
DC24V Motor Barrier gate

Instruction manual



1、 Safety warning

If the system fails during the use of this product, you should promptly notify the company's after-sales service department or authorized service agency for processing. Do not disassemble it at will, so as not to damage the internal structure or improper operation and damage your rights.

1-1 This product carries dangerous voltages during use, and the protective ground should be checked regularly to avoid unnecessary personal injury.

1-2 During installation and commissioning, avoid live work, and pay attention to the surrounding conditions, and take safety precautions to avoid accidents.

1-3 Please refer to the instructions to use this product correctly to avoid damage to the product or other losses.

1-4 This product has no explosion-proof design, please do not use it in flammable and explosive environment.

2、 Main features

2-1 Using DC24V brushless motor, the operation is stable, and it has the characteristics of low temperature and frequent opening and closing operation for a long time;

2-2 The speed of opening and closing can be adjusted separately, the speed can be adjusted in 9 gears, and different speeds can be realized;

2-3 The relevant parameters can be set through the buttons and LED digital tube, which is simple and quick, and clear at a glance;

2-4 With remote control learning function, the remote control can be added and deleted through simple button learning;

2-5 It has the functions of returning in case of resistance, intelligent counting, overtime closing, delaying the fall of the arm, etc.;

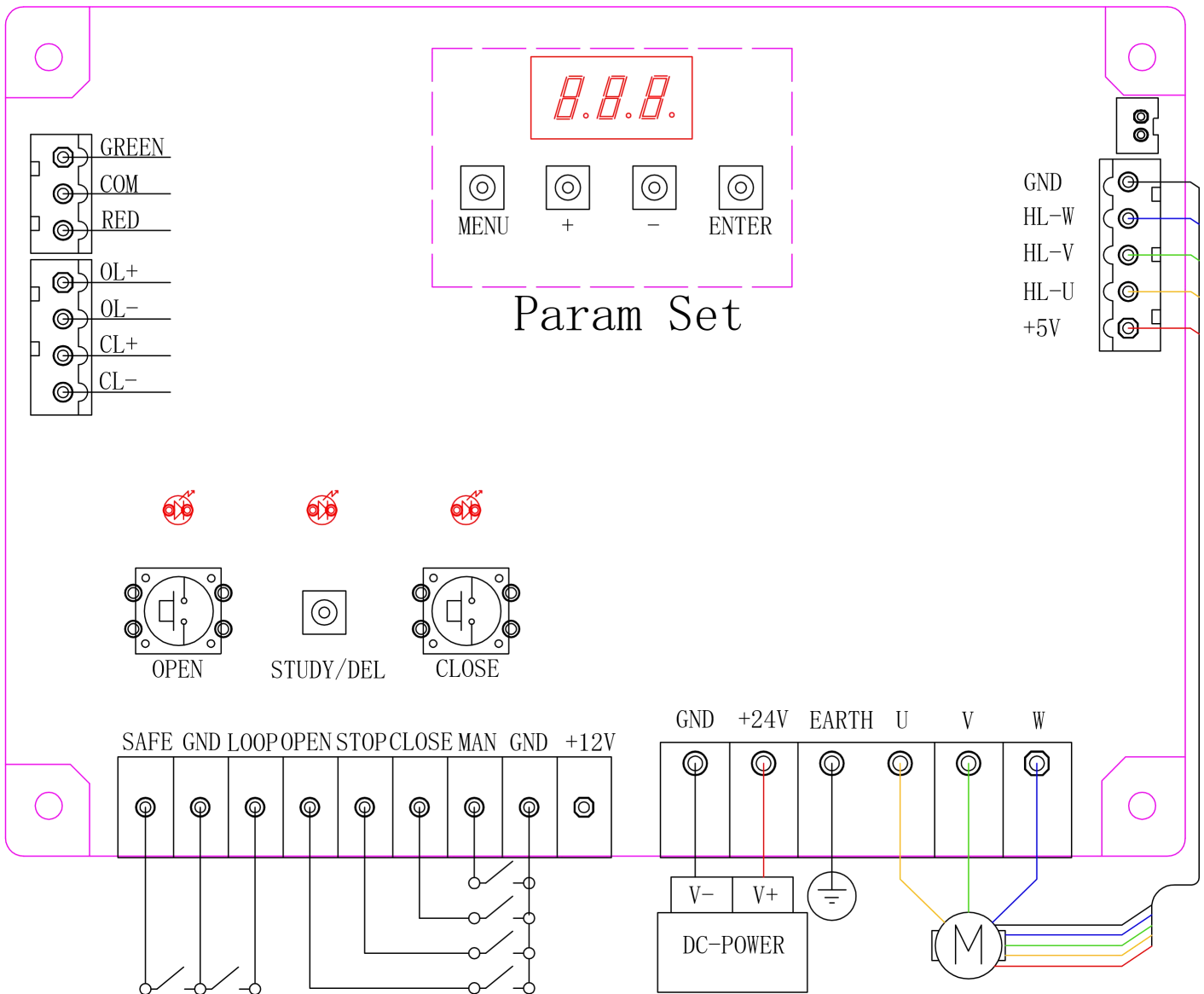
2-6 With traffic light control signal output interface and in-position signal output interface, etc.;

