



INSTRUMENTS WASHER GW2050H

OPERATING INSTRUCTIONS MANUAL



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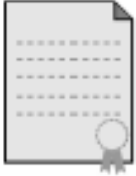
Our Technical Assistance Office staff can tell you how to operate
your appliance in the correct way or put you in contact with your
nearest Authorized Assistance Centre if necessary.

International customers, please contact your local SMEG distributor.

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1. INTRODUCTION



This manual is an integral part of the machine. It must be kept in a good condition and ready to hand for the entire life cycle of the machine. We advise you to carefully read this manual and all the instructions it contains before using the appliance.

This appliance conforms to the **EEC Directive 93/42** currently in force.

The appliance has been made in order to:

- **wash Surgical and Dental Instruments with Thermal Disinfection^(*);**
- **the appliance cannot be used to sterilize instruments or any other device.**

All other uses are considered improper.

The manufacturer declines all liability for uses differing from those indicated.

The manufacturer declines all responsibility for any possible damage caused by the washing of instruments whose manufacturers have not authorized to be automatically decontaminated.



The instrument washer complies with all the requisites established by the current safety standards governing electrical equipment. Technical inspections must only be made by specialized and authorized personnel: BESIDES VOIDING THE WARRANTY, REPAIRS MADE BY UNAUTHORIZED PERSONNEL MAY REPRESENT A DANGER HAZARD FOR THE USER.

(*) Treatment in the Instrument Washer can never be a substitute for sterilizing. Disinfection in the instrument washer is carried out to reduce the risks sustained by the persons who handle surgical instruments when preparing them for sterilization and to guarantee a better successive sterilization process.

2. GENERAL RECOMMENDATIONS



Never use solvents such as alcohol or turpentine in the appliance as they could cause an explosion. Never put instruments dirtied with ash, wax or paint in the appliance.

- Do not rest or sit on the open door of the instrument washer as this could cause the appliance to overturn and thus represent a danger hazard for persons.
- Never ever touch the heating element immediately after a washing cycle has terminated.
- The heating element could become slightly darkened during use of the instrument washer, even to a localized extent. This should be considered normal as it depends on the operating mode and does not impair the way the appliance works.
- At the end of its working life, the appliance must be rendered unusable. Cut off the power flex after having removed the plug from the power socket. The appliance must then be consigned to an authorized disposal center.
- If the appliance operates in a faulty way, unplug it from the electricity main, shut off the water cock and contact your nearest authorized Assistance Center.



Only open the door after the washing cycle has terminated.

If you open the door while a program is in progress, hot water, steam and other liquids will spill out and may injure the user. Only authorized and well-informed personnel are allowed to use the machine.

3. GENERAL SPECIFICATIONS

3.1. TECHNICAL FEATURES

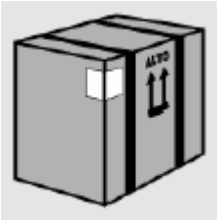
WATER SUPPLY	
TYPE OF WATER	COLD WATER
PRESSURE [BAR]	1-3,5
TYPE OF CONNECTION	¾"
MAX HARDNESS [°F] (CONDUCTIVITY)[μS/CM]	42°F
IRON [PPM] Fe MAX	< 0.5
DRAIN	ON FLOOR
HEIGHT [MM]	Min. 400
DIAMETER [MM]	Min 40

ELECTRIC POWER SOURCE	
TYPE OF VOLTAGE [tolerated variation ±10%]	230V
FREQUENCY [Hz]	50
POWER RATING [kW]	3.3
AUTOMATIC SWITCH ON MACHINE	In 20 A 1P+N 230V Icn 4500 A (IMQ brand)

DIMENSIONS		
HEIGHT	850	
DEPTH	600	
WIDTH	450	
NET WEIGHT [KG]	50	
Material used	Washing chamber AISI 316L	External cladding AISI 304

ENVIRONMENTAL CONDITIONS	
USE	Indoor
ALTITUDE	Up to 1000m
TEMPERATURE	From 5°C to 40°C
RELATIVE HUMIDITY	80% for temperatures up to 31°C with linear diminution down to 50% at the temperature of 40°C
INSTALLATION CATEGORY	II
POLLUTION DEGREE	2
CLASS TO WHICH APPLIANCE BELONGS	IIa(in compliance with the classification criteria established by DIRECTIVE 93/42)

3.2. LIFTING AND HANDLING



Before it leaves the factory, the base of the machine is fixed to a pallet which is then used to lift and transport the machine itself. The machine must be handled with a fork-lift truck or transpallet.

Do not use appliances damaged by transport! Consult your dealer if in doubt.


The appliance must only be installed and connected by personnel authorized by the manufacturer.

3.3. DOOR LOCKING SYSTEM

After unpacking, pay attention to the following: the machine is equipped with an automatic door locking/unlocking system.



The door is locked. Don't force the door, but follow the procedure below:

- . connect the machine to the mains supply;
- . push the button with the symbol 
- . push the button with the symbol of the key and after some seconds the door opens



