



Sumpluss Kit Instructions
For use with Terminator Skimmer Only

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PLEASE CAREFULLY CHECK THE PARTS DIAGRAM AND FAMILIARIZE YOUR-
SELF WITH THE PARTS OF YOUR KIT.



READ ALL WARNINGS BEFORE PROCEEDING ! OTHERWISE YOU MAY CAUSE WATER DAMAGE AND A HAZARD!

1. CHECK PUMP INSTALLATION SUPPLEMENT SHEET AT THE BACK OF THIS MANUAL TO BE CERTAIN YOUR SKIMMERS PUMP IS INSTALLED CORRECTLY TO FUNCTION WITH THIS KIT. IF NOT THE PUMP WILL BECOME AIR LOCKED AND NOT FUNCTION . THIS CAN PERMANENTLY DAMAGE YOUR PUMP.
2. THE RETURN LINE FROM THE SKIMMER MUST BE OUT OF THE WATER. IF THE RETURN LINE (THE LINE RETURNING WATER FROM YOUR SKIMMER BACK INTO YOUR TANK) IS ALLOWED TO BECOME SUBMERGED IT WILL CAUSE A SIPHON IN THE CASE OF A SHUT DOWN AND WILL FLOOD YOUR FLOOR.
3. THIS KIT HAS BEEN VIGOROUSLY TESTED FOR SAFETY CONCERNS. ANY MODIFICATION OR DEPARTURE FROM THE DIRECTIONS CAN CAUSE A FAILURE OF THE SYSTEM. DO NOT MODIFY ANY PART OF YOUR KIT!
4. YOUR KIT HAS SEVERAL SAFETY DEVICES BUILT INTO IT. THESE ARE TO BE TESTED REGULARLY TO MAKE CERTAIN THEY ARE WORKING PROPERLY. YOU MUST THINK OF THIS AS YOUR PARACHUTE, YOU WANT TO INSPECT IT FREQUENTLY. READ CAREFULLY THE SECTIONS DEALING WITH TESTING AND CLEANING YOUR SYSTEM.
5. THE VENTING SYSTEM (1/8" AIR LINE TUBING) ALLOWS THE SEALED WASTE SYSTEM TO VENT. THE OPEN END OF THE LINE MUST BE KEPT ABOVE THE WATER LINE OF YOUR TANK.
6. THE ENTIRE WASTE SYSTEM IS SEALED SO IN THE CASE OF A SAFETY VALVE FAILURE THE JUG WILL FILL WITH WATER BUT NOT LEAK ONTO THE FLOOR. IN ORDER TO MAINTAIN THIS MARGIN OF SAFETY YOU MUST BE CERTAIN THE SYSTEM IS SEALED. PERIODICALLY CHECK THAT THE HOSES ARE TIGHT AND HAVE NOT BECOME STIFF. ALSO CHECK THE SEAL IN THE LID OF THE WASTE CONTAINER TO SEE IF IT IS WORN AND MAY NEED A NEW LID.
7. DO NOT TOUCH THE COIL ON THE SAFETY VALVE WHEN IT HAS BEEN IN USE, IT WILL BE HOT.
8. ALL "O" RINGS IN THE SYSTEM SHOULD BE CLEANED AND LUBRICATED ON A REGULAR SCHEDULE.
9. ALL ELECTRICAL CONNECTIONS ARE LOW VOLTAGE, THEY SHOULD BE PERIODICALLY CLEANED TO PREVENT CORROSION.
10. MAINTENANCE PROCEDURE SHOULD BE FOLLOWED REGULARLY WHILE SERVICING YOUR TANK.

INSTALLATION

STEP 1 Open pre lubricated "O" rings and install large "O" ring on float assembly as shown below. Then with the tube removed from the skimmer press the float into the top of the chamber as shown to the right. Insert the float so that the ring seal is about 1/2" into the tube. The bottom of the float should always be 1/2" or more above the top of the inner tube.



