



**WR-VGS**  
***Valve Group Switch***  
Installation Guide

**Irrisoft**<sup>TM</sup>  
A CAMPBELL SCIENTIFIC COMPANY

Light will turn red and interrupt the watering on Valve Group A (Programs assigned to Valve Group A).

Main Menu ► Irrigation Status ► A and B Moisture Level  
► Current Level

4. Manually run each Program with your sprinkler controller and visually check that Valve Group A Programs do **not** operate and Valve Group B Programs still come on.
5. Reverse the Moisture Level settings for A and B, so that the Valve Group B Indicator Light is red and that the Valve Group A Indicator Light is green. Then repeat step 4 to verify that Valve Group B Programs do **not** come on, while Valve Group A Programs operate.
6. Set both Moisture Levels back to the desired level, a setting of zero will allow the next watering cycle to occur.

### Manual Watering

To manually water your landscape, use the ET Manager's Override feature. Press the 'Override' button on the top right hand side of the ET Manager and then use the controller to activate the desired station(s).

### ***Step 4: Valve Control Test***

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Follow these steps to verify your ET Manager interrupts watering on each Valve Group, A and B:

**Note:** To complete the Valve Control Test, the Automatic Window or Daily Window must be closed. If a status message appears on the Home screen with either “Automatic Window Open” or “Daily Window Open” temporarily close the Automatic or Daily Window by changing the Water Window settings outside the current time displayed on the Home screen.

Main Menu ► Settings ► Irrigation Control ► Water Window

1. On initial startup the ET Manager Valve Group A and B Indicator Lights are green, indicating watering is not interrupted. If the lights are red, adjust the Current Moisture Level for A and B below zero.

Main Menu ► Irrigation Status ► A and B Moisture Level ► Current Level

2. Manually run each Program with your sprinkler controller and visually check that all stations operate. Keep in mind that there will be a typical one minute wait time between program start and when the valves come on while the Trigger Station runs and changes the Valve Group Switch to the correct ET Manager Valve Group.

**Note:** If you choose to test the Valve Group Switch by manually starting individual stations, be sure to use the Trigger Station to set the switch to the appropriate Valve Group.

3. Adjust the Current Moisture Level for Valve Group A above zero. The ET Manager Valve Group A Indicator



## **WR-VGS**

# ***Valve Group Switch***

### **Installation Guide**

## **Support**

Visit our website at: [www.irrisoft.net](http://www.irrisoft.net)  
For technical support contact: 1-435-755-0400  
For product information contact: 1-435-755-0400



Station for one minute. If the ET Manager Valve Group B is managed by a Master Valve, then the Master Valve is turned on with the first station in each program (see Figure 7).

Sprinkler Controller Programming Worksheet						
		Program A	Program B	Program C	Program D	
ET Manager Settings	Available Watering Days	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	
		Odd or Even	Odd or Even	Odd or Even	Odd or Even	
Irrigation Amount A: 0.5	Start Times					
Landscape Adjustment A: 100%	1	1:00 am	3:00 am	3:15 am	10:00 pm	
Irrigation Amount B: 0.75	2	4:30 am	3:30 am	4:00 am	11:00 pm	
Landscape Adjustment B: 75%	3		4:15 am	6:45 am		
Automatic Window: 1:00 – 7:00 am	4		6:30 am			
Daily Window: 10:00 – 11:00 pm	5					
	6					
Stations						
	Location	Sprinkler Type	Program	Valve Group	Run Time	Master Valve
1	Group A Trigger	none	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	1	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
2	West Shrubs	Rotor	<input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input checked="" type="checkbox"/> B	20	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF
3	West Lawn	Spray	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	10	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
4	East Shrubs	Rotor	<input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input checked="" type="checkbox"/> B	20	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
5	East Hill Lawn	Spray	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	5	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
6	North Lawn	Spray	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	10	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
7	North Shrubs	Spray	<input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input checked="" type="checkbox"/> B	10	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
8	Flower Beds	Spray	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B	4	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF

Figure 7. Sample Sprinkler Controller Programming Worksheet Advanced Programming

the Trigger Station first for one minute to set the Valve Group Switch before valves come on. Programs associated with the Master Valve will activate the Trigger Station and valve at the same time.

