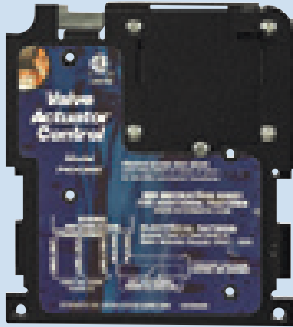


Actuator Controller & Load Mechanisms



P4043ME



PE140

P4000ME Series

Actuator Control & Load Mechanisms

Specifications:

- 120, 208, 240 VAC input voltage
- Controls up to three valve actuators
- Switches heater thermostat
- Remote control capabilities
- Agency approval: CSA/C-US
- Controls two circuits (**P4243ME only**)

Contact Ratings – Each Circuit

- Valve Actuator Supply: 24 VAC, 40 VA
- 17 Amp Resistive, 120-240 VAC, 50/60 Hz (**P4243ME only**)
- 1.5 HP, 120 VAC, 50/60 Hz (**P4243ME only**)
- 3.0 HP, 240 VAC, 50/60 Hz (**P4243ME only**)
- 10 Amp Tungsten, 120, 240 VAC, 50/60 Hz (**P4243ME only**)

P4043ME – Valve Actuator Control Mechanism

Have you ever wanted an affordable control that would only automate a set of water valves from the pool position to the spa position? Or maybe just turn a single water valve to engage a water feature?

Designed specifically for aftermarket and retro-fit applications, the P4043ME is ideal for controlling up to three water valve actuators with any latching or momentary contactor (**not provided**) capable of providing 120 VAC or 240 VAC. In addition, the P4043ME can switch the thermostat on most heaters between pool and spa when the actuators change position.

The P4043ME is ideal for those applications where only simple water valve control is required and can be triggered by any switching device you may provide (i.e. light switch, spring wound AUTO/OFF, wireless switch, relay, etc...). Installation is easy! Simply snap the P4043ME into any existing Intermatic enclosure that contains an available mechanism support bracket, hook up power to both the P4043ME and the trigger device, and plug in your 24 VAC water valve actuators behind the top door of the mechanism.

PE140 – Valve Actuator Control

If you do not have an Intermatic enclosure, you can order the PE140 model which contains the P4043ME mechanism and the appropriate low voltage hardware for running your actuator cables.

Note: The following page refers to only a fraction of the most common applications of the MultiWave Control System. Contact your Intermatic sales representative or visit www.intermatic.com and visit the Pool & Spa section of our website for more application ideas and details.



Actuator Controller

**Model: PE140 Motorized Valve Control
in Indoor/Outdoor Enclosure**

Model: P4043ME Control Mechanism only

Input: 120 or 240 Volt 50/60 Hz

Output: 24 VAC - 40 VA Max



INTERMATIC®
Providing a brighter solution.™



Installation and User Guide

! DANGER

- Do not permit small children to operate or use the Pool/Spa unless they are closely supervised at all times.
- Test GROUND FAULT protection regularly. If it fails to reset, DO NOT USE THE POOL or SPA! Contact a qualified service technician.
- Always disconnect electricity before servicing this Control or the equipment connected to it.

! WARNING

When installing and operating this Product and other associated equipment, basic safety precautions should always be followed,

- This Control must be installed by a qualified person, according to National and Local Electrical Codes.
- Install this Control no less than 5 feet (3 meters in Canada) from inside edge of pool. **USE COPPER CONDUCTORS ONLY** rated 75°C minimum.
- Do not exceed the maximum ratings of individual components, wiring devices, and current carrying capacity of conductors.
- For Control grounding, bonding, installing and the wiring of underwater lights, refer to Article 680 of the National Electrical Code or Article 68 of the Canadian Electrical Code.
- The Control should not operate any equipment which could cause bodily injury or property damage should it be activated unexpectedly.

GENERAL INFORMATION

This Switching Device is most suited for controlling the shared equipment of Pool-Spa combinations but it can be also used to control all the equipment typically needed in connection with water features, water gardening solar heating and other similar applications.

