

# OWNER'S MANUAL

## SONIC SOLUTIONS<sup>®</sup> LLC Algae Control System

120-Volt AC Model:	210-240-Volt AC Model:		24-Volt DC Model:
SS 400	SS 400-EU	SS 400-UK	SS 400-24
SS 500	SS 500-EU	SS 500-UK	SS 500-24
SS 600*	SS 600-EU*	SS 600-UK*	SS 600-24*
		CE	
* For <b>INDUSTRIAL APPLICATIONS ONLY</b>			

This algae control system employs a:



SONIC SOLUTIONS<sup>®</sup> power supply for outdoor use.



Certified to  
NSF/ANSI 61  
Models: SS 400,  
SS 500 and SS 600

EPA# 074929-MA-001

### IMPORTANT SAFETY INSTRUCTIONS

READ, UNDERSTAND, FOLLOW AND SAVE THESE INSTRUCTIONS

Operation, assembly details, parts listing, maintenance guidelines, troubleshooting hints and warranty information

#### WARNING

DO NOT operate device out of the water. This will result in the deforming of transducer head and will void your warranty.



77B West Street • West Hatfield, MA 01088, USA • tel: 001-413-247-9423 • www.sonicsolutionsllc.com

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Date Purchased: _____
Serial Number: _____
Place of Purchase: _____
Address: _____
_____

**SAVE THESE INSTRUCTIONS**

# Introduction

Congratulations. You have purchased an environmentally safe algae control system. Your SonicSolutions® device uses state-of-the-art ultrasonic technology to kill algae without harming other aquatic life such as plants or fish. SonicSolutions® operates 24-hours-a-day killing algae as it tries to grow. Please read and follow all of the instructions in this manual. If you have any questions concerning your SonicSolutions® device, call us at 001-413-247-9423. Thank you.

## Important Safety Information

When installing this electrical equipment, basic safety precautions should always be followed, including the following:

### READ AND FOLLOW ALL INSTRUCTIONS

1. **WARNING**—DO NOT operate device out of the water.
2. **WARNING**—To reduce the risk of injury, DO NOT allow children to play with this device or any of its parts.
3. **WARNING**—Risk of electrical shock. Install only to a Class A GFCI receptacle [EU/UK earthed power supply -check relevant regulations] that has an enclosure that is weatherproof with the attachment plug cap inserted or removed.
4. **WARNING**—DO NOT bury electric cord [EU/UK "lead"]. Locate the cord where it will not be damaged by lawn mowers, hedge clippers, propellers, and other equipment. If a power supply has to run underground to a pond or lake, an armoured cable should be used for this supply and run in a conduit under the ground to minimize the risk of damage by any type of equipment.
5. **WARNING**—To reduce the risk of electric shock, replace damaged cords (leads) immediately. Use a qualified electrician to replace the cords (leads).
6. **WARNING**—DO NOT operate the SonicSolutions® device with a two bladed adapter plug or extension cord (lead). Doing so can result in serious personal injury.
7. **WARNING**—Risk of injury. May cause tissue damage. DO NOT place the transducer against your head or chest while the device is operating.
8. **WARNING**—Risk of electrical shock. Install only to a Class A GFCI receptacle that has an enclosure that is weatherproof with the attachment plug cap inserted or removed.
9. **WARNING**—DO NOT operate device out of the water. This will result in the deforming of transducer head and will void your warranty.

