swim_spa

USSPA®

GUIDE

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1 | INTRODUCTION

Congratulations on purchasing your new USSPA | swim – the hydrotherapeutic equipment that offers everyday relaxation, hydrotherapy and pleasant moments. Your new swim spa is manufactured from first-class materials and components from leading global producers to guarantee easy operation and offers pleasure for many years. The purpose of this manual is to provide you with information on how to make the best use of your swim spa. When cared for duly and maintained regularly, your swim spa will become a place of untroubled relaxation.

YOUR SWIM SPA:

SWIM SPA M

SWIM SPA XL

CONTRACT NO. (see the contract): .....
DATE OF PUTTING INTO SERVICE: .....

CONTACTS
YOUR SERVICE TECHNICIAN: .....
Tel.: .....

SERVICE LINES: .....
E-mail: .....

ORDERING CHEMICAL PRODUCTS AND ACCESSORIES: .....
.....

2 |

IMPORTANT INFORMATION FOR SWIM SPA USERS

The design of your USSPA | swim meets the highest requirements for this type of equipment. However, some basic rules should be observed for using the swim spa without problems for a long time:

1. When your swim spa is out of operation, keep the appliance covered with the thermo-cover that is supplied as a standard feature. The cover not only makes the operation of your swim spa economical and effective (preventing heat and humidity from escaping) but also contributes considerably to maintaining the water quality in the swim spa. At the same time, it protects the surface of your swim spa against any long-term action of UV radiation and high temperatures which could result in degrading of the materiál that the swim spa is produced from. The warranty does not extend to this kind of damage.

2. The swim spa equipment is designed to hold water permanently. Therefore, it is recommended to have the swim spa filled with water at all times, even when not being used for a longer period of time.

3. It is the user's responsibility to maintain the quality of the water in the swim spa in accordance with the instructions provided. Improper water maintenance can damage, among other things, the spa or its components. On such established plants are not covered by the warranty.

4. Please keep the manual including all attachments ready for reference.

5. The equipment meets all government standards (European guidelines) plus national and technical specifications. The conformity certificate is available upon request.

6. The manufacturer reserves the right to make changes to the equipment.

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3 |

SWIM SPA SAFE OPERATION RULES

Although the swim spa offers a lot of pleasure and fun, care must be taken in its operation. Never forget to observe the safety precautions when using your swim spa. The general rules for safe swim spa operation are provided below. It is your responsibility to ensure that both you, your family and guests use the swim spa in a suitable and sensible manner.

1. Please read this manual thoroughly before using your swim spa. Conduct regular visual inspections of your swim spa. If you find any Defect contact your service technician for advice or repair.

2. The swim spa should be wired up by an appropriately qualified person (electrician) always via a current protective switch, IΔn = 0,03 A.

3. Any supply cord extension or disconnection from the switchboard may, if done unprofessionally, make the swim spa warranty void.

4. It is forbidden to use any electrical appliances in the swim spa.

5. If possible, use battery-powered devices only around the swim spa.

6. Never interfere in the inspect the swim spa equipment or the filtration equipment without disconnecting the power supply and reducing the inner pressure.

7. Always be sure to avoid overflowing. Defects occurring due to overflowing are not covered under the warranty.

8. Check the water temperature prior to and after using the bath. It is recommended to use an independent thermometer as defects of the temperature sensor cannot be excluded completely.

9. Always step into and out of the swim spa slowly and carefully to avoid slipping on the wet surface.

10. The most convenient way to enter the swim spa located in a cabinet on the floor is as follows: Use the stairs to climb on the swim spa, turn, sit on the edge of the swim spa and turn carefully – put both your legs in the water gradually. Subsequently immerse yourself in the swim spa while holding the edge. Use the reverse procedure when leaving the swim spa. When leaving the swim spa we encourage you to use a non-slip mat, on which you will stand by turning from the swim spa. If the swim spa is embedded in the floor it is necessary to use either specially attached handrails on the swim spa wall or preferably a railing securing a safe holding support when

entering and leaving the swim spa. Moreover, always use the contoured stairs in the swim spa in this case.

11. Try to avoid accidents and injuries. Only use unbreakable cups, dishes and aids around the swim spa.

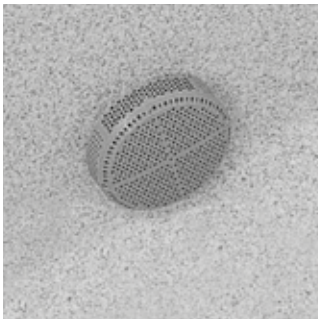
12. Never use the swim spa when alone.

13. Always pay special attention to children around and in the swim spa. Children should use swim spa in the presence of adults.

14. Never allow anyone to run and disturb the peaceful atmosphere near the swim swim spa.

15. It is recommended to always assign one person to také responsibility for supervising the swim spa.

16. Avoid sticking your fingers into the jets holes, as they may get stuck.



suction

17. All the suction openings and the skimmer must remain free when the pumps are in operation; avoid the risk of allowing any part of your body going into the suction openings and the skimmer.

18. The water temperature in the swim spa should not exceed 40 °C, primarily for health reasons. However, the setting is individual. From practice we recommend 31–33 °C when used indoors; outdoors it depends on the season of the year: spring/autumn 35 °C, summer 31°C, winter 38 °C.

19. People with heart diseases, diabetics, people with high or low blood pressure or other serious diseases, and pregnant women should not enter the bath without previously consulting their doctors. In such cases, it is recommended to keep the water temperature at 36 °C or lower (under the human body temperature).

20. Staying too long in the swim spa or a water temperature that is too high may cause the body to overheat – hyperthermia. This is manifested for instance by sweating, headache, dizziness, dryness in the mouth and throat, quickened pulse, or irregular breathing. In such cases, it is recommended to lay the patient on their back and cool them down using cold compresses or a cold shower. If the symptoms persist, call for medical assistance.

skimmer grating

21. Never use the swim spa when or after using narcotics or various drugs which may cause sleepiness, inhibition, or an increase or decrease in blood pressure.

22. Never use the swim spa when or after drinking alcoholic beverages. In doing so, you will increase the risk of drowning.

23. Before using the swim spa, one should use soap and take a shower to wash off common skin bacteria, creams and deodorants. Conventional soap is ideal for the purpose; avoid soaps with skin softening additives. It is recommended to shower without a swimsuit as swimsuits can hold soap remnants which then make the water frothy.

24. Make sure that the water is always maintained and disinfected properly.

25. Observe the massaging bath maintenance and repair instructions. In case of any questions or doubts, contact our service department.

26. For your personal safety, it is recommended to have some important telephone numbers, such as a doctor, emergency, hospital, police, or fire brigade, available by your telephone set.

27. Keep these instructions carefully.

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4 |

GENERAL REQUIREMENTS BEFORE PUTTING THE SWIM SPA INTO SERVICE

4.1 GENERAL REQUIREMENTS FOR SWIM SPA INSTALLATION

1. A swim spa must always be installed in accordance with the requirements specified in the provided construction readiness.

2. Due to the great weight of the swim spa, provide a flat, horizontal and sufficiently firm foundation for the installation (e.g. a 15–20 cm thick slab of reinforced concrete). The warranty does not extend to any defects or damage caused due to improper foundation.

3. If the swim spa is to be installed embedded or partially embedded, the swim spa supplier should be consulted and the requirements for building preparatory works respected.

4. In all cases, it is advisable to provide for water drainage in case of an accident so as to avoid flooding the electrical equipment of your swim spa.

4.2 GENERAL REQUIREMENTS FOR INSTALLATION

a) Outdoors – it is recommended to install the swim spa near the house for easy access to and from the swim spa. It is advisable to have an easy and always free access route. A swim spa installed in a sheltered place has lower power consumption demands; any installation under trees increases demands on cover maintenance (pollen, bark, pitch or droppings falling down);

any installation in direct sunlight may have negative impacts on the service life of the swim spa's external parts.

b) Indoors – it is not recommended to install the swim spa adjacent to a wall; the ideal installation is when the swim spa can be walked around (and any spilled water wiped up). Do not forget to allow for a suitable place for putting the cover aside (the cover is susceptible to damage when used improperly). Ensure adequate ventilation of the room where the swim spa is installed as water evaporates increasingly during swim spa operation.

4.3 GENERAL REQUIREMENTS FOR SWIM SPA WIRING

1. All swim spa installations require separate circuits with current protective switches, IΔn = 0,03 A, to which no other equipment is connected.

2. As a standard, all swim spa installations work under a voltage of 400 V, and require a 16 A grounded outlet at a minimum distance of 1,5 m from the swim spa installation.

3. We also recommend providing 2 UTP Cat5e cables for the swim spa, one for connecting the swim spa to the internet (via a home connection), and a second for the possibility of integrating the swim spa into intelligent home management.

4. All installations require the electrical system (water pumps, electrical box, heating elements, and ozonator) to be protected against weather and kept accessible. If the system is installed out of swim spa, it should be covered. The customer is responsible for the coverage.

4.4 CONNECTING A SWIM SPA TO THE INTERNET

In order to make full use of all of your swim spa's features, it should ideally be connected to the internet. You can connect your swim spa in the following basic ways:

1. With a cable – we recommend using a UTP Cat5e cable, which is ideal for connecting your swim spa to a private home LAN network.

2. With a WiFi router – for an extra charge USSPA offers a configured router which can connect your swim spa to a wireless home network. This solution is limited by the availability of a home WiFi network. This kind of connection may not work in all cases or may have severely limited quality.

3. With a Powerline adaptor via the existing distribution grid – for an extra charge USSPA offers a set of two Powerline adaptors which allows you to connect your swim spa to your LAN via the mains. Adaptors can be connected to a standard electric socket and therefore do not require any further wiring, antennas or construction work. This connection is dependent on a connection to

an electrical distribution system at the point of installation. This kind of connection may not work in all cases or may have severely limited quality.

4. With a router which connects your swim spa to the internet via mobile data (a SIM card) – for an extra charge USSPA offers a configured router which can connect your swim spa to the internet via mobile data. This solution requires the purchase of a data SIM card which is then inserted into a configured router. Connection to the internet via mobile data comes with the additional operating costs of a SIM card. On the other hand, this set-up can provide a connection to the internet in places where a fixed connection is not available (e.g. in a chalet in the mountains).

Caution:
The functionality of remote applications and communications is dependent on how the swim spa is connected to the internet or local network. With regard to the quality of the connection, a fixed connection with a cable is strongly recommended. USSPA cannot vouch for the quality of a connection of a swim spa to the internet and the potential resulting failure of applications to work.

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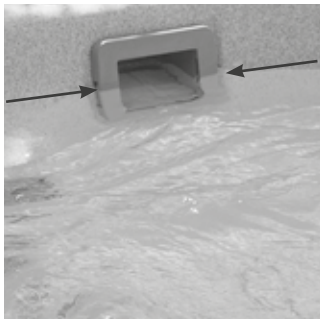
5 | COMMISSIONING THE SWIM SPA


skimmer grating

BEFORE PUTTING YOUR NEW SWIM SPA INTO COMMISSION, GET THE FOLLOWING READY:
– Sufficient water supply for filling the swim spa (we recommend using water from a number, water from others sources may react negatively with chemicals for water maintenance in the swim spa, possibly as follows damage is not covered by the warranty).
– Starter set of chemicals supplied with the swim spa.
– Prior to filling, open the filter cover to prevent air from entering the filtration circuit (Pump 1).

1. Clean the swim spa if required. Using a hose, fill the swim spa with water.
– It is advisable to fill the swim spa through the open filter – **up to the arrows on the skimmer „door“**, which is situated behind an acrylic cover.



proper water-level

Note:
– Avoid allowing the swim spa to overflow when filling; defects caused due to the swim spa overflowing are not covered with the warranty.
– It is recommended to use mains water; do not use untreated water, e.g. from a well. Untreated water can contain various minerals which would complicate water maintenance in the swim spa and/or damage some of the swim spa components; such defects are not covered with the warranty.
– If a softener is used when filling the swim spa with water, make sure that the minimum water hardness is more than 8 °N (too soft water is strongly corrosive; to possibly increase water hardness, fill swim spa with half unsoftened water or use a preparation for increasing water hardness).

2. Close and secure the filter cover and have the air-release valve on the cover slightly loosened.

3. Switch the button on the right side of the electropack (in swim spa technology) to the state 1.

4. Check and turn on the main circuit breaker and the current disconnecting switch.

5. Switch on Pump 1 and release any air from the system through the filter valve.

6. Turn on Pumps 1, 2 and 3 at high speed and check the pump's flange pairings for leaks – if necessary tighten by hand. Turn off Pumps 1, 2 and 3.

pump flange

7. Using the + and - buttons set the desired water temperature – the default setting is 36 °C (the time taken for the water to heat depends on the size of the swim spa and the ambient temperature).

8. Add the preparation for water clarification and protection of metal parts.

9. Test alkalinity using testing paper slips and treat water as required.

10. Measure pH using testing paper slips and treat water as required.

11. Check the value of free chlorine and add chlorine granules as required.

12. Add Non-Chlorine Shock.

13. Allow all massage pumps to run for several minutes in order to properly mix the added chemicals.

14. As soon as the water in the swim spa is heated, check the tightness of the pump flanges and heating again. Tighten by hand if necessary. Check pH, alkalinity and free chlorine again, adjust if necessary.