AS YOU ASSEMBLE YOUR KIT ALL THREADS MUST BE WRAPPED WITH TEFLON TAPE OR THE WILL LEAK AND JAM TOGETHER. WRAP AROUND THE THREAD AS SHOWN BELOW.



STEP 2 Teflon all threads and then assemble the 1/2" valve and barb onto the Pentair 1200 pump as shown below.



STEP 3 Teflon all threads then using the 3/4" busing assemble the pump impeller housing end onto the skimmer as shown below



STEP 4 assemble pump as shown below. Use care not to force.



STEP 5 At this time assemble the chamber back onto the skimmer and set the level as per your skimmer instructions. Make certain that the valve installed in steps above is open as shown above.

STEP 6 Gather all of the parts shown below.



STEP 7 This is the return water hook up for the skimmer to send water back into the tank. The long green piece can be cut to any length in order to reach across tanks with a lip around the top. This should be secured to the tank using the adhesive base and wire tie provided. The end **MUST NOT BE IN THE WATER**, this will cause a siphon and flood your floor.

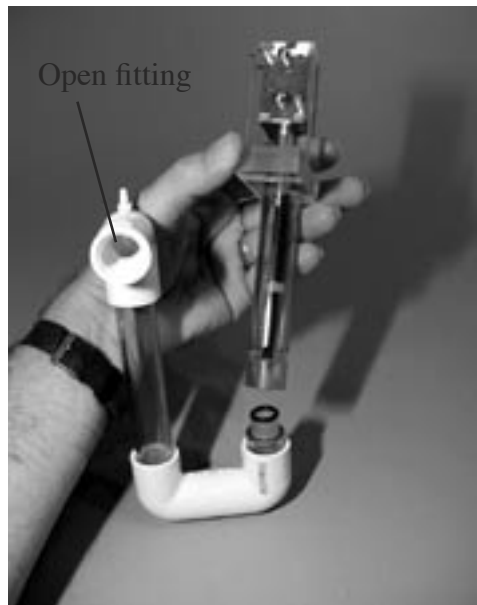


STEP 8 Gather the parts shown below to assemble the safety valve.



STEP 9 Make certain screw a shown in the photo to the left is loose. Place pre lubricated "O" ring on seat as shown and press valve together as shown below. Notice with the open fitting facing you screw "A" is facing away from you

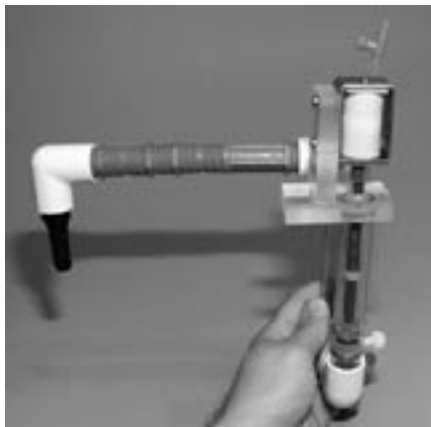
JUST MAKE SCREW "A" SNUG, OVER TIGHTENING WILL CRACK THE HOUSING



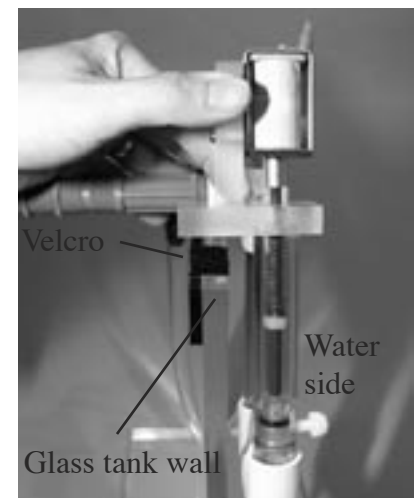
STEP 10 cut off a short length of the air line tube and assemble the needle valve onto the hose barb at the top of the open fitting as shown below



STEP 11 The green threaded fitting can be cut to any length to reach across tanks with lips.



