



# NANO-CUBE

The Ultimate Curved Glass Biotope

## OWNER'S MANUAL



# 12 DX & 24 DX

TRANSWORLD AQUATIC ENTERPRISES INC.

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# Important Safety Instructions

## WARNING

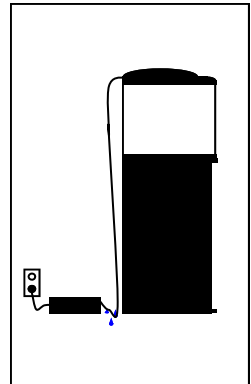
To guard against injury, basic safety precautions should be observed, including the following:

## READ ALL SAFETY INSTRUCTIONS BEFORE USE.

## DANGER

To avoid possible electric shock, special care should be taken since water is employed in the use of aquarium equipment. For each of the following situations, do not attempt to repair yourself: return the appliance to an authorized service facility for service or discard the appliance.

- A. If the appliance falls into water, DON'T reach for it! First unplug it and then retrieve it. If the electrical components of the appliance get wet, unplug the appliance immediately.
- B. Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
- C. Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or if it is dropped or damaged in any manner.
- D. To avoid the possibility of the appliance plug or receptacle getting wet, position aquarium stand and tank to one side of a wall mounted receptacle to prevent water from dripping onto the receptacle or plug. A "drip loop", shown in the Figure at the right should be arranged by the user for each cord connecting an aquarium appliance to a receptacle. The "drip loop" is that part of the cord below the level of the receptacle or the connector if an extension cord is used, to prevent water travel along the cord and coming in contact with the receptacle. (Continued on pg 4)



## Important Safety Instructions

D. (Continued from pg 3)

If the plug or the receptacle do get wet, DON'T unplug the cord. Disconnect the fuse to the circuit breaker that supplies power to the appliance. Then unplug and examine for the presence of water in the receptacle.

E. Close supervision is necessary when any appliance is used by or near children.

F. To avoid injury, do not contact moving parts or hot parts such as heaters, reflectors, lamp bulbs, and etc.

G. Always unplug an appliance from the outlet when not in use, before putting on or taking off parts, and before cleaning. Never yank the cord to pull plug from the outlet. Grasp the plug and pull to disconnect

H. Do not use an appliance for other than intended use. The use of attachments not recommended or sold by the appliance manufacturer may cause an unsafe condition.

I. Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing.

J. Make sure an appliance mounted on a tank is securely installed before operating it.

K. Read and observe all the important notices on the appliance.

L. This Appliance has a polarized plug (one blade is wider than the other). As a safety feature, this plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Never use with an extension cord unless plug can be fully inserted. Do not attempt to defeat this safety feature.

M. This appliance is intended **FOR HOUSEHOLD USE ONLY**.

Do not use or mount this appliance in such a way that the top vents are restricted or blocked. These vents are necessary to avoid over-heating and insure safe operating temperature.

## **Important Safety Instructions**

O. Make sure that the appliance is set on a level surface to prevent undue stress on the aquarium tank from stress and leaks. It is not recommended that this appliance is set upon coffee tables, end tables, T.V. stands, or night stands unless the structure has been properly tested to within the weight limits of the aquarium.

### **CLEANING**

It is important to keep this hood appliance clean. Always unplug the appliance before performing maintenance or cleaning of the exterior of this hood. Wipe exposed surfaces carefully with a damp terrycloth to remove any dust or mineral deposits which may collect over time. Make sure all surfaces are dry before re-plugging into an electrical outlet. To prevent scratching the aquarium, use a damp terrycloth when cleaning. Never use algae scrapers, scouring pads, razor blades, glass cleaner or other such abrasives.

### **SERVICING**

In order to assure proper electrical connections and polarity, replacement parts and servicing should be performed only by a qualified electrician.

