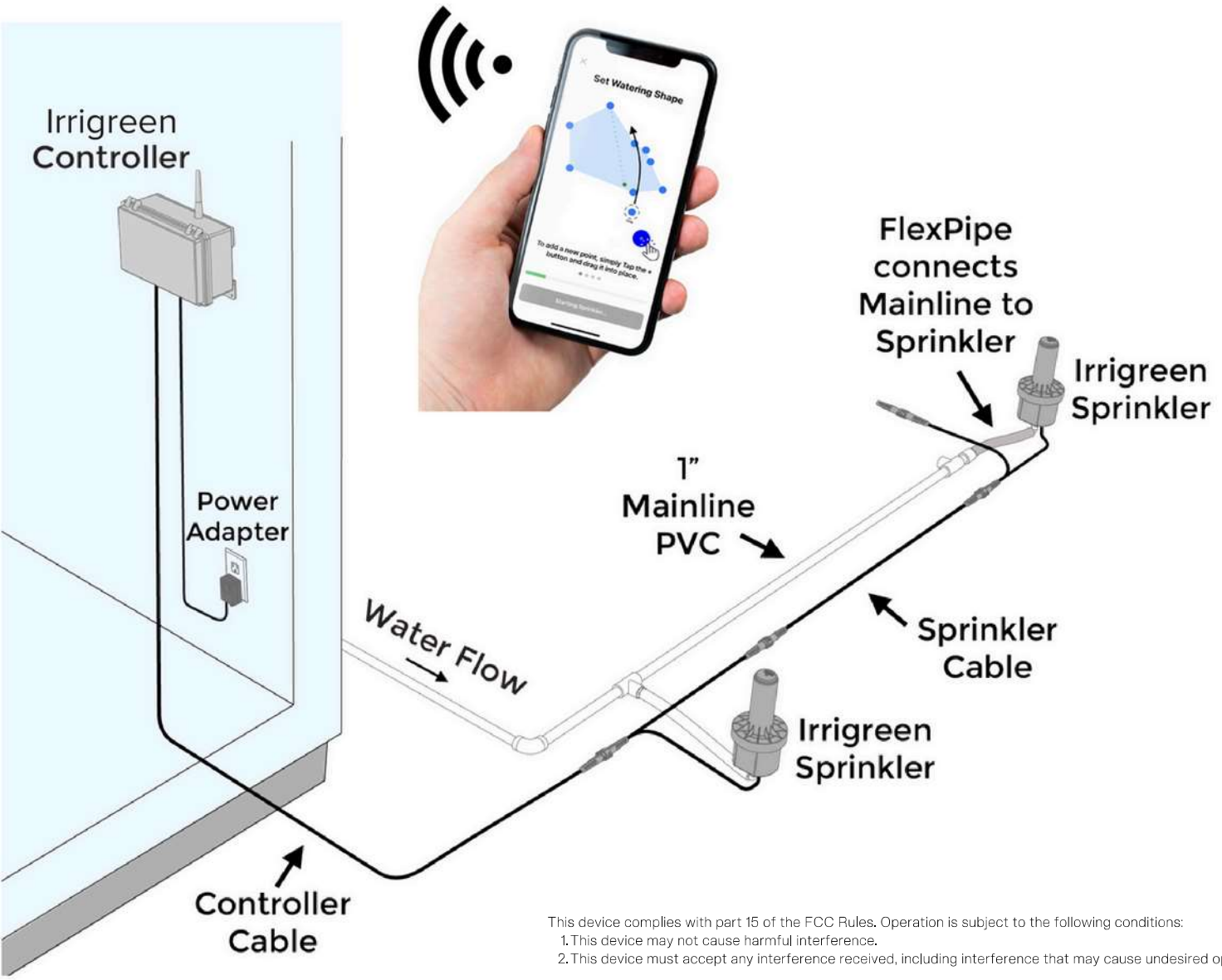
irrigreen

Installation Guide

Installation Overview Diagram

See Video



This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage.
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Changes or modifications not expressly approved by Irrigreen could void the user's authority to operate the equipment.

To satisfy RF exposure requirements, the Irrigreen Controller and its antenna must operate with a separation distance of at least 20 cm from all persons.

