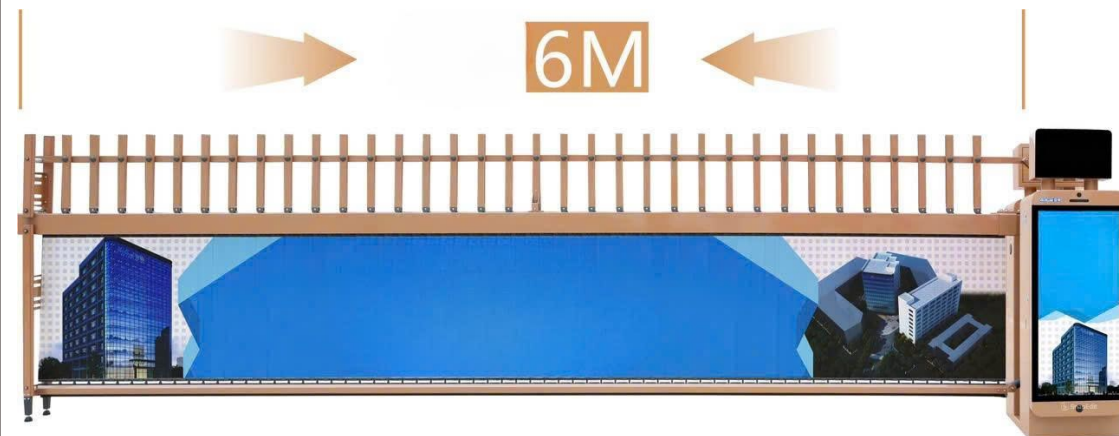


Super Advertising Barrier Gate

(B series)
(Version 20210512)



Dear User:

Thanks for your trust.

Please read this user manual carefully before using ANKUAI barrier gates. The manual includes: main functions (our own advantages), dimensions, parameters, main board wiring diagram, installation instructions, testing, and packing list.

The user manual can help you to know more details about Ankuai barrier gate, such as mechanical working theory, using guide, matters need attention. We should use the barrier in right way to ensure the working life.

The user manual also analyzes some problems which maybe appear during using. And you can find out the way to solve each problem in the manual. At the same time, we sincerely hope that you can give us some suggestions to make our barrier gates better and better.

Thanks!

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1. Mechanical features

- Integrative machine core: all part is made by mold, so all parts can be more accurate. And so, the barrier gate can be much more stable;
- 90W turbine worm transmission single three phase motor, saving energy, drive steady, noise lower.
- Accurate link mechanism: link mechanism can release boom's shake and motor load, so the barrier gate can move more stable and barrier gate's working life can be longer;
- Lock or open the boom by hand: we can turn motor handle to lock or open the boom when power is off.

2. Electrical features

- High integrated level, powerful function;
- Using imported high-power relay to ensure power stability;
- Using imported photoelectric isolated protection circuit to ensure signals' stability;
- Integrating wireless remote control receiving module to ensure wireless controlling stability;
- Using quench circuit to ensure main board working life;
- Using imported magnetic core transformer to ensure the machine's working in damping situation.

