

EN

Instructions for Installation, Use and Maintenance

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CE





Thank you for choosing our machine.

The instructions for installation, maintenance and use found on the following pages have been prepared to ensure a long life and perfect operation of your unit.

Please, do follow the instructions carefully.

We have designed and built this machine using the latest innovative technologies. Now you shall take good care of it.

Your full satisfaction is our greatest reward.

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READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLING THE MACHINE.



WARNING: FAILURE TO COMPLY, EVEN PARTIALLY, WITH THE PRESCRIPTIONS IN THIS MANUAL WILL RENDER THE PRODUCT WARRANTY NULL, AND THE MANUFACTURER SHALL NOT BE LIABLE.



WARNINGS

This instruction booklet must be kept with the machine for future consultation. If this machine is sold or transferred to other users, make sure the booklet always goes with the unit so that the new owner can have all the necessary information on operations and all relevant instructions.

The instruction booklet must be carefully read before installation and before starting the machine.

- **The connection to the electrical and water networks, for installing this unit, must be carried out by qualified operators only.**
- This machine must only be used by adults. This is a professional machine to be used by qualified personnel, installed and repaired exclusively by qualified Technical Personnel. The Manufacturer declines any responsibility for improper installation, use, maintenance or repair.
- This appliance can be used by trained youth aged from 15 years and above. It cannot be used by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.
- Do not slam the doors when opening and closing.
- Make sure the machine is not standing on the power cable or on the filling/drain hoses. Level the machine flat, by adjusting the support feet.
- Do not use this appliance or any part of it as a stepladder or support as it has been designed exclusively to bear the weight of its rack, containing the items to be washed.
- **This machine is designed exclusively for washing dishes, glasses and crockery with human food type of residue. Do not wash articles polluted with petrol, paint, chips of steel or iron. Do not wash fragile objects or material not resistant to the washing process. Do not use acidic corrosive chemical products or alkaline and solvents or chlorine based detergents.**
- Do not open the machine door when operating. In any case, the machine has a special safety device which immediately stops the unit if the door is open, thus preventing water spillage. Always switch the machine completely off and drain the water tank, before accessing inside.
- **This machine must be disconnected from the electrical supply after use at the end of the day and for any service/maintenance operation. Switch off the main switch located on the wall, which shall be installed by a professional installer. Shut the water supply valve(s).**
- The user shall not carry out any repair and/or maintenance operations. In any case contact qualified personnel.

- Servicing of this machine must be performed by authorized personnel only.
N.B.: Use genuine spare parts only. Non-genuine parts will void the warranty and the manufacturer will take no responsibility for any damage.
- **Do not use old water hoses, but new ones only.**
- Some important rules must be followed for using this appliance:
 - 1) never touch the appliance with wet hands or feet;
 - 2) never use the appliance when barefooted;
 - 3) do not install the appliance in places exposed to water splashes.
- Do not dip bare hands into water containing detergent. If this should occur, wash them immediately with plenty of water. Check the emergency instructions on the detergents containers.
- Follow the instructions given in the manufacturer's booklet for cleaning operations (chap. 6).
- This appliance is designed to work at room temperatures from 5°C up to a max. 35°C, in a suitable room.
- Do not use water to extinguish fires on electrical parts.
- Do not cover the intake or dissipation grids.
- Only qualified personnel can access the control panel, when the main power switch is OFF.
- The machine has an IPX3, protection rating against accidental water splashes and is not protected against pressurized water jets. Pressure-cleaning systems shall, therefore, not be used on this machine.

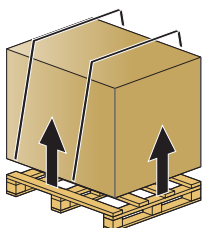


ATTENTION: INTERNAL CLEANING OF THE MACHINE SHALL BE CARRIED OUT AT LEAST 10 MINUTES AFTER THE POWER SWITCH HAS BEEN TURNED OFF.



ATTENTION: DO NOT INSERT HANDS AND/OR TOUCH THE PARTS LOCATED AT THE BOTTOM OF THE WASH TANK AND/OR AT THE END OF THE WASH CYCLE.

NOTE: The manufacturer declines any responsibility for accidents to people or any damage deriving from failure to observe the above listed instructions.

**ATTENTION:**

Once installation is complete, it is recommended to detach and preserve the installer's guide section of this manual for future reference.

1. MACHINE INSTALLATION**1.1 Receiving the machine**

After removing the packaging, make sure that the machine was not damaged during transportation. Should this be the case, please notify the seller immediately. If safety has been compromised, do not install the machine.

Double check the firm tightness of all hose-clamps on piping, nuts and bolts, and fasteners, that might come loose with the transport, to prevent water dripping or leakages, or other damages, during the machine's operation.

For disposal of the packing, see chap. 8.

1.2 Water connection

table 1

Water characteristics table	Min	Max
Static Pressure	200Kpa	400Kpa
Dynamic Pressure	150Kpa	350Kpa
Water hardness	2°f	8°f
Cold water-supply temperature	5°C	50°C
Hot water-supply temperature	50°C	60°C
Capacity	10lt/min	

Connect the machine water supply with a stop valve that can quickly and completely shut the water flow.

Make sure that the water supply system is within the parameters showed on table1.

If less than 2 bar dynamic pressure (200 kPa) a pressure pump must be installed to guarantee optimal machine operation (the dishwasher can be supplied with that pump, upon request). However, should the water supply pressure be more than 400 kPa, a pressure reducer must be installed.

It is compulsory to install a water-softener, in case of water with average hardness above 8°f. Washed objects will be cleaner and the machine will last much longer.

The machine can be equipped with a water softener, on request. If the machine is equipped with a water-softener, a regeneration of the resins shall be done on regular basis (see par. 5.5).

N.B.: Any damage caused by limestone (calcareous water higher-up than 8°F and without water-softener) will not be covered by warranty.

In order to ensure the best performance, the water supply temperature must be within the range given in table 1.

