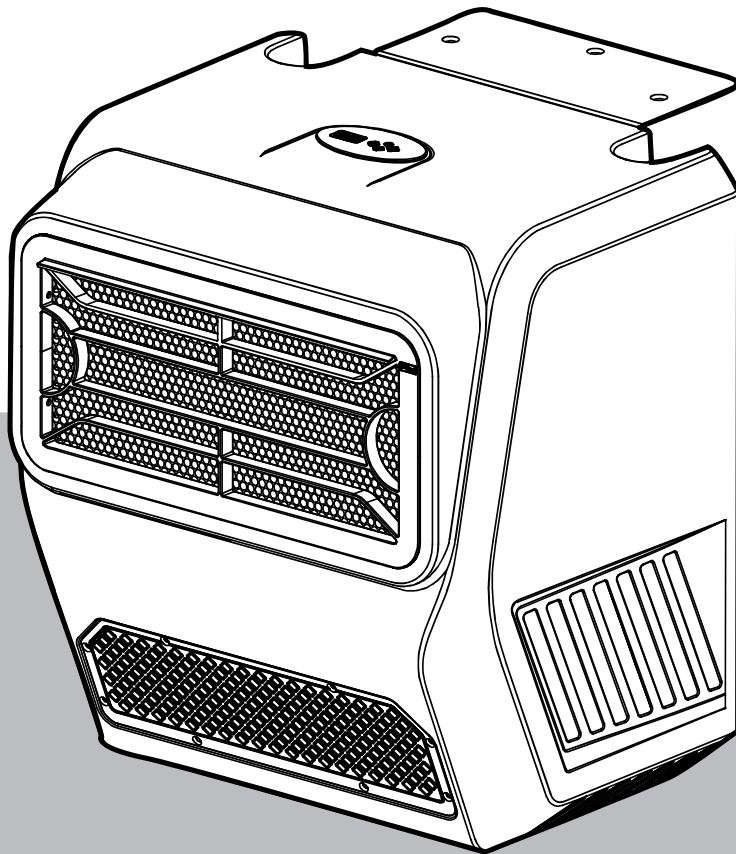


# MPU08-2EX

## INSTALLATION & OPERATION MANUAL OF Wall-mounted Infinity Swimming Pool Units

MPU08-2EX



Please Read The Manual Carefully Before Use.

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## 1 WARNINGS AND PRECAUTIONS BEFORE INSTALLATION

Firstly, thanks for choosing the wall-mounted infinity swimming pool units (hereinafter referred to as the wall-mounted units). Please read the user instructions carefully before installing and using the wall-mounted units, and abide by the relevant requirements of the user instructions strictly in order to give you the best using experience and prevent possible accidental injuries. Ignoring of safety warnings and instructions may lead to serious consequences, such as: serious injury, property loss, endangerment to life safety, etc.

### PRODUCT OVERVIEW

The wall-mounted units has the characteristics of ready-to-use, safe low voltage, low noise operation, stepless speed regulation, which is suitable for various new and old swimming pool renovations. It is a wise choice for you to enjoy the fun of swimming.

The wall-mounted units is made of eco-friendly materials and won't affect the water quality of the swimming pool. The product is safe, practical and reliable.

### PRECAUTIONS BEFORE INSTALLATION

1. Check whether the wall-mounted unit has a "factory certificate" before installation, and clean the dirt, debris and pollutants at the installation location of the pool edge and pool wall to ensure that the installation location of the wall-mounted units is flat and meets the conditions for fixing the pull-out screws.
  2. Input Switching Power Supply (Input Power supply): AC100-240V Frequency: 50Hz-60Hz
  3. The wires (GB)3×2.5mm<sup>2</sup> should be reserved at the installation location of the electric control box before installation, and the wire length should not exceed 25m. The Wires (GB)3×4mm (standard 2.3 meters) and communication wires (standard 3 meters) should be pre-insulated between the electric control box and the wall-mounted units.
- The wire length can be selected according to the on-site installation location. It is recommended to reserve 1.5~2 meters of wires for wiring (large diameter wire should be selected for connection when the wire length exceeds 5 meters (refer to Table 1), otherwise the device will not start). The wiring terminals of electrical components, screws, flat media, nuts, etc. should have been installed in the corresponding parts of the electrical components. The wiring terminals should have been pre-pressed and processed. Make sure that the terminal block and the wiring terminal are fixed firmly, and the aviation connector of the communication line is connected correctly and fixed firmly when fixing the motor power line.

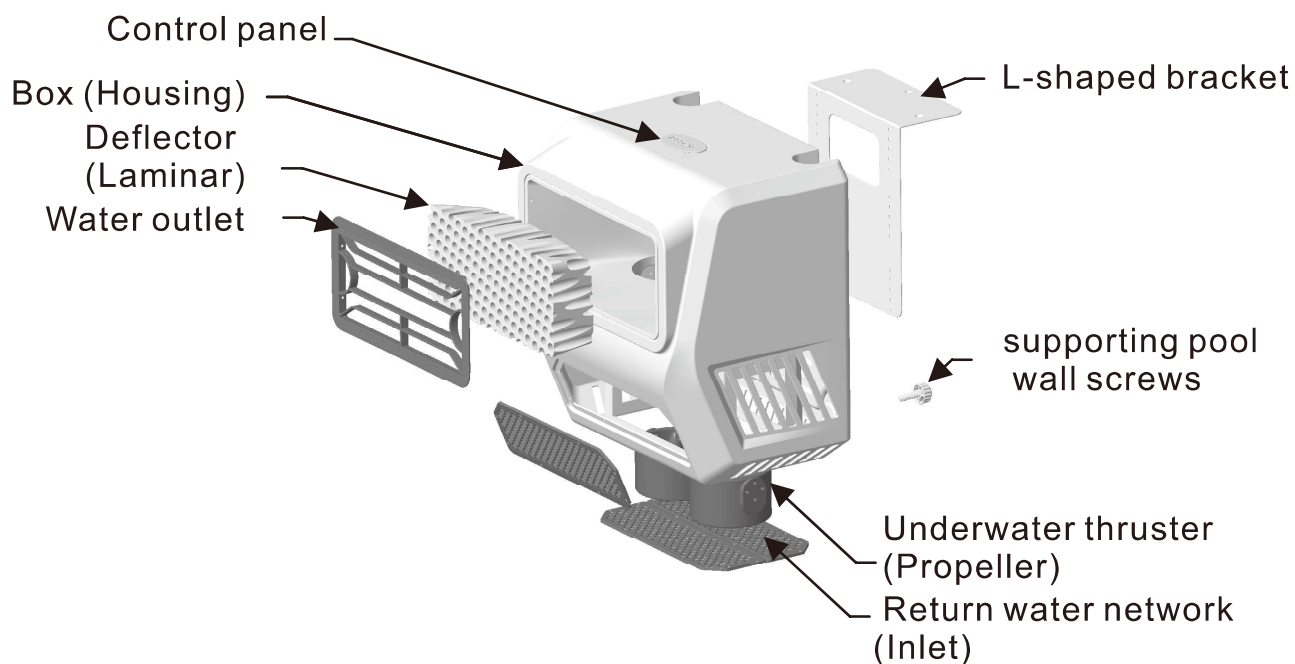
Table 1

Motor Power Cable	0-5m	5m-10m	10-15m
Diameter and Length of Wire (Wire diameter)	4mm <sup>2</sup>	6mm <sup>2</sup>	10mm <sup>2</sup>

- 4.The control box should be installed in a well-ventilated location away from chemical gases and avoid direct sunlight after the equipment has been installed.And it should be installed 3 meters away from the water for electrical safety.Do waterproof and rainproof of the box if it is used outdoors.
- 5.Safety warning sign:it may cause electric shock, fire or damage to the wall-mounted units if you ignore these safety precautions.
- 6.Children are strictly prohibited from operating this product.
- 7.The power cord must be connected with a grounding device and a leakage protection device to reduce the risk of electric shock.Please     contact a certified electrician if you are not sure there is a grounding device,
- 8.Please check regularly and replace damaged wires to reduce the risk of electric shock.
- 9.Choose a placement location,and do not stack flammable and explosive items around the wall-mounted units.
- 10.Power supply: All line connections must be completed by a certified electrician. Line connections must be done under the power turned off. The ground wire of the electric control box must be connected to the ground terminal of the power supply line with a good grounding wire. Or it may cause electric shock, fire or damage to the automatic swimming pool cover.
- 11.Maintenance of wall-mounted units: Do not try to disassemble or modify the electrical box and circuit layout by yourself.The leakage switch must be tested at least once a month, and the relevant inspection records must be recorded in the inspection record form. The surface of the chassis can be cleaned regularly with detergents (washing powder, alcohol, thinner, detergent), etc.

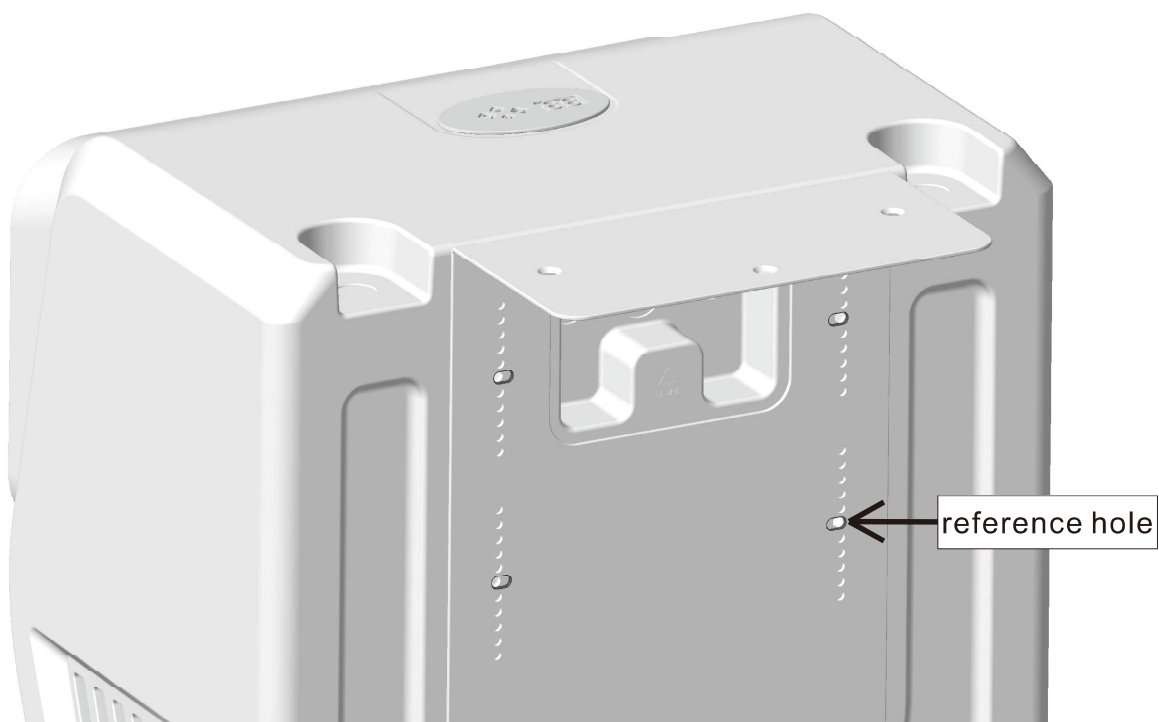


## 2 PRODUCT STRUCTURE



### L-shaped bracket adjustment method

As shown in the pictorial below, when the units need to be adjusted up and down to match the pool water level, it can be adjusted through the holes of the L-shaped bracket. The long hole can be used as the reference hole, and each hole installed upwards is equivalent to the units being raised by 10mm (up to 50mm), and the same applies to downward installation.



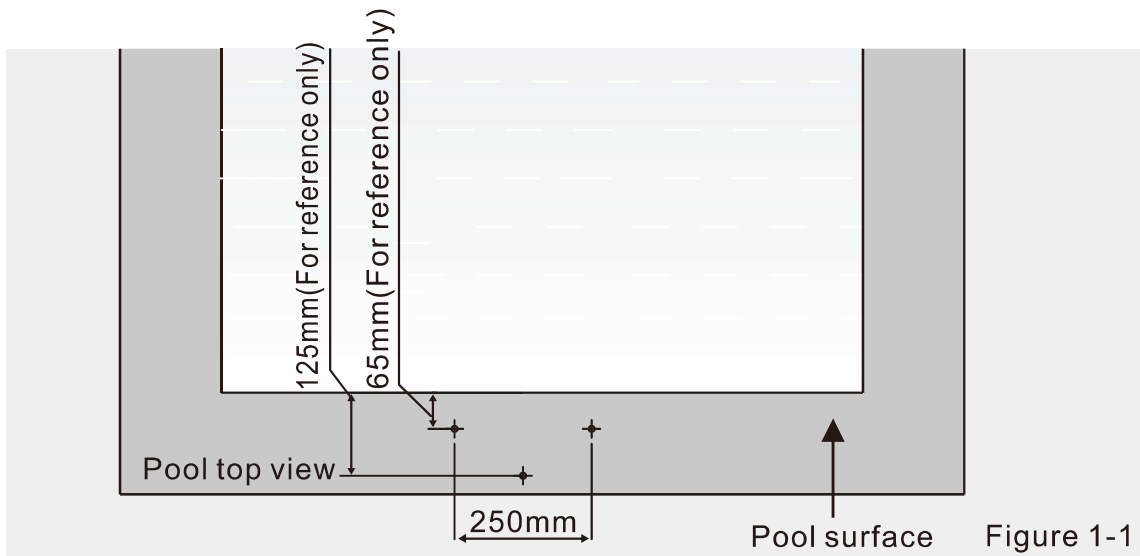
### 3 INSTALLATION INSTRUCTIONS

- The wall-mounted infinity pool units of MPU08-2DE is equipped with an L-shaped adjustable bracket. The power cord outlet is divided into two types: open installation and concealed installation, which can be flexibly selected according to the actual needs of customers.
- The MPU08 units is suitable for concrete pools, finished pools, skimmer pools, and overflow pools.

A1. Installation method if equipped with L-shaped bracket.

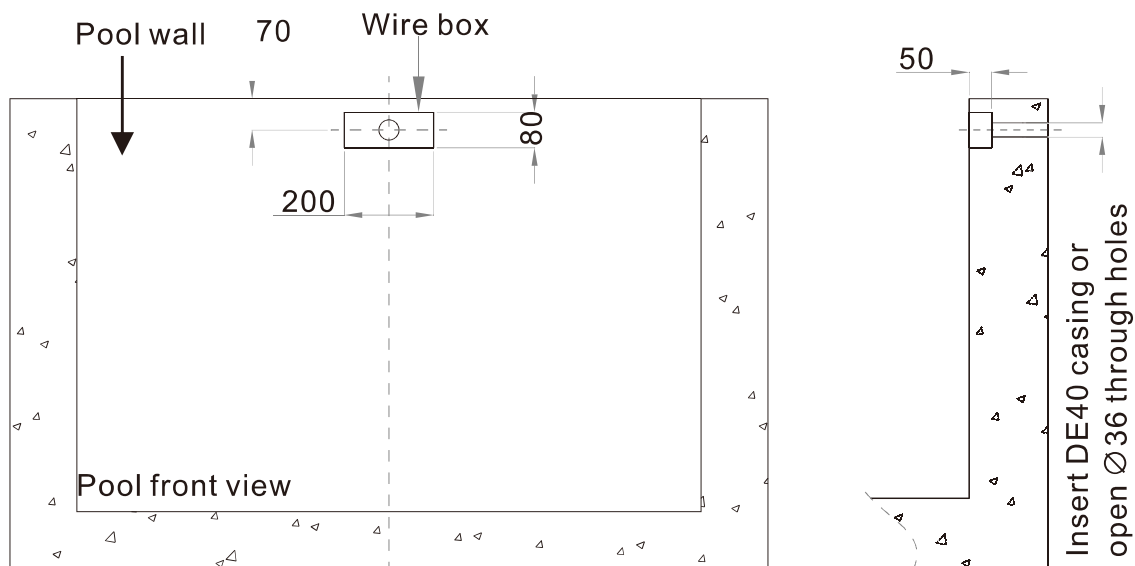
(Skimmer pool/power cord concealed installation/this solution is suitable for concrete pools and finished pools)

1. As shown in the figure 1-1, firstly locate according to the dimensions in the figure, and the equipment is required to be centered. Then drill a hole with a diameter of 10mm and a depth of 55-60mm on the surface of the swimming pool. (The fixing hole of L-shaped bracket).

