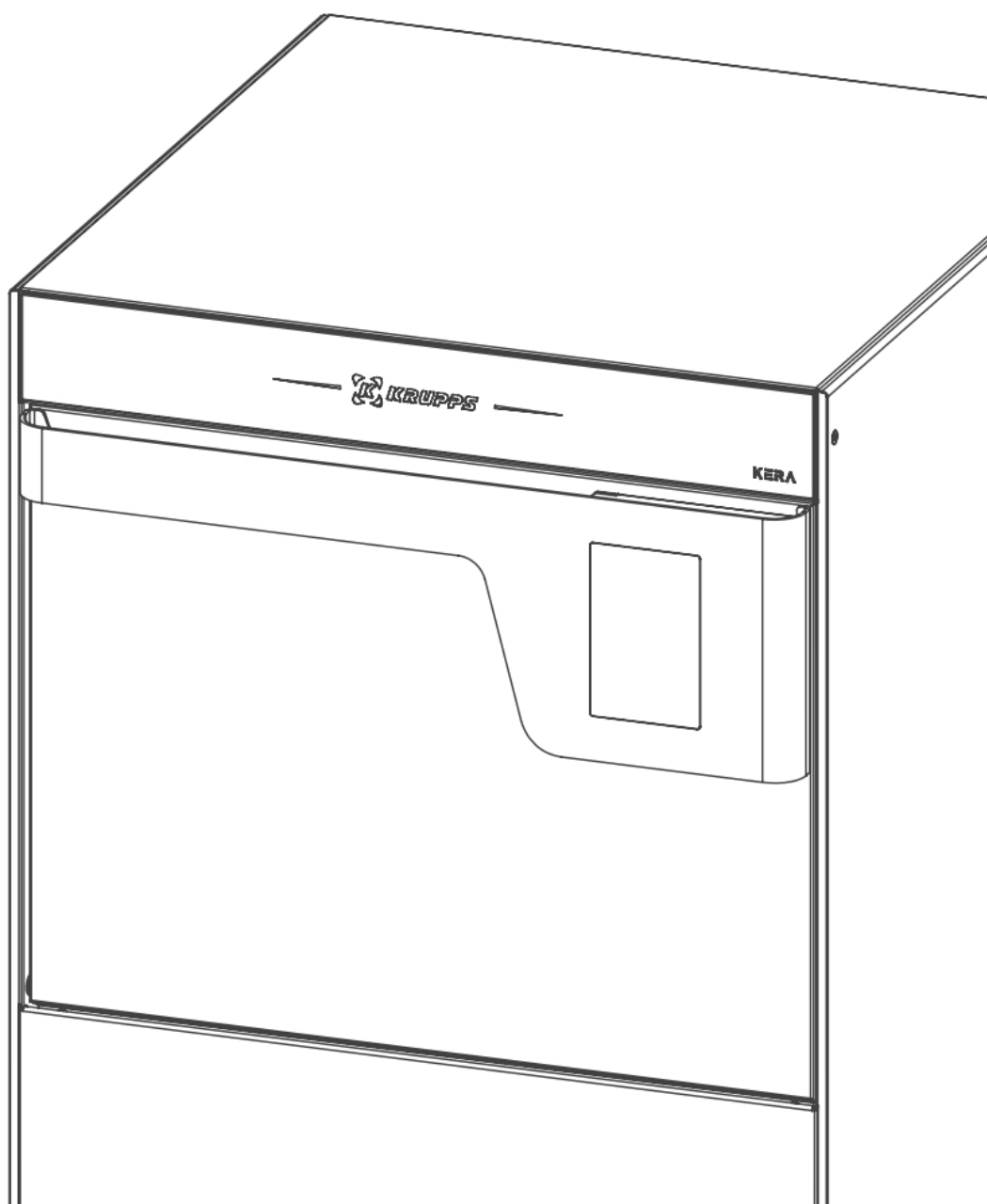









Use and Maintenance Manual KERA Dishwasher



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SYMBOL KEY

SYMBOL	DESCRIPTION
	<p>ATTENTION - INJURY HAZARD</p> <p>This symbol is used to indicate information and warnings which, if ignored, may result in personal injury or damage to the appliance.</p>
	<p>ELECTROCUTION HAZARD</p> <p>This symbol is used to indicate information and warnings of an electrical nature which, if ignored, may result in personal injury or damage to the appliance.</p>
	<p>BURNING HAZARD</p> <p>This symbol is used to indicate information and warnings of a thermal nature which, if ignored, may result in personal injury or damage to the appliance.</p>
	<p>DANGER OF FALLING</p> <p>This symbol marks information and warnings referring to situations when using the product, where lack of attention can jeopardise personal safety.</p>
	<p>READ ALL THE INSTRUCTIONS</p> <p>Read and fully understand all the instructions contained in this manual. Keep the Manual in a place that is easily accessible to the dishwasher user in order to allow consultation with speed and convenience. Do not use the dishwasher if the manual cannot be consulted.</p>

WARNINGS

Please read the following general warnings carefully.

- ▶ Dear customer we inform you that the product you have purchased is a dishwasher
- ▶ This appliance must only be used to wash food-type dirt from glasses, cups, dishes and similar items, the residues of which were previously removed also by means of pre-soaking without detergents as explained in the "Instructions for Use" chapter of this manual.
The dishwasher may only be used to wash plates and glasses commonly used in bars and restaurants. Any other kind of usage is strictly forbidden. The dishwasher was NOT designed to wash dishes or accessories made of plastic, to wash glass that can explode on contact with hot liquids or to wash bottles and material for infants, such as crockery or equivalent containers.
- ▶ Please make sure you have fully read and completely understood this manual before using the dishwasher.
- ▶ The manual must be kept within the user's reach so that it can be consulted easily and quickly. Should it be damaged, destroyed or lost, please ask your constructor for a new copy (see para. 1.4 - PART TWO)
- ▶ **Do not use the dishwasher if the manual cannot be consulted.**
- ▶ Follow the Instruction and Maintenance Manual with the utmost care both for use and maintenance operations.
- ▶ The dishwasher has been designed and manufactured in compliance with EMC Regulations EN55014-1:2006+A1:2009+A2:2011; EN55014-2:2015; EN61000-3-2:2014; EN61000-3-3:2013 Safety Electrical EN60335-2-58:2005 (incl. Corr.:2007)+A1:2008+A11:2010 used in conjunction with EN60335-1:2012; EN62233:2008 (incl. Corr.:2008).
- ▶ The maximum noise level of our dishwashers is 74.3dB and the KpA value = 2.5db
- ▶ The dishwasher must only be used by trained operators.
Untrained operators must be supervised by a manager or a colleague with sufficient experience in the use of dishwashers until it is considered they have acquired adequate experience to operate it independently.
- ▶ Children must be supervised to ensure that they do not play with the appliance; This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental abilities, or with insufficient experience or knowledge, unless they are under supervision or have been instructed in the use of the appliance by a person responsible for their safety.
- ▶ The use of the machine by operators who are not legally employed is forbidden.
- ▶ Always keep the dishwasher and the area around it clean, so that the operator and their equipment can transit quickly and safely. Do not pile up objects or other material that could prevent easy access to the door. In the event of danger, immediately disconnect the power supply to the dishwasher by pressing the power button or by disconnecting the appliance from the mains.
- ▶ The positioning, installation and commissioning of the dishwasher must be carried out by adequately qualified and certified personnel.
- ▶ The dishwasher can operate within a temperature range of + 10 to + 50 °C.
- ▶ The electrical connection must be carried out in compliance with the laws in force in the country in which the machine is installed.
- ▶ Before connecting the machine, make sure that the voltage and the frequency of the electrical supply system correspond to that indicated on the plate and that the machine is connected to an efficient earthing system;
- ▶ At the back of the machine there is a clamp marked with the symbol  necessary for the equipotential connection between the various devices.
- ▶ The machine must be protected upstream against overloads and short-circuits by an omnipolar magnetothermic switch, with adequate breaking capacity, or by an underload disconnecter and fuses of the gL type of suitable capacity. A residual current circuit breaker coordinated with the resistance value of the user's earthing system must be installed immediately downstream of the circuit breaker switch of the sectioning switch/fuses against indirect contacts.
- ▶ The highest water supply temperature is 55°C.
- ▶ The water supply pressure must respect the limits indicated in the technical data (200/350kPa).
- ▶ After washing, turn off the dishwasher if it is no longer needed.
- ▶ Clean the filter daily.
- ▶ Clean the whole dishwasher at least once a week.
- ▶ Check the integrity of the power cord daily, especially if the point of connection to the mains is

not near the dishwasher.

- ▶ The power cord supplied with the machine is of the H07RN-F type. If the cord is damaged, disconnect the dishwasher from the mains and immediately contact an authorised service centre to replace the cable.
- ▶ Position the cord appropriately, avoiding situations in which it could be damaged (avoid repeated trampling of the cord, passage of the cord under doors, etc.).
- ▶ Perform regular maintenance, as indicated in the Instruction and Maintenance Manual.
- ▶ Maintenance activities must only be carried out when the dishwasher is switched off and disconnected from the power supply and with the tank empty.
- ▶ Before performing maintenance, wait for the resistance cooling time (at least 5 minutes). Do not open the dishwasher door/lid if the cycle is in progress. As an interlocking device, a microswitch is used, located on the dishwasher door that stops the water jet in the dishwasher, but does not remove the electrical voltage from the machine.
- ▶ Ordinary maintenance activities must be performed safely using protective gloves and goggles.
- ▶ Never use the appliance with wet hands or feet
- ▶ Never immerse bare hands into the tank water
- ▶ The interventions of extraordinary maintenance, repair and the replacement of components must be performed by personnel who are suitably trained and certified. Use only original spare parts. The manufacturer declines all responsibility for accidents to persons or property arising from the use of incompatible and/or non-original spare parts
- ▶ The machine is IPX1 rated and should not be washed with high pressure water jets or steam.
- ▶ It is forbidden to use the dishwasher with detergents or rinse aid products of a type different from the recommended one (such as dishwashing powder, washing powder and rinse aid for domestic dishwashers), or to use descalers that are corrosive, acidic and in general unsuitable cleaning liquids or powders. Do not add bleach to the washing tank.
- ▶ Use only liquid industrial detergent and rinse aid products similar to those supplied by us or with an equivalent composition suitable for dosing using the dosing pumps already installed inside the dishwasher.
- ▶ Never use scouring pads or wire brushes to clean the dishwasher.
- ▶ Do not use the machine as a platform. Do not climb on the door or over the dishwasher as this may cause it to tip over.
- ▶ Dishwashers with a 400x400 square basket and dishwashers with a Ø400 round basket are not suitable for washing plates.

N.B. The manufacturer declines all responsibility for accidents to persons or property deriving from non-observance of the afore-mentioned regulations or from improper use, maintenance or repair.

ATTENTION!



ELECTROCUTION HAZARD

PART ONE

1. Purpose of the information contained in PART ONE

The purpose of the information contained in PART ONE is to inform the Customer about the necessary data for correct identification of the dishwasher.

2. Reference standards

The dishwasher has been designed and manufactured in compliance with the following EMC Regulations: EN55014-1:2006+A1:2009+A2:2011; EN55014-2:2015; EN61000-3-2:2014; EN61000-3-3:2013 Electrical Safety EN60335-2-58:2005 (incl. Corr.:2007)+A1:2008+A11:2010 used in conjunction with EN60335-1:2012; EN62233:2008 (incl. Corr.:2008)

This dishwasher also complies with the Safety and Work Hazard Prevention Regulations (applicable to dishwashers) in force at the date of manufacture.

The dishwasher's connection with a suitable residual current operated circuit-breaker according to IEC 947 standard (type 1 coordination) is highly recommended; the maximum noise level of our dishwashers is 74.3dB and the value Kpa=2.5db

3. Applicability

The instructions found in this manual are only suited for the type of dishwasher specified.

4. Transportation

The machine is packed in a heavy cardboard crate when transported (fig. 1).

The dishwasher weight may vary between 50 and 170 kg if packed on a pallet, according to the model.

ATTENTION!



INJURY HAZARD

THE USE OF EQUIPMENT AND OPERATIONS NOT SUITED TO LOADING, UNLOADING AND HANDLING OF THE DISHWASHER MAY DAMAGE BOTH THE PERSONNEL IN CHARGE OF SUCH OPERATIONS AND/OR THE MACHINE ITSELF. THE MANUFACTURER RECOMMENDS COMPLYING WITH THE STANDARDS ON LOADING, UNLOADING AND HANDLING IN FORCE IN THE COUNTRY WHERE THE DISHWASHER IS USED.

THE MANUFACTURER DECLINES EVERY RESPONSIBILITY FOR DAMAGE TO THINGS OR PERSONS CAUSED BY IMPROPER USE OF THE EQUIPMENT OR BY PROCEDURES NOT SUITED TO AND/OR NOT SUITABLE FOR LOADING, UNLOADING AND HANDLING OF THE DISHWASHER.



Fig. 1

Once the dishwasher has arrived at its destination, check the transport documents and the number of packs.

Should you find any discrepancy between the documents and the items delivered, contact your Dealer immediately.

Carefully check the condition of the packaging: if it proves to be faulty or broken or with signs of incorrect handling, immediately inform the Supplier.

Please do not throw the packaging accessories away as they may be needed to ship the machine back to your Dealer.

5. Instructions for transportation, storage, unpacking and assembly

5.1 Transportation

All dishwashers are packed on pallets and cardboard crimped to the pallet. The dishwasher must only be moved by forklift truck or transpallet, taking care to keep the dishwasher balanced, avoiding sudden movements. Do not lay the dishwasher down, respect the vertical positioning as shown by the arrow printed on the cardboard.

5.2 Storage

If the dishwasher is to be stored, ensure that the storage environment temperature is between +5 and +45°C, with humidity below 80%. The dishwasher must be packed in its original packaging (pallet and cardboard) and in a vertical position as shown by the arrow printed on the cardboard. The pallet can be placed on the ground on a dry and dust-free floor, or on a pallet holder, ensuring that the maximum load indications shown on the pallet holder are respected, and secured to prevent falls due to impact or vibration. It is not permitted to stack other material on top of the dishwasher cardboard.

Periodically check the correct position of the packaged dishwashers and the integrity of the packaging.

5.3 unpacking and assembly

ATTENTION!



INJURY HAZARD

PLEASE PAY SPECIAL ATTENTION DURING UNPACKING AND ASSEMBLING OPERATIONS BECAUSE OF THE INSTABILITY OF THE DISHWASHER.

The unpacking/assembling instructions are only valid if the machine is installed by the Customer.

