

USER and MAINTENANCE MANUAL



MODEL:

- *MW STD 2*
- *MW STD 3*
- *MW STD 4*



WARNING !!!

UNIT OPERATES WITH HIGH TEMPERATURE WATER. TO INSERT OR TAKE OUT TOOLS AND TRAYS FROM THE TANK PLEASE WEAR GLOVES AND GLASSES FOR NOT GETTING BURNED.

ALWAYS ACCOMPANY THE LID WHEN CLOSING THE COVER
SAME TO AVOID THE OCCASIONAL CRUSHING OF THE HANDS

THE MACHINE IS SUPPLIED BY THE MANUFACTURER WITH THE PARAMETERS
OF TEMPERATURE AND DURATION ALREADY PROGRAMMED AND SET.

IT IS COMPULSORY TO USE ITS SPECIFIC DETERGENT "CLEAN DETERGENT" FOR A
GOOD OPERATION OF THE MACHINE. NO SERVICE OR WARRANTY IS PROVIDED IF
ANOTHER TYPE OF DETERGENT IS USED

THE USER MUST TO CONSULT THE "CLEAN DETERGENT" DATA SHEET BEFORE USING
THE MACHINE.

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1 INTRODUCTION

1.1 MANUAL IMPORTANCE

This manual provides information about the installation, use and maintenance of the defined machine:

MULTI WASH - Immersion pot washer

In all its various models.

The machine must be used in accordance with what is specified in this manual: it is therefore recommended to read it carefully before starting the machine, without neglecting anything written and paying particular attention to the messages highlighted. Compliance with the standards and recommendations contained therein allows safe use and appropriate interventions. In case of discrepancy between what is described here and the machine, the user must inform the manufacturer before commissioning. The use and maintenance manual is an integral part of the machine; it must be kept intact and in a safe place throughout the life of the machine, even if the machine is passed on to another user.



DANGER

Failure to comply with the instructions contained in this use and maintenance manual exempts the manufacturer and distributor from any liability. For any data not included or not deductible from the following pages, it is recommended to consult the manufacturer directly.

1.2 MANUFACTURER IDENTIFICATION DATAS

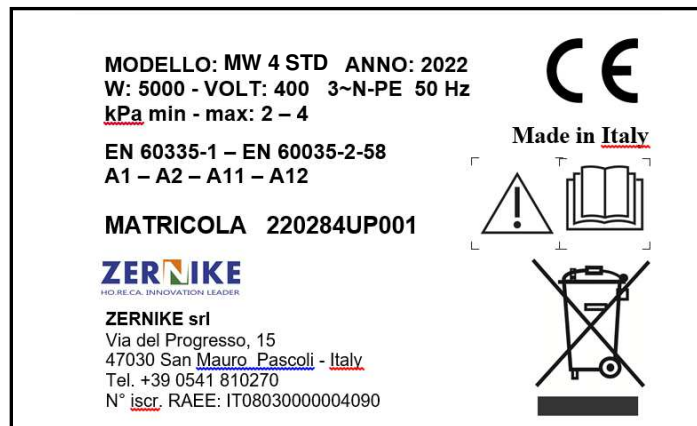
The identification of the company **ZERNIKE S.r.l.** as the manufacturer of the machine, takes place in compliance with the legislation in force by means of the following acts:

Identification plate
Use and maintenance manual
CE Declaration

The MULTI WASH machine was designed and produced exclusively by the company: **ZERNIKE S.r.l.**

1.3 CE MARKS

The identification of the machine is possible by means of the plate applied to the machine, indelibly showing the information relating to the CE marking



The reproduction of the “CE MARKING” plate applied to the machine and the relative “DECLARATION OF CONFORMITY” is included in the attachments.

IMPORTANT

It is forbidden to remove the “CE MARKING” plate and / or replace it with other plates from machines of the same model present in other departments.

If for accidental reasons the “CE MARKING” plate is damaged or detached from the machine, the customer is obliged to inform ZERNIKE S.r.l. and ask for its replacement.

1.4 TIPOGRAPHICAL CONVENTION



DANGER

Information referring to procedures or practices that, if not performed correctly, can cause injury, death or long-term risks to people's health and the environment.



CAUTION

INFORMATION REFERRING TO PROCEDURES OR PRACTICES WHICH, if not carried out correctly, can cause damage to the machine or product.



CAUTION

Important information relating to ongoing operations.

1.5 SAFETY INSTRUCTIONS FOR MAINTENANCE

- Before executing any maintenance and / or cleaning operations on the machine, disconnect the electrical and pneumatic power supply and wait for the hot devices to cool.
- Maintenance must be performed by qualified personnel.
- Before carrying out any maintenance, stop the machine using the procedures listed in the manual.
- Never use petrol, solvents or flammable fluids to clean the parts, but use commercial and approved non-flammable and non-toxic detergents.
- Carry out all maintenance and repair operations carefully, as described in this manual.
- Always use personal protective equipment.
- Use electric tools that comply with current safety standards.
- The machine must be used according to its intended use.
- The use of the machine must always be in compliance with the safety regulations in force in each country.

1.6 SIGNS APPLIED TO THE MACHINE

- The signs applied to the machine must never be removed.
- The signs must be clearly legible and not covered by objects.
- Deteriorated signs must be replaced by requesting them from the manufacturer.