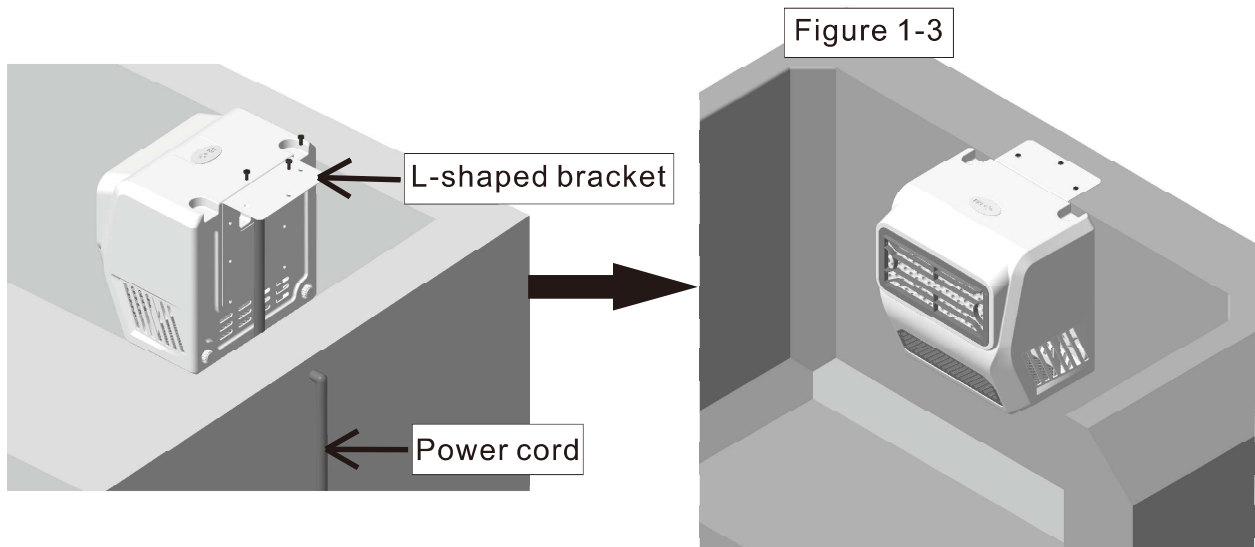


2. As shown in Figure 1-2, drill the wire box and through-hole according to the dimension requirements in the figure, and the equipment is required to be centered, (or pre-insulated the casing DE40 according to the dimensions in the figure).

- Function of the wire box: the power cord needs to reserve 80mm during the installation of the units to prevent the power cord from being tightened and broken when adjust the height of the unit.

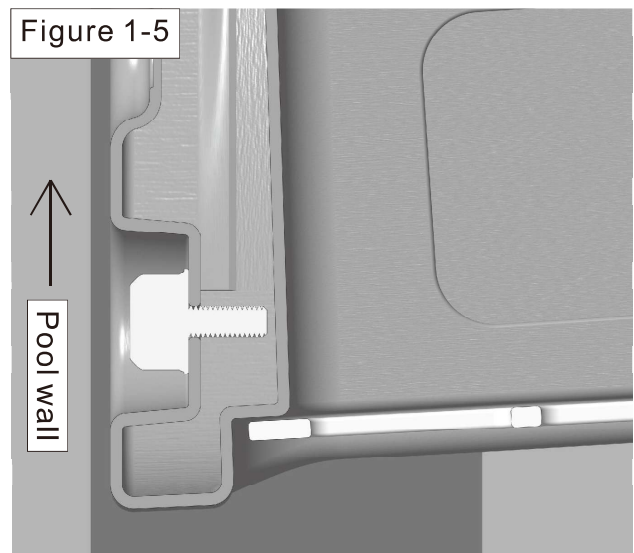
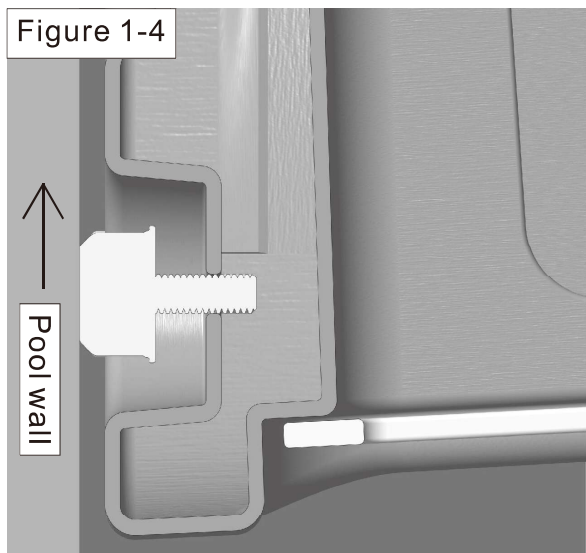


3.As shown in Figure 1-3, align the L-shaped bracket with the fixing hole of pool surface after the power cord is pulled out of the hole which opened in the pool wall, and fix it with screws.

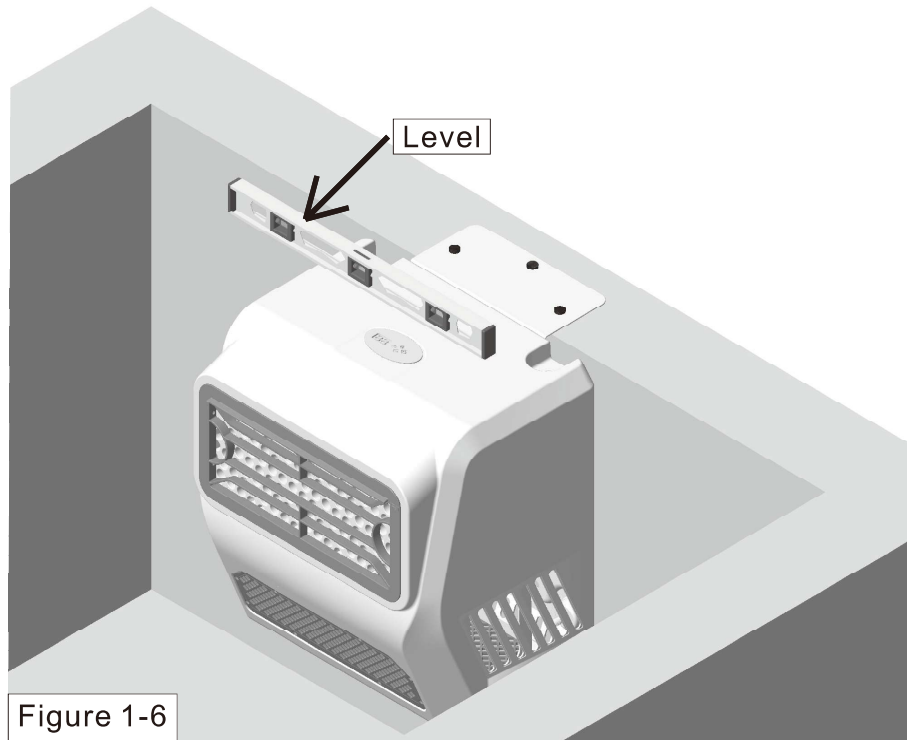


4.Check whether the supporting pool wall screws are close to the pool wall after done the installation .

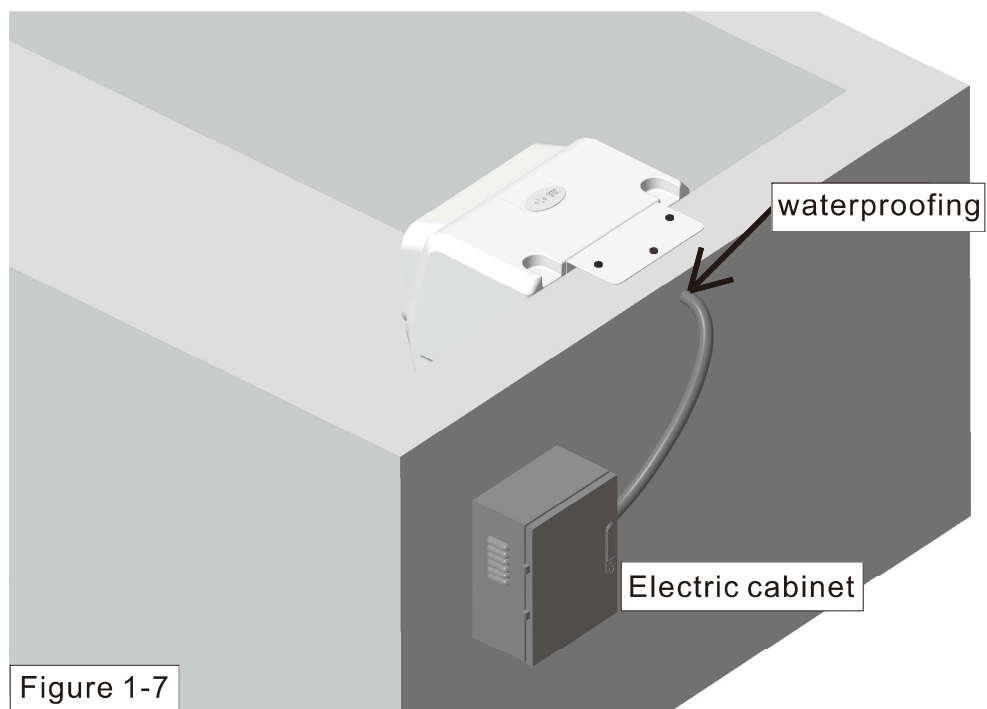
- As shown in Figure 1-4, the supporting pool wall screws are close to the pool wall which meets the installation requirements.
- As shown in Figure 1-5, the supporting pool wall screws are not close to the pool wall, and there is a gap, which does not meet the installation requirements.



5.As shown in Figure 1-6, using a level to measure whether the top surface of the unit is horizontal after the supporting screws are close to the pool wall.



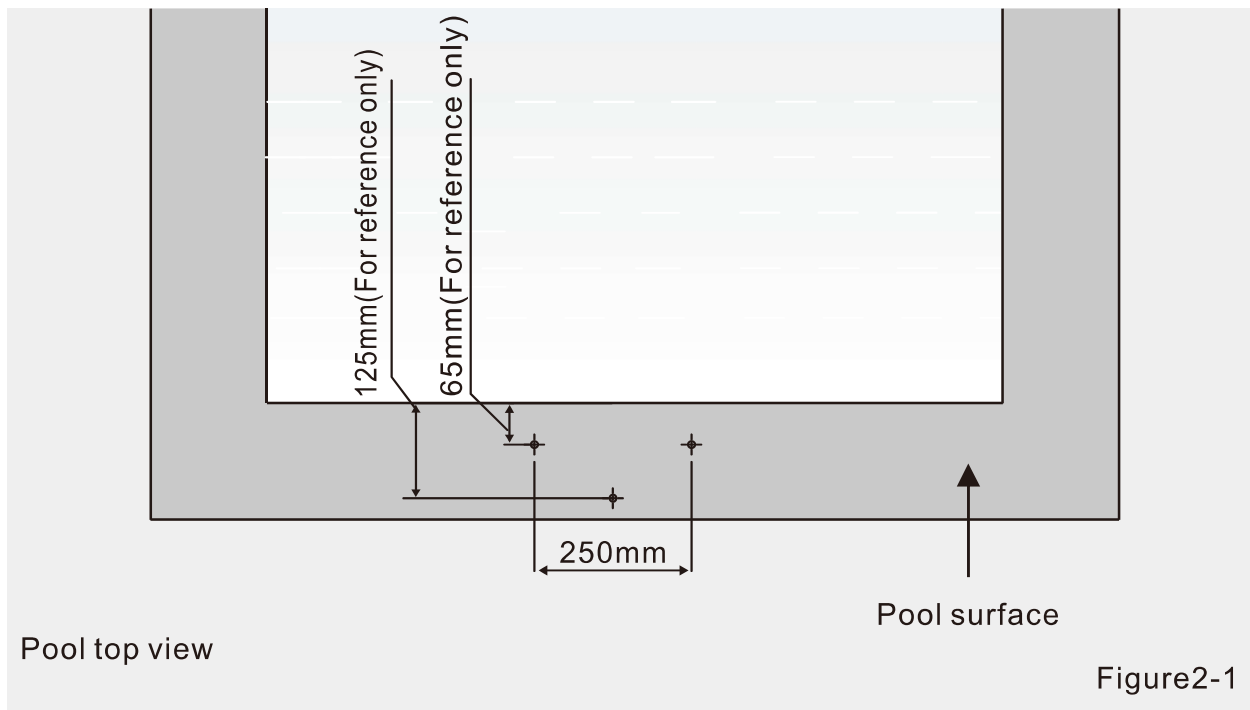
6.As shown in Figure 1-7, connect the power cord to the electric control box.And gluing the embedded casing for waterproofing after done the wiring.



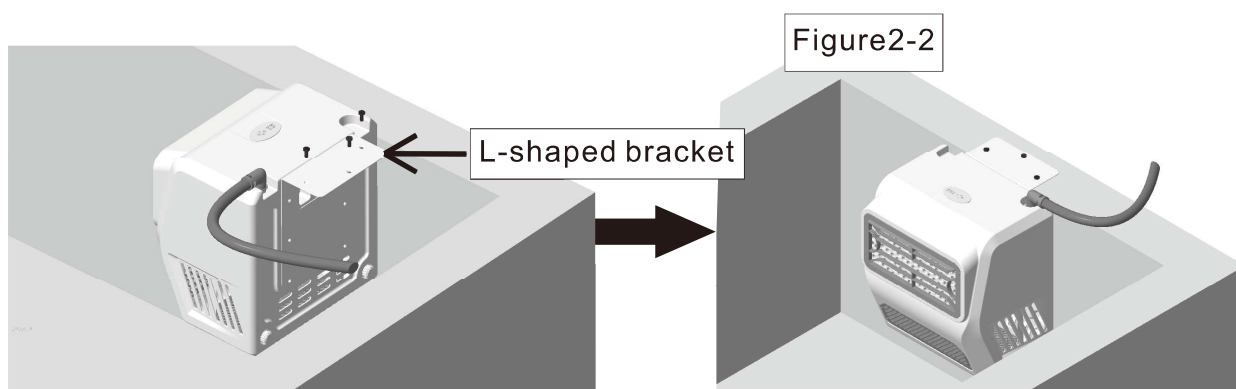
## A2.Installation method if equipped with L-shaped bracket

(Overflow pool/power cord concealed installation/this solution is suitable for concrete pools and finished pools)

- 1.As shown in the figure 2-1, firstly locate according to the dimensions in the figure,and the equipment is required to be centered.Then drill a hole with a diameter of 10mm and a depth of 55-60mm on the surface of the swimming pool (Fixing hole of L-shaped bracket ).

