

# INSTALLATION INSTRUCTIONS

## GEAR-DRIVEN I-80 ROTORS

Hunter®

### I-80 Arc Adjustments

All I-80 adjustable arc rotors are preset to approximately 180°. The rotors can be adjusted with water on or off. It is recommended that initial arc adjustments be made before installation. Use your hand to rotate the nozzle turret counterclockwise to the left stop to complete any interrupted rotation cycle. Rotate the nozzle turret clockwise to the right stop. This is the fixed side of the arc. The nozzle turret must be held in this position for all arc adjustments. The ratchet feature allows the right fixed stop to be moved when the water is off. To adjust the right fixed arc, pull the riser up, grab the riser below the adjustment ring, and rotate the right fixed arc stop to the desired landscape alignment.



#### Note

Opposing nozzle models have no arc adjustments.

### To Increase Arc

- 1 Use the arc adjustment side of the Hunter Wrench or T-Handle Tool (P/N 319100SP), and insert it into the pull-up socket on the cap, rotating 90°. Next, pull up the riser.
- 2 Slide the Arc Adjustment Riser Tool (P/N 382800SP) onto the gray adjustment ring below the nozzle turret (Figure 1).
- 3 While holding the nozzle turret at the right stop, turn the riser tool counterclockwise.
- 4 Ajust to any arc between 70° and 360°. The riser tool will stop turning when the maximum arc (360°) is reached. When set to 360°, the sprinkler will rotate continually counterclockwise.

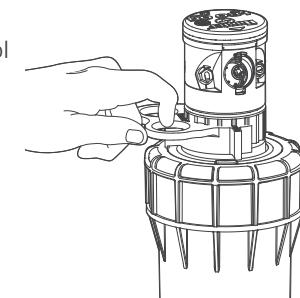


Figure 1

### To Decrease Arc

- 1 Use the arc adjustment side of the Hunter Wrench or T-Handle Tool (P/N 319100SP) and insert it into the pull-up socket on the cap, rotating 90°. Next, pull up the riser.
- 2 Slide the Arc Adjustment Riser Tool (P/N 382800SP) onto the gray adjustment ring below the nozzle turret (Figure 1).
- 3 While holding the nozzle turret at the right stop, turn the riser tool clockwise.
- 4 Adjust to any arc between 70° and 360°. The riser tool will stop turning when the minimum arc (70°) is reached.

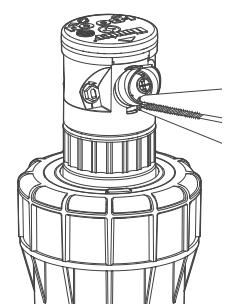


Figure 2



Figure 3

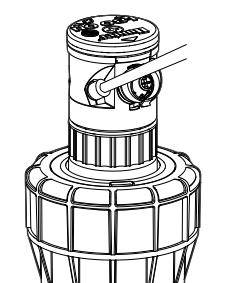


Figure 4



Figure 5

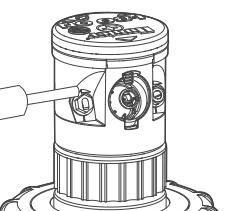


Figure 6

### Radius Adjustments

Individual I-80 nozzles cannot be adjusted to reduce the radius. To change the radius, install a larger or smaller nozzle. Reference performance data charts.

### Primary Nozzle Removal and Installation

- 1 Insert the hex-key end of the Hunter Wrench into the primary nozzle “arrow” located on the top of the rubber cover.
- 2 Raise the nozzle-retaining screw by turning counterclockwise. Raise the screw until it clears the nozzle opening.
- 3 Using small needle-nose pliers, firmly insert the tip of the pliers into the opening below the nozzle (Figure 2). This action will collapse the nozzle’s retaining hook (Figure 3). While gripping the nozzle, pull outward to remove.
- 4 Slip the desired nozzle firmly into the nozzle socket. Lower the nozzle-retaining screw to retain the nozzle.

### Short-Range/Mid-Range Nozzle Removal and Installation

- 1 Reference the I-80 and I-80-ON performance charts to determine the correct nozzle part number and color.
- 2 Use the Nozzle Installation and Removal Tool (P/N 803700SP) to service all short-range and mid-range nozzles.
- 3 When facing directly toward the nozzles, short-range nozzles are on the left and mid-range nozzles are on the right. To remove a nozzle, firmly align and press the tool against it while turning counterclockwise (Figure 4).
- 4 To install the nozzle, engage the tool to the nozzle. Then carefully align the nozzle to the housing. Use care to prevent cross-threading and turn clockwise (Figure 5).
- 5 Each short-range and mid-range nozzle has an alignment pointer. Turn the nozzle clockwise until the pointer is facing the 12:00 position (Figure 6).

