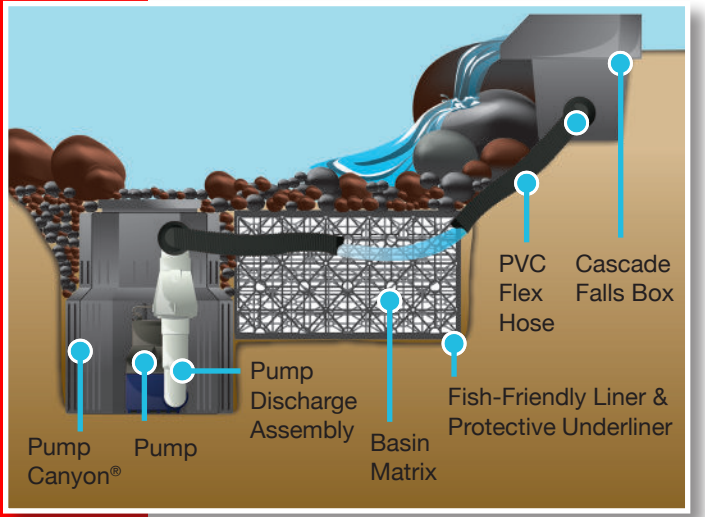


Elite Cascading Falls Pond-Less Kit

Installation Manual

For use with Kits
#PB1229, #PB1236, #PB28KIT
#PB30CFK, #PB40CFK

Overview of Your Pond-Less Kit



Included in Your Pond-Less Elite Cascading Falls Kit:

- Elite Cascade Spillway Box
- Elite Pump Canyon® (Vault)
- PondGard Rubber Liner
- Protective Underliner
- Blue Thumb Pump
- Pump Discharge Assembly with Check Valve
- Black PVC Flex Pipe
- Basin Matrix(es)
- Muck Buster® Tablets
- Installation Kit

How it Works

Locate your fountain near your preferred viewing area where both water and electricity services are accessible. After digging a basin and installing our basin matrix and liner, it's simple to install the pump & check valve assembly inside our Pump Canyon®. The pump pushes water through the PVC flex hose up to the Cascade Box, out the spillway and back into the lined basin where it continues to recirculate.



22" Elite Kit shown above



STEP 1

Unpack Kit & Assemble Matrix Boxes

The kit type purchased will determine the number and size of matrix boxes you will have in your kit and the size and shape of the excavated area. (See kit types on back page.)

After removing all products from the kit, start assembling the Basin Matrix Box(es) by laying one of the largest panels on the ground. Each of the four smallest panels can then be pushed into position by hand, noting that two of the panels will make the ends of the box. The other two will provide weight support for the rock work. Next, take the largest remaining panel and snap it into place to create the top of the box. Finally, the two remaining panels will create the sides of the matrix box. Repeat for additional matrix boxes.

STEP 2

Plan Excavation Area

Set the basin matrix boxes and Pump Canyon® into position and mark accordingly so that you'll know how big of an area to excavate. Refer to the back page for basin size and depth recommendations based on the size of kit being installed. At this time it's a good idea to determine the placement of the Cascade Box and the path that the waterfall & stream will take to enter into the basin. Spray paint will help keep a visual reference of what you are working toward.





STEP 3

Excavation of Basin Area

Dig the basin area to the correct size and depth. You can use the excavated soil to build up your waterfall & stream. Remove any roots and/or sharp edges so they won't puncture the rubber liner.

Remember to call your local utility company prior to digging to ensure there are no pipes & cables in the area.



STEP 4

Install Protective Underliner & Rubber Liner

4a Unfold the felt Protective Underliner and lay it in the excavated basin. Work your way from the bottom out to ensure the underliner is installed properly. Trim off any excess underliner but keep it as we'll be using that shortly.



4b Unfold the EPDM Rubber Liner and lay it in the basin on top of the underliner. Again, work from the bottom of the basin out. If you've purchased one of the smaller kits you'll be using one liner for the basin area and to create the waterfall and streambed so it is best to install the liner so that you have a 6" overhang all around the basin with the rest of the liner being used to create the waterfall and stream. On the larger kits, however, you'll have a basin liner that is separate from the waterfall/ stream bed liner. Install the basin liner so that it's square within the basin.



