SHOCK alert®

DETECTS ELECTRICAL VOLTAGE GRADIENTS IN WATER

PROTECT YOUR FAMILY FROM DANGEROUS AND POTENTIALLY FATAL ELECTRICAL SHOCK

OWNER'S MANUAL

SHOCK alert®

TABLE OF CONTENTS:

Thank you for purchasing the Shock Alert® electrical voltage detection/warning system. Prior to using your device, read this manual carefully to understand how to properly operate your device. Failure to read this manual in its entirety could result in damage to the Shock Alert device or injury to your person. The serial number for your Shock Alert device may be found inside the battery compartment. Accurately record this number on Page 15 of this Product Manual in order to help us better serve you in the case of a service or warranty inquiry. **DO NOT DISCARD THIS MANUAL.** File your Product Manual with the recorded serial number in a safe place. This Shock Alert device is guaranteed against faulty materials or workmanship for a period of one year from date of purchase. Please see Page 15 for complete warranty information.

INTRODUCTION:

Shock Alert is a device used to detect the presence of electrical voltage gradients in water that may be hazardous to a swimmer or a person coming into contact with that body of water. Electrical voltage could be the result of a number of things, including faulty electrical connection, frayed wire or improperly grounded wire on a light, boat, fountain, pump, dock, etc. Ground fault circuit interrupters (GFCI) and other electric safety equipment can become impaired or fail and may not protect against electricity present in water. When a swimmer is in or enters into electrified water, the electricity present will typically take the path of least electrical resistance- through the swimmer's body. If the voltage differential is sufficiently high, the current flowing through the swimmer's body can electrocute the swimmer and could result in temporary paralysis and the inability to swim. This phenomenon is known as Electric Shock Drowning (ESD). Each year, in the United States there are reported cases of electrical shock in water, several which lead to death or serious injury. Unfortunately many of these incidents are incorrectly recorded as a drowning rather than an Electric Shock Drowning.

Shock Alert has three probes on the base of the device designed to detect this potentially dangerous voltage gradient(s) in water. It provides a visual and audible alert to the existence of potentially hazardous voltage conditions in the body of water. Note that Shock Alert is a sensitive detection device that will detect small voltage gradients in water. Shock Alert can be used in fresh or chlorinated water. It may also be used in salt water pools. Shock Alert will detect voltage gradients in concrete, gunite and vinyl lined pools. **DUE TO THE INSULATING EFFECTS, SHOCK ALERT IS NOT FOR USE IN FIBERGLASS POOLS AND HOT TUBS.**

BEFORE YOU BEGIN:

Immediately upon receiving your Shock Alert device, carefully unpack and check the carton contents to ensure that all parts are present and in good condition. Carefully inspect the device according to Shock Alert device image (Page 4).

Every care is taken in the choice of packing material to ensure that your device will reach you in perfect condition. If the device has been subject to excessive handling in transit, there may be visible external damage to the shipping carton. Notify the shipper immediately and retain packing material for inspection if any parts appear damaged or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that the device must be returned to the factory, it is important that the device be returned in the original factory box. Please see parts list (Page 4) for box contents.

PARTS LIST:

1. Shock Alert Device (1)
2. 12ft. Rope Tether (1)

NOTE: Three (3) AA batteries are required for operation of this device. Batteries are NOT included.

WARNING

Electricity is used to perform many useful functions, but it can also cause personal injuries and property damage. This product has been engineered and manufactured with the highest priority on safety. To ensure your safety and prolong the service life of your Shock Alert please read the following precautions carefully before using the device. Improper use can prevent voltage detection in water.

- If you have any doubts about your ability to properly operate this device, do not attempt use.
- To avoid possible personal injury, carefully read and follow all guidelines as noted in this Product Manual.
- Use Shock Alert only as specified in this manual or the detection provided might be impaired.
- Shock Alert detects only AC voltage. Device is to be used only in water.
- This device is designed to detect electrical voltage gradients in water. It is not designed to detect any other dangerous condition.
- This device is designed to detect electrical voltage gradients in water. It is not designed to, and will not, absorb electrical voltage from the water.
- Shock Alert will NOT detect the presence of voltage in water held in a fiberglass structure (ie: fiberglass pool, fiberglass hot tub, etc.)
- Never swim near or in a marina.
- Keep Shock Alert device out of reach of children. This device is not a toy. Children under the age of sixteen (16) years should not operate this device.
- Use only AA batteries to power the Shock Alert.
- Keep batteries out of reach of children. In the event a battery is swallowed, immediately contact your poison control center, your physician, or the National Battery Ingestion Hotline at (202) 625-3333 as serious injury may occur.