1. Open the cardboard packaging carefully (fig. 2).

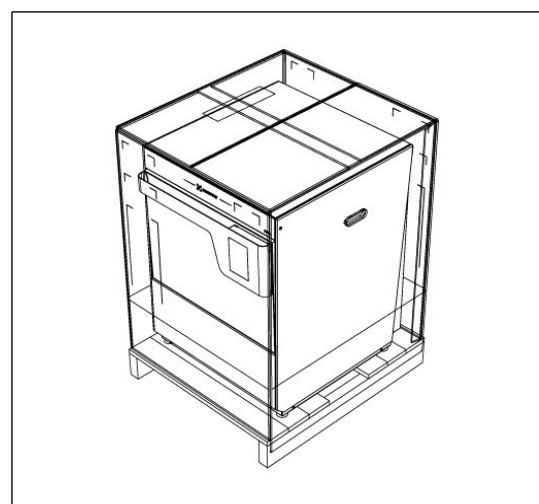


Fig. 2

2. Remove the two screws A that secure the dishwasher to the pallet used for transport (fig. 3)

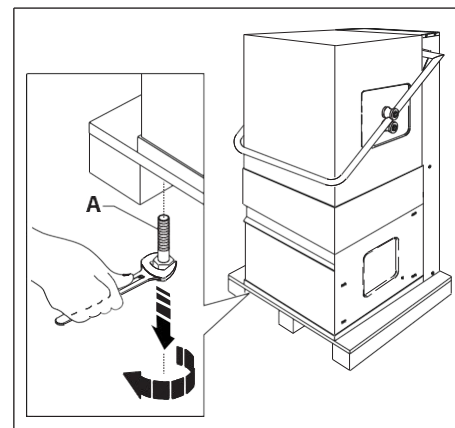


Fig. 3

3. Move the machine on the bench until you release two of the four holes provided for inserting the support feet (Fig. 4).
Take one of the supplied feet and screw it into one of the two vacated slots (fig. 4).
Proceed with the assembly of the second foot using the same procedure (fig 4).

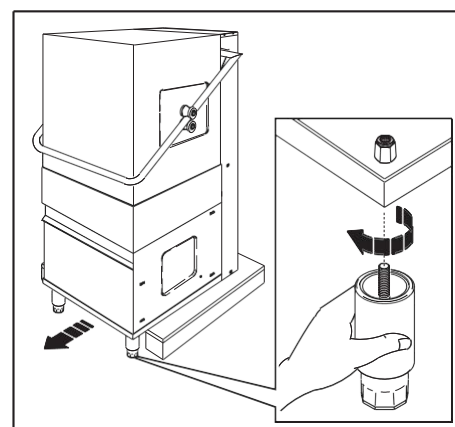


Fig. 4

4. Slide the machine further off the pallet until the first side is standing on its own two feet and the other is still supported by the pallet, so that the two remaining holes are free; then proceed as explained above.

1. Dishwasher identification and marking

The dishwasher bears the following identification marks:

- *Company name*
- *CE marking*
- *Indication of model and type*
- *Year of manufacture*
- *Test certificate*

This information is shown on the plate situated on the dishwasher (fig. 5) and can also be found on the declaration of conformity enclosed herewith.

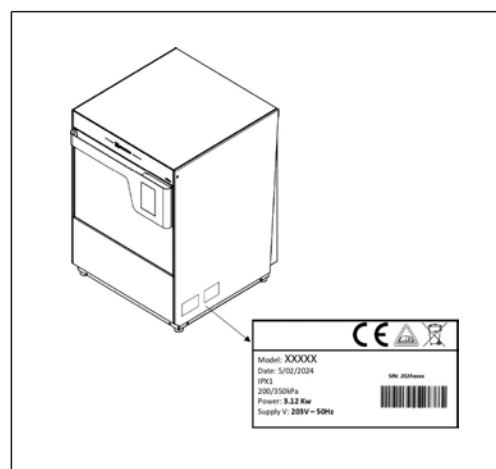


Fig. 5

PART TWO

1. Purpose of the Manual

The purpose of this Instruction and Maintenance Manual is to provide a description of the safety measures necessary for the use which must be observed when using the dishwasher.

This Instruction and Maintenance Manual is to be considered an integral part of the dishwasher.

The term User comprises not only the purchaser of the dishwasher, but also the personnel involved in the operating, maintenance, checking and handling operations.

The information contained in this manual concerns installation, putting into service and maintenance operations.

1.1 Recipient of the Manual

This manual is intended for the dishwasher operator and maintenance technician.

1.2 Use and preservation of the Manual

The purpose of this manual is to provide all the information needed to use and maintain the dishwasher properly, according to the safety standards established by the Machine Directives and the Unified Standards.

For this reason, even if operation of the dishwasher is very simple, the manual must be kept intact and be readily available if required: it must remain close to the place of use, and be clean, legible and intact.

1.3 Duration and validity of the Manual

This manual is to be considered valid for the entire life of the dishwasher.

It has been drawn up according to the current state-of-the-art technology existing at the time of construction of the dishwasher.

The manual therefore specifically refers to the dishwasher it was provided with, and is also to be considered valid in the event of future updates.

1.4 Request for a new Manual or a copy of the Manual

Should your copy of this Manual be lost or damaged, please ask your Manufacturer for a new one.

Copies of the Instruction and Maintenance Manual can be requested by stating the serial number, registration number and year of manufacture of the dishwasher (fig. 5).

Copies are only available for a fee.

1.5 Update

The Manufacturer reserves the right to modify the dishwasher whenever necessary and/or to update previous manuals without giving prior notice, except in special cases.

The manual will be updated by the Manufacturer in the following cases:

- if the dishwasher is returned to the Manufacturer for modifications or improvements
- if the manual contains errors or omissions detrimental to the safe use of the dishwasher.

In such cases, the original Manual supplied to the Customer must be returned to the Manufacturer who will provide a new updated copy.

1.6 Transfer of ownership

In case of sale or transfer of ownership of the dishwasher, the customer is required to give notice to the manufacturer, specifying the address of the new owner and the date of validity of the sale contract so that the manufacturer may inform the new owner of the limits of their liability.

1.7 Advice to Customers

Customers are invited to communicate any suggestions or proposals they consider helpful to improve the use, legibility or preservation of this manual, in the spirit and terms of our Standards.

To communicate your suggestions, please contact the Manufacturer of this dishwasher.

1.8 Liability Limits

N.B. The manufacturer declines all responsibility for accidents to persons or property deriving from non-observance of the regulations mentioned in this manual or from improper use, maintenance or repair.

1.8.1 Limits of Use

This appliance must only be used for the function for which it was designed, that is to wash glasses, cups and similar items which do not exceed the maximum height of the door opening, together with the basket that contains them, as specified for the different models.

The limits of use are determined by the space available and the overall dimensions of the baskets, as well as that of the dishes that may be washed.

The dishwasher may only be used to wash plates and glasses commonly used in bars and restaurants. The dishwasher was NOT designed to:

- *wash tableware, glasses or other accessories made of plastic*
- *wash glass items that could explode when in contact with boiling hot liquids*
- *wash baby feeding-bottles or other plates and food containers for babies.*

Dishwashers with a 400x400 square basket and dishwashers with a Ø400 round basket are not suitable for washing plates.

Dishwashers with a 500x600 basket are not suitable for washing glasses.

1.8.2 Regulations to be observed

The regulations to be observed refer in particular to:

- ▶ *safety of the operator*
- ▶ *safety of the dishwasher*

The manufacturer shall not be held liable if the dishwasher is used in a manner that contravenes or violates the safety regulations in force in the country of use, even if they come into force at the time of or after purchase.

1.8.3 Liability

The Manufacturer will accept no responsibility whatsoever for damage or injury to things or persons in any of the following situations:

• Misuse of the dishwasher

The term misuse refers to use of the dishwasher with dishes and items other than those recommended in the paragraph on the Use Limits (para 1.8.1 - PART TWO), which could result in damage or soiling of rotating parts and the splintering and/or explosion of the tableware.

Misuse is also to be considered the use of detergents or rinse aid products other than those recommended (such as dishwashing powder, laundry detergents specific for household dishwashers) or corrosive decalcifying products, acids and other unsuitable liquid or powdery cleaning products.

• Use of the dishwasher by untrained personnel

The dishwasher must only be handled by trained personnel. Untrained personnel using the machine should be supervised by a person in charge of the machine, until a certain degree of skill and safety has been achieved in correct use of the dishwasher.

• Use not in compliance with national safety standards

The use of the machine by operators who are not legally employed is forbidden.

• Incorrect installation

The dishwasher must be properly installed, both mechanically and electrically, and positioned in a suitable place that does not create problems for operators during its use. This manual provides instructions referring to proper installation, when this is carried out by the Customer.

- Faulty power supply

A faulty mains power supply can cause damage to the internal motor pump and to the electrical parts of the dishwasher.

The Manufacturer accepts no responsibility for any damage caused by use of the machine with power supply voltages not in accordance with the relative Standards, namely:

- *minimum voltage limits: -10% of nominal voltage rating*
- *maximum voltage limit: 250 V for 230 V single-phase nominal voltage rating and 440 V for three-phase nominal voltage rating 400 V.*

- Failure to carry out routine or scheduled maintenance (see chap.6 – PART TWO)

Failure to carry out regular, ordinary maintenance is likely to cause damage or malfunction.

- Unauthorised modifications or interventions

The dishwasher cannot be modified or tampered with in any part whatsoever.

- Use of non-original spare parts or of spare parts that are unsuitable for the specific model

We recommend contacting the authorised sales office when purchasing spare parts and, in any case, using spare parts only recommended or supplied by the Manufacturer.

- Total or partial non-observance of the instructions for use

ATTENTION!



ELECTROCUTION HAZARD

THIS MANUAL MUST BE READ CAREFULLY AND UNDERSTOOD **BEFORE** INSTALLING AND USING THE DISHWASHER.

Total or partial ignoring of the instructions for use of the dishwasher may expose personnel to safety hazards and cause damage to the machine.

- Exceptional events

In the case of exceptional events such as earthquakes, flooding, etc., the Manufacturer does not assume any responsibility for damage to things or persons due to the use of the dishwasher in the afore-mentioned conditions or even for total or partial reconditioning of the same.

2. Installation

ATTENTION!



ELECTROCUTION HAZARD

Installation operations are to be carried out by **qualified personnel** in compliance with the following instructions.

2.1 Positioning and levelling

The Manufacturer delivers the dishwasher already assembled and complete with all the accessories necessary to be used properly.

If possible, place the dishwasher close to the electric and water mains connections.

The machine must be levelled on a flat surface by turning its 4 adjustable feet (fig. 6).

If the machine is recessed in undercounter installations, its side and back panels may be joined to

adjacent furniture or walls. The loading and drain pipes may be left or right oriented, but once the machine is positioned, the pipes and the power cord must not be bent or compressed.

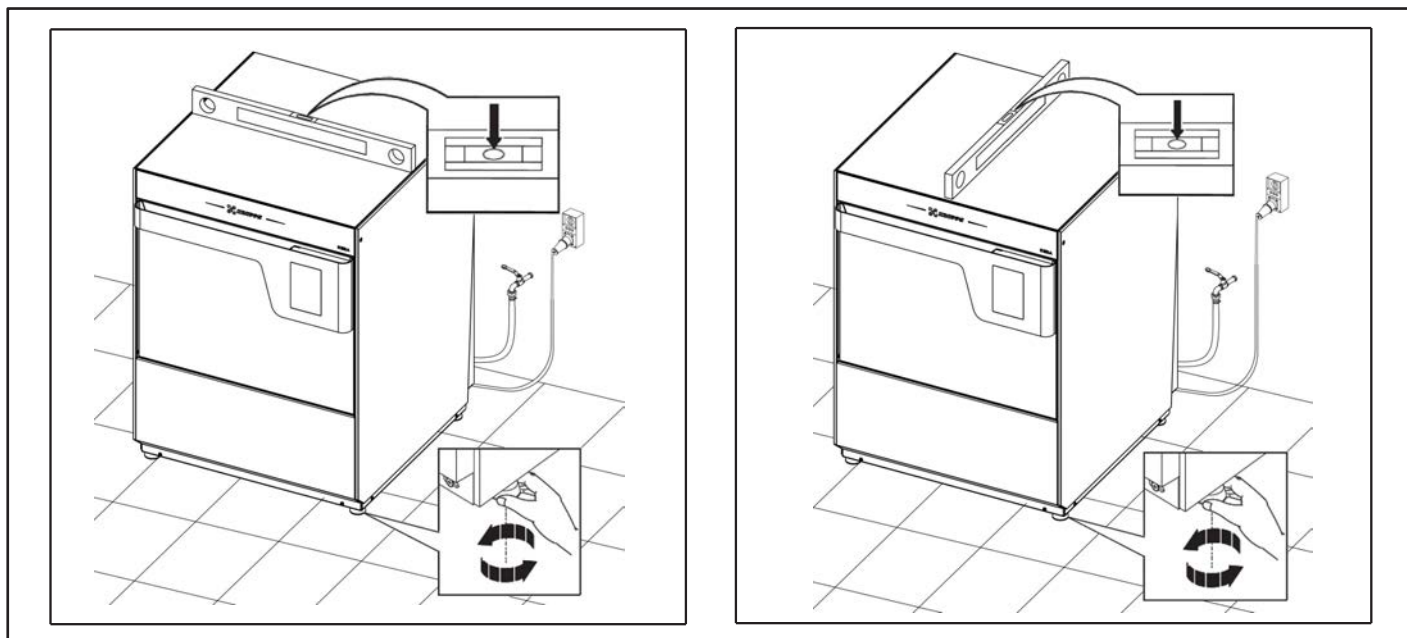


Fig. 6

2.2 Electrical connection



ATTENTION!

The electrical connection must be carried out in compliance with the laws in force in the country where the machine is installed.

Before connecting the machine, make sure that the voltage and frequency of the mains correspond to what is indicated on the data plate and that the machine is connected to an efficient earthing system;

At the back of the machine there is a clamp marked with the symbol  necessary for the equipotential connection between the various devices.

The machine must be protected upstream against overloads and short-circuits by an omnipolar magnetothermic switch, with adequate breaking capacity, or by an underload disconnecter and fuses of the gL type of suitable capacity.

A residual current circuit breaker coordinated with the resistance value of the user's earthing system must be installed immediately downstream of the circuit breaker switch of the disconnecter/fuses to protect against indirect contacts.

The power cord supplied with the machine is of the H07RN-F type.

