



Intelligent permanent magnet
variable frequency booster pump



BP-SMART

Constant Pressure

Adjustable Pressure

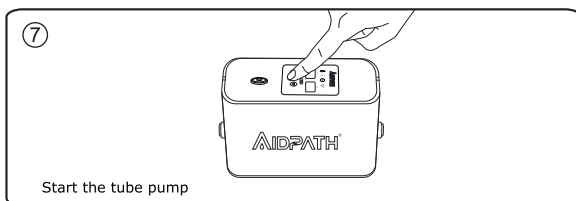
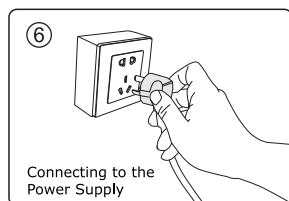
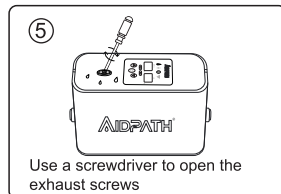
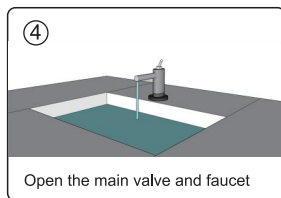
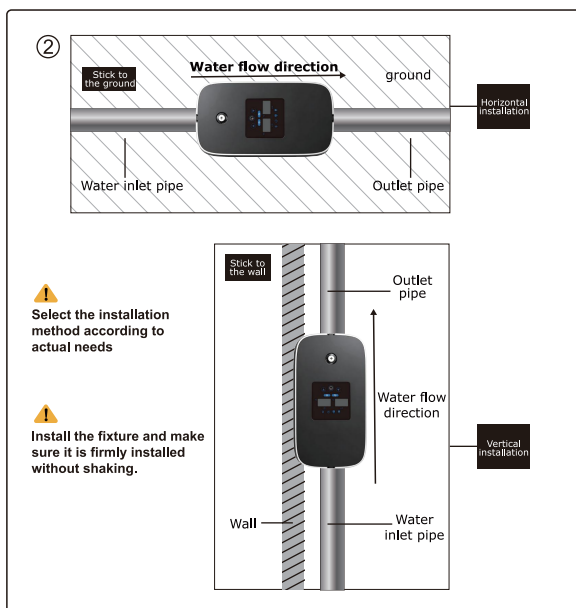
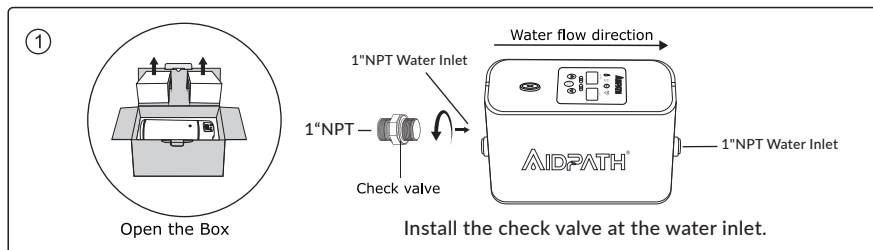
Service Email: aidpath@outlook.com

CONTENTS

1. INSTALLATION TUTORIAL	1
2. INSTALLATION PRECAUTIONS	2
3. PRODUCT PARAMETERS	3
4. APP CONNECTION	4
4.1 Wi-Fi Connection	
4.2 Bluetooth Connection	
5. CONTROL PANEL OVERVIEW	6
6. MODE DESCRIPTION	7
6.1 Function Overview	
6.2 Operating Instructions	
7. FAULT CODE DESCRIPTION	9
8. WARRANTY OF PRODUCT	10
9. FCC COMPLIANCE STATEMENT	11

1. INSTALLATION TUTORIAL

Please prepare relevant tools before installation, and check whether accessories, instructions, etc



3. PRODUCT PARAMETERS

Model	Power	Voltage	Frequency	Max. Head	Max. Flow	Max. Liquid Temp.	IP Rating	Insulation Class	Inlet/Outlet Port
BP-Smart	0.8HP	115V	60HZ	148 FT	1320 GPH	176	IPX6	F	1"NPT

2. INSTALLATION PRECAUTIONS



Do not connect the pump to the power supply before installation. Ensure that the pump cannot be accidentally connected to the power supply to prevent electric shock and personal injury.