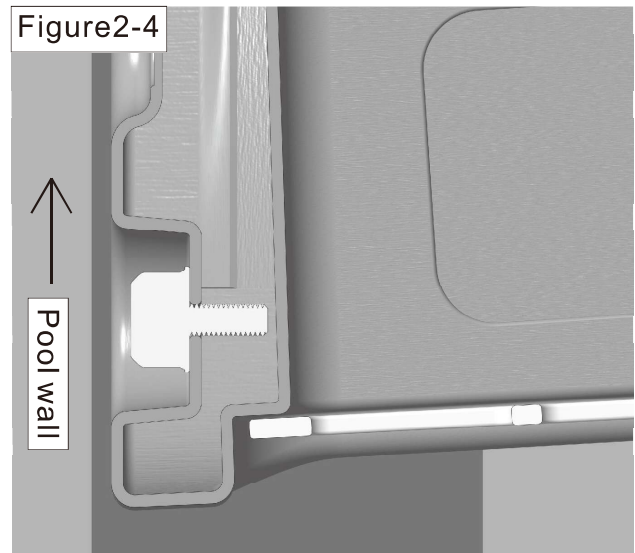
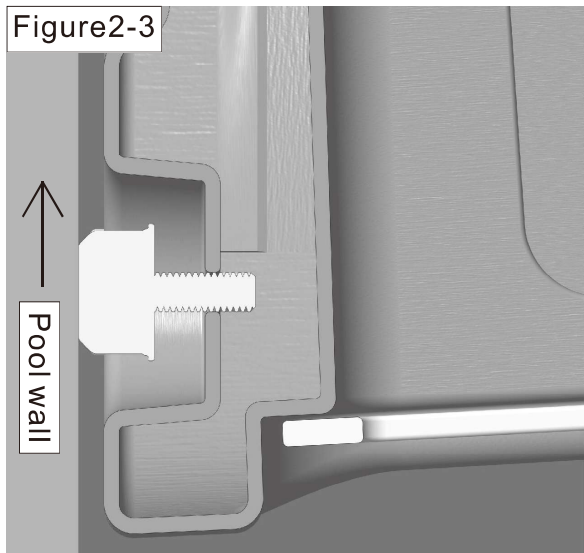


- 2.As shown in Figure 2-2,align the L-shaped bracket with the pool surface fixing hole, and fix it with screws.

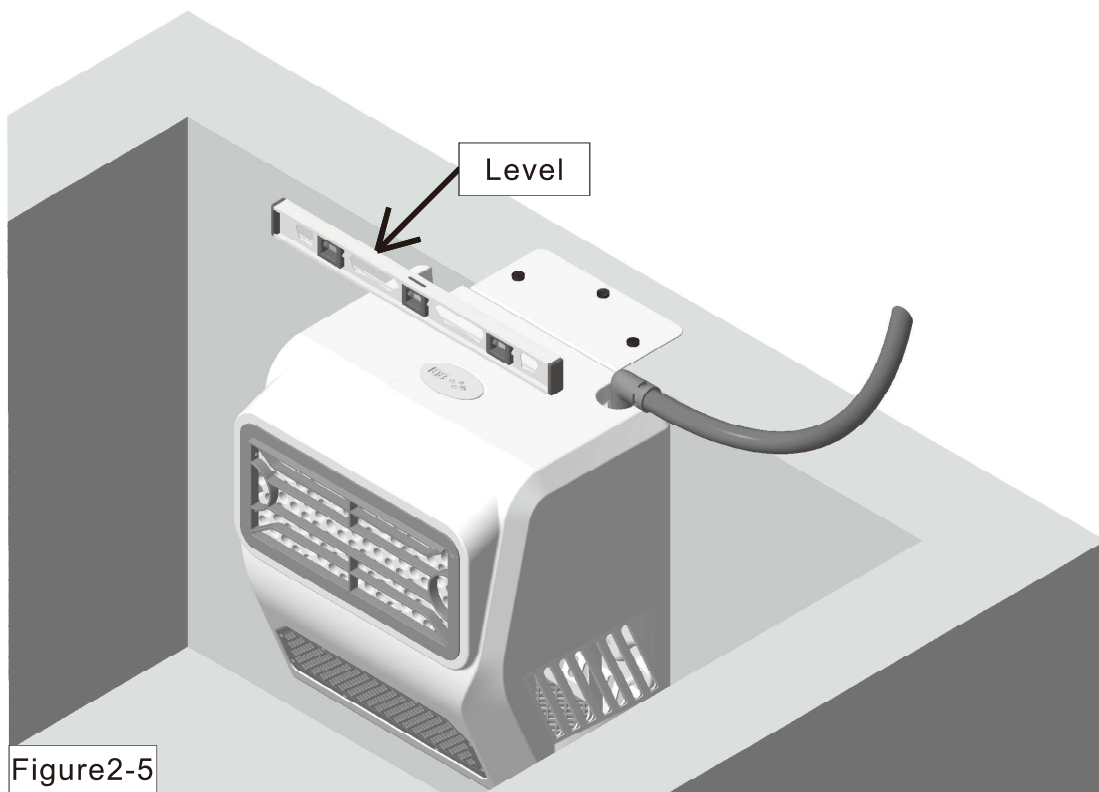


3. Check whether the supporting pool wall screws are close to the pool wall after done the installation .

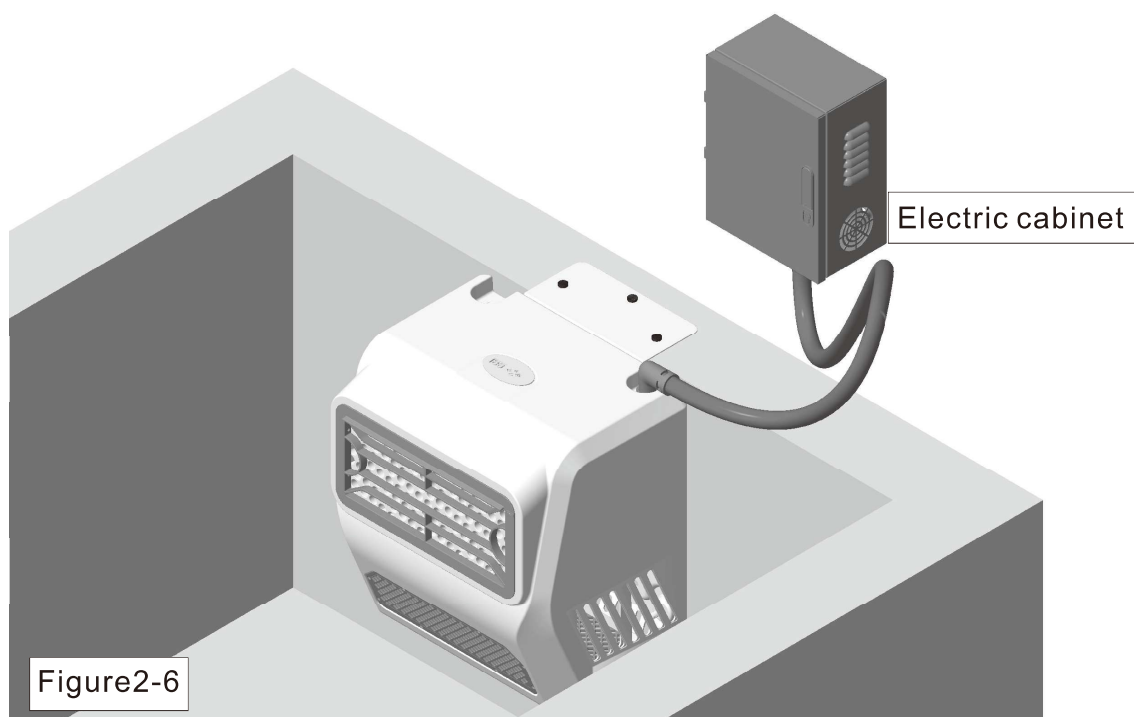
- As shown in Figure 2-3, the supporting pool wall screws are close to the pool wall which meets the installation requirements.
- As shown in Figure 2-4, the supporting pool wall screws are not close to the pool wall, and there is a gap, which does not meet the installation requirements.



4. As shown in Figure 2-5, using a level to measure whether the top surface of the unit is horizontal after the supporting screws are close to the pool wall.



5. As shown in Figure 2-6, connect the power cord to the electrical control box to complete the installation.



## INSTALLATION PRECAUTIONS FOR L-SHAPED BRACKET WITH OVERFLOW POOL

1. As shown in Figure 3-1, the installation method of the units can be referred to the previous steps when the MPU08 units uses an L-shaped bracket and which is installed in a overflow pool. Just make sure that the final installation height of the units is 100mm higher than the pool surface (you can use a cushion layer to increase the height as shown in the figure below) to ensure that the pool water surface is at the units' optimal water level mark to obtain the best swimming experience.

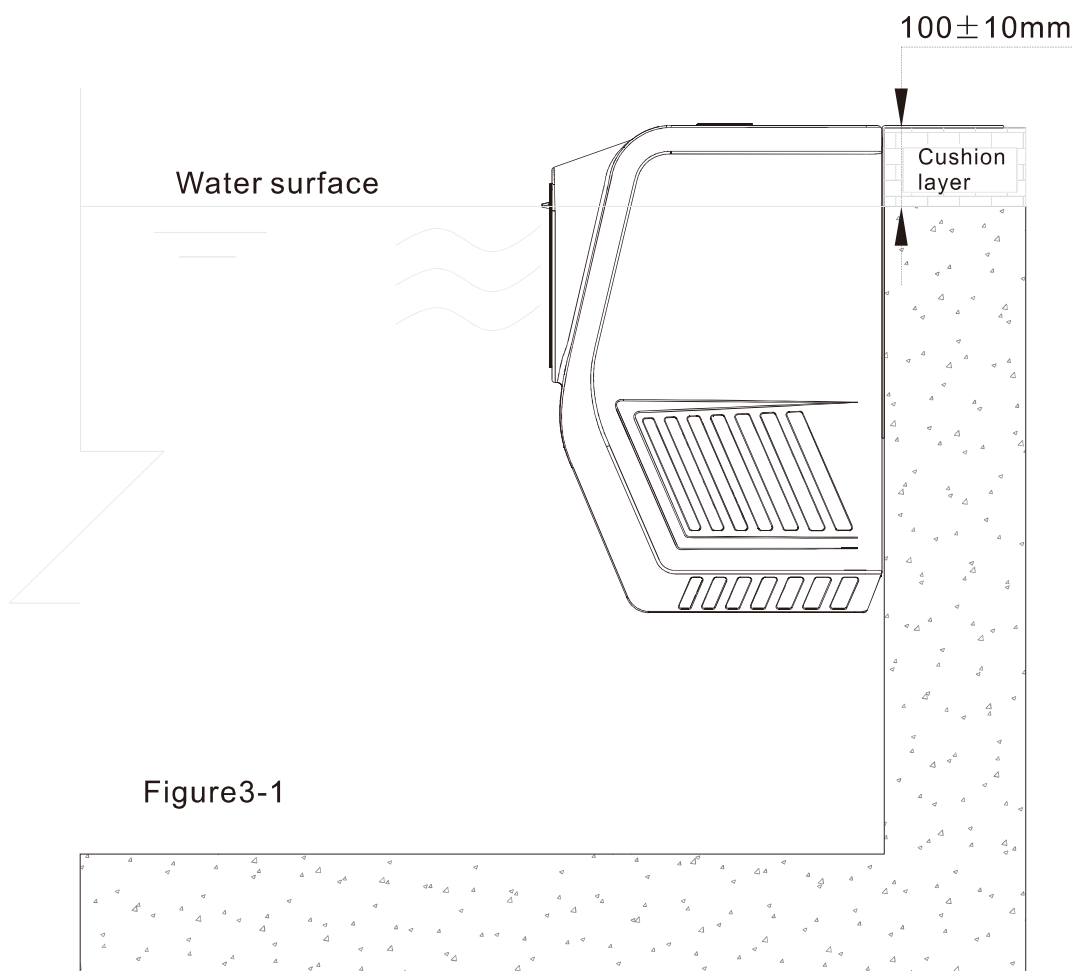


Figure3-1

## CAUTION

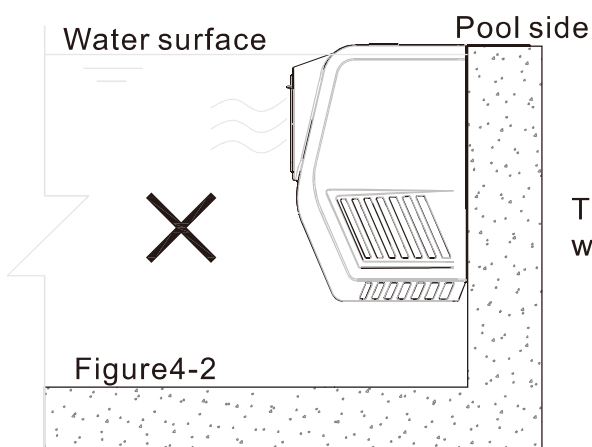
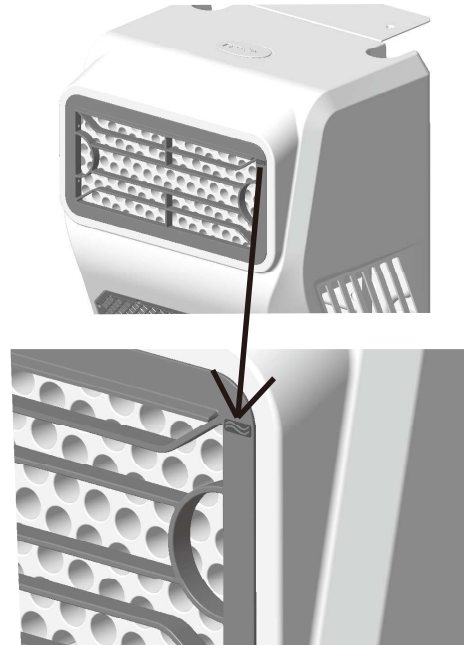
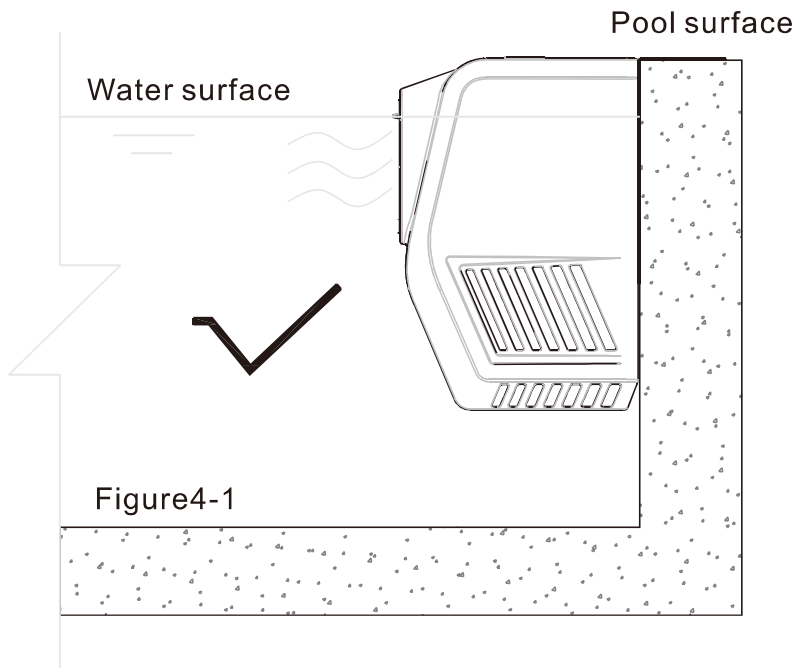
The power cord can only be installed openly and cannot be installed concealed when the MPU08 unit uses an L-shaped bracket and the application scenario is a overflow pool.



