

The size and number of pop-ups will be selected. At the initial design stage. This selection will have to meet the requirements of the system and it isn't hard to appreciate that 50m² lawn will have a rather different requirement to a business park. That, said, the theory remains the same, put in enough sprinklers on enough zones to water the grass using the available supply.

Our layout was designed by Simon Edginton of Landscape Watering Systems who specified Rainbird

5000+ series pop-ups. The decision behind the selection was arrived at by considering the flow rate and pressure, the radius of water that each sprinkler would need to cover and the arc they would need to rotate through. There are other manufacturers than Rainbird but Simon recommends their products because he feels they are well built and reliable, and let's face it, none of us want to be called back too often when faults occur.

Selecting the product is one thing. Once installed it has to be set to suit

the particular application. The Rainbird 5000+ can cover a radius from 7.5 to 15m depending on pressure, flow rate and the nozzle used. Each pop-up comes with a selection of nozzles to allow

adjustment to be made in situ. Your specialist irrigation supplier will make sure you have sprinklers that will suit the specific job. It will then be up to you to set each sprinkler to water its designated area.

As we have five pop-ups on an irregular shaped lawn, it is necessary to set the arc through which each pop-up will rotate. Rainbird's 5000+ lets you set an arc from a minimum of 40° up to a full 360°. Our pop-ups are all set between 90° and 130°. One point to remember is that if there are two pop-ups watering at the same radius in a circuit, one with an arc of 90° and one with 180°, the former pop-up will water at double the rate of the latter as it is only covering 1/2 the area in the same time. If possible try and match pop-ups and set the timer to make sure that even the areas with the widest spreads receive enough water. If variations are too great, then you may need more sprinklers, otherwise

you could end up with drought and water logging on the same lawn. This is why it pays to use companies that offer full technical and design back up such as Landscape Watering Systems.

Once the correct nozzles are in place and the radii all set, then a final check can be made to make sure all areas are covered. Rainbird's 5000+ pop-ups are designed to work head to head. What this means is that each sprinkler will spray all the way to the sprinklers it is next to, or as they say, 'head to head'. This allows a sprinkler to be set in from the edge of the lawn as the other sprinkles will water the small area between it and the border. By installing in from the border, it prevents the risk of border plants growing out and interfering with the spray.

Now the pop-ups are all set, we can move on to setting the programmer in the next instalment.

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This is when you see if your irrigation scheme is right for the job. Are there enough pop-ups, are they positioned correctly, do they cover the area required? We are using Rainbird's 5000+ series rotors and in this issue we check the nozzle sizes to set distance and set the each pop-up's arc to water the area required.

Setting the arc is as important as getting the distance right. These Rainbird pop-ups let you adjust the arc anywhere between 40° and 360°, which is quite a range.

Its easy to do. You first lift the head and turn and rotate it until the nozzle is facing your anti-clockwise limit. You then hold it in this position, and using the screwdriver in the slot shown you turn either clockwise or anti-clockwise to increase or decrease the arc.

Getting the radius right is all important and a set of nozzles is supplied to allow you to achieve the correct distance.

There are eight different standard nozzles and four low angle nozzles which, on this pop-up can give a range from 7.6 to 11m.

To change a nozzle, slacken off the radius adjustment screw which is under the hole indicated. Then lift the head and whilst holding it in the raised position, remove the existing nozzle and push in the replacement. Make sure you then lock the new nozzle in place by applying a couple of turns on the radius adjustment screw. I found you could over tighten this screw. As it only locks the nozzle in place, it only needs to a few turns.

There is also a small plastic number indicator with the nozzle which should be pressed into the slot behind the radius adjustment screw. Then, if you find you have too much or not enough distance, you can easily see what size nozzle is fitted.

We installed the nozzles into the pop-ups before they were put in the ground but a number of them were changed on commissioning because we didn't have the distance quite right.



The special screwdriver can be used to switch an individual sprinkler on or off.

Simply turning the screw through 180° switches the flow either on or off.

Once the pop-up is in the ground the only way to get it to 'pop-up' is to apply water pressure.

To allow you to overcome this problem, Rainbird supply a small screwdriver which you insert into the head through this slot. Turning the screwdriver 90° allows you to then pull the head to its raised position for setting and adjusting.

