Operation Instructions for washers
MICROPROCESSOR CONTROL

MICROPROCESSOR Control
IMPORTANT SAFETY INSTRUCTIONS

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

1. **READ** all instructions before using the washer 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. These substances **GIVE OFF VAPOURS** that could ignite or explode.

3. **DO NOT ADD** gasoline, 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** or near possible water splashes.

9. **DO NOT TAMPER** with controls.

10. **DO NOT REPAIR OR REPLACE** any part of the washer or attempt any servicing, unless specifically recommended in the user instructions or in published user-repair instructions that you understand and have the skills to carry out. **DO NOT BY-PASS** any safety device.

11. It is **NOT ACCEPTED ANY** electric or mechanic **MODIFICATION OR MANIPULATION. DO NOT INSTALL** foreign components inside the machine.

12. All **SAFETY INSTRUCTIONS** included in the Instruction Handbooks, should be reprinted and posted in the laundry room.

13. Failure to install and operate this machine according to the Instruction Handbooks or to work safety and hygiene standards and common sense, may result in conditions which **CAN PRODUCE** bodily injury or loss of life.

14. The **DANGER, WARNING, CAUTION** and **IMPORTANT** instructions appearing in the Instruction Handbooks are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and carefulness are factors which cannot be built into this machine. These factors **MUST BE** supplied by the person(s) transporting, installing, maintaining, or operating the machine.

15. All connections for electrical power and plumbing **MUST** comply with the statutory safety standards applicable to each country, and be made by Licensed Installers only (refer to note 3).
16. **WARNING!**

**MACHINE INSPECTION, FILTER CLEANING, MAINTENANCE, SERVICE OR PARTS REPLACEMENT.**

Before attempting any service or inspection of the washing machine:

- Close and mechanically interlock the water supply valves and check that machine has **COMPLETELY** drained, parts have cooled down and that no pieces are in movement through inertia.

To reduce the risk of electrical shock:

- **COMPLETELY** disconnect the machine from the original power source and check for accidental reconnection. MOVING THE ON SWITCH TO THE OFF POSITION IS NOT SUFFICIENT.
- Disconnect the electrical power of the external dosing to the washing machine. These circuits are independent of the washer’s supply.
- Wait a minimum of (5) five minutes after disconnection to ensure the elimination of residual voltage within the machine.

Failure to comply with this warning may result in serious injury.

17. **NEVER** START THE MACHINE NOR USE IT IN THE ABSENCE, INCORRECT POSITION OR MALFUNCTION OF:

- COVERS (GUARDS) AND PROTECTIONS
- SAFETY DEVICES
- CONTROL ELEMENT

18. The room **MUST** comply with the environment conditions (air venting, temperature, humidity...) specified in the Installation Instruction Handbook. **NEVER INSTALL THE WASHING MACHINE** in very humid environments or with water splashes.

19. **DO NOT OPERATE** the machine if it is suspected to be faulty, either visually, by noise or smell, or with missing or broken parts.

20. Machine start-up **SHALL** be made by Authorised Service Technicians *(refer to note 2)*.

21. Machine **SHALL BE USED** by qualified personnel *(refer to note 1)*, wholly familiar with the machine’s operation.

22. **DO NOT** allow children or people with handicaps incompatible to machine use to operate machine.

23. Every machine working with temperature has a fire hazard, take **SPECIAL** care. **KEEP** appliance area free from combustible materials and fire extinguishers should be **PLACED** near the machines and should be easily accessible to all laundry staff.

24. Delimitate danger areas and **PREVENT** public access to them with machine in operation. Do not expose yourself to the dispenser, drain and rear overflow steam exhaust.

25. On completion of the day’s work, **TURN OFF** the manual supply valves and **DISCONNECT** the electrical power by the External Automatic Switch.

26. Always **CONTACT** an Authorised Service Technician or Licensed Installer *(refer to notes 2 & 3)* about any problems or conditions you do not understand.

27. For a safe operation, machine **MUST** be kept in a good environment, used and maintained properly. We recommend asking annually the Authorised Technical Service for a thorough overhaul *(refer to note 2)*.

28. The Distributor (seller) **IS OBLIGED** to thoroughly train the operator during the starting-up.

**THE MANUFACTURER REFUSES ANY RESPONSIBILITY IF THESE SAFETY INSTRUCTIONS AND ALL INFORMATION IN THE CORRESPONDING HANDBOOKS ARE NOT FOLLOWED.**

**SAVE THESE INSTRUCTIONS**

**NOTES:**

(1) **Qualified Personnel** refers to anyone who has read the Instructions Handbooks, has been trained and has a thorough understanding of the machine’s operation

(2) An Authorised Service Technician (AST) is one that has successfully completed training on the product by the manufacturer or a manufacturer Distributor.

(3) An **Authorised Licensed Installer** is one that is suitably qualified in the procedures and regulations applicable in that country.
HAZARD SYMBOLS USED ON WASHER LABELS:

<table>
<thead>
<tr>
<th>Electric risk</th>
<th>High temperature risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection guard for electric components.</td>
<td>Operate with caution. Use appropriate protections.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical risk</th>
<th>Risk of harmful vapours inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection guard for moving parts</td>
<td>Keep dispenser box closed. Use appropriate protections.</td>
</tr>
</tbody>
</table>

SYMBOLS USED IN THIS MANUAL

⚠️ This symbol alerts you to potential hazards for the user, the machine or the fabric.

⚠️ This symbol is used to give relevance to any precise explanation.

Replacement Parts
If literature or replacement parts are required, contact the source from which the washer-extractor was purchased or contact Alliance Laundry Systems LLC at (920) 748-3950 for the name of the nearest authorized parts distributor. A parts manual may be ordered by returning the reply card provided with each washer-extractor.

Customer Service
For technical assistance, contact your local distributor or call: (920) 748-3121 Ripon, Wisconsin
A record of each washer-extractor is on file with the manufacturer. Always provide the machine’s serial number and model number when ordering parts or when seeking technical assistance. Serial plate is located at the rear side.

Copyright 2009, Alliance Laundry System LLC
All rights reserved. No parts of the contents of this book may be reproduced or transmitted in any form or by any means without the expressed written consent of the publisher.
IMPORTANT INSTRUCTIONS FOR USE AND CONSERVATION

1. **EXPECTED MACHINE USE AND DON’TS.** This machine has been made and designed for industrial washing or cleansing in a water bath of linen and textile materials only. Linen and textile materials must be free from solvent impregnation or explosives. Any other use will be considered contraindicated without the written authorization of the manufacturer. Under-loading as well as overloading is not recommended. Always endeavour to meet the capacity of the machine. It is not recommended to wash the linen inside bags. Should it be necessary, load the machine up to its nominal value. It is not recommended to spin carpeting, canvas or waterproof fabrics.

2. **Machine MATERIALS** in contact with wash products are:
   - Stainless Steel **AISI-304 L**
   - Aluminium in models HS-6008 & MS-610 (EH020 & EM025)
   - EPOXY coating on steel (in some models)
   - Polypropylene **PP**
   - **EPDM** and **NBR**
   - Borosilicate glass

3. The user must inquire the chemical product supplier about the risks of chemicals and its combination. The user is responsible to assure that products ARE COMPATIBLE and will not produce machine oxidation or damage either to people or to the washer. Notice that the hypochlorite (bleach), in certain conditions of use, generates chlorine gas. The chlorine is a corrosive and oxidizing substance that, in elevated concentrations and temperature, deteriorates the stainless steel and elastomers. There are other highly oxidizing agents, such as the ozone, that can cause the same effect.

4. Periodically **CLEAN** the machine. You will prevent metallic parts corrosion and produce higher output and have a longer life. To clean the washing machine, use water and detergent, rinse with a damp cloth, and dry. **Cleaning with water jet or pressure steam is forbidden.**

5. Once the wash cycle has finished, **THE WASHER DOOR SHOULD REMAIN OPEN**.
   - Allows for the ventilation of the washer interior
   - Avoids the appearance of harmful micro organisms
   - Extends the lifetime of the door joint

6. **NEVER** use harsh products to clean the machine and laundry room. There are products on the market, which are highly corrosive.

7. If machine is left idle for long periods of time, it must be **PROTECTED** from humidity and temperature variations.

8. **FOLLOW** the fabric care instructions supplied by the manufacturer. **THE MANUFACTURER REFUSES ANY RESPONSIBILITY IN CASE OF TEXTILE WEAR AND TEAR.**

9. Failure due to improper machine operation may **VOID WARRANTY**.

10. Replacing any part of the washer can affect the machine’s security. Examples:
    - Just a screw or bolt of insufficient strength could cause dangerous damage.
    - A heater without an internal fuse could provoke a fire.
    - An inadequate clamp can be the cause of water leaks and short circuits, etc.
    The reason for which **ONLY ORIGINAL SPARE PARTS MUST BE USED**

    The incompliance of this precaution may result in a washer breakdown, a serious accident, and loss of the warranty.

11. When asking for information on your machine, **MENTION** model and serial number (**SERIAL PLATE** is located at the rear side).

12. **THE ELECTRICAL DIAGRAM IS LOCATED IN THE UNDERSIDE OF THE WASHER’S TOP COVER.**
8. MODIFYING PROGRAMS................................................................................................................36
  8.1. Modifying a program ........................................................................................................36
  8.1.1. Selecting a program and modifying the name .................................................................36
  8.1.2. Selecting phase and intervention ..................................................................................37
  8.1.3. Modifying and viewing the content of a phase .................................................................37
  8.1.4. Inserting a phase ............................................................................................................38
  8.1.5. Erasing the phase selected .............................................................................................38
  8.2. Copying a program into an empty program ........................................................................39
  8.3. Blocking and unblocking the use of a program .................................................................39
  8.4. Erasing a program ............................................................................................................39
  8.5. Modifying the name and viewing the content of pre-set programs (from numbers 1 to 20) ..........................................................................................................................39

9. USING THE CARD ......................................................................................................................40
  9.1. Copying from machine to card ..........................................................................................41
  9.2. Copying from card to machine ..........................................................................................41
  9.3. Consulting the card content and changing the program name ............................................42
  9.4. Erasing a program on the card ..........................................................................................42

10. SYSTEM TOOLS.......................................................................................................................43
  10.1. Configuration menu. Presentation and access .................................................................43
  10.2. Configuring operation and programming parameters .....................................................44
        10.2.1. Operation parameters ............................................................................................44
        10.2.2. Advanced programming options ............................................................................47
        10.2.3. Modifiable values tables .......................................................................................48
  10.3. Setting the clock .............................................................................................................50
  10.4. Initializing the card .........................................................................................................50
  10.5. Managing access codes ................................................................................................50

11. INFORMATION MENU ...........................................................................................................52
  11.1. General information. Content .......................................................................................52
  11.2. Operation counters ........................................................................................................52
  11.3. Alarm counters ...............................................................................................................53
  11.4. Executed program counters ...........................................................................................54
  11.5. Load counters ................................................................................................................54

12. TEXT MESSAGES .....................................................................................................................54
  12.1. Programming messages and moment of display .............................................................54

13. TROUBLESHOOTING ............................................................................................................55
  13.1. Freeing a trapped person ..............................................................................................55
  13.2. Manually releasing of the security lock ..........................................................................55
  13.3. What to do when ............................................................................................................56
  13.4. System alarms ...............................................................................................................57

14. MAINTENANCE .......................................................................................................................60
  14.1. Operations described ......................................................................................................60
  14.2. Washing machine cleaning ............................................................................................60
  14.3. Door seal cleaning .........................................................................................................60
  14.4. Cleaning the electro valve filters ....................................................................................60
  14.5. Cleaning the dispenser ..................................................................................................61
  14.6. Revising the safety mechanisms ....................................................................................62
  14.7. General revision ............................................................................................................63

15. SERVICE REMOVAL ...............................................................................................................63
  15.1. Dismantling ....................................................................................................................63
1. DESCRIPTION

WASHER EXTRACTOR DESIGNED TO WASH OR TREAT FABRIC IN A WATER BATH.

1.1. Characteristics

**Construction characteristics:**
- Washers, capable of extracting with speeds above 350G without having to be bolted down. The design of its suspension system: multi-directional springs and shock absorbers to cushion up to 95% of the vibrations produced during the spin cycle.
- 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 motor of alternating current controlled by inverter.
- Hot and cold water connections with a safety mechanism to prevent contaminating by back-flowing into the general potable water system.
- Large capacity drain valve.
- Water inlets and all product dispensers done using a common collector with an anti-siphon mechanism.
- Option for heating the bath using electric heaters or steam injection.

**Functional characteristics:**
- Operation control of the washer by microprocessor.
- Operation of the washer adaptable to the possibilities of the installation and the needs of the user.
- Temperature control mixes hot and cold water in accordance with the programmed temperature and the activation of the heating system. Precision of +/- 2ºC (+/- 3.5ºF).
- Level control done with an electronic pressure transmitter.
- Serial communication between the washer microprocessor and the inverter control of the motor. This communication takes advantage of all the features offered by inverter technology which results in a significant energy savings and an optimal management of the spin cycle. This in turn implies a significant reduction in noise, vibration and wear on the washer components.
- Washing programs: availability of twenty pre-programmed programs.
- Seventy-nine free programs, programmable by the user.
- Programming, copying, modifying and erasing menus. These menus are viewed in graphic mode. This type of viewing facilitates understanding the different operations.
- Memory card that allows storing programs from the washing machine memory and later introducing them into other machines Thanks to its programming system, the programs programmed into a washing machine with Microprocessor Control are usable in any washing machine with the same control.
- Multiple controls that assure the safe use of the washer.