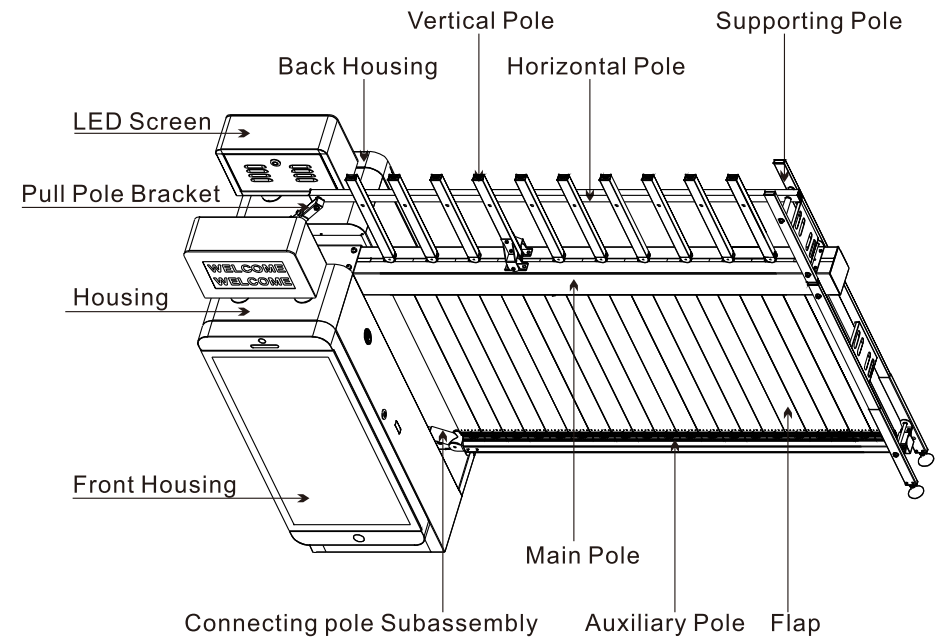
3. Safety features

- Pressure sensor - anti-crash functions: If the boom meets something during closing process, the boom will be opened automatically;
- Loop detector - anti-crash functions: If car stands under the boom, the barrier gates cannot be close. And the barrier gates will be closed automatically when the car passes the boom;
- Open first functions: no matter the boom locates any position, it will be opened if barrier gate gets open signal;
- Plastic strips: we can install plastic strip into our boom, it can decrease accident damages.

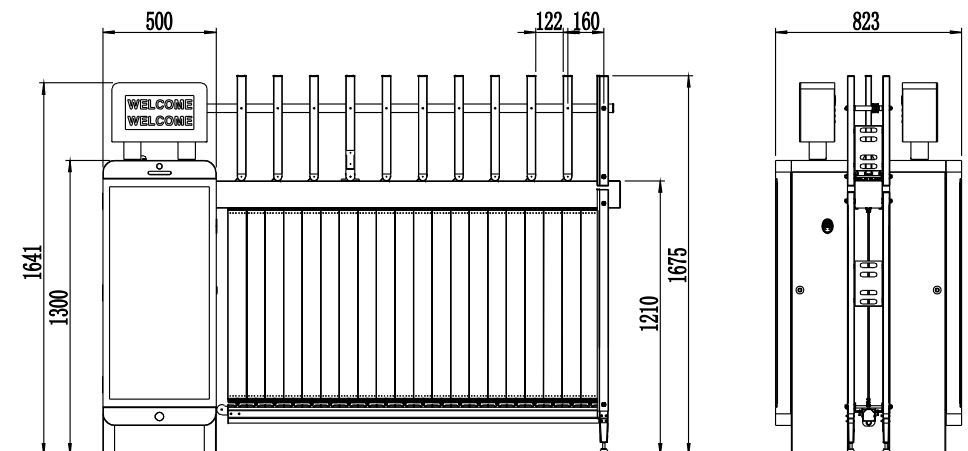
4. Technical Parameter

Voltage	AC220V±10%
Motor	AC220V/160W
Working Temperature	-30°C ~ +80°C
Relative Humidity	≤90%
Fence Length	Max 6 meters
Quantity of Advertising Board	Base on the length
Advertising Board Size	82mmX830mm
Advertising Size	485mmX1005mm
LED Light	DC12V
Speed	10s
Height	1675mm
Remote Control Distance	≤30m
Input Interface	Switching signal
Housing Size	500mmX823mmx1641mm

