

Nano Cube

Owner Manual



General Operation

Introduction

Your CASCO NANO CUBE is designed for ease of use and to provide optimal livestock conditions.

The Cube has its own filtration sump unit located at the bottom of the rack. The water is completely separate from that in anything you might have next to it.

The Cube can automatically top-up from your stores freshwater supply. Under normal operation there is no need to top-up the systems manually, check to see if your system has been set up this way, you will find a Red ball cock in the sump, if you press it down water will come out further up the fitting.

Each aquarium compartment has its own water supply and drain, however the corner aquariums do flow through an adjoining one to get back to the sump. Flow to each Level of the tanks is individually adjustable with the inlet tap.

Switching the systems on and off

The systems are connected to your stores main electrical supplies.

The lights for all the Cube can be switched on and off using the relevant switch in the filter area under the tanks

The Cube filtration systems are connected to a 24-hour supply and must under normal circumstances be switched on at all times. ***Switching off the filtration system for any significant length of time will be harmful to your fish!***

If an individual component needs to be switched off or disconnected, this can be done via the plug strip mounted at the bottom of each rack above the filter system:

IMPORTANT – DO NOT touch the plug strip with wet hands! Risk of electric shock!

Each plug is labelled with the piece of equipment that it supplies:

- System Pump
- UV Filter
- Heater 1
- Heater 2



When you unplug an item, carefully pull the plug towards you. Draw sufficient cable through over the filter system so that you can lay the plug safely on dry ground in front of the unit. DO NOT allow the plug to drop into the filter system!

To reconnect the piece of equipment, check the plug is clean and dry and reverse the above process. Feed excess cable back behind the system and reconnect the plug. Check that the equipment is operating correctly.

Water Flow



Each aquarium compartment has it's own Inlet and Outlet. Flow into the aquarium compartment can be adjusted or shut off by turning the Blue tap. It is important to check daily that a good flow of filtered water is reaching each aquarium compartment

IMPORTANT! – DO NOT switch off the taps completely on the same system at the same time. Doing so will place excess pressure and will damage your circulation pump.

Water drains out of the aquarium via the black strainer at the back of the tank. It is important that these are kept clean from debris (daily check). Allowing them to block up will overflow the aquarium!

Routine Maintenance

Introduction

Your CASCO Nano Cube is designed for ease of use and to provide optimal livestock conditions. Some simple maintenance of the system is required. By carrying this out according to the following schedule major problems and equipment failure can be avoided.

Daily Maintenance Checks and Tasks

The following checks and tasks need to be carried out at least once a day. It is strongly recommended that the checks be made once at the start and once at the end of every day.

Aquariums:

General – Check for any signs of water leaks and general good condition and correct operation of equipment.

Aquarium Water Flow

- Check that sufficient water is flowing into every aquarium compartment. Adjust taps as necessary.
- Check that all aquarium outlets are clear of any debris. Clean as necessary.

Poor water flow will lead to low water quality and temperature fluctuations that can lead to livestock loss.

Water Temperature

- Check the temperature of the water in each tropical system using a glass thermometer. Tropical freshwater fish should be kept at a constant temperature of between 25 and 26°C (77 and 79°F)

Water Quality

- Carry out water quality tests in accordance with your store procedure schedule for each system and log results.