## Advanced Programming

### Daily Window

The ET Manager has a feature known as the Daily Window (see ET Manager Installation and Operation Manual Chapter 3 under Water Window). The Daily Window is a user determined period of time during each day in which the user may run the sprinkler system without ET based control. Perhaps you have a certain area that needs to be watered every day, regardless of weather conditions, the Daily Window could be used to satisfy that need.

Using the Daily Window with the Valve Group Switch is very simple. When the Daily Window opens, the ET Manager's A and B lights both turn green. Since the Valve Group Switch is always set to one or the other it is unnecessary to worry about triggering the Valve Group Switch since both lights turn green, enabling the common for both ET Manager Valve Groups. Simply run the stations you need and do not worry about the Group A or B Trigger Stations (see Figure 7).

### Multiple Programs for a single Valve Group

To use multiple programs with a single ET Manager Valve Group, just make sure that the Trigger Station is included with each program intended for use with the Valve Group.

For example, if Programs A and B are used to water all stations in ET Manager Valve Group A, they must both begin by running the Group A Trigger Station for one minute. If Programs C and D are used to water all stations in ET Manager Valve Group B, then these programs must begin by running the Group B Trigger

<b>1. INTRODUCTION.....</b>	<b>1</b>
OVERVIEW.....	1
HOW IT WORKS .....	1
LIMITATIONS .....	3
COMPONENTS .....	4
<b>2. INSTALLATION.....</b>	<b>5</b>
STEP 1: MOUNTING.....	5
STEP 2: WIRING .....	6
<b>Option 1 – Two Unused Stations .....</b>	<b>8</b>
<b>Option 2 – Programmable Master Valve and One Unused Station .....</b>	<b>10</b>
STEP 3: PROGRAMMING .....	13
<b>Option 1 – Two Unused Stations .....</b>	<b>14</b>
<b>Option 2 – Programmable Master Valve and One Unused Station .....</b>	<b>16</b>
<b>Advanced Programming .....</b>	<b>18</b>
STEP 4: VALVE CONTROL TEST .....	20
<b>Manual Watering .....</b>	<b>21</b>

each program that is part of its' Valve Group. Then use the programmable Master Valve feature in your sprinkler controller to set the Master Valve to only come ON with the appropriate station(s), all other stations must be set to OFF.

For example, the Master Valve is used with ET Manager Valve Group B and stations 6 through 8 are stations associated with ET Manager Valve Group B and are assigned to Program B, turn the Master Valve on with station 6 (see Figure 6).

Sprinkler Controller Programming Worksheet						
		Program A	Program B	Program C	Program D	
ET Manager Settings	Available Watering Days	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	
		Odd or Even	Odd or Even	Odd or Even	Odd or Even	
Irrigation Amount A: 0.5	Start Times					
Landscape Adjustment A: 100%	1	12:00 am	2:30 am			
Irrigation Amount B: 0.75	2	4:00 am	3:30 am			
Landscape Adjustment B: 75%	3		6:15 am			
Automatic Window: 12:00 am – 8:00 am	4		7:15 am			
	5					
Daily Window: (none)	6					
Stations						
	Location	Sprinkler Type	Program	Valve Group	Run Time	Master Valve
1	Group A Start	none	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	1	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
2	West Lawn	Rotor	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	48	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
3	Park Strip	Spray	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	10	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
4	South Lawn	Rotor	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	48	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
5	North Lawn	Spray	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	10	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
6	East Hill Shrubs	Spray	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input checked="" type="checkbox"/> B	6	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF
7	North Shrubs	Spray	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input checked="" type="checkbox"/> B	3	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF
8	South Shrubs	Spray	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input checked="" type="checkbox"/> B	4	<input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF

Figure 6. Sample Sprinkler Controller Programming Worksheet – Option 2

\*\* NOTE - Keep in mind as you run your programs that those programs associated with the unused station will run

### Option 2 – Programmable Master Valve and One Unused Station

Begin by determining which stations you intend to use with ET Manager Valve Groups A and B. (see Sprinkler Controller Programming Worksheet on page 12).

