



Instruction manual



2025-11-28

Undercounter dishwasher double skin 50x60 - 400 V NT 93

www.rmgaastro.com



OBSAH

1. DECLARATION OF CONFORMITY	3
2. TECHNICAL DATA	3
3. LOCATION ELECTRIC	3
4. SAFETY MEASURES FOR FIRE PROTECTION	3
5. INSTALLATION	4
6. WATER CONNECTION	4
7. CONNECTING THE ELECTRICAL CABLE TO THE NETWORK	4
8. INSTRUCTIONS FOR USE	6
9. CLEANING AND MAINTENANCE	14

1. DECLARATION OF CONFORMITY

Decree of the Ministry of Health of the Czech Republic no. 38/2001 Coll. of 19 January 2001 Regulation (EC) No 1907/2006 - Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation of the European Parliament and Council Regulation (EC) no. 1935/2004 of 27 October 2004

The products meet the requirements of §26 of Act No.258/2000 as amended. The products meet the requirements of RoHS Directive 2015/863/EU, 10/2011, 517/2014, 2015/1094, 2015/1095.

Attention, the manufacturer gives up any responsibility in case of direct and indirect damage that is related to poor installation, incorrect intervention or adjustments, insufficient maintenance, incorrect use and which are eventually caused by other causes than the points referred to in the conditions of sale. This appliance is intended only for professional use and must be operated by qualified persons. Parts that have been secured by the manufacturer or authorized worker after the setting rebuild.

2. TECHNICAL DATA

The label with technical data is located on the side or back panel of the device. Please read the wiring diagram and all the following information in the attached manual before installation.

Net Width [mm]	Net Depth [mm]	Net Height [mm]	Net Weight [kg]
600	850	850	61.00
Power electric [kW]	Loading	Basin volume [l]	
9.800	400 V / 3N - 50 Hz	23	

3. LOCATION ELECTRIC

For the correct operation and placement of the appliance, it is necessary to observe the following all prescribed standards for the given market. Unpack the device and check that the device has not been damaged during transport. Place the device on a horizontal surface (maximum unevenness up to 2°). Small unevenness can be leveled with adjustable feet. If the device will be placed in such a way that it will be in contact with the walls of the furniture, these must withstand a temperature of up to 60°C. Installation, adjustment, commissioning must be performed by a qualified person who is authorized to perform such operations, according to applicable standards. The device can be installed separately or in series with devices of our production. A minimum distance of 10 cm from flammable materials must be observed. In this case, it is necessary to secure the appropriate modifications to ensure the thermal insulation of the combustible parts. The appliance must only be installed on a non-flammable surface or against a non-flammable wall. **Parts of the appliance provided by the manufacturer. or his representative, the worker performing the installation may not rebuild the product.**

4. SAFETY MEASURES FOR FIRE PROTECTION

- the appliance may only be operated by adults
- the appliance may be used safely in accordance with applicable market standards:

Fire protection in spaces with special risk or danger

Protection against the effects of heat

- the appliance must be placed so that it stands or hangs firmly on a non-combustible surface

Objects of flammable substances must not be placed on the appliance at a distance less than a safe distance from it (the smallest distance between the appliance and flammable substances is 10 cm).

Table: degree of flammability of building materials included in st. flammability of substances and products

Degree of flammability	Building materials
A - non-flammable	granite, sandstone, concrete, brick, ceramic tiles, plaster
B - Not easily flammable	Acumin, Heraclitus, Lihnos, Itaver

Degree of flammability	Building materials
C1 - highly flammable	wood, hardwood, plywood, hard paper, umakart
C2 - moderately flammable	chipboards, solodur, cork boards, rubber, flooring
C3 - Highly flammable	wood fiber boards, polystyrene, polyurethane, PVC

- information on the degree of flammability of common building materials is given in the table above. Appliances must be installed in a safe manner. During installation, the relevant design, safety and hygiene regulations must also be respected:
- fire safety of local appliances and heat sources
- fire protection in areas with special risk or danger
- protection against the effects of heat

5. INSTALLATION

Important: The manufacturer does not provide any warranty for defects arising as a result of incorrect use, failure to follow the instructions contained in the attached user manual and mishandling of appliances. Installation, modification and repair of appliances for large kitchens, as well as their dismantling due to possible damage to the gas supply, can only be carried out on the basis of a maintenance contract, this contract can be concluded with an authorized dealer, while technical regulations and standards and regulations must be observed regarding installation, electrical supply, gas connection and work safety. Technical instructions for installation and adjustment, for use by specialized technicians ONLY. The instructions that follow refer to a technician qualified for installation to carry out all operations in the most correct manner and according to the applicable standards. Any activity related to regulation etc. must only be performed with the device disconnected from the network. If it is necessary to keep the appliance under voltage, the utmost care must be taken. The type of appliance for extraction is declared on the nameplate, it is an A1 appliance.

