

# E616P/E610P

## Agriculture Frame Installation Manual



## Attention

This product is suitable for adults over 18 years old. The company will not bear any responsibility for personal injury or property damage caused by the following reasons. Please read the following terms carefully:

1. Obtain through abnormal channels, use non-company products or imitation products.
2. The installation, setting and use are not carried out correctly according to this user manual.
3. Self-modification and replacement of parts or accessories not produced by our company may cause damage to the aircraft due to poor operation.
4. The user controls the aircraft while drinking, taking drugs, or in poor physical or mental state.
5. Property loss and personal injury caused by the operator's subjective intention or improper operation.
6. Poor operation of this product caused by natural aging and wear of aircraft parts.
7. Use this product in a strict applicable environment exceeding the label of this product.
8. The user uses this product when the visibility is insufficient and the line of sight is blocked.
9. Users use this product in government air control areas, no-fly zones, etc.
10. Product damage caused by abnormal use.

## About E616P/E610P

The E616P/E610P series frame adopts a new technology to realize an integrated frame design and supports full body washing. The surface of the shell is painted with blue, with beautiful appearance and eye-catching colors. The colors can be customized according to customer needs. Its arm folding parts discard the previous aluminum design, and adopt a newly designed one-piece injection molded nylon carbon fiber material, which is more stable and durable; the unique C-shaped arm fixing clip design can effectively avoid swinging and sagging of the arm during the transportation process. problem. The frame power distribution board adopts a hidden design to isolate power and signals, optimize the electromagnetic environment inside the fuselage, provide more space for the flight control installation, and make the wiring more concise. Its 16L medicine box has a large medicine inlet, which makes the dosing efficiency more efficient. The power cord is directly fixed on the side of the tripod through the fixing seat, which is beautiful and makes the plug-in connector safer and more stable.

You can learn about the latest information on the EFT official website

Website: [www.effort-tech.com](http://www.effort-tech.com)



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## Part name



- |                          |                                     |
|--------------------------|-------------------------------------|
| ① Hood of frame          | ⑥ 40MM folding arm                  |
| ② camera                 | ⑦ Integrated body                   |
| ③ Hobby wing motor seats | ⑧ 22000mah12Sbattery                |
| ④ Extended nozzle        | ⑨ 16LBattery board tank with filter |
| ⑤ Landing gear           | ⑩ Brush pump                        |



### Cautions.

- 1、 Please do not violently assemble during the assembly process, if you encounter difficulties, please call 0551-65536542
- 2、 When installing the hose, please do not bend excessively to avoid creases and affect the spraying effect
- 3、 Be sure to connect the aircraft power after completing all installation and connections

## Installation

Please bring your own medium-strength screw glue when installing. First complete the unpacking inspection, and then proceed to the tripod installation, fuselage installation, arm installation, flight control installation, power system installation, and spray system installation. If there are other options, install the option at last.

The installation method of E610P/E616P is the same, the following figure only uses E610P frame as an example E610P/E616P

## Unpacking inspection

- 1、 EFT provides users with the following documents
- 2、 'Product Packing List'
- 3、 'Product installation instructions'

It is recommended that users use the "Product Packing List" to check and carefully check whether the items are missing or damaged. If there is any problem, please contact our company in time. Read the "Product Installation Instructions" carefully, follow the instructions to complete the installation step by step, and read the relevant precautions carefully.

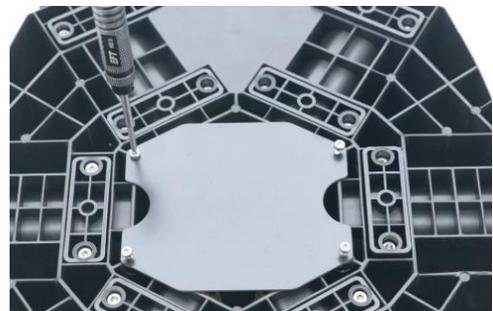
## Frame installation

** Attention To install the body, some parts of the body must be disassembled first. Please pay attention to the installation position of the removed parts to facilitate later restoration.**

1. Remove the M3\*8 fixing screws of the body
2. Remove the M3\*8 fixing screws of the flight control board mounting plate.