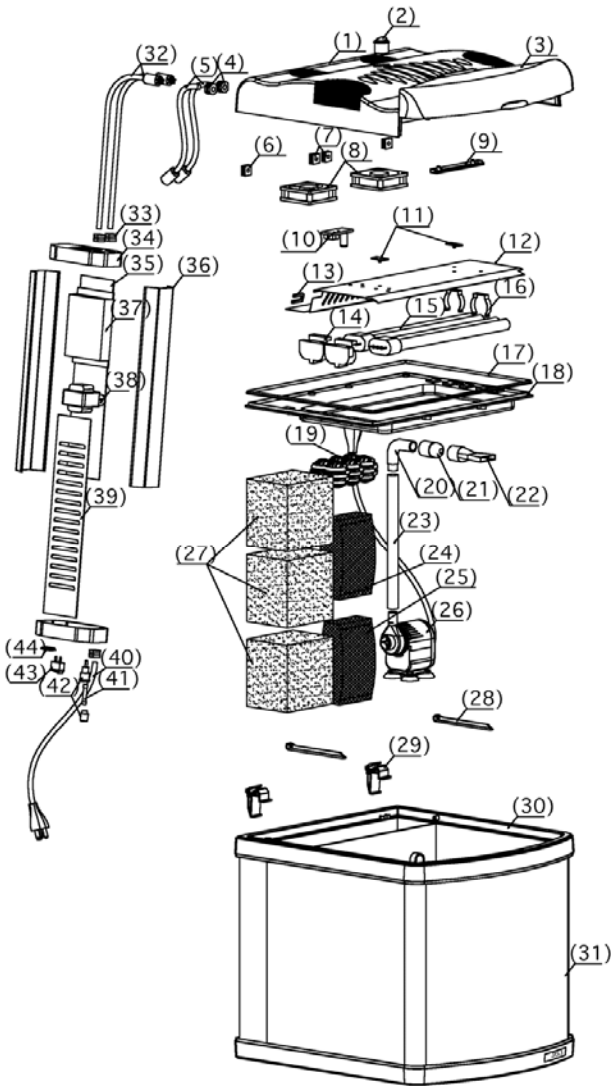
### **OPERATION**

Please carefully read the entire "Owner's Manual" for proper operation procedures before proceeding with turning on this appliance and adding livestock such as fish, corals, and invertebrates.

