

## **FlowMark Model Mark-II-CT Installation Operation Manual**

EPA Est.#: 92852-FL-1

### **Record Information About Your System**

**Date Purchased:** \_\_\_\_\_

**Date Installed:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Local Representative:** \_\_\_\_\_

**For assistance please call your local representative or call (386)453-5091**

## Check Contents:

Please inspect the package for the following contents and any damage that may have occurred during shipping.

1. FlowMark Controller x 1
2. Treatment Pads x 2
3. Cable Tie Wraps x 6
4. PVC Pipe Cover x 1
5. Weather Stripping x 2
6. Installation Manual x 1
7. Warranty Card x 1



## Power Requirement

All FlowMark Systems are fitted with a auto-switching power supply that can accept 110VAC or 220 VAC power input. Systems are supplied with a molded 110 VAC Power Cord that can be plugged in to any 110 VAC wall outlet. If you choose to run the unit on 220 VAC simply cut the male plug off the power cord and wire the three wires accordingly:

White: Neutral

Black: Hot Leg

Green: Ground

## Choosing The Correct Treatment Location

**Re-Circulating Systems:** Install after the circulation pump. Minimum 4 times the pipe diameter after the pump. Example: (3" pipe = minimum 12" after the pump).

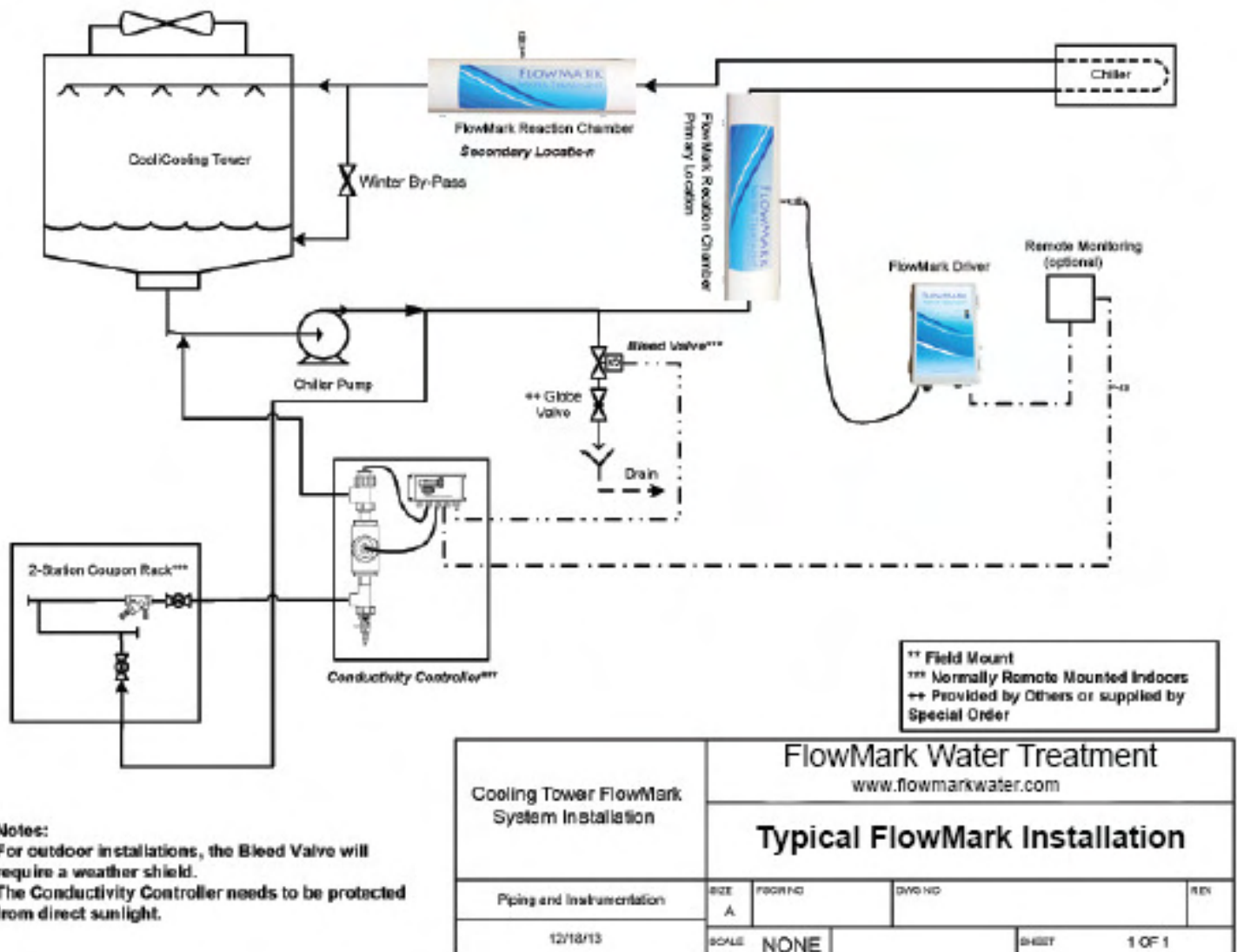
**\*\*\*Note:** It is always better to choose an area of laminar flow when selecting the treatment location. When possible avoid installing at elbows, T's, before pumps, etc.