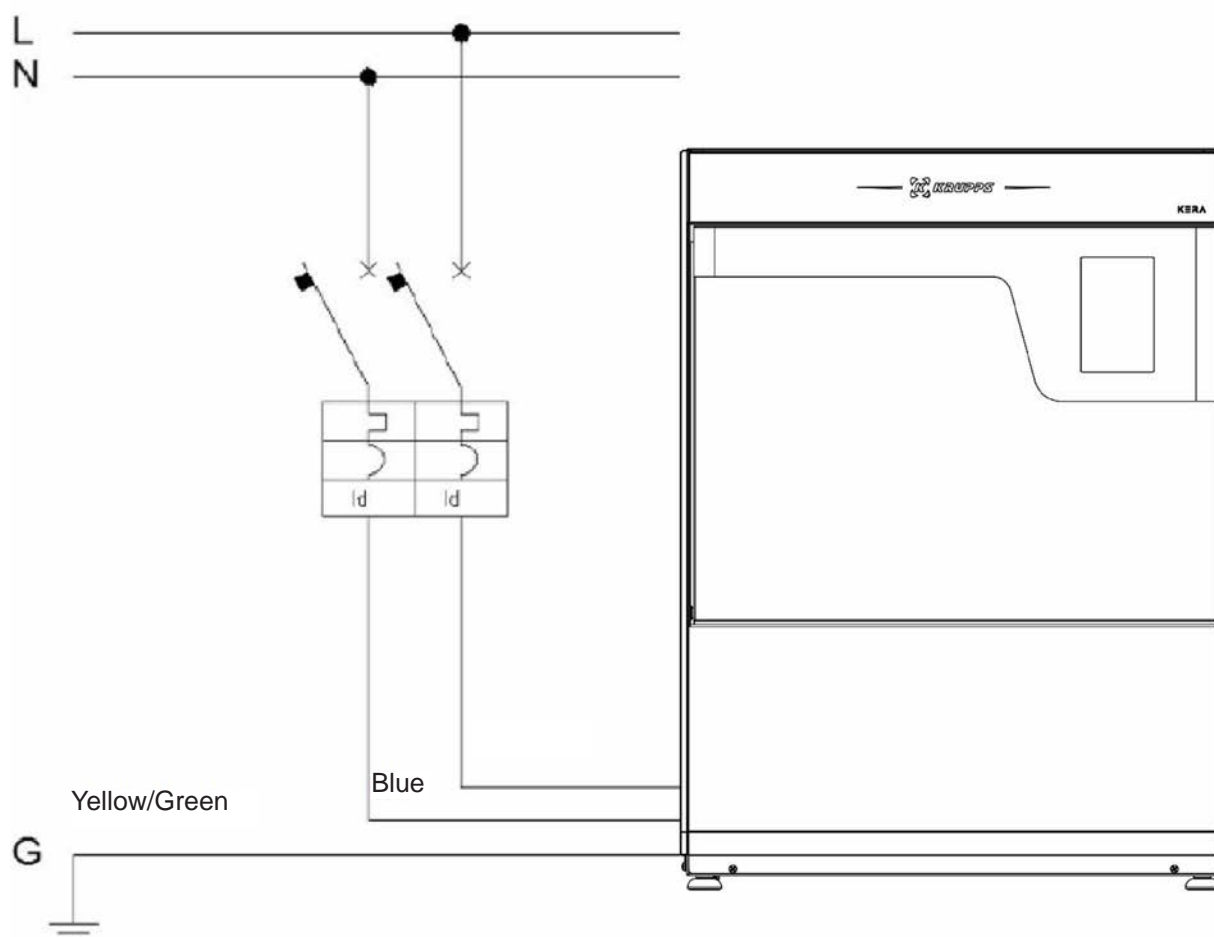
2.3 ELECTRICAL INSTALLATION OF THE SINGLE-PHASE DISHWASHER

Single-phase dishwasher with Schuko 230V+T plug

If the dishwasher is fitted with a plug, insert it into the wall socket. Connect the appliance to the equipotential system via the appropriate terminal on the back of the dishwasher.

Single-phase dishwasher without 230V+T plug

If the dishwasher is not equipped with an electrical plug, please connect it as follows:



Blue wire: neutral

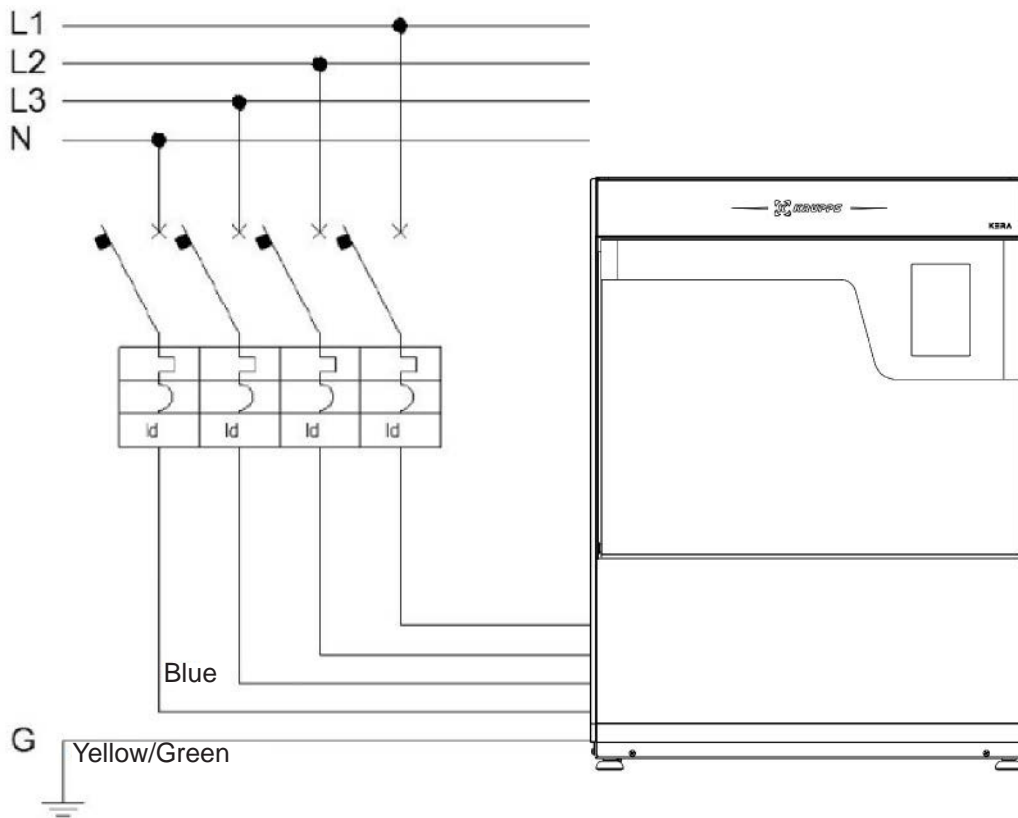
Yellow/green wire: earthing system

Connect the appliance to the equipotential system via the appropriate terminal on the back of the dishwasher.

2.4 ELECTRICAL INSTALLATION OF THE THREE-PHASE DISHWASHER

400V3N+T three-phase dishwasher

The 400V three-phase dishwashers are always 5-pole and therefore equipped with a neutral conductor. Carry out the connection as follows:



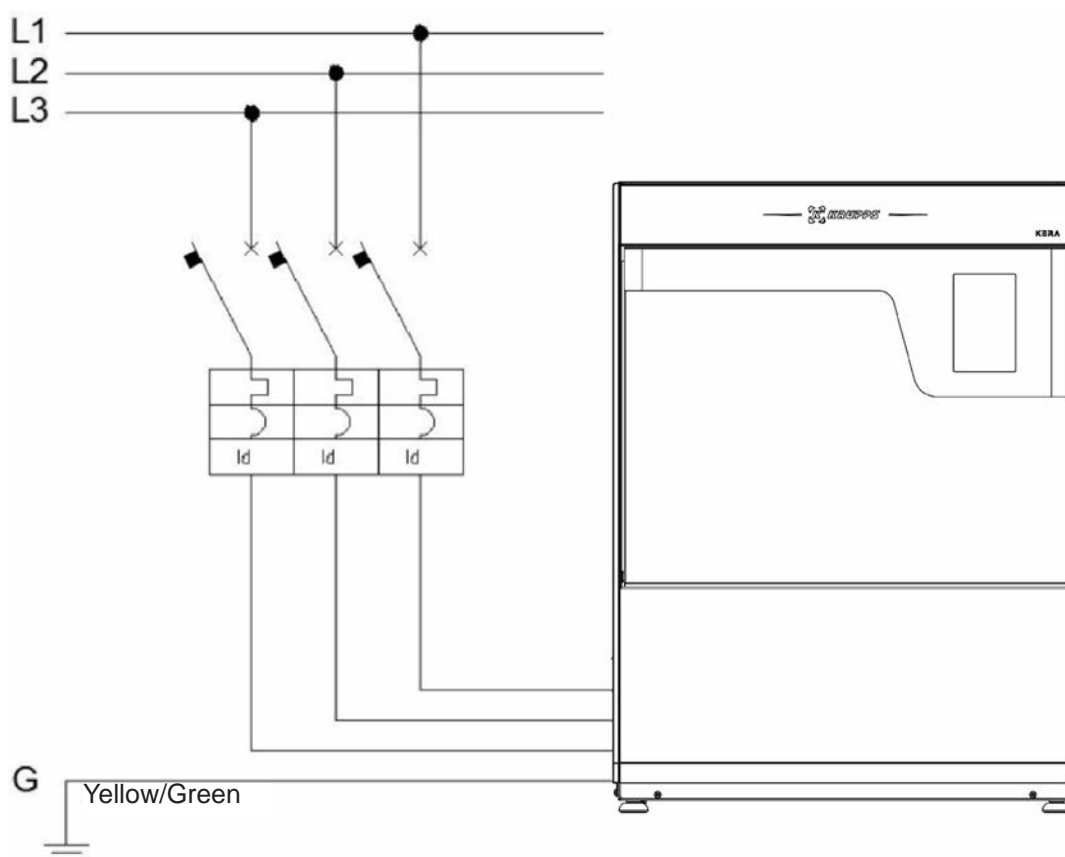
Blue wire: neutral

Yellow/green wire: earthing system

If the dishwasher is provided with a three-phase motor, check for correct rotation of the pump following the instructions supplied with the dishwasher.
If the pump should rotate in the direction opposite to the arrow on the pump cover, invert L1 and L2. Connect the appliance to the equipotential system via the appropriate terminal on the back of the dishwasher

230V3+T three-phase dishwasher (optional upon request)

230V three-phase 4-pole dishwashers are only provided upon express request when ordering. Subsequent transformation of the dishwasher may require the replacement of certain components. Carry out the connection as follows:



Yellow/green wire: earthing system

If the dishwasher is provided with a three-phase motor, check for correct rotation of the pump following the instructions supplied with the dishwasher.

If the pump should rotate in the direction opposite to the arrow on the pump cover, invert L1 and L2. Connect the appliance to the equipotential system via the appropriate terminal on the back of the dishwasher.

Dishwasher without power cord

If the dishwasher is supplied without an electric cable, follow the attached instructions to connect it to the mains.

Connect the appliance to the equipotential system via the appropriate terminal on the back of the dishwasher.

2.5 Earthing

The dishwasher must be connected to the earthing system of the building or to another tested and approved system in compliance with the Safety regulations.



ATTENTION!

However, it must be understood that an effective earthing system is not sufficient to reduce the contact voltage. It is therefore necessary to install suitable safety devices capable of interrupting the current flow with intervention times in accordance with IEC 64-8 or other equivalent European standard for electrical systems in public buildings.

2.6 Water connection

Connect the load pipe supplied with the dishwasher to a $\frac{3}{4}$ " water intake, using it to replace any existing pipes.

The highest water supply temperature is 55°C.

The water supply pressure must respect the limits indicated in the technical data (200/350kPa).

Further indications:

- *It is advisable to use the pressure regulators if hydraulic supply takes place through autoclave at a pressure greater than that of normal operation of the water mains.*
- *An external pump must be installed to increase the pressure if the available water pressure is less than 1.5 bar to ensure rinsing.*
- *If the water hardness is above 14°f, a water softener should be used to prevent external limescale build-up and unsatisfactory washing results.*
- *If water hardness is higher than 14°f, limestone forms.
If water hardness is lower than 8°f, the dishes will not be rinsed properly.*

The connection to the water supply is to be carried out by means of a normal screw-on attachment to a water valve fitted with a handle or hand wheel (fig. 8).

It is advisable to place a suitable gasket in the connection between the supply hose and the tap (fig. 8).

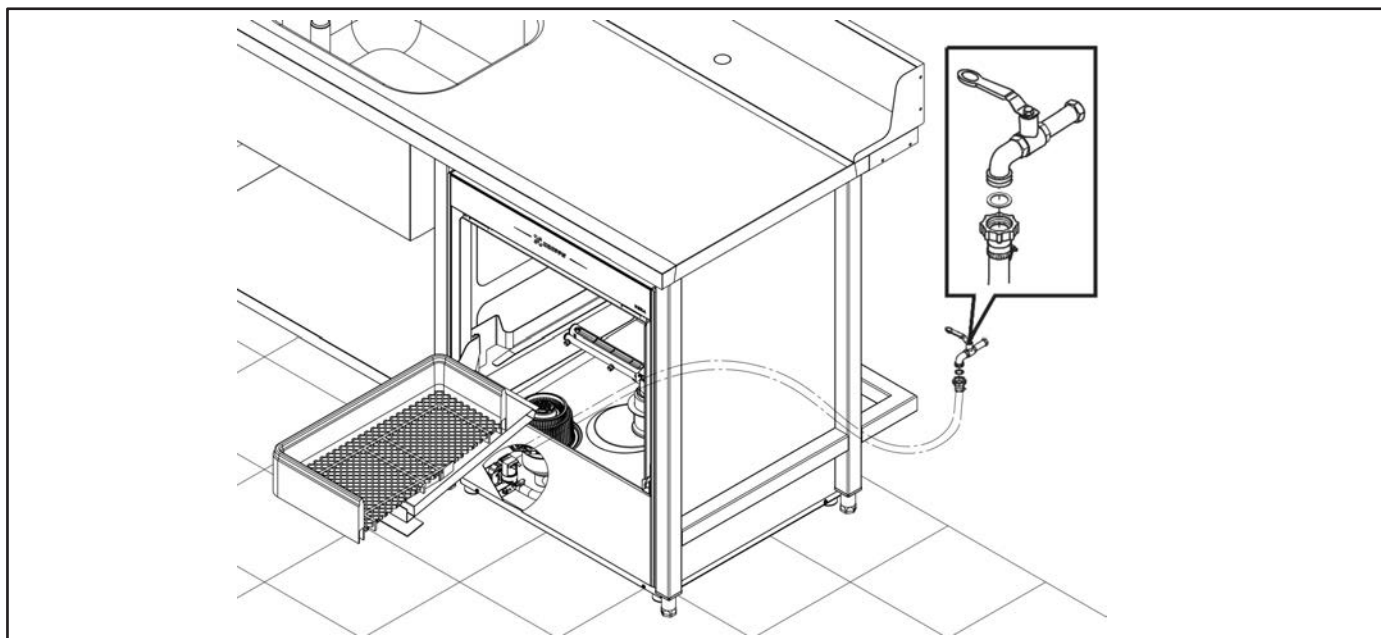


Fig. 7

2.7 Connection to the water drain

There is a drain pipe at the back of the dishwasher, which can be easily directed towards the nearest drain (fig. 9).

