

ROSE HOT TUB



INSTALLATION AND USER MANUAL



Please read the instructions for use

Illustration photo

Table of Contents

1.	Hot tub description	3
1.1	Jets	3
2.	Functional diagram of the control panel	3
3.	Control panel and its features	4
4.	Temperature controls	5
4.1	Temperature settings	5
4.2.	Non-default display value	5
4.3.	Heating settings.....	6
5.	Pump controls	6
6.	Blower button.....	7
6.1.	Blower speed settings (SPVSB only)	7
7.	Light controls	8
7.1	Colour type settings (variable colour lighting only).....	8
7.2	Light indicator.....	8
8.	Automatic cleaning (filtration)	8
8.1	Minimum filtration time adjustment.....	9
8.1.1	Cleaning cycle.....	9
8.2	Hot tub too hot in summer	9
9.	Radio receiver with MP3 player.....	10
9.1	Radio/MP3 controls	10
10.	Self-diagnosed errors - error codes	11
11.	Installation instructions	12
11.1	Electrical parameters.....	12
11.2	Hot tub installation.....	13
12.	Caring for your hot tub	15
12.1	Filtration cartridge (installation, removal, maintenance).....	16
13.	Winter and summer use	16
14.	Troubleshooting	18
15.	Safety instructions	19

Thank you for choosing our product and trusting our company. To ensure the use of this product brings you joy, please read these instructions carefully and follow the user's manual precisely before using the equipment to prevent damage to the equipment or needless injuries.

1. Hot tub description

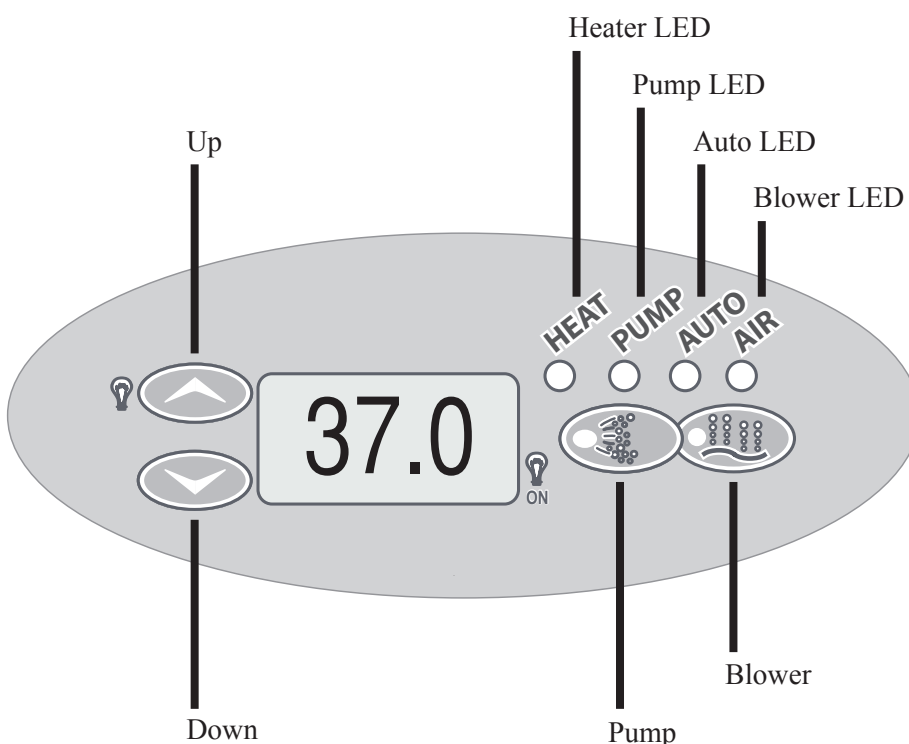
Seat	2	3 hp 2-speed Davey pump	1
Couch	1	Preparation for thermal pump	√
Dimensions (cm)	220 x 155 x 78.5	Heating	1.5 kW
Weight	250	Cartridge filter	2 units
Water quantity	1332	Ozone generator	√
Aristech acrylic	√	Blower with aromatherapy	√
Chemically treated wooden frame	√	Head rest*	3
API panelling	√	Diversion valve	1
Arctic reinforced thermal cover	√	Air valve	-
Shell thermal insulation	√	Light	1
Panel thermal insulation	2 cm	MP3 player	√
2-tone RD stainless steel jets	29	Speakers	2
Jet with LED light	16		

* Headrests are located inside the spa, fixed by heater unit (cabinet panel right beneath the control panel).

1.1 Jets

The rate of flow of water through the jets can be adjusted by turning them clockwise (right to open, left to close). Therefore, water not coming out of a jet may not be a defect: the jet may just be closed. Not all the jets can be adjusted like this.

2. Functional diagram of the control panel



3. Control panel and its features



Up



Down



Pump



Blower

Auto LED indicator

The yellow auto mode indicator on the touch panel is on whenever the system is in the fully automatic control mode. In this mode, the system activates the pump and the heater automatically for water filtration and maintenance of the set water temperature. If this indicator blinks, the water sensor has detected no water.

