

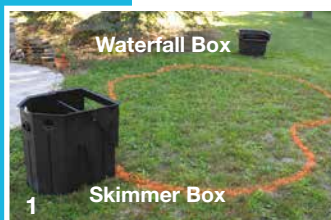


Crystal Falls DIY Waterfalls & Pond Skimmer Installation Guide

For use with
Mid-Level Series Pond Boxes

Waterfalls #PB1281, #PB1298 & Skimmer #PB1304

CRYSTAL FALLS WATERFALL BOX INSTALL



STEP 1

Choose Waterfall Box Location

The waterfall should be positioned so that the water flowing from it enters the pond opposite the skimmer to ensure proper water circulation. The waterfall is best positioned so that you can view it from the outdoor and indoor areas where you plan to enjoy your new water feature. You may position the waterfall right at the ponds edge or at the top of a stream.



STEP 2

Assemble Waterfall Plumbing

Your Crystal Falls Waterfall Box has one spinweld fitting, located on the side of the bottom of the box. Teflon Tape (included) the threads and turn the PVC male adapter into that spinweld.



STEP 3

Position Waterfall Box

Compact the area where the waterfall box will sit to prevent future settling. The waterfall box should sit level from side to side and should be tilted forward slightly (about 1/4 bubble on your level) to ensure that the water flows forward through the spillway.

Using soil, backfill around both sides and the back of the waterfall box.



STEP 4

Hook-Up Flexible PVC Pipe

The Crystal Falls Waterfalls are plumbed to accept 1.5" Flexible PVC Pipe. We recommend using Flexible PVC pipe as it is very flexible and easy to work with. Using PVC Primer & Cement, glue the flex pipe into the PVC male adapter.



Included in this Kit:

- Waterfall Box
- Waterfall Weir
- White Filter Mat
- Media Bag
- PVC Male Adapter
- Teflon Tape
- Black Silicone
- Stainless Steel Screws
- Black Screw Caps
- Liner Clips

STEP 5

Attach Liner to Waterfall

Have the following within reach: cordless screwdriver, 5/16" nut driver bit, waterfall weir (included), silicone (included), stainless steel screws (included), black screw caps (included), utility knife with new blade, and a clean rag.

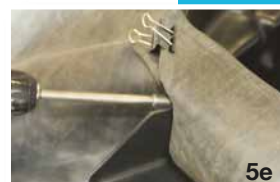
5a Bring the liner up to the face of the waterfall box and check the positioning of the liner against the waterfall box. Use the liner clips (included) to temporarily hold the liner to the box. The liner should follow the contours of the pond edge or stream and the face of the waterfall box. It is a good idea to leave a little slack in the liner where it transitions from the pond edge or stream to the face of the waterfall box. This will ensure that the weight of the rocks used in the waterfalls will not pull down on the liner once it is attached to the waterfall box.

5b Kneeling in front of the waterfall box remove the liner clips and fold the liner back toward you leaving it to rest on your lap. Using the clean rag wipe down the face of the waterfall box around the area where silicone will be applied. Also clean the area on the liner that will be coming in contact with the area you cleaned on the waterfall box.

5c Apply a bead of silicone along the sides and bottom of the opening on the face of the waterfall, keeping the silicone bead centered the entire way.

5d Bring the liner back up into position against the face of the waterfall. Hold the liner in place again with the liner clips to help keep it from moving around as we prepare to attach the waterfall weir. Gently run your fingers along the liner over the area where you applied the silicone and flatten the bead out slightly. This will help ensure a more even distribution of the silicone as we compress it when we screw down the weir.

5e Bring the waterfall weir into position. Once in position begin driving the stainless screws into place. Start with the top screws, on the left and right, to hold the weir in position. Continue driving screws into the remaining pilot holes on the weir with your next screw going into the middle hole on the weir.





6a



6b

STEP 6

Finish Spillway Waterproofing

6a Carefully trim out the section of liner inside the waterfall area to open the channel where the water will flow through.

6b Use the remaining silicone to run an additional bead along the joint where the waterfall box, liner, and weir come together. Smooth out the bead using your finger.

6c From inside the waterfall box, place a small amount of silicone to the end of each screw.

6d Then place a black screw cap on each screw and press to secure onto the silicone.



6c



6d



7a



7b

STEP 7

Install Waterfall Box Filter Media

7a Position the filter mat horizontally in the bottom of the waterfall box. The Crystal Fall Waterfall Kit includes one white mat and one media bag.

7b Fill the media bag with biological media of your choice (not included) and position on top of the filter mat. The media placed in this photo is our Bacti-Twist® biological media. See more about Bacti-Twist below.

Product Suggestions

We recommend using Bacti-Twist® biological filter media. This media is lightweight, easy to fit, and provides the surface area to grow beneficial bacteria necessary to keep water clear and healthy. Item #PBBT1



Use Pond Build'n Foam to fill in the gaps of the rockwork leading up to the waterfall box. The foam will force the water on top of the rockwork rather than around and behind it where it can't be seen. This will give you a much more dramatic waterfall display! Item #PB1380



CRYSTAL FALLS SKIMMER INSTALL

- Skimmer Box
- Skimmer Snout
- Support Pipe
- Landscape Lid
- White Filter Mat
- Plastic Guide Nails
- Stainless Steel Self-drilling Screws
- Black Vinyl Screw Caps
- Black Silicone

STEP 1

Choose Skimmer Location

The skimmer should be positioned at the pond edge, opposite the waterfall, to circulate the water properly. The skimmer should be positioned so that the face of the skimmer will meet with the pond liner at the side of the pond.



