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Function, Form & Fashion



Operation Manual

Relax Series Air Baths

with:

UL Recognized Electronic Control

Integral Heater

Ozone™ Disinfection

110V/60Hz, US, Canada, Central America, Carribean, Japan

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Important! Save these instructions!



WARNING



WARNING: When using electrical products, basic precautions should always be followed, including the following:



DANGER: Risk of electric shock. Connect only to a circuit protected by a Ground-Fault Circuit-Interrupter (GFCI) or Earth-Leakage Circuit-Breaker (ELCB).



WARNING: Risk of electric shock. A licensed electrician should make all electrical connections.



WARNING: Risk of electric shock. Disconnect power before servicing.



WARNING: Risk of injury or property damage. Please read all instructions thoroughly before beginning installation, including the following requirements.

NOTICE: Follow all local plumbing and electrical codes.
Install to permit access for servicing.

A green with yellow stripe lead wire is provided within the wiring compartment. To reduce the risk of electrical shock, connect this wire to the grounding terminal of your electric service or supply panel with copper wire equivalent in size to the circuit conductor supplying this equipment.

A pressure wire connector is provided on the exterior of the pump or control within this unit to permit connection of a bonding conductor between this unit and all other exposed metal in the vicinity, as needed to comply with local requirements.

Grounding is mandatory. The unit must be installed by a qualified service representative, and grounded.

Building materials and wiring should be routed away from the pump body and other heat-producing components of the unit.

Important Product Information Product Notices

WARNING: Unauthorized modification may cause unsafe operation and poor performance of the bath. Do not relocate the pump, or make other modifications to the circulating system, as this could adversely affect the performance and safe operation of your bath. Aquatica Plumbing Group Inc. shall not be liable under its warranty or otherwise for personal injury or damage caused by any such unauthorized modification.

Product Inspection

Carefully unpack the product and inspect the unit for damage. Return the unit to the carton during construction to prevent damage.

Factory-Assembled Features

Factory installed components include components like pump, blower, level sensors, in-line heater, submerged chromatherapy lights, keypad and diverter. The pump and piping are factory-assembled.

Connections and Service Access

NOTICE: For built-in and corner bathtubs provide unrestricted service access to the pump, heater and control box. Provide unrestricted service access to the pump, blower, in-line heater, adjustable feet, and control box. For built-in bathtubs you must construct an access panel to provide sufficient clearance for servicing the pump, in-line heater, and control box. The access panel must be located immediately next to the pump and in-line heater. Study the roughing-in information.

Electrical Requirements

The installation must have one (1) Class A Ground-Fault Circuit-Interrupters (GFCI's) or Earth-Leakage Circuit-Breakers (ELCB's). The GFCI/ELCB protects against line-to-ground shock hazard.

Use a 110V, 20A, 50/60 Hz dedicated service to wire the control system.

An equipment grounding terminal is provided. To reduce the risk of electrical shock, this terminal must be connected to the grounding means provided in the electrical supply panel with a conductor equivalent in size to the circuit conductors supplying this equipment.

Install this unit in accordance with the Canadian Electric code, Part I.

Your physiological response to hot water is subjective and depends on your age, health, and medical history. If you don't know your tolerance to hot water, or if you get a headache, or become dizzy or nauseous when using your hot tub, get out and cool off immediately.