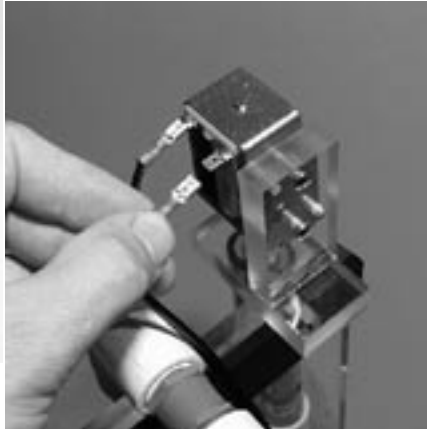
STEP 12 Using Velcro supplied, attach the safety valve assembly to the top of the tank wall.



STEP 13 Gather parts shown below



STEP 14 connect 6 foot wire ends to valve as shown below



STEP 15 Connect low voltage power connections to float switch as shown below



STEP 16 When the full installation is completed, plug power pack into float switch harness as shown below.



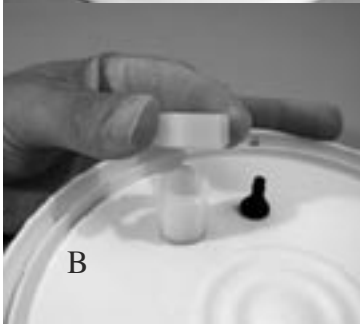
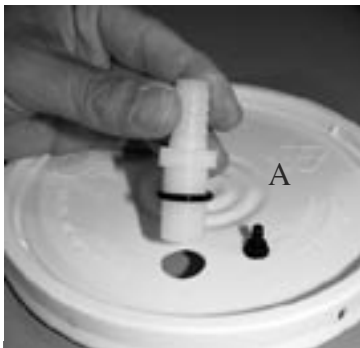
STEP 17 Gather parts shown below



STEP 18 Place "O" rings on threaded end of both bulk head fittings



STEP 19 Insert bulk head fittings, large and small through the lid from the top as shown in "A". Then screw on retaining nut as shown in "B". Snap lid onto 1 gallon pail as shown in "C". Make certain the lid is fully snapped on.



STEP 20 Connect the waste port of your skimmer to the large bulk head fitting on the waste container as shown to the right.



STEP 21 Using supplied air line and tees provided connect sealed system vent lines as shown. This allows the venturi to intake air and the waste container to vent while still keeping the system water tight. This is critical back up to the safety valve in the event of a valve failure this will allow the bottle to fill but not leak. The line marked “TO TANK” must be at the highest point in your system “above the water line of your tank”



STEP 22

SYSTEM START UP

Remove the top of the skimmer and fill the skimmer with water as high as possible without overflowing. Replace the skimmer top and secure. With the water intake valve in the tank, the blue inlet valve on the skimmer open, open the blue needle valve on the top on the intake safety valve and draw out all of the air (the hoses will fill with water). Close the needle valve when all of the air is out.

Open the valve on the Pentair 1200 return pump. Plug in the main skimmer pump, next the sumpless kit power pack, and then the Pentair 1200 return pump.

Adjust the valve on the Pentair 1200 return water pump slowly closing it until the water level in the side chamber is as shown below.



TEST THE SYSTEM !!!!!

Test the system to make certain the safety valve at the top of the tank is working properly. This valve prevents a siphon from allowing water to drain from the tank in the event that the return pump fails or power goes off.

Shut power off to the Pentair 1200 return water pump.

