

PROSTAR AQUARIUM ASSEMBLY/INSTALLATION GUIDE

ProStar Aquariums are specifically designed to be some of the easiest to set up and maintain aquarium systems available. An aquarium system isn't really worth the investment if you spend 50% or more of your time under the tank instead of enjoying it.

Both Pro Clear Aquatic Systems and Two Tides Aquarium Supply want this hobby to be easier, safer, and more accessible for all skill levels and budgets. The ProStar line was created and refined through multiple versions with this in mind.

The following is a set of guidelines for successfully assembling your ProStar Aquarium System. Feel free to reach out to us and let us know how it has helped you. We love to hear about your progress!

We are quite active on the Reef2Reef forum, it's a great place to find us. We also have more contact info on our website.



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Step 1 = What Comes With a ProStar System

- Glass Tank with Pre-Installed Overflow System
- Marine-Grade Aluminum Stand
- Glass Filter with Sump Covers
- Auto Top Off with Float Valve Shutoff
- One Set of Heavy "Furred" Filter Socks
- Pre-Assembled Drain and Return Plumbing Lines
- Pre-Installed Bulkhead Adapters (black inner threaded parts attached to ends of plumbing lines)
- O-Rings (they will be wrapped around the plumbing lines so they don't get misplaced during shipping)
- Ball Valves (for Drain Plumbing Lines)
- Pre-Installed Heavy Duty Leveling Feet
- Pre-Cut Egg Crate (in Refugium Sump Compartment)
- Spiral Return Line Silencer
- Drain Silencer Cap



Step 2 = What You Will Need to Prepare for Assembly

- Some friends or family to help move the tank and stand (if coordinating family and friends to help is not possible for you, see our Delivery and Moving Guide for other moving alternatives)
- Phone Camera with at least 50% battery charge (for taking pictures of any potential damages for easy shipping claims)
- Wrench (to adjust the leveling feet and safely level the stand)
- Bubble Level Tool (to fine-tune the level of the stand)
- Small Philips Screwdriver (to adjust the height of each stand door if they arrive uneven)
- Return Pump with proper flow rate and head pressure for your system
- OPTIONAL Wooden 2" x 4" Boards and multiple Towels (to place under the stand as a wedge while adjusting Leveling Feet)
- Buckets and a Siphon Hose (used if water leak testing at the end of this guide)



Step 3 = ProStar Delivery Checklist

If you haven't already, we highly recommend you review our <u>"ProStar"</u>
 Aquarium Delivery Checklist" (click / tap text to view page) for a walkthrough regarding how to properly receive a large aquarium from shipping

Step 4 = Check for Tank and Stand Condition

- Once you have your ProStar system inside and safe, first check for the condition of both the tank and the stand
- First unbox the stand by cutting the blue bands that hold the packaging together
 - Once unboxed, look for any major dents, scratches, cracks, or holes in the stand construction
 - Check both the outside and the inside of the stand frame to be sure
 everything is strong and is solidly locked in place, as well as free of dents
 - If you see anything that could impair the use or aesthetics of the stand,
 immediately take pictures and send them over to your Two Tides Agent
- Next unbox the tank by cutting the blue bands that hold the packaging together
 - o Once unboxed, look for any cracks / chips, or silicon breaks / deformities
 - o Check each glass panel for the above, especially on the seams and corners
 - If you see anything that could impair the use of the tank, immediately take a few photos and send them over to your Two Tides Agent



<u>Step 5 = Check for Filter, Plumbing, and Accessory</u> <u>Condition</u>

- Next check for the condition of the smaller parts and pieces of the system
- Remove all tape from the stand doors, open them, and check the following parts:
 - Glass filter
 - Check that all the glass panes are free from chips or cracks, and are solidly seated and sealed properly
 - Pre-assembled plumbing
 - Any missing pieces from the <u>"What Comes With a ProStar System"</u>
 section (click / tap text to view page)
 - Sump Covers
 - Any chips, cracks, or deformities that prevent the covers from seating or covering the sump properly
 - Auto top off system with float valve
 - Check the hosing to the float valve for any punctures or kinks
 - Check the float valve itself for any punctures



<u>Step 5 = Check for Filter, Plumbing, and Accessory</u> <u>Condition (continued)</u>