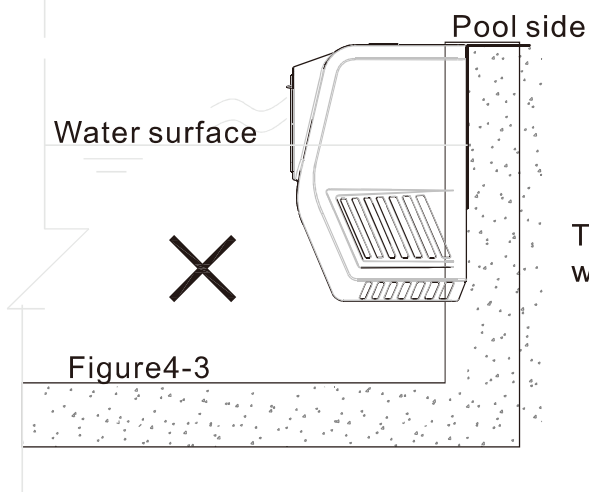


## WATER FILLING PRECAUTIONS FOR L-SHAPED BRACKET WITH SKIMMER POOL

1. As shown in Figure 4-1, make sure that the water surface is always at the unit's optimal water level mark (as shown in Figure 4-1) when the pool is filled with water. And the water surface should not be too high/too low (as shown in Figures 4-2 and 4-3) in order to obtain the best swimming experience.



The water surface is too high to affect the water outlet.



The water surface is too low to affect to water outlet.

## **INSTALLATION PRECAUTIONS FOR L-SHAPED BRACKET WITH OVERFLOW POOL**

1. The adjustable bracket can be installed in two ways: on the pool surface and on the pool wall.

- Pool surface installation: The L-shaped fixing strip of the skimmer pool facing upward (as shown in Figure 5-1), and the installation instruction is shown in Figure 5-4. The L-shaped fixing strip of the counter-current pool facing downward (as shown in Figure 5-2), and the installation instruction is shown in Figure 5-5.

- Pool wall installation: Just cancel the L-shaped fixing strip. This installation method is only applicable to skimmer pools. The units can be installed flexibly according to the pool water level requirements when choose the pool wall installation. The installation instruction is shown in Figure 5-6.

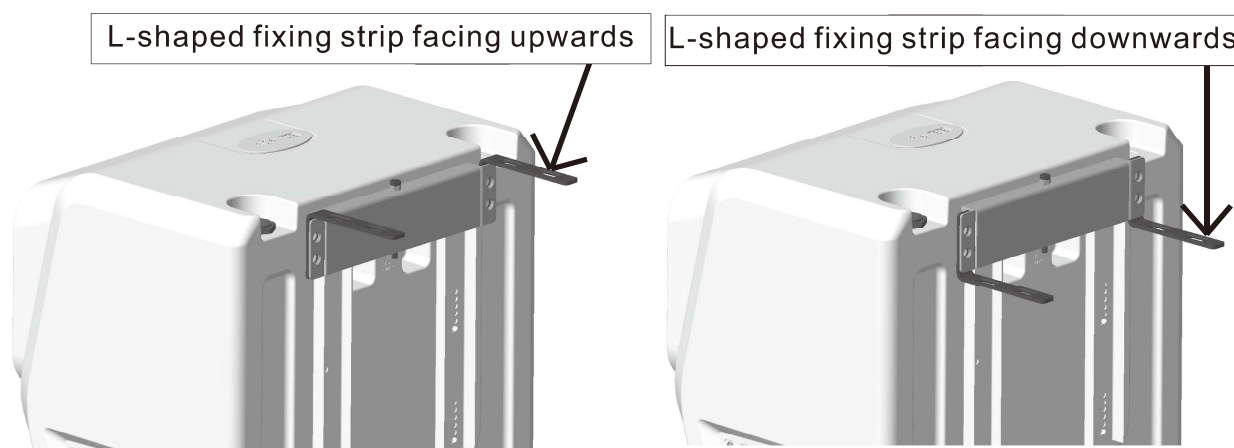


Figure5-1

Figure5-2



Figure5-3

## **CAUTION**

The power cord is exposed as standard when the adjustable bracket is selected and applied to the concrete pool.



Figure5-4

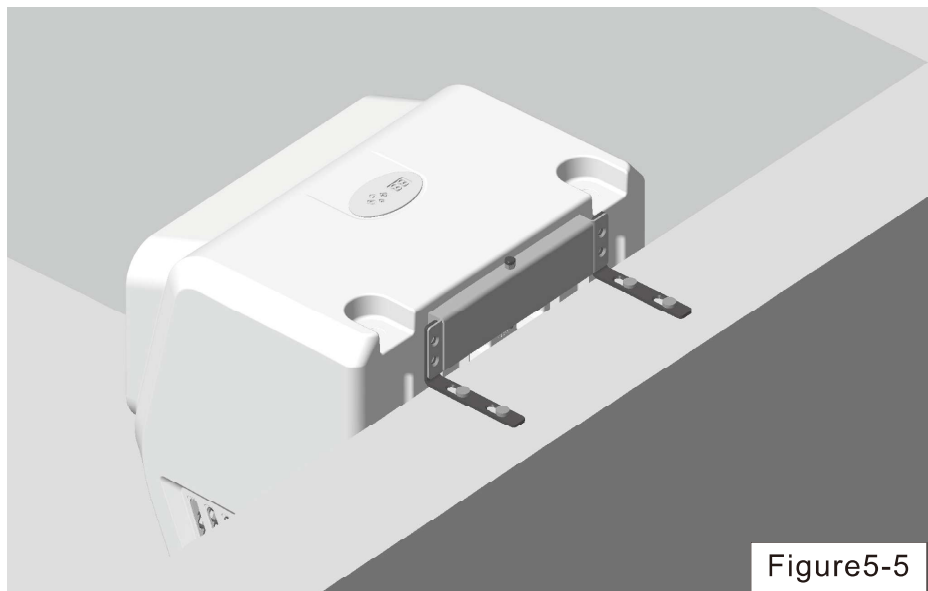


Figure5-5

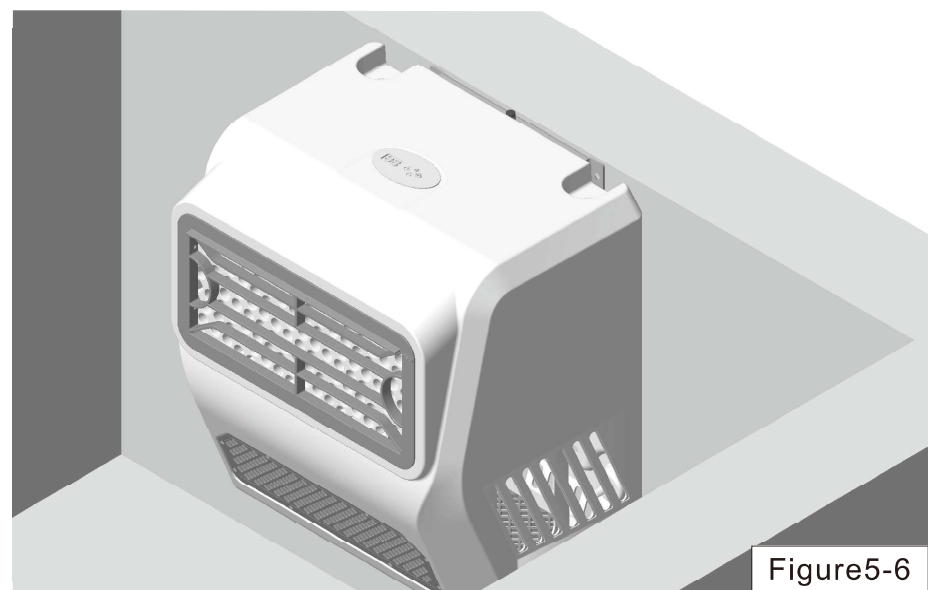
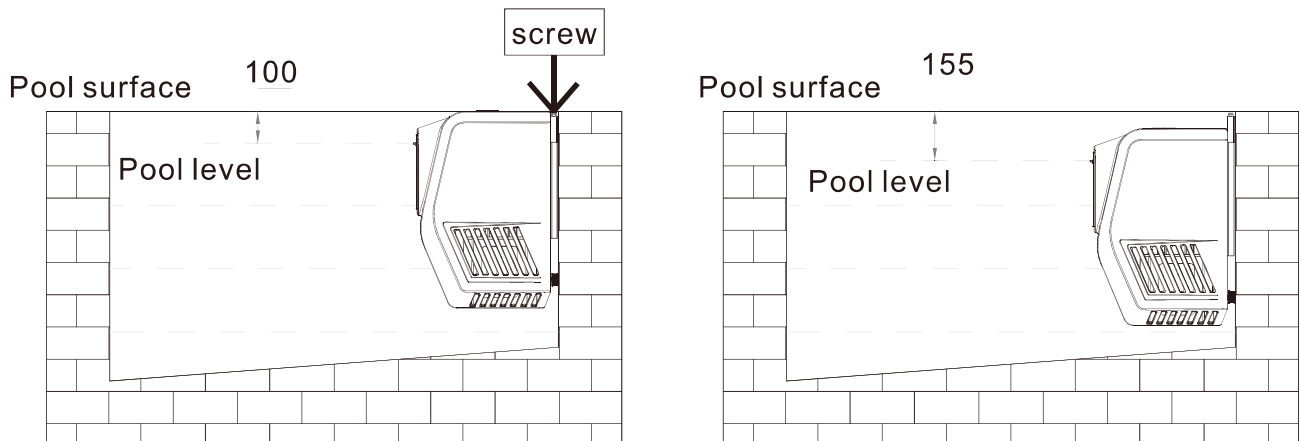


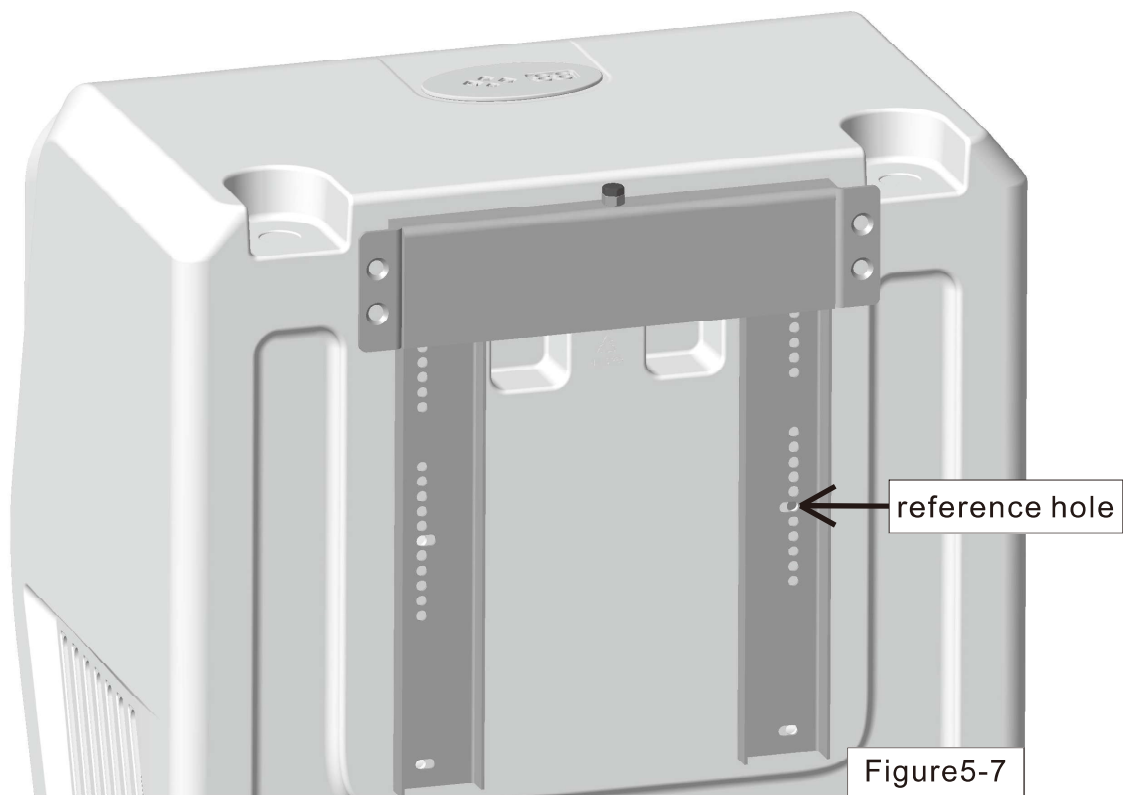
Figure5-6

2.The adjustment methods of the adjustable bracket mainly include the following two ways:

- As shown in the figure below, the screw is in the tightest state after the unit is installed (the water level is 100mm). The unit can be adjusted downward up to 55mm by loosening the screw(the water level is 155mm).

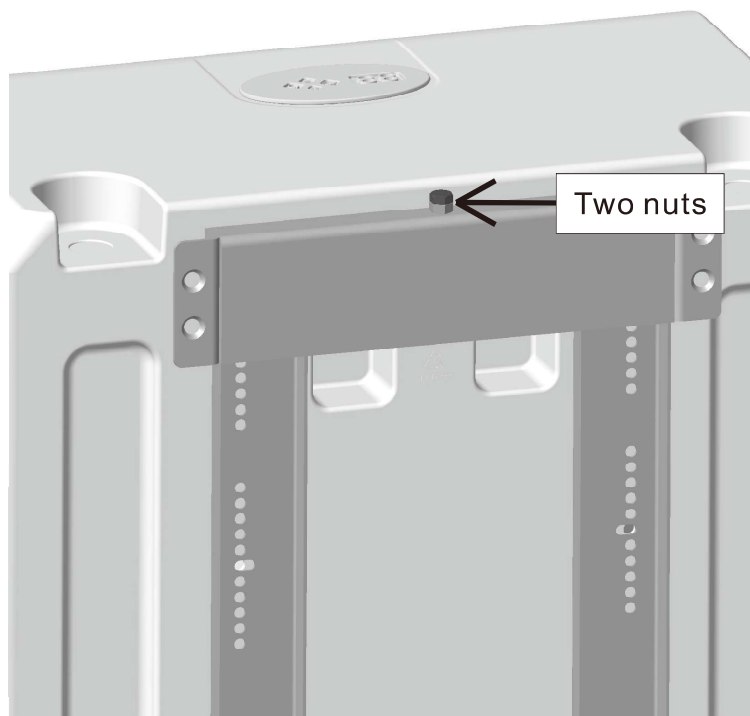


- As shown in Figure 5-7,the screw adjustment can be adjusted through the hole position of the bracket on the back of the box when it does not meet the user's requirement. The long hole can be used as the reference hole. Each hole installed upward in the box is equivalent to the units rising by 10mm (up to 50mm), And the same applies to the downward installation.