The Mechanism is designed to “snap” into most Intermatic panels and outdoor enclosures in use today and it can be interfaced with other Intermatic products in order to facilitate a large number of custom applications.

WIRING INSTRUCTIONS

NOTE: High and low voltage wires should not occupy the same conduits and compartments.

If needed, install corrugated tubing kit, Part No. 156PA12976A first (not supplied).

1. Make power connections to Transformer. If 120 Volt, connect supply to BLK and WHT leads, if 240 Volt, connect supply to BLK and RED leads. **Insulate (cap) unused lead.**
2. Plug Motorized Valve Acuator(s) into any polarized receptacle(s) see drawing.
3. Connect any external REMOTE SWITCH to the two Black and White striped leads as shown below and apply the Trigger Voltage of either 120 or 240VAC.
4. If applicable, make heater connections. Remove terminal block from socket and depending on the type of heater, follow one of the diagrams on page 3.
5. If applicable, make Remote Control connection to the 8 pin polarized receptacle.

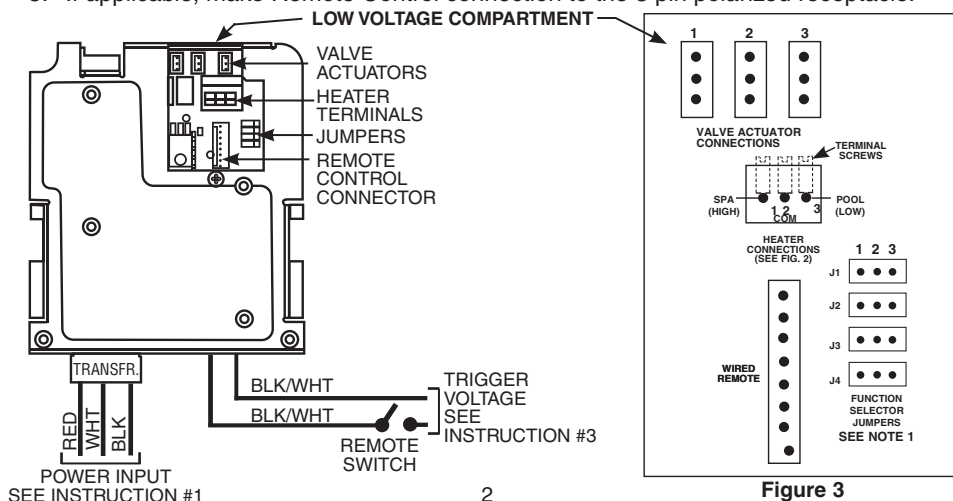


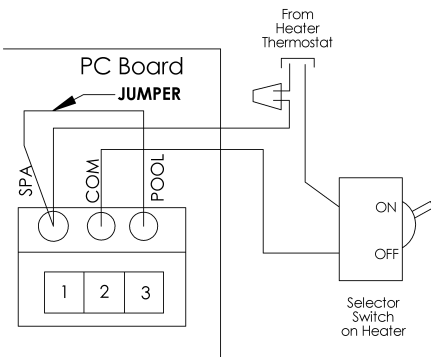
Figure 3

FUNCTION SELECTOR JUMPER SETTINGS:

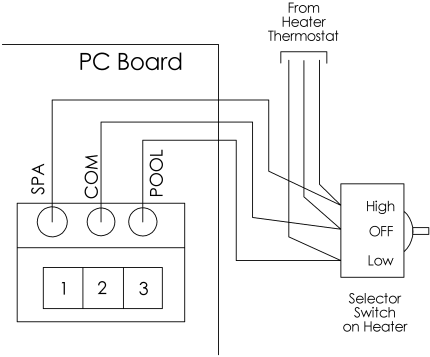
- J1 MASTER SWITCH
- 1-2 Latching
- 2-3 Momentary

Factory setting is 1-2 for all four Jumpers

Single Thermostat Heater



Dual Thermostat Heater



OPERATION

Every time the position of the REMOTE SWITCH changes, the Motorized Valve(s) rotate to the opposite position. In addition, if connected, the heater thermostat setting changes from LOW to HIGH or HIGH to LOW.

