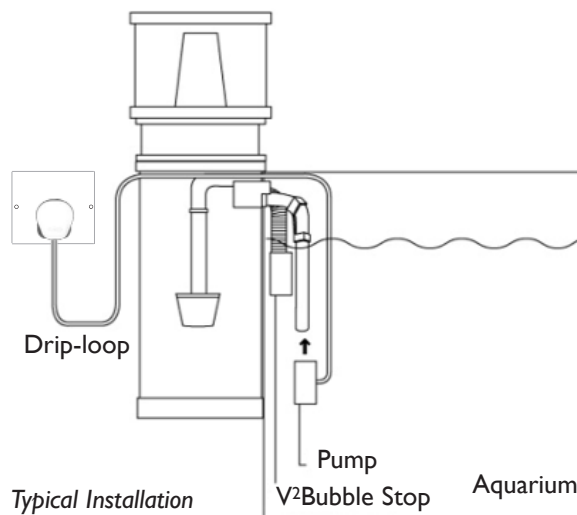


# V<sup>2</sup>Skim Protein Skimmers

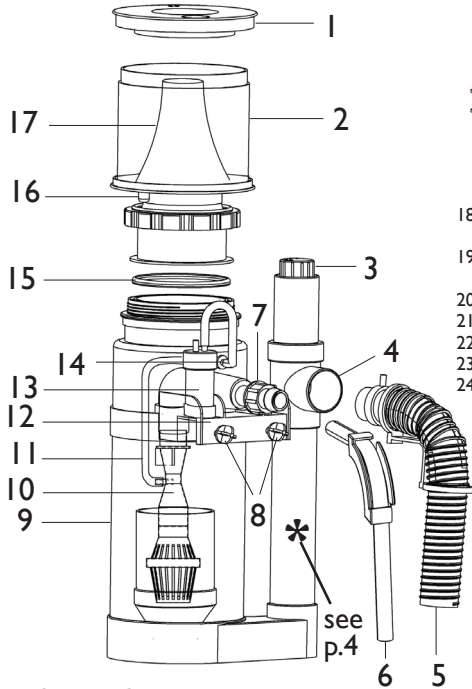
## INSTRUCTIONS FOR INSTALLATION AND USE

### Important Safety Information - Please Read Carefully

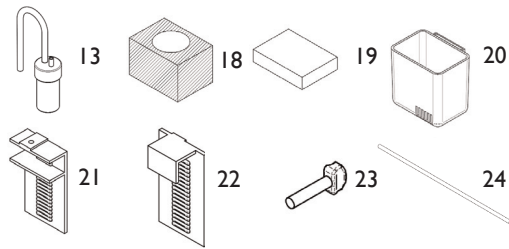
- This skimmer is supplied with a high performance pump. Please read carefully the safety information supplied with the pump before installing.
- Always isolate the pump from the mains electricity before installing or carrying out any maintenance to the skimmer.
- Power to the pump must be supplied through a Residual Current Device (RCD) with a rated residual operating current not exceeding 30mA.
- The pump is designed to run completely submerged in water - do not run the pump dry.
- To ensure the pump continues to maintain a steady water flow, it must be cleaned regularly to ensure it does not become clogged with debris or detritus.
- Pump rating: 220-240V, 50Hz unless marked otherwise.
- Do not operate any appliance if it has a damaged cord or plug, if it is malfunctioning, or if it has been dropped or damaged in any way.
- This unit is designed to be used indoors and is not suitable for any outdoor applications.
- Ensure the skimmer is securely installed before operating.
- Always leave a drip-loop in the pump cable to prevent water running down the cable and reaching the power source (see picture below).
- Dispose of this unit responsibly. Check with your local authority for disposal information.