6. WATER CONNECTION

Water connection is done using G1/2 threaded hoses. The water supply must be fitted with separate closures that are freely accessible and within reach of the device. The device includes return valves. The water for filling the duplicator space must be softened - a maximum of 5 ° the French scale of water hardness. The water pressure must be in the range of 50-300 kPa.

7. CONNECTING THE ELECTRICAL CABLE TO THE NETWORK

Installation of the electrical supply - this supply must be separately secured. Ato with the corresponding circuit breaker of rated current depending on the power input of the installed device. Check the power consumption of the device on the production label on the back panel (or side) of the device. The connected ground wire must be longer than the other wires. Connect the device directly to the network, it is necessary to insert a switch between the device and the device with a minimum distance of 3 mm between the individual contacts, which corresponds to the applicable standards and load. The earth supply (yellow-green) must not be interrupted by this switch. Connect the device to the mains if the socket has adequate protection. In any case, the supply cable must be located so that it does not reach a temperature of 50 degrees higher than the environment at any point. Before the appliance is connected to the network, it is necessary to first make sure that:

- the supply circuit breaker and the internal distribution can withstand the current load of the appliance (see matrix label)
- the distribution board is equipped with effective grounding according to the standards of the relevant market and the conditions given by law
- the socket or switch in the supply is easily accessible from the appliance
- the electrical supply to the device must be made of oil-resistant material

We disclaim any responsibility in the event that these standards are not respected and in the event of

a violation of the above principles. Before first use, you must clean the device, see chapter "cleaning and maintenance". The appliance must be grounded using a screw with a grounding mark.

- Do not insert the plug of the power supply into the electrical outlet. sockets and do not pull out the zel. sockets with wet hands and pulling on the power cord!
- Do not use extension cords or multiple sockets.
- **The mains connection point must have a maximum of the following impedance: $Z_{MAX} = 0.042 + j 0.026 \Omega$ for the phase conductors and $0.028 + j 0.017 \Omega$ for the neutral conductor.**

Connection to the power grid

It is necessary to install a multi-pole type main switch that breaks all contacts, including the neutral conductor, with a gap between the contacts of at least 3 mm and with a thermo-magnetic safety trigger, or connected to fuses, rated or calibrated for the power specified on the nameplate of the appliance.

- The main switch must be installed in the electrical wiring close to the installation and must serve only one appliance.
- The mains voltage and frequency must correspond to the information on the nameplate.
- There must be an effective earthing system at the installation site in accordance with the applicable regulations for preventive protection to ensure the safety of both the operator and the appliance
- This device complies with EN/IEC 61000-3-11 certification if the system impedance Z_{sys} is less than or equal to Z_{max} at the interface point between the user's power system and the public system. It is the responsibility of the installer or user of the equipment to verify that the equipment is connected exclusively to a power supply with a system impedance of Z_{sys} less than or equal to Z_{max} .
- Power cable, exclusively type H07RN-F, current carrying capacity in mobile operation at 60 °C on the conductor:
 - Three-phase appliance
 - $5 \times 2.5 \text{ mm}^2$ up to 20 A
 - $5 \times 4 \text{ mm}^2$ up to 30 A
 - $5 \times 6 \text{ mm}^2$ up to 38 A
 - $5 \times 10 \text{ mm}^2$ up to 54 A
 - Single-phase appliance
 - $3 \times 1.5 \text{ mm}^2$ up to 16 A
 - $3 \times 2.5 \text{ mm}^2$ up to 25 A
- The cable must not be in tension or pinched during normal operation or routine maintenance.
- The appliance must still be connected to the equipotential system, which is connected with a screw with symbol 5021 of IEC 60417.
- The equipotential conductor must have a cross section of 10 mm^2 .
- Be sure to observe the correct polarity as indicated in the wiring diagram.
- Please refer to the attached wiring diagram for more information.

Connection to the water supply network

The appliance is connected to the water supply via a hose. There must be a shut-off valve between the mains water supply and the electrical valve of the appliance. The shut-off valve shall be installed on the pipework close to the appliance.

- The water supply, temperature and pressure must be in accordance with the information on the appliance's technical data plate.
- Check that the inlet flow is not less than 20 l/min.

- If the water hardness is higher than 14 °f (8 °dH), we recommend using an appliance with an internal softener. If the water hardness is greater than 35 °f (19.5 dH), we recommend installing an external softener in front of the electric valve.
- For appliances not equipped with a water softener; if the water hardness is greater than 14 °f (8 dH), we recommend installing an external softener before the electric valve.
- In case of very high concentrations of mineral deposits in water with high conductivity, we recommend installing a demineralisation device.
- Appliances intended for use with desalinated water or in any case with a high concentration of sodium chloride must be ordered separately as specific materials are required for their construction.
- Do not use demineralised water in appliances fitted with recycled copper heat recovery units. In these cases, request a version with stainless steel pipework faucets.