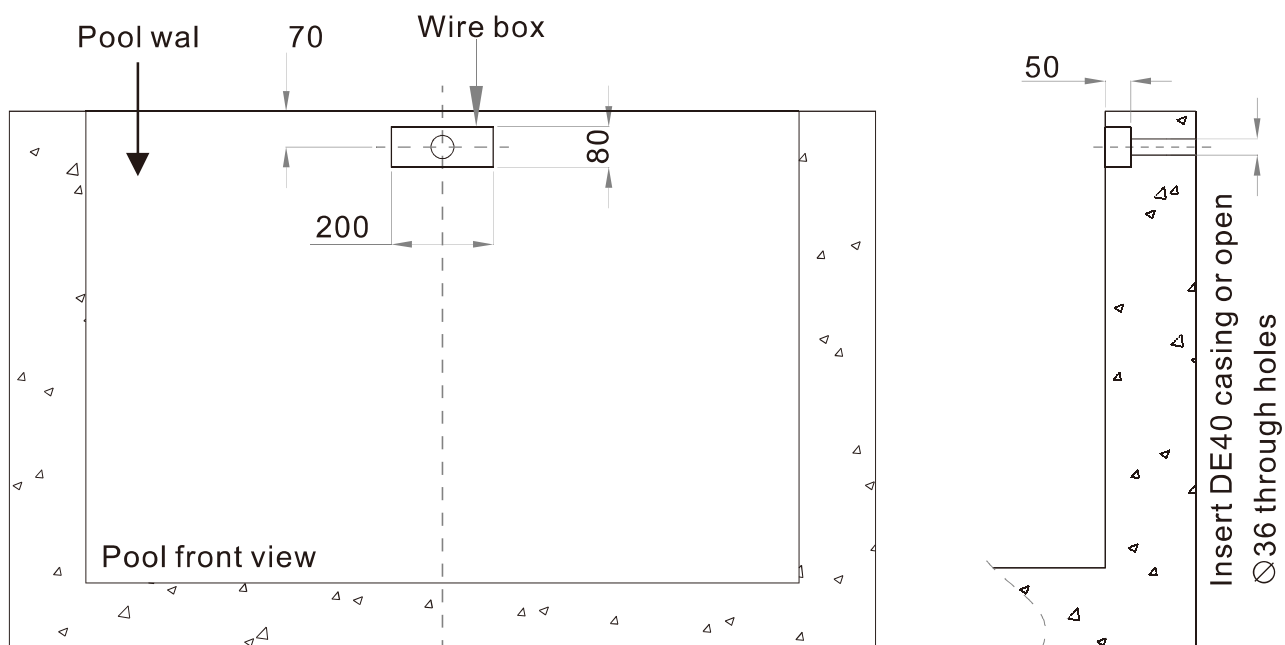
## CAUTION

The correct operation is that the two nuts must be turned together when using the sleeve adjustment screw. Turning only one of them is incorrect.



## CAUTION

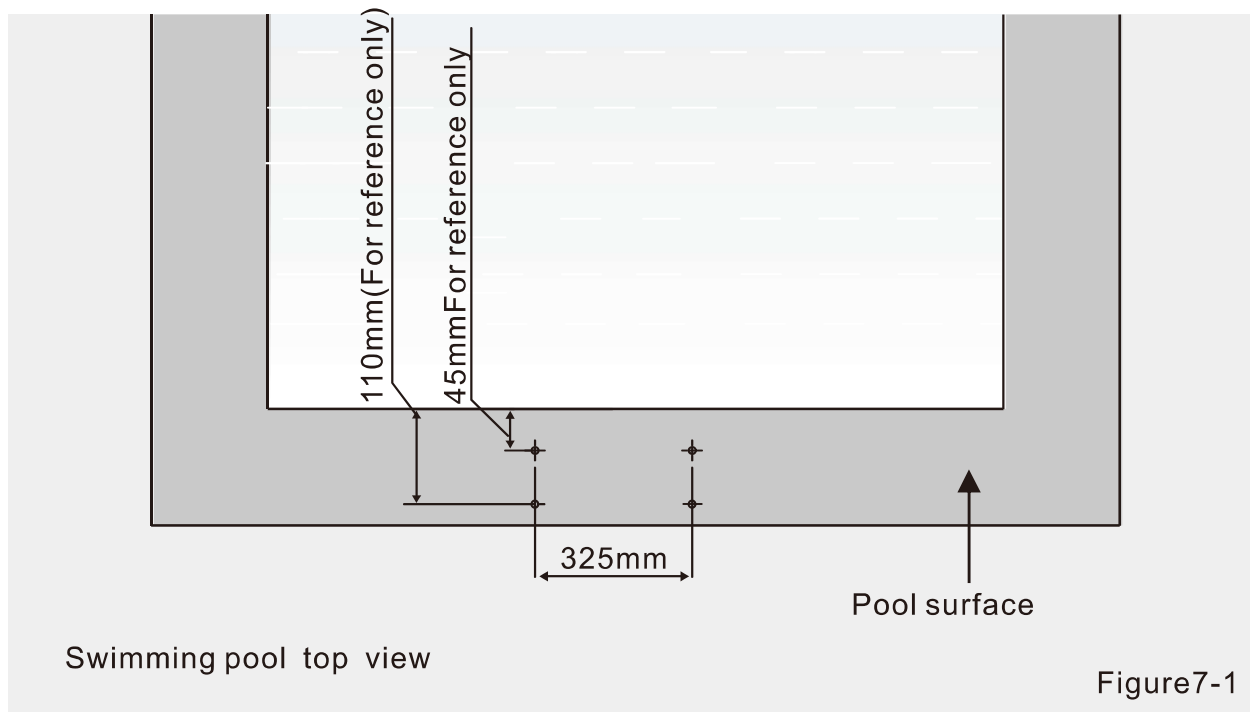
As adjustable bracket to be selected, the power cord of the unit must reserve 80mm of active length during installation to prevent the power cord from being tightened and broken when the unit is adjusted in height. Refer to the figure below, the movable 80mm power cord is reserved and placed in the pit of the wire box.



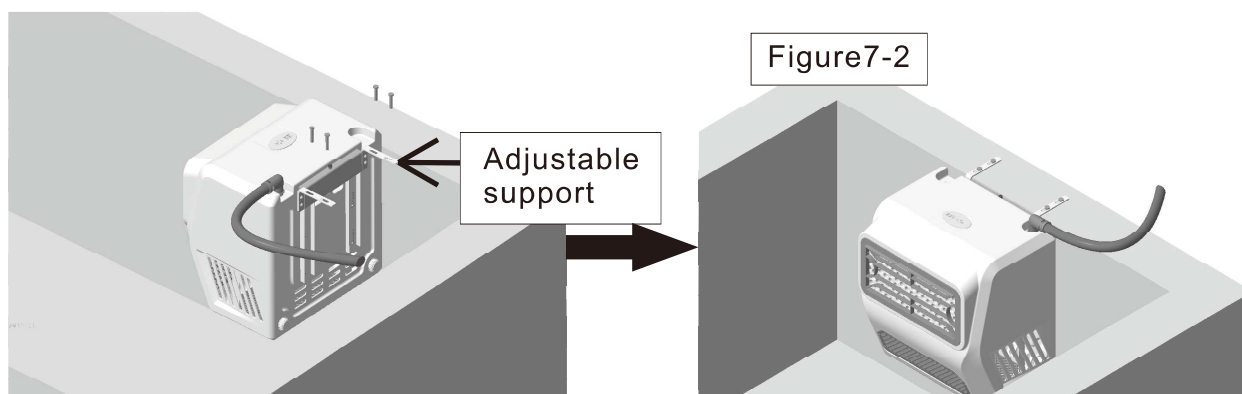
## B1.Pool surface installation method if equipped with adjustable bracket

(Skimmer pool/Exposed power cord installation/This solution is suitable for concrete pools and finished pools)

- 1.As shown in Figure 7-1, firstly locate according to the dimensions in the figure, and the equipment requires to be centered. Then drill a hole with a diameter of 10mm and a depth of 55-60mm on the pool surface (adjustable bracket fixing hole).

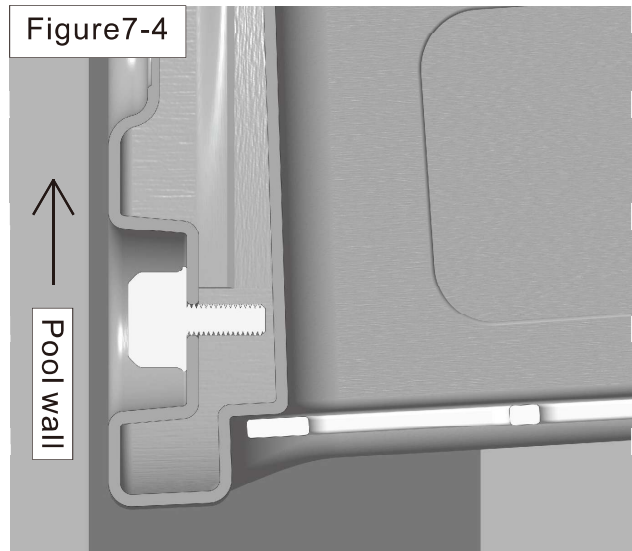
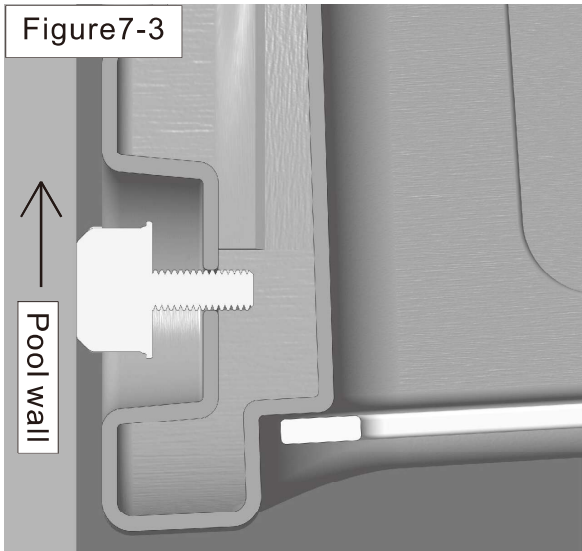


- 2.As shown in Figure 7-2, align the adjustable bracket with the pool surface fixing hole, and fix it with screws.

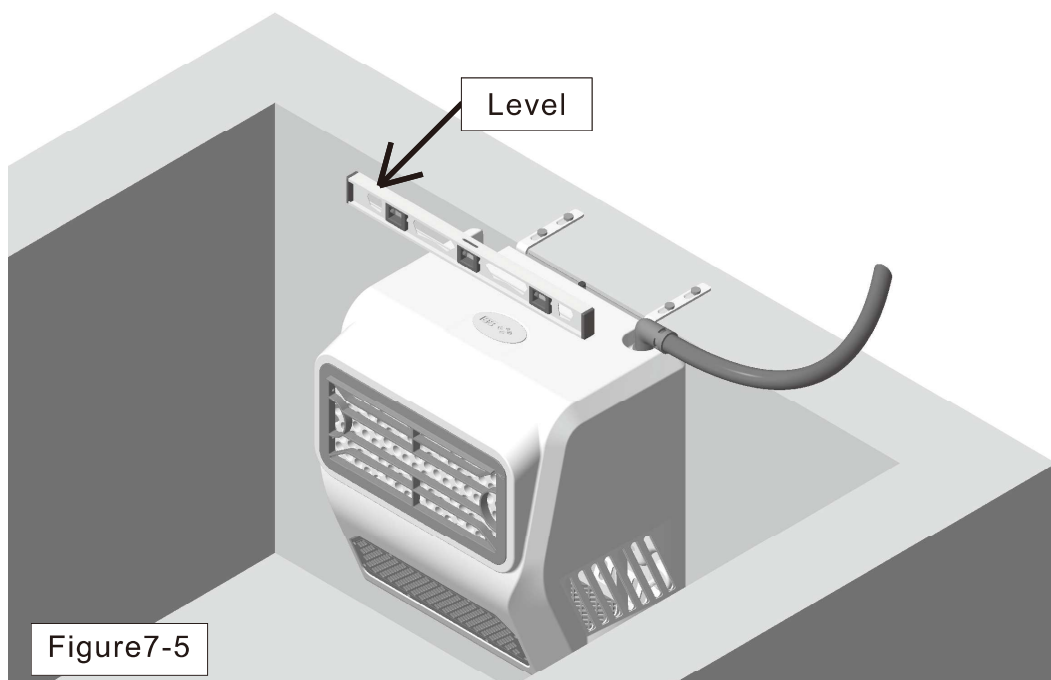


3. Check whether the supporting pool wall screws are close to the pool wall after done the installation .

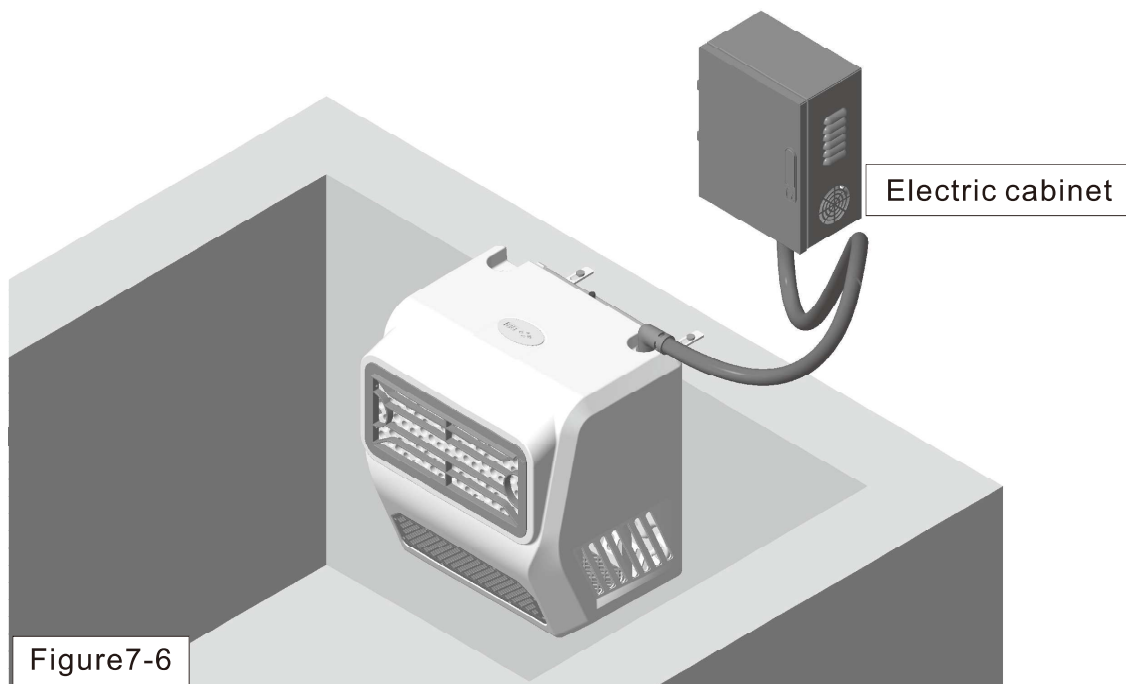
- As shown in Figure 7-3, the supporting pool wall screws are close to the pool wall which meets the installation requirements.
- As shown in Figure 7-4, the supporting pool wall screws are not close to the pool wall, and there is a gap, which does not meet the installation requirements.



4. As shown in Figure 7-5, using a level to measure whether the top surface of the unit is horizontal after the supporting screws are close to the pool wall.

