

Operating Instructions Manual for VENDED washers

GIRBAU, SA

Crta de Manlleu, km. 1
08500 VIC (Barcelona) • SPAIN

National sales:

T.(+ 34) 902 300 359

comercial@girbau.es

International sales:

T.(+ 34) 938 862 219

sales@girbau.es

Service:

T.(+ 34) 902 300 357

sat@girbau.es

www.girbau.es

For **USA** and **CANADA**:

CONTINENTAL GIRBAU Inc.

2500 State Road 44

WI 54904 Oshkosh • USA

Tel. 1(920) 231-8222

info@continentalgirbau.com

www.continentalgirbau.com



EN COIN CONTROL PROFIT PLUS CONTROL

HS-6/EH
RMS/RMG/REM

Models High speed	From software version
HS-6008	45
HS-6013	45
HS-6017	45
HS-6023	45
HS-6024	80
HS-6032	78
EH020	45
EH030	45
EH040	45
EH055	45
EH060	80
EH080	78
EH090	45
Models Medium speed	From software version
RMS610	45
RMS/RMG613	80
RMS/RMG617	80
RMS/RMG623	80
RMS/RMG628	80
REM025	45
REM/RMG033	80
REM/RMG040	80
REM/RMG055	80
REM/RMG070	80

CONTENTS	3
SAFETY INSTRUCTIONS	5
1. INTRODUCTION AND APPLICATION	9
2. DESCRIPTION	9
2.1. Intended use of the washing machine	9
2.2. Construction characteristics	9
2.3. Protection, safety and control elements	10
2.4. Safety functions	10
2.5. Characteristics of the control	10
3. MODES OF USE	11
4. PROGRAM EXECUTION MODE	12
4.1. Control panel	12
4.1.1. Machines with COIN CONTROL	12
4.1.2. Machines with PROFIT PLUS CONTROL	12
4.2. Loading the washing machine	13
4.3. Using the dispenser	14
4.4. Starting a program	16
4.4.1. Machines with COIN CONTROL	16
4.4.2. Machines with PROFIT PLUS CONTROL	16
4.4.3. Door lock	16
4.5. Program application and contents	17
4.6. Unbalance control	18
4.7. Stop modes	19
4.7.1. End of cycle and door opening	19
4.7.2. Pressing the STOP key	19
4.7.3. Interruption of the power supply	20
5. ADVANCED USE MODE	21
5.1. Access to the ADVANCED USE MODE	21
6. MODIFICATION OF THE PROGRAM CONTENTS. Menu Pro	21
6.1. Master program	22
6.2. Original content of the programs	22
6.2.1. Program contents	22
6.2.2. Program contents. USA configuration	23
6.3. Definition of phases	24
6.4. Definition of programmable functions and values for each phase	24
6.5. Modifying a program	25
7. OPERATION MODE WITH PROGRAM ACCELERATOR. dEmo Menu	29
8. INFORMATION MENU. InFO menu	29
9. MODIFICATION OF OPERATING PARAMETERS. Mod menu	30
9.1. Parameters modification	30
10. MODIFICATION OF ACCESS CODE TO ADVANCED MODE. NCod menu	34
11. PROGRAM PRICE. CASH Menu	35
11.1. Single price for each program	35
11.2. Programs price based on time bands	35
11.2.1. Hour Menu	36
11.2.2. CALE menu	36
11.2.3. CASH Menu	37
12. EXTRA OPTIONS MENU. EoPt menu	39
13. TROUBLESHOOTING	41
13.1. Freeing a trapped person	41
13.2. Manually releasing of the safety lock	41
13.3. Disassembling the door of the washing machine	42
13.4. What to do when	43
13.5. System alarms	44

14. MAINTENANCE	45
14.1. Cleaning the washer	45
14.2. Cleaning the door seal	45
14.3. Cleaning the solenoid valve filters	46
14.4. Checking safety mechanisms	46
14.4.1. Checking the door lock.....	46
14.4.2. Verify the general Emergency Stop of the laundry	47
14.5. Cleaning the dispenser	48
14.5.1. Washers with front dispenser	48
14.5.2. Washers with top dispenser	48
14.6. Cleaning the drain pump	49
14.7. Checking the condition of the bearing housing seals	49
14.8. General Overhaul.....	49
15. WITHDRAWING FROM SERVICE	50



IMPORTANT SAFETY INSTRUCTIONS

WARNING: To reduce the risk of fire, electric shock or injury to persons when using the machine, follow basic precautions, including the following:

1. **READ** all instructions before using the machine, and **KEEP** them in a prominent location for customer use.
2. Do not wash articles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry cleaning solvents, and other flammable or explosive substances as they **GIVE OFF VAPOURS** that could ignite or explode.
3. **DO NOT ADD** petrol, dry-cleaning solvents, or other flammable or explosive substances to the wash water. These substances give off vapours that could ignite or explode.
4. Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. **HYDROGEN GAS IS EXPLOSIVE**. If the hot water system has not been used for such a period, before using the washing machine, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. As the gas is flammable, do not smoke or use an open flame during this time.
5. Do not allow children to play on or in the washer. **CLOSE SUPERVISION** of children is necessary when the washer is used near children.
6. Before the washer is removed from service or discarded, **REMOVE** the door.
7. **DO NOT TRY TO OPEN THE WASHER'S DOOR** if the drum is moving.
8. Do not install or store the washer where it will be exposed to the **WEATHER**.
9. **DO NOT TAMPER** with controls.
10. **DO NOT REPAIR OR REPLACE** any part of the washer or attempt any servicing, unless this is specifically recommended in the user instructions or in published user-repair instructions that you understand and have the skills to carry out.
11. **DO NOT REMOVE** any safety device **OR MODIFY OR MANIPULATE** any component or part of the machine. **DO NOT INSTALL** any extra elements inside the machine.
12. Any part of the machine that is replaced may affect its operation and the user's safety. For this reason, **USE ONLY THE MANUFACTURER'S ORIGINAL SPARE PARTS**. Failure to comply with this warning can cause serious accidents, malfunctions and the loss of the machine's guarantee and certifications.
13. Failure to comply with or observe the legislation and regulations covering health, safety and prevention of risks in the workplace applicable in the country where the machine has been installed, or actions contrary to common sense, **MAY CAUSE** personal injury or even death to the user.
14. The machine should only be used for those purposes established by the manufacturer and following the instructions for use set out in the instruction manuals. Any use not specified in the manuals may lead to additional risks. Pay special attention to information headed DANGER, WARNING and PRECAUTION.
15. The room where the machine is located **MUST** comply with the environmental conditions (air venting, temperature, humidity, etc.) specified in the technical specifications table. **NEVER INSTALL THE MACHINE IN ENVIRONMENTS** where it will be splashed with water or where there is a very high level of humidity in the atmosphere.
16. Clearly mark out danger areas and **PREVENT** public access to them when the machine is operating. Do not expose yourself to drainage areas or to vapour, condensation, combustion gas or ventilation outlets.
17. All machines working at temperatures present a fire risk. Take **EXTREME** care: **CLEAN** the machine of inflammable materials: lint, fluff, soot, etc. on a regular basis. **KEEP** the environment free of combustible materials and **PLACE** suitable extinguishers near the machine in easily accessible places.

18. All installations required for the proper operation of the machine **MUST** be carried out by a duly accredited Registered Installation Contractors (see Note 3), in compliance with the legal regulations applicable in the country of use.
19. The machine **MUST** be commissioned by the Authorised Technical Service in the presence of the Customer Technical Service (see Notes 2 and 4) or a responsible person appointed by the customer.
20. This machine **MUST BE USED** by personnel who are properly trained in how to use it (see Note 1).
21. **NEVER START THE MACHINE, OR USE IT, IF THE FOLLOWING ARE ABSENT, INCORRECTLY POSITIONED OR MALFUNCTIONING:**
 - COVERS (GUARDS) AND PROTECTIVE DEVICES
 - SAFETY DEVICES
 - CONTROL ELEMENTS
22. **DO NOT USE** the machine if you notice any abnormal noise or smell or if you suspect that the machine is faulty or defective.
23. The inspections required by the regulations applicable to the country where the machine is being used must be carried out. It is advisable to request an overall, detailed service of the machine by the Authorised Technical Service every year (see Note 2).

24.  **WARNING!**
INSPECTION, MAINTENANCE OR REPAIR OPERATIONS

Before carrying out any action on the machine:

- Close and mechanically lock the manual fluid supply valves.
- Check that the bath has **COMPLETELY** drained, that no part of the machine is at a high temperature and that no circuits or containers are under pressure.
- Check that all the machine's moving parts are halted or in their rest position. Securely fix all the machine's moving parts that could cause an accident.

To reduce the risk of electric shock:

- **COMPLETELY** disconnect the machine from the mains power supply and take steps to prevent accidental reconnection. **TURNING OFF THE ON SWITCH OR PRESSING THE STOP KEY IS NOT ENOUGH.**
- Disconnect the electrical connection of any circuit external to the machine; for example external dosing equipment, central vending units, linen feeders or folders, etc. The electrical connection for these circuits is independent of the machine's electrical connection.
- To prevent the risk of electrical discharge caused by residual voltage, wait at least five minutes before removing any guard or cover from the machine.

Failure to follow these warnings may cause a serious accident.

25. **CONTACT** the Installation Contractors or the Authorised Technical Service (see Notes 3 and 2) in the event of any doubt, anomaly or problem.
26. It is advisable to copy and enlarge the **SAFETY INSTRUCTIONS** and place them in a visible place in the laundry.
27. **THE MANUFACTURER ACCEPTS NO RESPONSIBILITY IF THESE SAFETY INSTRUCTIONS AND ALL THE INFORMATION IN THE CORRESPONDING MANUALS ARE NOT FOLLOWED.**

SAVE THIS INSTRUCTIONS.

SYMBOLS USED IN MACHINE LABELLING

	Electrical risk Protective guard for elements carrying an electric current.		High temperature risk Handle with caution. Use adequate protection.
	Mechanical risk Protective guard for moving parts.		Risk of inhaling harmful or irritant vapours Keep the doors/covers closed. Use adequate protection.
	Flame risk (only on some machines) Protective guard for flame.		Risk of falling Use proper access and safety methods.
	Access prohibited		Refer to instruction manual/booklet

SYMBOLS USED IN THIS MANUAL

	Symbol used to highlight a possible HAZARD, WARNING or NOTE.		This symbol is used to emphasise a particular explanation.
---	--	---	--

TRANSLATION OF THE ORIGINAL MANUAL

NOTES:

- (1) **Trained personnel** refers to those who have read and understood the Instruction Manual, who have been trained by the Authorised Technical Service or by a representative of the customer present at the start-up who is familiar with the operation of the machine and is authorised to use it.
- (2) **Authorised Technical Service (ATS)** is one that has been recognised under contract and properly trained by the manufacturer.
- (3) **Registered Installation Contractors** are those officially approved by the government of the country the machine is to be installed.
- (4) **Customer Technical Service (CTS)** is one that has been authorised by the customer and which has sufficient basic technical knowledge to correctly interpret and carry out the actions attributed to it in this manual. The manufacturer strongly recommends that the customer should have its own technical service, particularly in laundries with large-scale machinery installations.

IMPORTANT INSTRUCTIONS FOR USE AND PRESERVATION

1. **INTENDED USE OF THE MACHINE AND INAPPROPRIATE USE.** This machine is designed and intended solely for processing fabrics washed in a water bath or that have been previously treated in these conditions. Any use other than this is contraindicated without written authorisation from the manufacturer.
2. Maximum output, performance, reliability and durability are achieved when the machine is installed, used and maintained correctly, and if a comprehensive and detailed service is carried out annually by the Authorised Technical Service.
3. The machine's **MATERIALS** that are in direct contact with the chemical products involved in treating the linen are detailed in the manual.
4. The user must consult the supplier of the chemical products **USED THROUGHOUT THE WHOLE LINEN TREATMENT PROCESS** regarding the risks associated with its products and their combination. It must be confirmed that the products are not flammable, **ARE MUTUALLY COMPATIBLE**, and that they will not cause oxidation or deterioration of the machine or any injury to the people using them.
It should be borne in mind that in certain conditions of use, hypochlorite (bleach) can generate chlorine gas. Chlorine is a corrosive and oxidising substance which, at high concentrations and temperature, deteriorates stainless steel and elastomers.
There are other highly oxidising agents, such as the ozone, that can have the same effect.
5. **FOLLOW** the treatment recommendations for each fabric indicated by its manufacturer. **THE MANUFACTURER OF THE MACHINE accepts no responsibility for damage caused by inappropriate treatment of a fabric.**
6. Periodically **CLEAN** the outside of the machine to prevent damage to its metal parts. This will improve safety and extend its life. To clean the machine, use water and detergent. Rinse with a damp cloth and then dry off. To remove accumulated lint, use a suitable vacuum cleaner. **Cleaning with water jets or pressurised steam is prohibited.**
7. **NEVER** use harsh products to clean the machine and laundry room. Some products on the market give off highly corrosive gases.
8. If machine is left idle for long periods of time, it must be **PROTECTED** from humidity and temperature variations.
9. Faults arising from improper machine operation may **VOID THE WARRANTY.**
10. When asking for information on your machine, **MENTION** the model and serial number. This information can be found on the specification nameplate incorporated into the machine.