Machines shall be made with extra power in case of cold water infeed.

Each machine is supplied with a rubber water load hose with a 3/4" threaded connection. Connect the supplied machine draining tube to the connector located under the tank, making sure that the water flows freely (giving, therefore, minimum slope). Should not be possible to empty the water at a level lower than the drain of the appliance, it is advisable to install a draining pump, which can be provided on request.

The drain tube shall always be connected to a siphon in order to prevent the release of odors.

1.3 Electrical connection

The electrical connection shall be carried out by qualified personnel, in accordance to the local laws in force.

Make sure that the supply voltage is the same as written on the machine plate.

A suitable omni-polar one-way switch shall be installed and sized according to the absorption provided, in order to completely guarantee the disconnection from the supply mains, under "category III" overvoltage conditions.


This switch shall be included in the power network solely and exclusively used for this purpose and installed in the immediate vicinity of the machine. Always turn the machine off via this switch. This is the only model of switch that guarantees a total electrical power disconnection.

Make sure that the facility is equipped with efficient ground connection.





WARNING: check very carefully if the “ground connection” of the machine, is properly sized and fully efficient, and that not too many units are connected on it. An undersized or poor “ground connection” might lead to corrosion and/or pitting effect on the stainless steel plates, even to perforation.

Moreover, the machine has a clamp at the back indicated by the symbol  that is used as equipotential connection among different apparatuses (see electrical safety standards).

IMPORTANT: connect the clamp to other appliances.

To dimension supply cables and switches, please refer to the maximum power expressed in Watts (W) and Amperes (A) specified on the machine serial number plate.

FOR APPLIANCES USING A THREE-PHASE POWER SUPPLY, FOLLOW THE INSTRUCTIONS AND WIRING DIAGRAM ATTACHED TO THE APPLIANCE.

PAY ATTENTION TO THE CORRECT PUMPS ROTATION, IN CASE OF THREE-PHASE SUPPLY.

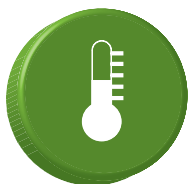


Feed cable: the retailer - importer - installer must ensure that the feed cable complies with the cable insulation category of the workplace, in conformity with current Technical Standards.

1.4 Temperature adjustment

If necessary, the water temperature of the wash and rinse cycles can be adjusted by means of the fine-adjustment screws on the respective thermostats.

The recommended temperatures are 55-60°C for the wash cycle (sump) and 85-90°C for the rinse cycle (boiler).



1.5 Rinse aid dispenser operation (image 1 - 2)

Operation: The dispenser utilizes the pressure gap determined by the functioning of the wash pump, and the pressure of the water supply.

Hydraulic connection (for replacement only):

- 1) Connect the dispenser hose connection **A** to the pump, by means of the rubber hose installed in the wash pump's delivery side.
- 2) Connect the black rubber hose from the hose connection **B** to the connection on the boiler (injector).
- 3) Make sure that the green suction tube is inserted on the connection **C** and that the small filter and the ballast are properly inserted in the rinse aid tank.

Priming: To prime the dispenser, turn ON the appliance and run some complete wash cycles.

Adjustment: With each rinse cycle, the dispenser draws an amount of rinse aid, adjustable from 0 to 4 cc, equivalent to a length of 0 to 30 cm drawn into the suction tube.

To reduce the flow turn the adjustment screw **D** completely clockwise. For the maximum amount, turn the screw anticlockwise (about 20 complete turns).

For proper chemical product dosage see the chemical-product manufacturer recommendations (see also par. 5.2).

N.B.: for each screw rotation the rinse product dosage varies by 1,6 cm pulled into the hose, equal to 0,2 cc/rotation (about 0,21 g/rotation with product density of 1,05 g/cc).

The rinse aid dispenser cannot function properly if there is a slope of over 80 cm between the bottom of the machine and the canister.

THE DISPENSERS ARE PRE-CALIBRATED AT A SUCTION OF 5 CM OF TUBE (0,65 gr.) FOLLOWING OPERATIONAL VERIFICATION AND INSPECTION. THIS PARAMETER SHALL BE MODIFIED UPON RINSE-AID TYPE AND WATER HARDNESS.

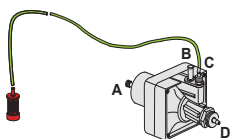
1.6 Peristaltic rinse aid dispenser operation (optional - image 3)

Operation: The rinse aid dispenser is a peristaltic pump.

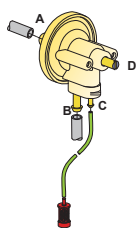
The rinse aid dispenser is also activated when the tank is loaded.

Water connection: Make sure that the green product suction tube is inserted on the special fitting **C** and that the small filter and the ballast are inserted in the rinse aid tank.

Adjustment: With each rinse cycle, the dispenser draws an amount of rinse aid, adjustable from 0 to 4 gr.

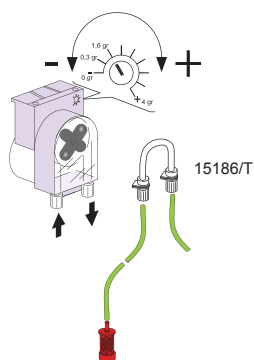


code 10799
image 1

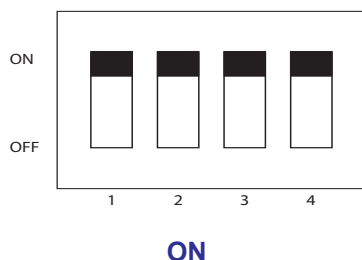


code 10799/G
image 2

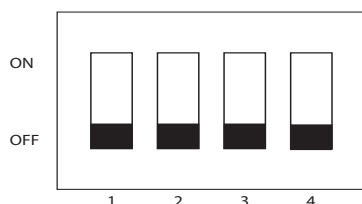




cod. 15985/G
fig. 3



ON



Default setting
OFF
image 4

To adjust the capacity of the pump, use a screwdriver (see image 3).

