

Winterization Procedures

Winterization primarily consists of the removal of all water from the irrigation system and it's components. This needs to be done only in colder climates. Water expands as it turns to ice. The forming of ice in an irrigation system can cause a break in the pipes, valves, fittings, sprinklers and pumps.

K-Rain recommended Winterization Procedures:

Blowing Out Water From System

- 1) Close the main water supply valve
- 2) Connect air compressor near the main shutoff.
- 3) Turn off the compressor and activate the zone of sprinklers that is at the highest elevation and or furthest from the compressor . Introduce air to the system GRADUALLY (this will AVOID PRESSURE SURGES which can damage to components). SLOWLY increase air pressure to 30 –50 PSI. NEVER let the AIR PRESSURE exceed 50 PSI.
- 4) Run each zone at recommended air pressure for NO MORE than 1 MINUTE. Running AIR through the Sprinkler heads for long periods of time can cause damage (air turns the heads 12 times faster than water).
- 5) Proceed with steps 3 and 4 for each zone.
- 6) We recommend going through the entire system 2-3 times using a lower air pressure at short cycles rather than a single long one at a higher pressure rating.

Warning! To prevent personal injury never stand over any irrigation component when system is running on air.

Winterization Procedures & Nozzle Performance

Quick Tips for Winterizing:

- ◆ Never allow Pressure to exceed 80 PSI
- ◆ We **recommend** using **30-50 PSI**
- ◆ Never run the system on air longer than **1 Minute**
- ◆ When possible tie into a metal fitting or pipe to help dissipate some of the heat.
- ◆ **REMEMBER** running air at **HIGH PRESSURE** for **LONG PERIODS** of time can cause **Damage** to the sprinkler heads
- ◆ Repeat on each zone at least twice to ensure water has been removed from system

ProPlus Standard Nozzle Performance

Nozzle	PSI	Radius Ft.	GPM
# 0.5	30	28'	.5
	40	29'	.6
	50	29'	.7
	60	30'	.8
# 0.75	30	29'	.7
	40	30'	.8
	50	31'	.9
	60	32'	1.0
# 1	30	32'	1.3
	40	33'	1.5
	50	34'	1.6
	60	35'	1.8
# 2	30	37'	2.4
	40	40'	2.5
	50	42'	3.0
	60	43'	3.3
# 2.5	30	38'	2.5
	40	39'	2.8
	50	40'	3.2
	60	41'	3.5
# 3	30	38'	3.6
	40	39'	4.2
	50	41'	4.6
	60	42'	5.0
# 4	30	43'	4.4
	40	44'	5.1
	50	46'	5.6
	60	49'	5.9
# 6	40	45'	5.9
	50	46'	6.0
	60	48'	6.3
	70	49'	6.7
# 8	40	42'	8.0
	50	45'	8.5
	60	49'	9.5
	70	50'	10.0

ProPlus Low Angle Nozzle Performance

Nozzle	PSI	Radius Ft.	GPM
# 1	30	22'	1.5
	40	24'	1.7
	50	26'	1.8
	60	28'	2.0
# 3	30	29'	3.0
	40	32'	3.1
	50	35'	3.5
	60	37'	3.8
# 4	30	31'	3.4
	40	34'	3.9
	50	37'	4.4
	60	38'	4.7
# 6	40	38'	6.5
	50	40'	7.3
	60	42'	8.0
	70	44'	8.6

Data represents test results in zero wind for ProPlus. Adjust for local conditions. Radius may be reduced with nozzle retention screw.



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*Irrigation Solutions
Worldwide*

PROPLUS

SUPERPRO

Installation Instructions & Winterization Procedures



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Sprinkler Installation

INSTALL AND BURY

Thread the sprinkler on the pipe. Bury the sprinkler flush to grade.

FINDING THE LEFT STARTING POSITION

First, rotate the turret with your fingers around to the RIGHT (clockwise) until it stops. Then, rotate the turret around to the LEFT until it stops again. THIS IS THE LEFT START POSITION (which is the fixed side of arc of oscillation). The sprinkler will begin spraying from this point and will rotate clockwise.