TROUBLE SHOOTING

<u>Problem</u>	<u>Cause</u>	<u>Solution</u>
1. Nothing works.	a. No power to transformer b. 120 Volt is connected to 240 Volt leads c. 240 Volt was connected to 120 Volt transformer leads.	Check power supply Connect 120 Volt supply to Black and White leads Replace defective control unit
2. Remote installed Actuator Switch will not operate equipment.	a. Jumper J1 is on pins 2-3 or missing.	Place Jumper J1 on Pins 1-2
3. Wired remote is not working	a. Connector is incorrectly attached b. Corroded/dirty connector pins	Re-attach 8-pin connector Clean connector pins.
4. Valve actuators work opposite pump relay	a. Actuators are out-of-sync	Synchronize actuators (Refer to valve actuator manual)

LIMITED ONE YEAR WARRANTY

If within the warranty period specified, this product fails due to a defect in material or workmanship, Intermatic Incorporated will repair or replace it, at its sole option, free of charge. This warranty is extended to the original household purchaser only and is not transferable. This warranty does not apply to: (a) damage to units caused by accident, dropping or abuse in handling, acts of God or any negligent use; (b) units which have been subject to unauthorized repair, opened, taken apart or otherwise modified; (c) units not used in accordance with instructions; (d) damages exceeding the cost of the product; (e) sealed lamps and/or lamp bulbs, LED's and batteries; (f) the finish on any portion of the product, such as surface and/or weathering, as this is considered normal wear and tear; (g) transit damage, initial installation costs, removal costs, or reinstallation costs.

INTERMATIC INCORPORATED WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. 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 IS IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES. ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY MODIFIED TO EXIST ONLY AS CONTAINED IN THIS LIMITED WARRANTY, AND SHALL BE OF THE SAME DURATION AS THE WARRANTY PERIOD STATED ABOVE. SOME STATES DO NOT ALLOW LIMITATIONS ON THE DURATION OF AN IMPLIED WARRANTY, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

This warranty service is available by either (a) returning the product to the dealer from whom the unit was purchased, or (b) completing a warranty claim on line at www.intermatic.com. This warranty is made by: Intermatic Incorporated Customer Service/7777 Winn Rd., Spring Grove, Illinois 60081-9698/815-675-7000 <http://www.intermatic.com>



Intermatic, Inc.

7777 Winn Road

Spring Grove, Illinois 60081-9698

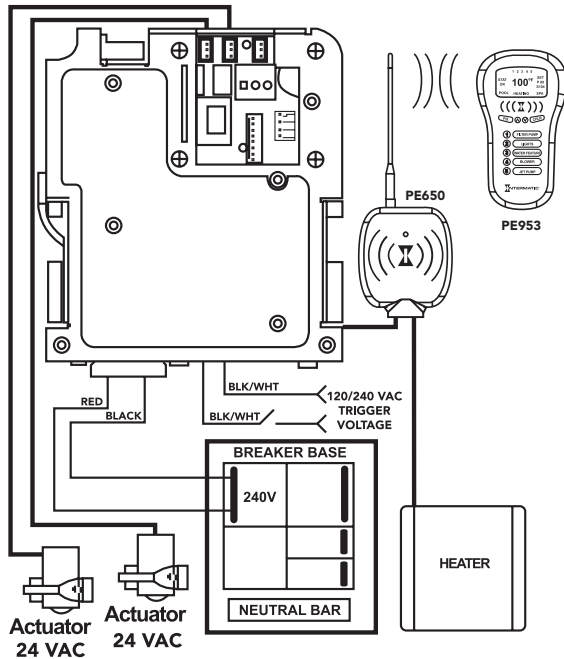
www.intermatic.com

Intermatic Customer Service: 815-675-7000

(8 a.m. through 4:30 p.m. CT, Monday through Friday)