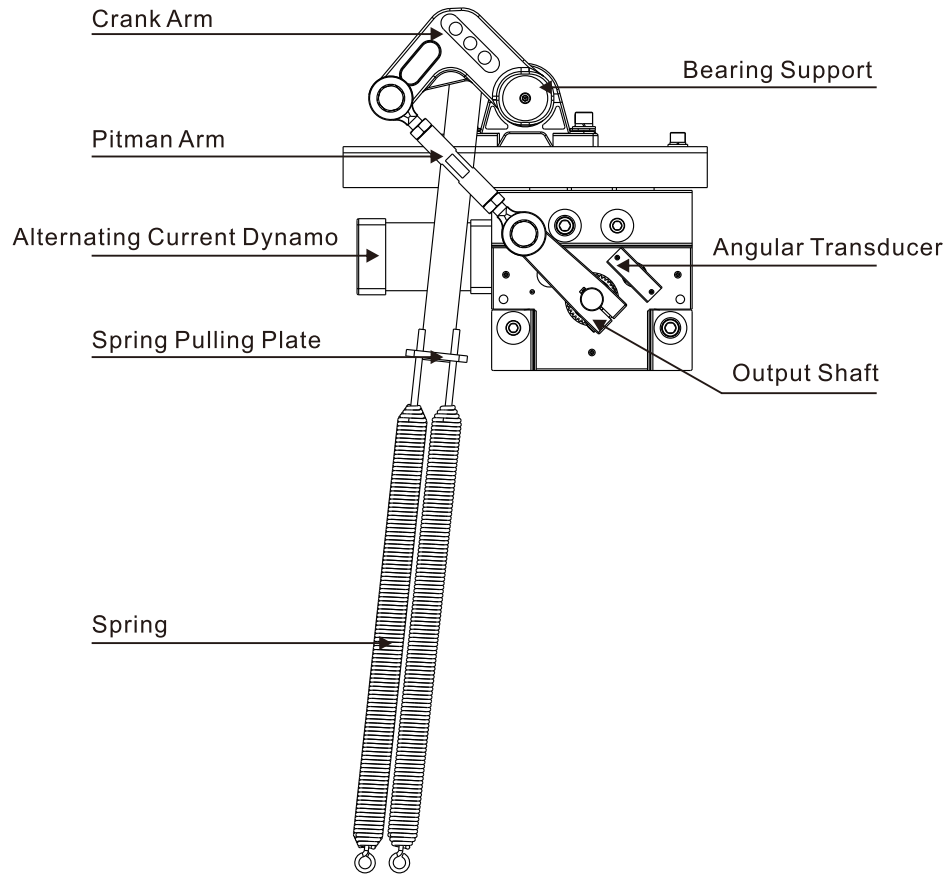
1.Product Overview



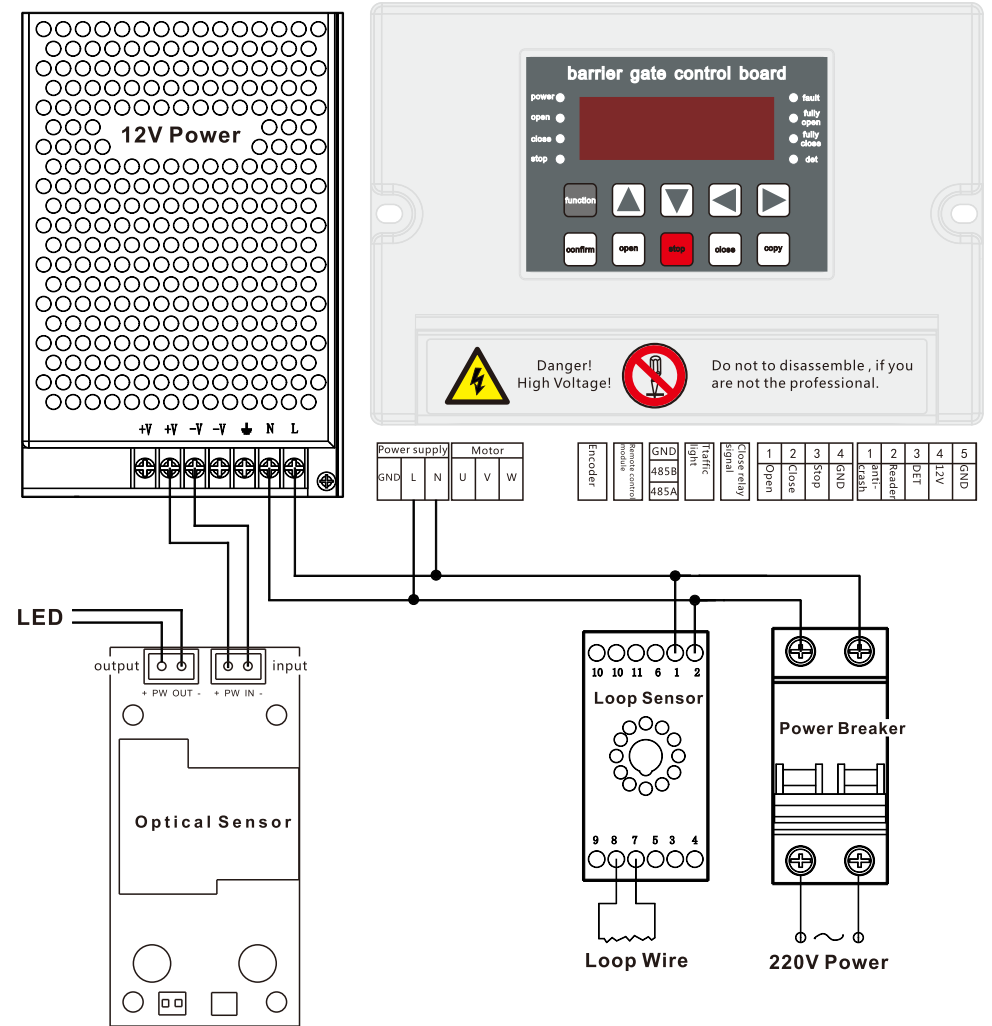
2.Detailed Size



3. Inside Structure

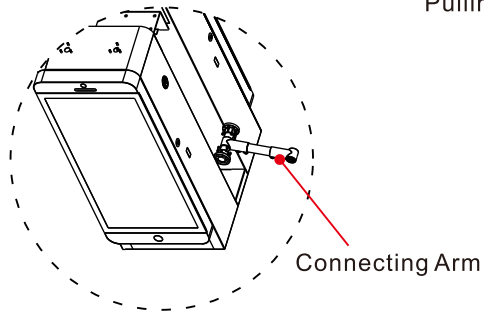


4. Wiring Diagram

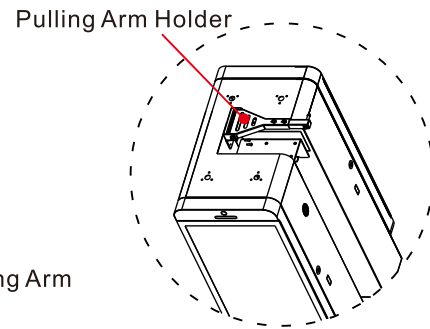


1. Housing Part

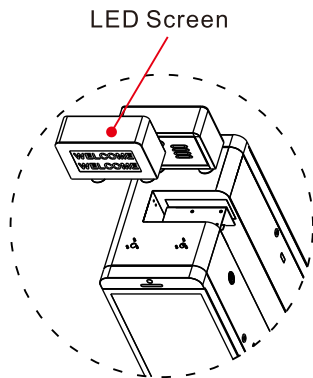