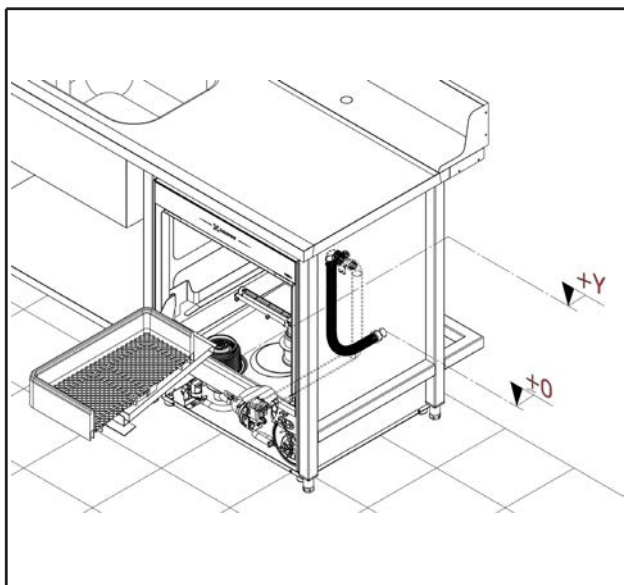


Fig. 8

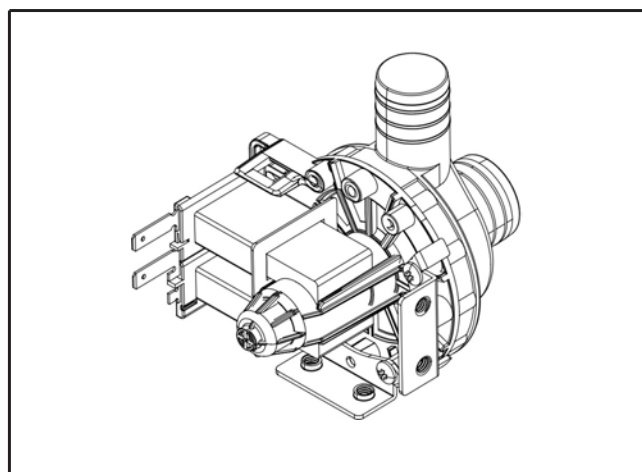


Fig. 9

2.8 Drain pump management

The end of a drain hose can be hooked-up to the edge of a sink, or connected to an outlet in the wall; this outlet must be provided with an air breather or have a diameter larger than that of the drain hose to allow the passage of air.

If an extension is required, it must not exceed 2 m in length.

Avoid exceeding the difference of 60 cm between the point of connection of the drain hose and the base of the dishwasher.

Make sure that the drainage pipe is always positioned on a slope and that it does not create pockets, siphon curves.



ATTENTION!

In the case of installation on the edge of a sink, the end of the drain pipe must be positioned so that the water from the drain does not reach any sockets or electrical appliances.

2.9 Detergent installation

The dishwasher is equipped with a blue tube for drawing of the rinse aid and a yellow tube for drawing of the detergent. Before inserting the tubes into their respective tanks, it is advisable to apply the weight and the filter supplied with the dishwasher to the end of these tubes (fig.A). The ceramic weight ensures drawing of the product from the bottom of the tank.

Important: never place the tubes in the tanks without the filter in place; any crystallised product will seriously damage the dispensers.

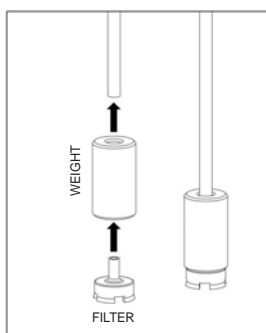


Fig. A

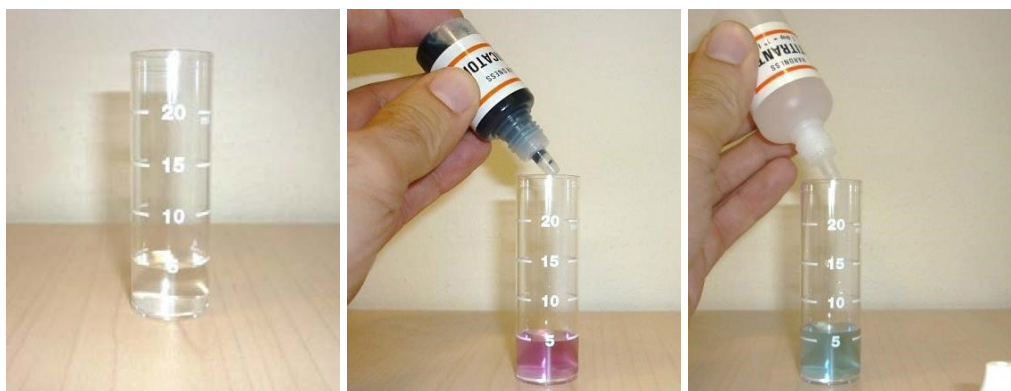
It is advisable to keep the detergent and rinse aid tanks in sight in order to continuously verify the presence of the product. Replace the tanks as soon as the product runs out.

2.10 Water hardness measurement

Use the kit supplied with the dishwasher to measure the incoming water hardness:

- Take 5ml of water using the dedicated glass
- Pour 1 drop of indicator (blue vial) into the water sample
- Add the titrating solution (transparent vial) drop by drop and shake the vial after each drop, counting the necessary drops to make the water turn clear blue. Each drop poured corresponds to 1°f.

The total number of drops counted will correspond to the hardness of the water being tested. This value must be entered into the dishwasher menu as explained below



2.10.1 Electronic dishwasher setting

During the first installation, when the dishwasher is switched on, you will be asked to enter some parameters (Fig. A):

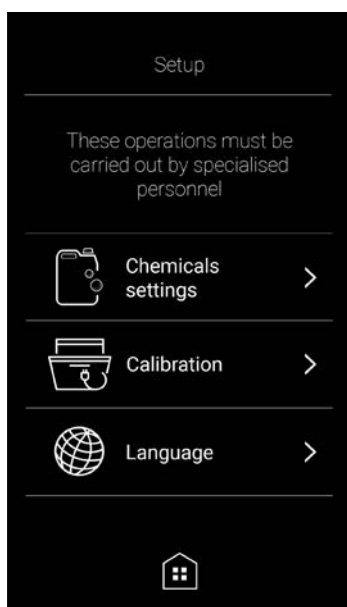


Fig. A

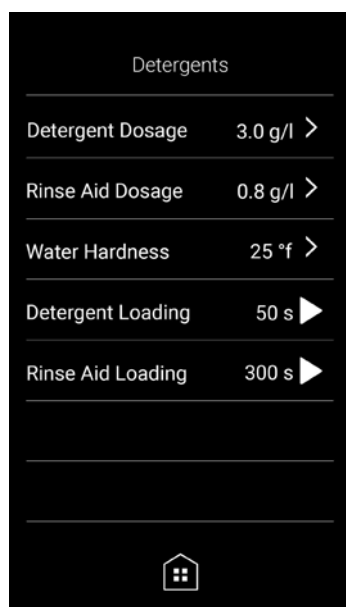


Fig. B

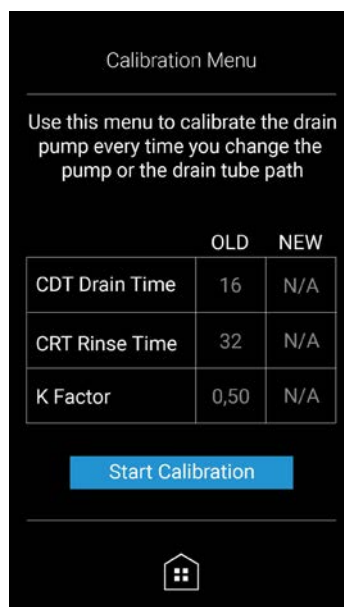


Fig. C



Fig. D

Detergent setting:

- **Detergent dosage (Fig. B):** set the dosage in g/l recommended by the detergent manufacturer.
- **Rinse aid dosage (Fig. B):** set the dosage in g/l recommended by the detergent manufacturer.
- **Infeed water hardness (Fig. B):** use the keypad to set the water hardness in French degrees measured with the supplied kit
- **Loading detergent tubes (Fig. B):** after inserting the tube into the detergent tank, press the 'play' button.
- **Loading rinse aid tubes (Fig. B):** after inserting the tube into the rinse aid tank, press the 'play' button.

Calibration (Fig. C):

- The dishwasher is **calibrated** automatically by pressing the 'Start Calibration' button

Select the language (Fig. D):

- Select the desired system **language**

When the wizard finishes, the dishwasher shows the message "**Stand-by**"

3 Arrangements for using the Machine

3.1 Intended use

The dishwasher has been designed for washing dishes commonly used in bars and restaurants.

3.2 Conditions of Use

The dishwasher may be used under any condition, providing that the operating temperature range is between +10 and +50°C.

It must only be used with an operator present.

In any case, avoid using the dishwasher in open spaces, such as in uncovered areas, improvised sheds, or other temporary installations.

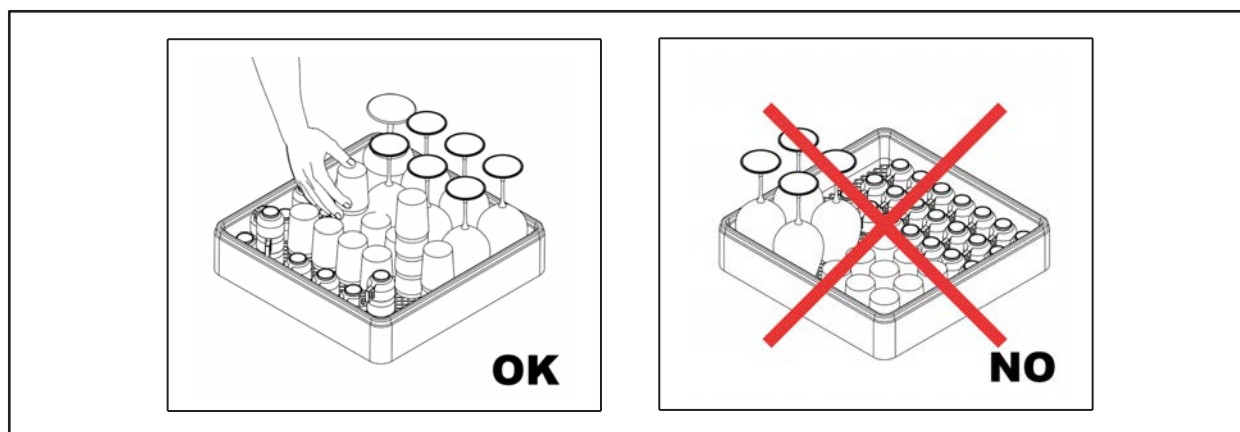
3.3 Types of tableware

Items that can be washed:

- for the glass-washer models: glasses, cups, coffee cups, stemware, saucers and fruit dishes, in compliance with what is indicated in the paragraph on Limits of use (para. 1.8 – PART TWO).
- for all other models: any type of tableware within the limits determined by the size of the basket dimensions and limited to those normally used, in compliance with the Limits of Use paragraph (par. 1.8.1 – PART TWO).

3.4 Limits of use

The dishwasher must be used for washing dishes stacked flat in the basket inside the machine, up to its full carrying capacity, with no overlapping (fig. 11).



Moreover, make sure that the dishes do not prevent the rotors from turning.

Fig. 10

3.5 Operator

The operator should have sufficient experience in the use of equipment commonly supplied to public businesses to prevent incorrect handling.

In any case, the simple commands and ease of operation when using the dishwasher facilitate acquiring of the necessary experience in a very short space of time.

The operator must always be aware of the risks (i.e. shock and burn hazards) due to use of any dishwasher.

The operator must be trained with special attention in the following cases:

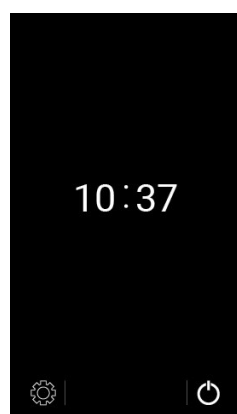
- temporary employees, with little or no experience;
- personnel with little or no service practice;
- personnel with local language comprehension difficulties;
- physically disabled personnel with limited movement capabilities.

4. Instructions for use of the electronic dishwasher with KERA display

This appliance must only be used by trained personnel and employed solely for the washing of glasses, saucers, cups and similar item, in compliance with the Use Limits described in par. 1.8 – PART TWO).

4.0.0 Setting the date and time

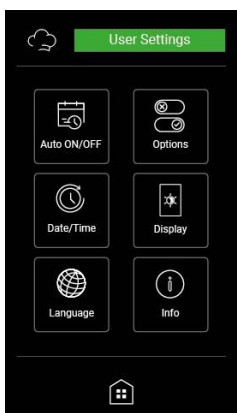
The dishwasher is equipped with an internal clock and a calendar. In the event of a power failure, the settings are retained as the electronic board is equipped with a buffer battery.



To adjust the date and time follow these steps:
Switch the dishwasher off
(Stand-By displayed)



Tap the gear icon Tap the 'User' banner



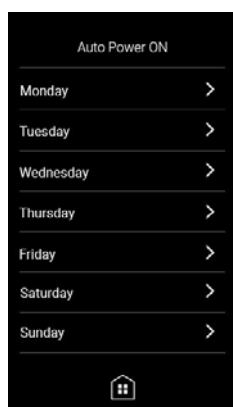
Tap the Date/Time icon



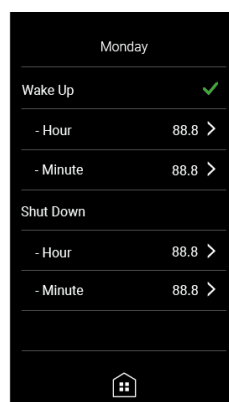
Use the right arrow to set 'Year' - 'Month' - 'Day' - 'Hour' - 'Minute'

4.0.1 Scheduling the dishwasher switch-on and switch-off times

It is possible to set a different switch-on and switch-off time for each day of the week.