## PARTS LIST

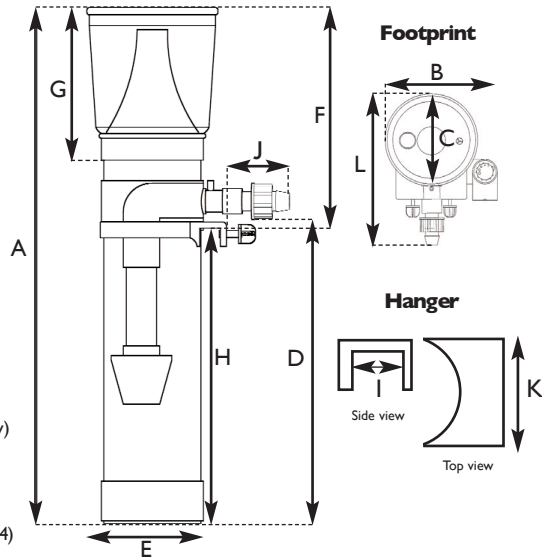


1. Collection Cup Lid
2. Collection Cup
3. Water Level Adjustment Dial
4. Water Outlet
5. Outlet Pipe Assembly (part no. 5366)
6. Inlet Pipe Hose Assembly (part no. 5365)
7. Water Inlet
8. V<sup>2</sup>Skim Securing Screws (part no. 5369 - sold separately)
9. Main Skimmer Body
10. Venturi Injection Assembly
11. Venturi Air Inlet Connection Tube (on models 800-1500 only) (part no. 5370)
12. Hanger
13. Venturi Air Intake Silencer (on models 800-1500 only)
14. Air Inlet
15. Collection Cup O Ring (on models 600-1500 only) (part no. 5364)
16. Drain Port (on models 800-1500 only)
17. Collection Cup Cone



18. V<sup>2</sup>Bubble Stop Black Sponge Filter  
(models 400-600 - part no. 5360/models 800-1500 - part no. 5362)
19. V<sup>2</sup>Bubble Stop White Sponge Filter  
(model 400-600 - part no. 5361/models 800-1500 - part no. 5363)
20. V<sup>2</sup>Bubble Stop
21. V<sup>2</sup>Bubble Stop Mounting Bracket option 1
22. V<sup>2</sup>Bubble Stop Mounting Bracket option 2
23. V<sup>2</sup>Bubble Stop Securing Screw (part no. 5368)
24. Collection Cup Drain Hose (on models 800-1500 only) (part no. 5367)

## DIMENSIONS



Outlet hose assembly = 290mm long  
Inlet pipe hose assembly = 330mm long

	A	B	C	D	E	F	G	H	I	J	K	L
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
<b>V<sup>2</sup>Skim 400</b>	435	120	85	255	110	185	105	250	17	50	60	160
<b>V<sup>2</sup>Skim 600</b>	510	135	105	285	130	230	165	283	20	50	80	180
<b>V<sup>2</sup>Skim 800</b>	510	180	125	225	160	285	185	225	30	50	102	205
<b>V<sup>2</sup>Skim 1000</b>	610	180	125	325	160	285	185	325	30	50	102	205
<b>V<sup>2</sup>Skim 1200</b>	540	200	150	225	190	320	215	225	30	50	117	230
<b>V<sup>2</sup>Skim 1500</b>	640	200	150	325	190	320	215	325	30	50	117	230

## SKIMMER ASSEMBLY

The V<sup>2</sup>Skim Protein Skimmer is supplied almost fully assembled to ensure the skimmer is ready to use as soon as possible after unpacking.

1. Ensure the skimmer collection cup (2) and lid (1) are securely and correctly positioned on the main skimmer body (9) and on models 600-1500 please check that the skimmer collection cup O ring (15) is also positioned correctly.
2. Attach the outlet pipe assembly (5) to the water outlet (4).
3. Attach the inlet pipe hose assembly (6) to the water inlet (7)

## V<sup>2</sup>BUBBLE STOP ASSEMBLY

1. Select the correct mounting bracket (21 or 22) for your aquarium and insert bracket into the slot located at the back of the V<sup>2</sup>Bubble Stop.
2. Insert the screw (23) on the mounting bracket for later use.

## INSTALLATION

The versatile design allows the V<sup>2</sup>Skim Protein Skimmer to be used either externally as a 'hang-on' skimmer or internally in a sump or aquarium.

### A. 'HANG-ON' INSTALLATION

1. Ensure there is adequate space around the aquarium or sump to allow the skimmer to be installed.
2. Ensure that there is an adequate unobstructed space for the pump inside the aquarium.
3. Place pump in aquarium. For maximum performance do not locate the pump more than 20cm below the water inlet of the skimmer.

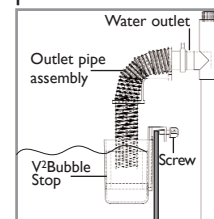
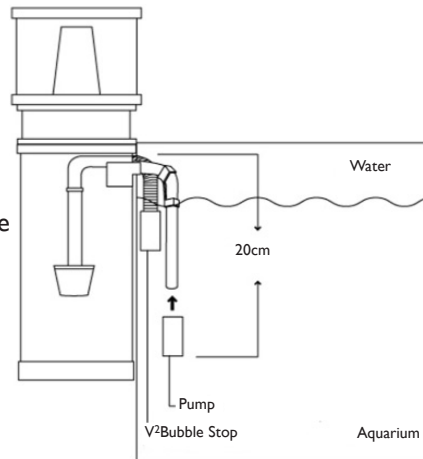
**USEFUL TIP:** Use the suction cup bracket provided with the pump to secure the pump on the side of your aquarium directly below the inlet of your V<sup>2</sup>Skim Protein Skimmer.