WARNING

1. Children should not use spas or hot tubs without adult supervision.
2. Do not use spas or hot tubs unless all suction guards are installed to prevent body and hair entrapment.
3. People using medications and/or having any adverse medical history should consult a physician before using a spa or hot tub.
4. People with infectious diseases should not use a spa or hot tub.
5. To avoid injury, exercise care when entering or exiting the spa or hot tub.
6. Do not use drugs or alcohol before or during the use of a spa or hot tub, to avoid unconsciousness and possible drowning.
7. Pregnant or possible pregnant women should consult a physician before using a spa or hot tub.
8. Water temperature in excess of 38°C (100°F) may be injurious to your health.
9. Before entering the spa or hot tub, measure the water temperature with an accurate thermometer.
10. Do not use a spa or a hot tub immediately following strenuous exercise.
11. Prolonged immersion in a spa or hot tub may be injurious to your health.
12. Children should not enter a hot tub where the water temperature exceeds body temperature (37°C / 98.6°F).
13. Do not allow children to submerge their head under water.
14. Never operate the hot tub pump at high speed without having all suction and return lines open.
15. Always keep the hardcover installed and locked when the hot tub is not in use.
16. Test the GFCI (ground fault circuit interrupter) monthly.
17. Post emergency phone numbers for police, fire department, and ambulance at the nearest phone.
18. To reduce the risk of injury

The water in a spa should never exceed 40°C (104°F). Water temperatures between 38°C (100°F) and 40°C (104°F) are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.

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 (100°F).

Before entering a spa, the user shall measure the water temperature since the tolerance for water temperature-regulating devices varies.

The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness, with the possibility of drowning.

Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems or diabetes should consult a physician before using a spa.

Persons using medication should consult a physician before using a spa since some medication may induce drowsiness while other medication may effect heart rate, blood pressure and circulation.

Your physiological response to hot water is subjective and depends on your age, health, and medical history. If you don't know your tolerance to hot water, or if you get a headache, or become dizzy or nauseous when using your hot tub, get out and cool off immediately.



CAUTION



DANGER

Risk of accidental drowning. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children can't use the spa unless they are supervised at all times.

Risk of injury. The suction fittings in this spa are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure that the flow rates are compatible. Never operate the spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.

Risk of electric shock. Install at least 1.5m (5ft) from all metal surfaces. as an alternative, a spa or tub may be installed within 1.5m (5ft) of metal surfaces if each metal surface is permanently connected by a minimum 8 AWG (8.4 mm²) solid copper conductor to the wire connector on the terminal bus bar that is provided for this purpose.

HYPERTHERMIA

Since your hot tub can be set to reach temperatures of 40°C (104° F), users should be aware that extended submersion in water that exceeds normal body temperature can lead to hyperthermia.

The causes, symptoms and effects of hyperthermia may be described as follows:

Hyperthermia occurs when the internal temperature of the body reaches several degrees above the normal body temperature of 37°C (98.6°F). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body.

The effects of hyperthermia include:

- Unawareness of impending hazard
- Failure to perceive heat
- Failure to recognize the need to exit the hot tub
- Physical inability to exit the hot tub
- Fetal damage in pregnant woman
- Unconsciousness resulting in the danger of drowning

If you sense any of the symptoms of hyperthermia, safely exit the hot tub immediately.



WARNING

The use of alcohol, drugs or medication can significantly increase the risk of fatal hyperthermia.

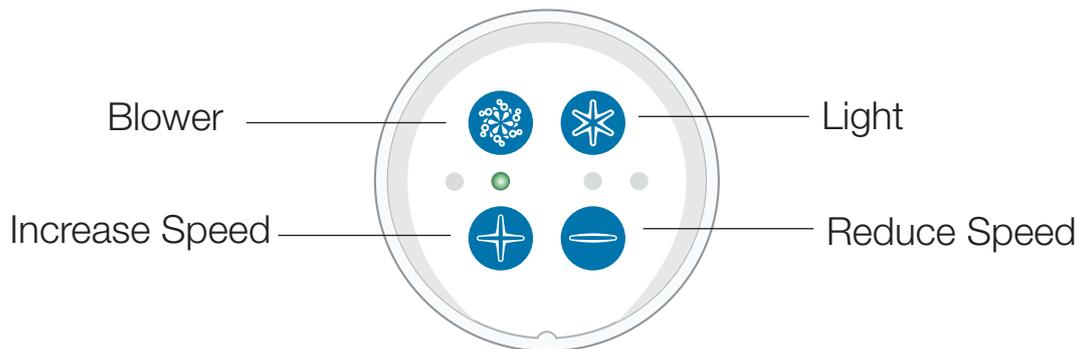
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IMPORTANT: These operating instructions are to be provided to the end user. All printed material should be read thoroughly, prior to using the product.

