

iGarden Surfing SwimJet

User Manual

1. Warnings & Safety Instructions

Read and follow all instructions before installation and use

Before installing or using this product, you must read the entire manual, follow all safety instructions, and retain this manual for future reference.

1.1 Safety Rules for Installation & Use

- Before each use, inspect the Swim Jet unit, power control box, and cables for any signs of damage or wear. Do not operate the system if damage is detected; contact iGarden for service or replacement.
 - Never operate the device without fully understanding the functions and potential effects of the power control box.
 - Before starting, ensure no one is near the inlet or outlet of the Swim Jet unit.
 - Do not place fragile items around the Swim Jet main unit.
 - Do not apply pressure to the device (e.g., sitting, stepping on, climbing across) to avoid damage or personal injury.
 - All swimmers using the device must wear swim caps and goggles.
 - If you have any medical condition, consult your doctor before use. Stop immediately if you experience chest pain, tightness, shortness of breath, or dizziness during exercise. Do not reuse until cleared by a physician.
 - Do not dive while the Swim Jet is running.
 - Before operation, ensure the area around the unit is clear of obstacles and that the unit is fully submerged in water.
 - The device must be protected by a Residual Current Device (RCD) rated no higher than 30 mA — ensure it is functioning before each use.
- If the unit will not be used for an extended period, please disconnect it from the power supply.



• Warning: Do not insert any foreign objects into the inlet or outlet of the front intake shroud.



• Warning: Do not attach or allow any debris—such as leaves, paper, or plastic bags—to block the suction ports or outlet openings on the Swim Jet housing.



• Warning: Do not operate the unit if the pool contains ice.



• Danger: If the user's body temperature significantly exceeds normal, stop using the product immediately—serious consequences may occur, including loss of consciousness and risk of drowning.



• Danger: Never place the unit's cable plug into the water. Do not connect or disconnect the power or unit cable plug with wet hands.



- Danger: Always disconnect power before performing maintenance or repairs on the Swim Jet—to ensure operator safety and prevent electrical accidents or equipment damage.



- Danger: Do not coil or wrap the unit's power cable during installation, as this can lead to overheating and pose potential safety risks.

1.2 Child Safety

- Children are not allowed to use this product without adult supervision.
- Ensure that children are closely monitored at all times while using the product.

1.3 User Restrictions

- Individuals with limited physical, sensory, or mental capacity should not use this product unless supervised by qualified personnel.
- Do not use this product if you are under the influence of alcohol, drugs, or any substance that affects your response ability.

2. Operation Conditions

- Power Control Box Operating Temperature: 0 °C to 43 °C (must be installed in a dry, non-condensing environment, avoiding direct sunlight and rain).
- Recommended Mounting Depth for the Swim Jet Unit: 250–350 mm below water surface (ensure unit is fully submerged).
- Operating Water Temperature for Swim Jet Unit: +5 °C to +40 °C

Owners of Swim Jet P Series systems are responsible for maintaining suitable conditions to ensure optimal product lifespan. To meet warranty requirements, we recommend using high-quality pool water. Below are the required parameters for water quality maintenance:

- pH: 7.0–7.8
- Combined Chlorine: ≤ 0.5 mg/L
- Free Chlorine: 0.3–2.0 mg/L
- Cyanuric Acid (Stabilizer): ≤ 100 mg/L
- Salt Concentration: ≤ 0.4 % (4,000 ppm)
- Metal Content: ≈ 0 mg/L
- Carbonate Hardness: ≥ 2 °dH

- Ozone: 0 mg/L
- Total Chlorite & Chlorate: ≤ 30 mg/L
- Oxidation–Reduction Potential (ORP): ≥ 700 mV



Unsuitable Applications

- * Not intended for installation in potentially explosive atmospheres.
- * Not suitable for use in harsh environments (exposure to gases, acids, vapors, chemicals, or oils).
- * Not suitable for use in sewage or wastewater.

3. Technical Specifications

Series	Model No.	Power (W)	Operating Water Temp (°C)	Ambient Temp (°C)	Max Flow Rate (m³/h)	Max Flow Speed (m/s)
iGarden SwimJet P Series	P450	400	5~40	0~43	100	2.4
	P720	600	5~40	0~43	160	2.9
	P900	900	5~40	0~43	200	3.5
	P1100	1200	5~40	0~43	230	4.0
InverJet	SJ100, P100	400	5~40	0~43	100	2.4
	SJ160, P160	600	5~40	0~43	160	2.9
	SJ200, P200	900	5~40	0~43	200	3.4
	SJ230, P230	1250	5~40	0~43	230	4.0
	SJ240, P240	1250	5~40	0~43	240	4.2

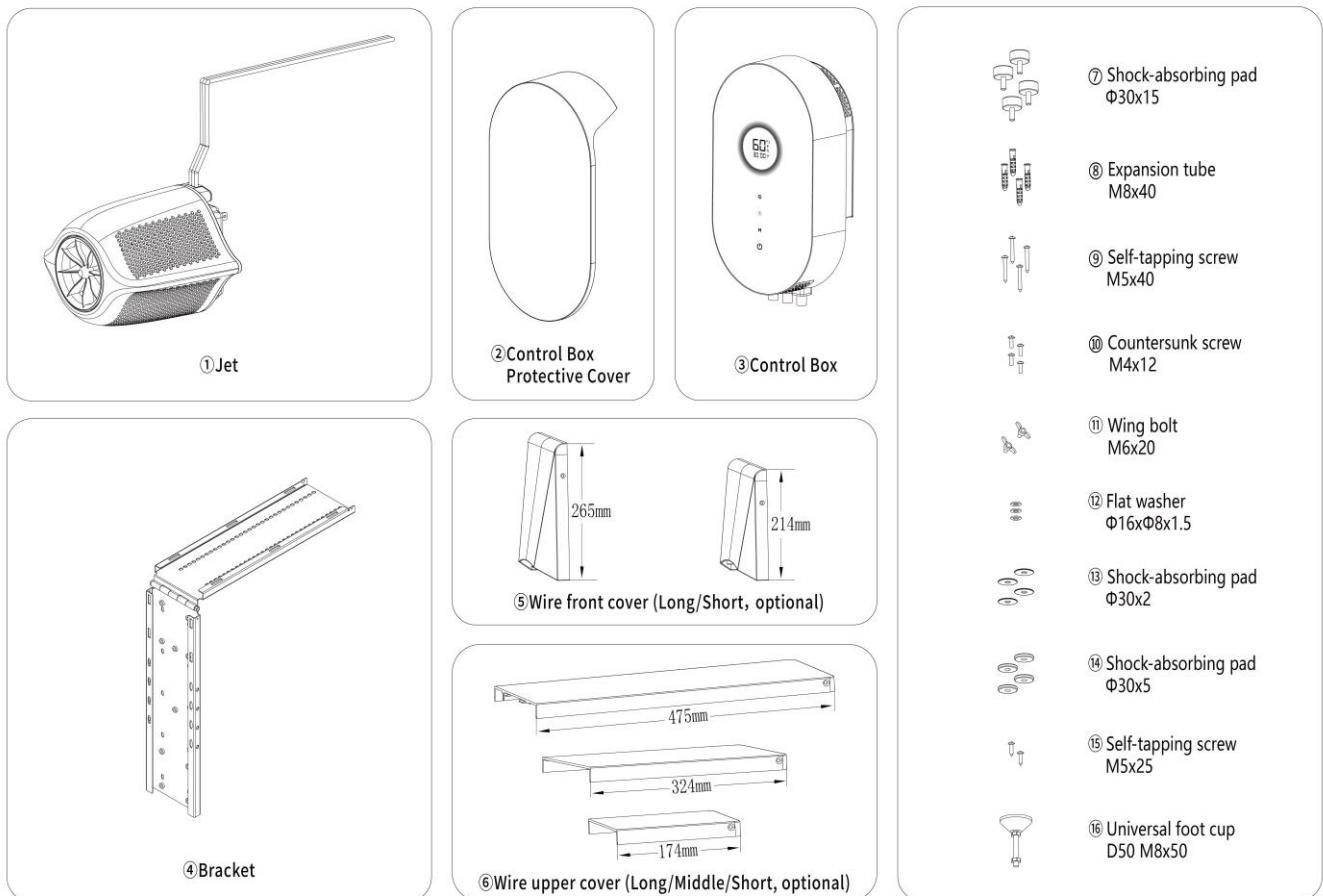
4. Parts List & Component Diagrams

4.1 Parts List

NO.	Item	Quantity
①	Jet	1
②	control box protective cover	1

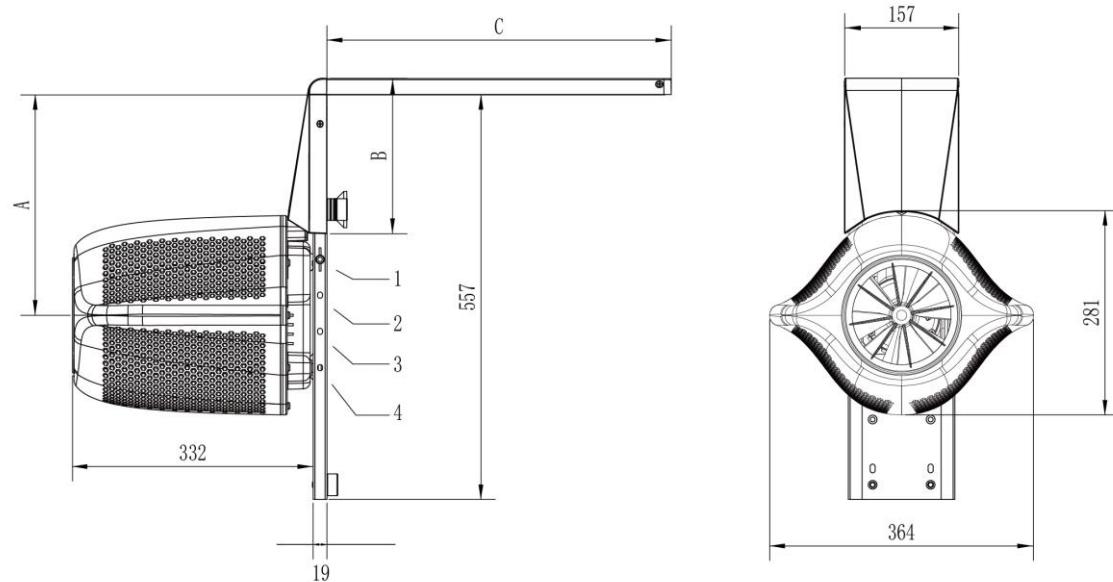
③	control box	1
④	bracket	1
⑤	wire front cover (long/short, optional)	1
⑥	wire upper cover (long/mid/short, optional)	1
⑦	shock-absorbing pad $\Phi 30 \times 15$	4
⑧	expansion tube M8x40	6
⑨	self-tapping screw M5x40	6
⑩	countersunk screw M4x12	4
⑪	wind bolt M6x20	2
⑫	flat washer $\Phi 16 \times \Phi 8 \times 1.5$	3
⑬	shock-absorbing pad $\Phi 30 \times 2$	4
⑭	shock-absorbing pad $\Phi 30 \times 5$	4
⑮	self-tapping screw M5x25	4
⑯	Universal foot cup D50 M8x50	1

