

## INSTALLATION INSTRUCTIONS

# I-80 GEAR-DRIVEN ROTORS

### I-80 Arc Adjustments

*Adjustments (not for "ON" opposing-nozzle models)*

All I-80 adjustable arc rotors are preset to approximately 180°. Sprinklers can be adjusted with water on or off. It is recommended that initial arc adjustments be made before installation.

- 1 Use your hand to rotate the nozzle turret counterclockwise to the left stop to complete any interrupted rotation cycle.
- 2 Next, 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.
- 3 The ratchet feature allows the right fixed stop to be moved when water is off. Pull the riser up, grab the riser below adjustment ring, and rotate the right fixed arc stop to the desired landscape alignment.

#### To Increase Arc

- 1 Slide the adjustment wrench PN 382800SP onto the grey adjustment ring below the nozzle turret (Figure 1).
- 2 While holding the nozzle turret at the right stop, turn the wrench counterclockwise.
- 3 Adjust to any arc between 60° and 360°. The wrench will stop turning when the maximum arc (360°) is reached. When set to 360°, the sprinkler will rotate continually counterclockwise.

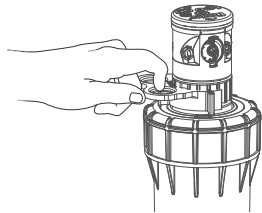


Figure 1

#### To Decrease Arc

- 1 Slide the adjustment wrench PN 382800SP onto the grey adjustment ring below the nozzle turret.
- 2 If the arc is set to less than 360°, hold the nozzle turret at the right stop and turn the wrench clockwise.
- 3 If the arc is set to 360°, turn the wrench clockwise. Then proceed with #2 above to complete the adjustment.
- 4 Adjust to any arc between 60° and 360°. The wrench will stop turning when the minimum arc (50°) is reached.

### Radius Adjustment

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

### 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-retainer screw by turning counterclockwise. Raise the screw until the screw clears nozzle opening.
- 3 Using small needle-nose pliers, firmly insert tip of 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-retainer screw to retain the nozzle.

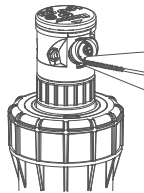


Figure 2

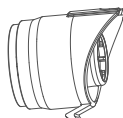


Figure 3

### 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 colour.

- 2 Use nozzle installation and removal tool PN 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).

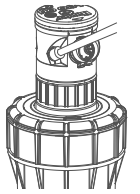


Figure 4



Figure 5

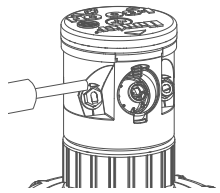


Figure 6

### Stator Adjustments

All I-80 rotors with nozzles #10 through #20 have an automatic self-adjusting stator to control rotation speed (Figure 7).

All I-80 rotors with nozzles #23 through #52 have a manually adjustable stator to control rotation speed (Figure 8).

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.

- 1 Remove the screen at the base of the riser by grabbing, turning counterclockwise, and lifting away.
- 2 Remove the stator assembly and adjust by turning the black stator plate until the arrow aligns with the nozzle in use (Figure 9).
- 3 Install the stator assembly with the black stator plate facing the screen. Insert the screen and turn clockwise to lock.

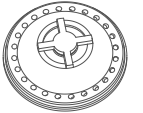


Figure 7

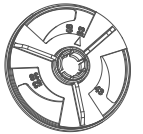


Figure 8

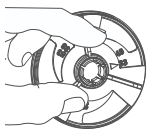


Figure 9

### Pop-Up and Riser-Mount Models

All I-80 rotors also have a traditional body cap that must 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 tool 984400SP.

- 1 Insert the tool into the snap ring's access point (Figure 10). Press downward, slightly twist the tool's handle, and pull upward to remove the snap ring (Figure 11).
- 2 Engage the pull-up socket in the riser's logo cap using the Hunter wrench or T-handle tool PN 319100SP. Pull upward to remove the riser.
- 3 To install the riser assembly, insert the riser into the body. First, install the snap ring's left side. Then press downward in a counterclockwise direction.



Figure 10



Figure 11

### Turf Cup Models

All I-80 rotors with turf cups have a removable snap ring on the body cap to facilitate easy riser assembly removal. To gain access to the snap ring, the turf cup must be removed first.

1 Pull the turf cup upward using flat-nosed pliers. Hold the riser assembly in the popped-up position.

2 Slide the adjustment wrench PN 991300SP onto the grey or black adjustment ring below the nozzle turret. Then release the cup downward (Figure 12 and Figure 13).

3 Hold the turret with the tool in one hand and the riser and turf cup in the other. Remove the cup with a quick counterclockwise turn and lift away (Figure 14).