With every machine, the manufacturer provides all the necessary technical information and documents required for its use. **KEEP IT IN GOOD CONDITION.**

1. INTRODUCTION AND APPLICATION

This manual contains the OPERATION and ADVANCED USE MODE instructions for washing machines with **COIN CONTROL system with or without extra options**.

Application

This manual applies to the following models:

HS, EH, RMS610, REM025 models with software version 31 or higher
RMS, RMG and REM models with software version 65 or higher

2. DESCRIPTION

**Washer extractor designed to wash or treat fabric in a water bath.
Control designed primarily for use in coin-op laundries.**

2.1. Intended use of the washing machine

This machine has been made and designed for washing or treating textile materials in a water bath. These textile materials must be free of flammable or explosive products. Unless approved by the manufacturer in writing, it is not considered appropriate for any other use.

Under-loading as well as overloading is not recommended. Always endeavour to match the capacity of the machine.

It is not advisable to insert bags full of laundry. Where necessary, load the machine up to its set limit.

It is not recommended to spin carpeting, canvas or waterproof fabrics.

2.2. Construction characteristics

- **HIGH SPEED MODELS (HS / EH).** Washing machines capable of spinning at a speed higher than 350G (280G in model HS-6008/EH020) and up to 400G without needing to be bolted down. The design of its suspension system cushions up to 95% of the vibrations produced during the spin cycle.
- **MEDIUM SPEED MODELS (RMS/REM/RMG).** Hard-mount construction. They have to be bolted down to the floor.
 - Approximate spin speed: 125G, 150G, on models **RMS, REM**.
 - Spin speed: 200G on models **RMG**.
- **Stainless steel inner and outer drum.** The openings in the drum blades promote the uniform distribution of bath water and improve the yield of the washer both during the wash and the rinse cycles.
- **The drum rotation is produced by an asynchronous AC motor** controlled by an inverter.
- **The hot and cold water connections** have a safety mechanism to prevent contaminating by back-flowing into the general drinking water system.
- **Large capacity drain valve.** (Option for pump drainage in models HS-6008/EH020).
- **Water inlets** and all product dispensers made using a common collector with an anti-siphon mechanism.
- **Option for heating** the bath using electric heaters or steam injection.

2.3. Protection, safety and control elements

- **Fixed guards:** Covers. These prevent access to dangerous points or moving parts. Protect from accidental machine spattering.
- **Moving guards:**
 - Dispenser cover.
 - Door with interlock microswitch, door lock and delayed opening.
- **Overflow.** When the bath level is exceeded due to solenoid valve failure, the bath is drained through the drain outlet.
- **Thermal fuse** to protect the electric heaters.
- **Electric circuit safety measures:** To protect the electric circuit against external malfunctions and prevent any malfunctioning from causing harm to the operator.
- **Sound alarm:** Among other functions, the acoustic signal warns of possible alarms.
- **Unbalance microswitch.** (Only in high speed models). Additional electromechanical safety to protect against unbalance of drum load during the spin cycle.

2.4. Safety functions

- **Bath level control.** Allows selecting different bath levels during the wash cycle and controls the overflow safety and minimum level of connection to the heating system and door opening.
- **Temperature control.** Allows selecting the bath temperature during the wash cycle and controls the bath insufficient temperature and overheat safeties.
- **Unbalance control.** Repositioning of the washer's load if the inverter power control detects unbalance.
- **Door opening safety.** Allows the opening of the door in safety conditions.
- **Safety measures against entrapment.** To reduce the risk of a child becoming trapped inside a washing machine while playing, or to help in freeing them during the first moments of launching a program, the running sequence of a wash cycle is as follows:
After giving the start order, a 30-second safety time is started during which the drum rotation and the water inlet operate at short impulses and door remains released. Further information in Sections: Freeing a trapped person (Chapter 9) and Stopping methods (Chapter 4).

2.5. Characteristics of the control

- Operation of the washer controlled by microprocessor.
- Operation of the washer adaptable to the possibilities of the installation and the needs of the user. Designed primarily for use in coin-op laundries.
- Great versatility in individually modifying the content of each program. Further information in specific sections of the ADVANCED USE MODE.
 - Temperature control in the wash phase achieved by the hot and cold water mixer in accordance with the programmed temperature and the activation of the heating system. Precision of $\pm 2\text{ }^{\circ}\text{C}$ ($\pm 3.5\text{ }^{\circ}\text{F}$).
 - Level control achieved using an electronic pressure transmitter.
 - Series communication between the washer microprocessor and the inverter's control of the motor.
 - Multiple controls that assure the safe use of the washer.
 - Washing programs: availability of 4 pre-programmed programs. Each program allows for: pre-wash, wash with a maximum temperature of $80\text{ }^{\circ}\text{C}$ and four rinse phases with a final spin at high speed.
 - The programs are activated by the introduction of coins or tokens into the washing machine's meter or by a signal from the central vending point.
 - Programming programs price. Option for automatically changing the prices for each program depending on time period and day of the week.
 - Executed individual program counters.

3. MODES OF USE

The **COIN CONTROL** has **TWO MODES OF USE**.

PROGRAM EXECUTION MODE

This mode groups together the functions or actions aimed at selecting and executing the different wash programs.

Information regarding this intervention mode: chapter 4 of this manual.

ADVANCED USE MODE

Covers the functions or interventions aimed at:

- Modifying or displaying the content of the washing programs.
- Consult the software version for the washer and the contents of the different program meters.
- Modifying the general operating parameters.
- Modifying the access code for **ADVANCED USE MODE**.
- Setting the time of the system clock (optional).
- Managing programs price.

Information regarding this intervention mode: From Chapter 5.

4. PROGRAM EXECUTION MODE

4.1. Control panel

4.1.1. Machines with COIN CONTROL

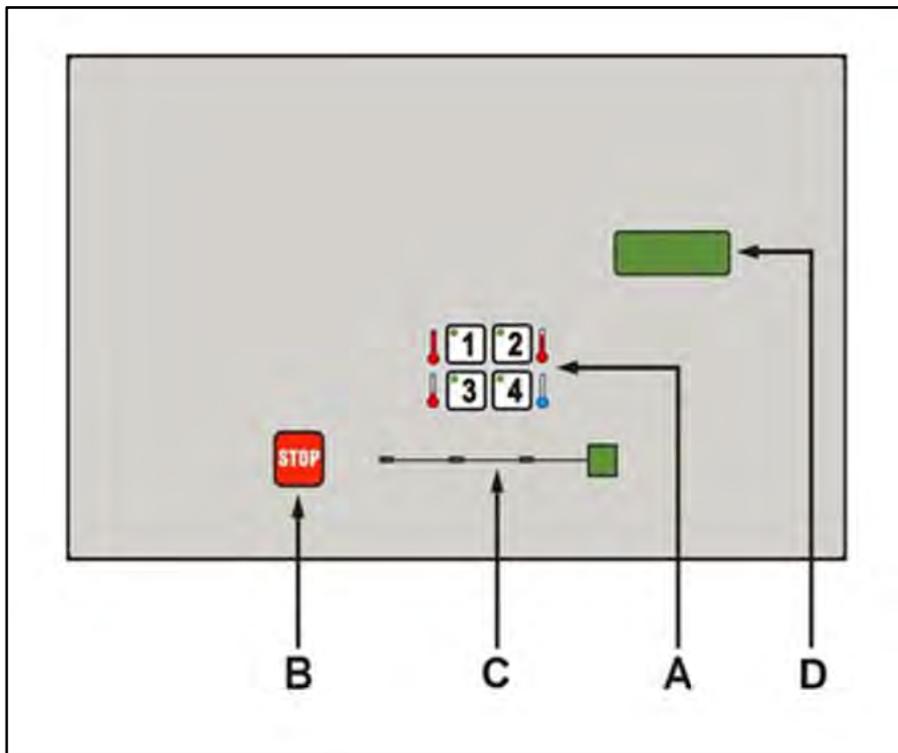


Fig. 4.1

KEYS

A: Washing program selection keys.
Each key corresponds to a program. The selection of a program is indicated by the LED associated with the key.

B: The **STOP** key: Program stop.

INDICATOR LIGHTS for a program's start sequence:
C: Phase of the program in progress
D: Display

4.1.2. Machines with PROFIT PLUS CONTROL

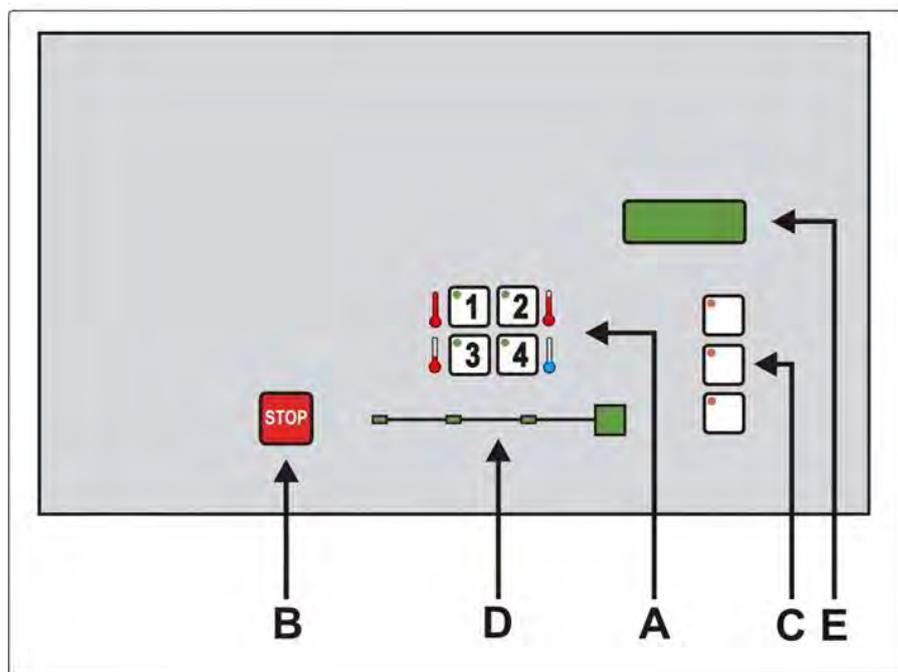


Fig. 4.2

KEYS

A: Washing program selection keys.
Each key corresponds to a program. The selection of a program is registered by the LED associated to the key.

B: The **STOP** key: Program stop.

C: Keys for selecting the extra options

INDICATOR LIGHTS for a program's start sequence:
D: Phase of the program in progress
E: Display

SPECIFIC KEYBOARD FOR KOREA

The washing machines for Korea have a keyboard with the following special features:

COIN CONTROL keyboard:

- The 1, 2 and 4 keys are coloured black.
- The C, D and F LEDs and the LEDs associated with the 1, 2, 3 and 4 keys are not visible.

PROFIT PLUS CONTROL keyboard:

- The 1, 2, 3 and 4 keys are coloured black.
- The C, D and F LEDs and the LEDs associated with the 1, 2, 3 and 4 keys are not visible.

MAIN REPORTS that appear on the display:

REPORT	MEANING
door	Washer with door open. Machine ready to start a program
SEL	Indicates program selection
Pr.*	Program selected
C** / F***	Bath temperature (machines with heating)
8888	Program price Minutes remaining in the program
End	End of program. Door unlocked. Machine in idle mode

4.2. Loading the washing machine

Group the fabrics to be washed into homogeneous loads, attempting wherever possible to reach the nominal value of the load.

Empty all pockets, fasten buttons, close zippers and remove accessories that are not machine-washable.

Mixing whites with other colours is not recommended.

Open the door and load the machine. The LED of washer loading and program selection blinks.

