

Nelson 2-Wire System

Description

The Nelson by Acclima irrigation system uses two 14-gauge (or heavier) underground sprinkler wires to connect all system devices to the controller. Two 14-gauge wires, one red and one white, are connected to the controller and run underground to and through each valve box. The two-wire network provides power and 2-way communications to each and every device on the network. Each device or valve is identified and controlled by a unique serial number.

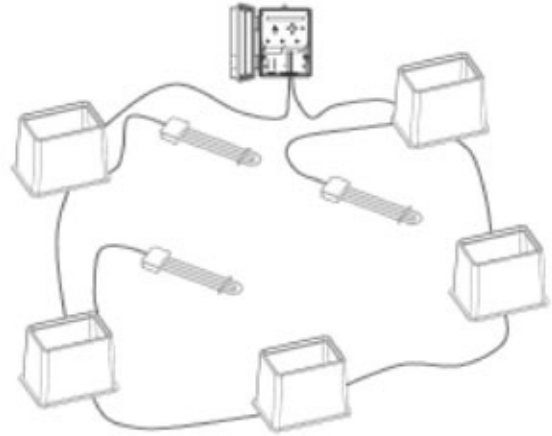
Application

The 2-wire network is a replacement solution to typical irrigation system wiring which requires a separate individual wire from the controller to each valve.

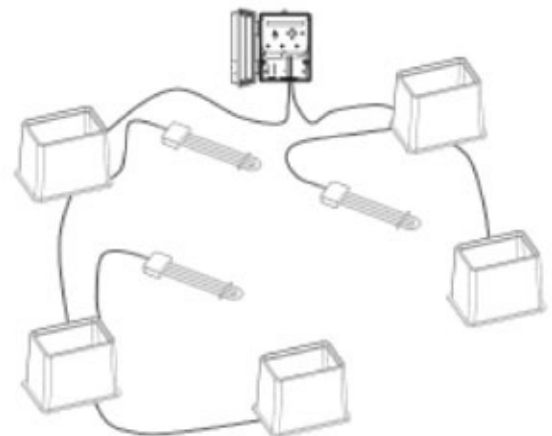
2-Wire System Benefits

- A minimum 50% savings in copper wire.
- Simple wiring installation - Simply connect red to red and white to white on all system devices
- Low cost, easy landscape changes and upgrades. A new zone can be added by simply tapping into the water line and 2-wire system at the nearest valve box. No new wires need to be laid back to the controller.
- Can solve old wiring problems without digging new wire trenches back to the controller.
- Any needed number of branches can run from the controller to the outside devices.
- Branches from outlying valve boxes to other valve boxes are permitted (multiple star connections).