15. Once the water in the swim spa is heated, it is ready for use.

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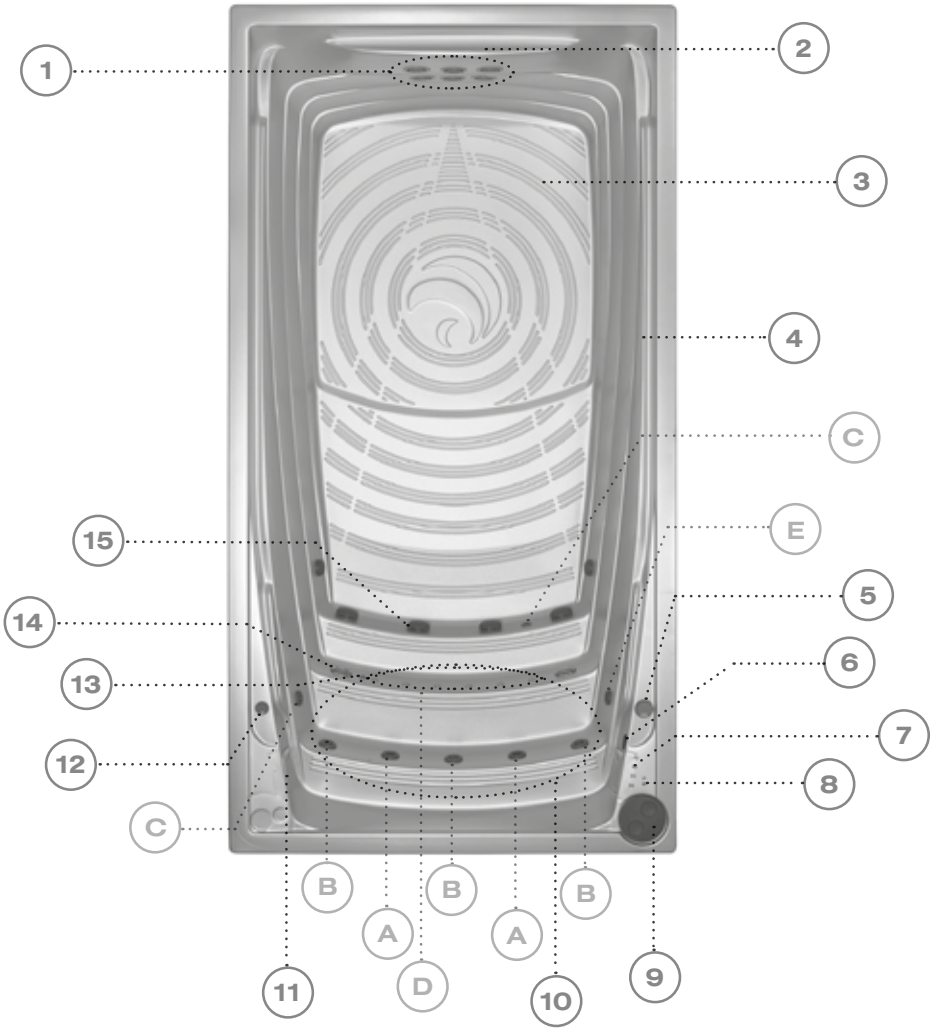
6| DESCRIPTION OF SWIM SPA FITTINGS



1. W-flow counter-current

2. Handrail above the counter-current

3. Anti-slip floor

4. Gymrail

5. Large diverter valve

6. Display

7. Counter-current, massage and light control buttons

8. Temperature control button

9. Filter

10. Massage jets

A – Poly Storm Twin Roto Jet

B – Poly Storm Directional Jet

C – Mini Storm Twin Roto Jet

D – Cluster/ozone Jet – small

E – Mazzei Jet – ozonization discharge

11. Skimmer

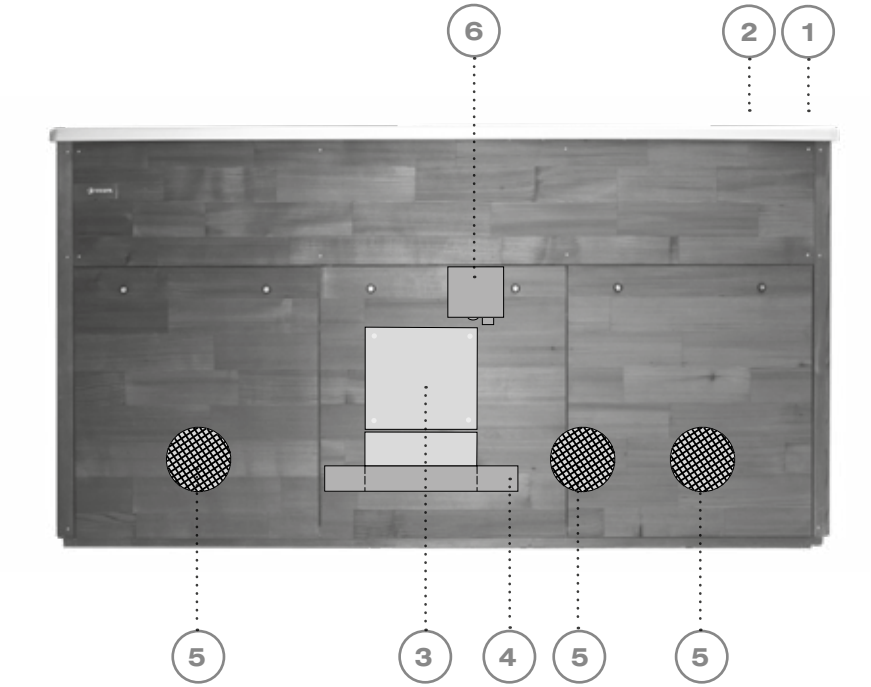
12. Air control

13. Temperature sensor

14. Light

15. Suctions

6 | 6.1 SELECTED TECHNOLOGY COMPONENTS



buttons

display

electropack

heater

1 CONTROL BUTTONS

The swim spa is equipped with piezo buttons. Massage control buttons are illuminated (in the event that errors in the running of a swim spa occur, a red button will be lit). The + and - buttons serve for adjusting the water temperature in the swim spa. Pressing the + and - buttons simultaneously switches the swim spa to OFF mode during which you can open the filter container and clean the filter cartridge. (In this mode all illuminated buttons will be turned off and the word OFF will appear on the display).

2 INVISION® DISPLAY

The swim spa's display will show the current water temperature in the swim spa. For an additional charge the outdoor temperature can be displayed. The current time is continuously displayed. 20 individual LED diodes are fitted around the display's circumference, which individually light up with each minute that elapses. In this way you can easily keep track of time spent in the swim spa. When in OFF mode the display is still able to show the swim spa's status and the code of a potential error in the swim spa's operation.

3 INTELLISMART® ELECTROPACK FOR CONTROLLING MASSAGES, THE HEATER AND OZONIZATION

This electropack is located in the swim spa's technology and ensures all control of the swim spa's operations and the activation of individual power features for massages, filtration, ozonization and heating of the swim spa.
Each time it is turned on, the electropack carries out a self-test lasting approx. 30 seconds (depending on the swim spa's fittings). A more detailed description can be found in chapter 6.2.6 Self-Diagnostic (Self-Test).

4 HEATER

A heater with a titanium coil heats water before returning it to the swim spa.

Caution: Make sure that the water has been properly treated. Untreated water disrupts the swim spa's metal components or forms calcium deposits which may cause the heater to fail.

pump 1

pump 2, pump 3

ozonator

5 MOTORISED PUMPS - PUMP 1, PUMP 2 AND PUMP 3

The pumps are the most strained components of your swim spa's equipment. An installed dual-speed pump serves for mechanical filtration (at low speed) and for hydro massages (at standard speed). The second and third pump is a single-speed pump. Pumps drive the system of hydro massage jets in your swim spa. Regulation of jets is carried out with the help of the TurboBoost system.

6 OZONATOR

Swim spas are equipped with an ozonator with a sophisticated water ozonization method as standard. The ozonator creates O^3 molecules from the air passing through. Ozonization clearly contributes to the simple maintenance of clean water in your swim spa and a reduction in the consumption of chemical products.

Caution:
Under no circumstances interfere with any of your swim spa's electronic components. If certain components are not working correctly, call an authorised technician. This will avoid the possibility of voiding your warranty.

6.2 SELECTED SWIM SPA FUNCTIONS

6.2.1 MASSAGES AND LIGHTS

Massages can be started in the following ways:

– with the illuminated piezo buttons on the swim spa's shell
– by using the web application in.usspa.cz (the swim spa must be connected to the internet)
– by using the mobile application USSPA SmartApp

Unless manually terminated sooner, a massage will be turned off automatically after 20 minutes. Lights will be turned off automatically after 120 minutes.

6.2.2 WATER HEATING

Water heating runs automatically and can be controlled by the iNtellismart® electropack. Water heating is activated if the water temperature drops lower than within 0.5 °C of the desired temperature. Water heating is turned off if the desired water temperature is exceeded by 0.4 °C.

The desired temperature can be set in the following ways:

– by using the + and - piezo buttons on the swim spa's shell
– by using the web application in.usspa.cz (the swim spa must be connected to the internet)
– by using the mobile application USSPA SmartApp

During a massage, the heater's functions may be restricted due to the high demands of the massage pumps.

Cold water from water jets after turning on hydromassage circuits - in the winter months can due to ambient temperature this situation may temporarily occur. But it will happen in a few seconds to equalize temperatures in spas and hydromassage systems.

6.2.3 FILTRATION

You can choose between automatic and manual filtration modes. The particular mode and other filtration parameters can be set in the following ways:

– by using the web application in.usspa.cz (the swim spa must be connected to the internet)
– by using the mobile application USSPA SmartApp

In the default settings, automatic filtration mode is selected. Automatic filtration runs in two daily cycles (at 9 a.m. and 9 p.m. as standard) and its length is adapted to the swim spa's use. In the event that the swim spa is unused for a long period, the duration of filtration is automatically shortened.

At the beginning of every filtration cycle a so-called mix is carried out, during which all massage pumps are turned on for a period of 1 minute.

Automatic filtration is always interrupted when a massage lasting longer than 1 minute is started. 40 minutes after a massage is ended, the intensive filtration mode lasting several hours is automatically launched (the length depends on the size of the swim spa). Intensive filtration serves to remove as many impurities as possible immediately after the swim spa has been used.

In the case of manual filtration mode, filtration is always run at the precisely selected times. At the beginning of the first filtration time on a given day a so-called mix is carried out, during which all massage pumps are turned on for a period of 1 minute.

Manual filtration is always interrupted when a massage is started and returns to the standard (planned) mode 40 minutes after it finishes. After this period, intensive filtration is not launched as in automatic mode, but rather filtration continues according to the set times.

6.2.4 OFF MODE

The user can switch the swim spa to off mode in order to clean the swim spa's filter. This mode blocks the majority of the swim spa's functions and components, all illuminated buttons are

turned off, and the word OFF appears on the display.

This mode can be turned on and off by simultaneously pressing the + and - piezo buttons.

6.2.5 ENERGY SAVING MODE

Using this function your swim spa can operate with the minimum required energy when not used for a long period. In order to attain the minimum operating costs it is recommended to set your swim spa to Automatic Filtration mode.

This mode can be activated and deactivated by the following means:

– by using the web application in.usspa.cz (the swim spa must be connected to the internet)
– by using the mobile application USSPA SmartApp

When activating Energy Saving mode, the desired water temperature will automatically be reduced to the minimum of 10 °C and the originally desired temperature, set before activating this mode, will be recorded by the iNtellismart® electropack. This minimum temperature is subsequently maintained within the swim spa and water heating will only be activated to prevent the water in the swim spa from freezing.

Energy Saving mode will automatically be terminated sufficiently in advance so that the swim spa can be prepared for use by the set date and time and the water is heated to the original desired temperature set before activating Energy Saving mode.

Energy Saving mode is entirely automatic and once terminated an informative E-mail will be sent to all E-mail addresses set via the mobile or web application.

During active Energy Saving mode, can not be set the desired temperature and the word ECO appears on the display.

6.2.6 SELF-DIAGNOSTIC (SELF-TEST)

A self-test serves to test the correct operation of all components after the swim spa is turned on. In the course of a test all components are successively activated and potential problems in their operation are assessed.

A self-test is conducted every time the swim spa is turned on and lasts approximately 30 seconds. The actual length of the test depends on the swim spa's fittings.

If a component is found to be operating incorrectly during the test, that component will be blocked as a precaution and the corresponding error message (3xxx) will be displayed.

A black switch is located on the right-hand side of the electropack which allows for all swim spa diagnostics to be switched off in special cases:

- 0 –> standard mode = diagnostics turned on
- 1 –> service mode = diagnostics turned off

Important: while a self-test is in progress the user must not cut the power to the swim spa (e.g. by throwing the circuit breaker). In such a case some components may be incorrectly blocked and the swim spa's functions may be limited!

If such a situation occurs, the operations described in chapter 12 must be carried out. Overview of Selected Alarms, item "Permanent Alarms".

6.2.7 FREEZE PROTECTION MODE

Serves to protect the water in the swim spa and its technology from freezing. In this mode the heater (if necessary) and all massage pumps are activated for several minutes.

The mode is activated automatically if the water temperature drops below 10 °C, if the temperature of the air under the swim spa's shell falls below 5 °C or if the temperature of the swim spa's technology remains below 10 °C for an extensive period.

While the mode is active it is not possible for the user to turn off either the pumps or the heater. The swim spa will automatically turn off the pumps once the water and technology reach the required temperature.

6.2.8 HDO (MASS REMOTE CONTROL)

The HDO function can automatically respond to changes in electricity rates (peak vs. off-peak times) and heat the water in the swim spa at peak times only. In such a case the swim spa must be paired with an MRC signal cable. It is an optional function.

If the HDO function is active, water heating at high tariff is blocked by default. Heating is only allowed if massages are running. And during the running massages and 40 minutes later. This feature guarantees greater comfort during and after massages and maintenance sufficient water temperature during use of the swim spa.

6.2.9 HEATER BLOCKING

Allows you to block water from heating at selected times of the day.
The setting runs for entire hours.

The heater can be blocked and unblocked in the following ways:

– by using the web application in.usspa.cz (the swim spa must be connected to the internet),
– by using the mobile application USSPA SmartApp.

If an MRC signal is available, it is possible to block the heater via the hardware, avoiding the need to use this function which may be restricted in connection with changes between peak and off-peak times.

If the Heating blocking function is active, water heating is selected by default in the selected hours blocked. Heating is only allowed if massages are running. And during running massages and 40 minutes after. This feature guarantees greater comfort during and after massages and maintaining a sufficient water temperature during the use of the spa.

7 |

SWIM SPA CONTROLS

All of a swim spa's operations are controlled by an installed iNtellismart® electropack. The control system is designed to meet the demanding conditions of a swim spa's operations in an environment with high humidity and a wide range of temperatures.

The user interface is made up of piezo buttons with a display, a mobile phone application and in addition, if the swim spa is connected to the internet, a web application.

7.1 DESCRIPTION OF CONTROLS USING THE SWIM SPA'S BUTTONS AND DISPLAY

The swim spa is further equipped with two types of piezo button.

7.1.1 LARGE BACKLIT BUTTONS

The larger backlit buttons are as follows:

- the blue backlit button(s) control(s) the water pumps
- the yellow backlit button controls the lights
- green illuminated botton controls iNtimer display (extra equipment, please see 7.1.5)

In connection with the activation or deactivation of individual pieces of equipment the intensity of backlit buttons changes. A button lit up in red indicates that the equipment controlled by that button is not working. If all buttons turn red at once, an error in the swim spa's operation has occurred. An error code will appear on the swim spa's display as well as on the mobile and web applications (if the swim spa is connected to the internet). If the buttons are not lit and the word OFF appears on the display, the swim spa is in OFF mode allowing you to clean the filter cartridge. If neither the buttons nor the display are lit, the swim spa is turned off or disconnected from the mains source.

Note: The luminosity of buttons is weaker in direct sunlight.

STARTING PUMP 1

– Pressing the backlit blue Pump 1 button turns on Pump 1 at low speed. Pressing the button a second time switches Pump 1 to high speed. Press the button a third time to turn Pump 1 off. In the event that it is not turned off manually, after 20 minutes a built-in timer will turn off the pump automatically.

– Whether Pump 1 is running at high or low speed is indicated by a difference in intensity of the backlit button. When Pump 1 is turned off, the intensity of the backlit button is at its lowest.

STARTING PUMP 2

– Pressing the backlit blue Pump 2 button turns the pump on. Pressing the button a second time turns the pump off. In the event that it is not turned off manually, after 20 minutes a built-in timer will turn off the pump automatically.

– Whether or not the Pump 2 is running is indicated by the intensity of the backlit button – whether or not the Pump 2 is running is indicated by the intensity of the backlit button. When Pump 2 is turned off, the intensity of the backlit button is lower.

STARTING PUMP 3

– Pressing the backlit blue Pump 3 button turns the pump on. Pressing the button a second time turns the pump off. If it is not turned off manually, a built-in timer will turn off the Pump 3 automatically after 20 minutes.

– Whether or not the Pump 3 is running is indicated by the intensity of the backlit button. When the Pump 3 is turned off, the intensity of the backlit button is lower.

TURNING ON THE LIGHTS

– Pressing the backlit yellow Light button turns the lights on. Pressing the button a second time turns the lights off. If it is not turned off manually, a built-in timer will turn off the Light automatically after 20 minutes.