THE DISPENSERS ARE PRE-SET TO A 1,65 gr INTAKE OF PRODUCT FOLLOWING A TEST PHASE SYSTEM CHECK. THIS MEASUREMENT SHOULD BE ADJUSTED ACCORDING TO THE TYPE OF RINSE AID USED AND WATER HARDNESS.

1.7 Optional programming

A) Dip switch

Thanks to the **dip switch** you can enable or disable the following functions, according to how the machine is equipped (see image 4):

- 1) Water softener
- 2) Drain pump
- 3) Cold final rinse
- 4) Cycle start at door closing.

B) Setting of the hardness level of the feeding water

The setting of the board allows to insert the hardness level of the feeding water, in order to inform users about the need to regenerate the resins of the water softener.

This function will be activated only if the Dip Switch 1 is on ON mode

The electronic board is set, as default, on a medium average level of hardness.

Setting: when the machine is ON, the softener LED **E** (see chap. 4) will start to flash quickly, after pushing for 5 seconds, simultaneously, both Softener button **L** (see chap. 4) and START **B** (see chap. 4) button. This means that you can now start setting the machine.

By the START button **B** (see chap. 4) it will now be possible to select the level of hardness of the feeding water by keeping pushed the START button **B** (see chap. 4).

LED **P** lighted on – LOW: Water hardness from 10° to 15° F = 80 rinsing cycles, before regenerating.

LED **O** lighted on – MEDIUM: Water hardness from 15° to 25° F = 50 rinsing cycles, before regenerating.

LED **N** lighted on – HIGH: Water hardness from 25° to 35° F = 35 rinsing cycles, before regenerating.

Push the softener button **L** (see chap. 4) to memorize the selected level.

The board will memorize all rinsing cycles even if main power switch is switched OFF. Once the machine reached the quantity of rinsing cycles foreseen by the water-hardness function, will inform user by flashing (yellow) of LED **E** (see chap. 4).

User can start a softener/ regeneration cycle.

At the end of the regeneration cycle the counter will automatically reset to zero.

The LED **D** (see chap. 4) will light only when the salt in the container will be at low level.

2. DETERGENT DISPENSER RETROFIT

2.1 Electrical connection

Read the electric diagram, enclosed with the machine.

ATTENTION: output arranged for electrical dispenser 230V max 2 Ampere.

2.2 Pipe connection

a) A Ø12mm hole must be made on the back wall of the appliance. On some models the hole has already been made and is plugged with a plastic cap. Remove the cap from the hole and fit the delivery connection.

b) In case a different injector is fitted, drill a hole of the same diameter as the injector on the back wall of the sump (see image 5); this operation must be carried out by the Technical Service.

The hole must be made above the water level.

It's important to make the hole in a far position from the overflow pipe, so that the detergent does not flow out immediately. Fix the detergent dispenser in vertical position, with hose connections downwards, making sure not to place it on energized components. Clean the inside of the machine from any drilling residual.

c) Correctly mount the injector **C** using the appropriate fixtures.

d) Connect the suction hose to the suction connection of the dispenser (see image 5 point **A**).

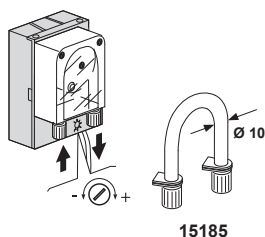
e) Connect the delivery hose to the other connection of the dispenser, and the delivery fitting (see image 5 point **B**).

f) Insert the suction hose with filter in the detergent tank.

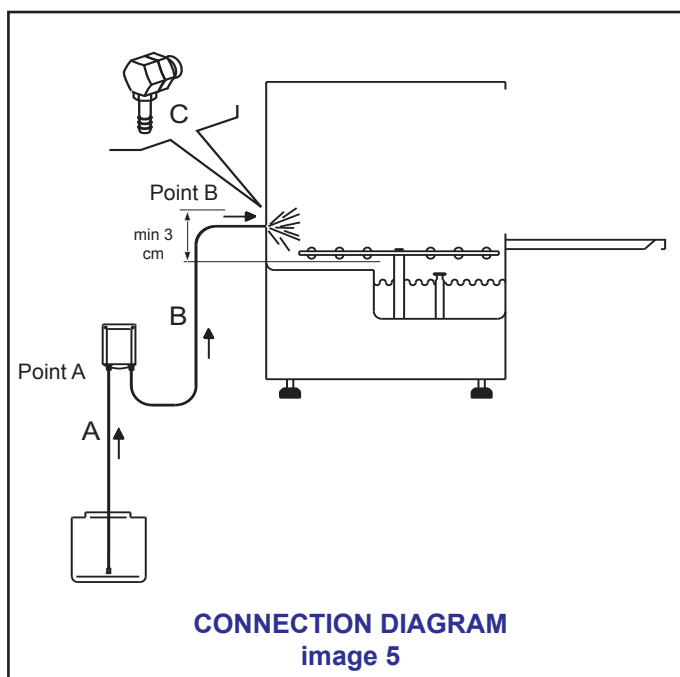
g) Prime the detergent pump and proceed to dispense.

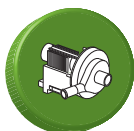
2.3 Dispensing the detergent

The detergent dispenser capacity can be adjusted using a screwdriver as shown in image 6. Every 2 cm of product drawn into the tube corresponds to 0.25 cc equivalent to 0.3 g (with a concentration of 1.2g/cc). For proper dispensing see paragraph **5.2**.



code 15985
image 6





3. TECHNICAL DATA AND USEFUL INFORMATION ON PUMPS

3.1 Washing pump

When the dishwasher has not been used for some time, check that the washing pump turns freely.

To do this, operate using a screwdriver in the special slot on the ventilating side of the motor shaft.

In case of blocking, turn the main switch off and move the motor shaft, inserting the screwdriver in the notch, turning it clockwise and anticlockwise.