4 Use the Hunter wrench or T-handle tool PN 319100SP to engage the pull-up socket in riser's retainer cap (Figure 15).

5 Lift the riser assembly slightly while removing the adjustment wrench PN 991300SP. Then lower the riser assembly into position (Figure 16).

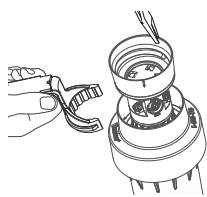


Figure 12

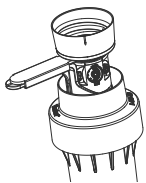


Figure 13



Figure 14

Use the pop-up riser removal instructions below to complete riser removal and installation.

1 To install the turf cup to the top of the riser, the cup must be correctly aligned with the top of the riser assembly.

2 Locate the protruding vertical indicator on the outside of the turf cup's vertical surface near the top (Figure 17).

3 While holding the turf cup over the riser assembly, orient the turf cup's indicator mark to the riser's nozzle retaining screw.

4 While maintaining this orientation, place the turf cup onto the top of the riser. Then turn quickly clockwise to lock the cup to the riser.

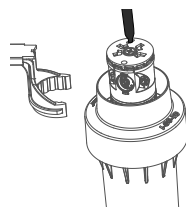


Figure 15



Figure 16



Figure 17

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

Nozzle Set	Pressure bar kPa	Radius m	Flow		Precip mm/hr	
			m <sup>3</sup> /hr	l/min	■	▲
Tan	3.4 344	14.9	3.23	53.8	14.5	16.7
15	4.1 413	15.5	3.57	59.4	14.8	17.0
803611	4.5 450	15.9	3.73	62.1	14.8	17.1
White	4.8 482	16.2	3.86	64.4	14.8	17.1
315317	5.5 551	16.8	4.13	68.9	14.7	17.0
Tan	3.4 344	17.1	3.91	65.1	13.4	15.5
18	4.1 413	17.7	4.28	71.3	13.7	15.8
803611	4.5 450	18.0	4.48	74.6	13.8	16.0
Orange	4.8 482	18.3	4.54	75.7	13.6	15.7
315317	5.5 551	18.6	4.82	80.3	13.9	16.1
Tan	3.4 344	17.4	4.18	69.7	13.8	16.0
20	4.1 413	18.0	4.61	76.8	14.3	16.5
803611	4.5 450	18.6	4.86	81.0	14.1	16.2
Brown	4.8 482	19.2	4.91	81.8	13.3	15.4
315317	5.5 551	19.5	5.16	85.9	13.5	15.6
Tan	3.4 344	19.2	4.91	81.8	13.3	15.4
23	4.1 413	19.8	5.22	87.1	13.3	15.4
803611	4.5 450	20.1	5.45	90.8	13.5	15.6
Green	4.8 482	20.4	5.66	94.3	13.6	15.7
315311	5.5 551	20.7	6.04	100.7	14.1	16.2
Tan	4.5 450	21.6	6.50	108.3	13.9	16.0
25	4.8 482	22.3	6.75	112.5	13.6	15.7
803611	5.5 551	22.6	7.19	119.8	14.1	16.3
Blue	6.2 620	22.9	7.65	127.5	14.6	16.9
315311	6.9 689	23.5	8.12	135.3	14.7	17.0
Tan	4.5 450	22.6	7.02	117.0	13.8	15.9
33	4.8 482	22.9	7.27	121.1	13.9	16.1
803611	5.5 551	23.5	7.77	129.5	14.1	16.3
Lt. Blue	6.2 620	24.1	8.22	137.0	14.2	16.4
315311	6.9 689	24.7	8.68	144.6	14.2	16.4
Tan	4.5 450	23.5	7.97	132.9	14.5	16.7
38	4.8 482	24.1	8.31	138.5	14.3	16.6
803611	5.5 551	25.0	8.84	147.3	14.1	16.3
Red	6.2 620	25.6	9.38	156.3	14.3	16.5
315311	6.9 689	26.5	9.90	165.0	14.1	16.3
Tan	4.8 482	25.3	9.38	156.3	14.7	16.9
43	5.5 551	25.9	9.90	165.0	14.8	17.0
803611	6.2 620	26.5	10.52	175.3	15.0	17.3
Dk. Brown	6.9 689	27.1	11.09	184.7	15.1	17.4
315300	4.8 482	27.4	10.65	177.5	14.2	16.3
48	5.5 551	28.0	11.11	185.1	14.1	16.3
803610	6.2 620	28.7	11.46	191.0	14.0	16.1
Dk. Green	6.9 689	29.3	12.15	202.5	14.2	16.4
833500	4.8 482	27.7	11.31	188.5	14.7	17.0
53	5.5 551	28.3	11.86	197.7	14.8	17.0
803610	6.2 620	29.0	12.61	210.1	15.0	17.4
Dk. Blue	6.9 689	29.6	13.29	221.4	15.2	17.6
833500						

