



Reef Skim 2.0

ALL MODELS

INSTRUCTIONS
ENGLISH ONLY

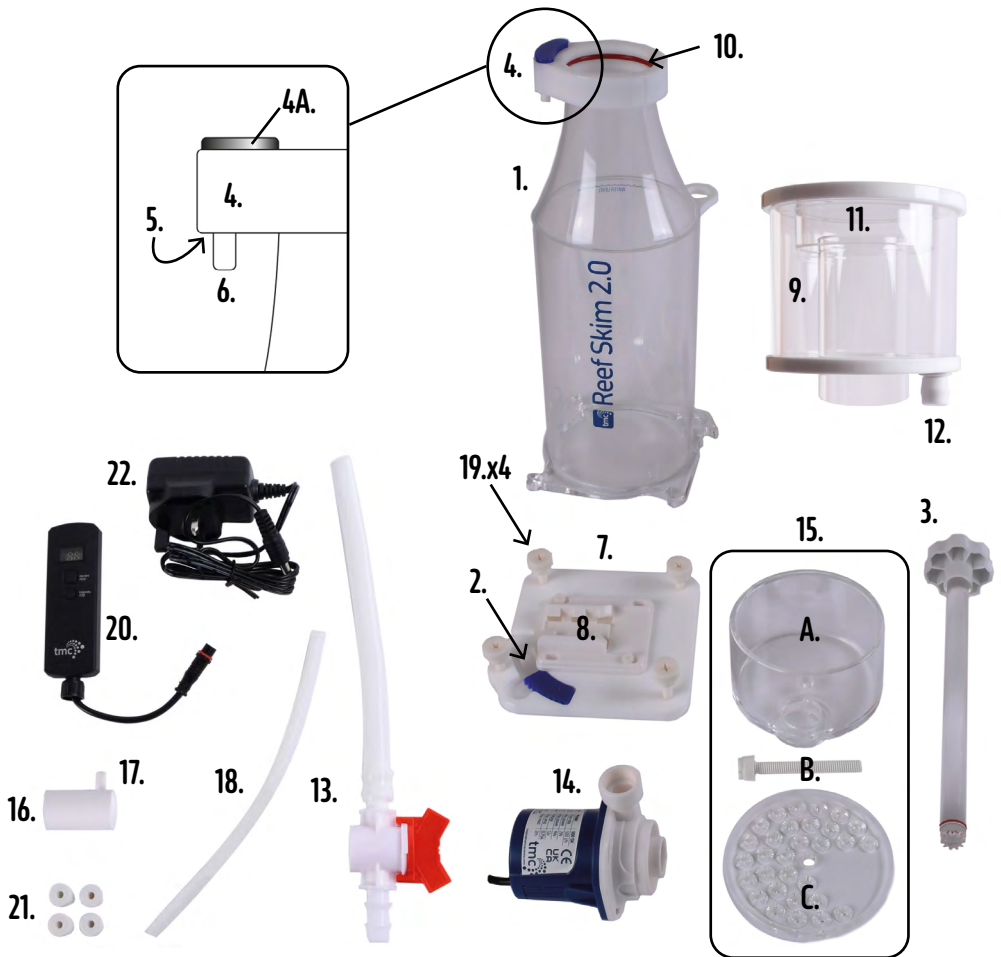




SPECIFICATION

Code	3381	3382	3383
Model	Reef Skim 2.0 DC 500	Reef Skim 2.0 DC 750	Reef Skim 2.0 DC 1250
Min. Power	2W	2.6W	5W
Max. Power	9W	10W	20W
Voltage	12V	12V	24V
Max Amp	0.75A	0.8A	0.83A
Dimensions	109x109x413.5mm	139x139x443.5mm	159x159x491.5mm
Suitable for aquarium size	250-500l*	500-750l*	750-1250l*

*Depending on stocking density.