What's included:

Irrigreen 2 Smart Controller

Digital Sprinkler Head(s)

15" FlexPipe(s)

60' Sprinkler Cable(s)

24 VAC Transformer
with 10' wire (40VA, indoor)

Controller Cable
50' with end plug

Cable Tee
with end plug

CableLok(s)

What else you need:

1" Mainline PVC or Poly Pipe
1" Elbows, connectors, end caps
1" Tees with 1" female pipe thread
Pipe Cutter
PVC Glue
Recommended: 6" Valve Box (one per head)
Pressure Gauge
Teflon Tape

Irrigreen System Requirements:

1. **Constant pressure (between 40-80 psi)**
2. **Good flow (8+ gpm)**
3. **Clean water**

Well Systems: *Well Systems require a constant pressure pump or a cycle stop valve with a small tank. A pressure regulating valve (PRV) may work.*

Water Sources with Particulates: *A filter is required for any water source with particulates (e.g. sand, grit, mud, lake water, etc.). Use a 100 mesh (150 microns) filter, similar to drip systems.*

Step 1: Measure Pressure

See Video

Max Water Distance	
40 PSI	25.0'
50 PSI	27.5'
60 PSI	30.0'
70 PSI	32.5'
80 PSI	35.0'

Connect your pressure gauge to your water spigot.

Measuring water pressure will tell you the maximum distance that your sprinkler head can spray and help you determine head placement.

Step 2: Bucket Test (Flow)

See Video

Make sure you can fill a 5 gallon bucket in less than 45 seconds.

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Step 3: Sprinkler Head Placement

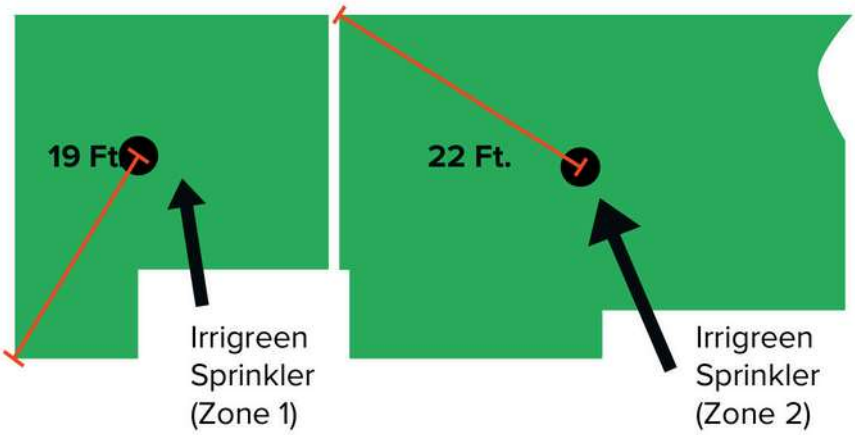
See Video

1. Mark where you think you want to place your sprinkler(s).
(Exact placement not critical as you can program each sprinkler to the shape of the zone.)

2. Using a tape measure, measure to the farthest corner of each zone to make sure you have enough watering range to reach every part of the zone.
Refer to the psi/distance chart before placing heads. The farthest corner is the longest distance in the zone.

Example of two zones:

Place sprinkler heads in the approximate center of each zone.

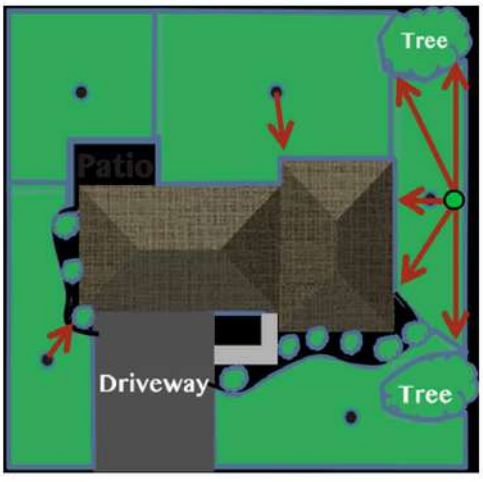


- Don't overlap sprays or zones.
- Place 1 sprinkler per zone.
- Place sprinklers so that they can reach your furthest corners.

