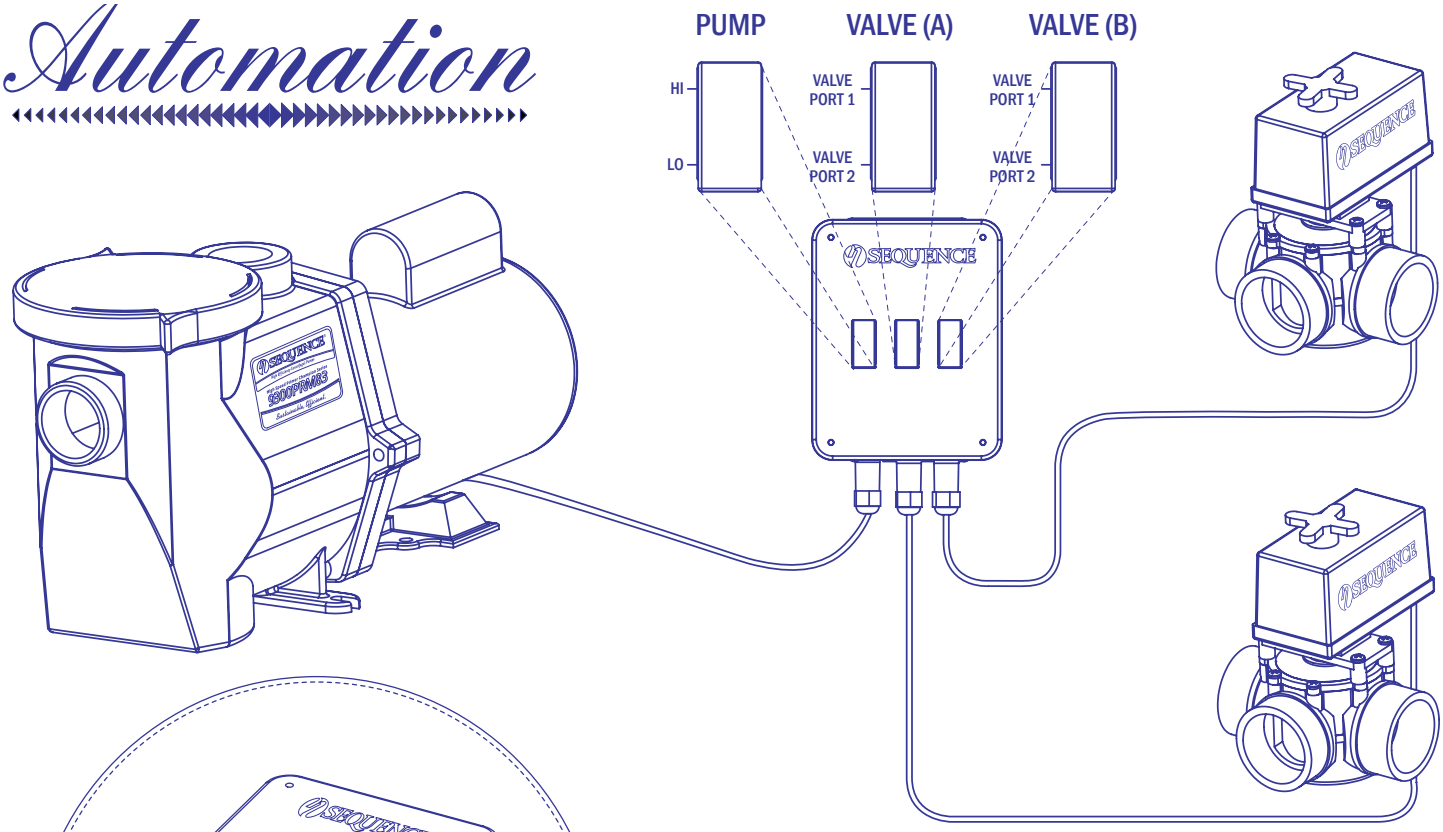
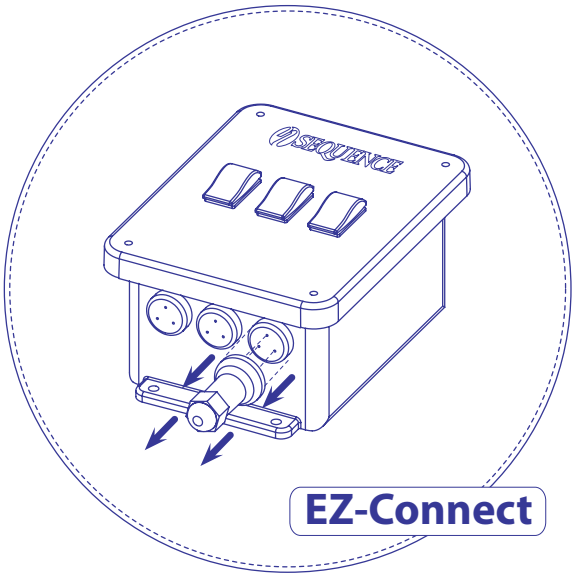
SEQUENCE® Automation

Automation





Automation Introduction

"Work smarter, not harder" expresses what we try to achieve with all products in the Sequence line. What we're doing in system automation is no exception. Sequence has always been known for pioneering technology as well as reliability in the residential aquatics industry, and that's why the industry trusts our name when it comes to technical products.

