



# One in Service One Standby Controller for Water Treatment Systems

46010

## Instruction Manual



**Please read this manual in details  
before using this valve and keep it properly  
in order to consult in the future**

0WRX.466.525

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## Notice

- To ensure normal operation of the valve, please consult with professional installation or repairing personnel before use it.
- If there are any of pipeline engineering and electric works, there must be finished by professional at the time of installation.
- Do not use the control valve in unsafe or unknown voltage place.
- One in service one standby or two in service one standby could be interchanged via a switch.
- Do not put the valve near the hot resource, high humidity, corrosive, intense magnetic field or intense vibrations environment. And do not leave it outside.
- Please use this product under the voltage between AC100 ~ 240V 50/60Hz. Failure to use this product under such conditions voids the warranty.
- Be care when supply control valve with 220 voltage.
- Do not let children touch or play, because carelessness operating may cause the procedure changed.

## 1. Product Overview

### 1.1. Main Application & Applicability

Used for one or two in service one standby water treatment systems

Be suitable for all of RUNXIN meter type control valve.

### 1.2. Product Characteristics

#### ➤ Wide voltage design

Transformer connect with power AC100-240V, 50/60Hz.

#### ➤ Multi-programs optional

Valve has two programs of one in service one standby and two in service one standby. Two programs could be interchange via a switch.

#### ➤ Signal output

Valve has signal output connector. When one valve is in regeneration, signal is sent out.

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### 1.3. Service Condition

Runxin Valve should be used under the below conditions:

Item	Environment temperature	Relative humidity	Electrical facility
Working condition	5℃ ~ 50℃	≤95% ( 25℃ )	AC100 ~ 240V/50 ~ 60Hz

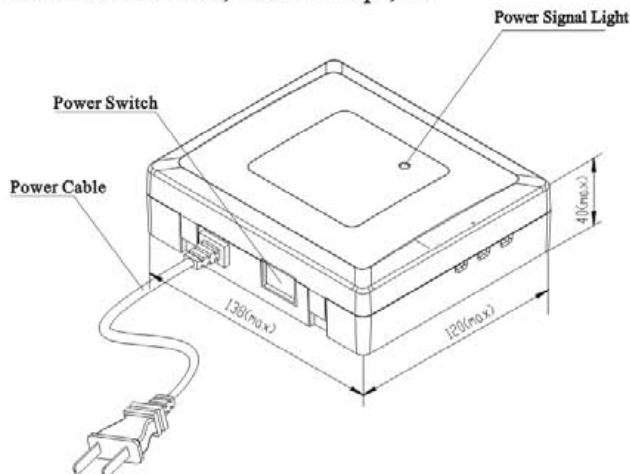
### 1.4. Product Structure

The appearance is just for reference. It is subjected to the real product.

### 1.5. Installation

A. Material prepared before installation

Wire, AC 220V normal close solenoid valve, electronic tape, etc.



### B. Installation notice

Before installation, read all those instructions completely. Then obtain all materials and tools needed for installation.

The installation of product, pipes and circuits, should be accomplished by professional to ensure the product can operate normally.

### C. Controller installation

- ① Use a bolt to fix the hanger on the wall.
- ② Put the controller on hanger.
- ③ Open the front cover, connect solenoid valve or control valve with the controller.

Note:

- Arrange wiring inside pipeline.
- Do not put the valve near the hot resource, directly in sunshine or rain environment. And do not leave it outside.
- Do not put the valve in high acid-base, intense magnetic field or intense librat-ions environment which may result in electronic part damaged.

## 2. Basic Setting & Usage

### 2.1. One in service one standby usage

This controller can be connected with two meter type control valves with two solenoid valves which are installed on water outlet to realize one in service one standby system.

Before using, dial the switch on board to be: "1". Connect wires as figure 1. All of connectors on board are passive switches. When it is closed, the indicator light on.

### 2.2. Two in service one standby usage

This controller can be connected with three meter type control valves with three solenoid valves which are installed on water outlet to realize two in service one standby system.

Before using, dial the switch on board to be: "ON". Connect wires as figure 2. All of connectors on board are passive switches. When it is closed, the indicator light on.

