

MULTICYCLONE AUTO PURGE SYSTEM

Installation and Operating Manual



OFFICES - AUSTRALIA

NSW - SYDNEY
(HEAD OFFICE)
Tel: +61 2 9898 8600

QLD - BRISBANE
Tel: +61 7 3299 9900

VIC/TAS - MELBOURNE
Tel: +61 3 9764 1211

WA - PERTH
Tel: +61 8 9273 1900

SA/NT - ADELAIDE
Tel: +61 8 8244 6000

ACT DISTRIBUTION
Tel: +61 2 6280 6476

OFFICES - OVERSEAS

WATERCO (EUROPE) LIMITED
Sittingbourne, Kent, UK
Tel: +44 (0) 1795 521 733

WATERCO (USA) INC
Augusta, Georgia, USA
Tel: +1 706 793 7291

WATERCO CANADA
Boucherville, Quebec, Canada
Tel: +1 450 748 1421

WATERCO (NZ) LIMITED
Auckland, New Zealand
Tel: +64 9 525 7570

WATERCO © LIMITED
Guangzhou, China
Tel: +86 20 3222 2180

WATERCO (FAR EAST) SDN BHD
Selangor, Malaysia
Tel: +60 3 6145 6000

PT WATERCO INDONESIA
Jakarta, Indonesia
Tel: +62 21 4585 1481

WATERCO SINGAPORE INTL PTE LTD
Nehsons Building, Singapore
Tel: +65 6344 2378

WARNING

This equipment must be installed and serviced by a qualified technician. Improper installation can create electrical hazards which could result in property damage, serious injury or death. Improper installation will void the warranty.



Notice to Installer

This manual contains important information about the installation, operation and safe use of this product. Once the product has been installed this manual must be given to the owner/ operator of this equipment.

WATERCO

Waterco Limited ABN 62 002 070 733



WATERCO

water, the liquid of life

www.waterco.com

INTRODUCTION

Thank you for choosing Waterco's Multicyclone Auto Purge System which is designed to automatically control backwash of residential or commercial multicyclone centrifugal filters and uses the latest control Waterco system for simple reliable operation. This system is designed to operate within the pump operating period.

IMPORTANT SAFETY INSTRUCTIONS

When using this electrical equipment, basic safety precautions should always be followed, including the following:

READ AND FOLLOW ALL INSTRUCTIONS

⚠ WARNING

Disconnect all AC power during installation and servicing.

⚠ WARNING

The Multicyclone Auto Purge System is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been provided supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure they do not play with the appliance.

- In certain situations unexpected start up may occur when the appliance is in automatic mode.
- The installer should assess the risk associated with unexpected start-up of this device which, in any circumstance should have no hazardous effect.
- The Multicyclone Auto Purge System is not meant to provide safety protection for other devices.
- The Multicyclone Auto Purge System should be deactivated if the pool or spa has been drained.
- The Multicyclone Auto Purge System must be installed by a suitably qualified person in accordance with current Regulatory Standards, the applicable Wiring Rules (AS3000) and local statutory authority regulations.
- Parts containing live parts, except parts supplied with safety extra-low voltage not exceeding 12V, must be inaccessible to a person in the spa – pool.
- Parts incorporating electrical components, except remote control devices, must be located or fixed so that they cannot fall into the spa – pool.
- The appliance should be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.

SAVE THESE INSTRUCTIONS. An electronic version of these instructions may be obtained from the Waterco website at the following URL: -