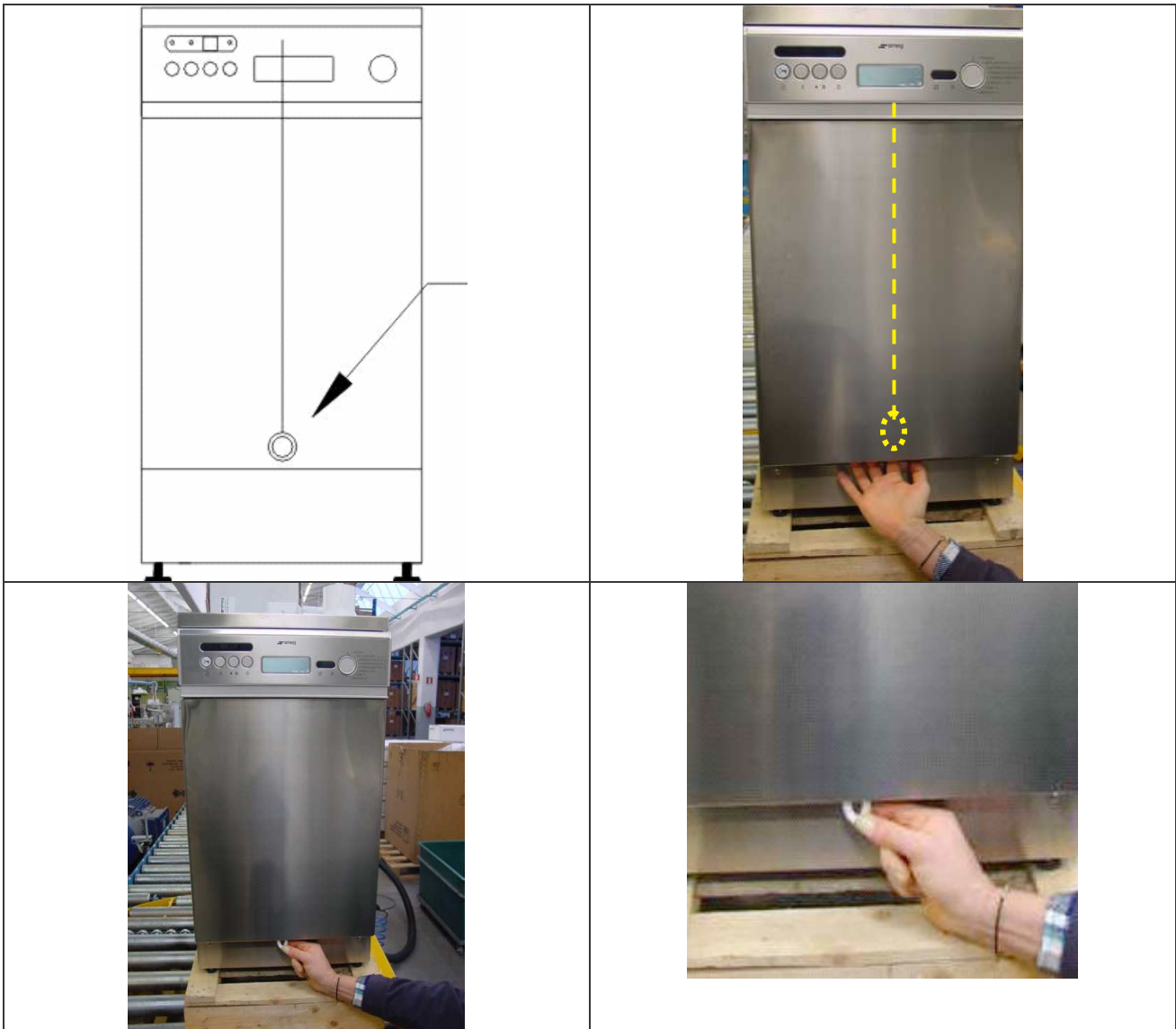
In order to open the door without connecting the machine to the mains, the manual unlocking procedure must be executed. Please, see §3.4 for further details.

3.4. MANUAL DOOR UNLOCKING



In case of emergency or in case of a power failure the door may be manually opened by means of a small ring under the door:

Pull the thread slowly with the ring till the characteristic "clack" is heard.



4. INSTALLATION



IMPORTANT: The machine must be positioned against the wall (minimum distance 10 mm) and must be installed by a technician authorized by the manufacturer. The technician who installs the machine is responsible for the appliance operating correctly after it has been installed. He is also obliged to provide the user with all the information required to use the machine in the correct way. All adjustments, servicing and so forth, must be carried out with the appliance disconnected from the electricity main.

The scratch-proof film must be removed from the external steel surfaces when the appliance is installed.

IT IS STRICTLY FORBIDDEN FOR UNAUTHORIZED PERSONS TO USE THE MACHINE.

4.1. POSITIONING

The side panels of the machine must adhere to the adjacent furniture and care must be taken to leave space at the rear: it is therefore advisable for the wall at the back to be made of brickwork or some other impermeable material.

The machine has pipes to supply and drain off the water. These can be positioned towards the right or left, depending on the installation requirements.

The machine can also be installed under a work top: this operation must be carried out by specialized personnel.

4.2. LEVELLING

Once the machine has been set in position, it must be levelled until horizontal (2 degrees tolerance allowed) by either screwing in the feet or unscrewing them.

Correct levelling will ensure that the machine operates in the right way.

4.3. CONNECTION TO THE WATER MAIN

Prevent the risk of clogging or damage to the appliance: if the water pipe is new or has remained unused for a long period of time, make sure that the water is limpid and free from impurities before connecting the machine to the water main.

The pipe is pre-engineered for connection to a cock with 3/4" gas threaded union on both ends.

Insert the supplied filters **A** before connecting the other ends of the pipes to their respective cocks (see *fig. 4.3.1*)

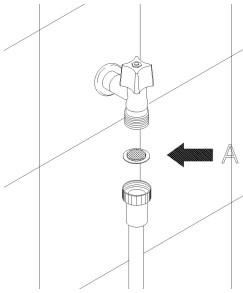


fig.4.3.1

It is advisable to allow the water to run in order to drain off any rusty deposits or sludge if connections are made with new pipes.

In case of blood-stained instruments make sure that the machine is not supplied with water at temperature higher than 40°C.