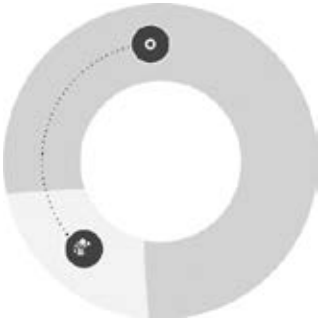
– Whether or not the Light is running is indicated by the intensity of the backlit button. When the Light is turned off, the intensity of the backlit button is lower.

IF THE RAINBOW LIGHT IS EQUIPPED

– Pressing the yellow backlit button switches the swim spa's lights to constantly changing colour mode. Press the Light button again to turn the lights off. If the button is pressed a second time within an interval of less than 1 second, the lights will be switched to permanent (unchanging) colour mode. You can repeat the procedure - each time the lights are switched on and off with a pause of less than 1 second, the colour of the lights will change. Following this procedure you will eventually return to changing colour mode. A pause between presses of longer than 3 seconds will also return the swim spa to constantly changing colour mode. In the event that they are not turned off manually, a built-in timer will turn off the lights automatically after 120 minutes.

7.1.2 SMALLER + AND - BUTTONS

Pressing the + and - buttons allows you to change the desired water temperature in the swim spa. Pressing the + and - buttons simultaneously switches the swim spa to OFF mode (the word OFF appears on the display) allowing you to clean the filter cartridge.



7.1.3 BOOST CONTROL[IN]

A LARGE DIVERTER VALVE

Turn to gradually re-direct water flow from the central jets of the counter-current into the massage jets on the steps.

SUCTIONS

It controls air intake into the massage jets on the steps.

iNvision® display with LED segments

7.1.4 INVISION® DISPLAY

The LED segmented display serves for displaying basic information on your swim spa. Using this display you can ascertain the water temperature, current time and, among other things, the time spent in the swim spa during and after a massage.

The display is divided into a number of sections, which allow for various information to be displayed.

SECTION 1

– displays the current temperature to within an accuracy of 0.5 °C
– if the swim spa is also equipped with an outdoor temperature sensor, the current water and outdoor temperature will alternate on the display, where the outdoor temperature is rounded to an entire degree
– if the + and - buttons are used to set the desired water temperature, the desired (set) water temperature in the swim spa will be displayed here for 3 seconds
– if the swim spa is in OFF mode, the display on the screen will alternate between the word OFF and the number of minutes until OFF mode is due to end
– if the swim spa is in Energy Saving mode, this section alternate between the word ”ECO„ and the current water temperature and the outside temperature (if sensor fitted)

SECTION 2

– as standard the current time is displayed in the 24-hour format. (0 is not displayed before numbers lower than 10 in units of hours)
– if an alarm is active, a numerical alarm code (3xxx) will be continuously displayed instead of the time
– if a notification is active, a numerical notification code (2xxx) will be continuously displayed instead of the time
– if more than one alarm or notification are active at once, their codes will be alternately displayed at 3 second intervals

SECTION 3

– is continuously lit when filtration and mixing are active at the beginning of a filtration cycle

SECTION 4

– is continuously lit when the heater is on
– flashes if the heater is blocked (e.g. by MRC or by the user)

A SET OF 20 LED DIODES AROUND THE CIRCUMFERENCE

The last informative section is a set of 20 LED diodes situated around the circumference of the display which serves as a timer indicating the number of minutes spent in the swim spa. These diodes are activated when the user turns on any of the pumps.

When activated, all diodes around the circuit light up at once and turn off one by one with each minute that passes (lights turn off in a clockwise direction). Once 20 minutes have elapsed, the display switches to its second phase, where the diodes light up again one by one with each minute (the diodes light up in a clockwise direction). The entire process comes to an end 40 minutes after the pump is originally turned on, where all the diodes around the circuit turn off at once.

The timer can be turned off at any time by switching the swim spa to OFF mode
(by simultaneously pressing the + and - buttons).

7.1.5 DISPLAY INTIMER (EXTRA EQUIPMENT)

Built in iNtimer stopwatch is solved with second display placed by the jets of countercurrent. In the normal regime this display will show identical information with the main display iNvision by the piezo buttons.

Changing the iNtimer display to stopwatch, which times exact period of your swimming, please use green illuminated light of piezo button.

Once you press the green illuminated piezo button, there will be 5 seconds countdown and the stopwatch will follow.

If you press the piezo button again, the stopwatch will pause. Once it is paused the display by countercurrent will flash. By pressing the piezo button again, stopwatch will start again.

If you press the button with the 2 quick presses, the stopwatch will stop completely. The iNtimer will be placed in the standart regime.

This regime can be suspended in these cases:

- if the timed period goes over 60minutes
- if the regime is paused for more than 20 minutes.

In both cases the iNtimer display will automatically be set in the same regime as the main display by the iNvision® by the piezo buttons.

1st segment of iNtimer display shows seconds with one decimal.
(0.1->0.2->...->59.8->59.9)

2nd segment display shows number of minutes. (0-59)

20 diodes around the display shows countdown of the minutes. Each diod will be lit up with every minute. After 20 minutes all diodes will turn itself off and the process will start from the beginning.

7.2 DESCRIPTION OF SWIM SPA CONTROLS USING THE MOBILE APPLICATION USSPA SMARTAPP

Google Play

AppStore

Your swim spa can be controlled as standard by using the mobile application USSPA SmartApp. The application is available for iOS and Android.

The application can be downloaded free of charge from the AppStore or Google Play. You can find the application using the key word ”USSPA SmartApp„ or by using a specified QR codes. When searching for the application on an iPad the filter iPhone Only must be selected.

Minimum requirements:

– iOS - iOS 7+, iPhone 4S or newer
– Android

- from version 4.1 for using the application via the internet,
- from version 4.3 for using the application via both the internet and Bluetooth if the equipment is fitted with Bluetooth 4.0 BLE (Bluetooth Low Energy)

The appearance of selected control features may vary depending on the platform (iOS, Android, and possible others) on which the application is used.

The application communicates with the swim spa either via Bluetooth technology (BT 4.0 BLE) or the internet. The application selects the means of connection based on what is available. If a mobile device is within range of the swim spa and a connection has been established, communications will be primarily carried out via Bluetooth. If no mobile device is within range of the swim spa, the swim spa will be controlled via the internet (the swim spa must be connected to the internet!).

For communications via Bluetooth the application must be paired with the swim spa (see chapter 7.2.3 Pairing a Swim spa with the USSPA SmartApp).

Note: The range and quality of swim spa controls via Bluetooth is limited by the signal strength. The signal strength may vary depending on the type of installation (swim spa in a cabinet, embedded swim spa, type of swim spa panelling, etc.) and the type of device. If, however, the swim spa is connected to the internet, the application is automatically capable of controlling the swim spa even when out of range of a Bluetooth signal.

If the swim spa is not connected to the internet for more than 1 hour, control of the swim spa via the internet will be blocked due to outdated data. A warning alerting the user of this fact will be displayed in the application. In such an event, check the status of the swim spa's connection to the internet.

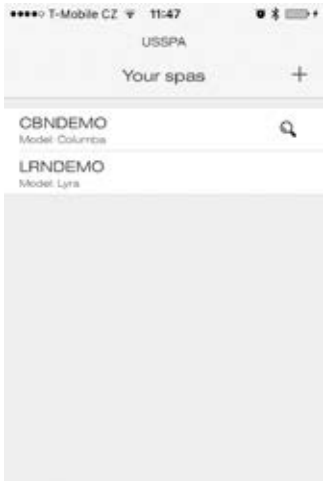
The swim spa can only communicate with one piece of equipment at a time via Bluetooth. Other devices will automatically communicate via the internet.

The application can control any number of swim spas.

7.2.1 STARTING THE APPLICATION

When starting the application for the first time, a window with an empty list entitled "Your Swim spas„ will appear. Ensure that your swim spa and mobile equipment are connected to the internet. If you wish to have the option of communicating with your swim spa via Bluetooth, ensure that Bluetooth is turned on.

At each subsequent log-in, all authorised swim spas will be displayed on this list. Pressing a specific item on the list will take you to the controls for the chosen swim spa.



To delete a swim spa from the list, scroll through the row containing that swim spa from left to right and press Delete.

You can sort the list of authorised swim spas by holding down items on the list. Sort the list by by dragging an item to the ☰ symbol. Sorting mode can be closed by tapping the sorted list with two fingers.

7.2.2 ADDING A SWIM SPA TO THE APPLICATION

To add a swim spa, press the button "+". A window will appear in which you can enter a swim spa's serial number and password (both are given in the accompanying service booklet or inside on a label in the swim spa's electropack). When entering a serial number and password, remember to use upper and lower case letters. Serial numbers and passwords do not include spaces.

After entering the correct information, authorisation will be carried out automatically and the swim spa will appear on the list "Your Swim spas". To add any other swim spas, press the button "+" and proceed in the same manner as when adding the first swim spa.

Swim spas added in this manner can be controlled via the internet. If a swim spa is not connected to the internet, this means of controlling the swim spa via an application will not be possible. If you also wish to control the swim spa directly via Bluetooth, you must pair the swim spa with the USSPA SmartApp.

7.2.3 PAIRING A SWIM SPA WITH THE USSPA SMARTAPP

A magnifying glass icon appears next to every new item added to the list "Your Swim spas".
By pressing on this icon you can pair the application with your swim spa using Bluetooth.
A connection via Bluetooth enables direct communication between the application and the swim spa. This kind of connection is suitable, for example, for a watertight mobile device, with the help of which the entire swim spa can be controlled from inside the swim spa itself. Please ensure that your mobile device is sufficiently waterproof for this particular kind of use.

Pairing procedure – first ensure that Bluetooth is activated on your mobile device and ideally stand in front of your swim spa's technology. Press on the magnifying glass icon next to the swim spa you wish to connect to. If you are within range of the swim spa, the connection will be made in a matter of seconds. The magnifying glass icon will no longer be displayed. With the help of Bluetooth technology, you can control a swim spa in cases where its is not connected to the internet.

7.2.4 MAIN SCREEN

After selection, a window with your swim spa's main control features will be displayed.

The main window is divided into a header which contains:

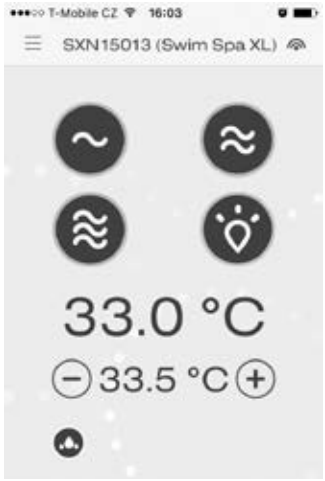
– Application Menu.
– The name of your swim spa (the description can be edited via Menu -> Settings. It is also possible to include the location of the swim spa. Such a description is useful in particular when controlling more than one swim spa).

– A symbol which indicates the current kind of connection between the application and the swim spa:

- Telephone icon – communication in progress via Bluetooth. For this kind of communication, the application must be paired with the swim spa.
- Black WiFi icon – communication in progress via the internet.
- Red WiFi icon – the application is connected to the swim spa via the internet, but the swim spa has not been connected to the internet for more than 1 hour.
- Exclamation mark icon – the application is not connected to the internet, nor is the swim spa within range for Bluetooth communication.

By pressing on the symbol indicating the type of connection, the time the swim spa's data was last synchronised with the internet can be displayed.

The other parts of the screen display control features (there can be a maximum of 4 – Pump 1, Pump 2, Pump 3 and light):



Starting Pump 1

– Pressing the Pump 1 button turns Pump 1 on at low speed. Pressing the button a second time switches Pump 1 to high speed. Press the button a third time to turn Pump 1 off. In the event that it is not turned off manually, after 20 minutes a built-in timer will turn off the pump automatically.

– Whether Pump 1 is operating at high or low speed is indicated by the corresponding icon.

Starting Pump 2

– Pressing the Pump 2 button turns the pump on. Pressing the button a second time turns the pump off. In the event that it is not turned off manually, after 20 minutes a built-in timer will turn off the pump automatically.

– The operation of Pump 2 is indicated by the corresponding icon.

Starting Pump 3

– Pressing the Pump3 button turns the pump on. Pressing the button a second time turns the Pump 3 off. If it is not turned off manually, a built-in timer will turn off the Pump 3 automatically after 20 minutes.

– The operation of the Pump 3 is indicated by the corresponding icon.

Turning on the lights

– Pressing the Light button turns the swim spa's lights on. In the event that they are not turned off manually, a built-in timer will turn off the lights automatically after 120 minutes.

– The operation of the lights is indicated by the corresponding icon.

The display also shows the current water temperature of your swim spa (to within an accuracy of 0.5 °C) and a lower desired temperature (also to within an accuracy of 0.5 °C).

By using the and buttons, you can change the desired water temperature.

Based on the current situation, up to 4 other features can be displayed in the lowest section of the display:

A symbol representing the operations of the swim spa's heater. This feature is not active, but is merely informative and changes according to the status.

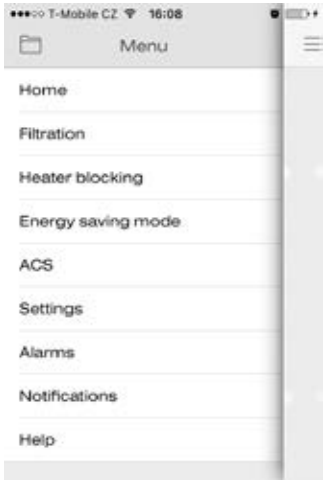
- Heater Off – no symbol is displayed.
- Heater On.
- Heater blocked (due to manual heater blocking or MRC. Heater blocked is also displayed with alarm 3009 – low heater flow and 3008 – flow at a time when it should not occur. These statuses are connected with an active alarm warning in the "Status" row).
- Heater Error

A symbol representing the operations of the swim spa's filtration. This feature is not active, but is merely informative and changes according to the status.

- Filtration Off – no symbol is displayed.
- Filtration On.
- Filtration Error.

Active notification symbol. After pressing on the displayed button a window containing active notifications opens.

Active alarm symbol. After pressing on the displayed button a window containing active alarms opens.



7.2.5 APPLICATION MENU

Pressing on the "Menu" button displays the following options.

– Pressing on the Bookmark icon takes you to the application's introductory page with the list "Your Swim spas".
– Pressing on "Home„ takes you to the application's main page with the options of massage and temperature control.
– Pressing on "Filtration" takes you to the filtration set-up page.
– Pressing on "Heater Blocking" takes you to the page for setting up manual heater blocking.
– Pressing on "Energy Saving Mode" takes you to the swim spa's energy saving mode set-up page.
– Pressing on "ACS" (automatic thermocover) takes you to the page with state of the thermocover. This item appears only if the ACS® is installed.
– Pressing on "Settings" takes you to a page for the swim spa's other settings.
– Pressing on "Alarms" takes you to the active alarms page.
– Pressing on "Notifications" takes you to the active notifications page.
– Pressing on "Help" takes you to the help page

Window 2

Window 3

7.2.6 FILTRATION

You can choose between automatic or manual filtration. You can find more on the Filtration feature in chapter 6.2. Selected Swim spa Functions. To confirm settings press the "Confirm" button.

Window 2 displays active Automatic Filtration, which consists of two daily cycles. Under automatic filtration the start of both filtration cycles can be selected.

Mixing is always carried out at the beginning of a cycle.

Window 3 displays active Manual Filtration and set-up options.

In the case of manual filtration it is possible to set the specific time at which filtration is to start (at least 1 hour must always be selected). It is also possible to set a time for mixing water in the massage power distribution (carried out at least once a day at the set time). The mixing time can be set for any of the selected manual filtration times. To confirm settings press the "Confirm" button.