4c Next, lay the excess underliner you cut off earlier on top of the liner. This will create a cushion between the liner and the matrix box.







STEP 5

Install Pump Canyon® and Matrix Boxes

Now that you have the underliner and liner installed place the basin matrix boxes and Pump Canyon® into position. Note that you will want to position the Pump Canyon® with the discharge hole facing towards the side of the feature where the flexible hose will be placed to run water up to the spillway.

If a Blue Thumb Automatic Water Fill Kit is being incorporated, you may bury your water supply line and make any hose connections at this time.







STEP 6

Lay Hose & Install Pump

6a Place one end of the flexible hose into the hole provided on the side of the Pump Canyon®. Unwind the hose up towards the Cascade Box and cut off any excess.

6b Using a clockwise motion thread the check valve assembly onto the pump. Set the pump inside the Pump Canyon® and connect the black flexible hose to the pump discharge using a screw or nut driver to tighten down the hose clamps.

6c Note the notch on the top of the Pump Canyon® — this is where you'll bring the pump power cord through. The lid of the Pump Canyon® can be easily snapped into place.



STEP 7

Finish Basin Area

In your excavated basin, fill the open areas around and between the matrix boxes and Pump Canyon® with boulders. It's best to use the largest boulders near the bottom and gradually make your way up to the top with smaller boulders. Later we'll be adding a layer of gravel to finish the basin area off. Using topsoil or sand, back-fill all four sides of the basin area and pack down to prevent future settling.

STEP 8

Begin Build of Waterfall & Streambed

In most cases the soil excavated from the basin area is used to build-up the waterfall and stream area. Note the higher the drop, the shorter the stream length, due to amount of liner in the kit.

Compact the area where the Cascade Box will sit to prevent future settling. It's important that the box be installed level so that water spills out over the waterfall weir evenly.



STEP 9

Set Up Elite Cascade Box

Position the black diffuser mat horizontally in the middle of the Cascade Box. It should pinch into place easily. The Elite Cascade Falls are plumbed with spinweld fittings on both ends. Your kit contains a male adapter and a threaded plug. Use the included Teflon tape on the PVC plug and thread it into the spinweld on the side that you will NOT be using.

9a Teflon tape the PVC male adapter and thread it into the spinweld on the side that you will be bringing your Black Flex Hose into. If desired, add a light bead of silicone to the fittings.

9b Using the PVC Cement supplied install the flexible hose into the male adapter of the Cascade Box. Hold it in position for 60 seconds to allow the cement to set. Note that the supplied PVC Cement is a special cement that does not require the use of primer. It is recommended, however, that you first wipe off any dirt prior to using the cement.

NOTE: If you are installing the 28" Elite Spillway this is a different design. Please refer to the information included in the product box for detailed instructions.





STEP 10

Position Cascade Box

Set the Cascade Box on the prepared compacted area and level the box. The Cascade Box should sit level from side to side and should be tilted forward slightly (about ¼ bubble on your level) to ensure that the water will flow forward through the spillway. Backfill with topsoil to ensure it stays in position.





STEP 11

Lay Streambed Liner

Now you are ready to install the waterfall and stream liner (if separate from basin liner). Lay the liner so that there's enough to overlap the basin liner by at least 6" and also so that there's enough liner at the top of the waterfalls to attach to the Cascade Box. Trim any excess waterfall liner away but leave enough to tuck down into the basin. Lay the basin liner up the streambed as far as possible and then lay the waterfall liner on top of the basin liner. This will ensure water won't leak when flowing from the waterfall into the basin.



STEP 12

Connect the Pump to the Spillway

To hold the liner in place, lay rocks on the liner at the end of the stream area either just in front of the matrix, or if you are tight on space, position your boulders on top of the matrix box.

It's now time to attach the waterfall liner to the Cascade Box at the top of your stream. Refer to the instructions supplied with the Elite Cascade Box for assistance.



STEP 13

Begin Rockwork!