#### General

- Stations in ET Manager Valve Group A (including the Trigger Station) must be assigned to separate programs from those in ET Manager Valve Group B.
- Programs MUST NOT overlap, if the controller has the option to “stack” or “overlap” programs, the option must be set to “stack.” Start times must be set to avoid overlapping cycles.
- All stations assigned to a program must complete their cycle before another program starts.
- Multiple start times can alternate between programs.
- Station run-times are programmed as needed to satisfy the plant’s water requirement.

#### Trigger Station

To program the Trigger Station (station 1), determine which ET Manager Valve Group this station is associated with. Then program this station to run during each program that is part of its’ Valve Group.

For example, the Trigger Station (station 1) is used with ET Manager Valve Group A and stations 2 through 5 are stations to be used with ET Manager Valve Group A and assigned to Program A, begin Program A by running station 1 for one minute (see Figure 6)

#### Master Valve

To program the Master Valve, first determine which ET Manager Valve Group the Master Valve will be associated with. Next, determine the first station for

# 1. Introduction

## Overview

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The Rain Bird® ET Manager is capable of managing two Valve Groups, A and B, giving the user the ability to manage water for two different plant types (for example, turf and shrubs). Typically each ET Manager Valve Group requires a separate field common wire. The Valve Group Switch provides control of two ET Manager Valve Groups with only ONE field common.

## How it Works

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The Valve Group Switch alternates the field common between ET Manager Valve Groups A and B. The Valve Group Switch is controlled by the sprinkler controller. When a cycle in the controller begins, the first station in the controller program triggers the Valve Group Switch to connect the field common to the related ET Manager Valve Group, A or B. The stations that trigger or control the Valve Group Switch are referred to as Trigger Stations. Trigger Stations can be either; two unused stations or an unused programmable Master Valve and one unused station.

The ET Manager determines if watering is needed and either enables or interrupts the Valve Group A or B common. When the controller starts a watering cycle the Trigger Station is the first to activate and sets the Valve Group Switch to the corresponding ET Manager Valve Group. If the ET Manager’s Valve Group light is green, indicating watering is needed, the valves will come on. If the ET Manager’s Valve Group light is red, indicating watering is not yet needed, the valves will not come on (see Figure 1 on page 2).

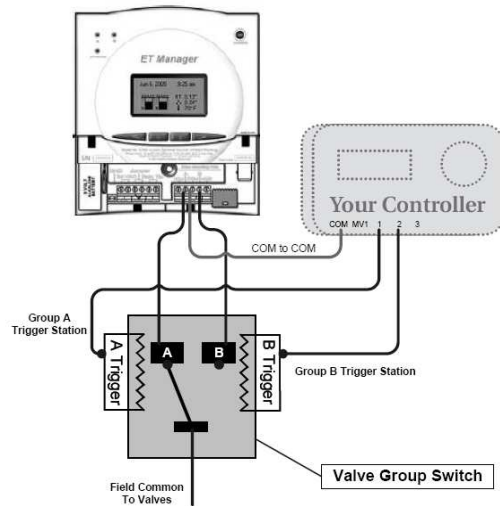


Figure 1. Valve Group Switch Illustration

For example:

- Station 1 is the Trigger Station for ET Manager Valve Group A and is assigned to Program A with a run-time of 1 minute.
- Stations 3, 4 and 5 are in ET Manager Valve Group A and assigned to the controller’s program A.
- Station 2 is the Trigger Station for ET Manager Valve Group B and is assigned to Program B with a run-time of 1 minute.
- Stations 6, 7 and 8 are in ET Manager Valve Group B and assigned to the controller’s program B.

