



# NANO-CUBE CF-QUAD REEF SERIES BIOTOPE

## OWNER'S MANUAL



# 28 Gallon

TRANSWORLD AQUATIC ENTERPRISES INC.

# 28g NANOCUBE CF-QUAD

TABLE OF CONTENTS	
Important Safety Instructions	3—5
28 Gallon Nano Cube CF-QUAD - PARTS PAGE	6—7
Introduction	8—11
Getting Started	12
Lighting	13
Maintenance Procedures	14-15
Specifications	16-17
Maintenance Log	18-19
Maintenance Notes	20-21

## Important Safety Instructions

### WARNING

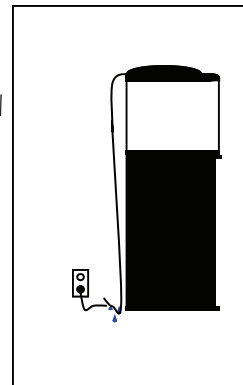
To guard against injury, basic safety precautions should be observed, including the following:

### 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.

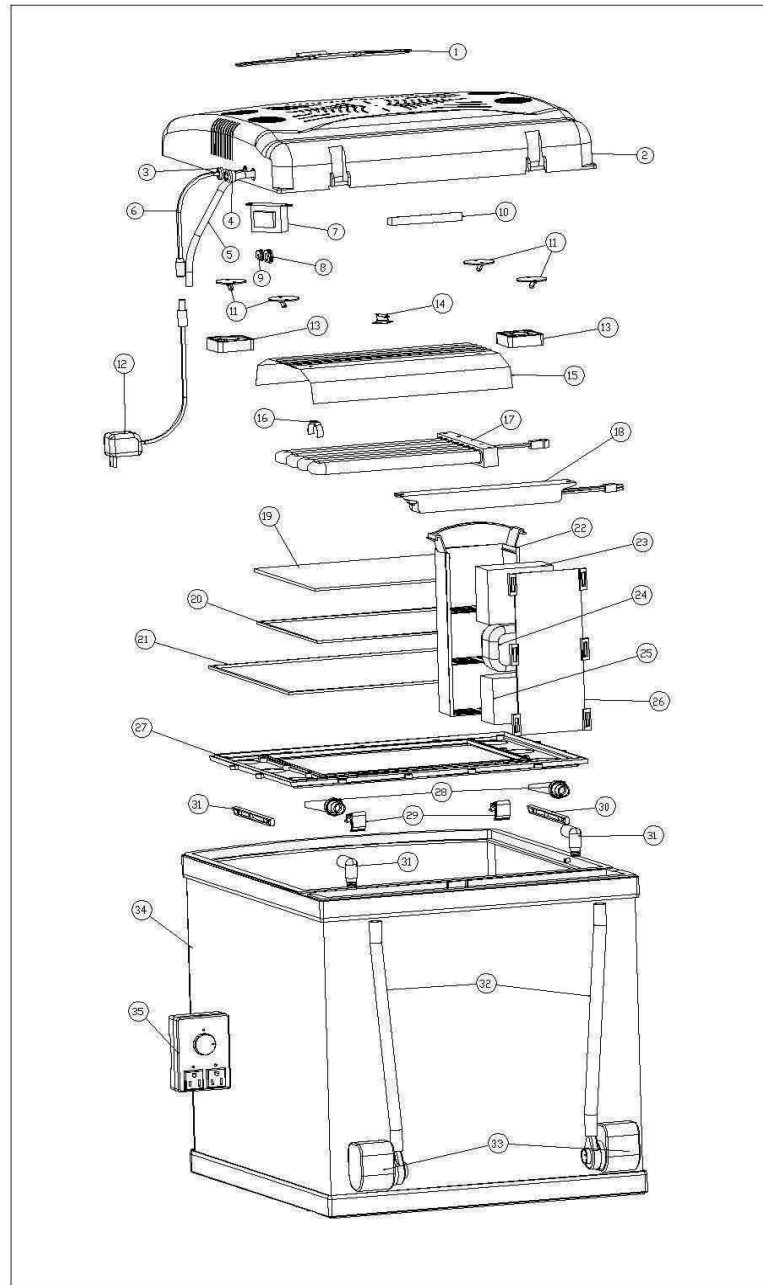
### **OPERATION**

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**

# 28g NANOCUBE HQI Parts

## PARTS EXPLODED VIEW & IDENTIFICATION



## 28g NANOCUBE HQI Parts

<b>PART</b>	<b>#</b>	<b>Name</b>	<b>PART</b>	<b>#</b>	<b>Name</b>
MT-60-	1	Feeding Lid	MT-60-	26	Sliding Door
MT-60-	2	Canopy	MT-60-	27	Canopy Splash Guard
MT-60-	3	Strain Relief Bushing	MT-60-	28	Return Nozzle
MT-60-	4	Strain Relief Bushing	MT-60-	29	Canopy Clip
MT-60-	5	CF-QUAD Cable	MT-60-	30	Canopy Leg Stand
MT-60-	6	LED Calbe	MT-60-	31	Return Elbow
MT-60-	7	12V Transformer	MT-60-	32	Pump Hose
MT-60-	8	Wire Grommet	MT-60-	33	Accela Pump
MT-60-	9	Wire Grommet	MT-60-	34	Tank Body
MT-60-	10	Canopy Circuit Board	MT-60-	35	Ocean Pulse Wavemaker
MT-60-	11	Nite-Vu LED Light			
MT-60-	12	LED Transformer			
MT-60-	13	Cooling Fan			
MT-60-	14	Thermal Protector			
MT-60-	15	Mirror Reflector			
MT-60-	16	Lamp Clip			
MT-60-	17	CF-Quad Lamp			
MT-60-	18	CF Electronic Ballast			
MT-60-	19	Quartz Glass			
MT-60-	20	Quartz Glass - O-Ring			
MT-60-	21	Canopy Splash Guard/O-Ring			
MT-60-	22	Filter Basket + Handle			
MT-60-	23	Sponge			
MT-60-	24	Activated Carbon			
MT-60-	25	Ceramic Ring			

## 28g NANOCUBE CF-QUAD Introduction



### THE ULTIMATE REEF SERIES BIOTOPE

Thank you for purchasing the 28g Nano Cube CF-QUAD —Reef Series Biotope. This MEGA powered “ALL-in-One” aquarium features many integrated high-tech equipment while still keeping the aesthetic appeal and contemporary look of a modern aquarium.