4.2 Item



5. Installation Guide

5.1 Structural Dimension Diagram of the Swim Jet Main Unit



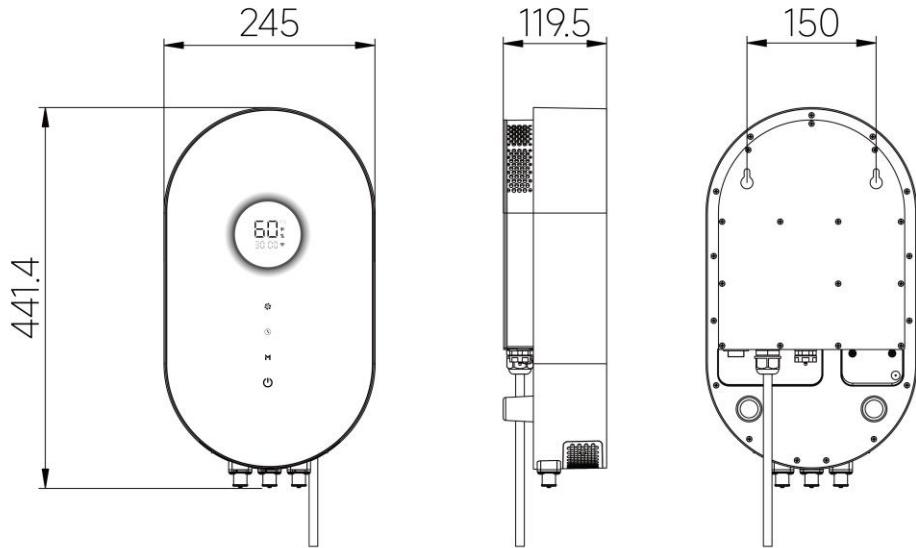
Different cable front-cover types can be selected based on the distance from the center of the main unit to the pool edge, as detailed in the table below:

Mounting Position of the Main Unit	Distance from Main Unit Center to Pool Edge (mm)	Cable Front Cover Length B (mm)	Cable Top Cover Length C (mm)
1	305	214	475,324,174
2	355	265	475,324,174
3	405	265	475,324,174
4	455	265	475,324,174

5.2 Swim Jet Power Control Box Installation

5.2.1 Dimension Diagram of Power Control Box

Let me know if you'd like me to also translate accompanying dimension tables or annotate the diagram for clarity!



5.2.2 Power Control Box Installation Notes

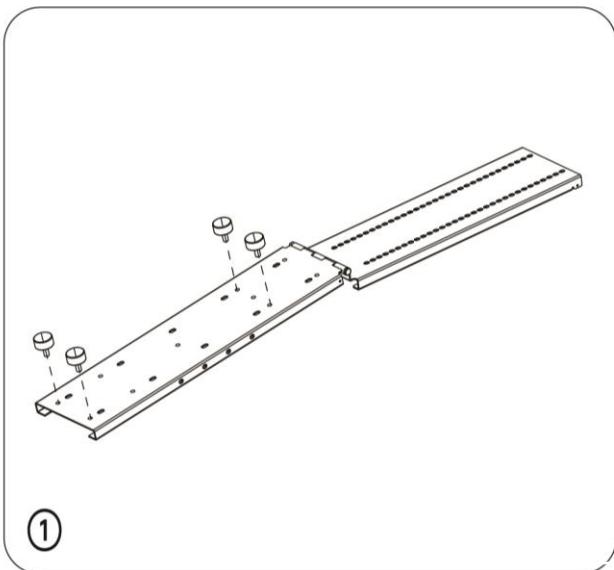


Danger: Before installation, ensure the power is turned off to prevent accidental startup and potential injury.

Installation Environment:

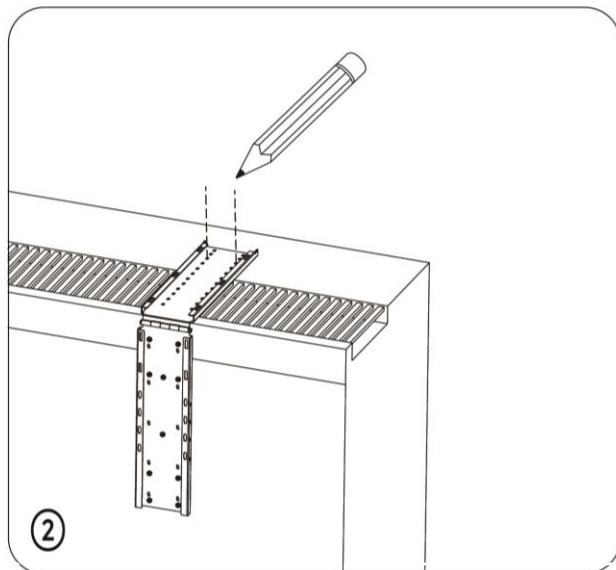
- The power control box must be installed at least **3 meters (≈10 ft)** away from the pool edge, in a well-ventilated, dry, non-condensing area, protected from rain and pool splashes.
- For **outdoor installations**, it's recommended to mount a protective **weather shield** over the box to enhance protection from environmental exposure.
- To ensure adequate cooling, leave at least **30 cm (≈12 in)** of clearance around the unit on all sides—except the side against a wall.

5.3 Diagram: Swim Jet Main Unit Installation Layout



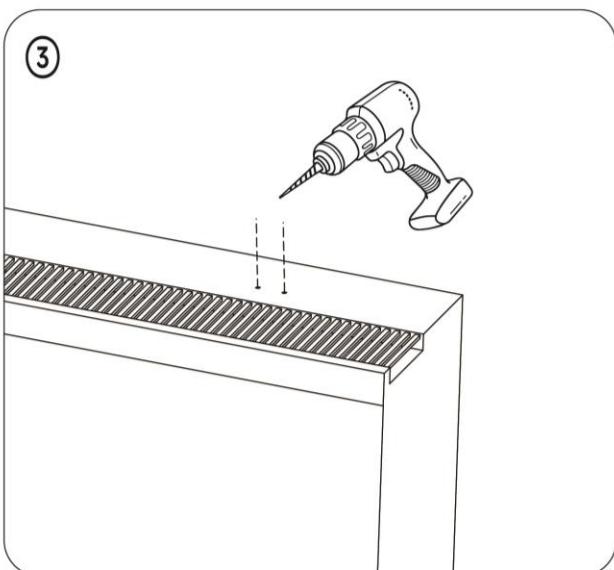
①

Install 4 vibration-damping pads Ø30×15 onto the back of the bracket.



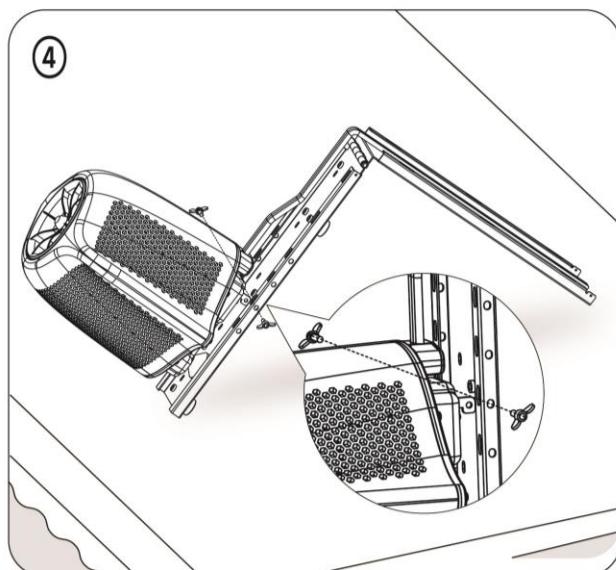
②

Place the bracket flat onto the mounting surface and mark the installation hole positions.



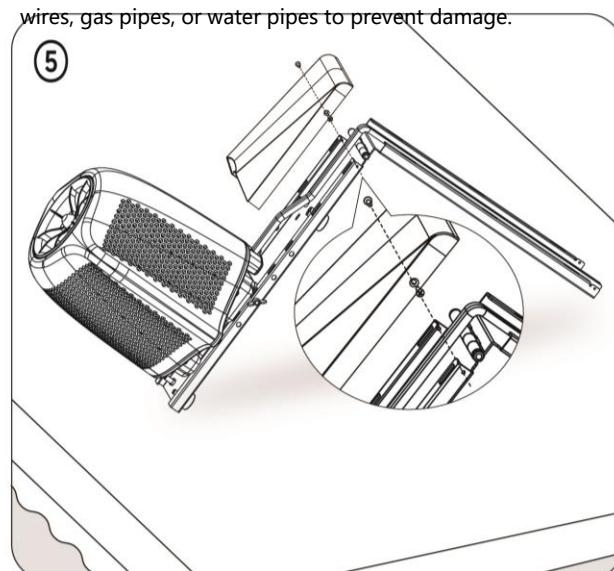
③

Drill holes at the marked positions using an 8mm drill bit, ensuring a depth of 45mm. Take care to avoid any electrical wires, gas pipes, or water pipes to prevent damage.



