

Central Control manual



Central Control

1. Product overview



Main unit X1



485 cable X1



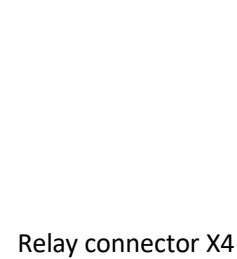
Lighting cable X1



Temperature probe cable X1



Pool cover cable X1



Relay connector X4



Water level cable X1

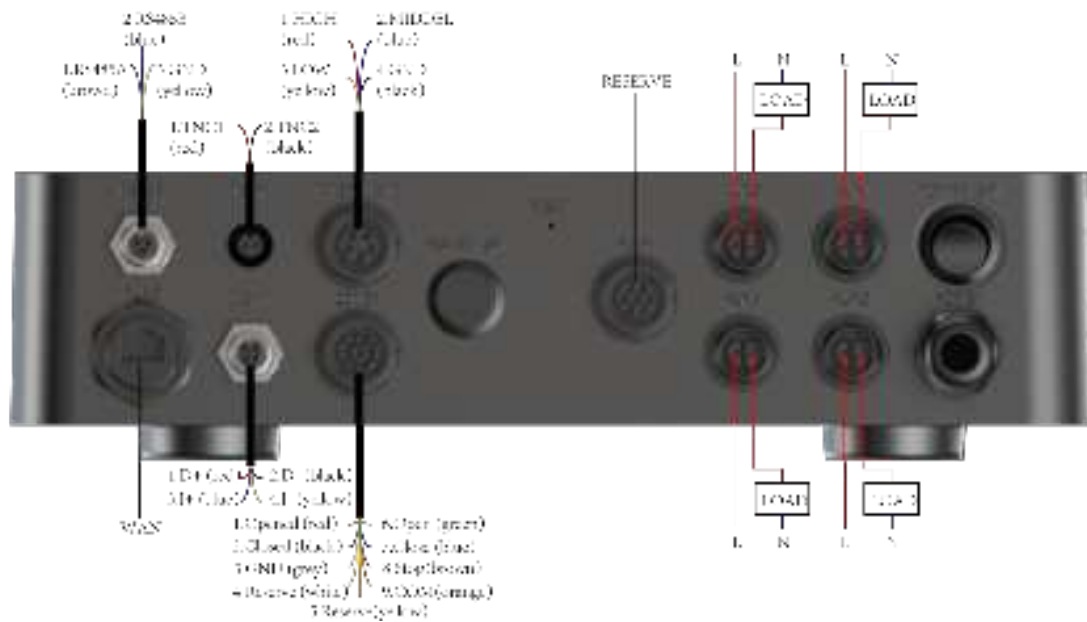


heat pump 485 cable X1

Caution:

The main body panel is made of glass, there will be a certain risk of damage during installation and transport, the transport must be wrapped tightly, and the installation should be gently held and placed to prevent falling!

2. Equipment body notes



PS:When the 485 button is pressed, the device can be controlled via the central control unit's 485 line.

3.Screen view



Blue is always on - the system is starting; red flashing - equipment failure; white is always on - all normal



* Red blinking - WIFI is not connected; white blinking - WIFI distribution status; white always on - WIFI is connected

*Long press the icon for 5 seconds, the icon white blinking, the device into the network state

4、 Product Parameter

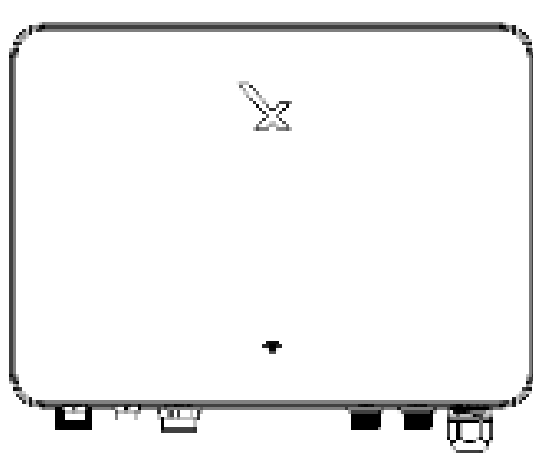
Product Parameter		
Input Voltage	AC90V -AC240V	
Input Voltage Frequency	50HZ/60HZ	
RS485 controllable devices	Heat pumps, pumps, salt dispensers, sand heads, surfers	Fairland equipment only
DMX512 controlled devices	Lighting (encoder with DMX512 protocol)	
Connectable devices	Heat pump, water pump, salt dispenser, sand tank head, lights, pool cover, four customised relays standby	
Relays can control devices	Four relays (water features, pumps, and other ON/OFF only controllable devices)	(ON/OFF control only)
Relay Maximum Current Voltage	Max6A/230V	
Communication method	WIFI+TCP (wired)	
OTA Upgrade	Support	
Operating Temperature	-10℃~50℃	
Waterproof rating	IP65	
Installation Environment	Indoor and outdoor wall mounting	

Equipment Size (MM)	400*300*80	
Packing size (MM)	396*396*140	
Net/Gross Weight (KG)	3.5/4.5	