When Program A starts, Station 1 triggers the Valve Group Switch to ET Manager Valve Group A. Once the Valve Group Switch has been triggered it remains set until triggered to the other ET Manager Valve Group. If the ET Manager’s A group light is green, indicating watering is needed, stations 3, 4 and 5 will come on. When Program B starts, Station 2 triggers the Valve Group Switch to ET

Group Switch has been triggered it remains set until triggered to the other ET Manager Valve Group. If the ET Manager’s A group light is green, indicating watering is needed, stations 3, 4 and 5 will come on. When Program B starts Station 2 triggers the Valve Group Switch to ET Manager Valve Group B. If the ET Manager’s B group light is red, indicating watering is not yet needed, stations 6, 7 and 8 will not come on (see sample in Figure 5).

Sprinkler Controller Programming Worksheet						
		Program A	Program B	Program C	Program D	
ET Manager Settings	Available Watering Days	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	
		Odd or Even	Odd or Even	Odd or Even	Odd or Even	
Irrigation Amount A: 0.5	Start Times					
Landscape Adjustment A: 100%	1	12:00 am	2:30 am			
Irrigation Amount B: 0.75	2	4:00 am	3:30 am			
Landscape Adjustment B: 75%	3		6:15 am			
Automatic Window: 12:00 am – 8:00 am	4		7:15 am			
	5					
Daily Window: (none)	6					
Stations						
	Location	Sprinkler Type	Program	Valve Group	Run Time	Master Valve
1	Group A Start	none	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	1	<input type="checkbox"/> ON <input type="checkbox"/> OFF
2	Group B Start	none	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input checked="" type="checkbox"/> B	1	<input type="checkbox"/> ON <input type="checkbox"/> OFF
3	Park Strip	Spray	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	10	<input type="checkbox"/> ON <input type="checkbox"/> OFF
4	South Lawn	Rotor	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	48	<input type="checkbox"/> ON <input type="checkbox"/> OFF
5	North Lawn	Rotor	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input checked="" type="checkbox"/> A <input type="checkbox"/> B	48	<input type="checkbox"/> ON <input type="checkbox"/> OFF
6	East Hill Shrubs	Spray	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input checked="" type="checkbox"/> B	3	<input type="checkbox"/> ON <input type="checkbox"/> OFF
7	North Shrubs	Spray	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input checked="" type="checkbox"/> B	3	<input type="checkbox"/> ON <input type="checkbox"/> OFF
8	South Shrubs	Spray	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input checked="" type="checkbox"/> B	4	<input type="checkbox"/> ON <input type="checkbox"/> OFF

Figure 5. Sample Sprinkler Controller Programming Worksheet - Option 1

\*\* NOTE - Keep in mind as you run your programs that at the beginning of each program the Trigger Station will run for 1 minute to set the Valve Group Switch before valves come on.

### Option 1 – Two Unused Stations

#### General

- Stations in ET Manager Valve Group A (including the Trigger Station) must be assigned to separate programs from those in ET Manager Valve Group B.
- Programs MUST NOT overlap, if the controller has the option to “stack” or “overlap” programs, the option must be set to “stack.” Start times must be set to avoid overlapping cycles.
- All stations assigned to a program must complete their cycle before another program starts.
- Multiple start times can alternate between programs.
- Station run-times are programmed as needed to satisfy the plant’s water requirement.

#### Trigger Stations

To program the Trigger Stations (stations 1 and 2), first determine which ET Manager Valve Group each station is associated with. Then program each Trigger Station to run at the beginning of each program that is part of its’ Valve Group. Each program must first active the corresponding Trigger Station for 1 minute.

For example:

- Station 1 is the Trigger Station for Valve Group A and is assigned to Program A with a run-time of 1 minute.
- Stations 3, 4 and 5 are in Valve Group A and assigned to the controller’s program A.
- Station 2 is the Trigger Station for Valve Group B and is assigned to Program B with a run-time of 1 minute.
- Stations 6, 7 and 8 are in Valve Group B and assigned to the controller’s program B.

