



# Installation Guide

## AQ339-Underwater Speaker



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**CAUTION:** THIS SPEAKER CONTAINS AN EXTREMELY POWERFUL MAGNET. DO NOT PLACE IN CLOSE PROXIMITY TO TUBE TV MONITORS, TUBE VIDEO MONITORS, AND MAGNETIC MEDIA.



# IMPORTANT PRODUCT INFORMATION

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- 1. DO NOT DROP SPEAKER-** The speaker can be damaged both internally and externally if dropped. Damage caused by dropping the speaker is not covered under the warranty.
- 2. DO NOT EXPOSE SPEAKER TO HIGH DISTORTION LEVELS-** Exposing the speaker to high levels of distortion may damage the speaker. This type of damage is not covered under the warranty. If the speaker stops playing, it is likely that the built-in protection circuit has activated. In the event this happens, turn the amplifier off for approximately 60 seconds to allow the circuit to reset. Turn down the volume on the stereo system and amplifier. Operate the system at lower volume levels to avoid overloading the speaker.
- 3. USE A GROUND FAULT INTERRUPTER (GFI)-** A GFI outlet or extension cable on the stereo system will help prevent electrical shock in the event of a malfunction. GFI outlets are available at most hardware or home improvement stores. GFI outlets are easy to install, provide a safer operating environment for your pool users, and help protect your electronic equipment.
- 4. PLACE SPEAKER AWAY FROM HIGH TRAFFIC AREAS-** If using this speaker as a drop-in speaker, insure the speaker is located away from diving or high-activity areas. Severe personal injury may result if a swimmer/diver makes contact with the speaker when diving/jumping into the water. Also, in order to avoid the possibility of injuring someone in the pool while lowering/raising the speaker, do not place the speaker in the pool while it is in use.
- 5. CABLE PLACEMENT-** Use caution when running the cable from the speaker to the amplifier. Do not lay the cable in high-traffic areas where tripping or entanglement may occur. When used as a drop-in speaker, remove as much slack as possible from the speaker wire that runs through the water to avoid entanglement. Avoid laying the cable in areas where pets may possibly become tangled in, or damage, the cable. If pulling the cable through conduit, do not attempt to pull splices through the conduit. Utilize junction boxes if splices are required.
- 6. DO NOT HANG SPEAKER BY SPEAKER CABLE-** If using the speaker as a drop-in speaker, do not raise and lower the speaker into the water using the yellow speaker wire. Instead, tie a rope (not included) to the designated eyelet on the speaker's rubber ring and use the rope to raise and lower the speaker. Also, never carry or lift the speaker by the yellow cable. If utilizing the in-wall installation method, use caution when pulling the speaker cable through the conduit to avoid pinching the cable, removing wanted excess cable from the niche, or damaging the strain relief on the speaker. Failure to follow these instructions can result in damage to the speaker which will not be covered under the warranty.
- 7. DO NOT DRAG SPEAKER ON POOL DECK, BOTTOM OR SIDE OF POOL-** Dragging the speaker along any surface can cause internal and external damage. This type of damage will not be covered under the warranty.
- 8. DO NOT REMOVE STRAIN RELIEF-** Removing or altering the strain relief fitting connecting the cable to the speaker will permanently damage the speaker. This fitting is carefully installed at the factory and is designed to provide a watertight seal. Any alteration or adjustment of this fitting will void the warranty.
- 9. AVOID EXCESSIVE HEAT-** Do not leave the speaker in an area that is directly exposed to sunlight (unless submerged in a pool). Being exposed to direct sunlight will accelerate weathering, as well as increase the internal temperature of the speaker. Excessive internal temperatures can cause damage to the components. Damage caused by neglect will not be covered under the warranty.
- 10. WINTER STORAGE-** Do not allow the speaker(s) to become encased in ice to avoid damage to the unit.
- 11. DO NOT USE IN HOT TUBS-** The higher water temperature in hot tubs can cause internal component damage.
- 12. VOLUME CONTROLS-** Do not use with external volume controls rated at less than 150 watts.