### I-80 Riser Removal

All I-80 Rotors have a traditional body cap that may be unscrewed to gain riser assembly access. To facilitate easy riser assembly removal, all I-80 Rotors also include a removable snap ring on the body cap. To access the riser assembly using the snap ring, use the Snap Ring Removal Tool (P/N 984400SP).



Figure 7

- 1 Insert the tool into the snap ring’s access point (Figure 7). Press downward, slightly twist the tool’s handle, and pull upward to remove the snap ring .
- 2 Engage the pull-up socket in the riser’s logo cap using the Hunter Wrench or T-Handle Tool P/N 319100SP. Insert the wrench or tool, then rotate 90° and pull upward to remove the riser.
- 3 To install the riser assembly, insert the riser into the body. Next install the snap ring’s left side. Lastly, press downward in a counterclockwise direction.

### Stator Adjustments

All I-80 Rotors with nozzles 23 through 53 have a manually adjustable stator to control rotation speed (Figure 9).

When the primary nozzle size is changed, the stator must be changed or adjusted to match the nozzle in use. To make stator adjustments, first remove the riser assembly using the instructions below.

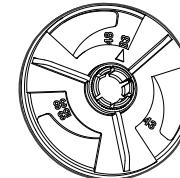


Figure 9

- 1 Remove the riser from the body.
- 2 Remove the screen at the base of the riser by grabbing, turning counterclockwise, and lifting away.
- 3 Remove the stator assembly and adjust by turning the black stator plate until the arrow aligns with the nozzle in use (Figure 10).
- 4 Install the stator assembly with the black stator plate facing the screen. Insert the screen and turn clockwise to lock.

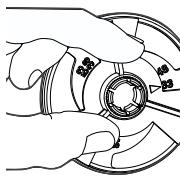


Figure 10

### I-80 Turf Cup Kit

A Turf Cup Kit (P/N 959400SP) is a great user-installed option for blending a rotor into the surrounding field material.

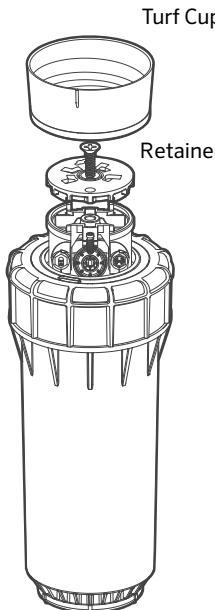


#### Note

To remove the snap ring after the Turf Cup Kit has been installed, you must unscrew the turf cup.

### Turf Cup Kit Installation

- 1 Unscrew the fastener in the middle of the cap and remove the cap.
- 2 Using the same fastener from the cap, screw the retainer on top of the riser. Be sure that the pull-up socket and nozzle-retaining screw are aligned with the retainer openings.
- 3 Correctly align the cup with the top of the riser assembly.
- 4 Locate the protruding vertical indicator on the outside of the turf cup’s vertical surface near the top.
- 5 While holding the turf cup over the riser assembly, orient the turf cup’s indicator mark to the riser’s nozzle-retaining screw.
- 6 While maintaining this orientation, place the turf cup onto the top of the riser. Then turn quickly clockwise to lock the cup in the riser.
- 7 Lastly, slide the rubber cover over the body cap. Make sure that all retaining segments from the rubber cover are correctly positioned on the body cap.