- Assure top of Shock Alert device is fully visible and not covered with debris.
- Assure door of battery compartment is secured before operating Shock Alert (See Getting Started, Page 7-8).
- Assure red and green indicator lights are visible during start-up self-test (See Operation Instructions, Page 9-12).
- Assure you hear audible alarm during start-up self-test.
- If this device ever fails to test properly, replace it immediately. Products under warranty may be returned to the manufacturer for replacement. See Limited Warranty (Page 15) for additional details.
- **Power on all sources of electricity to the pool or dock prior to using Shock Alert** (See Getting Started, Page 7-8).
- Do not work alone when operating device.
- Prior to each use, assure device is not indicating low battery. See Troubleshooting (Page 13) to avoid false readings which could lead to possible electric shock or personal injury.
- Replace the battery as soon as the battery indicator begins to chirp.
- Prior to each use, inspect silver metal probes on bottom of unit to assure they are not contaminated. See Proper Care and Maintenance (Page 14) for cleaning instructions.
- Use only the rope tether provided.
- Do not use the tether for anything other than pulling the Shock Alert device through water.
- Strangulation hazard; practice caution when using tether.
- Avoid dropping the Shock Alert device. Dropping the device, especially on a hard surface, can potentially cause damage.
- If device is dropped on hard surface assure it is still functioning. If device is showing a green LED light, turn off device and re-start to conduct self-test.
- **Assure the device is turned on prior to placing it into the water (See Operation Instructions, Page 9-12).**
- Use caution when placing the device into the water. Use extreme caution if retrieving a device which is indicating voltage in water.
- Shock Alert must be floating in water to operate effectively. Assure nothing is obstructing metal probes on the bottom of device.
- Use caution so you do not come in contact with or fall into the water during the process of operating this device.
- This device will only indicate the presence of electrical voltage gradients at the sensor. **Electrical voltage may be present in other areas of the water.**
- **Measure all accessible water locations to assure no presence of voltage. Due to obstructions or natural flow of electricity in the water, measuring multiple locations is required.**
- Any area of a body of water will need to be measured with the Shock Alert device to assure no voltage is present prior to a swimmer entering that area. The swimmer should not enter areas not previously measured by Shock Alert.
- **Device only indicates when voltage is present in the water at that moment and does NOT tell you if voltage enters the water at a later time when the device is not in the water and not powered on.**
- An individual diving into or swimming below the surface of water may encounter an area of energized water, despite the Shock Alert floating on the surface indicating no voltage present.
- Shock Alert may not detect voltage in highly contaminated water.
- Metal objects such as ladders, railings and dock frames could be electrified. The Shock Alert will NOT detect the presence of voltage on metal objects unless those metal objects are in direct contact with the water.

- Caution should be taken to verify metal structures or objects not in contact with the water are not electrified and are properly grounded and bonded.
- Do not place ear up to grill where audible alert is located.
- Do not look directly at flashing LED lights for a prolonged period of time.
- Do not poke objects into the grill area covering the audible alarm.
- The Shock Alert device is equipped with both visual and audible indicators, however this device is NOT recommended for use by individuals that are sight or hearing impaired.
- Activation of the alarm on this device indicates the presence of electrical voltage, which can kill you. When the alarm sounds, you must not ignore it.
- Do not disregard visual and audible warnings. The Shock Alert measures voltage in the water that may not be felt by the human body. In addition, the Shock Alert device measures voltage that may be some distance away from a swimmer; in this case the effect may not be felt until that person swims in to the electrified area.
- If the alarm on this device sounds while it is in water, DO NOT enter the water. Contact a trained electrical professional immediately to address the problem.
- Do not use Shock Alert if it operates abnormally, as device detection capabilities may be impaired.
- Do not enter water until the instructions outlined in Before You Begin (Page 3), Getting Started (Page 7-8) and Operation Instructions (Page 9-12) have been completed.
- Electrical gradients in water can create risks of electrocution and Electric Shock Drowning if an individual enters water in which a sufficiently strong voltage gradient is present.
- This device does not protect against electrical shock to persons already in the water at the time of voltage detection or at the time voltage is introduced to the body of water.
- Do not use Shock Alert if voltage is known to be greater than 120V AC.
- **Do not leave Shock Alert in water for long periods. Remove device from water after use.**
- Do not disassemble or otherwise attempt to change the form of the Shock Alert device.
- Do not paint the Shock Alert device. This can prevent proper operation.
- Do not place Shock Alert device on or near a heat source.
- Do not attempt to dry the Shock Alert device in a microwave.
- Do not use harsh chemicals or cleaning solvents, insect sprays, or sunscreen on or near this device. Doing so may cause permanent damage.
- This device is not a suitable substitute for frequent electrical inspections by a trained professional.
- Follow all requirements outlined in the National Electrical Code.
- Routine inspection of GFCI devices is recommended.
- This device is not a substitute for regular electrical maintenance.
- Never attempt to introduce voltage into water to test the device operation or for any reason.
- Do not attempt to operate the device while under the influence of alcohol or drugs.
- Do not completely submerge the device for prolonged periods of time.
- Do not use device as a water toy.
- The Shock Alert is not intended for use as a life preserver. Do not use it as a flotation or rescue device.
- Do not use the Shock Alert as a weapon.