3.2 Draining pump (optional)

When installing, pay particular attention to the positioning of the drain pipe (see image 7). See paragraph 5.4. for operation description.

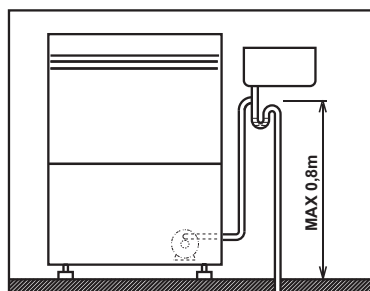
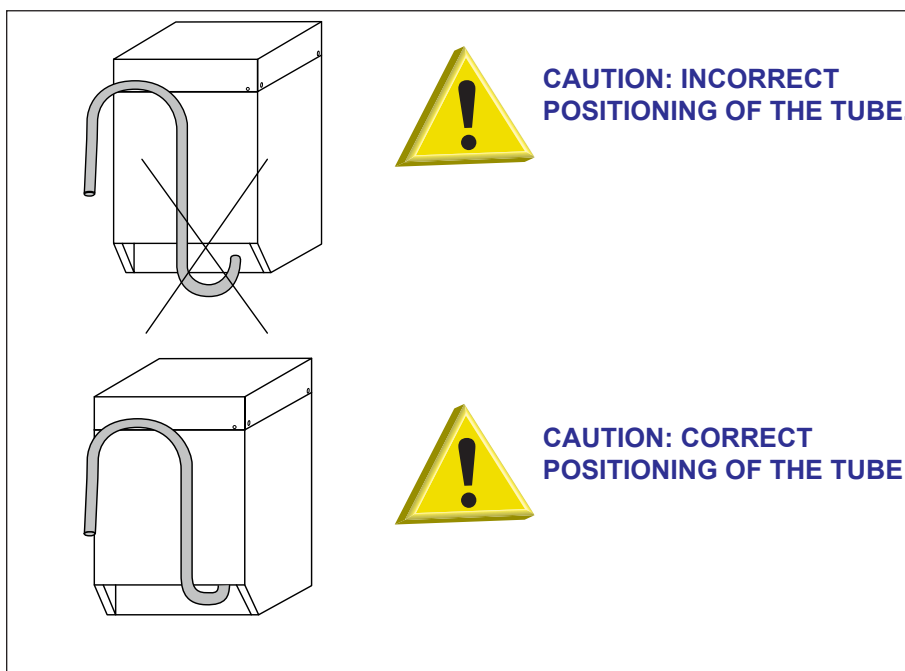


image 7

IMPORTANT

3.3 Booster pump (optional)

After a period of inactivity of the machine, check if the rinse booster pump rotates freely.

To do that, use a screwdriver in the slot on the fan side of the motor shaft (see image 8) to release.

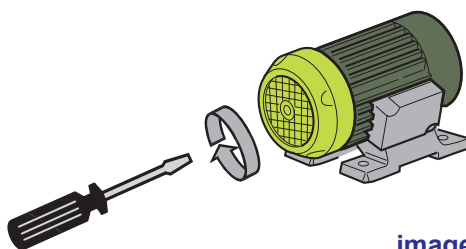





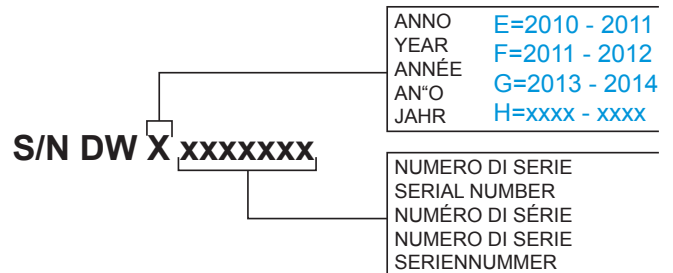
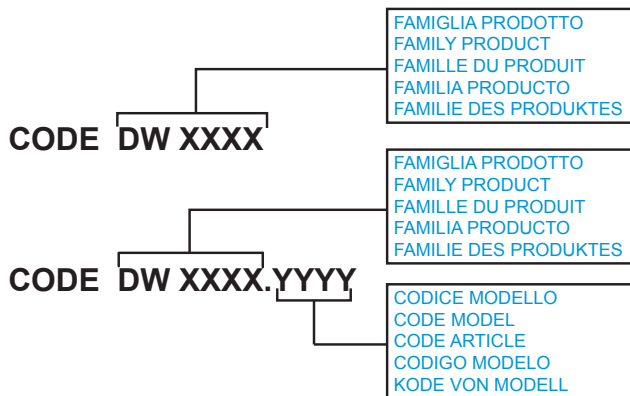