2-7 With infrared anti-smashing, loop detector, manual control and opening and closing gate control signal input interface.

3、 Main technical parameters

- 3-1 Working voltage: DC24V
- 3-2 Brushless DC motor: power 140W;
- 3-3 Barrier Arm UP and Down time: adjustable from 1 to 3 seconds and 3-6 seconds
- 3-4 Working environment temperature: -35°C~+70°C;
- 3-5 Relative humidity: less than 95% (without condensation water drops)

4、 Controller wiring diagram



5、 Remote control to learn and delete

This product adds and deletes the remote control through the learning method. As shown in the figure learn/delete button is set on the control panel; after shortly pressing the learn/delete button, the running indicator flashes rapidly. Key, after the control board receives the remote control signal, the running indicator returns to normal, that the learning is complete, the remote control can control the barrier; similarly, up to 5 different coded remote controls can be added, and more than 5 will automatically Remove the earliest learned remote control one by one. If you want to delete the stored remote controller, press and hold the learn/delete button for more than 10 seconds, the running indicator will keep flashing fast until the indicator turns on, it means all the remote controllers are deleted;

6、 Parameter setting and description

6-1 Basic operation instructions for parameter setting

- MENU/Menu key: (1) Short press to enter the main menu; (2) Short press to return to the main menu; (3) Long press for three seconds to exit the menu;
- Increase/+ and decrease/- keys: (1) Scroll up or down menu items; (2) Set parameter values;ENTER/
- Confirm key: (1) Short press to enter the parameter setting; (2) Short press to save the result after setting;

6-2 Parameter introduction and function

Menu Item	Function	Setting range	Defaults	Setting instructions
P00	Initialize the itinerary			This function is to find the two limit positions (ie zero point) of the opening and closing of the gate, to learn the complete stroke of the gate operation; this function has been set at the factory. If the control board and motor are not replaced, the scene Generally, there is no need to repeat the setting.
P01	Arm verticality Set up	000-999	005	000 represents the vertical limit zero position of the barrier arm. The larger the value, the greater the angle of the barrier arm offset in the closing direction.
P02	Barrier arm level Set up	000-999	005	000 represents the limit zero position of the barrier arm level, the larger the value, the greater the angle of the barrier arm offset in the opening direction.
P03	Opening speed Set up	001-009	003	The smaller the value, the slower the speed, and the larger the value, the faster the speed.
P04	Closing speed Set up	000-009	003	The smaller the value, the slower the speed, and the larger the value, the faster the speed.