Pic 1



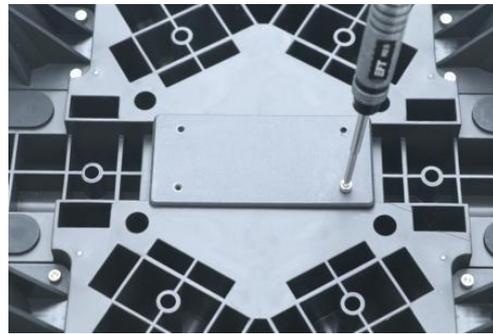
Pic 2

3. Turn the body over.



Pic3

4. Remove the M3\*10 fixing screws .



Pic4

5. Pass the AS150U power cord through the three-hole protective coil. (Note: AS150U power cord comes standard with the fuselage, please contact sales if you have other needs)



Pic 5

6. Install the AS150U holder.



Pic 6

7. Align the holder with the power cord plug.



Pic7

8. Use M3\*8 screws to fix the C-type pipe clamp.



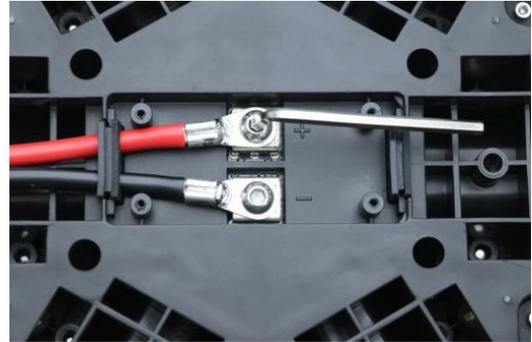
Pic8

9. Finished power cord.



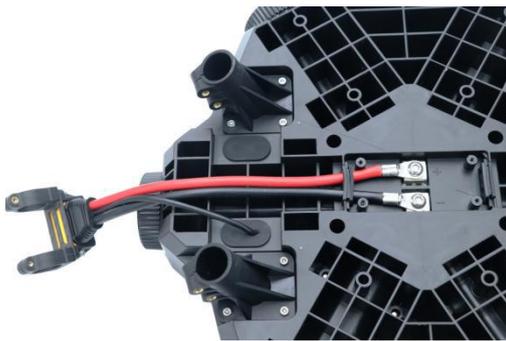
Pic9

10. Use M6\*8 screws to fix the power cord on the terminals of the power distribution board, paying attention to distinguish the positive and negative poles.



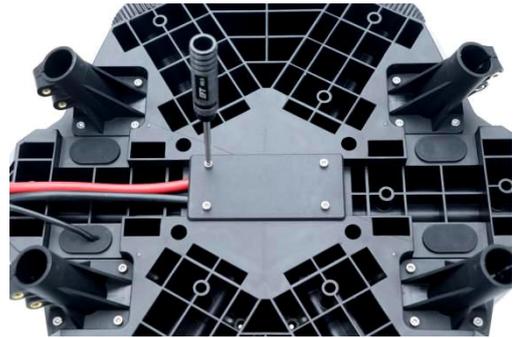
Pic10

11. Customers can choose the left and right sides of the outlet.



Pic11

12. Restore the M3\*10 self-tapping screws of the power distribution board cover.



Pic12

## Landing gear installation

1. Put the AS150U fixed seat on the diagonal brace, and then insert it into the tripod fixed seat to reach the bottom.



Pic1

2. The positioning hole of the diagonal brace is flush with the positioning hole of the landing gear mount.



Pic2

3. Fix the limit hole M3\*8 screw and the fixing seat M4\*12 screw.



Pic3

4. Insert the diagonal brace into the tripod crossbar tee until it reaches the bottom.



Pic4

5. Tighten two M3\*10 screws and one M3\*20 screw.



Pic5

6. Finished body.



Pic6

## Arm installation

**⚠ Caution** The arm carbon tube comes standard with 40MM pipe diameter, if you have other customization requirements, please contact sales.