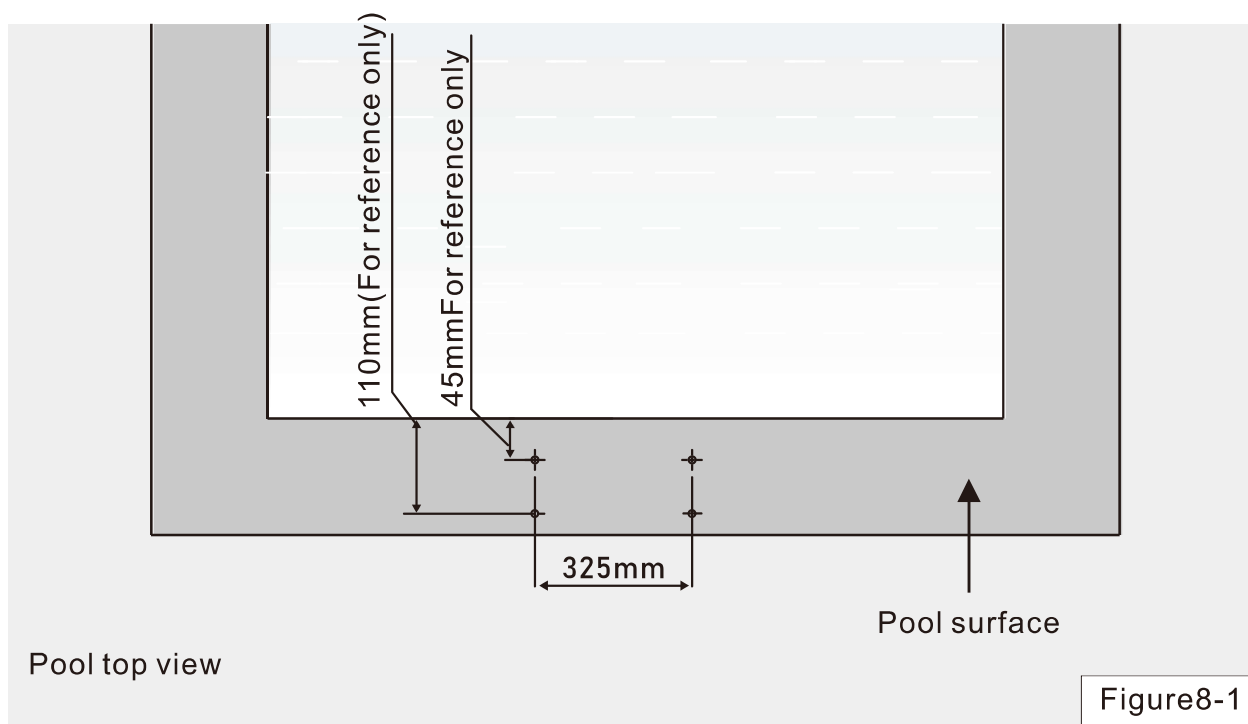


5. As shown in Figure7-6, connect the power cord to the electrical control box to complete the installation.



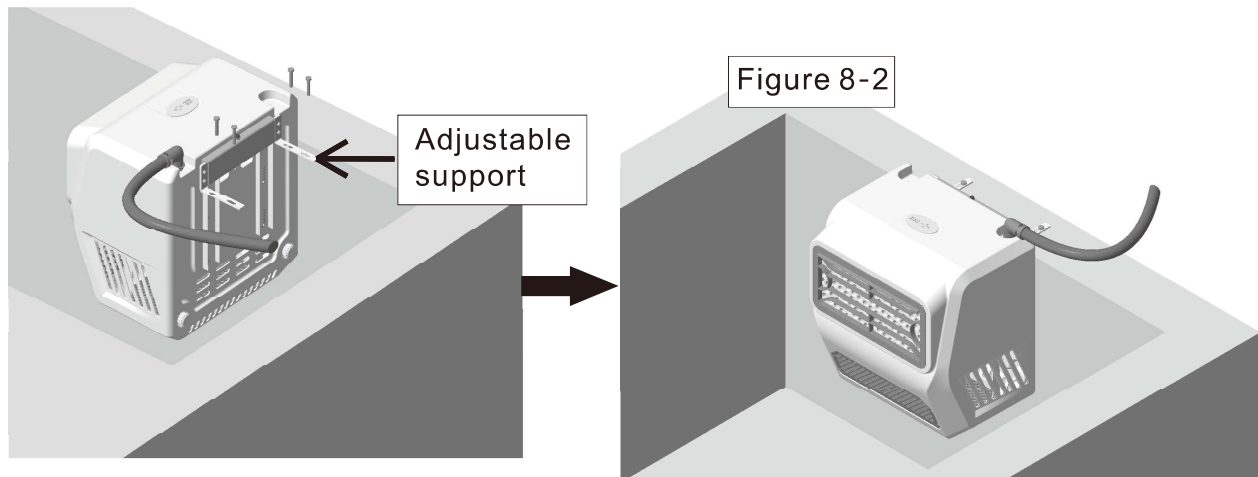
B2.Pool surface installation method if equipped with adjustable bracket. (Overflow pool/power line exposed installation/this solution is applicable to concrete pool and finished pool):

1.As shown in Figure 8-1, firstly locate according to the dimensions in the figure, and the equipment requires to be centered. Then drill a hole with a diameter of 10mm and a depth of 55-60mm on the pool surface (adjustable bracket fixing hole).



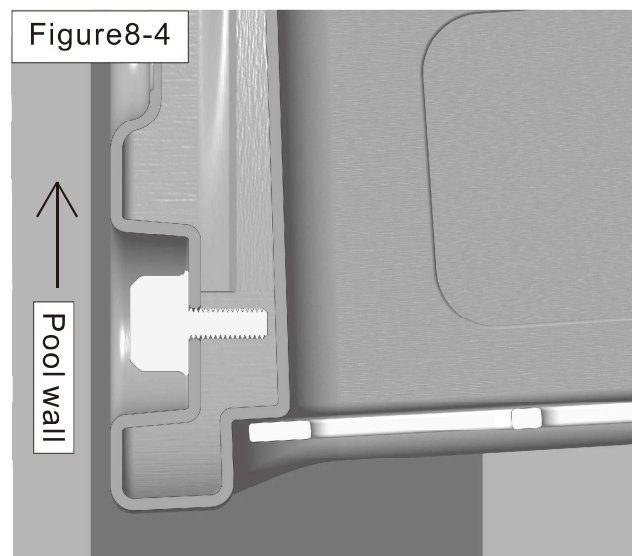
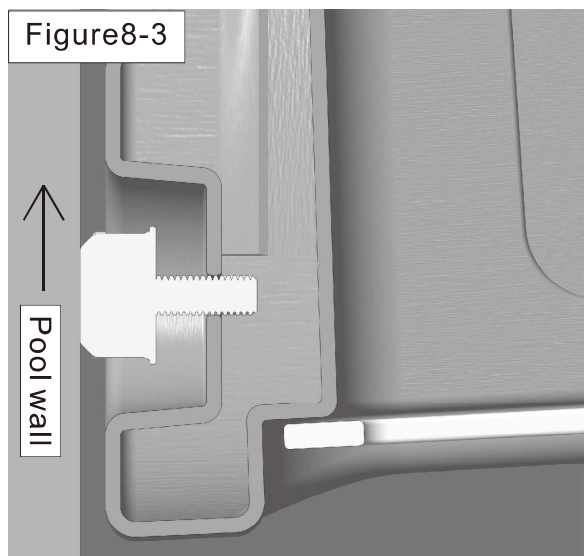


2.As shown in Figure 8-2, align the adjustable bracket with the pool surface fixing hole, and fix it with screws.

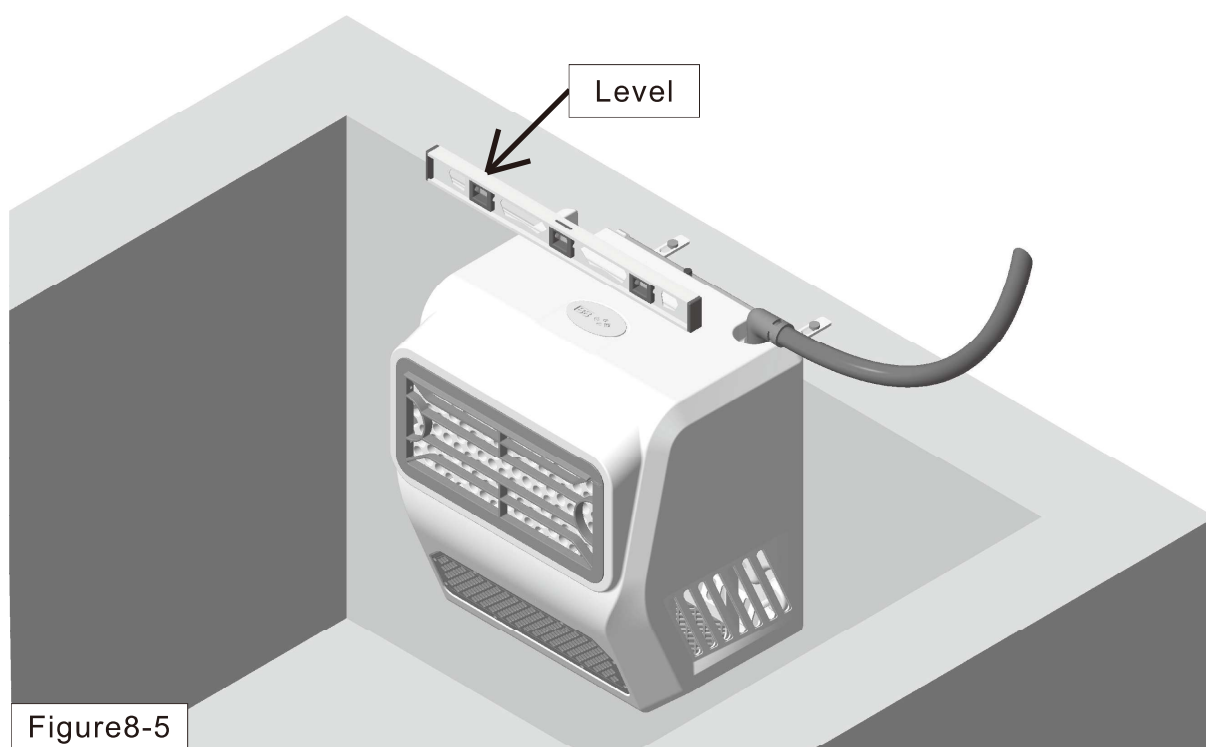


3.Check whether the supporting pool wall screws are close to the pool wall after done the installation.

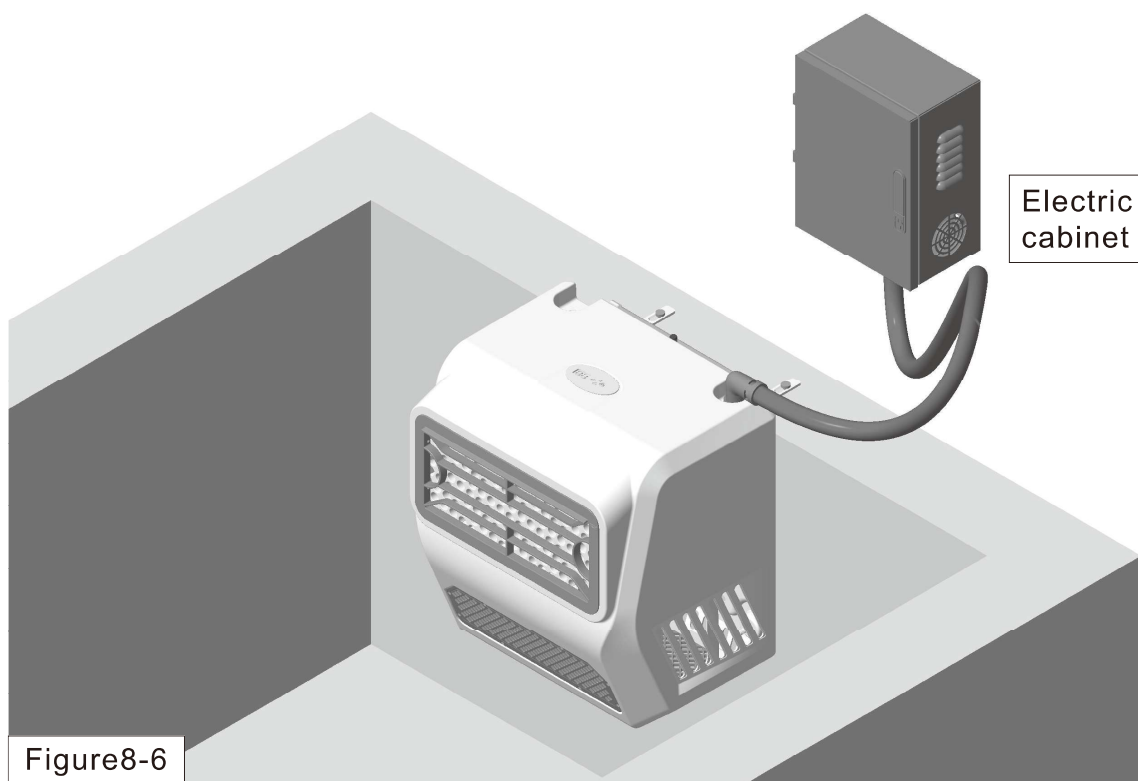
- As shown in Figure 8-3, the supporting pool wall screws are close to the pool wall which meets the installation requirements.
- As shown in Figure 8-4, the supporting pool wall screws are not close to the pool wall, and there is a gap, which does not meet the installation requirements.



4.As shown in Figure 8-5, using a level to measure whether the top surface of the unit is horizontal after the supporting screws are close to the pool wall.



5.As shown in Figure 8-6, connect the power cord to the electrical control box to complete the installation.



## ⚠ CAUTION

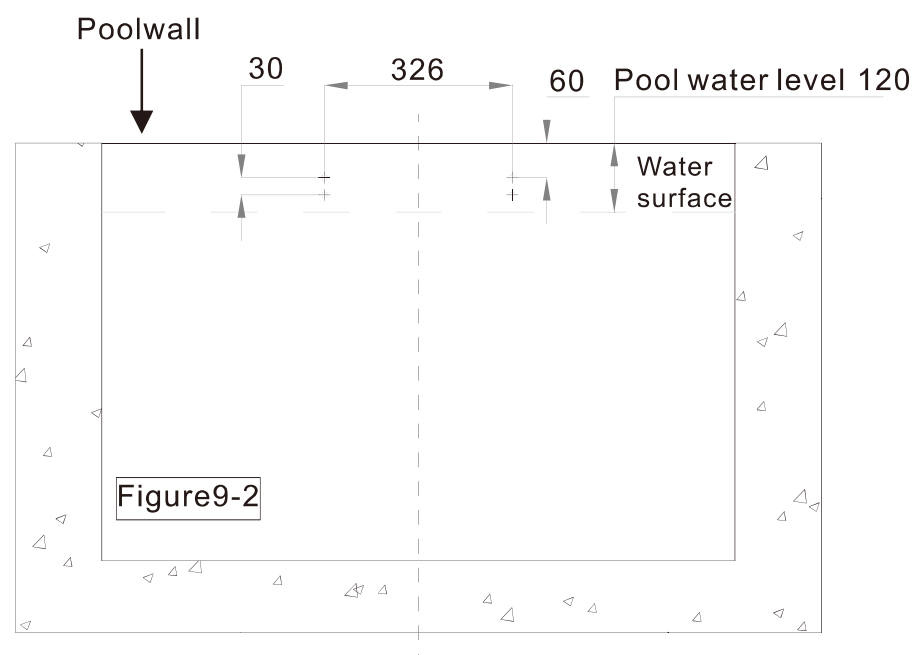
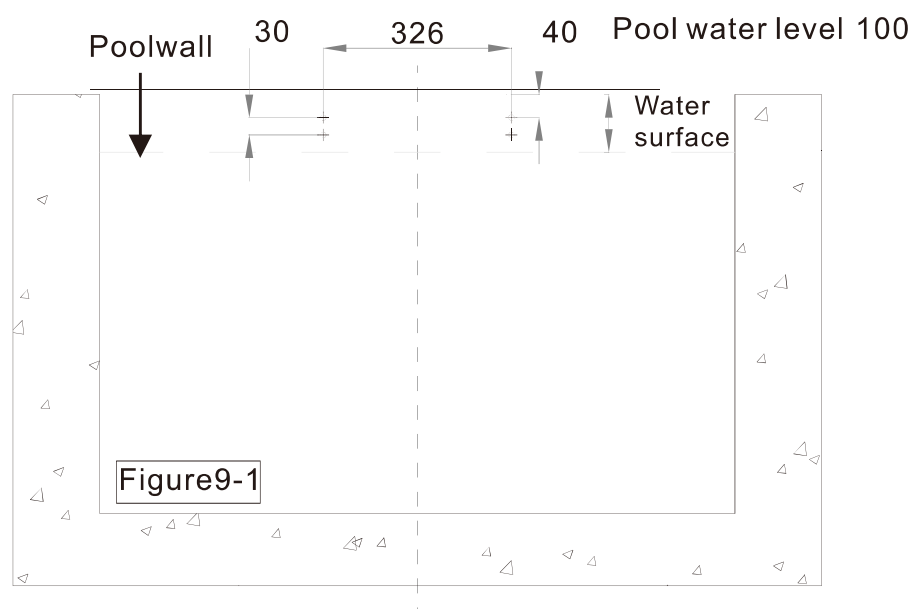
The power cord can only be installed openly when the MPU08 unit uses a adjustable bracket and the application scenario is a overflow pool.