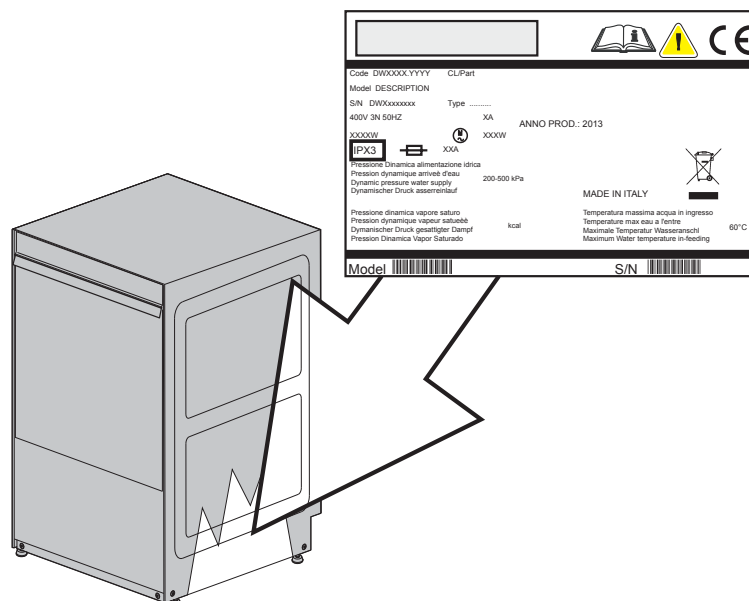
image 8

3.4 Dataplate

							
Code DWXXX.YYYY		CL/Part					
Model DESCRIPTION							
S/N DWXXXXXX		Type					
A	400V 3N 50HZ	8A	←	ANNO PROD.: 2013			
B	3500W	500W	←				
C	IPX3	16A	←				
Pressione Dinamica alimentazione idrica				200-500 kPa			
Pression dynamique arriv��e d'eau							
Dynamic pressure water supply							
Dynamischer Druck asserreinlauf							
				MADE IN ITALY			
Pressione dinamica vapore saturo				Temperatura massima acqua in ingresso		60°C	
Pression dynamique vapeur satue��e				Temperature max eau a l'entre��			
Dymanischer Druck gesattigter Dampf				Maximale Temperatur Wasseranschl��			
Pression Dinamica Vapor Saturado				Maximum Water temperature in-feeding			
Model 				S/N 			

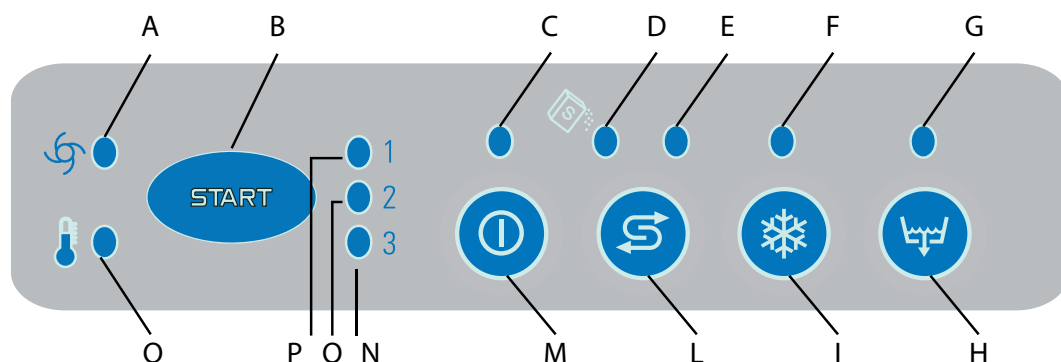


- A Power supply
- B Total power
- C Protection rate
- D Total absorption
- E Pump power
- F Electrical protection rate
- G Dynamic Pressure





4. CONTROL PANEL AND RELATIVE SYMBOLS



- A) Cycle Light Indicator
- B) START push-button to start up cycle / select cycle
- C) ON / STAND BY indicator
- D) Salt shortage indicator
- E) Regeneration cycle indicator
- F) Supplementary cold rinse indicator
- G) Drain Pump indicator
- H) Drain Push-button (optional)
- I) Supplementary cold rinse push-button (optional)
- L) Regeneration push-button (optional)
- M) Switching – On / STAND BY button
- N) Long washing type 3
- O) Medium washing type 2
- P) Short washing type 1
- Q) Set temperature reached, signal.

5. OPERATION

- Check that the filter is correctly fitted in its seat (image 9-10).
Filter must be cleaned every 20 wash-cycles or whenever necessary.
DO NOT use the appliance without the filter.
- Insert the overflow tube in the special seat inside the sump (image 9-10).
- Shut the dishwasher door.
- Insert the special rinse aid dispenser tube in the canister and check that the quantity of additive is enough for the day (see paragraph 5.3 Use of rinse aid).
- Turn the water valve “open”.
- Turn the main power switch ON.
- Turn the button **M** (see chap. 4). The switching-on of the machine will clearly be visible by the light indicator **C** (see chap. 4) that will turn from red to green light.
Make sure that the overflow pipe is correctly inserted and that the door is shut. The machine will automatically start filling the sump. When the sump is full, the heating step will start.
- Indicator **Q** (see chap. 4) switches on when the water temperature is reached.
- Insert the rack filled with dishes to wash. The plates must be correctly placed in the rack (see paragraph 5.1).
- Select the wanted washing cycle (short – medium – long) by pushing the START button **B** (see chap. 4). Keep the START button **B** (see chap. 4) pressed, after a few seconds the light indicators (led **N**, **O**, and **P** - see chap. 4) will start scrolling. Release the button when the cycle light indicator is on the cycle you want to select.
- Before starting the wash-cycle, in absence of an automatic dosing system, put the detergent in the sump. When the temperature indicator **Q** (see chap. 4) will turn on, press the START button **B** (see chap. 4) for at least a second. The beginning of the cycle is

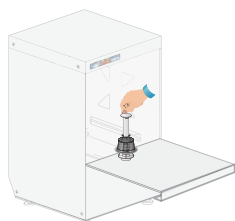


image 9

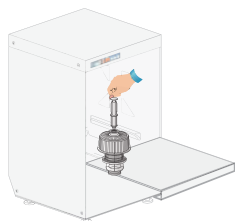


image 10

indicated by the lamp **A** (see chap. 4).

At the end of the washing cycle, a hot rinse cycle will take place.

The **A** lamp (see chap. 4) will turn off when the cycle is finished.

N.B.: At cycle-end, keeping the door closed, dishes will not dry. Take out the rack or keep the door open to allow the evaporation, helping the drying of the dishes.

- For machines equipped with **supplementary cold rinse**:
For the supplementary cold rinse, push the button **I** (see chap. 4) until the relative light indicator **F** (see chap. 4) is on. After this cycle, the glasses will remain wet. At any switching on and off of the machine, the function **final cold rinse** will be automatically disabled. Repeat this operation when this function is needed.
- **Drain cycle**: remove the overflow pipe.
For machines equipped with drain pump see paragraph 5.4.
- At the end of the day, clean the machine (see chap. 6 Maintenance).
- Switch the machine off by pushing button **M** (see chap. 4) and shut the water valve.
When the light indicator **C** (see chap. 4) turns red, the machine is on STAND-BY mode.
- Switch the main power switch OFF.