- Metal door hinges
 - If the stand doors aren't the same height on arrival, this can easily be fixed by screwing the hinge screws inside the stand in or out (instructions for this are covered later)
 - Wait until the system has been fully leveled and plumbed before adjusting door hinges
 - Any other damages to the doors themselves can be reported below
- Power bar (mounted on the back of the stand compartment)
 - Plug in power bar and turn on to make sure it is functioning properly
 - Take a lamp and plug into each socket to check the operation of each outlet individually
 - This is all MUCH easier to do and fix when the tank is still unplumbed and there aren't any plumbing lines in the way
- Any other missing parts mentioned in the <u>"What Comes With A ProStar</u>
 <u>System"</u> section above (click / tap text to view page)
- If you see any significant damages to any equipment or you are missing any parts, immediately reach out to your Two Tides Agent and let them know exactly what you're missing



Step 6 = Leveling the Stand

- The stand comes with 4-8 Leveling Feet depending on your ProStar model size
 - ProStar 60 = 4 Legs
 - ProStar 90, 150, and 200 = 6 Legs
 - ProStar 230 = 8 Legs
- All Leveling Feet should come already pre-installed and screwed all the way into the bottom of your stand
 - If any of the Leveling Feet are missing, immediately stop installation and contact your Two Tides Agent

Correct Leveling Feet Adjustment Procedure

- To adjust each of the Leveling Feet, take your Wrench and tighten onto the nut just above the rubber piece on the Leveling Foot, then rotate
 - Rotating clockwise lowers the Leveling Feet, and rotating counter clockwise raises them
- Tilting the stand slightly while adjusting each of the Leveling Feet greatly increases the ease of turning each foot
 - Slight stand tilting also prevents "floor torquing" or potentially damaging the flooring below due to forcefully rotating under load



Step 6 = Leveling the Stand (continued)

Correct Leveling Feet Adjustment Procedure

- When adjusting the Leveling Feet on the ProStar 60 or 90, place one hand on the top of the stand and push straight back to slightly tilt the stand away from you, then adjust the Leveling Feet with the other hand
 - The stand should only ever be tilted an inch or so up, and should NEVER
 BE PLACED ON ITS SIDE TO INSTALL LEVELING FEET
 - There is a glass filter inside, so just tilt enough to slightly raise the Leveling
 Feet off the ground by ONE INCH
- When adjusting the Leveling Feet on the ProStar 150, 200, and 230, have a partner follow the same tilting instructions above, but with two hands
 - Remind them to not ever push on the stand door itself
- When adjusting the Leveling Feet on the front of the stand, fully open the stand door closest to you and place your hand on the top of the stand frame itself to push
 - NEVER PUSH AGAINST THE STAND DOOR ITSELF



Step 6 = Leveling the Stand (continued)

Correct Leveling Feet Adjustment Procedure

- Alternatively, you can place a form of Wedge (like two pieces of Wooden 2x4 with a Towel over top to prevent scratching the stand) directly under the stand to slightly raise it up without having to lift
 - When using a Wedge, we still recommend having a partner to hold and steady the stand while you adjust the Leveling Feet
 - NEVER PLACE A WEDGE UNDER A STAND DOOR TO TAKE WEIGHT
 - This can damage the door hinges making them unable to be leveled or can even make the doors unusable
- Once you have worked out how you would like to prop up the stand for adjusting the feet, place a Bubble Level Tool on top of the stand first running side to side (length-wise)
 - Adjust each Leveling Foot with your Wrench until the bubble in your Level
 Tool is centered (as close to perfect as possible)
 - This means that the stand is centered length-wise
- Next, flip the Bubble Level Tool 90 degrees so that each side of the Bubble Level is facing the long sides of the stand (front to back)
 - Adjust each Leveling Foot with your Wrench until the bubble in your Level
 Tool is centered (as close to perfect as possible)
 - This means that the stand is centered depth-wise



Step 6 = Leveling the Stand (continued)

- Repeat using your Bubble Level Tool to check the length and depth leveling one final time
 - It's better to double check than to rush
- The ProStar System IS NOT ABLE TO BE EASILY LEVELED WITH THE TANK ON THE STAND, and CANNOT BE LEVELED AT ALL WITH WATER PRESENT IN THE TANK OR SUMP
 - Any further adjustments will require the tank to be taken down completely and put back on again
- Leveling your tank and stand is ONE OF THE MOST IMPORTANT STEPS IN THIS GUIDE, so take the time to do this correctly
 - Precisely leveling improves the structural integrity of your tank, and prevents potential seam failures in the future from uneven pressure



