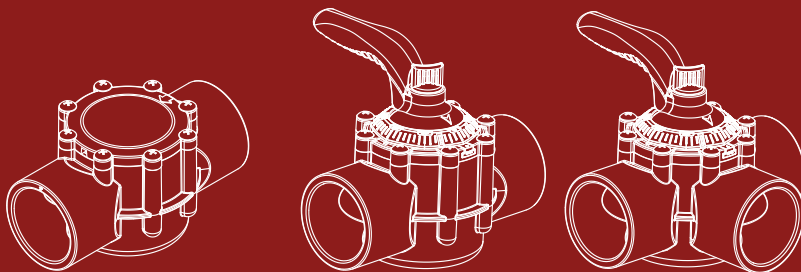




FLEX DIVERTER VALVE

Installation and Operation manual



USER MANUAL

Model: FLEX Series

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WARNING

This product should be installed and serviced by professionals qualified in the installation and maintenance of pool/spa products. Please read this manual before installing the product. The instructions in this manual can be followed exactly. Turn all power pumps OFF before doing any adjustment or maintenance to the valve. To reduce the risk of injury, do not permit children to use this product. Incorrect installation and/or operation can cause serious injury, property damage, or death. Improper installation and/or operation will void the warranty.

1. PRODUCT INTRODUCTION

Emaux FLEX Diverter Valve is a new maintenance-free valve with an ergonomic handle design. The new PTFE coated gasket gives reliable and smooth tuning for the valve. A new adjustable dial design provides user with a simple and flexible way of inlet changing. The shaft can work with the main actuators in the market. When paired with the new Emaux FLEX Actuator, it gives user a reliable automation experience on valve automation control.

2. SPECIFICATIONS

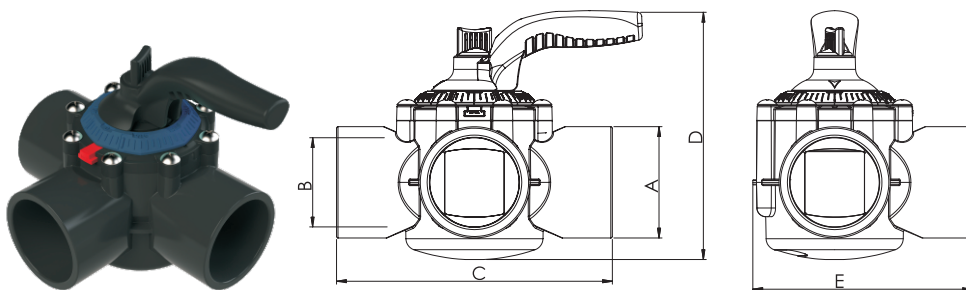


Fig. 1

Three-Way Valve (Imperial)

Code	Model	Material	Connection	A (in)	B (in)	C (in)	D (in)	E (in)	Description
91600106	FLEX40-3(A)	PVC/CPVC	1½" / 2"	Ø2.36	Ø1.89	7.3	6.6	5.87	ID 1½" pipe slip in OD 2" coupler
91600108	FLEX50-3(A)	PVC/CPVC	2" / 2½"	Ø2.95	Ø2.36	7.3	6.6	5.87	ID 2" pipe slip in OD 2½" coupler

Three-Way Valve (Metric)

Code	Model	Material	Connection	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Description
91600105	FLEX40-3(E)	PVC/CPVC	GB50 / GB63	Ø63	Ø50	186	168	149	ID GB50 pipe slip in OD GB63 coupler
91600107	FLEX50-3(E)	PVC/CPVC	GB63 / GB75	Ø75	Ø63	186	168	149	ID GB63 pipe slip in OD GB75 coupler