Washer load recommendations according to the type of fabric to be washed:

- Cotton fabrics: nominal load
- Synthetic fabrics: between 80% & 90% of nominal load
- Delicate fabrics: between 35% & 50% of nominal load

Do not overload the machine; the door must be able to close easily.

Whilst the door is open, the display reads **door**, indicating that the door must be closed in order for the program to begin.

Health and safety instructions for loading and unloading the washer

Installing washing machines on raised bases, in accordance with the instructions set out in the corresponding installation manuals, aids in loading and unloading the machine by avoiding the need to adopt awkward positions.

Use linen collecting and transporting containers that are of a suitable height for the washer size. Consult the dimensions of the washers set out in the corresponding installation manual.

Take care not to overload the machine. Overloading the washer leads to excessive strain when processing the linen.

Certain chemical products that are used in the washing process are toxic. Handle them with care and wear appropriate protection.

Follow the legislation and regulations for Health and Safety in the Workplace in force in the country where the machine has been installed.

4.3. Using the dispenser

HS, RMS and RMG models

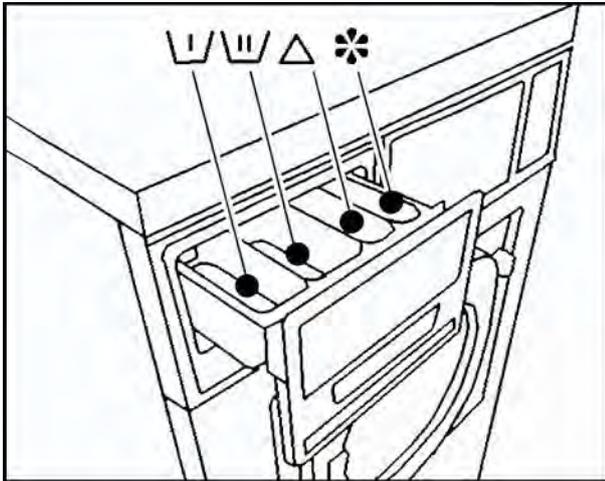


Fig. 4.3

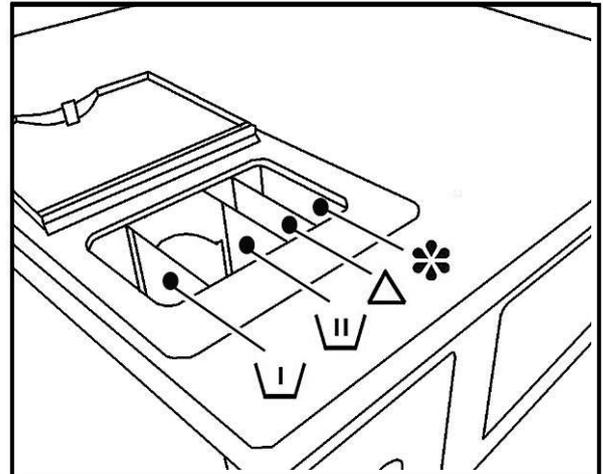


Fig. 4.4

Washing machines models EH, REM, RMG (USA/CANADA)



WASHING MACHINES WITHOUT PRE-WASH PHASE

To avoid clogging the dispenser, products are prevented from being added in the unused compartments (Fig. 4.5 and 4.6). It is important to warn the operator about the correct use of the dispenser.

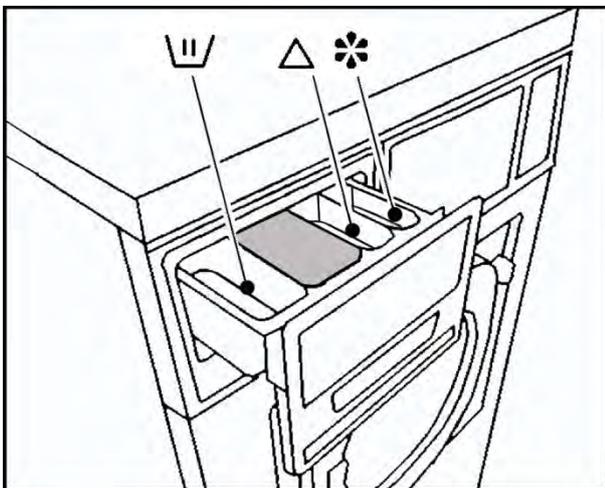


Fig.4.5

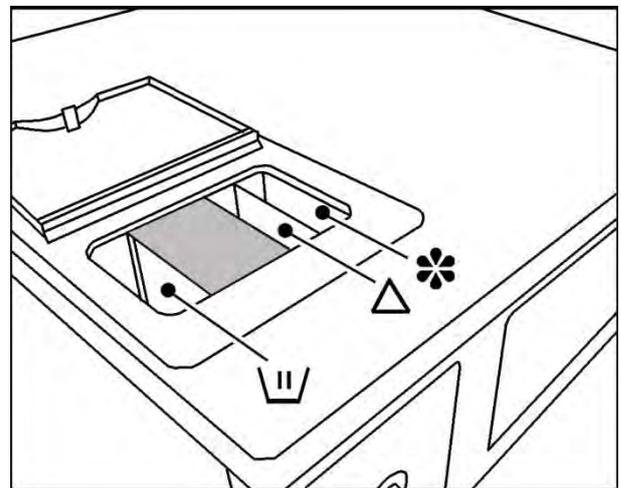


Fig.4.6

Fill the compartments with the corresponding products, according to these symbols.

Symbols used in the dispenser (Fig. 4.2, 4.3, 4.4 and 4.5)

	FUNCTION	PROGRAMMING
	Powdered detergent. Normally used in the pre-wash phase	d1
	Powdered detergent. Normally used in the wash phase	d2
	Liquid product. Normally used for bleaching (chloride, bleach, etc.)	d3
	Liquid product. Normally used as a softener/neutraliser	d4



IN ORDER TO OPERATE CORRECTLY AND TO PREVENT POSSIBLE DAMAGE AND SPLASHING, THE DISPENSER DRAWER MUST ALWAYS REMAIN CLOSED, EXCEPT WHEN ADDING PRODUCTS.



SUDS CONTROL

The mechanical action of front-loading washing machines improves the quality of the wash but encourages the creation of suds.

Remember that a suds bath always reduces the efficiency of your wash. **ALWAYS USE CONTROLLED SUDS DETERGENT.**

Oversudsing causes an increase in the pressure inside the machine and decreases the efficiency of the sealing systems.

Repeated washing with a large amount of suds considerably reduces the life of seals and bearings. **THIS CIRCUMSTANCE IS NOT COVERED BY THE MACHINE'S WARRANTY.**

4.4. Starting a program

4.4.1. Machines with COIN CONTROL

- Close the door of the washing machine. **SEL** report displayed.
- Place the washing products in the dispenser and close it (refer to section 4.3).
- Select the desired program by pressing the corresponding keys. (For information on the characteristics of each program, refer to section 4.5: Wash Programs). The selected program will be shown on the display.
- The LED associated with the selected program key will light up.
- The price for the program or the number of tokens to be inserted will be displayed, and the LED will light up, indicating that the payment must be made for the program.
- Insert the coins or tokens requested. The display will show the price or the number of tokens left to start the selected program.
- It is possible to change the selected programme while inserting the coins or tokens. The price of the program adapts according to the new selection and the value of the coins or the number of tokens introduced will remain in the memory. The newly selected program will be displayed on the LED relating to the key.
- Once all the coins or tokens have been inserted, the selected wash program will start.

4.4.2. Machines with PROFIT PLUS CONTROL

- Close the door of the washing machine. **SEL** report displayed.
- Place the washing products in the dispenser and close it (refer to section 4.3).
- Select the desired program by pressing the corresponding keys. (For information on the characteristics of each program, refer to section 4.5: Wash Programs). The selected program will be shown on the display.
- The LED associated with the key for the program selected will light up, and the price for the program or the number of tokens to be inserted will be displayed.
- Select the extra options you want by pressing the corresponding key. The LED for the option selected will light up and stay lit, and the price will be updated to the new selection.
- Insert the coins or tokens requested. The display will show the price or the number of tokens left to start the selected program.
- It is possible to change the selected program and/or extra options while inserting the coins or tokens. The price of the program adapts according to the new selection and the value of the coins or the number of tokens introduced will remain in the memory. The newly selected program will be displayed on the LED relating to the key.
- Once all the coins or tokens have been inserted, the selected wash program will start.

4.4.3. Door lock

- **Door lock.** After giving the start order, a 30-second safety time is started during which the drum rotation and the water inlet operate at short impulses and door remains released. At the end of this time, the locking mechanism closes and the wash cycle begins.
- Throughout the program's duration, the door remains locked until the LED indicating the end of the program lights.



Risk of entrapment

To avoid the risk that, while playing, a child gets entrapped inside a washer **IT IS CAUTIONED THAT:**

- After giving the start order, a 30-second safety time is started during which the drum rotation and the water inlet operate at short impulses and door remains released.


DOOR FITTED WITH SAFETY LOCK

Never attempt to open the door if:

- the program has not finished.
- the drum has not come to a complete halt.
- the bath has not been completely evacuated.

4.5. Program application and contents

In the default configuration, the program content is defined as indicated in the following charts:

**General application programs
HS, RMS and RMG models**

PROGRAM				WASH			RINSES			FINAL SPIN	
No.	icon	application	estimated time	rotation	°C	min	No.			type	min
1		HEAVY SOILED Cotton. Very dirty poly-cotton	31 min	heavy duty	50	10	3	✓	✓	high	6
2		SOILED Cotton. Poly-cotton. with normal soiling	31 min	heavy duty	40	10	3	✓	✓	high	6
3		NORMAL Poly-cotton. Synthetics with normal soiling	29 min	heavy duty	30	8	3	✓	✓	high	6
4		DELICATE Wool. Synthetics. Mixture	26 min	normal	20	10	3	✓	✓	medium	3

**USA / CANADA programs
EH, REM and RMG models. SP-0**

PROGRAM			WASH			RINSES			FINAL SPIN	
No.	application	estimated time	rotation	°F / °C	min	No.			type	min
1	SUPER WASH Heavy soil	22 min	heavy duty	90 / 32	7	2	✓	✓	high	6
2	HOT White	19 min	heavy duty	90 / 32	4	2	✓	✓	high	6
3	WARM Color-fast. Perm press	19 min	heavy duty	82 / 28	4	2	✓	✓	high	6
4	COLD Colors.Normal	19 min	normal	32 / 00	4	2	✓	✓	high	6

USA / CANADA programs

EH020 and REM025 models. SP-1, SP-2, SP-3

Other EH, REM and RMG models.SP-1

PROGRAM			WASH			RINSES			FINAL SPIN	
No.	application	estimated time	rotation	°F / °C	min	No.			type	min
1	SUPER WASH Heavy soil	26 min	heavy duty	113 / 45	7	3	✓	✓	high	6
2	HOT White	23 min	heavy duty	104 / 40	7	2	✓	✓	high	6
3	WARM Color-fast. Perm press	23 min	heavy duty	86 / 30	7	2	✓	✓	high	6
4	COLD Colors.Normal	21 min	normal	68 / 20	7	2	✓	✓	medium	4

AREA OF USE JPN in CONFIGURATION menu

Program contents

- **CP option OFF (CP-0) in the MACHINE CONFIGURATION menu.**

The content of the four programs is the same as in the Programs for general application configuration - HS, RMS and RMG models.

- **CP option ON (CP-1) in the MACHINE CONFIGURATION menu.**

The content of the first three programs is the same as in the Programs for general application configuration - HS, RMS and RMG models.

Program 4 transforms into a program of very short duration (less than 2 minutes), designed for washing the machine's drum before loading the clothes for a wash cycle.

The values of the DRUM CLEANING program cannot be modified, except for the bath level, which will be the level programmed in Phase 6 of this program.

See Sections 6.1 and 6.2 for further information.

4.6. Unbalance control

Before starting the spin, the washing machine's electronic control checks the correct distribution of the load.

If it detects that the load is not well distributed and that can cause an excessive unbalance during the spin, a new positioning of the clothes will be carried out.

If there's still unbalance during the spin of the last phase, the washer can end the washing cycle reducing the spin speed. If this is the situation, the report **End/bAL** will be showed alter the delay of the door opening.

Unbalance control with a micro-switch. Activates only in cases of extreme unbalance.