B3.Pool wall installation method if equipped with adjustable bracket.

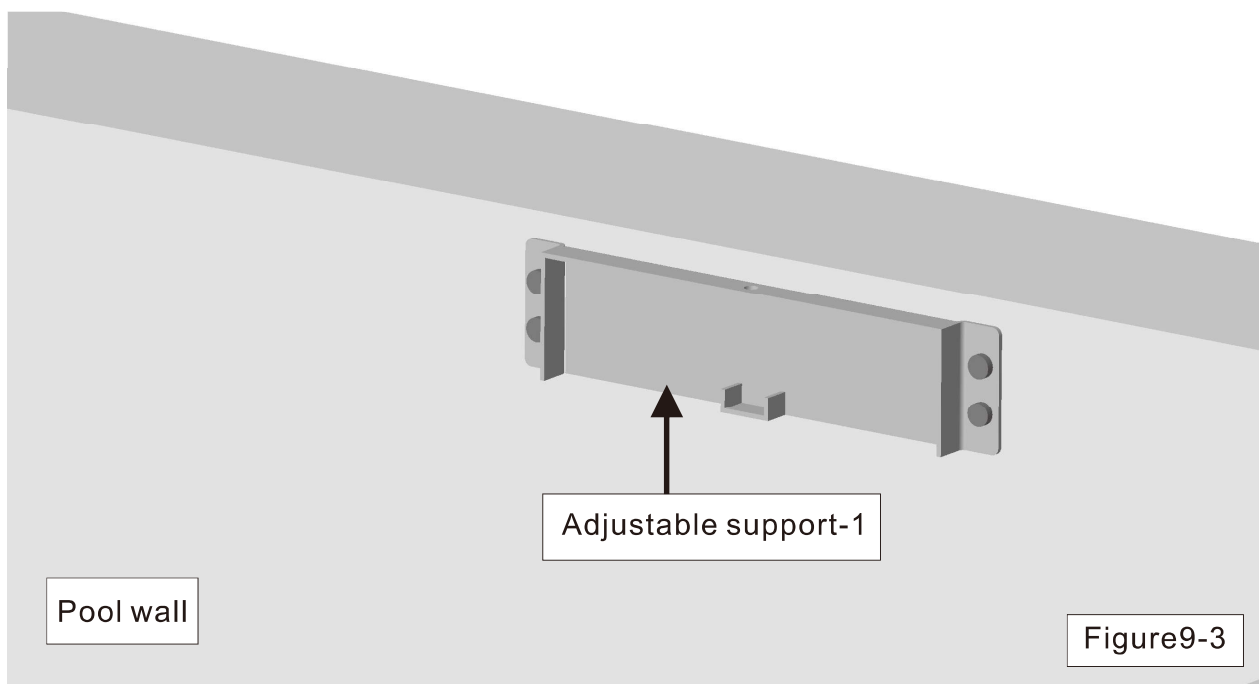
(Only applicable to skimmer pools/exposed power cord installation/this solution is applicable to concrete pools and finished pools)

1.Locate according to the following figure and drill a hole with a diameter of 10mm and a depth of 55-60mm after ensure the actual pool water level.

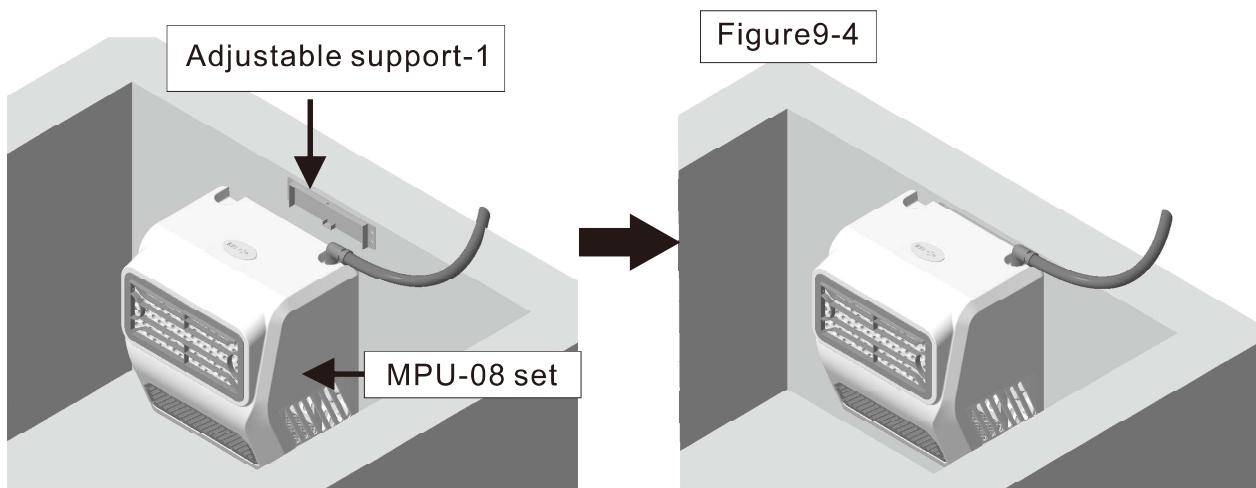
- As shown in Figure 9-1,the distance between the upper right corner hole and the pool surface is 40 when the pool water level is 100.
- As shown in Figure 9-2,the distance between the upper right corner hole and the pool surface is 60 when the pool water level is 120 etc.



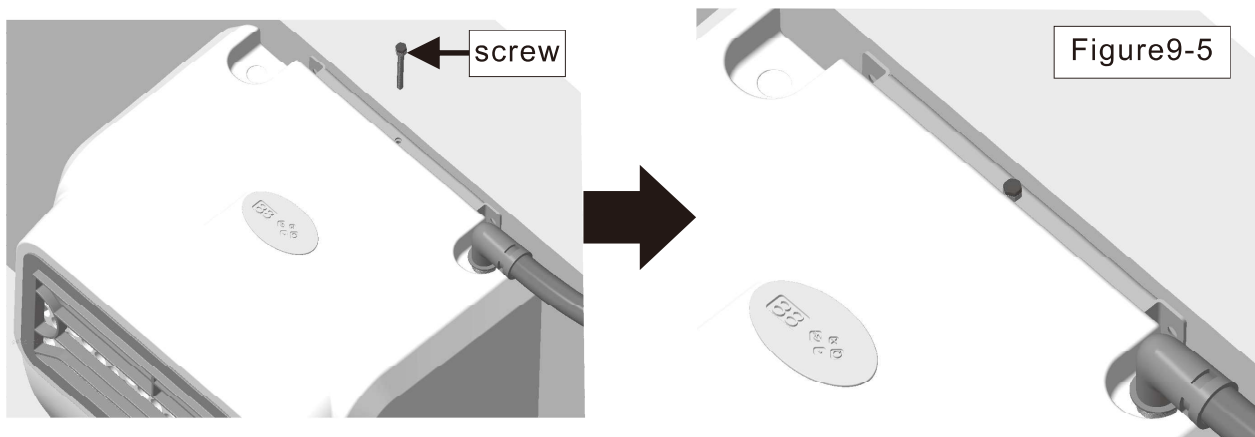
2.As shown in Figure 9-3, align the adjustable bracket-1 with the hole on the pool wall, and fix it with screws.



3.As shown in Figure 9-4, align the MPU08 unit with the adjustable bracket-1 fixed on the swimming pool wall and stick it in.

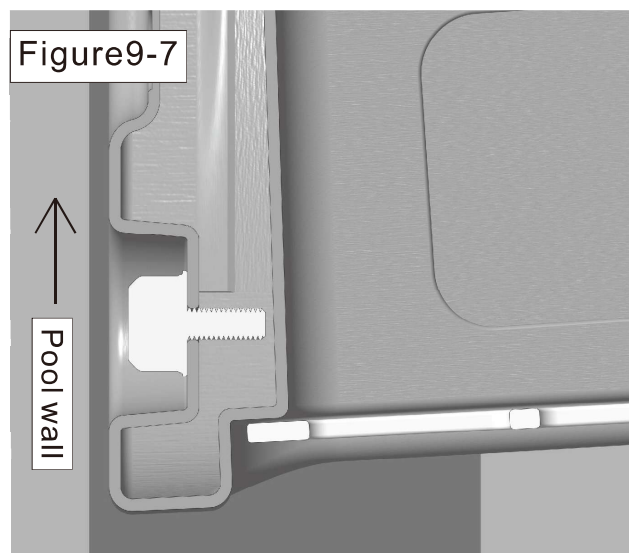
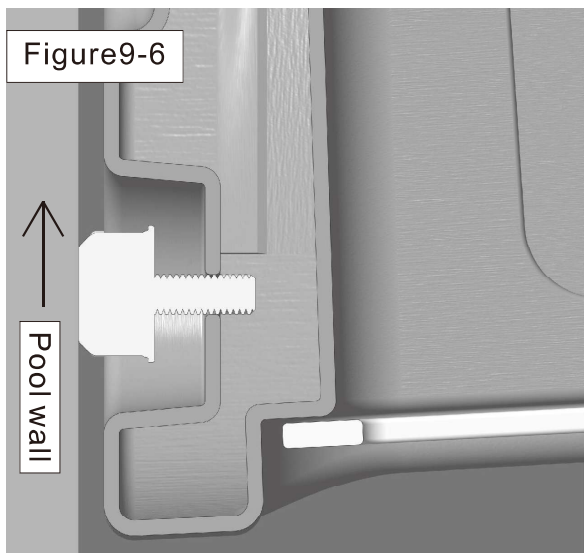


4.As shown in Figure 9-5, align the screw with the hole of the adjustable bracket and tighten it to the tightest state.

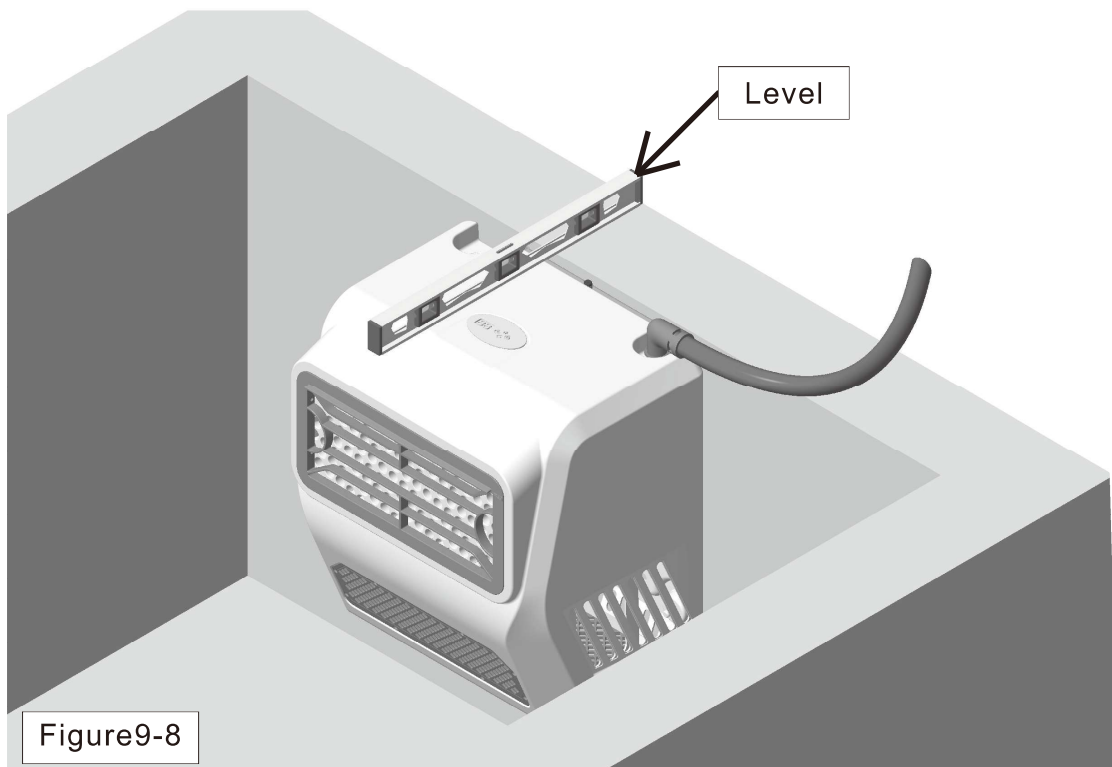


5.Check whether the supporting pool wall screws are close to the pool wall after done the installation.

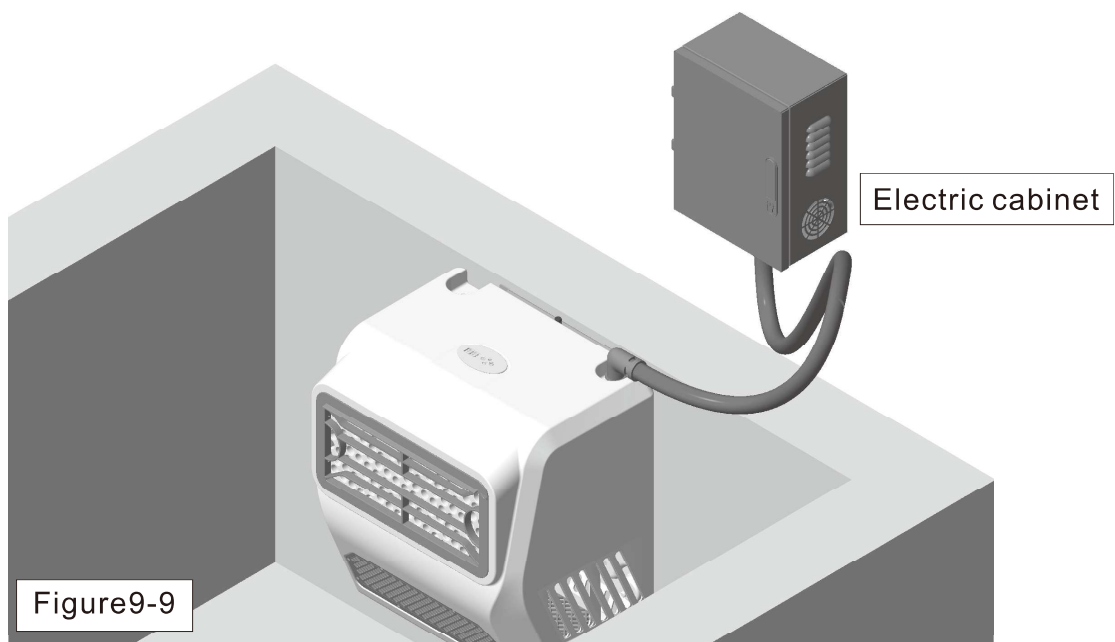
- As shown in Figure 9-6, the supporting pool wall screws are close to the pool wall which meets the installation requirements.
- As shown in Figure 9-7, the supporting pool wall screws are not close to the pool wall, and there is a gap, which does not meet the installation requirements.



