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



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Zoeller Pump Company Product
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4000 Series Automatic Multizone Valve OWNER'S MANUAL

Congratulations on the purchase of the Zoeller Pump Company 4000 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: _____

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 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 Support Department to obtain any needed repair or replacement of part(s) or additional information pertaining to our warranty.

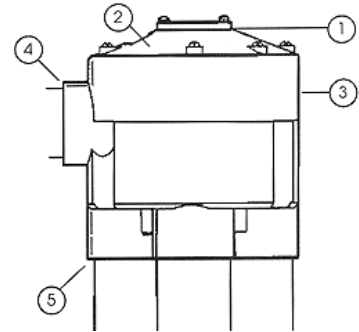
MANUFACTURER EXPRESSLY DISCLAIMS LIABILITY FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES OR BREACH OF EXPRESSED OR IMPLIED WARRANTY; AND ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND OF MERCHANTABILITY SHALL BE LIMITED TO THE DURATION OF THE EXPRESSED WARRANTY.

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. **Cam** - Used to index the valve to the next zone and controls how many outlets are to be used. May be changed to increase or decrease number of operating zones. Secured to valve top with two cam retaining screws.
2. **Valve Top** - A high strength ABS plastic top secured with seven valve top retaining screws.
3. **Valve Body** - A high strength ABS plastic housing.
4. **Inlet** - Allows for slip and glue connection of a 1-1/4" pipe.
5. **Outlets** - 4 outlet model - 1-1/4" PVC pipe / 6 outlet model 1" PVC pipe.



Cam Replacement Instructions

Replacement cams are available to increase or decrease the number of operating outlets on the 4000 Series Automatic Multizone Valve.

BE SURE YOU HAVE THE CORRECT REPLACEMENT CAM. Except for the two zone cam, cams for the four outlet valves and the six outlet valves are **NOT** interchangeable. The correct bottom to be used is marked on the top of the cam.

To remove cam, remove two cam retaining screws and pry up gently with screwdriver.

To install a new cam, partially insert the cam into the valve top and rotate it counterclockwise while applying gentle downward pressure. This allows the upper lug on the stem in the valve to slip into the cam. The cam should slip into place easily. When installed correctly, the cam should slide down in place with **NO** tendency to spring back. Improper installation will cause the valve to jam and prevent the valve from advancing properly.



CAUTION Cams for operation of fewer than the full number of outlets have one or more camming slots blocked. Because of this, it is important to make sure that the cam is lowered in the valve so that the lug on the stem in the valve is inserted into an open cam slot in the cam.

Valve Installation Instructions

Prior to installation of 4000 Series Automatic Multizone Valve, make sure that the system is designed using adequate pipe sizes to ensure maximum performance of the valve.

For installation with large terrain elevations, or applications with high lift requirements, 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.

Valve Installation Instructions, continued

Pump Fed Applications:

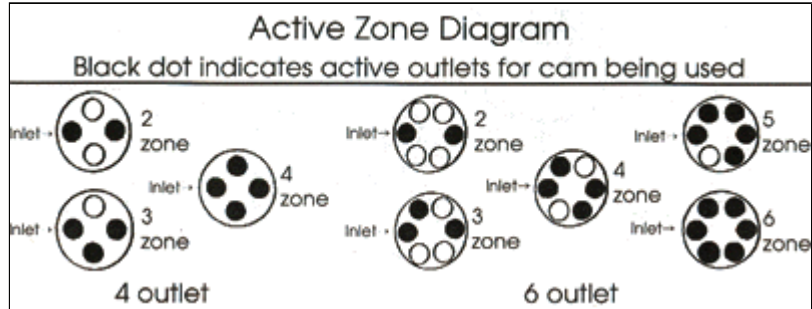
The 4000 Series Automatic Multizone Valve can be installed directly off the discharge side of the pump. The valve is cycled as the pump is turned off and on. It is important to install the valve as close to the pump as possible.

The 4000 Series Automatic Multizone Valve may be installed below ground in a valve box.

▲ NOTICE Valve **MUST BE** at the highest point in your system.