Connection to the waste pipe

The drain pipe must be a free siphon inlet of a size suitable for the drain hose supplied with the appliance. The hose shall reach the drain without stretching, straining, bending, pinching, squeezing or any other pressure.

- The drain is self-draining, so the drain must be lower than the bottom of the appliance.
- If the drain is not lower than the bottom of the appliance, a model equipped with a drain pump (available on request) can be used.
- In this case, the maximum height of the outflow may be 1 m.
- Always check that the drain is working properly and is not blocked.
- Any other solution must be agreed with and approved by the manufacturer in advance.

Polish and detergent

- The dispensing of the polish is carried out by means of the dispenser, which is installed as standard in the appliance if the model is equipped with one.
- The dosage is determined by the installer depending on the hardness of the water; the technician will also calibrate the dispensers.
- Before calibration, fill the dispenser supply lines with the appropriate product.
- Calibration is performed using the adjustment screws or, if possible, directly from the control panel.
- The liquid level in the reservoir must always be sufficient for dosing; it should never be completely emptying of the reservoir should not be allowed, nor should corrosives or products containing impurities be introduced into the reservoir.

NEVER use detergents containing CHLORINE or CHLORINES.

We definitely recommend installing an automatic detergent dispenser.

8. INSTRUCTIONS FOR USE

Explanatory notes and symbols (Fig. 1)

- 1 ON/OFF BUTTON
- 2 BUTTON FOR SETTING SPECIAL PROGRAMS
- 3 PROGRAM SELECTION BUTTON
- 4 START BUTTON
- 5 DISPLAY INFORMATION
- 6 STATUS BAR (LED)
- 7 CONTROL BAR (LED)

Switching on (Fig. 2)

Turn on the main electrical switch, open the outside tap.

- Check for the presence of an overflow if your model has one.
- Press the ON/OFF button (1).
- The CHECK BAR (7) will light up and change from red to green to indicate a check has been carried out. If a serious fault is detected, the LED bar will turn red and the appliance will switch off. Minor fault is signalled in orange and the appliance continues to operate.
- The water supply starts automatically when the appliance is switched on.
- The dot on the display will flash until the appliance reaches the desired water level.
- The status light (6) lights up from top to bottom to indicate the appliance is heating up.
- When the operating temperature is reached, the STATUS LIGHT (6) will remain permanently lit in green.
- The appliance has achieved optimal dishwashing conditions.

Basket preparation(Fig. 3)

To ensure that the appliance works properly, we recommend that you follow the following rules:

- Use the appropriate basket, making sure not to overfill it and not to put dishes over each other.
- Always remove dirt from dishes beforehand; do not put dishes with dried or solid residues in the dishwasher.
- Empty containers should be placed in the bin with the bottom up.
- Place plates and similar utensils in the appropriate basket, tilted, with the inside facing upwards.
- The various cutlery belongs in a special basket, with the handle facing downwards.
- Do not put silver and stainless steel cutlery in the bin with other cutlery, as the silver will tarnish and the steel may corrode.
- Wash dishes immediately after use to prevent food residue from sticking to them and hardening.
- Only wash undamaged, dishwasher-safe dishes in the dishwasher.

Selecting and starting a cycle

Press the PROGRAMME SELECT button (3) or the SPECIAL PROGRAMME SELECT button repeatedly (2) Select the wash cycle suitable for the type of dishes; the selected wash cycle will appear on the display (Fig. 4).

- Press the START button (4) to start the program, the STATUS BAR (6) will flash orange and increase from bottom to top to indicate the cycle time.
- When the cycle is complete, the bar lights up green (Fig. 5).
- If you want the dishes to dry quickly, take the basket out of the appliance immediately after the cycle has finished.
- To end the wash cycle early, press the START button (4).

Programs

PR 1 - For slightly dirty dishes, short programme.

PR 2 - For medium dirty dishes, medium programme.

PR 3 - For very dirty dishes, long programme.

CLE - Cycle of discharge and final self-cleaning, which is carried out at the end of the day.

dr - Discharge cycle.

Special Programmes

ECo - The reduced energy programme washes dishes in less water with less temperature compared to the normal wash cycle; well-washed dishes are achieved longer mechanical action time during washing.

Act/Act2 - The Intensive programme is designed for washing very dirty dishes with dried-on leftover food. The program performs 2 washes and 2 rinses.

StEE - The cutlery washing programme is suitable for washing forks, spoons, knives and other cutlery of all kinds kind of. This washing programme takes longer than the other programmes.

rEFr - Recommended if it is necessary to carry out a wash with a complete change of water in the wash bath, i.e. washing dishes several times that are soiled with large amounts of grease or oils. a complete water change in the bath requires a longer washing time.

