User manual

DSLC Smart Home Sewage Lift Controller

—— Float Ball Type / Air Pressure Type

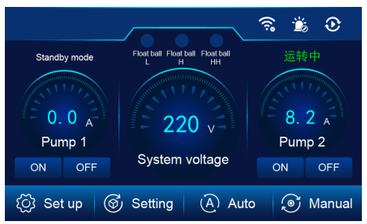
Introduction

The DSLC Smart Home Sewage Lift Controller is available in two models: float ball type and air pressure type. It supports the control of up to 2 water pumps.

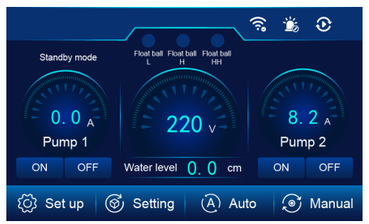
This controller offers two modes: manual and automatic. In manual mode, you can manually turn the water pumps on and off using the touchscreen. In automatic mode, the controller automatically controls the start and stop of the water pumps based on the signals from the float ball or air pressure.

During the operation of the water pumps, the controller performs automatic detection of faults such as overvoltage, undervoltage, overload, no-load, and short circuit. It promptly stops the pump and activates a standby pump (if available) for replacement.

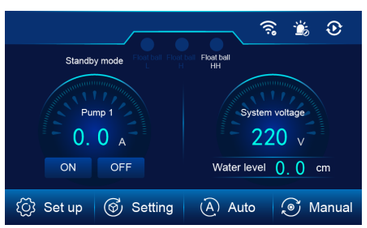
The controller features a 4.3-inch touchscreen display. The pump control interface consists of a main page and a settings page. The content displayed on the main page may vary slightly depending on the specific model and number of pump units. Please refer to the actual model for accurate information.



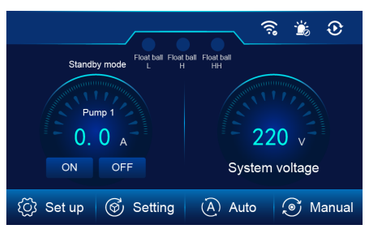
Air Pressure Type - Two pumps



Float Ball Type - Two pumps



Air Pressure Type - One pump



Float Ball Type - One pump

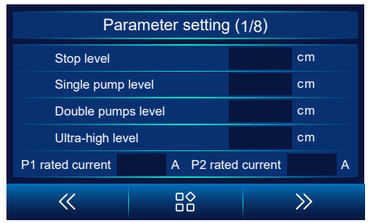
Operation Instructions

ICONS	TYPES	DISPLAY INSTRUCTIONS
	Float Ball Status Indicator Light	Indicates Float Ball Stop
	Float Ball Status Indicator Light	Indicates Float Ball Action
	Float Ball Status Indicator Light	Indicates High Float Ball Action
Standby	Water Pump Status Indicator	Running Fault To be set
	Network Connection Status Indicator	When the network connection is successful, this icon will be displayed.
	Fault Status Indicator	When a fault occurs, this icon will be displayed.
	Operating Status Indicator	When any water pump is running, this icon will be displayed.
ON	Water Pump Start Button	In manual mode, click to start the water pump.
OFF	Water Pump Stop Button	In manual mode, click to stop the water pump.
Set up	Settings Button	Long press for 3 seconds to enter the parameter setting page.
Setting	One-Key Calibration Button	In manual mode, if the status of the water pump is "To be set" after starting, you need to click the setting button to set the water pump. If the status of the water pump is "Running," it means that the water pump has completed the one-key set. *Before operating in automatic mode, it is necessary to set all water pumps.
Auto	Auto Button	Click to enter automatic mode.
Manual	Manual Button	Click to enter manual mode.

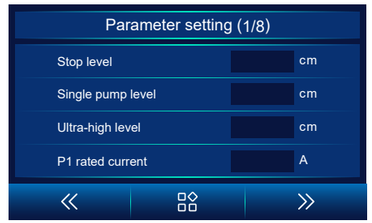
Interface description

Parameter Setting Page

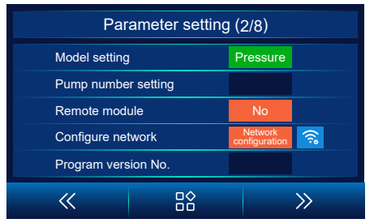
(Long press the settings button on the main page for 3 seconds to enter the parameter setting page)