1.1 Fix connecting arm by M5x25 screw



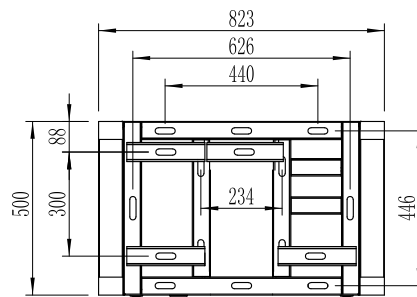
1.2 Fix pulling arm holder by M6x16 screw



1.3 Fix LED screen by M6x16 screw



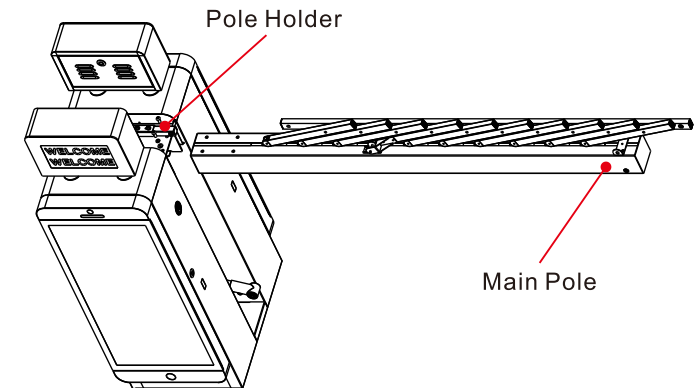
1.4 Housing Installation General View
Punching according to below general view after installation position is selected