PLAt - Program for Plates.

GLAS - Glass washing programme for the dishwasher. It is designed to wash glasses of all shapes and types. Washes with reduced rinse temperatures (requires longer drying time).

LonG - This is an extended cycle with varying lengths of time depending on the model. The cycle length can be changed at will by pressing the START button (4) during the wash, which interrupts the wash and switches on the rinse phase.

SAn - Recommended if you need to disinfect the dishes you are washing. This program checks the temperature and washing time and calculates the constant A0. The program ends when parameter A0 reaches a value of 30. The duration is variable and on average is around 20 minutes and the temperature of the wash water is approximately 70 °C.

NOTE: If you wish to have a value of A0 other than 30, please contact an authorised technician who will need to make a software change to the appliance.

PR 5 - Cycle designed for polished glasses. Used only in conjunction with a device with by reverse osmosis.

PR 6 - For very dirty dishes, long program (8').

PR 7 - For very dirty dishes, long programme (10).

Automatic cycle start

This function allows you to automatically start the selected cycle by closing the door. To activate it proceed as follows (Fig. 6):

- If the function is not activated from the factory, it must first be activated in the settings menu.
- With the appliance switched on and the door open, press the START button (for at least five seconds) (4) until the display shows AS.
- To switch off the function, press the START button (4) again for five seconds on an appliance with through the open door.

Removing the complete filter

- Set the washing and rinsing arms perpendicular to the edge of the door (Fig. 7).
- Lift each half of the filter by grasping the handle.

Draining the appliance

Appliances without drain pump

- Switch off the appliance.
- Remove the full filter, if fitted to the model (Fig. 7A).
- Pull the overlap upwards (Fig. 8 B).
- Wait until the tub is completely empty.
- If necessary, remove the sump filter and clean it (Fig. 8 C).

Appliances with drain cycle (*optional)

- If the model has a full filter, pull it out (Fig. 7).
- If the model has an overflow, pull upwards (Fig. 9)
- Close the door.
- Select the dr cycle
- Press the START button (4) to start the cycle.
- The appliance performs a drain cycle with self-cleaning (*if applicable to the model); then shuts off.
- If necessary, remove the sump filter and clean it (Fig. 8 C).

Switching off the appliance

- Press the ON/OFF button (1), the middle segments on the DISPLAY (5) will light up to indicate the presence of electrical voltage.

Resin regeneration (*optional)

For appliances equipped with a softener, the SALT light indicates that salt must be poured into the appropriate salt container; proceed as follows:

- Remove the basket from the appliance.
- Remove the complete filter (Fig. 7).
- Unscrew the cap of the salt container (Fig. 11).
- Using the funnel provided, pour in the table salt granules, approx. 700 g. (when filling for the first time, fill the hopper with water first)
- Close the tray tightly, press.

- Rinse the area around the salt container cap by hand and perform a self-cleaning cycle to prevent corrosion.
- The 'SALt' signal will go out after a few minutes.

The rEG indication on the display shows that the appliance is performing the resin regeneration cycle necessary to restore proper operation of the softener. Cycles may run longer than normal during the signaling period.

NOTE: Do not turn off the appliance if it is performing a regeneration cycle.

Information display

- By holding down the START button (4) for a few seconds, the temperature of the water heater in the bath and the number of cycles performed by the dishwasher can be displayed in turn.

This data can be displayed both before and during the cycle and will only be displayed for a certain period of time.

- By holding the PROGRAM SELECT button (3) down for a few seconds, the bath water heater temperature can be displayed permanently for all programs.
- This function can be cancelled by pressing the PROGRAM SELECT button (3) again for a few seconds.

