

#### **VAJDA GROUP s.r.o LOTUS SPAS Series**

It is very important that you gather the following information on your spa and enter it in the blanks provided below. This information can then be used to complete your Warranty Registration by visiting our website at:

http://www.vajdagroup.com/spas and clicking on Warranty Registration on the Customer Service menu

This information will be needed if you ever want to purchase additional items for your spa, or if service is ever required. Be sure to consult with your Dealer to ensure the accuracy of this important information.

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## SAFETY FIRST

Your safety, and the safety of your family and friends, is very important! It is vital to everyone's safety that you read and heed the following safety precautions. Review them as often as necessary to ensure that your enjoyment of your new VAJDA GROUP product is always safe.

#### **IMPORTANT SAFETY INSTRUCTIONS**

#### **READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY**

Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this spa unless they are supervised at all times.



#### SAVE THESE INSTRUCTIONS.

#### • Risk of Accidental Drowning.

- Children are not allowed to use the spa without adult supervision.
- Do not use the spa unless all suction guards are installed to prevent body and hair entrapment.
- •Do not use the spa if the suction heads are damaged. Never replace suction heads by yourselves.
- •Do not use the spa just by yourselves. There should be another person near by.
- Use the spa straps and clip tie downs to secure the cover when not in use. This will help to discourage unsupervised children from entering the spa and keep the spa cover secure in high wind conditions. There is no representation that the cover, clip tie downs, or actual locks will prevent access to the spa.

#### Risk of Electric Shock.

- Do not permit any electrical appliance, such as a light, telephone, radio, television, etc. within 1,5 m of a spa.
- Install the at least 1,5 m, from all metal surfaces.
- Never bring any electrical appliances into or near the spa. Never operate any electrical appliances from inside the spa or when you are wet.

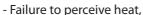
#### • To Reduce the Risk of Injury or Death:

- The water in a spa should never exceed 40° C. Water temperatures between 36° C and 40° C are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes. Recommended temperature is 37° C
- Pregnant or possibly pregnant women should consult a physician before using a spa





- Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperatures to 38° C.
- Before entering a spa, always test the water temperature with your own hand to ensure that is not overheated.
- To avoid injury, be careful when entering or exiting the spa, Wet surfaces can be very slippery.
- Water temperature higher than 38° C may be injurious to your health.
- Prolonged immersion in a spa or hot tub may be injurious to your health.
- Do not use a spa or hot tub immediately following strenuous exercise.
- Long exposures at higher temperatures can cause high body temperature HYPERTHERMIA. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature 37° C. The symptoms of hyperthermia include dizziness, drowsiness, lethargy, and fainting. These effects cause:



- Failure to recognize the need to exit spa,
- Unawareness of impending hazard,
- Fetal damage in pregnant women,
- Physical inability to exit spa,
- Unconsciousness resulting in the danger of drowning.
- The use of alcohol or drugs can greatly increase the risk of fatal hyperthermia in spas.
- Do not use the spa under the influence of alcohol, narcotics, or other drugs. Use of the spa under these conditions may lead to serious consequences.
- People suffering from heart disease, diabetes, high or low blood pressure, obesity, pregnant women, elderly, infants or people with any conditions requiring medical treatment should consult with a physician before using a spa.
- Proper chemical maintenance of spa water is necessary to maintain safe water



### DO AND DO NOT



#### Do

Make sure the spa is connected to RCCB Residual Current Circuit Breaker protected circuit. This RCCB is required by IEC as an European standard and must be installed by licensed electrician. Test the RCCB monthly.



Test the water with your hand before entering the spa to be sure it is comfortable.



Instruct every user how to use the spa properly and inform about the risk of the spa using.

Remember that the wet surface can be slippery. Take care when entering and exiting the spa. Enter only by way of the steps in the spa. Do not step on the spa edges or filter lids.



Use the thermal cover when the spa is not in use, empty or full. Take steps to prevent the intrusion of sand and dirt into the spa.

Maintain proper water chemistry.

Clean the filter cartridge weekly.

#### Don't

Don't use the spa for long periods of time at temperature over 38 ° C. Don't operate the spa without water. Turn the circuit breaker off before emptying the spa and while it is empty.

Don't store chemicals in the spa equipment compartment. Don't open the electrical box. There are no user serviceable parts inside.

Don't stand on the spa cover.

Don't operate the pumps on hi-speed for extended periods of time with the cover on. Extended hi-speed pump operation will cause a slow heat build-up due to water friction, which could trip the spa's hi-limit thermostat.

Don't block or sit on the filter area. Don't allow horseplay or unsupervised use of your spa. Don't allow anyone to tamper or play with any of the safety or suction fittings of your spa.





#### WARNING SIGN

WARNING) Each spa has been provided with a Warning Sign. This sign should be visible to all user. The owner of the spa you is responsible to instruct every user how to use the spa properly and inform about the risk of the spa using.

> THIS MARKING IS TO BE REMOVED ONLY BY THE OWNER AFTER SAFETY SIGN IS INSTALLED. IF YOU HAVE NOT READ THIS WARNING SIGN ASK THE DEALER FOR IT.