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## PERFORMANCE DATA

# GEAR-DRIVEN I-80 ROTORS

**Hunter®**

### I-80 NOZZLE PERFORMANCE DATA\*

| Nozzle Set |           | Pressure<br>PSI | Radius<br>ft. | Flow<br>GPM | Precip in/hr<br>■ ▲ |
|------------|-----------|-----------------|---------------|-------------|---------------------|
| ●          | Tan       | 80              | 64            | 22.1        | 0.52 0.60           |
| Orange     | Lt. Green | 50              | 65            | 20.2        | 0.46 0.53           |
| ●          | 23        | 60              | 66            | 22.1        | 0.49 0.56           |
| 803603     | 315313    | 65              | 67            | 23.9        | 0.51 0.59           |
| ●          | Green     | 70              | 67            | 24.2        | 0.52 0.60           |
| Orange     | Lt. Green | 80              | 69            | 25.9        | 0.52 0.60           |
| ●          | 25        | 70              | 71            | 28.3        | 0.54 0.62           |
| 803603     | 315313    | 80              | 72            | 29.3        | 0.54 0.63           |
| ●          | Blue      | 90              | 73            | 31.5        | 0.57 0.66           |
| ●          | 33        | 100             | 74            | 33.4        | 0.59 0.68           |
| Orange     | Lt. Green | 65              | 72            | 30.6        | 0.57 0.66           |
| ●          | 33        | 70              | 73            | 31.6        | 0.57 0.66           |
| 803603     | 315313    | 80              | 75            | 33.9        | 0.58 0.67           |
| ●          | Gray      | 90              | 77            | 35.8        | 0.58 0.67           |
| Orange     | Lt. Green | 65              | 76            | 34.9        | 0.58 0.67           |
| ●          | 38        | 70              | 78            | 36.2        | 0.57 0.66           |
| 803603     | 315313    | 80              | 80            | 39.1        | 0.59 0.68           |
| ●          | Red       | 90              | 82            | 41.2        | 0.59 0.68           |
| ●          | 43        | 100             | 84            | 43.5        | 0.59 0.69           |
| Orange     | Lt. Green | -               | -             | -           | -                   |
| ●          | 43        | 70              | 81            | 41.2        | 0.60 0.70           |
| 803603     | 315313    | 80              | 83            | 43.5        | 0.61 0.70           |
| ●          | Dk. Brown | 90              | 86            | 46.2        | 0.60 0.69           |
| ●          | 48        | 100             | 89            | 48.7        | 0.59 0.68           |
| Orange     | Lt. Green | -               | -             | -           | -                   |
| ●          | 48        | 70              | 83            | 46.3        | 0.65 0.75           |
| 803603     | 315313    | 80              | 85            | 48.4        | 0.64 0.74           |
| ●          | Dk. Green | 90              | 89            | 51.7        | 0.63 0.73           |
| Orange     | Lt. Green | -               | -             | -           | -                   |
| ●          | 53        | 70              | 87            | 50.7        | 0.64 0.74           |
| 803603     | 315313    | 80              | 89            | 53.1        | 0.65 0.75           |
| ●          | Dk. Blue  | 90              | 92            | 56.4        | 0.64 0.74           |
| ●          | 53        | 100             | 94            | 59.6        | 0.65 0.75           |

● = Indicates installed nozzle plug (P/N 315300)

\* Complies with ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral.

### I-80 NOZZLES



### I-80-ON NOZZLE PERFORMANCE DATA\*

| Nozzle Set |           | Pressure<br>PSI | Radius<br>ft. | Flow<br>GPM | Precip in/hr<br>■ ▲ |
|------------|-----------|-----------------|---------------|-------------|---------------------|
| ●          | Tan       | 50              | 63            | 21.6        | 0.52 0.60           |
| Orange     | Lt. Blue  | 60              | 65            | 23.0        | 0.52 0.61           |
| ●          | 23        | 65              | 66            | 24.0        | 0.53 0.61           |
| 803603     | 315311    | 70              | 67            | 24.9        | 0.53 0.62           |
| ●          | Green     | 80              | 68            | 26.6        | 0.55 0.64           |
| Orange     | Lt. Green | 65              | 71            | 28.6        | 0.55 0.63           |
| ●          | 25        | 70              | 73            | 29.7        | 0.54 0.62           |
| 803603     | 315313    | 80              | 74            | 31.7        | 0.56 0.64           |
| ●          | Blue      | 90              | 75            | 33.7        | 0.58 0.67           |
| ●          | 33        | 100             | 77            | 35.8        | 0.58 0.67           |
| Orange     | Lt. Green | 65              | 74            | 30.9        | 0.54 0.63           |
| ●          | 33        | 70              | 75            | 32.0        | 0.55 0.63           |
| 803603     | 315313    | 80              | 77            | 34.2        | 0.56 0.64           |
| ●          | Gray      | 90              | 79            | 36.2        | 0.56 0.64           |
| ●          | 38        | 100             | 81            | 38.2        | 0.56 0.65           |
| Orange     | Lt. Green | 65              | 77            | 35.1        | 0.57 0.66           |
| ●          | 38        | 70              | 79            | 36.6        | 0.56 0.65           |
| 803603     | 315313    | 80              | 82            | 38.9        | 0.56 0.64           |
| ●          | Red       | 90              | 84            | 41.3        | 0.56 0.65           |
| ●          | 43        | 100             | 87            | 43.6        | 0.55 0.64           |
| Orange     | Lt. Green | -               | -             | -           | -                   |
| ●          | 43        | 70              | 83            | 41.3        | 0.58 0.67           |
| 803603     | 315313    | 80              | 85            | 43.6        | 0.58 0.67           |
| ●          | Dk. Brown | 90              | 87            | 46.3        | 0.59 0.68           |
| ●          | 48        | 100             | 89            | 48.8        | 0.59 0.68           |
| Orange     | Lt. Green | -               | -             | -           | -                   |
| ●          | 48        | 70              | 90            | 46.9        | 0.56 0.64           |
| 803603     | 315313    | 80              | 92            | 48.9        | 0.56 0.64           |
| ●          | Dk. Green | 90              | 94            | 50.5        | 0.55 0.63           |
| ●          | 53        | 100             | 96            | 53.5        | 0.56 0.65           |
| Orange     | Lt. Green | -               | -             | -           | -                   |
| ●          | 53        | 70              | 91            | 49.8        | 0.58 0.67           |
| 803603     | 315313    | 80              | 93            | 52.2        | 0.58 0.67           |
| ●          | Dk. Blue  | 90              | 95            | 55.5        | 0.59 0.68           |
| ●          | 53        | 100             | 97            | 58.5        | 0.60 0.69           |

● = Nozzle plug (P/N 315300) installed in the front side of the nozzle housing.

