

SZ Series PowerTrack™ Motorized Zone Valve

INSTALLATION INSTRUCTIONS

INSTALLATION

Can be installed in horizontal or vertical pipe runs. PowerTrack™ operator can be in any position between horizontal and vertical.

To Install the PowerTrack Operator Follow these Steps:

1. Place the brass nut of the PowerTrack operator on top of the valve so that the square shaft of the PowerTrack operator and the round stem of the valve are roughly aligned.
2. Push down on the PowerTrack operator and screw the brass nut to the thread on the valve or manifold.
3. Continue to turn the nut until the pointer is centered over the dot. The PowerTrack operator is now properly installed (See Fig. 1).

NOTE: Brass nut must be tightened 2 to 3 turns before pointer starts to move.

4. Connect electrical leads per wiring diagram (Refer to Figures. 2, 3, 4 and 5).

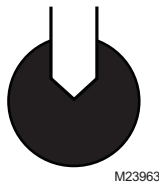


Fig. 1. Installation of SD-IS-525

Pre-Balancing:

Each valve has a built in plug, which will permits pre-balancing the zone. To balance, remove PowerTrack operator and locate the plastic plug on top of the valve. To turn plug, engage a screwdriver in slot on top of plug. Turn the plastic plug clockwise until it bottoms out (2 to 3 turns), then back off counterclockwise until the desired flow rate is established.

The table below gives approximate flow rates. It is based on commonly used residential circulators and piping practices. For other conditions, different settings may apply. (See INSTALLATION for removing and replacing operator).

Turns from fully closed	¼	½	1	1 ½	2
Flow rate in GPM, ½ in. & ¾ in. valve	1 ½	3	4 ½	6	7 ½
Flow rate in GPM, 1.0 in. & 1 ¼ in. valve	2	4	6	8	10

Manual Opening of Zone Valve:

To open, hold PowerTrack operator with one hand and loosen the knurled brass nut 1 to 1 ½ turns counterclockwise. This opens the valve. To close the valve, follow instructions for installation steps 1, 2, and 3.

Replacement of PowerTrack Operator:

SHUT OF POWER. To remove and replace PowerTrack operator, refer to section INSTALLATION. Replacement part numbers are: PowerTrack operator with switch MZV520, without switch MZV521.

Replacement of Valve Cartridge:

SHUT OF POWER and DRAIN SYSTEM, then follow instructions in section INSTALLATION. Part numbers are: Cartridge for ½ in. and ¾ in. valve MZV525 RP, cartridge for 1 in. and 1 ¼ in. valve: MZV526 RP

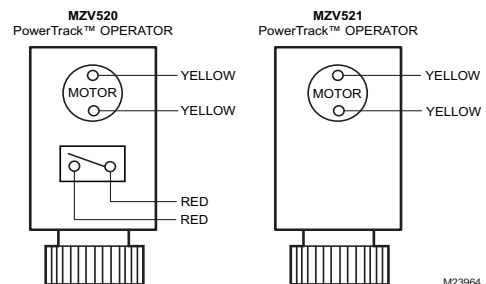
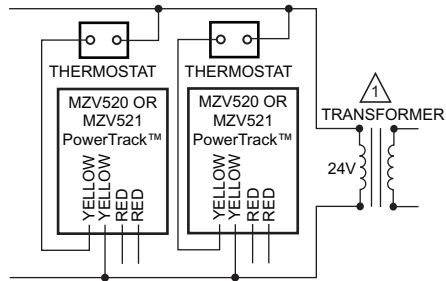


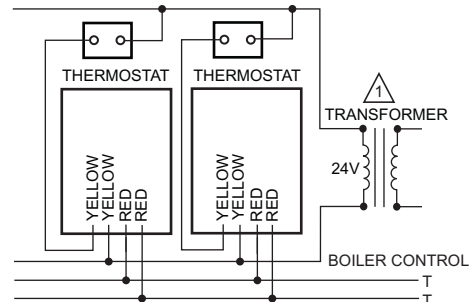
Fig. 2. Wiring Diagram (No Switch or Switch not used)





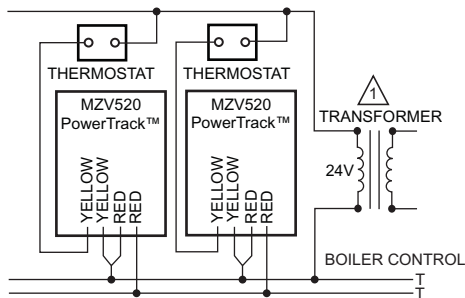
⚠ UP TO EIGHT VALVES PER 40VA TRANSFORMER.
NOTE: RED WIRES NOT PROVIDED ON MZV521. M23965

Fig. 3. 2 Wire Wiring (No Switch or Switch not used).



⚠ UP TO EIGHT VALVES PER 40VA TRANSFORMER. M23967

Fig. 5. 4 Wire Wiring from SD-IS-525



⚠ UP TO EIGHT VALVES PER 40VA TRANSFORMER.
NOTE: USE THIS CONNECTION DIAGRAM WHEN REPLACING THREE WIRE VALVES WITH FOUR WIRE PowerTrack™ VALVES. M23966

Fig. 4. 3 Wire Wiring (with Auxiliary Switch)

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TROUBLESHOOTING

Troubleshooting Guide

1. If valve does not open when thermostat closes:
 - Check voltage between yellow wires. Should be 22 to 28 volts.
2. Boiler and/or circulator continues to run after valve has closed:
 - Turn brass nut counterclockwise ¼ turn.
3. Valve leaks across seal:
 - Make sure maximum allowable shut off pressure has not been exceeded.
 - If allowable shut off pressure have not been exceeded, turn brass nut ¼ turn clockwise.
4. Valve chatters when closing:
 - Check for proper flow direction.

Automation and Control Solutions

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