List of displayed messages

door - Open door

b - Rinsing temperatures

t - washing temperature

rEG - Ongoing regeneration

SALt - Lack of salt in the softener

CY - Number of cycles performed

End - End of cycle

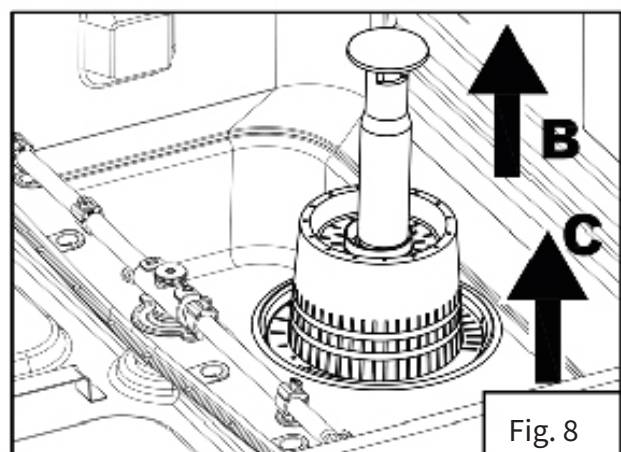
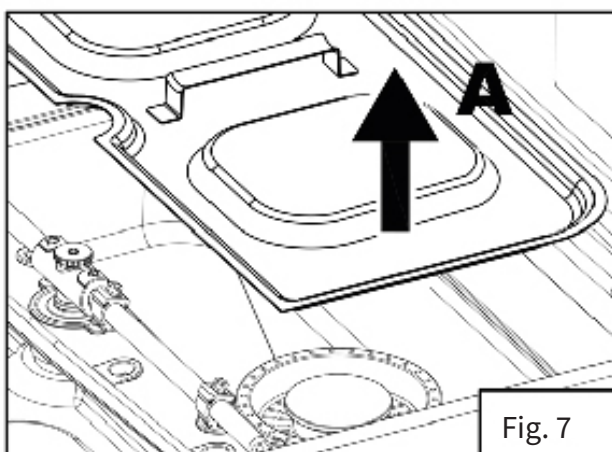