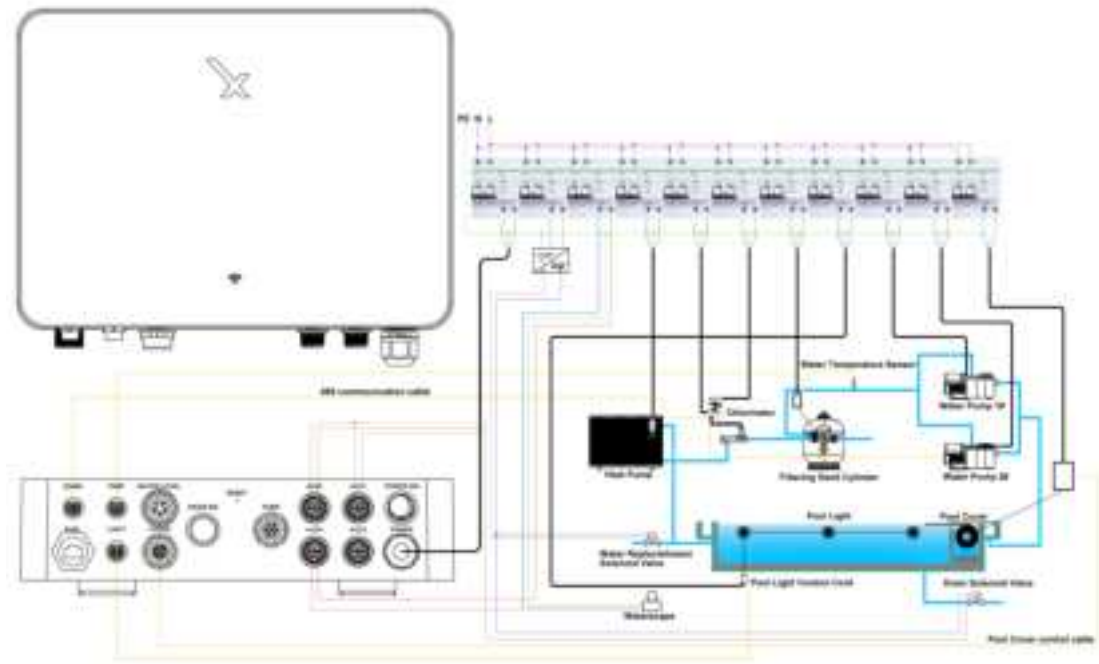
II. Installation Guidelines

1、Equipment Installation

Nail two screws on the wall Nail two M6 screws on the wall, with a spacing of 170MM. then hang the equipment up (with two screws)



2、 Equipment wiring (general diagram)

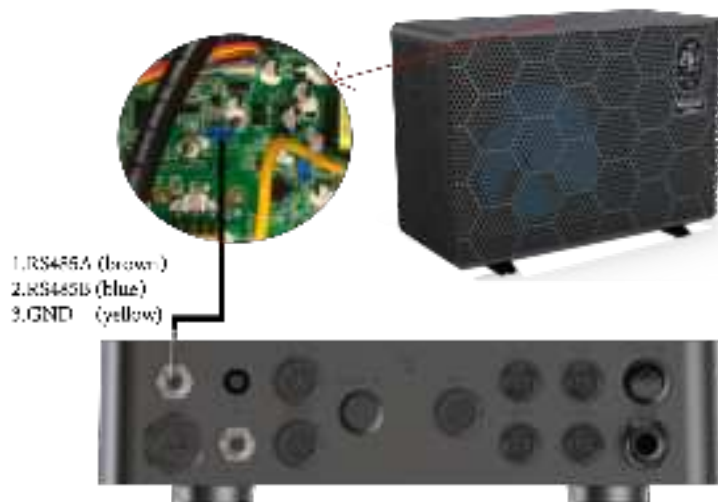


2.1 Heat pump wiring diagram

Support 485 control of the heat pump equipment model list

Brand	Fairland	Aquark
Model Number	All models sold after 2024	All models sold after 2024

① Heat pump power cord is connected to the lower end of the air switch, and the RS485 connector cable from the heat pump main board is connected to the 485 connector of the central control (brown-A; green-B; yellow-ground) (as shown in the figure below).



② heat pump power cord to the lower end of the air switch, heat pump 56 terminal connection line line to the centre control below AUX1 ~ AUX4 can be a random one (in the APP configuration you need to select the connection of the AUX). As shown in the figure below



2.2 Wiring diagram of water pump

Support 485 control pump equipment list

Brand	Series	Model
Aquargem	InverPro	IP20
		IP25
		IP30
		IP40
	InverHero	IH20
		IH40
		IH08

	InverWarrior	IH12
		IH15
		IW20
		IW25
		IW30
		IW40
	InverEco	DE14
		DE18
		DE22
		DE27
	IM20	IM20
	IM25	IM25
	IM30	IM30

The water pump power cable is connected to the lower end of the air switch, and the RS485 connection cable is connected to the 485 interface (brown-A; green-B; yellow-ground) under the central control (as shown in the following figure)



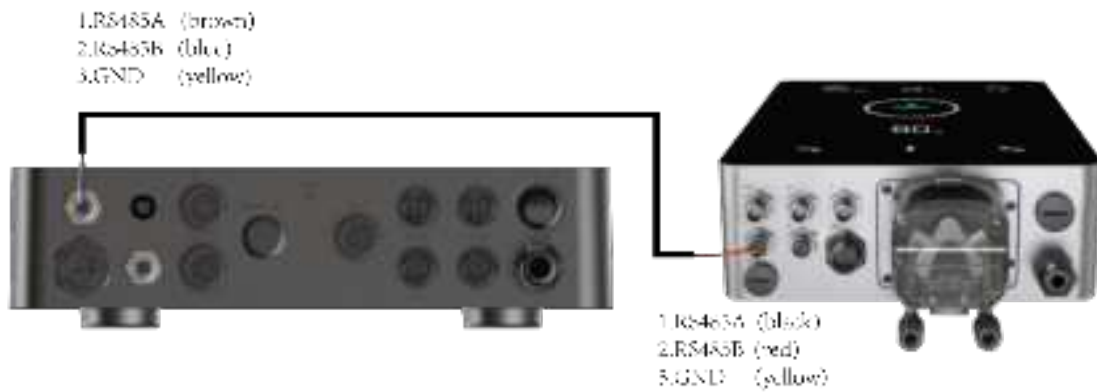
2.3 Salt machine wiring diagram

List of salt machine equipment supporting 485 control

Brand	Series	Model	
Aquark	Mr. light	Premium	
		Medium	
	Mr. Pure	Mr. Pure	
		Mr. Pure Premium	
		Basic	
	InverClear		Basic InverClear
			Medium
			/
			Basic