1. Put the carbon tube into the folding part and fix it with M6\*60 screws + locknut.



Pic1

2. Use the included L-shaped wrench for fixing.



Pic2

3. Finished machine arm.



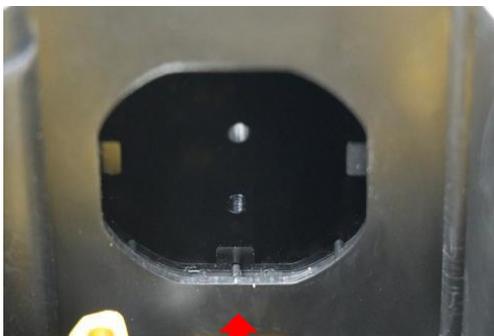
Pic3

4. Insert the arm into the body locking buckle.



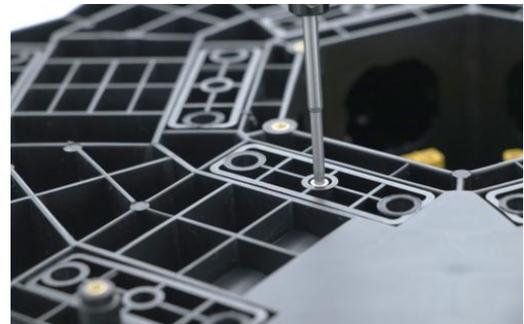
Pic4

5. Reach the fuselage limit.



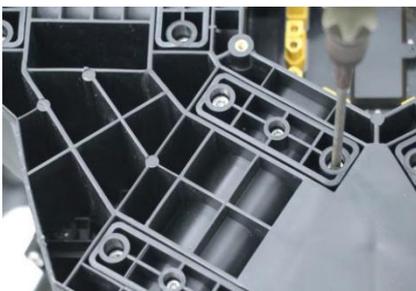
Pic5 **Body limit**

6. First fix the locking buckle limit M3\*8 screw.



Pic6

7. Then fix the locking button M4\*20 screw.



Pic7

8. Install 40MM arm pipe clamp.



Pic8

9. Install the pipe clamp fixture.



Pic9

10. Pass the M4\*45 screw through the arm pipe clamp.



Pic10

11. Use M4 lock nut to fix the reverse side.



Pic11

12. Install the finished picture.



Pic12

## Tank installation

1. Screw the external thread pneumatic head into the bottom cover of the tank.



Pic1

2. Finished tank bottom cover.



Pic2

3. Prepare to install the medicine box, the position of the LED lampshade on the fuselage is the default tail, and the tail of the medicine box is in the same direction as the tail.



Pic3

4. Use M6\*45 medicine box fixing screws and L-wrench to fix the medicine box.



Pic4

5. Fix the tank.



Pic5

6. The finished tank is installed.



Pic6

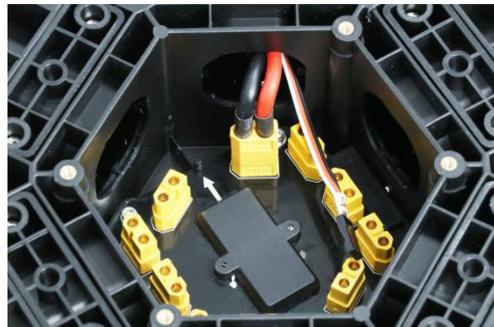
## Motor set installation

1. X8 motor set



Pic1

2. The power plug is XT60 male, and the power distribution board is XT60 female. Pay attention to distinguish the positive and negative poles.



Pic2

3. Pass the power cord and signal cord through the arm.



Pic3

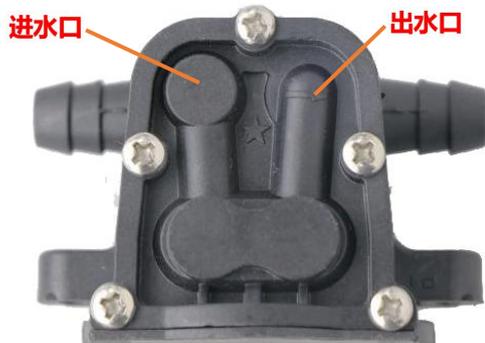
4. Pass through the arm folding piece.



Pic4

## Sparying system installation

1 The head of the water pump has an arrow pointing to the water outlet, and a round shape is the water inlet.



Pic1

2. Install the water pump at the bottom of the tank and tighten the M3\*8 screws.



Pic2

3. The water inlet is a 10MM pneumatic head, and a 10MM water pipe is used to connect with the pneumatic head of the bottom cover of the tank.



Pic3

4. The water outlet is 8MM pneumatic head, which is connected with 8-8-8 tee.



Pic4

5. Install 20MM water pipe clamp fixed.



Pic5

6. Use 8MM water pipe, one end is connected to the water outlet tee of the water pump, and the other end is installed with 8-8-8 tee.