Sequence® Automation products simplify your recirculation system maintenance while improving operational efficiency. You can:

- Create an aeration circuit for intermittent operation or a deep circulation redirect for wintertime operation with a flick of switch.
- Simplify laborious water changes and filter cleaning with our actuated diverter valve and control module package.
- Discover the benefits of Variable Frequency Drives for features requiring adjustable performance.

Contact your factory representative or visit www.mdminc.com for any questions concerning our offering of customizable Sequence ® Automation solutions.

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3+ plus Year Warranty

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*EZ Connect Installation Steps

Automation Control Modules

If you're going to automate components of a system, you're going to need control modules. We offer control modules in either an "off the shelf "or "fully customized" package, making your installation quick and easy with ready to ship offerings. Eliminate the complex task of hard-wiring actuated devices with the Sequence EZ connect-plug kits, knowing that all of our control module enclosures are outdoor rated and supplied with a 24 VAC transformer for low voltage safety. Eliminate the need to crouch to turn cumbersome ball valves. The days unplugging of your pump-motor to turn it off are over!

All units come standard with 110 volt EZ connects. 230 volt rated EZ connects are a $100.00 adder to the list price of the respective control box. *Please note the 230 volt EZ connects are only for pump controls, not valves.

Customized Control Module Options

If your application requires a customized solution, we've got that covered as well. Depending on the task that requires Automation: you can choose from our wide variety of rocker & toggle switch options to our smart relays and timers. The CB200 series is equipped with the ability to control up 6 different inputs: with options ranging from Variable Frequency Drives to timer relays and pressure transducers. Contact your factory representative for a customized solution.

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Single Switch Control Modules

Part #	Capabilities
CB050P	Pump-on/off
CB050PL	Pump-on/off with light

3-Switch Control Modules Data

Part #	Capabilities	Transformer	Switch # 1	Switch # 2	Switch # 3
CB100	Switch A = Pump On/Off Switch B = Controls (up to 4 valves) Switch C = Controls (up to 4 valves)	24 Volt	SPST Rocker On/OFF Pump	DPDT Rocker On/On Valve	N/A
CB101	Switch A = Pump On/Off Switch B = Controls (up to 8 valves) Switch C = Controls (up to 8 valves)	24 Volt	SPST Rocker On/OFF Pump	DPDT Rocker On/On Valve	DPDT Rocker On/On Valve

Actuated Diverter Valves

As a dedicated pond owner, we understand the sublime pleasures of tending and owning a garden pond. We also have offsetting experiences related to high maintenance, the back-breaking effort required to clean filter media and eliminate the buildup of algal material and waste. For your diligence, why not reward yourself with the new cutting-edge technology that Sequence has to offer?

Rather than consuming hours every month to preserve the beauty of your pond, install Sequence® actuated valves to simplify water feature operation - and your life by creating a deep circulation or aeration redirect for wintertime operation with a flick of a switch. Waste and buildup are flushed out with ease, blending 21st Century technology with the timeless organic beauty of a garden pond. Make a sound investment choice, and choose Sequence for efficiency, easier maintenance, and ground-breaking technology for the avid pond owner.

Part #	Description
MP-3DV-A24	Three way diverter valve with 24 Volt actuator
MP-2DV-A24	Two way diverter valve with 24 Volt actuator
MP-ABV-.5	½" Unionized ball valve with 110 volt actuator
MP-A24	24 volt actuator for use with two and three way diverter valves (see part numbers MP-2DV-2 & MP-3DV-2 in accessories section)

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Variable Frequency Drives

When two companies whose names are synonymous with high-quality in their fields come together, the result is sure to be one of the highest caliber. Sequence Pumps coupled with the Yaskawa V1000 variable Frequency Drives (VFD): save energy, increase efficiency and allow the pumps to run at different speeds for different performance demands, increasing flexibility, while also adding to the life of the motor by running only at the necessary speed.

Pumps should always be sized to meet a target flow rate against all system requirements. Often times, system conditions require an intermittent increase or reduction of flow rate and pressure. Ball valves are often utilized to adjust the pump output and though such throttling devices are effective, they are not energy efficient.

A better and more cost effective method is to adjust the pump impeller speeds to deliver only the required flow and pressure. For example, running at 80% speed, the input horsepower is only 51% of full load and by running at 70% speed, the input horsepower is only 34% of full load. In addition, the V1000 Energy Saving Control feature assures optimum performance by supplying the proper voltage for the load on the motor. This added efficiency also reduces cost of ownership over the lifetime of the product. In fact, some utilities even offer rebates for installing variable speed drives in new or retrofit work.

Imagine the flexibilities of being able to expand, contract, or replace your water features without purchasing a new pump and the efficiency that translates into more money in your pocket to spend on making your pond and water features an even more enjoyable part of your life. With the Sequence pumps, you can be assured that the effort you put into your water features will glean the most rewards at the best price, the highest quality that you have come to expect from Sequence pumps. "Work smarter, not harder!" Consult your factory representative to match products to your specific requirements

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