

# V<sup>2</sup>Skim

Protein Skimmers



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**AQUARIUM VOLUMES AND FLOW RATES/VOLUMES ET DÉBITS DE L'AQUARIUM  
 FASSUNGSVERMÖGEN DES AQUARIUMS UND DURCHFLUSSRATE/AQUARIUM VOLUMES  
 EN STROMINGSSNELHEDEN/VOLUMI E FLUSSI DELL'ACQUARIO/VOLÚMENES Y  
 MAGNITUDES DE FLUJO DEL ACUARIO/VOLUME DO AQUÁRIO E TAXAS DE FLUXO**

**V²Skim 400**

For aquariums up to 400 litres/90 UK Gallons with a recommended flow rate of approximately 2400l/hr.  
 Pour les aquariums de jusqu'à 400 litres avec un débit recommandé d'environ 2400 litres/heure.  
 Für Aquarien mit einem Fassungsvermögen von bis zu 400 Litern und einer empfohlenen Durchflussrate von ca. 2400 l/h.  
 Voor aquaria tot 400 liter met een aanbevolen stromingssnelheid van ongeveer 2400l/u.  
 Per acquari fino a 400 litri con un flusso raccomandato di circa 2400l/h.  
 Para acuarios de hasta 400 litros con una magnitud de flujo de aproximadamente 2.400 l/hr.  
 Para aquírios de até 400 litros com uma taxa de fluxo recomendada de aproximadamente 2400 l/h.

**V²Skim 600**

For aquariums up to 600 litres/130 UK Gallons with a recommended flow rate of approximately 2400l/hr.  
 Pour les aquariums de jusqu'à 600 litres avec un débit recommandé d'environ 2400 litres/heure.  
 Für Aquarien mit einem Fassungsvermögen von bis zu 600 Litern und einer empfohlenen Durchflussrate von ca. 2400 l/h.  
 Voor aquaria tot 600 liter met een aanbevolen stromingssnelheid van ongeveer 2400l/u.  
 Per acquari fino a 600 litri con un flusso raccomandato di circa 2400l/h.  
 Para acuarios de hasta 600 litros con una magnitud de flujo de aproximadamente 2.400 l/hr.  
 Para aquírios de até 600 litros com uma taxa de fluxo recomendada de aproximadamente 2400 l/h.

**V²Skim 800**

For aquariums up to 800 litres/180 UK Gallons with a recommended flow rate of approximately 2800l/hr.  
 Pour les aquariums de jusqu'à 800 litres avec un débit recommandé d'environ 2800 litres/heure.  
 Für Aquarien mit einem Fassungsvermögen von bis zu 800 Litern und einer empfohlenen Durchflussrate von ca. 2800 l/h.  
 Voor aquaria tot 800 liter met een aanbevolen stromingssnelheid van ongeveer 2800l/u.  
 Per acquari fino a 800 litri con un flusso raccomandato di circa 2800l/h.  
 Para acuarios de hasta 800 litros con una magnitud de flujo de aproximadamente 2.800 l/hr.  
 Para aquírios de até 800 litros com uma taxa de fluxo recomendada de aproximadamente 2800 l/h.

**V²Skim 1000**

For aquariums up to 1000 litres/220 UK Gallons with a recommended flow rate of approximately 2800l/hr.  
 Pour les aquariums de jusqu'à 1000 litres avec un débit recommandé d'environ 2800 litres/heure.  
 Für Aquarien mit einem Fassungsvermögen von bis zu 1000 Litern und einer empfohlenen Durchflussrate von ca. 2800 l/h.  
 Voor aquaria tot 1000 liter met een aanbevolen stromingssnelheid van ongeveer 2800l/u.  
 Per acquari fino a 1000 litri con un flusso raccomandato di circa 2800l/h.  
 Para acuarios de hasta 1000 litros con una magnitud de flujo de aproximadamente 2.800 l/hr.  
 Para aquírios de até 1000 litros com uma taxa de fluxo recomendada de aproximadamente 2800 l/h.

**V²Skim 1200**

For aquariums up to 1200 litres/260 UK Gallons with a recommended flow rate of approximately 3400l/hr.  
 Pour les aquariums de jusqu'à 1200 litres avec un débit recommandé d'environ 3400 litres/heure.  
 Für Aquarien mit einem Fassungsvermögen von bis zu 1200 Litern und einer empfohlenen Durchflussrate von ca. 3400 l/h.  
 Voor aquaria tot 1200 liter met een aanbevolen stromingssnelheid van ongeveer 3400l/u.  
 Per acquari fino a 1200 litri con un flusso raccomandato di circa 3400l/h.  
 Para acuarios de hasta 1200 litros con una magnitud de flujo de aproximadamente 3.400 l/hr.  
 Para aquírios de até 1200 litros com uma taxa de fluxo recomendada de aproximadamente 3400 l/h.

