

E416P/E410P

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 E416P/E410P

The E416P/E410P version uses an integrated body to simplify the frame. The frame is integrated from dozens of original parts into a whole. The frame is made of high-strength, impact-resistant materials, strong and anti-falling, and continues the old classic design elements of the E - series products, streamlined body design, the whole body is waterproof, without fear of high-pressure washing, and the double fixing method of clamping and limiting is adopted at many key points of the force structure of the body, so that the whole machine The body will not cause structural displacement due to long-term use, and it also makes installation and positioning easier. The new product continues the classic foldable body design, using threaded locking folding parts, stable and not loose, and compact after folding, Convenient for transportation and transition, the fuselage power distribution board adopts a hidden design, isolates power and signals, optimizes the internal electromagnetic environment of the frame, provides more space for the flight control installation, makes the wiring more concise, and the front of the frame is detachable. The camera adapter can be installed or closed according to needs. The tank has a large inlet, which makes the dosing efficiency more efficient. The power board 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 WeChat public account



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Parts name



- | | |
|--------------------------|-------------------------------------|
| ① Hood of frame | ⑥ 40MM folding arm |
| ② camera | ⑦ Integrated body |
| ③ Hobby wing motor seats | ⑧ 16000mah12Sbattery |
| ④ Extended nozzle | ⑨ 10LBattery 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 E410P/E416P is the same, the following Piconly uses E410P frame an example E410P/E416P

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

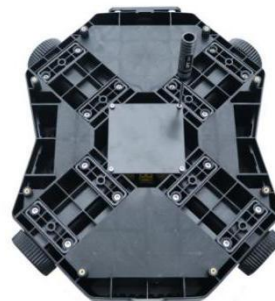
 **Attention** To install the fuselage, some parts of the fuselage must be disassembled first. Please pay attention to the installation position of the removed parts to facilitate later restoration.

1.Remove the M3*8 fixing screws of the body cover.



Pic 1

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



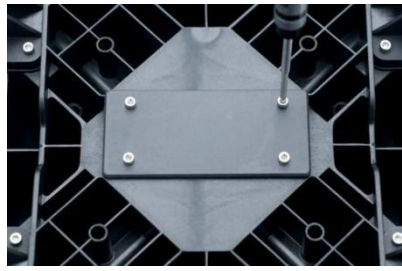
Pic 2

3. Turn the body over.



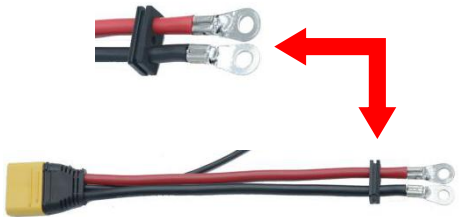
Pic3

4. Remove the M3*10 self-tapping screws of the protection plate of the power distribution



Pic4

5. Pass the AS150U power cord through the three-hole protective coil.



Pic5

6. Install the AS150U fixed seat



Pic6

7. Align the holder with the power plug.



Pic7

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



Pic8

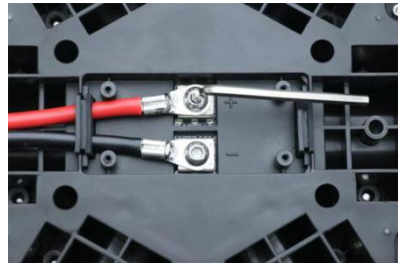
9. Finished power cord.

This is the power signal line, you can cut it if you don't need it



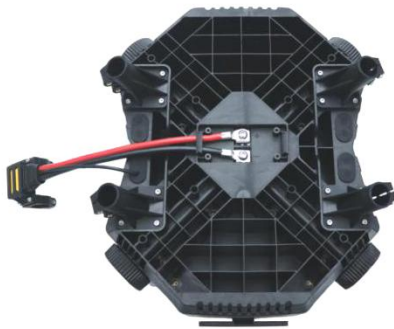
Pic9

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.



