

QUABIT Winn TM

AQUARIUM WATER PURIFICATION SYSTEM COMPLETE FILTER AND BIO-BED SERIES M

USER MANUAL AND WARRANTY

FOR FRESHWATER and SEAWATER or SALTWATER



Thank you for your purchasing the QUABIT™ SWIM™ AQUARIUM WATER PURIFICATION SYSTEM. READ and FOLLOW the instructions and the safeguards of this manual before use. Keep this manual booklet in a safe place for your reference.

SAFEGUARDS FOR USE

WARNING:

The following precautions should be paid careful attention to protect human, fish, electric shock, fire, and so on.

DO NOT use this product for the purpose other than described in this manual and DO NOT modify or change the AQUARIUM WATER PURIFICATION SYSTEM.

Unplug the system whenever treating the aquarium water, replacing the filler cartridge, maintaining the system, moving the aquarium tank, etc.

Use the designated voltage and frequency. Otherwise, an electric shock, fire and/or damage to the system may take place.

Do not wet the plug nor touch the plug with a wet hand.

Clean periodically the electric plug. If wet with water or contaminated with salt and/or dust, the electric plug may cause an electric leakage and/or shock.

Do not bend and/or put weight on the electric cord. This may damage and even break the electric cord (wire) and result in an electric shock and/or cause of a fire.

When unplugging the pump plug, hold the end of the plug and pull it out of the receptacle. Do not hold the plug wire to unplug (disconnect) the pump.

remove water in

Any electric parts must be positioned higher than the aquarium to avoid getting wet and/or avoid water coming into contact with the parts.

If any water leakage happens while in use, remove any electric parts and device away from water immediately.

CAUTION:

The following precautions should be paid careful attention to protect against human, fish, electric shock, fire, and so on.

This product is designed only for a variety of pet fish aquariums. DO NOT use for any other purpose(s).

Avoid placing this product in a location, where it can be exposed to direct sunlight, rain, wind and/or a location where it can be subjected to high temperatures and/or humidity.

To avoid low water flow rates, replace the cartridge fillers and other parts following the filler and parts replacement guidelines in this manual.

Use each cartridge with the specific filler in the order as it is designated and specified. If all cartridges with the proper filler are not in the specified order, the water purification effectiveness and the quality of the water may not be satisfactorily maintained.

DO NOT operate the pump without flowing water inside. If running without water in a while, such operation may cause trouble.

If smoke emits from the pump and/or an abnormal odor is detected, shut off the power immediately. Contact customer service at the point of purchase for assistance.

DO NOT drop this product, place a high load on product, and/or damage this product.

It is recommended that DO NOT place the aquarium and/or this product near an electric equipment such as a TV and/or a computer. Such an arrangement may cause a noise and splashing such electric

The QUABIT SWIM™ AQUARIUM WATER PURIFICATION SYSTEM is provided as is without any guarantees or warranty if the equipment is modified. In association with the product, QUABIT INC and/or affiliates thereof makes no warranties of any kind under the condition described other than here, either expressed or implied, including but not limited to warranties of merchantability, fitness for a particular purpose, of title, or of non-infringement of third-party rights. Use of the product by the user is at the user's risk.



ASSEMBLY OF COMPONENTS

- (1) Make sure all components in the above figures are included in the package.
- (2) Connect the strainer 6 and the water suction pipe 5.
- (3) Attach the suction pipe holders 7 to the suction pipes at the proper positions.
- (4) Remove the caps of each inlet and outlet cartridge holders.
- (5) Make sure that the respective cartridges having each cylinder cartridges preset when shipped.
- (6) Attach the suction pipe holder 7 to the shower tube head, having holes.
- (7) The screw of the pump hanger is in the left side.
- (8) Insert the stopper horizontally into the left hole and fix it tightly with the screw. (Photo 1)
- (9) Remove the bottom cover of the pump and
- (10) Insert the pump hanger 16 in the wedge groove of the top of the pump main body as shown in Photo 1.



SETTING UP FILTER CARTRIDGES



- (1) Check that the inlet side cartridge holder and the outlet cartridge holder are in the correct order.
- (2) Unscrew each cap and take out cartridge with the filler.
- (3) Rinse each cartridge lightly to remove powdery foreign materials and small debris with chlorine-free water to keep the normal bacteria flora. Do not take out any materials in the cartridge while rinsing.
- (4) Re-insert each cartridge into the respective cylinders in correct order as originally packed.