To improve the efficiency of the washer's spin, it is advisable to:

- Load the washer until its nominal value
- Load the washer with homogeneous loads

4.7. Stop modes

4.7.1. End of cycle and door opening

The **End** report will be displayed.

The buzzer and the LED indicating the end of the cycle inform that the program has finished and the door lock is released.

From this moment on, the door can be opened.

Failure in the realising of the door

At the end of a cycle, if the end of cycle warning LED is not illuminated or a countdown of 120 seconds appears on the display, push the door firmly using the handle and press any key on the keyboard to start a new attempt at unlocking the safety lock.

If the problem persists, wait for a minimum of three minutes until the thermal locking device allows the door to unlock.

4.7.2. Pressing the STOP key

Pressing the  interrupts the programme being executed.

The drum stops rotating and the drain valve opens.

At the end of the safety delay, the buzzer informs the user that door lock is unlocked and the display shows **STOP – PUSH – Pr-*** (number of program being executed).

From this moment onwards:

- One press on the key corresponding to the program currently being executed resumes the cycle.
- Opening the door cancels the cycle.

STOP key operating options

A parameter from the **CONF** menu can be used to select two different options for operating the **STOP** key.

Selectable options:

- **Immediate response**
Pressing the **STOP** key immediately stops the program that is running.
- **Delayed response**
To stop the program that is running, hold the key down continuously for at least 3 seconds.



Warnings regarding the HOLD STOP KEY DELAYED RESPONSE

- Option available on machines with software Version 31 / 65 and later (see Section 1).
- Option unavailable in machines configured for Japan Area of use.
- To use this operating option, the corresponding parameter must be enabled in the machine's **CONFIGURATION** menu. This operation must be carried out by the **Authorised Technical Service**.
- The **HOLD STOP KEY DELAYED RESPONSE** option can only be activated on machines that have the message "Push and hold for 3 seconds" inscribed next to the **STOP** key.

4.7.3. Interruption of the power supply

These stop modes are not recommended, except in an emergency.

They may be caused by turning off the external switch, by activating the laundry's general emergency stop (see Installation Manual) or by a fault in the power supply.

In these cases the unlocking of the safety lock may be delayed for up to three minutes.

If the door is closed when the power supply is restored, the machine will interpret that there has been a power failure and will resume the washing program in progress.



When a washing program is interrupted by electrical power failure or activating the general Emergency Stop of the installation, the door lock mechanism stops being controlled by the microprocessor and the opening of the door is thermally delayed.

In these cases the unlocking of the safety lock may be delayed for up to three minutes.

On restoring the power supply, it is normal for the washer to remain inactive for approximately 3 minutes.



On machines with pumped draining or a valve that is normally closed, interruption of the power supply prevents the bath from being drained.

5. ADVANCED USE MODE

The ADVANCED USE MODE offers some menus, which allow the modification of program contents, the price management of the programs, the modification of operating parameters, etc.

The **ADVANCED USE MODE** is made up of the menus defined in the following chart.

MENU	PURPOSE	CHAPTER /SECT.
Pro	Modification of the program contents	6
dEmo	Operation mode with program accelerator	7
InFO	Information menu	8
Mod	Modification of operation parameters	9
NCod	Modifying of the access code	10
CASH	Programming and/or modifying each program price	11.1; 11.2.3
Hour	Adjustment of the system time	11.2.1
CALE	Prices allocation according to hour band	11.2.2
EoPt	Options menu	12

5.1. Access to the ADVANCED USE MODE

Connect the washer and open the door. The display will show **door**.

Press and hold down key **1** until the **Cod** report appears on the display.

Enter the access code into the menus by pressing the sequence of eight keys of the code without interruption.

In basic configuration (when the machine is delivered) the access code to ADVANCED MODE is: **12341234**.

If the sequence entered is correct, the display will show **Pro**, corresponding to the first menu ADVANCED MODE.

Keys **2** and **4** allow the selection of the precedent table menus. The menu selected is shown on the display following its keyword. To enter in it, press key **1** when displaying it.

If wished to skip the ADVANCED MODE, press and machine will return to program execution mode.

6. MODIFICATION OF THE PROGRAM CONTENTS. Menu Pro

In its original configuration, the washing machine has four wash programs with content adapted to a wide range of usage. However, the content of each program can be modified to be adapted to the specific needs of different situations.

The modifications are always made from a **MASTER PROGRAM** that includes the possible programmable parameters and the maximum and minimum values of certain options.

The master program is composed of six phases. At the start of each phase, a parameter of the value **Ph-Y / Ph-N** (executable phase **YES** / executable phase **NO**) will allow the user to determine whether the accessed phase should either be executed or omitted.

Once the phase is defined as to be executed, proceed to the display and modification (if desired) of the parameters or values of the phase.

6.1. Master program

PHASE	EXECUTION	LEVEL	TEMP.	DISP.	TIME DISP.	ROTATION	ROTATION TIME	EXTRACT	EXTRACT TIME
	Ph	L	C / F	d	t	r	rt	E	Et
1	Y / N	0...4	n.p.	0...3.4	1...99	1...3	0...6	0...3	n.p. 2...3
2	Y / N	0...4	0 ... 80 32 ... 176	0...3.4	1...99	1...3	0...20	0...2	n.p. 2
3	Y / N	0...4	n.p.	0...3.4	1...99	1...3	0...6	0...3	n.p. 2...3
4	Y / N	0...4	n.p.	0...3.4	1...99	1...3	0...6	0...3	n.p. 2...3
5	Y / N	0...4	n.p.	0...3.4	1...99	1...3	0...6	0, 1	n.p.
6	Y	1...4	n.p.	0...3.4	1...99	1...3	1...6	1...6	n.p. 2...7

See Sections 6.2, 6.3 and 6.4 for the definition of the phases, functions and values programmable in each phase.

See the warnings on machines configured for Area of use - JPN in Section 4.5

6.2. Original content of the programs

6.2.1. Program contents

All models

Pr - 1. HEAVY SOILED ⌚ 31 min									
Ph	Ph	L	C	d	t	r	rt	E	Et
1	N	2	---	1	30	1	3	1	1
2	Y	1	50	2	30	1	10	1	1
3	Y	2	---	3	30	1	3	1	1
4	Y	3	---	---	---	1	2	2	2
5	N	3	---	---	---	1	2	1	1
6	Y	2	---	4	30	1	2	6	6

Pr - 2. SOILED ⌚ 31 min									
Ph	Ph	L	C	d	t	r	rt	E	Et
1	N	2	---	1	30	1	3	1	1
2	Y	1	40	2	30	1	10	1	1
3	Y	2	---	3	30	1	3	1	1
4	Y	3	---	---	---	1	2	2	2
5	N	3	---	---	---	1	2	1	1
6	Y	2	---	4	30	1	2	6	6

Pr - 3. NORMAL ⌚ 29 min									
Ph	Ph	L	C	d	t	r	rt	E	Et
1	N	2	---	1	30	1	3	1	1
2	Y	1	30	2	30	1	8	1	1
3	Y	2	---	3	30	1	3	1	1
4	Y	3	---	---	---	1	2	2	2
5	N	3	---	---	---	1	2	1	1
6	Y	2	---	4	30	1	2	6	6

Pr - 4. DELICATE ⌚ 26 min									
Ph	Ph	L	C	d	t	r	rt	E	Et
1	N	2	---	1	30	2	3	1	1
2	Y	1	20	2	30	2	10	1	1
3	Y	2	---	3	30	2	2	1	1
4	Y	3	---	---	---	2	2	1	1
5	N	3	---	---	---	2	2	1	1
6	Y	2	---	4	30	2	2	4	3

6.2.2. Program contents. USA configuration
All models. SP-0

PR - 1. SUPER WASH HEAVY SOIL										⌚ 22 min
Ph	Ph	L	F	d	t	r	rt	E	Et	
1	N	2	---	1	30	1	4	2	2	
2	Y	1	90	2	30	1	7	1	1	
3	Y	1	---	3	30	1	2	1	1	
4	N	2	---	---	---	1	1	1	1	
5	N	2	---	---	---	1	1	1	1	
6	Y	2	---	4	30	1	2	6 ^(*)	6	

PR - 2. HOT WHITE										⌚ 19 min
Ph	Ph	L	F	d	t	r	rt	E	Et	
1	N	2	---	1	30	1	3	2	2	
2	Y	1	90	2	30	1	4	1	1	
3	Y	2	---	3	30	1	2	1	1	
4	N	2	---	---	---	1	1	1	1	
5	N	2	---	---	---	1	1	1	1	
6	Y	2	---	4	30	1	2	6 ^(*)	6	

PR - 3. WARM COLOR-FAST. PERM PRESS										⌚ 19 min
Ph	Ph	L	F	d	t	r	rt	E	Et	
1	N	2	---	1	30	1	3	2	2	
2	Y	1	82	2	30	1	4	1	1	
3	Y	2	---	3	30	1	2	1	1	
4	N	2	---	---	---	1	1	1	1	
5	N	2	---	---	---	1	1	1	1	
6	Y	2	---	4	30	1	2	6 ^(*)	6	

PR - 4. COLD COLORS. NORMAL										⌚ 19 min
Ph	Ph	L	F	d	t	r	rt	E	Et	
1	N	2	---	1	30	1	3	2	2	
2	Y	1	32	2	30	1	4	1	1	
3	Y	2	---	3	30	1	2	1	1	
4	N	2	---	---	---	1	1	1	1	
5	N	2	---	---	---	1	1	1	1	
6	Y	2	---	4	30	1	2	6 ^(*)	6	

EH020 and REM025 models. SP-1, SP-2, SP-3
Other EH, REM and RMG models. SP-1

PR - 1. SUPER WASH HEAVY SOIL										⌚ 26 min
Ph	Ph	L	F	d	t	r	rt	E	Et	
1	N	2	---	1	30	1	2	2	2	
2	Y	2	113	2	30	1	7	1	1	
3	Y	2	---	3	30	1	2	3	2	
4	Y	2	---	---	---	1	1	1	1	
5	N	3	---	---	---	1	1	1	1	
6	Y	2	---	4	30	1	2	6 ^(*)	6	

PR - 2. HOT WHITE										⌚ 23 min
Ph	Ph	L	F	d	t	r	rt	E	Et	
1	N	2	---	1	30	1	2	2	2	
2	Y	2	104	2	30	1	7	1	1	
3	Y	2	---	3	30	1	2	3	2	
4	N	2	---	---	---	1	1	1	1	
5	N	2	---	---	---	1	1	1	1	
6	Y	2	---	4	30	1	2	6 ^(*)	6	

PR - 3. WARM COLOR-FAST. PERM PRESS										⌚ 23 min
Ph	Ph	L	F	d	t	r	rt	E	Et	
1	N	2	---	1	30	1	2	2	2	
2	Y	2	86	2	30	1	7	1	1	
3	Y	2	---	3	30	1	2	3	2	
4	N	2	---	---	---	1	1	1	1	
5	N	2	---	---	---	1	1	1	1	
6	Y	2	---	4	30	1	2	6 ^(*)	6	

PR - 4. COLD COLORS. NORMAL										⌚ 21 min
Ph	Ph	L	F	d	t	r	rt	E	Et	
1	N	2	---	1	30	1	2	2	2	
2	Y	2	68	2	30	1	7	1	1	
3	Y	2	---	3	30	1	2	3	2	
4	N	2	---	---	---	1	1	1	1	
5	N	2	---	---	---	1	1	1	1	
6	Y	2	---	4	30	1	2	6 ^(*)	4	

(*) In Models RMG033/40/55/70 the default spin value is 5.

6.3. Definition of phases

PHASE S	DEFINITION	
1	Pre-wash.	Optional execution phase.
2	Wash.	Obligatory execution phase. The mixing of hot and cold water and/or water heating is permitted.
3	First Rinse.	Obligatory execution phase.
4	Second rinse.	Optional execution phase.
5	Third rinse.	Optional execution phase.
6	Fourth rinse.	Obligatory execution phase.

