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**IMPORTANT**

This instructions manual contains fundamental information on the safety measures to be adopted when installing and starting-up the spa. It is therefore essential that both the Fitter and the User read these instructions before assembly and start-up.

1. GENERAL DETAILS

This manual contains all the information needed to fully enjoy your SPA. Please read carefully **all** the instructions provided as well as the installation manual that you will find with this user manual.

If you have any question or doubt on the operation or maintenance of this product, please contact your local dealer. They are professional specialists and their knowledge will help you enjoy this product.

Keep this manual in a safe place as you will find it very useful.



IMPORTANT

The manufacturer reserves the right to modify part of the design or specifications without prior notice and without entering into any obligation.

This Spa has been designed and conceived for private use only: any public use shall annul its guarantee.

2. SAFETY WARNINGS

2.1. GENERAL

- Avoid contact with electrical voltage
- Carefully follow current regulations regarding accident prevention.
- Any modification on the equipment requires prior authorisation from the manufacturer. Original spare parts and accessories authorised by the manufacturer guarantee greater safety. The manufacturer of the equipment is exempt from all liability for damages caused by using non-authorised spare parts or accessories.
- The user shall ensure that qualified adult professionals carry out both the assembly and maintenance works, who have previously carefully read the installation and service instructions.
- ATTENTION – Correct earthing connection is essential. The earth connection circuit of the building must be in perfect condition to guarantee the safety of the Spa user. If you have doubts on the matter, ensure the earth circuit is reviewed by qualified personnel. The manufacturer shall not be responsible for the damages caused by inadequate maintenance of the earth connection circuit.
- ATTENTION – It is essential that the owner of the Spa tests the differential switch at least once a month, to check its good working order.
- The manufacturer shall not be responsible for the damages caused by the assembly of non-authorized accessories, nor for those caused by a improper handling by non-qualified personnel. Please contact your authorised dealer or technical assistance service if you have any doubts or need technical assistance.
- During operation, some parts of the equipment are at dangerous electrical voltage levels. Work on each element or equipment can only be performed once it has been disconnected from the mains and with the start-up devices disconnected.
- Safety in the operation of the machine can only be guaranteed if installation and service instructions are followed.
- The limits indicated on the electrical control panel cannot be exceeded under any circumstances.
- Contact the Technical Service of the manufacturer or your local dealer in the event of malfunction or a breakdown.
- In this respect, the current regulations in each country should be followed.
- There is a risk of flooding with this equipment and therefore, the Spa should be installed in an area prepared to collect or drain leaking water (either from below or overflowing water) as a result of using the Spa or from possible leakage in any of its circuits. (See the Guarantee).
- The installation of the Spa must at all times meet current regulations applicable in each country, particularly those referring to electrical safety.
- This unit must be installed in an appropriately prepared area with easy access to all the components of the Spa. The Guarantee does not cover any

building work required to position or replace the product. (See the Guarantee).



IMPORTANT

The manufacturer shall not be held responsible for any damage as a result of incorrect positioning or misuse of the Spa.

2.2. WARNINGS ON MAINTENANCE WORK

- Before carrying out any electrical or mechanical maintenance work, make sure that the machine is disconnected from the mains, and that the start-up devices are blocked.
- Do not handle the equipment with wet feet.

2.3. WARNINGS ON THE USE OF THE SPA

- Take extreme precautions to stop children from entering the Spa unattended. To avoid accidents, ensure that children are supervised at all times. Never leave children alone in the Spa. Take care when entering and leaving the Spa to avoid slipping on wet surfaces.
- Do not allow anybody to play with sharp or metal objects inside the Spa, which could damage the acrylic surface.
- Do not allow any user to access the electrical parts of the Spa.
- Do not start-up the Spa unless it is full of water.
- Do not use electrical or electronic apparatus inside the Spa.
- Do not let animals in the Spa.
- Do not fill the Spa with other liquid other than fresh, duly treated water.
- Do not fill the Spa with hot water (maximum 35°C); let the water heat by itself, otherwise it could damage the temperature probes (see "Temperature Adjustment").
- Do not use the Spa immediately after intense physical exercise.
- Do not use the Spa if you are suffering from a contagious disease or 14 days after recovering from a contagious disease.
- In order to guarantee maximum safety when bathing all our Spas use pumps designed to suction water from anti-vortex, safety drain covers, located on the floor of the Spa. Take special care that these drain covers are not covered by

any object or the users (pieces of clothing, hair, legs, etc.). For safety reasons, your head should always be outside the Spa in order to avoid drowning. Do not use the Spa if the drain covers are broken, damaged or unassembled, as apart from damaging the Spa, it could also lead to a risk of drowning

- The headrests of your Spa are made of synthetic foam, which can be damaged in high concentrations of bromine or chlorine, or low levels of pH. Make sure that when adding chemical products, the headrests are neither totally nor partially immersed in the water. If necessary, remove them until the chemical products have taken effect. Damages resulting from improper use shall not be considered under the guarantee of the product.
- The Spa includes a cover designed to protect the acrylic surface from sunrays when it is not being used. This cover will also help to keep the water warm and for sun protection that could damage the acrylic material of the Spa. The cover will require additional means of protection in the event of heavy rain or snow. The cover is not designed to bear heavy weights, not even children or animals. Also, water in bad condition could damage the cover. Therefore, keep the chemical levels in accordance with the instructions provided in this manual. Do not clean the cover with detergent or abrasive products as they will cause damage. Improper use of the cover is not included in the guarantee.



WARNING

The water should be disinfected thoroughly before using the Spa, especially if it has not been used for a certain period of time, whether or not it has been left with or without water inside. During periods of non-use, traces of stagnant water may remain, which may cause the growth of micro organisms potentially dangerous for health. Therefore, disinfect the Spa as indicated in this manual, ensuring that the pH and disinfectant parameters are suitable.

2.4. AVOIDING RISKS OF HYPERTHERMIA

- Prolonged, direct contact with hot water could cause HYPERTHERMIA. This occurs when the internal body temperature reaches levels above the normal temperature of 36.5°C. It is advised not to bathe for longer than 15 minutes
- Symptoms of hyperthermia are a sudden drop in blood pressure resulting in a sensation of dizziness with the possibility of fainting.
- The Spa water should never be above 40°C.
- Water temperatures between 37°C and 40°C are only considered safe for adults without any health problems. Lower temperatures are recommended for the majority of people and children.