OPERATION OF SOLID STATE ELECTRONIC KEYPAD

4-BUTTON KEYPAD FUNCTION



POWERING UP

Each time the blower is electrically connected or manually reset, it will automatically start a 20 second self-diagnostic check, and become temporarily inoperative.

The keypad will enter the “Armed-Sleep Mode” and become fully operational, after the keypad lights have stopped flashing.

***Note:** blowers are electrically connected at all times, therefore, a self-diagnostic check will only repeat when power is interrupted, or after a manual System Reset.

If the self-diagnostic check fails, the keypad will constantly display flashing red lights. Refer to the trouble - shooting section of this manual if this condition persists.

ARMED-SLEEP MODE

The keypad control remains operational at all times, however, it will enter a “Sleep Mode” by having no LED light display when the bath is not in use.

BLOWER OPERATION

The blower can be operated on/off at anytime by pressing the  button, regardless of the water level. A green LED light on the keypad will confirm the start of the 30 minute session timer.

30 MINUTE SESSION TIMERS

The system is equipped with a 30 minute session timer, to prevent unattended or unwanted operation.

After 30 minutes of operation, both the interior light and blower will turn off automatically. This timer activates at all blower speeds, and massage modes.

*If the blower or light is turned off during a 30 minute timed session, you have 5 seconds to reactivate that current session, or the system timer will default back to 30 minutes.



BLOWER SPEED CONTROL

When the blower is operating, you can control the massage levels by pressing and holding the  or  buttons on the keypad, to increase or decrease the motor speed, and air volume.

These buttons become inoperative during Pulse and Wave Massage modes

PULSE MASSAGE MODE

(Begin with the blower off) Press the blower  button twice to begin the Pulse Massage Mode.

The motor will continuously alternate air volume from high to low, in single large steps, providing a unique pulsing effect for a full 30 minute timed session.

WAVE MASSAGE MODE

(Begin with the blower off) Press the blower  button three times to begin the Wave Massage Mode.

The motor will slowly change air volume from high to low at a tranquil 12 second pace, providing a unique wave massage effect for the full 30 minute timed session.

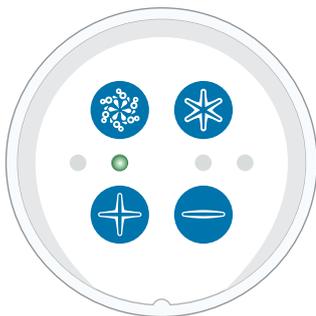
MOOD SETTING STRING LED LIGHTS

If an interior light has been installed, then on/off operation is available at anytime by pressing the light  button, regardless of water level.

A constant green light on the keypad will confirm this command during light operation. The light is also equipped with a 30 minute session timer to prevent unattended or unwanted operation.

The on-board controller delivers an array of preprogrammed light shows that include color washes, randomly changing colors, color cross fades, and fixed colors from one show to the next. Turn the light button OFF and then ON again in 1 second or less, to go to the next light show.

LED DEFINITION



- | | | | | |
|---|---|---|---|---|
|  |  |  |  | Session Timer On
Tells you a device button has been pressed and a Session Timer is running. |
|  |  |  |  | Water Level Detected
Tells you there is still water in the tub. (Sensor required.) |
|  |  |  |  | Error
Tells you that your system needs servicing.
(See System Error Detection.) |

LED LIGHT FOR WATER LEVEL DETECTION

When the bath is full, a “solid” green light will remain on the keypad.

When the bath water is removed, the detection light will “flash” every few seconds, confirming a 30 minute countdown to the start of a 2-minute **Drying Cycle**.