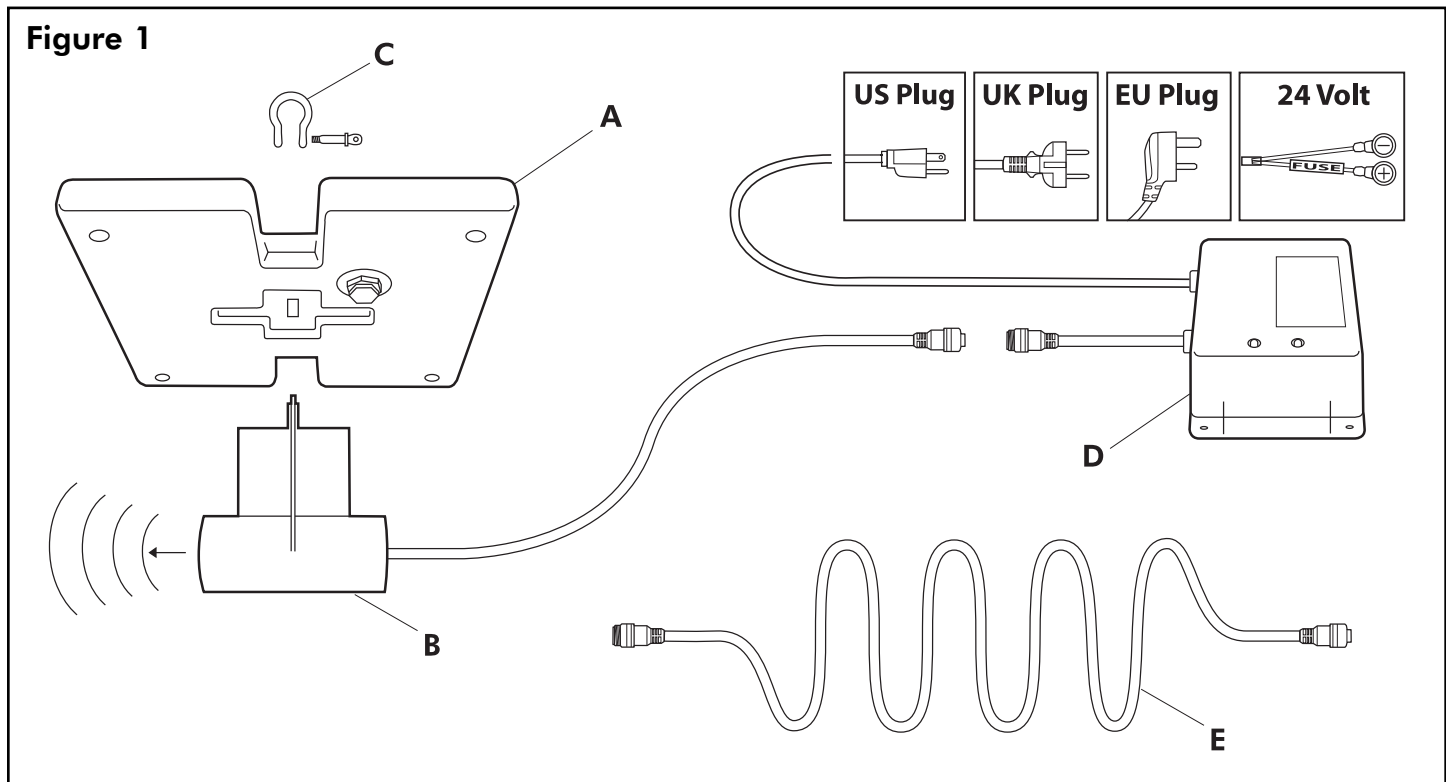
## SAVE THESE INSTRUCTIONS

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# Parts and Assembly

## PARTS

- A. SonicSolutions® Float Unit
- B. SonicSolutions® Transducer Unit (Note direction of ultrasonic waves)
- C. SonicSolutions® Float Shackle
- D. SonicSolutions® Power Control Box
- E. SonicSolutions® 50- or 100-foot (15- or 30-metres) Transducer Power Supply Extension Cord (Lead) (Optional part, purchased separately)



## ASSEMBLY

1. Position the **Float Unit (A)** with the white nut facing down and attach it to the **Transducer Unit (B)** with the **Float Shackle (C)**.
2. **Preconnect Unit:** Attach the cord (lead) from the **Transducer Unit (B)** to the cord (lead) from the **Power Control Box (D)** making sure the waterproof connection is securely fastened before connecting to electrical receptical.
3. If you are using an optional **Transducer Power Supply Extension Cord (Lead) (E)**, attach it to the cord (lead) from the **Power Control Box (D)** and the cord (lead) from the **Transducer Unit (B)** making sure both waterproof connections are securely fastened.

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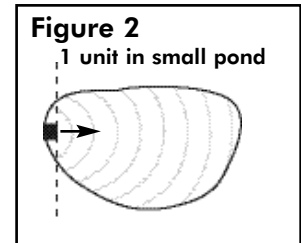
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# Placement and Installation

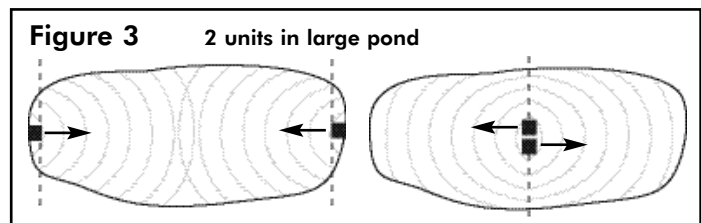
## PLACEMENT

The SonicSolutions® Algae Control device emits ultrasonic waves that “fan out” at approximately 180° from the front of the transducer at an angle of approximately 60° (See Figure 2).

Set up your device to provide the optimal exposure of the ultrasonic waves to the body of water you are treating. Place close to the edge as sonic waves extend only in front of the transducer unit. Large installations and certain shapes of ponds or lakes may require installation of more than one device. Multiple devices can be installed at opposite sides of a lake or pond or attached together pointing in different directions, depending on your site requirements (See Figure 3).