Check minimum throw distance (cannot be less than 5 feet). NOTE: Sprinklers cannot be programmed to distances less than 5 feet, to keep the riser from retracting.

*For narrow zones (less than 10' wide):

- Place sprinkler along the edge.
- Sprinklers can be programmed to water in a 180° pattern, or other patterns.
- The 5 feet minimum throw distance ensures that the sprinkler has enough pressure to stay popped up.



Step 4: Controller Placement

Choose a location for your controller that is:

- Next to an outlet
- Has four bars of WiFi coverage

*You will mount the controller in a later step (Step 12).

*Controller is weather proof and may be mounted outside.

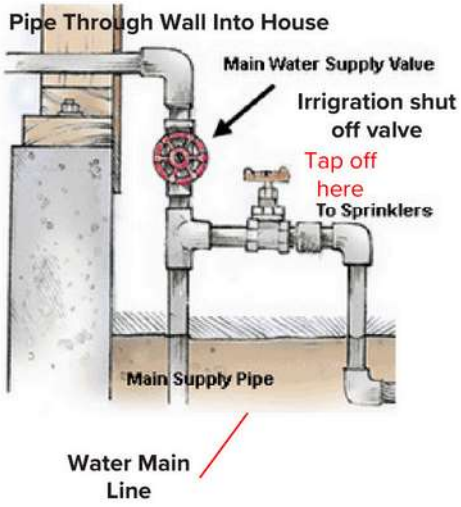
Step 5: Find and Tap into Your Water Line

You need to find your water line (mainline) to connect Irrigreen to your water source.

Where is my mainline?

1. Near a Spigot

2. Near Irrigation Shut Off Valve



3. Upstream Side of Irrigation Valve Box

Tapping into Your Existing Mainline:

1. Shut off water and find your mainline.

2. Cut the mainline underground.

3. Plumb a tee connector in to provide water to Irrigreen sprinkler(s).

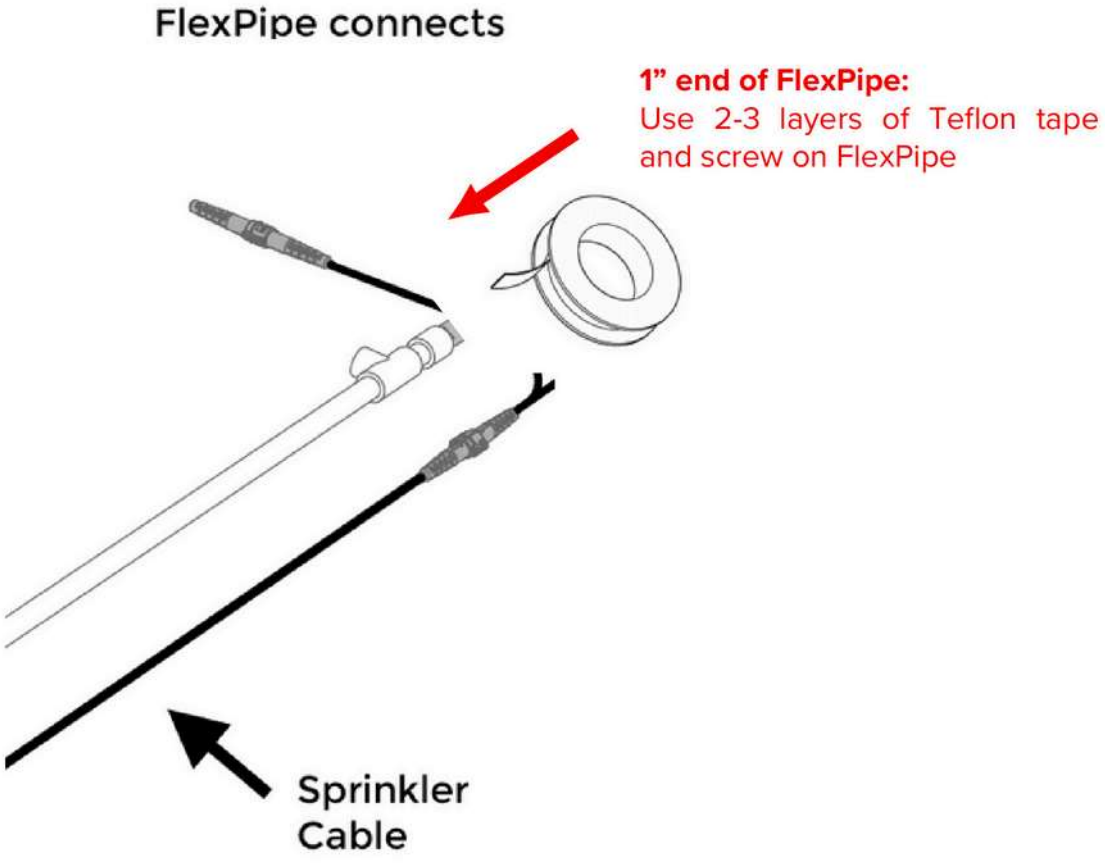
*Make sure you check the backflow and anti-siphon valve regulations in your area. Contact your local water utility or plumbing professional if you are unable to locate your mainline.