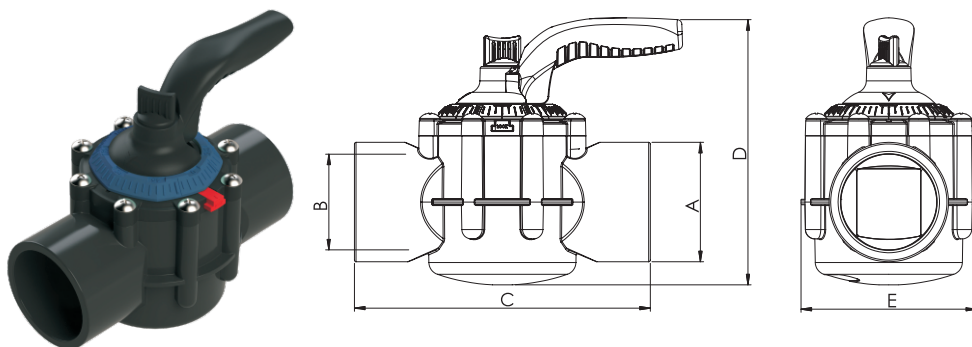


Fig. 2

Two-Way Valve (Imperial)

Code	Model	Material	Connection	A (in)	B (in)	C (in)	D (in)	E (in)	Description
91600006	FLEX40-2(A)	PVC/CPVC	1½" / 2"	Ø2.36	Ø1.8	7.3	6.6	4.3	ID 1½" pipe slip in OD 2" coupler
91600008	FLEX50-2(A)	PVC/CPVC	2" / 2½"	Ø2.95	Ø2.36	7.3	6.6	4.3	ID 2" pipe slip in OD 2½" coupler

Two-Way Valve (Metric)

Code	Model	Material	Connection	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Description
91600005	FLEX40-2(E)	PVC/CPVC	GB50 / GB63	Ø63	Ø50	186	168	111	ID GB50 pipe slip in OD GB63 coupler
91600007	FLEX50-2(E)	PVC/CPVC	GB63 / GB75	Ø75	Ø63	186	168	111	ID GB63 pipe slip in OD GB75 coupler

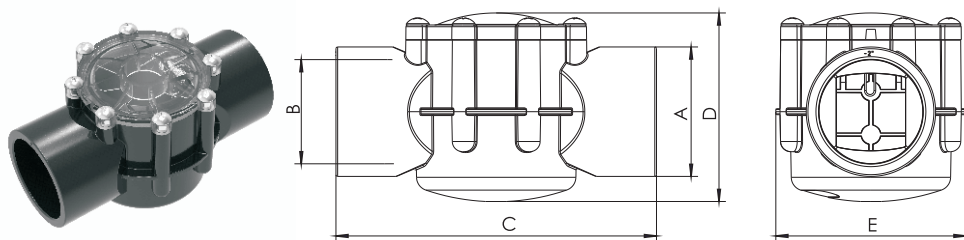


Fig. 3

Check Valve (Imperial)

Code	Model	Material	Connection	A (in)	B (in)	C (in)	D (in)	E (in)	Description
91600207	FLEX40-1(A)	PVC/CPVC/ PMMA	1½" / 2"	Ø2.36	Ø1.8	7.3	6.6	4.3	ID 1½" pipe slip in OD 2" coupler
91600208	FLEX50-1(A)	PVC/CPVC/ PMMA	2" / 2½"	Ø2.95	Ø2.36	7.3	6.6	4.3	ID 2" pipe slip in OD 2½" coupler

Check Valve (Metric)									
Code	Model	Material	Connection	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Description
91600205	FLEX40-1(E)	PVC/CPVC/ PMMA	GB50 / GB63	Ø63	Ø50	186	168	111	ID GB50 pipe slip in OD GB63 coupler
91600206	FLEX50-1(E)	PVC/CPVC/ PMMA	GB63 / GB75	Ø75	Ø63	186	168	111	ID GB63 pipe slip in OD GB75 coupler

3. INSTALLATION

3.1 PLUMBING

Emaux FLEX series Diverter Valve is designed for both Imperial pipes (1½", 2" and 2½") and metric pipes (GB50, GB63, and GB75). Pipes slipped in are required gluing to fix and to connect to a bigger pipe to the valve, coupler, 45 ° or 90 ° fittings have to be used.

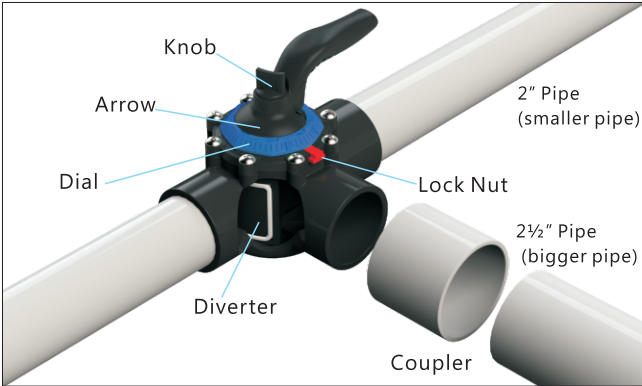


Fig. 4

NOTE:

During gluing the pipe and valve, to avoid glue going into the diverter, it is recommended to turn the handle in the direction as shown in Fig. 4. So that the diverter is away from ports. Make sure that no glue enters the main valve body.