When Program A starts, Station 1 triggers the Valve Group Switch to ET Manager Valve Group A. Once the Valve

Manager Valve Group B. If the ET Manager’s B group light is red, indicating watering is not yet needed, stations 6, 7 and 8 will not come on.

### System Requirements

- All valves must be connected to the same common.
- Sprinkler controller must trigger the Valve Group Switch using ONE of the following options:
  1. Two unused stations
  2. An unused programmable Master Valve and one unused station.
- The Trigger Station(s) and Master Valve must not be connected to a valve.
- Sprinkler controllers with multiple programs must be capable of stacking programs so they do not overlap, OR program start times must be set so that cycles do not overlap.
- Must be able to water entire landscape in a single night. (ET Manager Enable A then B method cannot be used.)
- Group A and B Trigger Stations must be the first station to run in their respective programs.
- Systems using a sprinkler controller to activate a pump are NOT compatible with the Valve Group Switch.

### Components

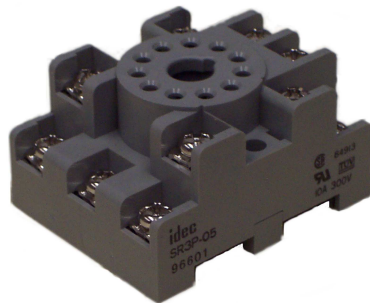
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Included with your Valve Group Switch are this manual and the following:

Valve Group Switch



Mounting Base  
with Terminals



### Step 3: Programming

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With the Valve Group Switch in place you are ready to begin programming. Settings in the sprinkler controller and the ET Manager must work together; care should be taken with each setting.

#### ET Manager

Use the ET Manager Installation and Operation Manual to program your ET Manager. Do NOT set the output method to Enable A then B, only use Enable (see Chapter 3 under Output Method). There are no other special programming requirements to use the ET Manager with the Valve Group Switch.

#### Sprinkler Controller

The first step in programming your sprinkler controller for use with the Valve Group Switch is to determine which stations you intend to use with ET Manager Valve Group A and which are intended for use with ET Manager Valve Group B.

The Sprinkler Controller Programming Worksheet on page 12 can help to make this process smooth and simple.

Next, you may want to label the stations in your controller that are now Trigger Stations. Then identify the wiring option you chose and follow the corresponding programming instructions.

Sprinkler Controller Programming Worksheet						
ET Manager Settings	Available Watering Days	Program A	Program B	Program C	Program D	
		S M T W Th F S	S M T W Th F S	S M T W Th F S	S M T W Th F S	
		Odd or Even	Odd or Even	Odd or Even	Odd or Even	
Irrigation Amount A:	Start Times					
Landscape Adjustment A:	1					
Irrigation Amount B:	2					
Landscape Adjustment B:	3					
Automatic Window:	4					
Daily Window:	5					
	6					
Stations						
	Location	Sprinkler Type	Program	Valve Group	Run Time	Master Valve
1			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
2			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
3			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
4			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
5			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
6			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
7			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
8			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
9			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
10			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
11			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
12			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
13			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
14			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
15			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
16			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
17			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
18			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
19			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
20			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
21			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
22			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
23			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF
24			<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	<input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> ON <input type="checkbox"/> OFF

## 2. Installation

To install the Valve Group Switch, there are 4 simple steps;

\*\* Do not connect the Valve Group Switch to the Mounting Base until mounting and wiring are complete.\*\*

### Step 1: Mounting

Mount the Valve Group Switch Mounting Base in close proximity to the sprinkler controller and the ET Manager. Using user provided mounting screws, secure the base (see Figure 1).