THE USE OF ALCOHOL, DRUGS OR MEDICINES COULD INCREASE THE RISK OF HYPERTHERMIA. IT IS NOT ADVISABLE FOR PREGNANT WOMEN, PATIENTS WITH HIGH BLOOD PRESSURE, A HEART CONDITION, DIABETES OR UNDER MEDICATION TO USE THE SPA. SHOULD SEEK DOCTOR'S ADVICE. SEEK DOCTOR'S ADVICE.

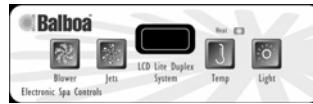
3. USE OF THE SPA

There are different types of buttons depending on the model of Spa you have bought. Please identify your control panel and carefully read the attached explanation.

Panel 1a



Panel 1b



Panel 1c



Panel 2



Panel 3

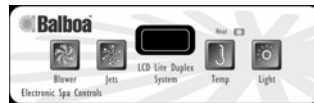


3.1. CONTROL PANEL 1a, 1b y 1c

Panel 1a



Panel 1b



Panel 1c



Control components depending on the version:

- Jets-Blower / Blower** – Massage control of both the water-air jets or blower or Jets 2, depending on the SPA model.
- Circ / Jets** – Controls both the filtering circuit and Jets 1, depending on the SPA model.
- Temp** - Temperature control
- Light** - Light control
- LCD Screen** – Temperature and message indicator
- Led Heat** - Heating operation indicator



RISK OF ELECTRIC DISCHARGE

The user must not repair any parts.
Do not attempt to repair this control. Call your dealer or technical service.

If the electrical installation is correct, once the Spa is connected, it will automatically go into the "priming mode", the message "Pr" will appear on the screen for 4 minutes while the auto test is carried out. The Spa will then start heating the water.

All functions of the Spa will be operative after this test.

TEMPERATURE ADJUSTMENT (26°-40° C)

Press *TEMP* to adjust temperature. The real temperature of the water will be shown on the screen unless the button is pressed. When the button is pressed, the programmed temperature appears on the screen. If it is pressed twice, the temperature will go up or down following a loop. When the button is pressed continuously, the programmed temperature will change in the same direction.

If you wish to increase or decrease the temperature, release the button and wait until the real temperature of the water is shown on the screen. Press again to see the programmed temperature, and once again to modify the programmed temperature in the required direction. The temperature of the Spa can be set in a range from 26° to 40° C.

SWITCHING THE LIGHT ON AND OFF

To switch the light on and off, press *Light* on the control panel.

If the light of the Spa is left on, it will automatically switch off after 4 hours.

If your Spa has the chromotherapy option (depending on the version), press "Light" at intervals less than 1 second, and various sequences in different colours will appear.



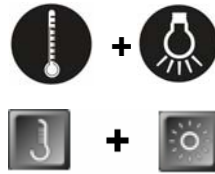
ATTENTION

Do not switch on the light when the Spa is empty of water. The lamp will blow through lack of refrigeration.

MODE SELECTION

The mode is used to personalize and/or choose the best type of operation according to your needs.

To change the mode, press "TEMP" and then "LIGHT"



Standard Mode

It is programmed to maintain the required temperature.

Note: The screen indicates the temperature the last time the filtering pump was operating for at least 2 minutes.

When changing to standard mode, the message "**St**" is shown briefly on the screen.

Economy Mode

Prepared to heat the Spa only during the filtering cycles.

When changing to the economy mode, the message "**Ec**" is shown briefly on the screen.

Sleep Mode

This mode heats the Spa water to 10°C below the programmed temperature and only during filtering cycles.

When changing to sleep mode, the message "**SI**" is shown briefly on the screen.

PROGRAMMING THE FILTERING CYCLES

The Spa has a system to filter solid impurities in the water. Water is collected on the surface by the filtering cartridge, goes through the filtering pump and the heat exchanger, and returns to the Spa through one or several drive nozzles.

The first filtering cycle starts 6 minutes after the Spa is connected to the power supply.

The second filtering cycle starts 12 hours later.

The length of the filtering cycle can be programmed for 2, 4, 6 or 8 hours of continuous filtering (24 hours) indicated as "**FC**".

To select the filtering program you can choose between:

FC = 24 hours filtering.

F2 = 2 hours filtering and 10 hours stop.

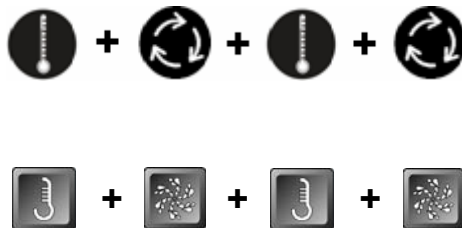
F4 = 4 hours filtering and 8 hours stop.

F6 = 6 hours filtering and 6 hours stop.

F8 = 8 hours filtering and 4 hours stop.

The default filtering time is 2 hours (F2).

To programme filtering times, press "TEMP." and then "CIRC" (or for panel 1b, 1c "JETS"), press "TEMP." again to adjust.



To exit the programming mode, press "CIRC" (or for panel 1b, 1c "JETS")

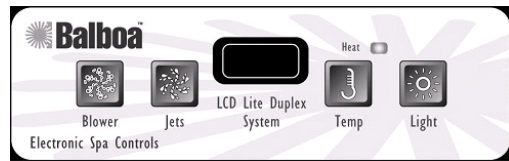
If you have the ozone generator option, it will switch on during filtering.











IMPORTANT

- **When starting each filtration cycle, all the pumps start up automatically for a short period of time to recirculate all the stagnant water in the pipes.**
- **When the last of any message used is over, the filtering pump and the ozone generator will start up 30 minutes later for 1 hour.**

3.1.1 MASSAGE OPERATION PANELS 1a and 1b



SPA with massage pump + independent filtering pump + 2nd optional massage pump (depending on version).





- 1.-   Starts up Jets 1
- 2.-   Starts up Jets 2, (optional depending on version).
- 3.-   Stops Jets 1
- 4.-   Stops Jets 2, (optional, depending on version).

After 15 minutes operation, the massage will automatically switch off. If you wish to continue the massage, press the button again to enjoy another 15 minutes of massage.



IMPORTANT

Your Spa is designed for private use and discontinued operation. It is recommended not to exceed two 15-minute massage sessions per day.

- 1.-   Starts filtering
- 2.-   Stops filtering

If the pump is left operating in filtering mode, it will automatically switch off after 4 hours.