5.1 Cutlery and crockery loading

Before cutlery and crockery loading in the machine, coarsely clean them from the leftover food.

It isn't necessary to rinse the cutlery and crockery under water.

ATTENTION: Do not wash articles polluted with petrol, paint, chips of steel or iron, ash, sand, wax, lubricant grease. These substances damage the machine. Do not wash fragile objects or material not resistant to the washing process.

Note the following recommendations :

- Crockery and cutlery should not be inserted inside one another, covering each other.
- Place the crockery in order to all surfaces can be reached by water; otherwise the dishes are not washed.
- Make sure all the crockery are in a stable position and that the hollow containers don't overturn (cups, glasses, bowls, etc.) .
- Place in the rack all the hollow containers such as cups, glass, etc. **upside-down**.
- Place the crockery with deep hollow with upper face downwards, so that water can flow out.
- Make sure the smaller crockery do not fall from the rack.
- Check all the wash arms runs freely and they are not blocked by too tall or too prominent crockery. Eventually, run a manual rotation of the arms to check it.

Some foods, such as carrots, tomatoes, and others, may contain some natural dyes substances, that in large amounts, can alter the crockery and plastic parts colors.

Any discoloration does not mean that the plastic is not heat resistant.

Crockery and cutlery not suitable for dishwasher

Not suitable for dishwasher:

- Wooden crockery and cutlery or with wooden parts; water at high temperature causes deformation to wood. Also the adhesives used are not suitable for treatment in the dishwasher; a consequence could be the handles detachment.
- Crafts, precious vases or decorated glasses.
- Not heat-resistant plastic crockery.
- Copper, brass, pewter or aluminum objects: they may become discolored or opaque.
- The decorations on glass, after a certain number of washes, can lose gloss.
- Fragile glasses or crystal items, if often washed, can become opaque.

We recommend to buy exclusively crockery and cutlery suitable for dishwashing.

After several washes, the glass can become opaque.

It is mandatory to repeat the washing cycle if at the end of the cycle the crockery are not well clean or if there are washing residues (glasses, cups, bowls, etc. with liquid inside).

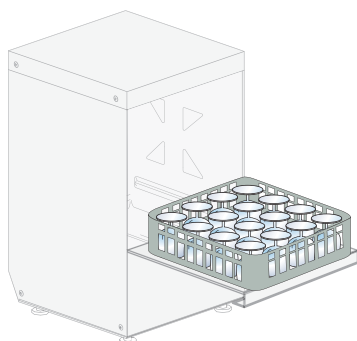


image 11

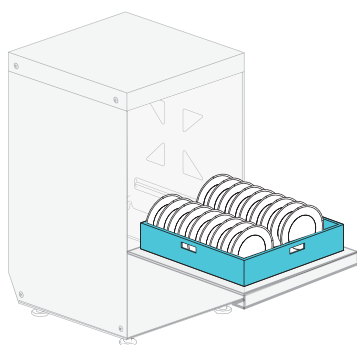


image 12

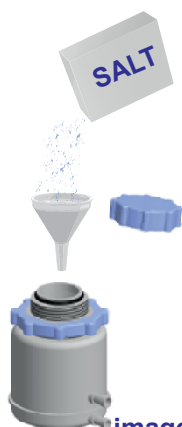
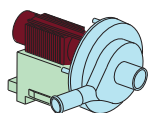


image 13

5.2 Detergent use

The detergent shall be the NO FOAM type, suitable for industrial dishwashers. The use of good quality liquid detergents is recommended.

The detergent shall be placed in the sump. Follow manufacturer recommendations for dosage. The machine can be ordered with an adjustable automatic detergent dispenser (always recommended).

1cm of the product drawn into the tube is equal to about 0.15 g. A correct amount of detergent is very important for a successful wash.

Lack or poor quality of detergent, in this machine will cause bad wash results and clogging.

5.3 Rinse aid use

The machine has a standard rinse aid dispenser. The machine automatically sucks the product.

The rinse-aid chemical, shall be suitable for professional glass and dishwashers. It is advisable to rely on specialized retailers in the sector.

5.4 Discharge pump system (optional)

To drain completely the wash-tank keep the machine ON, extract the overflow pipe and shut the door. Press the button **H** (see chap. 4) for at least one second: the discharge pump will automatically drain the wash-tank.

Once the machine is completely drained, the machine will turn off and the LED **C** (see chap. 4) will turn from green to red light (stand-by mode).

If you want to refill the machine for a new cycle, wait for 5 seconds before to switch it on by pressing the button **M** (see chap. 4).

During the wash-rinse cycle the water in excess is automatically drained.

5.5 Regeneration device (optional)

Resin regeneration in the water softener is fundamental.

Resin regeneration should be carried out according to the number of cycles as indicated in the picture below. Ex. 27°F (or 15°D) = 39 cycles.

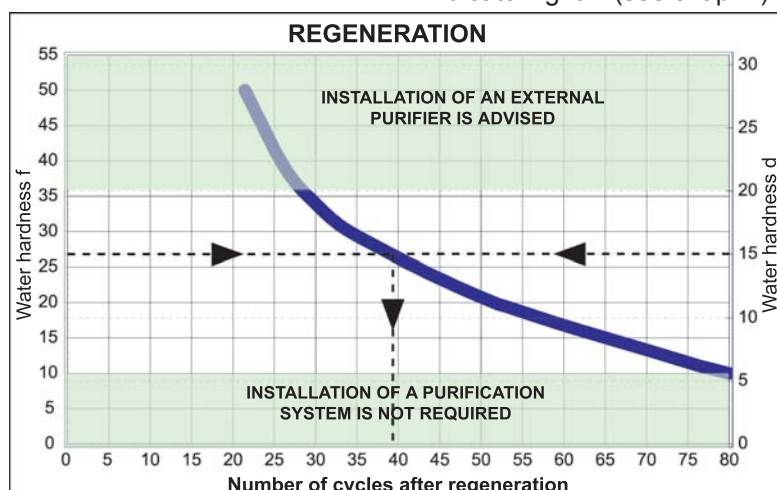
To carry out the purifying cycle, follow these instructions:

- Open the water valve and turn the main switch ON.
- Press the switch **M** (see chap. 4) to (ON).
- Open the door.
- Remove the overflow tube and empty all the water in the sump.
- Once the tank is empty, check and fully replenish the salt, being careful not to spill it into the sump. A strong concentration of salt can negatively affect the correct functioning and service life of the machine and generate rust. Fill the special container, placed on the inside of the tank, (see image 13) with coarse salt (1-2 mm. grains - the maximum capacity of the bowl is 500 gr.).
- Close the door, press button **L** (see chap. 4) for 5 seconds and wait for the turn on of the indicator light **E** (see chap. 4). The indicator light **E** (see chap. 4) will come on when the cycle is activated. The resins contained in the water softener will be automatically regenerated in about 20 minutes. The cycle is completed when the indicator light **E** (see chap. 4) turns off.

After the softening cycle, the machine sets it-self on stand-by mode.

P.S.: once the regeneration cycle has begun it cannot be stopped. If a water softener is installed externally, follow the instructions given in the relative manual to regenerate the resins.

- Turn off the machine by switching the main power switch OFF.





In the case of water hardness above 35°F it is advisable to install an external water softener.

5.6 H.A.C.C.P. and hygiene regulations

- The machines are equipped with a temperature indicator (led **Q** - chap. 4) which lights up when the boiler and the tub have reached the preset temperature (values set by the manufacturer). It is recommended to wait for this light to go on before starting the next cycle.
- Scrape food from the dishes carefully in order not to clog the filters, nozzles and pipes.
- Unload the wash tub and clean the filters at least twice a day.
- Check that the amount of detergent and rinse aid dispensed is correct (as suggested by the supplier of the product). In the morning before starting up the machine, check that there is enough product in the containers for daily use.
- Always clean the support floor of the dishes.
- Remove the rack from the dishwasher with clean hands or gloves so as not to dirty the cutlery.
- Do not dry or polish the dishes with non-sterilized cloths, brushes, or dusters.

6. MAINTENANCE

6.1 Routine maintenance

WARNING: The machine is not protected against pressurized water jets. Do not use pressure cleaning system against the machine.

It is recommended to contact seller for cleaning instructions, in order to have detailed indications on methods and products for the correct periodical machine sanitation.

Do not use bleach or chlorine based detergents.

Daily cleaning is needed to ensure that the machine runs perfectly. The following shall be carried out:

- Turn the machine in stand-by mode, by pressing the push-button **M** of the control panel (see chap. 4).
- Drain the water by removing the overflow pipe. For appliances provided with emptying pump follow the indications as described on paragraph 5.4.
- Remove the filters and chutes and clean with a brush and a water shower.
- Remove the arms by loosening the fixing screws, and thoroughly clean them, and the nozzles under running water.

If presents, remove the surface filters and clean it with a brush under running water (see image 14).

- Reassemble all parts and refit the rotors in their seats, fixing them with the relative screws. Take extreme care to re-assemble the nozzles in the right position (open and / or closed nozzles) and that the arms are installed with the right axial angle.

- Clean the tank very carefully, using a water shower.

- **Automatic cycle of machine self-cleaning/ rinsing:**

The machine should be in stand-by mode (red-lighted LED **C** - see chap. 4), remove the overflow pipe and close the door. Push START button **B** (see chap. 4) hold it for 5 seconds. An automatic cycle of 15 seconds will start, after this the machine will be in stand-by mode.

- Shut the water valve.
- Turned off the machine by switching the main power switch OFF.



N.B.: It is recommended to change the water in the wash-tank at least every 20 wash cycles, or twice a day. Do not use metal-wool for cleaning and/or corrosive products, which will damage the machine.

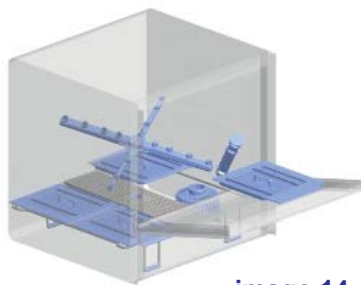


image 14



6.2 Special Maintenance

Once or twice a year have the machine inspected by a qualified technician, in order to:

- 1 Clean the solenoid-valve(s) filters.
- 2 Remove scale from the heating elements.
- 3 Control the status of the seals.
- 4 Control for components integrity and/or consumption.
- 5 Control the dispenser(s) efficiency;
- 6 A qualified electrician, should check all electric connections inside the machine, at least once a year.

7. ALARMS

Alarms will be displayed by the lighting of LEDs. according to their typology.

TYPE OF ALARM	CAUSE	REMEDIES
Flashing of the cycle lamp A	No water filling: if you forget to put the overflow pipe in the machine, the water filling will last more than 5 minutes, after that time the machine turns automatically off. Alarm flashing.	Verify the full opening of the water inlet valve or the right positioning of the overflow pipe. Switch the machine OFF and ON to reset the alarm.
Flashing of Drain light indicator G	No drain: if the machine has the drain pump, and it does not work, or the drain is clogged up or you forgot to remove the overflow pipe; therefore the machine turns off and the LED will start flashing.	Remove the overflow pipe and drain the tank. Switch the machine OFF and ON to reset the alarm.
Flashing of light indicator Q	No boiler heating. If the heating element does not heat, the machine does not start the rinsing cycle. After 5 minutes it will turn off. Alarm flashing.	Boiler thermostat or boiler heating element out of order. Check them or call for Service.

8. ENVIRONMENTAL ASPECTS

8.1 Packaging

Packaging is made of the following components:

- a wooden pallet;
- a nylon sack (LDPE);
- a multi-layer carton;
- polystyrene (PS) strips;
- polypropylene (PP) banding.

