



## INSTALLATION INSTRUCTIONS

Item #PBSWG

### Step 1: Determine Shape using Hose & Spray Pond Outline:

Use garden hose to help layout the desired shape of pond, then outline the shape with spray paint.



### Step 2: Place Filters & Flexible Hose:

Place waterfall & skimmer boxes in place on opposite ends of the pond.

Lay flexible pipe in position. Install plumbing fittings and cement the flexible hose.

Set waterfall box in position and install flexible hose into male adapter. Be sure to wipe off any dirt prior to using cement, no primer needed.



### Step 3: Excavation of Pond Area:

Please remember to call your local utility company prior to digging to ensure there are no pipes & cables in the area. Be sure to check the level of the waterfall box occasionally throughout. Once the box is level use side to side but slightly forward, some the excavated pond soil to support the box in place.



Excavate pond with at least two levels. Excavate the pond to depth of first level. Spray out the area that will become the deeper portion of the pond. The use of a laser level is very helpful in determining whether the sides of your pond are level all around but a string level works too. Dig at 90° angles.

Spray out the area for the skimmer box in preparation for excavation. Once the excavation is complete, set the skimmer into position and check the height using the level, ensure that the skimmer box is level. Refer to the skimmer instruction manual for further information.

Remove any roots and/or sharp edges so they won't puncture the rubber liner. Rake out the flat areas in preparation for the underliner and liner.



### Step 4: Install Pump in Skimmer:

Thread the check valve assembly onto the pump. Set the pump inside the skimmer box and cut away any excess pipe. Connect the black flexible hose to the pump discharge using hose clamps. Note the notch at the top of the skimmer along the back- this is where you'll bring the pump power cord through.



### Step 5: Install Underliner & Fish-Friendly Liner:

Unfold the protective underliner and lay it in the pond squarely. Work your way from the bottom out to ensure the underliner is installed properly. Layout the rubber liner in the same way. You want the liner to be able to lay along top the underliner without any tautness. Note: Be sure you are using a Fish-Friendly liner. We recommend a 45mil, rubber, EPDM liner.



### Step 6: Attach Liner to Skimmer Box:

Attach the pond liner to the Skimmer Box. Refer to the instructions included with the skimmer box for exact instruction.

### Step 7: Add Boulders & Rockwork:

Begin rockwork the pond from the deepest area out. Complete rockwork in the entire pond but don't complete the area where your stream or waterfall will enter the pond. Around the backside of your waterfall box, use some boulders to help create your berm.



## Step 7.5:

### Add extra Waterfall & Stream Liner (optional):

One option for creating your waterfall is to have the waterfall box right at the edge so that the water falls directly into the pond. However, we find that most pond owners like to have their waterfall box set back a bit so that they can create a streambed. If you decide to do this you will need a second piece of liner to create your stream. Lay the stream liner so that there's enough to overlap the pond liner by at least 6" and also so that there's enough liner at the top of the waterfall to attach to the Waterfall Box. Trim any excess waterfall liner away but leave enough to tuck down over the pond liner. Lay the pond liner up the streambed as far as possible and then lay the waterfall liner over top the pond liner. This will ensure water won't leak when flowing from the waterfall into the pond. Once the stream liner is installed on top of the pond liner and in position you can complete rocking in this area.



## Step 8:

### Attach liner to Waterfall Box:

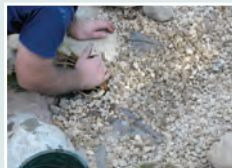


Attach the liner to the Waterfall Box. Refer to the instructions provided with the waterfall box for assistance. Once the liner has been installed on the waterfall box you can complete rocking in your waterfall and streambed.

## Step 9:

### Add Gravel:

Use gravel to fill in the areas between the boulders. This will help keep the boulders in place as well as hide the black liner completely.



## Step 10:

### Underwater Lights:

Be sure to install the lights with enough cord slack so that you can bring the fixture out of the water when changing out a burned out bulb. Run the cord around and between the rockwork so that it is hidden from view.



## Step 11:

### Add Aquatic Plants & Fill 'er up:

If desired, adding aquatic plants will really help to bring your new water feature to life. Sometimes you can remove a boulder or rock and put a plant in its place. This will help give your display a softer and finished look. You can either direct root your plants into the pond or simply set the plant and pot into the pond.



Begin filling the pond with water while you complete the rest of the steps. Wash off any dust from your rockwork. If desired, pump out the dirty water a few times before a final filling.