1.2. PROTECTION, SAFETY AND CONTROL ELEMENTS

**Fixed guards:** Covers. Protect the user from the contact with dangerous points and accidental machine spattering.

**Moving guards:**
- Dispenser cover.
- **TILT models.** Covers allowing tilting movements of the washer.
- **Door** with interlock microswitch, door lock and delayed opening.

**Unbalance microswitch.** Additional electromechanical safety to protect against unbalance of drum load during the spin cycle.

**Overflow.** When the bath level is exceeded by electrovalve failure, the bath is drained through the drain outlet

**Thermal fuse** to protect the electric heaters.
1.3. SAFETY FUNCTIONS

**Bath level control.** Allows selecting different bath levels during the wash cycle and controls the overflow safety and minim 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.

2. CONTROL PANEL

The **Microprocessor Control** offers different user intervention devices upon the washing machine.

2.1. CONNECTION AND STOP DEVICES

[Diagram of connection and stop devices]

**General switch.** Switch disconnector located on the rear part of the washing machine. Totally disconnects the electric supply from the machine.

**ON switch (A):** Switch installed on the front piece of the washing machine.

**Emergency stop (B):** (only on washing machines with capacity over 150dm³). Red button with lock located in a visible and accessible place on the washing machine.

**STOP key (C):** key on the numerical keyboard.

2.2. SCREEN

Allows viewing the different operations that the washing machine and/or the user execute by means of easily understandable graphic icons

[Diagram of screen in graphic and text modes]

**Screen in graphic mode.** In graphic visualization, the screen is divided into different parts.

1) Function icon  
2) Program and phase numbers  
3) System time  
4) Central screen  
5) Function of the multi-function keys  
6) Multi-function keyboard

**Screen in text mode.** Used in the CONFIGURATION mode menus and the TECHNICAL ASSISTANCE area. The screen displays messages written in different languages.
2.3. KEYBOARDS

**Numerical keyboard:** Used for selecting programs, introducing values...

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>0 ... 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>The keys with vertical and horizontal arrow symbols allow inserting text.</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
<td>C key: Accesses the delayed start of a program and erases written characters.</td>
</tr>
<tr>
<td>STOP</td>
<td>0</td>
<td>C</td>
<td>STOP key: cancels a wash cycle and other functions depending on the one currently in use.</td>
</tr>
</tbody>
</table>

**Multi-function keyboard (T).** Made up of four keys that execute different orders depending on what is currently in use. The function of each key is displayed on the graphic screen.

---

2.4. CARD READER

The Microprocessor Control allows storing wash programs on a memory card and copying them onto other washing machines that use the same control. The card has a maximum capacity of 25 programs. Depending on the length of the program, this quantity can be reduced.
3. MAIN MENU. INTERVENTION MODES

The Microprocessor Control is divided into **THREE MAJOR OPERATION AREAS** or user **INTERVENTION MODES**. Each of the three modes is accessed through the **MAIN MENU** made up of three icons identifying each of the modes.

**PROGRAM EXECUTION MODE**

Covers the functions or interventions destined to:
- Selecting and executing the different wash programs
- Programming the delayed start of a program
- Accessing information about the different functions that the washing machine is executing
- Small specific modifications of the program being executed

All the information that appears on the screen during the execution of a program is in graphic mode.

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

**PROGRAMMING MODE**

Covers the functions or interventions destined to:
- Knowing the content of the PRE-SET program in the washing machine’s memory
- Creating a new wash program, whether it is a new program or copying an already existent program
- Eliminating programs from the washing machine’s memory
- Using the resources that the card holds

All the information that appears on the screen in the program management menu is in graphic mode.

Information regarding this intervention mode: chapters 5 to 9 of this manual.

**SYSTEM TOOLS MODE**

This area offers specific menus for **CONFIGURING THE SYSTEM**. Among other features:
- Configuring operation parameters
- Setting the clock of the system
- Controlling security codes

It also provides a lot of information about the characteristics and life of the washing machine.

The information in this area is in text mode.

Information regarding this intervention mode: chapter 10 in this manual.
4. EXECUTING PROGRAMS

4.1. STARTING THE WASHING MACHINE.

MAIN MENU

- Open the manual water inlet valves.
- Open the manual steam inlet valves (steam heated washing machines).
- Connect the general switch of the washing machine. Activate the ON switch: position I.
- On the screen, the initialising logo will appear and then the MAIN MENU.

4.2. SELECTING AND STARTING A WASH PROGRAM

Select the icon of the program to be executed. Use the keys on the multi-
function keyboard.
Confirm the selection with the key

Possible icons:

Door closed.
Before starting a wash program, opening the washing machine door is imperative.

Group the fabrics to be washed in homogeneous loads, trying to reach the nominal value of the load. Empty all pockets, fasten buttons, close zippers and remove accessories that are not machine-washable. It is not recommend mixing whites with other colours.

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 wash:
- Cotton fabrics: nominal load
- Synthetic fabrics: between 80% & 90% nominal load
- Delicate fabrics: between 35% & 50% nominal load
Do not overload the machine; the door must be able to close easily.

While door is open the icon indicating door open is displayed on the screen.

Close the door The last five executed programs are displayed on the screen.
Select program desired. Use either the multi-function keys or the numerical keyboard.
To start a wash cycle, press the key on the multi-function keyboard.
4.3. INFORMATION ABOUT FUNCTIONS. DESCRIPTION OF THE SCREENS

During the course of the wash program, a series of informative screens about functions that the washing machine is executing will appear on the screen. Information about functions is displayed through icons. To know the meaning of each icon, consult Programming a program phase (section 7.3). Below, the most frequent screens and their meaning are shown.

**Bath management screen**
Information about:
- Type of water
- Bath level
- Dosings
- Programmed temperature (example: 80°C)
- Bath temperature (example 65°C)
(Consult the meaning of icons in sections 7.3.1...7.3.5)
Function of the multi-function keyboard: refer to section 4.4.

**Rotation screen**
Information about:
- Type of rotation
- Drum speed
- Rotation time
(Consult the meaning of icons in sections 7.3.7...7.3.9)

**Progressive cooling screen**
Information about:
- Temperature of the bath
(Consult the meaning of icons in sections 7.3.10)

**Bath drainage screen**
Information about:
- Drum speed during the bath drainage cycle
- Spin time
- Buzzer
(Consult the meaning of icons in sections 7.3.12...7.3.15)
4.4. MODIFYING THE DURATION OF A PROGRAM
Once a program is started, the user can modify the rotation and/or spin time. This intervention will always be possible if the time icon associated with the rotation or spin function appears. Advancing the program and accessing in order to execute the functions on the following screen is also possible.

Intervention keys on the multi-function keyboard

```
+   Increase the rotation or spin times
-   Decrease the rotation or spin times
    Key for advancing to the following function screen
```

4.5. INFO SCREEN
Screen that gives diverse information to the user. This screen is accessed by pressing the key --- on the multi-function keyboard. After a few seconds, the screen returns to the previous configuration.

Content of information:
- Time remaining in the program. Calculation estimated in washing machines without heating systems and normal water pressure conditions.
- Bath level [mm]. Column of bath detected by pressure switch.
- Temperature of the bath. Value in centigrade or Fahrenheit according to the washing machine configuration.
- Temperature programmed in the phase. Value in centigrade or Fahrenheit according to the washing machine configuration.
- Level of unbalance (visible during the spin cycle).
- Level of power absorbed by the motor.

4.6. CREASE-GUARD STOP. RINSE HOLD FUNCTION
This function allows interrupting the program from advancing before the final spin cycle of the program starts. During the interruption time, the washing machine stops the movement of the drum, except for short rotation movements at very large intervals, keeping the drain closed and the bath inside.

Possible interventions:
The function is activated by the keys on the multi-function keyboard.

- To activate the function, press the **RH-OFF** key FOR SOME SECONDS. The key message will change to **RH-ON**.
- Once program interruption is activated, the **CONT** key will blink. Press this key in order to resume the program.
- To deactivate the function before the program is interrupted, press the **RH-ON** key. The key message will change to **RH-OFF**.
4.7. STOP AND DOOR OPENING MODES
Description of the distinct stop modes of the washing machine.

End of cycle. Stoppage of the washing machine functions after the wash cycle ends. The washing machine control circuit remains in operation.
Door opening. After the bath has been drained and the drum rotation has ended, the door lock is unblocked allowing for the opening of the door.

STOP key. Interrupts the wash cycle in operation and opens the drain of the washing machine. The washing machine control circuit remains in operation.
Door opening. After the bath has been drained and the drum rotation has ended, the door lock is unblocked allowing for the opening of the door.

NORMAL STOP switch. Switch installed on the front piece of the washing machine. Disconnect the washing machine control circuit. DOES NOT DISCONNECT the entire electric circuit of the machine.
Door opening: Models with safety delay by means of thermal device (HS-6013, HS-6017, EH030 and EH040). After a maximum safety time (at times surpassing 3 minutes), the washing machine lock is unblocked.
Other models: Connect the ON switch again. After a maximum safety time (at times surpassing 3 minutes), the washing machine lock is unblocked. In NORMAL STOP condition the door is not unblocked.

Emergency stop. Red button with lock located in a visible and accessible place on the washing machine. It interrupts the operation of the washing machine. Once the switch is unblocked, the wash program resumes by pressing the PROG key of the multi-function keyboard; the STOP key cancels the program.
Door opening: Pushing the STOP key and after a maximum safety time (at times surpassing 3 minutes), the washing machine lock is unblocked.

General stop. General switch located on the rear part of the washing machine. TOTALLY disconnects the electric supply of the machine. Suitable for maintenance interventions and in situations of prolonged machine stoppage.
Door opening: Models with safety delay by means of thermal device (HS-6013, HS-6017, EH030 and EH040). After a maximum safety time (at times surpassing 3 minutes), the washing machine lock is unblocked.
Other models: In GENERAL STOP condition the door is not unblocked. If the washer's electrical supply can not be connected, the safety lock will have to be manual unblocked. Refer to chapter 14.

4.8. DELAYED START OF A WASH PROGRAM
Allows the user to program the start time of a wash cycle.
- Programming the start time:
  - Load the washing machine, close the door and select the wash program.
  - Press the C key on the numerical keyboard. On the screen, the current time will appear. Format of 24 hours.
  - The keys of the multi-function keyboard allow selecting minutes / hours. The value being selected blinks.
  - Program the desired starting time on the numerical keyboard and confirm with the key. The start time remains on the screen.
  - The STOP keys or the on the multi-function keyboard cancel the delayed start.
4.9. UNBALANCE CONTROL
Before starting spin, the electronic control of the washing machine 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.

Three unbalance levels, which cause different reactions in the washing machine, have been established. The unbalance level detected is viewed on the INFO screen when the washing machine executes the spin cycle.

- **NO** unbalance:...........allows any spin cycle
- **LOW** unbalance:........allows medium speed spin cycles and high speed spin cycles after a certain number of attempts.
- **MEDIUM** unbalance:...allows medium speed spin cycles; after a certain number of attempts, it reduces the speed of the high spin cycles
- **HIGH** unbalance: .......does not allow the spin cycle

As a safety feature, a microswitch monitors the movement of the washer suspended group. It is only activated in cases of extreme unbalance. This device prevents executing spin cycles.

<table>
<thead>
<tr>
<th>To improve the efficiency of the spin of the washer it’s advisable to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Load the washing machine up to its nominal value, using the total capacity of the drum.</td>
</tr>
<tr>
<td>• Load the washer with homogeneous loads</td>
</tr>
</tbody>
</table>

4.10. MACHINES WITH TILT SYSTEM
The **TILT SYSTEM** is made up of a pneumatic actuators system and an auxiliary electric control that allows the tilting of the washer forwards and backwards to assist loading and unloading while the door of the machine is open.

At the same time, operating the corresponding control devices, the drum rotation at low speed can be started. With the machine at the loading position, a water inlet can be opened (cold or hot) to soak the dry linen and reduce its volume. The maximum water level allowed in this situation is limited by program. The water used during this process will be kept inside the washer when a new cycle is started. To drain the water used during the loading process, turn off and on again the O/I switch on the control panel of the machine.

To use the **TILT** system control, the optional **A10 (TILT)** board must be installed and appropriately activated on the **SETUP** menu.
ATTENTION!
Because of the washer's tilting movement, there is crushing and shearing hazard between the tilting elements and the building elements.
To prevent them, please follow these instructions:
- Keep away from the rear of the washer during the tilt movement.
- The TILT SYSTEM has JUST been designed as a system to facilitate the washer's loading and unloading operations.
- DO NOT USE the washer until all the guards are properly located and adjusted
- In particular take special care to the tilt hinge guards.
- DO NOT MISLEAD NOR CANCEL THE POSITION DETECTORS located on the machine brackets.
- DO NOT MISLEAD NOR CANCEL THE PUSH-BUTTON that activate the drum's rotation with the door open.
- The pressure of the pneumatic circuit specific for tilting is controlled by a pressure regulator located on the electrical panel, with a fixed adjustment of 5 kg/cm² (71 PSI). DO NOT MODIFY NOR MANIPULATE THIS REGULATOR.
- TO AVOID THE RISK OF DRAGGING, NOBODY MUST TOUCH THE LINEN WHILE ACTIVATING THE DRUM ROTATION DEVICE
- Because of the facility of rotating the drum with door open, during loading and unloading operations NEVER MORE THAN ONE PERSON WILL OPERATE WITH THE MACHINE.
- The washer is protected against possible incorrect handling, so machine must be in horizontal position before selecting a tilting movement or starting a wash program.
- To prevent accidents resulting from getting trapped between the door and the opening for loading, before any tilting movement is started, secure the washing machine’s door by means of the hook located on its right side.