Spa with 1 massage pump, 2 speeds (massage + integrated filtering) + 2nd massage pump:**Jets 1:**


- 1.-   Starts filtering (1st pump speed)
- 2.-   Starts Jets 1 (2nd pump speed)
- 3.-   Stops Jets 1 (2nd pump speed)

If the pump is left operating in filtering mode (1st speed), it will automatically switch off after 4 hours.

If, on the other hand, the pump is left in massage mode (2nd speed), it will automatically switch off after 15 minutes.

When the pump automatically switches on in filtering mode (1st speed), it cannot be switched off from the panel. However, operation in high speed can be started.

Jets 2:

- 1.-   Starts Jets 2
- 2.-   Stops Jets 2

If the pump is left on, it will automatically switch off after 15 minutes.

**IMPORTANT**

Your Spa is designed for private use and discontinued operation. It is recommended not to exceed two 15-minute massage sessions per day.

3.1.2 CONTROL PANEL 1c

Spa with 1 massage pump, 2 speeds (massage + filtering)



- ❑ **Jets** – Massage control of the water-air jets
- ❑ **Temp** - Temperature control
- ❑ **Light** - Light control
- ❑ **LCD screen** – Temperature indicator and messages
- ❑ **Led Heat** - Heating operation indicator



MASSAGE OPERATION

To switch on the water-air massage circuit, press the JETS button twice, as when it is pressed the first time, the filtering circuit is switched on, which will recirculate and heat the water. When the button is pressed a second time, massage starts. After 15 minutes, the massage operation automatically switches off. If you wish to continue the massage, press the button again to enjoy another 15 minutes of massage.

If the pump is left operating in filtering mode (1st speed), it will automatically switch off after 4 hours.

If, on the other hand, the pump is left in massage mode (2nd speed), it will automatically switch off after 15 minutes.

When the pump automatically switches on in filtering mode (1st speed), it cannot be switched off from the panel. However, operation in high speed can be started.



IMPORTANT

Your Spa is designed for private use and discontinued operation. It is recommended not to exceed two 15-minute massage sessions per day.

DIAGNOSIS MESSAGE OF THE CONTROL PANEL

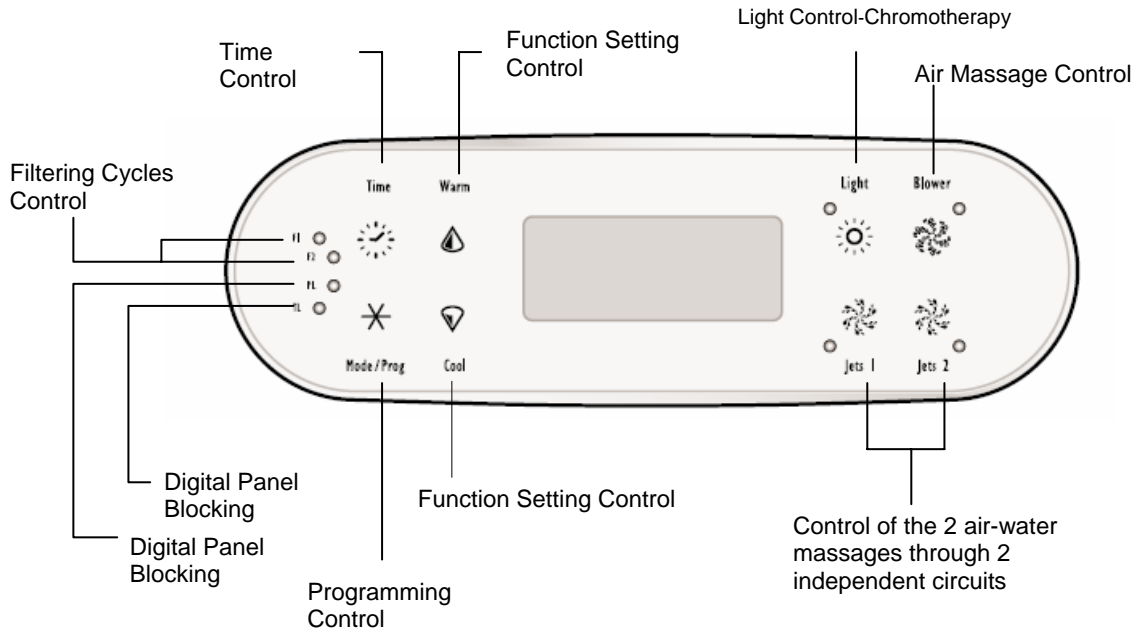
These diagnosis messages that appear on the LCD screen will help you detect possible breakdowns.

Message	Meaning	Required action
	No message on the screen. No power supply.	The Control Panel will be inoperative until the power supply is reconnected. The settings of the Spa will be maintained until the next connection.
- -	Unknown temperature.	After the pump has been working for 2 minutes the temperature will appear on the screen.
HH	"Overheating" – The Spa turns off, one of the temperature sensors has detected 48°C in the heating element.	DO NOT ENTER THE WATER! Remove the cover to cool the water. Once the heating element has cooled, press any key to reset. If it does not reset, disconnect the power supply from the Spa and contact the technical service.
OH	"Overheating" – The Spa turns off, one of the temperature sensors has detected 43°C in the heating element.	DO NOT ENTER THE WATER! Remove the cover to cool the water. Once the heating element has cooled to 42°C the Spa will reset automatically. If it does not reset, disconnect the power supply from the Spa and contact the technical service.
IC	"Ice" – Freezing conditions are detected.	No action is required. The pump automatically starts-up whatever the status of the Spa. If you see that the pump is not working in this situation, empty the Spa and contact your technical service or authorised dealer
SA	Spa turns off. The sensor located in position "A" of the heating element is not working.	If the problem persists, contact your technical service or authorised dealer. (The message may appear temporarily in a situation of overheating. In this case it will disappear when the heating element cools.)
Sb	Spa turns off. The sensor located in position "B" of the heating element is not working.	If the problem persists, call your technical service or authorised dealer. (The message may appear temporarily in a situation of overheating. In this case it will disappear when the heating element cools.)
Sn	Sensors are out of balance. If the temperature is being changed, it may be just a temporary situation. If it flashes, the Spa turns off.	If the problem persists, contact your technical service or authorised dealer.
HL	A substantial difference between the temperature sensors is detected. This could indicate a flow problem.	Check water level in the Spa. Refill if necessary. If water level is correct, make sure the filtering pump has been primed. If the problem persists, contact your technical service or authorised dealer.
LF	Persistent flow problems. (After the fifth "HL" message in 24 hours). The heating element is shut down, but other spa functions continue to work normally.	Follow the instructions required for the "HL" message. The heating element or heater will not connect automatically, press any button to reset.
dr	There is possibly insufficient water, low flow or air bubbles in the heater. The Spa turns off for 15 minutes.	Check water level in the Spa. Refill if necessary. If the level is correct, make sure the filtering pump has been primed. Press any button to reset or wait 15 minutes until the Spa automatically resets. If the problem persists, contact your technical service or authorised dealer.
dY	Insufficient water detected in the heating element. (After the third "dr" message). The Spa turns off.	Follow the instructions required for the "dr" message. The Spa will not connect automatically, press any button to reset.