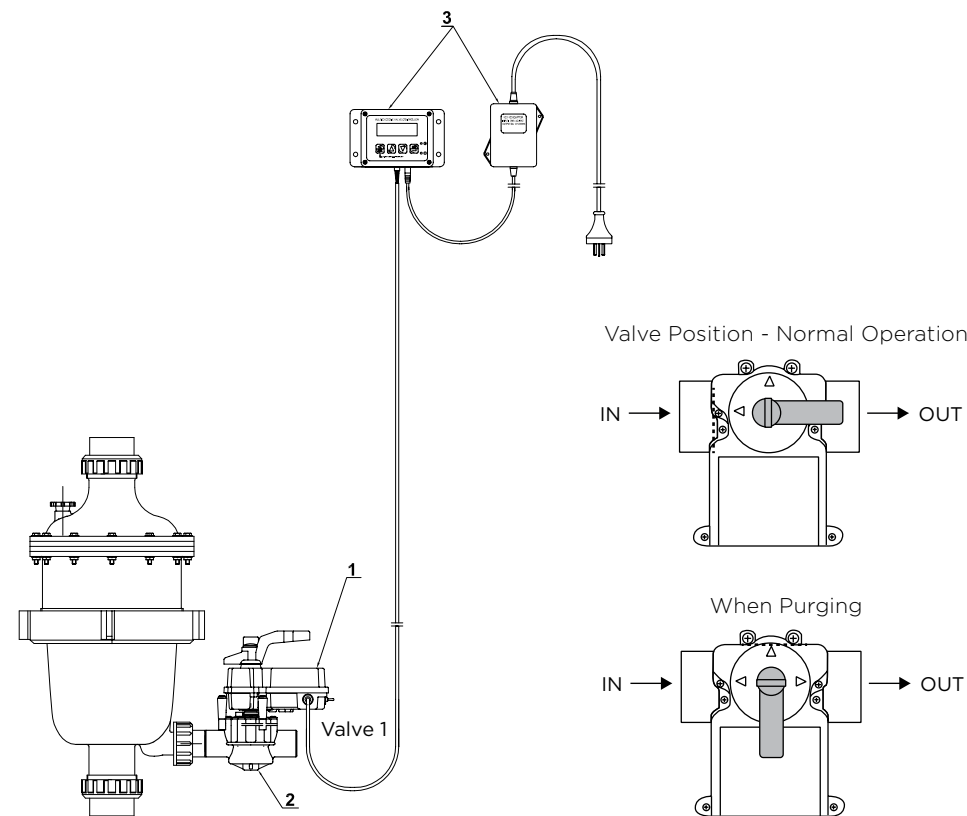
<https://www.waterco.com.au/pool-spa/controllers-and-automation>

INSTALLATION

Multicyclone 12/16 Auto Purge System – 1 Valve

For operation with integrated filtration or infloor cleaning systems where there is natural system back pressure.

Mount the Multicyclone Auto Purge System Controller securely in a protected location out of direct sunlight.



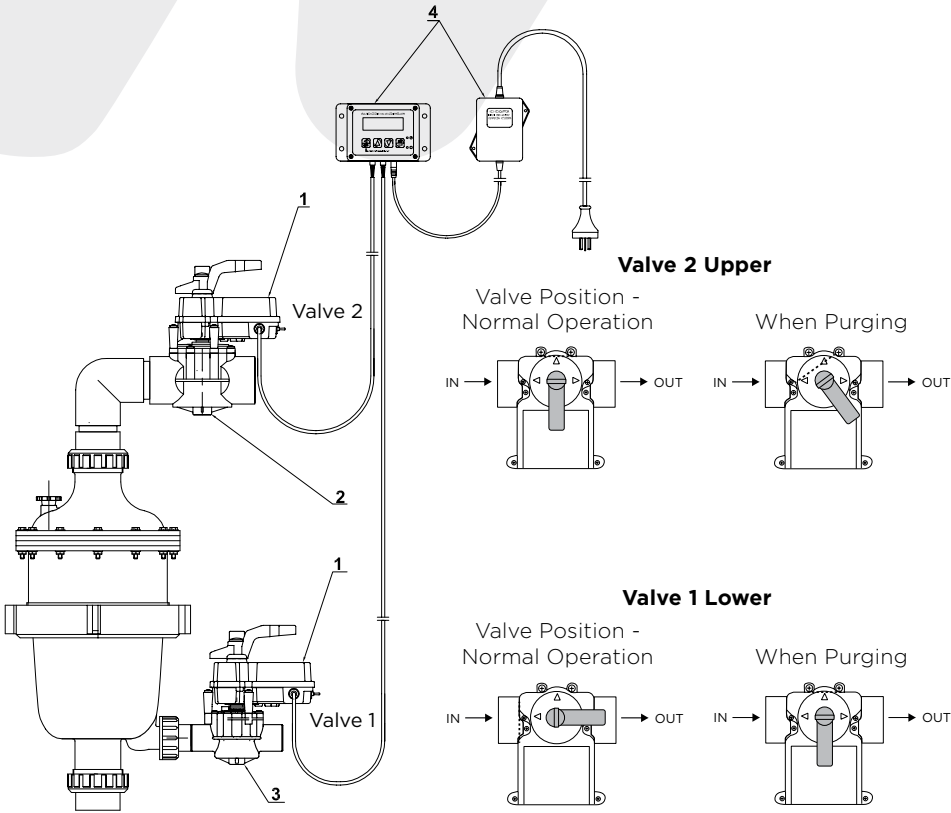
What's in the kit?