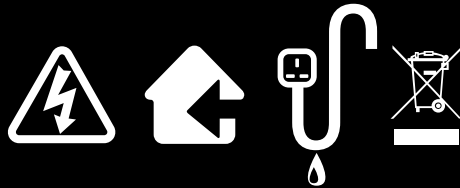
PARTS LIST

1. Main skimmer body
2. Water outlet
3. Water outlet adjustment knob
4. Integrated air silencer
- 4A. Integrated air silencer cover
5. Air silencer air inlets (not shown)
6. Air line connection nipple
7. Skimmer base plate
8. Pump base
9. Collection cup
10. Collection cup O ring (not shown)
11. Collection cup lid
12. Collection cup drain port with cap fitted
13. Collection cup drain assembly
14. Pump
15. Bubble diffuser assembly A, B, C
16. Venturi
17. Venturi air nipple
18. Air line
19. Securing screw x 4
20. Reef Pump DC controller
21. Skimmer feet
22. Power supply unit (PSU)

INSTRUCTIONS FOR INSTALLATION AND USE

Important Safety Information - Please Read Carefully

- Always isolate from the mains electricity before installing or carrying out any maintenance to the Reef Skim 2.0 unit.
- Power to the Reef Skim 2.0 unit must be supplied through a Residual Current Device (RCD) with a rated residual operating current not exceeding 30mA.
- Pump rating: 100-240V, 50/60Hz unless marked otherwise. See DC Pump instructions.
- 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.
- Caution: The Reef Pump controller is not water proof and therefore must not be mounted above the aquarium or sump, or in any position where it may accidentally fall into water or be splashed by water.
- This unit is designed to be used indoors and is not suitable for any outdoor applications.
- Ensure the Reef Skim 2.0 unit is safely positioned before operating.
- Always leave a drip-loop in the cables to prevent water running down the cable and reaching the power source [see below].



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Dispose of this unit responsibly. Check with your local authority for disposal information.

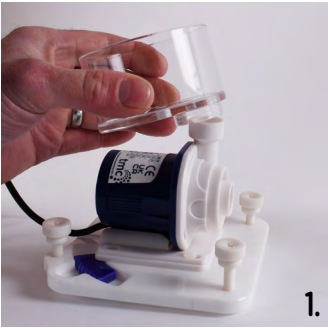
FULL SKIMMER ASSEMBLY / RE-ASSEMBLY

Reef Skim 2.0 all models

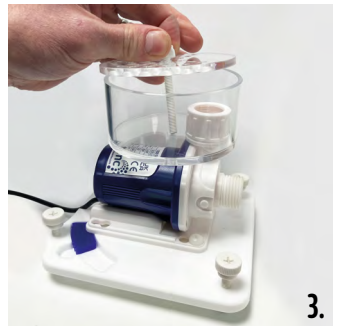
The Reef Skim 2.0 comes almost fully assembled. For initial set up or re-assembly after maintenance/cleaning follow photos below.

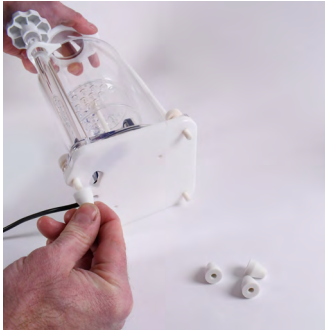


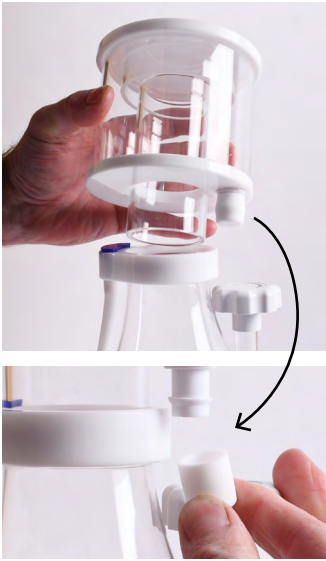
Reef Skim 2.0 500



Reef Skim 2.0 750 and 1250







INSTALLATION

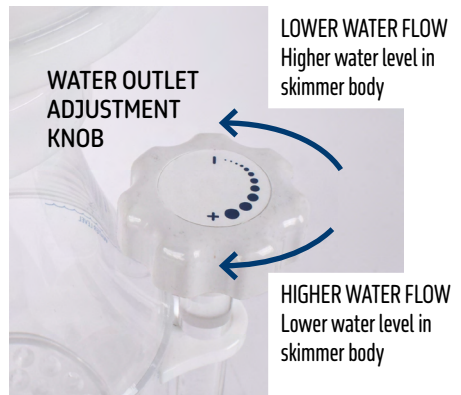
The Reef Skim 2.0 unit is designed to be used in-sump only and ideally positioned as close to the aquarium drain pipe as possible to ensure the best possible pick up of organics and other waste.