Selected hours of manual filtration are colored dark.
At this time, manual filtering will be active.

Window 4

Window 5

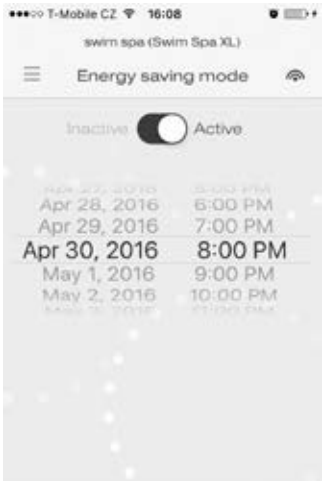
7.2.7 HEATER BLOCKING

Allows you to prevent the water from heating at selected times. You can find more on the Heater Blocking feature in chapter 6.2. Selected Swim spa Functions.

Windows 4 and 5 display active and inactive heater blocking.

To confirm settings press the "Confirm" button.

Window 6



Window 7

Window 7

Window 8

7.2.8 ENERGY SAVING MODE

Using this function your swim spa can operate with the minimum required energy when not used for a long period. To attain the absolute minimum operating costs, it is also recommended to turn on Automatic Filtration.

You can find more on the Energy Saving mode in chapter 6.2. Selected Swim spa Functions.

Windows 6 and 7 display active and inactive Energy Saving mode.

After choosing a specific time, press the Confirm button to activate your choice.

7.2.9 ACS

Window 7 shows the ACS® state (automatic thermocover). This item appears only if the ACS® is installed.

You may receive the following states: the cover is close, the cover is open, the cover is opening, the cover is closing, the cover is in error state. The error state is recorded in the Alarms window, where you can see a detailed description of the error.

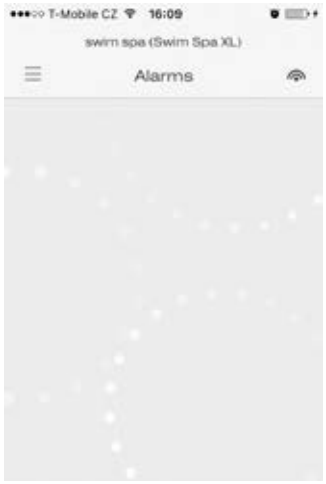
7.2.10 SETTINGS

In window 8 you can make selected modifications and ascertain selected information on your swim spa.

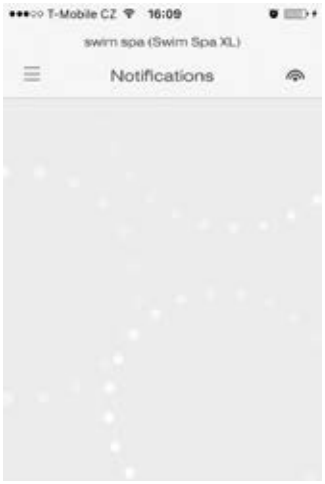
– Swim spa name - here you can change the name of your swim spa in the application. This function is useful above all when using more than one swim spa at once, e.g. one at home and another at your chalet. For easier orientation the name could include, for instance, the location of the swim spa.
– Language – the application is automatically displayed in the system language of your mobile device. If necessary however, a different language version can be selected manually.
– E-mail 1, E-mail 2, E-mail 3 – these fields can be used to enter E-mail addresses to which you wish information on active notifications and alarms to be sent.

Items displayed in the Information group are for informative purposes only and cannot be edited. The serial number and firmware version of your swim spa are displayed here.

In the case of a Bluetooth connection, the date and time can be updated in the Information group using the ”Set swim spa’s date and time“ option.



Window 9



Window 10

7.2.11 ALARMS

All active alarms are displayed in window 9. An alarm is displayed if certain components (Pump 1, heater, etc.) function abnormally during problems with a communications network, etc.

By pressing on a row containing an alarm you can display a more detailed description of the given alarm with a possible solution. A list of selected alarms, including solutions, is provided at the end of this manual.

7.2.12 NOTIFICATIONS

All active notifications generated by your swim spa are displayed in window 10. Notifications inform the user, for example, of power failures in the swim spa and also serve as reminders of regular activities around the swim spa - i.e. cleaning the filter, a recommendation to change the water, etc.

All notifications can be reset by pressing the Reset button.

Window11

7.2.13 HELP

Window 11 displays an electronic version of the application's manual.

7 |

7.3 DESCRIPTION OF SWIM SPA CONTROLS USING A WEB APPLICATION

If your swim spa is connected to the internet, it can be controlled using any web browser (including from a mobile device).

To manage a swim spa go to the website http://in.usspa.cz. On the main screen you must enter the swim spa's serial number and password - both can be found in the service booklet or inside the electropack in your swim spa's technology. When entering a serial number and password, remember to use upper and lower case letters. Serial numbers and passwords do not include spaces.

If you own more than one swim spa, in order to control each swim spa you must first log out of the web application and log in with the serial number and password of the next swim spa.

If the swim spa has not been connected to the internet for more than 1 hour, it will not be possible to control it via the web application. A warning alerting the user of this fact will be displayed in the application. In such an event, check the status of the swim spa's connection to the internet.

After logging in you will be taken to the web application's main screen.

7.3.1 MAIN SCREEN

The main screen is divided into three basic parts:

- Header
- Control Section
- Footer

7.3.1.1 HEADER

The header contains:

– The name of your swim spa's model with the specified serial number in brackets.
– The date and time of the last synchronisation of the swim spa and the USSPA server.

7.3.1.2 CONTROL SECTION

Basic information on your swim spa's operations and control buttons is displayed in this part of the screen.

On the left-hand side of the display, your swim spa's current water temperature (to within an accuracy of 0.5 °C) and a lower desired temperature (also to within an accuracy of 0.5 °C) are displayed. By using the and buttons, you can change the desired water temperature.

The following features can be displayed below these temperatures:

A symbol representing the operations of the swim spa's heater. This feature is not active, but is merely informative and changes according to the status.

- Heater Off – no symbol is displayed.
- Heater On.
- Heater blocked (due to manual heater blocking or MRC. Heater blocked is also displayed with alarm 3009 – low heater flow and 3008 – flow at a time when it should not occur. These statuses are connected with an active alarm warning in the "Status„ row).
- Heater Error.

A symbol representing the operations of the swim spa's filtration. This feature is not active, but is merely informative and changes according to the status.

- Filtration Off – no symbol is displayed.
- Filtration On.
- Filtration Error.

Active notification symbol. After pressing on the displayed button a window containing active notifications opens.

Active alarm symbol. After pressing on the displayed button a window containing active alarms opens.

The swim spa's control features are situated on the right-hand side.

Starting Pump 1

– Pressing the Pump 1 button turns on Pump 1 at low speed. Pressing the button a second time switches Pump 1 to high speed. Press the button a third time to turn Pump 1 off. In the event that it is not turned off manually, after 20 minutes a built-in timer will turn off the pump automatically.

– Whether Pump 1 is operating at high or low speed is indicated by the corresponding icon.

Starting Pump 2

– Pressing the Pump 2 button turns the pump on. Pressing the button a second time turns the pump off. In the event that it is not turned off manually, after 20 minutes a built-in timer will turn off the pump automatically.

– The operation of Pump 2 is indicated by the corresponding icon.

Starting Pump 3

– Pressing the Pump 3 button turns the pump on. Pressing the button a second time turns the Pump 3 off. If it is not turned off manually, a built-in timer will turn off the Pump 3 automatically after 20 minutes.

– The operation of the Pump 3 is indicated by the corresponding icon.

Turning on the lights

– Pressing the Light button turns on the swim spa's lights. In the event that they are not turned off manually, a built-in timer will turn off the lights automatically after 120 minutes.

– The operation of the lights is indicated by the corresponding icon.

7.3.1.3 FOOTER

The footer contains three control features:

– Home symbol – for direct access to the main screen.
– Symbol for access to the Application Menu.
– Symbol for logging out of the application.

7.3.2 APPLICATION MENU

– Pressing on the "Menu" button displays the following options.
– Pressing on "Home" takes you to the application's main page with the options of massage and temperature control.
– Pressing on "Filtration" takes you to the filtration set-up page.
– Pressing on "Heater Blocking„ takes you to the page for setting up manual heater blocking.
– Pressing on "Energy Saving Mode" takes you to the swim spa's energy saving mode set-up page.
– Pressing on the "ACS" item (automatic thermocover) takes you to the page with state of the thermocover. This item appears only if the ACS® is installed.
– Pressing on "Settings" takes you to a page for the swim spa's other settings.

– Pressing on ”Alarms“ takes you to the active alarms page.
– Pressing on ”Notifications“ takes you to the active notifications page.
– Pressing on ”Help“ takes you to the help page.

7.3.3 FILTRATION

You can choose between automatic or manual filtration. You can find more on the Filtration feature in chapter 6.2. Selected Swim spa Functions.

This window displays active Automatic Filtration, which consists of two daily cycles. Under automatic filtration the start of both filtration cycles can be selected.

In the case of manual filtration it is possible to set the specific time at which filtration is to start (at least 1 hour must always be selected). It is also possible to set a time for mixing water in the massage power distribution (carried out at least once a day at the set time). The mixing time can be set for any of the selected manual filtration times.

To confirm settings press the ”Confirm“ button.

Selected hours of manual filtration are colored dark.
At this time, manual filtering will be active.

7.3.4 HEATER BLOCKING

Allows you to prevent the water from heating at selected times. You can find more on the Heater Blocking feature in chapter 6.2. Selected Swim spa Functions.

The following window displays active and inactive heater blocking.
To confirm settings press the ”Confirm“ button.
Selected hours of active heating blocking are colored dark. At a given time water heating will be blocked.

7.3.5 ENERGY SAVING MODE

Using this function your swim spa can operate with the minimum required energy if not used for a long period. To attain the absolute minimum operating costs, it is also recommended to turn on Automatic Filtration.

You can find more on the Energy Saving mode in chapter 6.2. Selected Swim spa Functions.

The following windows display active and inactive Energy Saving mode.

To confirm settings press the ”Confirm“ button.

7.3.6 ACS

This window shows the ACS® state (automatic thermocover). This item appears only if the ACS® is installed.

You may receive the following states: the cover is close, the cover is open, the cover is opening, the cover is closing, the cover is in error state. The error state is recorded in the Alarms window, where you can see a detailed description of the error.

7.3.7 SETTINGS

In this window you can edit the E-mail addresses to which information from the swim spa is sent and ascertain basic information on your swim spa.

– Language – the application is automatically displayed in your computer’s system language. If necessary however, a different language version can be selected manually.

– E-mail account – these fields can be used to enter E-mail addresses to which you wish information on active reminders and alarms to be sent. An E-mail address can be added or modified by clicking on the pencil icon, allowing you to fill in the desired address. Confirm your selection by clicking on the confirm button next to the entered E-mail address. An E-mail address may be removed at any time by clicking on the cross.

– Information - in these fields the serial number and firmware version of your swim spa are displayed.

Items displayed in the Information group are for informative purposes only and cannot be edited. The serial number and firmware version of your swim spa are displayed here.

7.3.8 ALARMS

All active alarms are displayed in this window. An alarm is displayed if certain components (Pump 1, heater, etc.) function abnormally during problems with a communications network, etc.

By pressing on a row containing an alarm you can display a more detailed description of the given alarm with a possible solution. A list of selected alarms, including solutions, is provided at the end of this manual.

7.2.9 NOTIFICATIONS

All active notifications generated by your swim spa are displayed in this window. Notifications inform the user, for example, of power failures in the swim spa and also serve as reminders of regular activities around the swim spa – i.e. cleaning the filter, a recommendation to change the water, etc.

All notifications can be reset by pressing the Reset button.

7.3.6 HELP

This window displays an electronic version of the manual to the USSPA web application.

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8| REGULAR CARE OF THE SWIM SPA

8.1 FILTER CLEANING AND REPLACEMENT

Pressing the + and - buttons simultaneously switches the swim spa to OFF mode (the word OFF appears on the display and the backlit buttons are switched off) allowing you to clean the filter cartridge.

DESCRIPTION OF THE PROCEDURE

1. Remove the filter cover and release the pressure valve (by turning it anti-clockwise) on the cap of the filter container.

2. Pull the grey flap slightly, turn the extern ring counter-clockwise and remove it.

3. Remove the filter body cover; pay attention to the positioning rings.

4. Pull out the cartridge; after cleaning, the cartridge must be returned within 60 minutes.

CAUTION: If you are not sure that the filter cartridge will be cleaned within 60 minutes, the filter body must be closed after pulling out the cartridge.

5. After cleaning, return the cartridge into the filter body and check that the lower and the upper positioning rings are positioned correctly (in the filter body bottom and in the filter cover respectively).

6. Fit the filter cover and check that the packing under the cover is placed correctly.

7. After fitting the filter cover, apply the external ring and tighten slightly clockwise. Caution! Do not overtighten to avoid opening problems when cleaning the filter next time.

8. By simultaneously pressing the + and – buttons, the swim spa is switched to normal operation (the word OFF disappears from the display and the backlit buttons are turned on).

9. Pressing the Pump 1 button switches on Pump 1 at low speed. Using the released pressure valve, release the air from the filter container and at the moment water begins to drain from it, tighten it by turning it clockwise. Caution - do not overtighten.

10. The swim spa can be used again now.

Note: We recommend alternating two filter cartridges at the same time. When cleaning the filter, remove the cartridge, rinse it and then store in a dry and ventilated place. Place a second, dry cartridge in the filter. During further cleaning filter use a dry cartridge. Drying the cartridge will destroy bacteria that failed to be rinsed completely washed away.

8.2 TWICE A WEEK

If your swim spa is used daily, it is advisable to check the water visually for cleanliness twice a week. If required, measure and adjust the water pH and alkalinity levels as follows:

– If the pH and alkalinity levels are high, add the pH and alkalinity reducer (both values are usually reduced using the same chemical); adjust the alkalinity first, then use the correct chemical to adjust the pH levels.

– If the alkalinity level is within the required limits but the pH is low,add the pH increaser (to increase pH but keep the alkalinity level). It is very important to keep the correct pH value; if the pH value is low.

– The water is acid – for a long period of time, corrosion of the swim spa's metal parts can occur.

– If the pH levels are within the required limits but alkalinity is low, add the alkalinity increaser (to increase the alkalinity level and keep the pH unchanged).

– It is important to keep the pH and alkalinity levels well balanced as they are prone to influencing each other. Always adjust the alkalinity level first before attempting pH adjustment. Balanced pH and alkalinity levels are crucial for effective functioning of other chemicals in the swim spa.

8.3 ONCE A WEEK

– clean the filter and use a new one as required
– test the water in the swim spa using test strips
– add the basic sanitizer (e.g. chlorine) to achieve the required free chlorine level
– add Non-Chlorine Shock for water oxidation

– if required, add a suitable product for water clarification and protection against scale settlement and to protect the metal parts
– in the event that grease occurs on the water surface, add a preparation for elimination of grease in water (an enzyme-based product can also be used preventively)






8.4 EVERY OTHER WEEK

Clean the skimmer basket. For cleaning, Pump 1 must first be turned off. OFF mode may also be used. Remove the skimmer's acrylic cover. After removing the skimmer "door" take out the skimmer basket (suction from the water level) and remove all impurities. After cleaning place it back in the same position as before cleaning (see illustration of the procedure). Move the skimmer door back into place and replace the skimmer's acrylic cover.