Item No	Part. No	Part Description	Quantity
1	3652607	24V AC Motorised Valve Actuator	1
2	148507	25/32mm 2 Way Valve Actuator Type	1
3	3652615	Multicyclone Valve Controller Kit	1

Multicyclone 12/16 Auto Purge System – 2 Valve

For operation with hydraulic systems with little natural back pressure. The second valve mounted atop of the multicyclone creates the necessary back pressure for purging of collected debris to occur on independent heating circuits, water features and cooling towers.

Mount the Multicyclone Auto Purge System Controller securely in a protected location out of direct sunlight.

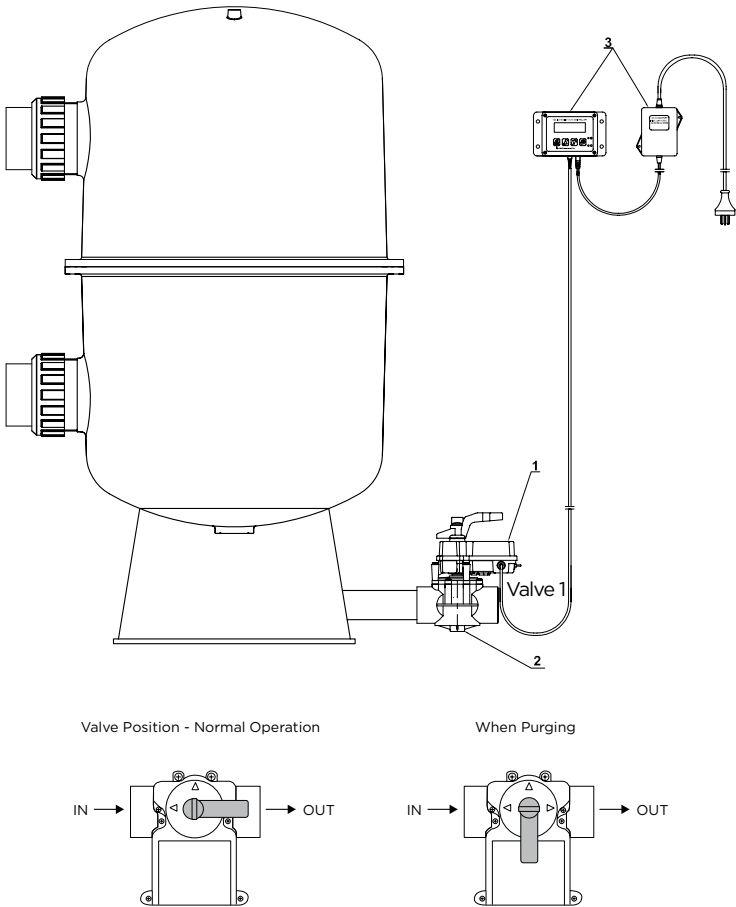


What's in the kit?