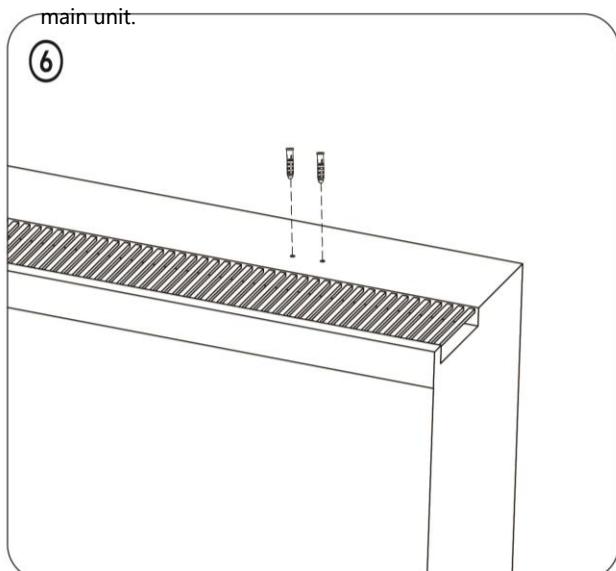
④

Align the main unit's hooks with the bracket holes for installation. Tighten the butterfly bolts to secure the swim jet main unit.



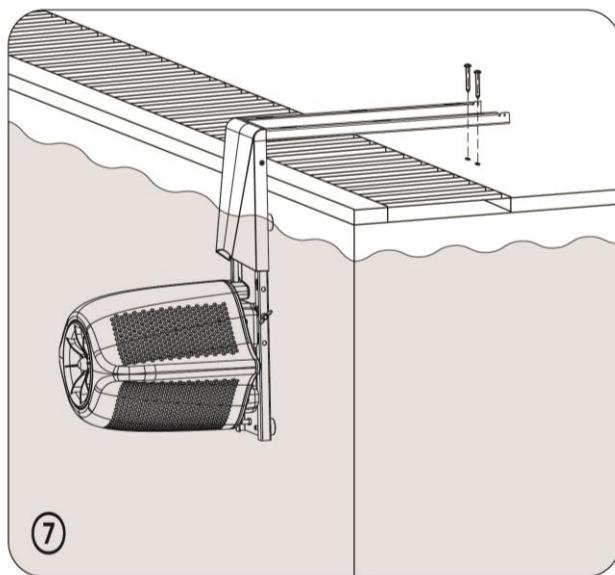
⑤

Based on the height from the water surface to the edge of the pool, select the appropriate cable front cover for installation. Secure it using M4 countersunk head screws

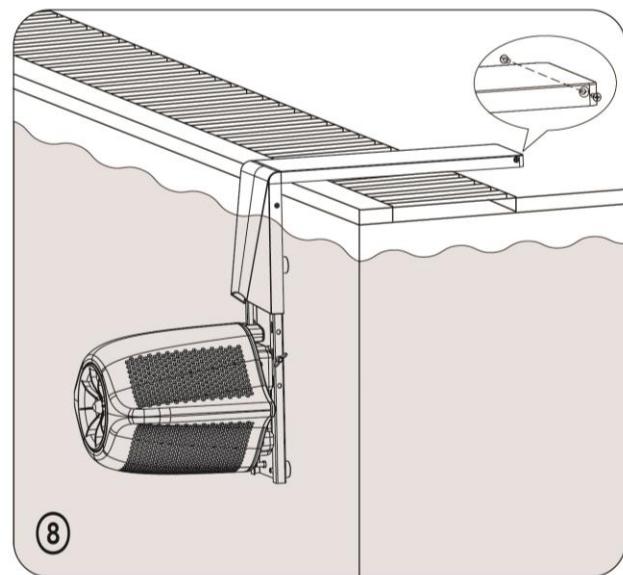


⑥

Install the expansion anchor M8*40

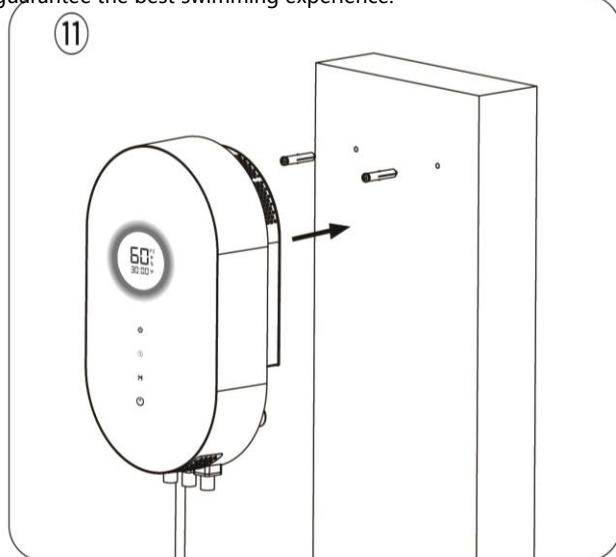


⑦

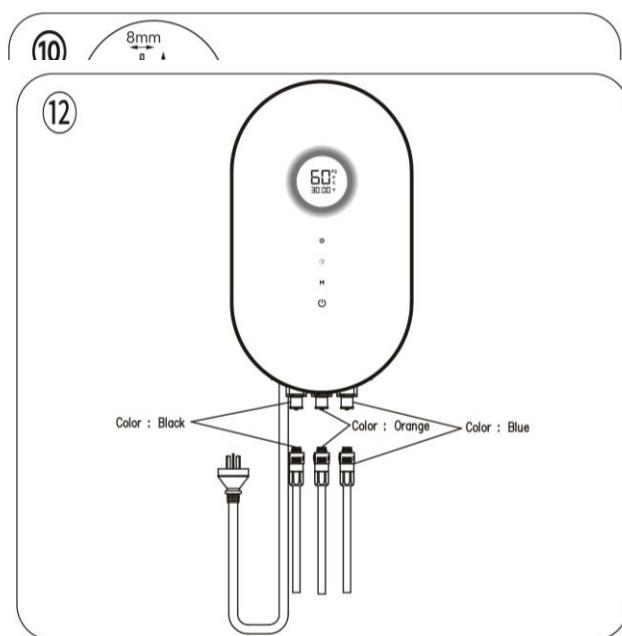


⑧

Ensure the installation depth is between 250–350 mm from the water surface to the center of the surf machine to guarantee the best swimming experience.



⑪



depth of 45 mm is recommended.

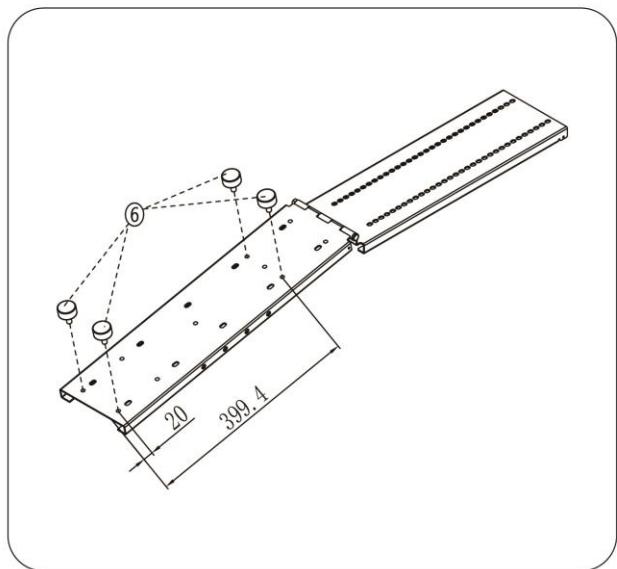
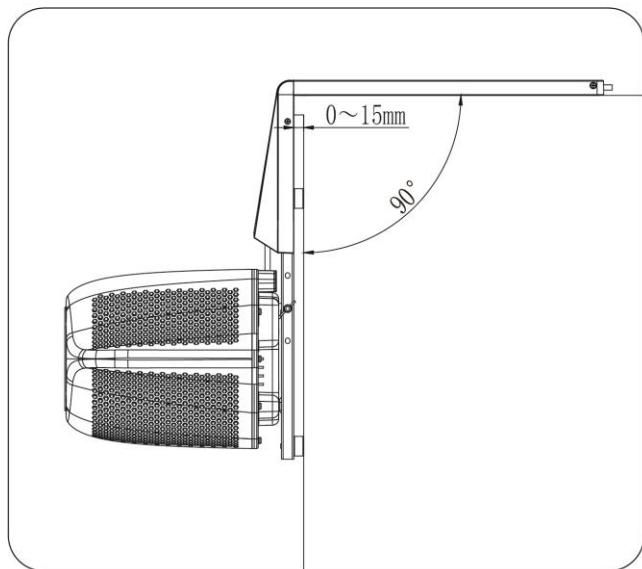
5.3 Bracket Assembly Installation Configuration Guide

According to the different conditions of pool walls, we can select different bracket assemblies:

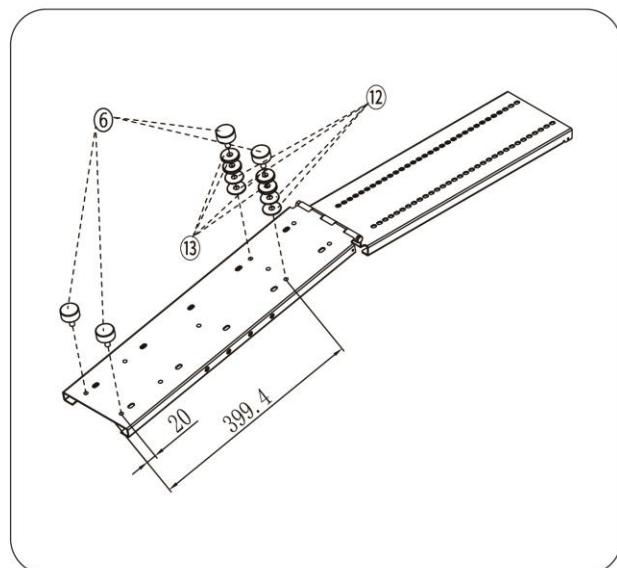
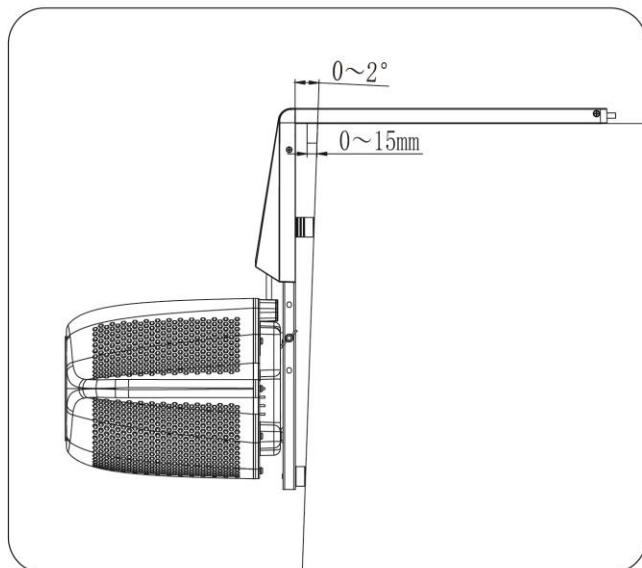
5.3.1 Vertical Pool Walls

Pool edge height \leq 15mm:

- Install the $\Phi 30 \times 15$ rubber shock pads (⑦) on the back of the bracket assembly.