# WARRANTY

## United States Warranty and Return Policy

### AQ339-AQUASONIC POOL SPEAKER WARRANTY

Clark Synthesis, Inc. warrants the AQ339-Aquasonic Pool Speaker to be free from defects and workmanship under normal use for a period of one (1) year from date of original purchase. For industrial or commercial use, the warranty period is six (6) months.

Should warranty service be necessary, Clark Synthesis, Inc. will (at its discretion) repair or replace the defective merchandise with equivalent merchandise at no charge.

This warranty is valid for the original purchaser and is not extended to subsequent owners. Any applicable implied warranties are limited in duration to a period of the express warranty as provided herein beginning with the date of the original purchase at retail, and no warranties, whether expressed or implied, shall apply to this product thereafter. Some states do not allow limitations on implied warranties; therefore these exclusions may not apply to you. This warranty gives you specific legal rights; however, you may have other rights that vary from state to state.

### WHAT IS NOT COVERED

This warranty is valid only if the product is used for the purpose for which it was designed. It does not cover the following:

- Damage caused by excessive heat
- Damage through negligence, misuse, accident, or abuse
- Damage caused by incorrectly mounting the speaker
- Damage due to not using an appropriate amplifier
- Freight damage
- Items repaired by an unauthorized repair facility
- Items damaged due to amplifier clipping and/or distortion
- Items purchased from unauthorized individuals or dealers
- Cost of shipping product to Clark Synthesis, Inc.
- Return shipping on non-defective items

### RETURN POLICY

New, unused items purchased from us may be returned within 7 days of the purchase date. Please note: Clark Synthesis will only accept returns for items that are received in their original packaging, in undamaged and re-sellable (new) condition. Manuals, accessories, warranty cards, and everything else that came with the unit must be included as well. If your return does not meet these conditions, you will be charged a 15% restocking fee or have the merchandise returned to you at your expense. Non-defective merchandise can also be returned for a 15% restocking fee. Shipping charges for all non-defective returns or exchanges are not refundable.

### WHAT TO DO IF YOU NEED WARRANTY OR SERVICE

If it becomes necessary for you to return defective merchandise, call Clark Synthesis Customer Service at (303) 797-7500 and you will be given a Return Authorization Number. Follow the instructions provided by our customer service staff, use suitable packing materials (preferably the original shipping boxes), and make sure to write your Return Authorization Number on the outside of your box when sending your return to us. Orders that are returned without an Return Authorization Number may be refused by our returns department! Remember to include a dated proof of purchase from an authorized dealer. Return freight must be prepaid by the customer: items received freight collect will be refused. If the returned product is found to contain a manufacturing defect not caused by the customer and a replacement product is sent to the customer, Clark Synthesis, Inc. will pay to ship the replacement product to a domestic location (within the USA) via ground shipping methods. Costs associated with a) shipping replacement products intended to replace defective merchandise not caused by a manufacturing defect, b) replacement products shipped outside the USA, or c) replacement products shipped via shipping methods other than ground shipping will be paid for by the customer.

Make sure the following is included in your package:

- Product to be returned (repacked in original shipping containers)
- Return Authorization Number printed on the outside of the box
- Copy of original invoice with Return Authorization Number printed on it

### Return to our Service Department:

RA#: \_\_\_\_\_

Clark Synthesis, Inc.  
8020 Southpark Circle, Suite 600  
Littleton, Colorado 80120

### INTERNATIONAL WARRANTY

Contact your International Clark Synthesis dealer or distributor concerning specific procedures for your country's warranty policies.

# PRODUCT OVERVIEW

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## The AQ339 Speaker is perfect for:

- Swimming Pools
- Lap Pools
- Resorts and Hotels
- Synchronized Swimming
- Swim Team Training
- Marine Animal Training

## PRODUCT FEATURES:

The Aquasonic AQ339 is the only full-frequency, full-fidelity underwater swimming pool speaker in the world. The AQ339 works in both fresh and salt water pools and can either be permanently mounted in a large (standard) light niche or used as a drop-in speaker (see figures 1 and 2 on the following page). The AQ339 comes with 100 feet of attached underwater speaker wire and can be installed at any depth up to 10 feet deep. This makes the AQ339 perfect for use in the deep end, shallow end, or any place in between.