#### REDUCE THE RISK OF ELECTRODUCTION

1. NEVER PLACE AN ELECTRIC APPLIANCE WITHIN 1.5 METER OF SPA.

#### REDUCE THE RISK OF CHILD DROWNING

- 1. SUPERVISE CHILDREN AT ALL TIMES.
- 2. NEVER LET THE CHILD'S HEAD IMMERSE UNDER WATER
- TO PREVENT BODY AND HAIR ENTRAPMENT.
- 3. ATTACH SPA COVER AFTER EACH USE.

#### REDUCE THE RISK OF OVERHEATING

1. CHECK WITH THE DOCTOR BEFORE USE IF PREGNANT, DIABETA

- IN POOR HEALTH OR UNDER MEDICAL CARE.
- 2. EXIT IMMEDIATELY IF UNCOMFORTABLE, DIZZY, OR SLEEPY, SPA HEAT CAN CAUSE HYPERTHERMIA AND UNCONSCIOUSNESS 3. SPA HEAT IN CONJUNCTION WITH ALCOHOL, DRUGS, OR MEDICATION CANCAUSE UNCONSCIOUSNESS.

#### WHEN PREGNANT,

SOAKING IN HOT WATER FOR LONG PERIODS CAN HARM YOUR FETUS. MEASURE WATER BEFORE ENTERING 1. DO NOT ENTER SPA IF WATER IS HOTTER THAT 38°C.

2. DO NOT STAY IN SPA FOR LONGER THAN 10 MINUTES.

THIS MARKING IS TO BE REMOVED ONLY BY THE OWNER AFTER SAFETY SIGN IS INSTALLED.

## WARNING

#### **WILL VOID WARRANTY!!**

- •If you leave the spa on direct sun light when it is packed in plastic foil.
- •If you leave the spa without the water on the open sun.
- •If you fill the spa with the transportation wooden logs On.
- •If the spa is flooded from outside (big storm etc.).
- •If you storage or transport the spa in vertical position.
- •If you drain the spa and leave it outside on the freezing conditions.
- If you turn the spa off on the freezing conditions.
- •If you place and use the spa on uneven or not solid surface.
- •All damages caused by improper Handling, installation, use, service or lack of service will void warranty.
- •If you use the spa with no sufficient water level.
- •If you use improper chemicals or chemicals contain too much chlo-
- •If you use the water that contains too much Iron in combination with a wrong PH level and chemicals.
- •If you turn most of jets off you create big pressure inside the system that can cause some damage.

#### SITE PREPARATION

The Spa Owner is responsible to prepare the proper electrical wiring from Main Power Distribution box to the Spa Controller.

Correct wiring of the electrical service box, RCCB Residual Current Circuit Breaker and accurate cable thickness is essential.

See the appendix for the electrical wiring diagrams.

Spa must be placed above ground, in an area with good drainage and on a level surface that fully contacts the bottom of the spa..

Most spa owners place their spa on a concrete slab. You may also choose to install it on a wood deck or bricks. Spa owner is responsible to assure that spa will be placed on a solid, level and appropriate flat surface or base. Surface must be LEVELED!



Locate your spa so that the equipment is above grade and not subject to flooding. Water should always drain away from the spa. Be aware of flooding areas. Flooded Spa is not a subject of warranty!

If you choose to install your spa on a raised deck or indoors, contact a structural engineer to confirm that the surface will hold a hot tub full filled with water and people. Settlement of your deck or slab may result in damage to the spa, which is not covered by warranty. If you are placing your spa next to an obstacle, such as a fence or wall,

be sure that you place it with the upper control panel facing forward for easy equipment access. The owner is responsible to keep an open area around the spa in case of service.

TO ALLOW THE SPA TO BE REPAIRED IN THE EVENT OF A PROBLEM, YOU MUST ALLOW 1 METER CLEARANCE AT THE EQUIPMENT COMPARTMENT AND 70 CM AROUND THE REST OF THE SPA. FAILURE TO PROVIDE THE REQUIRED SPACE AROUND THE SPA WILL VOID YOUR WARRANTY.



If you install the spa indoors, the surrounding area should be water-proof or water resistant.

Water may be splashed out during normal usage and when entering or exiting the spa.

VAJDA GROUP s.r.o is not responsible for any water damage to any indoor location for any reason.



#### INSTALLATION PROCEDURE



You have to remove all 4 wooden squared logs from the bottom of the spa before you start filling the spa with the water.

WOODEN SQUARED LOGS ARE THERE ONLY FOR TRANSPORTATION PURPOSE. FILLING THE SPA WITH WATER WITH THE WOODEN SOUARED LOGS ON WILL VOID WARRANTY!!





- Place the Spa on the designated location.
- Fill the spa with water from garden hose through the filter inlet until all jets are under the water level. Water level should be all the way to the LED lights that are around the spa.
- While spa is filling with a water, check if there no leakages from pipes, fittings and pumps under the spa shell.
- Add Liquid hardness stabilizer that prevents the build-up of limescale in the spa or the pipe work. We recommend Calcinex Spa from Bayrol. This prevents to avoid limescale in your system that can cause heater or pumps damages. This void the warranty.
- WARNING
  - Open the front panel located under the keypad.
  - Run power cable to the control box.
  - **Connect power cable** to the green terminal inside the control box as indicated on the wiring diagrams.. Check the main power switch before it must be in OFF position. Read the Electrical requirements chapter carefully.
  - Close the controller and front panel.
  - •Turn the main switch On.