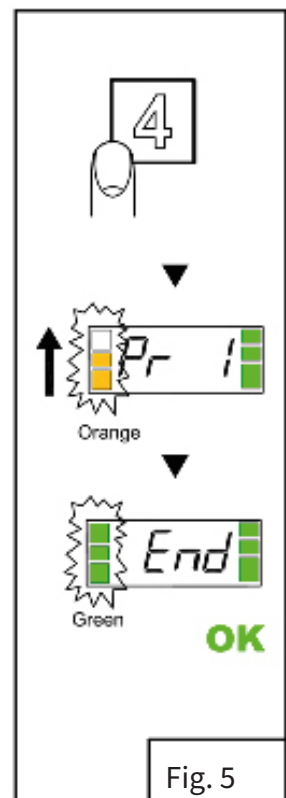
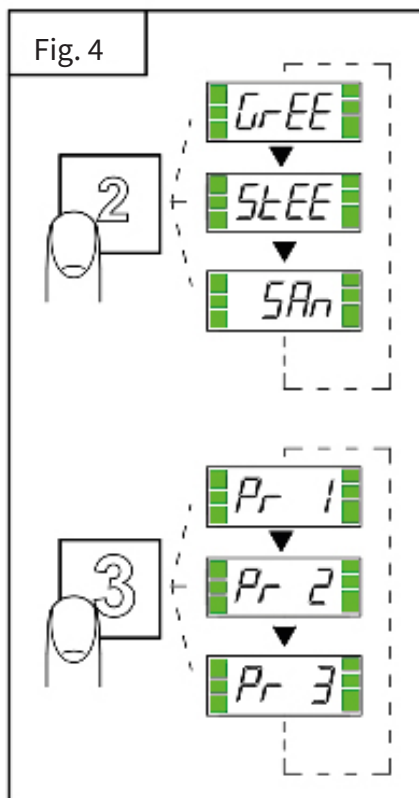
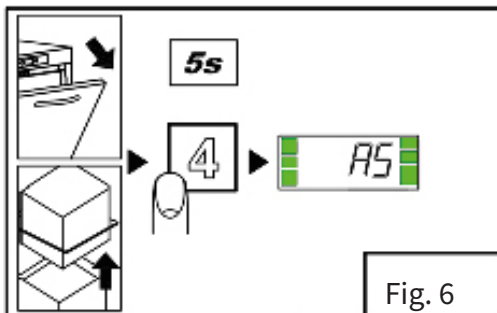
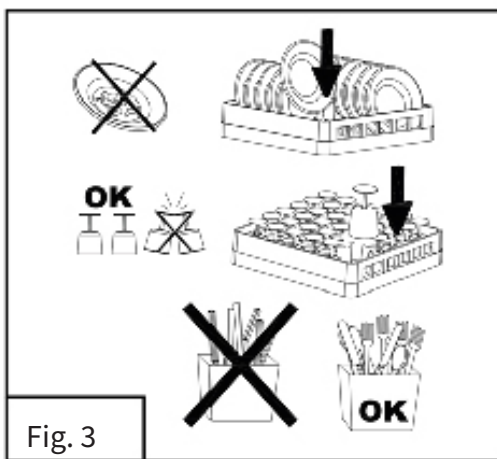
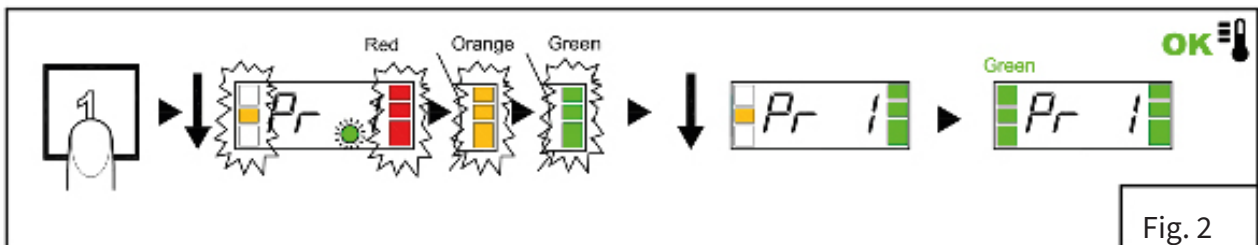
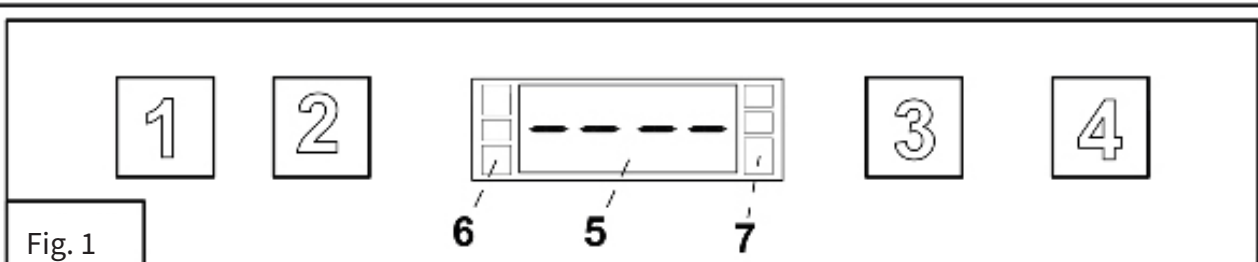
AS - Automatic start is active