## TECHNICAL FEATURES:

- It is generally recommended that one AQ339 speaker be used for every 20-foot by 20-foot section of the pool to provide the best sound coverage.
- The AQ339 has been designed to be fully RoHS compliant.
- The AQ339 contains an internal “early warning” circuit that takes it offline when the speaker is being overdriven.
- A power amplifier rated between 125 and 150 watts @ 4 ohms is required to run the AQ339.
- In-wall mounting hardware and amplifiers are available through Clark Synthesis, Inc. Please contact us for more information.

# PRODUCT OVERVIEW

Figure 1. Side view of **in-wall** installation.

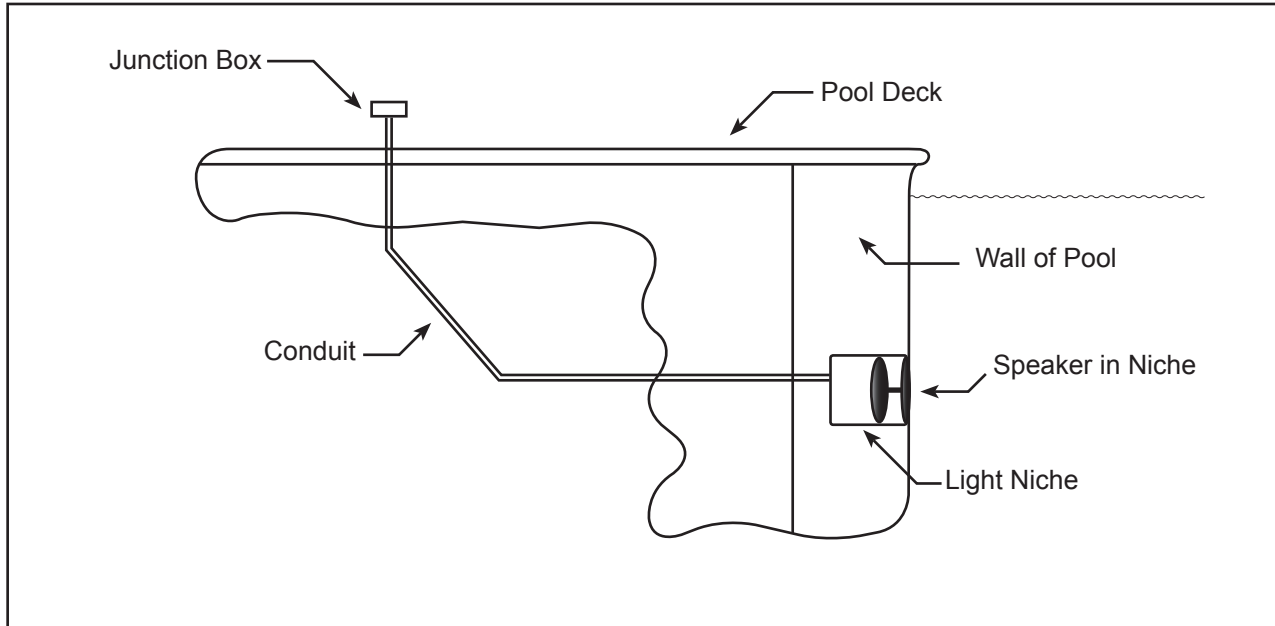
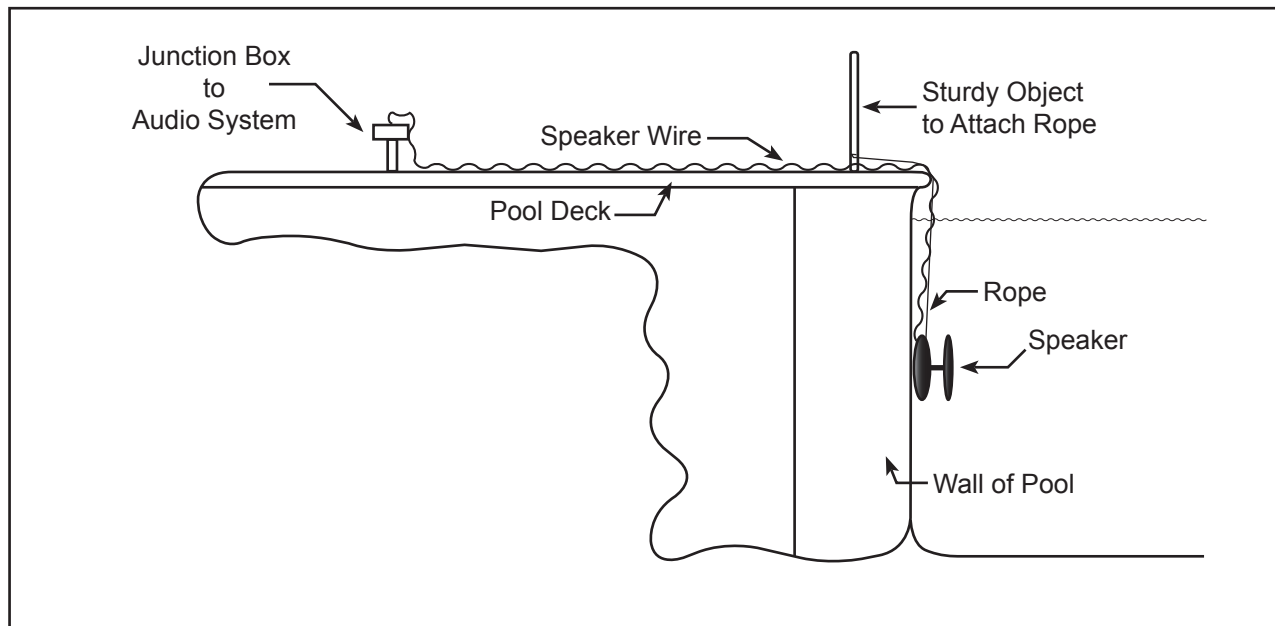
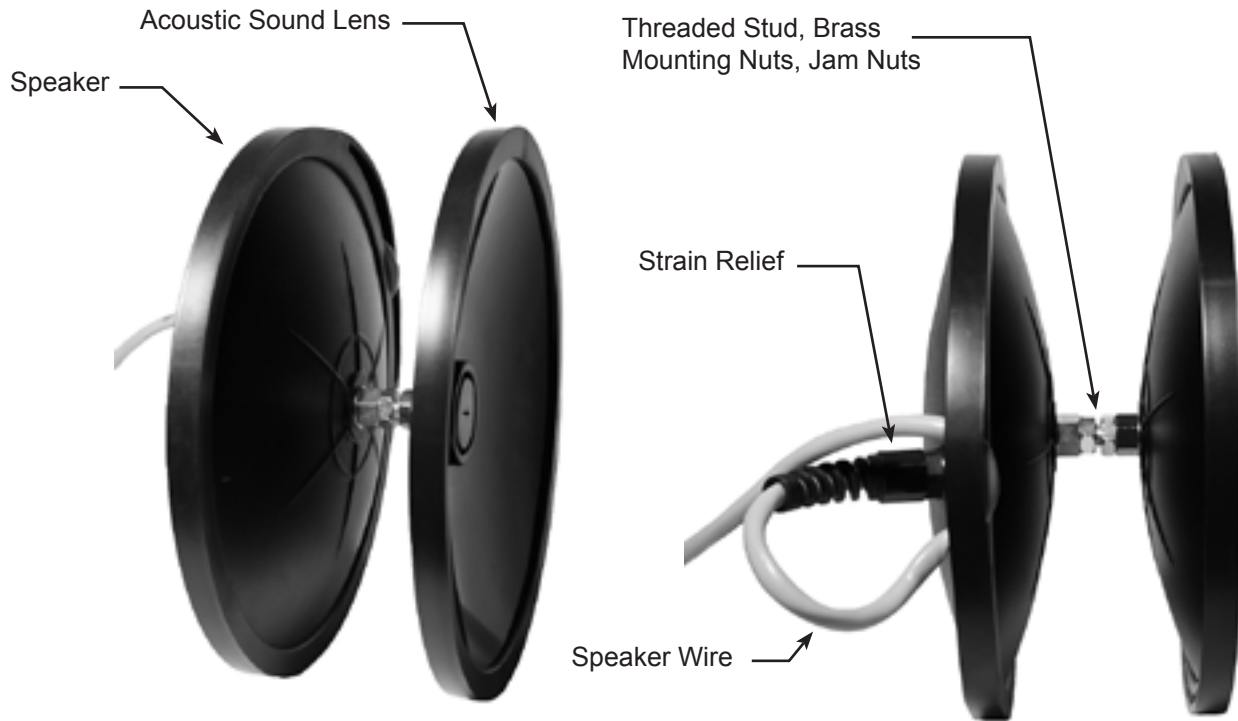