Pump LED indicator

The green pump indicator on the touch panel is on whenever the pump is in operation, in either the auto or manual mode. If this indicator blinks, the hot tub is in the Sleep mode.

Heat LED indicator

The red pump indicator on the touch panel is on whenever the heater is in operation, in either the auto or manual mode. The heater is always controlled automatically for safety reasons. Shifting to the higher speed usually disengages the heater (emergency disconnection of a non-priority circuit). This precaution exists to maintain the total performance load at a safe level. If this indicator blinks, there is a defect in the system (see Chapter 8).

Blower (Air) LED indicator

The Blower LED indicator on the touch panel comes on when the Blower button is pressed, and goes off when the button is pressed again.

4. Temperature controls

The hot tub performance control unit automatically controls the pump and the heater for water filtration and maintains the water at the required user-defined temperature (see below). The user may leave the system to take care of the hot tub and will know that the water will have the right temperature whenever they decide to use the hot tub.

4.1 Temperature settings

The hot tub control panel gives the user direct control over the water temperature. Hold down the Up or Down button to alter the set temperature as shown on the digital indicator. There is a short time lag before the buttons are activated to reduce the risk of accidental interference. The hot tub water temperature will be maintained in close proximity to the set temperature.



UP temperature increases by 0.5 °C (max. 41.5 °C)



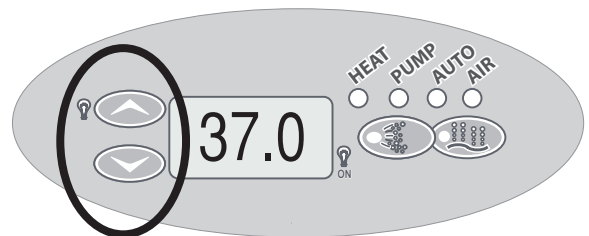
DOWN temperature decreases by 0.5 °C (min. 10 °C)

Default value on the display

The display will normally show the set water temperature unless a hot tub water temperature sensor is installed as an optional accessory, in which case the water temperature reading is displayed. In both cases, the set water temperature will be shown on the display when setting the temperature as described above.

4.2. Non-default display value

The non-default display value (either the water temperature reading or the set water temperature) can be checked by pressing **UP** and **DOWN** simultaneously.

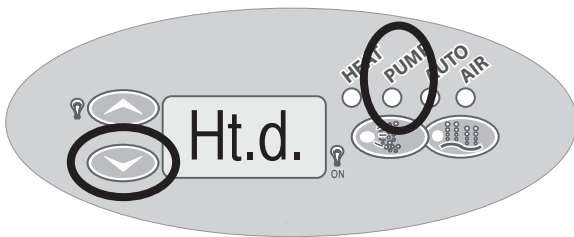


4.3. Heating settings

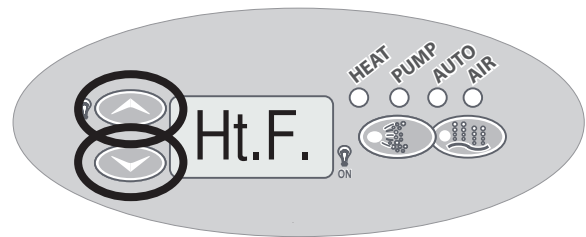
In addition to the temperature settings, the user may choose a preferred heating mode. The two following heating modes are available:

- 1) Heating on demand (displayed as Ht.d). This is the default setting, in which the pump and the heater are activated automatically whenever the temperature drops slightly below the set value.
- 2) Heating only during filtration (displayed as Ht.F). In this mode, the pump and the heater are activated automatically no more than once an hour to filter and warm the water. This mode is available as an option for those who prefer limiting the natural system cycling.

If you wish to choose a heating mode, first press the **PUMP** and **DOWN** buttons simultaneously to display the current heating mode, then you can change the mode by pressing and holding the **UP** or **DOWN** button.



Press both the buttons simultaneously



Press the Up or Down button to switch between the heating modes

5. Pump controls

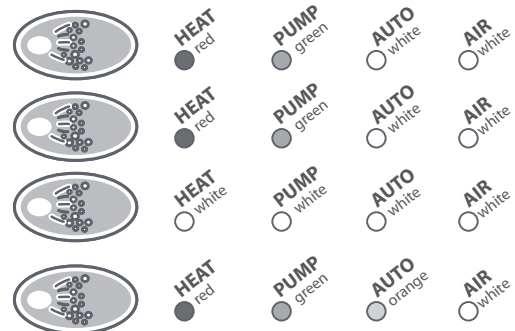
The **PUMP** is controlled by a single pressing of a button. It has four settings: manual low speed, manual high speed, stand-by mode, and auto mode. The pump is controlled via a single button on the touch panel. Press the button successively to circle through the four modes: auto, manual low speed, manual high speed, and stand-by. If the hot tub is in the auto mode, pressing the Pump button once deactivates the auto mode and the pump operation is set into the manual low-speed mode. The LED indicator for the auto mode is orange when the auto mode is activated, whereas it is off in the manual low-speed and high-speed modes. If the **PUMP** is in the stand-by mode, all the LED indicators will be off.