4.10.1. TILT SYSTEM control panel

Control panel devices

ON switch (A): Switch installed on the front piece of the washing machine.

Emergency stop (B): Red button with lock located in a visible and accessible place on the washing machine.

STOP key (C): key on the numerical keyboard.

DRUM ROTATION push-button (D): Activates the drum rotation options of the multi-function keyboard.

Graphics screen (E): It displays the different operations by means of graphic icons.

Multi-function keyboard (F). It allows executing the TILT system options.
4.10.2. Using the TILT SYSTEM

Open the washing machine’s door and secure it using the right side hook. If the main menu window is displayed, go to PROGRAM EXECUTION MODE.

Execute the desired option by pressing the corresponding key from the multi-function keyboard:

- **Loading position.** It tilts the washer backwards. When it reaches the final tilt position, the loading and unloading functions screen can be accessed.
  - On the multi-function keyboard, press the key corresponding to the icon to tilt the washer to the loading position.

- **Unloading position.** It tilts the washer forwards. When it reaches the final tilt position, the loading and unloading functions screen can be accessed.
  - On the multi-function keyboard, press the key corresponding to the icon to tilt the washer to the unloading position.

### Loading and unloading functions

- **Cold water inlet.** Only in loading position.
  - **ON:** open valve; **OFF:** close valve (if **OFF** is not pressed, the valve closes automatically when it reaches a preset level).

- **Water inlet A2** (hot and cold water depending on the washer connections.) Only in loading position.
  - **ON:** open valve; **OFF:** close valve (if **OFF** is not pressed, the valve closes automatically when it reaches a preset level).

### Right rotation

- **Press the DRUM ROTATION push-button on the control board to activate the multi-function keyboard.**
  - On the multi-function keyboard press the key which corresponds to the picture in the screen. The drum will turn clockwise at low speed.

### Left rotation

- **Press the DRUM ROTATION push-button on the control board to activate the multi-function keyboard.**
  - On the multi-function keyboard press the key which corresponds to the picture in the screen. The drum will turn clockwise at low speed.

### End of TILT System operation

- **The STOP key on the alphanumeric keyboard closes the loading and unloading functions screen.** The return to horizontal position screen is displayed.
  - If water has been allowed in the loading position, this water will be kept into the washer when a new cycle is started.

- **Return to horizontal position.**
  - Press, on the multi-function keyboard, the key corresponding to the icon to tilt washer in horizontal position. If water has been allowed in the loading position, this water will be kept into the washer when a new cycle is started.

- **Close the door.** The action of closing the door finishes the loading and unloading state, as well. This action does not open the drain valve. If water has been allowed in the loading position, this water will be kept into the washer when a new cycle is started.
4.11. MACHINES WITH EASY-LOAD SYSTEM
The EASY-LOAD SYSTEM is made up of an auxiliary electronic control allowing the start of the drum rotation at low speed to assist loading and unloading while the door of the machine is open.
At the same time, operating the corresponding control devices, a water inlet can be opened (cold or hot) to soak the dry linen and reduce its volume. The maximum water level allowed in this situation is limited by program.
The water used during this process will be kept inside the washer when a new cycle is started. To drain the water used during the loading process, turn off and on again the O/I switch on the control panel of the machine.
To use the EASY-LOAD system control, the optional A10 (TILT) board must be installed and appropriately activated on the SETUP menu.

![Diagram of control panel]

**IMPORTANT SAFETY INSTRUCTIONS SPECIFIC FOR EASY-LOAD SYSTEM**
The EASY-LOAD SYSTEM has JUST been designed to facilitate the washer's loading and unloading operations. Therefore:
- **DO NOT MISLEAD NOR CANCEL THE PUSH-BUTTON** that activate the drum's rotation with the door open.
- **TO AVOID THE RISK OF DRAGGING, NOBODY MUST TOUCH THE LINEN WHILE ACTIVATING THE DRUM ROTATION DEVICE**
- Because of the facility of rotating the drum with door open, during loading and unloading operations **NEVER MORE THAN ONE PERSON WILL OPERATE WITH THE MACHINE**.

### 4.11.1. EASY-LOAD SYSTEM control panel

**Control panel devices**

- **ON switch (A)**: Switch installed on the front piece of the washing machine.
- **Emergency stop (B)**: Red button with lock located in a visible and accessible place on the washing machine.
- **STOP key (C)**: key on the numerical keyboard.
- **DRUM ROTATION push-button (D)**: Activates the drum rotation options of the multi-function keyboard.
- **Graphics screen (E)**: it displays the different operations by means of graphic icons.
- **Multi-function keyboard (F)**. It allows executing the TILT system options.
4.11.2. Using the EASY-LOAD SYSTEM
Open the washing machine door. If the main menu window is displayed, go to PROGRAM EXECUTION MODE.
Execute the desired option by pressing the corresponding key from the multi-function keyboard:

On the screen the door open icon is displayed.
Press ROT key on the multi-function keyboard to access to the rotation and water inlet functions.

Loading and unloading functions
- Cold water inlet. Only in loading position.
  **ON**: open valve; **OFF**: close valve (if **OFF** is not pressed, the valve closes automatically when it reaches a preset level).

- Water inlet A2 (hot and cold water depending on the washer connections.) Only in loading position.
  **ON**: open valve; **OFF**: close valve (if **OFF** is not pressed, the valve closes automatically when it reaches a preset level).

Right rotation. Press the **DRUM ROTATION** push-button on the control board to activate the multi-function keyboard.
On the multi-function keyboard press the key which corresponds to the picture in the screen. The drum will turn clockwise at low speed.

Left rotation. Press the **DRUM ROTATION** push-button on the control board to activate the multi-function keyboard.
On the multi-function keyboard press the key which corresponds to the picture in the screen. The drum will turn anticlockwise at low speed.

End of EASY-LOAD System operation
- The **STOP** key on the alphanumeric keyboard closes the loading and unloading functions screen.

On the screen the door open icon is displayed
Close the door. The action of closing the door finishes the loading and unloading state, as well. This action does not open the drain valve. If water has been allowed in the loading position, this water will be kept into the washer when a new cycle is started.
5. PRE-SET PROGRAMS

The washing machine’s memory contains twenty pre-set programs.
The content of these programs is unalterable. It can not be modified. However, it can be copied into an empty program and later modified (section 8). This intervention facilitates the process of creating a new program.
The indicated use of each program is merely a guideline.
The total time of the program is approximate. This calculation is based on a washing machine supplied with hot and cold water and a water supply of 5kg/cm²

5.1. TABLE SUMMARIZING THE PRE-SET PROGRAMS

<table>
<thead>
<tr>
<th>Pr</th>
<th>Use</th>
<th>Soaking and pre-wash phases</th>
<th>Wash ºC / F</th>
<th>Rinse phases</th>
<th>Bleach dosing</th>
<th>Spin final</th>
<th>Time (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cotton and very dirty white linen</td>
<td>3</td>
<td>80ºC 176F</td>
<td>5</td>
<td>yes</td>
<td>high</td>
<td>66</td>
</tr>
<tr>
<td>2</td>
<td>Dirty white cotton</td>
<td>1</td>
<td>65ºC 149F</td>
<td>4</td>
<td>yes</td>
<td>high</td>
<td>48</td>
</tr>
<tr>
<td>3</td>
<td>White cotton</td>
<td>0</td>
<td>50ºC 122F</td>
<td>4</td>
<td>yes</td>
<td>high</td>
<td>35</td>
</tr>
<tr>
<td>4</td>
<td>Not very dirty white cotton</td>
<td>0</td>
<td>50ºC 122F</td>
<td>3</td>
<td>yes</td>
<td>high</td>
<td>29</td>
</tr>
<tr>
<td>5</td>
<td>Very dirty white cotton / polyester</td>
<td>3</td>
<td>70ºC 158F</td>
<td>4</td>
<td>yes</td>
<td>high</td>
<td>58</td>
</tr>
<tr>
<td>6</td>
<td>Dirty white cotton / polyester</td>
<td>1</td>
<td>50ºC 122F</td>
<td>4</td>
<td>yes</td>
<td>high</td>
<td>46</td>
</tr>
<tr>
<td>7</td>
<td>White cotton / polyester</td>
<td>0</td>
<td>40ºC 104F</td>
<td>3</td>
<td>yes</td>
<td>high</td>
<td>27</td>
</tr>
<tr>
<td>8</td>
<td>Not very dirty white cotton / polyester</td>
<td>0</td>
<td>40ºC 104F</td>
<td>2</td>
<td>yes</td>
<td>high</td>
<td>22</td>
</tr>
<tr>
<td>9</td>
<td>Very dirty colour-fast</td>
<td>1</td>
<td>60ºC 140F</td>
<td>4</td>
<td>no</td>
<td>high</td>
<td>44</td>
</tr>
<tr>
<td>10</td>
<td>Dirty colour-fast</td>
<td>1</td>
<td>50ºC 122F</td>
<td>3</td>
<td>no</td>
<td>high</td>
<td>34</td>
</tr>
<tr>
<td>11</td>
<td>Colour-fast</td>
<td>0</td>
<td>30ºC 86F</td>
<td>3</td>
<td>no</td>
<td>high</td>
<td>26</td>
</tr>
<tr>
<td>12</td>
<td>Not very dirty colour-fast</td>
<td>0</td>
<td>20ºC 68F</td>
<td>2</td>
<td>no</td>
<td>high</td>
<td>22</td>
</tr>
<tr>
<td>13</td>
<td>Very dirty non-colour-fast</td>
<td>1</td>
<td>40ºC 104F</td>
<td>4</td>
<td>no</td>
<td>medium</td>
<td>41</td>
</tr>
<tr>
<td>14</td>
<td>Dirty non colour-fast</td>
<td>1</td>
<td>35ºC 95F</td>
<td>3</td>
<td>no</td>
<td>medium</td>
<td>34</td>
</tr>
<tr>
<td>15</td>
<td>Non colour-fast</td>
<td>0</td>
<td>30ºC 86F</td>
<td>3</td>
<td>no</td>
<td>medium</td>
<td>26</td>
</tr>
<tr>
<td>16</td>
<td>Not very dirty non-colour-fast</td>
<td>0</td>
<td>20ºC 68F</td>
<td>2</td>
<td>no</td>
<td>medium</td>
<td>22</td>
</tr>
<tr>
<td>17</td>
<td>Very dirty delicates and wool</td>
<td>1</td>
<td>40ºC 104F</td>
<td>4</td>
<td>no</td>
<td>low</td>
<td>38</td>
</tr>
<tr>
<td>18</td>
<td>Dirty delicates and wool</td>
<td>1</td>
<td>30ºC 86F</td>
<td>3</td>
<td>no</td>
<td>low</td>
<td>31</td>
</tr>
<tr>
<td>19</td>
<td>Delicates and wool</td>
<td>0</td>
<td>20ºC 68F</td>
<td>3</td>
<td>no</td>
<td>low</td>
<td>25</td>
</tr>
<tr>
<td>20</td>
<td>Not very dirty delicates and wool</td>
<td>0</td>
<td>20ºC 68F</td>
<td>2</td>
<td>no</td>
<td>low</td>
<td>21</td>
</tr>
</tbody>
</table>
5.2. INTERPRETING THE ICONS IN THE TABLES OF PRE-SET PROGRAMS

The pre-set programs only use the functions available in the basic configuration of the washing machine without additional options.
To interpret the functions numerical values, refer to the programming values indicated on chapter 7.3. of this manual.

- **Approximate time of the program in minutes**
- **Water supply pressure**: recommended values.
  - These times do not include the times for heating and cooling the bath.
- **Water inlet**
  - The numerical value indicates the programmed water inlet.
- **Bath level**
  - The numerical value indicates the level programmed.
- **Temperature in centigrade**: Temperature value of the wash phase is highlighted.
  - The numerical value indicates the temperature programmed.
- **Temperature in Fahrenheit**: Temperature value of the wash phase is highlighted.
  - The numerical value indicates the temperature programmed.
- **Dosing**: Pre-set programs only use the internal dosing.
  - The numerical value indicates the dosing programmed.
- **Rotation**
  - The numerical value indicates the rotation sequence programmed.
- **Rotation time**
  - The numerical value indicates the rotation time in minutes.
- **Gradual cooling**
  - Interprets the numerical value programmed: 0 = NO cooling 1 = YES cooling
- **Draining**
  - Interprets the numerical value programmed: 0 = NO draining 1 = YES draining
- **Rotation speed during draining**
  - The numerical value indicates the rotation speed programmed.
- **Draining / spin cycle time**
  - The numerical value indicates the draining time in minutes.

