

# RPS® 75 Gear Driven Sprinkler Setting Instructions

**NOTE:** The RPS 75 is factory preset with a 180° arc setting, and includes a pre-installed #3 nozzle.

## CHANGING A NOZZLE

### 1. REMOVING THE NOZZLE RETENTION SCREW

Use the hex (B) end of the Key to remove the nozzle retention screw by turning counter-clockwise to remove or clockwise to re-install.

### 2. PULL UP THE RISER

Insert the (A) end of the Key in the keyhole (L) on the top of the nozzle turret (I) and turn the key 1/4 turn to insure that the key does not slip out of the keyhole when you pull it up. Firmly pull up the entire spring-loaded riser to access the nozzle socket (G). Hold riser assembly with one hand.

### 3. REMOVING THE NOZZLE

With nozzle retention screw removed, the nozzle may be removed by pulling outward on the nozzle prongs (D) with a pair of needle-nose pliers.

### 4. INSTALLING A NOZZLE

Press the desired nozzle (C) into the nozzle socket (G). Make sure the nozzle number is visible and the nozzle "prongs" (D) are up. Then, re-install the nozzle retention screw (F). **NOTE:** The nozzle retention screw is also a break-up screw, used to adjust the distance of the spray.

## SETTING THE ARC ADJUSTMENT

**NOTE:** The RPS75 Gear Driven Sprinkler has a fixed right start and an adjustable left stop.

### 1. POSITIONING NOZZLE TURRET TO ITS "RIGHT START"

Place your fingers on the top center of the nozzle turret (I). Rotate the turret counter-clockwise to the left stop to complete any interrupted rotation cycle. Rotate the nozzle turret clockwise to the right start. This is the fixed side of the arc. The nozzle turret must be held in this position for arc adjustments. The right start does not change.

### 2. ADJUSTING THE RIGHT (FIXED) SIDE OF ARC

If the right side of the arc is not properly aligned, the sprinkler may spray in areas not intended for watering such as driveways or adjacent properties. The right side arc can easily be realigned.

#### OPTION 1: REPOSITION CAN ON THE FITTING

Turn the sprinkler can (K) and the fitting below it left or right to the desired position. This may require temporary removal of the soil around the sprinkler to allow you to grip the sprinkler can.

#### OPTION 2: REMOVE INTERNAL RISER ASSEMBLY AND REPOSITION

Unscrew the top (H) counter-clockwise and remove the internal riser assembly from the can. Once removed with nozzle turret (I) at its right start, reposition the riser assembly so that nozzle arrow points to the desired start position. Replace the riser assembly back in the can and screw on the top. At this point you have realigned the right arc stop, and you can adjust the left arc to an appropriate setting.

#### OPTION 3: MANUALLY RAISE RISER AND REPOSITION

Insert the Key into the keyhole (L) and pull up on the riser. Using your hand, turn the riser to reposition the right start.