#### **ELECTRICAL REQUIREMENTS**

IMPORTANT: When installed in the EU, the electrical wiring of the spa must meet the requirements of the given country. The electrical circuit must be installed by an electrical contractor and approved by a local electrical inspector.

It is the owner's responsibility to acquire necessary permits and to arrange for installation and hook to electrical power up by a licensed electrician.

Correct wiring of the electrical service box, RCCB Residual Current Circuit Breaker and accurate cable thickness is essential.



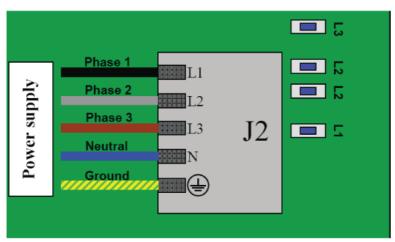




# **3-phase Connection Default setting**

ELECTRA, EURYDICE, CASSIOPEIA, CASSANDRA, APHRODITE

3x 230 with neutral, 50 Hz, 20A Single Pole Circuit Breaker per phase with 4 Pol RCCB Residual Current Circuit Breaker - RCD 4 - 25A. Cable CYKY 5Cz 4mm.

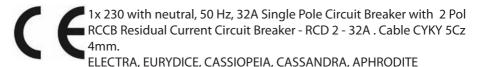




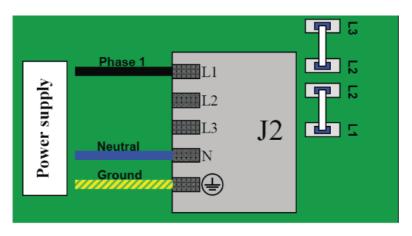
The L1 - L2 and L2 -L3, Jumper MUST be removed.

## Single-phase Connection

Optional (not recommended) ELECTRA, EURYDICE, CASSIOPEIA, CASSANDRA, APHRODITE



#### **Electrical Wiring Diagram**



The L1 - L2 and L2 -L3, Jumper MUST NOT be removed.

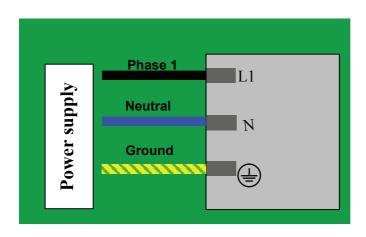


# CARIA, CHARIS, ATHENA, HELIOS Single-phase Connection



1x 230 with neutral, 50 Hz, 16A Single Pole Circuit Breaker with 2 Pol RCCB Residual Current Circuit Breaker - RCD 2 - 16A. Cable CYKY 3Cx 2,5mm.





Vajda Group Spas has been designed and produced by respecting the essential requirements set out by the European Directives n° 73/23  $\approx$  93/68 on Electrical Safety and n° 89/336  $\approx$  92/31  $\approx$  93/68 for Electromagnetic Compatibility.



#### CEI EN 60335-2-60

Safety of household appliances and similar Part 2: Special standards for hydromassaging vats and —SPA" pools



#### SPA SPECIFICATION AND COMPONENTS

#### **Diverter Valve**

Each pump system has one Diverter valve that distribute water to two different areas. Usually if you turn the valve to the right, the Pump area on the right is on. If you turn the valve to the left the, Pump area on the left is on. If the valve is in neutral position, the water is distributed equally to the both sides.

#### **Air Valve**

Each pump system has usually one Air valve. Turn the Air valve to the left. It's open. Now the air is been sucked into the system which makes the massage more powerful. You can see how the water get white. Turn the Air valve to the right, you close the opening and the massage is smoother.

#### **Water Jets**

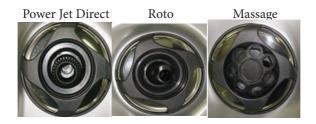
Provide a massage to you body, Each water jet group is controlled by one of the pump through main key pad.

Lotus Spas series include 2 giant water jets and 3 basic sizes that make the massage more efficient.

**Giant Whirlpool Jet and Master Massage Jet** are the most powerful jets.



**Power Jets 5"** are the 12,7 cm big powerful jets. We recognize: Power Jet Direct, Power Jet Roto and Power Jet Massage



**Mini Jet 3", Cluster Jet 2"** are the smaller dynamic jets 7,6 cm and 5cm. We recognize: Mini Jet Direct, Mini Jet Roto and Cluster Jet Direct



You can open or close each jet. To close the Jet Turn the stainless part all the way to the right. To open the Jet turn it to the left.