**\*\*\*Warning:** The FlowMark treatment pads may interfere with magnetic flow-meter operation. Maintain a minimum of 5 feet clearance from magnetic flow-meter pick-up.

## Cooling Tower & Chiller Installation Location

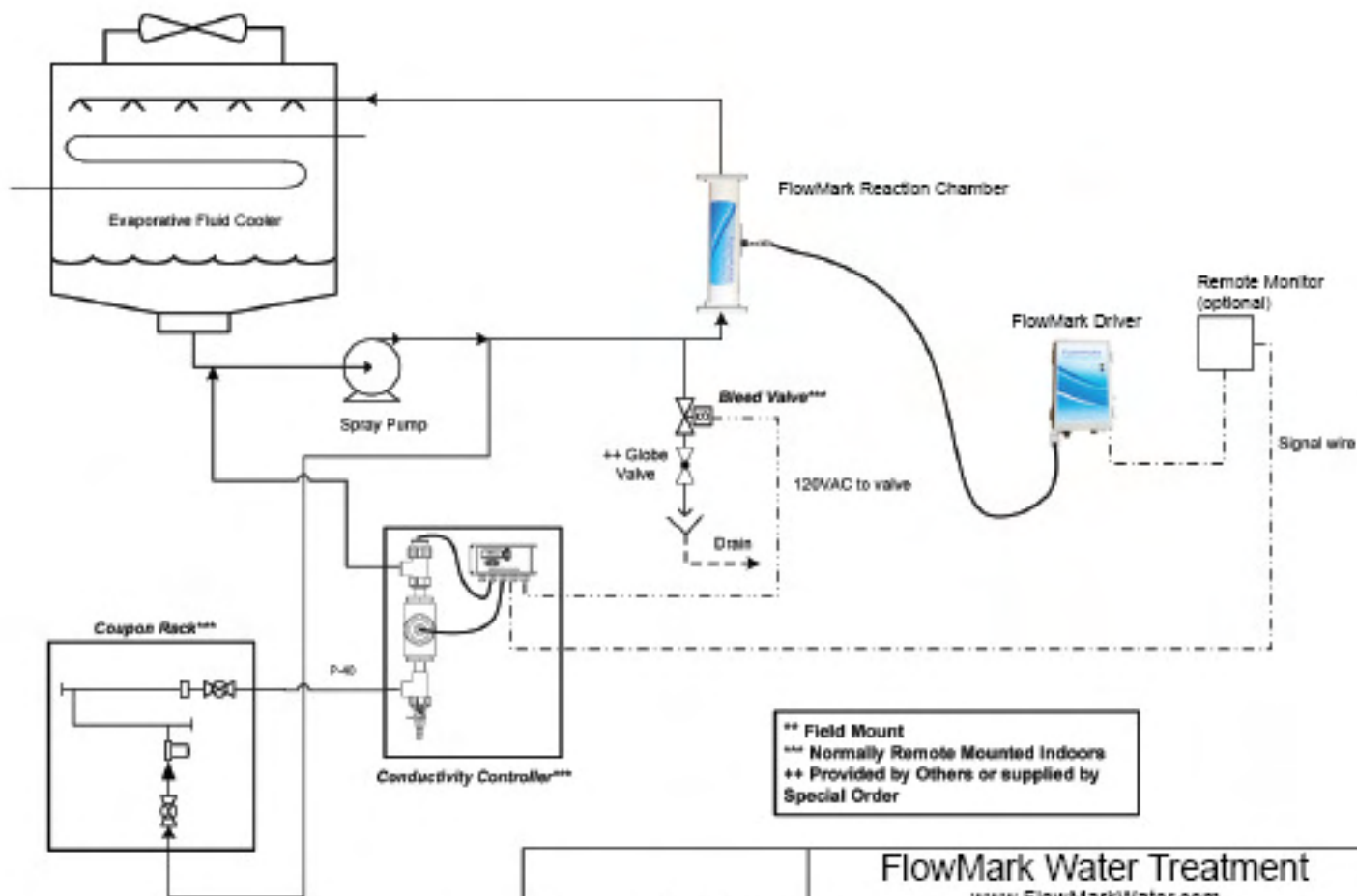
1. **Primary Location:** Install the FlowMark System on the condenser water pipe feeding the chiller, after the pump and before the chiller.
2. **Secondary Location:** If there is no convenient location for the Primary suggestion then install the FlowMark system on the condenser water pipe going to the top of the cooling tower.