To ensure that the collection cup can be easily removed for cleaning, allow at least 50mm clearance above the collection cup lid.

1. Place the skimmer in the first section of the sump, or the section where the aquarium drain pipework is. We recommend you use mechanical filtration on the end of the drain pipework such as the TMC Filter Bag System (sold separately). This will ensure no large pieces of detritus are sucked into the pump which may damage the impeller and/or pump.
2. Ensure the skimmer and its parts are not touching the sides of the sump as this may cause vibration noise.
3. Fully open the **water outlet adjustment knob** before turning the skimmer on.

GENERAL OPERATING INSTRUCTIONS

1. Make sure all connections are tightly secured.
2. Ensure the collection cup is securely and correctly positioned on the main skimmer body and that the drain plug is in place or the collection cup drain hose is attached.
3. Turn the water outlet adjustment knob clockwise to lower the water level or anti-clockwise to raise the water level.
4. Clean and empty the collection cup regularly, and periodically clean and maintain all other internal parts to ensure the skimmer works as efficiently as possible.
5. The Reef Skim 2.0 unit can operate in both shallow and deep water. However, the optimum water level is marked on the body.



INITIAL OPERATIONS

Caution: Turn the water outlet adjustment knob **CLOCKWISE** as far as you can (to lower the water level as far as possible) **BEFORE** turning on the skimmer. Reef Skim 2.0 units have very powerful pumps and flooding can occur quickly if the water level is not correctly set.

1. Once correctly assembled and positioned, plug in and switch on the pump.
2. With the water outlet adjustment knob still in its lowest position, allow the pump to run for 24-48 hours to allow the skimmer to establish itself before adjusting it to a wetter or dry skim.
3. It may take up to 5 weeks for the skimmer to become stable and for the number of bubbles passed back into the tank to reduce. Please note: these bubbles are completely safe.
4. We recommend you check the water level frequently and use the collection cup drain hose provided to avoid over- skimming accidents.
5. The biological output of your aquarium will vary daily and even hourly depending on stocking, water change regime, feeding and additives used. This could result in changes in the amount of skimmate produced and therefore adjustments are required whenever there is a major change in any of the above.
6. Once the skimmer is established and the water level is stable within the collection cup, turn the water outlet adjustment knob to control the water level within the main chamber of the skimmer body to your desired foam consistency.



DRY SKIMMING

1. Turn water outlet adjustment knob 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 resulting is dry foam, consisting of concentrated waste material, which may condense into a dark liquid.



WET SKIMMING

1. Turn water outlet adjustment knob until the micro-bubbles fill approx 50% of the collection cup cone.
2. Wet foam is produced and rises to the lid then slides down the collection cup cone as wet waste water. Use of the collection cup drain hose is recommended.
3. The result is a wet foam consisting of diluted waste material. This may condense into a yellow/light brown liquid. Use caution when wet skimming with an auto-top up system as your aquarium salinity may drop due to over compensation.

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 Reef Skim 2.0 skimmers and/or removal of your additive.



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.

Reef Skim 2.0 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 skimmer and venturi are cleaned periodically with a bottle brush or similar. The air line may also need to be replaced 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 that the skimmer is functioning properly and producing the desired foam consistency and waste material. Adjust water outlet adjustment knob as required.
4. When the collection cup is full or dirty, ensure all waste material is removed. The more frequently the cup is cleaned, the more efficient the skimmer will be.
5. Remove the collection cup by gently pulling the cup upwards, keeping it level. Clean any organic build up, salt and/or calcium deposits from the collection cup and neck.
6. Ensure the outlet and inlet pipe assemblies and the air inlet on the venturi are clean and free of blockages.