Step 6: Trenching

1. Trench 1” pipe 10-12” deep to sprinkler locations.

2. Dig ~13” deep hole for sprinkler(s).
Do not bury the pipe or the sprinklers until Step 15 (pg 20).

Step 7: Connect FlexPipe to Mainline



Step 8: Flush out the Pipes for 3 minutes

1. Point the flexpipe, for all sprinklers at the end of a pipe, outside the hole.

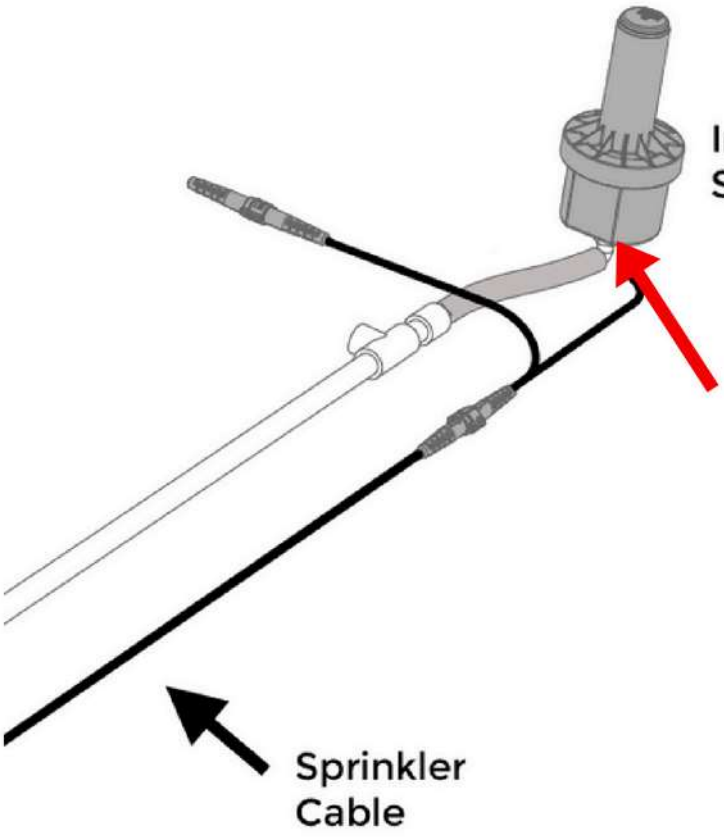
2. Turn on the mainline to flush out.

3. Let water run for 3 minutes, minimum.

***This step is very important!**

- It gets rid of any dirt, debris, or glue in pipes.
- Operating sprinklers with unflushed debris in pipe voids the warranty.

Step 9: Connect Sprinkler Head To Flexpipe



3/4" Elbow connects to Sprinkler:

1. Spin sprinkler head onto the flexpipe elbow.
2. Be sure it is not cross threaded.
3. Tighten until the elbow "bottoms out".