**Note:** This FlowMark system is rated Nema-4X so it is water resistant and can be safely installed outdoors but whenever possible it is recommended to install the FlowMark system indoors to reduce the possibility of lightning damage which is not covered by the 3



## Evaporative Condenser Location

Install the FlowMark system on the condenser water pipe feeding the top of the condenser. Allow 4 pipe diameters down stream of the circulation pump.



Notes:  
 For outdoor installations, the Bleed Valve will require a weather shield.  
 The Conductivity Controller needs to be protected from direct sunlight.

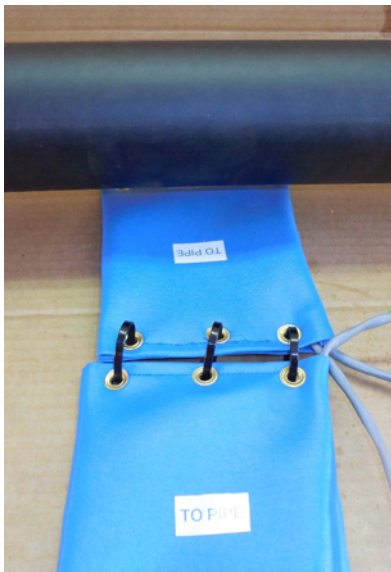
Evaporative Condenser or Fluid Cooler	FlowMark Water Treatment www.FlowMarkWater.com			
	Typical FlowMark Installation			
Piping and Instrumentation	SIZE A	FORM NO.	DWG NO.	REV A
12/18/2013	SCALE NONE	SHEET		1 OF 1