Press once: manual low-speed mode

Press twice: manual high-speed mode

Press 3 times: stand-by mode

Press 4 times: auto mode



Note:

- 1) If the pump is left in the manual or stand-by mode, it will revert into the auto mode automatically after 90 minutes.
- 2) The user has no direct control over the heating. The heating is activated automatically when the pump comes on.
- 3) If the heater is on, running the pump at high speed may cause an emergency disconnection of non-priority circuits, thus deactivating the heater.

6. Blower button

It is used to activate and deactivate the Blower and choose from the different operating modes in case a variable speed **BLOWER** (SPVSB) is installed. Press the **BLOWER** button twice (STD) or four times (SPVSB) to circle it through the following cycle:



Press once: on



Press twice: off

Variable speed Blower (SPVSB) (if installed)

Note:

Press once: on



red

Press twice: adjustable speed



orange

Press 3 times: oscillating speed



green

Press 4 times: off



white

If this accessory is left on, it turns off automatically after 20 minutes. If the heater is on, switching on this accessory may cause an emergency disconnection of non-priority circuits, thus deactivating the heater. This precaution exists to maintain the total performance load at a safe level.

Note:

The Blower is fitted with two non-return valves to prevent inundation of the Blower air piping. The Blower is fitted with an outlet for potential dripping water. The outlet is situated and discharges at the bottom of the front or rear left-hand corner viewed from the control panel. Minor quantities of water may issue from this outlet, which is a normal feature and cannot be claimed under warranty.

6.1. Blower speed settings (SPVSB only)

If a variable speed Blower is installed, the hot tub user can set the Blower speed to any required value. Use the **UP** and **DOWN** buttons to set the required Blower speed.

Note:

If the Blower is in the full speed or oscillating speed mode, pressing the **UP** or **DOWN** button will switch it into the adjustable speed mode, and then you can adjust the speed.



Step 1 - Press the **BLOWER** button twice




Step 2 - Press **Up** to increase the Blower speed



Step 3 - Press **DOWN** to reduce the Blower speed.

7. Light controls

Your hot tub may come with either of two different LED lights: the colour light or the variable colour light. The colour light is a single-colour light that is either on or off. The variable colour light is a light that can switch between 12 different colours and white (see below for user instructions).

The multifunction **LIGHT**  button is used to turn the light (SPCL) on or off and switch between the different operating modes of the variable colour light. Press the button briefly twice to turn the colour light on and off, and five short successive presses will cycle the variable colour light through the following modes:

Press once: on

Press twice: light settings (SPCL - off; SPVCL - colour setting mode)

Press 3 times: cycle through colours slowly

Press 4 times: cycle through colours quickly

Press 5 times: off

Note:

- 1) Press this button briefly to activate the light features as described above.
- 2) Hold this button down to increase the hot tub water temperature setting.
- 3) If a variable speed **BLOWER** is installed and turned on, this button can be used to increase the Blower speed.

7.1 Colour type settings (variable colour lighting only)

If the light is on, a short pressing of the **DOWN** button will switch the light to the colour setting mode; then you can switch between the available colours in a sequence. The last colour set in this mode will be stored for the next use of the light.

7.2 Light indicator

The little red dot in the bottom corner of the digital display signals that the light is on. If the light is left on, it turns off automatically after 30 minutes.

8. Automatic cleaning (filtration)

The control unit maintains filtration/sanitation of the hot tub water automatically. The minimum filtration time is user-programmable; it can be altered between 0 and 15 minutes per hour (0 to 6 hours a day). In order to be able to preserve proper hot tub water filtration, the control unit monitors the time for which the pump is running during normal hot tub operation. If the pump is set to run for only a short time, the system automatically activates the pump for an additional period of time every hour to achieve the minimum filtration time set by the user.

8.1 Minimum filtration time adjustment

First press the **DOWN** and **BLOWER**

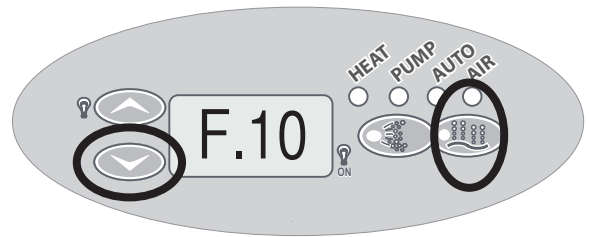


buttons simultaneously to show the filtration time setting on the digital display.

The default setting is 10 minutes per hour (= 4 hours a day). Hold the **UP** or **DOWN** button to alter the filtration time between 0 and 15 minutes per hour (= 0 to 6 hours a day).

8.1.1 Cleaning cycle

You can activate the cleaning cycle as necessary to filter the water after using the hot tub. You can do it simply by pushing the Pump button, which stops the auto mode and switches to the pump mode. This will circulate the water through the filter for 90 minutes. After 90 minutes, the system reverts to the auto mode and maintains the temperature for the next use of the hot tub.