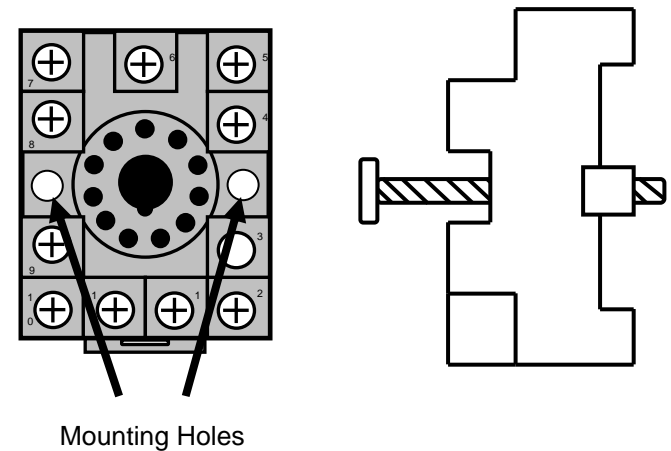


Figure 1. Mounting

\*\* NOTE \*\* The Valve Group Switch is for **INDOOR** use only, for use in outdoor applications the Valve Group Switch must be placed inside an outdoor enclosure.\*\*

**Step 2: Wiring**

**WARNING:** To prevent electrical shock, make sure the power supply is **OFF** before connecting wires to any of the devices. Electrical shock can cause severe injury or death.

See your ET Manager Installation and Operation Manual for proper mounting, wiring and power supply guidelines.

See your Sprinkler Controller user's guide for proper mounting, power supply and station wiring.

**Wire Connection Guidelines**

- Strip approximately ¼" insulation off the ends of wires as needed.
- Use a thin blade screwdriver for all ET Manager wire terminal connections
- Use a phillips screwdriver for all Valve Group Switch terminal connections.
- Use proper wire gauges, 14-18 AWG for terminal connections.
- Use proper wire ties and verify each wire is secure.

\*NOTE – in this diagram Station 1 is the Group A Trigger Station and the Master Valve is the Group B Trigger Station.

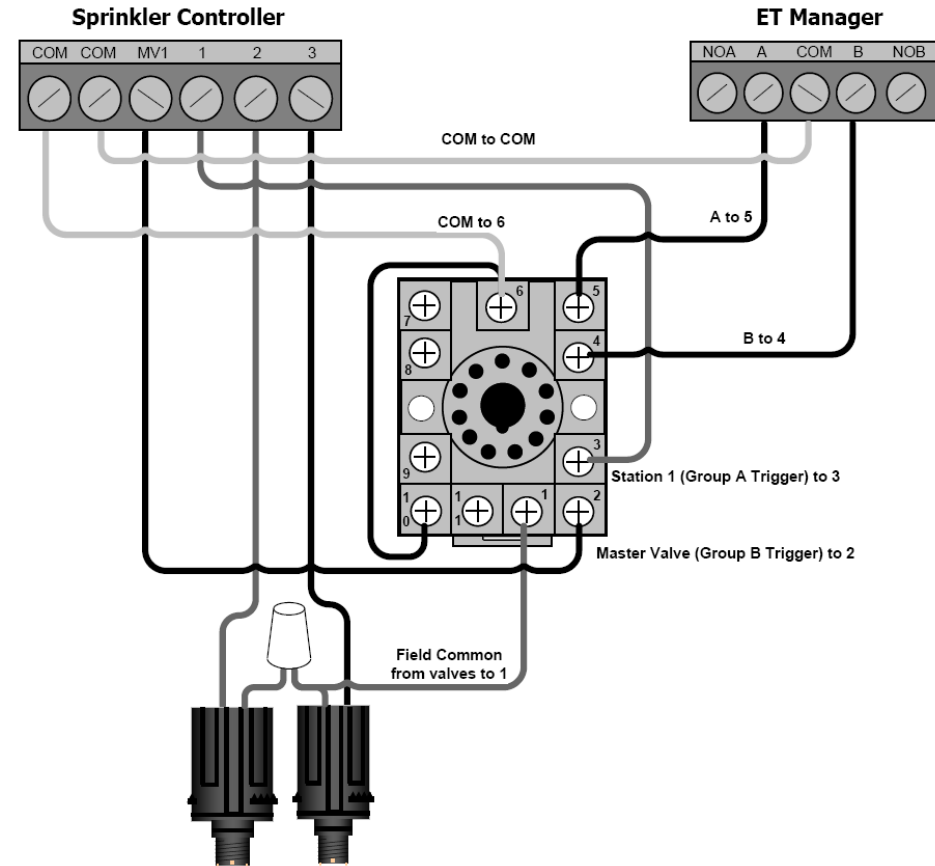


Figure 4. Valve Group Switch Wiring Diagram – Option 2

Double check wiring, follow each wire to verify all wiring is correct. Make sure the jumper is placed on the relay between terminals 10 and 6.