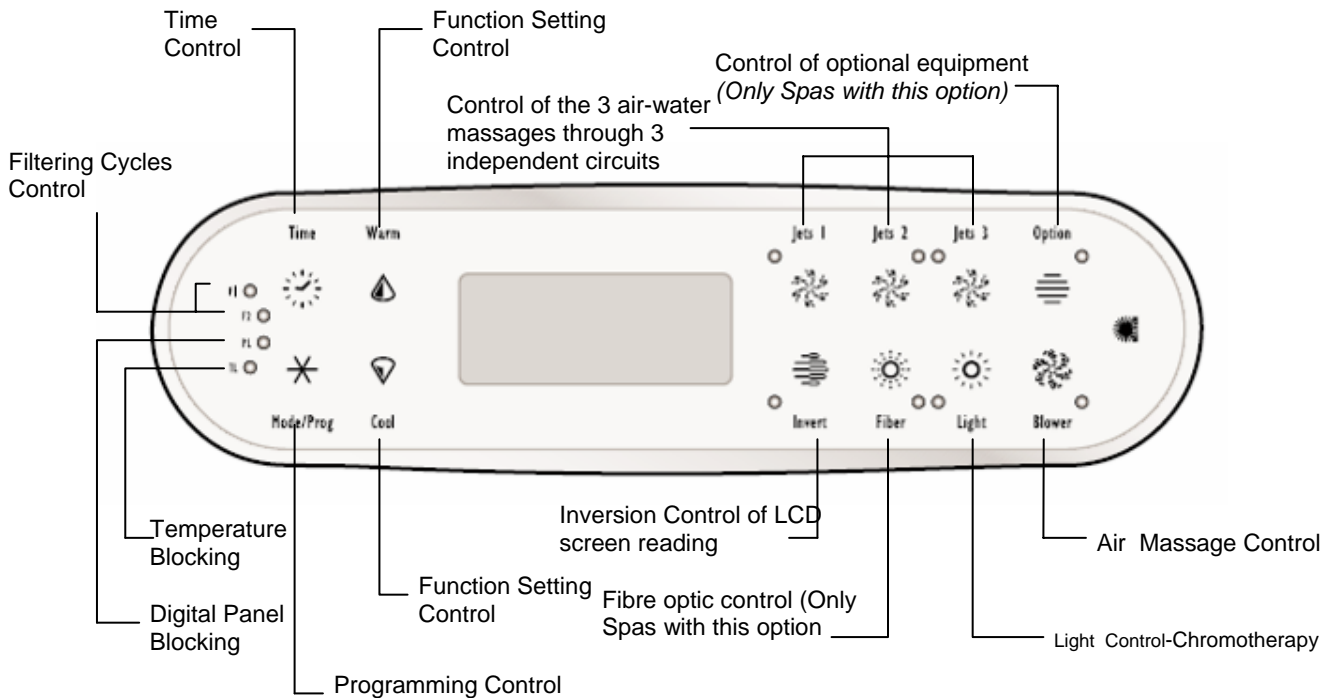
3.2. SPA CONTROL PANEL 2 and 3

With this keypad, you can activate the jets pump, air pump, adjust the temperature, programme the filtering cycles, view the current time, block the control panel, all with a display of figures and symbols on the main keypad screen for easy use.

CONTROL PANEL 2



CONTROL PANEL 3



The Spa control panel 3 may include an auxiliary panel to control the air-water and air massage.



WARNING! - DANGER OF ELECTRICAL SHOCK



There are no user repairable parts.

Do not try to repair this control. Call your dealer or maintenance personnel to request technical assistance. Follow all the electrical connection instructions in this manual. The installation must be carried out by an authorised electrician.


If the electrical installation has been done correctly, just by connecting the Spa to the power supply, the digital control panel will heat the water until it reaches the programmed temperature (37°C).



TEMPERATURE ADJUSTMENT

The water temperature is constantly shown on the keypad panel. The programmable temperature range is from 26° to 40° C. Pressing the keys   the required temperature will increase or decrease by intervals of 0.5°C.

After 3 seconds, the panel will automatically show the current water temperature.

The heating icon  will appear on the screen to show that the electrical heater is operating.

Remember that the change of temperature in the Spa is not instantaneous. It may take up to 24 hours to reach the required temperature.



MASSAGE OPERATION

Press the jet key once  to start up the jet pump.

Press the jet key again  to stop the jet pump.

Remember that the jets pump will switch off automatically after 15 minutes of operation. If you want to restart it, press the key again.


For the other hydro massage circuits, the operation is the same, in this case turning on other areas of the Spa.



IMPORTANT


Your Spa is designed for private use and discontinued operation. It is recommended not to exceed two 15-minute massage sessions per day.


AIR CIRCUIT


Press the key  once and the air pump will switch on to maximum bubble intensity.

Remember that the air pump will switch off automatically after 15 minutes of operation. If you want to restart it, press the key again.

LIGHT-CHROMOTHERAPY


Press the key  once and the light of the Spa will turn on.


Press the key  again, and the light will switch off.

If your Spa has the chromotherapy option (optional depending on the version), press the key  at intervals of less than 1 second, and the various sequences of different colours will appear.



Remember that the light will switch off automatically after 4 hours of operation. If you want to switch it on, press the key again.

CLOCK

Whenever you press the key , the current time will appear on the screen. After 3 seconds the current temperature will be shown on the screen.


If you wish to reset the clock, press the key  followed by

 and  or .




After pressing  or  once, the time will start to change in one minute increases, becoming faster and faster.

