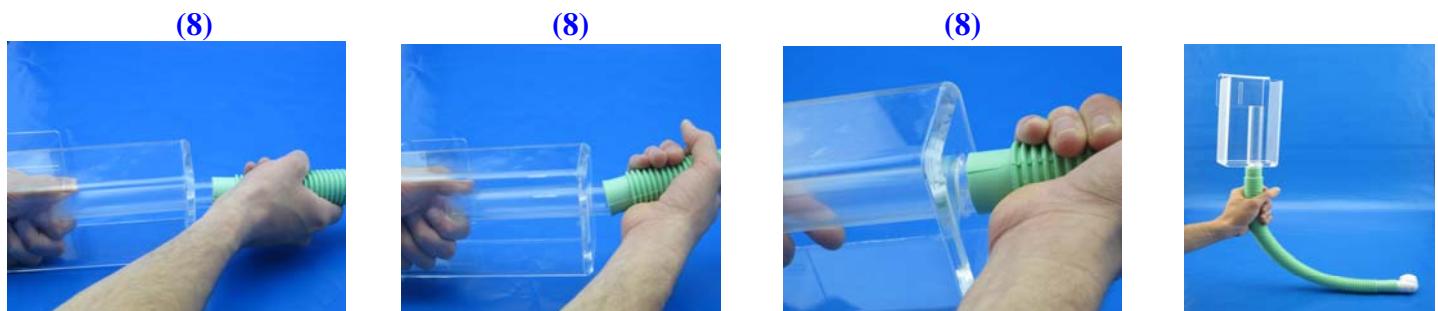


2109 Pre-filter set up instructions

1. Carefully remove the pre-filter assembly from the packaging.
2. Verify parts and inspect for damage.
3. Remove the nylon wing nut and slotted machine screw.
4. Remove the skimmer box being careful not to drop or damage the siphon U-tube.
5. Remove the siphon U-tube and set these parts aside.
6. Lay the pre-filter box down, reach inside to remove the foam mechanical filter cylinder.



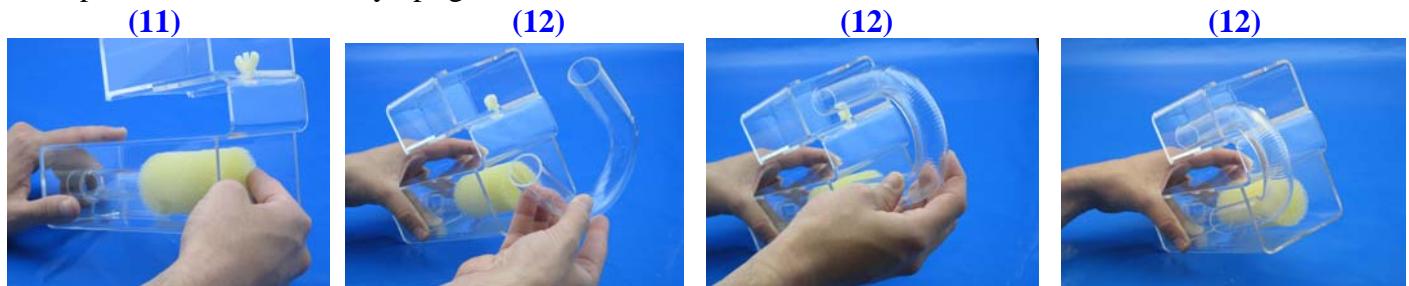
7. Locate the 36" long green flexible drain hose. Take it to the sink and run hot water over the cuff end of the hose.
8. Reach inside of the pre-filter box and tightly grab the acrylic stand pipe. Attach the warmed end cuff of the green flex hose over the stand pipe extending on the outside of the pre-filter box. Push it on approximately 1". (this should be a tight fit). **DO NOT APPLY PRESSURE TO THE BENT PORTION OF THE HANGER BRACKET!!!!**



9. Lay down the pre-filter box with the bent portion of the hang-on bracket facing up. The overhanging ears of the skimmer box should overlap the hang-on portion of the pre-filter box (This is designed prevent skimmer box "Tipping"). Locate and insert the 3/4" nylon slotted machine screw through the underside of the 2" long groove cut into the hang on bracket of the pre-filter box.
10. Holding that screw in place install the skimmer box over the nylon screw with the cut teeth in the skimmer box facing out and toward the top of the pre-filter box. Install the nylon wing nut, and slide the skimmer box to the top of the groove of the pre-filter bracket and lightly secure into place.

