treatment

The dishwasher with automatic water treatment includes the internal fitting of a water softener which is managed directly from the electronic board.

ATTENTION

To make sure the incorporated water softener operates well, verify that the mains water respects the following parameters:

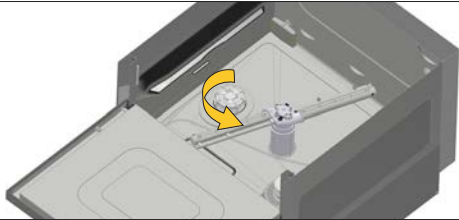
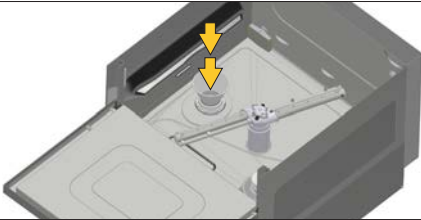
- Water hardness from the mains less than 35°f (19,66°d)
- Temperature ranging between 10 and 25°C
- Dynamic pressure of the mains water between 100÷400 kPa (1÷4 Bar) for dishwasher versions with the atmospheric boiler and between 200÷400 kPa (2÷4 Bar) for the versions with the mains pressure boiler.

The water which is introduced into the dishwasher passes through the water softener tank which contains resins which are able to reduce the presence of calcium and magnesium being salts responsible for creating limescale. In order for the resins to remain efficient over time, there are salt regeneration phases scheduled which are managed directly by the dishwasher based upon the settings fixed by the technician at the initial installation. To ensure the efficacy of the regeneration it is necessary that the salt is always present inside the water softener tank. A sensor will verify the level of salt inside the tank and if it is insufficient the display will light up the  indicator light and the display will read "SALT".



!

The message displaying the need of salt will not block the normal functioning of the dishwasher; nevertheless, it is advisable to add kitchen rock salt as soon as possible to the designated container so the performance of the resins in treating the water hardness can be maintained. The container can hold 1kg of rock salt.

To fill the container with salt, empty the dishwasher and open the cap of the container reserved for salt which is inside the tank under the surface filters (if present).	Use the specific funnel to fill the tank.
	
1. Use kitchen rock salt. 2. After adding the salt, add 2 glasses of hot water to encourage dissolving.	3. Clean the gasket and close the cap well, eliminate eventual residuals of salt. 4. Remove the overflow pipe, if present, and rinse the tank well.

!

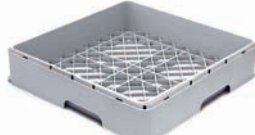
Residual salt not removed can cause the corrosion of stainless steel!

L STARTING

L.1 Basic operations

- Open the water supply tap.
- Switch on at the mains.
- Open the door and check that all the components are in their correct position.
 1. Pump filter;
 2. Overflow pipe (in the applicable models);
 3. Tank filters (if present);
 4. Wash and rinse arms.
- The different colours of the START button correspond to different status of the appliance. Wait for the green colour before starting the cycle.

L.2 Types of racks

		
Saucers insert	Cutlery holder	Square basket for glasses and cups
		
Round basket for glasses and cups	Square basket for glasses and cups	Square basket for dishes

L.3 Loading dishes on racks

The appliance is suitable for washing dishes, glasses, cups, cutlery, containers, and receptacles in plastic and/or steel used for preparing, cooking and serving; as well as a wide variety of ceramic and/or metal cooking utensils. However, it is advisable not to wash decorated dishes or to place silverware in contact with other metals.



IMPORTANT

The appliance does not remove burnt food deposits from dishes. Dishes with burnt food deposits should be cleaned mechanically/chemically before putting them in the dishwasher. Before inserting the racks in the machine, clear the dishes of any food residuals and rinse them with cold or warm water, at a max. temperature of 35° [95°].

CAUTION

Failure to remove the residues of detergent possibly used for manual prewash can cause malfunctioning of the dishwasher and compromise washing results.



IMPORTANT

This machine must only be used for washing dishes, containers, etc. (see above) do not use it to wash animals or food (e.g., fruit, vegetables, meat, or fish).

L.4 Operations

When the **START**  button is green, the appliance is ready for use.

1. Open the door.
2. Insert the rack containing the dirty tableware.
3. Close the door and use the "**MENU**"  button to select an appropriate wash program
4. Push the **START** button to start the washing cycle. The colour of the control button will change from green to blue.
5. To stop the wash cycle, press the **START**  button for 3 seconds.
6. Wait for the end of the wash cycle before opening the door and extract the rack. The end of the wash cycle is indicated by the green flashing **START**  button.