***SAVE THESE INSTRUCTIONS***

## PARTS EXPLODED VIEW & IDENTIFICATION

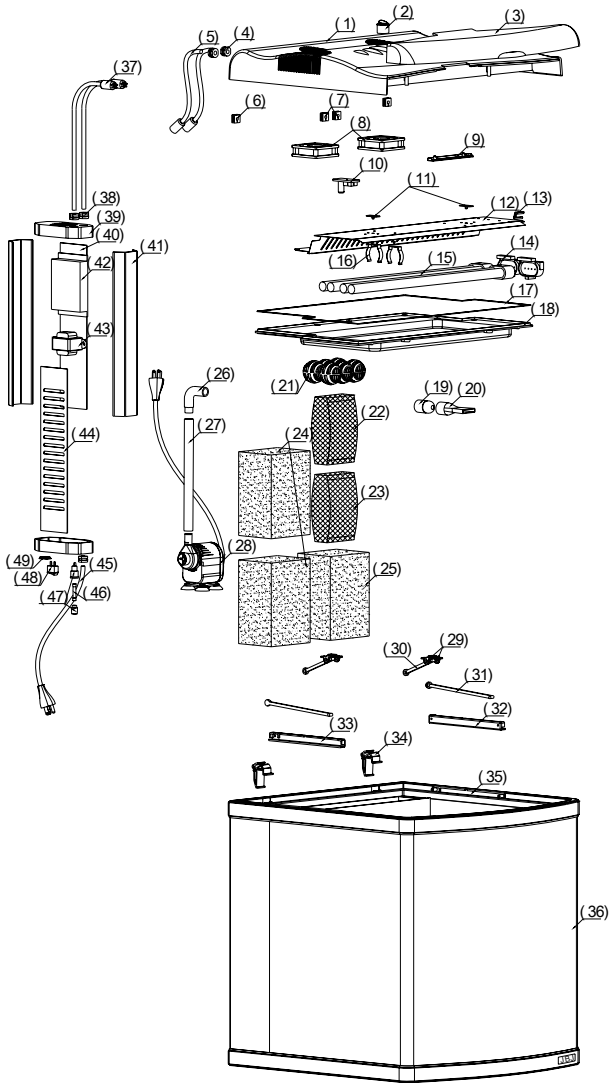
### 12 GALLON DX



## 12 GALLON DX

<b>PART</b>	<b>#</b>	<b>Name</b>	<b>PART</b>	<b>#</b>	<b>Name</b>
MT-402-	1	canopy shell	MT-402-	26	powerhead
MT-402-	2	LED power switch	MT-402-	27	sponges
MT-402-	3	feeder lid	MT-402-	28	canopy leg stands
MT-402-	4	canopy power cord 5 pin male	MT-402-	29	hinge clips
MT-402-	5	canopy power cord 5 pin male	MT-402-	30	aquarium trim
MT-402-	6	wire grommet for accessory	MT-402-	31	glass aquarium
MT-402-	7	wire grommet (internal) 2pcs.	MT-402-	32	ballast pigtails 5 pin female
MT-402-	8	12v DC cooling fans	MT-402-	33	strain relief bushing
MT-402-	9	feeder lid retaining bracket	MT-402-	34	endcaps
MT-402-	10	AC to DC converter 12v	MT-402-	35	remote ballast base plate
MT-402-	11	LEDs	MT-402-	36	sidecaps
MT-402-	12	reflector	MT-402-	37	electronic ballast
MT-402-	13	wire grommet	MT-402-	38	magnetic ballast
MT-402-	14	lamp sockets	MT-402-	39	ballast ventilation grill
MT-402-	15	compact fluorescent lamps	MT-402-	40	3 prong power cord
MT-402-	16	lamp retaining clips	MT-402-	41	fuse
MT-402-	17	splash guard o-ring	MT-402-	42	fuse holder
MT-402-	18	splash guard	MT-402-	43	ballast power switch
MT-402-	19	bio-balls	MT-402-	44	hole plug
MT-402-	20	return elbow			
MT-402-	21	directional return nozzle male			
MT-402-	22	directional return nozzle female			
MT-402-	23	return tube			
MT-402-	24	activated carbon bag			
MT-402-	25	ceramic ring bag			

## PARTS EXPLODED VIEW & IDENTIFICATION 24 GALLON DX





## 24 GALLON DX

PART	#	Name
MT-50-	1	canopy shell
MT-50-	2	LED power switch
MT-50-	3	feeder lid
MT-50-	4	canopy power cord 5 pin male
MT-50-	5	canopy power cord 5 pin male
MT-50-	6	wire grommet for accessory
MT-50-	7	wire grommet (internal) 2pcs.
MT-50-	8	12v DC cooling fans
MT-50-	9	feeder lid retaining bracket
MT-50-	10	AC to DC converter 12v
MT-50-	11	LEDs
MT-50-	12	reflector
MT-50-	13	wire grommet
MT-50-	14	lamp sockets
MT-50-	15	compact fluorescent lamps
MT-50-	16	lamp retaining clips
MT-50-	17	splash guard o-ring
MT-50-	18	splash guard
MT-50-	19	directional return nozzle male
MT-50-	20	directional return nozzle fe-
MT-50-	21	bio-balls
MT-50-	22	activated carbon bag
MT-50-	23	ceramic ring bag
MT-50-	24	sponges left chamber
MT-50-	25	sponge middle chamber