Now attach the Valve Group Switch to the Mounting Base lining up the bump on the switch with the groove on the base.

## Option 2 – Programmable Master Valve and One Unused Station

### Prepare the Sprinkler Controller

If the sprinkler controller has a programmable Master Valve that is not being used, the Master Valve circuit may be used as a Trigger Station. In this case only one unused station is needed. Sprinkler controllers activate stations within a program in sequential order, for this reason station 1 should be assigned as the Trigger Station. For example see Figure 4.

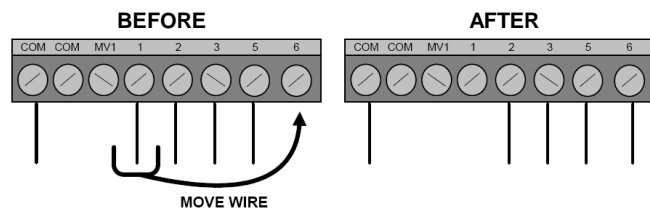


Figure 4. Station Wiring Adjustment

### Wiring

1. Connect field common to Valve Group Switch terminal 1.
2. Place a jumper wire on Valve Group Switch from terminal 10 to terminal 6.
3. Connect sprinkler controller 'COM' to Valve Group Switch terminal 6
4. Connect sprinkler controller 'Group A Trigger Station' terminal (typically station 1) to Valve Group Switch terminal 3.
5. Connect sprinkler controller 'Group B Trigger Station' terminal (typically Master Valve) to Valve Group Switch terminal 2.
6. Connect ET Manager COM terminal to sprinkler controller COM terminal.
7. Connect ET Manager terminal 'A' to Valve Group Switch terminal 5
8. Connect ET Manager terminal 'B' to Valve Group Switch terminal 4.

## Choose Wiring Option

The Valve Group Switch requires a 24 VAC input to set or trigger the switch; one for Valve Group A, another for Valve Group B. There are two wiring options to add the Valve Group Switch to your irrigation system. Each wiring option has its' own set of programming requirements. Please select the appropriate wiring option for your situation and follow the wiring and programming guidelines accordingly.

### Option 1 – Two Unused Stations

If you have two unused stations available, you may use this wiring option to provide the 2 Trigger inputs for the Valve Group Switch. The stations must not be connected to a valve, and the sprinkler controller must not be used to activate a pump. See pages 8-9 for wiring and pages 14-15 for programming.

### Option 2 – Programmable Master Valve and One Unused Station

If you have a programmable Master Valve that is not being used and one unused station, you may use this wiring option to provide the 2 Trigger inputs for the Valve Group Switch. The Master Valve and unused station must not be connected to a valve and the sprinkler controller must not be used to activate a pump. See pages 10-11 for wiring and pages 16-18 for programming.

### Option 1 – Two Unused Stations

#### Prepare the Sprinkler Controller

Sprinkler controllers activate stations within a program in sequential order. The Trigger Stations must be the first stations to run in their respective programs. Rewire stations as needed to meet this requirement. For example, see Figure 2.