Description:

1. Danger of crushing hands



2. Danger of surfaces and hot water



3. Indicates the obligation to consult the instruction manual before operating on the machine



4. Obligation to use gloves



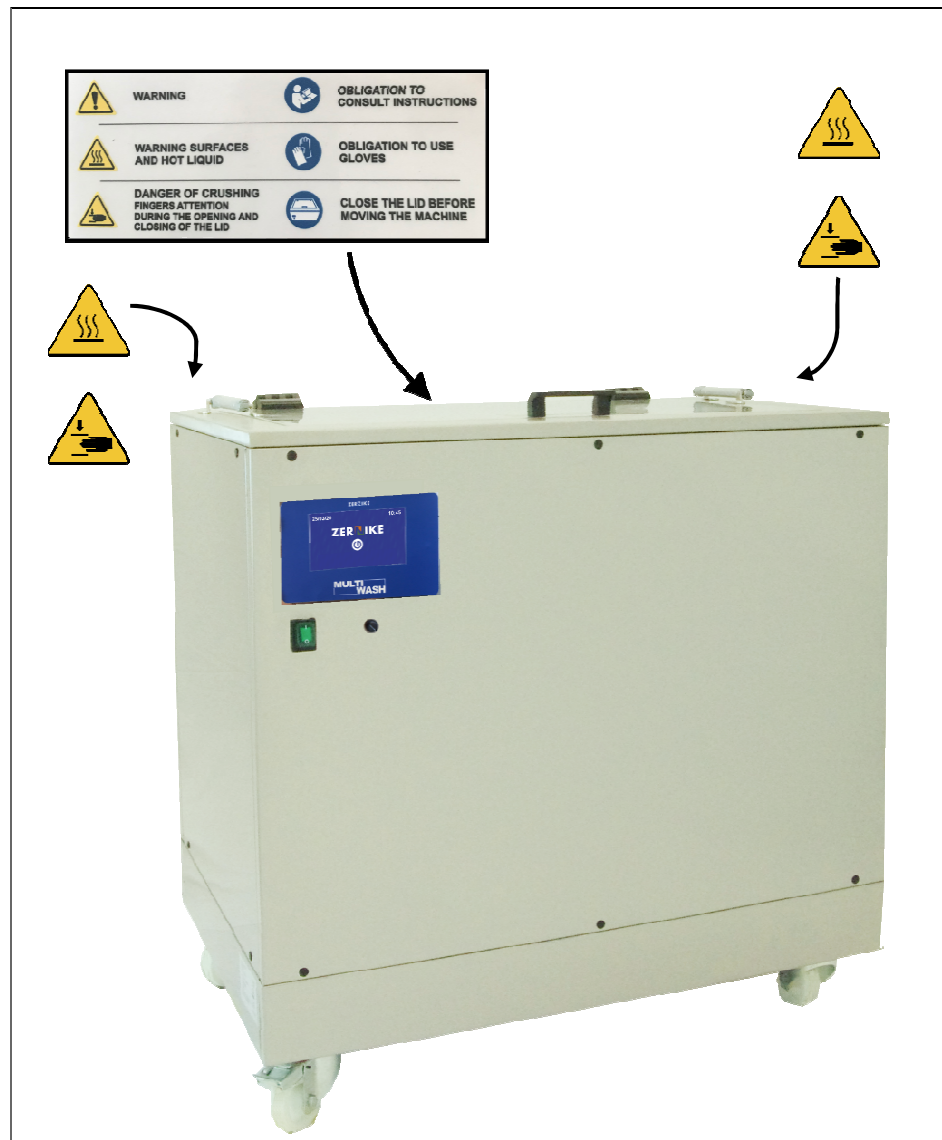
5. Obligation to use glasses



6. Obligation to close the lid when handling the machine and during the washing phase



1.6.1 STICKERS AND WARNING LABELS



General adhesive label "WARNINGS" applied on the lid.

"HOT SURFACE DANGER" Warning labels applied on the deck and at the right and left of the lid.

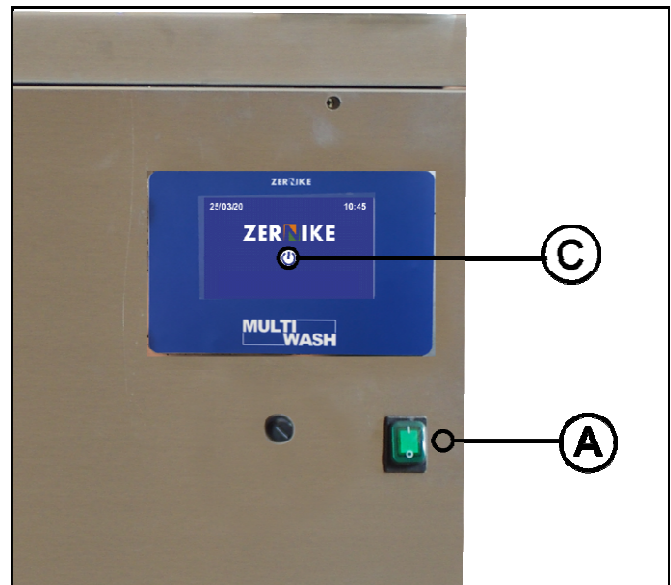
Warning labels "DANGER OF CRUSHING HANDS" Applied on the sides of the two basket lifting pistons.

2 SAFETY DEVICE

2.1 OPERATING CYCLE SAFETY DEVICES

The machine is equipped with the following stop functions:

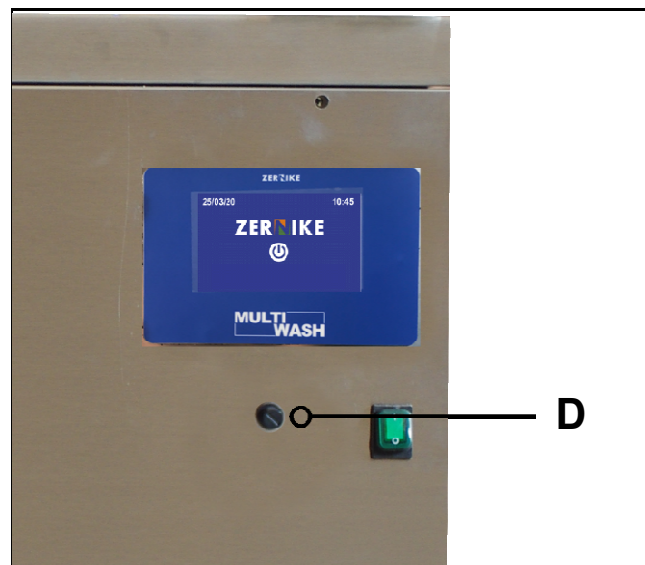
- **Main switch** Press the main switch **(A)** to "0" - OFF to disconnect the machine from the power supply
- **Control unit stop** Press button **(C)** on "to turn off the control unit and stop heating the water