7. Remove the cover on the integrated air silencer to check and ensure that the air inlets on the air silencer are clean and free of blockages

8. Clean the pump regularly to ensure it does not become clogged with debris or detritus (refer to pump instructions for full maintenance details).
9. During cleaning and/or maintenance ensure that the collection cup O ring is clean and free from cracks and detritus, salt and/or calcium deposits. Make sure the O ring is correctly re-positioned after cleaning. Failure to do so could result in leaks when the water pump is switched on. Lubricate all O rings with silicon grease periodically.

TROUBLE SHOOTING

Problem: THE SKIMMER IS NOT REMOVING ANY WASTE

1. **Possible Cause:** Water level is too low or skimmer is positioned in water that is too shallow. **Solution:** Alter outlet level adjustment knob accordingly or raise skimmer in sump.
2. **Possible Cause:** Air line, venturi or needle wheel impeller 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.
4. **Possible Cause:** The skimmer has not bedded in yet or the aquarium is too new to produce enough organic waste to be removed. **Solution:** Allow more time for the skimmer to bed in and the tank to mature.

Problem: SKIMMER WATER LEVEL FLUCTUATES

- Possible Cause:** Evaporation causing level changes in the sump. **Solution:** Install an auto top up system or similar, to ensure stable levels.
- Possible Cause:** Pump, venturi and needle wheel impeller maybe blocked. **Solution:** Check that the pump, venturi and impeller are free from detritus.

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.
- Possible Cause:** Pump is not plugged in. **Solution:** Ensure pump is connected to power supply and switched on.
- 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

- Possible Cause:** The air inlet of the venturi or needle wheel impeller is blocked. **Solution:** Remove and check for blockage and clean as required.
- Possible Cause:** Pump is not operating or performing correctly. **Solution:** See pump section above.
- Possible Cause:** The air inlets on the integrated air silencer are blocked. **Solution:** Check for blockage and clean as required.
- Possible Cause:** The air line tubing is blocked. **Solution:** Check for blockage and clean as required.

Problem: NO FOAM IS BEING PRODUCED INSIDE THE COLLECTION CUP

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

Problem: WATER IS RAPIDLY OVERFLOWING INTO THE COLLECTION CUP

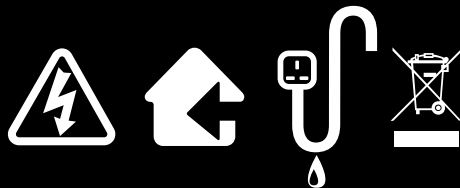
- Possible Cause:** Water level may be too high or skimmer is positioned in water that is too deep. **Solution:** Alter water outlet adjustment knob accordingly or reduce water level in the sump.
- Possible Cause:** Water is not being discharged through the outlet pipe assembly. **Solution:** Remove and check for blockage and clean water outlet assembly as required.

**PUMP INSTRUCTIONS
FOR INSTALLATION AND USE**
Important Safety Information - Please Read Carefully

Caution: Do not use any power supply other than the one supplied with your genuine Reef Pump. The use of a different power supply will invalidate the guarantee.

Caution: The Reef Pump controller is not waterproof and therefore must not be mounted above the aquarium or sump, or in any position where it may accidentally fall into water or be splashed by water.

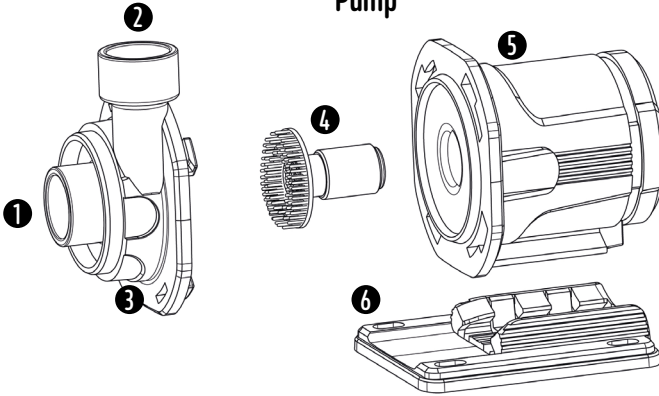
- Always isolate the PSU from the mains electricity before installing or carrying out any maintenance to the pump.
- Only use the correctly-rated controller supplied with the pump. A label on the back of the controller denotes which pump it is designed for. Using the wrong controller with the wrong pump will invalidate the guarantee.
- Power to the pump must be supplied through a Residual Current Device (RCD) with a rated residual operating current not exceeding 30mA.
- Never operate the pump without water inside the impeller chamber or with liquids at a temperature higher than 95F/35°C.
- 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.
- 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.
- Always leave a drip-loop in the pump cable to prevent water running down the cable and reaching the control.