Salt machine power cable to the lower end of the air switch, RS485 connection cable to the 485

interface under the central control (brown-A; green-B; yellow-ground) (as shown in the figure below)

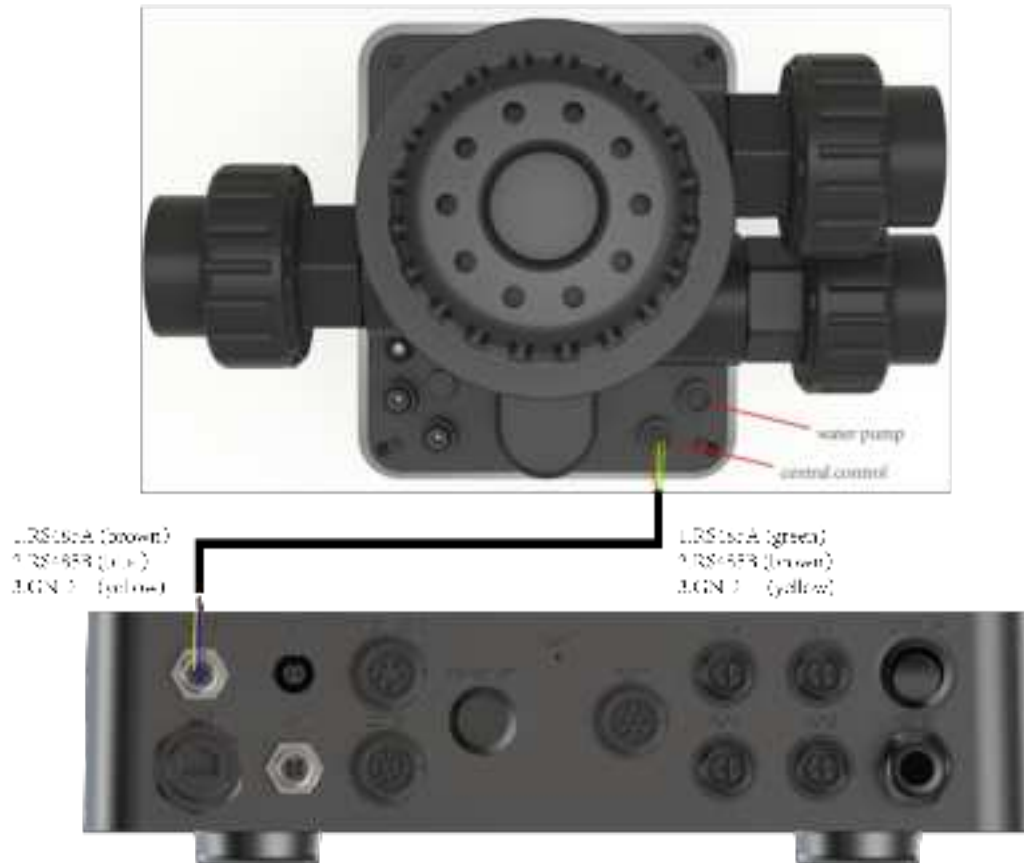


2.4 Wiring diagram of sand cylinder head

List of sanding tank head equipment supporting 485 control

Brand	Series	Model
aquargem	iwash	24T

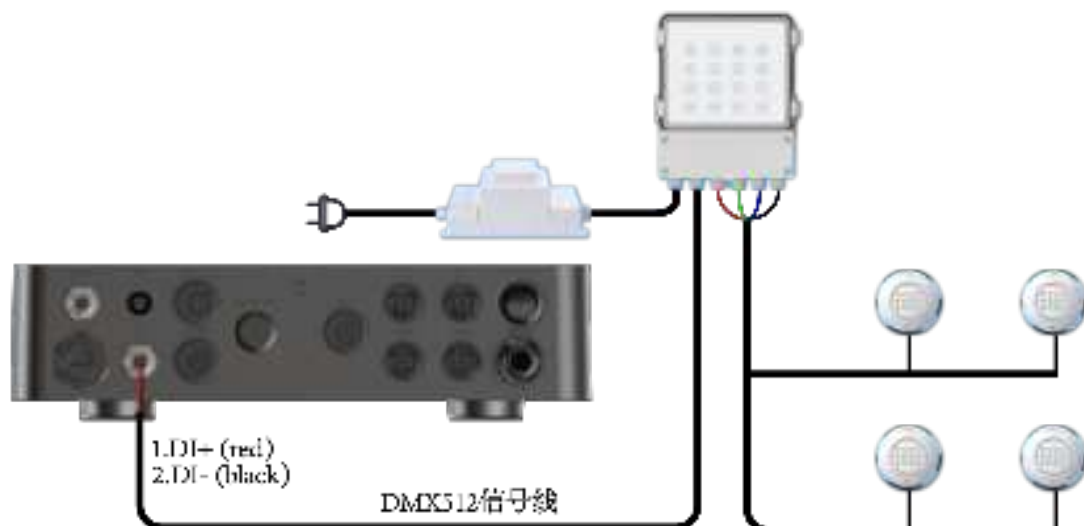
Sand cylinder head power cable to the lower end of the air switch, RS485 connecting cable to the 485 connector under the centre control (brown-A; green-B; yellow-ground) (as shown below)