**Other icons used on the viewing screens of the wash programs**

- **No dosing**
- **Phase without draining**
- **Buzzer at the end of the phase**
- **No buzzer at the end of the phase**
### 5.3. CONTENTS OF PRE-SET PROGRAMS

#### Pr 1

<table>
<thead>
<tr>
<th>Ph</th>
<th>66 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2320680530111</td>
</tr>
<tr>
<td>2</td>
<td>23401041550132</td>
</tr>
<tr>
<td>3</td>
<td>226014025600-</td>
</tr>
<tr>
<td>4</td>
<td>23801760580132</td>
</tr>
<tr>
<td>5</td>
<td>24401043560122</td>
</tr>
<tr>
<td>6</td>
<td>150320520111</td>
</tr>
<tr>
<td>7</td>
<td>150320520111</td>
</tr>
<tr>
<td>8</td>
<td>150320520111</td>
</tr>
<tr>
<td>9</td>
<td>240324540169</td>
</tr>
</tbody>
</table>

#### Pr 2

<table>
<thead>
<tr>
<th>Ph</th>
<th>48 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23401041540122</td>
</tr>
<tr>
<td>2</td>
<td>226514925100132</td>
</tr>
<tr>
<td>3</td>
<td>2430863540122</td>
</tr>
<tr>
<td>4</td>
<td>150320520111</td>
</tr>
<tr>
<td>5</td>
<td>150320520111</td>
</tr>
<tr>
<td>6</td>
<td>240324530169</td>
</tr>
</tbody>
</table>

#### Pr 3

<table>
<thead>
<tr>
<th>Ph</th>
<th>35 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22501222580132</td>
</tr>
<tr>
<td>2</td>
<td>2430863530122</td>
</tr>
<tr>
<td>3</td>
<td>150320510111</td>
</tr>
<tr>
<td>4</td>
<td>150320510111</td>
</tr>
<tr>
<td>5</td>
<td>240324520169</td>
</tr>
</tbody>
</table>

#### Pr 4

<table>
<thead>
<tr>
<th>Ph</th>
<th>29 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22501222560132</td>
</tr>
<tr>
<td>2</td>
<td>2430863520122</td>
</tr>
<tr>
<td>3</td>
<td>150320510111</td>
</tr>
<tr>
<td>4</td>
<td>240324520169</td>
</tr>
</tbody>
</table>

#### Pr 5

<table>
<thead>
<tr>
<th>Ph</th>
<th>58 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2320680430111</td>
</tr>
<tr>
<td>2</td>
<td>23401041450132</td>
</tr>
<tr>
<td>3</td>
<td>226014025500-</td>
</tr>
<tr>
<td>4</td>
<td>23701580471132</td>
</tr>
<tr>
<td>5</td>
<td>2430863460122</td>
</tr>
<tr>
<td>6</td>
<td>1503205420111</td>
</tr>
<tr>
<td>7</td>
<td>1503205420111</td>
</tr>
<tr>
<td>8</td>
<td>240324440167</td>
</tr>
</tbody>
</table>

#### Pr 6

<table>
<thead>
<tr>
<th>Ph</th>
<th>46 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2330861440122</td>
</tr>
<tr>
<td>2</td>
<td>22501222560132</td>
</tr>
<tr>
<td>3</td>
<td>2430863440122</td>
</tr>
<tr>
<td>4</td>
<td>1503205420111</td>
</tr>
<tr>
<td>5</td>
<td>1503205420111</td>
</tr>
<tr>
<td>6</td>
<td>240324440167</td>
</tr>
</tbody>
</table>

#### Pr 7

<table>
<thead>
<tr>
<th>Ph</th>
<th>27 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22401042561122</td>
</tr>
<tr>
<td>2</td>
<td>2430863530122</td>
</tr>
<tr>
<td>3</td>
<td>150320510111</td>
</tr>
<tr>
<td>4</td>
<td>240324520166</td>
</tr>
</tbody>
</table>

#### Pr 8

<table>
<thead>
<tr>
<th>Ph</th>
<th>22 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22401042561111</td>
</tr>
<tr>
<td>2</td>
<td>2430863520132</td>
</tr>
<tr>
<td>3</td>
<td>240324520166</td>
</tr>
</tbody>
</table>

#### Pr 9

<table>
<thead>
<tr>
<th>Ph</th>
<th>44 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23401041440122</td>
</tr>
<tr>
<td>2</td>
<td>226014025100132</td>
</tr>
<tr>
<td>3</td>
<td>15206804420122</td>
</tr>
<tr>
<td>4</td>
<td>1503205420111</td>
</tr>
<tr>
<td>5</td>
<td>1503205420111</td>
</tr>
<tr>
<td>6</td>
<td>240324440167</td>
</tr>
</tbody>
</table>

#### Pr 10

<table>
<thead>
<tr>
<th>Ph</th>
<th>34 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2330861440122</td>
</tr>
<tr>
<td>2</td>
<td>22501222560132</td>
</tr>
<tr>
<td>3</td>
<td>1503205420111</td>
</tr>
<tr>
<td>4</td>
<td>1503205420111</td>
</tr>
<tr>
<td>5</td>
<td>2403244420167</td>
</tr>
</tbody>
</table>
### Pre-set programs

<table>
<thead>
<tr>
<th>Pr 11</th>
<th>Ph</th>
<th>26 min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 2 30 86 2 5 6 0 1 3 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1 5 0 32 0 4 1 0 1 2 2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1 5 0 32 0 4 1 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2 4 0 32 4 4 2 0 1 6 7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pr 12</th>
<th>Ph</th>
<th>22 min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 2 20 68 2 5 6 0 1 3 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1 5 0 32 0 4 1 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2 4 0 32 4 4 2 0 1 6 7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pr 13</th>
<th>Ph</th>
<th>41 min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 2 30 86 1 3 4 0 1 2 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2 2 40 104 2 4 7 1 1 3 2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1 5 20 68 0 4 2 0 1 2 2</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1 5 0 32 0 4 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1 5 0 32 0 4 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>2 4 0 32 4 4 3 0 1 5 7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pr 14</th>
<th>Ph</th>
<th>34 min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 2 35 95 2 4 6 1 1 3 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1 5 0 32 0 4 2 0 1 2 2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2 4 0 32 4 4 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1 5 0 32 0 4 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>2 4 0 32 4 4 2 0 1 5 7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pr 15</th>
<th>Ph</th>
<th>26 min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 2 30 86 2 4 6 1 1 3 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1 5 0 32 0 4 1 0 1 2 2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1 5 0 32 0 4 1 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2 4 0 32 4 4 2 0 1 5 7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pr 16</th>
<th>Ph</th>
<th>22 min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 2 20 68 2 4 6 1 1 3 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1 5 0 32 0 4 1 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2 4 0 32 4 4 2 0 1 5 7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pr 17</th>
<th>Ph</th>
<th>38 min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 4 30 86 1 3 4 0 1 2 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2 3 40 104 2 3 7 1 1 2 2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1 5 20 68 0 3 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1 5 0 32 0 3 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1 5 0 32 0 3 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>2 4 0 32 4 3 3 0 1 3 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pr 18</th>
<th>Ph</th>
<th>31 min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 4 20 68 1 3 3 0 1 2 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2 3 30 86 2 3 6 1 1 2 2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1 5 20 68 0 3 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1 5 0 32 0 3 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>2 4 0 32 4 3 2 0 1 3 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pr 19</th>
<th>Ph</th>
<th>25 min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 3 20 68 2 3 6 1 1 2 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1 5 0 32 0 3 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1 5 0 32 0 3 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2 4 0 32 4 3 2 0 1 3 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pr 20</th>
<th>Ph</th>
<th>21 min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 3 20 68 2 3 6 1 1 2 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1 5 0 32 0 3 2 0 1 1 1</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2 4 0 32 4 3 2 0 1 3 5</td>
</tr>
</tbody>
</table>
6. PROGRAMMING MODE

6.1. DEFINING PROGRAMMING CONCEPTS
Before programming new programs, it is important to be familiar with the main concepts involved in the process.
To understand the structure of Microprocessor Control wash programs, two basic concepts must be defined: function and phase.

- **Function**: Each action performed by the washing machine during a program. Highlighting the most important ones: filling with water, dosing of product, drum movement, draining... The functions are always performed following the same sequence or order of execution.

- **Phase**: The grouping of the functions in the order in which they are performed is defined as a phase. The total number of phases available in the Microprocessor Control memory will vary depending on the options defined in Configuration.

- **Association of phases**: The great potential of this system lies in the possibility to program interconnected phases, since not all the phases must necessarily finalize with a draining of the bath.

- **Program**: Group of phases grouped together in a defined sequence whose execution has the treatment of the fabric as its objective. The maximum number of phases in each program is not previously defined.

- **Programming**: programming is filling with content the functions that make up the phases of a program. It can be done from an empty structure: programming anew program or modifying an already existing program.

It must be mentioned that programs 1 to 20 are programmed at works and their content is unalterable. There is, however, the possibility of copying them over an empty program and later modifying them.

- **Configuration**: The SYSTEM TOOLS menu of Microprocessor Control contains those parameters determining the washing machine operation. Modifying the value of these parameters the operation of the washing machine can be adapted to the needs of the users and using the machine’s possibilities to the maximum.

By default, the washing machine leaves the factory with the basic configuration of operation options. This configuration permits programming the washing machine with many possibilities but with great simplicity. Do not modify the configuration parameters without knowing exactly what the objective of the washing machine operation is.

6.2. PROGRAMMING MODE MENUS

The PROGRAMMING mode screen allows choosing different options:

- Programming a new program
- Modifying existing programs
- Using the card
7. PROGRAMMING A NEW WASH PROGRAM

In this chapter, necessary information for programming the content of a NEW program is given.

- The information that will appear on the screen is always in graphic mode and programming possibilities are identified by icons.
- The program and phase being programmed appear at the upper part of the screen.

At every programming step, the following are detailed:

- The current operation of the washing machine
- The programmable values and the programming limits
- The identifiable icons of each programming
- The option programmed by default
- The possible links with other menus

Keep in mind during programming:

The distinct programmable options at each operation appear simultaneously on the washing machine screen.

The option selected is displayed in white over a black background.

To finalize programming, executing THE END OF PHASE function is essential (section 7.3.16). Any other end of program mode will cause the washing machine to operate erroneously.

- Using the multi-function keyboard:
  - Horizontal movement and selection
  - Vertical movement and selection
  - Screen advance or return
  - Confirmation keys. Goes to the next function.
  - Access key to upper menu. Confirms the option selected.

- Using the numerical keyboard:
  - When programming numerical values, this icon indicates that programming is done with the numerical keyboard.
7.1. ACCESS TO PROGRAMMING A NEW PROGRAM

The **PROGRAMMING** mode is accessed through the main menu.
- Connect the general switch of the washing machine.
- Open the washing machine door.
- Activate the **ON** switch: position I. On the screen, the initialising logo will appear and then, the main menu.
- From the open-door position, if the washing machine is already in operation, the main menu can be accessed by pressing the --- key

Select the programming icon and confirm the selection.

Select the programming icon of a new program and confirm the selection. The program number selection screen is accessed.

The Microprocessor Control provides 79 programs free of content to be programmed.
On the program list, the first free program appears, selected by default. However, the user can select any free program to be programmed by using the arrow keys or the numerical keyboard.
Confirm the selection.

7.2. IDENTIFYING THE NEW PROGRAM

**Identifying a program**
On this screen, it is possible to program an identifying name to the program by using the different numerical keys. At the upper part of the new screen, the selected program appears.
The cursor is located in the central square.

**Using the numerical keyboard:**
The **▲** keys allow introducing alphanumerical characters. The characters are displayed sequentially.
The **▼** keys accept the character selected and moves the cursor one position to the right in order to introduce a new character.
Pressing the **◄** key for the first time, introduces a space.
The **C** key erases the letter to the left of the cursor.
Confirm with **OK** key. The next screen is accessed.
7.3. PROGRAMMING A PROGRAM PHASE

The program and the phase that are being programmed appear at the upper part of the screen. The distinct programmable options at each operation appear simultaneously on the washing machine screen. The options are selected with the arrow keys. The icon of the option selected appears in white on a black background. The icon of the numerical keyboard indicates that the option or value must be selected with this keyboard. Once the desired operation is selected, confirm the programming. The next operation is accessed. To finish programming, executing the end of phase screen is essential (section 7.3.16). Any other end of program mode will cause the washing machine to operate erroneously.

⚠️ Optional programming. Attention message that appears when programming some operations. It warns that this function might not appear during the programming process depending on the options in the CONFIGURATION menu (section 10.2) or the SETUP menu. (To learn more details about the SETUP menu: consult the Technical Assistance Service).

7.3.1. Water inlet

Possible programming

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No water inlet</td>
<td>Option programmed by default.</td>
</tr>
<tr>
<td>Cold water inlet</td>
<td>Hot and cold water inlet mixture depending on the temperature programmed</td>
</tr>
<tr>
<td>&lt; &lt; &lt; Option programmed by default</td>
<td>Value of parameter A2 = HOT in SETUP menu. Value from works.</td>
</tr>
<tr>
<td>Cold water inlet through inlet 2</td>
<td>Only if value of parameter A2 = COLD in SETUP menu.</td>
</tr>
</tbody>
</table>

Third inlet option ⚠️ Optional programming

The third water inlet option permits connecting the washer to a third water supply and to program the water intake from this third inlet.

Main use options.

<table>
<thead>
<tr>
<th>CONNECTION</th>
<th>SETUP</th>
<th>PROGRAMMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection of a water inlet other than Water 1 and Water 2 inlets. From recovery tank.</td>
<td>INDEPENDENT</td>
<td>Water intake from third inlet&lt;br&gt;Water intake from AS recovery tank&lt;br&gt;Temperature programmed in this phase: NO</td>
</tr>
<tr>
<td>Connection to cold water supply.</td>
<td>WATER 1</td>
<td>NON programmable. Opens simultaneously with Cold Water (refer to water inlet programming chart)</td>
</tr>
<tr>
<td>Connection to hot water supply.</td>
<td>WATER 2</td>
<td>NON programmable. Opens simultaneously with Hot Water (refer to water inlet programming chart)</td>
</tr>
</tbody>
</table>

Using the third water inlet requires:

- Option previously installed in the washing machine.
- Configured as a separate inlet in the SETUP menu.
7.3.2. Bath level
This function only appears if the water inlet has been programmed.
Modifying the value of levels is possible in the CONFIGURATION menu.
Possible programming
- Level L1
  Minimum programmable level
- Level L2
- Level L3
  Option programmed by default
- Level L4
- Level L5
- Level L6
  Maximum programmable level

7.3.3. Bath temperature – Heating
Water mixture: in washing machines supplied with hot and cold water, the washer opens the two inlets alternately until it reaches the programmed temperature, provided that the hot water temperature enables it.
When the programmed water temperature is lower than 35ºC / 95F, the two valves open simultaneously.
- Programmable range in ºC: 0 – 90
- Programmable range in ºF: 32 – 194
- Value programmed by default: 0ºC / 32F

Steam or electric heating option
Heating connection: Washing machines with steam or electric heating systems duly activated in the SETUP menu. The heating will be connected while the bath temperature is below the phase programmed temperature.
The heating system will not be connected if the bath level inside the washing machine has not reached the set safety level.
7.3.4. Heating gradient  Optional programming
The increase in bath temperature can be controlled in different gradients defined in degrees/minute. The type and power of heating, the load in the washing machine and the water temperature can modify the heating speed, mainly in the fastest gradients.
Requirements that allow the programming of this function:
- Machine with heating system installed and duly activated in the SETUP menu.
- Programming option activated in the corresponding stage of the CONFIGURATION menu.
- Temperature programmed in that phase.