LonG - Continuous washing

SErv - "Service"

Termination of operation

- Always drain the appliance at the end of the day as described in the section "Draining the appliance".
- Cut off the electrical supply using the main switch and close the outside tap.
- Carry out routine maintenance and cleaning of the appliance according to the instructions in the "Maintenance" section.
- If possible, leave the door of the dishwasher ajar to prevent unpleasant odours inside.



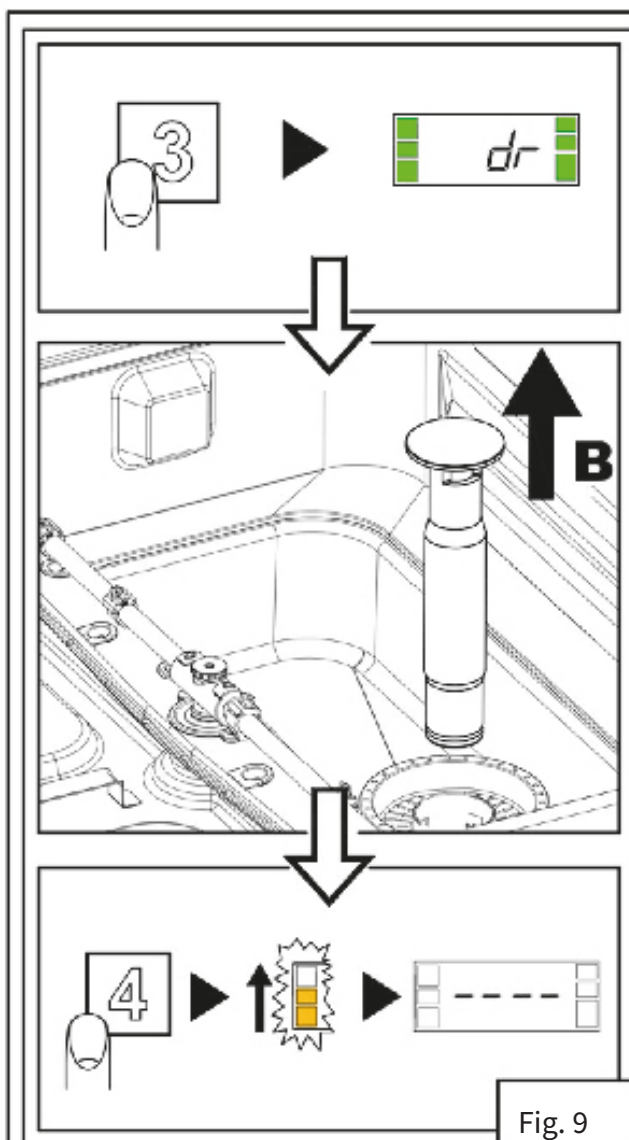


Fig. 9

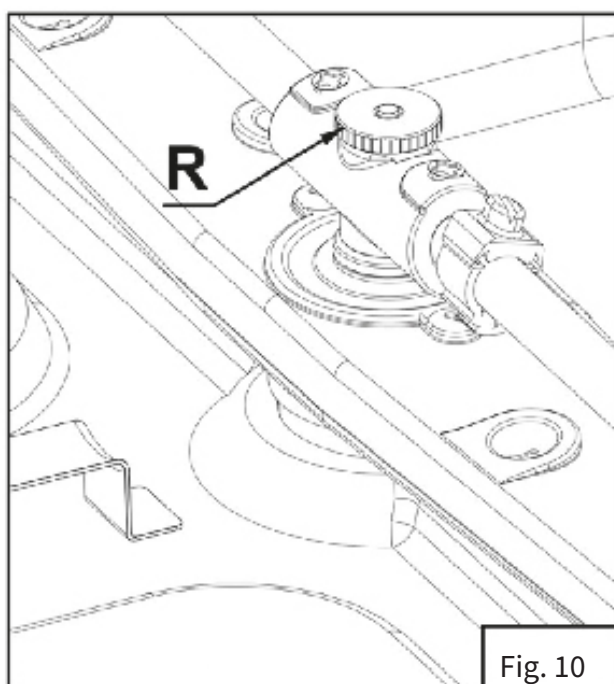
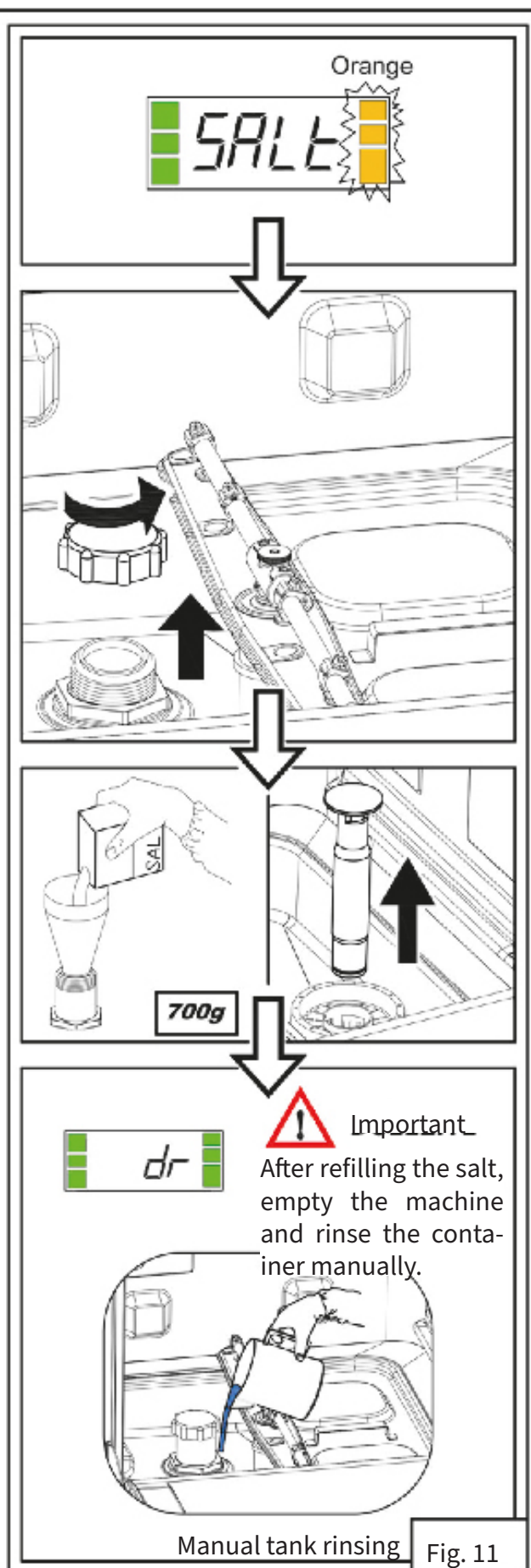


Fig. 10



AUTODIAGNOSTICS

The appliance is equipped with a self-diagnostic system and is capable of detecting and signalling a wide range of faults.