Note: If the filler cartridges are not in the correct configuration, the system may not work optimally to provide a desirable capability. Refer to the following figure and set the filler cartridges correctly. The order of the cartridges are A-B-B-B-C-D-E. Carbon filter X is optional for a short time use to clear the water if needed. The content of Cartridge B is different between freshwater and saltwater.

MOUNTING/HANGING THE PUMP AND CARTRIDGES



PUMP ASSEMBLY Pump consists of 6 parts.

- (1) Insert completely the hunger support **P4** into one of the 3 grooves of the pump main body **P1** considering the proper configuration of assembly.
- (2) Cover tightly the bottom of the pump P1 with the cover P3.
- (3) Cover tightly the top of the pump P1 with the cover P2.
- (4) Insert the stopper **P5** into the top hole of the hanger support **P4**.



HANG PUMP and CARTRIDGE HOLDERS

- (1) Decide on the position where the pump 1 will hang e.g., on the aquarium wall or the hanging device (not included).
- (2) Hang the inlet cartridge holder 8 close to the water outlet, even pipe, from the pump.
- (3) Hang the outlet cartridge holder 10 close to the inlet holder.
- (4) Connect the pump 1 and the inlet holder 8 with the

connector tube 3.

- (5) The inlet holder and the outlet holder with the connector 9.
- (6) Push the respective stoppers toward the wall and tighten them by each screw to fix the pump 1, the inlet holder 8, and the outlet holder.

Note:

If needed, put spacer(s) between the stopper/the holders and the wall.

Fasten the respective tube ends with the fastener 13.

- (7) Fill up the pump 1 with water through either the inlet or the outlet thereof.
- **CAUTION**: Do not run the pump without water. It may damage the pump.
- (8) Remove the first cap (left closure) of the holder 8 and fill up the holder 8 with water.
- (9) Remove the first cap (left closure) of the holder 9 and fill up the holder 9 with water.

Connected to the strainer 6.

MOUNTING THE WATER STRAINER AND THE SHOWER PIPE



- (10) Connect one end of the flexible tube 4 with the uneven (stepped) pipe from the pump 1
- (11) Connect the other end of the above flexible tube 4 with the water pipe 5.
- (12) Connect the pipe 5 with the strainer 6.
- (13) Attach two pipe suction holders 7, 7 to the side of the pipe 5.
- (14) Connect another flexible tube 4 with the outlet of the outlet holder 10.
- (15) Connect the other end of the above tube 4 with the shower pipe 11.
- (16) Attach two pipe suction holders 7, 7 with the side of the shower pipe 11.
- (17) Decide the position for the strainer 6 on

the inside wall and below water level of the aquarium (not included and shown).

- (18) Decide the positions of the suction holders 7, 7 to fix the water pipe 5 on the inside wall of the aquarium (not shown).
- (19) Decide the position for the shower pipe 11 on the inside wall of the aquarium (not shown) and a few inches above water level.

USE AS A CANISTER MODEL OR AS A FLOOR MODEL

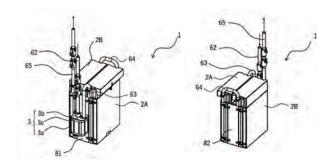


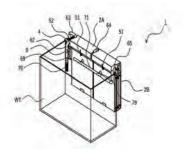
The completely closed and uniquely designed QUABIT SWIM[™], including all parts between the inlet and the outlet and the pump having enough power, allows the system to be used as a canister model or a floor model.

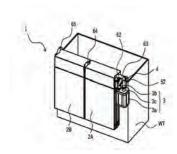
- (20) Get enough flexible tube length, around 5-10 feet, of 1/2 inches diameter flexible water tube (not included).
- (21) If needed, replace the connection tube 3 and/or 9 included with the appropriate length optional tube(s).
- (22) Fill the long tubes with priming water/saltwater.
- (23) Arrange the inlet holder and the outlet holder in tandem or in parallel.
- (24) Recommended: Place the holders in a bin or a container (not included).

COMING SOON: US Patent: No. 11,457,616

(25) The dedicated holder housing unit (US Patent: No. 11,457,616) is available in the U.S. market.







BASIC OPERATION FOR FRESHWATER AQUARIUM

- (1) Fill the aguarium with freshwater. Then connect the electric cord to the power outlet.
- (2) Make sure the priming water is in the pump and the cylinders (cartridges).
- (3) Connect the electric cord to the power outlet.