With the dishwasher in stand-by mode, press the 'Gear' key. Touch the 'User' banner. Press the Auto ON/ OFF key to enter the auto power on/ off adjustment screen.



Use the right arrow key to set the day and the automatic power-on and any power-off as required.

4.1 General operation check

Before starting up normal operation, the User should check the functional characteristics of the installation by a visible inspection of connections to the dishwasher.

Regular inspection is also recommended regarding the conditions of connection of hoses and electric power supply cables (see chap. 2 – PART TWO).

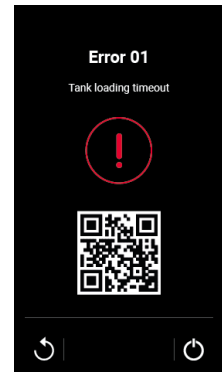
4.2 Safety devices

4.2.1 General safety devices

The dishwasher is enclosed inside metal cabinets that can only be opened using appropriate tools.

4.2.2 Alarm signals

In the event of a fault, the display shows an alarm code and a brief description of the type of error that has occurred. It is also possible to frame a QR code that provides a link to a suggestion page for solving the critical issue.



4.2.3 Indicators and warning lights

The display may show messages indicating the status of the dishwasher. Messages may include error messages (consisting of a code followed by the description of the type of error), dishwasher status (filling, heating, cycle in progress ...), warnings (maintenance required)

4.2.4 Interlock devices

As an interlocking device, a microswitch is used, fitted on the dishwasher door and positioned in such a way that it cannot be tampered with.

This micro switch stops the water intake in the event that the door is opened, without switching off the power supply on the machine. If the door is opened during the wash cycle, the cycle is cancelled. Upon closing of the door it is necessary to restart the cycle. If the door is opened during heating of the tank, heating is interrupted.

4.2.5 Removable and adjustable safety guards

No adjustable or removable guards are provided, as they are not necessary.

4.3 Safety Measures

Several basic rules must be complied with when using the dishwasher:

- *The dishwasher must never be moved from its original position when working*
- *Make sure the water supply tap is open before turning the appliance on*
- *Never clean with corrosive products acids, steel wool or steel brushes*
- *Never wash the appliance with direct or high-pressure jets of water*
- *Turn off the dishwasher at the end of the day*
- *Check the general condition of the dishwasher, in particular the power supply and controls, before use*
- *The dishwasher must be clean and possibly free from residues from previous wash cycles and in good working conditions.*

All the auxiliary accessories must be installed correctly and be efficient

- If, for any reason, the dishwasher must remain unused, it is advisable to place an "Out of Service" sign. If necessary, disconnect the dishwasher from the mains supply
- Always keep the control panel clean and dry
- if any spoons or other small objects fall into the tank, the tank must be emptied:

The dishwasher is equipped with a drain pump. To turn it off, press the ON/OFF button and follow the instructions to activate the automatic drain process. The dishwasher turns off at the end of the draining cycle. Disconnect it from the mains.

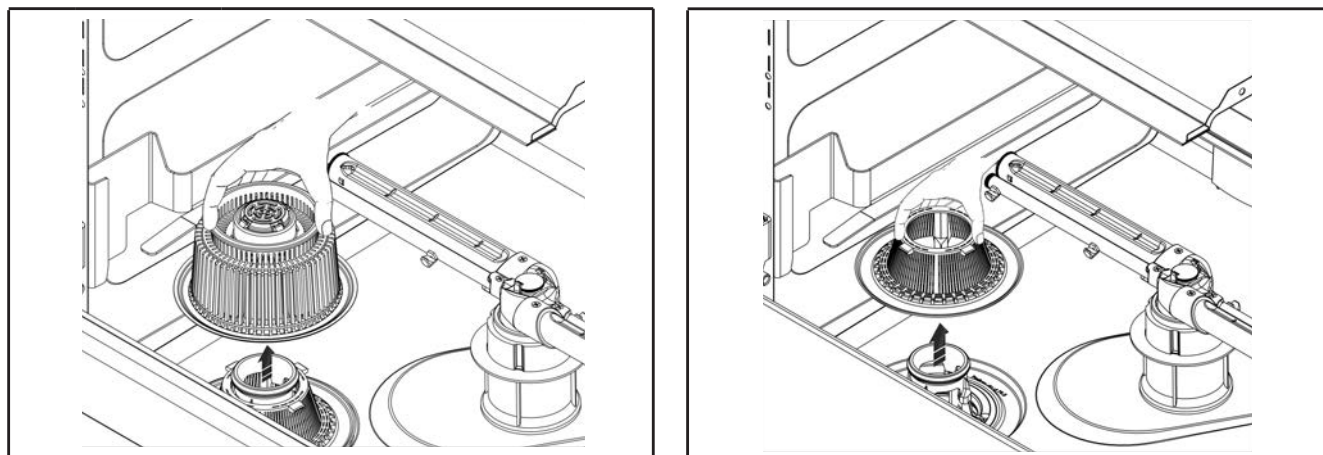


Fig. 11

Wait at least 5 minutes before retrieving any fallen objects to allow the heating elements to cool down.



BURN HAZARD

ATTENTION!

4.4 No-load test

Before starting the dishwasher, it is advisable to perform an unladen test to make sure that the machine was installed correctly.

4.5 Washing Operations

A few basic rules must be observed to ensure correct hygiene for the items being cleaned:

- remove any food residue from the dishes before placing them in the dishwasher (fig. 13)



Fig. 12

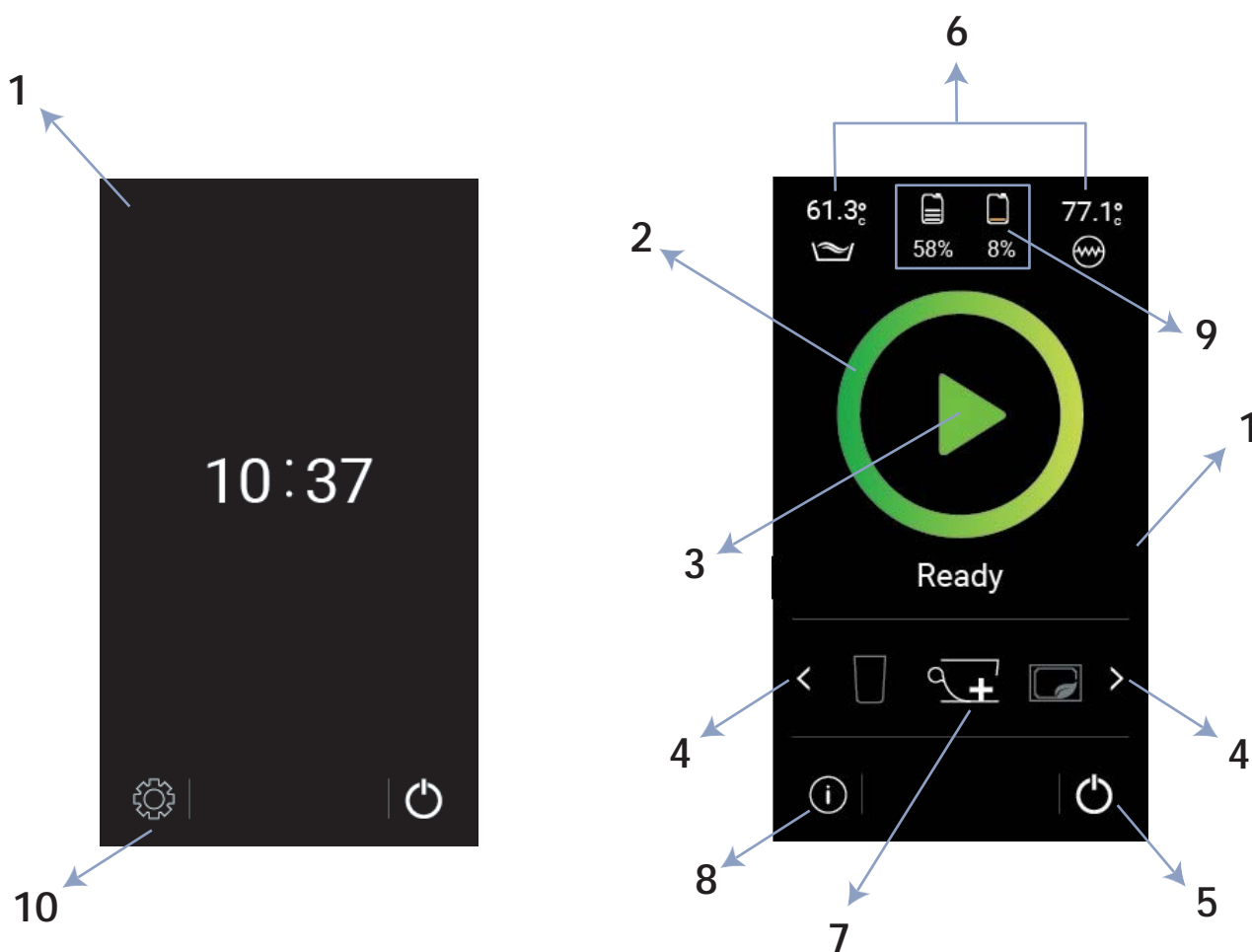
- replace the water in the tank frequently according to the number of washing cycles carried out, and in any case at least 3 times a day
- dry the washed dishes with a clean cloth

- avoid placing washed dishes on sponge mats or other materials that retain water
- The wash pump filter must be kept clean and in the correct position.

4.6 Operation of electronic dishwasher with KERA display

Fig. 14 shows the controlpanel of the dishwasher and the reference of the controls The sequence of operations to be carried out in order to perform the washing is illustrated

CONTROLS	REF.
TOUCH SCREEN DISPLAY	1
CYCLE PROGRESS CIRCLE	2
CYCLE START TOUCH BUTTON	3
PROGRAM SELECTION KEY	4
ON/OFF KEY	5
TEMPERATURE DISPLAY	6
SELECTED PROGRAMME ICON	7
PROGRAMME INFORMATION KEY	8
KLEANCODE DETERGENT LEVELS (IF ACTIVE)	9
SETTINGS BUTTON	10



below: some of these operations are performed automatically by the dishwasher.



ATTENTION

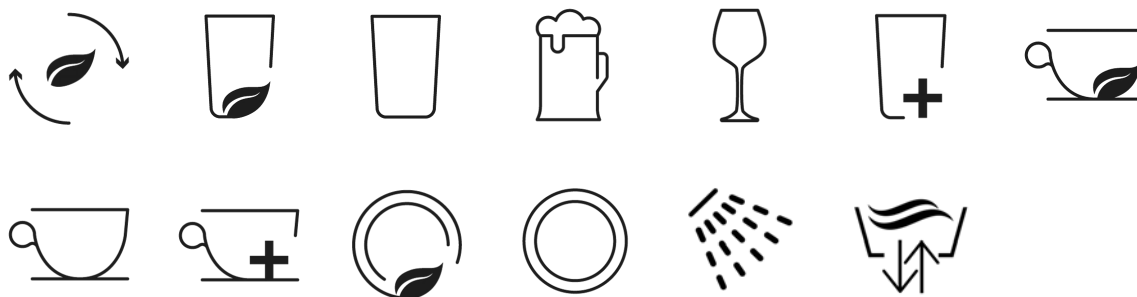
**PAY ATTENTION WHEN OPENING AND CLOSING THE DOOR/LID OF THE DISHWASHER.
DO NOT USE THE DISHWASHER WHEN WEARING CLOTHING/ITEMS THAT COULD BECOME CAUGHT IN
THE DISHWASHER COMPONENTS, LIMITING CAPACITY FOR NORMAL MOVEMENT.**

PHASE	DISHWASHER TYPE/REFERENCES FIGURE	
	Front loading dishwasher	Dish washer with lid
0. Initial checks	Check that the tank is completely empty and clean Check that the rotors are clean and free to turn Check that the filter is clean and correctly inserted	
1. Switch-on	Close the door of the dishwasher. Touch the ON/OFF KEY (5); the dishwasher will turn on	Close the lid of the dishwasher and push the handle downwards. Touch the ON/OFF KEY (5); the dishwasher will come on
2. Water loading	The wash tank is automatically filled with water to the ideal level. During filling, the heating screen and the temperature of the wash tank and boiler are displayed.	
3. Water heating	The water is automatically heated. The display shows the temperature of the tank and boiler. Below the temperatures, the relative orange icon is displayed to indicate which electrical heating element is in operation: boiler or tank. The heating elements never work simultaneously but precedence is always given to the boiler. Heating is complete when the icons on the display turn white	

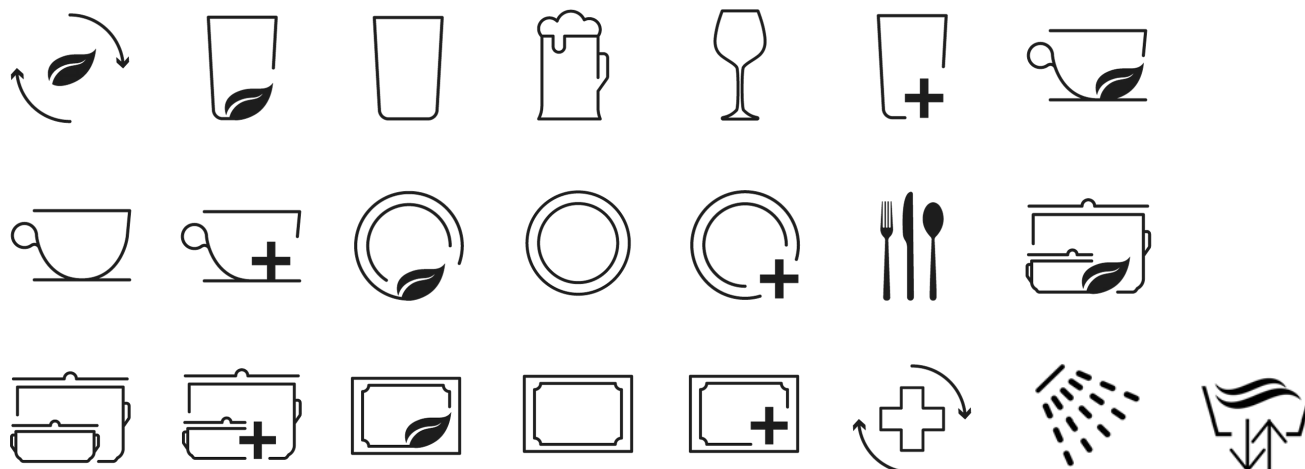
PHASE	DISHWASHER TYPE/REFERENCES FIGURE	
4. Detergents and rinse additive dosage	All dishwashers are equipped with automatic systems for the dosing of detergent and rinse aid; the settings are imposed by the installer at the time of installation. both the detergent and the rinse aid are dosed automatically after loading of the tank and at the end of each wash cycle.	
5. Wash Programme selection	Select the icon of the desired wash programme. The wash programme is identified by an icon representing the type of tableware to be washed. See at the bottom of this table the list of wash programmes available depending on the dishwasher model.	
6. Washing	Make sure that the dishwasher is in standby mode (CYCLE START KEY (3) green). Open the door, insert the basket with the tableware (making sure that the arrangement of the dishes is as described in par. 3.4 – PART 2), close the door and press the CYCLE START KEY (3) to start the wash cycle. THE CYCLE PROGRESS CIRCLE will show the progress of the cycle on the display. When the cycle is finished, the tick on the display starts flashing until the basket is removed.	Make sure that the dishwasher is in standby mode (CYCLE START KEY (3) green). Raise the lid, insert the basket with the tableware (ensuring that the arrangement is as described in par. 3.4 - PART TWO) Lower the lid and press the handle down. The wash cycle starts automatically. THE CYCLE PROGRESS CIRCLE will show the progress of the cycle on the display. When the cycle is finished, the tick on the display starts flashing until the basket is removed.
7. Supplementary rinse	If an additional rinse is required, select the ADDITIONAL RINSE programme to start a 15-second rinse cycle. Note the extra rinse programme is only available if the boiler has reached the operating temperature.	
8. Dishes unloading	Open the door to remove the basket with the dishes. To remove any misting from the tableware: 1. reinsert the basket with the tableware 2. close the door 3. rinse again by selecting the ADDITIONAL RINSE PROGRAMME	Lift the lid to remove the basket with the dishes. To remove any misting from the tableware: 1.reinsert the basket with the tableware 2.Press the hood to close it 3.rinse again by selecting the ADDITIONAL RINSE PROGRAMME

The wash programme screens are shown below by dishwasher type.
The programmes differ in duration, dosages and temperatures:

400 glass washer basket (75-90-110-130 sec.)