WARNING

- Make sure that the inlet pressure of the mains water is within the operating limits:
min. 2 bar max 3.5 bar



The water shutoff valves must be accessible



Always shut off the water supply cocks when the machine is not being used



CAUTION

Chemical characteristics of mains water that are not compatible with a good washing process

If the water contains more than 2 ppm of iron Fe^{2+}/Fe^{3+} and/or the hardness of the water is more than 45°F (French degrees), it must be pre-treated by installing a deferrization and/or softening system upstream.

4.4. WATER DRAIN CONNECTION

This machine has just one outlet hose.

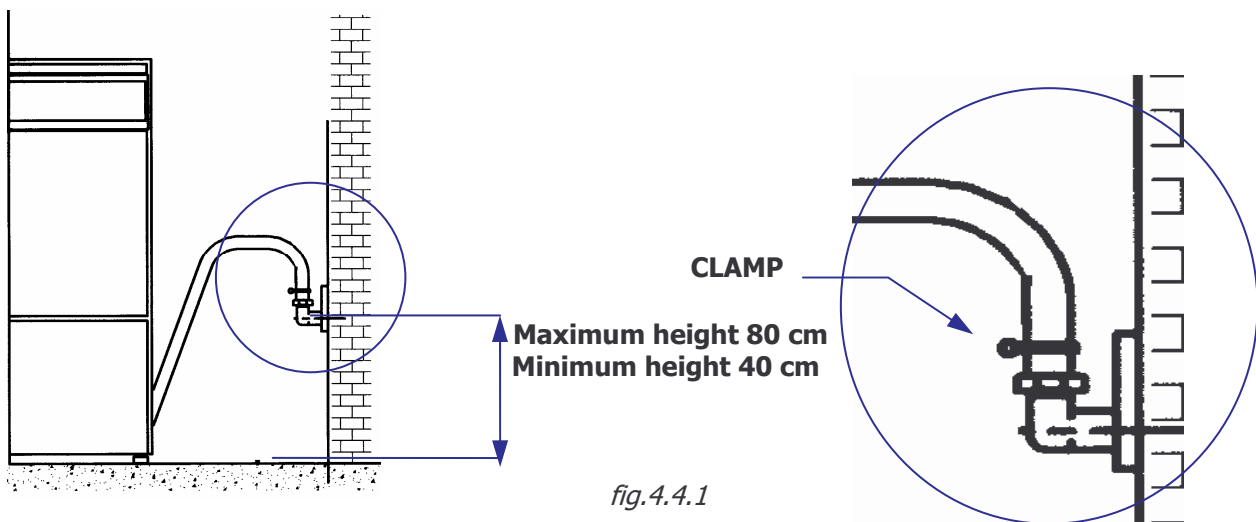
The internal diameter of the hose is 1/2" so it can be connected to any standard 1/2" hose adapter.

General rules for installing outlet

The washing water outlet hose must be placed with its curved section hooked onto the edge of a sink or waste pipe. A drain pipe with siphon should be used.

The following precautions should be observed during installation:

- As the water drain temperature may reach about 93°C the end of the outlet hose must be connected firmly to the drain by using clamps.



- The outlet hose must not have any tight bends liable to obstruct the flow;
- The end of the outlet hose must not be placed either more than 80cm or less than 40 cm above the surface on which the machine is installed;
- The end of the hose must under no circumstances be immersed in water;
- The internal diameter of the waste pipe must be at least 40 mm;
- We recommend installing a waste pipe of diameter 50 mm;
- If a waste pipe extension is used, it must not be longer than 1 meter and must have the same internal diameter. In this case the maximum height of the free end must be reduced from 80 cm to 50 cm.



WARNING

The drain connection must comply with international standards.

Our company will accept no liability for pollution caused by the machine.

4.5. ELECTRICAL CONNECTION

The machine is designed for connection to an electricity main with the following voltage rating:

- 1/ N / PE ~ 230V 50Hz.



WARNING

THE MACHINE IS EQUIPPED WITH A PLUG FOR CONNECTION TO THE ELECTRICITY MAIN: SINCE THIS IS THE ONLY DEVICE THAT SHUTS OFF THE POWER SUPPLY, IT MUST BE EASILY ACCESSIBLE TO THE USER. THE APPLIANCE MUST THEREFORE BE SET IN A POSITION WHERE IT IS EASY TO MANOEUVRE THE PLUG.



WARNING

IT IS ESSENTIAL TO CONNECT THE PLUG TO A SUITABLE ('SCHUKO' TYPE) SOCKET.