Step 7 = Placing the Tank on the Stand

- If you worked with Two Tides to schedule Movers to come help out with successful delivery, then placing the tank on the stand will already be handled by them
- If placing on the stand yourself, be sure to work with multiple able-bodied people (commonly family and friends) to help make the load evenly distributed and easier for each person during lifting
 - ProStar 60 and 90 = 2 People
 - ProStar 150 = 3-4 People
 - \circ ProStar 200 and 230 = 4-5 People
- The strongest point on the tank to grab is the bottom corners
 - There is also a Black or White Tank Trim along the entire bottom of the tank which takes most of the weight of the system and automatically levels the tank when placed on the stand
 - This prevents the weight from being transferred to the bottom glass pane, and therefore the seams of the tank
 - Grab the tank from the bottom corners below the tank trim
- Lift the tank up high off the floor, making sure to give more than enough clearance between the bottom of the tank trim and the top of the stand
 - Be sure to align the bottom overflow holes on the tank with the bulkhead holes on the top of the stand
 - Gently place down into position, being careful to keep fingers out from under the bottom lip of the tank trim



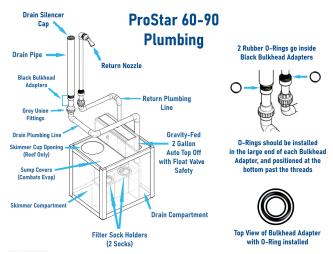
Step 7 = Placing the Tank on the Stand (continued)

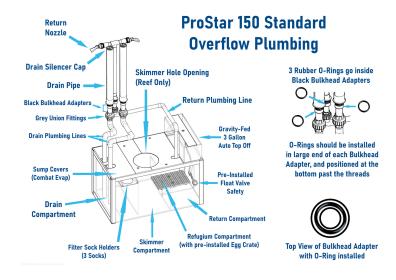
- If small adjustments need to be made to seat perfectly flush with the stand, have a friend help push evenly from the White or Black Tank Trim on the bottom of the tank
 - Pushing from the glass itself can lead to glass shifting and can stress or damage the silicon seams
 - Pushing from the glass may void warranty
 - Although these tanks are made very well, they are not indestructible, so to keep both you and your tank safe, please be sure to use precaution and push from the bottom



Step 8 = Plumbing Diagrams

Here are some Plumbing Diagrams of each ProStar model by size. When you click or tap on these diagrams, you'll be taken to a new page where you can view the individual diagram by itself in more detail. Click / Tap the diagram that matches your ProStar model.

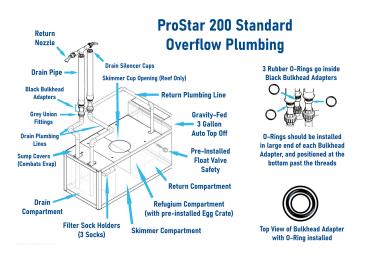


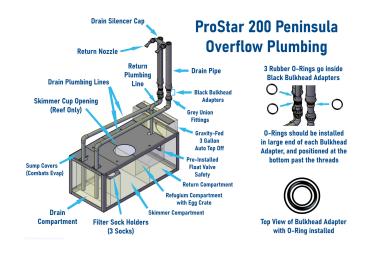


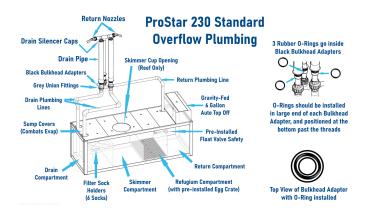


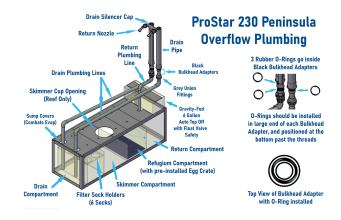
Step 8 = Plumbing Diagrams (continued)

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Step 9 = Plumbing Prep: Flow Regulation and Tuning