## 3. Application

### 3.1. The Wiring

#### A. The wiring of one in service one standby

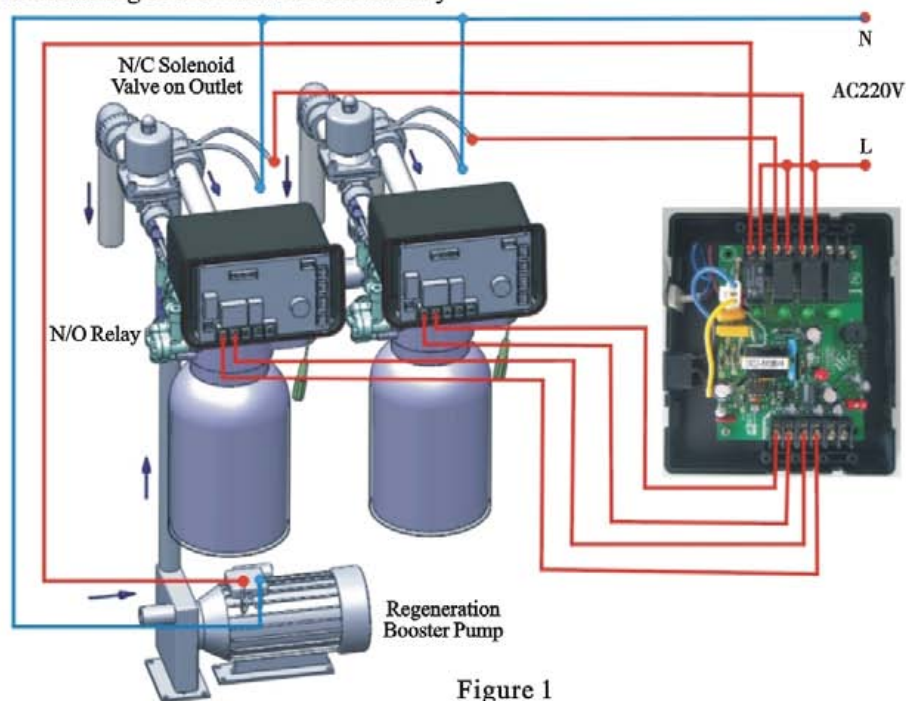


Figure 1

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### Illustration:

- ① Two valves are meter type. Set signal output mode to be “b-01” of each valve before put them as one in service one standby system.
- ② Dial the switch to be “1” to be “One in service one standby” program. The set will be saved even through power is shut-off.
- ③ “Relay N/O port” is the normal open port of the third black connector on controller, “N/O”, “COM” port.
- ④ “Solenoid valve on outlet” is the AC220V normal close solenoid valve on outlet.
- ⑤ If system need connect with booster pump, connect with the bottom left two connectors in figure 1. If pump current  $< 5A$ , connect with controller directly (Figure 2); If current  $\geq 5A$ , it needs to connect with an AC relay (Figure 3).