P05	Opening deceleration Velocity setting	000-050	030	The smaller the value, the smaller the deceleration force, and the value increases in deceleration force.
P06	Closing deceleration Velocity setting	000-050	030	The smaller the value, the lower the deceleration force, the larger the value, the greater the deceleration force.
P07	Open the gate in place Speed setting	005-030	005	The smaller the value, the slower the in-place speed, and the larger the value, the faster the in-place speed.
P08	Close the gate in place Speed setting	005-030	005	The smaller the value, the slower the in-place speed, and the larger the value, the faster the in-place speed.
P09	Return in case of obstruction Sensitivity setting	000-006	000	000 is to turn off this function, 001 starts, the smaller the value, the lower the sensitivity, the larger the value, the higher the sensitivity.
P10	Barrier operation Direction setting	000-003	000	This function is for the setting of positive and negative sequence motors. There are 4 combinations in total, of which 000 and 001 are a group corresponding to one motor; 002 and 003 are a group corresponding to another motor; this setting has been set at the factory. Under normal circumstances, it needs to be reset after replacing the motor. (After resetting, power off and restart the controller to take effect)
P11	Smart counting Set up	000-001	000	000 is to disable this function, 001 is to enable this function;
P12	Overtime closing Set up	000-020	000	000 means to close this function, 001 means to close the gate automatically within 1 second after timeout, and so on. 020 means that it can automatically close the gate for a maximum of 20 seconds;
P13	Delayed drop arm Set up	000-015	000	000 is to turn off this function, 001 means to delay the stick drop for 0.1 second, and so on. 015 means that the arm can be delayed up to 1.5 seconds.
P14	Detector of time Detection settings	000-012	000	This function is to judge the holding time of the loop detector signal, 000 is normal detection, 001 means that the hold time of the loop detector signal exceeds 0.1 seconds is the effective sense signal, and so on, 012 means that the hold time of the loop detector signal exceeds 1.2 seconds is effectively signal of detector.
P15	Restore Defaults			In this menu item, press the confirm key, the digital tube displays 000, and then press the increase/+ key, the digital tube displays 001; then press the confirm key again to restore the default value.
P16	automatic running Set up	000-005	000	000 is normal operation, 001-005 is automatic operation, 001 means that the on and off positions are stopped for 1 second each; and so on.
P17	version number			Show current program version

7、Barrier debugging process and operation instructions

7-1 Setting of the running direction of the barrier (generally this step has been set at the factory, no need to reset on site)

If the barrier can be opened and closed smoothly in the correct direction, it means that the setting of this item is correct, otherwise set the appropriate parameter value;

7-2 Initialize the itinerary (generally this step has been set at the factory, no need to reset on site)

In the P00 menu item, press the confirm key, the digital tube displays 000, press the open button, the digital tube displays 001, and the barrier arm runs to the open limit zero point; press the close button again, the digital tube also displays 001, and the brake lever runs When the limit zero point is reached; press the OK button to save, then the setting is completed; when this parameter is set, the gate must be in place to open and close the gate, otherwise the learning of the trip will be incomplete. You can press the opening or closing button after the opening or closing gate is in place to ensure that the top of the gate reaches the mechanical zero point;

7-3 Gate verticality and horizontality setting

In the corresponding menu item, press the enter button to enter the setting; press the increase/+ and decrease/- buttons to set the parameter value; then press the confirm button to save;

7-4 Opening speed and closing speed setting

In the corresponding menu item, press the enter button to enter the setting; press the increase/+ and decrease/- buttons to set the parameter value; then press the confirm button to save;

Note: Under normal circumstances, this product only needs to set several menus such as opening speed, closing speed, opening verticality, and closing horizontality. The gate can run better. Other parameters are determined by the on-site personnel according to the actual situation. Settings.

7-5 Find the mechanical zero point after power on

After the commissioning is completed, power on the barrier again, the digital tube displays "45", indicating that the barrier needs to be changed. At this time, if the gate of the pipeline is open or closed, press directly to open the barrier, and the barrier will go to Run in the direction of opening the gate until it reaches the mechanical zero point in the open position, the digital tube displays "90" or above, it means that the zero change is completed, and the gate can be operated normally;

7-6 Setting tips

Since the increase/decrease buttons of the controller are shared with the on/off gate buttons of the controller, in order to facilitate debugging, you can learn the remote controller first, and you can control the opening and closing gate of the gate through the remote controller without leaving the menu when setting. Verify the effect of the current settings.

8、 Common problems and precautions

8-1 Because the gate has 9 speed grades and a wide range of speed regulation, in order to allow the gate to be used for a long time and stable operation, on the premise of meeting the on-site use, it is better to stop smoothly when the gate lever is in place, not blindly The pursuit of speed.

8-2 Barriers are tested with arms according to the rod length requirements at the factory. If the arm is sawed short or lengthened, the spring force needs to be readjusted to make the arm and springs basically balanced to ensure the normal use of the barrier.

8-3 When the barrier is in normal use, if the external power is cut off, the digital tube will display "45" after re-powering, indicating that a mechanical zero point is needed. If after receiving the vehicle opening signal, the barrier will be opened at a slower speed until it reaches the mechanical zero point of the open position, the digital tube displays "90" or above, it means that the mechanical zero point is complete, and the barrier can be normal run. Therefore, the gate is powered on again after the external power is cut off abnormally. No manual operation is required to perform the mechanical zero point. As long as there is an open signal, the gate can complete the mechanical zero point by itself.