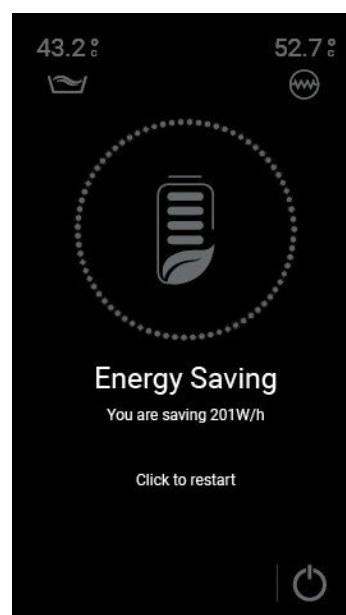


500-600 Under counter dishwasher basket (90-110-120-300 sec.)



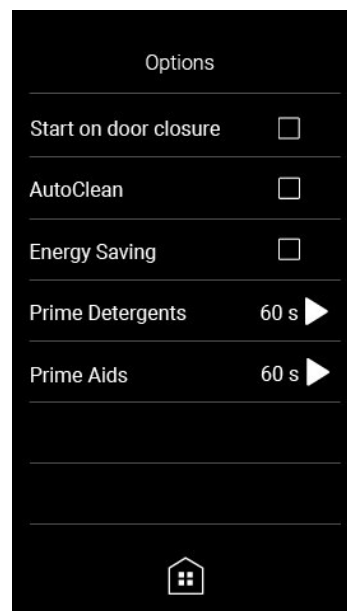
4.6.1 Energy Saving

After a period of inactivity, the dishwasher enters Energy Saving mode, reducing the temperature in the tank to 40 °C and the boiler to 60 °C. In this way, energy is saved by keeping the temperature lower than the working temperature.



To exit the Energy Saving mode, simply press any button or open and close the door.

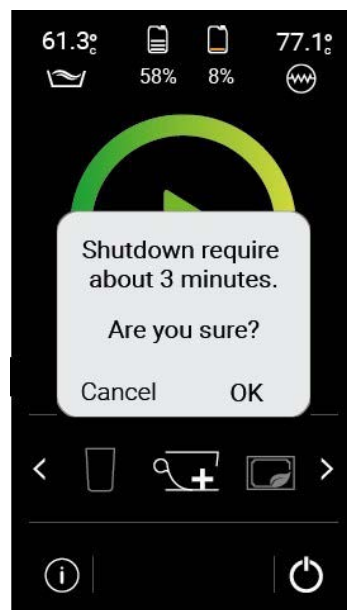
It is possible to adjust the amount of time the dishwasher waits before going into Energy Saving mode from the User Settings menu by pressing the Options key. In Options, select Energy Saving and enter the amount of time the dishwasher must wait before the mode is activated.



4.7 End of Service

Every day, after use:

1. Press the ON/OFF KEY until the tank drain and self-cleaning cycle starts. The self-cleaning cycle will start automatically as soon as the tank is empty. This cycle lasts about 3 minutes and rinses the tank, cooling and draining the boiler.
2. At the end of the self-cleaning cycle, the dishwasher switches off automatically



As soon as the dishwasher is turned off

1. remove the electric power by turning off the main switch installed upstream of the dishwasher or disconnect it from the electric network
2. Remove and clean the wash pump filter (fig. 17) and any tank filters if present
3. carefully clean the wash tank
4. check and, if necessary, unscrew and clean the wash and rinse pipes
5. replace all the dishes removed, proceeding in reverse order
6. leave the door/lid open throughout the rest period (**N.B. If there is no power supply, with the door open the message "WARNING HOT STEAM" will be displayed indicating the presence of steam and hot tank. The message disappears as soon as the tank cools).**



ATTENTION!

INJURY HAZARD



FALL HAZARD

WHEN THE DISHWASHER DOOR IS OPEN, IT CAN BE AN OBSTACLE TO PERSONS AND OBJECTS NEAR THE MACHINE ITSELF.

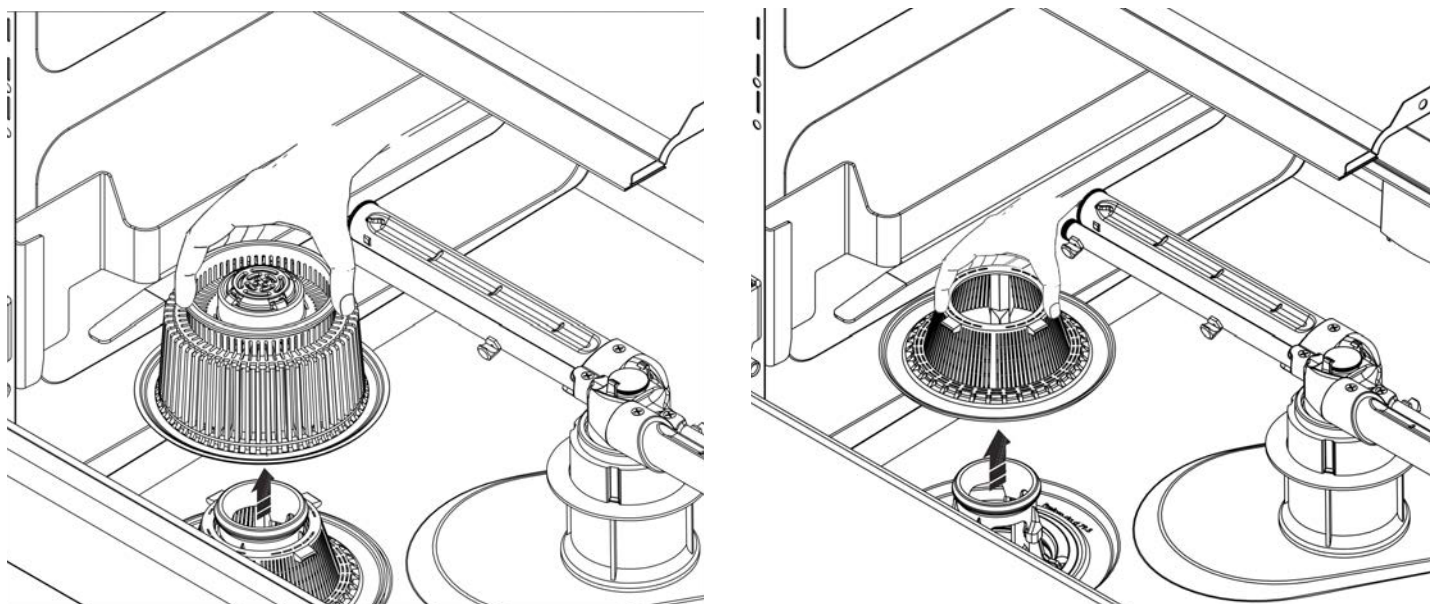


Fig. 13

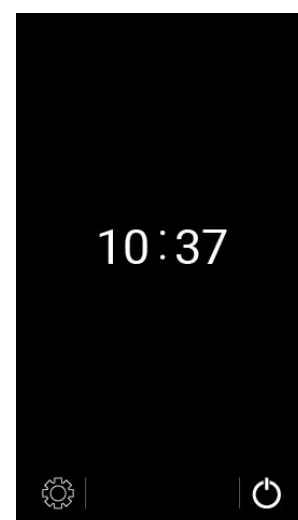
4.0 List of screens

Below are the screens that may appear during normal use of the dishwasher:

Screen on

In this screen, the following keys are activated:

- 1-"ON" (5) to turn on the dishwasher
- 2-"GEAR" to access the various USER and SERVICE configuration menus



Filling screen

If 'ON' is pressed, the dishwasher is turned on and the filling screen appears

in this screen, the keys 1-"OFF" (8) are active to turn off the dishwasher

The CYCLE PROGRESS CIRCLE (3) will remain orange until the correct water level is reached in the tank, at which point the dishwasher will enter the heating phase.



Heating screen

After filling the heating screen appears. The water of the boiler and the water of the tank is heated to the minimum operating temperatures. Temperatures are shown at the top of the display.

in this screen, the keys 1-"OFF" (8) are active to turn off the dishwasher

The CYCLE PROGRESS CIRCLE (3) will remain orange until the temperatures are reached, at which point it turns green to indicate that the dishwasher is ready for the wash cycle



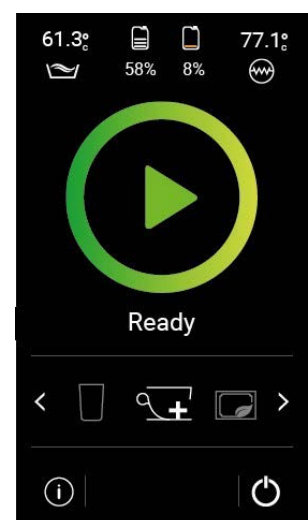
Dishwasher ready screen

After heating, the display will show the green circle (dishwasher ready) and it will be possible to select the appropriate wash programmes. Temperatures are shown at the top of the display.

in this screen, the keys 1-"OFF" (8) are active

to turn off the dishwasher

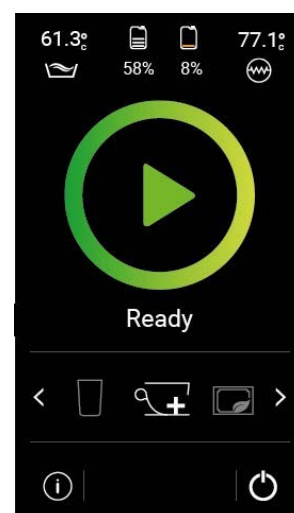
The active wash programme is also displayed in the centre of the programme bar.



Programme screen:

The following keys are active on this Screen:

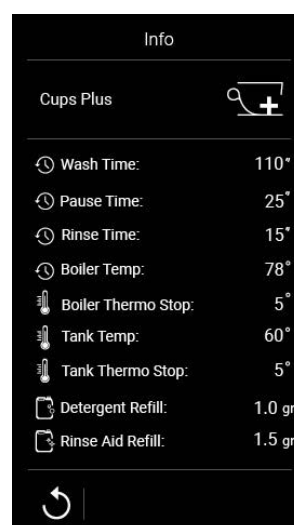
1. "OFF" (8) to turn off the dishwasher
 2. "INFO" to access information on the selected programme
 3. "RIGHT-LEFT ARROW" to scroll through the various preset programmes.
- When the GREEN START KEY (3) is pressed, the wash cycle starts and the WASH screen appears



The wash programmes can be customised to suit requirements, replacing the icons present by default with other washable tableware according to the type of dishwasher.

This operation can only be performed by an authorised technician (see section on "Choosing the wash programs")

Tap the 'i' key in the bottom left corner to access the information screen for that programme.



WASH screen.

Work cycle in progress

1- "OFF" (8) turns off the dishwasher

2- "STOP KEY" (square) cancels the current cycle and returns to the programme screen. Tank and boiler temperatures are shown at the top of the display.

3- "INFO" to access information on the selected programme

Below the temperatures the messages relating to the dishwasher status are displayed (wash in progress, rinsing, thermostop, etc.)

The CYCLE PROGRESS CIRCLE turns BLUE and fills up for the duration of the cycle, indicating the progress of the cycle.

At the end of the cycle, the display flashes until the door is opened and an acoustic signal is emitted to indicate the end of the cycle. At the same time the screen of the programme in use will appear on the display.



Information screen

From the screen of the selected programme, press the "i" key to display the settings for the selected programme:

- a- Wash time
- b- Pause time
- c- Rinse time
- d- Boiler temperature
- e- Boiler thermostop
- f- Tank temperature
- g- Tank thermostop
- h- Detergent refill
- i- Rinse aid refill

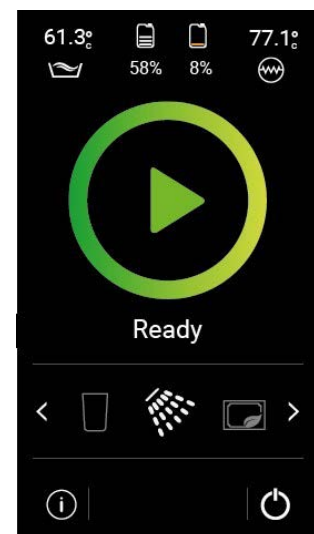


Extra rinse screen

From the main screen, select the rinse icon and press the START key (3) to start an additional 15-second hot rinse cycle.

N.B. the additional rinse cycle is only available if the boiler has reached the minimum temperature set. Otherwise, the programme is inhibited. The progress circle in the centre of the screen is displayed.

At the end of the cycle, the display flashes until the door is opened. At the same time the screen of the programme in use will appear on the display.



