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Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



SECTION: C4.00.121

CL0162

0321

Supersedes

0319

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6000 Series Automatic Multizone Valve
OWNER'S MANUAL

Congratulations on the purchase of the Zoeller Pump Company 6000 Series Automatic Multizone Valve. High quality workmanship and easy maintenance design has been incorporated into this line of onsite wastewater products. This Zoeller Pump Company product will provide years of trouble-free service when installed according to the manufacturers recommendations.

This manual incorporates the installation, operation, maintenance, and service instructions into one document to aid the owner of a Zoeller Pump Company onsite wastewater product. Please read and review this manual before installing the product. The instructions contained herein, when followed correctly, will not only ensure a long and problem-free life for the system, but will also save time and money during installation. Should further assistance be necessary please call 1-800-928-7867.

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Owner's Information

Part Number: \_\_\_\_\_ Date Code: \_\_\_\_\_
Job Name: \_\_\_\_\_
Dealer: \_\_\_\_\_
Date of Purchase: \_\_\_\_\_
Contractor: \_\_\_\_\_
Date of Installation: \_\_\_\_\_
System Readings During Operation:
Voltage \_\_\_\_\_ Amps \_\_\_\_\_

Safety Instructions

TO AVOID SERIOUS OR FATAL PERSONAL INJURY OR MAJOR PROPERTY DAMAGE, READ AND FOLLOW ALL SAFETY INSTRUCTIONS IN MANUAL AND ON VALVE.

THIS MANUAL IS INTENDED TO ASSIST IN THE INSTALLATION AND OPERATION OF THIS UNIT AND MUST BE KEPT WITH THE VALVE.



This is a SAFETY ALERT SYMBOL. When you see this symbol on the valve or in the manual, look for one of the following signal words and be alert to the potential for personal injury or property damage.

▲ DANGER Warns of hazards that WILL cause serious personal injury, death or major property damage.

▲ WARNING Warns of hazards that CAN cause serious personal injury, death or major property damage.

▲ CAUTION Warns of hazards that CAN cause personal injury or property damage.

▲ NOTICE Indicates special instructions which are very important and must be followed.

THOROUGHLY REVIEW ALL INSTRUCTIONS AND WARNINGS PRIOR TO PERFORMING ANY WORK ON THIS VALVE. MAINTAIN ALL SAFETY DECALS.

## Limited Warranty

Manufacturer warrants, to the purchaser and subsequent owner during the warranty period, every new product to be free from defects in material and workmanship under normal use and service, when properly used and maintained, for a period of one year from date of purchase by the end user, or 18 months from date of original manufacture of the product, whichever comes first. Parts that fail within the warranty period, one year from date of purchase by the end user, or 18 months from the date of original manufacture of the product, whichever comes first, that inspections determine to be defective in material or workmanship, will be repaired, replaced or remanufactured at manufacturer's option, provided however, that by so doing we will not be obligated to replace an entire assembly, the entire mechanism or the complete unit. No allowance will be made for shipping charges, damages, labor or other charges that may occur due to product failure, repair or replacement.

This warranty does not apply to and there shall be no warranty for any material or product that has been disassembled without prior approval of manufacturer, subjected to misuse, misapplication, neglect, alteration, accident or act of God; that has not been installed, operated or maintained in accordance with manufacturer's installation instructions; that has been exposed to outside substances including but not limited to the following: sand, gravel, cement, mud, tar, hydrocarbons, hydrocarbon derivatives (oil, gasoline, solvents, etc.), or other abrasive or corrosive substances, wash towels or feminine sanitary products, etc. in all applications other than in raw effluent pumping applications. The warranty set out in the

paragraph above is in lieu of all other warranties expressed or implied; and we do not authorize any representative or other person to assume for us any other liability in connection with our products.

Contact manufacturer at, 3649 Cane Run Road, Louisville, Kentucky 40211, Attention: Customer Service Department to obtain any needed repair or replacement of part(s) or additional information pertaining to our warranty.