2.2 INTERNAL THERMAL SAFETY DEVICES

Inside the device there are the following thermal safety devices:

- **Safety thermostat with manual reset Button (D).** The thermostat trips in case of excessive heating of the resistance. When it clicks, the resistance immediately stops heating. To reactivate the safety thermostat, unscrew the black protective cap and click on the reset. Finally, reposition the protective cap by screwing it back on.

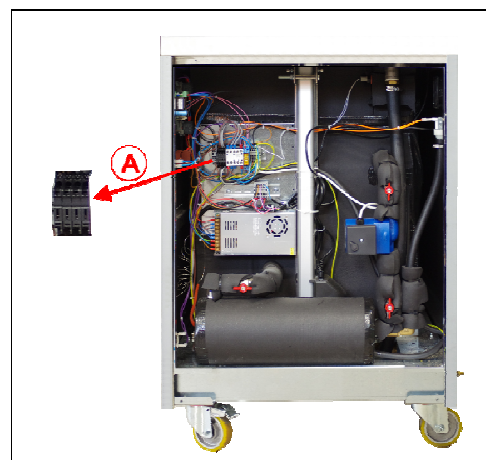


2.3 ELECTRICAL SAFETY DEVICES IN CASE OF OVERLOAD

Positioned in the special drawer inside the compartment technical, there is 1 fuse:

- Models 2-3-4 STD mono-phase: n. 1 of 15 A
- Model 4 STD three-phase: n. 3 of 10 A
n. 1 of 5 A

The fuse disable the power supply in case of overload. For more details refer to the wiring diagram



3. MACHINE DESCRIPTION

3.1 MACHINE DIMENSIONS

MW 2 STD

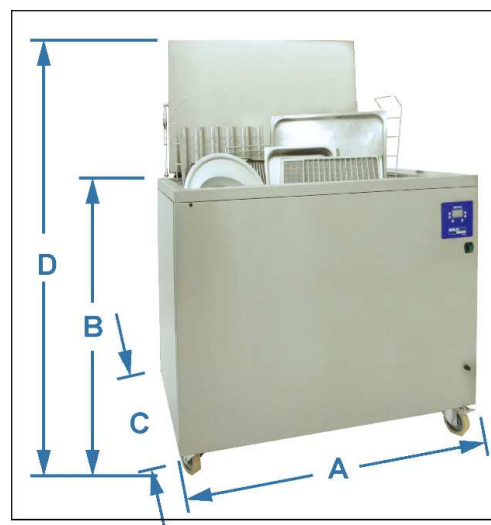
- A - Length:** 645 mm
- B - Height with lid closed:** 960 mm
- C - Depth:** 700 mm with handle
- D - Height with lid open:** 1580 mm

MW 3 STD

- A - Length:** 847 mm
- B - Height with lid closed:** 960 mm
- C - Depth:** 700 mm with handle
- D - Height with lid open:** 1580 mm

MW 4 STD

- A - Length:** 1175 mm
- B - Height with lid closed:** 980 mm
- C - Depth:** 700 mm with handle
- D - Height with lid open:** 1590 mm



3.2 PERFORMANCE

Loading trays capacity for MW 2 STD

- 10 trays GN 1/1 - 6,5h
- 5 trays GN 2/1 - 6,5h
- 15 trays 60x40 - 2h

Loading trays capacity for MW 3 STD

- 16 trays GN 1/1 - 6,5h
- 8 trays GN 2/1 - 6,5h
- 25 trays 60x40 - 2h

Loading trays capacity for MW 4 STD

- 24 trays GN 1/1 - 6,5h
- 12 trays GN 2/1 - 6,5h
- 40 trays 60x40 - 2h
- 25 trays 60x80 - 2h
- 16 trays 60x80 - 3h

3.3 TECHNICAL DATA

Below are the data and technical characteristics of the machine to which reference must be made, together with the identification data shown on the CE marking plate, for any contact with the Manufacturer's Technical Assistance

FEATURES	U.D.M.	MW 2 STD	MW 3 STD	MW 4 STD <i>MONOFASE</i> <i>TRIFASE</i>	
Dimensions (L x P x H)	mm	645 x 700 x 960	847 x 700 x 960	1175 x 700 x 980	
Machine weight	kg	83	97	121	
Absorbed power	W	2,5 kW	2,5 kW	3,1 kW	5 kW
Tank capacity	lt	160	230	360	
Supply voltage / frequency	V / Hz	220-230V– 50-60 Hz	220-230V– 50-60 Hz	220-230V– 50-60 Hz	3F + N 60 Hz

4 MACHINE INSTALLATION

4.1 INSTALLATION REQUIREMENTS

The machine must be installed on a flat surface capable of withstanding an overall load sufficient to support the weight of the machine. The installation site must be leveled in the longitudinal and transverse directions.

Maximum pavement inclination 0 °

Minimum flooring capacity 1000 kg / m²

4.1.1 MACHINE POSITION

The machine is completely assembled and tested at the manufacturer's premises and then shipped in the same conditions, therefore it is not necessary to complete the machine once it reaches the user.

- Position the machine in the designated place and lock the machine, using the brake on the wheels. Make sure the machine does not move.

4.2 ELECTRICAL CONNECTION AND EARTHING

The electrical connection of the machine is carried out by and responsibility of the electrical maintenance technician.