Figure 2. Side view of **drop-in** installation.



# PRODUCT OVERVIEW

## The AQ339 Underwater Speaker



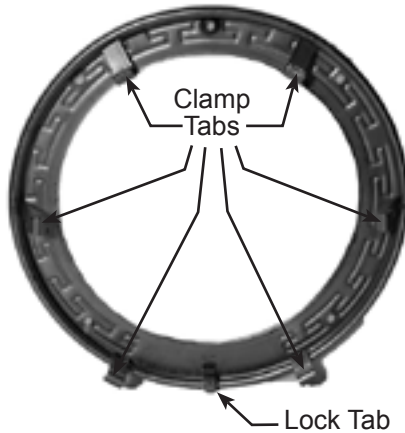
# PRODUCT OVERVIEW

## In-Wall Mounting Hardware (Purchased Separately)

Mounting Gasket



Back View



Face Ring

Face View

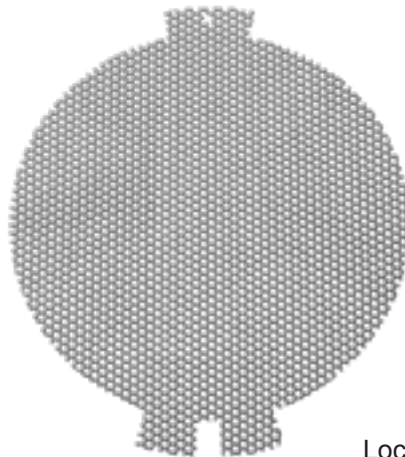


Bolt & Rubber Washer

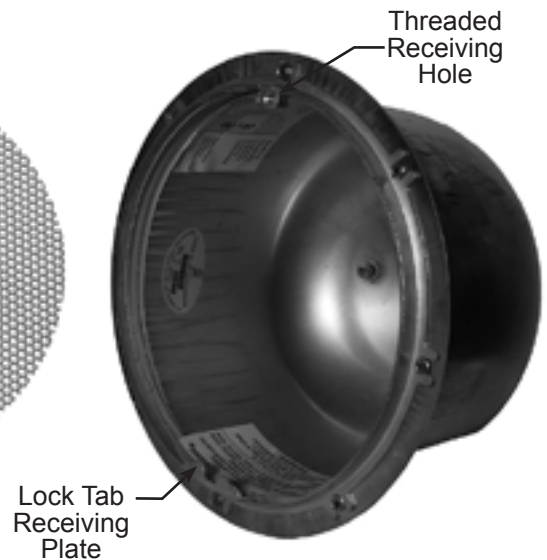
Wire Clamp



Aquasonic® Screen



Large Light Niche



Threaded Receiving Hole

Lock Tab Receiving Plate

# IN-WALL INSTALLATION

- ① Carefully remove the speaker from its box. Install the mounting gasket around the rubber ring of the sound lens (as shown below). Insure the mounting gasket is installed evenly and is firmly seated against the entire circumference of the sound lens.



- ② Place the speaker on a non-abrasive surface with the sound lens facing up. Hold the face ring above the sound lens, allowing the clamp tabs to fall open. Set the face ring against the mounting gasket, insuring each clamp tab is on the outside of the mounting gasket. Hold the entire assembly together and place it on the non-abrasive surface as shown in the third picture below. Carefully position the sound lens so it is centered over the face ring.