## Installing Your FlowMark Treatment Pads:

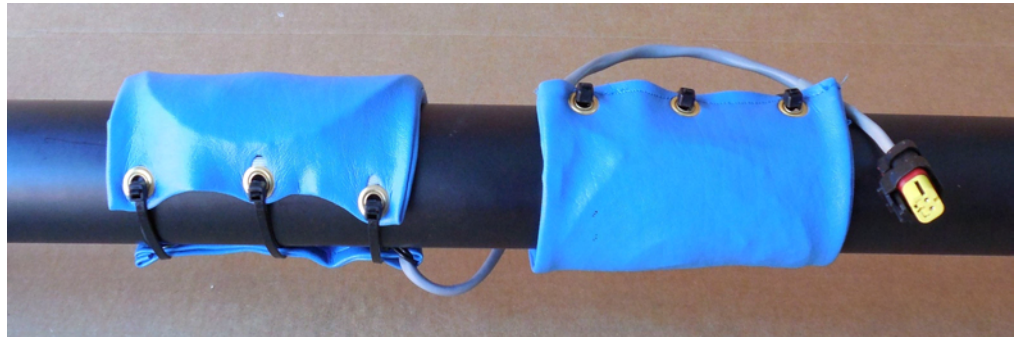
The treatment pads can be installed on horizontal or vertical piping.

Two treatment pads are included with this model FlowMark system.

1. One side of each Treatment Pad is marked "To Pipe". This side should be placed toward the pipe to be treated.
2. The Treatment Pads can be installed opposing each other or offset as seen below.
3. Form the shape of the treatment pad to the pipe shape by squeezing the pad with both hands into the position you have selected
4. Insert cable ties through the grommets at each end of the pad.
5. Gradually tighten the cable ties to hold the treatment pads firmly in place. Do not over tighten the cable ties as the grommets may tear the cover material.



Labels Face Toward Pipe



2" or 3" pipe treatment pad installation



Optional 3" pipe treatment pad installation.

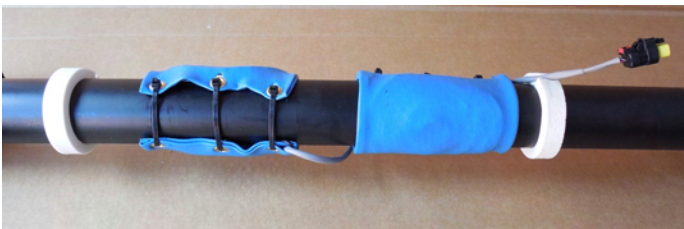


## Installing the Pipe Cover:

The white PVC pipe cover with the FlowMark label is included to provide a finished look to the installation.

1. Hold the pipe cover up to the area where the treatment pads have been installed and mark the pipe where the ends will be.
2. Install one piece of weather stripping around the pipe inside the lines just marked on the pipe.
3. Open the pipe cover and install it over your treatment pad installation with the label facing you.
4. Remove adhesive strip from the pipe cover to seal the installation.

Note: It may be difficult to hold the pipe cover open using two hands due to the strong memory of the product. A second person helping will make it much easier.



Install Weather Stripping Same Length as Pipe Cover



Tighten Pipe Cover for Snug Fit, Remove Tape and then Seal



Finished Reaction Pad and Pipe Cover Install

### Mounting the Control Panel:

Choose a solid wall for mounting the control panel within 10 feet of the treatment pad location.

Use lag bolts or tap cons and secure four mounting brackets to the wall.



### Connecting and Powering the Unit:

Connect the signal cable to the treatment pad installation by inserting the male connectors into the female connectors. Push together until a click is heard to lock the connector.

Be sure to neatly route the signal cable between the Controller and the Treatment Pads to avoid damage.

Plug the FlowMark Controller into a 110 VAC outlet and observe the yellow and blue lights.

YELLOW LIGHT ON= Power to the Controller

BLUE LIGHT ON = Treatment Active.

### Trouble Shooting:

Both Yellow and Blue Lights OFF... Check GFI or Circuit Breaker and reset.

Yellow Light ON and Blue Light OFF... Check signal cable connection or find damage to signal cable and repair.

## Relay Connections for Remote Monitoring

The circuit board is fitted with a relay that can accept wiring to a remote alarm or indicator light. This relay can be wired normally open or normally closed. The signal will coincide with the Blue Treatment Lights. An additional seal-tight must be installed at the bottom of the enclosure to accept remote monitoring wiring. Wire as per the illustration below.

Switching Voltage - 250VAC, 30VDC - Max

Contact Rating (Current) - 5A