6.4. Definition of programmable functions and values for each phase

FUNCTION	CONCEPT	OPTIONS	
Ph	Phase execution	Ph-Y	Phase can be executed
		Ph-N	Phase cannot be executed
L	Bath level	L-0	Phase without water inlet
		L-1	Low level
		L-2	Medium level
		L-3	High level
		L-4	Extra high level
C / F	Wash phase temperature	0 / 80	Programmable range in degrees Celsius
		32 / 176	Programmable range in degrees Fahrenheit
		n.p.	Temperature cannot be programmed in the phase
d	Dosings	d-0	Phase without dosing
		d-1	Dosing of powdered detergent
		d-2	Dosing of powdered detergent
		d-3	Dosing of liquid dosing
		d-4	Dosing of liquid dosing
t	Dosing time	1 ... 99	Programmable time in seconds
r	Rotation type	r-1	Heavy duty rotation: 25 sec. ON - 5 sec. OFF
		r-2	Normal rotation: 15 sec. ON - 15 sec. OFF
		r-3	Light rotation: 5 sec. ON - 25 sec. OFF
rt	Rotation time (in minutes)	0	Phase without rotation
		1...6	Programmable range in the pre-wash phase
		1...20	Programmable range in the wash phase
		1...6	Programmable range in the rinse phase
E	Bath drain	0	Phase without draining
		1	Drain + wash speed
		2	Drain + positioning speed
		3	Drain + low spin speed
		4	Drain + medium spin speed
		5	Drain + medium/high spin speed
		6	Drain + high spin speed
Et	Spin time	n.p.	Time not programmable
		2...3	Programmable range in intermediate spins
		2...7	Programmable range in E-4 - E-6 spins

For further information on the programmable functions, see section below.

6.5. Modifying a program

Access the ADVANCED MODE (Section 5.1). The display shows **Pro**.

Press key **1** to access the **PROGRAMMING** menu.

The display shows **Pr-1**. Program 1 is ready for modification. The **2 / 4** keys allow the selection of another menu. Press key **1** to access the modification of the displayed program.

The display shows **Pr-1**. Phase 1 is ready for modification. The **2 / 4** keys allow the selection of another phase. Press key **1** to start the modification to the values of the selected phase.

When the number of the phase is displayed (at the start of phase), the **STOP** key is used to finalise the program modification.

Once a program modification has been finalised, the display will show the **Pr-*** (modified program). Pressing the **STOP** key once allows the user to access the higher level of the menu. Pressing twice consecutively allows the user to exit the ADVANCED USE MODE.

Activation of the phase

Allows the user to program the execution of the selected phase.

Once the desired phase to be modified has been selected, press the **1** key. The display shows **Ph-***.

OPTIONS	MEANING
Ph-Y	The phase to be executed is available
Ph-N	The phase to be executed is unavailable

Phases 2, 3 and 6 are phases of obligatory execution.

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Bath level

Bath level allows the selection of the bath level inside the washer.

OPTIONS	MEANING
L-0	Phase without water inlet. Programmable only in phase 1.
L-1	Low level
L-2	Medium level
L-3	High level
L-4	Extra high level

For safety reasons, options **L-3** and **L-4** are not programmable in machines with a pump drain or a valve closed without current.

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Temperature of the washing phase

Allows modifying the water temperature in the washing phase. In other phases, it is not possible to program the water temperature.

OPTIONS	MEANING
C-0 ... C-80	Programmable range in degrees Celsius
F 32 ... F 176	Programmable range in degrees Fahrenheit

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Dosings

This allows the user to activate or deactivate the dosing signals that appear in the master table.

If product dosing occurs via the machine's dispenser, the dosing options are as follows (see dispenser distribution in Section 4.3).

OPTIONS	MEANING
d- 0	Without dosing
d- 1	Powdered detergent. Normally used in the pre-wash phase
d- 2	Powdered detergent. Normally used in the wash phase
d- 3	Liquid product. Normally used for bleaching (chloride, bleach, etc.)
d- 4	Liquid product. Normally used as a softener/neutraliser
n.p.	Dosing cannot be programmed in the phase

Other possible programming options:

OPTIONS	MEANING
d-12	Simultaneous activation of dosings 1 and 2.
d-13	Simultaneous activation of dosings 1 and 3.
d-14	Simultaneous activation of dosings 1 and 4.
d-23	Simultaneous activation of dosings 2 and 3.
d-24	Simultaneous activation of dosings 2 and 4.
d-34	Simultaneous activation of dosings 3 and 4.

The **2** key allows the user to modify the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Phase 1 peculiarity

Application designed for machines connected to an external dosing control unit and using this unit's own dosing programs.

Phase 1 allows the value 0 to be programmed in the level, rotation time and bath draining functions, using the dosing and dosing time signals to inform the central dosing unit of the program selected in the washer. After receiving this information, the central dosing unit will execute the appropriate product dosings for the program selected in the washer.

Examples of first phase programming used as information to the central dosing unit

Example 1

d	t	information
1	30	Dosing in accordance with Program 1
2	30	Dosing in accordance with Program 2
3	30	Dosing in accordance with Program 3
4	30	Dosing in accordance with Program 4

Example 2

d	t	information
1	2	Dosing in accordance with Program 1
1	4	Dosing in accordance with Program 2
1	6	Dosing in accordance with Program 3
1	8	Dosing in accordance with Program 4



CAUTION!

When dosing signals **d3** and **d4** are used to inform the central dosing unit, it is advisable to activate the **dC** (dispenser cleaning) option in order to remove traces of water from the dispenser. (See Mod menu, Chapter 9)

Dosing time

Duration of the dosing or dosings programmed in the phase. Value in seconds.
This only appears only if the dosing value has been programmed in the phase.

OPTIONS	MEANING
1 ... 99	Programmable values

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Rotation

The mechanical action of the washing machine on the linen is different depending on the rotation selected.

Time **ON**: drum rotating

Time **OFF**: drum stopped

OPTIONS	MEANING
r-1	Heavy duty rotation ON : 25 sec. - OFF : 5 sec.
r-2	Normal rotation ON : 15 sec. - OFF : 15 sec.
r-3	Light rotation ON : 5 sec. - OFF : 25 sec.

The **2** key allows the user to modify the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Rotation time

Rotation time programmed in the phase. Time in minutes.

This time is started once the programmed level is reached.

OPTIONS	MEANING
0	Phase without rotation. Programmable only in phase 1.
1 ... 6	Programmable range in the pre-wash and rinse phases
1 ... 20	Programmable range in the wash phase

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Bath drain

The draining of the water from the washing machine is achieved by activating of the drain system and a drum rotation speed.

Options **E-1** and **E-2** imply a default time value.

The duration of options E-3 – E-6 is programmable within a determined range.

OPTIONS	MEANING
0	Phase without draining. Programmable only in phase 1.
E-1	Drain + wash speed
E-2	Drain + positioning speed
E-3	Drain + low spin speed
E-4	Drain + medium spin speed
E-5	Drain + medium/high spin speed
E-6	Drain + high spin speed

RPM (G FORCE) FOLLOWING MACHINE MODEL									
OPTIONS	RMS610 REM025	RMS613 REM033	RMS617 REM040	RMS623 REM055	RMS628 REM070	RMG613 RMG033	RMG617 RMG040	RMG623 RMG055	RMG628 RMG070
E-1	54	47	47	44	40	47	47	45	40
E-2	100	100	100	100	86	100	100	100	86
E-3	410(48)	300(31)	300(31)	300(35)	342(50)	380(50)	380(50)	360(50)	342(50)
E-4	500(75)	400(56)	400(56)	400(63)	433(80)	574(115)	574(115)	505(100)	485(100)
E-5	580(100)	500(87)	500(87)	500(98)	530(120)	635(140)	635(140)	600(140)	570(140)
E-6	600(108)	600(125)	600(125)	600(140)	592(150)	760(200)	760(200)	715(200)	685(200)

RPM (G FORCE) FOLLOWING MACHINE MODEL							
OPTIONS	HS-6008 EH020	HS-6013 EH030	HS-6017 EH040	HS-6023 EH055	HS-6024 EH060	HS-6032 EH080	EH090
E-1	50	48	45	43	38	42	40
E-2	100	100	100	87	86	83	79
E-3	400	400	375	330	350	335	325
E-4	600	600	570	525	550	528	490
E-5	800	800	750	725	725	698	675
E-6	970(283)	1000(351)	950(354)	920(350)	966(400)	932(400)	870(381)

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Spin time

Spin time programmed in the phase. Time in minutes.

OPTIONS	MEANING
n.p.	Draining time E-1 and E2
2 ... 3	Programmable range not in final phase of the program
2 ... 7	Programmable range in final phase of the program

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the displayed selection and ends the phase programming.

The display will show the following phase.

When finalising the programming of the last phase of the program, display shows **Pr-*** (modified program).

7. OPERATION MODE WITH PROGRAM ACCELERATOR. dEmo Menu

It allows executing one of the four COIN programs with the possibility of reducing the program time. Program to facilitate maintenance interventions and preparation of programs.

Execution of a program in dEmo mode

Access to the ADVANCED MODE. Section 5.1. The display shows **Pro**.
 Press the **2** key twice. The displays shows **CASH** and **dEmo** successively. (In machines with extra options, press Key 2 three times. The displays shows **CASH**, **EoPt**, **dEmo** successively.
 Press the **1** key to access the **dEmo** menu. The display shows **door**.
 Close the door. The display shows **Pr-1**.
 Ready to execute program 1. Keys **2** and **4** allow the selection of another menu.
 Press **STOP** key to start the program on the display.
 The program will be executed following the present contents of it.

During the execution of the program, it is possible to modify it:
 Press the **3** key. The information on the display starts flashing.
 Press **4** to advance to the following function or to reduce the rotation and spin times.
 Key **2** allows increasing the rotation times.
 Once the program is finished, open the door.
 The washer can be normally used.

8. INFORMATION MENU. InFO menu

Information menu of different parameters.

PARAMETERS	MEANING
COIN	Coin-op washers control
EP**	Program version
Pr-	Total number of cycles run
Pr-1	Number of cycles executed with program 1
Pr-2	Number of cycles executed with program 2
Pr-3	Number of cycles executed with program 3
Pr-4	Number of cycles executed with program 4
EUA	Number of cycles run with extra washing option
Eri	Number of cycles run with extra rinsing option
EdS	Number of cycles run with extra spinning option
SUD	Number of times the anti-suds function has been activated

Access to the ADVANCED MODE. Section 5.1. The display shows **Pro**.
 Press key **2** three times. In the display reports **CASH**, **dEmo**, **InFO** are showed successively. (In machines with extra options, press Key 2 four times. The displays shows **CASH**, **EoPt**, **dEmo** and **InFO** successively.)
 Press the **1** key to sequentially access the listing of the different parameters and the values of the corresponding counters.
 Once the last option is listed, press the **1** key. The display shows **InFO**.
 The keys **2** and **4** allow the access to other menus.
 To exit the ADVANCED MODE press the **STOP** key.

9. MODIFICATION OF OPERATING PARAMETERS. Mod menu

The **Mod** menu allows the user to modify the operation parameters of all the programs.
The modifications carried out from **Mod** menu affect the four programs.

Summary table of the changeable parameters:

PARAMETER	MODIFICATION OF	OPTIONS		CE	USA
C / F	Temperature unit	C	Temperature displayed in degrees Celsius	←	
		F	Temperature displayed in degrees Fahrenheit		←
dc	Cleaning the dispenser	dc-0	Dispenser cleaning NO activated	←	
		dc-1	Dispenser cleaning YES activated		←
Ed	External dosing	Ed-0	Units without external dosing	←	←
		Ed-1	Units with external dosing		
bt	Beep time	bt10	Beep time when machine restarts		
dp	Program by default	1 ... 4	Selected program by default	3	3
UCM	Locking the coin meter box	UCM-0	Coins/tokens accepted at the beginning of the cycle regardless of the status of the door and the program selected.	←	
		UCM-1	Coins/tokens accepted at the beginning of the cycle only after the door is closed and the program selected.		←
PSH	Order for cycle start	PSH-0	Cycle start by inserting coins	←	←
		PSH-1	Cycle start by inserting coins and key for the program selected		
SP	Levels of suds prevention (EH020 and REM025 models only)	SP-0	Without suds prevention	←	←
		SP-1	First level of suds prevention		
		SP-2	Second level of suds prevention		←
		SP-3	Third level of suds prevention		
Hr	Program price according to hour band	Hr-0	Option not available	←	←
		Hr-1	Option available		
dSP	Temperature display	dSP0	No temperature value displayed		
		dSP1	Temperature value displayed	←	←
Id	Network identifier	Id-0	Disabled communication	←	←
		Id-1..99	Enabled communication		

← Indicates default option according to settings.

9.1. Parameters modification

Access to the ADVANCED MODE. Section 5.1. The display shows **Pro**.

Press key **2** four times. In the display reports **CASH**, **dEmo**, **InFO**, **Mod** are showed successively.