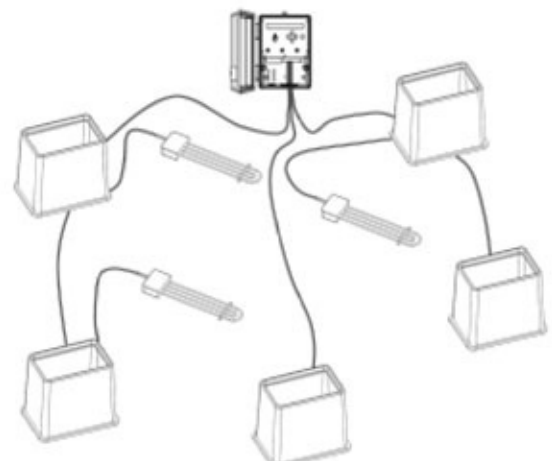
Two-Wire Configuration Options



Looped Approach



2 Branch From Controller



Specification

Material

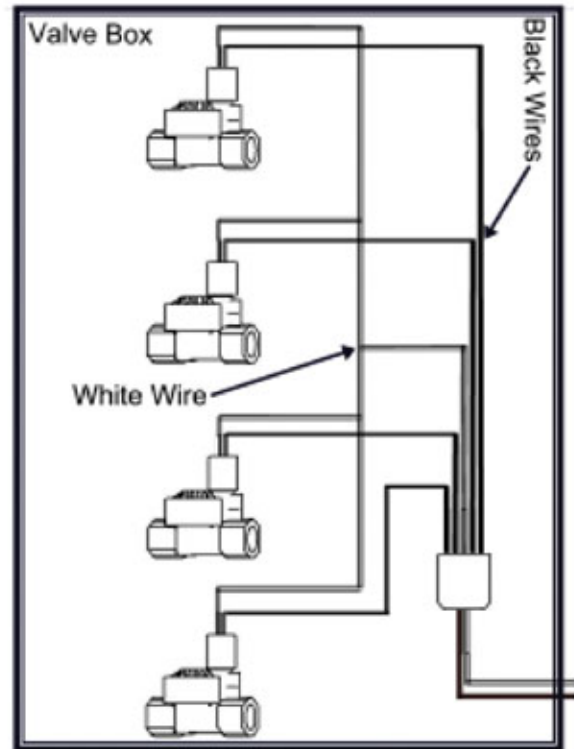
14-gauge (or heavier) high density polyethylene insulated underground sprinkler wire.

Connectors

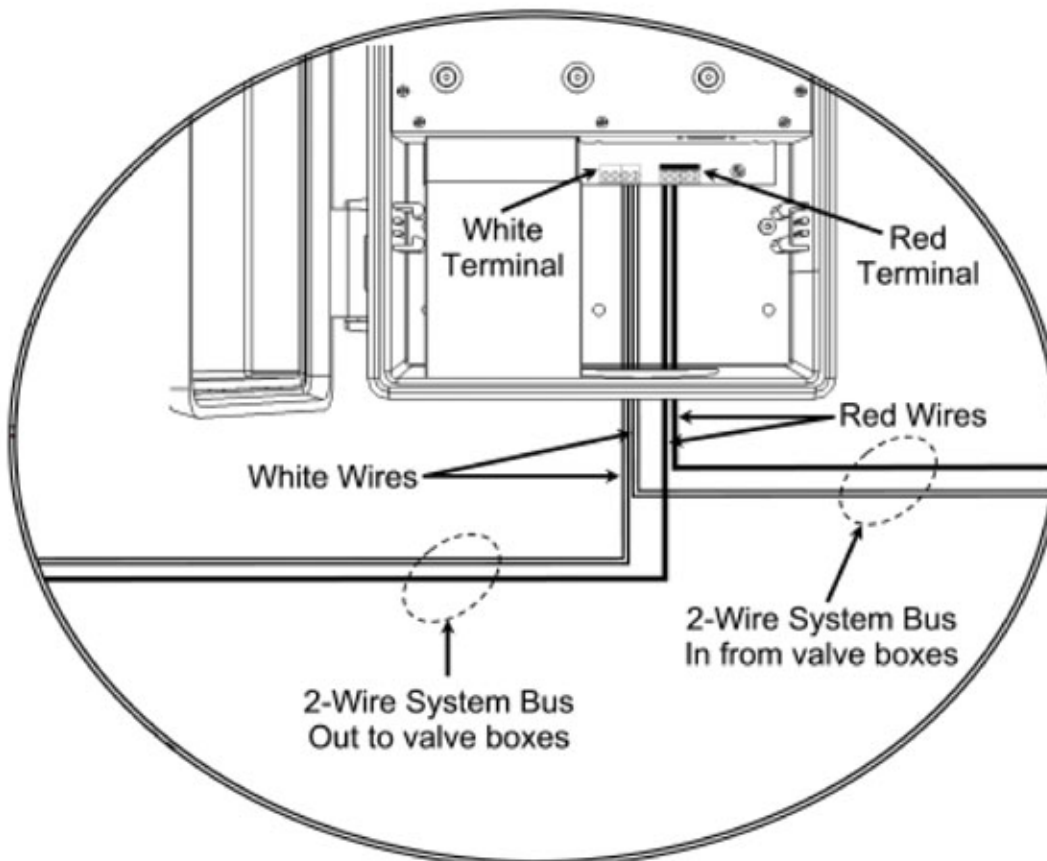
Direct burial rated wire-nuts and enclosures (i.e. 3M DB series) must be used for all underground or valve box connections to the two-wire network.

Constraints

1. The total length of all paired wire from one controller should not exceed 2 miles.
2. The furthest device from the controller should not exceed 4,000 feet.



Valve Wire Connection



Controller 2-Wire System Connection