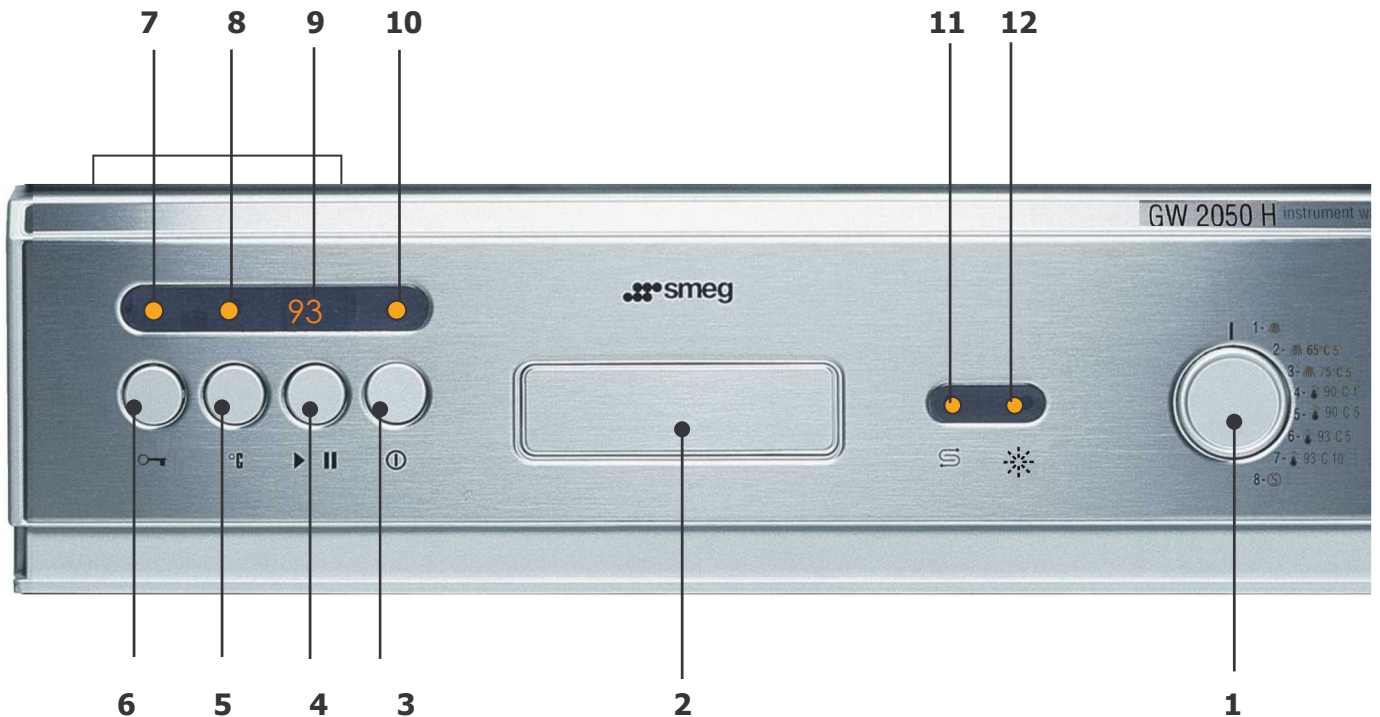


WARNING







It is essential for the electricity main to which the machine is connected to comply with the current standards in force (CEI 64-8/7;V2 standards). Always make sure that the ground connection is efficient. Our company declines all liability for damage caused by connection to a defective socket that fails to ensure a perfect connection to the general earth conductor, or by a poorly efficient grounding circuit.

5. DESCRIPTION OF THE CONTROLS

All the controls and indicators of the instrument washer are installed on the front panel.



- 1 **WASHING PROGRAM** SELECTOR
- 2 **ON/OFF** KEY
- 3 **"POWER ON"** INDICATOR LIGHT
- 4 **START/PAUSE** KEY
- 5 **TEMPERATURE DISPLAY** KEY
- 6 **FINAL CONDENSATION** KEY
- 7 **INFORMATION** DISPLAY
- 8 **TEMPERATURE DISPLAY** INDICATOR LIGHT
- 9 **FINAL CONDENSATION SELECTION** INDICATOR LIGHT
- 10 **"LOW SALT"** INDICATOR LIGHT
- 11 **"LOW NEUTRALIZING AGENT"** INDICATOR LIGHT
- 12 RECESSED HANDLE TO **OPEN DOOR**

	DOOR UNLOCKING		ON/OFF
	TEMPERATURE/TIME		SALT
	START/PAUSE		NEUTRALISING

5.1. WASHING PROGRAM SETTINGS

The instrument washer has a practical display that provides all the information the user needs to know about the functions programmed.

Consult the following table to select the required program. It gives the washing cycle most able to suit the nature of the instruments you need to wash and the degree of dirt involved.

Once you have found the most suitable washing program in the table, turn the PROGRAM SELECTOR knob (1) and select the desired program by setting it to the relative reference number.

The following is an indicative list of the type of washing cycles to which the available programs refer:

1. quick washing program using cold water
2. washing program at 60°C suitable for plastic ware;
3. washing program at 75°C suitable for standard glassware;
4. washing + disinfection at 90°C for 1' ($A_0 = 600$);
5. washing + disinfection at 90°C for 5' ($A_0 = 3.000$);
6. washing + disinfection at 93°C for 5' ($A_0 = 6.000$);
7. washing + disinfection at 93°C for 10' ($A_0 = 12.000$);
8. service program: use it to disinfect the washing chamber without any load inside

5.2. THERMAL DISINFECTION IN ACCORDANCE WITH THE PARAMETER 'A₀'

We introduce the A_0 concept to explain the time/temperature relationship used to draw up the programmes. According to pr EN ISO 15883 and the recommendations of the Robert Koch Institute (European authority on the subject), an A_0 of 600 is considered as the minimum standard for non-critical medical devices, i.e. for those that only come into contact with uninjured skin. A further condition required is that microbic contamination must only be slight and there must be no heat-resistant pathogens present. An A_0 value of 600 can be obtained by maintaining a temperature of 80°C for 10 minutes or 90°C for 1 minute or again, 70°C for 100 minutes.

If the medical devices are contaminated with heat-resistant viruses, such as those of hepatitis B, the value of A_0 must be at least 3000. This can be obtained by maintaining a temperature of 90°C for 5 minutes.

An A_0 value of 3000 is considered the minimum value to apply to all medical devices considered to be critical.