Heating gradients

- Value in Centigrade degrees: 1º / minute
- Value in Fahrenheit degrees: 2.0º / minute
- Value in Centigrade degrees: 2º / minute
- Value in Fahrenheit degrees: 3.5º / minute
- Value in Centigrade degrees: 3º / minute
- Value in Fahrenheit degrees: 5.5º / minute
  Gradient reachable only with steam heating
- Constant heating connection
  < < < Option programmed by default

7.3.5. Product dosing
Programming the dosing of two products simultaneously at each phase is possible. Programming the second product will only be possible if the first dosing has been programmed.

Dosing icon of the first product

Dosing icon of the second product

Dosing of products by means of the washing machine dispenser. (Internal dosing)
Dosing icons identify the dispenser compartment
- No dosing in the phase
  < < < Option programmed by default
- Dosing in powder product compartment (dosage 1)
- Dosing in powder product compartment (dosage 2)
- Dosing in liquid product compartment (dosage 3)
- Dosing in liquid product compartment (dosage 4)
Washing machines with external dosing system
The Microprocessor Control allows activating four electric signals to control an external dosing system. The connection board of these four signals is installed as standard in all the washing machines and located at the rear side of the machine. Consult the location and characteristics of the connection in the corresponding Installation Manual.
The external dosing signals programming is independent of product dosing programming through the washer dispenser. The number that appears in the icons corresponds with the number of the label attached next to the connection terminals.

⚠️ Optional programming. As an option, the number of electric signals of external dosing control can be increased to a maximum of twelve. To have the additional eight signals available, it is necessary to have the optional A6 input and output board (I/O2) in the washing machine and to conveniently activate it in the SETUP menu.

7.3.6. Duration of the dosing. ⚠️ Optional programming
In default configurations, the time of each dosing is set at 40 seconds. However, the Microprocessor Control allows programming the length of each dosing. This function appears after product dosing has been programmed, only if the parameter has been activated in CONFIGURATION.

- Programmable time range: 1 – 231 seconds
- Value programmed by default: 1 sec.

7.3.7. Rotation. Start – Stop Sequence
This function allows selecting distinct start-and-stop drum rotation sequences. The programmed sequence is maintained during the entire phase. There are five pre-programmed rotation sequences that are modifiable in the CONFIGURATION of the washing machine.

- Value ON: drum rotation time in seconds
- Value OFF: drum stoppage time in seconds

<table>
<thead>
<tr>
<th>Programmable reverse sequences</th>
<th>Default values</th>
</tr>
</thead>
<tbody>
<tr>
<td>No rotation</td>
<td></td>
</tr>
<tr>
<td>There is no drum movement</td>
<td></td>
</tr>
<tr>
<td>Reverse sequence 1</td>
<td>WR1 ON: 5sec. – OFF: 55sec.</td>
</tr>
<tr>
<td>Reverse sequence 2</td>
<td>WR2 ON: 5sec. – OFF: 10sec.</td>
</tr>
<tr>
<td>Reverse sequence 3</td>
<td>WR3 ON: 5sec. – OFF: 25sec.</td>
</tr>
<tr>
<td>Reverse sequence 4</td>
<td>WR4 ON: 15sec. – OFF: 15sec.</td>
</tr>
<tr>
<td>Reverse sequence 5</td>
<td>WR5 ON: 25sec. – OFF: 5sec.</td>
</tr>
<tr>
<td>Option programmed by default</td>
<td></td>
</tr>
</tbody>
</table>
### 7.3.8. Rotation speed.  
**Optional programming**

Programming this function is only possible if the parameter has been activated in CONFIGURATION and a rotation value has been programmed.

Allows selecting a rotation speed in the wash cycle, among four pre-programmed speeds. These speeds are modifiable in the CONFIGURATION menu.

Depending on the load, the drum rotation speed can vary +/- 5 rpm regarding the programmed speed.

<table>
<thead>
<tr>
<th>Possible programming</th>
<th>Rotation speeds in rpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed 1</td>
<td>WS1 17</td>
</tr>
<tr>
<td>Speed 2</td>
<td>WS2 22</td>
</tr>
<tr>
<td>Speed 3</td>
<td>WS3 27</td>
</tr>
<tr>
<td>Speed 4</td>
<td>WS4 32 <em>Option programmed by default</em></td>
</tr>
</tbody>
</table>

### 7.3.9. Rotation time

The rotation time starts when the programmed values for level, dosing and temperature have been reached.

- Programmable time range: 0 – 99 minutes
- Value programmed by default: 1min

### 7.3.10. Gradual cooling

Function that allows gradually reducing the bath temperature by admitting cold water up to 45ºC / 113°F. The cooling is executed once the rotation time ends and before the bath is drained.

This function is only programmable if the temperature programmed in the phase is greater than 50ºC / 122°F.

Possible programming:

- No gradual cooling
- *Option programmed by default*
- Yes, gradual cooling
7.3.11. Cooling gradient. ☢ Optional programming
This function only appears if the COOLING GRADIENT parameter has been activated in the CONFIGURATION menu and if gradual cooling YES has been programmed in the previous stage.
Controlling the cooling of the bath is possible in different gradients defined in degrees/minute. The water temperature can modify the cooling speed, mainly in the fastest gradients.

Cooling gradients
- Value in Centigrade degrees: 1º / minute
- Value in Fahrenheit degrees: 2.0º / minute
- Value in Centigrade degrees: 3º / minute
- Value in Fahrenheit degrees: 5.5º / minute
- Value in Centigrade degrees: 5º / minute
- Value in Fahrenheit degrees: 9º / minute
- Value in Centigrade degrees: 10º / minute
- Value in Fahrenheit degrees: 18º / minute

7.3.12. Draining
This function opens the drain valve.
The drum rotation speed during draining and the drain time are programmed in successive operations.

Possible programming:
- No draining in the phase
- Yes, draining in the phase
- Option programmed by default
Optional programming

**Machines with double drain**
Using the double drain requires:
- Option previously installed in the washing machine.
- Configuration of two valves option in the corresponding DRAIN step in SETUP menu.

Possible programming:

<table>
<thead>
<tr>
<th>No draining in the phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main drain draining</td>
</tr>
<tr>
<td>&amp; &amp; Option programmed by default</td>
</tr>
<tr>
<td>Second drain draining</td>
</tr>
</tbody>
</table>

**Machines with recovery tank**
Pump and valve drain system designed to be connected to a recovery tank.
Operating this system requires:
- Double drain set (valve + pump) corresponding to AS recovery tank.
- Configuration of valve + pump option in the corresponding DRAIN step in SETUP menu.

Possible programming:

<table>
<thead>
<tr>
<th>No draining in the phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main drain draining</td>
</tr>
<tr>
<td>&amp; &amp; Option programmed by default</td>
</tr>
<tr>
<td>Pump to tank draining.</td>
</tr>
</tbody>
</table>

**NOTE.** To avoid the pump working without bath, after a draining time, the pump stops and opens drain valve 1.

### 7.3.13. Draining speed
Programming this function is only possible if draining has been programmed.
There are six programmable speeds during draining.
The speeds 4, 5 and 6 are modifiable in the CONFIGURATION menu.

<table>
<thead>
<tr>
<th>Possible programming</th>
<th>Rotation speeds in rpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drain without drum rotation</td>
<td>Without rotation</td>
</tr>
<tr>
<td>Drain &amp; &amp; Option programmed by default</td>
<td>E1</td>
</tr>
<tr>
<td>Drain + positioning speed</td>
<td>E2</td>
</tr>
<tr>
<td>Drain + low spin speed</td>
<td>E3</td>
</tr>
<tr>
<td>Drain + medium spin speed</td>
<td>E4</td>
</tr>
<tr>
<td>Drain + medium/high spin speed</td>
<td>E5</td>
</tr>
<tr>
<td>Drain + high spin speed</td>
<td>E6</td>
</tr>
</tbody>
</table>
7.3.14. Spin time
Programming this function is only possible if drain and rotation speed 2 or higher has been programmed.

Important!
Microprocessor Control spin time countdown starts when the positioning speed has been reached and the unbalance value is correct.

- Programmable time range: 1–15 minutes
- Value by default: depending on programmed spin cycle

7.3.15. Buzzer
This buzzer is programmable at the end of each phase.
By default, the buzzer lasts 2 seconds. This value can be modified in the corresponding section of the CONFIGURATION menu.

BUZZER and PAUSE programming. Optional programming
This function appears only if PROGRAMMABLE PAUSE in the CONFIGURATION menu is activated.
The programming of this parameter:
- stops the wash program from advancing to the end of the phase.
- activates the buzzer for the seconds selected while configuring the parameters.
- keeps rotation programmed in the phase.
- does not allow door opening.
To resume the wash programme, press the CONT key on the multi-function keyboard.

Possible programming:
- No buzzer
- < < < Option programmed by default
- Yes, buzzer
- Programme pause and buzzer during the specified time in CONFIGURATION menu

7.3.16. End of phase or program
When the last operation of the phase has been programmed, a screen with two options appears:
- Access to programming a new phase.
  The acceptance of this option creates a new one.
  The number of the phase appears in the upper, central box on the screen and the first operation of the new phase appears in the central box.
- End of program. The previous menu is directly accessed.
  The microprocessor is ready again to receive new programming or modification orders.
  By pressing the key several times, the top menus are accessed.
8. MODIFYING PROGRAMS

The objective of this menu is providing the user with resources that allow:

- modifying programmed programs
- programming new programs from the copy and modifying programs in use
- eliminating programs out of use with the objective of maintaining the maximum capacity of the microprocessor memory.

Some of the options offered by the MODIFICATION menu are grouped into submenus.

General map of the MODIFICATION menu

```
Modifying a program (section 8.1):
Selecting the program
Option to modify the program number
Selecting the phase
Four submenus will later appear.

Modifying the content of a phase
Inserting a phase before the phase selected
Inserting a phase after the phase selected
Erasing a phase

Copying an existing program into a new program (section 8.2)
Blocking an existing program from operating (section 8.3)
Erasing an existing program (section 8.4)
```

8.1. MODIFYING A PROGRAM (from number 21)

Modification options:

- Modifying a program name
- Modifying the content of a phase
- Inserting a phase
- Erasing a phase

8.1.1. Selecting a program and modifying the name

From the main menu (section 4.1), select the icon corresponding to the PROGRAMMING mode (section 6.3). The icons of different menus appear.

Select the MODIFICATION icon.
The icons of different modification options will appear.
Consult the general map of the MODIFICATION menu in the start-up section of chapter 8.

Select the MODIFYING A PROGRAM icon. The list of programs will appear.
Select the program that you want to modify.
Confirm the selection.
The modifying program name screen is displayed. If you want to introduce or modify the program name, continue on this screen following section 7.2. Confirm the modification.
The following screen appears.
8.1.2. Selecting phase and intervention

Select the phase that you want to modify. Confirm the selection. The following screen appears.

![Screen showing phase selection options]

Options for modifying a phase
- Modifying or viewing the content of the phase (8.1.3)
- Inserting a phase before the phase selected (8.1.4)
- Inserting a phase after the phase selected (8.1.4)
- Erasing a phase (8.1.5)

Select the desired action and confirm the selection.

8.1.3. Modifying and viewing the content of a phase
Permits viewing, and modifying if desired, the content of the phase selected. Modifying the parameters will only be possible in programs recorded by the user.

The programming limits of the different operations are the same as those defined in the corresponding sections of the PROGRAMMING menu.

Select the icon and confirm the selection.

From this moment on, the same screens used during programming a new program will appear. The program and the phase being modified appear in the upper, central box. Modifying the operations will be done following the same steps as those in section 7.3 as well as the following ones.

To finalize the modification of the content of the phase, accessing the end of phase screen (7.3.16) is imperative.
8.1.4. Inserting a phase

Allows inserting a new phase before or after the phase selected. The content of the inserted phase by default is the same as that of a new phase being programmed. The numbering of the program phases is automatically modified.

Select the function
- Inserting a phase before the phase selected
- Inserting a phase after the phase selected

Confirm the selection. The program is ready again to modify the inserted phase.

8.1.5. Erasing the phase selected

Eliminates the phase selected. The numbering of the program phases is automatically modified.

Select the operation and confirm the selection. Erasure of the phase is immediate.

8.2. COPYING A PROGRAM INTO AN EMPTY PROGRAM

Allows copying the content of a program recorded into an empty program. The program of origin can either be a program created by the user or one of the twenty programs pre-set in the microprocessor memory. The copied program can be modified following the indications in section 8.1.