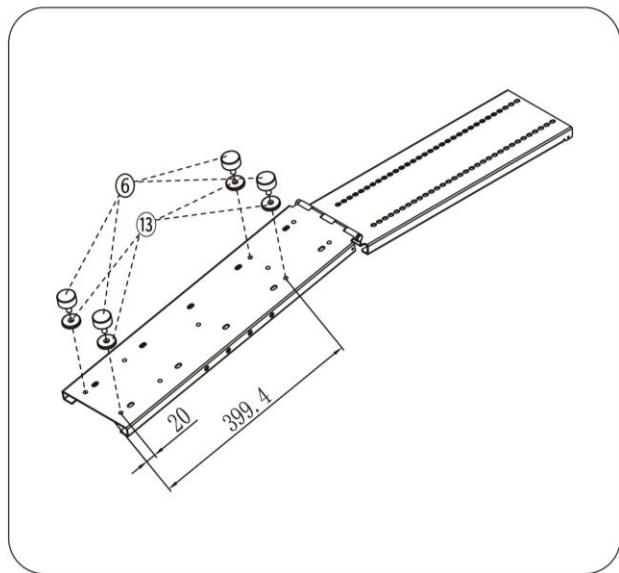
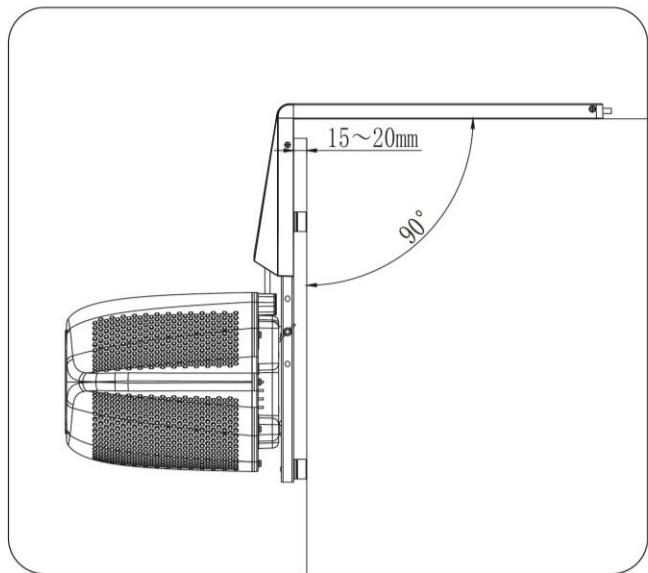


- If the pool wall has a slight tilt ($\leq 2^\circ$), as shown in the diagram, install the $\Phi 30 \times 2$ shock pad (⑬) and the $\Phi 30 \times 15$ shock pad (⑭) on top of the $\Phi 30 \times 15$ shock pad (⑦)



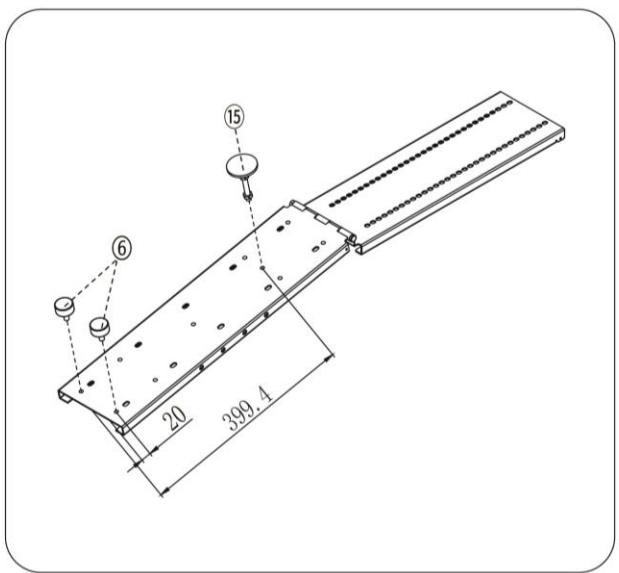
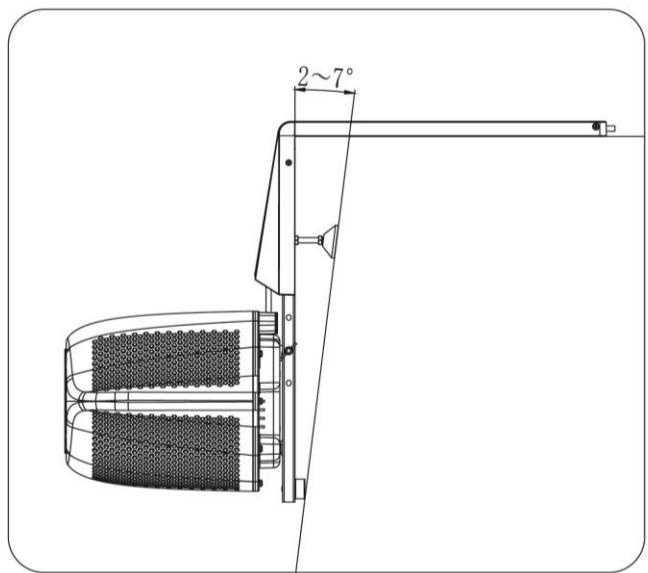
- $15\text{mm} < \text{Pool edge height} \leq 20\text{mm}$:

Simultaneously install the $\Phi 30 \times 15$ shock pad (7) and the $\Phi 30 \times 5$ shock pad (14)

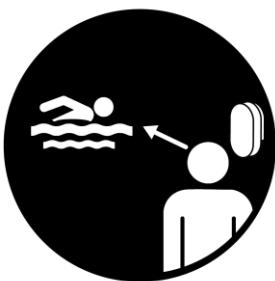


5.3.2 Bracket Installation on Sloped Pool Walls (Inclination 2°–7°)

Use the combination of the $\Phi 30 \times 15$ shock pad (7) and the universal swivel foot cup (16) for installation:



6. How to Operate



6.1 Pre-Use Check

Before using the Swim Jet main unit, the user must perform the following checks:

a. Power & Connections

- Ensure that the power supply is turned off.
- Inspect cables: Verify that all cable connections are secure and free from damage or wear. If any damage is found, do not use the product and contact your dealer for repair.

b. Main Unit & Pool Conditions

- Ensure the unit is fully submerged** in water.
- Remove obstacles: Check that there are no obstructions inside the pool—particularly near the unit—to prevent interference during operation.

c. Safety Checks

- Leakage protection: Confirm that the Residual Current Device (RCD) is functioning properly.
- Ensure the user is wearing a swim cap and goggles.

d. Operational Preparation

- Start-up check: Before powering on, ensure the pool activity area (inlet and outlet zones of the jet) is visible and clear of people. Always keep the unit within your line of sight during operation.
- Control panel check: Ensure the control panel is functioning correctly and all controls respond properly.

e. Safety Precautions

Danger: Do not operate the power plug with wet hands to avoid electric shock.

Maintain safe distance: Keep at least **50 cm (20") away from the Swim Jet unit during operation to avoid contact.

f. Power On

Once all the above safety steps are verified, the user can safely power on and start the unit.

6.1 Pre-Use Inspection

Before operating the Swim Jet main unit, the user must complete the following steps:

a. Power & Connection Check

- Ensure the power supply is turned off.
- Inspect cables: Verify that all cable connections are secure and free from damage or wear. Do not use the product if any damage is found; contact your authorized dealer for repair.

b. Main Unit & Pool Condition Check

- Confirm the unit is fully submerged in water.
- Remove obstructions: Ensure there are no items or debris in the pool—especially near the unit—to prevent interference during operation.

c. Safety Checks

- Leakage protection: Confirm the Residual Current Device (RCD) is functioning properly.
- Ensure the user is wearing a swim cap and goggles.

d. Operational Preparations

- Startup check: Before powering on, ensure the pool area (inlet and outlet zones of the unit) is clearly visible and free of people. Always keep the unit and pool within sight during use.
- Control panel check: Ensure the control panel is operating correctly and all functions respond properly.

e. Usage Precautions

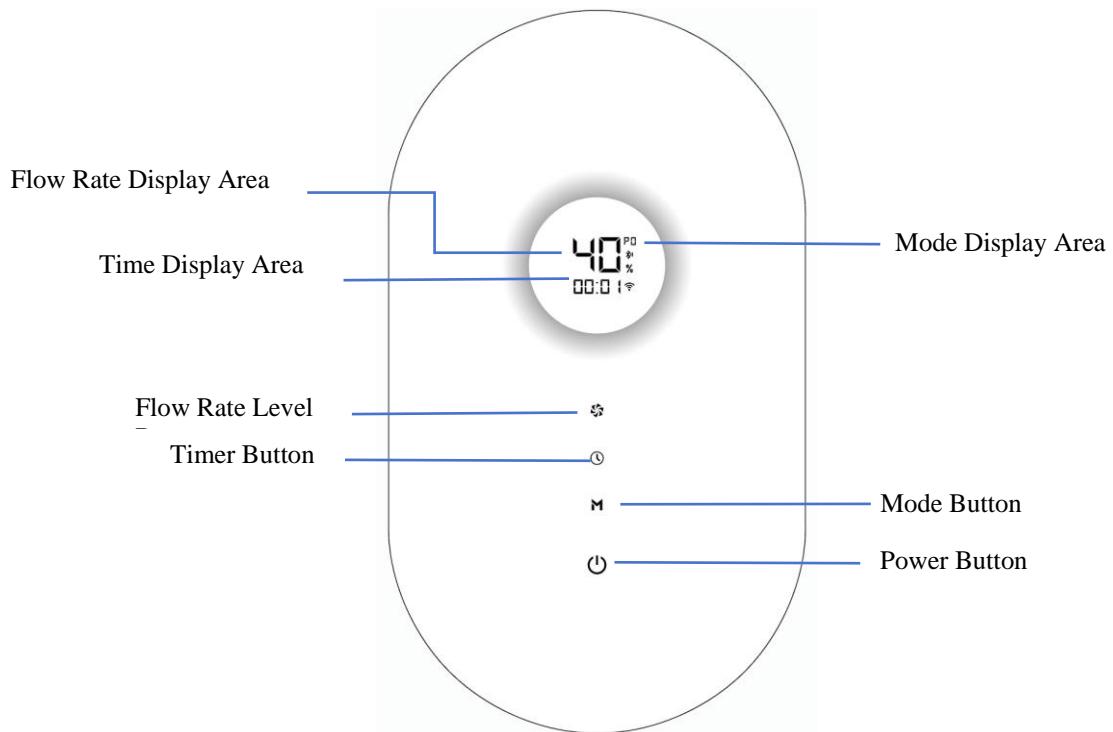
Danger: Do not operate or plug/unplug the power cord with wet hands to avoid electric shock.