**I-80-ON NOZZLES**



**I-80 NOZZLES**



**LOW-ANGLE NOZZLES\*\***



**I-80 NOZZLE PERFORMANCE DATA**

Nozzle Set	Pressure bar kPa	Radius m	Flow		Precip mm/hr	
			m <sup>3</sup> /hr	l/min	■	▲
Orange	3.4 344	11.3	2.02	33.7	15.9	18.4
10	4.1 413	11.9	2.23	37.1	15.8	18.2
803603	4.5 450	12.5	2.32	38.6	14.8	17.1
Dk. Green	-	-	-	-	-	-
315312	-	-	-	-	-	-
Orange	3.4 344	14.3	2.59	43.2	12.6	14.6
13	4.1 413	14.6	2.79	46.6	13.1	15.1
803603	4.5 450	14.9	2.93	48.8	13.1	15.2
Lt. Green	-	-	-	-	-	-
315314	-	-	-	-	-	-
Orange	3.4 344	15.9	2.93	48.8	11.7	13.5
15	4.1 413	15.9	3.29	54.9	13.1	15.1
803603	4.5 450	16.2	3.38	56.4	13.0	15.0
White	4.8 482	16.2	3.52	58.7	13.5	15.6
315314	5.5 551	16.5	3.75	62.5	13.8	16.0
Orange	3.4 344	17.4	3.77	62.8	12.5	14.4
18	4.1 413	17.7	4.04	67.4	12.9	14.9
803603	4.5 450	18.0	4.23	70.4	13.1	15.1
Lt. Green	4.8 482	18.3	4.41	73.4	13.2	15.2
315313	5.5 551	18.6	4.66	77.6	13.5	15.6
Orange	3.4 344	18.0	4.07	67.8	12.6	14.5
20	4.1 413	18.6	4.43	73.8	12.8	14.8
803603	4.5 450	18.9	4.50	75.0	12.6	14.5
Lt. Green	4.8 482	19.2	4.68	78.0	12.7	14.7
315313	5.5 551	19.5	5.02	83.7	13.2	15.2
Orange	3.4 344	19.8	4.59	76.5	11.7	13.5
23	4.1 413	20.1	5.02	83.7	12.4	14.3
803603	4.5 450	20.4	5.43	90.5	13.0	15.0
Lt. Green	4.8 482	20.4	5.50	91.6	13.2	15.2
315313	5.5 551	21.0	5.88	98.0	13.3	15.4
Green	4.5 450	21.6	6.43	107.1	13.7	15.8
25	4.8 482	21.9	6.66	110.9	13.8	16.0
803602	5.5 551	22.3	7.16	119.2	14.5	16.7
Blue	6.2 620	22.6	7.59	126.4	14.9	17.2
315310	6.9 689	22.9	8.04	134.0	15.4	17.8
Red	4.5 450	21.9	6.95	115.8	14.4	16.7
25	4.8 482	22.3	7.18	119.6	14.5	16.7
803602	5.5 551	22.9	7.70	128.3	14.7	17.0
Lt. Green	6.2 620	23.5	8.13	135.5	14.8	17.0
315310	6.9 689	24.1	8.61	143.5	14.8	17.1
Green	4.5 450	23.2	7.93	132.1	14.8	17.1
38	4.8 482	23.8	8.22	137.0	14.5	16.8
803602	5.5 551	24.4	8.88	148.0	14.9	17.2
Lt. Green	6.2 620	25.0	9.36	156.0	15.0	17.3
315310	6.9 689	25.6	9.88	164.7	15.1	17.4
Red	4.8 482	24.7	9.36	156.0	15.4	17.7
43	5.5 551	25.3	9.88	164.7	15.4	17.8
803602	6.2 620	26.2	10.49	174.9	15.3	17.6
Dk. Brown	6.9 689	27.1	11.06	184.3	15.0	17.4
Dk. Red	4.8 482	25.3	10.52	175.3	16.4	19.0
48	5.5 551	25.9	10.99	183.2	16.4	18.9
803601	6.2 620	27.1	11.74	195.7	16.0	18.4
Dk. Green	6.9 689	27.7	12.38	206.3	16.1	18.6
Dk. Red	4.8 482	26.5	11.52	191.9	16.4	18.9
53	5.5 551	27.1	12.06	201.0	16.4	18.9
803601	6.2 620	28.0	12.81	213.5	16.3	18.8
Dk. Blue	6.9 689	28.7	13.54	225.6	16.5	19.0

● = Indicates installed nozzle plug P/N 315300

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

\*\*Low-angle nozzles reduce radius by 15%.