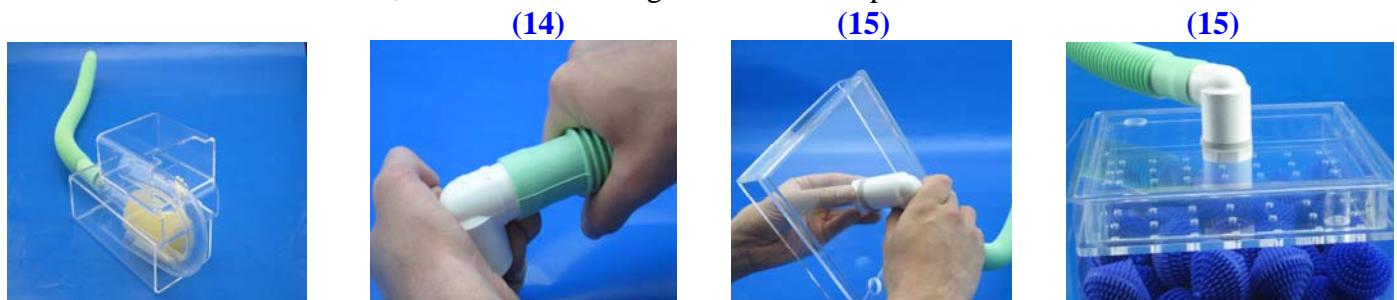


11. Slide the foam mechanical filter over the stand pipe.
12. Locate the siphon U-tube. Install the U-tube from the top of the pre-filter assembly straddling the hanger bracket with one leg inserted into the skimmer box, and the other inserted into the pre-filter box. Holding the siphon tube in place, turn the assembly upright for installation.



13. Find a good location to hang the skimmer box/pre-filter assembly onto the aquarium. Place it in a location that allows good water circulation, away from air bubble sources yet allows the green drain hose to reach the lid of the trickle filer. ** Note additional drain hose and connectors can be purchased in 18" and 36' increments ** (18" stock #2118-18 and 36" 2118-36).

14. Connect the other end of the green drain hose to the trickle filter lid elbow fitting.
15. Insert the flat rubber washer, secure elbow fitting to filter lid and place lid in filter.



16. Fill the aquarium to the desired water level, leaving at least 2" unfilled.
17. Lightly loosen the nylon wing nut, and then lower the skimmer box into the aquarium just until the water fills the skimmer box to the bottom of the teeth. **IMPORTANT!!!** Secure into place and mark the location of the skimmer box on the pre-filter.
18. Fill the exterior pre-filter box with water until it begins to overflow into the acrylic stand pipe.
19. Using approximately 48 "of airline, insert approximately 5" into one end of the siphon U-tub so it reaches the top of the crown.
20. Fold the airline 180 degrees and insert the siphon U-tube (with the airline) into the pre-filter box and the other end into the skimmer box.
21. **WITH THE WATER PUMP OFF**, fill the trickle filter to maximum capacity with water.
22. During "Start up" keep a full glass of water close by the pre-filter box assembly.
23. Turn on the trickle filter water pump and wait until the water level in the aquarium rises approximately 1/2".
24. Using some form of suction, immediately remove the air from inside of the siphon U-tube until the water begins to flow over the dam wall and through the foam mechanical filter pad. If a siphon cannot be obtained, immediately shut down the water pump and try again.
25. When the bulk of the air is removed, place a kink in the airline, hold the siphon U-tube down securely and immediately remove the airline from the siphon U-tube. **DO NOT FORGET** to remove the airline at this point to prevent a back siphon from occurring through the airline.

26. Carefully monitor adjusting appropriate water pump flow, allow the complete system to run for about 10 minutes to stabilize. IMPORTANT!!!! With the sticker provided or using a magic marker, note the “MAXIMUM RUNNING” water level on the side of the trickle filter sump. ***Never fill the trickle filter sump above this mark when in operation, doing so can cause a potential water overflow in the event of a power failure.***
27. When the system is stabilized, check the siphon U-tube. If air remains in the crown, lightly loosen the nylon wing nut and temporarily lower the skimmer box into the aquarium for about 15 seconds or until the water pushes the air completely out of the siphon U- tube. Then slowly raise the skimmer box back to previously marked setting. (See # 19 above)
28. Continue to monitor the siphon U-tube over the next few days and repeat step # 29 if necessary.

NOTE: if air continues to accumulate in the crown of the siphon U-tube at a very fast pace do the following;

- a. Move the pre-filter /skimmer box assembly away from any air bubble sources.
- b. Increase the water flow through the entire system to a level still tolerable to the inhabitants.
- c. Order a smaller diameter Siphon U-tube. This will increase the velocity through the U-tube flushing air completely through.
- d. If none of the above fix the air bubble problem, it may be necessary to purchase a larger water pump.