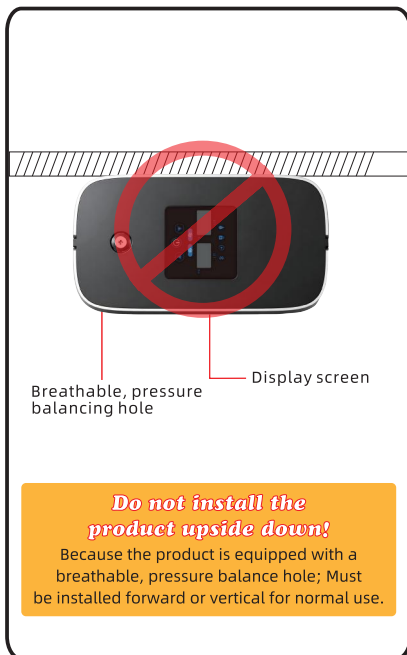
Do not use this product to transport flammable or explosive liquids.



Do not use this product to transport toxic or hazardous liquids.



Do not use this product to transport corrosive liquids.



•The Aidpath Intelligent Permanent Magnet Variable Frequency Booster Pump can be installed indoors or outdoors. If the pump is to be out of service for an extended period or disconnected from power, drain all water inside the pump and take sun protection and anti-freezing measures to effectively extend its service life.

•The installation site must have proper drainage facilities to prevent leakage from pipe connections. The pump should be installed in a location inaccessible to children and equipped with protective isolation barriers.

•As this product generates slight vibration during operation, ensure the pump is securely fixed to a vertical pipe or suspended mount to prevent loosening.

•It is recommended to install the pump as close as possible to the liquid source to minimize suction head loss.

•We suggest installing a union joint at both the inlet and outlet to facilitate future maintenance and overhaul.

•Do not install this product inside an enclosed six-sided metal chamber, as this will block wireless communication signals.

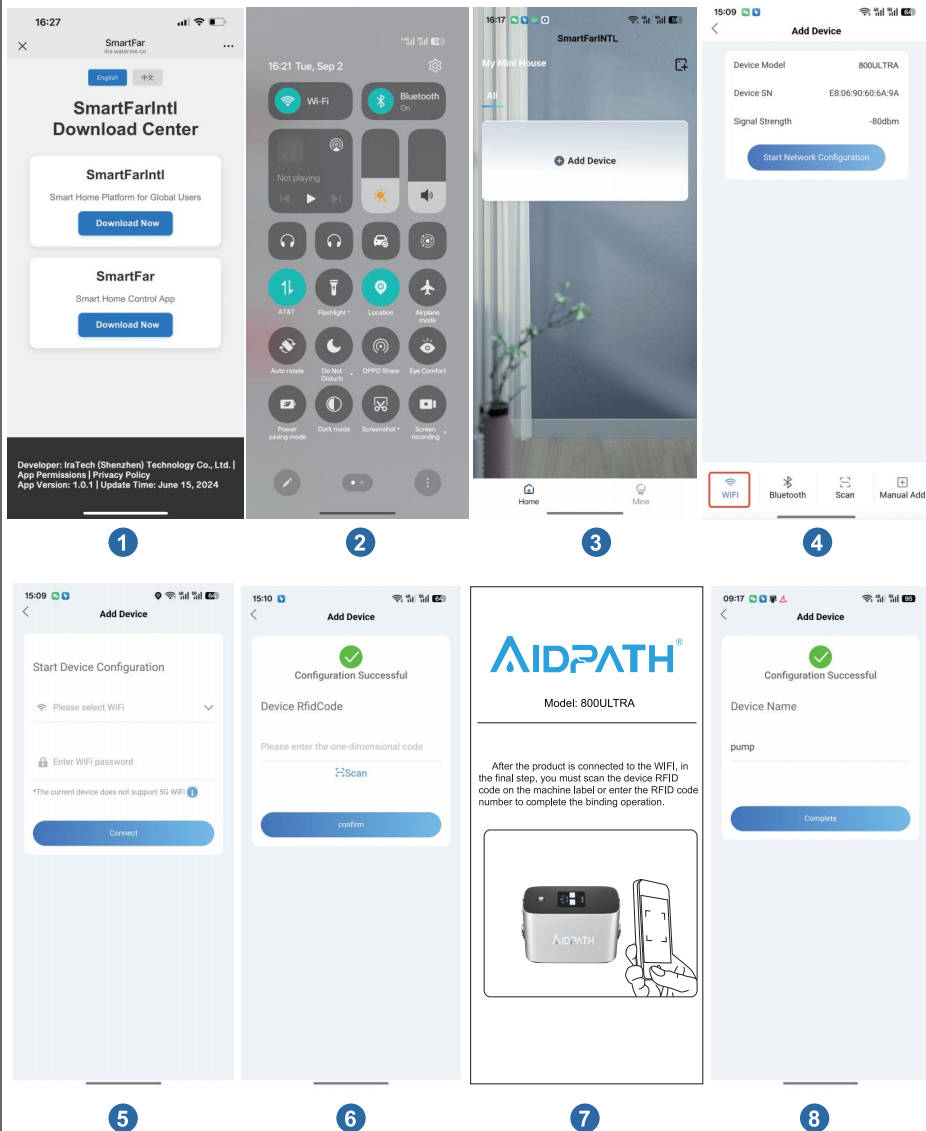
•This product contains high-voltage components. The power supply must be disconnected before installation or maintenance. Do not disassemble or repair the pump without authorization. Aidpath assumes no responsibility for damage caused by unauthorized disassembly.