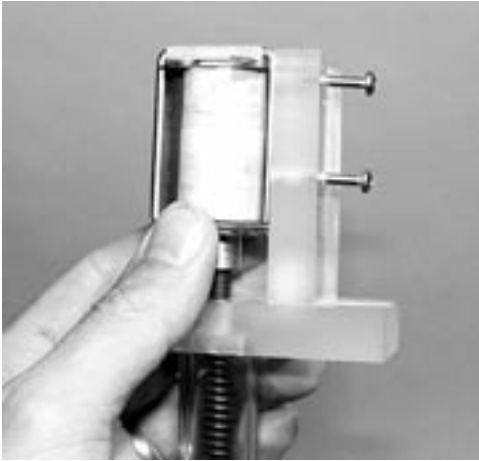
The side chamber should fill causing the float switch to trip closing the safety valve at the tank. Make a mark where the water level is in the side chamber and watch for it to rise over time. If it rises this means the valve is letting a small amount of water leak down. If this happens you may need to adjust the valve as described in the following sections.

LONG TERM SHUT DOWNS

If you plan to shut down for an extended time we recommend closing the blue ball valve at the water inlet on the skimmer. This is extra protection remember the electric valve at the tank is intended for emergencies only.

VALVE ADJUSTMENT & MAINTENANCE

STEP 1 Remove two stainless steel screws and lift off electric solenoid coil.



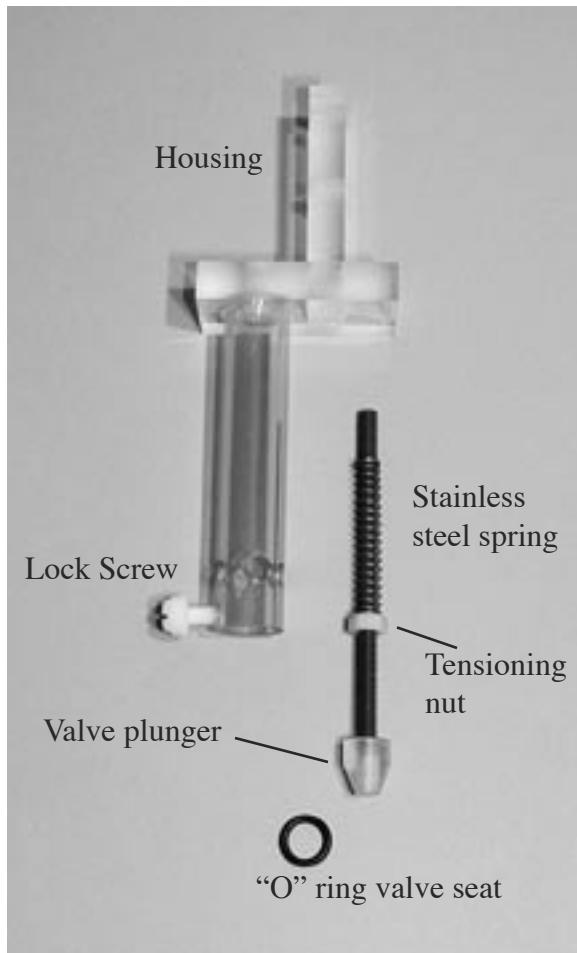
STEP 2 Pull upward on metal plunger a grab the plastic threaded rod. Then unthread the plunger from the rod.



STEP 3 Press down on the threaded rod and push it out of the bottom of the valve housing. The "O" ring, rod, and stainless steel spring will pop out.



