



A Guide for Adjusting Sprinklers

NOTE: All rotating sprinklers have a **fixed trip point (the point at which the sprinkler rotates back the other direction)**; and the position of this point depends on the manufacturer. Either the right **or** left trip point is set by the manufacturer (fixed), and you are only able to manually adjust one of the trip points (left **or** right). Making sure the fixed trip point of the sprinkler is set to a desired point before making adjustments will save time and frustration.

Useful tools:

- Hunter adjustment wrench (rotors)
- MP tool (MSMTs)
- Rain Bird adjustment tool (rotors and MSMSTs)

Definitions:

- **Arc:** the horizontal throw angle of a sprinkler (0-360°)
- **Radius:** the throw distance of a sprinkler (in feet)
- **Trip point:** the left/right hand end points for rotation of a rotor

Impact Rotors:

Rain Bird Maxi-Paw

1. To **adjust the arc** you need to find the **trip pin** (this is a black lever that usually sticks out in the opposite direction of the nozzle). Push this pin down to reset the arc. Rotate the sprinkler to the right and left (as you would like it to move while operating). The last movement should be clockwise, stopping at the desired end point. Now lift the pin back up and test the sprinkler.
2. To **adjust the throw radius** loosen/tighten the **diffuser screw** (this is a metal object located at the front of the nozzle). Loosen the screw to increase the radius; tighten it to decrease the radius.
3. To **replace the nozzle** unclip the **nozzle tab** and twist the nozzle counter-clockwise.

Rotors:

Important Notes:

- Adjusting a rotor's throw radius to its minimum setting may decrease performance efficiency because of the adjustment screw interfering with the stream of water.
- The 5004 series offers a 'slip fudge' feature that allows quick adjustment of the left trip point while not in operation
- The throw radius of Rain Bird rotors can be reduced by up to 25% of the maximum distance (e.g. a rotor that is designed to throw 45 feet can be adjusted to no-less-than 33 feet)

Rain Bird 5000 Series

1. To **adjust the arc** insert a small flat-head screwdriver into the **arc adjustment (+/-) slot** at the opposite end of the nozzle (located at the top of the head). Rotate the screw counter-clockwise to decrease the arc, and clockwise to increase the arc. The factory default for these rotors is 180 degrees, however they can be adjusted from 40 to 360 degrees.



2. To **adjust the throw radius** insert a small flat-head screwdriver into the **radius adjustment (front arrow) slot**. Rotate the screwdriver clockwise to reduce the radius, and counter-clockwise to increase the radius.
3. To **replace a nozzle** insert a fine-tip flat-head screwdriver into the nozzle's orifice and gently pry it out.

[Hunter I-20 / PGP Ultra](#)

Note: for most Hunter rotors, the right-hand trip point is fixed - not the left

1. To **adjust the arc** insert a fine-tip flat-head screwdriver into the **arc adjustment (+/-) slot**. Rotate the screwdriver clockwise to increase the arc, and counter-clockwise to decrease the arc.
2. To **adjust the throw radius** insert a small allen wrench (or appropriate tool) into the **front (arrow) slot**. Rotate the wrench clockwise to reduce the radius, and counter-clockwise to increase the radius.
3. To **replace the nozzle** insert an allen wrench into the arrow slot and loosen the nozzle retention screw until it is clear of the nozzle. Then pry out the nozzle with a fine-tip flat-head screwdriver.

Traditional Pop-up Fixed Spray Heads & MSMT Nozzles:

Some spray nozzles have adjustable 'variable' arcs; but most nozzles are 'fixed' and will only apply water in a default 90, 180, or 360 degree pattern. If the arc of a fixed spray nozzle needs to be adjusted, it is recommended to ensure you know the desired arc before purchasing a new nozzle, or refer to an irrigation system professional.

Note: for minor arc adjustments, carefully rotate the sprinkler riser to reset the edges of the spray pattern. **This is done with most ease if the sprinkler system is off.**

[Traditional Pop-ups](#)

1. To **adjust the arc** simply replace the head (e.g. from a 180 degree spray pattern to a 90 degree spray pattern).
2. To **adjust the throw radius** simply insert a fine-tip flat-head screwdriver into the metal screw (located at the center of the head). Rotate clockwise to decrease the radius, and counter-clockwise to increase the radius.

[Variable Arc Nozzles & Adjustable Nozzles](#)

1. To **adjust the arc** simply twist the **center collar** (adjustable from 0 to 360 degrees). Rotate clockwise to increase the arc, and counter-clockwise to decrease the arc.
2. To **adjust the throw radius for any of these nozzles** simply insert a manufacturer-specific adjustment tool into the metal screw (at the center of the head). Rotate clockwise to reduce the throw radius.

[MSMT Nozzles](#)

R-VAN



1. To **adjust the arc** simply rotate the **head collar** (orange, blue or red). Rotate clockwise to increase the arc, and counter-clockwise to decrease the arc.
2. To **adjust the throw radius** simply twist the **center collar**. Rotate clockwise to reduce the throw radius, and counter-clockwise to increase the radius.

MP Rotator

1. To **adjust the arc** simply twist the arc adjustment ring (gold ribbed center collar); use the MP tool for more ease. Rotate clockwise to increase the arc, and counter-clockwise to decrease the arc.
2. To **adjust the throw radius** simply insert the MP tool into the metal screw (located at the center of the head). Rotate clockwise to reduce the radius, and counter-clockwise to increase the radius.

To **replace any of these nozzles** simply unscrew the head (counter-clockwise rotation) to remove it from the riser.