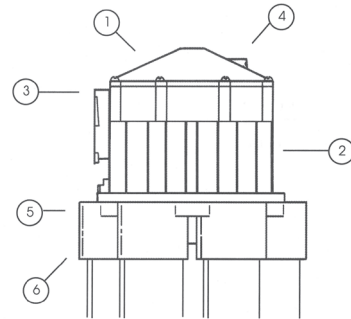
**MANUFACTURER EXPRESSLY DISCLAIMS LIABILITY FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES OR BREACH OF EXPRESSED OR IMPLIED WARRANTY; AND ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND OF MERCHANTABILITY SHALL BE LIMITED TO THE DURATION OF THE EXPRESSED WARRANTY.**

Some states do not allow limitations on the duration of an implied warranty, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

## Major Components

1. **Valve Top:** A high strength metal die cast top which is secured to the valve body by eight stainless steel screws.
2. **Valve Body:** A high strength metal die cast housing.
3. **Inlet:** Female 1-1/2" NPT inlet for connection to water source.
4. **Vacuum Breaker Port:** Used to prevent back-siphon of water to course.
5. **Valve Bottom:** High strength ABS plastic bottom which is secured to a valve body with 6 stainless steel screws.
6. **Outlets** - Allows for slip and glue connection to 1-1/2" PVC pipe.



## Cam Replacement Instructions

Replacement cams are available to increase or decrease the number of outlets to be used on the 6000 Series Automatic Multizone Valve. 6400 Series four outlet valves have interchangeable cams for two, three or four zone operation. 6600 Series six outlet valves have interchangeable cams for five or six zone operation.

To replace cam, first remove valve top by removing eight valve top retaining screws. Remove two cam retaining screws which hold cam on the underside of the valve top.

Insert replacement cam into valve top, ensuring that the wide notch on came is aligned with notch on valve top, and secure with two cam retaining screws.

Replace top, ensuring body seal is in place.

## Valve Installation Instructions

Prior to installation of 6000 Series Automatic Multizone Valve, make sure that the system is designed using adequate pipe sizes and control valves to ensure maximum performance of the valve.

For installation with large terrain elevations, or applications with high lift requirements such as overhead systems in greenhouses, the valve should be installed at the highest point in the system, or check-valves should be installed near the valve in the elevated lines to prevent the back flow of water from the higher locations to the lower zones.

When connecting the lines to the valve outlets, ensure that the correct cam is installed. See diagram for proper zone hookup of outlets.

Do NOT turn the valve upside down when gluing the lines into the open valve outlets. Glue may run down into the valve and interfere with valve operation. Allow glue to dry for at least two hours before operating or testing the valve. For best results, use a multipurpose glue which is compatible with ABS plastic.

To seal off any unused outlets, install a piece of PVC pipe at least six inches in length to the outlet and cap the pipe. This will allow additional zones to be added easily at a later time. Make sure proper cam is installed for number of zones to be used.

## Pump Fed Application

For direct pump-fed installations, the 6000 Series Automatic Multizone Valve is directly connected to the discharge side of the pump and is cycled from one zone to the next by turning the pump off and on. See the Active Zone Diagram below in Figure 1.

## Technical Specifications

<b>Valve Top and Body Construction:</b>	Die cast
<b>Valve Bottom Construction:</b>	ABS High strength plastic
<b>Flow Range:</b>	15-100 GPM
<b>Inlet:</b>	Threaded 1-1/2" NPT
<b>Outlets:</b>	Allows for 1-1/2" PVC pipe slip and glue connection

### Flow Characteristics:

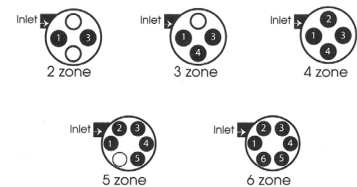
6400 Series 4 Outlet Valve										
<b>Flow (GPM)</b>	15	20	30	40	50	60	70	80	90	100
<b>PSI Loss</b>	2.0	2.5	3.0	3.5	4.0	5.0	6.0	7.5	9.0	10.0

6600 Series 6 Outlet Valve										
<b>Flow (GPM)</b>	15	20	30	40	50	60	70	80	90	100
<b>PSI Loss</b>	2.0	3.0	3.5	4.0	5.0	6.0	7.5	9.0	10.0	11.0