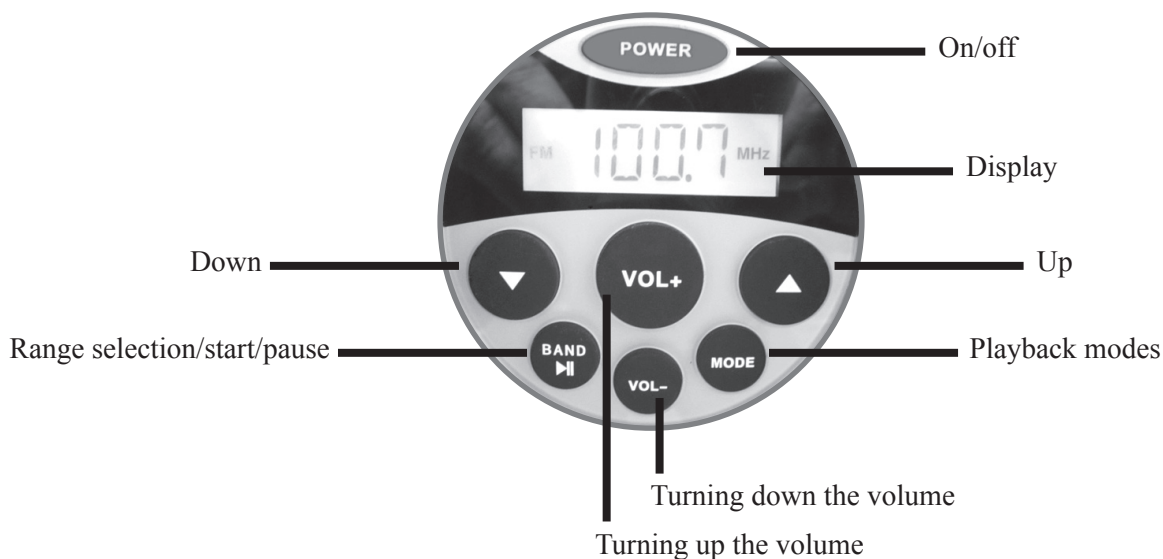
8.2 Hot tub too hot in summer

It may happen during warm periods of the year that the actual water temperature exceeds the required temperature set by the user. For example, the hot tub temperature is set to be kept at 35 °C but the actual water temperature is more than 35 °C. Please remember the following: your hot tub will cool down in winter because the air temperature is low. To be able to cope with that problem, the water is heated and the hot tub is kept covered when not in use. If the hot tub is switched off and the ambient temperature is 15 °C, the hot tub water will eventually lose its thermal capacity and its temperature will decrease to 15 °C. The same applies in summer but in reverse: you can turn off both the heater and the pump and if the daytime ambient temperature is 35-42 °C, the hot tub water will retain that temperature too.







Manufacturers have not attempted to supply systems to cool the water. The quickest way to deal with the problem is to replace the water, but even the new water will eventually warm up to the air temperature. Reduce the temperature setting so that the heater does not come on. Reduce the filtration time to the minimum so that the pump runs less. The shorter the pump running time, the colder the water. If the nighttime temperatures are low, leave the pool open to allow the heat to escape, but cover it during the day to prevent the water from being warmed up by the ambient air. Also, make sure that the hot tub is shaded from direct sunlight.

9. Radio receiver with MP3 player

The hot tub is equipped with a radio receiver with an MP3 player, which has a USB port.



9.1 Radio/MP3 controls

-  On/off button
-  Down button for changing radio frequency and jumping to the previous MP3 file.
-  Up button for changing radio frequency and jumping to the next MP3 file.
-  Button for turning up and down the volume.
-  Button for switching between FM/AM frequency ranges and starting and pausing MP3 playback.
-  Button for switching between radio/MP3/AUX inputs.

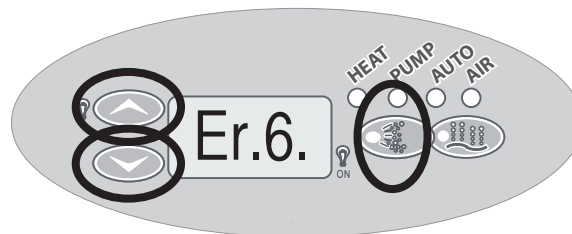
10. Self-diagnosed errors - error codes

The control unit has extensive self-diagnostic capabilities. In the event of trouble, it will signal the error number along with the nature of the trouble. The error numbers and their meanings are listed below.

Note: In the event of an error status, the warning can be cancelled by pressing the Blower button.

Error 1 (H20) - Pump Suction Failure

This may not necessarily be a problem associated with the control unit itself, but it signals that no water has been detected in the heating shell. Suction failure is a special case in that it can be eliminated by pressing a button. Hold down the pump button for 10 seconds to activate the pump and make an attempt to deliver water to the heater. If it succeeds, normal operation is restored. If it fails, the display again shows Error 1 (Er. 1).



In any of errors 3-8 occur, the operation is halted and only continues after the hot tub is reset. The hot tub can only be reset by simultaneously pressing down the UP, DOWN and PUMP buttons.

The control panel remains in the error status even after the power supply is disconnected.