PART	#	Name
MT-50-	26	return elbow
MT-50-	27	return tube
MT-50-	28	powerhead
MT-50-	29	sliding leg #1 retainer
MT-50-	30	sliding leg #1
MT-50-	31	sliding leg #2
MT-50-	32	sliding track-right
MT-50-	33	sliding track-left
MT-50-	34	hinge clips
MT-50-	35	aquarium trim
MT-50-	36	glass aquarium
MT-50-	37	ballast pigtails 5 pin female
MT-50-	38	strain relief bushing
MT-50-	39	endcaps
MT-50-	40	remote ballast base plate
MT-50-	41	sidecaps
MT-50-	42	electronic ballast
MT-50-	43	magnetic ballast
MT-50-	44	ballast ventilation grill
MT-50-	45	3 prong power cord
MT-50-	46	fuse
MT-50-	47	fuse holder
MT-50-	48	ballast power switch
MT-50-	49	hole plug



## CREATING THE ULTIMATE “NANO” EXPERIENCE

Thank you for purchasing the Nano-Cube Aquarium. This state of the art system incorporates a beautiful curved glass aquarium that offers panoramic viewing with the high tech performance of an integrated daylight illumination system, Nite-Vu nocturnal illumination system, dual fan ventilation, and 3 stage filtration system with surface skimming option.

### JBJ ILLUMINATION SYSTEM

Your Nano-Cube is installed with an integrated electronic illumination system that is the key to a successful biotope while providing a brilliant color appearance to enhance the natural colors of fish and corals.

All models include a polished mirror reflector with (2) compact fluorescent lamps that produce 3 times more light output than traditional fluorescent lamps. Our daylight lighting system utilizes a UL Listed energy saving electronic ballast for flicker-free instant starts and low heat production.

Our 50/50 lamps are a breakthrough in the industry with both 10K purified white daylight side by side next to our 7100K blue actinic for the perfect combination of the sun’s spectrum.

#### Nite-Life

We’ve also incorporated our new Nite-vu LED Moonlights to illuminate nocturnal behaviors. These dim LED’s casts a natural rhythmic light cycle for a more natural environment for your livestock and provide the perfect backlight for viewing.

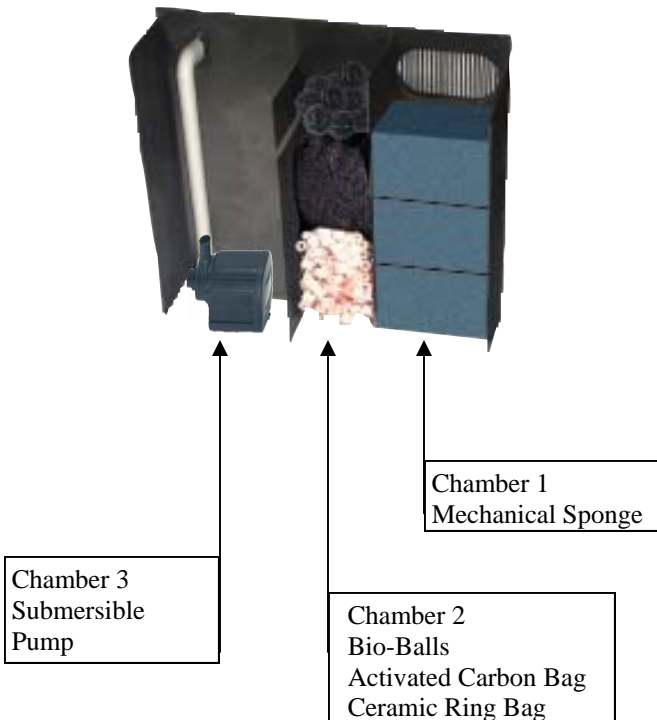
## CRYSTAL CLEAR CURVED GLASS

All Nano-Cube Aquariums offer panoramic viewing with smooth rounded corners for maximum viewing and enjoyment.

## INTEGRATED 3 STAGE FILTRATION

Our comprehensive 3 Stage Filtration system keep aquariums sparkling clean and is discreetly hidden behind a false wall to provide an uncluttered and professional look and feel.

### Filter Compartments & Media Set-Up



## 1. Mechanical Filtration:

Filter Sponge traps free floating particulate matter and debris.