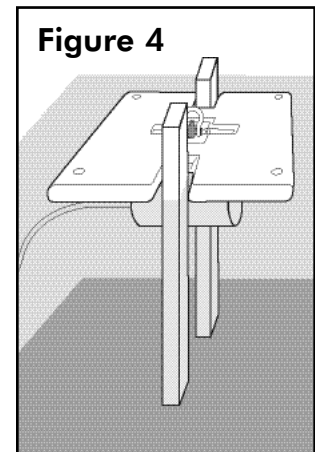
Need help? For FREE placement assistance email us at [info@sonicsolutionsllc.com](mailto:info@sonicsolutionsllc.com). Make sure that your site-plan includes accurate dimensions and shape configurations of your water site.



## INSTALLATION

Installing your SonicSolutions® is easy. **Do not plug in your device until you have completed the following steps:**

1. **ASSEMBLE THE DEVICE:** Following the assembly instructions on Page 2
2. **INSTALLING THE TRANSDUCER:** After you have decided where to install your device, place the Transducer Unit and Float Unit that you just assembled into the water. The Float Unit keeps the Transducer Unit at the proper depth below the surface. Be sure the Transducer Unit is pointing so that the ultrasonic waves are directed toward the body of water. Secure the device in place with ropes attached using the four holes in the corners of the Float Unit and/or the Float Shackle. Or, if the water level is expected to go up and down, you can use the two large slots in the Float Unit (See Figure 4) to secure the device. To do this, you will need two 1" x 3" stakes (the length of which is based on the depth of the water). This arrangement keeps the device pointed in the proper direction while it is free to move up and down with the water level. Make sure that the Transducer Unit is not blocked or obstructed by any solid objects such as pilings, boats, walls, etc. If the ultrasonic waves are blocked by solid objects, there will be a sound shadow in the water and the device will not be effective.
3. **INSTALLING THE POWER CONTROL BOX:** Mount the Power Control Box to any convenient flat surface by using screws through the four mounting holes in the corners of the box. If a flat surface is not available, attach a board to a post, tree, etc. to create one.
4. **TURN ON THE SONICSOLUTIONS® DEVICE:** To turn on the SonicSolutions® device, connect it ONLY to a grounded (earthed) power supply (see warning information page 1). The indicator lights on the Power Control Box should illuminate. If the top light is blinking and the bottom light is on, the device is on transmitting ultrasonic waves.



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# Operations

To operate effectively, the SonicSolutions® algae control system must be on 24-hours-a-day continuously emitting algae killing ultrasonic waves. Depending on how much algae are established in your water site (lake, reservoir, pond, etc.) prior to installation, you will begin to see results from within a few days to three weeks.

As certain algae dies, it may float to the surface and **should be removed**. Certain algae will sink when killed. After your water site is cleared of algae, SonicSolutions® will continue to kill algae as it tries to grow, keeping the water clear of algae.

Occasionally, after major rain events, you may experience algae blooms caused by large amounts of algae being washed into to your water site. Depending on the amount of algae in the bloom, it can take a couple of days to a week for SonicSolutions® to re-clear your water site.

The SonicSolutions® device is directional. For best results, check frequently to be sure it is pointed in the proper direction. Also, we suggest you place the device close to the edge of the body of water so that the least amount of water possible is behind the device.

# Maintenance

Clean the face of the transducer regularly. Failure to keep the face clean will interfere with the ultrasonic waves and result in reduced effectiveness of the device. **Important: Always disconnect power from the device before cleaning or handling it.**

# Troubleshooting

Check the following guide for possible cause of a problem before contacting SonicSolutions®, LLC, for service assistance.

Symptom	Causes	Solution
Both Indicator lights are off	Electric power failure Damaged power cord (lead) Damaged Power Control Box	Test and turn on power to grounded (earthed) power supply. Install only to a Class A GFCI receptacle. Unplug and inspect cord (lead) for damage. Replace if necessary. Contact SonicSolutions®, LLC.
Ultrasonic operation power indicator light is not blinking, but power light indicator is on	Bad connection to transducer unit Damaged transducer or power unit	Unplug, inspect cord (lead) attached to transducer. Clean and reconnect. Contact SonicSolutions®, LLC.
Algae is not dying	Dirt or debris on the face of the transducer may be interfering with the ultrasonic waves	Clean the face of the transducer regularly (read Maintenance section above)

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# Warranty

## Limited Two (2) Year Warranty

SonicSolutions<sup>®</sup>, LLC warrants this product against defects in materials or workmanship for a period of two (2) years after the date of original retail purchase. During this period, SonicSolutions<sup>®</sup>, LLC will repair or replace a defective product or part, at their option, with a new or refurbished product or part without charge to you. You must deliver the entire product to our Authorized Service Center for service. Allow two to four weeks for repair or replacement. You are responsible for all transportation and insurance charges to our service center, except for failures which occur within ninety (90) days of the retail purchase date. If you are requesting warranty service within ninety (90) days of retail purchase, call our service center at 1 866-562-5423 or 1 413-247-9423 (from outside U.S. call 001-413-247-9423) for return shipping authorization. We will be responsible for all transportation and insurance charges to return the product to you throughout the entire two (2) year warranty period.