Copying a program

- From the main menu (section 4.1), select the icon corresponding to the PROGRAMMING mode (section 6.3). The icons of different menus appear.
- Select the MODIFICATION icon. The icons of different modification options will appear. Consult the general map of the MODIFICATION menu in the start-up section of chapter 8.
- Select the COPY icon. The program list will appear. The original program will blink at the icon on the upper left side. Select the program that you want to modify. Confirm the selection. The list of free programs will appear. The target program will blink at the icon on the upper left side. The first program available appears by default. However, selecting any of the free programs is possible. Select the target program. Confirm the selection. The machine is ready again to modify the copied program. To quit the option, access the upper menu by pressing the key.
8.3. BLOCKING AND UNBLOCKING THE USE OF A PROGRAM

Option that allows impeding the use of one or more selected programs.

Blocking usage
- From the main menu (section 4.1), select the icon corresponding to the PROGRAMMING mode (section 6.3). The icons of different menus appear.
- Select the MODIFICATION icon.
- The icons of different modification options will appear.
- Consult the general map of the MODIFICATION menu in the start-up section of chapter 8.
- Select the BLOCKING icon. The program list will appear.
- Select the program you want to block.
- Press the SEL key to confirm the order of blockage. The blocking icon appears next to the selected program number, indicating that the program cannot be executed.
- The machine is ready again to block a new program.
- To unblock a blocked program, select the program and press the SEL key. The blocking icon will disappear.
- To quit the option, access the upper menu by pressing the key.

8.4. ERASING A PROGRAM

Eliminate the content of programs programmed by the user (from number 21).
Before executing the order, the microprocessor requests confirmation to erase. If erasure is confirmed, the content of the program is IRRECOVERABLE.
The content of the first twenty programs cannot be erased.

Erasing a program
- From the main menu (section 4.1), select the icon corresponding to the PROGRAMMING mode (section 6.3). The icons of different menus appear.
- Select the MODIFICATION icon.
- The icons of different modification options will appear.
- Consult the general map of the MODIFICATION menu in the start-up section of chapter 8.
- Select the ERASE icon. The program list will appear.
- Select the program you want to erase. Confirm the selection.
- The following screen prompts confirmation to erase.
- Confirm to erase the program contents.
- The machine is ready again to erase a new program.
- To quit the option, access the upper menu by pressing the key.

8.5. MODIFYING THE NAME AND VIEWING THE CONTENT OF PRE-SET PROGRAMS (from numbers 1 to 20)

The twenty pre-set programs are not modifiable; however, modifying the name and/or viewing their content is possible.
Once a phase is selected, the icon indicates that modifying its content is not possible.
The key allows successively viewing the content of the phase.
To finalize viewing the content of the phase, accessing the end of phase screen (7.3.16) is imperative.
9. USING THE CARD

The washing machine card is a memory device that allows storing wash programs.

Card Operational Characteristics:

EXCLUSIVELY USED.

It is compatible with every washing machine that incorporates Microprocessor Control.
Thanks to the programming system of Microprocessor Control, the programs stored on the card can be copied onto any washing machine model with INTELI control.
The content of the card’s memory is limited. Its capacity will oscillate between 20 and 25 programs, depending on their volume.
While the programs are stored on the card, its content is not modifiable.
Once stored on the card, modifying or programming the name of each program is possible.
Programs can be selected by using the multi-function keyboard or by selecting the program number on the numerical keyboard.
Introduce the card with the face of the chip on the left side.

Accessing the CARD usage menu

From the main menu (section 4.1), select the icon corresponding to the PROGRAMMING mode (section 6.3). The icons of different menus appear.
Select the CARD icon. The submenu contained on the CARD menu will appear.

Submenu map

- Copy from machine to card
- Programming or modifying the program name
- Copy from card to machine
- Viewing the content of the card
- Modifying program name possible
- Erasing program from the card
9.1. COPYING FROM MACHINE TO CARD
Allows selecting a program from the washing machine’s memory and copy it onto the card. Once copied, the program name can be modified.
In each copying operation, only one program can be copied.

Copying the program
Access the copying program from machine to card submenu.
At the icon in the upper box, the image of the washing machine blinks.
The washing machine program list appears.
Select the source program for the copy.
Validate the selection by pressing the SEL key from the multi-function keyboard.
In the icon of the upper box, the image of the card blinks.
The list of empty programs appears.
Select the target program to be copied onto. By default, the number of the first free program on the card is selected. Selecting another target program to be copied onto is possible.
Validate the selection by pressing the SEL key from the multi-function keyboard.
The following screen appears.
If the program has been identified in the washing machine, the program number will appear on the screen.
You can introduce a new name or modify an existing one.
Proceed on this screen according to section 7.2. Confirm the modification.
The program has been saved on the card with the new name.
The machine is ready again to copy a new program.
To quit the option, access the upper menu by pressing the J key.

9.2. COPYING FROM CARD TO MACHINE
It allows selecting a program on the card and copying it onto an empty washing machine program. Once copied, the program can be modified by following the instructions in section 8.1. In each copying operation, only one program can be copied.

Copying the program
Access the copy program from card to machine submenu.
In the icon of the upper box, the image of the card blinks.
The list of programs contained on the card appears.
Select the source program for the copy.
Validate the selection by pressing the SEL key from the multi-function keyboard.
In the icon of the upper box, the image of the card blinks.
The list of empty programs of the machine appears. By default the number of the first free program of the machine is selected. Selecting another target program to be copied onto is possible.
Validate the selection by pressing the SEL key from the multi-function keyboard.
The machine is ready again to copy a new program.
To quit the option, access the upper menu by pressing the J key.
9.3. CONSULTING THE CARD CONTENT AND CHANGING THE PROGRAM NAME

It permits consulting the content of the card.

If a program is selected, its identifying name can be modified.

Access the **viewing content of the card submenu**. The list of programs stored on the card will appear.

If you want to modify the program name, select it.

Validate the selection by pressing the **SEL** key from the multi-function keyboard.

The modifying the name screen will appear.

Proceed on this screen according to section 7.2. Confirm the modification. The program has been saved on the card with the new name.

The machine is ready again to select a new program on the card.

To quit the option, access the upper menu by pressing the **---** key.

9.4. ERASING A PROGRAM ON THE CARD

It allows erasing a selected program on the card, after having selected it.

Access the **erasing a program from the card submenu**.

The list of programs stored on the card will appear.

Select the program you want to erase. Validate the selection by pressing the **SEL** key from the multi-function keyboard.

The following screen prompts confirmation to erase.

Confirm to erase the program contents.

The machine is ready again to erase a new program.

To quit the option, access the upper menu by pressing the **---** key.
10. SYSTEM TOOLS

The Microprocessor Control offers a group of tools destined to preparing, personalizing, informing and controlling the global operation of the washing machine. Within this group of tools, there are two large groups or intervention areas.

- CONFIGURING the system
- CONSULTING washing machine characteristics, executed programs and operations and alarms detected by the washing machine control.
- TEXT MESSAGES. The user can programme a text message that will appear after a certain operation time, also programmable.
- RECOVERY TANK CLEANER. Optional tool. It can only be seen when the drain option in the SET UP menu has been configured as VALVE and PUMP double drain. The recovery tank is cleaned by the sequential filling and emptying of the recovery tank allowing the elimination of residues from the inside of the tank.

Managing and using these areas appear on the screen in written text.

Accessing the TOOLS mode menus

The system TOOLS mode is accessed from the main menu (chapter 3).

Connect the general switch of the washing machine.
Open the washing machine door.
Activate the ON switch: position I. On the screen, the initialization logo will appear and then, the main menu.
If the washing machine is already operating, the main menu can also be accessed by pressing the --- key

Select the configuration icon and confirm the selection.
The distinct menus of the TOOLS mode appear.

10.1. CONFIGURATION MENU. PRESENTATION AND ACCESS

This intervention menu offers the possibility to activate or modify a group of parameters and values, distributed among different submenus, which condition the washing machine’s operation.
The submenus are:
- Configuring the parameters for usage and programming (10.2)
- Setting the clock
- Configuring the card
- Managing the security codes

Selecting the options and modifying the values of the distinct parameter are done using the keys on the washing machine’s control panel.

Numerical keyboard.
Its usage is indicated in a specific way.
10.2. CONFIGURING OPERATION AND PROGRAMMING PARAMETERS

Below, the distinct parameters found in the CONFIGURATION menu are listed. Shown at each parameter:

- Identification of the parameter: description that appears on the screen
- Explanation of the parameter
- Configurable values or range
- Configuration at works: the configuration at works of the washing machine will depend on the purchase specifications
- Configuration by default: is the option programmed by default at the washing machine control. The values configured by default will always appear when a GENERAL INITIALIZATION is executed or when a new control board is installed onto the washing machine.
- When the configuration value at works and the default configuration value coincide, it is only indicated as the value at works.

To provide better access the parameters are grouped in three submenus:

- Operation parameters. Section 10.2.1.
- Advance programming options. Section 10.2.2.
- Modifiable values table. Section 10.2.3.

10.2.1. Operation parameters

LANGUAGE
Permits selecting the language of all the written messages.

Programmable values ...... ESP (Spanish) | ENG (English) | FRA (French)
Configuration at works ...... depending on specification
Value by default ............... Spanish

SCREEN CONTRAST
Permits modifying the contrast on the washing machine screen.

Programmable values 0 (less contrast) ... 9 (more contrast)
Configuration at works ...... 5

LOGO
Permits selecting the initial Logo and the screen saver.

Programmable logos ....... GIRB (GIRBAU) | CONT (CONTINENTAL) | OTHERS (MICROPROCESSOR CONTROL)
Configuration at works ...... depending on specification
Value by default ............... GIRB (GIRBAU)

Attention.
Selecting OTHERS from the logo option, the English language and the temperature in Fahrenheit degrees are automatically selected.
A GENERAL RESET at the SETUP menu doesn't modify the OTHERS logo option.

TEMPERATURE UNIT
Permits selecting the unit that the temperature values are displayed .

Programmable values ...... C (centigrade) | F (Fahrenheit)
Configuration at works ...... depending on specification
Value by default ............... centigrade
BEEP WHEN PRESSING THE KEY
   When pressing a key, the microprocessor emits an acoustic beep. This beep can be annulled.
   **Programmable values** ...... **YES / NO**
   **Configuration at works** ...... **YES**

PROGRAMMED DURATION OF THE BUZZER
   Modifies the number of acoustic beeps at the end of the phase (section 7.3.14).
   The multi-function and numerical keyboard can be used interchangeably.
   **Programmable values** ...... 0 – 99
   **Configuration at works** ...... 2

PERMISSION OF ACCELERATION
   Permits inhibiting the acceleration function described in section 4.4.
   **Programmable values** ...... **YES / NO**
   **Configuration at works** ...... **YES**

EXTERNAL BUZZER
   Option available only in machines with A6 (I/O2) input and output board installed and activated in the SETUP menu.
   If the external buzzer is activated, the electrical circuit between terminals X4-5 and X4-6 of the A6(I/O2) board closes when the machine beeps at the end of the cycle. This option permits monitoring the acoustic beeps to the outside of the machine.
   It is a free voltage circuit. Maximum voltage: 240V AC. maximum current: 1A.
   **Programmable values** ...... **YES / NO**
   **Configuration at works** ...... **NO**

DOsing TEMPERATURE CONTROL 2 (INTERNAL)
   (Option only available in HS-6003, HS-6017; EH030 and EH0409 models.)
   The YES temperature control option at the second internal dosing (at works configuration) will supply this dosing compartment with a hot and cold water mixture depending on the temperature programmed at the phase.
   Programming the NO option at the second internal dosing will supply this dosing department with cold water.
   **Programmable values** ...... **YES / NO**
   **Configuration at works** ...... **YES**

LOAD COUNTERS
   Actives the individual load counter of each program.
   When this option is active, the option to introduce the washer load is displayed at the beginning of the program.
   **Programmable values** ...... **NO; KG** (programming of the load in kg); **LB** (programming of the load in pounds)
   **Configuration at works** ...... **NO**

PROPORTIONAL WATER LEVEL
   This option only appears if the LOAD COUNTER option is activated.
   Modify the bath level values in proportion to the selected load.
   **Programmable values** ...... **YES / NO**
   **Configuration at works** ...... **NO**

PROPORTIONAL DOSING TIME
   This option only appears if the PROPORTIONAL WATER LEVEL option is activated.
   Modify the dosing times in proportion to the selected load.
   **Programmable values** ...... **YES / NO**
   **Configuration at works** ...... **NO**
**PURGING HOT WATER**

Option that permits purging the hot water inlet piping.
Whenever the temperature programmed at the phase is equal to or greater than 50ºC, the hot water inlet valve of the washing machine and the drain remain open simultaneously during the time specified in this section.
Configuration only permitted in machines supplied with hot and cold water: value A2 = C in SETUP.
The multi-function and numerical keyboard can be used interchangeably.

⚠️ This option can increase the water consumption of the washing machine.

Programmable values 0..0.250 seconds
Configuration at works ..... 0 seconds (NO hot water purge)

**PURGE DRAIN**

Configuration only allowed for machines with drain kit activated (SETUP activation) and programmed purge.
This option allows selecting the drain through which the purging water will be drained

Programmable values ..... Drain 1
Drain 2
Configuration at works ..... Drain 1.

**CLEANING DISPENSERS**

Option that opens the water inlet valves of the four dosing compartments, before the final drain of the program, during the time specified in this section.
Its objective is to get rid of product remains that could have been deposited inside.
The multi-function and numerical keyboard can be used interchangeably.

⚠️ This option can increase the water consumption of the washing machine.

Programmable values 0...30 seconds
Configuration at works ..... 0 seconds (NO dispensers cleaning)

**MINIMUM BATH TEMPERATURE**

Configuration only permitted in machines supplied with hot and cold water: value A2 = C in SETUP
Option destined to maintain a minimum cold water temperature of 18ºC/64F in all the programs.
In the **YES** configuration, whenever the temperature programmed is less than 18ºC/64F, the washing machine mixes hot and cold water until reaching this temperature. The temperature is increased by mixing water, never by connecting the heating system.

