



MODEL A-650 & A-750

SIVLER IONS RELEASING DEVICE

HELPS PREVENT ALGAE, BACTERIA AND VIRUS
GROWTH IN SWIMMING POOLS
AND SPAS

COMMERCIAL

WARNING: Excessive Amounts of Copper may cause staining of pool and spa surfaces.

A MAXIMUM OF 151,400 L (40,000 GALLONS) OF WATER CAN BE TREATED
WITH THE SILVER WATER SYSTEM

MADE IN CANADA

READ THE LABEL AND THE OPERATING MANUAL BEFORE USING

KEEP OUT OF REACH OF CHILDREN

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INSTALLATION & OPERATION INSTRUCTIONS

PLEASE CAREFULLY READ AND SAVE THESE INSTRUCTIONS

Thank you for purchasing a Silver Water System™. This system was designed to assist in controlling bacteria and algae in pools. This device will augment bactericidal and algicidal activity of primary disinfectants such as chlorine or bromine in swimming pools. A minimum of 0.6 ppm free available chlorine or the equivalent bromine residual must be maintained. Regulated pools must follow provincial or municipal guidelines.

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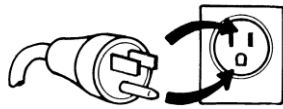
IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed. Please read all instructions before using this system.

- Do not reduce chemical usage until the ion level reaches 0.2-0.4 parts per million (p.p.m.)
- Protect controller from direct elements (rain, sun). A weatherproof outdoor enclosure is recommended.
- To prevent corrosion and extend the longevity of your controller, add lithium grease to the inside of the pink connector before the electrodes are plugged in.
- To reduce the risk of injury, do not permit children to operate this device.
- Follow all aspects of the local and National Electrical Code(s) when installing this device.
- Install or locate this equipment only in accordance with the provided installation instructions.
- This unit is only water resistant when the black plug is plugged in or the electrodes are plugged in to the pink connector. Failure to do this may result in internal water damage.
- Use this equipment only for its intended use as described in this manual.

- This system should be serviced only by the manufacturer. Contact your distributor or the manufacturer for examination, repair or adjustment.
- Do not operate this system if it has a damaged cord or plug.
- Do not immerse cord or plug in water.
- Keep cord away from heated surfaces.

GROUNDING INSTRUCTIONS



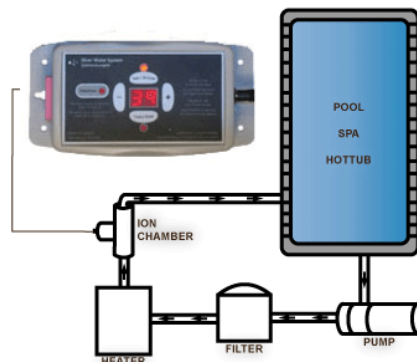
Caution: This system must be grounded while in use to protect the operator from electric shock. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This system is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Electrical Requirements

Check Installation Instructions for proper location for the power supply. The electrical requirements are a 120 or 240 volt 60 Hz, AC only, 15+ amp protected electrical supply. Please check the label on the back of the ionizer for voltage requirement. The dealer cannot accept any liability for damage to the equipment or personal injury resulting from failure to observe the correct electrical connection procedures.

INSTALLATION INTRUCTIONS

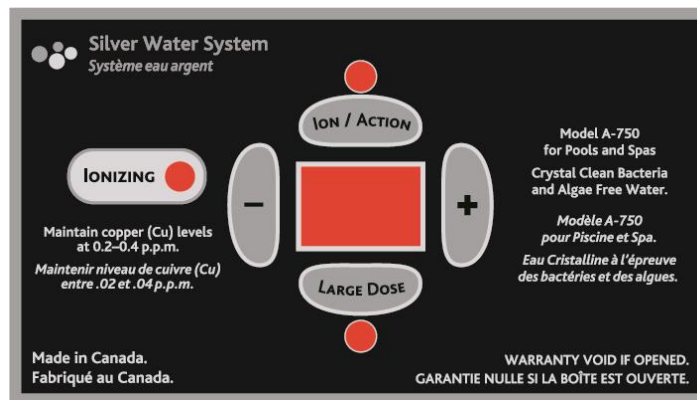
The Silver Water System™ can be easily installed in under 30 minutes. The ion chamber (PVC tee) is usually installed in the pool circulation system after the pump, filter and heater. It is recommended that you install the tee as close to the pool as possible. If that location does not work for some reason you may install anywhere between the pump, filter or heater. Please follow these instructions:



1. **Ensure the total alkalinity is between 80 and 120 ppm. (Most important!)** Also ensure hardness, ph and TDS are within expectable levels (see maintenance section) Excessive amounts of algae or bacteria should be controlled prior to start-up.
1. Unplug the filtering system.
2. Plan the placement of the tee, electrodes, controller and plug ensuring there is adequate room and all parts reach designated power source. A qualified electrician can extend the electrodes line cord if required using standard 18/3 cable.
3. Drain the water pipe in which you have chosen to install the tee.

