

This sprinkler system lets you water your garden along a fence or wall. When the hose is mounted and the sprayers inserted where needed, your fence sprinkler will accommodate the specific watering needs of your garden.

Your kit contains the following parts:

- 50' of 1/2" header hose
- seven adjustable sprayers (two 90° and five 180°)
- one compression end
- one hose connector with a filter washer
- a hole punch
- 10 hole plugs
- 10 mounting clips (with screws)

Planning Your Layout

Step 1: Warm the Hose

Uncoil your hose in a sunny spot and let it warm up for about 30 minutes. This will make your hose more flexible and easier to work with.

Step 2: Sprinkler Hose Layout

Lay out the full length of the (warm) hose along the length of fence/wall where you want to mount it. Decide exactly where it will be mounted. If you have plants in your garden that should not get water on their leaves, set the hose close to ground level so only the soil gets sprayed. If there is clearance behind the sprayers (e.g., on a chain-link fence, or between boards on a staggered board fence), you can mount the hose lower to the ground, where it is less obtrusive, and tip the sprayers back to maintain the range of spray. **Figure 1** shows a typical installation.

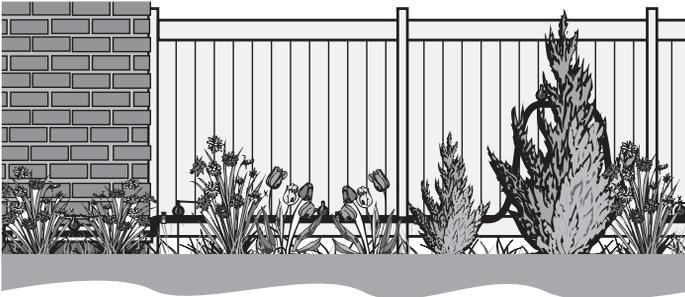


Figure 1: Typical hose layout.

If you are weaving the hose through a chain-link fence, you will have to keep the weave distance at least several links apart in order to prevent crimping the hose. Also, keep in mind that the sprinkler hose will need to be on the inside of the fence at the locations where the sprayers will be placed.

Notes:

1. Make sure that one end of the sprinkler hose is within comfortable reach of the end of your garden hose or faucet.
2. **Do not** bend the sprinkler hose too tightly around corners; doing so will crimp the hose.
3. Sections of the sprinkler hose can be buried (e.g., in order to go under a gate).
4. You have the option of cutting off excess hose if you have decided that you do not need the full 50 feet. **Do not** do this now. This should be done only after the sprinkler hose has been permanently mounted.

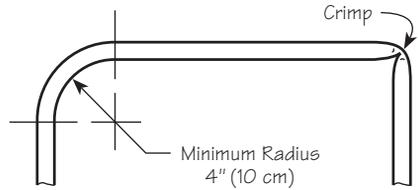


Figure 2: Minimum bend radius.

Step 3: Sprayer Layout

With the hose layout established (but not yet mounted), complete your plan by estimating where the sprayers will be inserted.

Figure 3 indicates how the two sprayer types are different as well as the spray coverage you may expect. The maximum distances that the spray will reach depend on the local water pressure and flow as well as their height and angle. In our tests, we have found that these distances are to be expected with flow rates as low as 180 gallons per hour, with all seven sprayers installed and fully opened.

Figure 4 shows the recommended sprayer spacing for even coverage along the length of the fence using a stretch of straight hose.

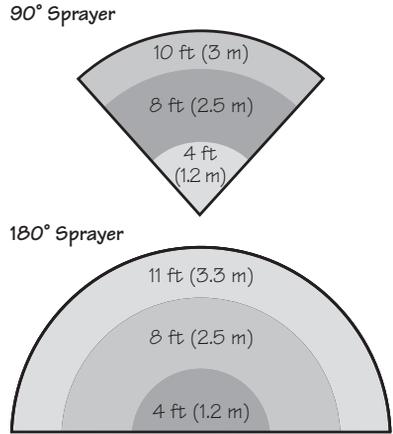


Figure 3: Spray density patterns at full flow, and at a height of 3 1/2 feet (1 metre).

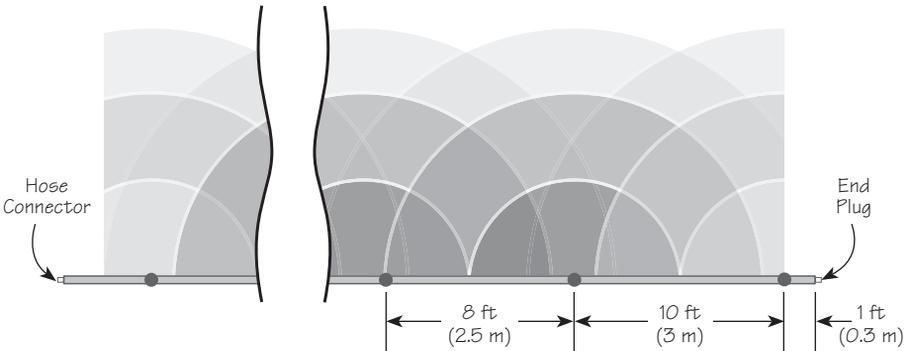


Figure 4: Recommended sprayer spacing for straight lengths and even coverage at full flow.