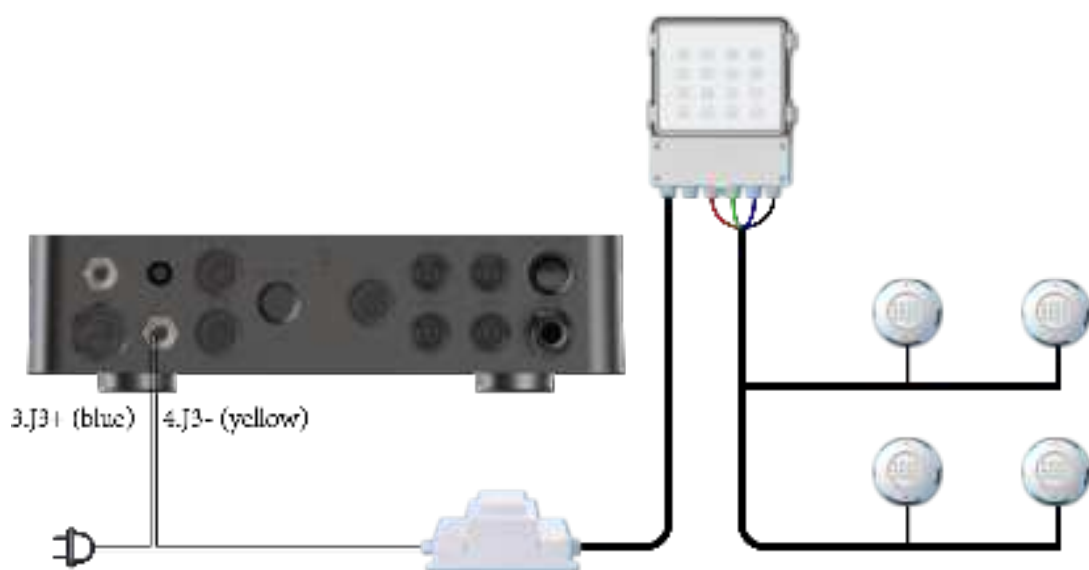
PS:After connecting the 485 cable, parameter 9 (485-modbus mode) on the sand filter head must be switched to central control mode (parameter = 1).

2.6 Lighting Wiring

① Lights with DMX512 control protocol: light transformer power line to the air switch below (need to bring their own transformer), DMX512 control line to the light control interface in the centre control (red - D +, black - D -) (as shown in the following figure)

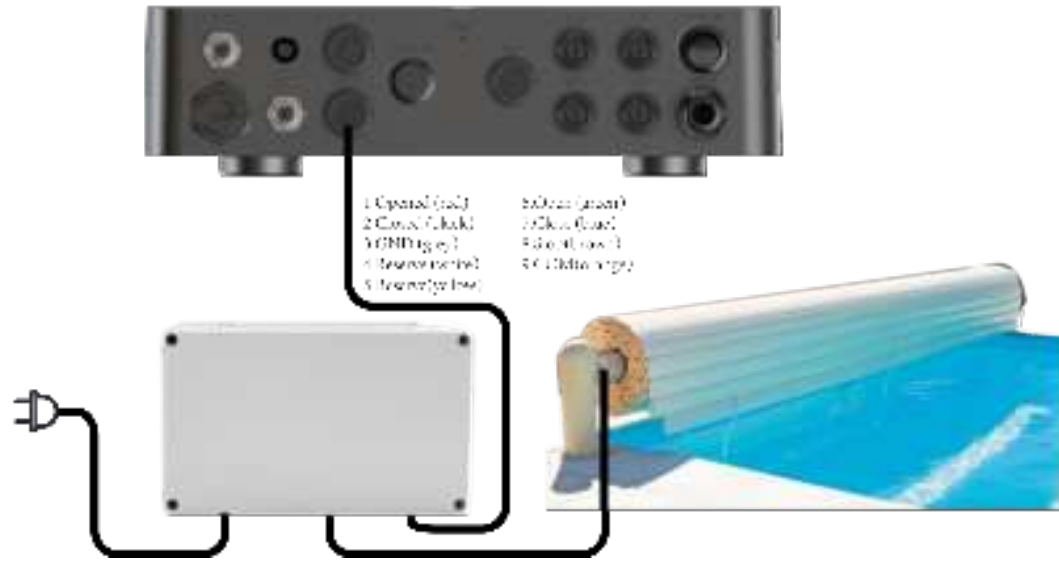


② switching control lights: the transformer power cable of the light is connected under the air switch (need to bring your own transformer), the power input ACL is connected to the blue J3+ of the LIGHT interface of the central control, and then the yellow J3- is connected to the ACL of the power adapter (select ON/OFF control in APP configuration) (as shown in the following figure)