Programmable values ...... YES / NO
Configuration at works ..... NO

**NETWORK IDENTIFIER**

Option non available.
10.2.2. Advanced programming options

**PROGRAMMABLE DOSING TIME**
Activates the programming described in section 7.3.6. that permits programming the duration at each dosing.
Programmable values ...... YES / NO
Configuration at works ...... NO

**PROGRAMMABLE ROTATION SPEED**
Activates the programming described in section 7.3.8. that permits programming the drum rotation speed in the wash cycle
Programmable values ...... YES / NO
Configuration at works ...... YES

**PROGRAMMABLE HEATING GRADIENT**
Activates the programming described in section 7.3.4. that permits programming distinct heating gradients.
Programmable values ...... YES / NO
Configuration at works ...... NO

**PROGRAMMABLE COOLING GRADIENT**
Activates the programming described in section 7.3.11. that permits programming distinct cooling gradients.
Programmable values ...... YES / NO
Configuration at works ...... NO

**PROGRAMMABLE PAUSE**
Activates the programming described in section 7.3.15 that permits programming the pause in the programme at the end of a phase. The PAUSE also activates the buzzer (beep)
Programmable values ...... 0 : Programme pause not programmable.
1 - 20: Programmable pause and buzzer time in seconds.
Configuration at works ...... 0
10.2.3. Modifiable values tables

BATH LEVELS

Modifying the value of the six bath levels within the established limits is possible, always respecting the ordering criteria from lowest to highest. The value of each level in millimetres must always be higher than the lower level and smaller than higher level.

The programmed height of the bath is approximately equivalent to the height of the water visible through the lower part of the drum, expressed in millimetres.

These values must be checked with the drum stopped (programming NO rotation in the phase).

Values programmable by the numerical keyboard

Programming limits and table of values configured at works depending on the machine model.

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>level values by default in mm.</th>
<th>programmable ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>8</td>
<td>minimum: L1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>maximum: L2 – 1mm</td>
</tr>
<tr>
<td>L2</td>
<td>75</td>
<td>minimum: L1 + 1mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>maximum: L3 – 1mm</td>
</tr>
<tr>
<td>L3</td>
<td>143</td>
<td>minimum: L2 + 1mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>maximum: L4 – 1mm</td>
</tr>
<tr>
<td>L4</td>
<td>205</td>
<td>minimum: L3 + 1mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>maximum: L5 – 1mm</td>
</tr>
<tr>
<td>L5</td>
<td>263</td>
<td>minimum: L4 + 1mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>maximum: L6 – 1mm</td>
</tr>
<tr>
<td>L6</td>
<td>323</td>
<td>minimum: L5 + 1mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>maximum: d / model</td>
</tr>
</tbody>
</table>

Example of programming levels

Programmable L3 (level 3) range:
- min: L2 + 1 = 79mm.
- max: L4 – 1 = 139mm.

⚠️ ATTENTION!

Increasing the bath levels increases the water and energy consumption of the washing machine.

The habitual usage of the bath level greater than the default value of level 6 considerably reduces the life of the seals and bearings.

Do not increase the level values if it is not absolutely necessary.
ROTATION. (Start and stop sequences)

Modifying the start and stop times of the five pre-established rotations is possible.

**Programmable range:**
- **ON:** minimum: 2 seconds; maximum: 25 seconds.
- **OFF:** minimum: 2 seconds; maximum: 55 seconds.
- Minimum start and stop time: 15 seconds.

Values programmable by the numerical keyboard

To maintain the order criteria from lowest to highest, the ON time of each rotation can’t never be less than the start time of the lower rotation and will always be equal to or higher than the start time of the higher rotation.

**Programming limits** and table of values configured at works

<table>
<thead>
<tr>
<th>WR</th>
<th>values by default (sec)</th>
<th>programmable ON range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ON</td>
<td>OFF:</td>
</tr>
<tr>
<td>WR1</td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td>WR2</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>WR3</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>WR4</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>WR5</td>
<td>25</td>
<td>5</td>
</tr>
</tbody>
</table>

**WASH ROTATION SPEEDS**

Modifying the value of the four drum rotation speeds in the wash cycle within the established limits is possible, always respecting the ordering criteria from lowest to highest.

The value of each speed is expressed in rpm and it should always be higher than the lowest spin value and smaller than the highest spin value.

Values programmable by the numerical keyboard

**Programming limits** and table of values configured at works depending on the machine model.

<table>
<thead>
<tr>
<th>WS</th>
<th>washing speed by default, in rpm</th>
<th>programmable ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>minimum</td>
<td>maximum</td>
</tr>
<tr>
<td>WS min</td>
<td>13</td>
<td>- - - - -</td>
</tr>
<tr>
<td>WS1</td>
<td>17</td>
<td>WS min</td>
</tr>
<tr>
<td>WS2</td>
<td>22</td>
<td>WS1 + 1</td>
</tr>
<tr>
<td>WS3</td>
<td>27</td>
<td>WS2 + 1</td>
</tr>
<tr>
<td>WS4</td>
<td>32</td>
<td>WS3 + 1</td>
</tr>
<tr>
<td>WS max</td>
<td>32</td>
<td>- - - - -</td>
</tr>
</tbody>
</table>
### SPIN SPEEDS

Modifying the value of the three highest spin speeds within the established limits is possible, always respecting the ordering criteria from lowest to highest.

The value of each spin speed is expressed in rpm and it should always be higher than the lowest spin value and smaller than the highest spin value.

Values programmable by the numerical keyboard

Programming limits and table of values configured at works depending on the machine model.

<table>
<thead>
<tr>
<th>E</th>
<th>spin speed by default, in rpm</th>
<th>programmable ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>minimum</td>
<td>maximum</td>
</tr>
<tr>
<td>E3</td>
<td>275</td>
<td>no modif.</td>
</tr>
<tr>
<td>E4</td>
<td>400</td>
<td>E3 + 1</td>
</tr>
<tr>
<td>E5</td>
<td>570</td>
<td>E4 + 1</td>
</tr>
<tr>
<td>E6</td>
<td>725</td>
<td>E5 + 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>default</td>
</tr>
</tbody>
</table>

### 10.3. SETTING THE CLOCK

The washing machine clock will allow the delayed start of programs (see section 4.8).

This menu permits setting the clock.

Access the set clock menu. The following parameters appear:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minute</td>
<td>nn</td>
</tr>
<tr>
<td>Hour</td>
<td>nn</td>
</tr>
<tr>
<td>Day week</td>
<td>--------</td>
</tr>
<tr>
<td>Day month</td>
<td>nn</td>
</tr>
<tr>
<td>Month</td>
<td>nn</td>
</tr>
<tr>
<td>Year</td>
<td>nn</td>
</tr>
</tbody>
</table>

Modify the value of each parameter using the MOD key on the multi-function keyboard. The numerical values can also be modified by using the numerical keyboard.

Access to the next parameter or going to the previous menu confirms the selection.

The numerical values must be formed with two digits. Example:

- third day of the month .......... 03
- month of November ............ 11
- year 2005:.................... 05

### 10.4. INITIALIZING THE CARD

This operation will be executed only in new cards or when there are problems recording data.

This operation erases the content of the card.

Access the CARD menu.

The message INITIALIZING THE CARD appears.

Confirm operation using the SEL key on the multi-function keyboard. The card will be operative.
10.5. MANAGING ACCESS CODES

Protecting access to the PROGRAMMING and CONFIGURATION menus is possible by means of a four-digit security code.

The initial code is **1 2 3 4**. The user can change it and introduce a new code.

The ✽ symbol indicates that access to the menu is protected by a code.

Access the MANAGING ACCESS CODES menu.

Distinct option appear:
- PROGRAMMING menu: The MOD key activates the protection of access to menu.
- CONFIGURATION menu: The MOD key activates the protection of access to menu.

Change the ACCESS CODE. The MOD key accesses the screen for entering a new code.

The message ENTER NEW CODE will appear. Enter the new code.

The MOD key memorizes the new code.

The ··· key allows quitting the option without modifying the code.

The initial value of the access code can be restored by means of the specific order in the SETUP menu.

Consult the Technical Assistance Service.
11. INFORMATION MENU

The information menu allows access to information concerning the configuration and to the life of the washing machine:

- **General information.** About the washing machine model and the control characteristics.
- **Operation counters.** There is a counter associated with each one of the main washing machine operations that is increased each time said operation is executed.
- **Alarm counters.** There is a counter associated with each one of the main system alarms that is increased with the appearance of each alarm.
- **Executed program counters.** This counter registers the individual quantity of executions of each program.
- **Load counters.** These counters only appear if the option PROPORTIONAL DOSING TIME has been activated in the **Configuration of general operating parameters** menu (section 10.2.1).

To move among counters and within each counter use the MULTI-FUNCTION KEYBOARD the washing machine.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To move among counters and within each counter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEL</td>
<td>Counter selection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEL</td>
<td>Setting the counter at zero (some counters only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accessing to previous level.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is an option on the **SETUP** menu that allows setting the value of the different counters at zero. Below, the distinct parameters that make up the INFO menu are listed.

### 11.1. GENERAL INFORMATION. CONTENT

- Machine model. Identifies the washing machine model.
- Program version
  - A5 Board version (I/O1)
  - A6 Board version (I/O2). Only machines with A6 board installed and activated in SETUP menu
  - A10 Board version (TILT). Only machines with A10 board installed and activated in SETUP menu
- Free programs
- Free phases
- Updated information

### 11.2. OPERATION COUNTERS

- Operating time
- Programs executed
- E2 spin cycles executed
- E3 spin cycles executed
- E4 spin cycles executed
- E5 spin cycles executed
- E6 spin cycles executed
- Unbalances detected by the microswitch
- Low-level unbalances
- Medium-level unbalances
- High-level unbalances
11.3. ALARM COUNTERS

List of controlled alarms depending on the machine models.

<table>
<thead>
<tr>
<th>ALARM COUNTERS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inverter communication failure</td>
<td>x</td>
</tr>
<tr>
<td>Inv. Accel. surge current</td>
<td>x</td>
</tr>
<tr>
<td>Inv. Desaccel. surge current</td>
<td>x</td>
</tr>
<tr>
<td>Inverter surge current</td>
<td>x</td>
</tr>
<tr>
<td>Overheated motor</td>
<td>x</td>
</tr>
<tr>
<td>Inverter surge voltage</td>
<td>x</td>
</tr>
<tr>
<td>Low inverter voltage</td>
<td>x</td>
</tr>
<tr>
<td>Inverter phase failure</td>
<td>x</td>
</tr>
<tr>
<td>Overheated inverter</td>
<td>x</td>
</tr>
<tr>
<td>Inverter thermal relay overload</td>
<td>x</td>
</tr>
<tr>
<td>Inverter overload</td>
<td>x</td>
</tr>
<tr>
<td>General inverter failure</td>
<td>x</td>
</tr>
<tr>
<td>Non-identified inverter failure</td>
<td>x</td>
</tr>
<tr>
<td>Inverter configuration failure</td>
<td>x</td>
</tr>
<tr>
<td>Inverter relay disconnection failure</td>
<td>x</td>
</tr>
<tr>
<td>Inverter relay detection failure</td>
<td>x</td>
</tr>
<tr>
<td>Communication failure A5 board (I/O1)</td>
<td>x</td>
</tr>
<tr>
<td>Communication failure A6 board (I/O2)</td>
<td>x</td>
</tr>
<tr>
<td>Communication failure A10 board (TILT)</td>
<td>x</td>
</tr>
<tr>
<td>Unbalance control failure</td>
<td>x</td>
</tr>
<tr>
<td>Microswitch failure. Unbalance</td>
<td>x</td>
</tr>
<tr>
<td>Bath level control failure</td>
<td>x</td>
</tr>
<tr>
<td>Temperature control failure</td>
<td>x</td>
</tr>
<tr>
<td>Door lock failure</td>
<td>x</td>
</tr>
<tr>
<td>Lack of water</td>
<td>x</td>
</tr>
<tr>
<td>Bath overflow</td>
<td>x</td>
</tr>
<tr>
<td>Bath heating failure</td>
<td>x</td>
</tr>
<tr>
<td>Overheated bath</td>
<td>x</td>
</tr>
<tr>
<td>Draining failure</td>
<td>x</td>
</tr>
</tbody>
</table>
11.4. EXECUTED PROGRAM COUNTERS

This counter registers the individual quantity of executions of each program. The counter increases at the end of the program. On the multi-function keyboard the DEL function appears. This function allows erasing the counter related to the selected program.

11.5. LOAD COUNTERS

The use of this menu requires that the option LOAD COUNTERS is activated in menu Configuration of general operating parameters.

This counter registers the quantity of linen washed in each machine program. The counter increase is set by the value in kilograms or pounds introduced when starting each program and it is executed at the end of the program. On the multi-function keyboard the DEL function appears. This function allows erasing the counter related to the selected program.

12. TEXT MESSAGES

This menu allows writing three text messages and determining when they appear after a number of hours programmed.

12.1. PROGRAMMING MESSAGES AND MOMENT OF DISPLAY

Access to the TEXT MESSAGES menu following the steps indicated in section 10. The three text messages available appear on the screen. An asterisk next to some of the messages indicates that the message is programmed. Select one of the three messages and confirm the selection by the SEL key on the multi-function keyboard. The following screen appears.

In the position PROGRAMMED TIME, programme time the message has to appear using the numeric keyboard. In the position ACCUMULATED TIME will appear the time elapsed since the message was programmed.