8.5 ONCE A MONTH

Treat the filter cartridge using a special cleaning preparation to remove grease and solid dirt which cannot be washed with water flow from the filter. Proceed according to the instructions provided on the product package.

8.6 ONCE A YEAR

We recommend a preventive check of swim spa technology every year. The preventive check can be ordered through the service department. The warranty and post warranty check is a paid service. Defects found during the warranty check are covered with the warranty.

DO NOT FORGET

– clean the filter
– always release any air from the filter body after cleaning and filling with new water
– clean the skimmer basket
– check the plastic flanges regularly for tightness as they may loosen due to operation (vibrations); if several water drops appear under the flange, tighten it by hand
– keep pH and alkalinity at the appropriate level to prevent damage to the swim spa components and the correct chemical levels

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9 | SWIM SPA MAINTENANCE

The following text provides the basic information concerning the methods of caring for and protecting your swim spa. Regular and correct maintenance will ensure trouble-free operation and maximum pleasure in using your swim spa.

9.1 CHANGING WATER IN SWIM SPA

With common family use of the swim spa, it is recommended to change the water in the swim spa once a year. The change frequency depends on the swim spa capacity the number of people using the swim spa, and the frequency and period of using the swim spa.

After using the swim spa more intensely (a family celebration or party), always consider whether to change the water as a more economical solution than increasing chlorine levels.

Before draining the swim spa, always turn off the swim spa power supply and turn it on only after having filled the swim spa to the required level.

It is not recommended to change the water in winter to avoid the risk of remaining water freezing in the system. Such defects are not covered with the warranty.

When discharging/filling water on sunny days, avoid any long-term action of sunlight on the swim spa surface and use the cover.

In case of long term empty swim spa it is necessary to use the cover to avoid action of the weather conditions to the shell of the swim spa. Such defects are not covered with the warranty.

9.1.1 SWIM SPA DRAINING

1. Before changing the water, it is recommended to “shock” the swim spa to clean all Swim spa systems including hoses. Use a non-stabilized chlorine preparation to shock the swim spa (e.g. Flash Sanitizer). These special products will increase disinfection concentration in the swim spa water with a sudden shock. All swim spa pumps should be turned on for a period of at least 2-3 hours for thorough cleaning.

2. Discharge water from swim spa. Use one of the following options

– Switch off the main circuit breaker, insert one end of the garden hose into the duct or courtyard, connect the other end to the outlet from the bottom of the cabinet (from the side, under wood paneling), the opening valve is located in the technological part of the swim spa and is marked with a ”drain„ sticker. You can pick up the water left at the bottom with a bucket.

– Leave the main circuit breaker on and the filter cover closed, put the other end of a garden hose against the non-turning jet; switch on the relevant pump for the short time to turn the jet on. Allow the water to run through the hose to empty; now move the hose end in the swim spa from the jet to the bottom so that the waterdrains completely. Once you place the hose in the bottom area, turn off the pump and the main circuit breaker.

These procedures, of course, are applied when the swim spa is not connected to a fixed drain.

9.1.2 SWIM SPA FILLING

Any garden hose can be used to fill the swim spa. To avoid possible complications, please find several recommendations for filling the swim spa in the following:

– Use water from the standard water supply line, not untreated water, eg well water; untreated water can contain various minerals that can complicate the maintenance of water in the swim spa, or damage some components of the swim spa. Such defects are not covered by the warranty.

– When filling with water, we recommend using a filling filter (for purchase on the e-shop or in showrooms).

– Check that the drain valve is closed.

– The temperature of water used for filling should not exceed 40 °C.

– It is not recommended to fill the swim spa in winter time after longer deadplate, when the swim spa froze through. High difference in temperature of the filled water and the top of the shell can cause damage to the shell that is not covered with the warranty.

– Before filling, open the filter cover to avoid air entering the (Pump 1) filtration circuit.

pump flange

Note: Filling the swim spa through the filter bowl or with the vent valve on the filter open is best done to expel all air from the filter system.

– Avoid allowing the swim spa to overflow when filling; the swim spa‘s electrical components may become flooded and damaged without being covered with the warranty.

– After filling, treat the water chemically and cover the swim spa with the cover for a quick return to the required water temperature.

– Before turning on the swim spa, switch the button on the right side of the electropack (in swim spa technology) to the state 1.

– After turning on swim spa, start all pumps and using the released pressure valve, release the air from the filter container.

– After that you can switch the button on the right side of the electropack (in swim spa technology) to the state 0.

– After filling and after heating, check the tightness of the pump and heating flanges, tighten by hand if necessary.

– After reaching the required water temperature for use, check the pH, alkalinity and free chlorine levels again, if necessary adjust the values with appropriate chemicals.

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9.2 FILTER CARE

The filter is one of the most important swim spa components in terms of water maintenance. The following instructions describe the basic rules for effective filter functioning.

It is recommended to use a new filter in the following cases:

– The filter cartridge is used for a longer period of time (the cartridge service life during common family usage is approximately 1 year).

– The cartridge is grey, brown or green.

– The cartridge remains brownish even after cleaning.

– The swim spa has been relocated to a new owner.

– The filtration element (the unwoven textile part) has gone flat and lost its fibrous gloss (which means that the fibers have disintegrated and lost their filtration effect).

– The upper or lower cartridge parts are cracked or ruptured.

– The filtration element has crumbled away or fallen to pieces.

At least once a week (or more frequently as required), flush the filter cartridge properly with a strong water flow (e.g. shower head switched to central water flow of approximately 5 mm in diameter) .

– A soiled filter contaminates the water in the swim spa and hinders the cleaning process.

– Avoid using soap-based cleaning products to clean the filter and the swim spa.

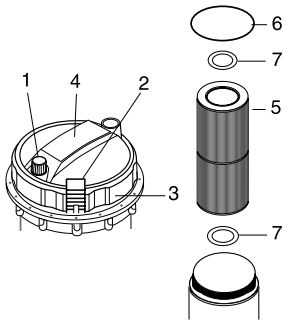
– Make sure that the cartridge is set firmly in the filter box after every cleaning or replacement to ensure that 100 % of the water running through is filtered.

– Keep individual chemical indicators within the appropriate limits. The filter alone is not able to keep the water clean and unobjectionable completely (as it is not able to eliminate bacteria and algae).

– Use the special filter cleaning solution every other month. Also, the cartridge should be cleaned completely every time after draining and filling the swim spa.

– It is advisable to have two filters available so they can be alternated every two weeks. While one of them is used, the other can be cleaned.

– Take a shower every time prior to using the swim spa. The following products in particular have a negative impact on water maintenance in terms of filtration: hair sprays and foams, make-up, deodorants, antiperspirants, suntan lotions, face creams of any kind, sweat, or soap remaining in swimsuits. It is recommended to use conventional soap when taking a shower as the soaps and gels containing ”softening„ additives may cause water cloudiness and frothing in your swim spa.



Filter diagram

Handle the filter in the OFF mode only (OFF on the display) or with the power supply disconnected!

Filter dismantling

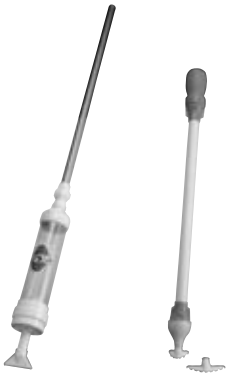
Release air from the filter body by turning the air-release valve (1) counter-clockwise. Pull the grey lever (2) slightly, turn the filter ring (3) counter-clockwise and remove the ring. Grab the filter lid handle (4) and remove the lid. Pull out the filter cartridge (5) and clean or replace. Check the sealing o-ring (6) on the filter lid for damage.

Filter reassembly

Be sure to fit the positioning rings (7) and take the steps above in the reverse order. Tighten the filter ring (3) properly by hand clockwise. By simultaneously pressing the + and – buttons, you will switch the swim spa to normal operation (the word OFF disappears from the display and the backlit buttons are turned on) Pressing the Pump 1 button switches on Pump 1 at low speed. Using the released pressure valve, release the air from the filter container and at the moment water begins to drain from it, tighten it by turning it clockwise. Caution - do not overtighten.

9.3 SWIM SPA CLEANING

No one would want to enter a bath that is not crystal clear. You would hardly enjoy your bath if it was full of dead insects, debris, or other dirt. The process of cleaning your swim spa is very simple.



Dirt removal:

– Collect and remove any dirt from the water with a fine mesh.
– Check the skimmer sieve every 2 weeks for the presence of surface dirt.
– Vacuum any dirt and undesirable materials (stones, etc.) settled on the bottom SWIM SPA VAC, available as accessories, are the ideal means for vacuuming dirt from your swim spa.

cleaning the swim spa's acrylate surface

– Special care is required to clean the swim spa's acrylic surface. AVOID USING ANY ABRASIVES OR PRODUCTS IF YOU ARE NOT SURE OF POSSIBLE CHEMICAL REACTION TO THE SWIM SPA SURFACE. Such swim spa surface defects are not covered with the warranty.
– Rinse the surface thoroughly when using detergent-based products. Detergent remainders may cause problems to water maintenance in the swim spa.

9.4 OZONATOR SYSTEM MAINTENANCE

As it was mentioned at the beginning, the ozonator greatly helps with the water maintenance and to lower the need of the chemical agents. For the correct function it is necessary to ensure good transit of the ozone into the swim spa system. That is why we recommend changing the ozonator

hose including the backward suckle once a year. You can order the set including the detailed guide for this exchange directly at USSPA. It is recommended to change the ozonator once in 3 years to ensure the best function. This exchange can be done either by the service technician or you can order the complete set including the detailed exchange guide.

9.5 CABINET (SWIM SPA WOODEN PANELING) MAINTENANCE

The wooden cabinet is available in design of Thermowood. Thermowood is special, heat treated wood which, owing to the heat treatment, does not require any maintenance for many years. The heat treatment provides for considerably lower absorbing capacity, shape stability, and resistance to parasites. Any higher proportion of knots and minor heat treatment fissures in wood are the characteristic Thermowood features and are not subject to warranty.

The first months after installation Thermowood discoloration can occur due to UV light. These discolorations do no affect the quality of the panelling. Any damages to the wooden parts of the cabinet should be removed by a proffessional.

If you want to keep the original paneling color, maintain the cabinet using oil based products (such as Habiol UV). The paint renewal frequency depends on the swim spa installation position. Any other paints are not recommended due to the very low absorbing capacity of Thermowood.

9.6 STAINLESS STEEL COMPONENTS MAINTENANCE

Stainless steels are generally known as allows resistible against rust and stains. However this characteristic may change or even disappear. The corrosion may come out on stainless steel once it gets in contact with indisposed unsuitable environment (liquid or gas). The corrosion may fully damage the material. In principle corrosion is an effect, which is caused by partial or full damage of the passive layer, which is naturally or artificially covering the steel surface. Damage of this protective passive layer causes the loss of quality of stainless steel.

There are several stainless steel components on USSPA products, either in the interior of the swim spa (e.g. stainless steel jet escutcheons), on the cabinet solutions (stainless steel lip, stainless steel cabinet corners) or on other accessories (usually cover lifting mechanisms).

Warranty on stainless steel components used on USSPA products is subject to following warranty and operation conditions:

1. Protect the stainless steel components against salts, dust, dirt.

2. Make sure the water in your swim spa is always clean.

3. Concentration of free chlorine may never exceed max. 5 ppm.

4. Keep pH level between 7,2 – 7,6.

5. Make sure the stainless steel components do not get in contact with other metals, especially steel – contact with other metals might result in galvanic corrosion.

6. High concentration of chlorine, chlorides or chlorine ions in water may cause corrosion.

7. Once there are noticeable calcium sediments or oxidation on stain less steel components, it is needed to clean it with corresponding stainless steel cleaner, rinse it with clean water, dry it and protect it with preserving and polishing agent for stainless steel materials.

8. While chemistry dosing make sure that the applied chemical does not get in direct contact with stainless steel components. Make sure that no chemical (solid nor liquid) stains the stainless steel elements.

9. In case the swim spa will be drained for long period it is suggested to dis mount all possible stainless steel parts. Parts that cannot be dis mounted must be rinsed with clean water to remove deposits from cleaning agents. As the next step we suggest to follow step 7.

10. Stainless steel parts may not be stored close to chlorine and other chemical products.

9.7 CARE OF THE COVER

The cover is tailored specially for your swim spa model. The hollow aluminum sections account for the extraordinary strength of the structure. The core of thick foam polystyrene provides excellent insulation against thermal losses. The foam core is covered with a resistant plastic coat. The external side is made of marine-class vinyl resistant to frost cracking up to –25 °C. The vinyl is coated with pigments stabilized against UV light to prevent discoloration.

– Always cover your swim spa when not in use to reduce not only the energy demand of swim spa operation but also the need for swim spa maintenance and the quantity of chemical products used (the cover is opaque, preventing light penetration into the water and thus reducing the growth of green algae. The cover is placed on the swim spa edge, preventing dust, pollen, insects and leaves from entering.

– The cover prevents humidity from escaping – this function‘s advantages are decisive in interior installations. Also, the need to replenish water is reduced.

– Handle the cover carefully to avoid damaging it. Avoid getting the cover into contact with rough surfaces. Always put the cover aside in a safe place to prevent damaging it.

– If the swim spa is installed in a cabinet, it is recommended to use a special cover lift available from your USSPA distributor.

– The cover is not designed to be walked on or sat on.

– If installed outdoors, it is recommended to remove snow from the cover in winter as snow may cause loads for which the cover is not designed.

– Clean the vinyl coat with a detergent solution and always rinse with clean water.

– To extend the vinyl coat‘s service life, treat it regularly with a professional protective product for

vinyl (artificial leather), which helps to keep the surface soft, flexible and resistant to weather and harmful rays of the sun. The product can be ordered from your USSPA distributor.

– The exterior of the cover is made from highly resistant fabric with Teflon finishing. It is a removable cover coating therefore it is not possible to achieve a perfect stretch out of the fabric on the whole surface area. Potential ripple of the fabric is not the subject to a complaint. You can remove any possible stains with soap water or special agent Polstrin special or you can also use the Wap pressure washer. For such cleaning it is necessary to remove the fabric from the covar so that the insulation boards are not damaged. The fabric is suitable for up to 7 washing cycles without damaging the Teflon finishing but it is necessary to follow these instructions:

9.8 SWIM SPA WINTERING

In general, the swim spa is designed for all-year-round usage. If you decide not to use your swim spa for a certain period of time (in winter, on holiday, etc.), it is recommended to keep it filled with water and power supplied. You can decrease the set temperature (the lowest setting is 10 °C). Your swim spa is equipped with a freeze protection system. It brings the set water temperature level with the air temperature in the cabinet. If necessary, it then switches on the individual pumps in order to mix the water in the massage systems.

If you decide to drain your swim spa for winter, contact our service technician to winter your swim spa professionally so that frost and water remaining in the system cannot harm the individual swim spa components. We recommend that you call the technician again for putting your swim spa into service after wintering. It is necessary to use the cover on empty swim spa to protect the swim spa from extreme temperature fluctuations. Such defects are not covered with the warranty.

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MAINTAINING CLEAN WATER IN THE SWIM SPA

Chemical maintenance of water in the swim spa is an integral part of the care of your swim spa. Water maintenance is neither time intensive nor demanding technically and contributes considerably to bathing pleasure and to the extension of the swim spa's service life.

Although the swim spa is filled with clean, drinking water, the fill should be checked regularly, kept balanced (as to pH and alkalinity) and disinfected to keep it clean and unobjectionable in the long term. Use only the chemical products recommended by USSPA to maintain the water in your spa. Be aware of products primarily designed to be used in regular pools (e.g. trichlor) and chemistry products not being tested on spas for long term. Application of improper chemical products may cause defects on components, shell surface and / or any other part, such defects are not covered with the warranty.