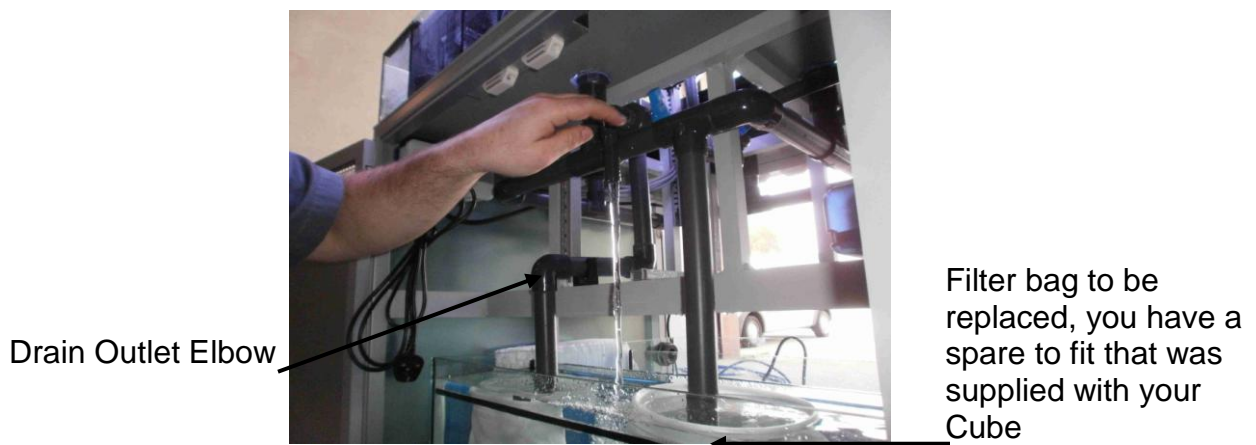
Livestock Health

- Check general livestock health in accordance with your store procedure schedule for each system and log results.

Filter System:

Clean/Replace Filter Bag

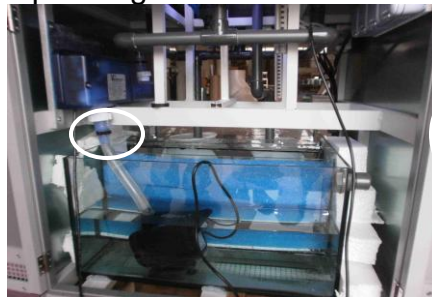
- Switch off system first by unplugging the filter pump.
- **IMPORTANT** – DO NOT touch the plug strip with wet hands!
- Carefully pull the plug towards you. Draw sufficient cable through over the filter system so that you can lay the plug safely on dry ground in front of the unit. DO NOT allow the plug to drop into the filter system!
- Wait a few moments to allow the water to stop draining into the filter system from the Drain Outlet Elbow.
- Gently pull the Drain Outlet Elbow towards you. It will slide off the System Drain Line allowing you to easily remove the filter bag.



- Fit a new filter bag from your spare set, Refit the Drain Outlet Elbow and reconnect the pump. Take a few moments to check that everything is operating as it should on the restarted system and that water is flowing correctly to all aquarium compartments.
- The dirty filter bags can be turned inside out and cleaned with a hose.
- Store the cleaned set of bags safely for the next changeover.