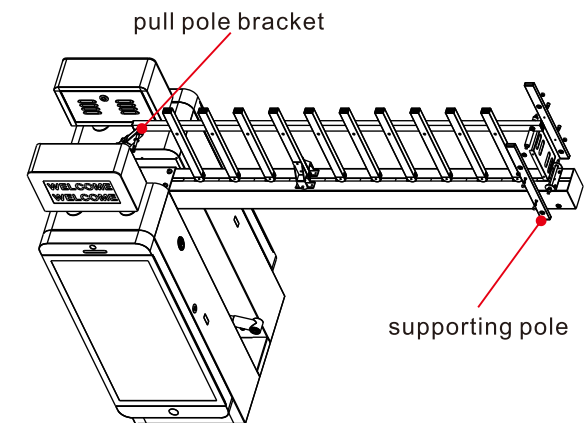
Gate Direction

2. Fence Part

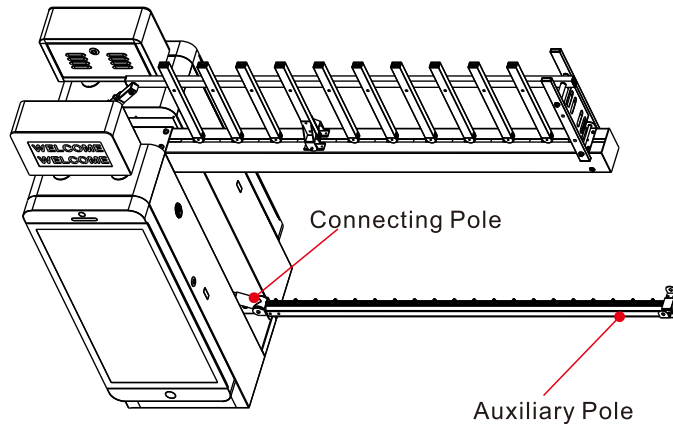
2.1 Fix main pole : Insert main pole into pole holder and fix by screw



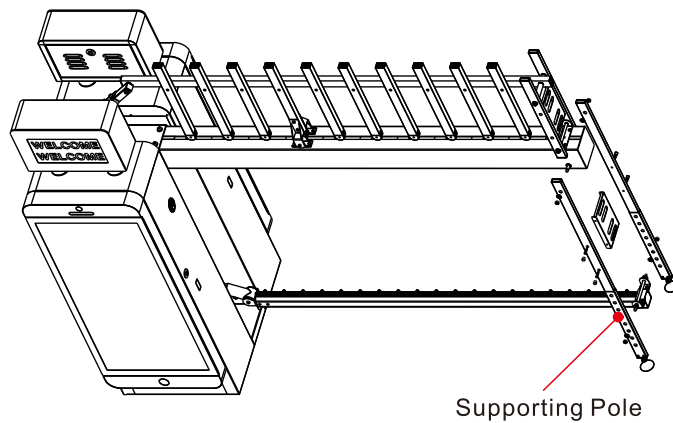
2.2 Install supporting pole and pull pole bracket and fix by screw



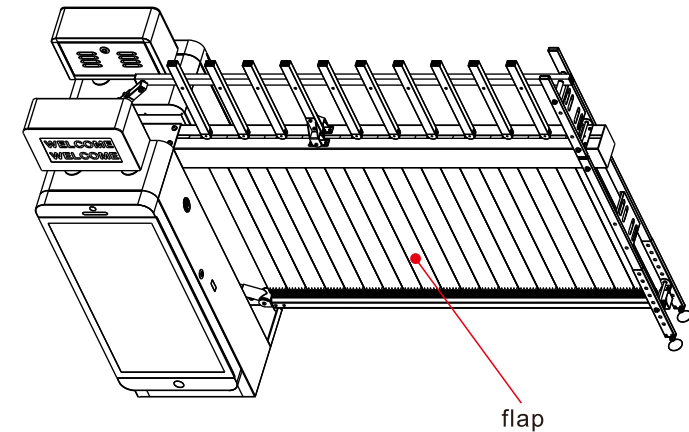
2.3 Install auxiliary pole: Fix auxiliary pole and connecting pole by screw