Warning: Never leave chemical products in your swim spa! Only measure water parameters and dose chemicals into the water when the swim spa is not in use. To find out the actual values, take measurements at the normal temperature of using the swim spa.

After adding chemicals to the water, we recommend re-measuring the water parameters for at least 12 hours from the time of dosing.

Important: The quality of the water in the swim spa depends exclusively on the water source, the way the swim spa is used by its users and the water and swim spa maintenance performed according to the instructions.

Swim spa itself is equipped with filtration, which serves primarily to capture mechanical impurities and dead bacteria from the size of 20 microns. Furthermore, each USSPA swim spa is fitted as standard ozonator, which oxidizes the water and significantly helps to disinfect the water, but ozone is not able to ensure 100% disinfection of all water in the swim spa. Other maintenance is in the hands of the user.

10.1 pH

pH value is the most important component of the water's balanced state. This value shows the swim spa water's acidity or alkalinity.

pH should be monitored as it has a crucial effect on the effectiveness of disinfection products and on the health of people using the swim spa.

The ideal pH range for massaging baths is from 7,2 to 7,8.

HIGH pH VALUE

Low disinfection effectiveness
Turbid water
Low filter service life
Coating occurrence
Skin and eye irritation

LOW pH VALUE

Low disinfection effectiveness
Skin and eye irritation
Overall alkalinity misbalance
Corrosion of the swim spa's metal parts

– Any value under 7,2 means that the water in your swim spa is too acid. Use a water acidity reduction preparation.

– Any value above 7,8 means that the water is too alkaline. Use a water acidity increase preparation.

Before adding any chemical for pH adjustment, assess the overal alkalinity first.

10.2 OVERALL ALKALINITY

Overall alkalinity is used to express the rate of the water's ability to prevent unexpected pH variations. The correct alkalinity value helps to keep the pH within the appropriate range. Before making any pH adjustment, check overall alkalinity first.

The ideal overall alkalinity value ranges from 80 to 120 ppm.

The consequences of a too high or too low overall alkalinity level are as follows:

HIGH OVERALL ALKALINITY

Difficult pH change
Coating occurrence
Skin and eye irritation
Low disinfection effectiveness
Turbid water

LOW OVERALL ALKALINITY

Fast changes in pH or "pH leaps"
Corrosion of the swim spa's metal parts
Skin and eye irritation

10.3 WATER HARDNESS

Water hardness results from calcium and magnesium concentrations in the water of your bath; mostly, however, the term water hardness means calcium hardness only. Calcium content in water varies with water sources. Water from a well, for instance, more often has a higher mineral content and, therefore, may be harder than already treated, fresh water from the mains.

Note: The goal is to have water within a range of hardness – if water is too soft, it slowly disintegrates all the metal parts in your swim spa. High hardness, on the other hand, manifests itself in scale on the walls and the water assuming a turbid appearance.

The recommended water hardness value is within 8–20 °N.

10.4 DISINFECTION

Disinfectants are chemicals of intensive action which are capable of destroying bacteria, algae and other undesirable organisms and substances in water. To be effective, it is necessary that disinfectants are present in the water permanently. Water must always contain a certain amount (residual) of disinfectants. Then, the disinfectant added into the water should be of an amount adequate to destroying the existing bacteria in the water and create a sufficient residual to neutralize impurities and germs which may get into the water prior to performing the next treatment.

Note: Complete dissolution of the chlorine granulate may occur up to 24 hours after dosing.

10.5 WATER MAINTENANCE PRODUCTS

There are many products available for your swim spa. Some of them are indispensable for adjusting water stability in the swim spa, protecting the swim spa's metal parts, preventing scale from settling, water from frothing, etc. Others will scent and make your stay in the swim spa more pleasant.

When choosing suitable chemical products and additives for your swim spa, do not hesitate to ask any of our service personnel for advice.

More information on water maintenance and use of chemicals supplied by your USSPA distributor is available in the water maintenance guide.

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11 | TECHNICAL ADVICE AND SOLUTIONS

PROBLEM	CAUSE	REMEDY
All equipment out of order.	– The RCD is turned off. – Main circuit breaker turned off. – Disconnected components (Pump 1, Pump 2, Pump 3, etc.). – Power supply cord disconnected. – The overheating fuse has tripped. – The swim spa is switched off. The word OFF appears on the display and the backlit buttons are turned off.	– Turn on the RCD. – Turn on the main circuit breaker. – Connect the components (Pump 1, Pump 2, Pump 3, etc.). – Plug in the power supply cord. – Call an USSPA authorized partner. – Turn on the swim spa using the ”+“ and ”-“ buttons.
Water does not flow out of the jets, a weak water stream from the jets, an irregular stream. This may be accompanied by an error message in the format 3xxx.	– Air bubbles in the piping. – Water flow blocked. – Incorrectly set-up jets. – Fouled filter. – Low water level (low pressure).	– Release air from the system (see the commissioning procedure). – Check that the water closing valves are open. – Check that the suction branches are not clogged with debris. – Set up the jets correctly. – Clean or replace the filter. – Increase the water surface to the recommended level. If the problems persist or the messages remain, call an USSPA authorized partner.
Lighting out of order.	– Defective bulb. – Disconnected.	– Replace the bulb or call an USSPA authorized partner. – Connect the power supply cable.

PROBLEM	CAUSE	REMEDY
Water leakage.	– Overfilled swim spa. – Too many people in the swim spa. – The drain valve left open. – Loosened pairings or fittings. – Improper water chemical composition. – Defective pump sealing. – Defective pipe joints. – Water dripping from the control panel's upper edge.	– Adjust the water level in the bath. – Adjust the water level in the bath. – Close the drain valve. – Tighten. – Call an USSPA authorized partner. – Call an USSPA authorized partner. – Call an USSPA authorized partner. – Call an USSPA authorized partner.
Ozonator out of order (the ozonátor green LED is off).	– The hydro-massaging jets are turned on. – Power supply cable disconnected. – Defective ozonator.	– After massage termination (turning the motor off), the ozonator starts automatically after 20 minutes since the last device has been switched off (Pump 1, Pump 2, Pump 3). – Connect the power supply cable. – Call an USSPA authorized partner.
No bubbles coming out of the ozonator jet.	– Weak water stream (may be accompanied by error message 3009 Low water flow through the heater).	– Clean or replace the filter, clean the skimmer, check whether the valves are open on the ring of Pump 1. If problems persist, call an USSPA authorized partner.
Low water temperature. May be accompanied by an error message in the format 3xxx.	– Incorrectly set thermostat. – Overheating protection actuated. – During a massage the heater may be blocked in order to protect it against overstrain. – Poor water flow. – Improper water flow. – Heater blocked by an HDO signal – Peak time (if this function is selected). – Heater blocking mode on. – Energy saving mode on. – Swim spa not covered with the cover.	– Adjust the thermostat setting. – Call an USSPA authorized partner. – Turn the water and air massage mode off. – Clean or replace the filter, clean skimmer. – See the section "No, Poor or Irregular Flow of Water". – As soon as an HDO off-peak time signal is activated, the heater will automatically be turned on again. If the heater has not been turned on for a long period, check whether an off-peak time signal is available for the swim spa. – Turn heater blocking mode off. – Turn off energy saving mode. – Cover swim spa with the cover. If problems persist, call an USSPA authorized partner.

PROBLEM	CAUSE	REMEDY
The RCD is repeatedly turned on.	– Defective part.	– Call an USSPA authorized partner.
The RCD is randomly turned on.	– Lightning; electrical storm. – Power supply fluctuation. – Extraordinarily high humidity. – Radio frequency interference. NOTE: Make sure that the equipment is earthed and connected properly.	– Reset the current protective. – Reset the current protective. – Reset the current protective. – Reset the current protective.
Swim spa is overheated. May be accompanied by error messages 3010 Heater overheated, 3011 Overheated exchanger or 3035 Overheated water.	– Permanently high ambient temperature (e.g. in summer, in small interiors, in rooms with swimming pools, etc).	– Decrease the temperature setting, add cold water, and ventilate the technological section. Your swim spa has been designed and insulated for the least possible energy consumption. It may overheat in the case of higher ambient temperature. – In the event that a specific error message is displayed, proceed according to the description in the overview of alarms in later chapters of this manual. If the problem persists, call an USSPA authorized partner.

12 | OVERVIEW OF SELECTED ALARMS

Alarms are displayed if certain components (Pump 1, heater, etc.) function abnormally, during problems with a communications network, etc.

Each alarm contains a code denoting an error and a description of it. Alarms are generally displayed until a problem is resolved or until the swim spa is restarted (if the same problem does not reoccur after the restart).

There are also permanent alarms which are activated by a power cut during a self-test of components after the swim spa is turned on. These alarms are defined by the description: "<Component name>: Protective device activated". To deactivate this type of alarm is necessary to make steps in description "Persistent alarms" at the end of the following table. When this type of alarm is active, the component is blocked permanently (even after restarting the spa).

CODE	DESCRIPTION	SOLUTION
3008	Incorrect flow detected in the heater.	– Defect in the heater's damper. The heater is blocked until the swim spa is restarted. Solution: Turn off the main circuit breaker and turn it on again. If the problem persists, call an USSPA authorized partner.
3009	Low flow through the heater.	– Insufficient water flow through the heater ring. Water heating is temporarily blocked. If the problem is resolved, the heater will automatically be restored. Solution: check that the filter is clean. If problems persist, call an USSPA authorized partner.

CODE	DESCRIPTION	SOLUTION
3010	Heater overheated!	– Do not climb into the swim spa. Risk of high water temperatures (danger to health)! Solution: Allow the water temperature to drop to 36 °C (to accelerate the process, run cold water into the swim spa). Subsequently check that the filter is clean. Then turn off the main circuit breaker and turn it on again. If the problem persists, call an USSPA authorized partner.
3011	Exchanger overheated!	– Do not climb into the swim spa. Risk of high water temperatures (danger to health)! Solution: Allow the water temperature to drop to 36 °C (to accelerate the process, run cold water into the swim spa). Subsequently check that the filter is clean. Then turn off the main circuit breaker and turn it on again. If the problem persists, call an USSPA authorized partner.
3032	Freeze Protection Mode on.	– In the event that the temperature in the technology falls below 5 °C, Pumps 1,2 and 3 will be turned on in order to mix warm water from the swim spa into the hose system. Solution: The water will continue to be mixed until the temperature climbs above 6°C. Check whether the heater is turned on. Note: while this mode is active it is not possible for the user to turn off water mixing. If the problem persists, call an USSPA authorized partner.
3034	Water too cold. Water temperature below 8 °C.	If the water temperature is below 8 °C, the heater and an alarm indicating that the water is too cold will be turned on. This may occur when letting in new water. Solution: As soon as the temperature rises above 8°C, the error message will turn off automatically.

CODE	DESCRIPTION	SOLUTION
3035	Overheated water. Water temperature above 44 °C.	– Do not climb into the swim spa. Risk of high water temperatures (danger to health)! Solution: Allow the water temperature to drop to 36 °C (to accelerate the process, run cold water into the swim spa). Check that the filter is clean. A contaminated filter may be the cause of overheated water. If the problem persists, call an USSPA authorized partner.
3036	Water temperature is not within the correct range.	– The water temperature sensor registers incorrect data. – All of the swim spa's components are blocked for safety reasons. Solution: Call an USSPA authorized partner.
3050 to 3053	Problem sending service E-mails.	– E-mails not sending. Check the swim spa's connection to the internet. – The alarm does not affect the functions of the swim spa, which can continue to be used. Solution: The alarm will be turned off automatically after a certain time (once an E-mail is successfully sent) or immediately by restarting the swim spa. If the problem persists, call an USSPA authorized partner. **Caution:** **The functionality of remote applications and communications depends on the type of connection to the internet or local network. With regard to the quality of the connection, a fixed connection by cable is highly recommended. USSPA cannot guarantee the quality of a swim spa's connection to the internet and potential resulting failure of applications to work.**
3066 to 3067	Error in the water temperature sensor.	– The water temperature sensor is not plugged in or plugged in incorrectly. – All of the swim spa's components are blocked for safety reasons. Solution: Call an USSPA authorized partner.

CODE	DESCRIPTION	SOLUTION
3068 to 3079	Error in a different temperature sensor.	– A different temperature sensor is not connected or connected incorrectly. – The swim spa can continue to be used, though some of its functions may be limited (freeze protection mode). Solution: Call an USSPA authorized partner.
3080 to 3081	Error in the water temperature sensor from the exchanger.	– The water temperature sensor from the exchanger is not plugged in or plugged in incorrectly. – All of the swim spa's components are blocked for safety reasons. Solution: Call an USSPA authorized partner.
3128 to 3141	An error in Pump 1 has been diagnosed.	– A diagnostic has detected a problem in the operations of pump 1 and the pump has been blocked. – The swim spa can continue to be used. Besides restrictions during massages, the error does not affect the functions of the swim spa. Solution: the pump can be unblocked by restarting the swim spa. If the problem persists, call an USSPA authorized partner.
3192 to 3205	An error has been diagnosed in Pump 2.	– A diagnostic has detected a problem in the operations of pump 2 and the pump has been blocked. – The swim spa can continue to be used. Besides restrictions during massages, the error does not affect the functions of the swim spa. Solution: The pump can be unblocked by restarting the swim spa. If the problem persists, call an USSPA authorized partner.

CODE	DESCRIPTION	SOLUTION
3224 to 3237	An error has been diagnosed in the Pump 3.	– A diagnostic has detected a problem in the operations of the Pump 3 and the pump has been blocked. – The swim spa can continue to be used. Besides restrictions during massages, the error does not affect the functions of the swim spa. Solution: The Pump 3 can be unblocked by restarting the swim spa. If the problem persists, call an USSPA authorized partner.
3288 to 3301	An Ozonator error has been diagnosed.	– A problem has been detected based on the diagnostic in the operation of the Ozonator and it occurred blocking. – Filtering will take place in restricted mode. – The swim spa can still be used. Solution: The block can be removed by restarting swim spa. If the problem persists, contact USSPA authorized partner.
3320 to 3333	An error has been diagnosed in phase 1 of the heater.	– A diagnostic has detected a problem in phase 1 of the heater, which has subsequently been blocked. – Water will be heated during the remaining heater phases. – The swim spa can continue to be used. Solution: Blocking can be undone by restarting the swim spa. If the problem persists, call an USSPA authorized partner.
3352 to 3365	An error has been diagnosed in phase 2 of the heater.	– A diagnostic has detected a problem in phase 2 of the heater, which has subsequently been blocked. – Water will be heated during the remaining heater phases. – The swim spa can continue to be used. Solution: Blocking can be undone by restarting the swim spa. If the problem persists, call an USSPA authorized partner.