Drain cycle screen

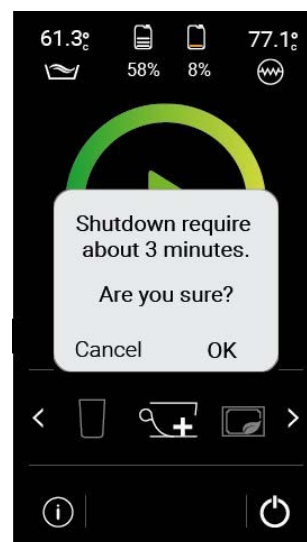
The dishwasher is equipped with a drain pump,
Press the shut-down key to display the corresponding unloading
screen and press OK. The following keys are active on this screen:

1. "Cancel" to cancel the drain cycle
2. "OK" to confirm

In the middle of the display, the tank and boiler temperatures
and the "drain in progress" message continue to be displayed.

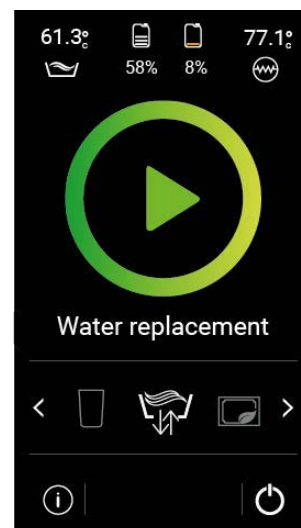
After draining, the Self-cleaning cycle will start automatically,
rinsing the tank and draining the water at regular intervals. The
Self-cleaning cycle lasts approximately 2 seconds, after which, the
dishwasher turns off automatically.

ATTENTION: if at the end of the drain cycle the dishwasher is
not empty, the alarm "ER12, Drain Timeout" is displayed: the
dishwasher does not turn off but heating is disabled. Check if the
drain is clear by turning the dishwasher off and on again to reset
the error, then carry out a further drain cycle.



Tank water change screen

This function makes it possible to drain and restore the tank level
with clean water without having to turn off the dishwasher.



Smart Top Panel

The top of the dishwashing machine has been designed to give clear visual information about the appliance's operating status. The different colours indicate specific operating conditions:

- **ORANGE:** The dishwasher is filling or heating the tank, or is in a non-blocking alarm state.
- **GREEN:** The dishwasher is in 'Ready' mode, ready to start.
- **BLUE:** The dishwasher is currently in "Washing" mode, i.e. it carrying out the set wash cycle.
- **GREY:** The dishwasher is in "Energy Saving" mode, optimising energy consumption.
- **RED:** There is an "Error" in the dishwasher, and all functions are temporarily suspended. In this case, we advise you to consult the manual to solve the problem (Par.9.1)



4.8.3 Choice of wash programs

It is possible to select the washing programme to be set according to your needs.










It is also possible to delete one or more wash programmes keeping active on the ones in use. Each programme is assigned an icon and a given value of time, temperature and dosage depending on the intended use and the type of dishes to be washed.

The 20 programs are not present in all models of dishwasher but only the programs managed by the dishwasher itself will be present.

Contact an authorised assistance centre to change and adjust the programmes.

List of wash cycles that can be activated by type of dishwasher:

ICON	DESCRIPTION	CYCLE (sec)	BOILER (°C)	TANK (°C)	Glass washer basket 400	Under counter dishwasher basket 500
	Eco	80	70	55	✓	✓
	Eco Glass	95	65	55	✓	✓
	Glass	110	65	60	✓	✓
	Beer	110	65	55	✓	✓
	Wine	140	65	60	✓	✓
	Glass Plus	130	75	55	✓	✓
	Eco Cups	110	75	55	✓	✓
	Cups	130	75	60	✓	✓
	Cups Plus	150	78	60	✓	✓
	Eco Plates	80	75	55	✓	✓
	Plates	110	77	55	✓	✓

ICON	DESCRIPTION	CYCLE (sec)	BOILER (°C)	TANK (°C)	400 Basket washer	Under counter dishwasher basket 500
	Plates Plus	140	78	62		✓
	Cutlery	200	80	62		✓
	Eco Pot	320	82	65		✓
	Pot	260	82	60		✓
	Pot Plus	320	82	60		✓
	Eco Trays	170	82	60		✓
	Trays	560	82	60		✓
	Trays Plus	740	82	60		✓
	Sanitising	915	82	65		✓

4.8.4 Wi-Fi

The dishwasher is set up for Wi-Fi connection and can be remotely controlled via PC, tablet or Smartphone.

Contact an authorised service centre to activate the connection; refer to the **KRUPPS Remote Control** APP to operate the dishwasher via Wi-Fi.

4.8.5 Thermostop

The dishwasher is equipped with the serial Thermostop function, which ensures that the wash cycle is only started when the water temperature has reached the minimum set value (Tank Thermostop) and that the rinse cycle is only started when the boiler temperature has reached the minimum set value (Boiler Thermostop).

At the end of the wash cycle before starting the rinse, the boiler temperature is checked:

- if the temperature is above the minimum value, the cycle continues correctly with rinsing.
- if the temperature is below the minimum value, the wash cycle is extended until the minimum temperature is reached.

5 Instructions for disassembly

ATTENTION!



INJURY HAZARD

DAMAGE HAZARD FOR THE DISHWASHER

Only skilled personnel should be allowed to disassemble the dishwasher.

The dishwasher should therefore be taken to the nearest authorised dealer to disassemble all or part of the dishwasher.

6 Maintenance

ATTENTION!



INJURY HAZARD



BURNING HAZARD



MAINTENANCE MUST ONLY BE CARRIED OUT WHEN THE MACHINE IS SWITCHED OFF, DISCONNECTED FROM THE POWER SUPPLY NETWORK AND THE TANK IS EMPTY.

MOREOVER, MAINTENANCE SHOULD ONLY BE CARRIED OUT AFTER THE HEATING ELEMENTS HAVE COOLED DOWN (WAIT AT LEAST FIVE MINUTES).

THE ONLY EXCEPTION TO THIS RULE IS WHEN CHECKING THAT THE MICROSWITCH IS FUNCTIONING (SEE THE TABLE BELOW).

The table below shows a list of the necessary maintenance operations and their frequency. In case of technical problems, contact your Dealer.

MAINTENANCE	FREQUENCY	NOTES
Wash tank cleaning	Daily	To be carried out with care.

MAINTENANCE	FREQUENCY	NOTES
Rotor cleaning	Daily	Dismantle the rotor by unscrewing the retaining nut and pulling it upwards (fig.18). Wash the rotor with water. Carry out the same operations for the upper rotor.
Wash pump filter cleaning	Daily	Remove the wash pump filter by pulling it upwards, then wash it and rinse it (fig. 19).
Clean the wash tank filters	Daily	Remove the wash tank filters by pulling them upwards then wash and rinse them.
Check the rotation of the rotor	Daily	Check manually that the rotor rotates freely.
Outer surfaces cleaning	Every 1-2 days	Do not use solvents on the control panel.
Microswitch functioning check	Weekly	Check that the door microswitch works properly when the machine is on by opening/closing the door or by lifting/lowering the lid.
Power supply cable and water hose check	Every 6 months	<p>ATTENTION!</p> <p> ELECTROCUTION HAZARD</p> <p> INJURY HAZARD</p> <p><u>In case these parts are damaged, disconnect the dishwasher from the power supply without touching the power cord</u> (turn the switch upstream of the dishwasher to the "off" position or disconnect the entire power supply network to which the dishwasher is connected). Immediately contact your Dealer and have the machine repaired by qualified personnel.</p> <p><u>Do not use the dishwasher until it has been repaired.</u></p>

Routine technical maintenance by a specialist technician is also required, who must complete and issue the inspection report.:

MAINTENANCE	FREQUENCY	NOTES
General visual inspection by the technician who installed the dishwasher	At the time of installation	The technician must issue a report confirming correct operation of the dishwasher. The report must include the date of the intervention, the signature of the technician and the signature of the customer/maintenance manager of the premises.
General visual inspection by the technician who installed the dishwasher. Check the general condition of the internal components, the functionality of the dispensers and make sure that there are no liquid leaks from the dispensers or water leaks from the hydraulic circuit, including the pumps. Check the condition of the water inlet and drain hose connections	Six months after initial installation	

MAINTENANCE	FREQUENCY	NOTES
<p>Check the functionality and wear of all components and replace them if necessary Make sure that the boiler is clean (empty it and check for limescale)</p> <p>Check the gasket of the boiler heating element Check for leaks in the wash pump</p> <p>Check the integrity of the hydraulic circuit Check the integrity of the inlet pipe Check the integrity of the outlet pipe Check the condition of the water inlet and drain pipe connections</p> <p>Check the tightness of the cable ties</p> <p>Check the integrity of the electrical wiring (replace any wire that may have been damaged by external/ environmental causes)</p> <p>Check the integrity of the temperature probes and of the correct temperature reading</p> <p>Verification of all electrical connections (faston, terminal block, electrical resistance terminals)</p> <p>Check that all the wires are correctly tightened in the contactor terminals, if present (three-phase models)</p> <p>Check the electric cable, plug and/or connections to the panel</p> <p>Check the integrity and cleanliness of the air trap</p> <p>Check that the pressure switch is in good working order</p> <p>Check that the solenoid valve is working properly</p> <p>Clean the solenoid valve filter Replace the detergent and rinse aid dispenser tubes, even if the machine has only been partially used in the last 12 months.</p>	Every 12 months	<p>Should the technician detect further faults during the inspection and/ or replacement of components (which must be carried out with original spare parts), they must carry out the necessary repairs.</p> <p>If it is impossible to perform the repair immediately, the dishwasher must remain unused and an "out of order" sign must be affixed.</p> <p>Upon completion of the checks/ repairs, the technician will issue the report confirming correct operation of the dishwasher. The report must include the date of the intervention, the signature of the technician and the signature of the customer/maintenance manager of the premises.</p>
<p>Carry out all the checks required every 12 months and in addition:</p> <p>The following components must be replaced with original spare parts:</p> <p>Washing pump gaskets</p> <p>Water inlet pipe</p> <p>Water drain pipe</p> <p>Seal in the boiler heating element</p> <p>Tank pressure switch (and boiler if present)</p> <p>Solenoid valves</p>	Every 24 months	Follow the instructions in the 12-month notes

Non-compliance with the above checks and the technician's failure to issue the reports will invalidate the product warranty. The Manufacturer is not liable for malfunctions and/or damage caused by negligence and failure to observe the routine maintenance rules indicated in this use and maintenance manual.

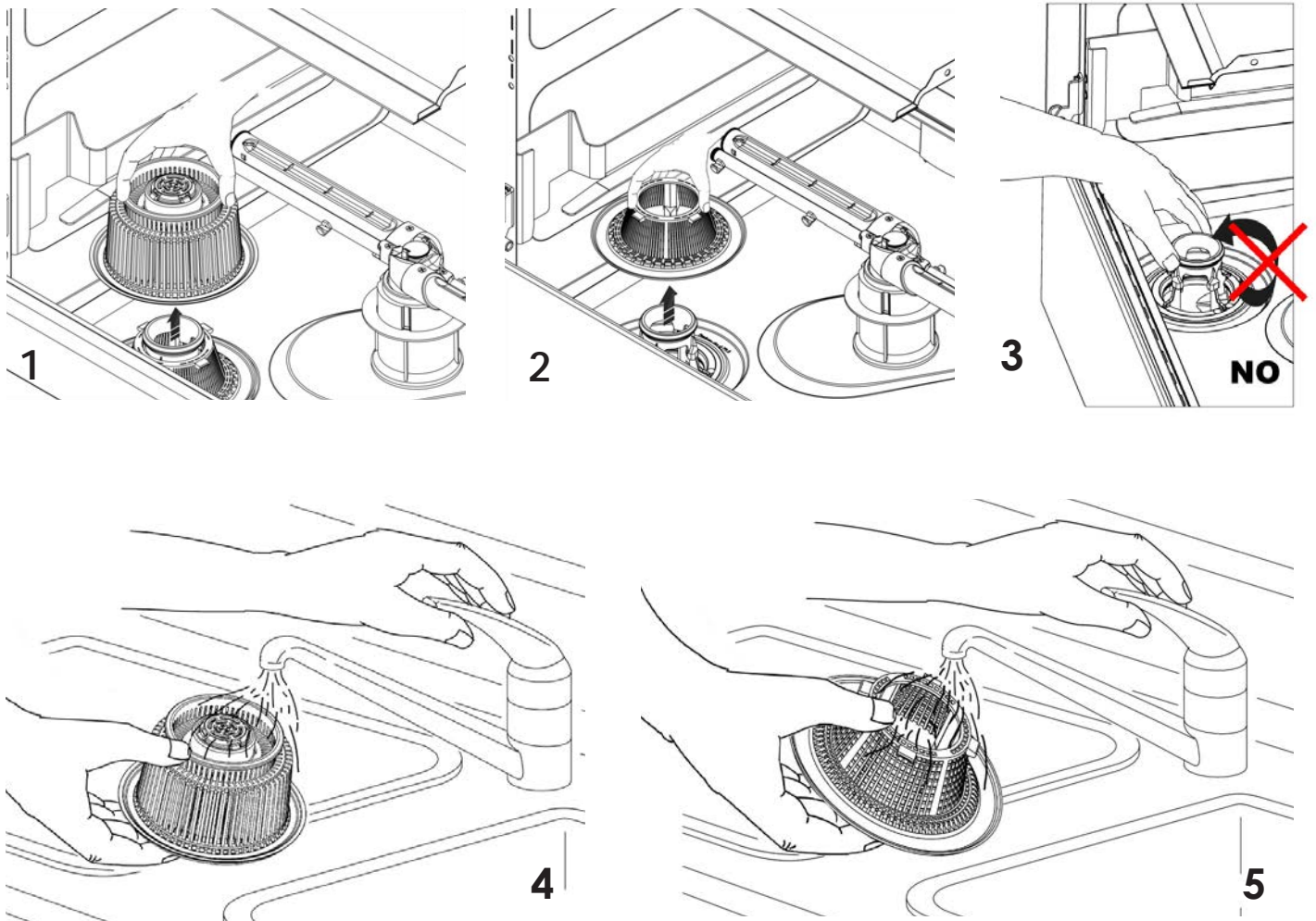


Fig. 14

6.2 KERA display maintenance

If the display is very wet, the sensitivity gradually decreases to limit the water interference with the touch screen. To ensure correct operation make sure that the excess water on the screen is always carefully dried.

Use a soft, damp cloth to clean the glass. Use a mild detergent to remove dirt. After cleaning remove the detergent with a damp cloth. Do not use jets of water.

Do not use abrasive cleaners or any other abrasive or sharp object that could scratch the glass irreversibly. This type of damage is not covered under warranty.