N.B. Opening the door interrupts the wash cycle. If the door is reclosed within 10 seconds, the cycle restarts automatically from the beginning, however if the door remains open longer than 10 seconds, the wash cycle is annulled.

L.5 Recommendations for use

1. When placing items in the supplied racks, pay attention to positioning them so that the most soiled part is well exposed to the water spraying from the inferior wash arms and at the same time positioned so that water doesn't collect in the items.	2. Every time a cycle finishes, open the door, and wait for a few moments to allow the load to dry and cool down naturally. Wear protective gloves before handling the load as it could still be very hot.	3. Run a few empty loads before using the machine the first time in order to remove any eventual impurities inside or along any ducts.
4. It is advisable to replace the tank water every 25 wash cycles or twice daily, at least.	5. At the end of the self-clean cycle, when the tank is empty, clean the filter with running water and remove dirt residues with a non-metallic brush.	6. Check daily the levels of detergent and rinse aid in their relative containers.



Pay attention to the act of emptying the tank, when removing the overflow pipe, avoid touching the heating element inside the tank as it may still be very hot.

M CARE AND MAINTENANCE

M.1 Care and maintenance

The ordinary operations of cleaning and maintenance must be carried out by the owner and/or the user of the dishwasher. In order to reduce the environmental impact of pollutants it is advisable to clean the appliance (externally and where necessary internally) with products which are biodegradable by at least 90%.



WARNING
Refer to “WARNING AND SAFETY INFORMATION”.

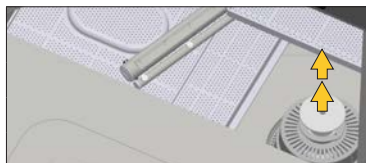
1. Use warm water, mild detergent and if necessary, a soft non-metallic brush or sponge. When using other types of detergents, strictly follow the manufacturer's instructions and take note of the safety indications on the product information sheet.	2. Do not use corrosive chemicals like bleach or acids. In the event of excessive calcium and magnesium salts in the supply water it is advisable to regularly descale with appropriate products strictly following recommended dosage and concentration.
3. Do not wash the appliance directly with jets of water or with high pressure.	4. Rinse and dry carefully.



Rinse and dry carefully the internal parts where the descaling products are used!

M.2 End of shift

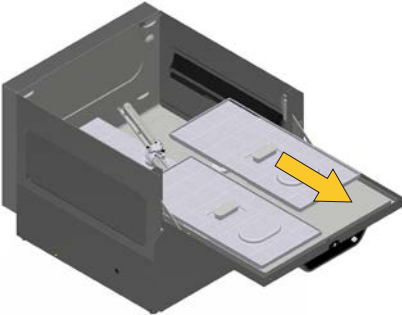
The dishwasher has been designed to self-clean each time it is switched off and/or the tank is emptied to aid eliminating eventual residuals and to facilitate the cleaning operations.



1. At the end of each shift, open the door, remove the overflow pipe (in the applicable models) and reclose the door.
2. Switch off the dishwasher by pressing the  button and wait for the draining and self-clean operations.
N.B.: during the self-clean cycle the START button  will be purple.
3. At the end of the self-clean cycle the dishwasher will switch itself off.



If the dishwasher is equipped with surface filters, lift the right side filter to gain access to the overflow pipe. After removing the overflow pipe, reposition the filter in its proper place.

At the end of the self-clean cycle open the door;	
	
1. Remove the surface filters (if present)	2. Remove the wash/rinse arms (upper and lower)
	
3. Remove the central filter frame (if present)	4. Remove the pump filter
Proceed with cleaning all the components which have been removed with water and a mild detergent and if necessary, use a soft non-metallic brush or a sponge.	
! Thoroughly clean the tank eliminating any residuals. It is recommended to avoid using abrasive sponges or metal scouring pads as they can permanently damage the tank.	
Once the cleaning has been completed reassemble all the components previously removed	
	
5. Disconnect power supply	6. Close the water supply faucet

N MAINTENANCE AND DISPOSAL

N.1 Maintenance and disposal

To ensure constant appliance efficiency, it is advisable to carry out the checks respecting the frequency indicated in the following table:

Manutenzione, ispezione e pulizia	Frequenza	Responsabile
Standard cleaning of the appliance	Daily	User
Removing limescale from the wash nozzles/ rinsing with vinegar	Monthly	User
Check presence and correct functioning of safety devices	Monthly	Service
Removing limescale from the boiler and from internal surfaces of the tank	Annually	Service
Check correct functioning of the detergent and rinse aid dispensers, replace the suction pipes of the peristaltic pumps	Annually	Service
Check the correct tightness of the fastening screws and of the electrical contactor screws	Annually	Service
Check the electrical components are working well and check the condition of the electrical wires and power cable	Annually	Service