## 2. Chemical Filtration:

Activated Carbon bag removes dissolved organics and odor.

## 3. Biological Filtration:

Ceramic Ring bag provides internal/external surface area for housing beneficial bacteria to oxidize harmful ammonia and nitrite that accumulate in the aquarium from fish wastes, overfeeding, and normal biological processes.

Bio-Balls provide extra support to the ceramic ring bag for tanks with extra heavy biological load.

\* **Note:** Ceramic Ring bag & Bio Balls can be removed if using this Nano-Cube as a mini-reef aquarium. Maintaining an average of 1lb per gallon of live rock will create a live biological filtration system as well as denitrification system ultimately creating a balanced biotope.

## 4. Submersible Pump:

Included with flexible hose and elbow connector.

12g Nano-Cube Deluxe: 166 gph

24g Nano-Cube Deluxe: 266 gph

\***Note:** All Nano-Cubes include a output return nozzle for directional flow control.

## Modular Surface Skimmer:

Instantly transforms your intake grill into a true overflow box. This innovative attachment installs in seconds by placing in front of the intake grill once the tank is filled and pump is turned on. The Modular Surface Skimmer will create a vacuum and water will start to overflow and remove annoying surface film and proteins that collect above the water surface.



Drawing MSS  
on Nano Cube  
Filtration Wall

**Note:** Please maintain rear chamber water levels so pump will not run dry. Water evaporation will occur in the rear chambers when Modular Surface Skimmer is used

## **HANDLING PRECAUTIONS**

Never attempt to move a full or partially full Nano-Cube.  
Never lift by grabbing the aquarium frame  
Never use cleaners that contain ammonia to clean the glass surfaces. Always lift and carry the Nano-Cube from underneath giving support to the bottom at all times.

## **CHOOSING A LOCATION**

### **A. With a Nano-Cube Stand**

1. Find a leveled surface and place Nano-Cube on top of stand before filling with water. Make sure that no part of the tank is overhanging the stand.

### **B. Without a Nano-Cube Stand**

1. Find a leveled surface that can support the weight of the tank, water, and livestock. An average aquarium can weigh 10lbs per gallon once filled with water, rock, gravel, and other accessories.

2. Do not place in direct sunlight to prevent excessive algae growth and higher water temperatures.

## **FILLING THE TANK**

Always dechlorinate tap water before adding into the aquarium.

Always fill with room temperature water.

Rinse Activated Carbon which is located in the rear filter compartment under the sink for 30 seconds or until water runs clear.

Fill the main body of the Nano-Cube until water flows through intake grill into the rear filter chamber. Once the rear filter chamber is full, plug in pump power cord into an approved electrical outlet with a fuse or circuit breaker.

Once pump is on, water will flow from the rear filter chamber through the directional flow nozzle into the main body of the Nano-Cube. Adjust accordingly to desired flow position.

## ADDING THE MODULAR SURFACE SKIMMER

Unpack the Modular Surface Skimmer (Included) and place in front of intake grill once pump has been turned on.

The Modular Surface Skimmer will instantly attach and start to surface skim all surface film and floating particles from the water.

This device should be removed when changing water or before turning off the pump

**Note:** Evaporation will occur in the rear filter chamber when using the Modular Surface Skimmer. Water top offs should be performed regularly to prevent the heater and pump from running dry.

## ADDING A HEATER (not included)

If you wish to keep tropical (warm water) fish you will need a submersible heater to maintain optimal water temperatures to simulate their natural environment. Most tropical fish will need a temperature range between 74-78 F for optimal living conditions.