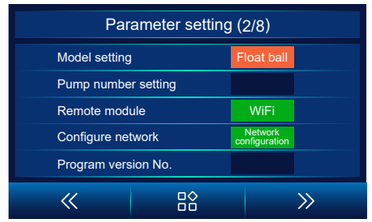


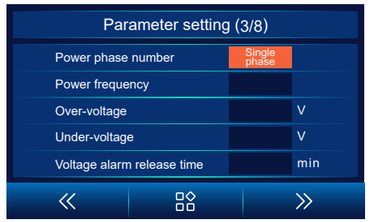
Two pumps - Parameter Setting Page

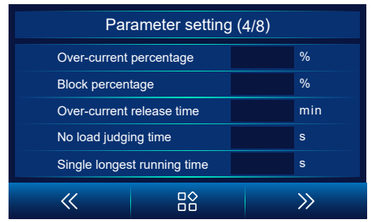


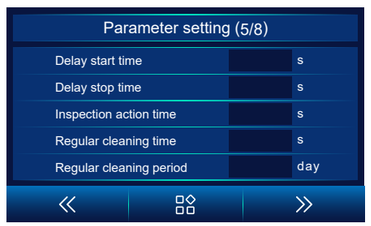
One pump - Parameter Setting Page

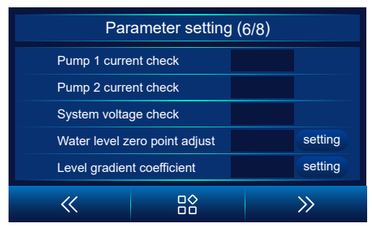


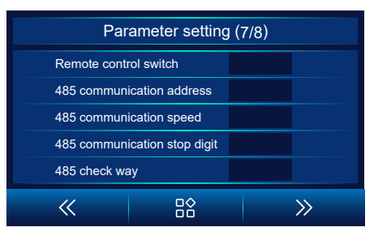


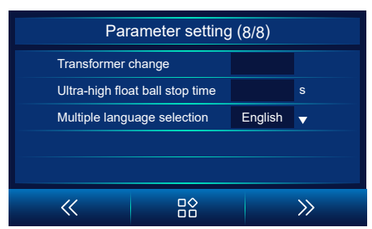












Note: The Parameter Setting (2/8) and Parameter Setting (7/8) pages correspond to the factory hardware configuration. Unless under special circumstances, the default values on the parameter setting pages should not be modified. If changes are required, please contact the manufacturer

Parameter Setting Page

(1) Stop level：for pneumatic equipment, when the water level drops to the shutdown level, all currently running pumps should be stopped.

(2) Single pump level：for pneumatic devices, when the current water level rises to the pump start level, one pump will be activated.

(3) Double pumps level：when the current water level rises to the dual pump start level, two pumps will be activated.

(4) Ultra-high level：when the current water level rises to the Ultra-high water level, activate the dual pumps and sound the alarm with a buzzer.

(5) The rated current of Pump 1：The rated current of Pump 1 during operation. The rated current can be configured through the "Set" button or manually adjusted by modifying this parameter value.

(6) The rated current of Pump 2：The rated current of Pump 2 during operation. The rated current can be configured through the "Set" button or manually adjusted by modifying this parameter value.

(7) Click on the bottom icon to return to the main page.

Click on the icons and to flip the page.

Network Configure

(1) Clicking on the icon in the parameter settings page，Subsequently, the device enters the network configuration phase,The network configuration icon will turn green, and after 5 seconds, the icon will return to its default state, indicating that you can proceed with the next step on your mobile device.

(2) Connect your mobile device to the on-site WiFi network (the WiFi network of the device), which should have internet access.

(3) Scan the QR code on the right with WeChat or search for “Yu-con Industrial Internet of Things cloud platform” to follow the Yu-con cloud platform (Yu-con Industrial IoT Cloud Platform) official account.

(4) Please follow the network configuration instructions provided in the public account to perform the network configuration operation,If the icon is displayed, it indicates that the network configuration was successful.

Fault record Page

(1) The fault record page displays the 16 most recent faults. When a fault occurs, the manual page will display a fault icon. Clicking on the fault icon will take you to the fault log page. The smaller the serial number, the more recent the occurrence of the fault relative to the present time.

(2) Clicking on the icon in the fault record (3/3) page will allow you to clear all fault records.