Caution: Never carry out these operations with wet hands to avoid an electric shock.

- (4) Check if the water is running properly in the system and there is no water leakage and abnormality of other parts.
- (5) If water is not running properly turn off the power and fill the pump and the cartridges with priming water again. Repeat if needed.

Note: If there are air bubbles inside the cartridge, it will clear out with time under normal conditions. Additionally, if there is a spraying water sound, this sound will clear out in time. If there are still air bubbles over time, ensure that air is cleared out from the connection part of water inlet side. Also check if there is an air stone; which could be the source of the air, or not. If there is water leaking around the cylinder closer/cap, tighten the cap again.

If water is leaking from other than the closer/cap, locate the area where the water is may be leaking from. Quality of Water:

- (6) Run the water for a couple of days before adding fishes or other live organisms.
- (7) The water becomes transparent/clear after a while because some foreign materials are filtered or deposited on the bottom of the aquarium.
- (8) Mark the original water surface line.
- (9) Mark the initial water level and check it periodically. When the water level is noticeably lower the marked level due to evaporation, add de-chlorinated water (recommended) to the marked water level line.

BASIC OPERATION FOR SALTWATER/SEAWATER

Note:

The basic operation is the same as the operation instructed for the above described freshwater operation. The whole system components are the same as described for freshwater except the type of cartridge B component.

(IMPORTANT): Make sure that the package label is showing **Saltwater/Seawater** prior to setting up.

- (10) Use only artificial saltwater or seawater.
- (11) When the saltwater level is approximately half inch below the original saltwater level, add an appropriate amount of tap water or an equivalent freshwater to raise the saltwater level to the original marked level.
- (12) Caution: Additional water is periodically required to compensate for the evaporated water. Use FRESH-WATER, not saltwater, to avoid building up a salt concentration too high unless the saltwater inside the aquarium removed or replaced. Note: (Recommended): Check the salt concentration with an available method using such as a refractometer.

QUABIT SWIM™ VS. CONVENTIONAL AQUARIUM FILTER

CAUTION: A conventional aquarium filter requires about 25% of water replacement to keep the appropriate concentration level of nitrate because the conventional filtering system is unable to remove or decompose such nitrate, which is an animal metabolite and toxic to itself. Whereas, QUABIT Swim™ is designed to decompose the nitrate in its own system. However, the duration for decomposing the nitrate depends on time and number of fishes in the aquarium is limited. The user must replace the cartridge E periodically as designated and instructed. In addition, the user must check the quality of water from time to time.

MAINTENANCE

PUMP:



- (1) O-ring: Cap O-ring is consumable. Replace it every other year as a benchmark.
- (2) Cleaning: Check and clean the pump periodically, so that the pump life can be extended and the cartridges can work correctly while being well maintained.
- (3) Remove the cover of the pump, rotate the water suction stopper counterclockwise and pull up to remove it.
- (4) If necessary, take out the shaft impeller and clean it.

FILLER CARTRIDGES



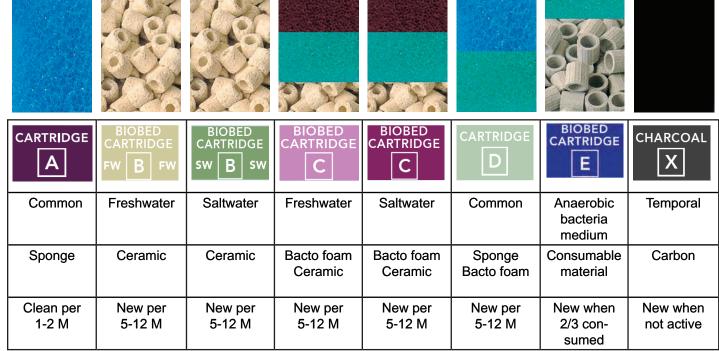
The respective fillers (medium material) are packed in corresponding cartridges. The correct position of each cartridge is predetermined and critical to optimal water filtration and purification. Follow the instructions referring to each color of the package. Periodically replace each cartridge to the same labeled one as the original one based on the benchmark use period as noted above.

Note: When replacing the cartridge, the power must be turned OFF by pulling out the plug from the receptacle.

Note: Do not use the sponge filler for large fish. Replace or clean the sponge filler cartridge every 1-2 months or when the flow rate at the outlet is lower.