Return the device to: SonicSolutions<sup>®</sup>, LLC, 77B West Street, West Hatfield, MA 01088 U.S.A.  
Telephone: (413) 247-9423

NOTE: Product must be accompanied with proof of purchase in the form of a copy of the dated purchase receipt with the serial number of the device, and a description of the problem, and a phone number and contact name.

Upon receipt, SonicSolutions<sup>®</sup>, LLC will, at our option, repair or exchange the device for a new or refurbished device.

The above warranty is subject to the following conditions:

1. You must retain your bill of sale.
2. All warranty servicing of this product must be made by our Authorized Service Center.
3. U.S.A. warranty is effective only if product is purchased through an Authorized Dealer.
4. Warranty extends only to defects in materials or workmanship as limited above and does not extend to any product parts which have been lost or discarded by you; or to damage to products or parts caused by misuse, accident, damage caused by Acts of God, such as lightning; or fluctuations in electric power, improper installation, improper maintenance or use in violation of instruction furnished by us; or on devices on which repairs have been attempted by unauthorized person(s); or to devices that have been altered or modified without the expressed authorization of SonicSolutions<sup>®</sup>, LLC; or to damage to products or parts thereof, which have had the serial number removed, defaced, altered, or rendered illegible.
5. Repairs made under warranty do not extend the warranty period on the device beyond the original two (2) year warranty.
6. DO NOT operate device out of the water. This will result in the deforming of transducer head and will void your warranty.

All warranties implied by state law, including the implied warranties of merchantability and fitness for a particular purpose, are expressly limited to the duration of the limited warranties set forth above. With the exception of any warranties implied by state law as hereby limited, the foregoing warranty is exclusive and in lieu of all other warranties, guarantees, agreements and similar obligations of manufacturer or seller with respect to the repair or replacement of any parts. In no event shall SonicSolutions<sup>®</sup>, LLC be liable for consequential or incidental damages.

No person, agent, distributor, dealer or company is authorized to change, modify or extend the terms of this warranty in any manner whatsoever. The time within which an action must be commenced to enforce any obligation of SonicSolutions<sup>®</sup>, LLC arising under the warranty or under any statute, or law of the United States or any state thereof, is hereby limited to ninety (90) days from the date you discover or should have discovered, the defect. This limitation does not apply to implied warranties arising under U.S. state law or (outside U.S.) under law.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state (or country to country). Some states and countries do not allow limitation on how long an implied warranty lasts, when an action may be brought, or the exclusion or limitation of incidental or consequential damages, so the above provisions may not apply to you.

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## TECHNICAL SPECIFICATIONS EPA Registration #074929-MA-001

Models	Power Input		UL Approved Power Supply	NSF Certification	Range
SS 400 -US, -EU, -UK	US 105-125V AC, 50/60 Hz, 0.4 Amps	EU/UK 210-250V AC, 50/60 Hz, 0.2 Amps	E249834	NSF/ANSI 61	350 ft/108 m
SS 400-24*	US 24V DC, 0.3 Amps	—	—	NSF/ANSI 61	350 ft/108 m
SS 500 -US, -EU, -UK	US 105-125V AC, 50/60 Hz, 0.5 Amps	EU/UK 210-250V AC, 50/60 Hz, 0.25 Amps	E249834	NSF/ANSI 61	500 ft/154 m
SS 500-24*	US 24V DC, 0.3 Amps	—	—	NSF/ANSI 61	500 ft/154 m
SS 600 -US, -EU, -UK	US 105-125V AC, 50/60 Hz, 0.6 Amps	EU/UK 210-250V AC, 50/60 Hz, 0.3 Amps	E249834	NSF/ANSI 61	600 ft/182 m
SS 600-24*	US 24V DC, 0.7 Amps	—	—	NSF/ANSI 61	600 ft/182 m

\*24 volt units are compatible with any 24 volt DC power source: **1)** Battery (require a minimum of two 105 deep cycle 12V batteries wired in series)  
**2)** Irrigation system **3)** Solar Power System, which includes two batteries, may be purchased separately from SonicSolutions)

# Contact Information



77B West Street • West Hatfield, MA 01088, USA • tel: 001-413-247-9423 • [www.sonicsolutionsllc.com](http://www.sonicsolutionsllc.com)

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