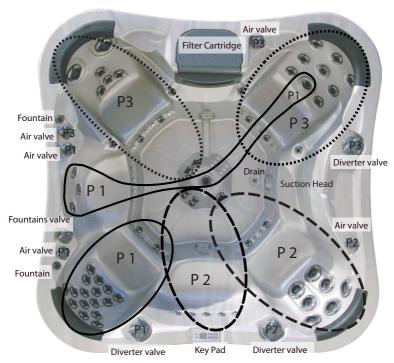
ATTENTION If you turn most of jets off you create big pressure inside the system that can cause some damage that will void the Warranty.



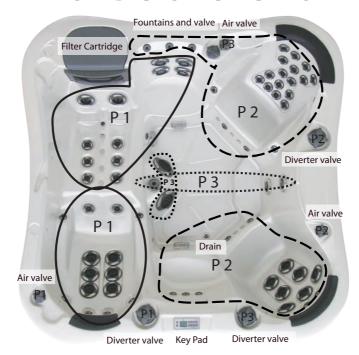
Туре	Size (cm)	Weight (empty)	Max. Load	Vol- ume	Nb. of Jets	Nb. of Pumps CP/2SP/1SP
Eurydice	230x230x92	420	2400	1580	86	1/1/2
Electra	230x230x92	420	2470	1650	93	1/1/2
Cassandra	220x220x91	380	2130	1350	59	1/2/0
Cassiopeia	220x220x91	380	2250	1500	73	1/2/0
Charis	220x220x91	350	2100	1350	35	0/1/0
Carya	220x220x91	350	2250	1500	35	0/1/0
Aphrodite	210x175x76	210	1160	750	61	1/2/0
Athena	210x175x76	190	1140	750	31	0/1/0
Helios	d198x78	140	1140	700	21	0/1/0

CP - Circulation Pump, 2SP - Double Speed, 1SP - Single Speed

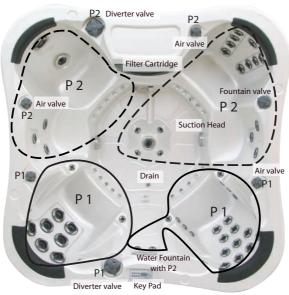
#### **ELECTRA SPECIFICATION**



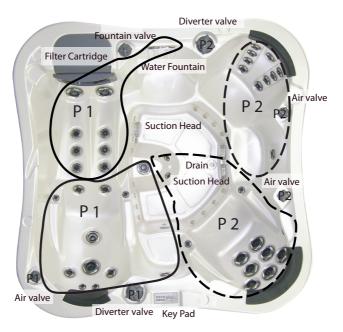
#### **EURYDICE SPECIFICATION**



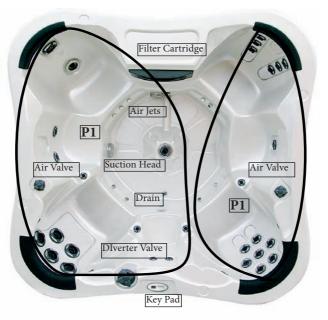
#### **CASSIOPEIA SPECIFICATION**



#### **CASSANDRA SPECIFICATION**



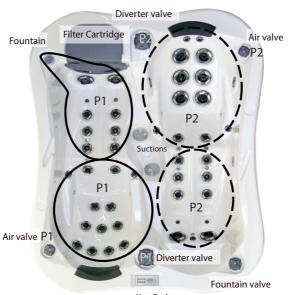
#### **CARIA SPECIFICATION**



#### **CHARIS SPECIFICATION**



#### **APHRODITE SPECIFICATION**



**Key Pad** 

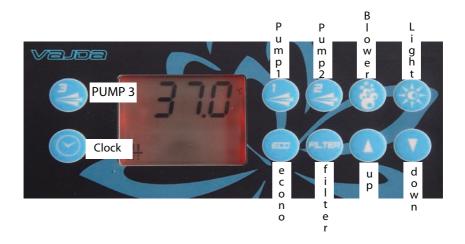
#### ATHENA SPECIFICATION



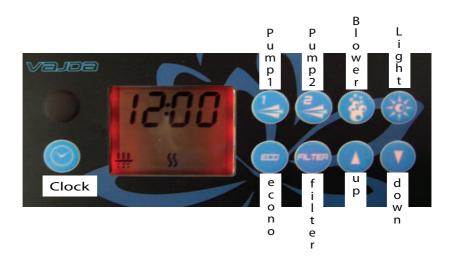
#### **HELIOS SPECIFICATION**



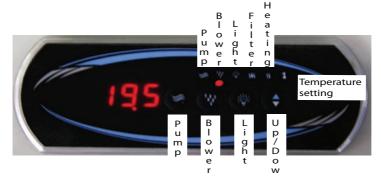
#### **KEY PAD** - Electra, Eurydice



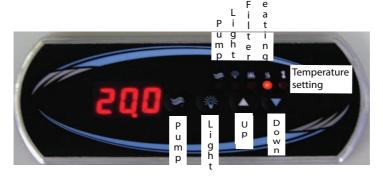
#### **KEY PAD** - Cassandra, Cassiopeia, Aphrodite



#### KEY PAD Charis, Carya



#### KEY PAD - Helios, Athena



#### **SPA FUNCTIONS**

#### PUMP 1

Press P1 key once, to start Pump 1 in Low speed. P1 icon is blinking. Press P1 second time, to start Pump 1 in High speed. P1 Icon is steady. Press P1 third time, to stop Pump 1.