Maintain safe distance: During operation, keep at least 20cm away from the Swim Jet unit to prevent physical contact.

f. Power-On

Once all of the above safety steps are confirmed, the user may safely turn on the power and start the unit.

6.2 Button Descriptions



Bottom	usage	description
 on/off	turn on	After powering on, press and hold the Power Button for 2 seconds to turn on the unit. It will start in Free Mode (P0) by default.
	turn off	Press and hold the Power Button for 2 seconds to turn off the unit. Before shutting down, it saves the current flow-rate setting—on next startup, it will run with the same saved flow-rate.
	pause	When running in any mode, pressing the Mode Button will pause operation. If no button is pressed within 30 minutes in pause mode, the system will automatically shut off.
	recover	Pressing the Mode Button again will resume the previous state.
 mode	switch	Press the Mode Button to cycle through: Free Mode (P0) Training Modes (P1 to P4) entertainment Mode (P5)
 timer	Switch to timer mode	Press the Timer Button to enter Timer Setting Mode.
	adjust time	点 Then press it repeatedly to select one of six durations: 15 min, 30 min, 45 min, 60 min, 75 min, 90 min
 flow speed rate	Switch the flow speed rate	Press the Flow Rate Level Button to select one of five flow rates: 20%, 40%, 60%, 80%, 100%

6.3 Mode Description

6.3.1 Mode Description

Mode	Free Mode	Training-Beginner Mode	Training-Moderate Mode	Training-Advanced Mode	Training-Endurance Mode	Entertainment Mode
NO.	P0	P1	P2	P3	P4	P5
time	consistent	15min	20min	25min	30min	consistent
flow speed rate	20% - 100%	20% - 35%	45% - 70%	70% - 85%	45% - 65%	30% - 100%
flow speed	P1100:1.4m/s~4.0m/s P900:1.4m/s~3.5/s P720:1.4m/s~3.0m/s	P1100:1.4m/s~1.9m/s P900:1.4m/s~1.8m/s P720:1.4m/s~1.7m/s	P1100:2.1m/s~2.9m/s P900:2.0m/s~2.7m/s P720:1.9m/s~2.4m/s	P1100:2.9m/s~3.4m/s P900:2.7m/s~3.1m/s P720:2.4m/s~2.7m/s	P1100:2.1m/s~2.8m/s P900:2.0m/s~2.6m/s P720:1.9m/s~2.3m/s	P1100:1.7m/s~4.0m/s P900:1.6m/s~3.5m/s P720:1.5m/s~3.0m/s
characteristic	Free Mode (P0): Manually adjustable flow-rate levels (20%, 40%, 60%, 80%, 100%), with no time limit—ideal for daily relaxation or technique practice.	Training Mode P1 (Beginner): Low-speed wave pattern with intermittent flow—suitable for beginners and recovery training.	Training Mode P2 (Moderate): Medium-level flow with intermittent variation between 45% and 70%, offering clearer alternation between weaker and stronger phases.	Training Mode P3 (Advanced): Sustained high-level flow with intermittent variation between 70% and 85%, providing high intensity.	Training Mode P4 (Endurance): Designed for endurance training, emphasizing continuous flow for prolonged stamina building.	Training Mode P5 (entertainment) : Rapid flow alternation with acceleration 100% greater than other modes, simulating a real surfing experience—primarily for entertainment.

Note:

In Entertainment Mode, the water flow changes rapidly and has significant impact force. While swimmers should wear a swim cap and goggles, it is recommended to also use appropriate swim aids—such as a swim ring, arm floaties, or back floatation board—to ensure safety.

6.3.2 Detail Performance for Different Mode

Swim Jet P Series have 5 modes:

P0 (Free Mode) : (range: 20%-100%)

time	have no limited
flow speed rate	20%,40%,60%,80%,100%

P1 (Beginner Mode) : (range: 20-35%)

time	0-2min	3-5min	6min	7-9min	10min	11-13min	14-15min
flow speed rate	20%	30%	20%	35%	20%	30%	20%

P2 (Moderate Mode) : (range: 45%-70%)

time	0-3min	4-6min	7-8min	9-12min	13min	14-17min	18-20min
flow speed rate	45%	55%	45%	70%	45%	55%	45%

P3 (Advanced Mode) : (range: 70%-85%)

time	0-5min	6-9min	10min	11-14min	15min	16-20min	21-25min
flow speed rate	70%	80%	70%	85%	70%	80%	70%

P4 (Endurance Mode) : (range: 45%-65%)

time	0-7min	8-24min	25-30min
flow speed rate	45%	65%	45%

P5 (Entertainment Mode) : (range: 30%-100%)

time	no limitation
flow speed rate	switch from low and fast speed

6.4 Speed Adjustment

In Free Mode (P0) and Timer Mode, pressing the Flow Rate Button  will move through the speed levels (20%, 40%, 60%, 80%, 100%). You must wait 3 seconds after selecting a speed—the setting will then be applied.

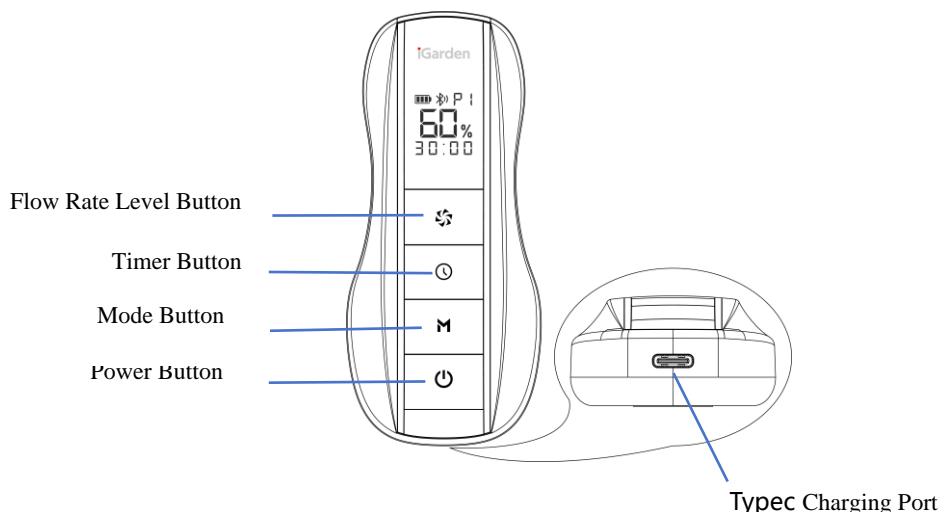
In Training Modes (P1–P4), pressing the Flow Rate Button  also allows you to change the speed; however, this adjustment only applies to the current interval of the program and does not affect the overall training plan.

Note: Speed cannot be adjusted in Entertainment Mode (P5).

6.5 Timer Settings

Press the Timer Button  to enter timer mode. Press repeatedly  to select the desired workout duration: 15 min, 30 min, 45 min, 60 min, 75 min, or 90 min. You can also choose any of the five flow levels (20%, 40%, 60%, 80%, 100%). If no buttons are pressed for 3 seconds, the timer mode will activate and begin countdown. When the countdown ends, the display will flash the runtime and flow rate, then the unit will automatically switch to Free Mode. During timer operation, you may adjust the flow level at any time.

7. Remote Control (Optional)



7.1 Powering On

7.1.1 Operation Steps

- When the remote is off, press and hold the Power button  for 2 seconds. The remote screen will light up and display   % 00:00
- Once Bluetooth connects successfully, the screen will sync with the power box, displaying real-time information such as current flow intensity, runtime, active mode, and Bluetooth connection status.

7.1.2 Remote Placement

- The remote can magnetically attach to the right side of the power box or to the cable top cover. Both locations feature dedicated magnetic spots with label stickers for easy placement and identification.

7.1.3 Bluetooth Connection Troubleshooting

- If Bluetooth fails to connect, the remote will remain on the current screen, and the Bluetooth icon will flash rapidly, indicating that the device cannot be controlled remotely.
- Move the remote closer to the power box (signal source) to allow automatic Bluetooth reconnection. Once reconnected, the screen will sync with the power box interface.
- While powered on, all remote button functions mimic the power box controls, and information between the remote and the power box will sync in real time.

7.1.4 Bluetooth Transmission Range

- The effective Bluetooth range between the remote and the power box is 20 meters (in ideal, unobstructed conditions). In real-world use, the range may be reduced due to obstacles or signal interference. It is recommended to keep the remote within line of sight of the power box whenever possible.

7.1.5 Remote Protective Rating & Water Ingress Handling

- Protection Rating:** The remote is rated IP67, offering dust-proof and water-resistant capabilities.
 - Water Ingress Procedure:** If the remote falls into the pool, retrieve and process immediately:
 - Shake off water:** Hold the remote with openings facing downward and gently shake to drain water from ports and crevices.
 - Wipe dry:** Use a dry cloth to absorb moisture from the casing, charging port, and other surfaces.
- * Important: Do not power on or charge the remote if any moisture remains. Do not use high-temperature drying methods.

7.2 Powering Off

7.2.1 Operation Steps

- Press and hold the Power Button  for 2 seconds to turn off the remote; the screen will go dark.
- If the power box is on, turning off the remote will also trigger the power box shutdown.

7.3 Battery Management

The battery indicator displays three bars. When only one bar remains, charge promptly.