- ③ Pull the bundled speaker wire through the wire clamp. Place the wire clamp under each clamp tab, verifying the nut and bolt adjuster is accessible when the clamp is placed under the tabs. Insure the mounting gasket and face ring are still evenly centered.





# IN-WALL INSTALLATION

- ④ Use a wrench and a Phillips screwdriver to tighten the wire clamp. When fully tightened, the wire clamp should be firmly seated in each clamp tab and the speaker should be secure. Pick up the assembly and insure it is still properly centered in the face ring. If not, loosen the wire clamp and adjust.



- ⑤ Take the end of the speaker wire and pull it through the conduit hole in the back of the niche using a wire puller. Leave 10 to 12 ft. of speaker wire in the niche to allow for easier access during future servicing of the speaker. Place the speaker inside the light niche.

Note: In actual applications, the niche will already be mounted in the wall of the pool.



- ⑥ Carefully set the lock tab located on the bottom of the face ring behind the receiving plate located on the bottom of the niche. Align the bolt/rubber washer on the face ring with the threaded receiving hole on the niche. Attach the trim ring securely to the niche by gently tightening the bolt. You are now ready to connect the speaker to your audio system.



# DROP-IN INSTALLATION

- ① Purchase a length of rope (1/8" to 1/4" outside diameter) that will allow you to place the speaker in the area of the pool where you would like sound (see General Information section at the beginning of this manual for precautions when using this type of application). Carefully remove the speaker from its box. Locate the open hole on the speaker's rubber ring (next to the interlaced speaker wire). Thread the rope through the hole. Tie a knot that will not come undone or slip through the hole.



- ② Connect the speaker to your audio system with the attached speaker wire. Carry the speaker to the pool using the rope (**NEVER CARRY THE SPEAKER BY THE SPEAKER WIRE! THIS WILL DAMAGE THE SPEAKER!**). Gently lower the speaker into the pool, insuring the speaker and wire are not scratching along the wall of the pool (**NEVER THROW THE SPEAKER INTO THE WATER. THIS WILL DAMAGE THE SPEAKER AND MAY CAUSE PERSONAL INJURY**). When the speaker is under the water at the desired depth, insure the sound lens is facing away from the wall and allow the speaker to rest against the wall. Tie the rope to a sturdy object (noting the precautions listed in the front of this manual).



- ③ When you are ready to remove the speaker from the water, slowly raise the speaker to the surface of the water using the rope (insure the speaker does not rub against the wall of the pool). Use caution when the speaker reaches the water's surface because the surface tension of the water increases the drag on the speaker and could cause the rubber ring to pull free from the speaker. Roll up the speaker wire and rope. Use the rope to carry the speaker to its storage location (**NEVER CARRY THE SPEAKER BY THE SPEAKER WIRE! THIS WILL DAMAGE THE SPEAKER!**).

# TROUBLESHOOTING

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## **The speaker is buzzing:**

- In-wall installation: Insure the lock tab is properly inserted behind the lock tab receiving plate.
- Drop-in use: Insure the speaker is not vibrating against the pool wall.

## **The speaker stopped working:**

- If the speaker stops playing, it is likely that the built-in protection circuit has activated. In the event this happens, turn the amplifier off for approximately 60 seconds to allow the circuit to reset. Turn down the volume on the stereo system and amplifier. Operate the system at lower volume levels to avoid overloading the speaker.
- If the speaker still does not play, check to insure all wiring connections are properly connected and that output is coming from the audio system.

## **The speaker has low output:**

- Check the amplifier/receiver output settings to insure they are properly set.
- If you are using a DVD/CD/MP3 player, insure the output volume is set correctly.

**For additional questions/concerns/issues, contact Clark Synthesis or check our web site.**

## **MANUFACTURER CONTACT INFORMATION:**

Clark Synthesis, Inc.

Phone: 303-797-7500

Fax: 303-797-7501

Web: [www.clarksynthesis.com](http://www.clarksynthesis.com)

Email: [info@clarksynthesis.com](mailto:info@clarksynthesis.com)