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OPERATION OF SOLID STATE ELECTRONIC KEYPAD

DRYING CYCLE

A 2-minute **Drying Cycle** has been incorporated for removal of residual water in the blower plumbing. This feature promotes a more sanitary and healthy bathing environment.

The system sensors will not allow a **Dry Cycle** to arm or start when the bath is full of water, and cannot be cancelled or reprogrammed.

A 2-minute **Dry Cycle** will automatically start the blower 30 minutes after one of these conditions:

1. After the bath water has been emptied (even if the blower has not been used).
2. When bath water falls below the sensor level.
3. After a shower, if water or high humidity enters the sensor area.

LED LIGHT FOR ERROR MESSAGES

If a system error occurs to the electronics, a red LED light will continuously flash on the keypad.

A timed on/off pattern reveals a diagnostic error code that should be noted for technical support.

SYSTEM RESET

The electronic system can be completely reset from the keypad for service purposes.

Refer to the troubleshooting section of this guide for reasons to perform a **System Reset**.

To perform a **System Reset**, press and hold both the   buttons simultaneously for up to 20 seconds.

When the LED light begins to flash, the system will automatically start a 20 second self-diagnostic check, and become temporarily inoperative.

The keypad will enter the **Armed-Sleep Mode** and become fully operational again, after the lights have stopped.

HEATED AIR OPTION

The heater incorporated within the blower is self-operating, self-regulating and maintenance free.

The heater has been performance tested, and qualified to last the entire life of your blower.

HEATER OPERATION

Anytime the blower is turned on at any speed, the heater becomes active and helps raise the air supply temperature. If the heater becomes overheated due to insufficient airflow, it will automatically switch off for safety, and become operational once again when cool.



OZONE™ OPTION

The Corona Discharge (CD) ozone generator incorporated within this blower is selfoperating, self-regulating and maintenance free.

The CD ozone generator has been performance tested, and qualified to last the entire life of your blower.

PLUS OZONE™ OPERATION

The Plus Ozone generator turns on and off automatically with the blower, insuring ozone is not being generated without a means of delivery.

When the blower is operating at any speed, it's normal to encounter a "purification" smell, confirming that ozone is being generated and delivered.

The ozone potency has been regulated on this device, and remains non-adjustable for your safety and convenience.

Ozone gas applies an instant effect to water, however, it does not maintain or build a lasting residual. Therefore, ozone becomes ineffective shortly after the blower has been turned off.

Ozone generated by this device is solely intended for the sanitation of water, and inner walls of the delivery piping system by means of direct exposure. The effectiveness and expected benefit of ozone is strictly limited to the time during blower operation.

WARNING

Long periods of operation may cause an unpleasant accumulation of ozone off-gas in small rooms, and a potential health risk to asthma sufferers, persons allergic to ozone, or susceptible to respiratory health problems.

**** DO NOT allow children or unqualified adults to operate this product unattended.**

Always make sure the blower is not operating when unattended.

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TROUBLESHOOTING

BLOWER OR INTERIOR LIGHT WILL NOT WORK

Keypad button is pushed, and the green LED light **is not displayed** on keypad, and nothing works.

1. Check for power supply problems with GFCI breaker, or power outlet.
2. Confirm power supply cord is plugged in outlet, and cord plug is illuminated.
3. Confirm cable is plugged into topside panel, and secured with the retainer clip.
4. Inspect for damaged cords.
5. Perform a **System Reset**.
6. If condition persists, contact your Aquatica dealer or qualified service agent.

KEYPAD BUTTON IS PUSHED, AND A GREEN LED LIGHT IS DISPLAYED ON KEYPAD, AND NOTHING WORKS

1. Interior light bulb can be burned out, missing, or displaced from lens assembly.
2. Blower can be overheated from extended use. Let it cool down for an hour and retry.
3. Potential system fault. Refer to the operations section and attempt **System Reset**.
4. Blower brush life has reached the end of its life cycle requiring replacement.
5. If condition persists, contact your Aquatica dealer or qualified service agent.