Option: Apply the Carbon X (activated charcoal) for Cartridge A or C when the aquarium water does not appear to be in a clear nor-

mal condition. < Condition for apply to A cartridge>: White turbidity, yellowish color appearance in the water. After cleaning an overly dirty aquarium. Improving deteriorated water condition due to dead organism(s) in the aquarium. Following the use of fish medications. After the aquarium is set-up (in the case of which bacteria is not well established and working optimally). (Not Mandatory) - Following the replacement of Cartridge E (bacteria medium) In the case of many fishes (heavy bio-mass).



FISH CARE GUIDELINES AND TIPS

QUABIT™ SWIM™ AQUARIUM WATER PURIFICATION SYSTEM is designed to conduct nitrification reduction in a series (in one sequence). It is the first introduced household aquarium water purification system in the world available as of September 2022. Whereas the capacity of water purification in a time period is limited. The number, type, and size of fish, the amount of fish food, and quality of water available and so on variably effect on the quality of water, so please pay attention to the following care and guidelines and enjoy life with beautiful fishes.

(1) Initial livestock/fish set-up of the aquarium

Initially, the number of normal bacteria is limited, and it is the same as a conventional aquarium filter system, so that if there is a high number of fishes in the aquarium from the beginning, the quality of water will worsen (white turbidity). Therefore, increase the number of fishes gradually or apply the commercially available bacteria at the beginning. In addition, when water turbidity persist for a while, apply the SWIM™ Carbon-X cartridge that may work effectively.

(2) Care without changing the aquarium water (For examples)

Freshwater				
Aquarium size	Kinds of fish	Maximum num- ber of fishes	Amount of fish food	
Larger than 23.6 in. (60cm)	Neon tetra	200	Feed twice a day and an amount of flake food that is eaten in one minute.	
	Discus (Discus hamburg- er less than 0.28oz)	8	(8g)/day or frozen bloodworm less than 0.63oz (18g)	
Saltwater/Seawater				
Larger than 23.6 in. (60cm)	Damselfish	30	Feed twice a day and an amount of flake food that is eaten in one minute.	

(3) Moss:

Growth of moss is suppressed compared to other conventional systems, but not completely sup- pressed, so clean the aquarium surface periodically and/or adjust lighting.

(4) Replacement of the cartridge

Replace the cartridge with each filler (medium) periodically according to the replacement guide. If the cartridge has not been replaced for a long time, the effect of the present cartridge may not be attained. In addition, the cap O-ring is consumable, so check and replace the O-ring periodically if needed.

(5) Aeration

When caring for fishes in seawater/saltwater, or when the growth of water-weed is not enough in the freshwater aquarium, carry out aeration in caring for large fish and/or many fishes.

When aerating, use the bubble stopper (optional) to prevent splashing water (recommended); the stopper is particularly and amazingly effective preventing the precipitation of salt from the seawater/saltwater.

FREQUENTLY ASKED QUESTIONS AND ANSWERS

Common issues in the early stage of setting up a tropical fish aquarium and how to address such issues.

Q: Is it necessary to rinse each filter cartridge prior to installation?

A: Yes, particularly for B cartridge. Rinse each cartridge B (filled with ceramics) likely covered with dust/powder during transportation. If this is not done, the aquarium will be cloudy or turbid. It is not mandatory to rinse other cartridges other than B but it is recommended to rinse them lightly prior to use.

Q: Do I need to change aquarium water after installed?

A: In the early stage, not enough bacteria that are essential to decompose waste and foods are present in cartridges. (Usually, bacteria take 2-4 weeks to build up sufficient quantity in cartridges.) Therefore, adding and increasing the number of fish gradually or changing approximately 20-25% of the water twice while checking water quality are important to fish.

Q: Is there anything that should be paid attention to the timing when replacing and/or refilling water?

A: There is no concern unless the amount of water to be treated is more than 20%.

Q: Can dead fish be left in the aquarium?

A: When a limited number of fish die, the bacteria in the cartridge can decompose and cannot be a concern, but in most cases, the cause of death is unknown; so it is desirable that dead fish be removed from the aquarium as early as possible.

Q: A large amount of algae has grown. What can cause this?

A: If the lighting time is left on too long and/or the light is too bright, algae will grow rapidly.

Q: Regardless of reducing the lighting time and decreasing the light intensity, the algae has not decreased. What is the solution?