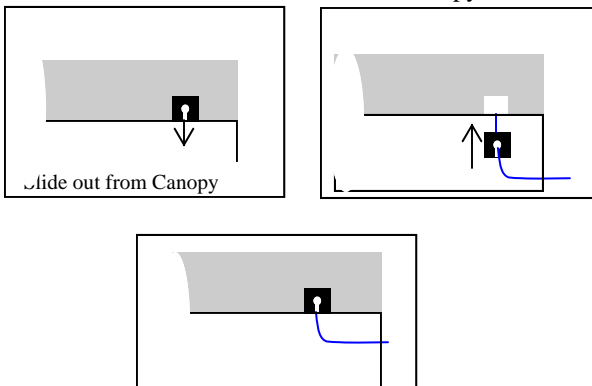
A heater can be placed either in the main body of the Nano-Cube behind accessories such as decorations, plants, or rocks. You may also choose to place the heater in the rear chamber.

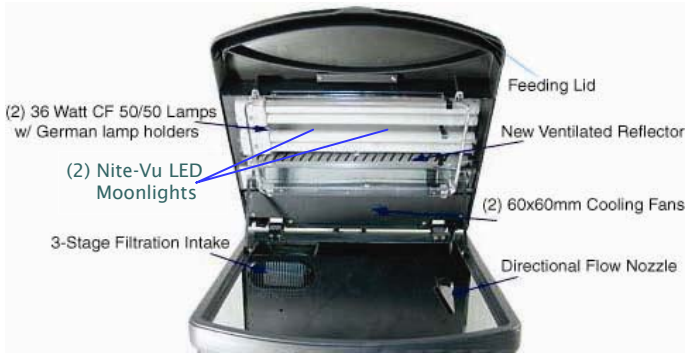
## HIDING YOUR HEATER POWER CORD

Your canopy is installed with an extra black rubber grommet with power cord slot in the rear of the canopy to secure the power cord from cinching between the canopy and tank while opening and closing.

Remove the black rubber grommet and insert heater power cord. Gently squeeze the grommet back into the power cord slot and adjust accordingly making sure to leave enough slack for opening.

View from back of Canopy





## TURNING ON YOUR LIGHTING SYSTEM (Daytime)

Your Nano-Cube is pre-installed with a dual illumination system that offers daylight and nightlight illumination.

### A. Connecting the Remote Ballast

1. Connect the (2) male cables from the canopy to the (2) female cables out from the remote ballast. Align the notched groove and insert until you have a secure fit.

B. Plug power-cord from the remote ballast into an outlet strip that is properly approved and equipped with a fuse or circuit breaker.

C. Press the switch located on the remote ballast to 'ON' position to turn on compact fluorescent lamps (daytime lamps). This will simultaneously start the dual cooling fans integrated in the

## TURNING ON YOUR LIGHTING SYSTEM (Nite Lite)

Your Nano-Cube incorporates our Nite-Vu LED's that simulate nocturnal cycles with very dim blue light (nightlights) that casts sparkling rays that shimmer for a more natural light cycle commonly found in nature.

A. Press the switch located on the remote ballast to "OFF" position and press the switch located on top of the canopy hood to "ON" position to turn on the Nite-Vu LED lighting.

B. The Nite-Vu LED lighting is very dim not to disturb the night cycles of fish but just bright enough to watch their nocturnal behaviors. The Nite-Vu LED lighting is best seen when surrounding light is turned off in the room.



# NANO-CUBE Maintenance Procedures

Regular maintenance is the key to a successful thriving aquarium. Maintaining an aquarium can be very easy with a regular cleaning schedule.

## WATER CHANGES

- A. Water changes should be carried out on monthly to bi-monthly schedule depending on how much bio-load is kept.
- B. 25% water changes with gravel vacuuming is essential to keep dissolved organic carbons to a minimum.

## REPLACING THE FILTER SPONGE (Chamber 1)

- A. Filter Sponge should be changed on a monthly basis to remove trapped debris and free floating particulate matter.

## REPLACING THE ACTIVATED CARBON (Chamber 2)

- A. Activated Carbon adsorbs dissolved pollutants and removes the yellow discoloration of water and associated odors.
- B. Replace Activated Carbon Bag on a monthly basis.