#### PUMP 2

ELECTRA, EURYDICE - Press P2 to start or stop Pump 2.

CASSIOPEIA, CASSANDRA, APHRODITE Press P2 key once, to start Pump 2 in Low speed. P2 icon is blinking. Press P2 second time, to start Pump 2 in High speed. P2 Icon is steady. Press P2 third time to, stop Pump 2.



#### PUMP 3

ELECTRA, EURYDICE only.

Press Pump 3 key to start or stop Pump 3. Note: There is no sigh on the display to detect that Pump 3 is running. Pump 3 is single speed.



#### **BLOWER**

ELECTRA, EURYDICE, CASSIOPEIA, CASSANDRA, APHRODITE, CHARIS, CARIA. Press Blower key to start or stop Blower.





Pumps and blower automatically stop after 20 minutes of continuous running. You can always turn them back on.



#### **LIGHT - CHROMATHERAPY**

Lotus Spas Series has a synchronized LEDs lighting system give you a color of your choice.

Press Light key to turn the Light ON or OFF.





There is 12 Lighting modes: 1. Multi-Color Pulse 2. Basic Color Fade: Red, Green and Blue slow fade 3. Shuffle Dance 4. Spectrum Color Fade 5. Color Strobe 6. Red 7. Green 8. Blue 9. Yellow 10. Indigo 11. Orange 12. Purple Operation:

- a) Light begins in "Multi-Color Pulse" mode.
- b) To shift to the next lighting mode, switch the light off and then on again within 2 seconds.
- c) To start from the first mode, switch the light off and on again within 4-5 seconds. d) The Light has a memory function: when the light is switched off for at least 8 seconds, it will store the last lighting mode into memory. When you get them on next time, it would start from this mode.

#### **CLOCK FUNCTION**

Available only at ELECTRA, EURYDICE, CASSIOPEIA, CASSANDRA, APHRODITE This function is controlled by the user through the key Clock.

The time is visualized on the display; alternatively to the normal temperature or alternatively to the messages of error in cases of detected anomalies.

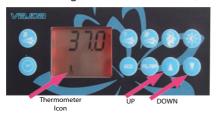


#### Time Setting:

- •Keep on pressing the key Clock for 5 seconds until your display visualizes the time digits in a blinking way;
- •By using the keys Up and Down on the keypad, choose your desired time;
- •Press the key Clock to change the minutes;
- •By using the keys Up and Down, choose your desired minutes;
- •Press for the third time the key Clock so as to store the new settings.

#### **TEMPERATURE SETTING**

Press Up key to rise the temperature or press Down key to lower the temperature. Little thermometer icon in low left corner means the mode for temperature setting. Possible range of values: min. 15°C, max. 40°C.





#### WATER FILTRATION FUNCTION

Filtration cycle starts every 12 hours which can be programmed by users. At the beginning of each cycle Pump1 runs for 1 minute, than Pump 2, Pump 3 (if available), Blower (If available) runs each for 1 minute. The rest of the cycle Circulation pump runs the water through the filters. The Ozone device is active during the whole cycle.

Filtration cycle goes to Stand by mode (Filtration Icon is blinking) if:
A Pump or Blower is activated by a user through keypad
A pump or Blower is On at the time when the filtration cycle is supposed to start.
The Smart Winter Mode function is activated
The Filtering Mode starts again after 40 min. from the end of the last user's function.

**Programming the Filtration Cycle** ELECTRA, EURYDICE, CAS-SIOPEIA, CASSANDRA, APHRODITE



Press "FILTER" to enter the Filtration Cycle menu. **Fd** (Filtration Duration): shows the duration in hours of the function: You can set minimum 0 hrs, (The mode is not active) and max 12hrs (the mode is always active). Press "FILTER" again.



**Fs** (Filtration Start): shows the start up time. You can enter the time you wish the mode to start. **Setting and Start-up of Filtration Cycle** Set the Time with the keys UP/DOWN. Confirm the value with the key FILTER.

## **Programming the Filtration Cycle** CHARIS, CARYA, ATHENA, HELIOS



Press and hold LIGHT until you see **d** (duration) With UP and DOWN set the time duration of the Filtration Cycle. You can set minimum 0 hrs, (The mode is not active) and max 12hrs (the mode is always active). Press LIGHT again.



Parameter **S** (start of Filtration cycle). Using UP and DOWN key you set the delay when the filtration cycle starts. You can set from 0 to 11. If you set **S 6** the cycle starts in 6 hours. Confirm the setting with LIGHT key.

## ACCELERATED FILTERING FUNCTION (BOOST)

The "boost" function allows you to perform a fast filtering cycle after an intensive use of the spa or to speed up the effect of chemicals used to sanitize the water. This function lasts 45 minutes during which the following devices will be activated: All the pumps starts for 1 minute

PUMP 1 and Ozone device run for 45 minutes. This pump is connected to the filter and runs the water through.