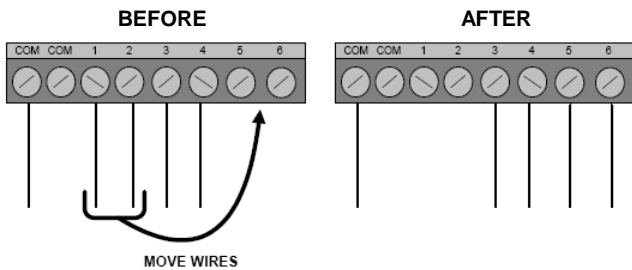


Figure 2. Station Wiring Adjustment

#### Wiring

1. Connect field common to Valve Group Switch terminal 1.
2. Place a jumper wire on Valve Group Switch from terminal 10 to terminal 6.
3. Connect sprinkler controller 'COM' to Valve Group Switch terminal 6
4. Connect sprinkler controller 'Group A Trigger Station' terminal (typically station 1) to Valve Group Switch terminal 3.
5. Connect sprinkler controller 'Group B Trigger Station' terminal (typically station 2) to Valve Group Switch terminal 2.
6. Connect ET Manager COM terminal to sprinkler controller COM terminal.
7. Connect ET Manager terminal 'A' to Valve Group Switch terminal 5
8. Connect ET Manager terminal 'B' to Valve Group Switch terminal 4.

\* NOTE – in this diagram Station 1 is the Group A Trigger Station and Station 2 is the Group B Trigger Station.

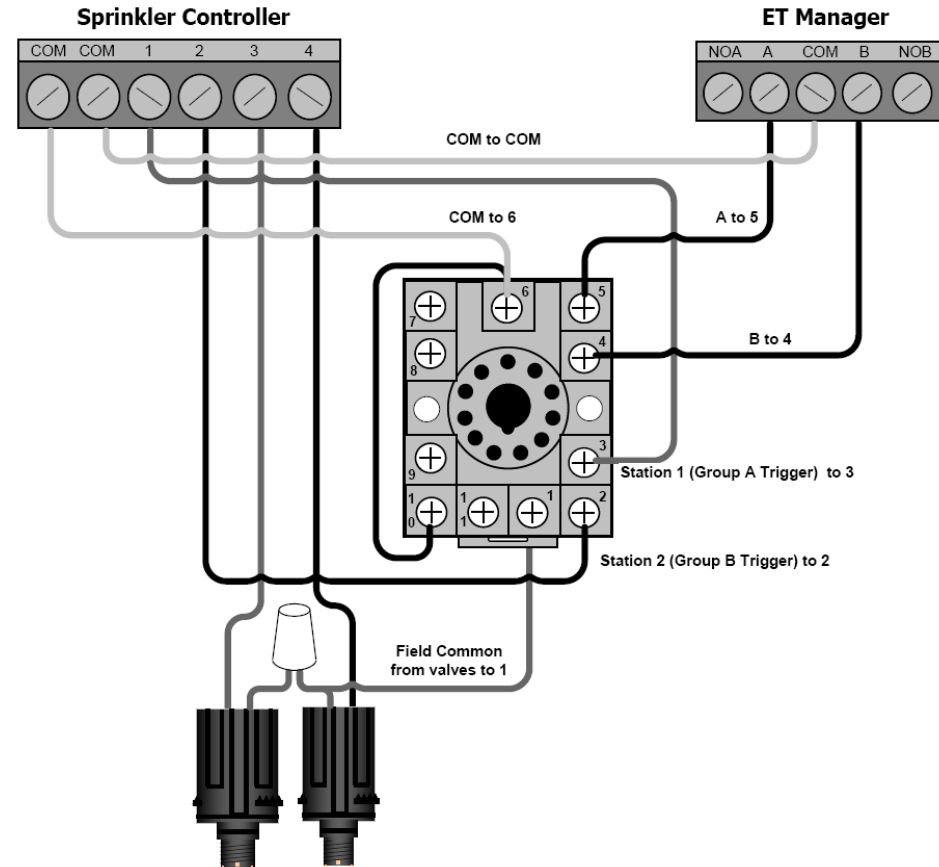


Figure 3. Valve Group Switch Wiring Diagram – Option 1

Double check wiring, follow each wire to verify all wiring is correct. Make sure the jumper is placed on the relay between terminals 10 and 6.

Now attach the Valve Group Switch to the Mounting Base lining up the bump on the switch with the groove on the base.