Error 3 - Key Blocked

This error signals that one of the display buttons has been blocked or held down for longer than a minute. That may be caused by the hot tub thermal cover being pressed against the display, or water entering the touch panel, or the display or its cord being damaged. Try resetting the hot tub. If the problem persists, please contact your hot tub supplier.

Error 4 - Switch Detects No Water

This error signals a problem with the optical heating water sensor. This may be caused by the sensor being disconnected or damaged. If the problem persists, please contact your hot tub supplier.

Error 5 - Temperature Too High

This error signals that the digital temperature sensor in the heater or the hot tub has detected a temperature of at least 45 °C. This may not be a problem with the control unit; it may be caused by excessive use of the pump in hot weather or a pump failure. Switch off the hot tub and allow the water to cool down. If the problem perseveres, please contact your hot tub supplier.

Error 6 - Thermal Fuse Activated

This error indicates that the safety electromechanical thermal fuse in the heater has been activated. It may not necessarily be a problem with the hot tub. It may have been caused by a pocket of air in the heater, high temperature during use, or pump failure. The automatic thermal trip is only deactivated once the heater cools down below approx. 38 °C. Then the hot tub needs to be reset before resuming operation. Press the UP, DOWN and PUMP buttons simultaneously.

Error 7 - Relay Jammed

This error indicates a problem with the heating control circuitry inside the device. Please contact your hot tub supplier.

Error 8 - No Temperature Data

This error indicates a problem with the digital temperature sensor in the heater or the hot tub wall. The sensor may have disconnected or been damaged. Try resetting the hot tub. If the problem persists, please contact your hot tub supplier.

11. Installation instructions

11.1. Electrical parameters

Performance parameters

Rated voltage: single-phase 230 V 50/60 Hz

Maximum working current: 16 A

Voltage resilience: 1250 V/min without breakdown

Insulation resistance $\geq 200 \text{ M}\Omega$

Water resistance (protection) IPX5

Protection against electric shock: first degree

Loading capacity

Heater: 230 V / 1.5 kW / 10 A

Ozone generator: 230 V / 50-60 Hz / 80 mA

Blower: 230 V / 0.9 kW / 6.3 A

Two-speed pump 1: S1 - 230 V / 0.45 kW / 3.2 A S2 - 230 V / 2.2 kW / 10 A

Total power input: 4.6 kW/hour

Protection class: 1

Underwater bulb lamp: 12 V AC / 10 W

Radio: frequency range (FM: 87.0-108.0 MHz)

maximum output power: 20 W

speakers resistant to moisture

Electrical connection

• single-phase current 230 V/16 A, characteristic C - heating limited in this case: the massage pump and the heater cannot run together. Use a CYKY - J 3x 2.5 mm power cord for the power supply connection.

Make sure that the hot tub is always connected to a circuit protected with an earth-leakage trip with a residual current of 0.03 A. If a fuse needs replacing, always use a fuse of the same type and rated current.

!!! THE DEVICE MAY ONLY BE CONNECTED BY A PERSON WITH PROFESSIONAL ELECTRICAL QUALIFICATIONS IN COMPLIANCE WITH DECREE NO. 50/1978 COLL. !!!

11.2 Hot tub installation

Preparing the site for hot tub installation

General: The hot tub must be installed on a level foundation slab of sufficient strength with respect to the load-bearing capacity of the structure. If installing the hot tub in the exterior, we recommend making a concrete monolithic foundation slab at least 10 cm thick. The load-bearing capacity of the foundation slab must also be designed with respect to the size and weight of the hot tub; consult your construction supervisor. The weight of the hot tub is shown in its technical specifications.

We advise you to prepare a discharge pipeline in the hot tub installation location; you will find it useful especially when wintering your hot tub and changing the water in it. The hot tub can be installed „on the ground“; it can also be installed „in the ground“. Important notice: If your hot tub is embedded, there has to be a discharge line in the installation location; the hot tub has to remain accessible on all sides after it has been embedded. The access has to be provided for servicing reasons. The clearance between the hot tub and the perimeter walls has to be at least 50 cm all around.

1. Interior hot tub installation

If installing the hot tub in the interior, make sure you observe the safety precautions. The chief requirements for safe hot tub operation include non-slip flooring, and a drained installation site for the event of water pouring or spillage. Also remember that the air humidity will increase in the tub area. For these reasons, you are advised to adjust the installation site to these requirements.

2. Exterior hot tub installation

If installing the hot tub in the exterior, make sure you observe the safety precautions. The chief requirements for safe hot tub operation include non-slip tiling (flooring), and a drained installation site for the event of rain or water pouring or spillage over the hot tub rim. For these reasons, you are advised to adjust the installation site to these requirements.

Preparation for the power connection

For connection to single-phase alternating current, make sure you use a 16 A circuit breaker with characteristic C. Make sure that the hot tub is always connected to a circuit protected with an earth-leakage trip with a residual current of 0.03 A. If a fuse has to be replaced, always use a fuse of the same type and rated current.

Hot tub installation

Note: The hot tub has to be located in accordance with standards in force in your country; in the Czech Republic it is ČSN 33 2000-7-701.