All above materials, shall be disposed and treated in accordance with the Local Laws in force.

8.2 Disposal

The symbol WEEE/RAEE used on this product indicates that it cannot be treated as domestic waste. Proper disposal of this product contributes to protecting the environment. For more information on product recycling, contact the local authorities, domestic waste authorities or the dealer where the product was purchased.

For product or parts disposal, follow the Council directives 2011/65/UE and 2012/19/UE as amended and/or application legislative decrees.

The present product or parts cannot be disposed of as urban waste but shall be collected in separate containers (see the waste bin on wheels symbol with an X on the product).

At the time of product disposal, the user shall refer to the waste electrical and electronic equipment (WEEE/RAEE) specification.

The manufacturer guarantees the absence of dangerous substances in the EEA used in conformity to the directive 2011/65/UE.

If the user does not comply with the regulations he/she shall be subject to the penalties foreseen by each member state.

Disconnect electricity and water before disposal.

Cut away the electrical cable to ensure that further use is impossible.

All metal parts are recyclable as they are made of stainless steel.

Recyclable plastic parts are marked with the plastic material symbol.





9. ECOLOGICAL ASPECTS

9.1 Recommendations for optimal use of energy, water and additives

Salt dosing

A pre-set (by the manufacturer) quantity of salt is injected in the resins at each regeneration cycle. It is important to observe the number of regeneration cycles recommended in paragraph 5.5 in order to avoid salt spills or lime deposits.

Use the machine fully loaded when possible.

This shall prevent detergent, rinse aid, water and energy consumption waste.

Detergent and rinse-aids

Use detergents and rinse-aid chemicals with high biodegradability, to best respect the environment. Verify proper dosage in relation to water hardness at least three times a year. Excess product pollutes rivers and seas while an insufficient dose results in unsatisfactory dish washing and/or hygiene.

Boiler and Wash-Tank temperatures

The boiler and tank temperatures are set by the manufacturer in order to obtain the best washing results with detergents on the market. The temperatures can be reset by the installer in relation to your detergent.

Pre-washing

Carefully pre-wash with a moderate amount of water at room temperature to facilitate the removal of animal fats. To remove encrusted materials warm water soaking is recommended.

Note:

Wash objects as soon as possible to avoid deposits from drying and compromise effective washing.

For effective washing routine dishwasher cleaning and maintenance is advised (see chap. 6).

Disregarding the points listed above and of any the information contained in this manual can cause energy, water and detergent waste with a subsequent increase in running costs and/or performance reduction.



10. TROUBLESHOOTING

Type of Problem	Possible Causes	Cure
The machine does not turn on.	Main switch not ON.	Turn switch ON.
The machine does not load water.	Water valve shut.	Open the hot and/or cold water valve.
	Rinse area nozzles or solenoid-valve filter blocked and/or scaled with limestone.	Clean the rinse arm nozzles, conductors and solenoid-valve filter. Check that the water hardness is <8°f.
	Defective pressure-switch.	Replace pressure-switch.
CycleLED A flashing.	See chapter 7 Alarms.	---
Washing results are unsatisfactory.	The washing nozzles are obstructed or the rack does not rotate.	Clean the nozzles carefully, and check the right positioning of the wash-arm, tightening firmly.
	Foam is present.	Use no-foam detergents or reduce the dose in use. Check the rinse-aid dosage.
	Fats or starches not removed.	Insufficient detergent concentration.
	Filters are dirty.	Remove filters, clean with brush under a jet of water and replace in original position.
	Check tank temperature (which must be between 50°C and 60°C).	Adjust the thermostat or check correct heating element operation.
	Wash time insufficient for the type of dirt.	Select a longer wash-cycle, if possible, otherwise repeat the wash cycle.
	Wash water is dirty.	Drain the tank water, clean the filters; refill the tank and replace the filters correctly.

Type of Problem	Possible Causes	Cure
Glasses or dishes are not properly dried.	Not enough rinse aid.	Increase dosage by turning the dispenser screw (see par. Rinse aid dispenser).
	The rack is not suitable for the pots or the tools.	Use the suitable rack which gives the pots and tools an inclined position so that water can rinse away.
	The washed items may have been sitting in the wash chamber too long.	As soon as the cycle stops, remove the rack with pots and tools so that they can dry more quickly in the air.
	Rinse temperature under 80°C.	Check the boiler thermostat temperature.
	Surface of dishes and glasses too rough or porous for material wear.	Replace type of dishes and glasses used. If the dirt on the dishes is dry and old, soak before washing.
Streaks and spots on glasses and dishes.	Too much rinse-aid chemical.	Reduce the rinse aid amount by turning the micrometric dispenser screw (see par. Rinse aid dispenser).
	Too hard water.	Check the water quality. Water must not exceed 8°f in hardness.
	For appliances with softener: too little salt in the salt container or the resins have not been properly regenerated.	Fill the salt container (coarse salt: 1-2 mm grains) and regenerate the resins more often. If lime deposits are also observed on the body of the machine, have a qualified technician check the operation of the water softener.
	Salt present in dishwasher sump.	Thoroughly clean and rinse the appliance, and avoid spilling salt when filling the container.
The machine suddenly stops during operation.	The machine is connected to an overload device.	Connect the machine on a own overload device (call Service).
	A machine safety device was triggered.	Check the electrical devices (call Service).
The machine stops during the wash stage and starts refilling water.	The previous day's water was not changed.	Drain the tank totally and refill.
	Excessive water temperature in tank.	Call Service to check thermostat and pressure-switch.
	Defective pressure switch.	
	Overflow pipe improperly positioned.	Remove and reposition the overflow pipe properly.
The booster pump can't prime.	Scarce pressure on the water intake.	Remove the boiler pipe and prime the pump.
The washing pump doesn't work	The pump is blocked	Call the Technical Assistance service

N.B.: For any other question, please contact your Service provider.
The manufacturer has right to modify any technical characteristics without prior notice.