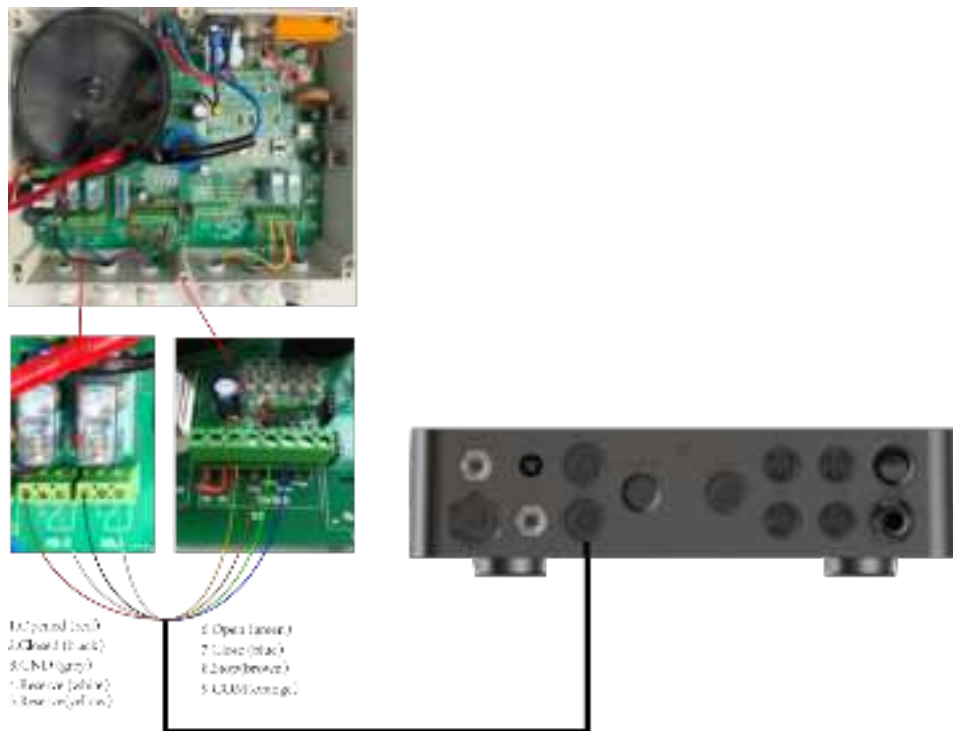


2.7 Pool cover wiring diagram

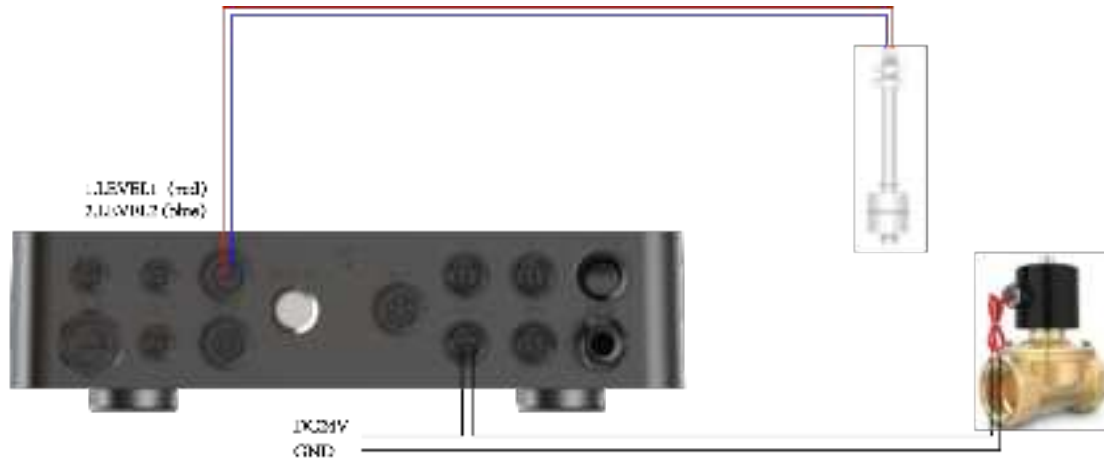
The power line of the pool cover control box is connected to the lower end of the air switch, and the control line of the control as well as the signal acquisition line is connected to the pool cover control interface at the lower end of the centre control.



For example: The wiring diagram for the EVA pool cover is shown.



2.8 Pool water level wiring diagram (next version) (water level need to change the diagram)

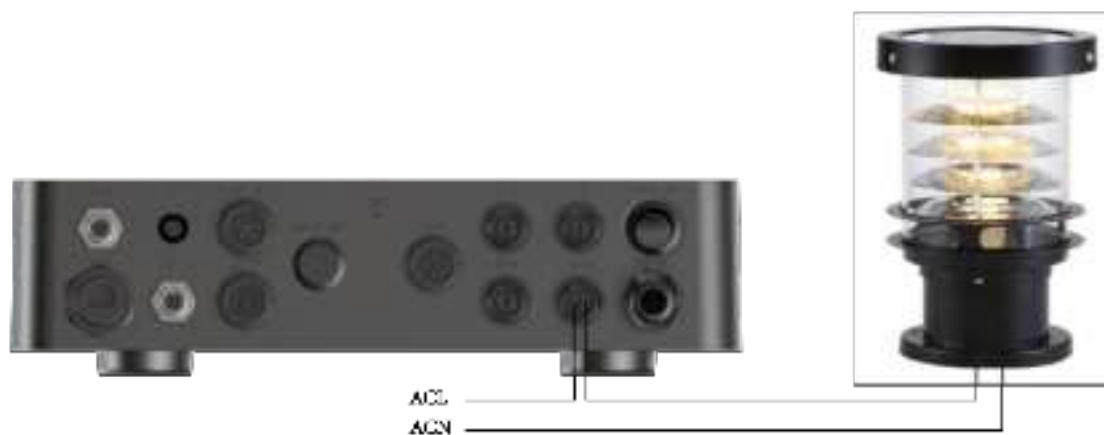


2.9 Pump wiring diagram

reserved

2.10 Wiring diagram of AUX1~AUX4

AUX1~AUX4 four relays are passive relays, need positive pole to one end of the relay, the other end then out of the positive pole of the device. The maximum voltage and current is 220V/6A, (as shown below)



2.11 iGarden App Operation instruction

● Before operating the iGarden App

- ① Ensure the relevant equipment (Automation Central Control, Heat pump, Pump, Salt dispenser, Sand tank head, Lights, Pool cover, Swimjet) is already assembled.
- ② Turn on the devices.
- ③ Download and install the iGarden APP .
 - A. Download the APP directly from Apple Store or Google Play Store.
 - B. Download the APP directly via below QR code.