Item No	Part. No	Part Description	Quantity
1	3652607	24V AC Motor Valve Actuator	2
2	148564	50/65mm 2 Way Valve Actuator Type	1
3	148507	25/32mm 2 Way Valve Actuator Type	1
4	3652615	Multicyclone Valve Controller Kit	1
N/S	12555	Bush Reducing 50X40mm	2

Multicyclone XL70 Auto Purge System – 1 Valve

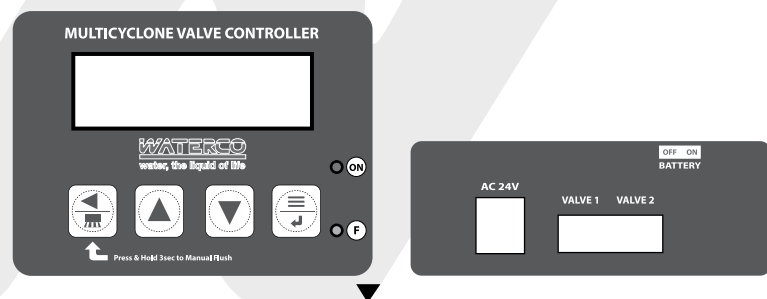
Mount the Multicyclone Auto Purge System Controller securely in a protected location out of direct sunlight.



What's in the kit?

Item No	Part. No	Part Description	Quantity
1	3652607	24V AC Motor Valve Actuator	1
2	148564	50/65mm 2 Way Valve Actuator Type	1
3	3652615	Multicyclone Valve Controller Kit	1

CONTROLLER AND PROGRAM SETUP



Ensure the 24V AC plug pack supplied is connected into the socket marked AC 24V and the actuator plugs are inserted into the correct sockets of VALVE 1 and VALVE 2.

To allow the controller programming to be stored in the event of power failure ensure the toggle switch marked BATTERY is switched to the ON position.

Once the valve actuator motors are installed and plugged into the controller the cam positions may be set to the required location as shown by the system diagrams and dotted lines showing the valve door positions on pages 3 - 5.

SETTING THE DATE

Use the button to enter the menu and the date setting and press to edit.

Use the buttons to edit the year and press to progress to the month.

Use the buttons to edit the month and press to progress to the day.

Use the buttons to edit the day date and press to save.

SETTING THE CLOCK

Use the button to enter the menu and to select the clock setting and press to edit.

Use the buttons to edit the hour and press to progress to the minutes.

Use the buttons to edit the minutes and press to save.

SETTING THE VALVES

Use the button to enter the menu and twice to select the valve setting and press to edit.

Use the buttons to select V1 (one valve system), V2 (2 valve system with V2 closing delay) or V1V2 (two valve system operating simultaneously) and press to progress to status.

Use the buttons to toggle selected valve setting to on (enabled) or off (disabled) and press to save.

Use the to select the purge time function and press to enter edit mode.

Use the buttons to select the desired purge hour and press to progress to the minutes.

Use the buttons to select the desired minutes and press to save.

Use the to select the purge day delay function and press to enter edit mode.

Use the buttons to select the desired purge frequency and press to save.

Note: This feature selects the delay between purges. For example, selecting DAY: 7 would mean the device would operate one purge every seven days.

Use the buttons to select the purge duration function and press to enter edit mode.

Use the buttons to select the desired purge valve open duration in seconds (default is 3 seconds) and press to save.

RESETTING THE DEVICE

Use the button to enter the menu and press three times to select Reset, press to enter reset mode.

Use the buttons to select YES and then to reset the device to default settings or, NO to abort and then to return to home screen.

PERFORMING A MANUAL PURGE

Press the button for three seconds to start the manual purge process.

