



How To Wire A DV or Irritrol Valve

Automated irrigation systems use diaphragm valves that open and close based on signals from a controller or "clock." Rain Bird controllers send 24 volts via buried cable to the valves. When power is applied, the valve opens. It remains open as long as power is present. When the programmed length of time elapses, the controller stops sending power and the valve closes. The valves use a simple two-wire connection.

STEP 1 Route a direct burial cable from the valve location to the controller location. If the valve is grouped with several other valves in one location, the cable needs to have one wire for each valve, plus one more. For example, a valve box with four valves requires a five-wire cable between the valve box and the controller.

STEP 2 Select one colored wire from the cable and strip 1/2 inch of insulation from the wire.

STEP 3 Strip 1/2 inch of wire from one of the wires on the valve solenoid.

STEP 4

Twist the colored wire and the solenoid wire together and secure them with a water-tight wire connector.

STEP 5 Strip 1/2 inch of insulation from the white wire in the cable and from the other wire on the solenoid valve. Twist them together and secure with a water-tight wire connector. Note that there is no distinction between the two wires on the solenoid. It doesn't matter which is connected to the common (white) wire and which is connected to the station (colored) wire.

STEP 6

Strip 1/2 inch of insulation from both the colored wire and the white wire at the controller location.

STEP 7 Connect the common wire to the common terminal in the controller. If you are connecting a Rain Bird controller, the "flip strip" connector needs no tools to make this connection. Raise the flip strip lever, insert the wire into the hole below the lever and press the lever down. Other controllers will require a screwdriver to secure the wire to the terminal.

STEP 8 Connect the colored wire to a station terminal. The stations in your system will operate sequentially. For the valve you're wiring, decide where you want it in the station sequence and use the proper terminal for that station. For example, if this should be the third valve to open in a watering sequence, connect the colored wire to the #3 station terminal.

STEP 9 Test the operation of the valve. Consult the instruction manual for your controller for the proper way to manually start a station. Follow the specified procedure and check that the valve is opening and closing properly.

