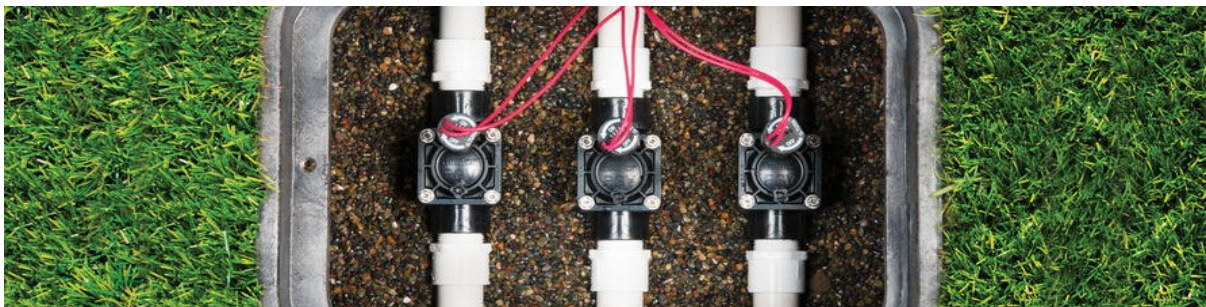


# STEP-BY-STEP WIRING SOLENOIDS

# DURAL IRRIGATION

- (1) Position each valve conveniently between the main water supply and the zone of sprinklers it will control. Some lawn layouts call for valves to be spread out individually or in small groups. Others are more suited to a grouped or manifold approach. House valves in containment boxes to make repair and maintenance more convenient.
- (2) Orient the valve in the correct direction. All valves are marked showing the direction of flow. The arrow should point toward the sprinklers.
- (3) Connect the valve to the upstream water supply line and the line going from the valve out to the sprinkler locations. The actual method of connecting the valve to the pipe network will depend on what type of pipe you're using. Most irrigation systems are built with either flexible water pipe, which comes in a roll, or rigid PVC pipe. Flexible pipe connections usually involve sliding the pipe over a fitting and securing it with hose clamps. PVC installations use primer and glue.
- (4) Connect the wires on the valve solenoid to one color-coded wire and a common wire which runs from the valve to the controller. Use waterproof joiners. If this is a spot where you are installing two or more valves, use multiple line cables to connect to the controller. The cable needs one wire for each valve, plus one more wire to act as the common. For example, if you have three valves in one valve box, you will need four line cables running from the box to the controller. Most installers use the black wire as the common, and then the coloured wires will connect each of the three valves to the controller.
- (5) Connect the wires at the controller end. The colour-coded wire connects to a numbered zone connector, and the common wire connects to the common connector.
- (6) Test the valves manually after the zone pipe network is complete and the sprinklers are installed. Turn any upstream valves on, then manually activate the valve according to the manufacturer's instructions. This normally involves turning the solenoid a quarter turn or opening a bleeder valve. If the valve does not leak and operates as expected, close the valve and proceed.



- (7) Test the automatic operation of the valve. Activate the zone number corresponding to the newly installed valve according to the instructions for your controller. The valve should open and water should flow to the sprinklers.