KEYPAD LED LIGHTS FLASH RED (failure of self- diagnostic test)

If the red lights continue to flash on the keypad after the 20 seconds self- diagnostic check,

1. Follow the steps in this guide for **System Reset**.
2. Check & see if keypad cable has a loose connection.
3. If the condition persists, contact your Aquatica dealer or qualified service agent.

BLOWER TRIPS BREAKER OR GFCI

If a tripping breaker persists, leave breaker in the “off” position, and call for service.

Breaker trips can be caused by wet motor conditions, electrical connection breach or blower malfunction, and must be inspected and serviced by a qualified service agent.

BLOWER STARTS ON ITS OWN

An automatic 2-minute **Dry Cycle** will start 30 minutes after each condition below.

1. After the bath water has been emptied (even if the blower has not been used).
2. When bath water falls below the sensor level.
3. After a shower, if water or high humidity levels enter the sensor area.

*The **Dry Cycle** cannot be reprogrammed or cancelled. This feature remains a benefit to maintaining a sanitary and healthy bathing environment.

If the blower is activating on its own, and not found to be in a **Dry Cycle**, check that children at play, dripping water, household pets, falling towels, waving shower curtains etc. are not contacting the keypad. If condition persists, contact your Aquatica dealer or service agent. Make note of the LED light(s) displayed on the keypad when blower has activated.



2-MINUTE DRY CYCLE DOES NOT ACTIVATE

1. The **Dry Cycle** will not activate with the bath full of water (confirmed by bath full light on keypad).
2. If the **Dry Cycle** does not arm or start 30 minutes after bath is drained (confirmed by blinking light on keypad) follow instruction for **System Reset**. If problem persists, contact your Aquatica Dealer, or service professional.

2-MINUTE DRY CYCLE ACTIVATES WHEN BATH IS FULL

1. Attempt to correct blower behavior by performing a **System Reset** .
2. **Dry Cycle** wiring cable may have become disconnected or damaged. Inspect the cable on each end for proper attachment to the sensors, and connection pin set located at the rear of the blower. Power blower off before performing inspection and work.
3. If no cable or connection issue was found, and a **System Reset** did not correct the blower behavior, contact your Aquatica Dealer or service professional for inspection and repair.

POOR AIR DELIVERY/PERFORMANCE

1. Debris clogging blower intake filters. Inspect and remove material from intake filters.
2. Plumbing disconnection, or pinched air delivery lines must be inspected and fixed.
3. Stuck safety check valve requiring a service professional.
4. Low voltage power supply requiring a service professional.
5. Insufficient air cavity volume beneath the bath can lead to low performance Confirm with your installer that proper sizing and/or venting recommendations have been followed.

VIBRATION NOISE

1. The blower and plumbing should be firmly secured so it doesn't tap or rattle against other objects. In severe cases, the addition of vibration dampeners is recommended.

SERVICING BLOWER

1. The blower contains no user serviceable parts internally.
2. The blower external intake filters must remain free of debris, and cleaned periodically. Remove the filter screens and clean with water or compressed air until pours are reopened. Make sure the filters are clean and dry before reinstalling.

Reference location of filters on figure #1:

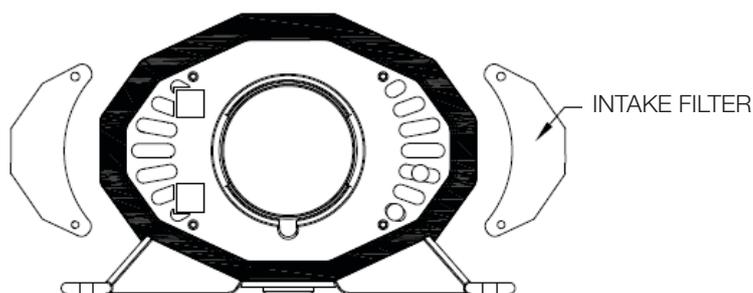


FIG. 1

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