

Featuring our  
*Elite Spillway waterfall boxes*

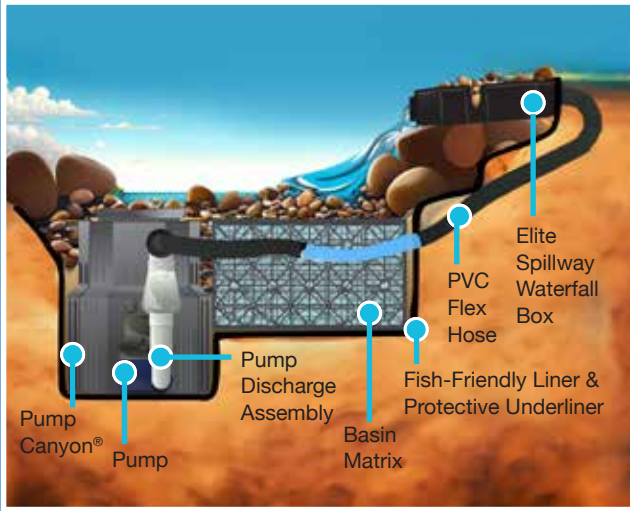
# Elite Spillway Falls Pond-Less Kit Installation Manual



**Blue Thumb**

For use with Kits:  
#PB28KIT and #PB16KIT

# Blue Thumb Pond-Less Waterfall Overview



## Included in your complete Elite Spillway Falls Kit:

- Elite Spillway Waterfall Box
- Elite Pump Canyon®
- Water Basin Matrix
- EPDM Rubber Liner
- Protective Underliner
- Submersible Pump
- Pump Discharge Assembly with Check Valve
- Black PVC Flex Pipe
- Starter Water Treatment
- 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 and check valve assembly inside our Pump Canyon®.

The pump pushes water through the PVC flex hose up to the Elite Spillway waterfall box, where it disperses then falls out of the spillway onto the lined streambed and flows back into the lined basin and continues to recirculate.

## 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 layout 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.



28" Elite Spillway Falls Kit is shown



## 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 Elite Spillway waterfall box and the path that the waterfall and 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 and 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 or 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 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.



## 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 Elite Spillway 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 and level the area where the Waterfall Spillway Box will sit to prevent future settling.**



## STEP 9

### Lay Streambed Liner

Now you are ready to install the 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 enough liner at the top of the streambed to fold over the top of the Elite Spillway box. 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 10

### Prep for Spillway Connection to Pump

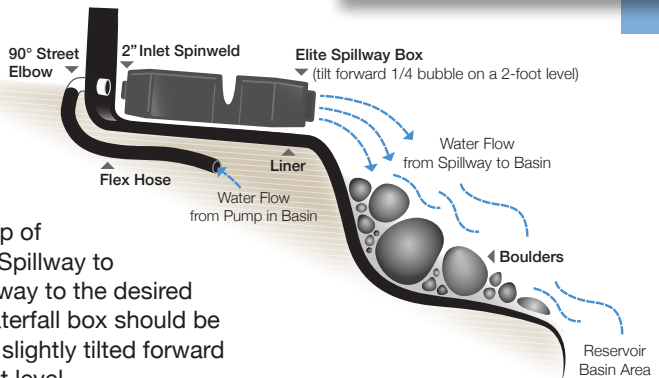
To hold the liner in place, lay rocks on the liner at the end of the stream area either just in front of the matrix, or if you are tight on space, position your boulders on top of the matrix box. Bring loose hose end to the top of the streambed.



## STEP 11

### Place Elite Spillway

Set the Elite Spillway waterfall box into desired location on top of the liner. Adjust the height of the Elite Spillway to match the starting point of the waterfall. A bed of gravel can be placed on top of the liner, beneath the Elite Spillway to raise the height of the spillway to the desired level. The Elite Spillway waterfall box should be level from side to side and slightly tilted forward about 1/4 bubble on a 2-foot level.





## STEP 12

### Install Elite Spillway Box

Fold liner over top of Elite Spillway. It is recommended to provide some slack in the liner in case the position of the Elite Spillway waterfall box needs minor adjustment during installation.

**12a Mark Location of Spinweld Inlet** Using a screw driver or awl, puncture a small hole in the liner through the center of the Elite Spillway fitting. This will be your reference point for the location of the liner connection.



**12b Cut Hole in Liner** Unfold the liner back off the Elite Spillway. Use a pen, marker, or sharp tool, such as an awl or screwdriver to draw a 1" circle around the puncture point. Using a knife, cut out the 1" circle.



**12c Thread Into Spinweld** Take the 2-inch 90° elbow and insert the threaded end through the hole in the liner and thread into the back of the Elite Spillway until tight. Use Teflon tape on the threads of the fitting, in order to provide a water tight seal. If desired, use silicone sealant (not included) around the fitting further seal the liner.

**Using PVC glue to connect Hose to the 90° elbow.**



## 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 Waterfall Spillway 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 Elite Spillway making sure not to place any rockwork that will pull away the liner from the spillway waterfall 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 System Supports in Place

Build up the area behind the Elite Spillway waterfall 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.

### Camouflage the Elite Spillway Box

One of the coolest features of your new Elite Spillway is that it can be easily blended into the landscape. We suggest adding rocks, driftwood, and plants in or around it. Use your imagination!

### Aquatic Plants

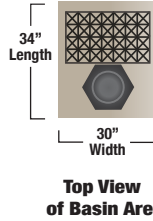
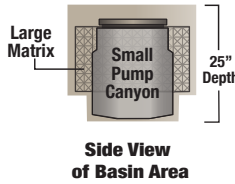
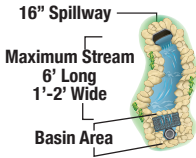
If desired, adding aquatic plants will really help to bring your new water feature to life. Sometimes you can remove one of your boulders or rocks and put a plant in its place. This will help give your display a softer and finished look. Make sure the aquatic plants are planted so that they will have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

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

# Basin Layout Recommendations

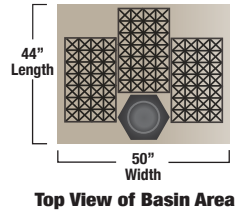
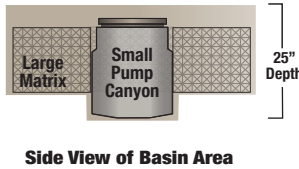
## Elite Small Spillway Falls Kit #PB16KIT

16" Elite Spillway, Small Pump Canyon®  
Matrix Boxes: 1 Large



## Elite Medium Spillway Falls Kit #PB28KIT

28" Elite Spillway, Small Pump Canyon®  
Matrix Boxes: 3 Large



# Recommended Routine Water Treatments

Water treatment use depends on product, time of season, and condition of the water feature. Use as directed. Safe for wildlife, birds, and pets.



## Muck Buster® Dissolving Tablets - Muck Reducer

Accelerates the decomposition of organic matter caused by rotting leaves and algae. Muck Buster's multi-purpose cleaning action cleans ponds with an unprecedented combination of activated barley, natural bacteria, enzymes, and a powerful secret ingredient. Item# PB2682

## Pond Fix® Dry - Pond Cleaner

Use to simply "lift" debris from waterfalls, streams, rocks and anywhere debris occurs. This granular product works on contact, adding oxygen to the pond and removing odor.

Apply on a schedule opposite of Muck Buster, so it won't interfere with its beneficial bacteria maintenance processes.

Item# PB2057



Now, snap a picture of your completed waterfall and post it to our Facebook page at [facebook.com/bluethumbinc/](https://facebook.com/bluethumbinc/)!

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