CODE	DESCRIPTION	SOLUTION
3384 to 3397	An error has been diagnosed in phase 3 of the heater.	– A diagnostic has detected a problem in phase 3 of the heater, which has subsequently been blocked. – Water will be heated during the remaining heater phases. – The swim spa can continue to be used. Solution: Blocking can be undone by restarting the swim spa. If the problem persists, call an USSPA authorized partner.
3416 to 3655	An error has been diagnosed in a secondary component.	– A diagnostic has detected a problem in the operation of an additional component of the swim spa (lights, ventilation technology, automatic chemistry dosing, etc.) which has subsequently been blocked. – The swim spa can continue to be used, however the error may have an effect on some of the swim spa's functions. Solution: Blocking can be undone by restarting the swim spa. If the problem persists, call an USSPA authorized partner.
Permanent Alarms: – basic components of the swim spa: 3142 (Pump 1), 3206 (Pump 2), 3238 (Pump 3), 3302 (ozonator), 3334 (heater phase 1), 3366 (heater phase 2), 3398 (heater phase 3), 3430 (lights), – secondary components of the swim spa (automatic chemistry dosing, ventilator, etc.) 3462, 3494, 3526, 3558, 3590, 3622, 3654	Protective device activated.	– While testing the functions of certain components after starting the swim spa, a power cut occurred. The component can cause a malfunction of the entire spa. The component has been permanently blocked as a precautionary measure (including after a restart). – Limitations to the swim spa's functions in the event that a certain component is permanently blocked are described in the table above (limitations are the same as when the error occurred). – The swim spa can continue to be used. Solution: The component can be unblocked by switching the switch on the right-hand side of the control unit (electropack in the technology room) to position 1 and restarting the swim spa. After restarting the swim spa, return the switch to position 0 in order to restore the functions of the swim spa's diagnostics. If the problem persists, call an USSPA authorized partner.

13 | SUMMARY OF NOTIFICATIONS

Notifications inform the user, for example, of power failures in the swim spa and also serve as reminders of regular activities around the swim spa – i.e. cleaning the filter, a recommendation to change the water, etc.

A notification will be displayed until it is reset. They can be reset by pressing any piezo button or via the mobile/web application (to use the web application, the swim spa must be connected to the internet).

Each notification contains a code designation and a description.

CODE	DESCRIPTION	TASK
2001	Warning – recommendation to clean the filter.	Clean filter. The notification is automatically turned off by switching the swim spa to OFF mode (mode for cleaning the filter). Repeats every 2 weeks. The notification can also be turned off by pressing any button on the swim spa or via the web or mobile application.
2002	Caution – a power failure in the swim spa has occured.	A purely informative notification that the swim spa has been disconnected from the mains for a certain period. The notification can be turned off by pressing any button on the swim spa or via the web or mobile application.
2003	Notification – recommendation to change the water.	A purely informative notification. The notification can be turned off by pressing any button on the swim spa or via the web or mobile application.

CODE	DESCRIPTION	TASK
2006	Notification - recommendation to carry out an annual inspection of the swim spa.	A purely informative notification. The notification can be turned off by pressing any button on the swim spa or via the web or mobile application.
2007	Notification – recommendation to carry out an annual inspection of the ACS® (automatic thermocover).	A purely informative notification. The notification can be turned off by pressing any button on the swim spa or via the web or mobile application.
2010	Notification – unsuccessful attempt to send service e-mail.	A purely informative notification. The notification can be turned off by pressing any button on the swim spa or via the web or mobile application. Caution: The functionality of remote applications and communications is dependent on how the swim spa is connected to the internet or local network. With regard to the quality of the connection, a fixed connection with a cable is strongly recommended. USSPA cannot vouch for the quality of a connection of a swim spa to the internet and the potential resulting failure of applications to work.
2104	Notification - recommendation to change a component: Pump 3.	The Pump 3 construction allows it to function for at least 700 service hours. A purely informative notification. The notification can be turned off by pressing any button on the swim spa or via the web or mobile application.
2106	Notification - recommendation to change a component: Ozonator.	The ozonator's construction allows it to function for at least 9 000 service hours. A purely informative notification. The notification can be turned off by pressing any button on the swim spa or via the web or mobile application.

14 | OVERVIEW OF SELECTED E-MAILS FROM SWIM SPA

In the web and mobile applications can be set e-mail addresses to which you wish to send information on active notifications, alarms and other important situations. This function is active only if the swim spa is connected to the internet. E-mail sent from the swim spa is always in English (the language cannot be changed).

The subject of the message always contains a model series of the swim spa, serial number of the swim spa and type of message (ALARM, NOTIFICATION, SAVEMODE).

For the active alarm/notification, the body of the message always contains the code of event (Alarm/Notification ID) including short English description (Description). End of message always contains the date and time (Event Time) when the event occurred (day/month/year hh:mm:ss).

Example of the e-mail informing about the active alarm:
- The subject of the e-mail:
  - USSPA privat SN:CBNDEMO - ALARM
- The body of the e-mail:
  - Alarm ID: 3009
  - Description:
  - Flow sensor malfunction. Flow not detected when requested!
  - Event time: 12/09/2016 15:00:04

Example of the e-mail informing about the notification alarm:
- The subject of the e-mail:
  - USSPA privat SN:CBNDEMO - NOTIFICATION
- The body of the e-mail:
  - Notification ID: 2002
  - Description:
  - Note - detected power off
  - Event time: 11/09/2016 20:02:22

Example of the e-mail informing about the automatic termination of the Energy saving mode:
- The subject of the e-mail:
  - USSPA privat SN:CBNDEMO – SAVEMODE
- The body of the e-mail:
  - Event time: 09/09/2016 11:00:00

15 | OPERATION AND HANDLING THE MECHANICAL THERMOCOVER

(EQUIPMENT FOR AN ADDITIONAL CHARGE)

15.1 SAFE OPERATION RULES

WARNING

- Avoid the risk of drowning.
- Do not stand on the cover boards or the mechanism – they are not constructed to carry the weight of a human.
- Keep an eye on children, keep them away from the swim spa – children cannot be seen under the cover.
- Failure to observe the instructions may lead to damage of the entire device, injury or drowning
- The cover is not a safety cover
- Make sure nobody is inside the swim spa when the cover is being handled
- The mechanism is designed for use at a maximum wind speed of up to 10 m/s.
- When cleaning individual parts of the cover always follow the instructions given in this Guide, see Chapter 14.7 Maintenance.
- The stainless steel parts can be heated to high temperatures under solar light. Always be careful when operating the stainless steel parts on the sunny side.

15.2 WARANTY

- The warranty applies for 2 years after the installation date.
- The warranty applies to all the cover parts and components with the mechanism that may prove to be defective in material and workmanship.
- The warranty does not cover defects caused by incorrect application of the cover and/or breaking the instructions given in this manual.

- Natural ageing and deterioration of the mechanism caused by usage are not covered by the warranty. The warranty does not apply to the oxidation of aluminum elements manifested by dark maps, it is a natural reaction of aluminum to the environment, which does not affect the functionality of aluminum elements.
- Further the warranty follows the general warranty conditions of USSPA.

15.3 PRODUCT DESCRIPTION

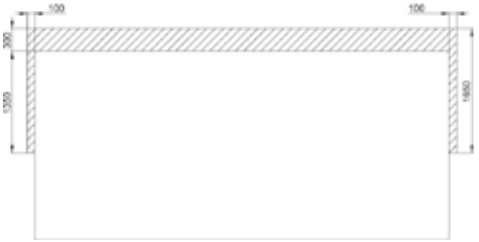
The cover lifter was developed to be used and applied on all models of swim spa series and integra spa series from USSPA and substitutes the manual handling of individual segments of the standard cover.

The cover contributes significantly to minimising energy consumption, protects against the penetration of UV radiation into the water and thus reduces the cost of operation and maintenance of the swim spa. The construction of the mechanical cover is not adapted to excessive loads such as walking on its surface, sitting or placing loads on it.

- The complete device is fully autonomous.
- The cover boards – supporting board and ending board – are customized for individual swim spa models and integra spa model.
- Perfectly smooth, hollow profiles are welded in two frames forming an extraordinarily rigid construction.
- The core of both boards is designed from insulating materials that provide thermal insulation.
- The insulation material applied has minimal absorption. The insulation material is further treated with water resistant coat that encapsulates the material's surface.
- The external coating of both boards is made of marine-class vinyl that is resistant to cold cracking to a temperature up to -25 °C. It is superimposed by pigments stabilized against UV light so that the colour does not fade.
- The 6-parts lifting mechanism is used for the defined movement of the covers, containing the gas power elements which significantly facilitate simple, physically undemanding application.
- All the supporting and moving parts of the mechanism are made of stainless steel as well as the handles and locking levers.
- When the mechanical cover becomes contaminated with foreign objects such as leaves, branches, snow, etc., we recommend that you regularly/immediately remove these contaminants from the surface of the mechanical cover, using a suitable method.
- In case of strong wind and gusts of wind, we recommend that you additionally mechanically secure the closed cover (in accordance with the local installation solution), otherwise it may be damaged or torn down.

The advantages of using the cover:

1. Cover the swim spa with the cover whenever it is not in use. That will reduce the swim spa's operation energy intensity and also the demands for maintenance and quantity of chemical agents used.
2. The cover prevents evaporation – this function has essential advantages in the case of interior installations. At the same time, the need to replenish water is reduced – condensation.
3. It prevents UV light from penetrating the water, minimizing the possible growth of green algae.



15.4 AVAILABLE SOLUTION OPTIONS

The mechanical lifter and cover can be applied to the models of the swim spa series and integra spa from USSPA.

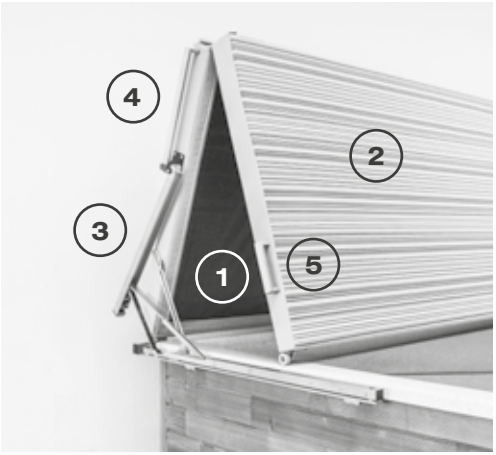
Based on the installation, there are three different basic types of mounting the mechanism:

1. on a cabinet – for swim spa, eventually integra spa installations in a cabinet
2. on the ground – for swim spa, eventually integra spa installations that are partially embedded
3. in-ground – for swim spa, eventually integra spa installations in-ground, with a minimum skirting of 10 cm along the perimeter

15.5 SPECIFIC REQUIREMENTS FOR CONSTRUCTION WORKS

The lifter with a specially constructed cover may be installed only if the following requirements are met:

1. The location of the opened cover offers an open area of 300 mm.
2. The shorter sides offer an open area of 100 mm from the lip, in a length of 1 350 mm from the skirting edge where the boards are in the open position – see the sketch.
3. There is enough space available for the cover in the open position above the spa. The height of the cover in the open position from the upper skirting edge for the Swim Spa M model is 1 300 mm, for the Swim Spa XL model it is 1 400 mm, for the Combi^{iN} model it is 1 300 mm and for the Lounge^{iN} model it is 1 200 mm.



15.6 USE AND MANIPULATION

1 Supporting board
2 End board
3 Latch brake
4 Handle
5 Short handle

15.6.1 LIFTING THE COVER

1. Use a broom to clean the entire cover of mechanical dirt (branches, leaves, etc.). In case of outdoor installations snow must be continuously removed from the cover in winter – open the cover only when it is completely clean.

2. Put the lever key into the lock head, depress the whole locking handle and move the lever key to the swim spa. This way you will release the locking handle on left and right side of the shorter sides of swim spa. The lifting mechanism of Combi^{iN} cover has the lock on one side only. The lifting mechanism of Lounge iN cover has the lock on left and right side.

CAUTION
Never attempt to open the cover when it is locked, otherwise there is a risk of damage to the mechanism!

3. When locking lever is released both cover boards will lift slightly. In this position we recommend leaving the condensed water on the bottom side of the cover for several seconds to drip back into the swim spa. At the same time, the water on the top of the cover will also flow down beyond the swim spa.

4. Grip the supporting board handles and lift them slightly.

5. Now grip the end board handle and pull it.

6. Move both boards into a vertical position to the ejection side of the swim spa.

7. With the lifter in the vertical position, lock it using the latch brake on the side of the cover. By securing the latch brake you will prevent the cover from damage during stronger wind.

CAUTION
When the wind is blowing faster than 10 m/s we do not recommend leaving the cover in the vertical (open) position. Risk of damage!

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15.6.2 PUTTING THE COVER DOWN

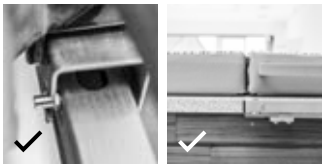
1. Before putting the cover down remove any dirt from the folds of the cover boards.

2. Unlock the latch brake that is used to secure the cover.

CAUTION
Never tilt the cover down when it is locked – there is a risk of damage to the mechanism!

3. Grab the handle of the ending board.

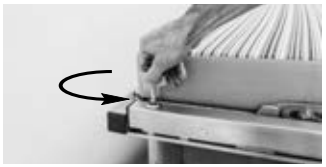
4. By pressing the the short handle, relocate the cover to a position so that the ending board wheels sit on the skirting about 50 cm from the supporting board.



5. Tilt down both boards into a horizontal position and push them slightly into position.

6. Check it for locking (correct location of the mechanism's moving part under the securing element). If it is not correct, push the cover again.

NOTICE
Improper locking of the lifting mechanism can lead to damage to the entire mechanical cover in strong winds. Such damage is not covered by the warranty.



7. Then lock the lifting mechanism with the locking handle.

15.7 MAINTENANCE

The lifter and cover are designed so that the requirements for the maintenance of the mechanism and cover are minimal. Despite this, we recommend performing the following maintenance as needed.

Aluminum elements can oxidize which occur as dark ”maps”. The degree of darkening depends on the specific environment e.g. quality of water, possible minerals and cleaning products used. The possible minerals contained in the pool water also have a specific effect, depending on the water source. These accumulations of oxidation do not affect the functionality of the cover. To prevent these undesirable effects it is necessary to ensure required water quality according to the manual and ensure the propriate water source.

15.7.1 MAINTAINING THE COVER

1. Check periodically the joints of cover boards to ensure these are celan. Remove any dirt using a broom.

2. As a part of the periodic replacement of water in the spa (for frequency, see the swim spa, eventually integra spa Service and Maintenance Guide), when changing water, we recommend to clean the bottom part of the cover (the side under the surface) using a disinfecting solution.

When cleaning, secure the boards in the intermediate position. Spray the cleaning, disinfecting solution on the bottom part and rinse it with water after about 30 minutes.

Secure the boards with the adjustable strap in the following manner:

2.1. Place the boards in the shape of the letter A.

2.2. Lace the strap through the end board handle.

2.3. Lace the loose strap end through the locking element.

2.4. Fasten the plastic clip to the end of the strap and connect it to the other end of the strap. Tighten the strap as required for opening the boards.

Reverse the steps in order to unlock.

3. Treat the vinyl surface periodically with a professional protective agent for vinyl/imitation leather to keep the surface soft and flexible, resistant to the impacts of bad weather and harmful solar radiation, for example Cover Treat from the USSPA assortment.

4. In outdoor installations you must remove snow or ice in winter from the boards of the entire cover and mechanism. Check the stainless steel mechanism for cleanliness, primarily the hinges and other moving parts. Use a broom to remove the snow and melt ice using warm water.






15.7.2 MAINTAINING THE MECHANISM

To reduce passive resistance we recommend that the central hinges, end hinges, pin in the console, connection of the draw bar, bearing, piston rod and knobs to be lubricated with mineral oil (sold commonly) once every three months on a regular basis – see photograph.

Also remove dirt from the inner part of the ”C“ profile.

CAUTION
Do not perform any other operations on the mechanisms without prior consultation with a service technician. In the event of unqualified intervention the warranty may be invalidated.