STEP 2

Excavation of Skimmer Area

2a Spray outline of skimmer and excavate the hole a few inches larger than the 14.5" width and 22" length of the skimmer box.

2b The skimmer should be set at a depth of 15", to position the top of the 19.5" high skimmer box approximately 4.5" above your desired pond water level. This will set your water level 1" below the top edge of the snout opening allowing clearance for surface debris to flow into the skimmer during normal operation.



STEP 3

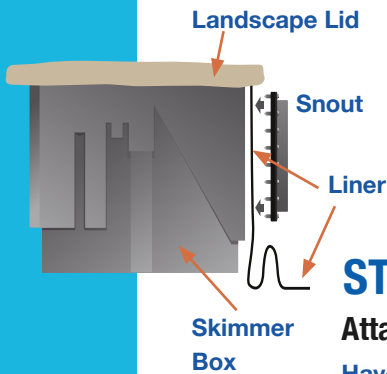
Position & Backfill Skimmer

3a Tamp and level the ground before setting your skimmer in place, to prevent settling in the future. Then level skimmer from front to back and side to side.

3b Once the skimmer is properly positioned insert the support pipe.

3c Fill in the soil in around the back and sides. Be sure to pack the soil as you go to help keep the skimmer in position and to limit any settling around the skimmer. You should pack the soil so that the skimmer is held in position tightly but not so much as to distort the sides of the skimmer.





The snout will be secured over the liner before the hole is cut through the liner and excess can be removed.

STEP 4

Attach Rubber Liner to Skimmer

Have the following within reach: cordless screwdriver (set to lowest torque), 5/16" nut driver bit, plastic guide nails (included), skimmer snout (included), silicone (included), stainless steel self-drilling screws (included), black vinyl screw caps (included), utility knife (with new blade), and a clean rag.



4a Kneel in front of the skimmer and bring the liner up. Check the positioning of the liner against the skimmer. Use the liner clips to temporarily hold the liner to the face of the skimmer. Be sure the liner follows the contours of the pond and the face of the skimmer. It is a good idea to leave a little slack in the liner where it transitions from the pond ledge to the face of the skimmer. This will ensure that the weight of rockwork and water in the pond will not pull down on the liner where it is attached to the skimmer.



4b While kneeling in front of the skimmer, remove the liner clips and fold the liner back toward you leaving it rest on your lap. Using the clean rag wipe down the face of the skimmer. Also, wipe the surface of the liner that will be coming in contact with the area you cleaned on the skimmer box.



4c Apply a bead of silicone along the sides and bottom of the opening of the face of the skimmer. Use one of the two guide holes at the top corners of the opening as the starting point and begin by running your bead straight down from that point. The bead of silicone should be about an inch out from the edge of the opening; this will position it in-line with the screws when we attach the skimmer snout.



4d Bring the liner back up into position against the face of the skimmer. Hold in place again with the liner clips to help keep it from moving around as we prepare to attach the snout. Gently run your fingers along the liner over the area you applied the silicone and flatten the bead out slightly. This will help ensure a more even distribution of the silicone as we compress it while screwing down the snout.

STEP 5

Attach Skimmer Snout

5a Push the guide nails through the guide holes and liner from the inside of the skimmer. This will puncture a small hole in the liner.

5b The snout should be installed so that the snout door hinges at the bottom. Place the snout into position by sliding the top corner holes of the snout over the guide nails.

5c While holding the snout in position remove one of the guide nails and drive the first screw into that hole. Keeping the snout in position, remove the other guide nail and drive a screw into the second guide hole. With the snout held into position with the first two screws, continue driving the remaining screws into the pre-drilled holes around the snout. Be sure to install screws into all pre-drilled holes to prevent water from leaking around the snout.



STEP 6

Trim and Seal Liner

6a From inside the skimmer, carefully use your utility knife to cut out the liner in the snout area so water can flow from the pond into the skimmer. Simply follow the edge of the skimmer opening with your knife to cut away liner. This works best with a new, sharp blade.

6b Outside the skimmer, trim away any excess liner that extends above the front top edge of the skimmer box.

6c Use your remaining silicone to run an additional bead along the joint inside of the snout where the skimmer, liner, and snout come together.

6d Use your finger to smooth out the excess silicone.

6e From inside the waterfall box, place a small amount of silicone to the end of each screw. Push black screw caps on each screw and press to secure onto the silicone.





7a



7b



7c

STEP 7

Install Submersible Pump (not included)

7a Screw your pre-assembled pump discharge assembly into your pump.

Position your pump and discharge assembly in the back chamber of the skimmer so that the top of the discharge assembly faces the discharge hole.

7b Bring the flexible pipe into the skimmer through the discharge hole and attach it to your discharge assembly.

7c Run the pump power cord over to the power source and position the cord so that it transitions out of the skimmer at the cord notch; this will allow the Natural Landscape Lid to sit flush on the skimmer.

STEP 8

Place Skimmer Filter Material

8a Slide the white skimmer filter mat into position in front of the pump.

8b Slide the black mesh skimmer net into position in front of the white mat.

8c During normal operation, the skimmer net will remove larger leaves and debris, while the white mat will remove the smaller particles allowing the clean water to flow into the pump chamber area where it can be re-circulated back to the pond, preferably via the appropriately sized Blue Thumb Biological Waterfall Filter.

8d Finally, place Natural Landscape Lid on top of skimmer to disguise the skimmer within the landscape.



8a



8b



8c



8d