



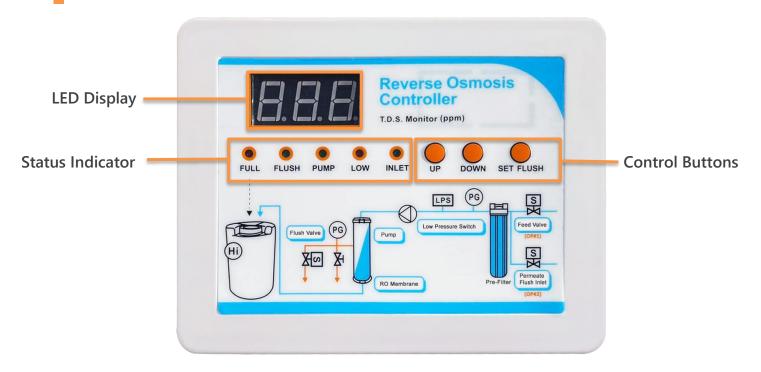
# RO Controller C-5TM User Manual



Patent Number: M600753

# 1 C-5TM RO Controller Overview

#### **Control Panel**



### Status Indicator Description

Status Indicator	Color	Description
Full	<ul><li>Red</li></ul>	When the permeate storage tank is full, the RO system will stop making water and stand by.
Flush	<ul><li>Green</li></ul>	The system is running an automatic flush cycle of the RO membrane.
Pump	<ul><li>Green</li></ul>	The RO high-pressure pump is running and making water.
Low	<ul><li>Red</li></ul>	The inlet water pressure below default pressure.
Inlet	<ul><li>Green</li></ul>	The water inlet solenoid valve starts and feeds water.



# **Control Buttons**

Cont	trol Buttons	LED Display	Description
+		8.8.8.	The value <b>increases</b> with each press.
_		8.8.8.	The value <b>decreases</b> with each press.
SE	T/ FLUSH	8.8.8.	<ul> <li>While the RO system is running, press the SET/FLUSH buttons once, and the RO membrane flush starts (30 seconds countdown). Pressing again will stop the flush countdown and resume normal operation.</li> <li>Press and hold for 3 seconds to enter the Setup Mode.</li> <li>Use the +/- buttons to select Setup Mode, then press again to enter numerical mode. Use the +/- buttons to adjust to the desired value, then press again to confirm.</li> </ul>
Setup Mode	FUL	EBB	Setup time for Tank-Full slow flush (30 seconds default).
	OSC	888	Setup running hours for Timed fast flush (6 hours default).
	SFH	SEH	Setup time for Startup slow flush (30 seconds default).
	FOC	E.B.E.	Setup time for Timed/Manually fast flush (30 seconds default).

 $\ensuremath{\textit{NOTE}}$  : You can also customize the security password mode, please contact us.



#### **Display Description (OPA Mode)**

LED Display	Indicator Status	Description
888	FULL FLUSH PUMP LOW INLET	When the power is on, the screen will first display "888" and the default mode "OPA", then the raw water solenoid valve starts and feeds water.
888	FULL FLUSH PUMP LOW INLET	Startup Flush: the screen displays "030~000", and the countdown is 30 seconds.
8.8.8	FULL FLUSH PUMP LOW INLET	Start the pure water production, the number displayed on the screen is the TDS value of the pure water, and the indicator " <b>PUMP</b> " lights up.
888	FULL FLUSH PUMP LOW INLET	Start the Timed Flush: The default setting is every 6 hours flushing 30 seconds, and the screen displays a countdown of "A30~A00".
8.88	FULL FLUSH PUMP LOW INLET	When the water tank is full, start to Tank-Full flush for 30 seconds, and the system will stand by.
8.8	FULL FLUSH PUMP LOW INLET	When the water tank is low (below the set pressure), the display shows "LO", the indicator LOW/INLET lights up, and the system will continue to feed water.  The wastewater end will continue to drain until the inlet water pressure reaches the set value. When the indicator "LO" lights off, the system will flush for 30 seconds and resumes water production.

**NOTE** If the pressure cannot reach the default value, please turn off the power and check your inlet water pressure. It is recommended to double confirm with the factory your raw water inlet pressure before installation.