General:

You are advised to take advantage of professional services of qualified and trained technicians for the installation, power connection and first startup. If you decide to install the hot tub by your own devices, please follow the advice below.

1. Carefully remove all the packaging in which the hot tub was delivered, and position the hot tub on the pre-rendered installation site.
2. Remove the front panel, situated at the side of the hot tub control panel. Remove the upper power switchboard cover, under which the circuit breaker, the earth-leakage trip and earth connector are situated. The connection using the appropriate power cord may only be performed by a person with professional qualifications.

3. Since your hot tub was thoroughly tested during the manufacturing process, meaning some proportion of impurities may have remained in the hot tub equipment parts and on its surface, you are advised to first clean the hot tub surface in an appropriate way. We recommend using lukewarm water for this cleaning. As a rule, clean the surface using suitable soft towels; avoid using any coarse abrasives and fabrics, which might cause damage to the spa surfaces. If you choose to use any detergent, make sure it is not aggressive to the spa surfaces.

1. Filling the hot tub with water

Fill the hot tub with a sufficient amount of water. The water level in the hot tub may never decrease below the skimmer level. If you detect any water leakage when filling the hot tub, interrupt the filling until the defect is eliminated.

2. Activating the power supply for the hot tub

If the hot tub is connected via a flexible cord, the power cord must not be exposed to any burdening with sharp objects or other effects. If that is the case, we advise you lay the power cord inside a protective sleeve. Switch on the circuit breaker reserved for the hot tub.

3. Rules for hot tub water quality maintenance

Several rules have to be followed to ensure trouble-free operation of your hot tub. One of these rules is to periodically replace the entire bulk of water in the spa. We recommend changing the water at least once every 3 months, with respect to the frequency of operation and use of the hot tub. Spa water quality is best determined using testers, which can be obtained from your retailer. The tester allows you to measure (analyse) the total alkalinity (TA), calcium hardness (CH) and pH; these values have to be maintained. Values recommended by the manufacturer: TA up to 125 ppm, CH up to 150 ppm, and pH 7.0-7.6. Under normal European circumstances, water for the common user will have been treated by the water utility that delivers it through the mains, so the alkalinity and calcium hardness are usually within the required limits. Yet it may be the case that the pH is not within our recommended range, that is pH 7.0-7.6. In most cases, the pH will be above the recommended range. To reduce the pH, you can use a chemical preparation known as pH-.

Practical tip: We advise you carry out any measurements of water quality in the spa after the normal filter cartridge and water cleaning cycle has ended (at least 2 hours) - never make any measurements immediately after using the hot tub. If you test the water quality immediately "after a bath", the pH and other values will be markedly distorted.

4. Programme the hot tub control unit using the control display

If everything is in order, you can start programming the hot tub control unit. After programming, cover the hot tub and allow its temperature to stabilise. Check the water level in the hot tub periodically.

12. Caring for your hot tub

General information

If the hot tub is in the exterior, we advise you prevent direct sunlight from acting upon the hot tub by, e.g., installing the hot tub under a pergola. Under no circumstances should you expose the hot tub to direct sunlight if it is waterless. Use the thermal cover for this purpose; it may have been supplied with your tub. The procedure for shutting down the hot tub, especially in winter, is described in Chapter 13, Winter and summer use.

Operating rules

The hot tub is not designed for commercial use. Under no circumstances is it permissible that the pump be activated without a sufficient water level in the hot tub. The water level must be kept at the indicated height. The user is not allowed to generate overpressure or negative pressure in the equipment by blocking the jets or the skimmer while the pump(s) is/are running, provided the hot tub has any. It is also impermissible to shut valves in the circuit, etc. Prevent foreign objects from entering the skimmer suction area. Make yourself thoroughly familiar with the Operating Instructions before first use. Always have the Instructions within easy reach. The manufacturer has introduced the client to the technical parameters of the hot tub and pointed out its advantages and drawbacks. Under certain circumstances, water aeration may alter slightly in hot tubs - in the circulation jets.

1. No unqualified interference with the hot tub equipment and wiring is permissible. Please contact a professional service provider in the event of any defect. Unqualified interference with the above may result in injury and loss of warranty.
2. Maintain overall spa cleanness periodically. The frequency of cleaning the hot tub depends on the frequency of using the spa.
3. Perform cleaning of the filter cartridges depending on the frequency of your use of the hot tub.

Maintenance of the spa frame surface finish

Minor scratches that do not penetrate the top (acrylic) paint may be removed using high-quality car polish. Major scratches that have penetrated the acrylic top coat require renewal of the surface finish. Seek advice of a hot tub retailer.

Hot tub thermal cover

Using the hot tub cover helps reduce the energy costs by minimising heat loss and evaporation. The attractive cover is an effective device to prevent leaves and other contaminants from getting into the hot tub when not in use. Please follow the instructions for using the hot tub and caring for the hot tub and the thermal cover.

Note: The hot tub cover is not designed to support weight. Nor is it an approved safety device that might substitute for fencing around the bathing area. In order to protect the thermal cover and maintain safety, do not sit, stand or lie on the cover. Do not put any objects on it.