## Performance Data

| NOZZLE                | PRESSURE |     |      | RADIUS |      | FLOW RATE |      |                   | PRECIP in/hr mm/hr |      |    |    |
|-----------------------|----------|-----|------|--------|------|-----------|------|-------------------|--------------------|------|----|----|
|                       | PSI      | kPa | Bars | Ft.    | M.   | GPM       | L/M  | M <sup>3</sup> /H | ■                  | ▲    | ■  | ▲  |
| #0.75                 | 30       | 206 | 2.1  | 29     | 8.8  | 0.7       | 2.6  | 0.16              | 0.16               | 0.19 | 4  | 5  |
|                       | 40       | 275 | 2.8  | 30     | 9.1  | 0.8       | 3.0  | 0.18              | 0.17               | 0.20 | 4  | 5  |
|                       | 50       | 344 | 3.4  | 30     | 9.1  | 0.9       | 3.4  | 0.20              | 0.19               | 0.22 | 5  | 6  |
|                       | 60       | 413 | 4.1  | 31     | 9.4  | 1.0       | 3.8  | 0.23              | 0.20               | 0.23 | 5  | 6  |
| #1.0                  | 30       | 206 | 2.1  | 30     | 9.1  | 0.9       | 3.4  | 0.20              | 0.19               | 0.22 | 5  | 6  |
|                       | 40       | 275 | 2.8  | 31     | 9.4  | 1.0       | 3.8  | 0.23              | 0.20               | 0.23 | 5  | 6  |
|                       | 50       | 344 | 3.4  | 31     | 9.4  | 1.2       | 4.5  | 0.27              | 0.24               | 0.28 | 6  | 7  |
|                       | 60       | 413 | 4.1  | 32     | 9.8  | 1.3       | 4.9  | 0.30              | 0.24               | 0.28 | 6  | 7  |
| #1.5                  | 30       | 206 | 2.1  | 32     | 9.8  | 1.2       | 4.5  | 0.27              | 0.23               | 0.26 | 5  | 6  |
|                       | 40       | 275 | 2.8  | 33     | 10.1 | 1.4       | 5.3  | 0.32              | 0.25               | 0.29 | 6  | 7  |
|                       | 50       | 344 | 3.4  | 34     | 10.4 | 1.6       | 6.1  | 0.36              | 0.27               | 0.31 | 7  | 8  |
|                       | 60       | 413 | 4.1  | 34     | 10.4 | 1.8       | 6.8  | 0.41              | 0.30               | 0.35 | 7  | 9  |
| #2.0                  | 30       | 206 | 2.1  | 34     | 10.4 | 1.6       | 6.1  | 0.36              | 0.27               | 0.31 | 7  | 8  |
|                       | 40       | 275 | 2.8  | 36     | 11.0 | 1.8       | 6.8  | 0.41              | 0.27               | 0.31 | 7  | 8  |
|                       | 50       | 344 | 3.4  | 38     | 11.6 | 2.0       | 7.6  | 0.45              | 0.27               | 0.31 | 7  | 8  |
|                       | 60       | 413 | 4.1  | 38     | 11.6 | 2.2       | 8.3  | 0.50              | 0.29               | 0.34 | 7  | 9  |
| #3.0<br>Pre-installed | 30       | 206 | 2.1  | 36     | 11.0 | 2.0       | 7.6  | 0.45              | 0.30               | 0.34 | 7  | 9  |
|                       | 40       | 275 | 2.8  | 38     | 11.6 | 2.4       | 9.1  | 0.55              | 0.32               | 0.37 | 8  | 9  |
|                       | 50       | 344 | 3.4  | 40     | 12.2 | 2.7       | 10.2 | 0.61              | 0.32               | 0.38 | 8  | 10 |
|                       | 60       | 413 | 4.1  | 40     | 12.2 | 2.9       | 11.0 | 0.66              | 0.35               | 0.40 | 9  | 10 |
| #4.0                  | 30       | 206 | 2.1  | 36     | 11.0 | 2.6       | 9.8  | 0.59              | 0.39               | 0.45 | 10 | 11 |
|                       | 40       | 275 | 2.8  | 40     | 12.2 | 3.0       | 11.4 | 0.68              | 0.36               | 0.42 | 9  | 11 |
|                       | 50       | 344 | 3.4  | 42     | 12.8 | 3.4       | 12.9 | 0.77              | 0.37               | 0.43 | 9  | 11 |
|                       | 60       | 413 | 4.1  | 42     | 12.8 | 3.7       | 14.0 | 0.84              | 0.40               | 0.47 | 9  | 12 |
| #6.0                  | 40       | 275 | 2.8  | 38     | 11.6 | 4.2       | 15.9 | 0.91              | 0.56               | 0.65 | 14 | 16 |
|                       | 50       | 344 | 3.4  | 43     | 13.1 | 4.9       | 18.5 | 1.11              | 0.51               | 0.59 | 13 | 15 |
|                       | 60       | 413 | 4.1  | 46     | 14.0 | 5.5       | 20.8 | 1.25              | 0.50               | 0.58 | 13 | 15 |
|                       | 70       | 482 | 4.8  | 47     | 14.3 | 6.0       | 22.7 | 1.36              | 0.52               | 0.60 | 13 | 15 |
| #8.0                  | 40       | 275 | 2.8  | 45     | 13.7 | 6.0       | 22.7 | 1.36              | 0.57               | 0.66 | 14 | 17 |
|                       | 50       | 344 | 3.4  | 48     | 14.6 | 6.8       | 25.7 | 1.54              | 0.57               | 0.66 | 14 | 17 |
|                       | 60       | 413 | 4.1  | 49     | 14.9 | 7.6       | 28.8 | 1.73              | 0.61               | 0.70 | 15 | 18 |
|                       | 70       | 482 | 4.8  | 51     | 15.5 | 8.2       | 31.0 | 1.86              | 0.61               | 0.70 | 15 | 18 |