4. Cut out a 3” section of the horizontal run of pipe where you have chosen to install the tee.
5. Replace this part of the pipe with the tee assembly and fasten with standard PVC glue making sure that the electrodes are vertical in order to allow maximum contact with water and to avoid dirt formation or air pockets around the electrodes.
6. Mount the controller with the (4) screws provided on a suitable surface.
7. Connect cable from electrodes and wire from power supply into the controller.
8. Wrap Teflon tape around the threads on the electrodes six times. Use your hand to turn the electrodes clockwise into the Tee until it is secure. For more even wearing of electrodes: Before installing the electrodes and fastening them to the provided tee, make a small mark on the white PVC cap that indicates the half way point between the two electrode bars. When threading electrodes into the tee, align the mark with the middle of the tee. This procedure will ensure that the water will flow between both bars and even erosion of both electrodes. *(Optional)*
9. Plug into suitable ground fault protected outlet.
10. Do not stop using your current sanitizer until the ion level reaches 0.2 p.p.m. or higher!

THE DIGITAL DISPLAY



Ionizing

When the “ionizing” light is illuminating, it confirms the system is ionizing the water. To illuminate, the electrodes must be fully submersed in water, and at least 80mA of current must be flowing from the electrodes into the water. The more ions that are being released into the water, the faster the light will blink. The light will look solid at maximum dose.

Ion/Action

This user defined setting is the duty cycle, or the number of minutes in each hour the Ionizer is on for. The suggested duty cycle follows in the operating instructions.

Large Dose

Press this button to release the maximum amount of ions for the number of hours you choose. There is a 24 hour default setting. The display will count down the amount of hours left. The system

will return to the previously set ion/action setting when the large dose ends. Use this function at your discretion whenever a large increase in ions is required. You may choose to use this when the ionizer is first installed, upon re-filling, or during large amounts of rain or spillage.

“-” This button will *decrease* the duty cycle time or large dose hours.

“+” This button will *increase* the duty cycle time or large dose hours.

OPERATING INSTRUCTIONS

- 1. Power Up** Plug in controller. The digital display should turn on.
- 2. Program** Press the “Ion/Action” button to set it. Follow the guidelines below based on the gallons you are ionizing.
- 3. Optional** Press the “Large Dose” button to set the hours of large dose. You may set from 1 to 99 hours. 24 hours will activate as the default setting. Follow the guidelines below. When the large dose cycle is finished it will return to the previously set ion duty cycle.

Model A-650 (Max 25,000 gallons)

| Gallons: | Application: | Ion/Action | Large Dose |
|-----------------|--------------|------------|------------|
| 1,500 (or less) | Spas, Ponds | 15 | 6 hours |
| 10,000 | Wading Pools | 45 | 45 hours |
| 25,000 | Small Pools | 95 | 96 hours |

Model A-750 (Max 40,000 gallons)

| Gallons: | Application: | Ion/Action | Large Dose |
|----------|--------------|------------|------------|
| 10,000 | Wading Pools | 20 | 24 hours |
| 20,000 | Small Pools | 50 | 48 hours |
| 40,000 | Large Pools | 95 | 96 hours |

Please note these are only general guidelines. You will need to adjust the levels based on your copper test kit readings. See the maintenance section for more information.

Based on the ion output, it will take approximately 4 days to attain the minimum copper residual of 0.2ppm and 9 days to attain the copper residual of 0.4ppm in the maximum pool volume stated on the label.

MAINTENANCE

2. **Copper (Ion) Tests:** Using a copper test kit, ensure ions are between 0.2 p.p.m. - 0.4 p.p.m.; spa applications can increase ion level up to 0.6 p.p.m. Test the ion level at least once a week until you have found the proper duty cycle for your pool or spa. Increase or decrease the duty cycle as required. Check the expiry date of the Cu test kit as test results may be inaccurate if used after that date.
3. **Electrodes:** Electrodes that deliver current to the water need only be checked once per season and typically last for one year (2,160 “on” hours under normal use conditions). You can purchase additional electrodes from your authorized dealer. To replace your electrodes, simply turn old electrodes counter clockwise to release them from the tee, and swap for a new set of electrodes, turning clock wise to fasten them back into the tee.
4. Occasionally, you will need to **oxidize** the water to help break down excess organic matter (i.e. suntan oils) Health Canada suggests running your ionizer system in conjunction with 0.6 p.p.m. chlorine which is equivalent to ½ chlorine puck once a week. Chlorine pucks are recommended before liquid shock as they are extremely stable and slow releasing. Or, you may prefer a non-chlorine oxidizer such as Spaboss Energize which is pH neutralized (or equivalent brand).
5. **Keep the total alkalinity between 80 and 120 ppm. (Most important!)**
6. **Keep calcium hardness between 200 and 300 ppm.**
7. **Keep total dissolved solids (TDS) between 500 and 2,000 ppm.**
8. Unlike chlorine, ions are pH neutral so they will not change the pH level of the water. But your choice of oxidizer or environmental factors may. You should **ensure the pH level is maintained at 7.2-7.8**. Also ensure the filter is always clean.
9. As with chlorinated pools, you may need to add a **clarifier or flocculent** if you see extremely fine particles in the water which the filter cannot separate. This clarifier makes these fine particles clump together and sink to the bottom when your pump is off. When the particles have settled on the bottom of the pool they are easily removed by vacuuming. This is not a dangerous chemical and it is used in small quantities. Please follow the directions on the product label.