- ④ After downloading the iGarden App, the user registers and logs in to the system.

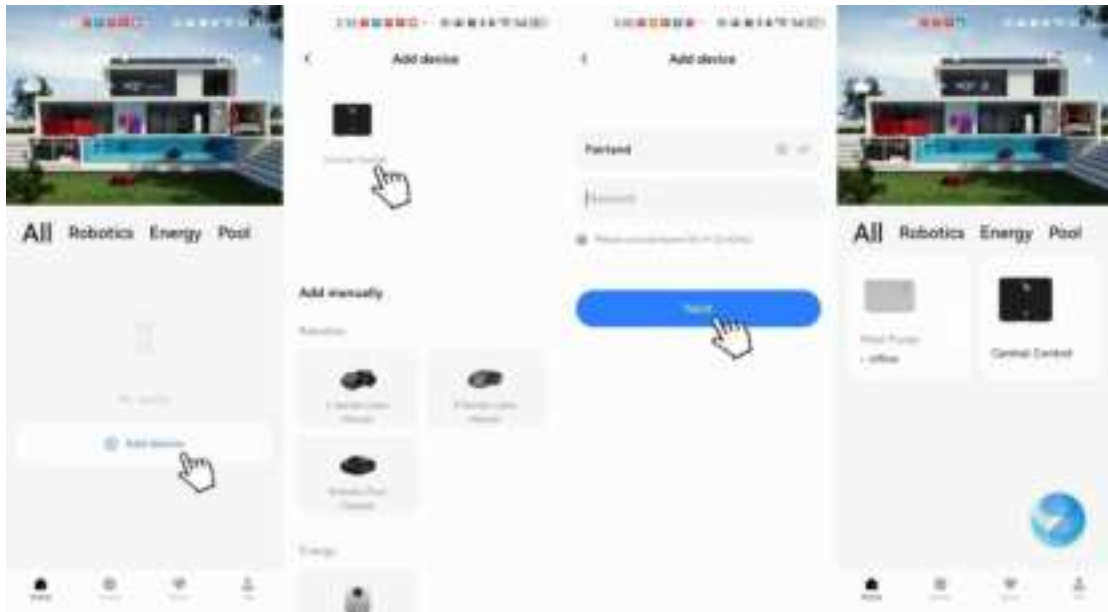


● iGarden App add the Automation Central Control device

After logging into the App, the user can add the Automation Central Control device by Bluetooth or local area network.

- ① Add a device by Bluetooth
 - A. Turn on the device, then long-press the icon “” for 5 seconds, the white light will blink, and the device will enter the network state.
 - B. On the App Home Page, click “Add device” or the “+”(in the top right corner). Enable Bluetooth to search for nearby devices, select the device to add, then enter the network state. Once connected successfully, the icon of the connected Automation Central Control device will be displayed on the Home Page.

*Below pictures for reference.



②Add the device by local area network

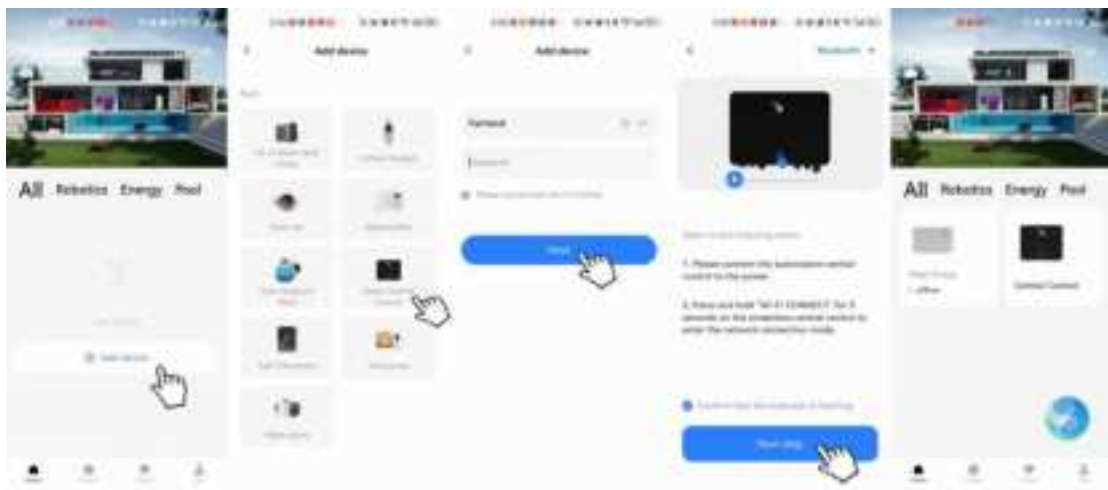
A. Turn on the device and plug in the network cable,then long press the icon “ ” for 5seconds,the white light will blink,and the device will enter the network state.

*Make sure phone & machine are in the same LAN

B. Click the “Add device” or “+”(in the top right corner) on the App Home Page,then the system will display “Add manually”. Select the “Smart Central Control” to add,enter the network state; after a successful connection, the Home Page will display the icon of the connected device.

