ABLE IRRIGATION

Underground Lawn Sprinkler Specialists

Winter Shut-Down Procedure

Although we live in Beautiful BC, we still experience freezing temperatures. To minimize the risk of freeze damage to your irrigation system, you'll need to "winterize" it. Our annual Winter Shut-Down Service is recommended to protect your irrigation system.

The Winter Shut-Down Service involves shutting off the water flow and removing all standing water from the irrigation pipes, valves, and sprinkler heads with a suitably sized air compressor. This will prevent the damage caused by frost and by the volume expansion that occurs when water turns to ice.

Our service technicians perform the Winter Shut-Down Service for our clients from the last week of September through to the first week of November. In order to ensure that we get to all customers before the first cold snap, we ask that you sign up in advance for our Winter Shut-Down Service. (No repairs or changes can be made to your system during the Winter Shut-Down Service.)

Please note: Any system that is leaking badly from the main connection will be shut down from the main valve if possible. The system cannot be winterized. Repairs will be advised and quoted immediately.

** **Warning:** If the irrigation point of connection is not protected by a backflow device, it is not to code. This is considered an unprotected cross connection. Contaminants from the irrigation system can backflow into the potable water. Any unprotected cross connection must be noted and reported to the owner for retrofitting, repair, and testing. **

Procedures

Blowing Out the Water Lines

To blow out the water lines, use a 185-CFM (Cubic Foot per Minute) air compressor with a capacity of 50 to 80 PSI.

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Safety Measures

- Remember to practice caution when operating any motorized equipment. Do not stand over parts while the system is being blown out.
- Do not exceed 80 PSI with PVC piping or 50 PSI with polyethylene piping.
- Do not leave manual drain valves, valve bleed cocks, or solenoids open after the winter service.

Blow Out Method

1. Shut off the irrigation water supply.
2. Open the drain on the supply line. Once the water in the line is drained, close the drain.
3. With the compressor valve in the closed position, attach the air compressor to the main line via a quick coupler, hose bib, or other type of connection located downstream of the backflow device.
4. Activate a station or zone on the controller. If access to the controller is not possible, bleed a zone in the field from the first valve box location.
5. Slowly open the valve on the compressor, gradually introducing air into the irrigation system until you reach 50 PSI.
6. Blow out the line, maintaining a constant pressure of 50 PSI. Increase the air pressure if the sprinkler heads do not pop up and seal. Never exceed 80 PSI.
7. Activate each station or zone until no water can be seen exiting the heads.

   Generally this takes two to four minutes per zone, depending on the size of each zone. Cycle back through each zone rather than running longer than five minutes.

   Compressed air moving through dry pipes can cause friction, which will create heat. The heat can cause damage, so do not run compressed air through dry pipes.

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8. Shut down the air compressor, release any air pressure that may be present, and disconnect the air line.

Winterizing the DCVA Backflow Device

Double Check Valve Assembly

Now winterize the Double Check Valve Assembly (DCVA) backflow device. The DCVA has two shut-off valves (shown with blue handles in the illustration) and four test cocks. The method to use varies depending on whether or not there is an isolation valve before the device. Use the appropriate procedure.

With Isolation Valve Before the Device

If there's an isolation valve, flush the device using test cocks #1 and #4.

1. Close the #2 shut-off valve on the DCVA.
2. Open the #1 shut-off valve.
3. Open the isolation valve.
4. Attach the air hose to the #1 test cock.
5. Open test cocks #1 and #4.
6. Apply compressed air until all water is blown out through the #4 test cock.
7. Shut off the air compressor and remove the air hose from the #1 test cock.
8. Close test cocks #1 and #4.
9. Close the isolation valve.

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With NO Isolation Valve Before the Device

If there's no isolation valve, flush the device using test cocks #2 and #4.

1. Close the #1 shut-off valve on the DCVA.
2. Attach the air hose to the #2 test cock.
3. Open the #2 test cock.
4. Close the #2 shut-off valve.
5. Open the #4 test cock.
6. Apply compressed air until all water is blown out through the #4 test cock.
7. Shut off the air compressor and remove the air hose from the #2 test cock.
8. Close test cocks #2 and #4.

Winterizing the Controller

Exterior Controllers

- If the controller is outside, leave it plugged in with the power on. The warmth created from the transformer will keep the internal components dry.
- Leave the controller in the Off position so that the solenoid valves in the field are not activated.
- Make a note to the client about whether or not a surge protector is present. Surge protectors help prevent damage during power outages.

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Interior Controllers

- If the controller is mounted indoors, leave the power on and the switch set to Off.

  Or

- Remove the battery backup and unplug the transformer. This method is recommended for older models of controllers that do not have built-in surge protection or non-volatile memory.

Winterizing the Rain Sensor

The rain sensor can also be prepared for winter.

- If the sensor has a cup design, remove standing water by setting the cup in the tilt down position. This will drain rain water that could freeze and crack the cup.

Winterizing the Pump

- If an irrigation pump is present, disconnect power to the pump (if applicable) and open the lower drain plug to fully drain the chamber. There may be more than one plug.

- Refer to manufacturers' recommendations for additional steps required to properly winterize specific pumps.

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Final Step

Please make notes for the client about repairs that are needed in the spring, if any.

Disclaimer Able Irrigation Ltd. provides this basic information about the winter shut-down procedure for information purposes only, as a courtesy to our customers. This document provides a brief overview of steps to follow when preparing to shut down your irrigation system for the winter. Each irrigation system is unique, so the steps to follow for your system could be different. The steps followed by Able Irrigation's technicians are customized for your particular system, and are more complex and in-depth. Able Irrigation is not liable for the actions taken by customers or other persons who choose to follow these steps.