The Check Valve can be installed in horizontal piping runs or vertical piping runs with the flow running upward.

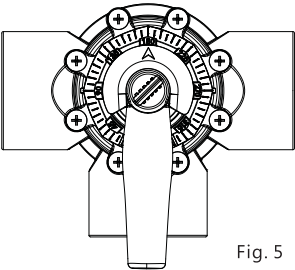


Fig. 5

3.2 FUNCTION AND APPLICATIONS

	Function	Application
Knob	To lock handle and the Dial.	Loosen knob to adjust handle and dial.
Lock Nut	To lock the Dial	After loosen knob, push the lock nut then turn the Dial.
Arrow on Handle	To indicate the diverter position.	Turn the handle to adjusting flow inside valve. Marking on the dial is used as position reference for the arrow to point to.
Dial	To set the handle turntable range.	Rotate the Dial until hear a click sound.

Check Valve MAINTENANCE

The clear cover allows inspection of the Check Valve operation. If necessary, the valve can be disassembled and the O-ring and valve body can be inspected for damage. The O-ring should be thoroughly greased with silicone lubricant and the valve reassembled.



Turn all power pumps OFF before doing any adjustment or maintenance to the valve.

WARNING

3.3 IMPORTANT CHECK VALVE LOCATION

For optimal sealing performance, locate the Check Valve at the lowest elevation possible in the plumbing. This allows the weight of the water column to help seal the Check Valve for a good seal. A minimum of 16" of water column is recommended.

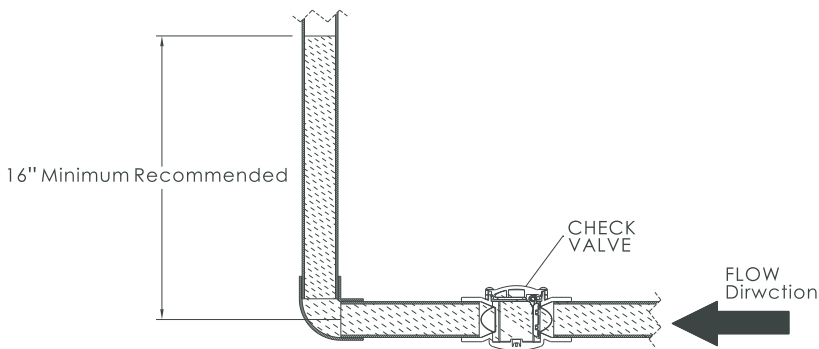


Fig. 6

4. OPERATION

4.1 INLET CHANGING

User can set either port as an inlet port. The arrow on the handle indicates the diverter position and the port flow is blocked when the arrow on the handle is pointing at it. The new dial has markings from 0 to 360 degree where 270 to 90 degree range does not allow the arrow to turn to. As a result, the diverter is limited to turn to the range 90 to 270 only.

Allowed area for the Arrow turning.

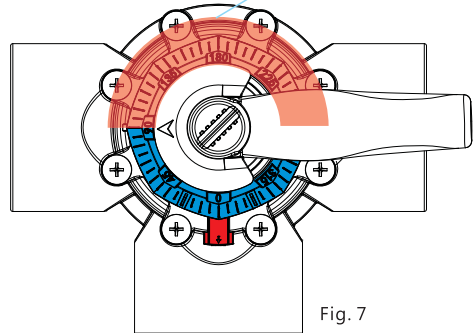


Fig. 7

Follow the following procedure to change the inlet.

1. Turn the knob approximately half turn counter clockwise to loosen the handle.
2. Push and hold the Lock Nut to release the lock of the Dial and then turn the Dial "0" to the port which is defined as an inlet (port where water enters).
3. Lock the Dial by releasing the push, the Dial will be locked when the Lock Nut pops out (if the Lock Nut does not pops out, which means the Lock Nut is not pointing to either marking (0, 90, 180, 270) on the Dial).
4. Turn the knob clockwise until the handle is tightened to fix the setting.