Troubleshooting

ALARM (CODE)	FAULT CAUSE / TRIGGER CONDITION	FAULT RESOLUTION
Overvoltage (Alarm code:30)	Excessive input voltage to the control cabinet.	Inspect the power supply connection.
	If the voltage exceeds the set overvoltage value for a continuous duration of 2 seconds, an alarm will be triggered, and all water pumps will stop running.	After the voltage returns to normal, the alarm will be automatically cleared after a delay of 2 minutes (the time can be set), and the previous operating status will be restored.
Undervoltage (Alarm code:31)	Insufficient input voltage to the control cabinet.	Inspect the power supply connection.
	If the voltage remains below the set undervoltage value for a continuous duration of 60 seconds, an alarm will be triggered, and all water pumps will stop running.	After the voltage returns to normal, the alarm will be automatically cleared after a delay of 2 minutes (the time can be set), and the previous operating status will be restored.
Pump1 overload (Alarm code:40) Pump2 overload (Alarm code:41)	The pump's operating current exceeds the rated current for a specific duration.	Inspect the power supply connection.
	The rated current of the pump is set too low.	Adjust the rated current to an appropriate value.
	In automatic operation mode, if the current of a single pump exceeds the rated current for a certain duration, within a detection time range of 5 seconds to 30 minutes, an alarm will be triggered, and the pump in question will be stopped.	After the first overload alarm, it will automatically be cleared and the system will switch to standby mode after 15 minutes. However, if another overload alarm occurs within 1 hour, it will not be automatically cleared.
Pump1 no-load (Alarm code:42) Pump2 no-load (Alarm code:43)	Improper setting of the rated current for the pump.	Adjust the rated current to an appropriate value.
	In automatic operation mode, if the current of a single pump remains below a certain percentage (which can be set) of the rated current for a continuous duration of 3 seconds, an alarm will be triggered, and the pump will be stopped.	After the first no-load alarm, it will automatically be cleared and the system will switch to standby mode after 15 minutes. However, if another no-load alarm occurs within 1 hour, it will not be automatically cleared.
Pump1 Motor stall (Alarm code:46)	The effective value of the pump current exceeds the set multiple.	Check the water pump for any malfunctions such as damaged bearings, oil shortage, or damaged impellers, and promptly repair them.
Pump2 Motor stall (Alarm code:47)	If the voltage remains above the set overvoltage value for a continuous duration of 2 seconds, an alarm will be triggered, and all water pumps will stop running.	After the voltage is normal, the alarm will be automatically released after a delay of 2 minutes (the time can be set) and the previous operating state will be restored.
Sensor disconnection (Alarm code:48)	Poor sensor connection or sensor damage.	Check whether the sensor status and connection are normal.
	The sampling value of the pressure sensor is greater than the upper limit value or less than the lower limit value and lasts for 5 seconds.(The upper and lower limits are the program curing values)	The sampling value of the pressure sensor returns to the normal range and lasts for 5 seconds (the sensor and its wiring are not damaged, and the sampling value is within the normal range)
Ultra-high level (inflow) (Alarm code:51)	Excessive water level in the pump inlet tank/well.	Inspect the water level in the pump inlet tank.
	Floating ball type high water level floating ball closed for 5 seconds; The pneumatic high water level float is closed or the current water level is greater than or equal to the ultra-high water level and lasts for 5 seconds.	The floating ball type high water level floating ball is disconnected and lasts for 5 seconds; The pneumatic high water level float is disconnected or the current water level is less than or equal to the ultra-high water level and lasts for 5 seconds.

Safety instructions

Warning — Failure to adhere to the following safety instructions may result in fire, electric shock, damage, or other injuries.

Operating environment

(1) Operating temperature: 0~45 ℃

(2) Storage temperature: -10~60 ℃

(3) Humidity for use and storage environment: 30%~90%

Electrical safety

(1) Please ensure that the controller is well grounded.

(2) Please do not operate the switches inside the controller with wet hands.

(3) When powered on or running, do not touch the components or cables inside the panel with wet hands.

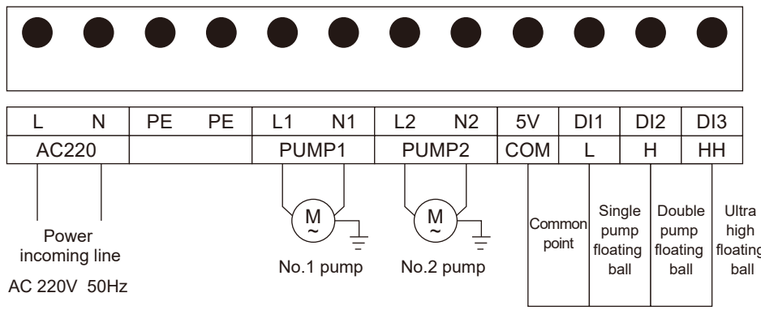
(4) Please make sure to cut off the power supply before wiring or checking.

(5) Installation, wiring, repair, inspection, and component replacement should be carried out by professionals.

Operation safety

(1) Please operate after carefully reading this manual.

(2) During automatic mode operation, the motor may suddenly start, please be aware.

(3) Do not modify the controller on your own.

Electrical wiring diagram