**V²Skim 1500**

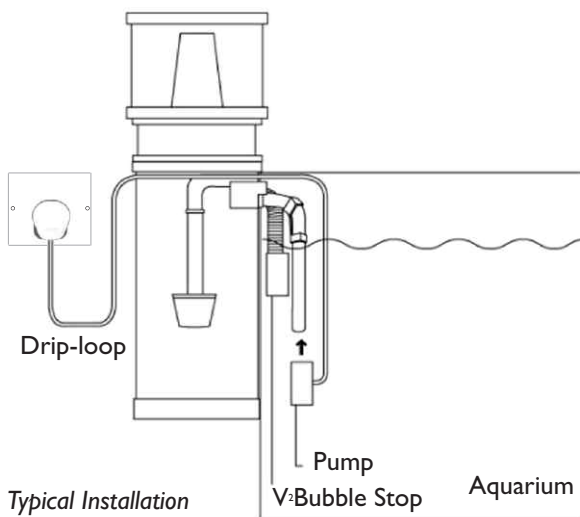
For aquariums up to 1500 litres/330 UK Gallons with a recommended flow rate of approximately 3400l/hr.  
 Pour les aquariums de jusqu'à 1500 litres avec un débit recommandé d'environ 3400 litres/heure.  
 Für Aquarien mit einem Fassungsvermögen von bis zu 1500 Litern und einer empfohlenen Durchflussrate von ca. 3400 l/h.  
 Voor aquaria tot 1500 liter met een aanbevolen stromingssnelheid van ongeveer 3400l/u.  
 Per acquari fino a 1500 litri con un flusso raccomandato di circa 3400l/h.  
 Para acuarios de hasta 1500 litros con una magnitud de flujo de aproximadamente 3.400 l/hr.  
 Para aquírios de até 1500 litros com uma taxa de fluxo recomendada de aproximadamente 3400 l/h.

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

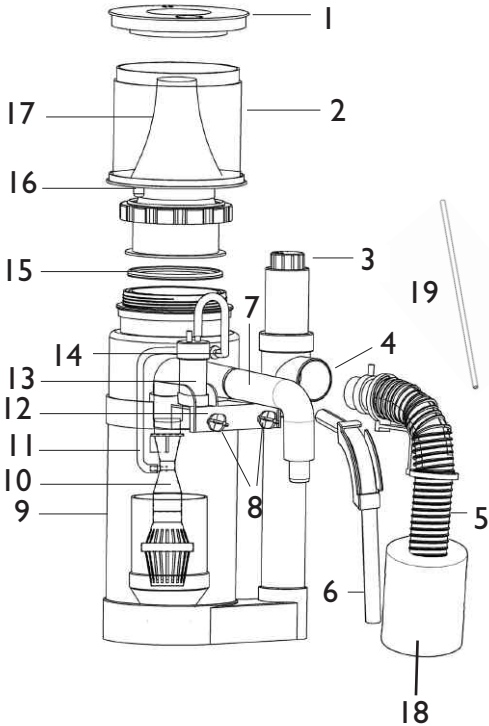
## INSTRUCTIONS FOR INSTALLATION AND USE

### 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.

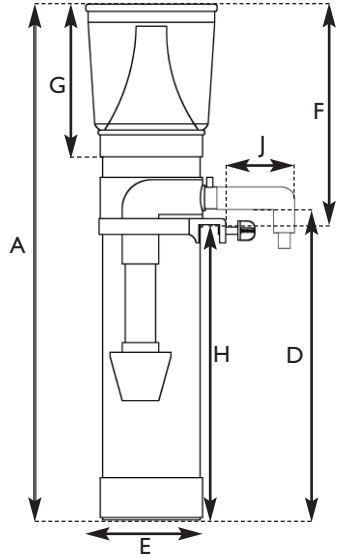


# PARTS LIST

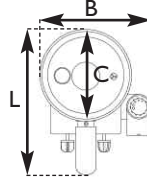


- 1. Collection Cup Lid
- 2. Collection Cup
- 3. Water Level Adjustment Dial
- 4. Water Outlet
- 5. Outlet Pipe Assembly (part no. 5366)
- 6. Inlet Pipe Hose Assembly including retaining clip (part no. 5365)
- 7. Water Inlet
- 8. V-Skim Securing Screws (part no. 5369 - sold separately)
- 9. Main Skimmer 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-Bubble Stop (part no. 5760)
- 19. Collection Cup Drain Hose (on models 800-1500 only) (part no. 5367)

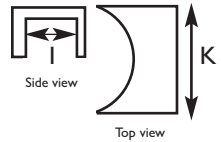
## DIMENSIONS



### Footprint



### Hanger



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-Skim 400</b>	435	120	85	255	110	185	105	250	17	64	60	180
<b>V-Skim 600</b>	510	135	105	285	130	230	165	283	20	59	80	196
<b>V-Skim 800</b>	510	180	125	225	160	285	185	225	30	61	102	220
<b>V-Skim 1000</b>	610	180	125	325	160	285	185	325	30	61	102	220
<b>V-Skim 1200</b>	540	200	150	225	190	320	215	225	30	61	117	252
<b>V-Skim 1500</b>	640	200	150	325	190	320	215	325	30	61	117	252

## 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).

## 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:

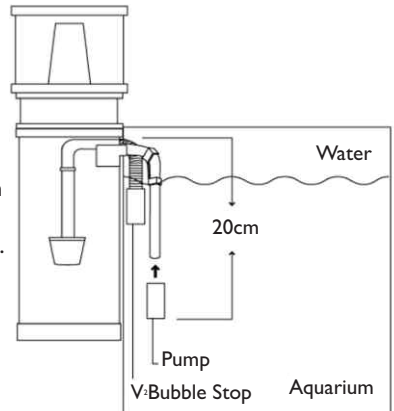
USEFUL TIP: You can use the suction cup bracket provided with the pump to secure the pump on the side of your aquarium directly below the inlet of your V<sup>2</sup>Skim Protein Skimmer.