### I-80 NOZZLE PERFORMANCE DATA

| Nozzle Set |           | Pressure<br>bar | Pressure<br>kPa | Radius<br>m | Flow<br>m³/hr | Flow<br>l/min | Precip mm/hr<br>■ ▲ |
|------------|-----------|-----------------|-----------------|-------------|---------------|---------------|---------------------|
| Orange     | 23        | 3.4             | 344             | 19.8        | 4.59          | 76.5          | 11.7 13.5           |
| 803603     | 315313    | 4.1             | 413             | 20.1        | 5.02          | 83.7          | 12.4 14.3           |
| ●          | Green     | 4.5             | 450             | 20.4        | 5.43          | 90.5          | 13.0 15.0           |
| ●          | ●         | 4.8             | 482             | 20.4        | 5.50          | 91.6          | 13.2 15.2           |
| 803603     | ●         | 5.5             | 551             | 21.0        | 5.88          | 98.0          | 13.3 15.4           |
| ●          | ●         | ●               | ●               | ●           | ●             | ●             | ●                   |
| Orange     | 25        | 4.5             | 450             | 21.6        | 6.43          | 107.1         | 13.7 15.8           |
| 803603     | 315313    | 4.8             | 482             | 21.9        | 6.66          | 110.9         | 13.8 16.0           |
| ●          | Blue      | 5.5             | 551             | 22.3        | 7.16          | 119.2         | 14.5 16.7           |
| 803603     | ●         | 6.2             | 620             | 22.6        | 7.59          | 126.4         | 14.9 17.2           |
| ●          | ●         | 6.9             | 689             | 22.9        | 8.04          | 134.0         | 15.4 17.8           |
| Orange     | 33        | 4.5             | 450             | 21.9        | 6.95          | 115.8         | 14.4 16.7           |
| 803603     | 315313    | 4.8             | 482             | 22.3        | 7.18          | 119.6         | 14.5 16.7           |
| ●          | Grey      | 5.5             | 551             | 22.9        | 7.70          | 128.3         | 14.7 17.0           |
| 803603     | ●         | 6.2             | 620             | 23.5        | 8.13          | 135.5         | 14.8 17.0           |
| ●          | ●         | 6.9             | 689             | 24.1        | 8.61          | 143.5         | 14.8 17.1           |
| Orange     | 38        | 4.5             | 450             | 23.2        | 7.93          | 132.1         | 14.8 17.1           |
| 803603     | 315313    | 4.8             | 482             | 23.8        | 8.22          | 137.0         | 14.5 16.8           |
| ●          | Red       | 5.5             | 551             | 24.4        | 8.88          | 148.0         | 14.9 17.2           |
| 803603     | ●         | 6.2             | 620             | 25.0        | 9.36          | 156.0         | 15.0 17.3           |
| ●          | ●         | 6.9             | 689             | 25.6        | 9.88          | 164.7         | 15.1 17.4           |
| Orange     | 43        | -               | -               | -           | -             | -             | -                   |
| ●          | 43        | 70              | 83              | 41.3        | 0.58 0.67     |               |                     |
| 803603     | 315313    | 80              | 85              | 43.6        | 0.58 0.67     |               |                     |
| ●          | Dk. Brown | 90              | 87              | 46.3        | 0.59 0.68     |               |                     |
| 803603     | ●         | 100             | 89              | 48.8        | 0.59 0.68     |               |                     |
| ●          | ●         | ●               | ●               | ●           | ●             | ●             | ●                   |
| Orange     | 48        | -               | -               | -           | -             | -             | -                   |
| ●          | 48        | 70              | 90              | 46.9        | 0.56 0.64     |               |                     |
| 803603     | 315313    | 80              | 92              | 48.9        | 0.56 0.64     |               |                     |
| ●          | Dk. Green | 90              | 94              | 50.5        | 0.55 0.63     |               |                     |
| 803603     | ●         | 100             | 96              | 53.5        | 0.56 0.65     |               |                     |
| ●          | ●         | ●               | ●               | ●           | ●             | ●             | ●                   |
| Orange     | 53        | -               | -               | -           | -             | -             | -                   |
| ●          | 53        | 70              | 91              | 49.8        | 0.58 0.67     |               |                     |
| 803603     | 315313    | 80              | 93              | 5           |               |               |                     |