(In machines with extra options, press Key 2 five times. The displays shows **CASH**, **EoPt**, **dEmo**, **InFO** and **Mod** successively.)

Press the **1** key to display the first parameter.

Temperature unit

The bath water temperature can be displayed in Celsius or Fahrenheit degrees.

OPTIONS	MEANING
C	Temperature unit in Celsius degrees
F	Temperature unit in degrees Fahrenheit

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Dispenser cleaning



CAUTION!

DO NOT ACTIVATE THIS OPTION IN MACHINES CONNECTED TO EXTERNAL DOSING INSTALLATIONS.

This option activates the cleaning of the dispenser liquid product compartments by opening their water filling valves to eliminate the possible remaining products.

Option available from software version no. 22.

OPTIONS	MEANING
dc-0	Dispenser cleaning NO activated
dc-1	Dispenser cleaning YES activated

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

External dosing

Adapts the operation of the control panel LEDs to the washer operation.

Option **Ed-1** has to be programmed only if washer uses wash products from an external dosing installation.

OPTIONS	MEANING
Ed-0	Units with external dosing unavailable
Ed-1	Units with external dosing available

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Beep time

It determines the beep duration when a program stopped by the **STOP** key restarts.

Minimum programmable time: 10 sec.

Maximum programmable time: 60 sec.

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Selected program by default

Determines the selected program by default when the door is closed.

Selected program by default: program **3**.

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Locking the coin meter box

In **UCM0** configuration, locking the coin meter box allows coins or tokens to be inserted at the beginning of the cycle, regardless of whether the door of the machine is open or closed, or whether a program is selected.

The **UCM-0** configuration is especially **recommended** for connecting the washing machine to the central vending units.

In **UCM-I** configuration, locking the coin meter box allows coins or tokens to be inserted at the beginning of the cycle only if the door is closed and a program has been selected.

Once the door has been closed and the program selected, there is a safety delay of 1 minute that makes it necessary to select the program again if the payment has not been made before the specified time.

OPTIONS	MEANING
UCM-0	Tokens/ coins accepted regardless of the status of the door and the program selected.
UCM-1	Tokens/ coins accepted only if the door has been closed and the program selected.

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Order to start program

In **PSH-0** configuration the washing programs will start when the number of tokens or coins inserted is equal to the price shown on the display.

In **PSH-I** configuration pressing the key for the program selected once is required to start the program once the value of it has been inserted in the unit coin meter.

OPTIONS	MEANING
PSH-0	Program start by paying its value
PSH-I	Program starts as a result of paying its value and pressing the key for the program selected

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Suds prevention program

(Option available on **EH020** and **REM025** models only).

Certain detergents commonly used in some countries produce large quantities of suds and can complicate the proper functioning of the wash programs.

To mitigate this difficulty it is advisable to use the suds-prevention options.

The levels of prevention 1, 2 and 3 modify the wash programs values (refer to section 6.2 on this manual).

The levels of prevention 2 and 3 execute as well additional options to increase the efficiency of rinses.



CAUTION!

THE ACTIVATION OF SUDS PREVENTION LEVELS 2 & 3 MEAN A SMALL INCREASE OF THE PROGRAMME DURATION AND WATER AND ENERGY CONSUMPTION. THE USE OF SOAP CHEMICALS WITH SUDS CONTROL IS RECOMMENDED. DO NOT EXCEED THE RECOMMENDED DOSAGE.

OPTIONS	MEANING
SP-0	Without suds prevention
SP-1	First level of suds prevention
SP-2	Second level of suds prevention
SP-3	Third level of suds prevention

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Prices allocation according to hour band

Option possible only on machines with clock option installed.

The activation of option **Hr-1** modifies the contents of the **CASH** menu, allowing programming of three different prices for each program and permits the access to the **CALE** menus: definition of hour band for each day of the week and **Hour**: setting the clock and programming the day of the week.

OPTIONS	MEANING
Hr-0	Single price for each program
Hr-1	Variable price based on the established calendar

Note: The modification of **Hr-1** to **Hr-0** programming causes the washing machine to automatically select as price of each program the values programmed as **Low** value.

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Viewing the temperature value

Available only for heated units.

It allows or prevents the water temperature display during the wash phase heating.

OPTIONS	MEANING
dSP0	No temperature value displayed
dSPI	Temperature value displayed

The **2 / 4** keys allow the modification of the option displayed.

The **1** key validates the selection on the display and allows the user to access the following programmable function.

Network identifier

This parameter assigns a network identifier to the washer. This identifier enables the communication of the washer with the environment through a protocol based on RS-485.

Selected option by default: **Id-0**.

OPTIONS	MEANING
Id-0	Disabled communication
Id-1..99	Enabled communication

For further information, see the Communication Protocol Instruction Manual.

Press the **1** key. The display shows **Mod**.

The **2 / 4** keys allow the access to other menus.

To exit the ADVANCED MODE press the **STOP** key.

10. MODIFICATION OF ACCESS CODE TO ADVANCED MODE. Ncod menu

As described in Section 5.1 the access to ADVANCED MODE is restricted by an access code. This code can be modified by the user if so desired. It must always contain a combination of **EIGHT** keys.

Modifying of the access code

Access to the ADVANCED MODE. Section 5.1. The display shows **Pro**.

Press key **2** five times. In the display reports **CASH, dEmo, InFO, Mod, Ncod** are showed successively.

(In machines with extra options, press Key 2 six times. The displays shows **CASH, EoPt, dEmo, InFO Mod** and **Ncod** successively.)

Press key **1** to access the set of a new code. All the information on the display will disappear.

Enter a combination of eight keys using the four central keys in the control panel.

The key pressed is displayed in the display with its corresponding numeric value.

At the end of the sequence the **SURE** report will be showed.

Confirm the new code with the **3** key.

If you don't want to validate the code, press the **STOP** key.

Display will show **Ncod**.

The keys **2** and **4** allow the access to other menus.

To exit the ADVANCED MODE press the **STOP** key.

11. PROGRAM PRICE. CASH Menu

The **CASH** menu allows allocating one or more prices, individually, to each program. This price can be the value in coins or in tokens, depending on the coin meter in the machine.

Coin counter meter: The price of each program is set by its value in coins. The programming or modification of the program price will always be a multiple of the coin used. For meters accepting coins of different values, the program value will always be a multiple of the less valuable coin accepted by the coin meter.

Price programming = **0000** allows the free use of the washing machine. When selecting a washing program, the report **FrEE** is showed in the display and the washing program is started pressing the **STOP** key.

Token counter meter: The price of each program is fixed by the number of tokens to be introduced to start the program. The programming or modification of the program price will always be in units.

CLOCK option. Washers with this option installed and suitably activated in the **Mod** menu (Chapter 9) allow the use of multiple prices for every program, according to the day of the week and three programmable time bands. (Consult sections 11.1 and 11.2)

11.1. Single price for each program Price programming / modification

Access to the **ADVANCED MODE**. Section 5.1. The display shows **Pro**.

Press the **2** key. Display shows **CASH**.

Press the **1** key to access the management price menu. Display shows **Pr-1** (selected program.)

The **2 / 4** keys allow the selection of the program number desired in a cyclical way.

Press the **1** key to modify the selected program price. The display will show the current price of the selected program.

Press the **2** key to increase or the **4** key to reduce the program price.

Press the **1** key to validate the price displayed in the display.

Pr-* is showed in the display. Next program.

The **1** key allows the price modification of the new program displayed.

The **STOP** key allows the access to the higher programming level. Display shows **CASH**. Keys **2 / 4** allow the selection of another menu.

To leave the **ADVANCED MODE** press the **STOP** key twice with **Pr-*** on display.

11.2. Programs price based on time bands

The price option based on the time bands allows the access to the programming of the different prices for each program according to the time and day of the week. After programming the washing machine, the price of each program is modified automatically depending on the rates and the calendar set up.

In this chapter are described the steps to program this way of programs price management.



NEVER FORGET THAT PRIOR TO SET THE HOUR TO THE SYSTEM AND THE PRICE PROGRAMMING, THE WASHING MACHINE MUST HAVE THE CLOCK KIT AND THE PROGRAMMING OPTION MUST BE SET UP, AS IT IS DESCRIBED IN CHAPTER 9.

If this kit is not set up originally in your washing machine it can be added later. Ask your dealer.

Table of the price management system menus:

MENU	PURPOSE
Hour	To set the clock of the system and the weekly calendar
CALE	Definition of the different time bands for each day of the week
CASH	Price of each program according to the time band

11.2.1. Hour Menu

It is essential to have the clock set at the real time for the good operation of the payment system according to the time bands.

The HOUR menu allows seeing and / or modifying the hour of the system:

Setting clock time and day of the week

Access to the ADVANCED MODE. Section 5.1. The display shows **Pro**.

Press the **2** key seven times. In the display reports **CASH, dEmo, InFO, Mod, Ncod, CALE, Hour** are showed successively.

Press the **1** key. The display reports **SURE** (access confirmation to time modification).

Press the **3** key to display the current time. The system time is shown on the display in the format: **hh.mm** (24 hour time format).

The minutes are showed flashing. Modification by keys **2** and **4**.

Press the **3** key to validate the minutes and go to hour modification.

The hours are showed flashing. Modification by keys **2** and **4**.

Press the **1** key to validate the hour on the display.

Select the day of the week (from **1-Mo** to **7-Su**) by **2** and **4** keys.

Press **1** to accept the day displayed. The display shows **Hour**.

The **2 / 4** keys allow the access to other menus.

To exit the ADVANCED MODE press the **STOP** key.

11.2.2. CALE menu

By this menu are defined the time bands for each day of the week. It is possible to define up to four time bands per day.

The first time band starts always at 00 hours.

The last time band finishes at 24 hours.

In the **CASH** menu, each time band will be allocated a different price for each program and each rate.

The rates are defined as:

LOW rate: low price. When the laundry is not very full.

Mid rate: normal price. When the laundry is quite full.

HIGH rate: high price. When the laundry is very full.

The values programmed by default on the **CALE** menu are:

One daily time band of 24 hours and at a normal rate.

Time programming

Access to the ADVANCED MODE. Section 5.1. The display shows **Pro**.

Press key **2** six times. In the display reports **CASH, dEmo, InFO, Mod, Ncod, CALE** are showed successively.

Press key **1** to access the menu. Display shows **1-Mo**.

The **2** and **4** keys allow the selection of another day.

Programming a day of the week

Press **1** to accept the day displayed. The display shows the report **1-**** (first time band and end time).

The **2** and **4** keys allow the modification of the end time of the first stage.

Press **1** to accept the hour programming. The display will show the rate of the first time band.

Possible programming: **LOW** rate: low price; **Mld** rate: medium price; **HIGH** rate: high price.

The **2** and **4** keys allow the selection of the desired rate.

Press **1** to accept the programmed rate.

If the end of the first time band has been programmed at 24 h, that will access to the time bands programming of the following day.

If the end of the first time band has been programmed before the 24 h, the display will show the report **2-****: Second band and end time.

To program the following time bands, repeat the operation described for programming the first band. Maximum number of time bands per day: four.

The last time band ends at 24 h. It's not modifiable.

Programming of the remaining days

Select by keys **2** and **4** the day that you want to modify.

Repeat the procedure: programming a day of the week.

The **STOP** key allows the access to the superior programming level. The display shows **CALE**.

The **2 / 4** keys allow the access to other menus.

To exit the ADVANCED MODE press the **STOP** key.

Example: Example of the weekly programming of the time band.

DAY	BAND 1		BAND 2		BAND 3		BAND 4	
	TIME	RATE	TIME	RATE	TIME	RATE	TIME	RATE
1-Mo	00-12 h.	LOW	12-18 h.	Mld	18-22 h.	HIGH	22-24 h.	LOW
2-tU	00-13 h.	LOW	13-24 h.	Mld	-	-	-	-
3-UE	00-24 h.	Mld	-	-	-	-	-	-
4-tH	00-24 h.	Mld	-	-	-	-	-	-
5-Fr	00-24 h.	HIGH	-	-	-	-	-	-
6-SA	00-13 h.	Mld	13-19 h.	HIGH	19-24 h.	Mld	-	-
7-SU	00-11 h.	LOW	11-14 h.	Mld	14- 19 h.	HIGH	19-24 h.	LOW

11.2.3. CASH Menu

Following the steps of previous section some time bands have been defined to which we have given a rate: **LOW**: low price. **Mld**: medium price. **HIGH**: high price.

In the **CASH** menu we give a price to each program according to the rate chosen.