### 3. ADJUSTING THE LEFT (VARIABLE) SIDE OF THE ARC

#### INCREASING THE ARC

Insert the (A) end of the Key into the arc set adjustment slot (M). While holding the nozzle turret (I) at the right start, turn the Key clockwise. Each full 360° turn of the Key will increase the arc 90°. Adjust to any arc between 40° and 360°. The Key will stop turning, or there will be ratcheting noise, when the maximum arc of 360° has been reached.

#### DECREASING THE ARC

Insert the (A) end of the Key into the arc set adjustment slot (M). While holding the nozzle turret (I) at the right start, turn the Key counter-clockwise. Each full 360° turn of the Key will decrease the arc 90°. Adjust to any arc between 40° and 360°. The Key will stop turning, or there will be a ratcheting noise, when the minimum arc of 40° has been reached.

## SPRINKLER INSTALLATION

### 1. INSTALL AND BURY

Do not use pipe dope. Thread the sprinkler on the pipe. Bury the sprinkler flush on the same watering zone. **NOTE:** Gear driven sprinklers and pop-up sprays should not be installed on the same watering zone.

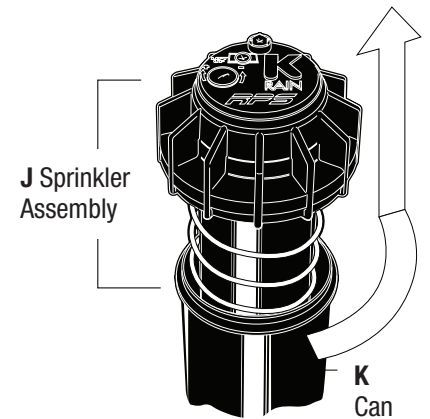
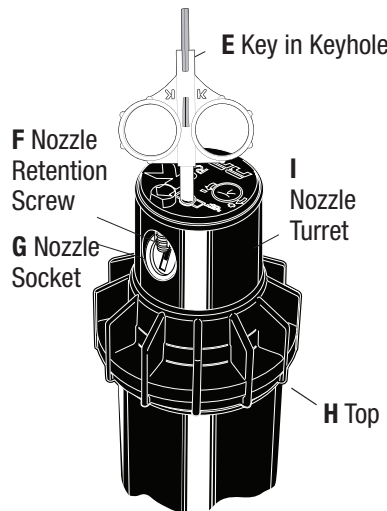
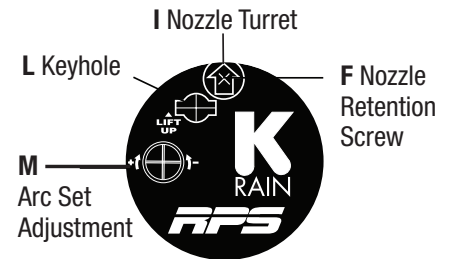
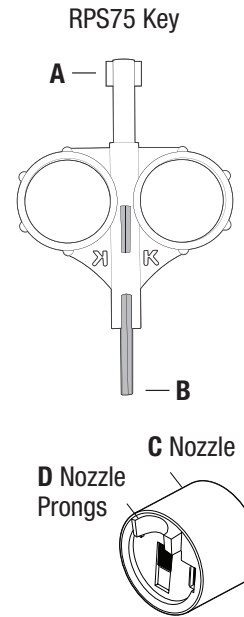
### 2. INSPECTING THE FILTER

Unscrew the top (H) and lift the complete sprinkler assembly (J) out of the can (K). The filter is located on the bottom of the sprinkler assembly and can be easily pulled out, cleaned and re-installed.