Actuator Controller & Valve/Pump Switch Applications

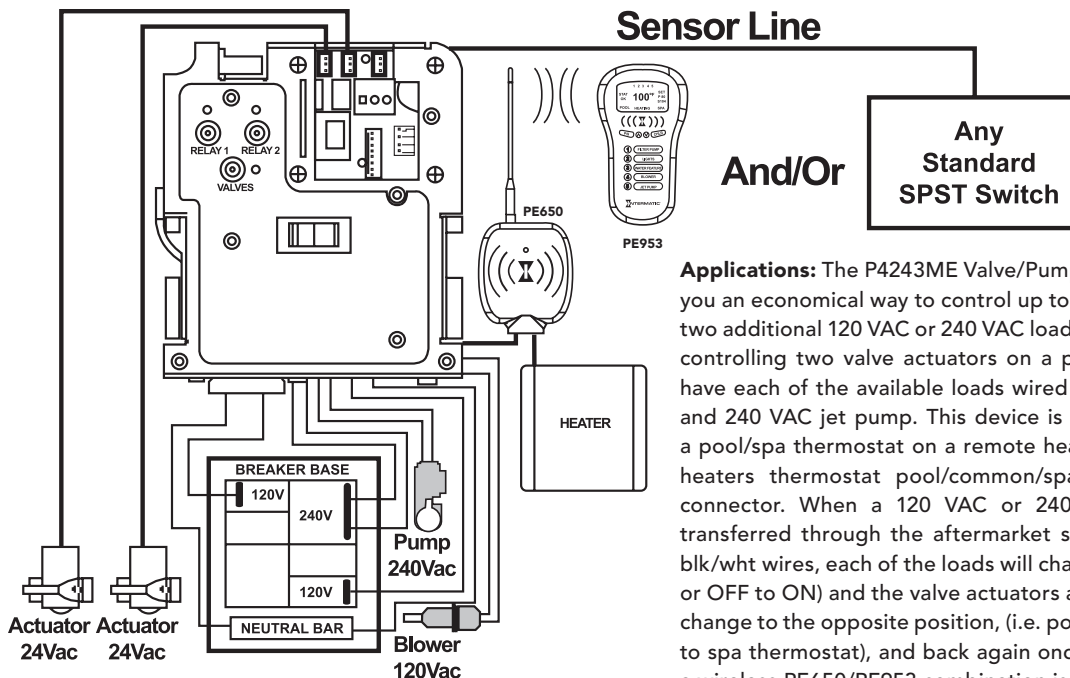
P4043ME Application



Applications: The P4043ME Actuator Control Mechanism gives you an economical way to control up to three valve actuators with either a simple aftermarket switch, a sophisticated PE650/PE953 wireless control or both. In the example, we illustrate controlling two valve actuators most commonly found in a fountain control, solar control or pool/spa control system. This device is also capable of switching a pool/spa thermostat on a remote heater by wiring the remote heaters thermostat pool/common/spa wires to the onboard connector. When a 120 VAC or 240 VAC trigger voltage is transferred through the aftermarket switch to the mechanism's blk/wht wires, the valve actuators and heater thermostat will change to the opposite position, (i.e. pool to spa, pool thermostat to spa thermostat), and back again once the switch is opened. If a wireless PE650/PE953 combination is added to the mechanism, a wireless full thermostat control system along with actuator control would now be available.

P4243ME Application

Sensor Line



Applications: The P4243ME Valve/Pump Switch Mechanism gives you an economical way to control up to three valve actuators and two additional 120 VAC or 240 VAC loads. The example, illustrates controlling two valve actuators on a pool/spa combination and have each of the available loads wired to a 240 VAC spa blower and 240 VAC jet pump. This device is also capable of switching a pool/spa thermostat on a remote heater by wiring the remote heaters thermostat pool/common/spa wires to the onboard connector. When a 120 VAC or 240 VAC trigger voltage is transferred through the aftermarket switch to the mechanisms blk/wht wires, each of the loads will change state, (i.e. ON to OFF or OFF to ON) and the valve actuators and heater thermostat will change to the opposite position, (i.e. pool to spa, pool thermostat to spa thermostat), and back again once the switch is opened. If a wireless PE650/PE953 combination is added to the mechanism, a wireless full thermostat control system along with actuator control and individual load control would now be available.