Programs that include thermal disinfection have therefore been designed to offer the following A_0 values:

Temperature – time	A_0
90°C 1'	600
90°C 5'	3000
93°C 5'	6000
93°C 10'	12000

The formula to calculate A_0 is given as follows

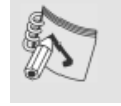
$$A_0 = \tau \cdot 10^{\left(\frac{T-80}{10}\right)} \quad \text{where:}$$

τ = holding time in seconds at the disinfection temperature

T = disinfection temperature in Celsius degrees

5.3. PROGRAMMES DESCRIPTION

DESCRIPTION OF THE PROGRAM								
PROGRAM NUMBER	PROGRAM NAME	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 0	TIME OR CYCLE
1	PREWASH	RINSING WITH MAINS WATER FOR 5'						6'
2	WASH 60°C	WASHING WITH MAINS WATER 60°C/5' AND DETERGENT	RINSING WITH MAINS WATER FOR 3'	NEUTRALIZING WITH ACID AGENT 3'	RINSING WITH MAINS WATER 60°C			50'
3	WASH 75°C	WASHING WITH MAINS WATER 75°C/3' AND DETERGENT	RINSING WITH MAINS WATER FOR 3'	NEUTRALIZING WITH ACID AGENT 3'	RINSING WITH MAINS WATER 60°C			1h
4	THERMAL-DISINFECTION 90°C 1'	WASHING WITH MAINS WATER 60°C/3' AND DETERGENT	RINSING WITH MAINS WATER FOR 3'	NEUTRALIZING WITH ACID AGENT 3'	THERMAL-DISINFECTION WITH DEMI WATER AT 90°C/1'		RESIN REGENERATION + WASHING	1h 05'
5	THERMAL-DISINFECTION 90°C 5'	WASHING WITH MAINS WATER 60°C/3' AND DETERGENT	RINSING WITH MAINS WATER FOR 3'	NEUTRALIZING WITH ACID AGENT 3'	THERMAL-DISINFECTION WITH DEMI WATER AT 90°C/5'		RESIN REGENERATION - WASHING	1h 10'
6	THERMAL-DISINFECTION 93°C 5'	WASHING WITH MAINS WATER 60°C/3' AND DETERGENT	WASHING WITH MAINS WATER AT 65°C/3' AND OPENING OF DETERGENT FLAP	NEUTRALIZING WITH ACID AGENT 3'	THERMAL-DISINFECTION WITH DEMI WATER AT 93°C/5'		RESIN REGENERATION + WASHING	1h 15'
7	THERMAL-DISINFECTION 93°C 10'	WASHING WITH MAINS WATER 60°C/3' AND DETERGENT	RINSING WITH MAINS WATER FOR 1'	NEUTRALIZING WITH ACID AGENT 3'	THERMAL-DISINFECTION WITH DEMI WATER AT 93°C/10'			1h 20'
8	REFRESH*	THERMAL-DISINFECTION WITH MAINS WATER AT 93°C/10'	RESIN REGENERATION + WASHING					45'



NOTE

Execution times are just as an indication: inlet water temperature or pressure may cause them to vary.

***Refresh:** This program must be considered a "service" program and must be used only to clean the washing chamber. In this case the detergent dispenser must be manually loaded with a 20-25ml quantity of **DENTAL AC**.
Once the program is terminated, perform Pr.1

Revision n° **06**

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Date of issue :


04/10/04

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5.4. MACHINE RUNNING

Note: the numbers indicated below in brackets refer to those that appear on page 14.



The machine is provided with an automatic door locking/unlocking system: to open the door connect the machine to the mains supply and press the ON/OFF key. The ON/OFF light comes on. At this point, press the key 



Press the **ON/OFF** key to power the instrument washer on. The "power on" indicator light will come on.

The door must be shut before any program can begin. Once the racks have been filled with the instruments, shut the door and proceed with the following operations.

To activate a washing cycle, select the required programme using the knob, then press the **START** button for a couple of seconds until the characteristic bip-bip signal is heard.

During the cycle, the display will alternately show the number of the program in progress and the time remaining before it ends.

The 'degrees indicator light will come on if the temperature key '°C' is pressed. In this case, the number of the program in progress and the value of the temperature in the washing chamber will be displayed alternately.

If you press the temperature key '°C' again the corresponding indicator light will come off and the display will alternately show the number of the program in progress and the time remaining before it ends.



WARNING

Never open the door whilst the program is in progress! Despite the fact that the machine is provided with microswitches that immediately turn off the washing pump and heating element, it is absolutely forbidden to open the door when the machine is operating.

5.5. RESIN WASHING PHASE

Message 'LA' flashes on the display in alternation with the program number during the resin washing phase.

5.6. RESIN REGENERATION PHASE

Message 'SA' flashes on the display in alternation with the program number during the resin regeneration phase.

5.7. PROGRAM TERMINATION

Message 'FP' appears and flashes on the display once the program has terminated: therefore, the washing cycle must be considered terminated only when this message appears. The door automatically opens at once.

NOTE At the end of a programme once the door has been opened, we recommend to make the drying of the instruments better by pulling the lower basket out of the washing chamber and then by letting it stay over the door for a few minutes.

5.8. IN PROGRESS PROGRAM INTERRUPTION

If the cycle is interrupted when in progress or the door is suddenly opened, the machine will access an alarm status and can only continue to operate after it has been **RESET**.

5.9. RESET PROCEDURE

In the event of an alarm or with the machine not responding to any keys, hold down together the temperature and start buttons successively for few seconds till the characteristic double beep sound is heard. Message 'P-' will appear on the display and the RESET procedure will begin.

'F-' flashes on the display at the end of the RESET phase.

In some circumstances (e.g. when the washing chamber is hot) the RESET procedure might not be accepted: in such a case open and close the door, then repeat the same procedure (e.g. after few minutes).



NOTE

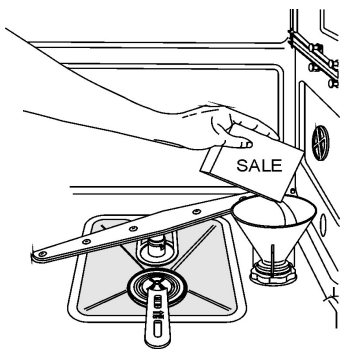
In any case, if the RESET procedure does not work, switch OFF and ON the machine and try again before calling the Technical Assistance.