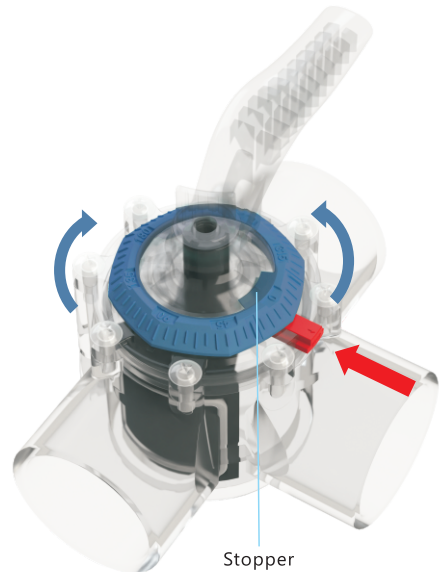


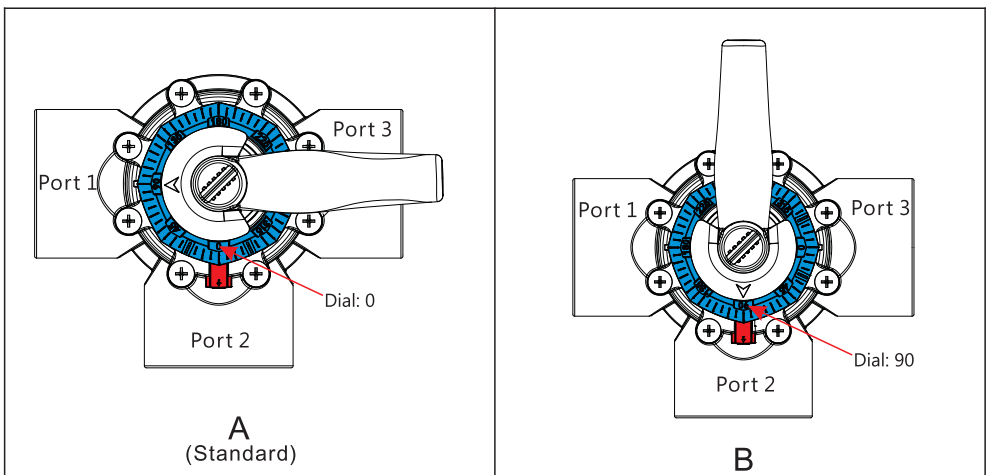
Fig. 8

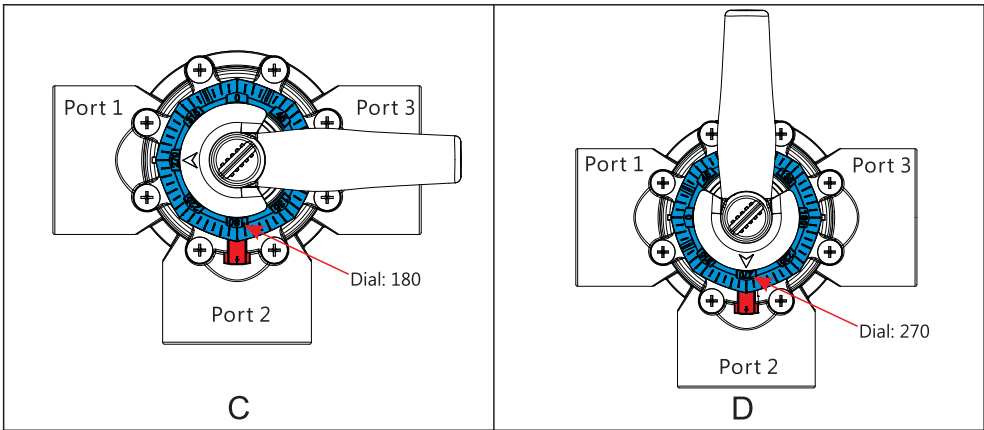
Turn the handle:

Before turning the handle, you must loosen the knob. Otherwise, the handle is locked.