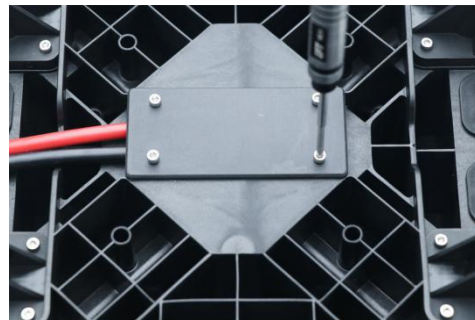
Pic 10

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



Pic 11

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 landing gear, and then insert it into the tripod fixed seat to reach the bottom.



Pic 1

2. The positioning hole of the diagonal brace is flush with the positioning hole of the tripod



Pic 2

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



Pic 3

4. Insert the landing gear into the tee of landing gear until it reaches the bottom.



Pic 4

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




Pic 5

6. Finished body.



Pic 6

Arm installation

 **Note :** Note The carbon tube of the machine arm comes standard with a diameter of 40MM, 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.



Pic 1

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



Pic 2

3. Finished arm.



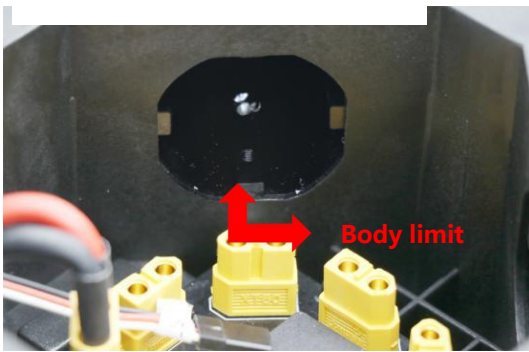
Pic 3

4. Put the arm on the body locking ring.



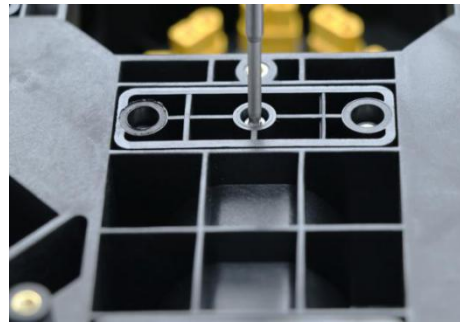
Pic 4

5. Reach the frame limit.



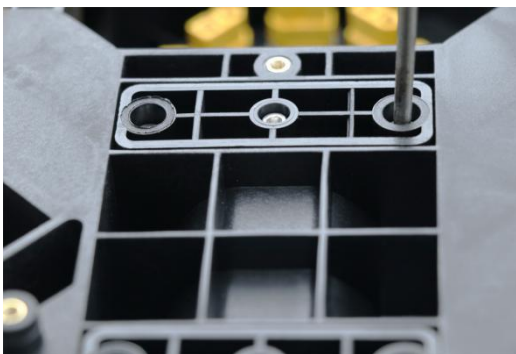
Pic 5

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



Pic 6

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



Pic 7

8. Arm card holder.



Pic 8

9. Install the arm holder.



Pic 9

10. Finished arm tray.



Pic 10

11. Use renderings.



Pic 11

12. Install the finished picture.



Pic 12

Tank installation

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



Pic 1

2. Finished tank bottom cover.



Pic 2