Complete the waterfall & stream area by adding in rocks. Use larger boulders to direct the stream from the top down then fill with smaller rocks. If you don't like it move some rocks around until you do! It's really that simple! Again, be sure that the Cascade Box remains level throughout the process so that the water flows out evenly when finished.



STEP 14

Backfill Around Edges of Waterfall & Stream

Fold back the liner along the left and right edges of the waterfall and stream and add in soil or sand to ensure that the edges are high enough that the water won't leak out. You can trim away any excess liner but we recommend leaving at least 12" along each edge and folding it back into the landscape, this will allow you to adjust if settling occurs in the future.

STEP 15

Finish Rocking

15a Finish rocking the basin area and add smaller gravel to fill in the voids between the rockwork. We recommend using gravel that is 1-1.5" in size so that it won't fall through the panels of the matrix box. Using decorative gravel will create an even more dramatic display!

15b Finish rocking in the area around the Cascade box making sure not to place any rockwork that will pull away the liner from the Cascade box. At this point you can begin filling the basin with water while you complete the rest of the steps. Along the way it's a good idea to wash off any dust from your rockwork.



Finishing Touches

Put Supports in Place

Build up the area behind the Cascade box using rockwork and soil or gradually slope the soil back to grade. Finish all edges of the water feature by folding the liner and adding gravel, rocks, or mulch. Again, it's best to leave a little liner folded up in case of settling in the future. Next, take a flat rock and set it on top of the pump canyon lid and surround it with gravel. This will be your identifying rock when you need to access your pump.

Sealing the Rockwork

Included in some kits is a can of PondBuild 'n Foam. This foam is used to seal in and around the rockwork. This forces the water over the top of the rocks instead of around and beneath them, greatly enhancing the waterfall effect. The foam is 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. If your kit did not come with any PondBuild 'n Foam, it can be purchased from your local Blue Thumb Dealer.

Landscape Lid

One of the coolest features of your new Cascade Box is the Landscape Lid. This lid is used to assist you in hiding the black plastic of the Cascade Box. We suggest adding in some gravel and planting creeping aquatic plants in it. Because the Landscape Lid has holes in the bottom of it the root system of the plants will always have flowing water around them. Other options for using the landscape lid include mulch, gravel, slate, or driftwood. Use your imagination! Your Elite Cascade Box is the only system on the market that comes complete with the Landscape Lid!

Aquatic Plants

If desired, adding aquatic plants will really help to bring your new water feature to life. Sometimes you can remove one of your boulders or rocks and put a plant in its place. This will help give your display a softer and finished look. Make sure the aquatic plants are planted so that they will have access to water at all times.

Clean-Up, Plug in Your Pump, and Enjoy!

BASIN LAYOUT RECOMMENDATIONS

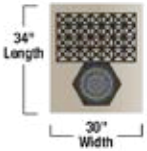
Small Elite Cascading Falls Kit #PB1229

14" Cascade Falls Box, Small Pump Canyon®
Matrix Boxes: 1 Large





Side View of Basin Area



Top View of Basin Area



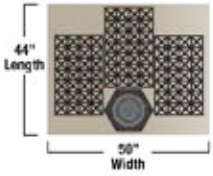
Medium Elite Cascading Falls Kit #PB1236
Elite Cascading Falls Kit #PB28KIT

22" or 28" Cascade Falls Box, Small Pump Canyon®
Matrix Boxes: 3 Large





Side View of Basin Area



Top View of Basin Area

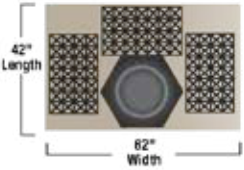
Large Elite Cascading Falls Kit #PB30CFK

30" Cascade Falls Box, Large Pump Canyon®
Matrix Boxes: 3 Large under 3 Small





Side View of Basin Area



Top View of Basin Area

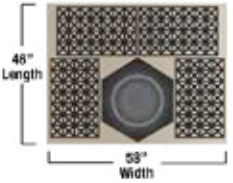
X-Large Elite Cascading Falls Kit #PB40CFK

40" Cascade Falls Box, Large Pump Canyon®
Matrix Boxes: 4 Large under 4 Small





Side View of Basin Area



Top View of Basin Area