● Charging Method:

Use a Type-C cable. Connect one end to the charging port on the bottom of the remote and the other to a power adapter. Ensure a secure connection.

● Charging Process:

The battery indicator will display charging progress. Once fully charged, all bars will light up.

- **Charging Temperature:**

Do not charge in extreme heat or cold. Recommended charging range: 0–45 °C.

- **Maximum Continuous Charge Time:**

● Do not charge continuously for more than 24 hours.

7.4 Storage Requirements

To preserve battery life and remote performance, store within these temperature ranges:

- Short-Term (\leq 1 month): –20 °C to 45 °C
- Medium-Term (\leq 3 months): –20 °C to 35 °C
- Long-Term (\leq 1 year): –20 °C to 25 °C

Note: If stored for more than 3 months, charge to about 75% (two bars) to maintain battery health.

7.5 Bluetooth Re-Pairing

If you need to replace the remote or power box, follow these steps to re-pair the devices:

- Before pairing a new remote, ensure the old remote is out of Bluetooth range or its pairing data has been cleared.

Clear old remote pairing from the power box:

- With the power box turned off, press and hold the Mode  and Timer buttons  together for 2 seconds to delete the previous pairing data.

Pairing Procedure:

- a. Turn on the power box, then press and hold the Mode and Timer buttons simultaneously for 2 seconds to enter Bluetooth pairing mode.
- b. Ensure the remote is within the Bluetooth transmission range of the power box.
- c. With the remote powered on, press and hold the Mode and Timer buttons together for 2 seconds to enter Bluetooth pairing mode. During pairing, the Bluetooth icon will flash slowly. Once paired, the icon will remain solid, indicating successful pairing.

* If pairing is not completed within 1 minute, the Bluetooth icon will return to fast flashing mode.

Tips:

After successful pairing, the remote will automatically connect to the power box each time it is turned on. If Bluetooth is connected, the Bluetooth icon will be solid. If the connection fails, the icon will flash rapidly.

8. App Control (Optional)

8.1 App Download

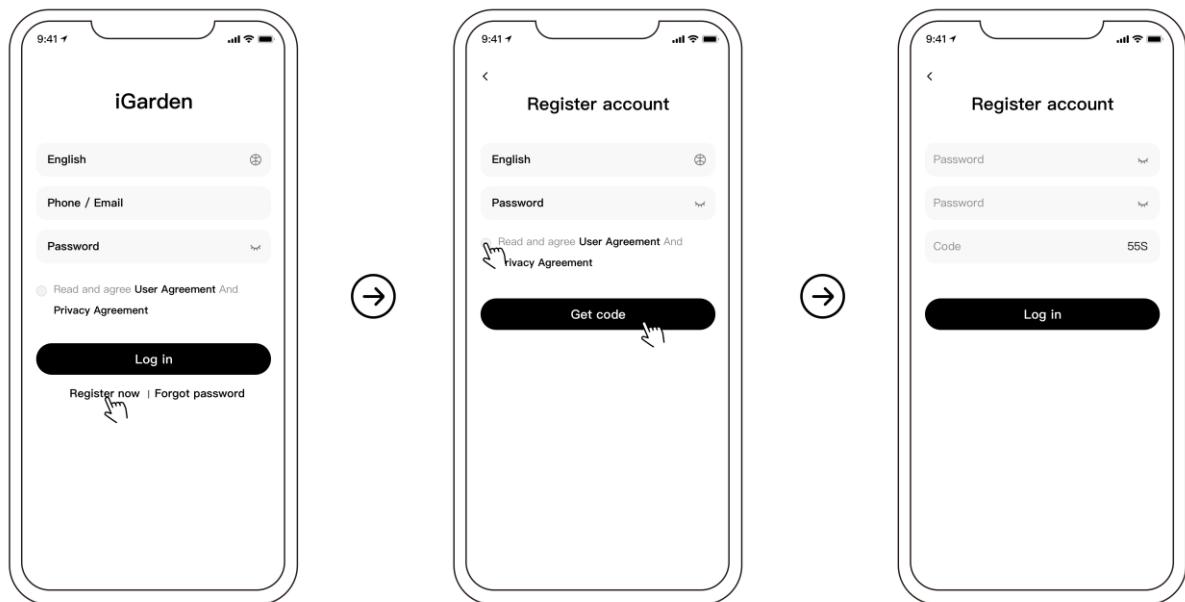
Search and download “iGarden” from your device’s app store.

- Android users: Use Google Play  to find and install it.

- iOS users: Use the App Store  to search and download the app.

8.2 Account Registration & Login

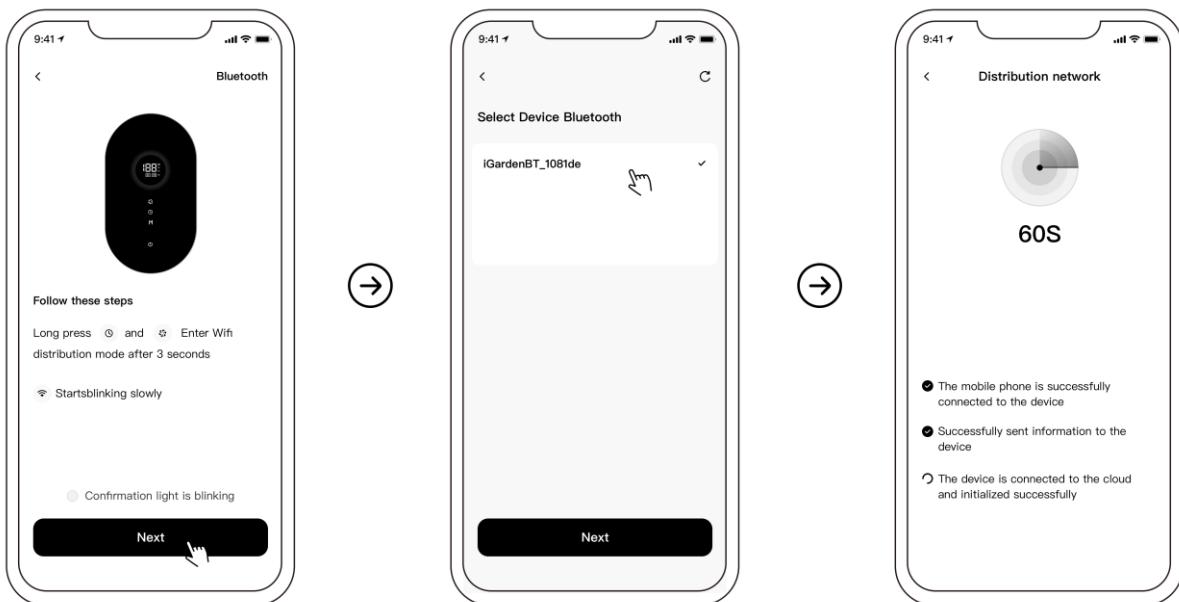
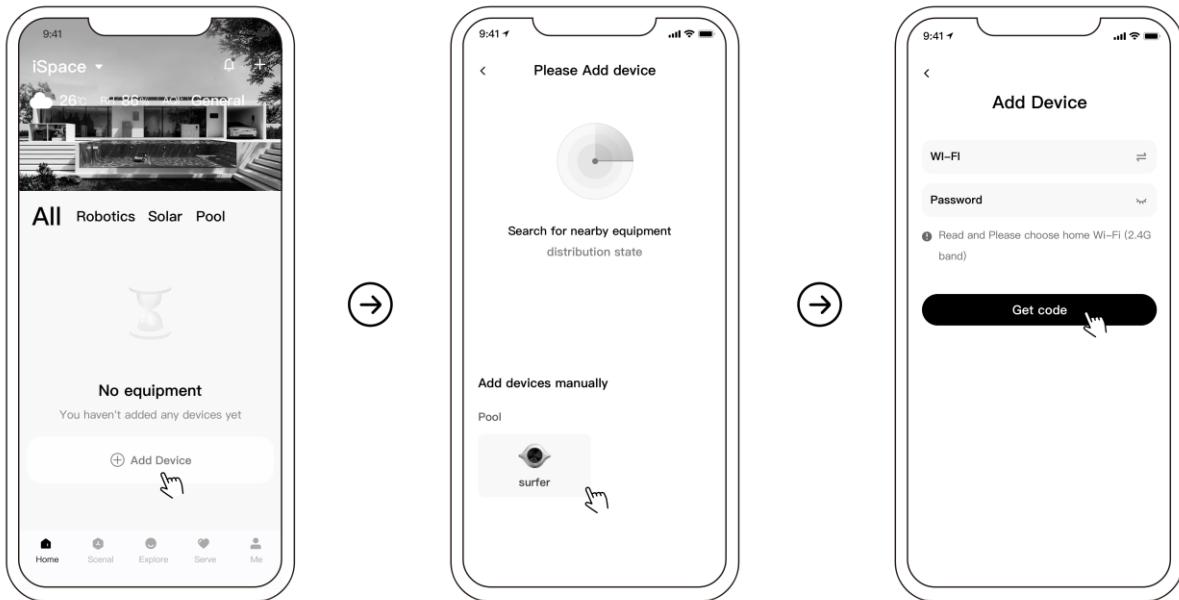
After installation, you can register and log in using your email address or phone number.