6. OPERATING INSTRUCTIONS

After the instrument washer has been correctly installed, it must be prepared for operation in the following way:

- Pour in regenerating salt (only if necessary, i.e. with water harder than 10°F);
- Add detergent and neutralizing agent.

6.1. USE OF THE WATER SOFTENER



The lime content in the water (index of water hardness) is responsible for the whitish marks on dry instruments, which tend to become opaque as time goes by. The instrument washer has an automatic water softener which uses a specific regenerating salt to remove the hardening substances from the water.

fig.5.1.1

When water of medium hardness is used, new salt must be added after every 20 washes or so. The softener reservoir can hold about 1 kg of coarse salt. This reservoir is situated on the bottom of the instrument washer. After having removed the bottom rack, unscrew the plug from the reservoir by turning it in the anti-clockwise direction and pour in salt using the funnel supplied with the appliance. Before screwing the plug back on, remove any residues of salt from around the opening.



- When the instruments washer is used for the first time, pour 1Kg coarse salt in the reservoir and some water till the rim. Each time the reservoir is filled, make sure that the plug is screwed on with care. The mixture of water and detergent must not penetrate into the salt reservoir as this would impair the regeneration system. Besides, a salt leakage in the washing chamber may damage the instruments and the tank.

In this case, the warranty would become void.

- Only use regenerating salt for domestic instrument washers. Do not use kitchen salt!
- Do not use edible salt as it contains insoluble substances which would damage the softening system over a period of time.

- For each salt loading in the reservoir, perform a prewash (Pr.1) before starting a washing program.



WARNING

Make sure that you do not mistake salt packages for ones containing detergent: detergent would damage the water softener if it were to be poured into the reservoir.

6.2. USE OF THE DETERGENT AND NEUTRALIZING AGENT DISPENSERS

The detergent and neutralizing agent dispensers are installed on the inside part of the door: the detergent dispenser is on the left and the one for neutralizing agent on the right.

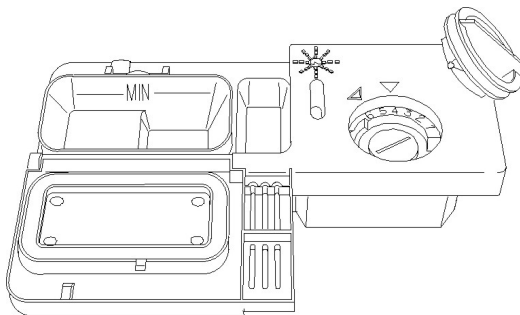


fig.6.2.1



With the exception of the Soaking program, the dispenser will add an adequate dose of detergent before each wash. Neutralizing agent for the rinsing phase is automatically added when required.



ADDITION OF NEUTRALIZING AGENT FOR RINSING

Neutralizing agent prevents stains and scaling from forming. It is added automatically to the water from the reservoir on the internal part of the door.

- Open the door;
- Turn the cover of the reservoir ¼ of a turn in the anti-clockwise direction and remove it.
- Pour in neutralizing agent until the container has been filled (approx. 144 cc.). The telltale at the side of the plug must fill completely. Add rinsing agent again when the telltale empties or the "low neutralizing agent" indicator light comes on.
- Fit the cover back on and turn it in the clockwise direction.

- Wipe off any spilt neutralizing agent with a cloth as it could produce foam.

HOW TO ADJUST THE DOSAGE OF NEUTRALIZING AGENT

The instrument washer leaves the factory with the medium setting (4 ml). However, the dosage can be adjusted by turning the selector on the dispenser to the required position. The dose will be proportional to the position of the selector.

To access the dosage adjuster, turn the plug on the reservoir $\frac{1}{4}$ of a turn in the clockwise direction and remove it.

Use a screwdriver to turn the dosage selector to the required position.

Fit the plug back on by turning it in the clockwise direction.

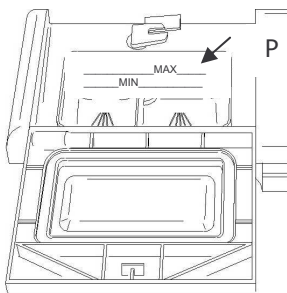
6.3. HOW TO ADD DETERGENT

Lightly depress button 'P' to open the cover of the detergent dispenser. Add detergent, then carefully close the cover again.

The dispenser holds about 50 cc. of detergent.

The dispenser is opened automatically during the washing cycle.

fig.6.3.1



Only use specific detergents for instrument washers. It is important to use a good quality detergent if optimum washing results are to be obtained.

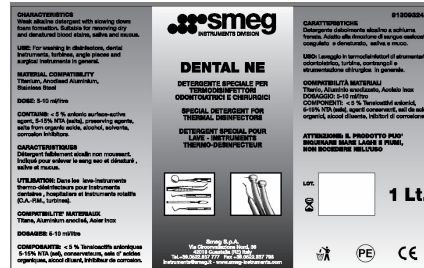
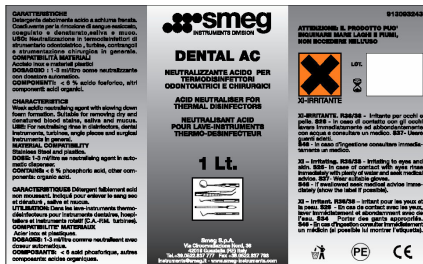
Keep the packs of detergent securely closed and in a dry place to prevent the formation of lumps which could compromise the washing results. After the packs have been opened, they must not be kept for too long as the detergent loses its efficacy.

We recommend to use 35-40 ml of **Smeg DENTAL NE**: this amount is reached when it is between the Max and

Min lines. Use the provided small measurer to pour in the detergent.