WARNING: Do not install the product upside down!

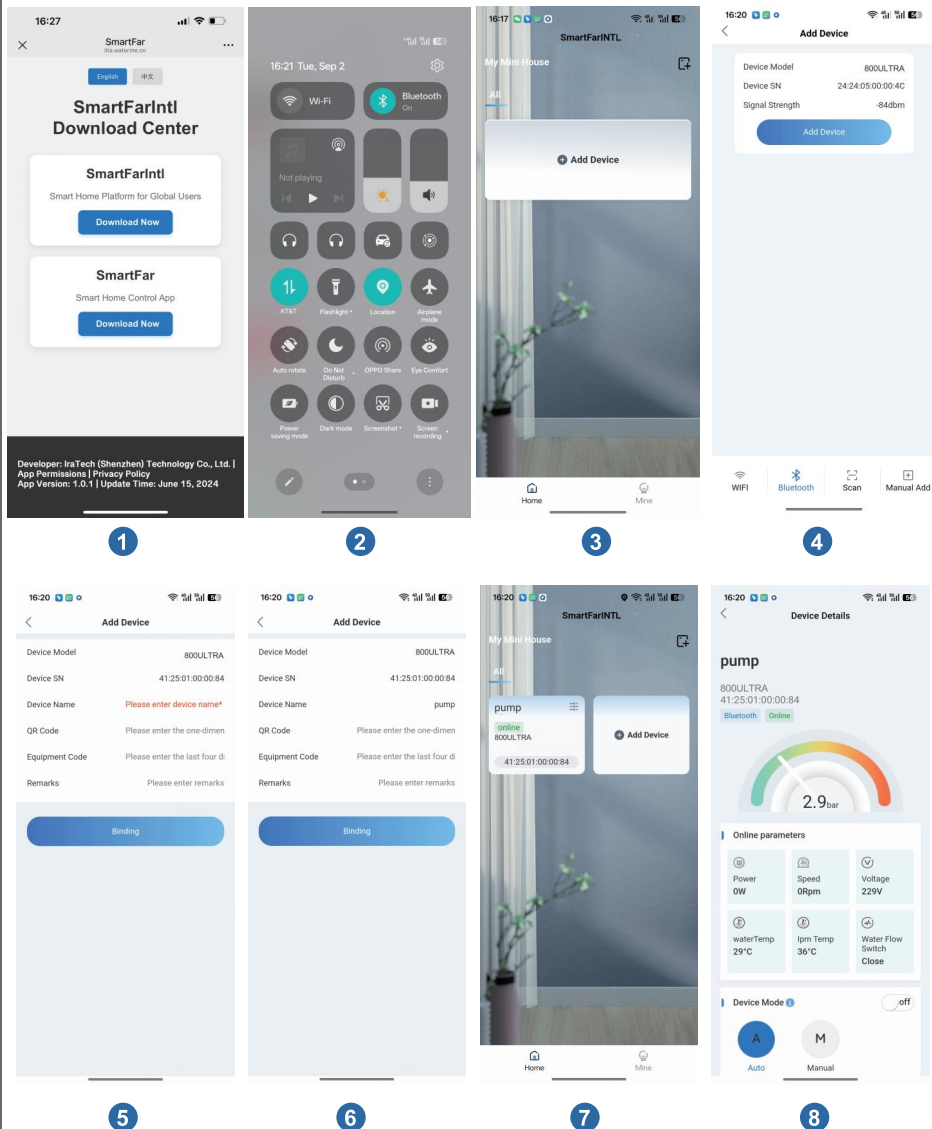
This product has a breathable pressure balance hole and must be installed in an upright or vertical position for normal operation.