Ozone device and pump associated with filtering.

#### **Activating the function**

Press the PUMP 1 until "boo" appears on the display.



The function turns OFF immediately if the user turns a load (Pump, Light etc.) ON.



#### **ECONO - ENERGY SAVING MODE**

Available only at ELECTRA, EURYDICE, CASSIOPEIA, CASSANDRA, APHRODITE.

The function ECONO allows you to benefit from an energy saving mode by keeping the water temperature at 10°C below the value entered by the user. In any case, the minimum permitted temperature for water is 15°C.



When the function is activated, it's automatically repeated every 24 hours

If there is an Icon:





on the display the ECONO mode is activated.

When the user activates a load, the Energy Saving Mode goes to a Stand-by position - the ECONO icon is blinking. It starts up again after 40 minutes from the last load which has been switched off.



#### **Programming the ECONO Function**





Press ECO to enter the Econo Function. **Ed** (ECO Duration): shows the duration in hours of the function:

You can set minimum 0 hrs, (The mode is not active) and max 24hrs (the mode is always active).. Press ECO again.

**Es** (Econo Start): shows the start up time. You can enter the time you wish the mode to start.

Setting and Start-up of Econo mode Set the Time with the keys UP/DOWN. Confirm the value with the key ECO.



There has to be a little flash icon on the display.



#### **LOCKING KEYPAD**

Available only at ELECTRA, EURYDICE, CASSIOPEIA, CASSANDRA, APHRODITE. There are two modes:

**Lock P** (partial locking): it allows you to activate the loads Jet Pumps, Blower, Light. **Lock F** (total locking): no key is enabled.

When pressing one of the locked keys, your display will visualize LockP or LockF.

#### **Setting Partial locking keypad**

Press ECONO key until Lock P is on the display.

#### **Full locking Keypad**

Press ECONO key until LockF is on the display.

If your keypad is partially locked, you cannot activate the total lock without unlocking it.

#### **Unlocking Keypad**

Press ECONO until UnLock appears on the display.



If the power is interrupted the lock mode is cancelled.

#### **DISPLAY ROTATION**

Available only at ELECTRA, EURYDICE, CASSIOPEIA, CASSANDRA, APHRODITE. This function allows you to turn (upside down) the visualization direction of the display so as to let it be readable also from inside. To activate this function: Press LIGHT (about 5 seconds) until the display rotates.

The function is deactivated in the same way. The function can be deactivated also by switching off the spa.

#### STAND BY FUNCTION

This function allows you to lock all the loads (60-min duration) so as to carry out the ordinary maintenance operations without cutting off power to the spa.

The STAND-BY function is activated by keeping on pressing the key "FILTER" for 5

seconds.

Every time that your function is active, your display will visualize alternatively the message "Sby" along with the remaining time in minutes.

Function can be stopped:

When the available time has expired (60 minutes). By keeping the key "FILTER" pressed for 5 seconds. By switching your spa off.

#### **ICE** - Anti-freeze cycle or smart winter mode

Vajda Lotus Spas series can perform certain actions to prevent the water inside pipes from freezing

in extreme environmental conditions. A scheduled pump cycle is activated. If the detected temperature is below 15°C the "ICE" message appears on the display. Note that this is not a water temperature, but the temperature detected by the sensor located on the electronic card

If the detected temperature is between 12°C and 15°C all pumps are activated for one minute each 120 minutes. If the temperature is between 9°C and 12°C each 60 minutes, if it is between 6°C and 9°C each 30 minutes, if it is below 6°C each 15 minutes.

Whenever the anti-freeze cycle starts, it cannot be interrupted, only the blower and the light works.

#### **TROUBLESHOOTING**



**HOH** (Heater Over Heated) – water inside the heater reach 55°C. Heater is OFF. Check if all valves are open.

Take both filter cartridges out.

Reset the system. If the problem persists contact our technical service.

**FLO** - for 95% are the filter cartridges dirty. Take both filter cartridges out and wait if the message appears. If the spa works properly without filters you found the problem. Clean both filter Cartridges an put them back.

Check the water level. If it doesn't reach the LED line fill it Up.

There can be an air in the system. Turn the Spa Off and back On two or three times. This will push the air out.

Reset the system. If the problem persists contact our technical service.

**Ho** – Do not enter into the Spa. Pumps and Blower are not running. Temperature of the water inside the spa reached 44 °C. If the water cool down it disappears. Check the temperature by external thermometer. Reset the system.

If the problem persists contact our technical service.

#### **rPF** – (regulation probe fault)

Check the temperature by external thermometer. Reset the system. If the problem persists contact our technical service.

#### **HPF** – (HL probe fault)

Turn the spa Off. Wait for half an hour. Turn the spa back On. If the problem persists contact our technical service.

#### Er1, Er2, Er3

Reset the system.

If the problem persists contact our technical service.

#### Heater is not working

If there is any Error message on the display the heater is automatically in stand by mode. Read the Error messages part above.

Check if the ECONO mode is not On. There is a little flash icon on the

display. Press ECONO key. Set Parameter Ed to 0 and confirm. See the Econo-Energy Mode chapter for more info. ??? If the problem persists contact our technical service.