The price will be programmed in number of tokens or in value of coins, depending on the coin meter in the machine.

Price of each program according to the three rates

Programming the **HR-1** option (consult **Mod** Menu in Chapter 9) extends the options of the **CASH** menu.

Access to the ADVANCED MODE. Section 5.1 Display shows **Pro**.

Press the **2** key. Display shows **CASH**.

Press the **1** key to access the menu. The display shows **Pr-1**.

Keys **2** and **4** allow the selection of another menu.

Programming the price of a program

Press the **1** key to program the prices of the program displayed.

LOW report is showed in the display. Press again the **1** key.

The display shows the value of the low rate of the program displayed.

The **2** and **4** keys allow the modification of the program price.

Press the **1** key to validate the program price.

MId report is showed in the display. Press again the **1** key.

The display shows the value of the medium rate of the program displayed.

The **2** and **4** keys allow the modification of the program price.

Press the **1** key to validate the program price.

HIGH report is showed in the display. Press again the **1** key.

The display shows the value of the high rate of the program displayed.

The **2** and **4** keys allow the modification of the program price.

Press the **1** key to validate the program price.

Pr-* report is showed in the display. Next program.

Programming of the remaining programs

Select by keys **2** and **4** the program that you want to modify.

Repeat the procedure: programming the price of a program.

Press the **1** key to program the prices of the program displayed.

The **STOP** key allows the access to the superior programming level. Display shows **CASH**.

Keys **2** and **4** allow the selection of another menu.

To skip the ADVANCED MODE press **STOP** key twice with **Pr-*** on display.

Example: rate programming using 0.20 € & 2 € (example only)

Programming made in a washer with dual coin meter.

PROGRAM	RATE LOW (LOW)	RATE NORMAL (MId)	RATE HIGH (HIGH)
1	€3.00	€3.60	€4.20
2	€2.40	€3.00	€3.60
3	€2.40	€3.00	€3.60
4	€2.00	€2.60	€3.20

Example: rate programming using 0.25 US\$ (example only)

Programming made in a washer with single coin meter.

PROGRAM	RATE LOW (LOW)	RATE NORMAL (MId)	RATE HIGH (HIGH)
1	\$2.75	\$3.00	\$3.50
2	\$2.50	\$2.75	\$3.25
3	\$2.50	\$2.75	\$3.25
4	\$2.25	\$2.50	\$3.00

12. EXTRA OPTIONS MENU. EoPt menu

On machines with extra options, the **EoPt** menu makes it possible to modify the parameters of these options. If the machine does not have these options, this menu will not be displayed.

The extra options are: Extra wash, extra rinse and extra spin. These options can be selected, independently from each other, once the washing cycle has been selected. In the EoPt menu each of the extra options can be turned on/off.

In the case of the extra wash and extra rinse, the user can choose between increasing the time of the corresponding phase or adding a new phase. Phase 2 and 3 respectively must be active.

This same menu makes it possible to enter the price of each of the extra options.

Table summarising the modifiable parameters for the extra options:

PARAMETER	MODIFICATION OF	OPTIONS		DEFAULT
EUA	Extra wash	0	Off	
		1	Increases the wash cycle time (Phase 2)	←
		2	Adds washing phase 1	
Ut-x	Extra washing time in minutes	1 ... 9	Time added to the washing phase (if EUA=1)	1
8888	Price of the extra wash	0000 9999		0000
Eri	Extra rinse	0	Off	
		1	Increases the rinse cycle time (Phase 3)	←
		2	Adds rinsing phase 5	
rt-x	Extra washing time in minutes	1 ... 9	Time added to the rinsing phase (if EUA=1)	1
8888	Price of extra rinse	0000 9999		0000
EdS-x	Extra spin	0	Off	
		1	It modifies the spinning time	←
		2	It modifies the spinning time and the spin speed at E6	
St-x	Extra spinning time in minutes	1 ... 3	Time added to the spinning (if EdS=1)	3
8888	Price of extra spin	0000 9999		0000

← Indicates default option according to settings.

To access the **EoPt menu** with a control that has the **extra options** function, follow these steps:

- Access to the ADVANCED MODE. The display shows **Pro**.
- Press the **2** key twice. The displays shows **CASH**, **EoPt** successively.
- Press the **1** key to sequentially access the listing of the different parameters.
- Once the last option is seen or modified, press the **1** key. The display shows **EoPt**.
- The keys **2** and **4** allow the access to other menus.
- To exit the ADVANCED MODE press the **STOP** key.

Refer to the operation manual on the manufacturer's website.

13. TROUBLESHOOTING

13.1. Freeing a trapped person



PROCEDURE IN THE EVENT OF ENTRAPMENT OF A PERSON OR AN ANIMAL INSIDE THE WASHER

1. **Press the STOP key.** This action interrupts the wash cycle in operation and opens the washing machine drain. The washing machine control circuit remains in operation.
2. **Open the door.** After the bath has been drained and the drum rotation has ended, the door lock is unblocked allowing the door to be opened.
3. **If the door fails to release:** Consult the following sections: **disassembling the door of the washing machine** or **manually releasing of the safety lock** (Sections 13.2 and 13.3)

CAUTION! If instead of pressing the STOP key you perform one of the following actions **THE DOOR LOCK WILL NOT BE RELEASED** immediately:



- Pressing the EMERGENCY STOP
- Disconnecting the ON/OFF SWITCH
- Disconnecting the SWITCH DISCONNECTOR

13.2. Manually releasing of the safety lock



CAUTION

This procedure is recommended in problems caused by a failure to realise the door of the machine. It should only be carried out by the Authorised Technical Service except in emergency situations.

Specific information for HS-6023, EH055, HS-6024, HS-6032, EH060, EH080, RMS/RMG628, REM/RMG070.

Before disassembling the door of the washing machine:

- Check that the bath level does not exceed the door opening level.
- Close and mechanically lock the manual water supply valves.
- Close and mechanically lock the manual steam inlet valve (steam heated washing machines).

Disconnect and mechanically lock the External Automatic Switch or the of the washing machine disconnecter switch.

In order to release the safety lock manually, completely insert a rod of 0.2 inches (3 mm) and an approximate length of 4 inches (100 mm) into the bottom side of the safety lock cover, and at the same time turn the knob downwards (Figure 13.1).

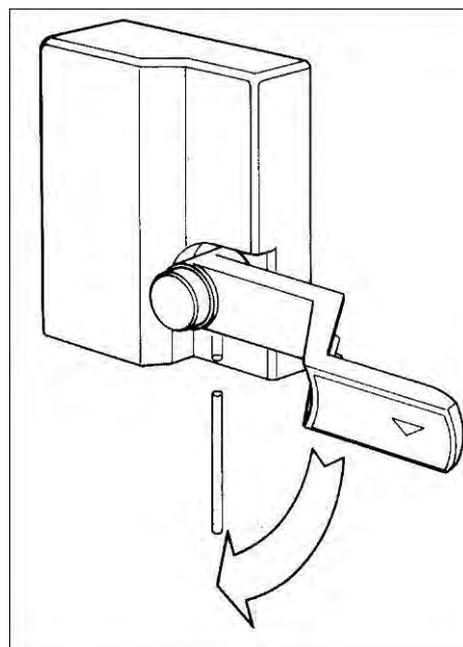


Fig.13.1

13.3. Disassembling the door of the washing machine



CAUTION

Only to be performed by the Authorised Technical Service except in emergency situations. Procedure recommended in problems caused by a failure in the realising of the door of the machine.

Specific information for RMS610, RMS/RMG613, RMS/RMG617, RMS/RMG623, RMS/RMG628, HS-6008, HS-6013, HS-6017, HS-6023, HS-6024, HS-6032, REM025, REM/RMG033, REM/RMG040, REM/RMG055, REM/RMG070, EH020, EH030, EH040, EH060, EH080.

Before disassembling the door of the washing machine:

- Check that the bath level does not exceed the door opening level.
- Close and mechanically lock the manual water supply valves.
- Close and mechanically lock the manual steam inlet valve (steam heated washing machines).
- Disconnect and mechanically lock the External Automatic Switch or the of the washing machine disconnecter switch.

Door disassembly.

- Remove the protective caps of the hinge locking screws (Fig. 13.2). In models RMS/RMG628, REM/RMG070, HS-6024, HS6032, EH060 and EH080, first remove the plastic guard (Fig.13.3/A).
- Disassemble the hinge locking screws. (Fig. 13.4).

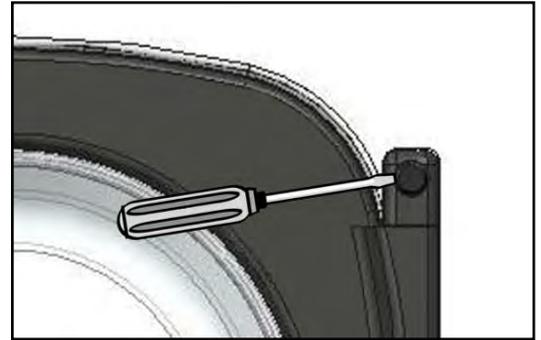


Fig. 13.2

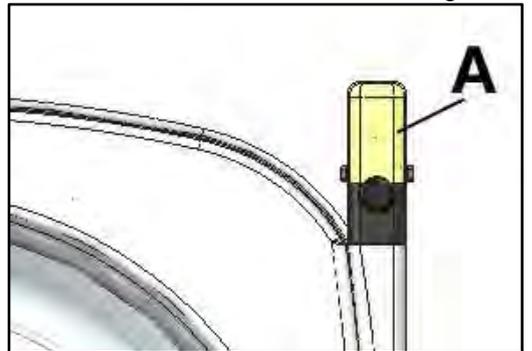


Fig. 13.3

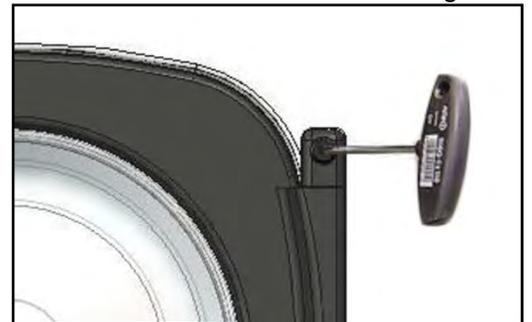


Fig. 13.4

13.4. What to do when ...

Some of the washing machine's operating problems can be solved by the user intervention. These problems are detailed below.

Should you have any questions, remember to consult the Authorised Technical Service.

.....**the wash cycle ends with the report: END/BAL**

This report indicates that the final spin cycle is not possible because the load is unbalanced.

- Unload the machine and reload it.
- Begin the wash cycle and accelerate the program to the last phase.
- The washing machine will repeat the last spin cycle without refilling with water.
- If the problem persists, or occurs often, contact the Authorised Technical Service.

.....**the machine makes a strange noise during the spin cycle**

- Contact the Authorised Technical Service.

.....**the door is leaking**

- Clean the door seal of any possible deposits or remains of linen.

.....**there is water leaking inside the washer cabinet**

- Check the outlet draining pipe.
- Check the seals on the water inlet hoses; tighten the connection couplings.
- Check the condition of the door seal and check whether there are any ruptures.
- If the problem persists, seal all of the water inlets and contact the Authorised Technical Service.

.....**you have forgotten the access code for the ADVANCED MODE**

- Contact the Authorised Technical Service.

.....**the clock (option) stops working correctly**

- Possible battery failure. Contact the Authorised Technical Service to have it replaced.

13.5. System alarms

The safety of the washing machine in use requires the machine to monitor itself closely for any possible anomalies. These anomalies are reported in the form of alarms.

The **ALM** message will appear on the washing machine's display alternating with the specific alarm report.