The machine must be connected to the power line, considering:

- The laws and technical standards in force in the place and at the time of installation;
- The data shown on the electrical equipment plate;
- The data shown on the wiring diagram that is attached to this manual.

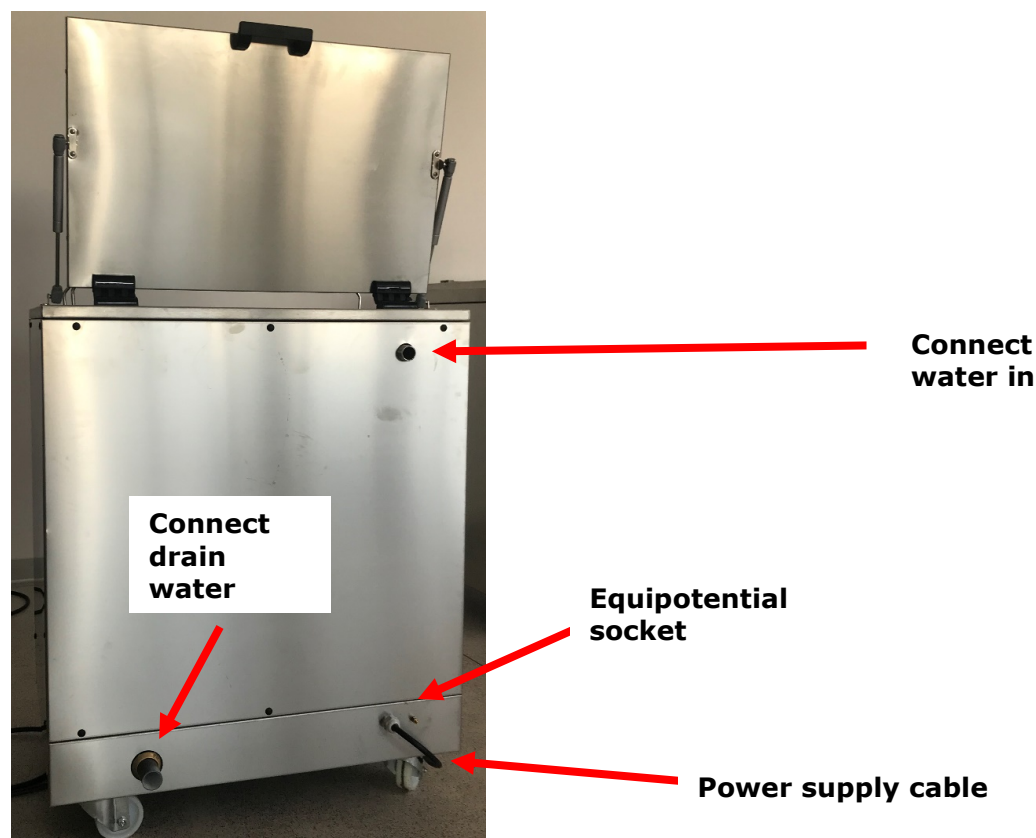
The power supply must be carried out by connecting the supplied power cable to the plug (not supplied) and then subsequently connecting it to a power outlet protected by a 400V, 30mA differential switch

 **IMPORTANT**
THE USE OF EXTENSIONS IS FORBIDDEN
The machine is originally equipped with a general protection device from electrical overvoltage (see the attached wiring diagram for its characteristics) and a system of equipotential connections for protection of all masses.

5 TO START THE MACHINE

5.1 SISTEM PREPARATION

A - Connect the water supply and the water drain (to the ground). (**fig. 1 – back of MW STD**)



B - Connect the machine to the mono-phase mains (for models MW 2–3–4 STD mono-phase)
Connect the machine to the three-phase mains (for model MW 4 STD three-fase)

C - Connect the machine to the general grounding line using the equipotential screw (**OPTIONAL** - in case you have to connect several machines together)

D - Check that the unloading handle, located under the machine, is in the "closed" (**fig. 2 – frontal MW 4 UP**)



fig. 2

5.2 START THE MACHINE

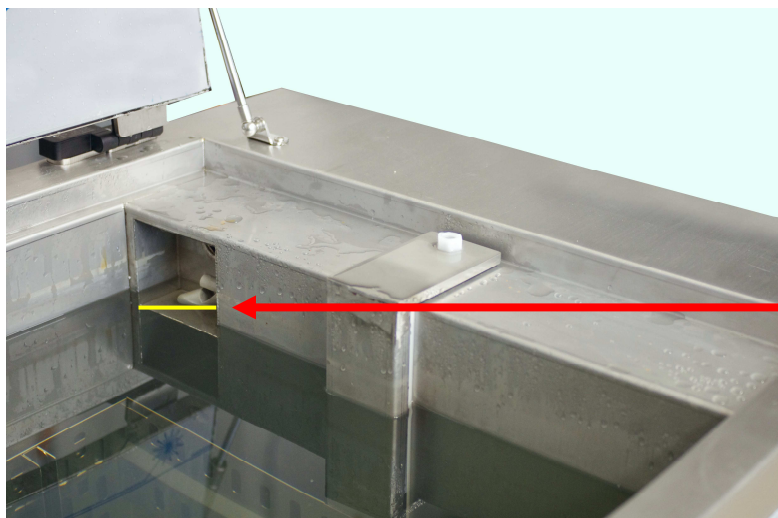
2.2.1 GENERAL START

1. Open the tap of the water mains connected to the machine. Where possible it is recommended to feed the machine with hot mains water.
2. Press the ON / OFF button to power on the machine. (**see fig. 3**)



fig. 3

3. Press the button  to turn on the display. **SEE CHAPTER 7.4 - LOAD & HEATING phase. Page 34** to find the procedure for loading and heating the water.

**Level switch****fig. 4**

Once the water has reached the set level regulated by the level switch and the temperature set-point, an acoustic alarm will sound to remind you that it is possible to insert the detergent.