## BIO-BALLS & CERAMIC RINGS (Chamber 2 / Bottom Level)

- A. Biological media should not be removed as it houses the beneficial nitrifying bacteria for removal of ammonia and nitrite.
- B. This media does not need to be changed.



# NANO-CUBE Maintenance Procedures

## SAFETY

Always disconnect the power supply from the wall outlet when performing lamp changes

## CHANGING THE LAMPS

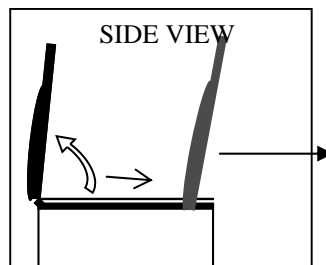
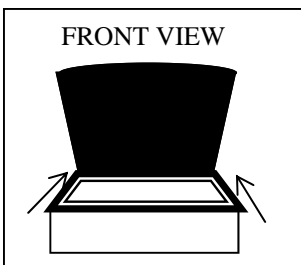
Your Nano-Cube is installed with the following:

Model	Bulb Item #	Description	Kelvin
12G DX	B24-BW10K	24 Watt Compact Fluorescent Lamp	Half 10K Day-light/ Half 7100K Actinic Blue
24G DX	B36-BW10K	36 Watt Compact Fluorescent Lamp	Half 10K Day-light/ Half 7100K Actinic Blue

We recommend replacing lamps every 9-12 months due to a decline in intensity which is vital for corals and invertebrates. Spectral shifts may also occur that may lead to undesirable algae growth.

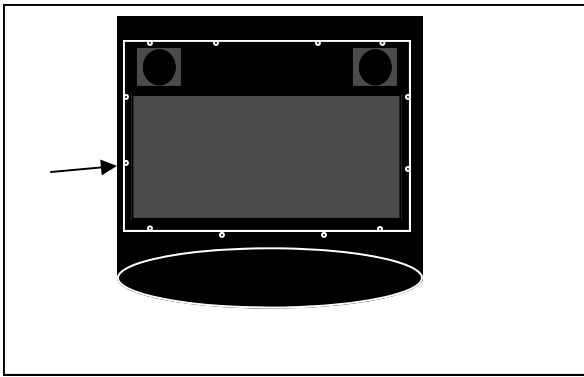
## Removing the Canopy Lid

Your canopy lid is fastened into 2 hinges located towards the rear of the canopy. To remove canopy, simply lift the canopy lid at a 90 degree angle from the tank and pull canopy lid towards yourself. The canopy lid will “unsnap” from the hinges on the tank.



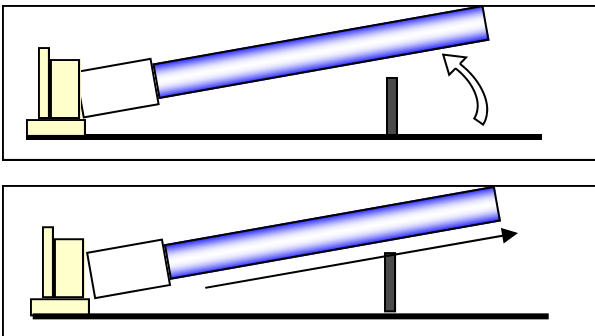
## Removing the Clear Splashguard Cover

Place the canopy on a leveled flat surface and remove screws located on the perimeter of the splash guard with a Phillips Screwdriver by hand.



## Removing Lamps

Remove lamp (s) from lamp clip and pull opposite direction from the ceramic lamp holder. The lamp will automatically “unsnap”. Re-install new lamp (s), you should hear a “snap” when lamp is securely locked into ceramic lamp holder





# NANO-CUBE Maintenance Log

DATE	MAINTENANCE



**Customer Service Information**

For additional information or technical assistance please call us at (310) 672-4099, M-F from 9AM-5PM (Pacific Standard Time).



## **Transworld Aquatic Ent., Inc**

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Nano-Cubes are listed by Underwriters Laboratories to ensure that they meet stringent U.S. safety requirements.