Press  or  to stop the clock.

Press the key  to store the selected time.

Leave this programming mode by pressing .

BLOCKING THE PANEL

Press the keys    "Time, Jets 1 and then Warm" in less than 3 seconds.







When the panel is blocked, the PL indicator will light up.

This option blocks all the panel keys except the "Time" button.

To activate the panel, press the keys    "Time, Jets 1 and Cool" in less than 3 seconds.



BLOCKING THE TEMPERATURE

Press  or  and then ,  (Jets 1) and  within 3 seconds.


To activate the programmed temperature blocking. When the water temperature is blocked the TL indicator of the digital panel lights up. Press  or  and then "Time"  "Jets 1"  and "Cool"  to unblock the water temperature. 

REVERSING THE SCREEN

Panel 2

Press the "Cool" button  and then "Blower"  to read the numbers on the screen in reverse. To see the numbers in normal position, press the same sequence of buttons.

Panel 3

Press the button  to read the number of the screen in reverse. To see the numbers in normal position, press "Invert".



OZONATOR

This option works in parallel with the filtering pump. When the Ozone Generator is on, it will be indicated in the Panel screen with **O₃**.

Press any function key and the ozonator will switch off for 60 minutes.

MODE SELECTION

The mode in which we are working is indicated in bottom left-hand corner of the screen: ECONOMY, STANDARD, SLEEP AND STANDBY.

To change from one mode to another, simply press the key  and select with  select the filtering mode.

STANDARD MODE

The word "Standard" appears on the screen.

The Standard mode maintains the required temperature 24 hours a day. Filtering will operate continuously.

ECONOMY MODE

The word "ECONOMY" appears on the screen.

In the economy mode, the Spa water will only heat in the programmed filtering cycles. Filtering will only work within these cycles.




SLEEP MODE

The word "SLEEP" appears on the screen.

The Spa will automatically heat up if the water is 11°C below the programmed temperature.

STANDBY MODE


The word "STAND BY" appears on the screen.

Pressing the buttons  or  and  (Warm, Cool and Jets 2), will cancel all the functions of the Spa temporarily. This is useful when the cartridge filter has to be changed. Press any other button to reset the Spa.



PROGRAMMING THE FILTERING CYCLES



It is not necessary to programme the filtration cycles. However, it is one of the available options.

To change the filtration cycle settings follow the instructions given below;

Press  * * * in the space of 3 seconds.

The words "SET PROGRAM FILTER 1" will flash on the screen and "START TIME"

Press   to select the start time of filtering. Confirm the time by pressing *


Press   to list the starting minutes of filtering. Whenever one of the indicated buttons is pressed, the start time changes by 5 minutes. Confirm the minutes by pressing *.

Press *. The words "SET FILTER 1" will appear on the screen, and "END TIME" will flash. Set the time as indicated above.

Press *. The words "SET FILTER 2" will appear on the screen and "START TIME" will flash. Proceed in the same way indicated above.

Press *. The words "SET FILTER 2" will appear on the screen and "END TIME" will flash. Set the time as indicated above.

Press * to enter the new filtering cycle times in the system and to see the current water temperature.

If  is pressed at any time during programming, the values entered up to that moment will be stored and programming will end.

If you wish continuous filtering, programme the start and end times of filter 1 exactly at the same time.



IMPORTANT

- At the start of each filtering cycle, all pumps start-up automatically for a short time to recirculate all the stagnant water in the pipes.
- 30 minutes after the last massage stops, the filter pump and the ozone generator will start-up and operate for 1 hour.
- If the water temperature drops 11°C below the required temperature (in the economic mode except during filtering cycles), the Spa will automatically start-up filtering and the heater, until the temperature difference is less than 4-5°C.

PERIODIC REMINDER MESSAGES

(Press the "mode/Prog" button to set one of the reminder messages shown)

The error message could be different depending on the control panel of your Spa.

MESSAGE	MESSAGE FREQUENCY	ACTION REQUIRED
rPH /CHECK PH	Every 7 days	Check and adjust the levels of chemicals in accordance with the manufacturer's instructions.
rSa / CK SANITIZER	Every 7 days	Check and adjust the levels of chemicals in accordance with the manufacturer's instructions.
rCI / CLEAN FILTE	Every 30 days	Remove, clean and reinstall the filter in accordance with the manufacturer's instructions.
rt9 / TEST GFCI	Every 30 days	Check and reset the switch of the power supply circuit.
rdr / DRAIN WATER	Every 90 days	Empty and fully fill up the Spa with water.
rCO / CLEAN COVER	Every 180 days	Clean and treat the Spa cover in accordance with the manufacturer's instructions.
Rtr / TREAT WOOD	Every 180 days	Clean and treat the wooden unit of the Spa in accordance with the manufacturer's instructions.
rCH / NEW FILTER	Every 365 days	Install a new filter.

DIAGNOSTIC MESSAGES OF THE CONTROL PANEL

The error message could be different depending on the control panel of the Spa.

MESSAGE	MEANING	ACTION REQUIRED
	No message on screen. Power supply to the Spa has been cut.	The control panel will be disabled until power returns. The time must be set at each start-up. Other programme settings are preserved.
OHH / HTR TEMP LMT	"Overheating" – The Spa has shut down. One of the sensors has detected 118°F (approx. 47.8°C) in the heater.	DO NOT ENTER THE WATER. Remove the spa cover and allow water to cool. Once the heater has cooled, reset by pressing any button. If spa does not reset, switch off the power supply to the spa and call your dealer or maintenance service.
OHS / SPA TEMP LMT	"Overheating" – The Spa has shut down. One of the sensors has detected that the Spa water is 110°F (approx. 43.3°C).	DO NOT ENTER THE WATER. Remove the spa cover and allow water to cool. At 107 °F (approximately 41.7 °C), the spa should automatically reset. If spa does not reset, switch off the power supply of the spa and call your dealer or maintenance service.
ICE / FREEZE COND	"Ice" – Potential freezing conditions have been detected.	No action required. The pumps and the blower will automatically start up regardless of spa status. If the pump does not work in this situation, empty the Spa and contact your authorised dealer or Technical Assistance Service.
SnA / SENSOR A SERVICE RQD	Spa is off. The sensor plugged into Sensor "A" jack is not working.	If the problem persists, contact your dealer or maintenance service. (The message may appear briefly in situations of overheating and disappear when the spa cools).
SnB / SENSOR B SERVICE RQD	Spa is off. The sensor plugged into the Sensor "B" jack is not working.	If the problem persists, contact your dealer or maintenance service. (The message may appear briefly in situations of overheating and disappear when the Spa cools).
SnS / SENSOR SYNC	Sensors are out of balance. If this message alternates with the temperature reading, it may be a temporary situation. If the display shows only this message (flashing), the Spa will shut down.	If the problem persists, contact your dealer or maintenance service.
HFL / HTR FLOW LOW	A substantial difference between the temperature sensors is detected. This could indicate a flow problem.	Check water level in spa. Refill if necessary. If the water level is normal, ensure that the pumps have been primed. If the problem persists, contact your dealer or maintenance service.