GETTING STARTED:

NOTE: To conserve battery life the device must be shut off when not in use.

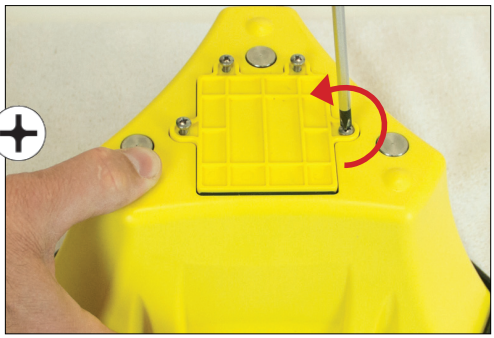
Battery Installation

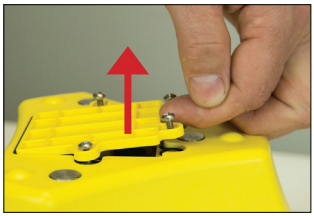
Shock Alert requires three (3) AA batteries (not included).

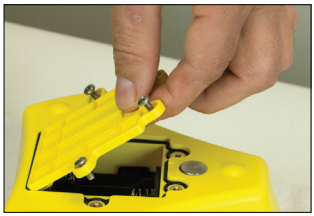
1. Place Shock Alert device on its side.

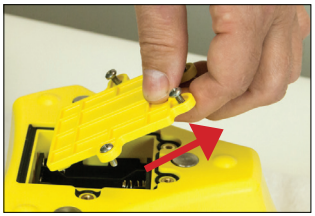
2. Using a cross tip screwdriver, remove the battery cover by turning each screw counterclockwise.

3. Carefully remove battery cover/ screws by pulling forward. Place cover/screws to the side. DO NOT DISCARD COVER AND SCREWS.

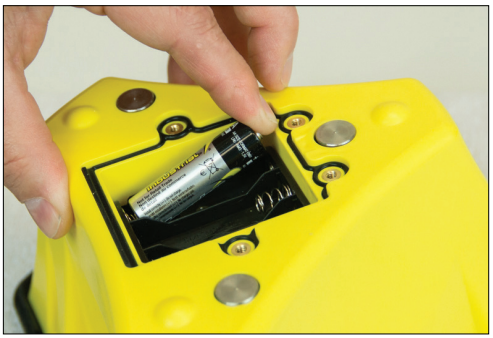






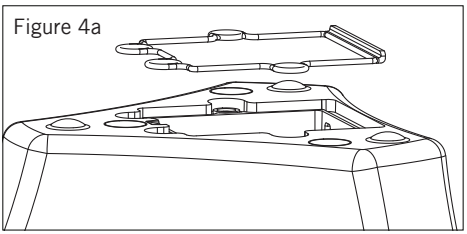


4. Insert three (3) AA batteries following the correct polarity (+/-) shown on the black battery compartment. Follow instructions on the battery packaging.



NOTE: If the black outer seal becomes unseated during battery installation return it to the appropriate position (see figure 4a) prior to replacing battery cover.