This unique aquarium offers an integrated 105 Watt Compact Fluorescent Quad daylight illumination, 4—Nite-Vu LED moonlights for nocturnal illumination, 2— Cooling fans for temperature control, dual return pumps with center overflow and an adjustable wavemaker for the ability to simulate turbulent tides commonly found in nature.

#### ILLUMINATION SYSTEM

Your 28g Nano-Cube CF-QUAD is installed with a high powered 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 (1) 105 Watt Compact Fluorescent system that produces the highest lumen output for the size. Our daylight lighting system utilizes a UL Recognized ballast for long-term performance and reliability.

This unique CF-QUAD lamp features 4 lamps fused into one space spacing bulb. The front (2) lamps contain 10,000K White Daylight and the back (2) lamps contain 7100K Blue Actinic.

We’ve also incorporated (4) 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.



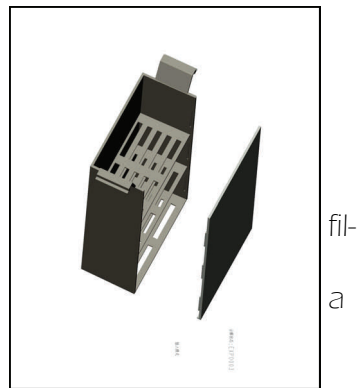
# 28g NANOCUBE CF-QUAD Introduction

## CRYSTAL CLEAR CURVED GLASS

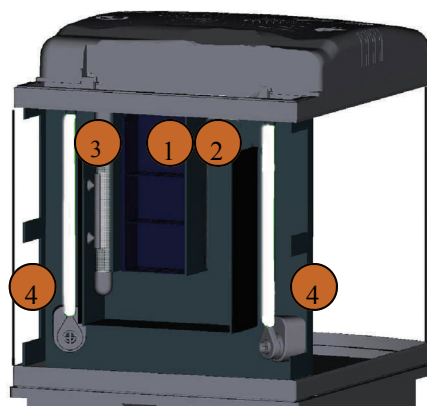
All Nano-Cube Aquariums offer panoramic viewing with smooth rounded corners for maximum viewing and enjoyment.

## 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. All media is conveniently placed inside our **Removal Filter Media Basket** for quick and easy filter changes. The filter media basket also incorporates a handle and sliding door for added convenience.



## FILTRATION LAYOUT



### 1 - 3 STAGE FILTER

- \* Mechanical Sponge
- \* Activated Carbon Bag
- \* Biological Ceramics Bag

### 2 - AUXILLARY COLUMN

### 3 - HEATER COLUMN (Heater Not Included)

### 4 - RETURN PUMPS

## 28g NANOCUBE CF-QUAD Introduction

### 3 STAGE FILTER

#### Mechanical Filtration:

Filter Sponge traps free floating particulate matter and debris.

#### Chemical Filtration:

Activated Carbon bag removes dissolved organics and odor.

#### 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, over-feeding, and normal biological processes.

\* **Note:** Ceramic Ring bag 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.

#### Submersible Pumps:

Included with flexible hose and elbow connector.

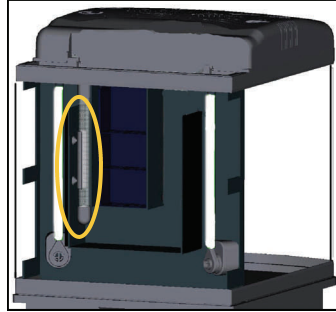
(2) Accela SP1-1000 Pumps

Rated at 266 gph

**Heater Placement (not included)**

A submersible heater should be placed in the designated heater column. This column ALWAYS has a constant water level to keep the heater submerged and to prevent breakage.