Failure	Description and possible solutions
Er01	No rinse. The surface rinse did not take place correctly. Check that the rinse nozzles are clean.
Er02	No water was released. The water is not draining, or it's not draining properly. Check to see if the drain hose is bent or not properly connected, or if the siphon or filters are clogged. For appliances equipped with an overflow, the overflow must be removed before starting the drain cycle.
Er03	Failure to restore rinse temperature. Heater temperature reset did not occur at the predetermined time during the wash cycle. Turn the appliance off and then back on and perform a new cycle.
Er04	Failure of water filling into the tank. Make sure all water connections are well connected and the tap is open. If there is an overflow in the dishwasher, check that it is in place. Turn the appliance off, then back on, and try filling it again.
Er05	Tank thermometer malfunction. (Sensor disconnected) The appliance does not detect the temperature value in the tank. Switch the appliance off and then on again.
Er06	Tank thermometer malfunction (sensor short circuit) The appliance does not detect the temperature value in the tank. Switch the appliance off and then on again.
Er07	Boiler thermometer malfunction. (Sensor disconnected) The appliance does not detect the boiler temperature value. Switch the appliance off and then on again.
Er08	Boiler thermometer malfunction. (Sensor short circuit) The appliance does not detect the boiler temperature value. Switch the appliance off and then on again.
Er09	Boiler filling time delay: the boiler is not filling. It is not possible to rinse. Check that the tap is open. Switch the appliance off, then on again, and carry out a new cycle.
Er21	Rinsing insufficient, rinsing not done in the right quantity. Check that the rinsing nozzles have been cleaned correctly. The appliance does not stop when an error is reported.
Er22	Tank temperature reset failure: the tank temperature reset did not occur at a predetermined time during the wash cycle. Turn the appliance off and then back on and perform a new cycle.
Er25	Performing external regeneration: the number of litres set for the external water treatment device has been reached, the error does not hinder the operation of the dishwasher, the message can be removed in menu setting 12.
ErSF	Electromechanical protection: the safety thermostats of the boiler or tank have been affected or the safety pressure switch for the tank level has been affected.
ErSL	Securing the level: Incorrect water level in the bathtub.
Coat of arms	Excessive boiler temperature: probable heating relay/ contactor failure.
Ert	Excessive tank temperature: probable failure of the relay/heater contactor.
drt	Clogged filter: improper water level in the bathtub caused by a dirty filter or an improperly inserted overflow.

Failure	Description and possible solutions
ErSI	Input Security Error: Irreversible error, contact Technical Assistance.
Er98	Soft start, I think: Error in the soft start system, contact Technical Assistance.
NO SALT	Lack of salt: in dishwashers with a softener, this indicates a lack of salt. Add salt.
NO DT	Lack of cleaning agent: Add detergent to the filling tank.
NO BL	Lack of polish: Add polish to the filling tank.
SERV	Maintenance Requirement: Routine maintenance is required if preset.
REG ON	Regeneration in progress: the water softener resin regeneration cycle is in progress.
REG REQ	Regeneration requirement: regeneration must be running if it is not automatically scheduled.
Er27	Boiler gradient error: the boiler heating is not working properly.
Er28	Tank gradient error: tank heating is not working properly.
Er99	Auxiliary card error: communication with the auxiliary card is not working properly.
Er30	Auto-opening error: on hood washers with automatic opening, the opening system is not working properly. Make sure that there is nothing obstructing the opening of the bonnet. If the problem persists, call a service centre.
Er31	Auto-close mode: on hood washers with automatic opening, the closing system does not work properly. Make sure that nothing obstructs the closing of the bonnet. If the problem persists, call a service centre.

Er33	Osmosis with minimum pressure: Make sure the water tap is open.
Er34	Osmosis water leak: close the electricity and water supply to the dishwasher, contact technical support.
Er35	Osmosis conductivity error: the system is not working properly, contact technical support.
Er36	Osmosis filter: the osmosis filter needs to be replaced, contact technical support.
Er37	Boiler heating time limit: The rinse water heater is not working properly, contact technical support.
Er38	Tank heating time limit: The wash water heating element is not working properly, contact technical support.
Er39	Boiler pressure switch failure.
Er40	Failure of the tank pressure switch.
Switching the appliance off and then on will "reset" the alarm; if the problem persists after following these instructions, contact an authorised service centre.	

9. CLEANING AND MAINTENANCE

It is recommended to have the device checked with a specialist service at least once a year. All the interventions in the device can only be carried out by a qualified person who has the authorization to do so.

CAUTION! The device must not be cleaned with direct or pressure water. Clean the equipment daily. Daily maintenance extends the life and efficiency of the equipment. Always turn off the main inlet to the device. Wash the stainless steel parts with a damp cloth with a detergent without coarse particles and wipe dry. Do not use abrasive or corrosive cleaning agents. Attention! Before using the device, it is necessary to remove the protective foil from the entire surface, and then wash it well with water with detergent, and then wipe it with a damp cloth. **ALERT!** The warranty does not apply to all consumables subject to normal wear (rubber seals, bulbs, glass and plastic parts, etc.). The warranty also does not apply to the device if the installation is not carried out in accordance with the instructions - an authorized worker according to the corresponding standards and if the equipment was unprofessionally manipulated (interventions in the internal equipment, etc.) or were operated by unhappy staff and contrary to the instructions for use, further The warranty does not apply to damage by natural effects or other external intervention. **Required service organization 2 times a year. After the lifetime, the shipping packaging and equipment are submitted to the collection, according to the regulations on waste management and hazardous waste.**