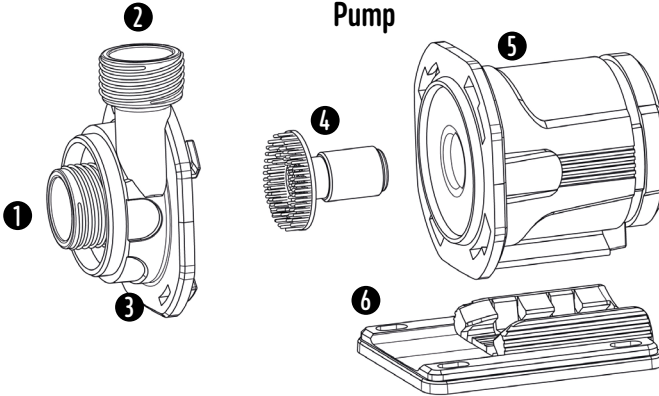
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Dispose of this unit responsibly. Check with your local authority for disposal information.

Model 500 Pump



Model 750 and 1250 Pump



PARTS LIST

1. Pump inlet
2. Pump outlet
3. Pump cover
4. Pump needle wheel impeller
5. Pump body
6. Pump base
7. Power supply unit (PSU)
8. Controller



OPERATION OF THE DC CONTROLLER



LEVEL DISPLAY

01: Min. power

10: Max. power



CONSTANT STREAM MODE

FEED MODE

Variable Speed Control

With 10 different speed settings to allow precise adjustment of water flow and optimum performance.



When the Reef Pump is switched on, the LCD screen on the controller will display

To increase the speed of the pump press the INTENSITY button until you reach the required level (maximum level will be displayed on the LCD screen as



To decrease keep pressing the Intensity button to loop to reach the speed desired.

Feed Mode



Press FEED to pause pump operation for 10 minutes. When you enter FEED mode the LCD screen on the controller will display.



The controller will then start a 10 minute countdown which will be displayed on the LCD screen of the controller, starting at and counting down in minutes to 09, 08, ...



and so on until it displays 00, at which point the 10 minutes have elapsed and the pump will resume operation and start pumping.



If you wish to restart the pump before the end of the 10 minute pause, press FEED again and the pump will restart.

MAINTENANCE

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

1. Regular maintenance will prolong your pump's life. To clean the pump, unplug from the mains electricity supply, disassemble and rinse all parts with fresh water, using a soft brush to remove any debris/detritus inside, then re-assemble.

NOTE: The pump impeller shaft cannot be removed.

2. The impeller should be regularly checked for signs of degradation and replaced as necessary.

NOTE: The impeller is not covered under the guarantee.

3. Impellers and a range of other spare parts are available from your local TMC stockist.

TROUBLE-SHOOTING

If the pump fails to operate:

- Check that the pump is connected to the electricity supply.
- Check the pump inlets and outlets for any debris or blockages. Please flush out any debris with fresh water.
- Remove the pump cover to access the impeller area. Turn the impeller to ensure it is not broken or jammed.

GUARANTEE

NOTE: This product, **except for the impeller**, is guaranteed against defects of materials and workmanship for a period of 1 year from the date of purchase.

- This guarantee is only valid if the receipt or other proof of purchase is also supplied when the unit is returned for repair.
- The guarantee covers the replacement of any defective parts.
- In case of improper use, tampering or negligence by the buyer/user, the guarantee is deemed to be void.
- Only use the correctly-rated controller supplied with the pump.
- A label on the back of the controller denotes which pump it is designed for.

NOTE: Using the wrong controller with the wrong pump will invalidate this guarantee.

NOTE: Postage and packing costs for any returns are the responsibility of the buyer/user.



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