Dose the quantity of detergent in the correct way. Insufficient detergent will prevent the dirt from being completely eliminated while too much is merely wasteful, does not improve washing efficacy and it may stay as residue over the instruments.

USE OF PROPER DETERGENTS FOR DENTAL INSTRUMENTATION



There are essentially two kinds of detergents available for disinfection cycles of instruments:

- Low alkalinity liquid detergent (DENTAL NE, dose equal to 35-40 ml);
- Lightly acid neutralizing liquid agent (DENTAL AC, automatic dose).

Alkaline detergent is fitted to process stainless steel instruments. After the thermodisinfection phase with this kind of detergent, it occurs a rinsing phase with an acid neutralizing agent.

Low alkalinity liquid detergents are recommended to process delicate instruments like titanium turbine-type dental handpieces, contra-angles and so on. They work well with stainless steel instruments too.



WARNING

Do not use powder detergents to wash transmission instruments like turbine-type handpieces or contra-angles: this operation may cause serious damages to internal mechanisms and corrode the titanium surfaces.

Smeg will accept no liability for damages caused by this behaviour.



WARNING

Even when in liquid form, the addition of detergent to the neutralizing agent reservoir will impair washing efficiency.

7. ALARMS

The instrument washer is equipped with the following alarms.

All the alarm situations are quitted by means of the RESET procedure.

FAULT	DESCRIPTION
E1/E2	<i>The system that limits the level of the water in the instrument washer has activated. (Safety Level). Since this could be a temporary fault, attempt to start the machine again. Call the Assistance Service if the fault persists.</i>
E3	<i>The instrument washer is unable to heat the water.</i> This alarm activates when the machine is unable to raise the temperature of the water by at least 1°C in 3 minutes. After the RESET procedure, turn the machine off and on again. Contact your nearest authorized Assistance Center if the fault persists.
E4	<i>The temperature measuring system is faulty.</i> Call the Technical Assistance Service.
E5	<i>The instrument washer fails to fill with water.</i> Make sure that: the water fill cock is open; the filter on the water fill pipe inlet is not clogged; there are no throttles in the water fill pipe. Contact your nearest authorized Assistance Center if the fault persists.
E6	<i>The instrument washer fails to drain.</i> Make sure that: the drain hose is not crushed or clogged; the water drain pipe is not clogged; the filter of the instrument washer is not clogged. This alarm occurs when the filling pressure switch fails to reset within 3 minutes from the drain pump having started. Contact your nearest authorized Assistance Center if the fault persists.
E7/E9	<i>The machine is unable to correctly measure the quantity of water filled.</i> After the RESET procedure, turn the machine off and on again. Contact your nearest authorized Assistance Center if the fault persists.
EA	<i>The machine has been unable to terminate the current program for some reason.</i> This alarm activates in various situations: .when the machine is turned off during the heating phase with $T \geq 35^{\circ}\text{C}$; .when the door is opened and the temperature in the washing chamber is $\geq 35^{\circ}\text{C}$.when the program is stopped and the temperature in the washing chamber is $\geq 35^{\circ}\text{C}$ Contact your nearest authorized Assistance Center if the fault persists.

8. CLEANING AND MAINTENANCE



Remove the plug from the electricity main and shut the water cock before proceeding with any of the operations. To work in the correct way, you must also ensure that there is a free space of about one square meter in front of the machine.

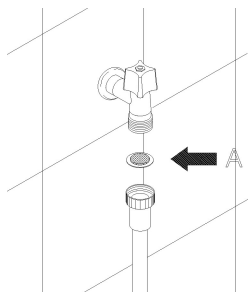
It is absolutely essential to use cables of the HT 105°C or H05V2-K type if damaged cables must be replaced.

8.1. RECOMMENDATIONS AND GENERAL ADVICE

General cleaning

The external surfaces and door frame of the instrument washer must be cleaned at regular intervals with a soft cloth soaked in water or a normal detergent for steel surfaces. The door seals must be cleaned with a damp sponge.

It is advisable to clean off any dirt that may have accumulated in the washing chamber or on the seals every so often (once or twice a year) using a soft cloth and water.



How to clean the water inlet filter

Water inlet filter A installed at the cock outlet must be periodically cleaned. First shut off the supply cock, then unscrew the end of the water fill plug, remove the filter A and clean it delicately under running water. Fit filter A back in its housing and carefully retighten the water fill pipe.

fig.8.1.1

How to clean the spray arms

The spray arms can be easily removed so that the nozzles can be periodically cleaned to prevent clogging. Wash them under running water and then fit them back in their housings. Make sure that their circular movement is not hindered in any way.

How to clean the filter unit

Central filter D must be periodically inspected and cleaned if necessary. To remove it, take hold of the handle, turn it in the anti-clockwise direction and then lift it upwards.

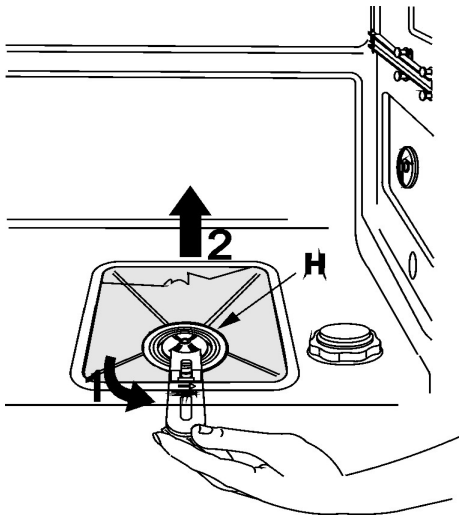


fig.8.1.2

Push central filter D under the filter to remove it from the filter micro and separate the two parts that form the plastic filter by pressing on the filter body in the place indicated by the arrows.