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

Do NOT turn the valve upside down when gluing the inlet and outlet lines into the valve as glue may run down into the valve and interfere with proper operation. Allow glue to dry for at least two hours before operating or testing the valve. For best results, use a multi-purpose glue.



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 used.

Technical Specifications

Flow Range:	10-50 GPM on 4400 Series 10-40 GPM on 4600 Series Stem and disk assembly for lower flows available. (See parts list).
Valve Top and Body Construction:	High strength ABS plastic.
Inlet:	Slip and glue connection to a 1-1/4" PVC pipe.
Outlets:	4 outlet accepts 1-1/4" PVC pipe with slip and glue connection. 6 outlet accepts 1" PVC pipe with slip and glue connection.

Flow Characteristics:

4400 Series 4 Outlet Valve					
Flow (GPM)	10	20	30	40	50
Pressure (PSI)	2.0	3.0	4.5	6.4	10.0

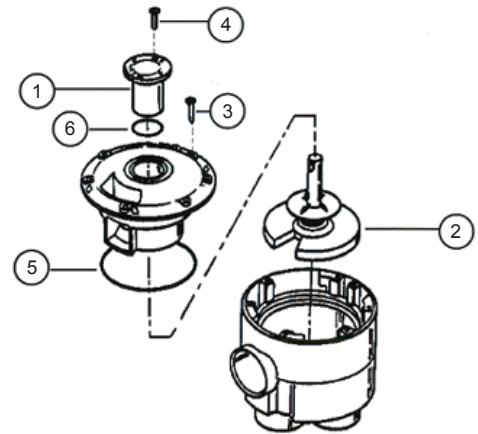
4600 Series 6 Outlet Valve				
Flow (GPM)	10	20	30	40
Pressure (PSI)	2.5	4.5	7.5	11.5

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

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Parts List

Parts List		
REF NO.	DESCRIPTION	PART NO.
1	Two zone for four or six outlet valve	153276
	Three zone cam for four outlet valve	019586
	Four zone cam for four outlet valve	019938
	Three zone cam for six outlet valve	153277
	Four zone cam for six outlet valve	153278
	Five zone cam for six outlet valve	153279
	Six zone cam for six outlet valve	152185
2	Stem / disk assy. w/ .028 spring (white)	151236
	Light stem / disk assy. w/ .025 spring (blue)	152518
	Heavy stem / disk assy. w/ .032 spring (red)	153280
3	Valve top retaining screw set (7)(10x1 Phil Pan SS)	153281
4	Cam retaining screw set (2)(10-24x3/4 Phil Pan SS)	153282
5	Valve Top O-ring	153283
6	Cam O-ring	153284



Troubleshooting and Service Checklist

Problem	Cause	Solution
Valve does not change or cycle to next zone or outlet.	The stem and disk assembly is not rotating when the water flow is turned OFF and then back ON.	<ul style="list-style-type: none"> Ensure there is no debris inside the cam. Clean and carefully reinstall the cam. If fewer than the maximum number of outlets are being used, check the installation of the cam. Ensure that the stem and disk assembly is not being held down by an improperly installed cam. Refer to the Cam Replacement Instructions. Remove the valve top and check for proper movement of stem and disk assembly. Check for and remove any debris or foreign objects that may jam or retard the movement of the disk. 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. Be sure that all operating outlets are not capped and that the flow to operating zones is not restricted in any manner. This would cause pressure to build up in the valve and lock the stem and disk assembly in the down position. The back flow 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.
Water comes out of all the valve outlets.	Stem and disk assembly not seating properly on valve outlet.	<ul style="list-style-type: none"> Check for sufficient water flow. A minimum of 10 GPM is required to properly seat the disk. For water flow between 6 and 10 GPM, a stem and disk assembly with a lighter spring is available. Remove the valve top and check the inside walls to ensure that nothing is interfering with the up and down movement of the stem and disk assembly inside the valve.
Valve skips outlets or zones.	This will cause the valve to cycle quickly several times, skipping one or more zones. The flow should be steady and uninterrupted.	<ul style="list-style-type: none"> The stem and disk assembly is being advanced past the desired outlet. 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 valves as indicated by the zone numbers on the top of the cam.