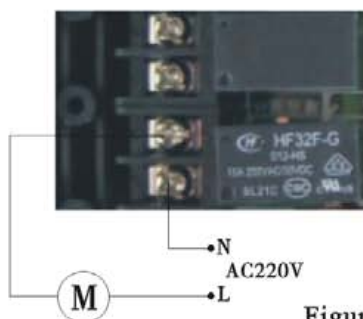


Figure 2

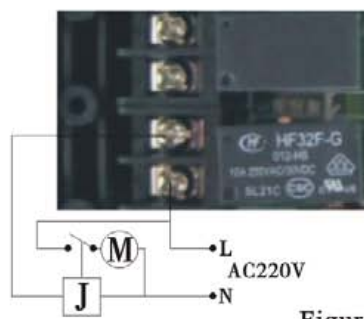


Figure 3

### B. The wiring of two in service one standby

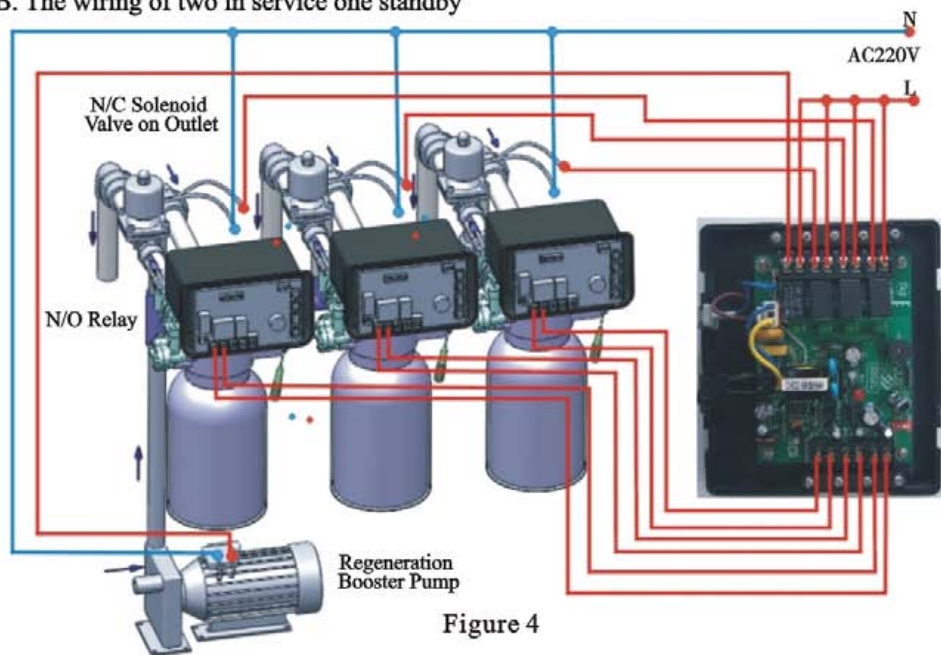


Figure 4

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### Illustration:

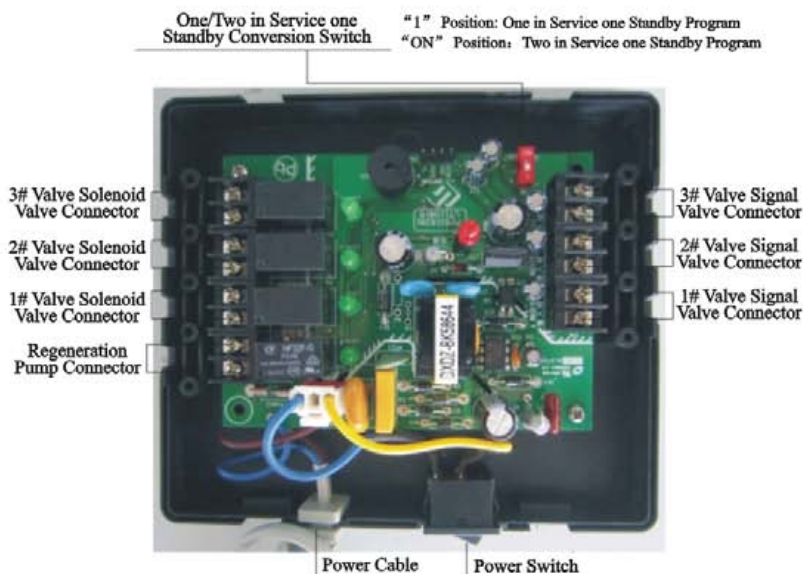
- ① Three valves are meter type. Set signal output mode to be “b-01” of each valve before put them as two in service one standby system.
- ② Dial the switch to be “ON” to be “Two in service one standby” program. The set will be saved even through power is shut-off.
- ③ “Relay N/O port” is the normal open port of the third black connector on controller, “N/O”, “COM” port.
- ④ “Solenoid valve on outlet” is the AC220V normal close solenoid valve on outlet.
- ⑤ If system need connect with booster pump, connect with the bottom left two connectors in figure 1. If pump current  $< 5A$ , connect with controller directly (Figure 2); If current  $\geq 5A$ , it needs to connect with an AC relay (Figure 3).

### Note:

- After dial the switch, restart the system power.
- Solenoid valve is AC normal close valve.
- If inlet pressure is higher than 0.2MPa, it doesn't connect with booster pump.

### 3.2. The Function and Connection of PC Board


Open the front cover, you will see each connector on main board as following figure.



### 3.3. Trial Running


For one in service one standby system as figure 1, connect transformer into AC100~240V/50~60Hz socket, dial switch on "1" position, all indicators light on for 1 second, then enter work status. Check the system if has one in service one standby function.

A、When two valves are in service status, check if one in service, one standby. Valve in service, its outlet solenoid valve is open, while another solenoid valve is close.

B、Press  button on service valve to make it in regeneration circle, and check if another valve starts to service.