Most tropical fish and corals prefer a range between 74-80F. Please consult with your aquarium professional for specific needs of the animals you intend to keep.

**Dual Return Pumps + Wavemaker**

Once the water is filtered and heated, the water is redirected back into the aquarium via (2) directional flow nozzles and wavemaker.

The dual return pumps along with the wavemaker recreate the natural turbulent currents normally associated with reef environments.

The Ocean Pulse Wavemaker can be adjusted from 10 Seconds to 6 minute intervals. This alternating cycle will keep detritus from accumulating, provides oxygen, removes waste from coral polyps and provides the optimal environment for corals to flourish.



## 28g NANOCUBE CF-QUAD **Getting Started**

### **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 the overflow grill into the rear filter chamber. Once the rear filter chamber is full, plug pumps into the Ocean Pulse Wavemaker.

Adjust the dial on the wavemaker to create the alternating ON/OFF cycles for the pumps. Plug the wavemaker power cord into an approved electrical outlet with a fuse or circuit breaker.

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

- (1) 105 CF-QUAD Combo**
- (2) Cooling Fans**
- (4) Nite-Vu LEDs**
- (1) Integrated Electronic Ballast**
- (1) Mirror Reflector**
- (1) Auto-Shut Off Thermal Protector**



### **TURNING ON YOUR LIGHTING SYSTEM (Daytime)**

Your 28g Nano-Cube CF-QUAD is pre-installed with a dual illumination system that offers daylight and nightlight illumination.

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

B. Press the switch located on the power cord exiting from the canopy to turn on 105 Watt CF-QUAD (daytime lamps). This will simultaneously start the two cooling fans integrated in the canopy to keep the hood at proper operating temperatures.

### **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. Connect the single male prong cable from the canopy to the small block transformer. May be plugged into a timer for night cycles

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.

# Maintenance Procedures

Regular maintenance is the key to a successful thriving aquarium. Maintaining an aquarium can be very easy with a regular cleaning schedule. Changing filter media is fast and easy with our Removal Filter Media Basket.

Simply, lift up on the handle and the water will drain out from the bottom. Take to the sink and slide open the door for a convenient filter change.

## 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

## REPLACING THE ACTIVATED CARBON

- A. Activated Carbon adsorbs dissolved pollutants and removes the yellow discoloration of water and associated odors.

## CERAMIC RINGS (Chamber 3 / Bottom Level)

- A. Biological media should not be removed as it houses the beneficial nitrifying bacteria for removal of ammonia and nitrite.



# Maintenance Procedures

## SAFETY

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

## CHANGING THE LAMPS

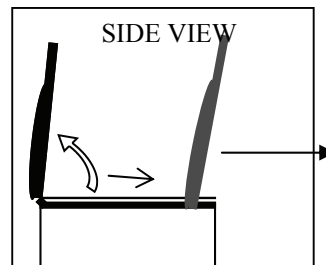
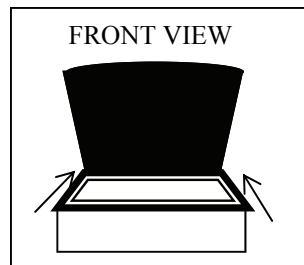
Your 28g Nano-Cube CF-QUAD is installed with the following:

Model	Bulb Item #	Description	Kelvin
28g NanoCube CF-QUAD	B105-BW10K	105 Watt CF-QUAD	Half 10K/Half 7100K Actinic

We recommend replacing the lamp 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.



# **SPECIFICATIONS**

## **28g NANOCUBE CF-QUAD- SPECS**

PRODUCT NAME: 28G NANOCUBE CF-QUAD  
ITEM CODE: MT-602-LED  
TANK VOLUME: 28 GALLONS  
GLASS THICKNESS: 6mm  
105 Watt Compact Fluorescent Quad Lamp  
Kelvin: 10K Daylight/ 7100K Actinic  
Nite-Vu LED - (4) blue moonlights  
Accela Pumps (2) : 266 gph / 16 watt  
Cooling Fans (2) : 3000 RPM / Ball Bearing Type  
Ballast: Integrated Energy Efficient Electronic

### **Customer Service Information**

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



Optional Stand:

18" x 22" x 32"

Item Code: MTS-60

- Ventilated Side Cabinets
- 32" high
- Chiller Storage
- Hardware Included







28g NANOCUBE CF-QUAD Notes

---

**28g NANOCUBE CF-QUAD** **Notes**

---



Aquatic

**WWW.JBJLIGHTING.COM**

Transworld  
Ent., Inc

3730 West Century Blvd, Suite 3  
Inglewood CA 90303

Phone: 310-672-0480  
Fax: 310-672-7261  
E-mail: [sales@bjlighting.com](mailto:sales@bjlighting.com)