8.3 Add Device and Configure Network

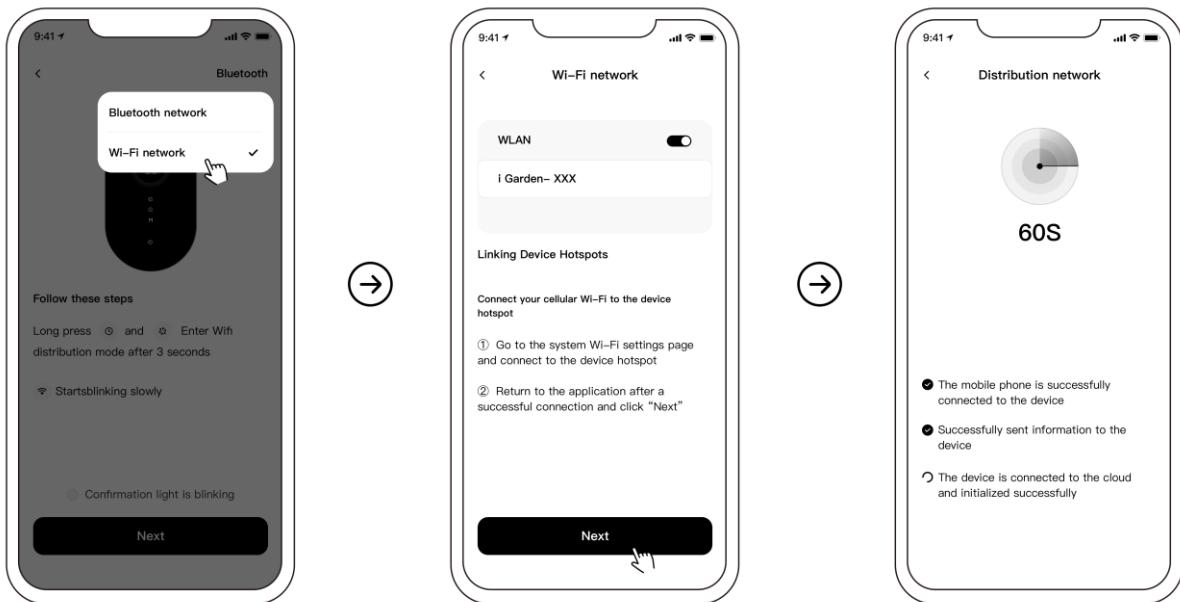
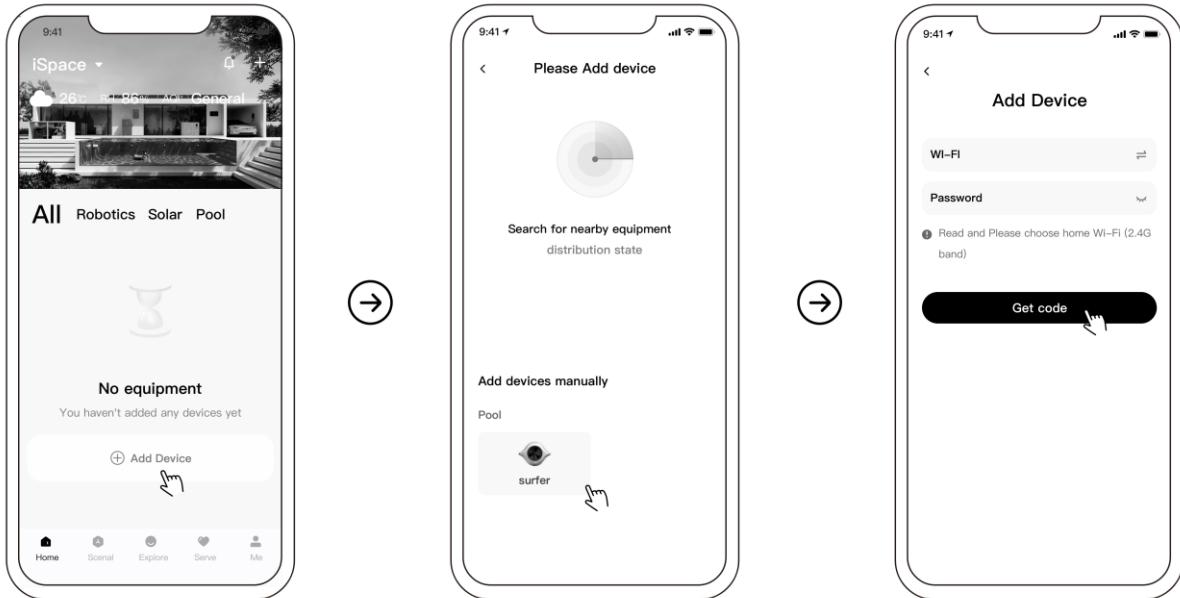
8.3.1 Bluetooth Configuration

- a. With the power box turned on, press and hold the  and  buttons together for approximately 2 seconds until the Wi-Fi icon begins to blink slowly, indicating it has entered network configuration mode.
- b. Launch the iGarden app and tap the “Add Device” button.
- c. Follow the in-app instructions to complete device binding. Once successfully paired, your device will appear under Home → My Garden on the app’s main screen.



8.3.2 Wi-Fi Hotspot Configuration

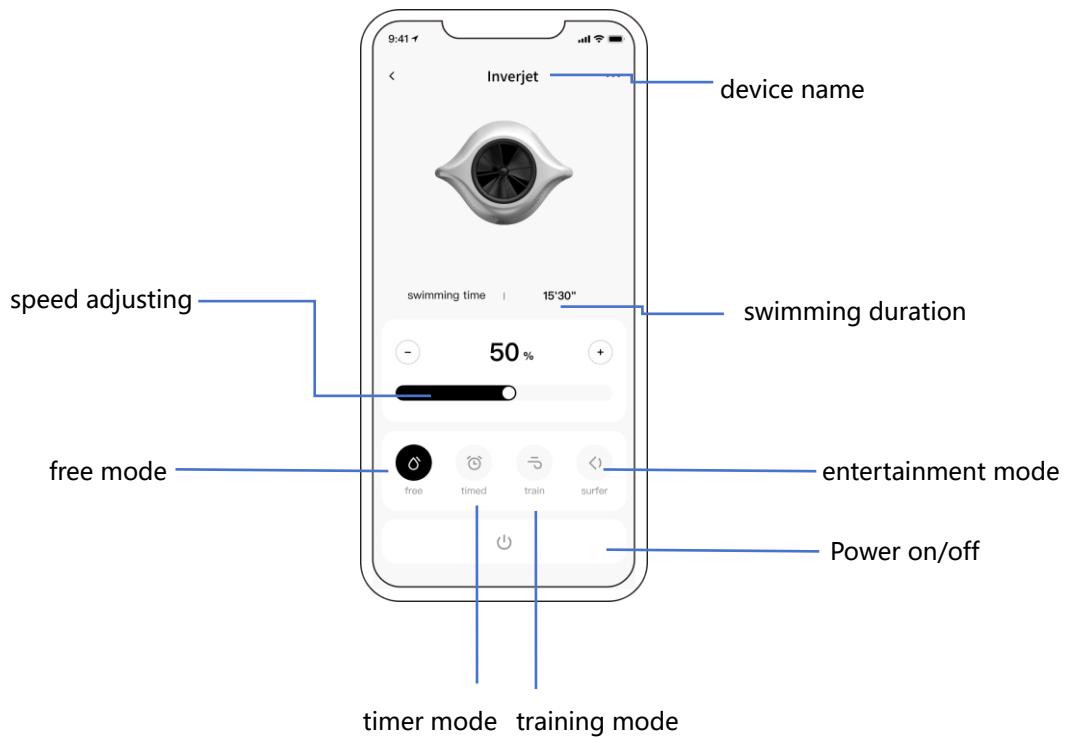
The configuration process is the same as the Bluetooth method. Select the “Hotspot Wi-Fi Configuration” option and follow the on-screen instructions to complete the device binding.



8.4 Interface Functions

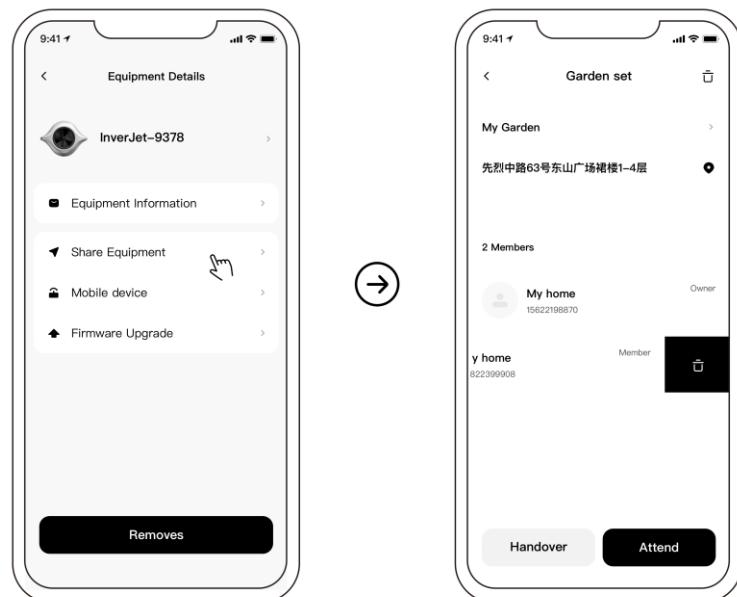
8.4.1 Mode Selection

Upon powering on the device, it defaults to Free Mode. The operation interface allows users to: Switch between modes, adjust speed settings, start or stop the device. These controls enable flexible operation tailored to user preferences.



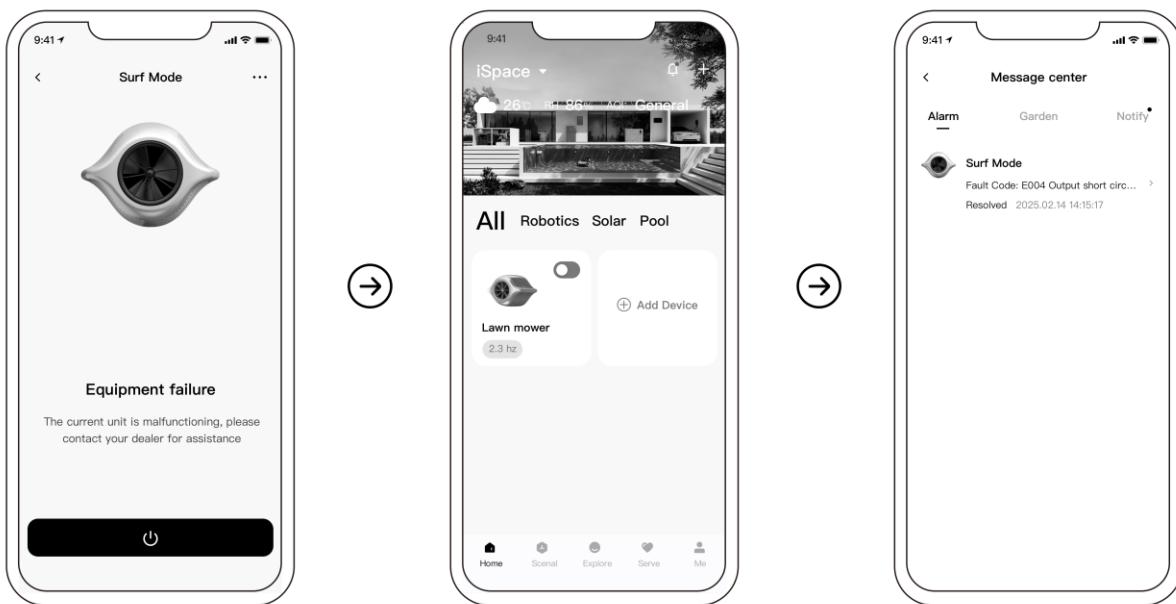
8.4.2 Share Device

As the garden or pool administrator, you can share the device with other users via the device details page in the app.