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



Pic 3

4. Use M6*45 tank fixing screws and L-wrench to fix the tank.



Pic 4

5. Fix the tank.



Pic 5

6. The finished tank is installed.



Pic 6

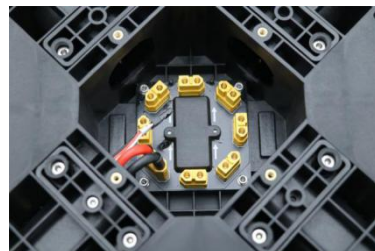
Motor installation

1. X8motor sets



Pic 1

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



Pic 2

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



Pic 3

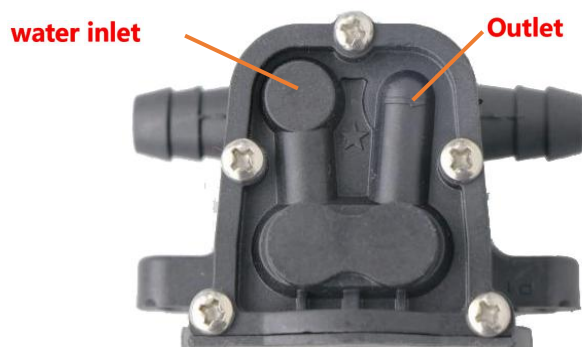
4. Pass through the arm folding parts



Pic 4

Spray 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.



Pic 1

2. Install the water pump at the bottom of the medicine box and tighten the M3*8 screws.



Pic 2

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.



Pic 3

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



Pic 4

5. Install the 20MM water pipe clamp and fix it with M3*10 self-tapping screws.



Pic 5

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



Pic 6

7. Install the pipe clamp on the aluminum tube.



Pic 7

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



Pic 8

9. Install 40MM water pipe clamp.



Pic 9

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



Pic 10

11. Install the extension rod nozzle.



Pic 11

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



Pic 12

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



Pic 13

14. Connect the pneumatic head.



Pic 14

Flight controller installation

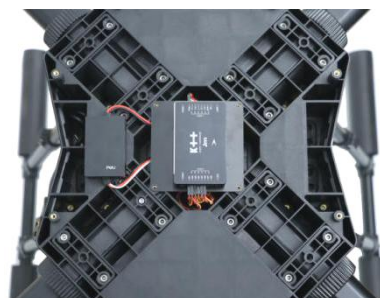
This manual uses Jiyi K++ flight control.