LF / LOW FLOW	Persistent low flow problems. ("HFL" message appears for the fifth time within 24 hours). Heater is shut down, but other spa functions continue to run normally.	Follow action required for "HLF" message. Press any button to reset the heating function of the Spa, as it does not reset automatically.
dr / HEATER MAY BE DRY- WILL RETEST SHORTLY	Insufficient water level detected in heater.	Check water level in the Spa. Refill if necessary. If the water level is normal, ensure that the pumps have been primed. Press any button to reset.
drY / HEATER DRY SERVICE RQD	Insufficient water level detected in heater. ("dr" message appears for the third time). The Spa is shut down.	Follow action required for "dr" message. The Spa will not automatically reset. Press any button to reset the system.
Pr / PRIMING MODE TAKES 4 MIN	When the Spa starts up for the first time, it will operate in Priming mode.	See the Installation Manual for detailed instructions on starting up and priming the pump. The Priming mode lasts a maximum of 4 minutes. The Spa will then start to heat the water and the programmed temperature will remain in standard mode.
- - F - - C	Temperature unknown.	After the pump has been running for 2 minutes, the temperature will be displayed.
- - -	Temperature not up-dated in Economy or Sleep mode.	In Economy or Sleep mode, the pump may be off for hours. To see the current spa temperature, either switch to Standard mode or press Jets 1 to start up the jets for at least two minutes.
SbY / STANDBY MODE	Standby mode has been activated by a combination of buttons on the panel.	Press any button to exit Standby mode and return to normal operation.
PHL / PH IS LOW RAISE PH	pH is low.	Add pH increaser in accordance with manufacturer's instructions.
PHH / PH IS HIGH LOWER PH	pH is high.	Add pH decreaser in accordance with manufacturer's instructions.
SAL / SANITIZER LOW	Sanitizer is low.	Add sanitizer in accordance with manufacturer's instructions.
SAH / SANITIZER HIGH	Sanitizer is high.	Remove spa cover and allow sanitizer to dissipate

3.3 JETS OPERATION

The water jets provide a hydrotherapy pressure jet. It is a closed circuit, where the water is absorbed by 1, 2 or 3 pumps (depending on the SPA model) through the drain and driven to the jets.

The hydromassage effect is provided by the jet, when the circuit water mixes with the outside air, in the so-called Venturi effect.

To adjust the amount of air driven into the jets, simply turn the air input tab (venturis) as follows:

Turn clockwise to reduce the amount of air mixed in the jets. This will reduce the intensity of the jet massage.

Turn anti-clockwise to increase the amount of air mixed in the jets. This will increase the intensity of the jet massage.

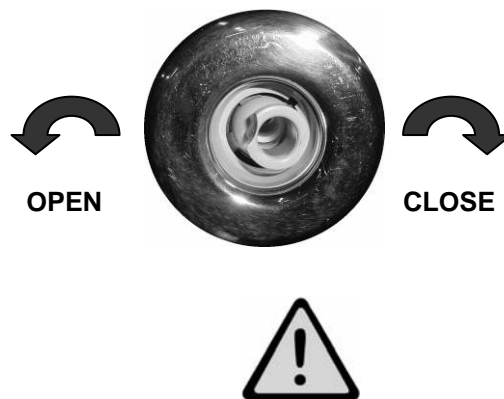


Each air inlet activates a certain group of jets.

Some jets can also adjust the flow intensity on opening and closing the water flow. To do this, proceed as follows:

Turn the outer ring a quarter clockwise to close the jet.

Turn the outer ring a quarter anti-clockwise to open the jet.



ATTENTION!
Do not attempt to forcibly turn the outer ring of the jet, as you could damage it.

3.4 ANTI-FREEZE PROTECTION

If the temperature sensors detect a drop in temperature to below 6.7°C, the heating element and filter pump will connect automatically to prevent the water from freezing and the damage this could cause the Spa.

The equipment will remain connected for 4 minutes after the temperature reaches 7.2°C.

In colder climates, an additional temperature sensor can be added as a precaution and to avoid freezing conditions not detected by the standard sensor.

If the pump turns off in this situation, empty the Spa and contact your authorised dealer or Technical Assistance Service.

4. MAINTENANCE INSTRUCTIONS OF THE SPA

The Spas are built with maximum quality and with the hardest wearing materials available. Proper care and maintenance will ensure a long life-span of the Spa and its components.

4.1. RENEWING THE SPA WATER.

To change the Spa water:

- Disconnect the electrical equipment, placing the differential switch (installed in the main input of the home) in the OFF position.
- Locate the drain valve (see *Spa drainage of the Installation Manual*) and turn the valve to the OPEN position. The Spa will empty by gravity through the general drain.
- Once the Spa is empty, inspect the acrylic and clean if necessary (see point 4.3. Maintenance of the acrylic). Turn the drain valve to the CLOSED position.
- Fill the Spa with clean water (see Filling the Spa of the *Installation Manual*).

4.2. MAINTENANCE OF THE FILTER.

All Spas include either a cartridge filter or a pressure filter. Check the type of filter in your Spa and follow the maintenance instructions below.

4.2.1. MAINTENANCE OF CARTRIDGE FILTERS.



It is advisable to periodically check the condition of the cartridge filter. Clean them or replace them if dirt is observed.

Remember that if a filter is blocked, it will reduce the water flow and therefore, the Spa will operate incorrectly.

PRE-FILTER: It is based on a grid, where the larger particles floating on the water are deposited (❶).

FILTERING CARTRIDGE: Retains the smaller particles (❷).