REPORT ON DISPLAY	LIKELY CAUSE	RESPONSE
ALM/A-*	Faulty water inlet	Check water input pressure. Check manual water inlet valves. Check the status of the filters in the solenoid valves. (See Section 13: Maintenance)
	Defect in the solenoid valves Defect in the level control system	Call Service.
ALM/E	Machines with pump drain: obstruction of the draining pump	Call Service.
	Anomaly in the drain system Error in drain configuration	Check the status of the washing bath's output hoses. Call Service.
ALM/HOT	Inadequate stop of the washing machine with bath at high temperature Excessive temperature when machine is stopped Anomaly in the heating system	Close the door of the washing machine to allow opening of cold water valve. Press STOP key to drain the bath and access to the door opening. Repeat this operation until the alarm report disappears. If the alarm report does not disappear after five attempts, disconnect the general power supply and close water inlet manual valves. Call Service.
ALM/L	Leakage in the solenoid valve Bath level with machine idle	Close manual water inlet valves. Call Service.
ALM/SL	Bath level exceeded	Close manual water inlet valves. Call Service.
ALM/C	Defect in the temperature probe Error in the heating configuration Defect in the heating circuit	Call Service.
ALM/Prob	Defect in the temperature probe	Call Service.
ALM/BAL	Defect in the unbalance control switch	Call Service.
ALM/VAR*	Disconnection of the motor's thermal protection Alarm set off by the inverter	Call Service.
ALM door	Faulty door lock	Call Service.
Hot	Interruption of the program by STOP key with bath at high temperature	The washing machine will automatically accept cold water and will not allow the door unlock. When the bath temperature is below 45 °C (133 °F) the bath will drain and the safety door lock will be released.
door	Door badly closed	Open and close door.

14. MAINTENANCE



Caution

- The users must refrain from carrying out actions reserved for the Authorised Technical Services.
- Before performing any work on the washing machine, disconnect and mechanically lock the external switch, and close and mechanically lock the manual water inlet valves.
- Check that the temperature of the parts to be handled represents no risk of burns.
- The dispenser may contain residues of chemical products. In cleaning operations, avoid direct contact with the skin and protect the eyes.
- The draining pump and valve may contain residual water. When handling this component, avoid direct contact with the skin and use eye protection.
- Remember to reassemble ALL of the panels and replace them correctly after any maintenance work.
- It is highly recommended to ask the Authorised Technical Service for a register or report of all the maintenance and service work done on your washer.

Operations described

USER-MAINTENANCE INSTRUCTIONS

- Cleaning the washer (Section 14.1)
- Cleaning the door seal (Section 14.2)
- Cleaning the solenoid valve filters (section 14.3)
- Checking safety devices (section 14.4)



ONLY TO BE PERFORMED BY THE AUTHORISED TECHNICAL SERVICE

- Cleaning the dispenser (Section 14.5)
- Cleaning the draining pump (models **HS-6008/EH020**) (section 14.6)
- Checking the condition of the bearing housing seals (Section 14.7)
- General overhaul (Section 14.8)

14.1. Cleaning the washer

- We recommend cleaning the outside of the washing machine periodically. Use a damp cloth or sponge.
- To remove grease marks use a neutral soap and rinse well.
- Never use abrasive products or tools that could scratch or damage the surface of the washing machine.

14.2. Cleaning the door seal

- Use a damp cloth or sponge.
- Be especially careful to remove traces of laundry products or pieces of fabric that could be caught between the folds of the seal.
- Never use abrasive products or tools that could cut or damage the seal.

14.3. Cleaning the solenoid valve filters



Only by qualified personnel

Required tools:

- Disassembly of the fittings: Slip-joint pliers or pipe wrench diam. 1-1/2 in (35 mm).
- Disassembly of the filter supports: wrench 1-3/8 in (34 mm).
- Disassembly of the filters: pliers.

Steps to follow

- Disconnect and mechanically lock the external switch. Close and mechanically lock the manual water supply valves.
- To avoid the risk of burns, check the temperature of the hot water inlet hose.
- Disassemble the fittings that connect the hoses to the washing machine.
- Disassemble the filter supports (according to model).
- Remove the filters from their housings and clean the filters with pressurised water. Refit them in their housings.
- Assemble the solenoid valve supports (according to model).
- Assemble the hoses in their corresponding inputs. Tighten the fittings.
- Connect the external switch, open the manual water input valves and check the water-tightness of the coupling.

14.4. Checking safety mechanisms

14.4.1. Checking the door lock

DAILY check the door lock.



CAUTION. Only by qualified personnel

Use great prudence in checking the door lock.

Carry out the check described below while the drum is turning at washing speed and never at a higher speed.

If there is a failure in the door lock, never place one's hand in the loading area of the washer.

Checking procedure:

Close and mechanically interlock the manual water supply valves (and steam inlet valve in washers with this option included).

Open the washing machine door. The display will read **door**.

Close the door.

Select and start a wash cycle.

About a minute after starting the cycle, check that the door is locked.

Press the **STOP** key to finish the verification.

After a safety delay of about 30 minutes, the door will be unblocked.

Open the washing machine door. The check is completed.

If no anomaly has been detected, open the fluid inlet valves.

Remember that programs can be selected and started by using the **dEmo** mode operation. See Chapter 7 of this manual.



CAUTION

If anything other than that was described is detected during the operation, disconnect the washer, do not use it, and contact the Authorised Technical Service **URGENTLY**.

14.4.2. Verify the general Emergency Stop of the laundry

It is important to remember the obligation to install a general Emergency Stop, in all coin-op laundry establishments. More information regarding this device is in the Installation Manual.

Inspect the Emergency Stop weekly and check that:

- Operating the Emergency Stop disconnects **ALL** the machines in the laundry.
- The Emergency Stop releasing mechanism doesn't connect the machines.
- The Emergency Stop's **START** command restores the electricity supply.



CAUTION

If anything other than that was described is detected during the operation, disconnect the power supply of the establishment, and contact the Authorised Technical Service **URGENTLY**.

14.5. Cleaning the dispenser



Only to be performed by the Authorised Technical Service

- Disconnect and mechanically lock the external switch. Close and mechanically lock the manual water supply valves.
- Clean the dispenser by using a cloth or sponge dampened with water. Warm water makes cleaning easier. Never use abrasive products, solvents or tools that could scratch or damage the dispenser.

Once the dispenser cleaning and assembly operations are finished:

- Connect the external switch and open the manual water inlet valves.
- Start a washing program that uses a bleaching agent and softener and check that both compartments drain properly.

14.5.1. Washers with front dispenser

Required tools:

Unscrewing the fastening tabs: Torx T20 screwdriver

Disassembly and assembly:

- Open the dispenser drawer and loosen the screws on the retaining tabs visible along the bottom (Fig. 14.1).
- Completely remove the drawer and dismount the siphon tubes from the liquid compartment by pulling them upwards.

Once the cleaning operations are over:

- Replace the siphon tubes and replace the drawer in its housing.
- Refit the fastening tabs and check that the drawer cannot be completely removed.

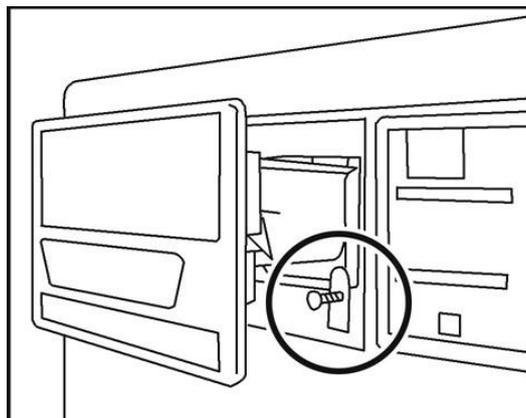


Fig.14.1

14.5.2. Washers with top dispenser

Disassembly and assembly

- Open the fastening clasps on the top cover. The dispenser is now accessible.
- Detach the siphon tubes from the liquid compartment by pulling them upwards.
- To clean the lower basin, remove the leak seal and separate the two dispenser bodies by separating the side lips (Fig. 14.2).

Once the cleaning operations are over:

- Refit the two dispenser bodies and check that the side lips fasten both pieces.
- Replace the siphon tubes.
- Check that the dispenser is set well in its bracket.
- Check the condition of the top cover seal. If seal is damaged, deformed or has lost elasticity, it must be replaced.
- Replace the seal. Fit the top cover. Close the clasps.

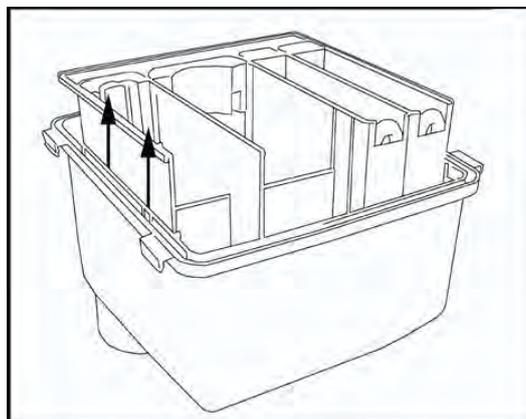


Fig.14.2



VERY IMPORTANT

The dispenser protection seal is necessary to prevent humidity and corrosion inside the machine and the premature damage of the electrical and electronic circuits of machine control.

14.6. Cleaning the drain pump

(Drain pump washers. Fig.14.3)



Only to be performed by the Authorised Technical Service

Required tools. Disassembly of the lower front panel: Torx T25 screwdriver.

- Before disassembling the lower front panel of the washing machine, disconnect and mechanically lock the external switch, and close and mechanically lock the manual water inlet valves.
- Empty any residual water contained in the drain ducts, placing the corrugated rear tube horizontally on the floor. The water will come out of the end.
- Disassemble the lower front panel. The draining pump is accessible.
- Turn the filter counter-clockwise and separate it from the pump body.
- Clean the filter and any possible deposits from the inside of the pump body.
- Assemble the filter and the draining pump.
- Replace the bottom panel.
- Connect the external switch and open the manual water inlet valves.
- Begin a washing program and check that there are no water leaks.

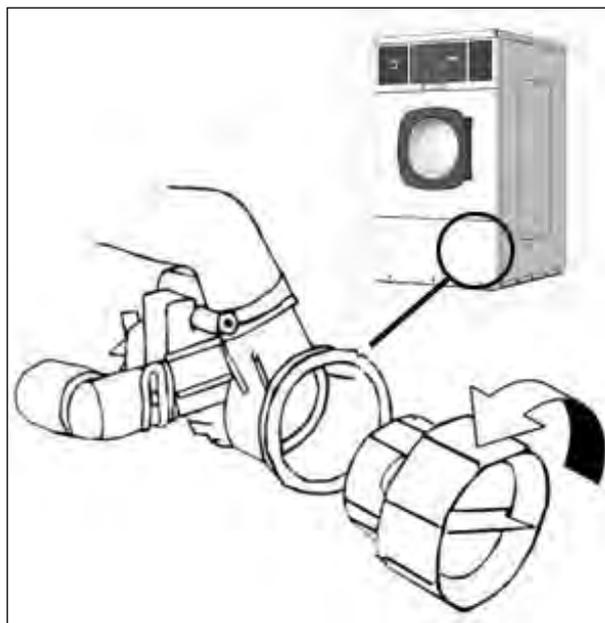


Fig.14.3



The bottom front cover is a stabilising element of the washer cabinet. Make sure that it is properly mounted and fastened.

14.7. Checking the condition of the bearing housing seals



Only to be performed by the Authorised Technical Service.

At regular intervals check that no water is leaking out of the bearing drain pipe located at the back of the washer at the bottom. Water loss indicates that the seals are in poor condition and need to be replaced.

14.8. General Overhaul



Only to be performed by the Authorised Technical Service

- As preventive maintenance action, it is very important to request the Authorised Technical Service for a periodic overhaul of the washing machine.
- Recommended periodicity: every year or each **3000** washing cycles.
- When performing this revision in models **HS-6008 / EH020**, due to the fatigue they are subject to, we recommend carefully checking the door seal and replacing if wear is noticed.

15. WITHDRAWING FROM SERVICE



- Removing the washer from service requires a specialised company.
- Never release the washer unsecured.
- To release the washer and subsequent transportation, refer to the same specifications and cautions indicated for Installation.

When removing the machine from service:

- Disconnect and mechanically lock the external switch. Remove the supply cables.
- Close and mechanically lock the manual water supply valves. Remove the water supply hoses.
- Disassemble the drain outlet pipe and empty any residual water left in the washing machine.
- Assemble the shipping restraints.
- Disassemble the door of the washing machine (consult the Authorised Technical Service).

Dismantling

Most of the machine's components are made of recyclable or recoverable materials. The injected pieces bear information on the materials that were used to make them. The main materials are:

- Steel plates
- Stainless steel plate
- Grey cast iron
- Aluminium
- Glass
- Polypropylene (PP)
- Ethylene Propylene (EPDM)
- ABS
- Copper
- Electronic components



Management of waste from electronic devices

In compliance with Directive 2002/96/EC on the management of waste from electronic devices, it is the obligation of the manufacturer to warn that:

The electronic components installed in the washing machine, must be dismantled and delivered to treatment facilities authorised for this purpose.