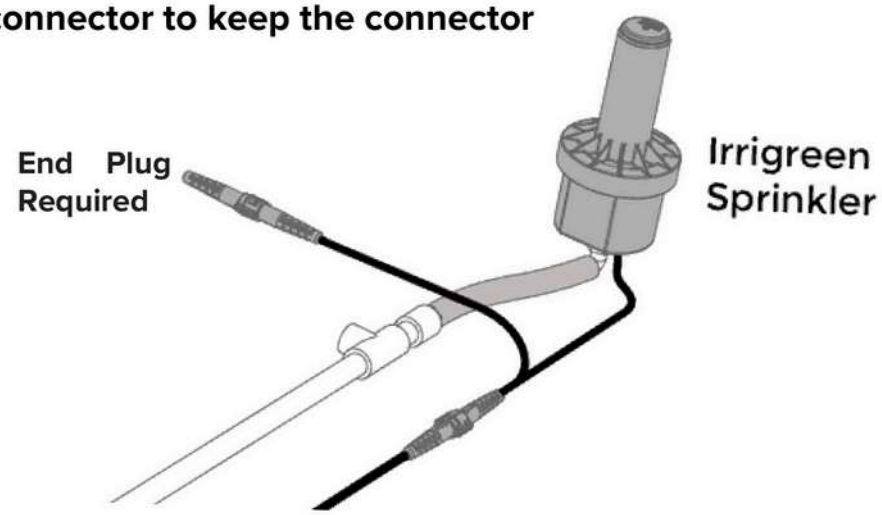
- NO Teflon Tape
- NO tools
- HAND TIGHT ONLY!

Recommended:
Use a 6" valve box next to each sprinkler for easier maintenance. Coil excess sprinkler cables and connectors inside the valve box.

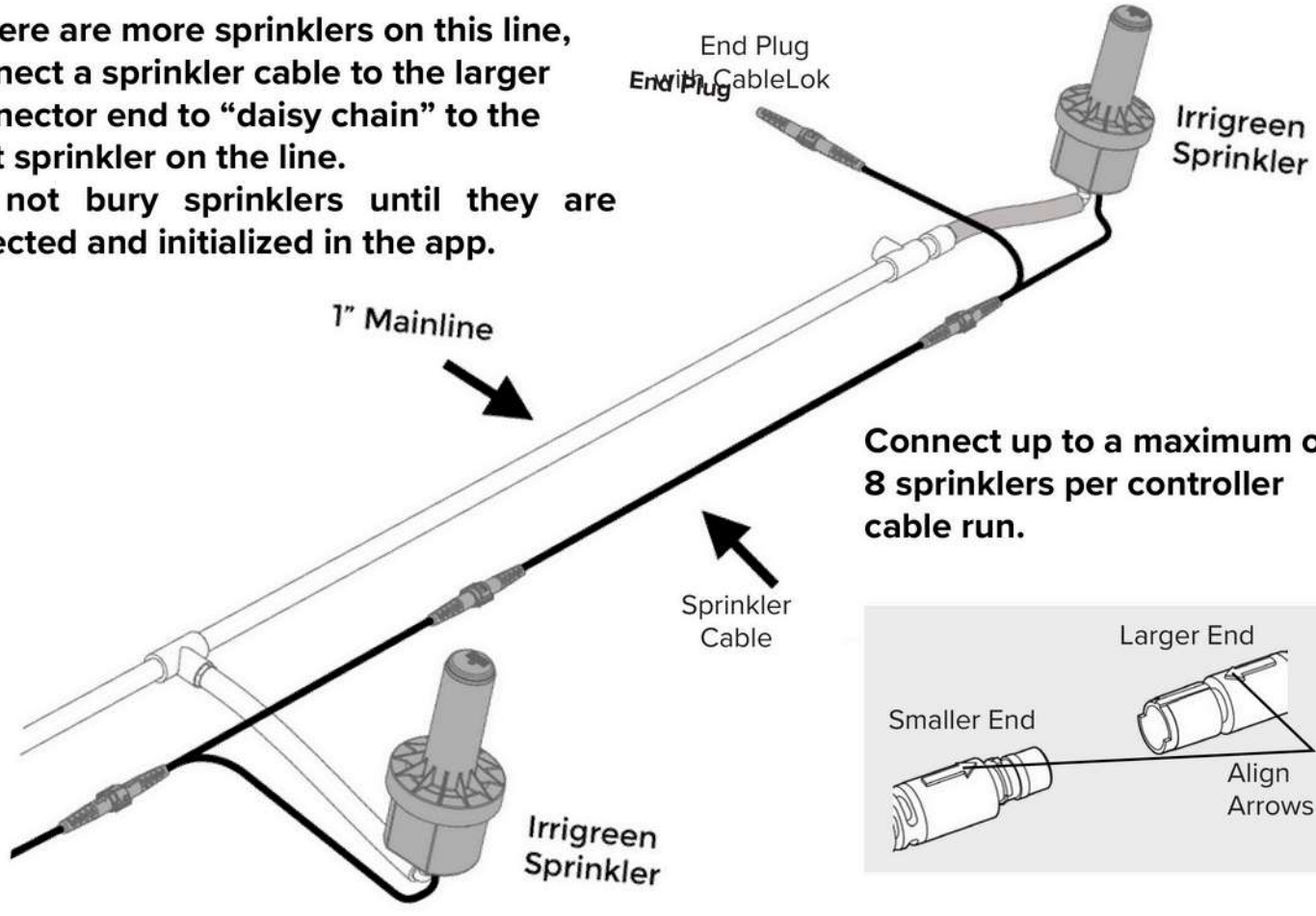
You can bury the top so it isn't seen.