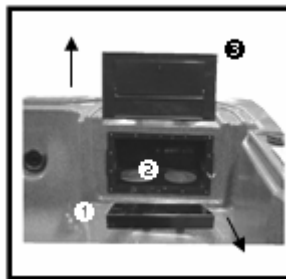


To change or clean the filter, follow these instructions:

1. Disconnect the electrical supply. Differential in the *OFF* position.
2. Locate the filter and remove it as shown:
3. Lift the skimmer cover. Remove the pre-filter upwards (❶) together with the filtering cartridge (❷).

To reach the pre-filter and the filtering cartridge in Spa models with side skimmers, follow the steps indicated below:

1. Carefully slide off the trim (❸) of the skimmer unit upwards.
2. Remove the tray that is used as a pre-filter (❶)
3. Remove the filtering cartridges (❷) one by one by unscrewing and lifting them out of their housing and placing them in a horizontal position.



4. Clean the pre-filter with water until there are no remaining particles.

Clean the filtering cartridge with a garden hose jet spray at low pressure until it is clean. Clean from top to bottom spraying the water at an angle of 45°.



5. After several washing cycles, it may be necessary to change the filtering cartridge. Contact your supplier.
6. Replace the filtering cartridge and pre-filter.
7. Turn on the electrical equipment. Differential in the *ON* position.



The Spa should always operate with the pre-filter and the filtering cartridge in the correct position. Never place objects that could block the inlet to the filter.

4.2.2. MAINTENANCE OF THE PRESSURE CARTRIDGE FILTER.



It is advisable to periodically check the condition of the cartridge filter. Clean them or substitute them if dirt is observed.

Remember that if a filter is blocked, it will reduce the water flow and therefore, the Spa will operate incorrectly.

These filters are made up of a single part.

To replace or clean the filter, follow these steps:

1. Turn the electric unit off. Differential in the *OFF* position.
2. Locate the filter and remove it as follows:
3. Unscrew the bleeding drain marked with an arrow, to remove the air. This step is very important.



4. Lift the part blocking the filter (see figure) and unscrew the part fastening the unit (anticlockwise).



5. Lift the remaining part by the handle to reach the cartridge filter.



6. Clean the pre-filter with water until no particles remain. Clean the filtering cartridge with a low-pressure garden hose, until it is clean. Clean from top to bottom, spraying the water at a 45° angle.



7. After several cleaning cycles you may have to replace the filtering cartridge. To do this, please contact your supplier.

8. Reinsert the filtering cartridge, the press-on cover and the threaded part. It is very important to lift the part you have previously lifted (in point 4) and insert it properly in the corresponding slot of the filter.

9. Close the valve you opened in point 1. Always remember to check that this valve is closed properly, otherwise your spa could be seriously damaged.

10. Turn the electric unit on. Differential in the ON position.



Never place objects that could block the inlet to the filter

Remember to follow all the steps and to close the valve as indicated in order not to damage the Spa or hurt yourself.

4.3. MAINTENANCE OF THE ACRYLIC

To clean the acrylic surface, use a non-abrasive cleaner and warm water. Once the Spa is clean, rinse with water to remove the detergent. Clean the non-submerged part of the spa with good quality Spa polish once a week.



Remember: never leave the Spa uncovered and exposed to sunlight, as this could cause damage not covered by the guarantee.

4.4. MAINTENANCE OF THE UNIT (Only Spas with natural wood unit)

The unit is treated with special oil that protects the wood from water absorption. It is recommended to repeat this treatment periodically, at least once a year.

Extra treatment given to the unit when it is new will prolong its life-span.

In time, the wood will darken, and because it is live matter, it is normal for small cracks to appear. This is a normal reaction to environmental conditions that do not damage the wood. It should simply be polished and treated with oil.

Good quality "Teak oil" should be used or any other wood protection oil.

4.5. MAINTENANCE OF THE LIGHT

A plastic spanner is provided with this manual to dismantle the projector.

Replacing the lamp is the only required maintenance on the spotlight. To replace the lamp, follow these steps:



WARNING! - RISK OF ELECTRIC SHOCK

Make sure the power of the Spa is turned off.

The new lamp must have the same features as the lamp supplied.

Never install lamps without the front lens.

To ensure perfect watertightness, clean the mounting base of the flat gasket of the glass or replace it if you observe any dents or permanent damage.

Depending on spotlight model, the lamp is replaced in the following way:

Draining the Spa (depending on the model of spotlight)

- Empty the Spa (See section *Spa Drainage*).
- Fit the aforementioned plastic spanner in the front side of the spotlight and turn it in order to release its bayonet fastening.
- Change the lamp (press fastening).
- Reassemble the spotlight making sure to fasten the bayonet of the front part with the spanner and pressing sufficiently to prevent water from entering the spotlight.
- Assemble the trim of the spotlight in the colour you wish.

Without draining the Spa (depending on the model of spotlight) :

- Dismantle the wooden side panel where the spotlight is installed using a medium-sized stecker screwdriver.
 - To replace the lamp, turn the lamp-holder bushing anticlockwise and lift it from its position.
 - Once the faulty lamp has been replaced, place the lamp-holder back in position and reassemble the wooden side panel of the Spa.
 - If you have any doubt about the explanation of this operation, contact your authorised dealer or authorised technical service .
-

4.6. MAINTENANCE IN PERIODS OF NON-USE OR ABSENCE

SHORT PERIODS (3-5 DAYS)

- Adjust the pH and treat the water (see Water Maintenance section).
- Cover the spa.
- Before using the Spa again, readjust the pH and treat the water again.

PROLONGED PERIODS (5-14 DAYS)

- Set the temperature at its lowest level.
- Adjust the pH and treat the water (see Water Maintenance section)
- Cover the Spa.
- Before using the Spa again, reset the temperature as required , readjust the pH and treat the water again.

PREPARATION FOR WINTER

If it is not planned to use the Spa through the winter season or for prolonged periods of time, the following operations should be done:

- Disconnect the electrical equipment, placing the differential switch tab in the OFF position.
- Locate the drain valve (see *Drainage of the Spa*) and turn the red lever of the valve to the OPEN position. The Spa will empty by gravity through the general drain.
- Leave the drain valve open.
- Remove the filter cartridge/s from the filter (See Maintenance of the filter) and keep in a dry place.
- Clean and dry the Spa.
- Cover the Spa.



Do not leave water in the Spa without electrical connection outdoors at temperatures below 4°C, as the pipes can freeze and damage the Spa.