## Step 12:

### PondBuild 'n Foam:

This foam is used to seal in and around the rockwork of the waterfall. It's black in color and can be cut away once cured if it expands too much. Before curing completely you can sprinkle some rock dust on the foam to disguise it.

## Step 13:

### Add Biological Media:

The first option is to lay the supplied green matala mats into the waterfall box and then fill the black media bag with other media. This is the most economical way but it's not the best.



Another option is to fill the black media bag with Bacti-twist bio media. This will cost a little more but it will help to keep your new pond cleaner.



The best option is to purchase additional green matala mats and stand them up vertically inside the waterfall box. This will cost a little more but it's by far the best option if your goal is to have clear water, keep algae minimized, and keep many fish. Keep in mind that you can always upgrade this filtration media as your pond matures.



Elite Waterfall Boxes Only: Disguise the Waterfall box from view by using some gravel and a selection of creeping aquatic plants. Holes in the bottom of the lid allow the root system of the plants to always have flowing water around them.

Landscape Lids are not available on the Serenity or Crystal Falls products.



## Step 14:

### Finishing Touches:

After the pond is full and there are no low areas or leaks, trim the excess liner leaving at least 12" along each edge and folding it back into the landscape. Hide the extra liner by folding it behind or under the rocks and mulch along the edge.



Another option is to dig away the soil beneath the liner, creating an area for the liner to lay with topsoil added back over top. This will allow you to bring your landscaping that much closer to the pond edge.

Leave as much excess liner as possible to allow for settling and future repair.

## Step 15:

### Add Water Treatments & Review Owners

#### Manual:

If you are filling your pond with chlorinated water you will want to add a dechlorinator. Chlorine and Chloramine are not good for fish and aquatic plants. Use Purify Liquid.



Add beneficial bacteria to the pond. Bacteria will take seed throughout the bio media located inside the waterfall box as well as spread throughout the rest of the pond. This bacteria will help consume excess nutrients in the pond as well as process any waste from the fish.

### Plug in pump and enjoy!

Plug in the pump and watch the waterfalls for the first time. Move some rocks around to get the waterfall to look exactly the way you want it.

### One last thing!

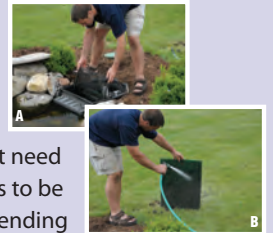
When you get your feature created and you want to show it off to others, snap a hi-res picture and submit it on our website at [www.pondbuilder.com](http://www.pondbuilder.com). We look forward to seeing your work of art on our website soon!



## MAINTENANCE STEPS

### Skimmer Box Maintenance

When necessary remove and clean the net and mat located in the skimmer (pic A). If the water level where the pump is located is lower than the water level in the pond, then the skimmer mat and net need to be cleaned (pic B). This typically needs to be done every 10-14 days but will vary depending on the amount of debris falling into the pond, fish load, and feeding regimen.



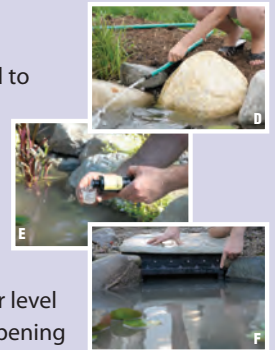
### Waterfall Box Maintenance

Usually once per year you should remove the filter media located in your waterfall box and clean thoroughly to remove the debris that has collected over time (pic C). This should only be done when water temperatures are coldest or below 50 degrees. Whenever possible, clean and rinse the media using water collected from the pond. Chlorinated tap water can kill the beneficial bacteria living on the media.



### Evaporation

If you are not using the PondBuilder Automatic Fill Valve then you will need to occasionally replace any evaporated water. This can be done using a garden hose (pic D). If you are using tap water that contains chlorine and you have fish then be sure to add a dechlorinator to the pond as you add water (pic E). Add water until the water level reaches to within 3/4" - 1" below the opening of the skimmer box (pic F).



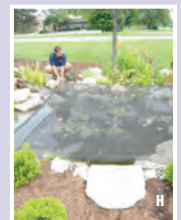
### Beneficial Bacteria



Add beneficial bacteria to the pond regularly to keep the pond clean and healthy. We suggest adding the bacteria to a small bucket of pond water to pre-mix before adding to the pond (pic G).

### Fall Prep

If your pond is located near trees we recommend using a net to cover the pond during the fall (pic H). When trees are shedding their leaves the skimmer box can become overwhelmed with debris.



\*Consult your local PondBuilder Dealer for additional maintenance tips and recommendations.