

**AQUA SHOCK SOLUTIONS  
BACKPACK SHOCKER**

**MODEL B-1-L  
MANUAL**

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**\*\*\*\*\* Important \*\*\*\*\***

**Do not switch the voltage type or amount under load**

**Read and adhere to all safety recommendations**

**Inspect equipment before each use**

**Contact Information:**

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# Warranty Information

**Obligation:** Aqua Shock Solutions warrants only to the original end user that the products and parts on the final bill of sale will be free from defects in material and workmanship for 1 year, this period beginning on product delivery date to the end user. Aqua Shock Solutions is also liable for all shipping expenses within the warranty period

**What May Void the Warranty.** This Limited Warranty shall be null and void in the following circumstances:

1. Modification or repair of any units or parts by the end user or any non-authorized Aqua Shock Solutions personnel.
2. Improper use or blunt trauma by accident.
3. Failure of the end user to provide basic weather protection or evidence of prolonged water exposure.
4. Failure by the end user to follow the return service procedure outlined below.

**Servicing procedure and obligations within the warranty period:**

1. Contact Aqua Shock Solutions to initiate a RMA @ 865-963-6685.
2. Complete an RMA and acquire shipping information.
3. Ship using FedEx standard ground and save receipt for reimbursement.
4. Once units arrive at the service location, the delivery date will be communicated based on the level of service required.
5. Receive serviced units and bill shipping cost to Aqua Shock Solutions.

**Servicing procedure outside the warranty period:**

1. Contact Aqua Shock Solutions to initiate an RMA @ 865-963-6685.
2. Complete a service request and acquire shipping information.
3. A quote for the service and return shipping will be issued at this time.
4. Ship units/parts and RMA.
5. Receive serviced units and bill for repairs and shipping.

# Safety Information

**General Statement:** It is generally known that water and electricity don't mix. Though there are several safety features incorporated into these units, there remains a respectable danger when simple rules are ignored. Proper clothing and daily inspections of the units will also limit the amount of "leak current" felt within the radius of a unit during its use. Below are some safety guidelines. They are not in order of importance. The "user" is defined as the person operating the shocker, and the "crew" is anyone within 10 meters who is assisting the user. "Hot" is defined as electrically active and capable of producing a shock hazard.

1. Clothing/apparel for the user and crew:
  - a: Non-leaking waders, preferably the chest type for deep applications.
  - b: Latex or rubber gloves for any persons within 10 meters of operational units.
  - c: Boots with excellent traction to reduce the chances of falling into "hot" water.
  - d: Dry clothing under the protective layers. This minimizes the overall danger.
2. Use the enunciator at all times to keep the crew alert to the application of current to the water.
3. Never use the poles to move or transfer objects to persons without the clothing specified in #1.
4. Communicate intentions to begin shocking to keep the crew in tune.
5. Immediately stop shocking if the user or any crew comes into raw contact with the water or appears to have lost stability or footing.
6. Crews assisting a user should always be behind the user, such that the current potency is minimized should an accident occur.
7. Electrode pole wires or shocker unit wires with any worn insulators should be taped.
8. Do not touch the Electrode pole ends together during loading.
9. If any leak current is felt, check apparel and dry clothing.
10. Do not assume the Electrode pole "metal" sections are only conductive. The entire pole can become "hot" when in use.
11. Do not allow any portion of the shocker box to come in contact with the water.
12. Assume that when the unit is powered on, the water is "hot."
13. Perform equipment inspections on dry land and with the unit powered off.

# Lithium Battery Safety

If you did not purchase lithium battery packs via an upgrade or stand-alone purchase, disregard this page.

**General Statement:** The choice to use the most recent battery technology comes with an increased responsibility of understanding lithium battery safety. With proper care, your batteries should last for at least 5 years, while providing the attractive weight savings and increased capacity. The following rules and statements should be fully understood and observed.