A: It is recommended that such as algae-eating fish, shrimp, and/or shellfish are being kept in the aquarium together. When algae grows on the aquarium wall, clean the wall by wiping off it regularly using such as a scraper.

Q: Can QUABIT SWIM™ be used together with an aquarium filter/breeding equipment currently in use?
A: If you use it in combination with other filters, ammonia and nitrite that help anaerobic bacteria to grow will be insufficient, and as a result, the amount of nitrate, feeding on anaerobic bacteria, will be insufficient in the filler cartridges of QUABIT SWIM™, so that the reduction process to decompose nitrates cannot be carried out sufficiently. Therefore, it is recommended not to use QUABIT SWIM™ in combination with other aquarium water treatment products including a filter.

Q: Can the filtering/breeding equipment currently in use be replaced with QUABIT SWIM™?

A: Yes, such a filtering equipment can be replaced with QUABIT SWIM™, but be sure to rinse B cartridge prior to use.

Q: Do I need seawater (or saltwater) when replenishing seawater (or saltwater)

A: No seawater (or saltwater) is required to be added. Simply, replenish the evaporated quantity of saltwater (actually water per se) with freshwater because the salinity thereof has already increased due to the evaporation of water. It is sufficient to replenish the aquarium with fresh water. Therefore, it is economical and user and environmentally friendly.

Q: Is maintenance is needed?

A: When the flow rate of water discharged from the water outlet (shower pipe) is low, the maintenance is needed.

Q: What maintenance is required when the water flow rate is low?

A: Wash or replace some cartridge. Particularly, the cartridge A is clogged the most, so it is necessary to check it regularly and clean it if needed.

Q: If the water flow rate is low even after replacing or cleaning the Cartridge A, what other maintenance actions

are required to solve the issue?

A: Replace and/or clean the B and/or C cartridges. In such a case, replace or clean less than 3 filler cartridges at the same time in order to keep the bacteria flora maintained inside the other filler cartridge. Specifically, please be aware that the closer cartridges B and C to the water inlet, the more clogging take place.

Q: What other maintenance is required?

A: The period of time for the life of the cartridge E varies depending on the number of fish in the aquarium and the size of the aquarium and as a benchmark, the filter media (filler) in the E cartridge will be consumed by the bacteria in about a year or so. When the filler in the E cartridge runs out, the reduction of nitrate cannot be carried out and as a result nitrates are accumulated. If such water condition persists, the water become acidic, and the fish will die. Therefore, it is absolutely necessary to periodically check the amount of filler in the E cartridge and quality of the water, if needed, replace the E-cartridge with a new one if the remaining amount of the filler is less than 30% of the initial amount. Do not take out the filler (medium) from a new E cartridge to fill up the void area of the E cartridge in use.

Q: Is there anything to be done when adding new fish?

A: Gradually, adjust the water temperature and water quality. If you do not adjust the water condition appropriately, the probability of dying fish will be higher.

Q: Is aeration needed?

A: Oxygen is critical for the growth of bacteria in the cartridges. The higher the aeration in saltwater, the more oxygen dissolves in saltwater because oxygen hardly dissolves in saltwater.

Q: Are commercially available bacteria needed?

A: No. It is deemed that bacteria growing in nature, i.e., the water environment, are better than other bacteria from the other source.

Q: Is any additives to clean water needed?

A: No. The bacteria growing in QUABIT SWIM™ cleans the water while circulating the water.

Q: What is the cause of noise produced while running the QUABIT SWIM™ system?

A: A variety of operating sounds are generated due to structural reasons, such as the rotation sound of the pump, the vibration sound of the air pump, and the sound of water from the water shower pipe. It may be effectively reduced by inserting a cushioning material and/or taping to stop the vibrating part. Watering noise from the shower pipe can be reduced by adjusting the distance between the pipe and the water surface and the angle of the drainage pipe. If you are still concerned about the noise, please install the system in a place where it would not be disturbing much.

CAUTION:

When the flow rate of the filter becomes low, the filter cartridge should be replaced or cleaned because when the flow rate is continuously low, hydrogen sulfide may be present in the E cartridge. If the flow rate becomes normal after replacing or cleaning the cartridge, hydrogen sulfide remaining in the E cartridge will flow into the aquarium all at once. This incident is extremely dangerous for fish.