*Below pictures for reference.

The Home Page of App → Add manually → Add the device → Machine operation instructions→ The device enter the network state



● **Add devices for Automation Central Control**

After the Automation Central Control device is successfully connected, the user can click the connected device icon on the App Home Page to enter the connected device management page. Then click “Add device” to add the related device(Heat pump, Pump, Salt dispenser, Sand tank head, Light,Pool cover,Swimjet).

On the “Add device” page,there is a list of questions to make sure whether the user has installed the related devices.According to the pool situation,select“Yes”if the related devices are installed ,

then complete the related devices' information, and save it.

After completing all the devices' information, click "Next", then click "Done". Once these devices are successfully connected, the user can view their information in the App and manage them.

*Below pictures for reference.



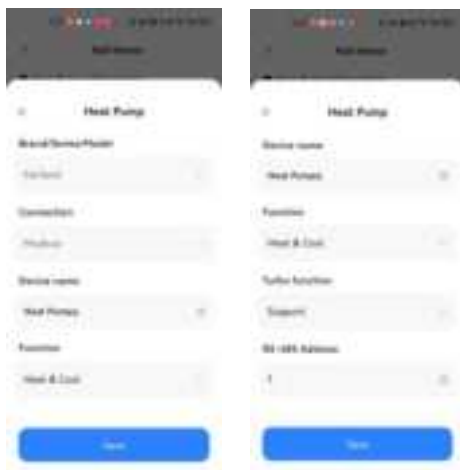
*Remark:

Device name	Device name on the App
Heat Pump	Heat Pump
Pump	Water Pump
salt dispenser	Inverter Salt Chlorinator
sand tank head	Automatic Multiport Valve
Surfers	Surfing Swimjet
Lights	Light
Pool cover	Pool cover

① Heat Pump

1. Supports not only the Fairland/Aquark Brand heat pumps but also other brands of heat pumps.
2. Supports only Modbus connection.
3. Configure the heat pump type based on its functions: Heat Only, Heat & Cool, and whether it supports the Turbo function.
4. Please ensure that the RS-485 Address is correct; if not, the device will not be able to communicate normally.
5. Please noted that the default RS-485 Address for the Heat Pump is 1.

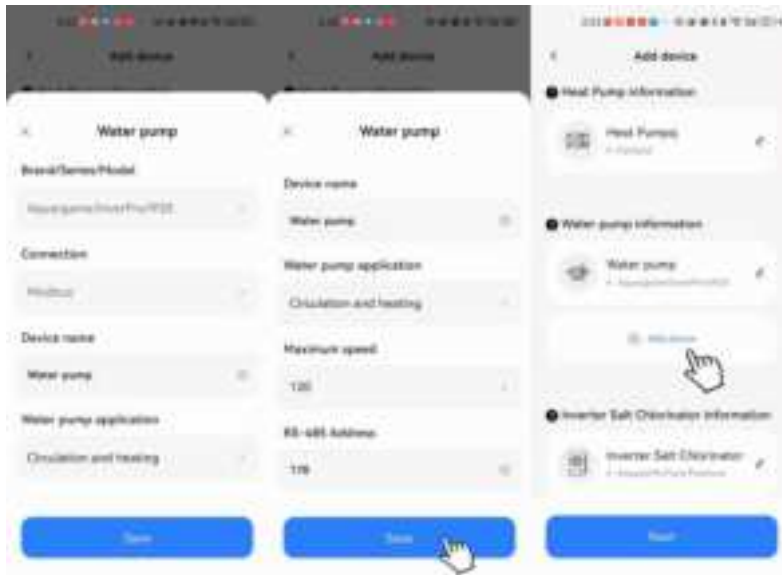
*Below pictures for reference.



②Water Pumps

1. Support Modbus/DI/Relay connections.
2. The user configures the Pump function based on requirements
 - Circulation and heating: The water in the pool will circulate and be heated.
 - Heating only: The water in the pool will be heated.
 - Circulation only: The heat pump does not work, and the water in the pool only circulates through the filter.
3. If there are more than one Pump, Click "Add device" to add all Pump devices.
6. Please note that the default RS-485 Address for the Water Pump is 170.

*Below pictures for reference.

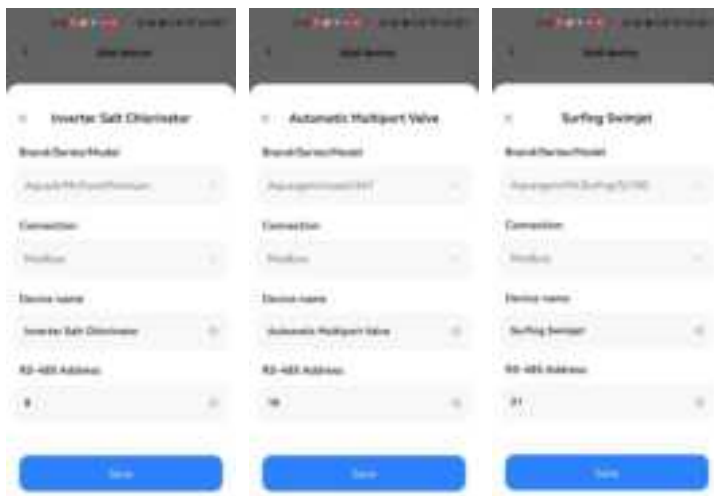


③Inverter Salt Chlorinator / Automatic Multiport Valve / Surfing Swimjet

1. Supports only Modbus Connection
2. Please ensure that the RS-485 Address is correct; if not, the device will not be able to communicate normally.