- For greater regulation of the flow of water coming from the tank and into the filter, you can optionally install the included Ball Valves
 - This will allow you to dial in the exact flow of water necessary in your system to create a full siphon of water into your drain line, completely eliminating air bubbles and greatly reducing cascading water noise
 - To use the Ball Valves, cut a piece of PVC out of the vertical sections of drain piping to plumb in the Ball Valves
 - The bottom of the drain piping should rest 3-4 inches below the water level in the filter, so cut the plumbing accordingly
 - This may mean cutting off a small section of plumbing at the very bottom end of the Drain Line after installing each Ball Valve to achieve the 3-4 inch depth below the sump water level
- Next, attach the included Spiral Silencer to the top of the return line (in the overflow box inside the tank)
- Then, attach the Silencer Cap to the drain intake tube (also in the overflow box)



Step 10 = Plumbing Assembly

- Once the tank is safely in place, it's time to hook up the plumbing
- The filter will be mounted in place upon arrival, so leave it as is for the rest of assembly
- There will be Rubber O-Rings wrapped around one of the plumbing lines
 - This is to ensure they don't get misplaced during shipping
 - If you can't find your O-Rings, contact your Two Tides Agent
- The number of O-Rings will depend on your ProStar model size and how many Plumbing Lines your tank has
 - ProStar 60 and 90 = 2 Rubber O-Rings (for 1 Drain Line and 1 Return Line)
 - ProStar 150, 200, and 230 = 3 Rubber O-Rings (for 2 Drain Lines and 1 Return Line)
- Carefully detach the O-Rings from each plumbing line, stretching just enough to get around each fitting and to avoid tears in the O-Ring from overstretching
 - Set the O-Rings aside in a clean place for now
- The Black Bulkhead Adapters are already attached to each set of Plumbing Lines
 - o If they are not and you can't find them, contact your Two Tides Agent
- Remove the Black Bulkhead Adapter from each plumbing line by unscrewing the Grey Union Fitting just below the Adapter
 - One O-Ring goes inside each of the Black Bulkhead Adapters for your system



- Take each O-Ring and rest one inside each Bulkhead Adapter
 - The O-Rings go down inside the female or "cup" end of the Bulkhead
 Adapter down past the threads, and rest against where the Adapter reduces
 in size
 - A diagram of this can be seen on the <u>"ProStar Plumbing Diagrams"</u> Page
 (click / tap text to view page) on the bottom right of each diagram
 - Be sure each O-Ring is firmly seated against the very bottom of the Bulkhead Adapter and is not floating or stuck on the threads (which can cause the O-Ring to tear when threading on the Bulkhead Adapter)
- With the O-Rings inside, screw on each Bulkhead Adapter to the appropriate threaded bulkhead holes at the back of the stand compartment
 - Each Bulkhead Adapter will only fit with the same sized bulkhead hole fitting, and each is a slightly different size, so DON'T FORCE THE ADAPTER ON
 - If the Adapter doesn't thread on easily, try threading onto another fitting and see if it's easier
 - Once each Bulkhead Adapter is on the appropriate bulkhead fitting, hand tighten to snug
 - Use your Wrench to seal the Adapter by rotating the end of the Wrench handle 1-2 inches (1/8th turn)
 - Do not overtighten



- Next, install the pre-assembled Drain Plumbing Lines
 - Different ProStar models will have either 1 or 2 Drain Plumbing Lines that come down from the tank
 - This will determine the number of Drain Plumbing Lines to install in the stand, and also where they lead to in the sump
 - If using the ProStar 60 or ProStar 90:
 - The system will have 1 Drain Plumbing Line
 - Place the open (non-threaded) end of the pipe into the tall, skinny filter compartment in the front of the filter, directly to the right of the filter sock compartment
 - Position the threaded Grey Union Fitting up against the other half of the Union Fitting attached to the Bulkhead Adapter at the back of the stand compartment
 - Screw together the Grey Union Fitting
 - Hand tighten the Union Fitting to snug
 - Do not overtighten



- If using the ProStar 150, 200, or 230:
 - The system will have 2 Drain Plumbing Lines
 - Place the open (non-threaded) end of each pipe into the tall filter compartment all the way to the left side of the filter, directly to the left of the filter sock compartment
 - Screw together each Grey Union Fitting
 - Hand tighten the Union Fitting to snug
 - Do not overtighten
- Lastly, install the pre-assembled Return Plumbing Line
 - Place the open (non-threaded) end of the pipe into the return compartment on the right side of the filter
 - Position the threaded Grey Union Fitting up against the other half of the Union Fitting attached to the Bulkhead Adapter at the back of the stand compartment
 - The return fitting is behind the drain fitting
 - Screw together each Drain Plumbing Line at the Grey Union Fitting
 - Hand tighten the Union Fitting to snug
 - Do not overtighten