For two in service one standby system as figure 2, connect transformer into AC100~240V/50~60Hz socket, dial switch on "ON" position, all indicators light on for 1 second, then enter work status. Check the system if has two in service one standby function.

A、When three valves are in service status, check if two in service, one standby. Valves in service, their outlet solenoid valves are open, while another solenoid valve is close.

B、Press  button on any of service valves to make it in regeneration circle, and check if standby valve starts to service.

### 3.4. Trouble-Shooting

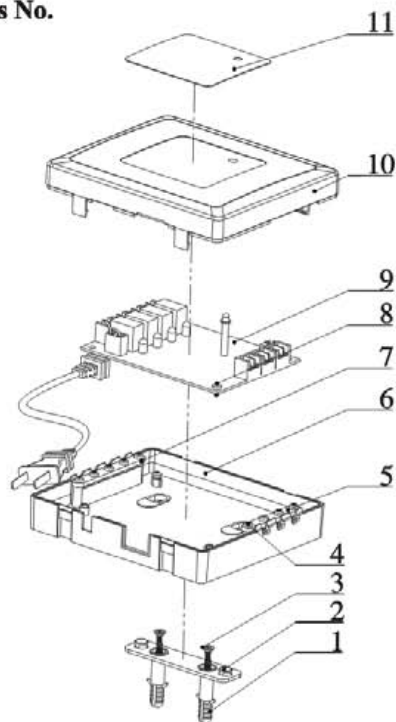
Problem	Cause	Correction
1. Power indicator doesn't light.	A. Power switch damaged. B. Power indicator light damaged. C. Fuse damaged.	A. Check power switch if it is dialed to "1" position. B. Replace power indicator light. C. Replace fuse or main board.
2. Solenoid valve on outlet can't open.	A. Solenoid valve damaged. B. The wiring is incorrect. C. Reply on main board damaged.	A. Replace solenoid valve. B. Follow the above wiring and make correct connection. C. Replace reply or main board.
3. System can't realize one in service one standby function.	A. Signal wiring is incorrect. B. Solenoid valve damaged. C. Main board damaged.	A. Signal wiring is normal open port, follow the above figure of wiring. B. Solenoid valve is normal close type, replace. C. Replace main board.
4. System can't realize two in service one standby function.	A. Signal wiring is incorrect. B. Solenoid valve damaged. C. Main board damaged.	A. Signal wiring is normal open port, follow the above figure of wiring. B. Solenoid valve is normal close type, replace. C. Replace main board.



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### 3.5. Spare Part and Parts No.

#### 46010 Structure



#### Components

Item Number	Description	Part Number	Quantity	Note
1	Bolt	8906005	2	Plastic
2	Hanger	8040015	1	
3	Screw, Cross	8902008	2	M4 × 25
4	Screw, Cross	8909008	9	ST2.9 × 9.5
5	Wire Slice	8126009	1	Four Holes
6	Control Box	8300027	1	
7	Wire Slice	8126009	1	Five Holes
8	Screw, Cross	8909006	2	
9	Main Board	6382013	1	
10	Control Box Cover	8315026	1	ST2.9 × 6.5
11	Label	8865039	1	


## 4. Warranty Card

Dear client:

This warranty card is the guarantee proof of RUNXIN brand multi-functional flow control valve. It is kept by client self. You could get the after-sales services from the supplier which is appointed by RUNXIN manufacturer. Please keep it properly. It couldn't be retrieved if lost.

It couldn't be repaired free of charge under the below conditions:

1. Guarantee period expired.(One year)
2. Damage resulting from using, maintenance, and keeping that are not in accordance with the instruction.
3. Damage resulting from repairing not by the appointed maintenance personnel.
4. Content in guarantee proof is unconfirmed with the label on the real good or be altered.
5. Damage resulting from force majeure.

Product Name	 Multi-functional Flow Control Valve for Water Treatment Systems			
Model		Code of Valve Body		
Purchase Company Name		Tel/Cel		
Problem				
Solution				
Date of Repairing		Date of Accomplishment		Maintenance Man Signature

When product need warranty service, please fill in the below content and sent this card together with the product to the appointed suppliers or Runxin company.

End-user Company Name		Tel/Cel.	
Purchase Company Name		Tel/Cel.	
Model	Code of Valve Body		
Status of One in Service One Standby _____ ; Status of Two in Service One Standby _____ ;			
Problem Description			



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