Step 10: Connect Irrigreen Cables to Head

Connect the controller cable to a sprinkler. If this is the last sprinkler on the line, put an end plug on the open connector to keep the connector dry.



If there are more sprinklers on this line, connect a sprinkler cable to the larger connector end to "daisy chain" to the next sprinkler on the line.
Do not bury sprinklers until they are detected and initialized in the app.

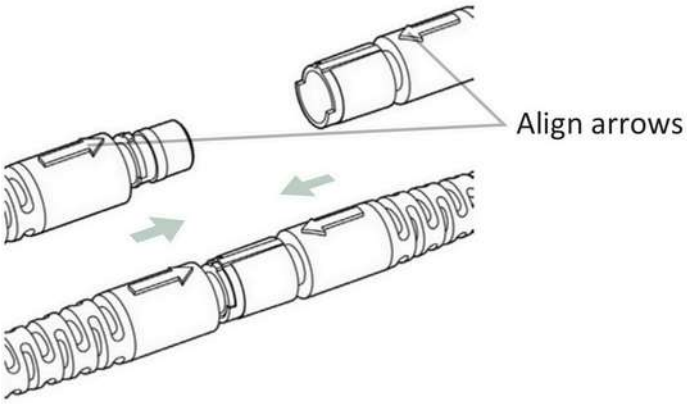


Connect up to a maximum of 8 sprinklers per controller cable run.

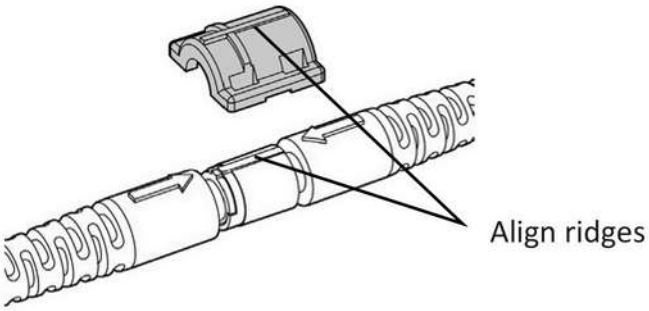
Step 11: Use CableLok Over Connectors

CableLoks help prevent any leakage or corroding. Use CableLok over all connectors.

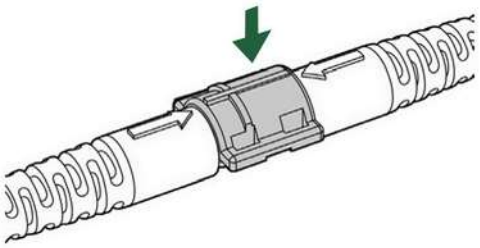
1. Align arrows on connectors. Push connectors together until they bottom out.



2. Place CableLok Top over connectors and align ridge with corresponding ridge on connector.



3. Snap CableLok Top down into place.



4. Align and Snap CableLok Bottom into place.