1. Use 3MM glue to install the main control.



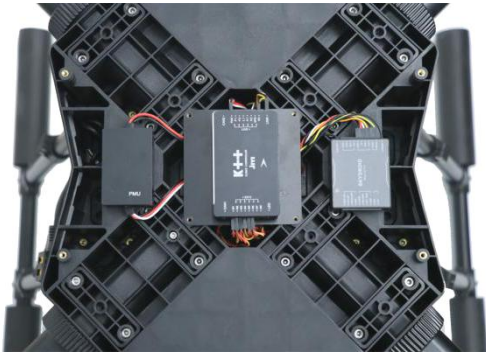
Pic 1

2. Install the receiver.



Pic 2

3. Install PMU.



Pic 3

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



Pic4

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



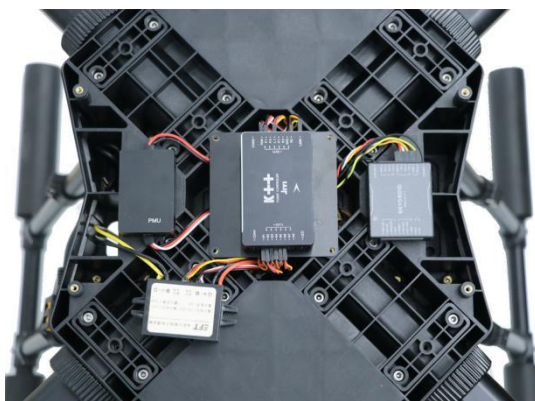
Pic 5

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



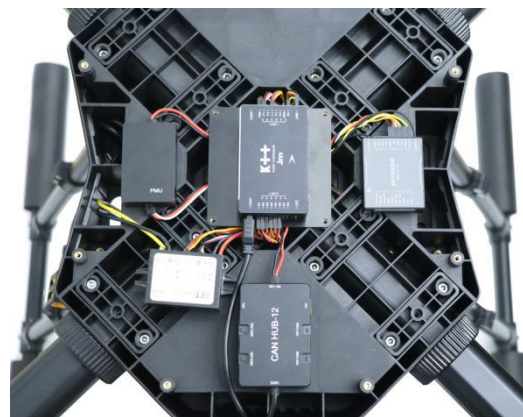
Pic 6

7. Install the Speed governor of pump .



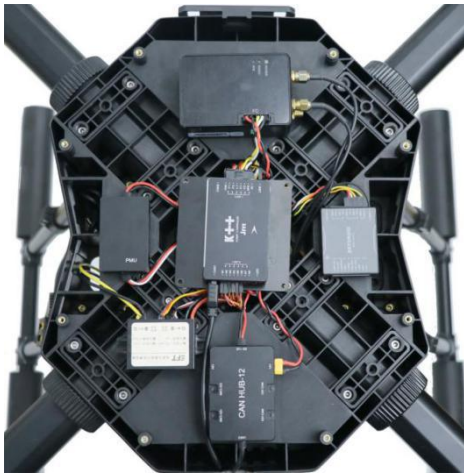
Pic 7

8. Install the radar management module.



Pic 8

9. Install RTK.



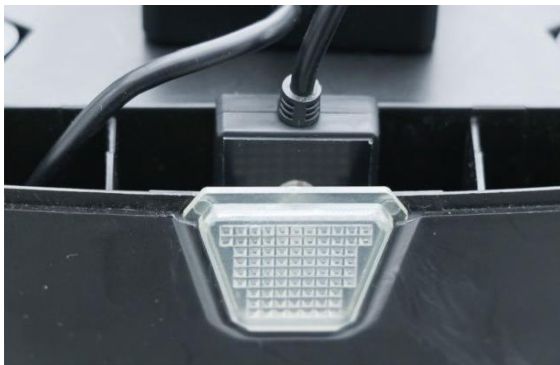
Pic 9

10. Stick the LED light on the lampshade position.



Pic 10

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



Pic 11

12. Install the GPS bracket.



Pic 12

13. Install GPS.



Pic 13

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



Pic 14

15. The camera takes T12 as an example.



Pic 15

16. Install the camera on the adapter.



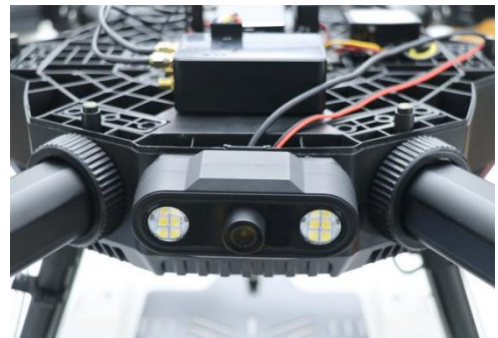
Pic16

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



Pic 17

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



Pic 18

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



Pic 19

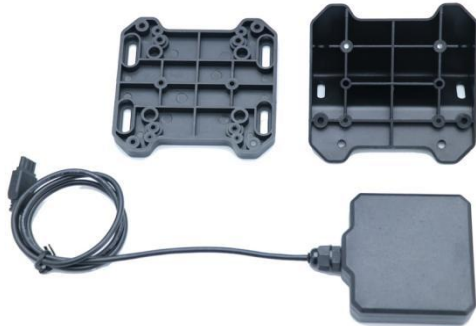
20. Finished product without camera.