Caring for the hot tub thermal cover and maintenance instructions

Proper care for the cover is important: clean and tend to it as necessary. If you use any common chemical detergent for the maintenance and cleaning, first make sure that the detergent does not damage the tended surface. We advise you make a cleaning test on a hidden spot.

1. Improper maintenance of hot tub water quality may affect the service life of the hot tub cover. Take consistent care of the hot tub water quality.
2. Vent the hot tub for several hours periodically by opening the thermal cover: this will prevent adverse effects on the thermal cover. We also advise you remove the thermal cover off the hot tub several times a year to allow it to dry thoroughly.
3. We advise you adhere to the above advice; no claims shall be accepted as justified if you fail to adhere to these rules.

12.1 Filtration cartridge (installation, removal, maintenance)

Remove any packaging off the cartridges before installing them. Push the suction (skimmer) housing upwards. Remove the rough dirt basket. The suction area has two holes with a threaded section (thread) in the suction bottom. The cartridge has a thread at the bottom too. Screw the cartridge into the threaded suction part, clockwise, and tighten it gently. Reverse the installation procedure for replacing the cartridges. Used cartridges may be reused repeatedly. Used cartridges have to be cleaned thoroughly before reuse. They should be cleaned with pressurised water; we advise you disinfect the cartridges using an appropriate disinfectant. After cleaning, all mechanical and other impurities should be removed from the cartridge.

Note: Hot water tends to swell the assembly, so do not worry if it is a bit difficult to remove it.

13. Winter and summer use

Shutting down the hot tub in winter, procedure recommended by the supplier. When shutting down the hot tub for winter, it is absolutely imperative that all water is drained from the hot tub and removed from all the equipment (piping, pumps, etc.). We advise you take advantage of our professional services for these jobs. If you choose to take advantage of our professional services, please order them well in advance. If you shut down the hot tub for winter by yourself, always do so at ambient temperatures above freezing point. If the hot tub is being shut down for winter at temperatures below freezing point, the shutting down may turn out to be very difficult.

Winter season - operating the hot tub, year-round operation

If you decide to operate the hot tub in any mode in winter, please follow the advice below. However, winter operation is limited by ambient temperatures:

- a) temperatures do not drop below $-5\text{ }^{\circ}\text{C}$
- b) temperatures drop below $-5\text{ }^{\circ}\text{C}$

a) If the ambient temperature does not drop below $-5\text{ }^{\circ}\text{C}$, you can follow the Installation and User Manual for the hot tub, that is, use the automatic mode. The automatic mode makes sure the circulation pump and the electrical heater switch on (when temperatures drop below $+5\text{ }^{\circ}\text{C}$) until the water in the tub reaches $+10\text{ }^{\circ}\text{C}$, when both the pump and the heater switch off automatically; the cycle is repeated when the temperature drops again. However, this mode of operation imperatively requires absolutely clean filter cartridges; we advise you remove one of the filter cartridges. Should the filter cartridges be clogged beyond a certain limit, the water flow through the circulation pump would decrease or stop, and the hot tub control unit would interpret the low or zero flow by automatically switching off both the circulation pump and the heater. If that happens, there is a risk of total freezing of water inside the equipment, which may result in serious damage to the entire hot tub equipment. Therefore, we advise you check the hot tub functioning on a daily basis to prevent damage to your hot tub. During the check, refill the water from time to time as needed. The water level may decrease due to natural water evaporation. This mode of operating the hot tub is not recommended by the supplier.

b) If the ambient temperature drops below $-5\text{ }^{\circ}\text{C}$, the water temperature inside the hot tub has to be kept at $+20\text{ }^{\circ}\text{C}$. Both the filter cartridges can be in operation in this mode as long as they are checked for cleanness on a daily basis. Should the filter cartridges be clogged beyond a certain limit, the water flow through the circulation pump would decrease or stop, and the hot tub control unit would interpret the low or zero flow by automatically switching off both the circulation pump and the heater. If that happens, there is a risk of total freezing of water inside the equipment, which may result in serious damage to the entire hot tub equipment. Also, check the water level in the hot tub on a daily basis: the water level must not decrease below the control sensor. If the water level decreases below the sensor, the control unit disengages the circulation pump and thus also the electrical heater, meaning the water could freeze in the equipment, which may seriously damage the hot tub. Therefore, we advise you check the hot tub functioning on a daily basis to prevent damage to your hot tub. During the check, refill the water from time to time as needed. The water level may decrease due to natural evaporation.

If the above is not respected and the hot tub gets damaged, such damage cannot be claimed under warranty.

Summer season

Do not expose the hot tub to the direct effects of solar radiation; do not use inappropriate detergents for maintenance. Prevent direct contact of the hot tub frame with chemicals and scratching of the surface with sharp objects. Ensure safety of children with adult supervision. The accessories may only be operated by instructed and fit persons over 18 years of age, who may also handle the chemicals, which have to be put out of reach of children.