Start the Manual Flush: Press the SET/FLUSH button once, and the system will start a 30-second flush. Then the RO high-pressure pump resumes operation and starts to produce water.



The default TDS range is 0 to 999 ppm, and the display flashes beyond the range of 999. (OPA mode is suitable for raw water TDS <1,000ppm)



#### Additional Information

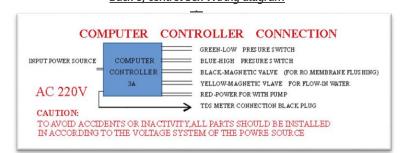
- 1. The high-pressure pump does not activate in Boot Flush Mode.
- 2. In Flush Mode, the high-pressure pump is only activated for Manual and Timed Flush.
- 3. There are 4 Flush Modes: Tank-Full (FUL), Timed (OSC), Startup (SFH), and Manual (FOC). The flush time can be adjusted to 0 (which means turn-off flush function), and the number of seconds of the flushing time can be adjusted to 1 unit per second.
- 4. Timed Flush is only counted according to the water-making time, and it will be re-timed after Manual Flush.

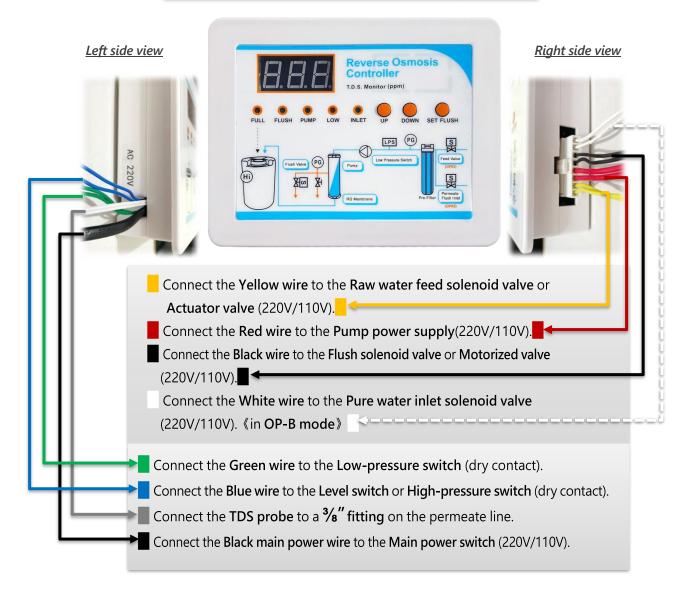


## **C-5TM Connection Instruction**

Please read the wiring diagram shown on the back of the control box first. (As below) To avoid failure and safety, all components must operate at the corresponding contacts and voltages.

\*\*Back of control box Wiring diagram\*\*







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# **Additional Settings**

The following chapters are customized settings, please note that we don't take responsibility if you change it by yourself. Please contact us if necessary.

#### Operation Mode

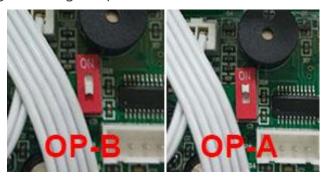
C-5TM RO controller has two modes (OPA/OPB) that can be set up.

**OPA Basic Mode** - Flush solenoid valve with raw water (Designed for the raw water TDS <1,000ppm).

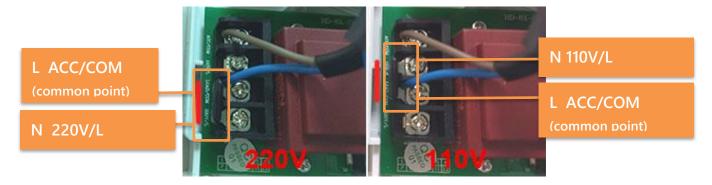
**OPB Desalination Mode** - Use pure water to flush the solenoid valve (Designed for raw water TDS > 1,000ppm, like brackish water or seawater).

#### Note: OPB mode requires an additional solenoid valve.

- When the system power is on, the mode shown on the LED screen of the control panel for the first second is the current operating mode.
- It is necessary to set the OPB mode if the TDS of the raw water is greater than 1000pm, the RO system must be designed using the pure water flush to avoid the risk of corrosion.



#### Input Voltage Setup



C-5TM RO controller has two voltage modes (220V/110V) which can be changed by switching the jumper location.

