Step 3 - Laying the underground pipe

Dig the trenches

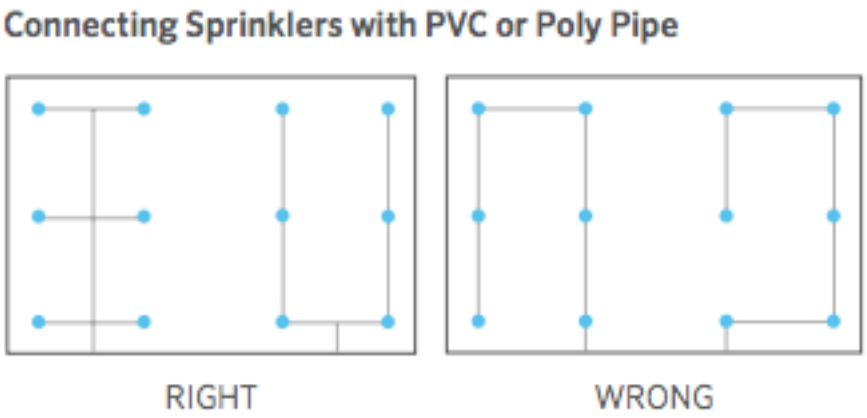

Figure 1– Correct pipe layout

When you decide on the layout of the pipe to connect to the heads, you want to choose the path that means the minimum distance from the manifold to each head. The layout on the right in Figure 1 will mean the head at the very end of the pipe will have lower flow than the very first one. ***You don't want this.***

Therefore, choose one of the layouts on the left of Figure 1

As the pressure in the pipe is fairly low you don't need to dig the pipe very deep. You just want to ensure it is deep enough to be completely covered and such that it can't be damaged with any future work on the lawn (e.g. scarifying).

You can do this manually with a shovel or hire a trench digger from your local hire shop.

If you have a new lawn lay the pipe BEFORE installing the lawn – Digging it up will make a mess

If you are installing in an existing lawn, you will need to look at levelling the lawn after the laying is complete and re-seeding

Choosing and laying the pipe

500kPa PVC Lateral Pipe

There are a range of pipe options you could use in the lawn.

Many that are supplied at the large hardware shops will only be rated to 300kPa. As this is at or below the pressure of many residential water supply pressures it is too low a rating. These pipes are also thin and can kink very easily resulting in pin-hole failure points where the kinks occur.

We recommend you use pipe of 500kPa. It is not a lot more expensive, is still relatively easy to work with, but is far more suitable for below ground applications

- Lay the plastic pipe in the trenches. Where possible roll the pipe out avoiding kinks

- Use a cutting tool to cut the pipe. It' s much safer and easier than a cutting knife and produces very clean cuts.

- Use tees (or cross) joints to connect to the pipe that branches off the main pipe to the location of each head. Use racket clamps to secure the pipes.

- If the pipe is too stiff to join the tees, **use some boiling water to soften the lateral pipe**

- All the piping for each Zone needs to be brought back to where the manifold is going to be located. Leave plenty of extra length in the pipes to allow adjustments when connecting up the manifold.

Pressure test the system

If you bury the pipe and leaks exist you may not see them. If left undetected you could be wasting water, the loss of flow may impact the operation, and underground leaks could be doing damage. Once buried, you may not see them.

- With the joints all in place and the pipe not buried, fold over the pipe at each head and tape off the ends so no water can escape

- Attach a connector to the end of the lateral pipe that can then be connected to your hose. Connect your hose to the end of the pipe and turn the tap onto full pressure.

- Check all joints and the pipe to ensure there are no leaks. Any leaks will need to be repaired before the pipe is buried. Cut out the broken pipe and use another tee, or pipe joiner and ratchet clip the new joint.

Do NOT tape up holes and leaks in pipes as they won't last