4. The amount of product needed by the system varies by model:

STD 2:	2 boxes da 2 kg
MW STD 3:	3 boxes da 2 kg
MW STD 4:	4 boxes da 2 kg



**The detergent is inserted by pouring one box at a time and waiting 2/3 minutes from each other.
The detergent must be poured by spreading it slowly inside the tub along the perimeter and at the end of the pouring it is recommended to raise and lower the basket a couple of times.**

5. Now the system is running, you will not have to touch any buttons, turn off or turn on the.

5.3 MULTIWASH USE

- **Remove food residues from utensils before immersing them in the System**
- Soak the materials
- Variable immersion time based on the type of encrustation
- Take out the materials
- Rinse under running water with the pressure necessary to remove the emulsified residues

Rinse under cold running water (the water does not need to be hot) with the necessary pressure to remove the emulsified residues (better if you use a hand shower)

**CAUTION**

To remove food residues from utensils before placing them in the tub, never use sponges or detergents. Never pre-wash the utensils with any type of detergent but use only water.

5.4 END OF WASHING CYCLE

The washing operating cycle set by default on the machine is 28 days but this parameter can be modified as desired. (**SEE CHAPTER 8.12 “DETERGENT SCHEDULE DAYS”**)

The end of the washing cycle will be signaled by the appearance of the message “DRAIN” on the display. (**SEE CHAPTER 8.5 “DRAINING PHASE”**)

5.5 RESIDUAL RISKS

The **MULTI WASH STD** machine has been designed so that the operator's direct intervention operations on the machine are reduced to a minimum, with the aim of eliminating all risks related to its use. However, during the normal processing cycle, the Operators are exposed to some residual risks which, due to the very nature of the operations, cannot be totally eliminated.

The residual risks related to the normal way of working are:

A- Risks of possible contact with the solution in the tank while using the machine

**DANGER**

During the unloading and loading of the tools from the tank it is mandatory to use protective gloves and glasses to avoid contact with the hot solution.

The security measures provided are:

- active type, through the use of protective gloves and glasses

B- Risks of possible crushing when using the machine

**DANGER**

During the unloading and loading of tools from the tank, it is mandatory to always accompany the lid both when opening it and when closing it, always up to the end of its stroke. Never leave the lid open halfway while closing or opening it.

**DANGER**

During the movement of the basket, up and down, the presence of other people near the machine is prohibited.

Only the operator who moves the basket can stand on the front of the machine

The security measures provided are:

- active type, through emergency stop.

C- Risks coming from possible electric energy use

The security measures provided are:

- Active type, by general main switch.



WARNING

Machine has to be used by one only operator.



IMPORTANT

The basic safety rule to follow when working on the machine is to turn off the power supply.

6 MAINTENANCE

An essential condition for having a machine at an excellent level of efficiency and reliability over time is the execution of accurate and constant maintenance.

It is desirable that the operations listed below are carried out with scrupulousness and attention.



NOTE

The Manufacturer recommends the intervention of its own technician on an annual basis to carry out checks on the machine and its accessories.

6.1 WARNING ON INTERVENTION



DANGER

It is a general obligation before any maintenance, ordinary or extraordinary, to cut off the power supply to the machine.

Also adopt personal protective equipment during all phases of intervention such as gloves, overalls, glasses, etc.

It is mandatory to follow the instructions in this manual.

For any other maintenance intervention that is not described in this manual, contact the manufacturer directly.

6.2 SCHEDULED MAINTENANCE INTERVENTION

The following table lists all the checks and periodic maintenance operations necessary to maintain correct and safe operation of the machine over time.

The operations described below must be carried out within the indicated times.

Failure to comply with the requirements exempts the Manufacturer from any liability for the purposes of the Warranty.

KIND OF INTERVENTION	FREQUENCY OF EXECUTION	STATUS OF MAINTENANCE
Ordinary cleaning	At end of cycle	Isolation
Periodic cleaning	When needed	Isolation
Safety measurements check	Monthly	Isolation
Electrical board check	Yearly	Isolation
Replacement hinge with micro	As needed and no later than 10 years	Isolation

6.3 REPLACEMENT OF THE MAIN SWITCH FUSES



To replace a fuse you need to:

- Switch off the machine
- Unplug the power cord
- Open the right side of the machine where there is the technical compartment
- Extract the broken fuse or fuses and replace them with new ones of the same value
- Close the side of the machine

6.4 EXTRAORDINARY MAINTENANCE AND REPAIR

All interventions not expressly listed in this manual, such as:

- interventions following faults in components or electric motors
- interventions following faults in mechanical components

are to be considered as extraordinary maintenance interventions.

Extraordinary maintenance interventions must be carried out by qualified personnel authorized by the machine manufacturer. **If a fault occurs that requires the intervention of the manufacturer, the machine must always be placed in the "Isolation" state.**

To obtain technical assistance, contact your dealer directly from whom you bought the machine

6.5 SCHEDULED REPLACEMENT OF PARTS SUBJECT TO WEAR



The user is advised that:

- the hinge with safety micro on the lid must be replaced no later than 10 years after use



DANGER

All extraordinary maintenance and repair operations are to be carried out with the machine stopped with sectioned electricity;



DANGER

Never try to make makeshift repairs or replacements; this could involve serious dangers for the exposed persons and for the machine

7 MACHINE CLEANING



CAUTION

Perform the operations only with the machine stopped, making sure that the wheels with brakes are locked, after having drained all the water.

For the good functioning of the machine it is necessary to periodically clean it.

ORDINARY CLEANING: At the end of use, remove any small residues left in the tank

PERIODIC CLEANING: If necessary, for a deeper cleaning, if there are larger residues on the bottom of the tank.

