DOUBLER®

INSTRUCTIONS FOR INSTALLING *DOUBLER* - SERIAL #'s ABOVE 50,000
COMPATIBLE WITH ALL <u>24VAC</u> CONTROLLERS

CONTROLLER

1 2 3 4 5 6 7 8   C
⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗   ⊗

INSTALLATION: IN THE VALVE BOX
1. Connect WHITE wire and one wire from each
     solenoid to COMMON.
2. Connect STATION/HOT wire to BLACK wire.
     NOTE: Disconnect station/hot from any valves, if applicable.
3. Connect one RED wire to each valve SOLENOID.
          Be sure to WATERPROOF all wire connections!

1 White
2 Black
3 Red   Red   **3**
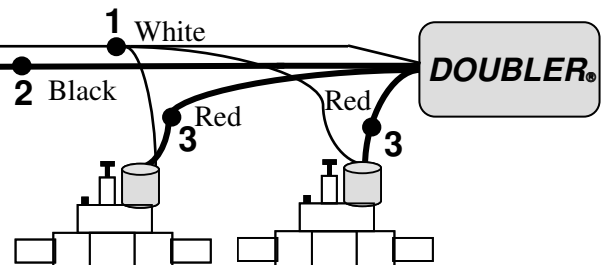
DOUBLER®
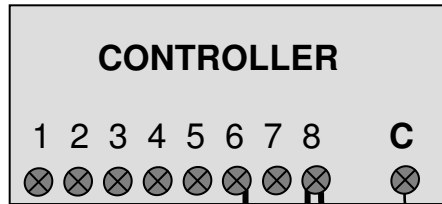
Specifications
Input: 24VAC, 60Hz   Nom. Power: 33ma
Output: 24VAC Up to 8 Amp   Switch time: 7ms
1 year full replacement warranty against defects

INSTALLATION: AT THE CONTROLLER
Run a jumper wire between the station the field wire is connected to and an open station of your choice.
When two stations are connected (as shown above) the two valves turn on in sequence with the two stations, using the same wire to the *DOUBLER*. **On solid state controllers these stations should not be in sequence.**
<p align="center">**-OR-**</p>
If only one station is used to operate *DOUBLER* you may use another program or start time to operate the second valve. **Each time the DOUBLER receives power it switches to the opposite valve.** Test by turning on each station. If the valves are reversed, turn the master switch off and on while one valve is operating.

Congratulations, you have now installed your *DOUBLER*! Please set watering times on each station.

DUAL PROGRAMMING (If the two *DOUBLER* valves are to water on different days)
You will need two stations and two programs. Install *DOUBLER* as described above. On program "A" set the watering time for one valve on the station you choose and set a minimum time on the second station. On program "B" set the watering time for the second valve on the second station and a minimum time on the first station. These minimum times are to keep the valves in sequence.

   Example: (*see illustration above*)
   Station 6 is to water daily on program "A", also set a minimum time on program "A" for station 8.
   Station 8 is to water weekly on program "B", also set a minimum time on program "B" for station 6.

> **After testing or servicing sprinkler systems, turn the <u>last</u> DOUBLER station on and off until the correct valve is watering. The controller will then activate the valves in the order you chose.**

IMPORTANT!!

**AFFIX THIS DECAL IN, ON OR NEAR
CONTROLLER & FILL IN THE STATION
NUMBER(S) YOUR *DOUBLER* IS USING.
THIS DECAL WILL PROVIDE FUTURE
REFERENCE FOR USE IN PROGRAMMING
& MAINTENANCE OF THIS SYSTEM.**

FOR 3 OR 4 VALVES ON ONE WIRE*
## (*NOW FOR 3 OR 4 VALVES TRY *DOUBLER*®)

INSTALLATION: IN THE VALVE BOX

1. Connect the **white** wires from the *DOUBLER* and one wire from each solenoid to common.
2. Connect **black** wire of one *DOUBLER* to station wire from controller. This will be *DOUBLER* **A**.
3. Connect **red** wires of *DOUBLER* **A** to **black** wires of *DOUBLER*'s **B** & **C**, as shown.
• Leave red wires of *DOUBLER*'s B & C disconnected until controller is wired. **See the following**:

A

← To controller **2** Black

Black **3** Red   Red **3** Black

B   White   C

Red   -Red-   Red

Common **1**
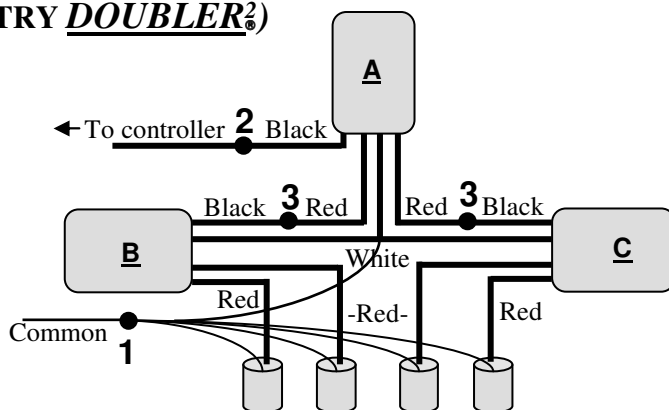
INSTALLATION: AT THE CONTROLLER

Install jumper wires in the controller for the operation of the new *DOUBLER*'s. NOTE: On solid state controllers, stations should not be in sequence; *i.e.* connect to stations 6 & 8, rather than 6 & 7 or 7 & 8.

CONTROLLER

1 2 3 4 5 6 7 8   C
⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗   ⊗
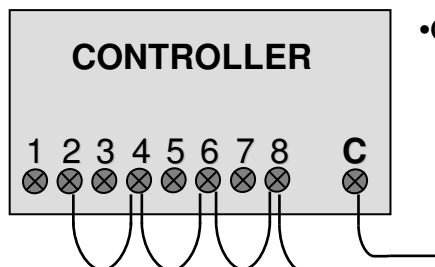
•Connect the jumper wire to 4 stations and use 1 program.

← OR →

•Connect the jumper wire to 2 stations and use 2 programs.

CONTROLLER

1 2 3 4 5 6 7 8   C
⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗   ⊗
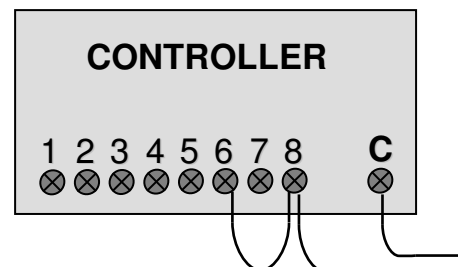
The *DOUBLER* wire must be powered 4 times to keep the valves in sequence with the stations, <u>even if there are only 3 valves to be operated.</u> Each time power is sent to the *DOUBLER* it will switch to its opposite red wire.

NEXT CONNECT THE VALVES TO THE DOUBLERS

• Turn on the controller and set it to the first *DOUBLER* station. (On the left controller above that would be station 2, on the right controller station 6).
• At the valves, find which red wire is **HOT** and connect it to the valve you choose for that station.
• Advance controller to the next *DOUBLER* station and connect the **HOT** red wire to the correct valve.
• Repeat the process for valve 3. The last red wire connects to the remaining valve solenoid.
  If there are only 3 valves, waterproof the last red *DOUBLER* wire and ignore it.

Congratulations, you have now installed your *DOUBLER's*! Please set watering times on each station.

TO TEST: If necessary, you may perform an operational test on *DOUBLER* to ensure it is functioning properly. To test this unit:
1. Apply 24VAC to the black and white wires of the *DOUBLER*.
2. With a meter, find the hot output by measuring between the white wire and each of the red output wires. You should read 24VAC out.
3. Switch the power to the *DOUBLER* off and back on once and test between the white wire and the other red output wire.
4. Repeat step 3 until you have cycled through the units outputs a few times to ensure it is working correctly.

IMPORTANT: After testing or servicing sprinkler systems, turn the <u>last</u> DOUBLER station on and off until the correct valve is watering. The controller will then activate all valves in the order you chose.

ONE YEAR LIMITED WARRANTY