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: The retaining clip on the inlet pipe hose assembly can easily be re-positioned at any point along the inlet pipe hose assembly to enable easier connection to the pump.

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, such as the flow control valve. The flow control valve fitting can also be used to help ensure easy regulation and control of the amount of water entering the skimmer. **Please note:** the water flow control valve must never be fully closed as this causes back-pressure which can damage the pump.

6. 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).

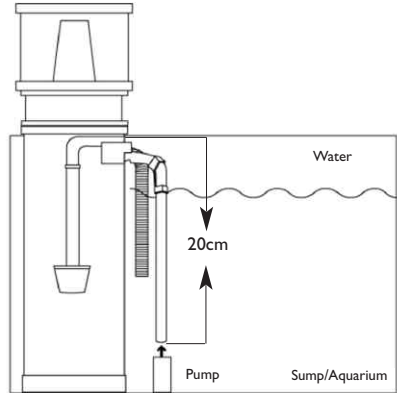


## B. IN SUMP/AQUARIUM INSTALLATION

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.

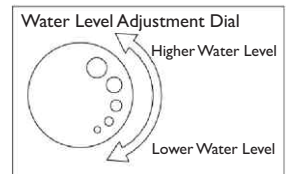
**USEFUL TIP:** The retaining clip on the inlet pipe hose assembly can easily be re-positioned at any point along the inlet pipe hose assembly to enable easier connection to the pump.

**USEFUL TIP:** You can 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, such as the flow control valve. The flow control valve fitting can also be used to help ensure easy regulation and control of the amount of water entering the skimmer. **Please note:** the water flow control valve must never be fully closed as this causes back-pressure which can damage the pump.



## 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.

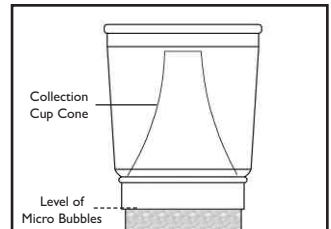


## INITIAL OPERATION

1. Plug in and switch on the pump.

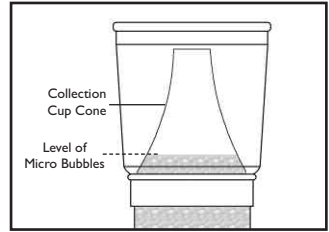
**On models 800-1500 please note** that due to the unique design of the removable venturi injection assembly (10) some water may escape from the joint between the fixed pipe and removable assembly on initial start up. This does not affect the performance of the skimmer.

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.



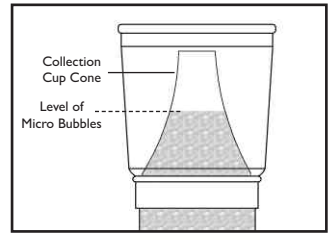
## DRY SKIMMING

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.

**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.

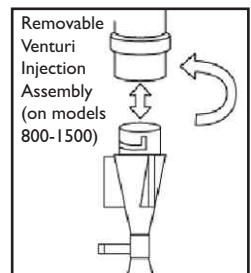
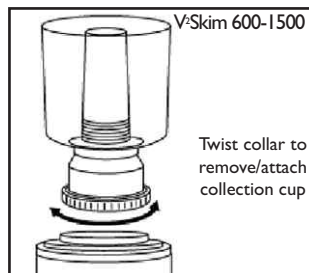
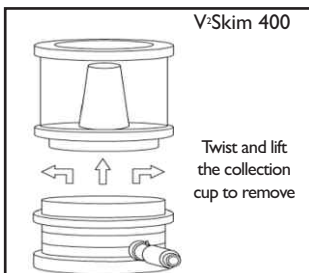


**Caution:** Always isolate the pump from mains electricity before installing or carrying out any maintenance to the skimmer.

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 sponge.
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.  
Solution: If flow control valve on pump is installed, ensure that it is not fully closed.
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).
4. Possible Cause: Venturi injection assembly is clogged or blocked.  
Solution: Clean accordingly.

### **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.  
Solution: If not already installed, install the water flow control valve supplied with the pump and connect it to the water inlet supply hose assembly of the skimmer. Then, by turning the water flow control valve, slightly reduce the amount of water entering the skimmer until the desired water level in the skimmer is achieved. **Please note:** the water flow control valve must never be fully closed as this causes back-pressure which can damage the pump.
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 sponge.



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