PARTS OF YOUR VALVE

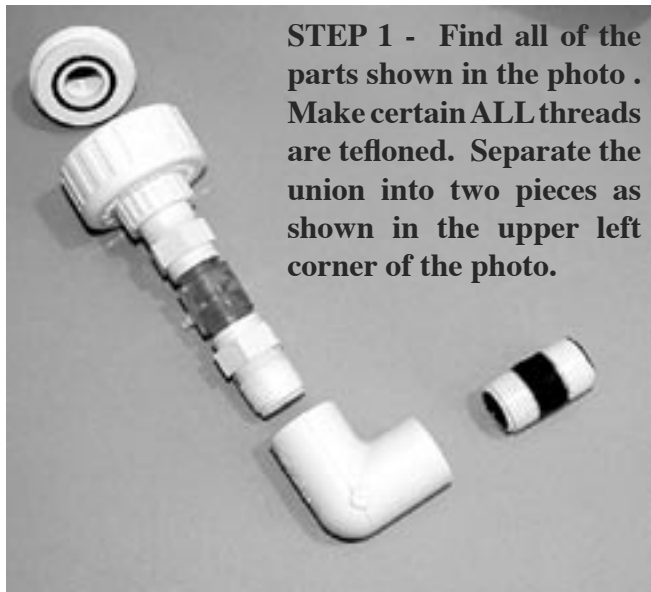


ADJUSTMENT The tensioning nut increases or decreases the closing pressure of the valve. Not enough pressure and the valve can leak, too much pressure and the valve will not open. We do our very best to factory adjust them, occasionally a valve may need fine tuning. If your valve is leaking when you do your shut down test simply turn the nut to move "UP" (towards the spring) the shaft a couple of turns. Remember small adjustments, if you over do it the valve will not open.

MAINTENANCE & CLEANING The valve should be cleaned and inspected on a regular basis. Remember this is a safety system. You would not trust your parachute to work without inspecting it periodically. Clean all surfaces of the housing, Valve plunger, "O" ring, and electrical components. Inspect the "O" ring for signs of wear or cracking, and lubricate it with silicone grease (NOT CAULK). DO NOT SCRATCH THE VALVE PLUNGER. If you wish you may wipe metal surfaces with a cloth and a little film of oil. REMEMBER TO ALWAYS DO A TEST OF THE SYSTEM AFTER ANY DISASSEMBLY AND MAINTENANCE TO VERIFY IT IS WORKING PROPERLY!

PUMP INSTALLATION SUPPLEMENT

MAGDRIVE PUMP



STEP 1 - Find all of the parts shown in the photo . Make certain **ALL** threads are tefloned. Separate the union into two pieces as shown in the upper left corner of the photo.

STEP 2 - Using supplied teflon thread tape, wrap **ALL** threads as shown below. Start at the bottom of the thread and wrap in the direction shown below.



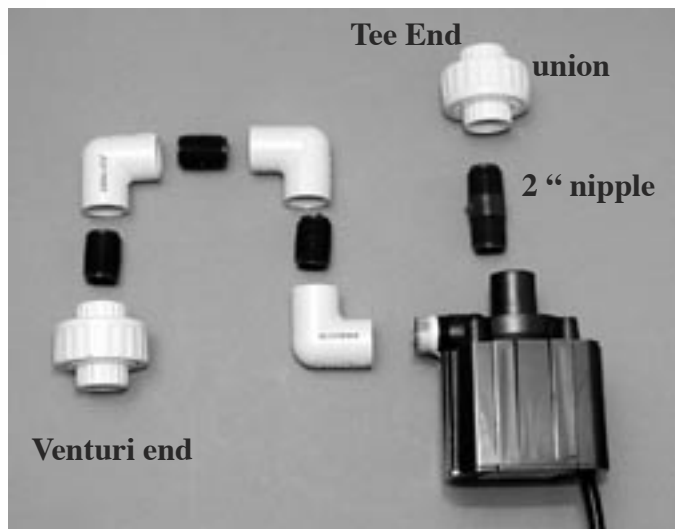
STEP 3 - USE THE GREEN threaded coupling with the hex in the center. Thread a threaded elbow into the female thread at the bottom of the skimmer body. The elbow should be facing up when tight.



STEP 4 - Thread one half of the threaded union onto the top of the venturi (top marked by dot) and thread the assembly into the elbow installed in step 8 as shown to the left.