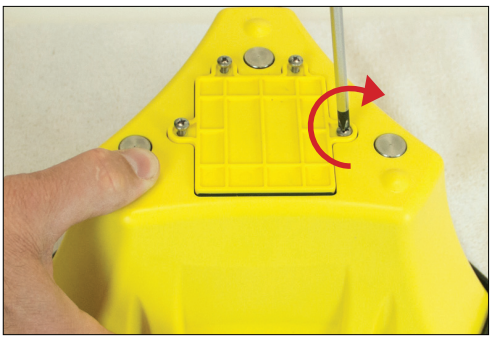
Figure 4a



5. Replace cover by inserting the bottom of the cover into the housing and rotating forward.

6. Insert a screw into each location and tighten until each is snug. Go back to the first screw and turn until tight (approximately another 1/4 turn of the screw).

7. Turn unit upright and continue to Operation Instructions (Page 9-12).



Battery Warning

- Do not ingest the batteries.
- Battery is to be inserted with correct polarity. Failure to insert batteries in the correct polarity as indicated in the battery compartment may result in a failure of the Shock Alert device to function properly.
- Do not mix old and new batteries. Install only new batteries of the same type.
- Exhausted battery is to be removed immediately from device.
- Use only AA batteries.
- Do not take the battery apart, do not heat the battery, do not throw the battery into a fire.
- Keep batteries away from children and pets.
- When not using the device for an extended period of time, remove the batteries and store in a cool dry place at room temperature.

Battery Disposal

Please always dispose of batteries at a suitable recycling point. Batteries should be recycled or disposed of as per provincial and local guidelines.

Attaching Tether

Use the loop on either end of the provided 12' tether to attach the tether to the opening on the Shock Alert device. See images below.

WARNING

Strangulation hazard. Keep tether out of the reach of children. Tether may become tangled around throat and prevent breathing.

Preparing the Area

WARNING

Power on all sources of electricity to the pool or dock prior to using Shock Alert. (See Note Page 10)

It is imperative to turn on any and all power in the area surrounding the pool, dock PRIOR to placing the Shock Alert device in the water.

Turn on and/or plug in all filters, pumps, motors, lights, etc.

OPERATION INSTRUCTIONS:

NOTE - TURNING ON SHOCK ALERT: Be aware that immediately after the Shock Alert device is powered on it will begin to flash and beep. This is called the "self-test" mode. Self-test is assuring the device is functioning and the current batteries have sufficient power to operate the device.

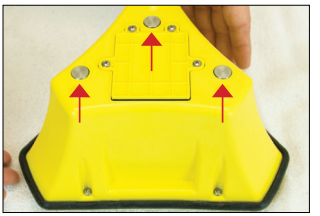
WARNING

Do not turn on Shock Alert while the device is floating in the water. Self-Test must be completed prior to being placed in the water.

Powering On the Device

Hold Shock Alert or place on a flat surface without touching the silver measurement probes on the bottom of the device. Press once on the circular black button located at the top center of the Shock Alert. You will feel a discernible click indicating the device has been powered on. Immediately after powering on, the device will go into self-test mode.

Self-Test Mode



After the Shock Alert device is powered on it will begin to flash and beep. This is called the self-test mode. Self-test is assuring the device is functioning and the current batteries have sufficient voltage to operate the device. **NOTE: If you are holding the device during self-test mode it is recommended that you do not touch the silver probes on the bottom of the unit. There are no safety issues associated with touching the silver probes; however, not touching the probes during self-test will allow the device to perform the test more accurately. Do not place Shock Alert in the water until Self-Test is completed.**

Self-test mode will last for approximately five (5) seconds. During this time the Shock Alert will flash green and red LED lights and will produce an audible beeping sound. Once the self-test is complete the device will display green flashing LED's.

NOTE: If the device does not display flashing LED's following self-check mode the device is not on, the device failed the self-test, or the batteries need to be replaced.

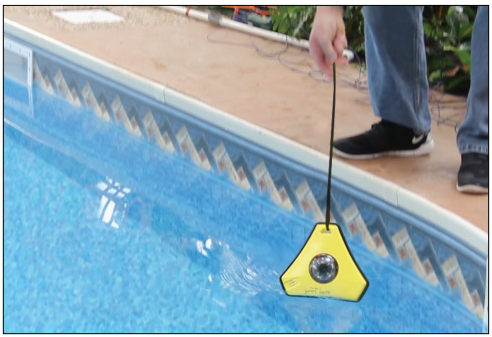
NOTE: If the device flashes a red LED and is producing an audible beeping sound following self-check mode, there may be electrical interference in the area. Using the tether to place the Shock Alert in the water will eliminate this interference and the device will begin to flash green. If the device continues to flash red LED light and is producing an audible beeping sound once placed in the water, the water contains electrical voltage. Refer to Locating Voltage Source (Page 11).