#### There is nothing on the display.

No key responds, nothing work. Check if the breaker and RCCB Residual Current Circuit Breaker are On. . Only an electrician can open the Yellow Control box. Check the voltage on the green terminal. If you are sure that the power is in the box. Check the fuse F8 that is located right from the transformer. If it's broken replace is with 630mA fuse. If the problem persists contact our technical service.

#### **OTHER MESSAGES**

**ICE** see the ICE Anti-freeze cycle chapter page ???

#### **BEFORE CALLING TECHNICAL SERVIS**

Take Filter all Filter Cartridges Out. Turn the Spa OFF wait for a while and turn it back On.

Measure the water with external thermometer, if available..

Have the Spa serial number ready.

Write down history of the problem. (When it appeared for the first time, have you had this problem before, ...)

Be ready to answer questions to our technician.

This helps to find the best and fastest solutions.





WARNING

Water in the spa have to be properly sanitized and treated with a suitable water chemicals. FOR THE WATER CARE USE THE CHEMICAL RECOMMENDED FOR THE USE IN SPAS ONLY!!! DO NOT USE CHEMICALS FOR SWIMMING POOLS, DO NOT USE CHLORINE TABLETS DIRECTLY TO THE WATER WITHOUT DISPENSER!!! It can cause the damages which are not under the warranty!!! Read carefully all these instructions!

Using improper chemicals or chemicals contain too much chlorine will void warranty.

SPECIALLY HEAD CUSHIONS ARE SENSITIVE TO CHLORINE. IF YOU NEED TO SHOCK THE SPA WITH CHLORINE TAKE THE HEAD CUSHIONS OUT UNTIL THE LEVEL OF CHLORINE IS WITHIN STANDARD SPECIFICATION.

We recommend to use Lotus Fresh a revolutionary water care system.

Ask you dealer for more info or check: http://www.lotus-fresh.com/



With the Lotus Fresh water care concept you will need no further additives in future to keep your water clear and clean.

#### **SPA MAINTENANCE**

Spa Maintenance does not have to take a lot of time. Your best bet is to perform maintenance on a regular schedule, so that you can prevent anything that will slow you down when you want the Spa ready for you.



#### **Maintenance Schedule**

**Each Use:** (about 2 minutes) Open all Jets, put all Diverter Valves to the neutral position, close all air valves. Press and hold PUMP 1 until Accelerated Filtering Function starts. There has to be a boo message on the display.

**Weekly:** (about 15 minutes) Clean and replaced filter cartridges. Clean with the damp clout the spa surface where the water level is. Wipe the spa surface under the head cushions as well. Check water condition, add Chemistry if necessary.

Monthly: (5 minutes) Check the water level and fill the spa up.

**Every 4 months:** Empty and Refill you Spa with fresh water. (If you use Lotus Fresh once a year is enough.

**Every 6 months:** Open the Spa cover. Take the insulation layer out. Clean the inside of the cover with the dilute bleach solution and let it dry.

**Once a year:** During the water refilling, take all the jets down and clean the jet body. Read the Empty and Refill Your Spa chapter.





## FILTER CLEANING RINSE-CLEAN-RINSE-DRY

Nothing is more important for hot tub water quality than your filtering system. A dirty and clogged or worn-out filter will fail its job of trapping contaminants, and put strain on your spa's pump. Clean your filters every week with a garden hose. Once a month you should soaked them overnight in a non-foaming filter cleaning compound. Replace them annually.



#### **Rotate Your Spa Filters**

Use the filter rotation method-- while cleaning your dirty filter, swap it with a clean dry spare. With this system you'll never have to wait to use your spa, and your filters will last longer. Allowing filters to dry completely after cleaning will help destroy any resident microorganisms.

#### **Manual Cleaning**



With a half turn of the filter element, remove it from the spa. Spa filter cartridges should be rinsed every week. Use a garden hose, and apply the water stream at a 45-degree angle, making sure to dislodge all foreign matter by spraying between each pleat. Once a months rinse the filter with the garden hose, carefully brush the dirt out if necessary and soak it in a non-foaming filter cleaning compound. Then rinsed it again and allowed to dry out.





- Never use laundry detergents and household cleaners-- you may have a major foaming problem with your hot tub if you use them.
- $\bullet \ \mbox{Use a product designed for cleaning pleated filter cartridges.}$
- Never use a power-washer or dishwasher to clean filter cartridges.
- Too high water pressure will damage the media. Be gentle if you use a brush.

#### **EMPTY AND REFILL YOUR SPA**

You should refill your spa every 4 month or once a year if you use Lotus Fresh.



- -Turn the spa off
- Empty the spa through the drain valve or if you want to do it faster use immersion pump. Although your spa seems to be empty it's not. There is still water inside the hoses. Use Wet/Dry Vac to suck the water out of all jets. Attached the vacuum hose to the jet and suck the water out. Start from the top. Vacuum out all the dirt from the bottom of the spa.

Take every jet out and vacuum dirt out and clean the each jet body with a damp clout. To take the jet out turn it all the way to the left until it clicks and releases. Use the cleaner made for Spas and Hot Tubs to clean the acrylic surface. Even using a damp clout could be enough.