- Do not use aggressive products such as petrol or solvents, as these substances could react with the mixed products generating toxic vapors.
- If it is necessary to descale the tank and the basket, used a descaler gel to favor its adhesion to the walls. At the end, rinse thoroughly
- Do not carry out operations with bare hands; wear specific protective gloves.

7.1 ORDINARY CLEANING

The routine cleaning phase now begins. Take the shower and clean the basket and the inside of the tub from residues with a jet of water. Trying to get the water into every crevice.

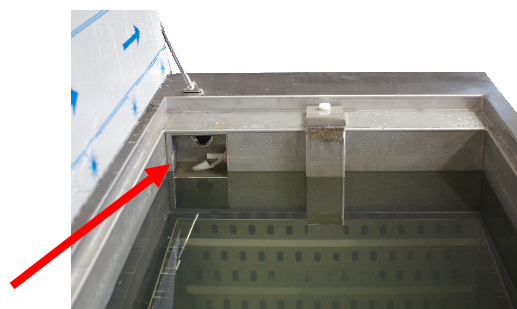
If necessary, use a gel buffered descaler to be applied to the walls and parts to be cleaned.

- Fill the tank with water and let the descaler act for one hour. At the end, empty the water from the tub and rinse thoroughly.



CAUTION

Carefully clean the level probe niche, use only the water jet making attentions to not touch the level probe with your hands to prevent that the level probe is breaking.



7.2 EXTRA ORDINARY CLEANING



If necessary, for a deeper cleaning, if there are residues on the bottom of the tank, we recommend removing the basket and the drain cover to be able to clean them separately and to better clean the bottom of the tank.

Clean the inside of the tank from any residues.



Cover drain

fig. 7

- 1.** Using a pressure shower, clean the tub from residues, remove the drain cover and clean everything.
- 2.** At the end of this phase, put the drain cover back in its place and the basket back to the tank.
- 3.** Close the water drainage handle located under the machine.
- 4.** The machine is now ready to start a new wash cycle.

8 MULTI WASH STD SETTING



ON/OFF Button



SETTING Button



DRAIN Button



CHARGE Button

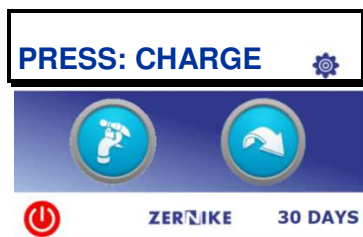


WASH Button

8.1 DEVICE SWITCHING ON AND OFF



In case device is OFF in STAND-BY, to switch ON just touch button ON/STAND-BY: 



In case device ON, to switch it OFF press for 2 seconds long button ON/STAND-BY: 

8.2 HOME PAGE



In the Home page you have 2 main buttons (CHARGE, DRAIN), then OFF  and .

If the water preload and heating phase is ended and the detergent has been already inserted, at the HOME page button CHARGE will be replaced by button WASH. DRAIN button is always visible.

At the top in the middle you have indicator concerning the area to touch to execute the program **[PRESS: CHARGE]**.

Down on the right you have indicator about residual days **[30 DAYS]** to the end of DETERGENT (Note: this value comes updated only with device switched ON, rapresenting the effective working program.)

Button CHARGE is visible upon first device lighting (preload and heating never executed), and after each drain cycle ended. Button WASH is visible once load and heating are ended, till the end of timer (days). DRAIN button is always visible.

8.3 LOAD & HEATING PHASE



From HOME PAGE, press button CHARGE.

You have WATER LOAD and HEATING PHASE. On display you have **LOAD/HEAT**.

Device starts LOADING WATER till level is reached: in this phase icon CHARGE is blue colored and heating will be disabled.

Once level is reached next step is the WATER HEATING phase: in this moment icon CHARGE will be red coloured and the heating will be enabled until the set-point temperature level will be achieved.

During the heating process on the left side of display, it is visible the real temperature of the water in the tank.

If you press button ESC you come back to home page : water load and water heating will be disabled.

IMPORTANT: to reach temperature set-point it possible to set a time limit, through parameters. In case this time is exceeded, on display you will read **TIME-OUT ALARM**.

Upon temperature set-point has been achieved, an acoustic alarm comes to remind it is possible to insert detergent. At this point insert detergent and press button WASH to start, in sequence, RECIRCULATION DETERGENT then WASH RECIRCULATION phases.

IMPORTANT: if you did not set a duration for washing days even by pressing button DETERGENT you could not execute the working cycle.



8.4 RECIRCULATION PHASE (DETERGENT AND WORK)

After having achieved temperature set-point by pressing button WASH the detergent recirculation phase starts (on display you have the icon WASH and on the top, in the middle, you read DETERGENT), once exhausted this phase automatically you have the work recirculation phase (on display icon WASH is visible then on the top, in the middle, you read WASHING).



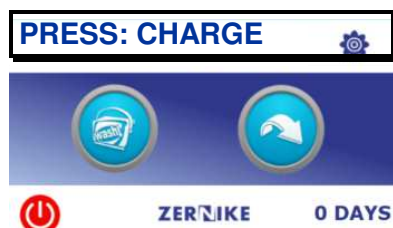
Since button WASH get pressed, a program timer count-down activates only for detergent and work recirculation, it is possible to reset it only through program or manual machine reset. Even by switching it off temporarily, the lasting program keeps saved in memory but timer count-down will be temporarily kept on hold untill a new switch on is executed.

Program duration setting you have from menu parameters .

During recirculation phase the setting of temperature and water load remain active.

Even by pressing ESC during recirculation phase (detergent or work) machine keeps on executing the working cycle on background although back to HOME page where you find WASH and DRAIN button.

8.5 DRAINING PHASE



Draining phase can be activated in two ways: detergent residual days (it means end of working program) or manual forced drain.

CASE 1) when you are at the end of working cycle (exhausted detergent days), on display it will be visible only button drain. Pressing shortly DRAIN you activate the EMPTYING phase.