Water Testing

WARNING

Use extreme caution and avoid contact with water when operating the device.

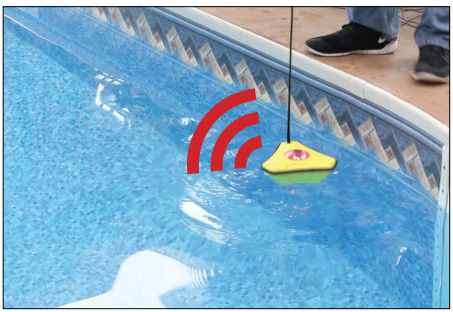
NOTE: Power on all sources of electricity to the pool or dock prior to using Shock Alert.



Using the provided rope tether, lower the Shock Alert into the water. The device will flash a green LED if there is no voltage present around the sensor. NOTE: If the device immediately flashes red and then switches to green, no voltage is present at the device location.

Using the provided rope tether, **slowly pull the Shock Alert around the perimeter of the pool, dock, fountain, etc.** Focus carefully on areas surrounding under water lights, ladders, boat lifts, etc. **Note that Shock Alert will only detect voltage in the area surrounding the probes. It is necessary to test all areas around the pool, dock, etc.** Detection distance will vary due to amount of voltage in the water, conductivity of the water, depth of the water, pool/dock configuration, etc**. Take care to move the device to all areas of the water.** If the device continues to flash green, there is no voltage present.

If the Shock Alert begins to flash red and produce an audible beeping sound as you pull it around the perimeter, you have entered an area where voltage is present in the water. Note that Shock Alert is a sensitive detection device that will detect small voltage gradients in water. As the voltage gradient in the water increases, the red flashes and beeps will become more frequent. This may provide an aid in locating the voltage source.



What To Do When Shock Alert Detects Voltage

WARNING

Voltage in water is a dangerous and potentially life threatening situation. When the Shock Alert device sounds and flashes red, exercise extreme caution. Do not come in to contact with water or objects near water (ladders, railings, dock frames, lights, etc.).

If the Shock Alert device detects voltage in water, carefully follow the steps outlined below.

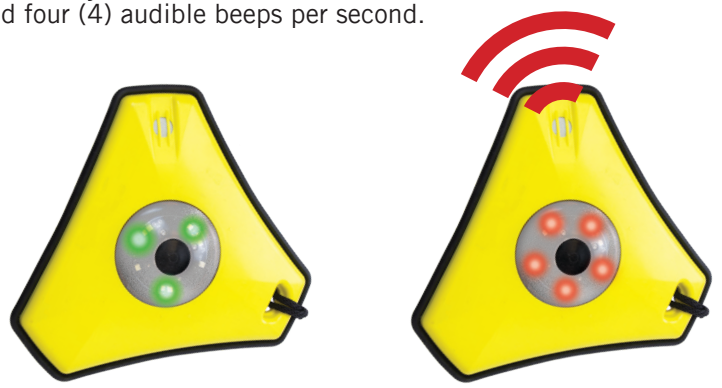
1. Do not panic.
2. Do not come into contact with water or objects in or near water.
3. If possible turn off power to the area. It is important that you are aware of power shut off areas surrounding your pool, dock, marina, etc.
4. If a person or animal is in the water call 911 immediately for emergency assistance. Do not attempt to enter water.
5. Contact a Certified Electrician.

Locating Voltage Source

WARNING

Use extreme caution and avoid contact with water when attempting to locate a voltage source. Contact a Certified Electrician immediately if voltage is detected in water.

Continue to use the rope tether to pull the Shock Alert device around the perimeter of the pool, dock, fountain, etc. As you move closer in proximity to the source of electricity, the number of red flashes and audible beeping sounds will increase until they reach the maximum number of indicators: Four (4) red LED flashes and four (4) audible beeps per second.