4. Hang the V<sup>2</sup>Skim Protein Skimmer on the side of your aquarium in the desired location and tighten the securing screws (8).
5. Connect pump to skimmer using the inlet pipe hose assembly (6).

**USEFUL TIP:** There are a number of fittings and accessories supplied with the pump which allow for easy connection of the inlet pipe hose assembly to the pump.

5. Attach the V<sup>2</sup>Bubble Stop mounting bracket onto the side of your aquarium so the outlet pipe assembly (5) of the skimmer can be easily located.
6. Insert outlet pipe assembly into the V<sup>2</sup>Bubble Stop and tighten V<sup>2</sup>Bubble Stop securing screw (23).

7. On models 800-1500 there is a drain port (16) fitted in the base of the collection cup which allows skimmate (waste material) to be drained to waste. When using this port, remove the rubber drain plug and fit the supplied collection cup drain hose (24) so that skimmate can be easily drained away. Please note that longer lengths of drain hose are available from your local stockist, if required (part no. 5367).

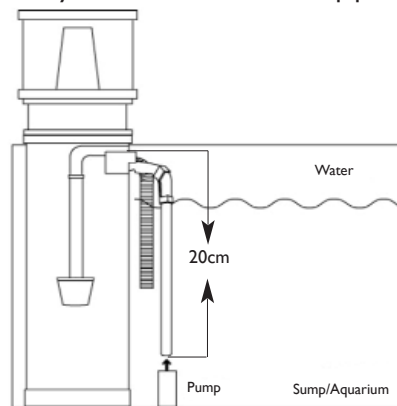


## B. IN SUMP/AQUARIUM INSTALLATION

1. Make sure you leave enough room for the skimmer inside the sump or aquarium.
2. Allow sufficient clearance above the skimmer to ensure that the collection cup can be removed for cleaning, maintenance etc.
3. Fill the skimmer with sufficient sump or aquarium water to prevent the skimmer from floating when placed in the sump or aquarium.
4. Place pump in a suitable location in the sump or aquarium and connect pump to skimmer using the inlet pipe hose assembly (6). For maximum performance do not locate the pump more than 20cm below the water inlet of the skimmer.

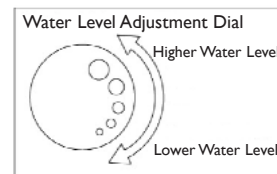
**USEFUL TIP:** Use the suction cup bracket provided with the pump to secure the pump in your aquarium. There are also a number of fittings and accessories supplied with the pump which allow for easy connection of the inlet pipe hose assembly to the pump.

5. Attach the V<sup>2</sup>Bubble Stop mounting bracket (21 or 22) inside sump.
  6. Insert the outlet pipe assembly (5) into the V<sup>2</sup>Bubble Stop and tighten V<sup>2</sup>Bubble Stop securing screw (23).
- USEFUL TIP:** If the height of your sump does not allow the V<sup>2</sup>Bubble Stop to be positioned in the desired location use two cable ties to secure the V<sup>2</sup>Bubble Stop to the upright, fixed outlet pipe directly below the outlet (see \* on Parts List diagram).



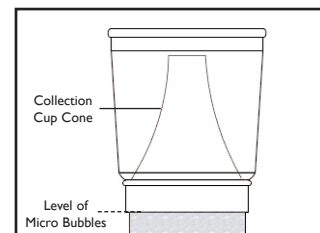
## OPERATION

1. Make sure all connections are tightly secured.
2. Ensure the skimmer collection cup (2) and lid (1) are securely and correctly positioned on the skimmer body (9).
3. Turn the water level adjustment dial (3) to make sure it is in the lowest position.