Press the key and access to the text line. Enter the text of the message. Follow the indications for text writing in section 7.2.

Register in the memory the programming and start the time counting by pressing the key.

Other actions:
- The key on the multi-function keyboard re-initialises time counting.
- Erase the programming of the message duration by programming 00000 in the position TIME ACCUMULATED.
- Erase the programmed message by key C on the numeric keyboard.
13. TROUBLESHOOTING

13.1. FREEING A TRAPPED PERSON

Procedure in case entrapment of a person or an animal inside the washer:

1. **Press the STOP key.** Interrupts the wash cycle in operation and opens the drain of the washing machine. 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 for the opening of the door.

3. **If door is not released:**
   3.1. **Manual release of the security lock.** Consult next section 14.2.

ATTENTION! If instead of pressing the STOP key you execute one of the following actions THE DOOR LOCK WILL NOT BE RELEASED:

- Pressing the EMERGENCY STOP
- Disconnecting the NORMAL STOP switch.
- Disconnecting the GENERAL STOP switch.

13.2. MANUALLY RELEASING OF THE SECURITY LOCK

In order to open the door in case of a power supply failure, completely insert a 0.2 inch (3 mm) bar through the hole located on underside of the safety lock cover and at the same time turn the handle downwards.

⚠️ **WARNING!**

MANUAL OPENING OF THE SAFETY LOCK MUST ONLY BE USED IN SITUATIONS OF LACK OF POWER SUPPLY, FAILURE OR JUSTIFIED EMERGENCY. NEVER USE THE MANUAL RELEASE OF THE LOCK AS A USUAL WAY TO OPEN THE DOOR.

BEFORE MANUAL RELEASING THE SAFETY LOCK, VERIFY THAT THE BATH LEVEL DOES NOT EXCEED THE DOOR OPENING LEVEL.
13.3. WHAT TO DO WHEN...

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

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

....the wash cycle ends with the report: PERSISTENT UNBALANCE.

   This report indicates that the final spin cycle is not possible because the load is unbalanced.
   • Unload the machine and load it again.
   • 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.

   • Check the levelling of the machine. See Instruction Manual for Installation.
   • Tighten the locking screws on the outside panels.
   • If the problem persists, contact the Authorised Technical Service.

....the door may have a leak

   • Clean the door seal of any possible deposits or remains of cloth.

....there is water leaks 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 if 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 operating mode.

   • Call Service

....the clock stops working correctly

   • Possible battery failure. Contact the Authorised Technical Service to have it replaced.
### 13.4. SYSTEM ALARMS

When a washing alarm appears, the buzzer sounds and a warning appears on the screen. On the multi-function keyboard, the symbols **STOP** and ?••• appear. Pressing the **STOP** key stops the buzzer. Pressing the ?••• key information about the alarm appears. Below, the main alarm messages, the most likely causes and some interventions to carry out are listed.

<table>
<thead>
<tr>
<th>ALARM MESSAGE</th>
<th>LIKELY CAUSE</th>
<th>INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMERGENCY STOP</td>
<td>EMERGENCY push-button activated</td>
<td>Unlock push-button and press restart key. Consult STOP MODES (4.7)</td>
</tr>
<tr>
<td>INVERTER COMMUNICATION FAILURE</td>
<td>Inverter supply failure Deficient circuit connections</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>INVERTER AUTOBLOCKED</td>
<td>Inverter protections activated</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>INVERTER SEQUENCE FAILURE</td>
<td>Inverter protections activated</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>INVERTER SURGE CURRENT</td>
<td>Motor failure Short circuit in motor connection cables Inverter failure Inverter protections activated</td>
<td>Disconnect the washing machine supply for at least 30 minutes. If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>OVERHEATED MOTOR</td>
<td>Motor thermal protections disconnected</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>INVERTER SURGE VOLTAGE</td>
<td>Incorrect supply voltage Inverter failure Motor or motor connection failure Inverter protections activated</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>LOW INVERTER VOLTAGE</td>
<td>Insufficient voltage supply of the washing machine Inverter protections fuses blown Wiring or inverter feeding contactor failure Inverter filter failure</td>
<td>Disconnect the washing machine supply (note 1) If the failure persists ask to the authorised installing company for an overhaul of the machine's power supply. If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>INVERTER PHASE FAILURE</td>
<td>Phase failure in the electrical supply of the machine Inverter protections fuses blown Wiring or inverter feeding contactor failure Inverter filter failure</td>
<td>Disconnect the washing machine supply (note 1) If the failure persists ask to the authorised installing company for an overhaul of the machine's power supply. If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>OVERHEATED INVERTER</td>
<td>Excessive room temperature Inverter ventilation failure</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>INVERTER OR INVERTER THERMAL RELAY OVERLOAD</td>
<td>Inverter output current higher than the set overload current (inverter internal value)</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>GENERAL INVERTER FAILURE</td>
<td>Inverter protections activated</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>UNIDENTIFIED INVERTER FAILURE</td>
<td>Inverter protections activated</td>
<td>Disconnect the washing machine supply for at least 30 minutes. If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>INVERTER CONFIGURATION</td>
<td>Lack of concordance between the theoretical inverter operating</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>ALARM MESSAGE</td>
<td>LIKELY CAUSE</td>
<td>INTERVENTION</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>FAILURE</td>
<td>parameters and the actual inverter operating parameters</td>
<td>Authorised Technical Service.</td>
</tr>
<tr>
<td>INVERTER RELAY DISCONNECTION FAILURE</td>
<td>Program control relay or corresponding circuit operating failure Inverter failure Washing machine microprocessor failure</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>INVERTER RELAY DETECTION FAILURE</td>
<td>Inverter detects an unbalance value outside the established limits</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>UNBALANCE CONTROL FAILURE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5 BOARD (I/O1) DETECTION ERROR</td>
<td>Board I/O1 failure. Main board connection circuit failure Connection failure</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>A5 BOARD (I/O1) CONNECTION ERROR</td>
<td>Board I/O1 failure. Main board connection circuit failure Connection failure</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>A6 BOARD (I/O2) DETECTION ERROR</td>
<td>SETUP error Board I/O2 failure. Main board connection circuit failure Connection failure</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>A6 BOARD (I/O2) CONNECTION ERROR</td>
<td>Board I/O2 failure. Main board connection circuit failure Connection failure</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>A10 BOARD (TILT) DETECTION ERROR</td>
<td>A10 Board (TILT) failure. Main board connection circuit failure Connection failure</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>A10 BOARD (TILT) CONNECTION ERROR</td>
<td>A10 Board (TILT) failure. Main board connection circuit failure Connection failure</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>INVERTER IDENTIFICATION ERROR</td>
<td>Inverter model not compatible with the washing machine model Inverter identification plug failure or error.</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>UNBALANCE CONTROL FAILURE</td>
<td>Inverter detects an unbalance value outside the established limits</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>UNBALANCE MICROSWITCH FAILURE</td>
<td>Unbalance detection circuit failure</td>
<td>Call Service.</td>
</tr>
<tr>
<td>BATH LEVEL CONTROL FAILURE</td>
<td>Level control device failure</td>
<td>Disconnect the washing machine supply (note 1) If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>TEMPERATURE CONTROL FAILURE</td>
<td>Temperature control device failure</td>
<td>Call Service.</td>
</tr>
<tr>
<td>DOOR LOCK FAILURE</td>
<td>Door badly closed Door lock device failure</td>
<td>Disconnect the washing machine supply for at least 2 minutes. Open and close the door again. Check the state of the door seal. If the problem is not solved or if it repeats: Call the Authorised Technical Service.</td>
</tr>
<tr>
<td>LACK OF WATER</td>
<td>Water supply failure Water inlet valve failure Level control device failure</td>
<td>Check water entry pressure Check manual water inlet valves Check the state of the filters at the water inlet filters If the origin of the problem is not detected, contact the Authorised Technical Service.</td>
</tr>
<tr>
<td>BATH LEVEL EXCEEDED</td>
<td>Water or dosing inlet valve lock failure. Level control device failure</td>
<td>Close manual water inlet valves. Call Service.</td>
</tr>
<tr>
<td>BATH HEATING FAILURE</td>
<td>Electric heating system failure Steam supply failure Steam valve failure Temperature control device failure</td>
<td>Machines with electric heating: Call the Authorised Technical Service. Machines with steam heating: check steam supply pressure and steam inlet filter. If the origin of the problem is not detected, contact the Authorised Technical Service.</td>
</tr>
<tr>
<td>OVERHEATED BATH</td>
<td>Failure in heating system Temperature control device failure Machines with steam heating: steam inlet valve obstructed</td>
<td>Call Service. Machines with steam heating: close manual water inlet valves.</td>
</tr>
</tbody>
</table>
## ALARM MESSAGE

<table>
<thead>
<tr>
<th>ALARM MESSAGE</th>
<th>LIKELY CAUSE</th>
<th>INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAIN FAILURE</td>
<td>Drain pipes or valve obstructed</td>
<td>Check drain pipes.</td>
</tr>
<tr>
<td></td>
<td>Drain valve failure</td>
<td>If the origin of the problem is not detected, Call the Authorised Technical Service.</td>
</tr>
</tbody>
</table>

**Note 1.** When the message “Disconnect the washing machine supply” appears, it is recommended to:
- Disconnect the ON switch.
- Wait the safety time for disconnecting the door (approximately 3 minutes). Open the door.
- Connect the ON switch again.
- Start a new wash cycle.
14. MAINTENANCE

- 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 the temperature of the parts to be handled, to avoid the risk of burns.
- The dispenser may contain residues of chemical products. When handling this component, avoid direct contact with the skin and use eye protection.
- 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 place them correctly after any maintenance work.
- It is highly recommendable asking the Authorised Technical Service a register or report of all the maintenance and service work done on your washer.

14.1. OPERATIONS DESCRIBED
- Cleaning the washer
- Cleaning the door seal
- Cleaning the electro valve filters
- Cleaning the dispenser
- Revising the safety mechanisms
- General Revision
- Recovery tank cleaning

14.2. WASHING MACHINE CLEANING
- We recommend periodic cleaning of the outside of the washing machine. Use a damp cloth or sponge.
- To remove traces of grease, use mild soap and rinse as required.
- Never use abrasive products or tools that could scratch or damage the surface of the washing machine.

14.3. DOOR SEAL CLEANING
- 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.

14.4. CLEANING THE ELECTRO VALVE FILTERS

Only by qualified personnel.
Required tools:
- Disassembly of the fittings: slip-joint pliers or pipe wrench 35mm.
- Disassembly of the filter supports: wrench 34 mm
- Disassembly of the filters: pliers.
Steps to follow
- Disconnect and mechanically lock the external switch. Close and mechanically interlock the manual water supply valves.
- Check the temperature of the hot water inlet hose, so as to avoid the risk of burns.
- Disassemble the fittings that connect the hoses to the washing machine.
- Disassemble the filter supports.
- Remove the filters from their housings and clean the filters with pressurised water. Place them back into their housings.
- Assemble the supports to the electrovalves.
- 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.

14.5. CLEANING THE DISPENSER

⚠️ Only by qualified personnel

- Disconnect and mechanically lock the external switch. Close and mechanically interlock 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.
14.6. VERIFYING THE SAFETY MECHANISMS

Verifying the door lock

**DAILY** check the safety mechanism on the door lock

⚠️ **CAUTION**

Use great prudence in checking the safety mechanisms. Carry out the verification described in following 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.

**Verification procedure:**

- Disconnect the ON/OFF switch. The washing machine screen is off.
- Close and mechanically interlock the manual water supply valves (and steam inlet valve in washers with this option included.)
- Open the washing machine door.
- Connect the ON/OFF switch. On the screen the door open icon is displayed.
- Close the door. Select and start a wash cycle.
- After about a minute from starting the cycle, check that the door is locked.
- Press the STOP key to finish the verification.
- After a safety delay of no more than 30 seconds, the door will be unblocked.
- The verification is finished.
- If no anomaly has been detected, open the fluid inlet valves.

⚠️ **CAUTION**

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

Verifying the Emergency Push-Button (Appliances with Emergency Push-Button only)

**WEEKLY** check the Emergency Push-Button.

**Verification procedure:**

- Connect the ON/OFF switch. On the screen the door open icon is displayed.
- Close the door. Select and start a wash cycle.
- After about a minute from starting the cycle, activate the **EMERGENCY** button. The buzzer will sound and the drum will stop rotating. On the screen the Emergency Push-button activated message is displayed.
- Unlock the emergency button turning it in the direction of the arrows and press START on the multifunction keyboard to resume the machine’s operation.
- After a safety delay of no more than 3 minutes, the machine operation is resumed.
- Press the STOP key to end the washing cycle. The verification is finished.

⚠️ **CAUTION**

If noticing anything other than what was described during the operation, disconnect the washer, do not use it, and **URGENTLY** contact the Authorised Technical Service.
14.7. GENERAL REVISION

⚠️ Only by the Authorised Technical Service.
- As preventive maintenance action, it is very important to ask the Authorised Technical Service for a periodic overhaul of the washing machine.
- Recommended periodicity: every year or each 2000 washing cycles.

15. SERVICE REMOVAL

⚠️ Removing the washer from service requires the Authorised Technical Service or a company specialised in management of waste.
- 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 the external switch and lock it mechanically. Remove the power wires.
- Close and mechanically interlock the manual water supply valves. Remove water supply hoses.
- Assemble the shipping restraints.
- Disassemble the door of the washing machine (consult the Authorised Technical Service).

15.1. DISMANTLING

Most of the machine’s components are made with 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 plates.
- Aluminium
- Borosilicate glass
- Polypropylene (PP)
- EPDM and NBR elastomers
- Electronic components