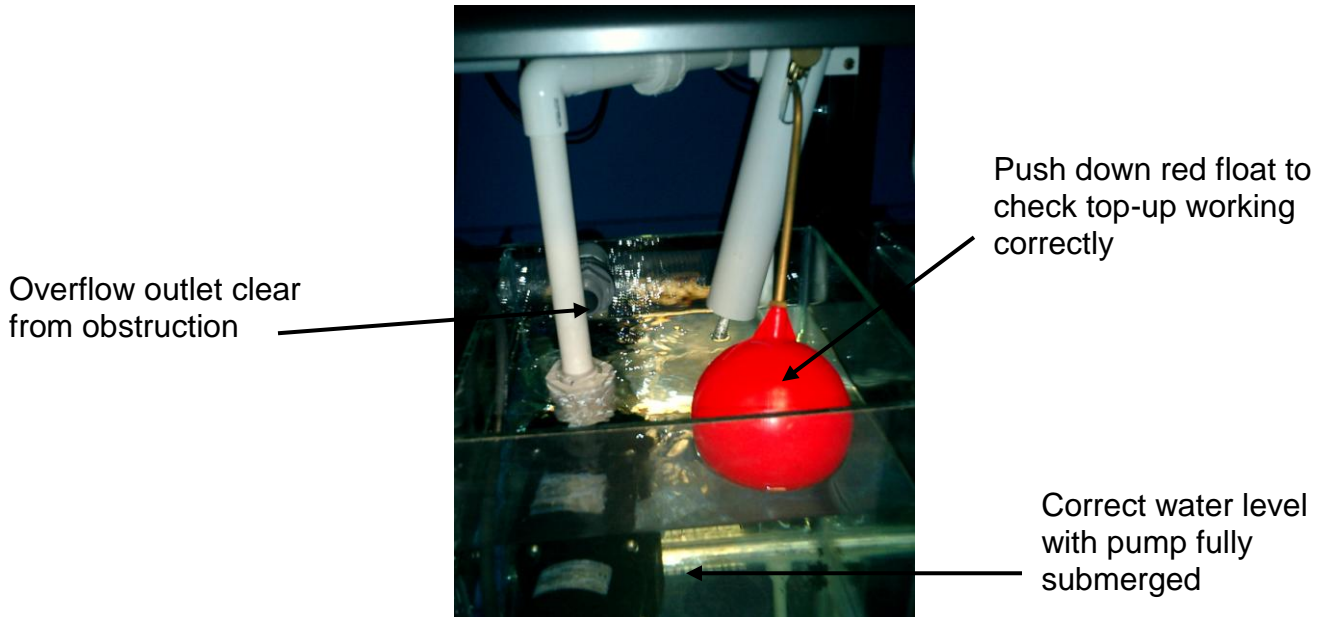
UV Filter

- Check that UV Filter is operating.



Both ends of the UV glow when the unit is working correctly

Filter System Water Level check that there is the correct level of water in the pump chamber of the filter sump. Insufficient water can cause damage to the pump and stop the system from running leading to loss of livestock.



Overflow Outlet

- Check that the Overflow Outlet in the Filter Pump Chamber is free from obstruction.

Automatic Top-Up

- Check that the Automatic Top-Up is working correctly by pushing down gently on the red float. Water should come out of the white top up pipe to fill the pump chamber.

Weekly Maintenance Checks and Tasks

The following checks and tasks need to be carried out at least once a week. Depending on the amount and type of livestock in your systems it may be necessary to carry them out more often.

Carry out the following in addition to the daily tasks above.

Check Filter System

- Clear any debris that has collected in any area of the filter system. Stones, gravel, paper, plastic bags etc can all cause the system to stop working or flood!

Fortnightly Maintenance Checks and Tasks

The following checks and tasks need to be carried out at least once every two weeks. Depending on the amount and type of livestock in your systems it may be necessary to carry them out more often.

Carry out the following in addition to the daily & weekly tasks above.

Clean Filter Foam

- Unplug the filter pump as detailed above to stop water flowing.
- Remove the filter foam blocks and rinse them gently in a bucket of water removed from the system. It is important NOT to wash them in tap water as this will kill off the beneficial bacteria that live on the foam.
- Replace the cleaned foam and restart the system.

Trouble Shooting Guide

In the event of a problem the following Trouble Shooting Guide should be consulted. This covers the most common malfunctions and suggests actions to carry out to remedy most problems that can occur. Many malfunctions are related to incorrect maintenance on the system. Carefully following the maintenance guide will eliminate most problems with the system.

<u>Fault</u>	<u>Reason</u>	<u>Action</u>
No flow to the aquariums	Pump not working	Check Pump Operation Check Electrical Supply
	Pump Blocked	Clean Pump
	No Water in Reservoir	Check Top-Up Operation. If necessary manually fill pump chamber. Do not allow pump to run dry!
	Inlet Taps Turned off	Check taps are open and adjusted correctly
Aquarium Overflowing	Inlet Taps Turned to high	Turn taps down
	Outlet Pipe Blocked	Remove debris from outlet strainer
Filter Over flowing	Overflow Outlet Blocked	Unblock Outlet
	Auto Top up Stuck Open	Check Float Valve
	Bag or Media Dirty	Clean Bag & Sponges

Temperature Low	Heater Set too Low Heater Broken Auto Top up Stuck Open	Adjust Heater Setting Replace Heater Check Float Valve
Temperature too High	Heater Broken Heater Set too High High summer ambient temperature in store	Replace Heater Adjust Heater Setting
UV Lamps not working	No Power to Lamp Component Fault	Check black lamp leads Check Electrical Supply Contact CASCO
No Power to One System	Electrical Fault	Check Extension lead Fuse Check mains plugs from rack correctly connected Contact Casco
No Power to All Systems	Electrical Fault on Distribution	Check Main Store Electrical Panel
System Pump Noisy	No water / Low level in Pump Chamber Pump failing	Switch off Pump and allow reservoir to refill. Check Top-Up System Operation Replace Pump Contact CASCO

IMPORTANT – If you cannot solve the problem with your system quickly you should switch all system components off and move the aquarium livestock to another correctly working system. Livestock must not be left for any significant length of time in a system that is not working correctly.