WARNING:

To avoid such incident, when replacing or cleaning the cartridge, it is recommended to pull out the E-cartridge from the holder cylinder and remove the water accumulated at the bottom of the cylinder. Also, this operation must be carried out in the open air space or outside of the room and avoid inhaling the air directly from the cylinder. IMPORTANT: When remove the cap of the cartridge to clean or change the filler cartridge (filter) of the floor model, raise the top of the cartridge unit to the water level of the aquarium or remove water in tubes to avoid water overflow from the cartridge.

TROUBLESHOOTING

Incident	Possible Cause	Solution
Water does not circulate	No priming water	Add water into the pump without over-flow.
	Damaged impeller and/or shaft	Replace it with a new one.
	No electric power (broken electric wire?)	Replace the pump with a new one.
	Dirt and/or sand in the impeller shaft and/or magnet in the pump.	Pull out the impeller and clean it.
Abnormal sounds	Damaged impeller and/or shaft	Replace it with a new one.
	Pinched hose	Fix the pinched hose.
	Air suction from the connection part of the hose in the water inlet (suction) side.	Reconnect the parts correctly.
Slow water flow	Pinched hose, dirty strainer with foreign materials.	Fix the pinched hose or remove the foreign materials.
	Cartridge is clogged	Replace periodically according to the benchmark replacement timing.
	Large foreign material (water-weed, sand, etc.) inside the pump	Remove the foreign material.
Water leakage: From main body	Twisted O-ring and/or dirt and/or foreign material attached to the O-ring	Reset the O-ring correctly. If dirty, clean the O-ring.
	Deteriorated or damaged O-ring	Replace the O-ring with a new one. O-ring is consumable.
Water leakage: From the connection part of the hose etc.	Incorrect connection. Deteriorated or damaged parts.	Connect correctly and fix firmly with the fastening device. If deteriorated or dam- aged, replace it with a new one.
Water is not quite clear and turbid even after running for a	Too many fishes at the beginning, or too much fish foods.	Change water. Decrease fish foods.
while.	Improper rinsing cartridge(s).	Applied Charcoal Cartridge X as short as possible.

WARRANTY

QUABIT SWIMTM product is guaranteed for defective parts and workmanship as of the date of purchase for the period of time indicated within the USER MANUAL and/or the warranty card and/or registration Online. This guarantee is valid with Proof of Purchase only. The guarantee is limited to repair or replacement only the pump and the cartridge holders for 12 months following the date of purchase and does not cover consumable materials, including the filler and the O-ring, in the respective cartridges and cylinders, the replacement parts, consequential loss or damage to any livestock and personal property or damage to animate or inanimate objects, irrespective of the cause thereof. This guarantee is valid only under normal operating conditions following the user manual. This warranty does not cover any damage caused by unreasonable use, negligence, improper installation, tampering, abuse or ignoring care use. The warranty does not cover any material other than this product under proper use. Warranty is only valid with Proof of Purchase from an authorized QUABIT SWIMTM dealer. Warranty also varies in accordance with local laws.

UNIQUE FLEXIBLE CONFIGURATION



Basic Model Configuration: Pump (P)-Cartridges-Shower Tube (ST): P-A-B-B-B-C-D-E-ST



Expanded Model Configuration: Pump-Cartridges-Shower Tube (ST): P-A-B-B-B-B-B-B-B-C-D-E-ST



Two basic units combination configuration for a larger aquarium

Example is not limited to the above application. If you are interested, please contact QUABIT USA LLC by Email, info@quabitswim.com.

SPECIFICATIONS

External (overall) size	W x D x H (23.6 x 3.9 x 13.0 in) (60.0 x 10.0 x 33.2 cm)
Depth from the aquarium back-wall (Hanging on)	3.1 in (8.0 cm)
Total length of system in series	89.8 in (228 cm)
The number of cartridges for fillers (Expandable) for a larger aquarium	8 cartridges in 2 units in series consisting of Ax1, Bx4, Cx1,,Dx1 and Ex1.
Total water volume of units	0.925 gallons (3.5 liters)
Pump	UL Listed
Electric power/Wattage	115V/22W
Maximum flow rate	1.64 gallons/min (6/2 liters/min)
Maximum water lifting (for canister or stand alone application)	78.7 in (2m)

PUBLICATION DATE AND CONTACT US

This manual is published for information purposes only as of September 2022. The Spanish manual is available Online in PDF. If you have any questions or queries, do not hesitate to send your E-mail to info@quabitswim.com or through our website at https://www.quabitswim.com and https://quabit.jp.