Pic 20

Radars installation

1. Front obstacle avoidance radar



Pic 1

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



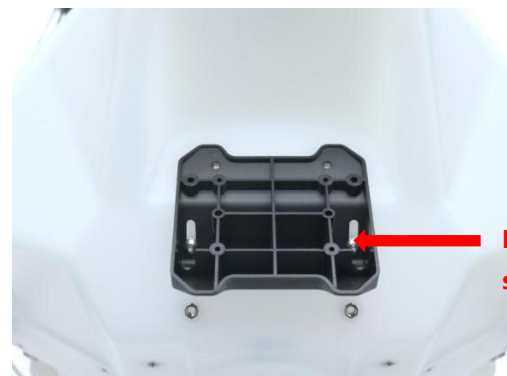
Pic 2

3. Use screws to fix on the reverse side.



Pic 3

4. Install the T-piece.



Pic 4

5. Install the T-piece.



Pic 5

6. Finished front obstacle avoidance radar.



Pic 6

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



Pic 7

8. Elevated radar installation components.



Pic 8

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



Pic 9

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



Pic 10

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



Pic 11

12. Side view of elevated radar assembly.



Pic 12

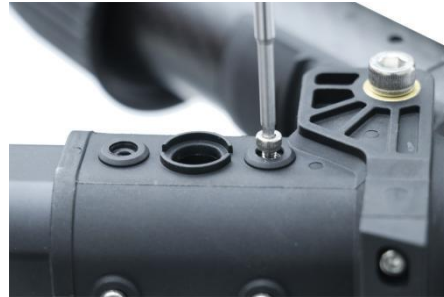
RTK installation

1. RTK accessories.



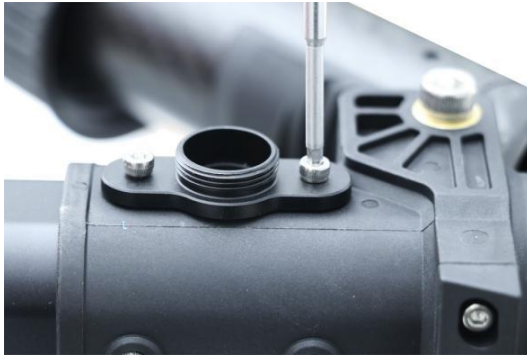
Pic 1

2. Remove the M3*8 screws of the folding parts.



Pic 2

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



Pic 3

4. Install RTK adapter thread.



Pic 4

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



Pic 5

6. Install the RTK external antenna.



Pic 6

⚠ 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.

Appendix

Specifications

Frame

E416P

Motor wheelbase : 1362MM

Opened Size : 1848*1848*628MM

Folded size : 648*671*628MM

Tank capacity : 16L

Frame weight: 7kg (without spray system)

E410P

Motor wheelbase : 1416MM

Opened Size : 1780*1780*567MM

Folded size : 700*658*567MM

Tank capacity : 10L

Frame weight: 6kg (without spray system)

Recommended configuration

E416P

Motor: Hobbywing X9, Top motor T10

Paddle: 32-34 inch folding paddle

ESC: 80A FOC

Maximum take-off weight: 37kg

Power supply voltage: 12S

E410P

Motor: HobbywingX8、 Top motor T8

Paddle: 28-30 inch folding paddle

ESC: 80A FOC

Maximum take-off weight: 26kg

Power supply voltage: 12S

Speed governor of pump

Product specifications

Size: 47*34*24mm (excluding fixed ears)

Weight: 72g

Installation hole distance: 54-60mm

Power supply voltage: 15-60V

Output voltage: 12V

Maximum current: 6A

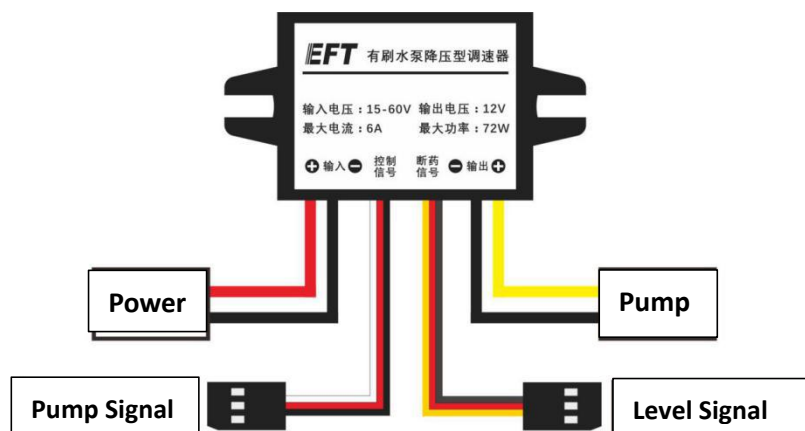
Maximum power: 72W

Travel range: 1120-1920 μ 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 liquid 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 supports

EFT official website : 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