4. APP CONNECTION

4.1 Wi-Fi Connection



4.2 Bluetooth Connection



5. CONTROL PANEL OVERVIEW

WARNING: After the pump is installed and connected to the power supply, it is ready to start.

NOTICE:

- Before starting the pump, confirm that the power connection is correct and secure, the supply voltage matches the rated parameters, and the inlet and outlet pipes are properly sealed and connected.
- After correct installation and before powering on, loosen the vent screw and allow air to escape for at least 2 minutes. Once all air has been released, retighten the screw, then connect the power supply.
- In the event of a power outage after the pump has been correctly installed, loosen the vent screw for at least 2 minutes to allow air to escape. Once all air has been released, retighten the screw and reconnect the power supply.

Status Icons

Water flow detection, child lock, pump running, network connected.

Set Pressure

Set the target pressure value in "Bar".

Actual Parameters

Actual pressure displayed in "Bar".

Mode Selection

Adaptive Mode: Intelligent automatic water supply based on demand.
Manual Mode: Manual full-power operation (start/stop).

Power

Short press: ON/OFF
Long press: Mode switch (Auto ↔ Manual)

Function Buttons

Adjust pressure value, or switch between Manual Mode and Automatic Mode.



6. MODE DESCRIPTION

6.1 Function Overview

Mode / Feature	Description
Automatic Mode	1. Automatic start: When the real-time pressure drops below the set start pressure, the pump starts automatically. 2. Automatic stop: When the water supply is turned off and no water flow is detected, the pump stops automatically. 3. In an emergency, you can press the Power button to stop the pump. To resume normal Automatic Mode, press the Power button again.
Setting Pressure	Sets the start pressure value for the pump.
Manual Mode	1. In Manual Mode, you can manually start or stop the pump as needed. 2. The pump does not monitor water inlet status while in Manual Mode. Therefore, this mode is recommended only for emergency use. After use please turn it off or switch back to Automatic Mode immediately.
Child Lock	The keypad automatically locks after a period of inactivity to prevent accidental operation by children.
Water Shortage Protection	When the inlet pressure falls below the set water shortage pressure (detection time: approx. 1 minute), the pump enters water shortage protection mode and displays fault code E12. After 10 minutes, the system rechecks the inlet status. If water shortage persists, it will recheck again after 30 minutes. If still insufficient, it will automatically check every hour thereafter. When water supply is restored during water shortage protection, the pump will automatically resume normal operation.
Automatic Maintenance	While idle, the pump enters sleep mode and automatically runs for 10 seconds every 24 hours for self-check and maintenance purposes.