1. Power off the pumps. Make sure that water in the valley is not flowing.
2. Turn the knob at least two turns counter clockwise to loosen the handle.
3. Turn the handle, the arrow on the handle indicates the diverter position.
4. The 270 to 90 degree range which is marked on the dial does not allow the arrow to turn to.
5. Turn the knob clockwise until the handle is tightened to fix the setting.

4.2 DIAL DIRECTION





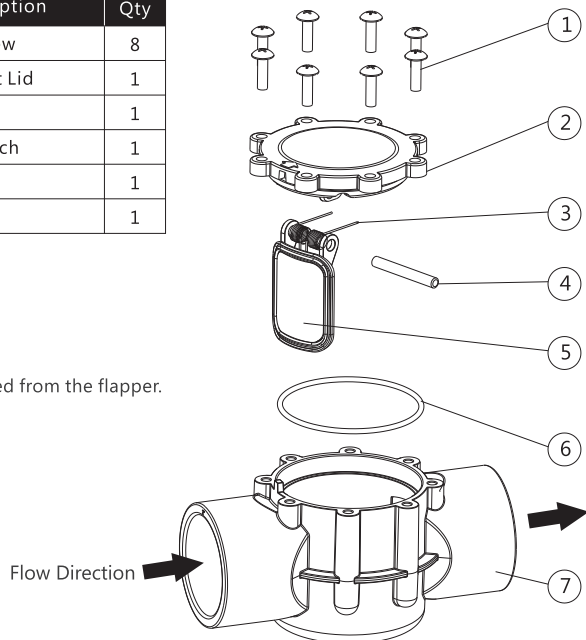
Dial direction	A (Standard)	B	C	D
Port where water enters (Inlet Port)	2	3	1, 2, 3	1
Port Where Water Exits (Port that the Diverter can block)	1, 3	1, 2	1, 2, 3	2, 3

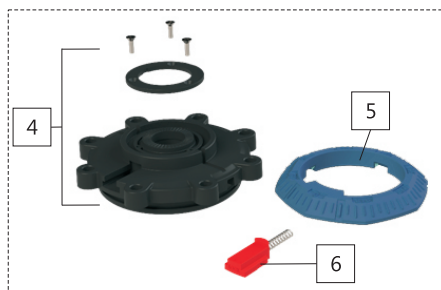
5. SPARE PART LIST

Key No.	Part No.	Description	Qty
1	112010170	M6X20 Screw	8
2	57200055	Transparent Lid	1
3	112010179	spring	1
4	112010178	D8.3XΦ1latch	1
5	5703510388	Spool	1
6	111040039	o-ring	1

NOTE:

For Replacement Before installing.
make certain that the seal is not displaced from the flapper.





Valve Cover module

Includes 3 M2 screws and 1 ring and cover main body.



8. Diverter module

Includes 2 shaft O-ring and 1 washer



NOTE:

Item 9 (The Valve housing) is not available as a separate part. If you need to replace the valve housing, you must replace the entire valve.

Key No.	Part No.	Description	Qty
1	570349858	Knob	1
2	112010170	M6x20 Screws	1
3	570349857	Valve Handle	2
4	E160001	Valve Cover module	2
5	57200010	Dial	1
6	E042809	Lock Button	1
7	111000054	O-Ring	1
8	E160002	Diverter module	1

6. TERMS OF THE WARRANTY

As original purchaser of this equipment have purchased from Emaux Water Technology Co Ltd, through Authorized International Distributor or Dealer, warrants its products free from defects in materials and workmanship under normal use during warranty period. The warranty period begins on the day of purchase and extends only to the original purchaser. It is not transferable to anyone who subsequently purchases the product from you. It excludes all expendable parts.

During the warranty period, Emaux authorized reseller will repair or replace defective parts with new parts or, at the option of Emaux, serviceable used parts that are equivalent or superior to new parts in performance.

This Limited Warranty extends only to products purchased from Emaux authorized reseller. This Limited Warranty does not extend to any product that has been damaged or rendered defective

- (a) as a result of accident, misuse or abuse;
- (b) as a result of an act of God;
- (c) by operation outside the usage parameters stated herein;
- (d) by the use of parts not manufactured or sold by Emaux;
- (e) by modification of the product;
- (f) as a result of war or terrorist attack; or
- (g) as a result of service by anyone other than Emaux authorized reseller or authorized agent.

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