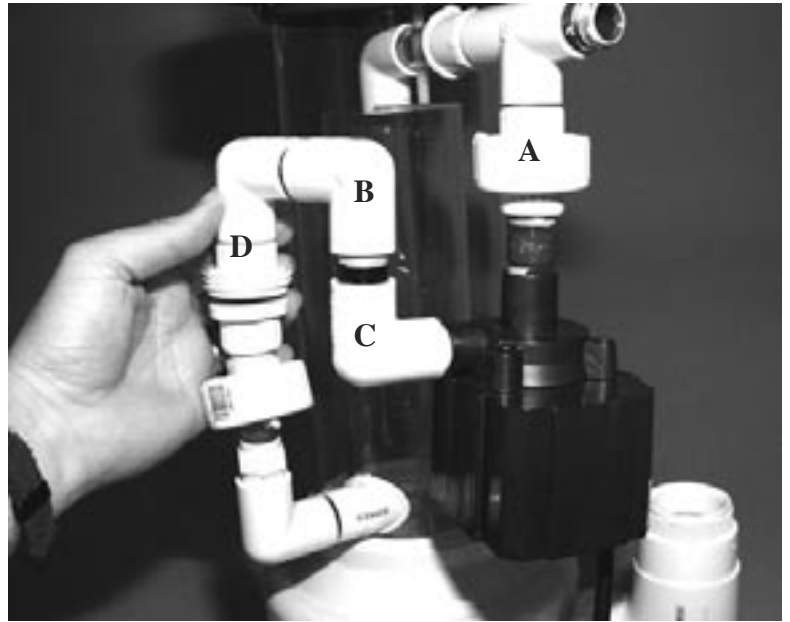


STEP 5 - Gather all of the parts shown in the photo below, make certain **ALL** threads are tefloned.

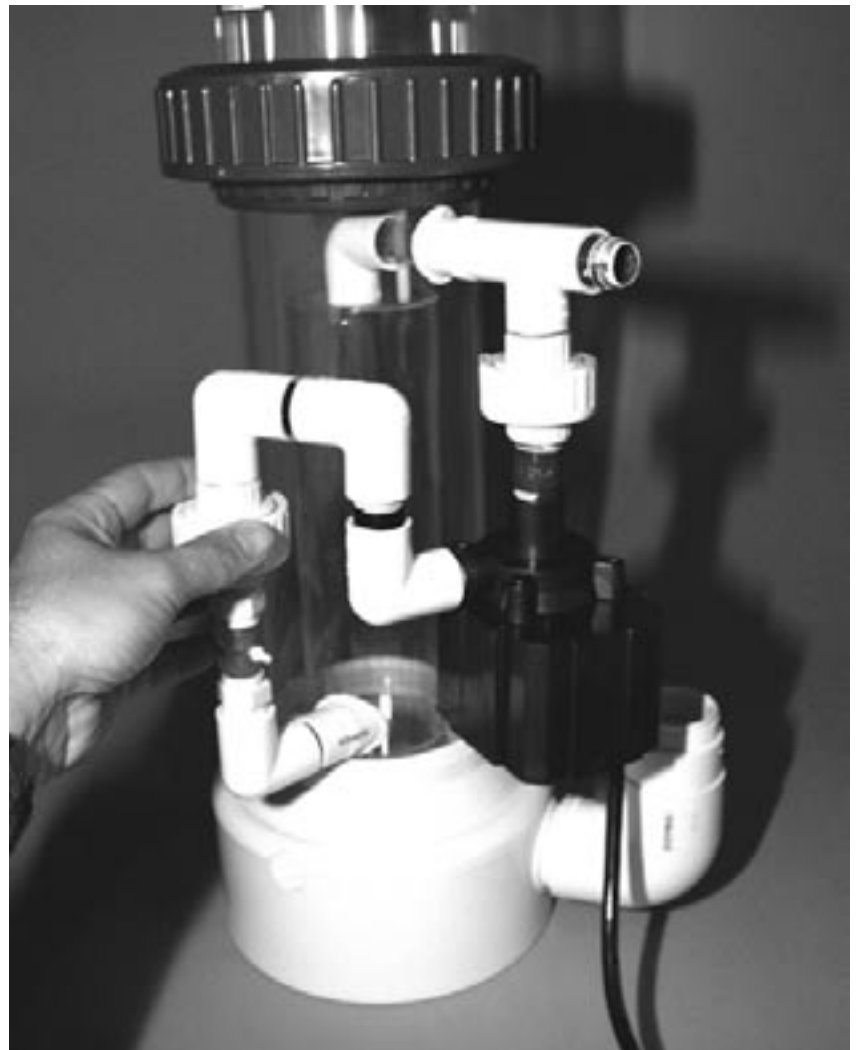


STEP 6

Assemble parts to the pump following diagram in step 5. Now with union "A" connected, adjust how far you thread elbows "B" & "C" together to adjust alignment of union "D"