Pic 6

7. Install the water pipe clamp on the special-shaped end.



Pic7

8. Use 8MM water pipe to connect 8-8-8 tee.



Pic8

9. Install 40MM water pipe clamp.



Pic9

10. Connect one end of the 8MM water pipe to the 8-8-8 tee, and the other end to the extension rod nozzle.



Pic10

11. Install the extension rod nozzle.



Pic11

12. Place the nozzle adapter on the bottom of the motor.



Pic12

13. Use M3\*16 screws to install the extension rod nozzle.



Pic13

14. Connect the pneumatic head.

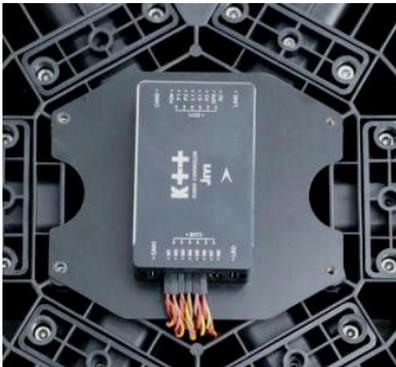


Pic14

## Flight control installation

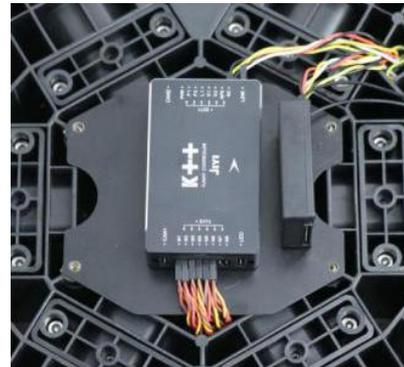
This manual uses Jiyi K++ flight controller.