6.2 Operating Instructions

Mode	Instructions
Switching to Automatic Mode	If you are in Manual Mode, press and hold the Power button. When the b symbol disappears, the pump has switched to Automatic Mode. In this mode, the pump automatically starts and stops based on the set pressure value. (Note: The rotating display icon indicates the pump is running; a static display indicates it is in standby.)
Setting Pressure	After entering Automatic Mode, the current real-time pressure is displayed. Press the + or – key to enter the pressure setting mode, where C plus the set pressure value will be displayed. Press – once to decrease the setting by 0.1 bar; press + once to increase it by 0.1 bar. If no key is pressed for a few seconds, the setting is automatically saved and the system exits. Alternatively, you can press the Power button to save and exit immediately.
Switching to Manual Mode	Press and hold the Power button while in Automatic Mode. When b appears on the display, the pump has switched to Manual Mode.
Manual Start	With the pump stopped, press the Power button to start it. The pump supports gear selection; b+ will be displayed, and you can choose gears such as b01, b02, or b03.
Manual Stop	With the pump running, press the Power button to stop it. (Note: A blinking b indicates the pump is running; a steady b indicates it is stopped.)
Child Lock	When the device is powered on, the child lock will automatically activate after 3 minutes of operation. When the child lock is active, no settings can be modified. The lock must be disabled first. Press the + and – keys simultaneously to lock or unlock. The display will show A to indicate that the lock is active.
Important Notes	• If the buttons are unresponsive, please deactivate the child lock first before proceeding with any operation. • Upon startup, the pump will default to the last operating mode used.

7. FAULT CODE DESCRIPTION

Mode	Fault Problem	Fault Cause / Handling Method
E01	Overvoltage protection	If the input voltage is greater than 120 VAC, check whether three-phase power is incorrectly connected.
E02	Undervoltage protection	The input voltage is less than 90 VAC, and the power plug is in poor contact.
E03	Hardware overcurrent	The impeller is stuck, the motor is out of phase, the IPM module is broken (send to the maintenance site for maintenance).
E04	Water temperature protection	Improper setting of temperature protection value leads to abnormal shutdown due to pipeline leakage.
E05	Module high temperature	The water temperature is too high. The heat dissipation is poor. The IPM module is loosely installed.
E06	Stop-turn protection	The impeller is stuck, remove the debris in the pump chamber (send to the maintenance point for maintenance).
E07	Temperature rise protection	If the module temperature rises too fast, check whether there is leakage in the pipeline. Tube pump factory set IPM temperature 70 °C it is not recommended to use water temperature more than 60 °C. You can adjust settings via the SmartFalntI app.
E08	Startup failure	The impeller is stuck, remove the debris in the pump chamber, or download the SmartFalntI app to upgrade the MCU to the latest version.
E09	Phase loss protection	Motor line broken (send to maintenance site for repair).
E11	Software overcurrent	Impeller stuck, remove pump chamber debris, long time overload operation.
E12	Water shortage protection	The inlet is short of water, or the inlet is blocked.
E13	Sensor failure	The sensor connector is loose or the sensor is faulty.
E14	Communication failure	The connection cable of the display board is in poor contact.
H	Derating suggestion	The module operates above 70 °C for a long time; reduce frequency to 70% power operation.

8. WARRANTY OF PRODUCT

AIDPATH warrants this product to be free from defects in material and workmanship under normal use and maintenance conditions for the following periods from the date of original purchase by the end user:

1-Year Full Replacement Warranty: If a defect covered by this warranty occurs within the first year, AIDPATH will, at its option, replace the product free of charge.

3-Year Limited Repair Warranty: From the beginning of the second year through the end of the third year, AIDPATH will, at its option, repair or replace any defective part free of charge. Labor and shipping charges for repair during this period may be borne by the user.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. TO THE FULLEST EXTENT PERMITTED BY LAW, AIDPATH DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

AIDPATH SHALL NOT BE LIABLE FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES, INCLUDING PROPERTY DAMAGE OR LOST PROFITS, RESULTING FROM:

- ① Product misuse, abuse, or neglect
- ② Improper installation contrary to the printed instructions
- ③ Unauthorized alteration or disassembly of the product
- ④ Damage caused by dry running, freezing, or overheating
- ⑤ Use in pumping abrasive, corrosive, flammable, or explosive media
- ⑥ Acts of God
- ⑦ Normal wear and tear

If you experience any issues covered by this warranty, please contact AIDPATH. To obtain warranty service, contact AIDPATH Technical Support at: aidpath@outlook.com. You will be required to provide proof of purchase (including order number, purchase date, and product information) and a detailed description of the issue.

9. FCC COMPLIANCE STATEMENT

Part 15.19

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.

FCC ID:

Part 15.21 – Warning to User

Any changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Part 15.105 – Class B Digital Device Statement

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.

RF EXPOSURE WARNING

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter, unless authorized in the FCC permissive change procedure.