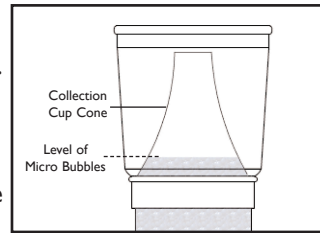
## INITIAL OPERATION

1. Plug in and switch on the pump.  
**On models 800-1500 please note** that due to the unique design of the removable venturi injection assembly (10) some water may escape from the joint between the fixed pipe and removable assembly on initial start up. This does not affect the performance of the skimmer.
2. Turn water level adjustment dial until the micro-bubbles fill approx. 50% of the neck below the collection cup (see diagram). Let the pump run for 24-48 hours to allow the skimmer to establish itself.
3. Once the skimmer has been established, turn the water level adjustment dial to control the water level within the main chamber and cone to the desired foam consistency.



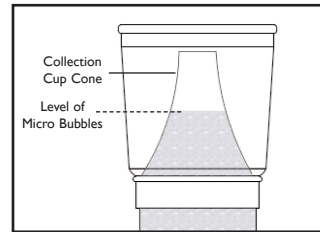
### DRY SKIMMING

1. Turn water level adjustment dial (3) until the micro-bubbles fill approx. 10-15% of the collection cup cone (see diagram).
2. The micro-bubbles produce a dense foam layer which rises to the top of the cone where it collects until the dry foam overflows into the collection cup.
3. The result is a dry foam, consisting of concentrated waste material.



### WET SKIMMING

1. Turn water level adjustment dial (3) until the micro-bubbles fill approx 50% of the collection cup cone (see diagram).
2. Wet foam is produced and rises to the lid then slides down the collection cup cone as wet waste water.
3. The result is a wet foam consisting of diluted waste material.



**NOTE:** Variables such as introducing new fish or invertebrates into the aquarium, frequent feeding, adding supplements or medications, fluctuations in water quality, water changes and maintenance may temporarily alter the performance of the V<sup>2</sup>Skim Protein Skimmers.

### USE WITH OZONE

V<sup>2</sup>Skim Protein Skimmers are suitable for use with ozone. By connecting the outlet of the ozone generator to the air inlet (14) of the V<sup>2</sup>Skim Protein Skimmer, using ozone resistant tubing (not supplied), the V<sup>2</sup>Skim's patented venturi injection system will automatically draw ozone gas into the main body of the skimmer.

USEFUL TIP: Although ozone gas enhances the skimming process, should a reduction in skimming performance be noticed following the addition of an ozone generator there is a good chance that the ozone generator is either blocked or is limiting the amount of air being drawn into the venturi injection system. This problem is easily overcome by installing an air pump on the inlet of the ozone generator, thereby increasing the level of air flowing through the ozone generator.

USEFUL TIP: When using ozone, the V<sup>2</sup>Bubble Stop can be used (without the filter sponges) to house media, such as carbon, which is useful for filtering out any residual ozone. V<sup>2</sup>Filter Media Bags are ideal for this purpose and are available separately (part no. 5229).

**Caution:** Ozone is dangerous and should be used with care. Always refer to the instructions and safety guidelines of the ozone generator manufacturer.

## MAINTENANCE

**Caution:** To avoid possible electric shock, special care should be taken when using this electrical appliance near water.

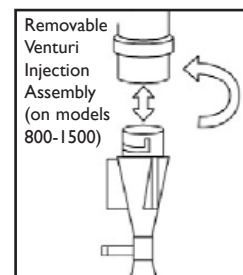
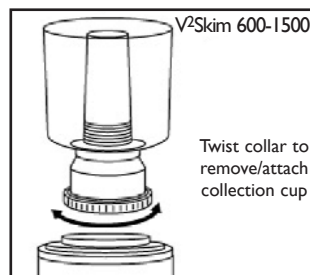
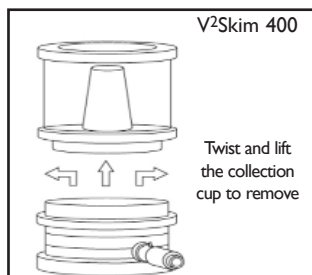


**Caution:** Always isolate the pump from mains electricity before installing or carrying out any maintenance to the skimmer.

V<sup>2</sup>Skim Protein Skimmers should need very little adjustment and maintenance once set up correctly. However due to salt deposits and the high calcium level in marine aquariums it is common for deposits to build up and therefore it is recommended that the skimmers are cleaned periodically.