POINTING THE LEFT START - TURN THE CAN

You can orient the LEFT START position (the point where the sprinkler will begin spraying) by simply turning the entire sprinkler housing can OR turn the lower portion of the riser (which has a slip clutch).

Pull the riser up with your K-Key. Grab the LOWER portion of the riser, and rotate it to orient the nozzle to the desired LEFT starting position.

IMPORTANT: DO NOT FORCE THE NOZZLE HOUSING ITSELF.

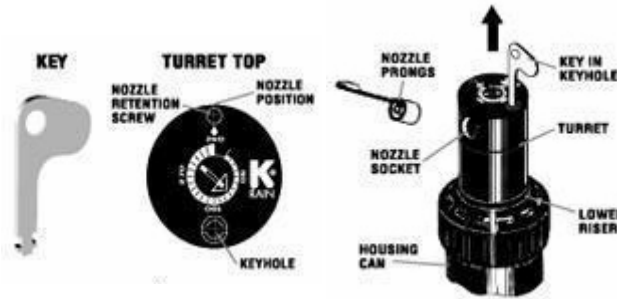
ADJUSTING THE RIGHT STOPPING POSITION

While holding the turret with your fingers turn the arc set indicating arrow to point to the desired right stopping point or the desired angle of oscillation as indicated (using a K-Key or screwdriver).

Changing a Nozzle

USE YOUR KEY

After you remove the nozzle retention screw with your K-Key, insert the K-Key into the keyhole on the top of the turret. Then, turn the K-Key ¼ turn so it doesn't slip out of the hole when you pull it up.



PULL UP THE RISER

Firmly pull the entire spring loaded riser up with the K-Key to access the nozzle socket. Hold the riser up with one hand.

REMOVE THE NOZZLE

With the nozzle retention screw removed, insert the K-Key into the slot directly under the nozzle. Now, pivot your K-Key ¼ of a turn to "hook" the nozzle and pull the nozzle out.

INSTALL A NOZZLE

Press the desired nozzle into the nozzle socket. Make sure the nozzle number is visible and the nozzle "prongs" are up. Then, re-install the nozzle retention

How to set the Sprinkler

Please Note: The ProPlus is preset for you with a 90° arc setting and includes a pre-installed 2.5 GPM nozzle.

1.) Find the Left Starting Point:

First rotate the turret with your fingers around to the RIGHT (clockwise) until it stops. Then, rotate the turret around to the LEFT until it stops again. This is the LEFT START position. The sprinkler will begin spraying from this point and will rotate clockwise.

2.) To change the arc setting:

To INCREASE THE ARC, insert the K-Key into the arc indication ARROW SLOT at the center of the turret. While holding the turret with your fingers (so that it doesn't rotate), turn the Key COUNTER-CLOCKWISE, until the arc indication arrow points to the arc desired.

To DECREASE THE ARC, hold the turret, and turn the Key CLOCKWISE to the desired arc setting. (IMPORTANT: DO NOT TURN THE ARC INDICATION ARROW PAST THE 360 SETTING OR PAST THE 30 SETTING)

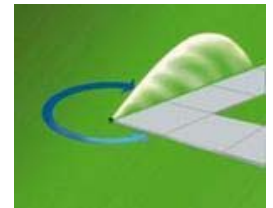
3.) To Adjust the Arc with Sprinkler On:

If the sprinkler is turning to the right, hand-spin the turret to the right until it stops. Then, turn the turret to the left until it stops again. THIS IS THE LEFT START POSITION. and you can now turn the arc indication arrow to the desired setting. (See TO CHANGE THE ARC SETTING) If the sprinkler is turning to the left, hand-spin the turret to the left until it stops. (See TO CHANGE THE ARC SETTING)

IMPORTANT: DO NOT TURN THE ARROW PAST THE 30 SETTING OR PAST THE 360 SETTING.



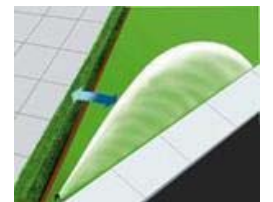
Continuous 360°



250° Setting



120° Setting



30° Setting