6.2 Machine maintenance

Ordinary maintenance activities must be performed safely using protective gloves and goggles. Maintenance activities must only be carried out when the dishwasher is switched off and disconnected from the power supply and with the tank empty. Before carrying out maintenance operations, wait for the heating elements to cool down (at least 5 minutes).

To clean the exterior walls of the dishwasher, use only a steel-specific neutral detergent and a soft, non-abrasive cloth. Attention: the machine is IPx1 rated and therefore it is absolutely forbidden to use direct water jets to clean any component of the dishwasher. It is also prohibited to wash floors, walls or any other object installed near the dishwasher with a water jet or high-pressure cleaners. During normal maintenance and cleaning of the floor, avoid wetting the dishwasher plinth excessively. Avoid stagnating water near the dishwasher. For steel cleaning, do not use bleach or products containing chlorine or other substances that could corrode the steel. Do not use metal scourers, or other metal tools that could irreparably scratch the steel and other components of the dishwasher.

N.B. The manufacturer declines all responsibility for accidents to persons or property resulting from failure to comply with the above regulations.

7 Residual hazards

The source of residual hazard is the AC mains power supply. Warnings placed in convenient positions on the dishwasher warn operators of these hazards, in compliance with the Safety Standards, as shown here to the side.



8 Instructions for emergency situations



ATTENTION

Emergency situations that may arise when using the dishwasher are due to:

- *loss of insulation*
- *electric shock*

In all situations in which the dishwasher is not working, or not working properly, thus generating possible hazardous circumstances, the electric power supply must be immediately disconnected by switching off the switch upstream and by disconnecting the mains power cord.


In the event of electrocution or electric shock, carefully follow the precautions set out by the Safety Regulations. Do not touch the injured person directly, but switch off the switch upstream.

In all situations in which the dishwasher is not working, or not working properly, thus causing the hazardous situations described above, or after one of these situations has occurred, do not use the dishwasher and have it checked and repaired by qualified personnel.


9 Troubleshooting

Before leaving the factory, each machine is thoroughly tested by specialist engineers to make sure that it works perfectly.

If the appliance is faulty, first check that the fault can be rectified by following the instructions below.

PROBLEM	POSSIBLE CAUSE	SOLUTION
0. The dishwasher does not turn on	The switch upstream of the dishwasher is in the OFF position.	Set the switch upstream of the dishwasher to 'on'
	<p>The plug or the power cable are damaged.</p> <p>ATTENTION!</p> <p> ELECTROCUTION HAZARD</p>	<p>In case these parts are damaged, disconnect the dishwasher from the power supply without touching the power cord (turn the switch upstream of the dishwasher to the "off" position or disconnect the entire power supply network to which the dishwasher is connected).</p> <p>Contact your authorised dealer immediately and have the repair carried out by specialised and certified personnel. Do not use the dishwasher until it has been repaired.</p>
	The touch display does not respond to commands	Clean and/or dry the display and make sure that the door is closed
1. The dishwasher does not fill with water	There is no electricity.	Wait for the power to be restored
	Dishwasher door/lid not closed	Open the water supply tap
	Water supply tap filter clogged	Clean the water supply tap
	Supply valve closed	Open the supply valve
	Filling up of water softener upstream	Wait until filling up is completed
2. When the CYCLE START KEY is pressed, the cycle does not start	Dishwasher door/lid not closed	Close the door/lid of the dishwasher
	The switch upstream of the dishwasher is in the OFF position.	set the switch upstream of the dishwasher to the 'on' position
	The CYCLE START KEY was not pressed for at least 2 seconds.	Press the CYCLE START KEY again for at least 2 seconds.
	The touch display does not respond to commands	Clean and/or dry the display and make sure that the door is closed

PROBLEM	POSSIBLE CAUSE	SOLUTION
3. The wash cycle is noisy	The wash pump filter (fig. 19) is clogged	Wash and rinse the pump filter (Fig. 19)
	The washing arms of the rotor (fig. 18) collide with the items to be washed protruding from the basket	Place the tableware so that it does not collide with the washing arms of the rotor by following the instructions in para. 3.4 – PART TWO
4. Inadequate rinsing		
	The water supply tap filter is clogged	Clean and rinse the water supply valve filter.
	The nozzles of the rotor are blocked.	Wash and rinse the nozzles of the rotor
	The rotor arms do not rotate freely	- Position the dishes so that they are not struck by the washing arms of the rotor, following the instructions in para. 3.4 – PART TWO - Wash and rinse the rotor.
5. The wash cycle produces excessive foam	Excessive rinse aid has caused this foaming	Contact the installer to reduce the amount of rinse aid.
	Soaking of the dishes with unsuitable detergent	Avoid soaking with foaming detergents
6. The rotor does not turn freely	The washing arms of the rotor (fig. 18) collide with the items to be washed protruding from the basket	Place the dishes so that they do not become hit by the washing arms of the rotor by following the instructions in para. 3.4 – PART TWO
	The rotor needs cleaning	Wash and rinse the rotor
7. The dishwasher does not drain the water	The drain pipe (fig. 21) is blocked or compressed	Remove the blockage from the drain pipe
	The drain pump filter is clogged	Wash and rinse the drain pipe filter.
	The pump does not drain properly	Contact the installer to reduce the replacement of the drain pump
	The drain cycle does not start	Make sure the dishwasher door is closed properly and clean the touch display

PROBLEM	POSSIBLE CAUSE	SOLUTION
8. The wash result is unsatisfactory	The dishwasher has not finished the phase of heating of the water in the tank	Before starting actual washing, wait for the water heating time in the wash tank. When the pre-set water temperature is reached, the WATER TEMPERATURE LIGHT comes on
	Water in the tank is excessively dirty	Change the water
	The washing arms of the rotor (fig. 18) collide with the items to be washed protruding from the basket	Place the tableware so that it does not collide with the washing arms of the rotor by following the instructions in para. 3.4 – PART TWO
	The rotor needs cleaning	Wash and rinse the rotor
	The nozzles of the rotor are blocked.	Wash and rinse the nozzles of the rotor.
	No detergent	Ask the installer to increase the amount of chemical product.
9. The water tank is full of limestone	Excessive hardness of the inlet water	Contact the installer to install a softener upstream
		Perform descaling of the tank with specific products for industrial dishwashers. Follow the instructions provided by the manufacturer of the descaling agent. ATTENTION!  CAUTION HOT WATER HAZARD
10. Presence of brown spots or grease in the tank after emptying	The tank is stained with coffee or grease	Increase daily water refills and contact the installer to increase the amount of detergent.

PROBLEM	POSSIBLE CAUSE	SOLUTION
11. Spots of rust in the washing tank	Use of detergent with high chlorine content	Change the type of detergent according to the instructions given in paragraph 11. Remove rust with specific products without scratching the surface
	Using bleach in the tank	Never use bleach. Remove rust with specific products without scratching the surface
	Introduction into the tank of tableware previously cleaned with iron scouring pads	Never use scouring pads or wire brushes in the manual pre-wash. Remove rust with specific products without scratching the surface
	Washing of dishes or iron items	Do not wash iron items

9.2 Electronic dishwasher warnings and alarms

During operation of the dishwasher the following warnings may appear on the display. The warning remains displayed even when the machine is switched off and the display backlight stays on.

NOTICE	ALARM DESCRIPTION	CHECKS PERFORMED BY THE END USER
Maintenance request Error 15	This warning appears when the day count expires or the cycle count expires	Request the intervention of a technician



The following are the alarms that may appear on the display if there is an operating fault. The alarm warning is accompanied by a graphic icon:



All warnings persist until the dishwasher is switched off and until subsequent switching on. Some serious alarms place the machine in "safe" mode (total block), while others allow it to continue normal operation, albeit with limited functions.

If after having performed the appropriate checks and having switched the machine off and back on the alarm appears again, contact our technical service.

NOTICE	ALARM DESCRIPTION	CHECKS PERFORMED BY THE END USER
ER01	Tank loading timeout: the tank has not filled within the maximum time expected	<ul style="list-style-type: none"> • The water mains valve does not supply water. • Rinse jets clogged • Water supply hose blocked • Upstream water softener or Reverse Osmosis System not working
ER02	Boiler loading timeout: the boiler has not heated within the maximum time expected.	<ul style="list-style-type: none"> • The water mains valve does not supply water. • Rinse jets clogged • Water supply hose blocked • Upstream water softener or Reverse Osmosis System not working
ER03	Tank heating timeout: the tank did not heat up in the maximum expected time. Tank heating is disabled	Check that the tank level is correct and that there is no leakage from the drain. If the problem persists, request technical assistance.
ER04	Boiler heating timeout: the boiler did not heat up in the maximum expected time. Boiler heating is disabled	Check that the tank level is correct and that there is no leakage from the drain. If the problem persists, request technical assistance.
ER05	Tank probe open: the tank temperature probe is not connected or is it interrupted. Tank heating is disabled.	Request the intervention of a technician
ER06	Tank probe short-circuited: the tank temperature probe has shorted. Tank heating is disabled	Request the intervention of a technician
ER07	Boiler probe open: the boiler temperature probe is not connected or is it interrupted. Boiler heating is disabled	Request the intervention of a technician
ER08	Boiler probe short-circuited: the boiler temperature probe has shorted. Boiler heating is disabled	Request the intervention of a technician
ER09	Tank safety thermostat: the tank safety thermostat has intervened	Request the intervention of a technician
ER10	Boiler safety thermostat: the tank safety thermostat has intervened	Request the intervention of a technician
ER11	Thermostop timeout: the boiler has not reached the temperature set during the Thermostop phase. Boiler heating is disabled.	Switch the dishwasher off and back on again; if the problem occurs again, call for technical assistance

ER12	Drain timeout: the tank pressure switch did not open at the end of the manual drain cycle.	Start an additional discharge cycle. If the alarm persists, request technical assistance. ATTENTION!  CAUTION HOT WATER HAZARD!
ER14	Panel disconnected: the panel was disconnected during dishwasher operation and therefore the dishwasher can no longer be controlled.	Request the intervention of a technician
ER15	Maintenance required: the message 'Maintenance Required' appears on the display.	Contact an authorised Service Centre to arrange an appointment with a technician to carry out scheduled maintenance.
ER17	No salt: inside the water softener, there is no salt for resin regeneration	
ER20	Overtemperature alarm: All dishwasher functions are inhibited.	Switch the dishwasher off, empty it and allow it to cool. Try running an additional fill. If the problem persists, request technical assistance ATTENTION!  CAUTION HOT WATER HAZARD!
ER22	Clock to be adjusted: the internal clock is set with an invalid date	Adjust the clock from the dishwasher's user menu
ER27	Non-functioning memory: it is not possible to write data to the dishwasher in the memory card	Request the intervention of a technician
ER30	Pump thermal protection: only for dishwashers with three-phase pump: the pump is overheated and the thermal protection has tripped; alternatively, the phases are not connected properly.	Request the intervention of a technician
ER31	Rinse aid intake failure	Check the correct operation of the intake hose and ensure that the rinse aid tank contains a sufficient amount of product.
ER32	Detergent intake failure	Check the correct operation of the intake hose and ensure that the detergent tank contains a sufficient amount of product.

10 Staff training

The personnel must be trained regarding the operations for loading, unloading and preparation for use of the machine.

All these operations are relatively simple and require normal prudence in order to avoid injuries and accidents.

11 Useful tips

Here are some useful tips to complete dishwasher operation:

Check the level of rinse aid and detergent in the outer container, and replace if necessary (fig. 22)

The washing and rinsing arms must be clean and equipped with jets and taps

Use only industrial and low-foam detergents

Use only industrial liquid detergents and rinse aids similar to those supplied by us or of equivalent composition and suitable for dosing by the dosing pumps already installed in the dishwasher.

Use the doses recommended by the detergent manual (para. 4.6 – PART II) or by the manufacturer of the detergent itself

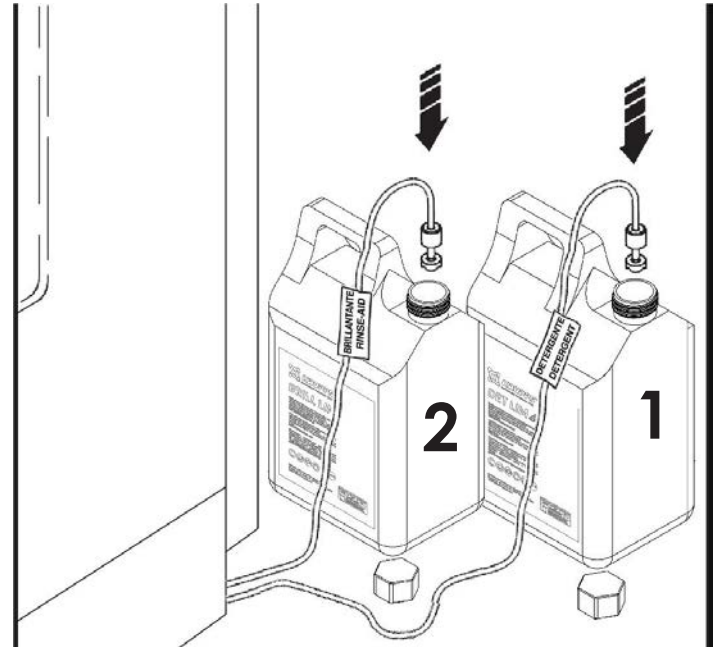
Do not fill the detergent and rinse aid containers with new product to prevent crystallisation of the product which, aspirated by the dispensers, damages the tubes

Upon each tank change clean the tubes. In this regard, before inserting the tubes into the new tanks, place the suction tubes into a basin filled with warm water and perform 2 cycles of vacuum cleaning.

The detergent and rinse aid tubes must be replaced at least 1 time per year or as soon as the maintenance request message appears (only for electronic dishwashers)

Make sure that the detergent and rinse aid intake filters are always installed in the respective tubes and thoroughly clean. Replace them if they are too dirty and clogged with crystallised detergent.

Fig. 15



12 Instructions for disposal

Instructions for the disposal of electrical devices.

The label shown to the right is applied to electrical devices you have bought and means that the appliance cannot be disposed of as common waste but must be disposed of separately.

Waste electrical and electronic equipment requires special treatment in order to prevent the dispersal of pollutants contained in the equipment and to protect the environment and human health. In addition, it will be possible to reuse/recycle some of the material from which this waste is made, thus reducing the depletion of natural resources and the amount of waste to be recycled.

WARNING

DUE TO ITS POLICY OF CONTINUOUS PRODUCT IMPROVEMENT, THE MANUFACTURER RESERVES THE RIGHT TO MAKE ANY CHANGES DEEMED NECESSARY. THE MANUFACTURER CANNOT BE HELD RESPONSIBLE IF THE INSTRUCTIONS CONTAINED IN THIS MANUAL ARE NOT OBSERVED.



Stick on the serial number label