N.2 When not in use

If the appliance is not going to be used for some time, take the following precautions:

- close the water supply tap(s), if present;
- disconnect the power supply or remove the plug from the power socket, if present;
- completely drain the tank(s);
- remove and carefully clean the filters;
- contact an authorized technician to empty the boiler;
- completely drain the incorporated dispenser pipes;
- remove them from the chemical containers;
- carefully clean the internal parts of the appliance;
- clean the washing chamber by going over all the stainless steel surfaces with a cloth moistened with paraffin oil to create a protective film;
- leave the door open so that air can circulate inside, preventing the formation of unpleasant odours;

N.3 Appliance disposal

At the end of the product's life cycle, make sure the appliance is not discarded to potentially harm the environment. The appliance must be disposed of in compliance with current regulations in the country of use.

The  symbol on the product indicates that this item should not be treated as domestic waste but must be correctly disposed of in order to prevent potentially harmful consequences to the environment and to human health. For information about the recycling of this product, please contact your sales agent or dealer, your Customer Care service, or your local waste disposal service.

N.4 Troubleshooting

The following table shows a number of actions which can be taken to resolve different problems. In the event that the problem cannot be resolved contact your technical assistance quoting the model and serial number of the dishwasher which you will find on the data plate positioned on the right-hand side.

Problem	Type of problem	Possible cause	Corrective action
The dishwasher doesn't turn on	<i>Impeding performance</i>	The dishwasher is not connected to the power supply.	Verify that the dishwasher plug is inserted. Verify that the protection circuit breaker of the power line is enabled.
The wash cycle doesn't start	<i>Impeding performance</i>	The dishwasher door is open.	Close the door.
		The water in the tank is cold (in models with Thermostop enabled).	Wait for the water to be heated.
		Control panel not working.	Switch off the appliance then switch back on again
The washing result is not satisfactory	<i>Loss of performance</i>	No pre-soak of the kitchenware	Remove stubborn grime from the items to be washed before placing in the dishwasher
		The washing arms don't rotate or have obstructed nozzles.	Clean the wash arms thoroughly.
		The dishes/glasses are not well positioned in the racks.	Check that the items are properly placed in the racks.
		The detergent and rinse aid containers are empty, or the detergent and rinse aid pipes are not correctly inserted.	Check the quantity of chemicals available in the containers and that the suction pipes have been properly installed. Check the filters of both pipes are clean.
		The dosage of the chemicals is not well adjusted.	Contact technical assistance.
		The filters of the dishwasher are dirty.	Clean the filters.
Glasses and plates are not drying. Condensation on glasses.	<i>Loss of performance</i>	The rinse aid container is empty.	Replace the rinse aid container with a new one.
		The rinse aid dispenser is not functioning or is not well adjusted	Contact technical assistance.
		The rinse water is cold.	Wait until the end of the heating phase before starting a wash cycle
		Presence of foam in the tank.	In the event of pre-soaking make sure the plates are thoroughly rinsed before placing in the dishwasher Only use non-foaming products.
Stains on glasses.	<i>Loss of performance</i>	Presence of foam in the tank.	In the event of pre-soaking make sure the plates are thoroughly rinsed before placing in the dishwasher Only use non-foaming products.
		The rinse aid dispenser is not functioning or is not well adjusted.	Contact technical assistance.
		Water hardness is extreme. Limescale deposits on the glasses.	Contact technical assistance.
		The water softener may not be functioning well. Salt deposits on the glasses.	Contact technical assistance.
Excessive foam in the tank	<i>Loss of performance</i>	Residual detergent in the tank from pre-soaking.	In the event of pre-soaking make sure the plates are thoroughly rinsed before placing in the dishwasher.
		Foaming detergent present in the tank.	Empty and refill the dishwasher again. Only use non-foaming products.
		Temperature of the tank water is too low.	Wait until the end of the heating phase before starting a wash cycle.
The washing pump doesn't engage	<i>Impeding performance</i>	The washing pump is blocked.	Contact technical assistance.
The draining pump doesn't engage	<i>Impeding performance</i>	The washing pump is blocked.	Contact technical assistance.
The dishwasher doesn't fill with water	<i>Impeding performance</i>	The water faucet is closed.	Open the faucet.
		Load pipe has a kink or is crushed.	Address the pipe.
		Purifier or reverse osmosis system installed at the source is not functioning.	Contact technical assistance.
The dishwasher doesn't drain the water	<i>Impeding performance</i>	Overflow pipe inserted.	Remove the overflow pipe.
		Pump filter is dirty.	Clean the filter.
		Drain hose has a kink, is crushed, or is not installed correctly	Address the drain hose.
		Drain pump (if present) is not working.	Contact technical assistance.