1. To operate efficiently, the skimmer must be in use 24 hours a day.
2. Make sure all connections are tightly secured.
3. Check regularly if skimmer is functioning properly and producing the desired foam consistency and waste material.
4. When the collection cup is full, ensure all waste material is removed.
5. Remove collection cup (see below) and clean any organic build up or salt and/or calcium deposits from the collection cup and neck.
6. Ensure the outlet and inlet pipe assemblies and the air inlet are clean and free of blockages.
7. Clean and periodically replace the V<sup>2</sup>Bubble Stop sponges.
8. Clean the pump regularly to ensure it does not become clogged with debris or detritus (refer to pump instructions for full maintenance instructions).
9. On models 800-1500 the venturi injection assembly (10) can be removed to allow easier cleaning and maintenance. This is achieved by simply twisting the assembly clockwise and gently pushing downwards until the assembly is released from the main pipework. Please note: to fully remove the venturi injection assembly from the skimmer you must first disconnect the venturi air inlet connection tube (11).
10. On models 600-1500, when carrying out routine maintenance ensure that the collection cup O ring (15) is correctly positioned and free from any dirt, detritus, salt and/or calcium deposits. Failure to do so could result in leaks when the water pump is switched on.

**USEFUL TIP:** On models 600-1500, during routine maintenance it is advisable to ensure that the collection cup O ring is checked for any signs of degradation and replaced accordingly. Spares are available from your local stockist (part no. 5364).



## **TROUBLE SHOOTING**

### **Problem: The skimmer is not working properly**

1. Possible Cause: Water level is too low.  
Solution: Alter water level adjustment dial accordingly.
2. Possible Cause: Air inlet tube is blocked.  
Solution: Remove and check for blockage and clean as required.
3. Possible Cause: Pump is not plugged in or is not operating correctly.  
Solution: See pump section below

### **Problem: Skimmer water level fluctuates**

1. Possible Cause: The air intake port of the outlet pipe assembly is clogged causing the skimmer to create a siphon from the outlet tube.  
Solution: Remove and check for blockage and clean as required.

### **Problem: Pump is not operating correctly**

**Caution:** Always isolate the pump from mains electricity before installing or carrying out any maintenance to the pump and refer to the pump operation, maintenance and safety instructions supplied with the pump.

1. Possible Cause: Pump is not plugged in.  
Solution: Ensure pump is connected to power supply and switched on.
2. Possible Cause: Pump is blocked with dirt and debris.  
Solution: Clean the pump to remove dirt and debris (refer to pump instructions for full maintenance instructions).

### **Problem: No air bubbles (or very few) are being produced inside the skimmer**

1. Possible Cause: The air tube to the venturi is not attached.  
Solution: Re-attach venturi air inlet connection tube (11).
2. Possible Cause: The air inlet of the venturi chamber is clogged.  
Solution: Remove and check for blockage and clean as required.
3. Possible Cause: Pump is not operating or performing correctly.  
Solution: See pump section above and check pump position (see diagrams on p.3 & 4).

### **Problem: No foam is being produced inside the collection cup**

1. Possible Cause: Water level inside the chamber needs to be adjusted.  
Solution: Alter water level adjustment dial accordingly.
2. Possible Cause: Skimmer has just been installed and may take up to 24hrs to adjust properly to aquarium system.  
Solution: Let the pump run for 24-48 hours to allow the skimmer to establish itself.

### **Problem: Water is rapidly overflowing into the collection cup**

1. Possible Cause: Water level may be too high.  
Solution: Alter water level adjustment dial accordingly.
2. Possible Cause: Water is not being discharged through outlet hose assembly.  
Solution: Remove and check for blockage and clean as required.
3. Possible Cause: V<sup>2</sup>Bubble Stop may need maintenance.  
Solution: Clean or replace the V<sup>2</sup>Bubble Stop sponges.

## **AQUARIUM VOLUMES AND FLOW RATES**

### **V<sup>2</sup>Skim 400**

For aquariums up to 400 litres/90 UK Gallons with a recommended flow rate of approximately 2400l/hr

### **V<sup>2</sup>Skim 600**

For aquariums up to 600 litres/130 UK Gallons with a recommended flow rate of approximately 2400l/hr

### **V<sup>2</sup>Skim 800**

For aquariums up to 800 litres/180 UK Gallons with a recommended flow rate of approximately 2800l/hr

### **V<sup>2</sup>Skim 1000**

For aquariums up to 1000 litres/220 UK Gallons with a recommended flow rate of approximately 2800l/hr

### **V<sup>2</sup>Skim 1200**

For aquariums up to 1200 litres/260 UK Gallons with a recommended flow rate of approximately 3400l/hr

### **V<sup>2</sup>Skim 1500**

For aquariums up to 1500 litres/330 UK Gallons with a recommended flow rate of approximately 3400l/hr



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