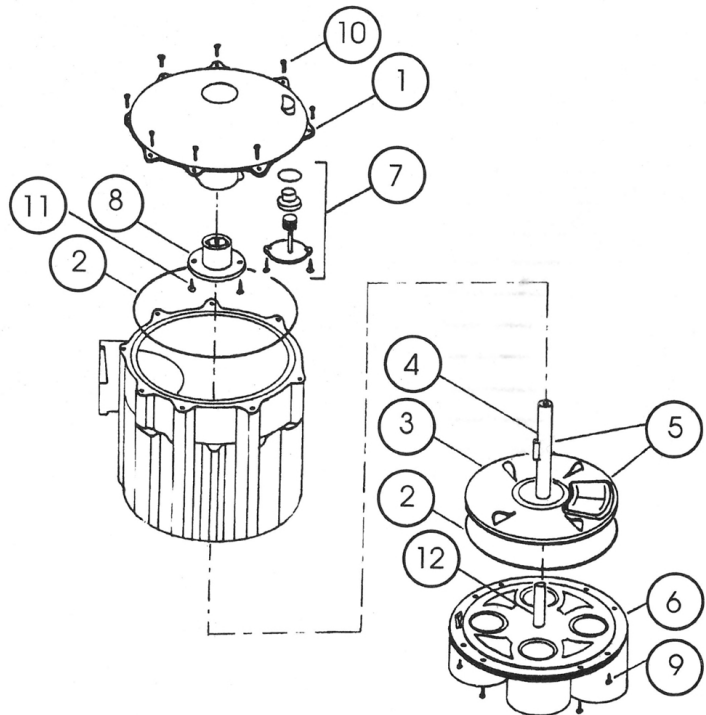
**Figure 1**

**Active Zone Diagram**  
Black dots indicate active outlets for cam being used  
(View from above)



## Parts List

Parts List		
REF NO.	DESCRIPTION	PART NO.
1	4 Outlet valve top	153295
	6 Outlet valve top	153296
2	Valve body seal	150495
3	Rubber flap disc	153268
4	Stem with .032 spring	153269
	Stem with .028 spring	153270
5	Stem / disk assy. w/ .032 spring	019141
	Stem / disk assy. w/ .028 spring	019142
6	4 Outlet valve bottom	153271
	6 Outlet valve bottom	153272
7	Vacuum Breaker assy.	151258
8	Two zone, 4 outlet cam	019136
	Three zone, 4 outlet cam	019137
	Four zone, 4 outlet cam	019138
	Five zone, 6 outlet cam	019139
	Six zone, 6 outlet cam	019140
9	Valve bottom screws (6) (10-24 x 3/4 Phil Pan SS)	153273
10	Valve top screws (8) (10-24 x 5/8 Stlt.phst SS)	153274
11	Cam retaining screws (2) (6 x 1/2 Phil Pan SS)	153275
12	Valve bottom S.S Pin (1/4" dia.)	153073



## Troubleshooting and Service Checklist

Problem	Cause	Solution
Valve does not change or cycle to next zone or outlet.	Debris or foreign objects preventing proper movement of stem and disk assembly.	<ul style="list-style-type: none"> <li>Remove valve top and check for foreign objects. Clean build-up from walls as necessary.</li> <li>Check for freedom of movement of stem and disk assembly up and down over the center pin in bottom of valve. Scale deposits may build up on the pin and hold stem and disk assembly down. Clean pin and again check for freedom of movement.</li> </ul>
	Disk may have expanded and is rubbing against inside walls of body.	<ul style="list-style-type: none"> <li>Replace disk and clean build-up from walls of valve as necessary.</li> </ul>
	Restriction of flow causing pressure in valve to build up, preventing valve from cycling.	<ul style="list-style-type: none"> <li>Be sure that all operating outlets are not capped and that the flow to operating zones is not restricted in any manner.</li> <li>The backflow of water from uphill lines may be preventing the valve from cycling properly. If the valve cannot be placed close to the high point of the system, a check valve should be installed near the valve in the outlet line that runs uphill from the valve.</li> </ul>
Water comes out of all the valve outlets.	Stem and disk assembly not seating properly on valve outlet.	<ul style="list-style-type: none"> <li>Check for sufficient water flow. A minimum of 15 GPM is required to properly seat the disk.</li> <li>Remove the valve top and clean the inside walls as necessary to ensure that nothing is interfering with the up and down movement of the stem and disk assembly inside the valve.</li> <li>Make sure that the operating outlets are not capped and that the flow to the operating zones is not restricted in any manner.</li> <li>Replace disk if necessary.</li> </ul>
Valve skips outlets or zones.	This will cause the valve to cycle quickly several times, skipping one or more zones.	<ul style="list-style-type: none"> <li>The stem and disk assembly is being advanced past the desired outlet.</li> <li>Ensure that the correct cam for the desired number of zones is installed and that the outlet lines are installed to the correct outlet ports of the valve.</li> </ul>

All Zoeller Pump Company products must be installed and maintained in accordance with all applicable codes.

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