



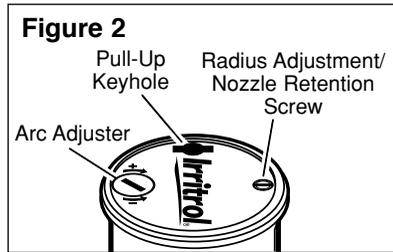
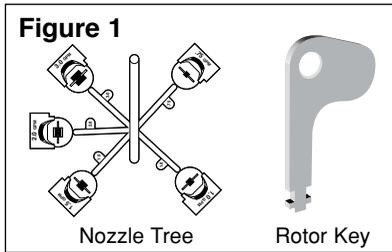
# 430R, Gear Driven Sprinkler Installation Instructions

The 430R rotor is designed for residential and light commercial installations.

## Nozzling Up The System

The 1.5 GPM nozzle comes pre-installed from the factory. A nozzle tree consisting of five additional nozzles is provided with each rotor ( **Figure 1** ). Please see the nozzle performance chart for flow rates. By using various combinations of nozzle flow rates, you can balance the sprinklers to achieve approximately the same precipitation rates.

Every case of 430R product contains two 430R rotor keys. The 430R key is used to pull up the riser, to remove the nozzle, to reduce the radius and to adjust the arc ( **Figure 2** ).



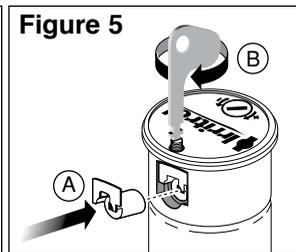
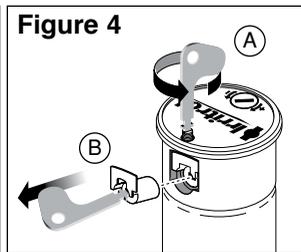
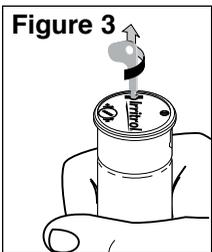
## To Extract/Insert A Nozzle

Use the key to pull the riser up in order to access the nozzle orifice. Insert the key into the pull-up hole ( **Figure 3** ), turn it 90°, and pull up. Hold the riser in the pulled up position.

Using the end of the key, turn the radius adjustment screw counterclockwise until it clears the top of the nozzle. See **Figure 4A**.

Insert the key into the nozzle right side slot with the pointed end of the key facing upwards. Use the point to extract the nozzle out. See **Figure 4B**.

To install a nozzle, press the nozzle into the nozzle socket ( **Figure 5A** ). Turn the radius adjustment screw clockwise to its desired location ensuring that it is in a position to hold the nozzle in place even if radius reduction is not required ( **Figure 5B** ).



## To Set The Arc

The 430R rotor arc is factory pre-set at 40 degrees.

**The 430R rotor has a fixed Right start.** To find the right start position, rotate the nozzle turret counter clockwise (to the left) until it stops, then rotate the nozzle turret all the way back to the right.

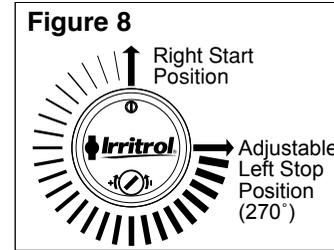
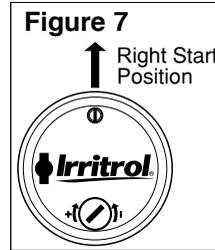
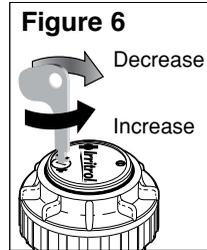
To increase the arc, insert the key into the arc adjuster shown in **Figure 6**. Hold the turret in place while turning the key counter clockwise. Keep turning until the desired arc angle is reached.

As an example indicated in **Figure 7**, the arc is set to 270°. The sprinkler will then water from the right start and rotate counter clockwise (see **Figure 8**) until 270°, the adjusted left stop, is reached. The sprinkler will then return back to the right start and repeat the cycle.

To decrease the arc, insert the key into the arc adjuster. Hold the turret in place while turning the tool clockwise.

To adjust the arc while the rotor is running, turn the turret gently in the direction that it is spraying. Once the right start has been located, follow the directions above to increase or decrease the arc.

To line up the right, start with landscape features that define the right side of the irrigated arc, simply turn the housing cannister and point the right start towards the desired direction. You may also pull the riser up with the key and rotate the LOWER portion of the riser until the right start is at the desired position. **DO NOT rotate the TOP portion of the riser.**

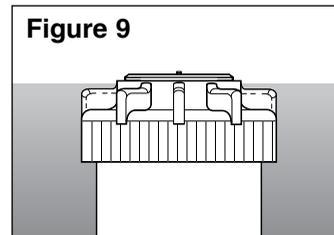


## Installation Tips

**CAUTION: The 430R rotor is designed for use in clean-water irrigation systems only. Sprinkler component damage or malfunction can occur if operated with any other water source.**

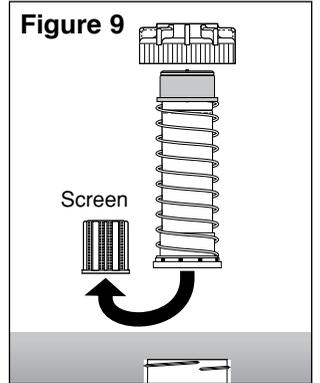
The 430R rotor should be installed with the cap at the finished grade. It is not designed to be installed below grade. See **Figure 9**.

The radius adjustment screw can be used to reduce the radius throw by up to 25%. You should note that this does not reduce the flow of the nozzle.



## Screen Maintenance

The screen can be accessed through the bottom of the riser. Remove the cap of the 430R and lift the riser assembly out of the housing cannister. If plugged, the screen can be removed, cleaned, and re-inserted into the riser.



## 430R Nozzle Performance

Nozzle (Gallons)	Pressure (PSI)	Flow (GPM)	Radius (Feet)	Pressure (kPa)	Flow (L/M)	Flow (M³/H)	Radius (Meters)
0.75	30	0.75	17	207	2.84	0.2	5.1
	40	0.8	17	276	3.03	0.2	5.1
	50	0.9	18	345	3.41	0.2	5.4
1.0	30	0.9	20	207	3.41	0.2	6.0
	40	1.2	21	276	4.54	0.3	6.3
	50	1.3	21	345	4.92	0.3	6.3
1.5	30	1.4	23	207	5.30	0.4	6.9
	40	1.7	24	276	6.44	0.4	7.2
	50	1.9	24	345	7.20	0.5	7.2
2.0	30	1.8	25	207	6.82	0.5	7.5
	40	2.1	27	276	7.95	0.5	8.1
	50	2.4	27	345	9.09	0.6	8.1
3.0	30	2.7	28	207	10.2	0.7	8.4
	40	3.0	30	276	11.4	0.8	9.0
	50	3.3	30	345	12.5	0.8	9.0

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