1. Use 3MM glue to install the main



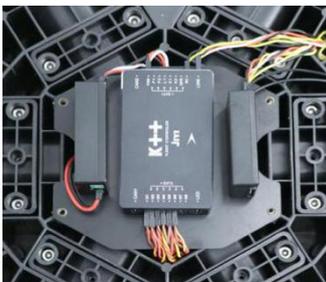
Pic1

2. Install the receiver.



Pic2

3. Install PMU.



Pic3

4. The receiver antenna needs to pass through the arm to reach the wire protection hole of the arm folding part.



Pic 4

5. Use a soft connection to protect the end of the antenna.



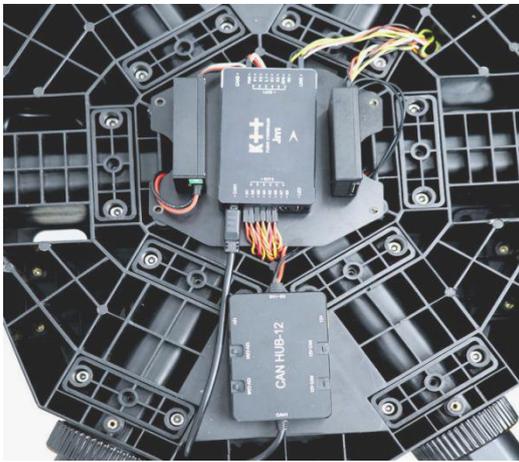
Pic5

6. Install the flexible connection into the wire protection hole of the arm folding piece.



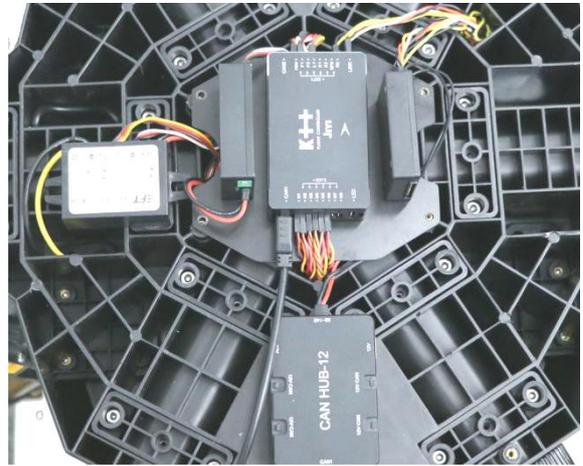
Pic6

7. Install the radar management module.



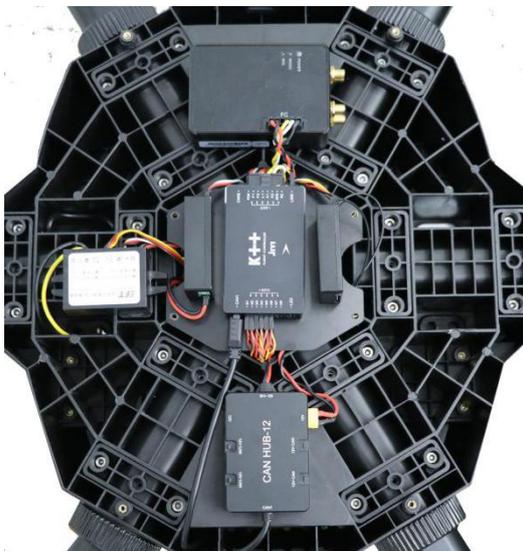
Pic7

8. Install the governor.



Pic8

9. Install RTK.



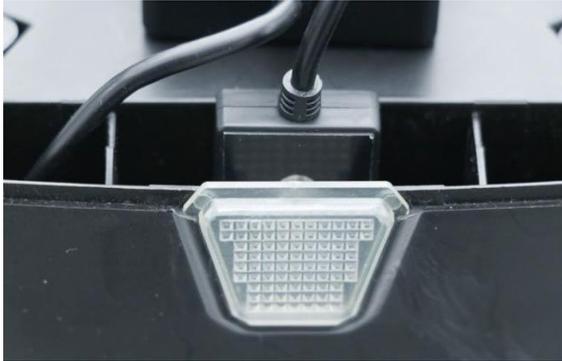
Pic9

10. Stick the LED light on the lampshade position.



Pic10

11. Place the LED lamp cover in the card slot.



Pic11

12. Install the GPS bracket.



Pic12

13. Install GPS.



Pic13

14. Remove the camera adapter board and prepare to install the camera.



Pic14

15. The camera takes T12 as an example.



Pic15

16. Install the camera on the adapter.



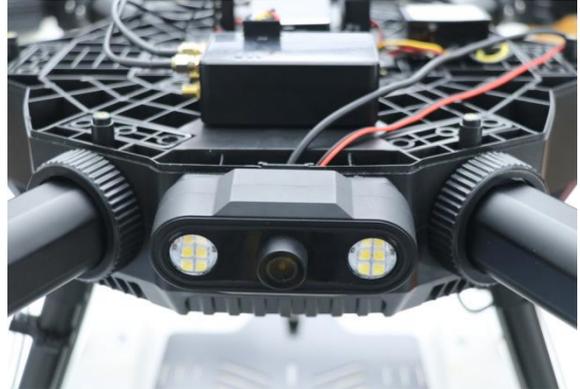
Pic16

17. First install the cable hole in the body card slot.



Pic17

18. The camera harness passes through the wire hole, and the adapter is installed in the card slot.



Pic18

19. If you do not need to install the camera, you can choose to insert the decorative board into the card slot.



图 19

20. Finished product without camera.



图 20

## Radar assmble

1. Front obstacle avoidance radar assembly.



Pic1

2. Install the radar in the universal radar adapter board.



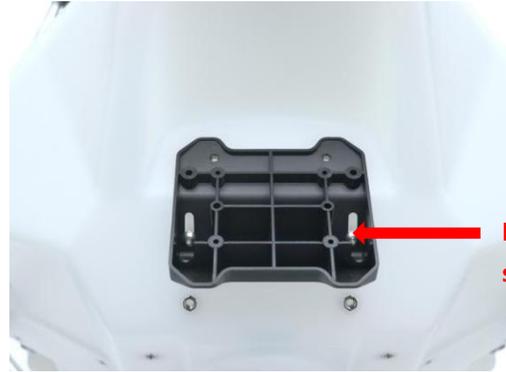
Pic

3. Use screws to fix on the reverse side.



Pic3

4. Install the T-piece.



Fix the bottom screw first

Pic4

5. Install the T-piece.



Then fix the top screw

Pic5

6. Finished front obstacle avoidance radar.



Pic6

7. The rear obstacle avoidance radar can be directly fixed at the tail of the tank.



Pic7

8. Elevated radar installation components.



Pic8

9. Install the elevated radar under the water pump and fix it with M4\*16 screws.



Pic9

10. Use M4\*6 self-tapping screws to install the radar universal board.



Pic10

11. Use M4\*6 self-tapping screws to install ground radar.



Pic11

12. Side view of elevated radar assembly.



Pic12

## RTK antenna installation

1. RTK components.



Pic1

2. Remove the M3\*8 screws of the folding piece.



Pic2

3. Install the RTK adapter and screw on the M3\*8 screws of the folding part.



Pic3

4. Install RTK adapter thread.



Pic4

5. Pass the RTK antenna through the arm to the upper end of the wire protection hole. A straight antenna is required.



Pic5

6. Install the RTK external antenna.



Pic6