CHANGING THE DEFAULT VALVE OPENING TIME

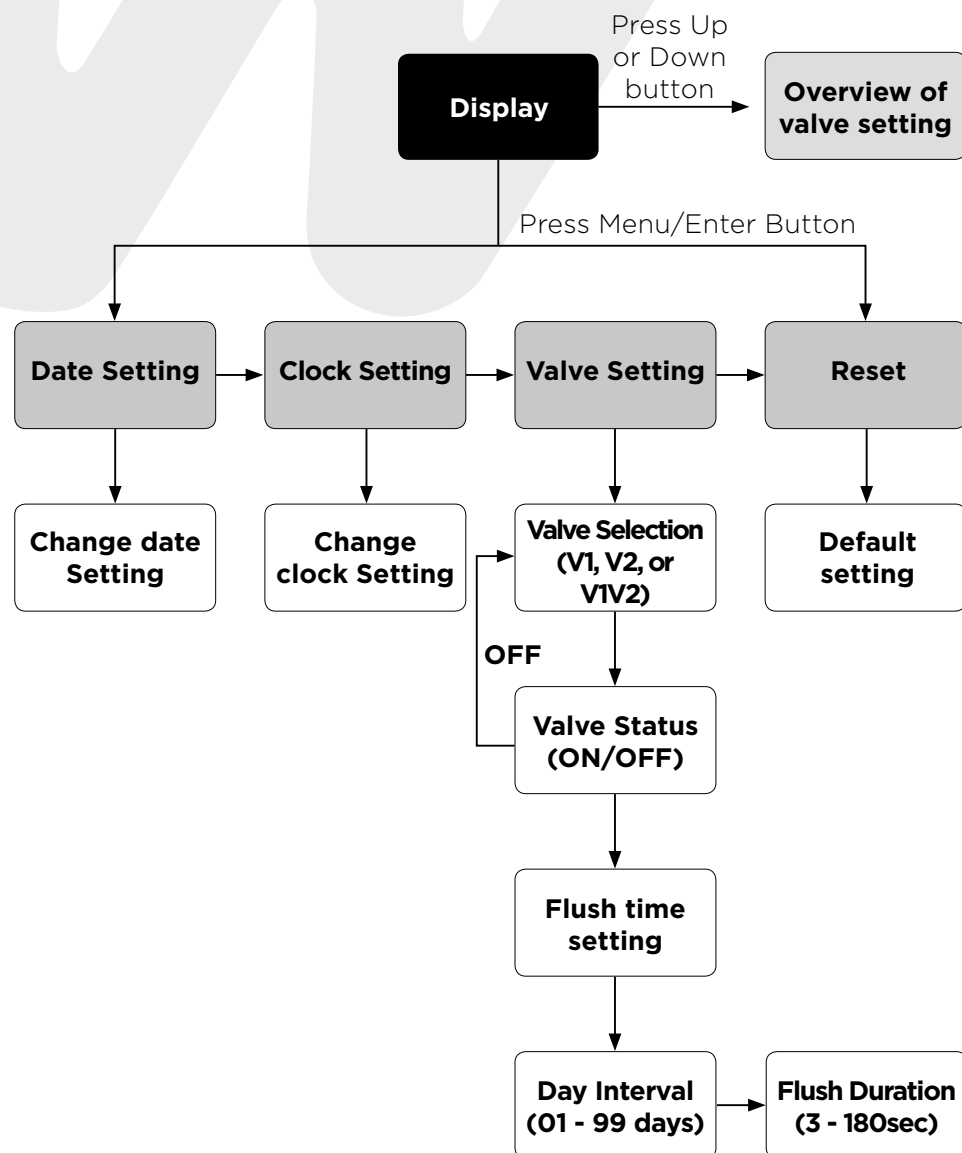
The default valve opening time is 25 seconds. To change this period start with the controller turned off. Press and hold simultaneously the buttons and turn power to the unit on. Release the buttons once the unit displays IN DEBUG MODE.

Press the button and use the buttons to navigate to TURN TIME.

Press to enter the turn time period edit feature and use to change the period.

Press to save the desired period and to exit the menu.

CONTROLLER MENU



AUTO PURGE CONTROLLER SPECIFICATION

Specification	Requirement
Power source	24Vac / 1ph / 50Hz
Rating current	1.6A
Installation	Indoor & Outdoor (Under shelter)
Placement	Wall mounted
Controller specification	a) Operating hour per day : 24 hours b) Operating temperature : 0°C to 40°C c) Humidity requirement : 40 % - 85% RH
Dimension	150 x 90 x 55mm (500g)
Battery	3 years shelf life and exchangeable (Cell coin - CR2032)
Battery function	Controller setting backup
Indicator	a) Red LED : Power ON/OFF b) Blue LED : Blinking - Valve Opening/Closing Lit - Flushing
Output Connections	<u>Actuator Motor (#3653607)</u> a) Power : 24Vac + 5% b) Rating current : 0.75A c) Quantity : Max 2