With all of the fittings aligned thread the locking rings for both unions into place as shown.



Pentair model 3000 Pump

STEP 1 - Gather all of the parts shown in the photo below, make certain ALL threads are tefloned.



Using supplied teflon thread tape, wrap ALL threads as shown below. Start at the bottom of the thread and wrap in the direction shown to the right.



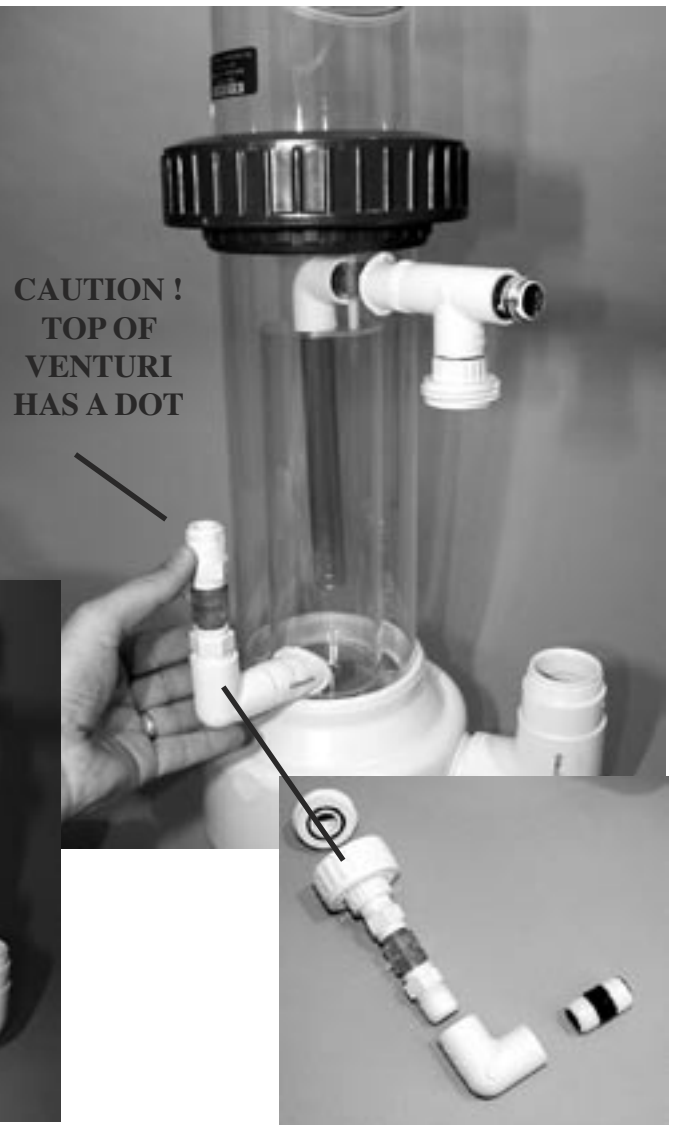
STEP 2 Thread the "T" onto the body as shown below also thread one half of the union into the "T" as shown. Thread the Venturi onto the skimmer, and then one half of the other union onto the venturi.



Adjust how far you thread the pieces into the fittings.

This will allow you to line up the union to thread together as shown to the left

When properly adjusted the unions will thread together as shown to the right. The intake on the pump faces up with the outlet coming out the side.



CAUTION!
TOP OF
VENTURI
HAS A DOT