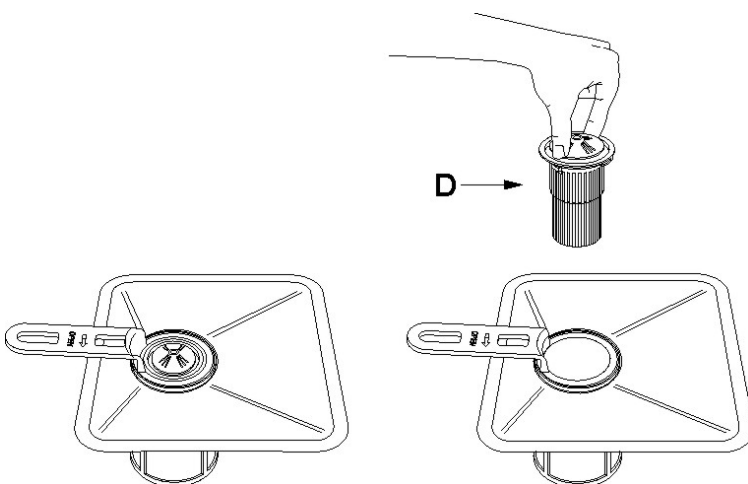


fig.8.1.3

Lift the central filter to remove it.

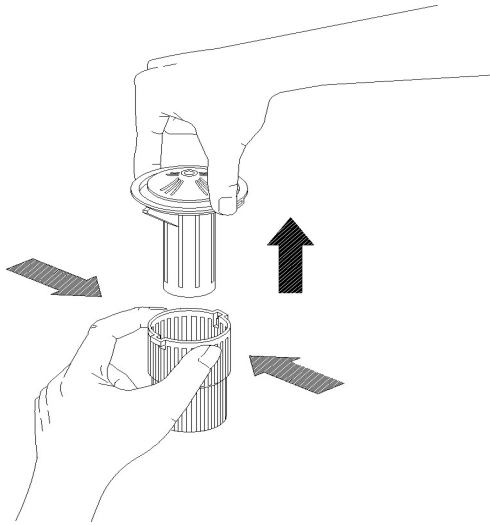


fig.8.1.4

Recommendations for correct maintenance

- The filters should be cleaned under running water using a hard brush.
- It is essential to clean the filters carefully according to the instructions given above: the instrument washer will be unable to operate if the filters are clogged.
- Fit the filters back in their housings with care, to prevent the washing pump from being damaged.

8.2. IF THE INSTRUMENT WASHER IS NOT USED FOR A LONG PERIOD OF TIME

- Carry out the soaking program twice consecutively.
- Remove the plug from the power socket.
- Leave the door slightly open to prevent unpleasant odours from forming inside the washing chamber.
- Shut off the water cock.

8.3. REUSE OF THE INSTRUMENT WASHER AFTER A LONG PERIOD OF INACTIVITY

- Make sure that there are no rust or sludge deposits in the pipes. If this is the case, allow water to run from the supply cock for a few minutes.
- Plug the machine into the electricity main.
- Re-connect the water supply hose and turn on the cock.

8.4. TROUBLESHOOTING

Slight faults can sometimes be eliminated by the user with the aid of the following instructions.

1. *If the program fails to start, make sure that:*

- the instrument washer is connected to the electricity main;
- the instrument washer is being powered;
- the water cock is open;
- the door of the instrument washer has been closed properly.

2. *If water stagnates in the instrument washer, make sure that:*

- the drain plug is not bent;
- the drain trap is not clogged;
- the filters of the instrument washer are not clogged.

3. *If the instruments are not cleaned properly, make sure that:*

- an adequate amount of detergent has been added;
- there is regenerating salt in the relative reservoir;
- the instruments have been positioned correctly;
- the program is suitable for the type and degree of dirt on the instruments;
- all the filters are clean and correctly seated;
- the holes in the water spray arms are not clogged;
- nothing is preventing the spray arms from turning.

4. *If the instruments fail to dry or remain opaque, make sure that:*

- there is neutralizing agent in the relative container;
- the neutralizing agent dispenser has been regulated in the correct way;
- the detergent used is of good quality and has not lost its characteristics (e.g. owing to incorrect storage, pack left open, etc.).

5. *If the instruments are streaked, stained... make sure that:*

- the amount of neutralizing agent dispensed is not excessive.

6. *If there are visible traces of rust in the washing chamber*

- The washing chamber is made of corrosion-proof steel, thus rust stains are due to external factors (pieces of rust from the water pipes, etc.). Specific products are available in the shops to eliminate these stains..
- Make sure that the detergent dosage is correct. Some detergents can be more corrosive than others.
- Make sure that the salt reservoir plug is firmly closed and that the water softener system has been correctly regulated.

Contact your nearest authorized technical assistance center if the faults persist after compliance with the instructions given above.



WARNING

Repairs to the appliance by unauthorized personnel are not covered by the warranty and are at the user's charge.

9. ROUTINE CHECKS

9.1. DAYLY

- a) control the neutralizing agent level: fill it up, if necessary
- b) check the sprinklers movement and their cleanliness

9.2. WEEKLY

- a) clean the sump filter,
- b) perform Pr.8 without any load to clean and disinfect the washing chamber

9.3. HALF YEARLY

- a) check the filter status of the electrovalves: clean them if necessary, by making hot water flow backwards;
- b) check the tubes status.

9.4. YEARLY

At the end of the warranty period and over the successive years, call the nearest Smeg authorized assistance centre in order to execute a complete check-up of the machine.



WARNING

In no case may SMEG be held liable for any direct or indirect damages deriving from or in relation to inobservance of the above described checks.

INSTRUMENT WASHER GW2050H

Max Power: 3.3 kW

Power supply: ~ 230V 50Hz 1/N/PE

Water supply: cold water