14. Troubleshooting

Problem	Likely causes	Solution
Turbid water	Dirty filters. Neglected hygiene. Dispersed particles / organic substances. Water used for too long.	Clean the filters. Treat the spa with a disinfectant. Add disinfectant. Adjust the pH and/or alkalinity as recommended. Turn on the massage pumps and clean the filters. Drain the spa and refill it.
Water odour	Too many organic substances in the water. Neglected hygiene. pH too low.	Treat the spa with a disinfectant. Add disinfectant. Adjust the pH, then refill the spa.
Chlorine odour	Too much free chlorine. pH too low.	Replace 1/3 of the spa water. Adjust the pH as recommended.
Musty odour	Bacteria or algae propagating.	Treat the spa with a disinfectant. If the problem is visible or lasting, drain the spa, clean it and refill it.
Organic sediment / circle of scum around the spa	Deposition of oils and dirt.	Wipe the spa with a clean cloth. If there is too much scum, drain the spa. Remove the scum with a detergent and refill the spa. Treat the spa with a disinfectant and adjust the pH.
Algal growth	pH too high. Too little disinfectant.	Treat the spa with a disinfectant and keep its concentration.
Reduced transparency	pH too low. Too little disinfectant.	Adjust the pH. Treat the spa with a disinfectant and keep its concentration.
Limescale	Too much calcium in the water; too much total alkalinity and pH too high.	If scale needs removing, drain the spa, remove the scale, refill the spa and balance the water composition.
Hot tub does not work as a whole	Water level too low. Power supply failure. Heater off.	Add water. Check the power supply. Restart the heater. Disconnect the power supply for at least 30 seconds for the security thermostat to restart. If reset is impossible, check the filters for clogging. If the hot tub keeps switching off, call maintenance.
The hot tub does not warm up and the light is on (readiness and power indicators blinking).	Water level too low. Security thermostat off. Integrated pressure switch interrupted. Circulation pump thermal trip off. Dirty filters.	Check the filters. The integrated pressure switch restarts when water flow through the heater is restored. Call maintenance if the heater switches off too often. Checks the filters and piping leaks. Disconnect the hot tub from the power supply and allow the circulation pump to cool down. The circulation pump thermal trip restarts when the pump cools down and the power supply is reactivated. Call maintenance if the circulation pump thermal trip switches off too often.
Reduced pump performance	Water level too low. Dirty filters. Air controls shut.	Add water. Clean the filters. Open the air controller.
Light not on.	Faulty wiring or light assembly.	Call maintenance.

15. Safety instructions

Preventing risk to children

1. To reduce the risk of children getting injured, do not allow children to use this hot tub without continuous close supervision.
2. To reduce the risk of children getting injured, lower temperatures are recommended for younger children. Before allowing children to enter the hot tub, check the water temperature with your hands and make sure it is suitable for children.
3. Remember that wet surfaces may be slippery. Remind children to be careful when entering and leaving the hot tub.
4. Do not allow children to step on the hot tub thermal cover.

Preventing risk to adults

1. To reduce the risk of adults getting injured, do not remove or lose any of the suction fittings. Never operate the hot tub if any of the suction fittings are damaged or missing.
2. Remember that wet surfaces may be extremely slippery. Be aware of the danger of slipping and falling when entering or leaving the hot tub.
3. For medical reasons, people with infectious diseases are not allowed to use the hot tub.
4. Do not bring loose clothing or pendant jewels close to the rotating parts of the hot tub (rotary massage jets).
5. The use of alcohol, drugs, or medication before or during hot tub use may lead to sudden unconsciousness with the possibility of drowning. People who use medication have to consult a physician before using the hot tub; some drugs may cause drowsiness in the user, while others may affect the heart, blood pressure and circulation.
6. Pregnant women have to consult a physician before using the hot tub.

Preventing the risk of electrocution

THE DEVICE MAY ONLY BE CONNECTED BY A PERSON WITH PROFESSIONAL ELECTRICAL QUALIFICATIONS IN COMPLIANCE WITH DECREE NO. 50/1978 COLL.

1. Test the functionality of the earth-leakage trip before use. Press the TEST button. The device must trip. Restore the power supply by switching it on again. The hot tub must always be connected via an earth-leakage trip with a residual current of 0.03 A.
2. Do not permit any electrical appliances, such as lights, telephones, radios or television sets, within 1.5 m of the hot tub. Failure to observe the safe distance may lead to death or serious injury by electric current, should the appliance fall into the hot tub.
3. Install the hot tub in a way that the drain is as far from the electrical box and all the electrical components as possible.
4. Before servicing any of the electrical components, disconnect the hot tub from the power supply.

Tip: Your hot tub is equipped with a two-speed pump, which makes it possible to operate each half of the jet system separately or both at the same time. Do not connect the power supply to an empty hot tub. Otherwise it may get damaged.

Warranty terms and conditions

The warranty conditions are governed by your supplier's trade and warranty terms and conditions.

Safe product disposal at the end of its service life

When the product comes to the end of its service life, make sure it is disposed of ecologically by a professional company.



Claims and servicing

Claims are governed by applicable consumer protection laws. If you find an irreparable defect, please contact your supplier in writing.

Date:

Supplier

--	--

EN