Example: You place the Shock Alert device into the body of water and the device flashes green twice every two seconds. This indicates there is no voltage present around the sensor. As you begin to pull the device around the perimeter, the device produces one (1) red flash and one (1) audible beep per second. This indicates you have begun to enter a space where voltage is present. As you continue to pull the device around the perimeter, the red flashes and audible beeps increase to two (2) per second, then to three (3) per second. This indicates that the voltage level in the water is increasing. When you reach four (4) red flashes and four (4) audible beeps per second, you have reached the maximum amount of indicators. In some cases, this method will assist in locating the source of fault in a body of water.

DEVICE INDICATORS:

Visible/Audible Indicator	Battery	Voltage Detection
2 green flashes every 2 seconds	Battery Good	No Voltage Detected
1 green flash per second, 2 beeps per 4 seconds	**Battery Not Good**	No Voltage Detected

Visible/Audible Indicator	Battery	Voltage Detection
1 red flash per second, 1 beep per second	Battery Good	**Level 1 Voltage Detected- 17mV/Foot**
2 red flashes per second, 2 beeps per second	Battery Good	**Level 2 Voltage Detected- 37mV/Foot**
3 red flashes per second, 3 beeps per second	Battery Good	**Level 3 Voltage Detected- 81mV/Foot**
4 red flashes per second, 4 beeps per second	Battery Good	**Level 4 Voltage Detected- 175mV/Foot**
4 red flashes per second, 2 beeps per second	**Battery Not Good**	**Voltage Detected**

UPON COMPLETION OF WATER TESTING:

Press once on circular black button located at the top center of the Shock Alert to turn off the device when not in use. This is to preserve battery life. Do not leave the Shock Alert device in water for extended periods. Remove device from water following use. **If voltage is detected in water, carefully remove Shock Alert from water using the provided tether. Do not reach into water to retrieve device.**

DEVICE SPECIFICATIONS:

Size (HxWxL)	5.25 in x 8.5 in x 9.5 in (13.3 cm x 21.6 cm x 24 cm)
Weight	1.9 lbs (862 grams)
Battery Type	Three (3) AA Batteries (Batteries Not Included)
Max Electricity Withstand in Water	120V AC (Measurement Category II)

TROUBLESHOOTING:

WARNING

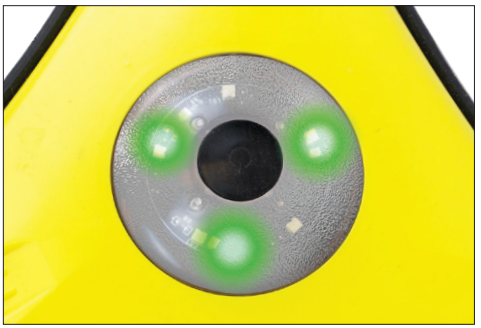
If the Shock Alert device is not functioning properly, DO NOT attempt use. The ability of the device to detect voltage in water may be compromised.

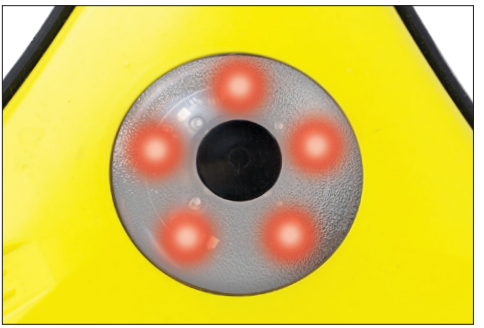
If the Shock Alert device will not turn on, replace all three (3) AA batteries (See Getting Started, Page 7-8).

If the Shock Alert device is not functioning properly, check for low battery signals:

Visible/Audible Indicator	Battery	Voltage Detection
1 green flash per second, 2 beeps per 4 seconds	**Battery Not Good**	No Voltage Detected
4 red flashes per second, 2 beeps per second	**Battery Not Good**	**Voltage Detected**

If device is indicating low battery, replace all three (3) AA batteries (See Getting Started, Page 7-8).





After all three (3) AA batteries have been replaced per the instructions in Getting Started (Page 7-8) and the Shock Alert device continues to not function properly, DO NOT ATTEMPT TO USE DEVICE. DO NOT ATTEMPT TO DISASSEMBLE OR ALTER the device; doing so could result in personal injury, and will void the limited warranty (See Limited Warranty, Page 15). Contact manufacturer immediately at 1-844-667-4625 or customerservice@shockalert.com. Products under warranty may be returned to the manufacturer for replacement. See Limited Warranty (Page 15) for full warranty details.