O WARNINGS

O.1 Display warnings

Warning messages may appear on the display if conditions occur which could compromise the quality of washing. None of the warnings will interrupt the normal functioning of the dishwasher, nevertheless, it is recommended to resolve the matter as soon as possible to ensure that an efficient machine performance is maintained. The warnings are reported by means of the **START** button  flashing yellow.

Warning	Cause	Solution	Visualize
SALT NEEDED	Lack of salt inside the water softener container (only applicable to dishwashers with incorporated water softeners).	Add salt to the water softener.	SALT The indicator light will be on 
SERVICE	The threshold of 40.000 wash cycles has been reached so the scheduled maintenance is requested.	Carry out the scheduled maintenance and reset the partial cycle-counter.	SERVICE REQUIRED The indicator light will be on 
EMPTY RINSE AID CONTAINER	This warning will be indicated only if the optional container level sensor was requested. Indicates the lack of rinse aid in the container	Replace the rinse aid container.	R:EMPTY
EMPTY DETERGENT CONTAINER	This warning will be indicated only if the optional container level sensor was requested. Indicates the lack of detergent in the container	Replace the detergent container.	D:EMPTY

P ALARMS

P.1 Display alarms

An alarm signal can be the result of a malfunction of a component of the dishwasher, or it can be caused by an incorrect action performed by the user. Some alarms block the machine until the problem is rectified while others can be bypassed by enabling the machine to operate in a limited function mode.

Alarm signals are indicated on the display with the letters "**AL**" followed by an error code; if the alarm is blocking the machine the **START** button  will be fixed red while if the alarm can be bypassed the **START** button  will be flashing red. In order to bypass the alarm press and hold the **START** button  for 5 seconds. The display will read "**ALARM BYPASS**". From this moment on the dishwasher will operate in a limited function mode until the problem is rectified. A bypassed alarm status causes the lighting up of the  led. To cancel the bypass, switch the dishwasher off and switch it back on again.

P.2 Table of alarm signals

Alarm	Cause	User to check
AL01 (block)	Tank not filling. During the filling process the dishwasher hasn't reached the level in the expected time frame.	Water faucet closed. Overflow pipe not inserted or badly positioned. Loading pipe crushed. Rinse nozzles clogged.
AL02 (bypassable)	Boiler not heating. During the heating process the temperature of the boiler hasn't risen in the expected time frame.	Call for technical assistance. It's possible to bypass the alarm excluding the heating of the boiler. The dishwasher will rinse with cold water.
AL03 (bypassable)	Tank not heating. During the heating process the temperature of the tank hasn't risen in the expected time frame.	Call for technical assistance. It's possible to bypass the alarm excluding the heating of the tank. The dishwasher will wash with cold water. Pay attention to possible foaming.
AL04 (block)	Tank not emptying. At the end of the draining cycle the tank has not completely emptied.	Overflow pipe inserted (if applicable). Blocked filter. Drain hose clogged or badly positioned or crushed.
AL05 (block)	Boiler not filling.	Water supply faucet closed. Loading pipe crushed.
AL06 (bypassable)	Temperature probe of the boiler out of range.	Call for technical assistance. It's possible to bypass the alarm excluding the heating of the boiler. The dishwasher will rinse with cold water.
AL07 (bypassable)	Temperature probe of the tank out of range.	Call for technical assistance. It's possible to bypass the alarm excluding the heating of the tank. The dishwasher will wash with cold water. Pay attention to possible foaming.
AL08 (bypassable)	Thermostop time out. During the Thermostop phase the boiler is not able to heat the water within 8 minutes.	Call for technical assistance. It's possible to bypass the alarm excluding the heating of the boiler. The dishwasher will rinse with cold water.
AL 09 (bypassable)	Safety thermostat of the boiler has activated due to overheating.	Call for technical assistance. It's possible to bypass the alarm excluding the heating of the boiler. The dishwasher will rinse with cold water.
AL 10 (bypassable)	Safety thermostat of the tank has activated due to overheating.	Call for technical assistance. It's possible to bypass the alarm excluding the heating of the tank. The dishwasher will wash with cold water. Pay attention to possible foaming.

ALARM RESET: Switching off and switching back on the dishwasher will reset all the alarm signals; however, if the cause of the problem is not addressed, the alarm signal will appear again.

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