Note: Do Not Use a Stain & Scale Preventer with this system. Stain & Scale Preventer is only ever needed if you have water from a well with high concentrations of metal, lime etc. Although Stain & Scale Preventer is designed to sequester ions of iron and calcium, it will also do so to the copper, zinc and silver. If you have serious staining and scaling problem, it should be treated at the point where the water enters the home so as to protect all the other plumbing and fixtures in the house.

CLEANING & CARE

Electrodes: Cleaning will remove oxidization. Some deposits have a tendency to form on the electrodes depending on the water conditions. Clean the flat face of the electrodes using a smooth file and some water. The surface does not have to be “polished”; simply remove any traces of oxidization and other sediments. Remove the old Teflon tape, use new tape and wrap it around six times.

Exterior Housing: The housing of the ionizer is made from a durable PVC plastic. Clean the outside with a mild soap and water; rinse and dry with a soft cloth. Do not use any type of household or abrasive cleaner.

System Controller: Care should be taken in cleaning the controller. If the controller becomes soiled, wipe the panel with a cloth dampened slightly with water only. Dry with a soft cloth. Do not scrub or use any sort of chemical cleaners.

WARRANTY

The Silver Water System™ carries a full one (1) year limited warranty to be free from all manufacturing defects. This warranty does not include replacement electrodes, which are subject to normal wear and must be replaced periodically. The device will be repaired or replaced within the first fifteen days following a claim. This warranty is in effect starting the date of purchase and is only applicable to those units with an unopened enclosure and a serial number that is in its original unaltered state. The warranty does not cover damages caused by lightning, abuse, inadequate installation of the device, frost or lack of maintenance. Extended warranties are available.

REPLACEMENT PARTS & ACCESSORIES

Description / Part No

Controller (120v or 240v) / A-800 or A-850

Electrodes (Anodes) / A-750E

Copper Test Kit / A-CUI

Copper Test Kit Liquid Refills / A-CUI-R

1 ½” PVC Tee / PLA-85150

2” PVC Tee / PLA-85142

SPECIFICATIONS

Input Voltage: 120 or 240 Volts AC

Input Frequency: 50 to 60 Hertz

Output Voltage: 12 VDC

Output Current: 2 AMP Max

Outside Dimensions: 5” x 3” x 2.5”

Controller: 0-99 variable settings

Flow Rate: 10 to 80 GPM

Tee: Slip x Slip x 1 ½" FIP S40 PVC Tee
Electrode Size: 3" x ½" x 5/16" Each x (2) Bars
Electrode Weight: 8 ounces
Electrode Material: Silver (Ag) 10%, Zinc (Zn) 10% and Copper (Cu) 80%, 99.99% pure
Typical Electrode Life: 2,160 "on" hours
Capacity: Max 25,000 or 40,000 Gallons

FEATURES

Easily Installed Into Your Pool or Spas Circulation System
Micro Controller with Memory Chip (Safeguards in Power Failure)
Large Dose Option for Easy System Start-up
Interactive Digital Display
Electronic Touch Switches
Ultra-Durable IP66 and NEMA 4X Rated Weather Resistant Enclosure
Lock 'n Seal® Weatherproof Connectors
1 ½" PVC Tee (2" Tee Request)
Automatic Polarity Switching Electrodes
99.9% Pure Metals (no trace metals)
Silver (Ag), Zinc (Zn) and Copper (Cu) Electrodes

BENEFITS

Clean, Clear and Natural Water
No Chemical Odour
Doesn't Dry your Skin or Hair
Fewer Chemicals Required
Preserves Equipment and Pool Surfaces
Automated Maintenance
Lower Cost

Need help?

If you have questions about your Silver Water System™ or need help changing the electrodes, email us at info@argeniasystems.com

The Silver Water System™ is non-corrosive and completely safe.

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