5. MAINTENANCE OF THE WATER

The user must pay particular attention to the maintenance of water. Maintenance will depend on the mineral content of the water used, how often the Spa is used and how many people use the Spa.

There are three essential points for the maintenance of the water:

- ❑ FILTERING OF WATER
- ❑ CHEMICAL ANALYSIS AND pH CONTROL
- ❑ DISINFECTION OF WATER

5.1. SAFETY IN THE USE OF CHEMICAL PRODUCTS

Before using a chemical product, read the instructions on the product label carefully.



IMPORTANT

- **It is advisable that always the same person handles the chemical products. Keep these products away from children.**
- **Add the exact amounts to the water, as specified.**
- **Keep containers tightly closed in dry, well-ventilated places.**
- **Do not inhale chemical products, and take care not to let them come into contact with the eyes, nose or mouth. Wash hands after use.**
- **Follow the emergency instructions on the product label in the event of an accident or ingestion.**
- **Do not smoke while handling these products – they may be flammable.**
- **Do not store these products inside the Spa unit.**
- **Do not mix products. Add first one and then the other to the water, to avoid possible reactions.**
- **Do not add chemical products to the water if there is someone in the Spa.**

5.2. MAINTENANCE SCHEDULE OF THE SPA WATER

All chemical products: Bromine in tablet form, Algaecides, Anti-calcareous and pH reducer, must be added to a floating dispenser (not supplied), with the massage pump on for at least ten minutes.

5.3. pH ADJUSTMENT

A pH index of between 7.2 and 7.6 is recommended.

The pH level measures the acidity and alkalinity: Values above 7 are alkali and below 7, are acid.



It is very important to maintain the correct pH level both for the disinfectant to work properly and to prevent corrosion or deposits on the Spa. Any damage caused by an inadequate pH level is not covered by your Spa guarantee.

- The effects of a very low pH level are:
 - The disinfectant will quickly dissipate.
 - The equipment of the Spa become rusty.
 - The water can start causing skin irritations to bathers.

- The effects of a very high pH level are:
 - The disinfectant is less effective.
 - Scale may appear on the acrylic and equipment.
 - The water may become cloudy.
 - The filter cartridge can become blocked.

Check the pH of the Spa water daily using the pH test set. (not supplied)

If the pH is above the indexes, use pH MINOR SPA. Wait for two hours and re-do the pH test.

If the pH is below indexes, use pH MAJOR SPA. Wait for two hours and re-do the pH test.

Once the pH index has been adjusted to the values indicated above, proceed to the next point.

5.4. DISINFECTION OF THE WATER

Disinfection of the water is of utmost importance in order to destroy algae, bacteria and organisms that could develop in the water. However, excessive disinfection could cause skin and eye irritation.

BROMIDE TABLETS are a suitable disinfectant for the Spa water. This product is placed in the pre-filter and gradually dissolves.

Check the residual bromide level daily using the Br analyser set.

The recommended level of residual bromide is between 2.2 and 3.3 ppm.

5.5. USE OF SPECIAL PRODUCTS

Apart from products to maintain the pH and disinfectant level, there are other products formulated especially for use in Spas that will help you to maintain the water and installation in perfect condition.

- **SPA-ANTI-CALCAREOUS:** This prevents the precipitation of calcium salts (scale), particularly in hard water. This product should be added weekly and whenever the water is renewed.
- **SPA-ALGAECIDE:** This algaecide prevents algae from growing in the Spa water.
This product is added weekly and whenever the water is renewed.
- **SPA-ANTIFOAM:** Foam is often formed owing to the agitation of the water and grease present in the water. Whenever there is a significant amount of foam, remove it with Spa-Antifoam.
- **SPA-DEGREASER:** To remove rings of dirt and grease that form on the walls of the Spa. To use this product, it is recommended to empty the Spa and apply a degreaser with a sponge on the parts to be cleaned. Rinse immediately with plenty of water.

5.6 OZONE GENERATOR (only in spas with this option).

Ozone, O₃, is an oxidizing chemical compound, which is very effective for disinfecting water. The main advantage of ozone is that it leaves no chemical trace and is odourless.

The capacity of ozone as a disinfectant is due to its potential as an oxidizing agent, which eliminates any organic matter that may be present in the water.

In order to produce ozone, electricity is passed through an ozonator to produce ozone ions from oxygen in the atmosphere. This is an automatic process and the resulting product is injected through the jets of the Spa. The process does not require the user to use any other mechanism.

The water is collected in the drains and skimmer, by the absorption action of the massage pump.

It is then sent through the heat exchanger and as it leaves, the ozone is injected. The water is distributed by the filtering back-flow. Part of this flow is also distributed through the drain outlet in order to avoid stagnant water from collecting.

Ozone treatment does not exclude the use of other chemical products such as Bromide or Chlorine. Ozone is considered a complementary process to them, therefore reducing the use of Bromide or Chlorine.

QUICK GUIDE TO THE APPLICATION OF CHEMICAL PRODUCTS

	Reason for Use	Amounts per m ³ of water	Frequency of use
pH MINOR SPA	Add if the pH level is above acceptable levels (7.2-7.6 ppm).	Add following recommendations of the chemical product manufacturer.	Analyse the pH daily with the pH Test.
pH MAJOR SPA	Add if the pH level is below acceptable levels (7.2-7.6 ppm).	Add following recommendations of the chemical product manufacturer.	Analyse the pH daily with the pH Test.
BROMIDE TABLETS	Add if the Br level is above acceptable values (3-5 ppm).	Add following recommendations of the chemical product manufacturer.	Analyse the Br daily with the Br Test.
ANTI-CALCAREOUS	To prevent precipitation of calcium salts (scale).	Add following recommendations of the chemical product manufacturer.	Once a week and whenever the water is renewed.
SPA ALGAECIDE	Prevents algae from growing in the water.	Add following recommendations of the chemical products manufacturer.	Once a week and whenever the water is renewed.
DEGREASER	To eliminate rings of dirt on the walls of the Spa.	Rub with a sponge and immediately rinse with abundant water.	Whenever dirt is observed on the walls of the Spa.
ANTI FOAM	Foam in the water.	Add following recommendations of the chemical product manufacturer.	Whenever foam appears in the water.

6. RECYCLING AND THE ENVIRONMENT



The Spa includes electric and/or electronic material, which at the end of its life-span, should be suitably treated as special waste. Contact your local authorities to find out the collection and waste disposal procedure for electric and electronic material.