AUTO PURGE CONTROLLER AC ADAPTOR SPECIFICATION

Specification	Requirement
Input supply	1ph / 220-240Vac/50Hz
Output supply	24Vac + 5%
Rating Current	2A
Placement	Indoor / Outdoor (Under shelter)
Plug type	Australia 3 pin plug
Cable length	Min length 1.5m
Unit Weight	1kg
Operation environment	a) Operation hour per day : 24 hours b) Temperature : 0°C to 40°C c) Humidity : 40 % - 85% RH
Insulation System	Class B (130°C)
Safety standard	AS/NZS 61558-1 AS/NZS 61558-2-6
Approval Number	SAA-160451-EA

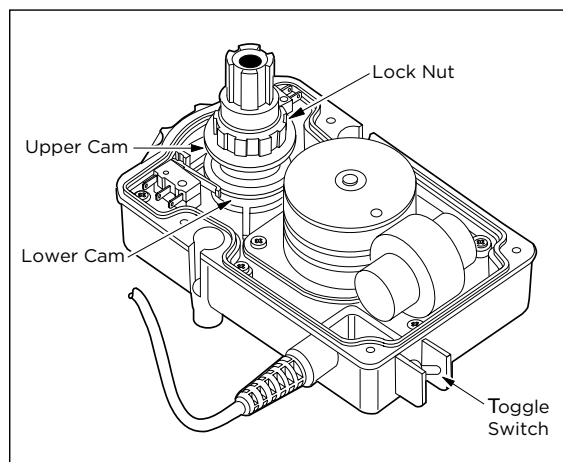
WATERCO FPI VALVE ACTUATOR INSTALLATION

1. Remove the knob, handle and four screws from the valve cover.
2. Align the splines of the valve actuator shaft over shaft of valve.
3. If the valve actuator is not aligned with the mounting holes on the valve cover, rotate the valve actuator.
4. Use the four mounting screws provided to mount the valve actuator to the valve cover.
5. Mount the valve handle and knob to the valve actuator.
6. Connect the cord into the command center circuit board at the appropriate valve actuator socket.
7. If the valve rotates to the wrong position (180 degrees out of phase), adjust the switch on the back of the valve actuator between the ON 1 and ON 2 position. This will rotate the valve to the correct position.

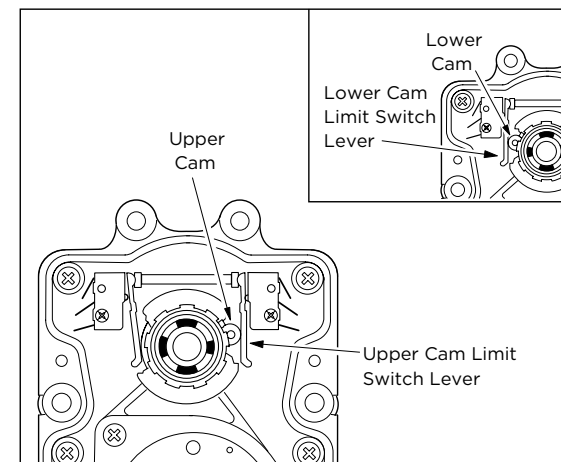
ADJUSTMENTS

Most installations do not require adjusting the valve actuator unless a bypass is desired or the flow needs to be redirected.

1. Remove the valve actuator cover.
2. Unplug the cord from the controller unit.
3. Loosen the lock nut with a pair of pliers (this allows moving the adjustment cams). Refer to the drawing at the top of the next column.



4. To change the clockwise stop point of the valve actuator, turn the upper cam to the desired position. To change the counterclockwise stop point, turn the lower cam to the desired position.



5. Tighten the lock nut.
6. Reconnect the cord into the controller unit.
7. Using the toggle switch on the back of the valve actuator switch to the ON 1 and ON 2 positions to verify that the new adjustment is correct.
8. Repeat steps 2 - 6 if further adjustment is required.
9. Replace the valve actuator cover.