Notes:

1. The 90° and 180° sprayers look virtually identical. The only visual difference is in the small opening in the cap. The 180° sprayers have a wider opening.
2. The 180° sprayers put out a finer spray than the 90° sprayers, so their spray is slightly more susceptible to being carried by the wind.
3. If you expect to operate any of the sprayers at less than full flow, you may want to decrease the spacing between sprayers so that there is adequate overlap of spray to ensure even watering.

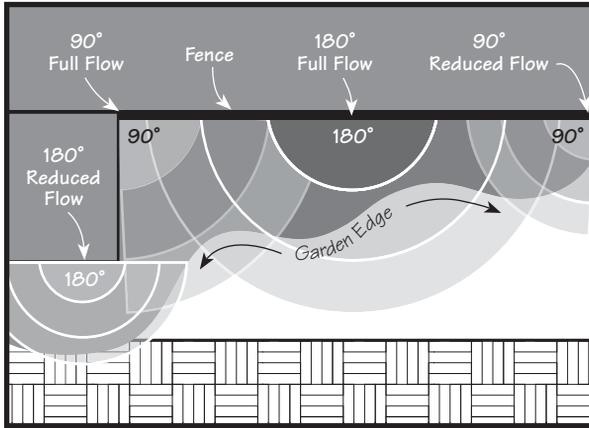


Figure 5: Examples of overlapping spray patterns.

Installation

Step 1: Hose Connector

Push the end of your sprinkler hose into the compression end of the hose connector (the plastic fitting that attaches to your faucet) to a depth of at least 1" (2.5 cm). This will take some hand pressure and a bit of wiggling of the hose. It will be difficult to remove the hose from the adapter once you have connected them.

The hose connector threads onto a standard garden hose or faucet.

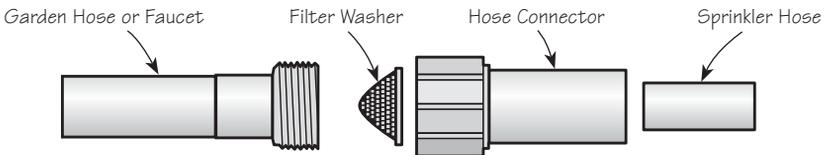


Figure 6: Hose connector connection.

Step 2: Securing the Sprinkler Hose

Attach the sprinkler hose to your wall and/or fence. Start at the faucet/garden hose end of the sprinkler hose and work your way weave by weave (or clip by clip) to the other end. If you are using clips, the spacing that you use between clips will depend on your layout. For example, in securing the hose in the shape of a curve, the clips will need to be closer together than if you are securing a straight section of hose.

Slip a clip around the hose and, while holding the hose in the desired place, screw the clip in place.

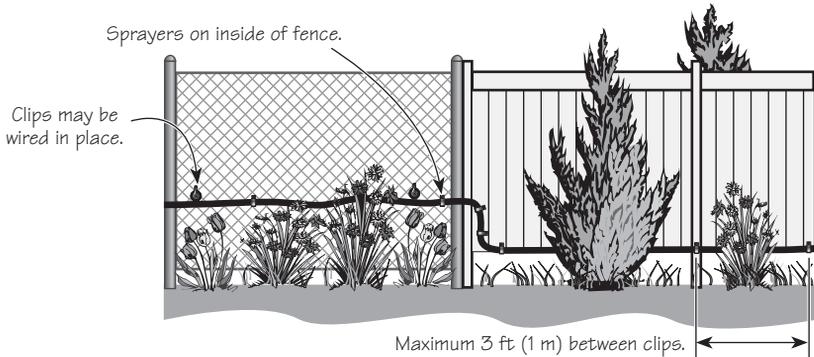


Figure 7: Suggestions for securing the sprinkler hose.

Although you do not need to use the clips, the important thing to ensure is that the hose is held at the desired height and is not free to rotate; otherwise, the sprayers will not be correctly oriented.

Step 3: Compression End

Cut off any excess sprinkler hose at the end of the system.

Press the compression end plug at least 1" (2.5 cm) onto the end of your sprinkler hose. Loosely thread the cap onto the compression end.

Step 4: Punching your Holes

On your mounted hose, mark the locations where you are going to insert the sprayers. (White chalk works well on the black hose.) Grab the hose firmly at the marked location. Punch a hole using the hole punch provided. For most applications, you will want to punch the hole on the exact top of the hose. Where the hose is low, and you plan to tip the sprayers back for increased range, the holes should be angled back. Be careful not to punch through the opposite side of the hose as well. Punch all the holes needed.

Remove the cap from the compression end. With the front end firmly connected to the water source, open the tap and flush water through the hose until the water runs clear. Thread the cap back on, finger tight.