Please note that the default RS-485 Addresses are as follows: Inverter Salt Chlorinator is 8, Automatic Multiport Valve is 10, and Surfing Swimjet is 21.

*Below pictures for reference.



④Light

Supports only Dmx512 Connection.

*Below pictures for reference.



⑤Pool cover

Supports only DI Connection.

*Below pictures for reference.



⑥Relay

The Relay can connect to the replenishment valve, drain valve, water pump, and other devices;

*Below pictures for reference.



● **Device Operation and Management**

After all devices successfully connection,the user can view all connected devices' details.

- A. Device Page: The user can view all the connected devices and can select the relevant devices to control.
- B. Data: The user can view the pool data,included Water temperature trends(°C),pH,ORP(mV)
- C. Manage Page: The user can set the Pool Parameters and check the Pool devices connection status.
 - a. If a device shows a green dot, everything is normal.
 - b. If a device shows an orange dot, there is a connection error.
 - c. Click on the relevant device,and the user can view its details, modify its information, or select "Delete" to disconnect the device.

*Below pictures for reference.



① **Swimming Pool Parameters Setting**

The user can set the Pool Parameters from the Manage Page: set the "Pool size(m³)" to facilitate the system's refined management,and can also set the Temp. Unit("°C" or "°F") and Flow unit("%" or "m³/h") according to different usages habits,then "Save" it.

*Below pictures for reference.



② Heat Pump

Click the Water Pump on Device Page, enter the control Page.

App supports ON/OFF control, temperature setting, display of inlet and outlet water temperatures, running mode setting (Silence/Smart/Turbo), working mode setting (Auto/Heating/Cooling). It also allows the user add the work plan based on the usages habits.

*Below pictures for reference.



③ Water Pump

Click the Water Pump on Device Page, enter the control Page.

Relay connection: ON/OFF control

Modbus connection: can adjust the water flow

DI connection: OFF/ Speed1/Speed2/Speed3 control

It also allows the user add the work plan based on the usages habits.

*Below Modbus connection pictures for reference.



④ Inverter Salt Chlorinator

Click the Inverter Salt Chlorinator on Device Page, enter the control Page. The App support On/Off Control ,adjust the ORP(650 - 800mv) and PH (7.2-7.6).It also allows the user add the work plan based on the usages habits.

*Below pictures for reference.



⑤ Automatic Multiport Valve

Click the Automatic Multiport Valve on Device Page, enter the control Page. The App support Backwash/Filter/Waste/Recirculate/Closed. It also allows the user adjust based on the usages habits.

*Below pictures for reference.

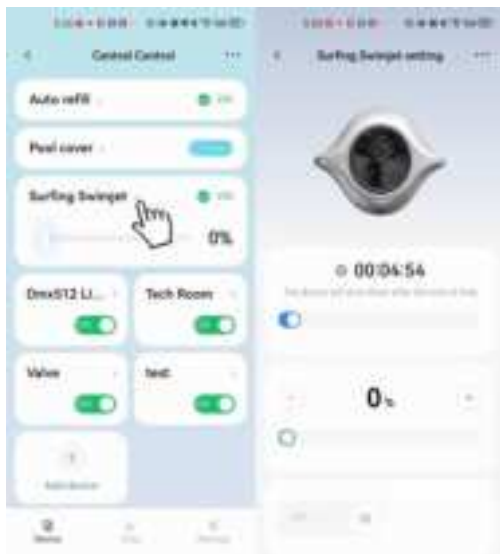




⑥ Surfing Swimjet

Click the Surfing Swimjet on Device Page, enter the control Page.

*Below pictures for reference.

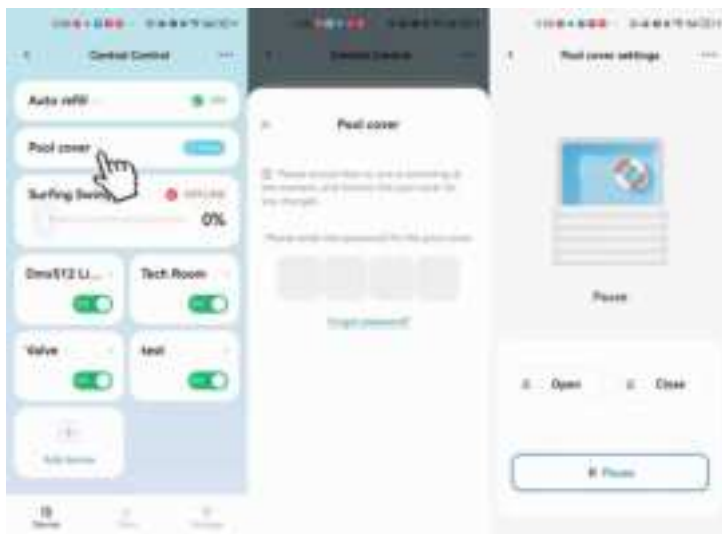


⑦ Pool cover

Click the Pool cover on Device Page, enter the control Page.

The APP support Open/Close/Pause,also can reset the password.

*Below pictures for reference.



⑧Light

Click the Light on Device Page, enter the control Page.

The APP support On/Off,also can adjust the Brightness. It also allows the user adjust based on the usages habits.

*Below pictures for reference.



⑨Valve — Auto refill

Control the pool water replenishment.

If want the pool water replenish automatically,both Auto refill and Valve need to be on.

The APP support Auto refill and Valve On/Off.The Valve also allows the user adjust based on the usages habits.

*Below pictures for reference.