**\*\*\* Improper usage could result in fire and property loss \*\*\***

1. Do not leave batteries unattended during the charging process unless:
  - a.) The battery and charger are set on a concrete or metal surface
  - b.) There is at least 2 meters of space around and above the battery
  - c.) The ambient temperature is between 10 and 40 C
2. Do not store or operate the batteries in temperatures > 40 C
3. Blunt damage or visual stress should warrant immediate replacement
4. There is no diagnostic process for these batteries since they have internal circuitry that regulates the current flow.
5. The batteries should never feel more than warm to the touch. Should this not be the case, discontinue use and replace.

**Example of Use:** The following procedure is an example for a general application using the unit to sample fish.

1. Inspect the unit and poles for any sign of damage.
2. Dress in accordance with the safety recommendations outlined in the safety section.
3. Lay the shocker on its back to allow for proper battery installation.
4. Open the battery case and install a fully charged battery. The plugs ensure against reverse polarity. Use the battery strap to secure the battery and inspect the connection.
5. Close the battery case and apply the metal c-clip.
6. Test the connection and unit readiness by powering on the unit and observing a voltage of at least 12.6 Volts. If less, see the battery diagnostics flow chart for lead acid packs.
7. Power the unit off.
8. Stand the unit upright and set the voltage mode and amount to the desired level.
9. Mounting the unit first is sometimes easier without the poles attached. Once mounted, have an assistant plug in the poles.
10. Once in the water, power the unit on and test its operation by pressing the button with the poles in the water. You should observe:
  - A: An audible click
  - B: The LED “load” light will illuminate
  - C: The enunciator will sound (If turned on)
11. Begin in accordance to local surveying methodology and crew assistance safety discussed in the safety section.
12. Observe the voltage to gauge the battery life remaining. Keep in mind that the chart is for “no-load” conditions. If you are using lithium batteries this chart is not applicable.
13. The unit’s battery will no longer provide the necessary current when it falls below 12.0 volts under “no-load” conditions.
14. When finished, power off the unit first before removing the battery or unplugging poles.
15. Unplug the poles and store in upright non-kinked position.
16. Remove the battery and place on the charger. Do not let the battery sit for any period of time discharged, as it will reduce its life dramatically.
17. Store the unit in a dry, room-temperature environment.
18. Do not use any chemicals besides soap for cosmetic cleaning.

# Basic Troubleshooting

## Normal Sounds:

1. A hum coming from the main box during all operations
2. A fan noise during “load”
3. A short beep/chirp when powering off/on

## Some general information about the batteries:

The battery system is two 12-volt batteries in parallel. A 40-amp fuse allows a break to occur given a DC short or AC fuse-fail. A blown battery fuse will likely blow again unless the cause is found. Consult the lead acid battery diagnostics flow chart for lead acid packs. If you have lithium packs, they made need replacing.

### Suspect decreased battery performance if:

- a. Battery voltage is low even after a charge.
- b. Battery voltage drops heavily during any “load.”
- c. Fish/aquatics are not being stunned properly given proper settings

## Other Scenarios:

1. The Shocker will not power on.
  - a. Check battery connection in battery box.
  - b. Check battery output using a voltmeter confirming battery plug is “hot.”
2. The shocker will not “load” given button operation.
  - a. Check pole connections or swap with another set of poles.
  - b. If poles are found faulty, perform the diagnostics.
  - c. If multiple sets of poles still won’t “load” the unit, possible service required.
3. The shocker beeps non-stop, not the enunciator.
  - a. Battery is too low in voltage, swap it.
  - b. Deep-water over-current. Change voltage setting.
4. The unit is “loading” properly and the battery voltage is ok but the fish/aquatics are not being stunned. The battery voltage does not change when under load.
  - a. Check for proper voltage setting given conductivity.
  - b. Check for good pole connections.
  - c. Use a voltmeter from pole to pole to verify the voltage output is correct. (This is dangerous and should only be done with full safety apparel and experience with a voltmeter).
  - d. Possible service required.