If you make a mistake when punching your holes, do not fret. Hole plugs have been provided for this situation. Simply press the hole plug into the unwanted hole. However, a hole plug does not work as well when it is on the opposite side of the hose from the sprayer. Offset any new sprayer hole slightly when opposite to a plugged hole.

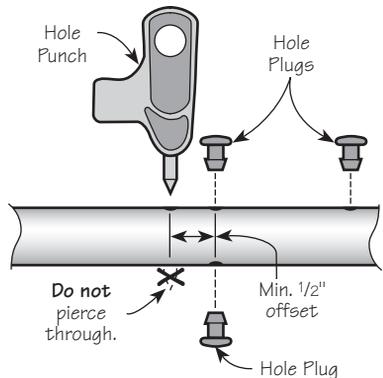


Figure 8: Using the hole punch and the hole plugs.

Step 5: Sprayer Insertion

Press the threaded portion of the sprayer into the hole, keeping the sprayer in an upright position. Turn the sprayer clockwise. Once the sprayer catches, you can then simply screw the head in until it feels tight. **Do not** keep turning once it has been fully inserted into the hose or the attachment will be weakened. Align the sprayer so that the opening in the cap is pointed in the direction that you want it to spray.

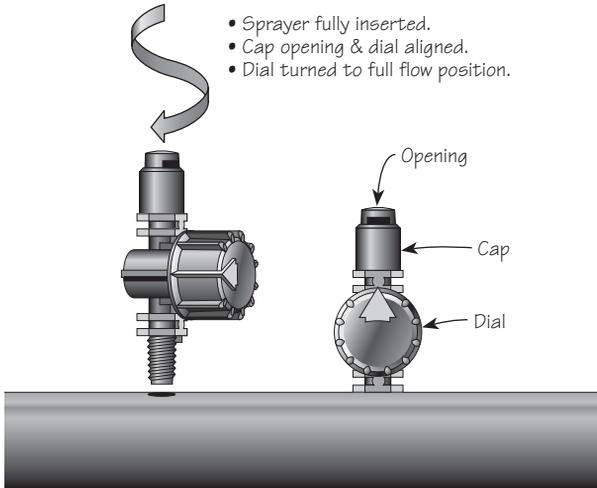


Figure 9: Sprayer insertion and alignment.

If the sprayer opening is not aligned with the dial, and you want it to be, turn the cap to align it. Just hold the cap firmly (with soft-jaw pliers), and rotate the body into alignment. This is best done before the sprayer has been inserted into the hose.

Turn the dial on your sprayer to the full flow (“on”), position. The sprayer will spray at full flow with the arrow on the dial pointing directly up or directly down. When the arrow is directly sideways, the sprayer will not have any flow (i.e., it will be turned “off”). To adjust the flow between on and off, simply adjust the dial in between points.

Move on to the next hole and insert the desired sprayer. Continue until all your sprayers are inserted.

Step 6: Testing the System

Check that your sprayers are all turned to the “on” position and flush water through for a few minutes, then shut the water off. Turn your sprayers to the “off” position and turn your water source on. Look for any leaks in the sprinkler system.

If the system has been off for a period of time and exposed to sunlight, the standing water in the hose can get quite hot. We suggest running the water at partial pressure when the hose is first turned on.

Sprayer Adjustment

Adjust the dials on your sprayers so the spray covers the desired area. You can also turn the sprayer relative to the hose to adjust the direction of spray, as long as this adjustment is slight and rarely done so as to avoid loosening the sprayer or stripping the hole.

Sprayers can be removed from a hole and replaced with one of another style (e.g., if you want to switch from a 180° to a 90° sprayer). However, the holes in your hose can take only a certain number of changes before they begin to leak.

Adding to the System

Additional sprayers, sprinkler hose and hole plugs are available to let you expand your sprinkling system to suit the changing needs of your garden. To add another length of hose, simply unscrew the cap from the first compression end and attach it to the hose connector of the second kit.

When adding to your system, keep in mind that, depending on the water pressure and flow available, your water system will be able to support only a certain number of sprayers (at full flow) before you experience decreased coverage. You can expect a slight decrease in coverage after installing more than 7 sprayers, and a decrease to half of the range by the time you have 20 sprayers on a single water line.

Maintenance

Periodically check your filter washer and clean it of any dirt that may have accumulated. It is also a good idea to flush your system once in a while.

You can leave your fence-mount sprinkler up over the winter. However, if you are in a region in which the temperature can drop below freezing, you must properly drain your hose and sprayers of any standing water.

If you decide to take the sprinkler down, keep in mind that when you go to remount your hose, it may be difficult to realign it exactly as you had it previously positioned.

Accessories

XB829 Mounting Clips (with screws), pkg. of 10

XC311 Backflow Preventer

XB821 50' Hose with Connectors

XB823 90° Sprayers, pkg. of 2

XB825 180° Sprayers, pkg. of 5

XB827 Hole Plugs, pkg. of 10