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 Please pay attention to safety during the installation process. EFT will not be responsible for the damage and loss caused by improper use of the user.

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## Appendix

### Specifications

#### Frame

##### E616P

Wheelbase : 1648MM

Opened size : 2428\*2428\*600MM

Folded size : 1102\*979\*600MM

Tank capacity : 16L

Weight : 7kg ( without sparying system )

##### E610P

Wheelbase : 1407MM

Opened size : 1992\*1992\*562MM

Folded size : 945\*848\*562MM

Tank capacity : 10L

Weight : 6kg ( without sparying system )

### Recommended configuration

##### E616P

motor : Hobbywing X8、 8118

Paddle : 28-32inch paddle

ESC : 80A FOC

Maximum take-off weight : 38kg

Supply voltage : 12S

##### E610P

motor : Hobbywing X6、 6215

Paddle : 23-24inch paddle

ESC : 80A FOC

Maximum take-off weight : 27kg

Supply voltage : 12S

## Step-down governor

Product specifications

Size : 47\*34\*24mm

Weight : 72g

Installation hole distance : 54-60mm

Supply voltage : 15-60V

The output voltage : 12V

Maximum current : 6A

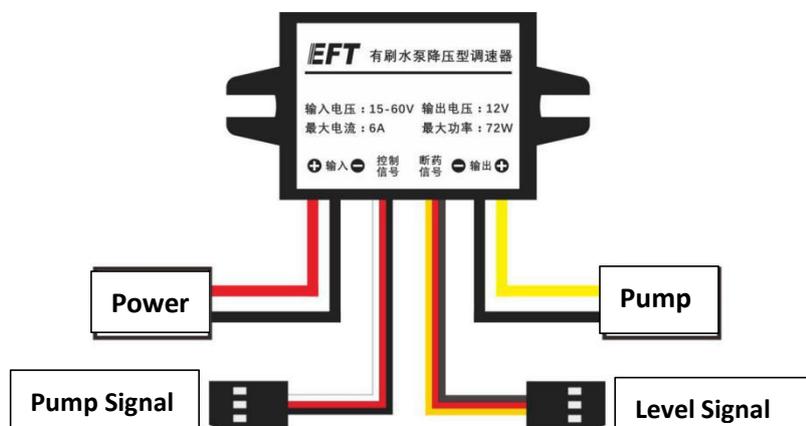
Maximum power : 72W

Travel range : 1120-1920 $\mu$ s

Medicine-off signal: there is water-high level      No water-low level

How to use the medicine breaking detection function: The medicine breaking detection factory is currently limited to 25W pumps. Connect the 3pin line of the medicine breaking signal to the detection interface of the flight control level gauge. The medicine breaking signal is output as a high and low level signal, and water is a high level. , No water is low level, the air in the water pump needs to be discharged before takeoff to avoid misjudgment after takeoff.

## Wiring diagram



## Indicator light description

Indicator status	status
Red light flashes slowly (2 times/sec)	No input signal, need to connect signal line
Red light flashes quickly (10 times/sec)	Wrong input signal, inconsistent signal stroke
Red light is always on	The input signal is normal and the pump is off
Yellow light is always on	Water shortage reminder, medicine-off signal output low level
Steady green	There is water in the water tank, and the medicine-off signal outputs high level

\* If you use a brushless water pump, you need to know the relevant information of the brushless water pump step-down governor, please contact our company in time.

## More product support

EFT official website : [www.effort-tech.com](http://www.effort-tech.com)

EFT WeChat public account:



This manual is subject to update without notice

If you have any questions or suggestions about the manual, please contact us through the following methods

Contact number: 0551-65536542

Contact email: effort\_tech@163.com