8.4.3 Fault Alerts

During use, if a device fault occurs, the fault name and code will appear on the device control page or in the message center. If the fault cannot be resolved by the user, please contact iGarden for assistance.



9. Product Maintenance & Care

When the product is not in long-term use, please disassemble and store the device indoors following these steps:

- a. Turn off the power.
- b. Disconnect the power cord.
- c. Disconnect the motor cable from the bottom of the power box.
- d. Remove the main unit from the pool and allow it to air dry thoroughly.
- e. Store both the swim jet main unit and the power box in a dry indoor location.

Winter Storage Precautions:

During winter, lower the pool water level below the main unit, ensuring the unit remains out of water.



Warning: When storing the swim jet main unit's cable plug, use a protective cover—do not leave it exposed to air.

10. Faults & Protections

10.1 Fault Detection

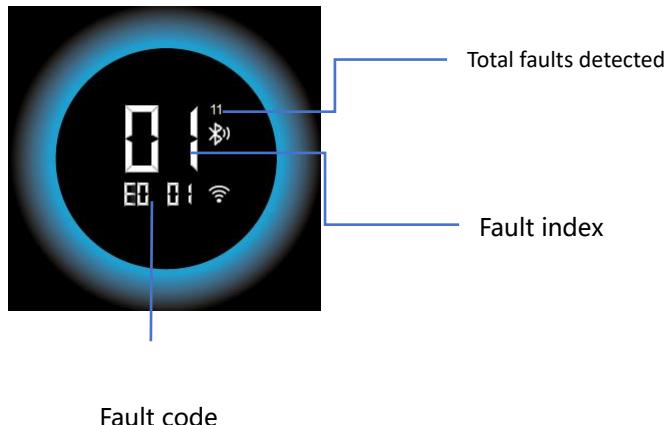
- Fault Occurrence: When the Swim Jet detects a fault (excluding speed reduction conditions), it will automatically shut down and display the corresponding fault code.
- Automatic Recovery: After a 30-second shutdown, if the fault is resolved, the unit will automatically resume its previous operating state. If the fault reoccurs, the unit will shut down again, display the fault code, and wait another 30 seconds—continuing this cycle until the issue is resolved.
- Fault Lock: If three faults occur within one hour, the system enters a locked fault state and will not auto-recover.

Manual intervention by qualified personnel is required to power cycle the system. When multiple faults are present, users

can press the  or  button to switch between fault codes. If left alone, the display will cycle through fault codes every 5 seconds.

* Fault Display Diagram: Top-Right Corner , Total number of faults detected; Center Screen , Currently selected

fault index; Bottom Area , Fault code for the selected fault



10.2 Fault Code Table

The fault code system is outlined as follows:

NO.	Fault code	Fault description	Reason
1	E0 01	Bus Voltage Abnormal	Bus Voltage RMS Out of Normal Range (Too Low or Too High)
2	E0 02	Output Current Overcurrent Fault	Swim Jet Current Peak Exceeds Preset Maximum
3	E0 03	Output Current Imbalance	Three-Phase Output Current Imbalance
4	E0 04	Output Short-Circuit	Output Cable (Power Box to Main Unit) Short-Circuit or Overcurrent
5	E0 05	Output Phase Loss	Poor Contact or Internal Wiring Fault in Output Cable

6	E0 06	Motor Stall	Motor Jammed or Obstructed, Unable to Rotate
7	E0 07	Motor Dry-Run Protection	Motor Not Fully Submerged; Enters Fault and Shuts Down After 30 Seconds (Dry-run protection for pumps operating without water)
8	E1 01	MOSFET Temperature Too High	MOSFET Temperature Overheating on the Driver Board
9	E1 02	Enclosure Temperature Too High	Excessive Internal Temperature in the Power Box
10	E2 01	Temperature Sensor Fault	Temperature Sensor Circuit Fault on Driver or Display Board
11	E2 02	Motor Drive Fault	Driver Board Failure or Abnormal Motor Control
12	E2 03	Driver Board Communication Fault	Driver Board Communication Failure with Main Controller for Over 30 Seconds

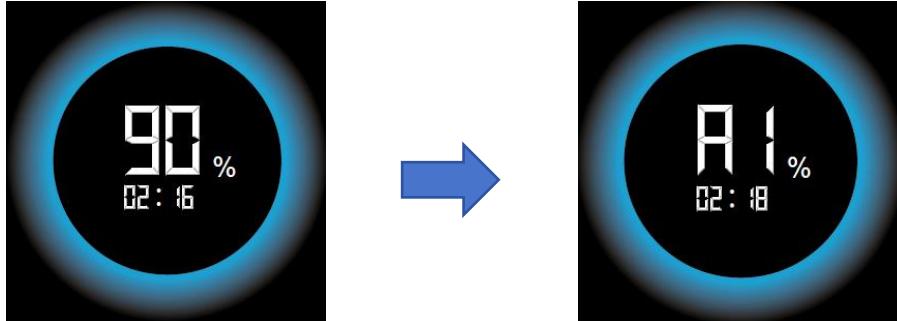
10.3 Speed Reduction Protection

To ensure safe operation, the power box includes the following three speed reduction protection mechanisms:

MOS FET High-Temperature Throttle

- If the temperature of the MOSFETs exceeds a preset threshold, the system automatically reduces the flow rate.

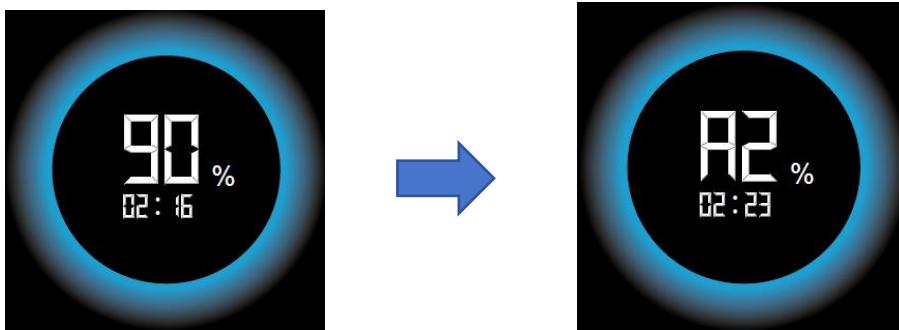
During this time, the display will alternate between the normal operating screen and a high-temperature warning (display shows A1).



- If the temperature of the MOS FETs is too high, the system will shut down and report Error Code E101.

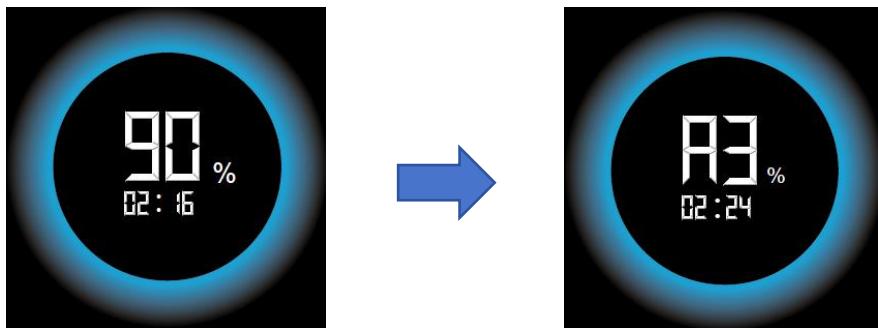
Enclosure High-Temperature Protection

- When the enclosure temperature exceeds the preset threshold, the system will automatically reduce speed. During this period, the display will alternate between the normal operating screen and a high-temperature warning screen (display shows A2).
- If the enclosure temperature becomes excessively high, the system will shut down and raise Error Code E102.



Output Over current Protection

- When the output current exceeds the preset threshold, the system automatically reduces speed. During this time, the display will alternate between the normal operation screen and an over current warning screen (display shows A3)
- If the output current remains too high, the system will shut down and trigger Error Code E002.



Note: Under any protection condition, the unit will automatically adjust its speed to prevent damage, ensuring safe operation of your equipment.

11. Common Issues and Solutions

Issues	Reasons	solutions
Excessive noise	<ul style="list-style-type: none"> Surf device main unit not fully submerged in water 	<ul style="list-style-type: none"> Ensure the surf device main unit is not submerged above the waterline. Recommended installation depth for the main unit (center of the unit from water surface): 250–350mm.
Weak water jet	<ul style="list-style-type: none"> Surf device main unit not parallel to the water surface Motor not operating properly 	<ul style="list-style-type: none"> Check if the universal feet are properly adjusted. If the motor is not operating properly, please contact iGarden.
No LCD display	<ul style="list-style-type: none"> Power box not connected to power or switch in off position Display panel signal reception failure 	<ul style="list-style-type: none"> Ensure the power box is connected to power and the switch is in the 'ON' position.

12. Warranty and Exclusion Terms

Warranty Period: 3 years

(The warranty covers the surf device main unit and the power box as separate components. Only defective parts identified based on recognized issues will be replaced.)

For complete warranty terms—including exclusions, service process, and limitations—please visit:

<http://www.igarden.ai/warranty>

Support Contact Information:

Email: support@igarden.ai

Website: <https://www.igarden.ai>

Facebook: @iGarden

Instagram: @igardenofficial

X (formerly Twitter): @iGarden

YouTube: iGarden

Toll-Free Phone: +1-888-880-3320

13. Disposal of Equipment

13.1 Equipment Decommissioning

Before decommissioning the equipment, please ensure the device is disconnected from the power supply:

- a. Turn off the power.
- b. Turn off the power supply around the swimming pool.
- c. Disconnect the power cable.
- d. Disconnect the motor cables beneath the power box.



When disposing of this product, please classify the waste as electronic or electrical waste, or take it to a local waste recycling system. By separately collecting and recycling the device at the end of its life, you can ensure it is handled in a manner beneficial to human health and environmental protection.

14. Warning Statement

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20cm between the radiator and your body, and fully supported by the operating and installation configurations of the transmitter and its antenna(s).