- Until the ceiling-mounted Zipties inside the stand, fasten them around the corresponding plumbing pipe lines, and slightly tighten them against the plumbing
 - This will help hold the weight of the plumbing and water to prevent pipe stress over time
- Place the included Filter Socks into the filter sock holders in the sump
 - ProStar 60 and 90: Filter Socks will be placed in the ring holders in the front of the filter
 - ProStar 150, 200, and 230: Filter Socks will be placed in the ring holders in the very left of the filter, directly to the right of the Drain Lines
- Attach the Black Soft Hose to the open end of the Return Plumbing Line if not attached already
- Attach your Return Pump onto the end of the Black Soft Hose
 - Hose can be cut to fit the height of your Return Pump if needed



Step 11 = Releveling

- Now that everything is plumbed, it's a good idea to recheck the leveling of the system
- First check leveling of the stand
 - Place and check the Level inside the stand compartment
- Also check leveling for the tank
 - Place and check the Level inside the tank on the bottom glass panel
- Remember to check both side to side and front to back TWICE
- If your system has been off-centered by any degree, <u>reach out to us</u>
 <u>immediately BEFORE YOU BEGIN FILLING THE TANK WITH WATER</u>
 - DO NOT adjust the Leveling Feet at all at this stage
 - This may mean a floor shift has occurred, or could be the sign of an incorrectly threaded or faulty leveling foot
 - If you attempt to fill the tank with water while the system isn't leveled, it can cause the glass or other components to shift over time, and will most likely void warranty



Step 12 = Optional Water Leak Testing

- Now that your system is fully plumbed, it's time to test for safe water holding
- Before adding any water, be sure to have Buckets, Towels, and a Siphon Hose nearby to quickly deal with any potential spills or leaks
 - Water leak testing is optional, but is highly recommended by Two Tides for any and all new tank systems

Leak Test Guidelines

To be extra safe for checking the complete seal of the tank to protect life inside and outside the system:

- 1. Fill the tank up to 15-25% capacity
- 2. Be sure to only fill with LUKE WARM WATER
 - a. Cold water can cause the aquarium to "sweat" or condense on the outside which can give false information of a leak
- 3. Leave water to sit for 30 minutes 1 hour
- 4. Visually check the seams of the tank for any signs of water outside the glass
- 5. Gently run a dry paper towel along the outside seal of the silicon to check for any signs of moisture
- 6. If any moisture is present, wipe it all away and repeat steps 3-5
- 7. If moisture is still present, completely drain the tank and contact Two Tides immediately
- 8. If everything is dry, move on



Step 12 = Optional Water Leak Testing (continued)

Leak Test Guidelines

- 9. Continue to fill the tank in 15-25% increments until the water level reaches the overflow and ALMOST begins to flow down into the filter
- 10. Don't allow any water to enter into the overflow, but have the water around 1-2 inches from the overflow opening
- 11. Stop filling with water and repeat Steps 2-8
- 12. Continue filling the system to allow water to flow down to the filter until it is around half full (common water level in most sumps)
 - o Keep an eye on your tank water level to be sure it doesn't overflow
- 13. Check the filter by running a paper towel along the outside of the filter seams (to get rid of possible humidity inside stand), then perform a second time with a fresh paper towel)
- 14. If second paper towel has excess moisture, contact Two Tides immediately
- 15. If second paper towel is dry, continue
- 16. Can perform the same paper towel test for Auto Top Off as well if desired
- 17. Check bottom of cabinet compartment for any signs of still water
- 18. If still water present, completely drain the filter and contact Two Tides immediately
- 19. If dry, you're done! Your entire tank system is sealed



Congratulations, Your ProStar is Assembled and Ready!

YOU'RE DONE!

Your tank system is good to go, and now all it needs is a habitat and aquatic pets to go inside!

We here at Two Tides want to thank you for allowing us to be a part of your hobby. We hope your ProStar tank will bring you and your loved ones many years of enjoyment and success.

Enjoy your new ProStar!

To Your Success,
The Two Tides Team

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