CASE 2) to force drain action during the machine is in another working phase, it is necessary to press ESC then for 5 seconds long button DRAIN.

First thing is the drain handle set under the machine.



DRAINING process consist on 3 automatic and sequential phases:

- 1) DRAINING 1: you can activate eventual (optional) drain pump or it is possible to drain by vertical fall.
- 2) DRAINING 2: during the rinse phase, electrovalve for water loading and recycling pump to clean and also drain the boiler.
- 3) DRAINING 3: to eliminate water used to rinse by activating eventual drain pump (optional) or it is possible to drain by vertical fall.

Draining phase can be stopped at any time by pressing button ESC or CANC. By ESC machine keeps on stand-by, awaiting untill user will press again button DRAIN to complete the drain. Pressing CANC the machine returns to water preload phase.

At the end of DRAINING 3 phase on display it will be requested if execute a manual rinse (MANUAL RINSE).



In case operator selects START the eventual (optional) drain pump will be activated untill button STOP will be pressed. Even without drain pump it is possible to rinse manually through a little external shower (optional) and discharge by falling.

In case operator selects STOP eventual (optional) drain pump will be disabled.

Out this phase you get only by pressing buttons CANC or ESC and display brings you back to preload phase.

To insert new detergent will be claimed only if all drain procedure get entirely executed.

8.6 ALARMS RUNNING

In case of alarm a writing ALARMS will be displayed in red the one concerned activated.
Pressing button **STOP** buzzer will be switched OFF. To get out the alarm it is necessary to press long button  (with panel control on stand-by). Once alarm will be restored it will be possible to switch on the main panel control through button .



ALARMS LIST:

- TANK PROBE FAULT

In case of a fault on temperature probe, on display it will be visible TEMPERATURE PROBE FAILURE
Panel control unit will disable all functions, except for eventual drain pump. A technical shall check all electrical connections and the probe integrity.

- ALARM OF OVER TEMPERATURE IN TANK

In case the detected temperature is exceeding the set-point limit recorded in parameters, on display you will have HIGH WORKING TEMPERATURE

Main panel control will disable all functions, except for eventual drain pump. A technical shall check all electrical connections and the probe integrity, level switch and the heating element.

- ALARM TIME OUT TANK LOAD

In case water loading time exceeds time limit recorded in the parameters, on display you have TIME-OUT WATER LEVEL.

Main panel control will disable all functions, with exemption of eventual drain pump. A technical shall verify all electrical connections, the integrity of the water load electrovalve and the hydraulic pressure.

- ALARM TIME OUT IN CASE TEMPERATURE SETPOINT EXCEEDS TIME LIMIT

In case temperature setpoint is not reached within the time limit set through parameters, on display you have TIME-OUT WORKING TEMPERATURE.

Panel control will disable all functions, except for the eventual drain pump. A technical shall verify all electrical connections, the integrity of the temperature and the heating probes

- ERROR POWERBOARD ALARM

It is visible when the connection to the main panel unit control is stopped for minimal 10 seconds.

Unit control will disable all functions. A technical shall verify electrical connections and the communication cable integrity.

8.7 MENU SETTING



Login by pressing button  (in the top on the right)

On the following page, down on the right, you have the firmware version. Icons move either rightwards as well as leftwards. To enter in a menu it is enough to press the corresponding icon. In case a password will be claimed, just write 25 to unlock it and press ok.



Icons stand for :



1) CLOCK AND CALENDAR



2) DIGITAL AND ANALOGIC INPUT



3) DIGITAL OUTPUT (RELE')



4) SETTING



5) DETERGENT DAY SCHEDULE



6) MANUAL RESET



7) MENU WI-FI (NOT AVAILABLE)

8.8 CLOCK AND CALENDAR

Pressing  icon you enter into menu DATE & TIME.



On next screen page, press where you wish to modify in order to select it.

To modify its value press arrow  and . Repeat the procedure for each data you wish to modify.

To confirm set data press **OK**. Display will modify data and bring you back to MENU' SETTINGS.

By pressing button **BACK** you come to MENU' SETTINGS without saving eventual modification executed.

8.9 DIGITAL AND ANALOGIC INPUT

Pressing  the icon you enter to display menu of the digital and analogic input.



Analogic input indicate on realtime water temperature in the tank.

Digital input indicate on realtime condition of water sensor as well as drain fan.

Green "led" indicates the logical status of the input. It becomes red in case of small logic level.

Pressing button **BACK** you come to MENU' SETTING

8.10 DIGITAL OUTPUT

It is possible to check the correct relé working.

Press this  icon to enter into first menù page where you find output check

Press buttons K1 K5 to activate the corresponding relè; to disable them it is enough to press the button again.



To get out press **BACK** then you are in the SETTING page.

8.11 MACHINE PARAMETERS CONFIGURATION

To enter in the page press on the icon



Touch  and  to move parameters. Press **OK** to confirm the parameter you wish to modify.

Touch  and  to set the value and confirm by pressing again **OK**. In this moment new parameter value will be saved.

To get out this procedure touch button **BACK**.

Here below table of parameters for the **MW 2 and 3 STD** end user can modify and their corresponding values.