PROPER CARE AND MAINTENANCE:

Dirt or debris on probes can affect the Shock Alert device's ability to make proper readings. Periodically clean the Shock Alert device and metal probes on the bottom by wiping with a dry cloth or a damp cloth with mild detergent. Do not use harsh chemicals, abrasives or solvents. Using these materials may damage the device and result in improper readings.

When not using the device for an extended period of time, remove the batteries and store in a cool dry place at room temperature.

LIMITED WARRANTY OF MANUFACTURER:

SHOCK ALERT® LLC PRODUCTS ARE WARRANTED AGAINST DEFECTIVE MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF PURCHASE. Any part returned to us within this warranty period showing defects in material or workmanship will be renewed or replaced F.O.B. factory without charge. **WE LIMIT THE DURATION AND REMEDIES OF ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.** This warranty, which is given expressly and in lieu of all other expressed warranties, constitutes the only warranty made by the Company. Warranty applies only to the original purchaser, who buys a new unit through manufacturer or authorized seller, and is not transferable. This limited warranty does not cover any damage due to: (a) transportation; (b) storage; (c) improper use; (d) failure to follow the product instructions or to perform any preventive maintenance; (e) modifications; (f) unauthorized repair; (g) normal wear and tear; or (h) external causes such as accidents, abuse, or other actions or events beyond our reasonable control. **THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.** In order to obtain warranty service, you must call the Company's service department at 1-844-NO-SHOCK (1-844-667-4625) within one year from the date of purchase.

THE LIABILITY OF THE COMPANY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PARTS. IN NO CASE WILL THE COMPANY BE LIABLE FOR DAMAGE OR LOSS INCURRED BECAUSE OF INTERRUPTION OF SERVICE OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, LABOR, OR EXPENSE REQUIRED TO REPAIR OR REPLACE DEFECTIVE UNITS. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

NOTE: WARRANTY IS VOID IF THE TOP COVER OF THE DEVICE HAS BEEN REMOVED.
RECORD DEVICE SERIAL NUMBER:

_____

The serial number for your shock alert device may be found inside the battery compartment.

US Patents: 9,285,396 8,643,360 8,686,713 and additional patents pending.

Distributed By:
Shock Alert® LLC
2977 HWY K, #286
O'Fallon, MO 63368

Phone: 1-844-NO-SHOCK (1-844-667-4625)
Direct Inquiries To: customerservice@shockalert.com

www.shockalert.com

WHAT IS SHOCK ALERT?

Shock Alert® is a device used to detect the presence of electrical voltage gradients in water that may be hazardous to a swimmer or a person coming into contact with that body of water. Electrical voltage could be the result of a number of things, including faulty electrical connection, frayed wire or improperly grounded wire on a light, boat, fountain, pump, dock, etc. Ground fault circuit interrupters (GFCI) and other electric safety equipment can become impaired or fail and may not protect against electricity present in water. When a swimmer is in or enters into electrified water, the electricity present will typically take the path of least electrical resistance - through the swimmer's body. If the voltage differential is sufficiently high, the current flowing through the swimmer's body can electrocute the swimmer and could result in temporary paralysis and the inability to swim.

Shock Alert has three probes on the base of the device designed to detect this potentially dangerous voltage gradient(s) in water. It provides a visual and audible alert to the existence of potentially hazardous voltage conditions in the body of water. Shock Alert can be used in fresh or chlorinated water. It may also be used in salt water pools. Shock Alert will detect voltage gradients in concrete, gunite and vinyl lined pools. **DUE TO THE INSULATING EFFECTS, SHOCK ALERT IS NOT FOR USE IN FIBERGLASS POOLS AND FIBERGLASS HOT TUBS.**

PREVENT ELECTRIC SHOCK DROWNING

1. Upgrade your pool or dock to current electrical code requirements
2. Have pools or docks inspected
3. Leave all the electrical work to the professionals
4. Never swim in or near a marina
5. Use Shock Alert in all bodies of water before entry

MADE IN USA

1-844-NO-SHOCK
www.shockalert.com

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U.S. PAT. #9,285,396, #8,643,360, #8,686,713 and additional patents pending.
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