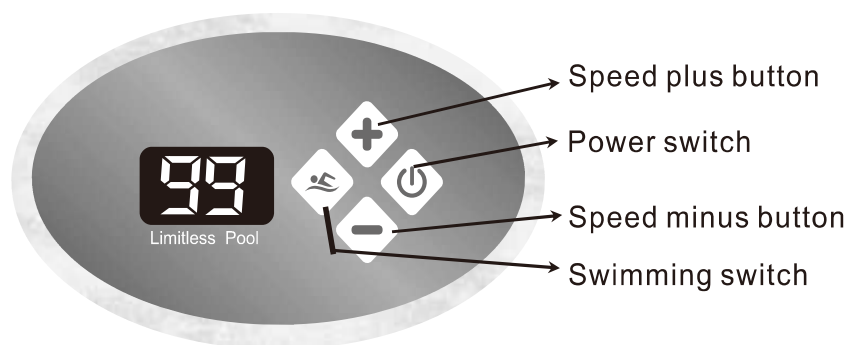
6.As shown in Figure 9-8, using a level to measure whether the top surface of the unit is horizontal after the supporting screws are close to the pool wall.



7.As shown in Figure 9-9, connect the power cord to the electrical control box to complete the installation.



## 4 INSTRUCTIONS ILLUSTRATION



### Power switch:

- Press the power switch and the wall-mounted units will enter into standby mode (the digital tube displays "--") when the wall-mounted units is in the off mode (no display on the digital tube),
- Press the power switch and the wall-mounted units will enter into the off mode (no display on the digital tube in the off mode) when the wall-mounted unit is in the standby mode.
- The speed plus button and speed minus button would be invalid when the wall-mounted units is in the off mode or in the swimming mode.

### Swimming switch:

- Press the swimming switch when the wall-mounted units is in the standby mode for swimming (displaying "--"). The digital tube will display 00 when it enters the power-on mode for the first time. Also the water pusher will start work, and you can press the "+" button to accelerate.
- The speed range is 0-99. The "+" button will be invalid when the speed is at 99. The "-" button will be invalid when the speed is at "00". If the wall-mounted units has been turned on and used before, the units will enter into the last speed of the last time swimming (speed memory function) by pressing the swimming switch. And the speed memory will disappear and the speed will start from "00" as you swim again after the wall-mounted unit is powered off.

### Speed plus button

- This button is invalid when it is in the off mode or the standby mode for swimming.
- Short press the "+" button will increase the speed by one gear when the device is in the power-on mode. Long press the "+" button will increase the speed continuously. This button will be invalid when the speed is at 99.

### Speed minus button:

- This button is invalid when the units is turned off or in the standby mode for swimming .
- Short press the "-" button will increase the speed by one gear when it is in the power-on state. Long press the "-" button will decrease the speed continuously. This button is invalid when the speed is at 00.

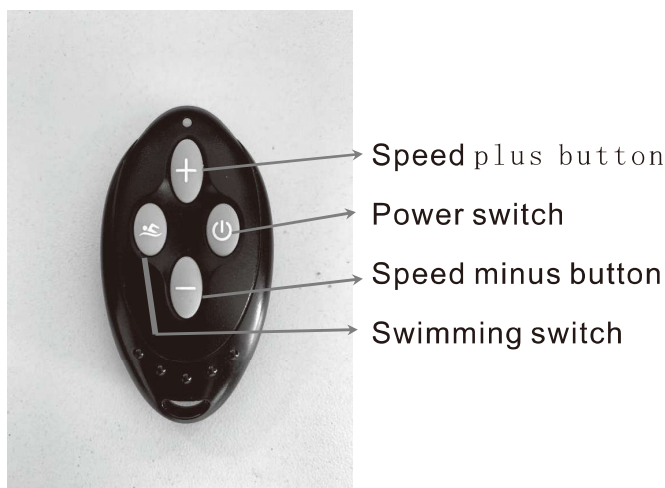
Speed Range:	00 Speed	50 Speed	99 Speed
Input current: (error range $\pm 10\%$ )	0.3A	7. 2A	25. 6A

## PRECAUTIONS

The touch control buttons of the panel have done delay processing to prevent accidental touches caused by splashing water. Place your finger on the touch button (about 2 seconds) when you need to touch a button, and then the touch button will respond after you take your finger away.

The long press function will not be affected. And the continuous adding and subtracting functions will be realized as you place your finger on the "+" or "-" button and long press it.

Remote Control:



Power switch:

Short press:

- a. Press the power button to enter the shutdown mode when the wall-mounted units is in the standby mode for swimming (displaying--).
- b. Press the power button to enter the standby mode for swimming (displaying--) when the wall-mounted units is in the shutdown mode.

Long press:

- a. Long press the power button to enter the pairing mode. The control panel will flash "88" after the pairing is successful. Flashing "88" for 5 seconds means that the pairing is successful.

Swimming switch: Same as the control panel

- a. The speed plus button and Speed minus button will be invalid when the wall-mounted unit is in the standby mode.

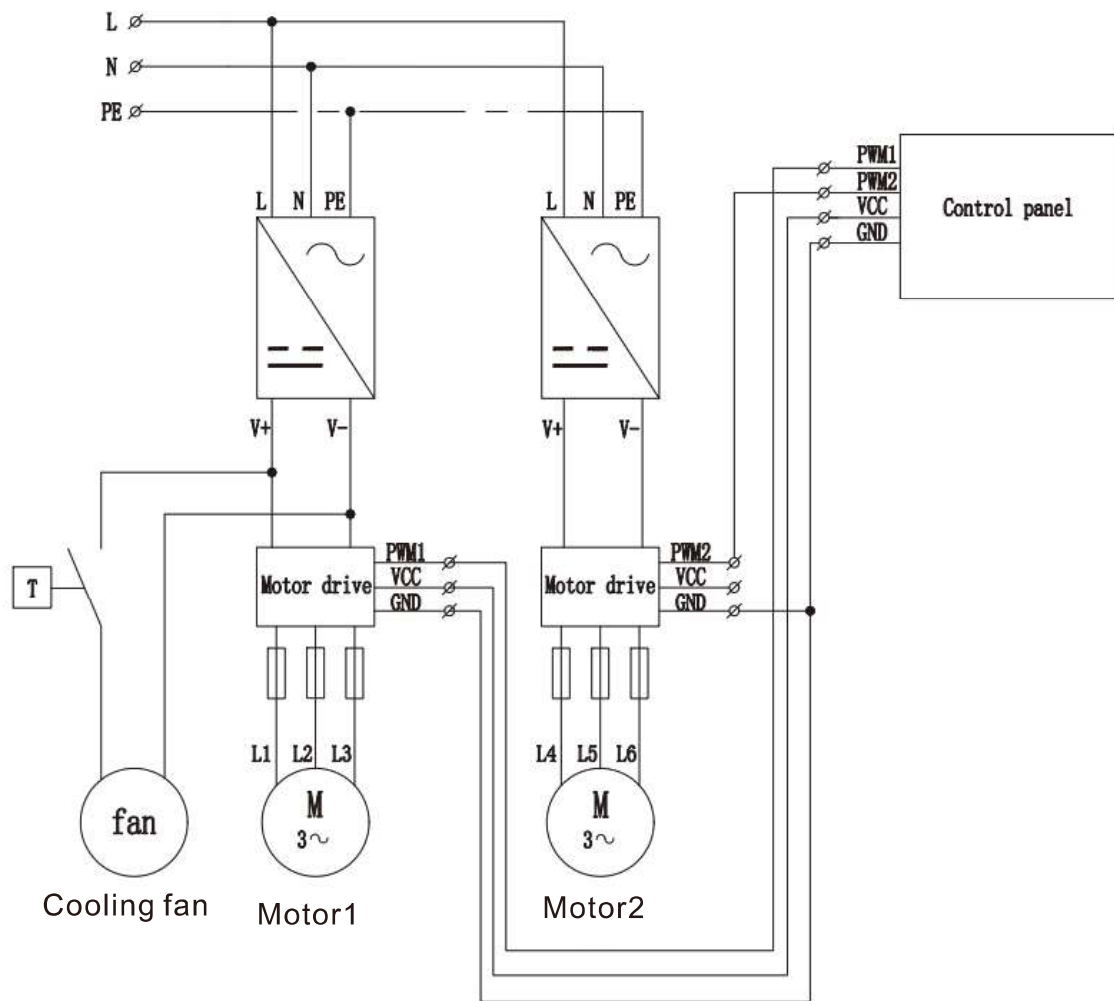
Speed plus button: Same as the control panel.

Speed minus button: Same as the control panel.

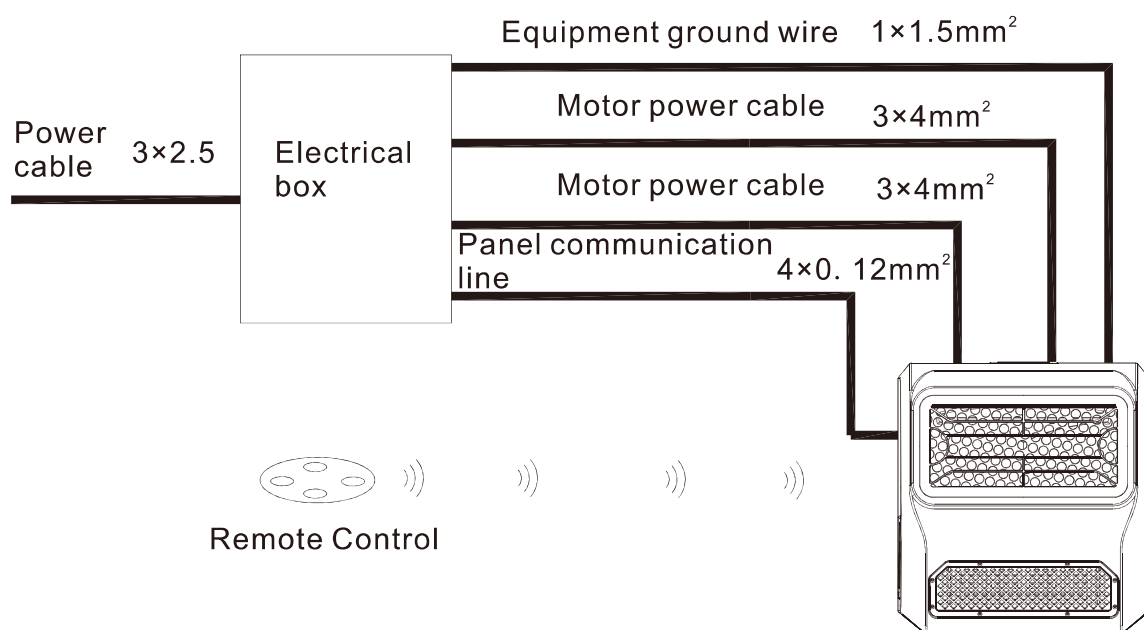


## CIRCUIT CONNECTION DEBUGGING

### Electronic control schematic diagram of a wall-mounted units



### Electronic control connection diagram



## 5 FAULT AND CAUSE ANALYSIS

	Fault condition	Cause	Troubleshooting Method
1	Start the water outlet of wall-mounted units to absorbs water	Motor reverses	Phase change of the power line on the motor terminal block
2	The panel screen does not display after power-on	Communication line is not connected	Check whether the aviation connector of the communication line is connected
		The switch in the electric control box is not closed	Check whether the circuit breaker of the electric control box is closed and whether there is a leakage fault
		The switching power supply does not output 36V voltage	Check whether the output voltage of the switching power supply is 36V Consult the manufacturer
		Motor drive failure	Check whether the motor drive indicator light is on Consult the manufacturer
3	No response when using the remote control	The remote control is not paired	Long press the "swimming button" on the pane until the digital tube flashes, then press any butoon on the remote control
		The battery of remote control is dead	Replace the battery of remote control
4	Abnormal sound of the motor after pressing the swimming button of the wall-mounted unit	The motor is blocked	Contact the manufacturer for repair
5	The the motor of wall-mounted unit does not respond after pressing the swimming button	The motor power line is not connected Motor drive failure	Check whether the motor wiring is connected firmly Contact the manufacturer for repair
6	Water output from the wall-mounted unit is not stable.	The water level is not at the optimal level	Adjust the water level to the optimal water level label
7		Installation problem of the wall-mounted units	Check whether the optimal water level line is aligned with the water surface

#### Explanation of non-warranty terms

1. No product warranty certificate.
2. The customer does not use and maintain the product in accordance with the instructions.
3. Any unauthorized changes to the product without the permission of the company.
4. Damage caused by using corrosive or inferior cleaning agents on the product surface.
5. Any damage caused by poor storage or transportation.
6. Damage caused by force majeure such as natural disasters and fire.
7. Damage caused by the passage of time (such as natural fading of the product appearance).
8. Damage caused by human factors.

#### Service Commitment

Reply within 2 working days after receiving a valid complaint.

Regularly customer satisfaction surveys to ensure and improve customer satisfaction continuously.

## **6 AFTER-SALES SERVICE, WARRANTY AND TERMS OF USE**

### **WARRANTY DESCRIPTION**

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- 1.The company's product warranty is a limited liability warranty which is limited to the liability warranty of product quality, and the warranty does not include any other expenses.
- 2.If the fault is caused by the quality of the product itself during the warranty period, please contact the dealer with the product warranty manual for repair or replacement of spare parts.
- 3.Please keep the product warranty manual as a warranty certificate. Customers who need to order spare parts of product if it have exceeded the warranty period can contact our company for mail order.
- 4Customers are obliged to provide information such as product number and product name etc. to after-sales staff for warranty, so that the after-sales staff can solve your problems more quickly and accurately.
- 5.The MPU infinity pool wall-mounted units is guaranteed for 24 months (appearance problems such as discoloration and scratches caused by the use of the product are not covered by the warranty).
- 6.Additional Notes:
  - a.The warranty period starts from the date of manufacture of the product.
  - b.The warranty period after repair or replacement of spare parts during the warranty period is based on the remaining time of the original warranty period.The warranty period is 3 months if the remaining warranty time is less than 3 months.
  - c.For repair or replacement of spare parts beyond the warranty period, the repaired items or replaced spare parts are under warranty for 3 months.

#### **After-sales service**

- 1.The company provides lifetime service for the product. And basic service fee including material costs, labor costs and travel expenses will be charged when the product need to be maintained or repaired after the warranty period has expired.
- 2.The warranty responsibility does not include the warranty of consumable items or parts unless there is a manufacturing defect.
- 3.The company reserves the right to determine the repair method and the scope of warranty.
- 4.All spare parts replaced within the scope of the warranty work are the property of the company.