Insert all jets back and fill the spa. **Don't forget to add Liquid hardness stabilizer every time you fill the spa.** 

#### WINTERIZING YOUR SPA

Improperly winterizing your spa could cause extensive damage from water freezing in the piping and equipment.

The purpose of winterizing a spa is to remove virtually every last drop of water from the system so that no freeze damage will occur. Once again, improperly winterizing your spa could cause extensive damage from water freezing in the piping and equipment. If in doubt, please consult with a professional.

The most important tool for winterizing a spa is a good wet/dry shop vac. Once you've drained all the water out of the tub, remove the filter cartridge and clean it as you normally would, then soak it over night in a filter cleaning solution. Rinse the filter thoroughly and let it dry. The filter cartridge, filter canister, and any parts you remove from the spa should be store indoors until you're ready to start up the spa again in the spring.

Remove any and all drain plugs on the pump and heater, then open any unions on the heater, pump(s), and any other unions there may be. Turn the air blower on for about 3 to 5 minutes, then vacuum any water out of the spa.





Place the shop vac hose over each of the pipe fittings (where you disconnected the unions) and draw out as much water as possible. Let the shop vac run. 5 to 10 minutes should surface, but more is better. Apply the vacuum to each jet, one at a time (start with the highest jet and work down to the lowest). Using plastic sheeting, cover all the other jets, and vacuum out all of the water. The vacuum will hold the plastic sheets in place over the jets. Don't let it suck the plastic into the piping. Now vacuum out the drain fitting(s) at the bottom of the tub. If your spa has a skimmer, cover it's opening with the plastic sheeting. When your done with the drain fittings, vacuum out the skimmer.

Return to the equipment and again place the vacuum over each of the pipe fittings (where you disconnected the unions) and draw out as much water as possible. Let the shop vac run. 5 to 10 minutes should surface, but more is better.

Remove any remaining water from inside the spa with the vacuum then completely dry it with towels.

#### **APPENDIX**

#### **APPENDIX #1.**

#### **FUSE LIST**

Fuse	Size	Load	Phase
F1	2A	Light 12 Vac	
F2	2A	Ozone	L2
F3	6.3A	Blower	L2
F4	20 A	Pump 1	L2
F5	5A	Circ. Pump	L2
F6	20 A	Pump 2, 3	L3
F7	6.3A	not used	L2
F8	630mA	12 V	L2

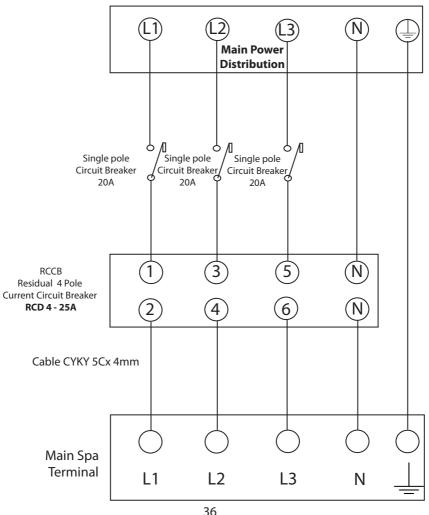
#### **APPENDIX # 2.**

## 3-phase Connection Default setting

ELECTRA, EURYDICE, CASSIOPEIA, CASSANDRA, APHRODITE

3x 230 with neutral, 50 Hz, 20A Single Pole Circuit Breaker per phase with 4 Pol RCCB Residual Current Circuit Breaker - RCD 4 - 25A. Cable CYKY 5Cz 4mm.

#### **Electrical Wiring Diagram**



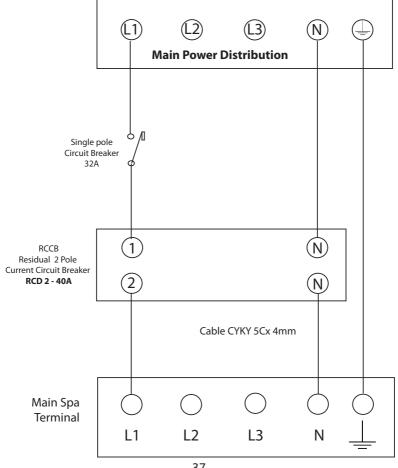
#### **APPENDIX #3.**

## Single-phase Connection

Optional (not recommended) ELECTRA, EURYDICE, CASSIOPEIA, CASSANDRA, APHRODITE

1x 230 with neutral, 50 Hz, 32A Single Pole Circuit Breaker with 2 Pol RCCB Residual Current Circuit Breaker - RCD 2 - 32A . Cable CYKY 5Cz 4mm.

#### **Electrical Wiring Diagram**



#### **APPENDIX #4.**

# CARIA, CHARIS, ATHENA, HELIOS Single-phase Connection

1x 230 with neutral, 50 Hz, 16A Single Pole Circuit Breaker with 2 Pol RCCB Residual Current Circuit Breaker - RCD 2 - 16A. Cable CYKY 3Cx 2,5mm.