### 3. WINTERIZATION TIPS

When using an air compressor to remove water from the system please note the following:

- Do not exceed 30 PSI.
- Always introduce air into the system gradually to avoid air pressure surges. Sudden release of compressed air into the sprinkler can cause damage.
- Each zone should run no longer than 1 minute on air. Sprinklers turn 10 to 12 time faster on air than on water. Over spinning rotors on air can cause damage to the internal components.



## Low Angle Performance Data

| NOZZLE | PRESSURE |     |      | RADIUS |      | FLOW RATE |      |                   | PRECIP in/hr mm/hr |      |    |    |
|--------|----------|-----|------|--------|------|-----------|------|-------------------|--------------------|------|----|----|
|        | PSI      | kPa | Bars | Ft.    | M.   | GPM       | L/M  | M <sup>3</sup> /H | ■                  | ▲    | ■  | ▲  |
| #1.0   | 30       | 207 | 2.1  | 22     | 6.7  | 1.2       | 4.5  | .34               | 0.48               | 0.55 | 12 | 14 |
|        | 40       | 275 | 2.8  | 24     | 7.3  | 1.7       | 6.4  | .39               | 0.57               | 0.66 | 14 | 17 |
|        | 50       | 344 | 3.4  | 26     | 7.9  | 1.8       | 6.8  | .41               | 0.51               | 0.59 | 13 | 15 |
|        | 60       | 413 | 4.1  | 28     | 8.5  | 2.0       | 7.6  | .46               | 0.49               | 0.57 | 13 | 14 |
| #3.0   | 30       | 207 | 2.1  | 29     | 8.8  | 3.0       | 11.4 | .68               | 0.69               | 0.79 | 18 | 20 |
|        | 40       | 275 | 2.8  | 32     | 9.8  | 3.1       | 11.7 | .71               | 0.58               | 0.67 | 15 | 17 |
|        | 50       | 344 | 3.4  | 35     | 10.7 | 3.5       | 13.2 | .80               | 0.55               | 0.64 | 14 | 16 |
|        | 60       | 413 | 4.1  | 37     | 11.3 | 3.8       | 14.4 | .87               | 0.53               | 0.62 | 13 | 16 |
| #4.0   | 30       | 207 | 2.1  | 31     | 9.4  | 3.4       | 12.9 | .78               | 0.68               | 0.79 | 17 | 20 |
|        | 40       | 275 | 2.8  | 34     | 10.4 | 3.9       | 14.8 | .89               | 0.65               | 0.75 | 16 | 19 |
|        | 50       | 344 | 3.4  | 37     | 11.3 | 4.4       | 16.7 | 1.00              | 0.62               | 0.71 | 16 | 18 |
|        | 60       | 413 | 4.1  | 38     | 11.6 | 4.7       | 17.8 | 1.07              | 0.63               | 0.72 | 16 | 18 |
| #6.0   | 40       | 275 | 2.8  | 38     | 11.6 | 6.5       | 24.6 | 1.68              | 0.87               | 1.00 | 22 | 25 |
|        | 50       | 344 | 3.4  | 40     | 12.2 | 7.3       | 27.6 | 1.66              | 0.88               | 1.01 | 22 | 25 |
|        | 60       | 413 | 4.1  | 42     | 12.8 | 8.0       | 30.3 | 1.82              | 0.87               | 1.01 | 22 | 26 |
|        | 70       | 482 | 4.8  | 44     | 13.4 | 8.3       | 32.6 | 1.96              | 0.86               | 0.99 | 22 | 25 |

\*All precipitation rates calculated for 180° operation. For the precipitation rate for a 360° sprinkler, divide by 2.



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