15.7.3 MAINTAINING THE STAINLESS STEEL COMPONENTS

Stainless steels are generally known as allows resistible against rust and stains. However this characteristic may change or even disappear. The corrosion may come out on stainless steel once it gets in contact with indisposed unsuitable environment (liquid or gas). The corrosion may fully damage the material. In principle corrosion is an effect, which is caused by partial or full damage of the passive layer, which is naturally or artificially covering the steel surface. Damage of this protective passive layer causes the loss of quality of stainless steel. Warranty on stainless steel components used on USSPA products is subject to following warranty and operation conditions:

– Protect the stainless steel components against salts, dust, dirt.

– Make sure the water your swim spa is always clean.

– Concentration of free chlorine may never exceed 3 –5 ppm.

– Keep pH level between 7.2 –7.8.

– Make sure the stainless steel components do not get in contact with other metals, especially steel – contact with other metals might result in galvanic corrosion.

– High concentration of chlorine, chlorides or chlorine ions in water may cause corrosion.

– Once there are noticeable calcium sediments or oxidation on stainless steel components, it is needed to clean it with corresponding stainless steel cleaner, rinse it with clean water, dry it and protect it with preserving and polishing agent for stainless steel materials (e.g. Silichrom).

– While chemistry dosing make sure that the applied chemical does not get in direct contact with stainless steel components. Make sure that no chemical (solid nor liquid) stains the stainless steel elements.

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15.8 TECHNICAL ADVICE

PROBLEM	POSSIBLE CAUSE	SOLUTION
Gas struts function with difficulty. Tough cover lifting.	– When not in use for long time an overlying of the gas struts occurs due to external influences. Mainly in case of temperatures around minus 5 – 10 °C.	– For opening the greater force must be used to pull the supporting board with the long handle. Then the running becomes fixed. To prevent this we recommend lubricating the steel piston rod of the gas strut and make several cycles of lifting and closing of the cover. Use mineral oil for lubrication. 
Damaged imitation leather of the cover.	– Undesirable manipulation with the cover.	– Call an USSPA authorized partner.

In case of other defects or failures please call an USSPA authorized partner.

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OPERATION AND HANDLING THE AUTOMATIC THERMOCOVER

(EQUIPMENT FOR AN ADDITIONAL CHARGE)

16.1 SAFE USE

WARNING

• Beware of the risk of drowning.
• Beware of the risk of persons or body parts shutting-on, cover power is constructed for great stress force and thus it is not possible to provide protection against shutting-on, in case of the control switcher release the whole system is switched-off.
• It is prohibited to enter the swim spa and stay near the automatic cover unless the cover is fully located in the terminal position, in case of installation in the ground, unless the shaft cover is fully in the terminal position.
• It is prohibited to stay near the automatic cover during its movement.
• Nobody is allowed inside the spa during cover handling.
• During cover handling watch mainly the children.
• Do not stamp on the cover and mechanism boards – they do not bear the human weight.
• It is prohibited to leave the stopped automatic cover outside its terminal positions with the exception of the cover cleaning works.
• Non compliance with the instructions may lead to damage of the whole equipment, injury or drowning.
• Cover is not a safety cover.
• Mechanism is constructed for the use under maximal wind speed of up to 10 m/s.
• When cleaning individual cover parts, always comply with the procedures provided in the Instructions for use, see Chapter 15.6. Maintenance.

16.2 WARRANTY

• The warranty is provided for the period of 2 years from the installation date.
• The warranty relates to all cover parts and components including mechanism, which prove to be defect as a result of materiál or work.
• The warranty does not apply to defects incurred due to incorrect cover use and due non compliance with the instructions stated in the Instructions for use.
• Natural mechanism tear and wear is not subject to the warranty.
• The warranty is further on governed by the General Warranty Conditions of the company USSPA.

16.3 PRODUCT DESCRIPTION

Automatic cover ACS® is developed to cover the models of the series swim spa and integra spa of the company USSPA and is designed for replacement of manual handling with the individual segments of the standard cover.

• The whole equipment is constructed as an autonomous one.

• The cover boards itself – supporting and terminal – as well as the deposit shaft cover are made especially for the individual spa models.

• The core inside both frames is made from the material ensuring thermal insulation.

• External coverage of the boards and of shaft cover can be made from one of the following materials: - Naval Class vinyl /artificial leather/ – endures cracking caused by cold up to -25 °C. It is covered with pigments stabilised against UV radiance.

– Textiles – it is highly endurance textile fabric with Teflon finishing.
This made is designed mainly for installation in interior.

– Coated metal – surface finish is done with professional car coat in requested colour made (note: due to typical characteristics of the used material, differential external temperature conditions may result in dilatation of surface metal due to thermal expandability, these effects are not subject to the warranty, it is general characteristic of the applied material; any surface imperfections may be caused by the used production technology and thus they shall not be subject to any claims).

• Boards and shaft cover finish is made from rustproof steel, those elements cover specific movable mechanism parts.

• Electronic set fully controls operation of the whole automatic lift. The whole system is controlled by a button that is secured by an independent lock.

• Electrical power of automatic lift is done as independent from the power system swim spa so as to control the lifter automatic systém regardless of the swim spa operation. Supply cable CYKY 3C × 2,5, circuit breaker 16 A, current protector access current 30 mA.

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ADVANTAGES OF COVER USE:

1. Always cover the spa with cover when not in use. You will reduce the energy consumption needed for spa operation as well as maintenance demands and the amount of the used chemical substances.

2. The cover prevents humidity leak – this function is very beneficial in case of interior installations. It also reduces the water consumption – the need to add water.

3. Prevents UV radiation into the water and thus minimises potential green algae growth.

16.4 AVAILABLE ALTERNATIVE SOLUTIONS

Automatic cover ACS® can be used for thermal pools swim spa and integra spa from the company USSPA.

ALTERNATIVE 1 – with wooden cabinet
ALTERNATIVE 2 – immersed with shaft

16.5 USE AND HANDLING

16.5.1 COVER OPENING

1. Using the whisk broom clean the whole cover of mechanical impurities (branches, leaves, etc.). In case of exterior installation it is necessary to remove, during winter period, snow continuously. Open the cover only after complete cleaning. In case of extreme cover load, the power is furnished with protection and the cover cannot be opened.

2. Check the spa surroundings, observe mainly the safety distance of all persons around. The safety distance means at least 1 metre from the swim spa.

3. After check of the above given condition, unlock the safety lock by turning the key into the position I.

4. Press the button for mechanism control, the button must be kept pushed for the whole period of boards' movement till their full location in the terminal position and shaft cover closing.

5. For the whole cycle operation, the operating personnel shall observe the safety distance of all persons around and the cover itself.

6. After location in terminal positions, the system switches-off fully.

WARNING
• If the control button is released, the cover movement is stopped immediately. In this case, there is 1 second interval during which it is not possible to operate the cover at all. After 1 second, the button press results in mechanism movement in the opposite direction.

• During the whole handling it is necessary to observe properly any persons (or animals) movements around the cover as there is a risk of shutting-on; cover power is constructed for great stress power, and thus it cannot be provided with shutting-on protection.
• With the wind speed exceeding 10 m/s we do not recommend to operate the cover. Risk of damage!
• In case of electrical energy fallout, the mechanism stops in non-defined position.

After renewed electrical energy connection:

– Security pause of 4 seconds runs, it is not allowed to press the button.
– Mechanism can be outside the terminal positions and thus afterunlocked button press, the closing cycle starts.

16.5.2 COVER CLOSING

1. Check the spa surroundings, observe mainly the safety distance of all persons around. The safety distance means at least 1 metre from the swim spa.

2. After check of the above given condition press the button for mechanism control, the button must be kept pushed for the whole period of boards' movement till their full location in the terminal position and shaft cover closing.

3. For the whole cycle operation, the operating personnel shall observe the safety distance of all persons around and the cover itself.

4. After location in terminal positions, the system switches-off fully.

5. Secure the cover mechanism by locking the safety lock, turning the key into position 0.

WARNING
• If the control button is released, the cover movement is stopped immediately. In this case, there is 1 second interval during which it is not possible to operate the cover at all. After 1 second, the button press results in mechanism movement in the opposite direction.
• During the whole handling it is necessary to observe properly any persons (or animals) movements around the cover as there is a risk of shutting-on; cover power is constructed for great stress power, and thus it cannot be provided with shutting-on protection.
• With the wind speed exceeding 10 m/s we do not recommend to operate the cover. Risk of damage!
• In case of electrical energy fallout, the mechanism stops in non-defined position.

After renewed electrical energy connection:

– Security pause of 4 seconds runs, it is not allowed to press the button.
– Mechanism can be outside the terminal positions and thus after unlocked button press, the closing cycle starts.

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16.6 MAINTENANCE

Automatic cover ACS is designed so as to minimise the demands on mechanism, cover and shaft cover maintenance. Nevertheless, we recommend conducting the following maintenance, as needed.

16.6.1 COVER MAINTENANCE

1. Regularly control cleanness of cover boards connections. Remove any dirt with whisk broom.

2. Observe all instructions concerning water quality maintenance in your swim spa. Incorrect water maintenance (water balance, pH level, alkalinity level, disinfection level and other) may lead to cover and mechanism damage which is not subject to the warranty.

3. We recommend to include, as part of regular water exchange (for frequency see the Instructions for use and maintenance of swim spa / integra spa), treating the lower cover part (the side above the water surface) with disinfect solution (e.g. SAVO) when draining the water. Spray the solution on the lower part and rinse with water after about 30 minutes of application. The cleaning must be done by at least 2 persons, one securing the second one from the area outside swim spa.

4. Regular cover surface treatment: - Naval Class vinyl /artificial leather/ – apply professional protection products for vinyl /artificial leather/ so as to keep the surface soft and flexible, enduring bad weather and sun shines impacts, for example Cover Treat offered by USSPA.

– Textiles – any impurities can be removed by brushing when dry or using soap water or special product Polstrin special.
– Coated metal – if needed wash with water, do not use any coarse cleaning products so as to prevent any damage of surface coating.

5. Regular treatment of individual rustproof components. Non-rust steel is generally known alloy resistant to rust. Nevertheless, their characteristic can fully change or fully disappear. The non-rust steel can rust as a result of steel contact with unsuitable negative environment (liquid or gas). Rust can completely damage the material. In its substance, corrosion is a phenomenon caused by partial or total damage of passive layer which naturally or artificially covers the steel surface. Protection passive layer damage results in quality loss of the rustproof steel. The following conditions have to be followed to ensure relevant rustproof components appearance and warranty application:

– protect rustproof components against salts, dust and impurities
– keep the water in spa always clean
– free chlorine concentration in the water shall not exceed the value of max. 5 ppm
– water pH must be in the range of 7,2 to 7,8
– prevent contact of rustproof elements with other metals, mainly with iron – otherwise electrical cell will be created and galvanic corrosion may occur
– increased content of chlorine, chloride and chloride ions in water may lead to rustproof elements corrosion
– in case of visible lime sediments on rustproof elements or in case of oxidation, it is necessary to clean it with respective cleanser, rinse it with lukewarm water, dry it and impregnate it with

product for impregnation and polishing of non-rust material (for example Silichrom)
– as for chemical substances dosage into spa: the chemicals shall not be in direct contact with rustproof materials. It is necessary to prevent any soiling of the non-rust materials with the chemicals

6. In case of exterior installation, remove snow and ice in winter from the whole cover boards and mechanism. Check carefully the conditions of cleaning of rustproof mechanism mainly in the places of hinges and other movable parts. Remove the snow with whisk broom; melt the ice using warm water. In case of extreme overload of the cover, the power is equipped with protection and it is not possible to open the cover.

16.6.2 MECHANISM MAINTENANCE

The mechanism is designed as maintenance-free. To ensure safe mechanism operation for the whole life time, it is essential to conduct regular safety checks by specialised USSPA company technician and thus once a year. These checks are conducted free-of-charge during the warranty application. After elapse of the warranty period, the checks are paid as standard servicing works. Records on those regular checks are registered in the Instructions for use, as well as the information on the next recommended check. Check regularly operation-ability of the whole system as for its appearance and focus mainly on smoothness of movable parts operation. During use, you can hear non-standard noises, caused by some metal parts. These causes can be remedied by silicon oil application on selected metal parts. If the non-standard noises are not remedied, contact the USSPA Servicing department.

WARNING
• In case of any uncertainties regarding operation-ability of the whole system, please contact the Servicing department.
• Do not carry out any other operations on the mechanism without consulting the service technician. In case of non-expert handling, the warranty will not apply.

16.7 TECHNICAL ADVICES

PROBLEM	POSSIBLE CAUSE	SOLUTION
The whole system does not work.	– Long-term electrical energy fallout. – As a result of renewed supply of electrical energy, 4 second safety pause is pending. – Too heavy boards.	– Check the power, the back-up power source might have been discharged. – Wait 4 seconds and press the button again, in case of electric fallout the closing cycle will start. – Clean the cover boards.
Cover movement is non-standard.	– Defect of electronic control.	– Call an USSPA authorized partner.
Mechanism during movement emits unusual sounds.	– It is necessary to carry out readjustment and oiling of some movable mechanism parts.	– Call an USSPA authorized partner.

In case of further incurred damages, please call an USSPA authorized partner.

16.8 OVERVIEW OF SELECTED ACS® ALARMS

ACS® alarms are displayed if non-standard situation occurs within a function of the cover.
Each alarm contains a codename and fault description.

CODE	DESCRIPTION	SOLUTION
6000	ACS: Communication with the ACS® control unit cannot be established.	A communication problem with the control unit ACS was detected. The problem can be caused by: ACS control unit is turned off; communication cable is damaged. This failure has no influence on spa functions. Check if the ACS control unit is turned on (in spa technology) and try to restart the spa using the main circuit breaker. If the problem persists, call an USSPA authorized partner.
7000	ACS: Overload in the actuator of the thermocover (open/closed).	Overload in the actuator of the thermocover (open/closed). Call an USSPA authorized partner.
7001	ACS: Overload in the actuator of the thermocover (up/down).	Overload in the actuator of the thermocover (up/down). Call an USSPA authorized partner.
7002	ACS: Overload in the actuator of the shaft 1.	Overload in the actuator of the shaft 1. Call an USSPA authorized partner.
7003	ACS: Overload in the actuator of the shaft 2.	Overload in the actuator of the shaft 2. Call an USSPA authorized partner.
7004	ACS: Overload in the actuator of the display.	Overload in the actuator of the display. Call an USSPA authorized partner.
7005	ACS: Overload in the actuator of the filter.	Overload in the actuator of the filter. Call an USSPA authorized partner.

CODE	DESCRIPTION	SOLUTION
7007	ACS: Thermocover: time for closing was exceeded.	ACS: Thermocover: time for closing was exceeded. Call an USSPA authorized partner.
7008	ACS: Thermocover: time for opening was exceeded.	ACS: Thermocover opening was exceeded. Call an USSPA authorized partner.
7009	ACS: Thermocover: time for moving up was exceeded.	Thermocover: time for moving up was exceeded. Call an USSPA authorized partner.
7010	ACS: Thermocover: time for moving down was exceeded.	Thermocover: time for moving down was exceeded. Call an USSPA authorized partner.
7022	ACS: The boards are together for too long during opening.	The boards are together for too long during opening. Call an USSPA authorized partner.
7023	ACS: The boards are separated for too long during opening.	The boards are separated for too long during opening. Call an USSPA authorized partner.
Another alarm code.		Call an USSPA authorized partner.

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