Label	Description	Min	Max	Def	U.M.
P30	Activation time recirculation pump (K2) during heating	1	1000	30	sec
P31	Pause time recirculation pump (K2) during heating	1	120	0	min
P32	Set-point labour temperature	P41	P42	75	°C
P33	Duration Recirculation Detergent phase	1	60	8	min
P34	Time ON relè K2 during Recirculation job	1	300	0	sec
P35	Time OFF relè K2 during Recirculation job	1	120	0	min
P36	Duration phase Drain 1	1	90	8	min

P37	Time OFF relè K2 (in phase detergent recirculation) and relè K3 (drain 1 phase)	0	90	0	min
P38	Duration rinse phase	0	90	3	min
P39	Duration drain 2 phase	0	90	3	min
P40	Max time limit to activate the continuous activation K2 in the phase Detergent recirculation and Drain 1	1	P36	8	min
P41	Minimal temperature set –point settable	1	100	50	°C
P42	max. temperature set-point settable	P41	110	80	°C
P43	Temperature Hysteresis (referred to the recorded set-point)	0	99	1	°C
P44	High temperature alarm limit (referred to the ° setpoint recorded)	1	40	10	°C
P45	Time out for failed tank load alarm (0=disabled alarm)	0	60	40	min
P46	Time out for failed setpoint T° reach, alarm recorded (0= disabled alarm)	0	600	300	min
P47	Input polarity DI1 Level switch (0 = NO, 1 = NC)	0	1	1	--
P48	Input polarity DI2 Valvola manual drain valve (0 = NO, 1 = NC)	0	1	0	--
P49	Enable or disable water drain valve entry control (0 = disabled control , 1 = enabled control)	0	1	0	--

Here below table of parameters for the **MW 4 STD** end user can modify and their corresponding values.

Label	Description	Min	Max	Def	U.M.
P30	Activation time recirculation pump (K2) during heating	1	1000	30	sec
P31	Pause time recirculation pump (K2) during heating	1	120	0	min
P32	Set-point labour temperature	P41	P42	75	°C
P33	Duration Recirculation Detergent phase	1	60	8	min
P34	Time ON relè K2 during Recirculation job	1	300	300	sec
P35	Time OFF relè K2 during Recirculation job	1	120	0	min
P36	Duration phase Drain 1	1	90	8	min
P37	Time OFF relè K2 (in phase detergent recirculation) and relè K3 (drain 1 phase)	0	90	0	min
P38	Duration rinse phase	0	90	3	min
P39	Duration drain 2 phase	0	90	3	min
P40	Max time limit to activate the continuous activation K2 in the phase Detergent recirculation and Drain 1	1	P36	8	min
P41	Minimal temperature set –point settable	1	100	50	°C
P42	max. temperature set-point settable	P41	110	80	°C
P43	Temperature Hysteresis (referred to the recorded set-point)	0	99	1	°C
P44	High temperature alarm limit (referred to the ° setpoint recorded)	1	40	10	°C
P45	Time out for failed tank load alarm (0=disabled alarm)	0	60	40	min
P46	Time out for failed setpoint T° reach, alarm recorded (0= disabled alarm)	0	600	300	min
P47	Input polarity DI1 Level switch (0 = NO, 1 = NC)	0	1	1	--
P48	Input polarity DI2 Valvola manual drain valve (0 = NO, 1 = NC)	0	1	0	--
P49	Enable or disable water drain valve entry control (0 = disabled control , 1 = enabled control)	0	1	0	--

8.12 DETERGENT SCHEDULE (DAYS)

Press icon  you enter to setting menù where it is possible to plan real working days.



With arrows  and  you can set program duration and confirm it with button **OK**. To cancell the modification just press button **BACK**.

8.13 MANUALE RESET

It is possible to restore original functioning parametersi
Pressing  icon you enter to reset page.



To set all parameters insert password 25 (to be confirmed with button **OK**). Display comes to previous page once all parameters will be set again according manufacturer values.
Pressing **BACK** you go to previous page without modifying functioning parameters

9 TROUBLE SOLVING

9.1 PROBLEM AND MALFUNCTIONS



CAUTION

Any intervention on the machine whose execution requires precise technical competence and particular skills must be carried out by authorized and qualified personnel. This staff must create all the conditions necessary to comply with the laws in force regarding safety in fixed and / or temporary workplaces.

PROBLEM	CAUSE	SOLUTION
Machine does not start	Power supply interrupted.	Check the main electrical switch. It must be in the I (ON) position.
The machine loses temperature / does not heat the water	The resistance safety thermostat has tripped	Check the safety thermostat. Manually reset the thermostat. Unscrew the black cap covering the thermostat and press the reset.

10 MACHINE AND DEMOLITION DISPOSAL



IMPORTANT

Pursuant to art. 13 of the legislative decree 25 July 2005 n. 151 "Implementation of Directives 2002/795 / EC and 2003/108 / EC, relating to the reduction of the use of hazardous substances in electrical and electronic equipment, as well as the disposal of waste".

Adequate separate collection for the subsequent forwarding of the decommissioned equipment for recycling, treatment and environmentally compatible disposal helps to avoid possible negative effects on the environment and health and favors the reuse or recycling of the materials of which it is made. equipment. Illegal disposal of the product by the owner involves administrative penalties provided for by current legislation.

Demolition must be carried out by adopting safety measures that must take into account the logistical, environmental and wear conditions of the plant itself. In general, the operators who must carry out the demolition by following the following precautions:

- Wear individual protective clothing and accessories (helmet, safety shoes, gloves, goggles and mask) approved according to the current accident prevention regulations;
- make sure that the machine is disconnected from all sources of energy;
- check that all utilities and any technical gases are disconnected.



CAUTION

Demolition must be entrusted to specialized firms qualified to perform this type of operation because they have the equipment, tools and machines suitable for the purpose..

The phases of disposal of the parts of the system must be carried out by the operators safeguarding the following conditions:

- Wear individual protective clothing and accessories (helmet, safety shoes, gloves, goggles and mask) approved according to the current accident prevention regulations;
- The pieces of different nature (steel, lead, plastic, rubber, electric cables, etc.) must be separated in special containers and identified.



CAUTION

- Pay maximum attention to the recovery and separation of potentially dangerous materials (batteries, accumulators, etc.) for the construction of the various components. For the disposal of all waste, comply with the legal provisions in force in the country where the disposal takes place.
- The disposal of the machine components must be delegated to authorized and qualified companies according to the regulations in force in the country where the disposal takes place.

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