2.4 Install supporting pole: Connecting main pole and auxiliary pole by screw

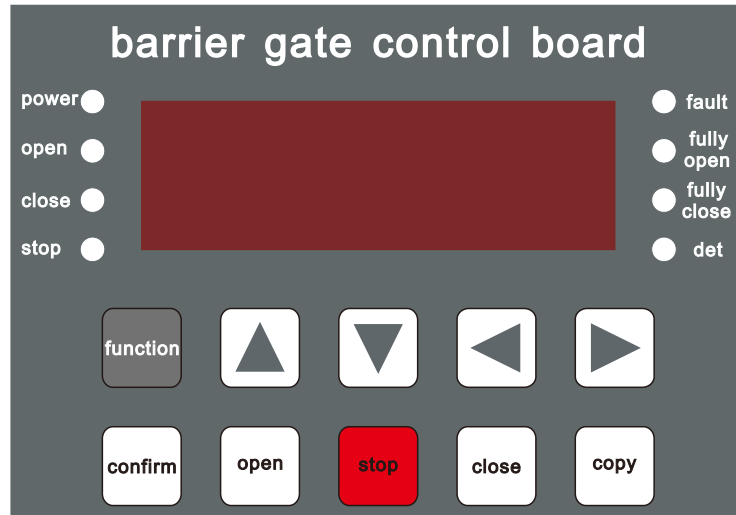


2.5 Flap Installation: Insert flap into the pole and fix by screw.



2.6 Debugging: After the whole set of machine is assembled, firstly crank the lifting lever manually and check whether it is running correctly. And then connect power to test. After the operation is normal, check whether the accessories and wiring are tightly matched. Only everything is under normal operation can the machine be used.

1. Function board button illustration



1. : it is used to enter and exit menu.
2. : It is used to upward select settings and increase number value.
3. : It is used to downward select settings and decrease number value.
4. : it is used to move cursor position.
5. : it is used to confirm settings.
6. : it is used to open barrier gate.
7. : it is used to stop barrier gate.
8. : it is used to close barrier gate.
9. : it is used to add remote control.

2. Board parameter settings

A. Parameters:

- F0.00: Set open speed
- F0.01: Set close speed
- F0.10: Factory reset & set limited sensor
- F0.13: Set first buffer angle during opening
- F0.14: Set first buffer angle during closing
- F0.16: Set angle to close loop detector
- F0.25: Set second buffer speed during opening
- F0.27: Set second buffer speed during closing
- F0.33: Enter password to set parameters (Check details on B.1)
- F0.34: Parameter choice

B. Setting parameters

Note:

1) All parameters are well set before delivery. Don't suggest to change any parameters.

2) If change controller, please set the controller as following.

B.1 F0.33 (Unlock parameter): Press "Function" key, then press "" or "" key until display "F0". Press "Confirm" key to enter menu, LED display "F0.XX", "XX" is arabic numerals, then press "" or "" key till display "F0.33", press "Confirm" key to enter, LED display "0000". Press "" key to control cursor position. Press "" key to modify value to "0008", then press "Confirm" key, then the parameters can be modified. (The valid time of unlocking parameter is within 10 minutes. It needs to unlock again if modify time is over 10 minutes).

B.2. F0.34 (Parameter choice): When LED display "F0.34", press "Confirm" key to enter, then press "" or "" key, adjust parameter to "1", then press "Confirm" key. (note: 0 for toll gate, 1 for other types barrier gate. We must reset factory parameters after setting this or else the change isn't effective. Please check the 10th item for factory reset.)

B.3. F0.00 (Set open speed): When LED display "F0.00", press "Confirm" key to enter. Use "" key to control cursor position. When the cursor is flashing, then press "" or "" key to modify corresponding parameter value. After setting, press "Confirm" to save modification. (Parameter value should be based on opening stability.)

B.4. F0.01 (Set close speed): When LED display "F0.01", press "Confirm" key to enter. Use "" key to control cursor position. When the cursor is flashing, then press "" or "" key to modify corresponding parameter value. After setting, press "Confirm" to save modification. (Parameter value should be based on closing stability).

B.5. F0.10 (Set limit sensor): When LED display "F0.10", press "Confirm" key to enter. Use "▲" key to change parameter value to "2". Then press "Confirm" key to enter, when LED displays "r.0Pn", press "open" key (don't loosen) till boom arm reaches fully open/vertical position, then press "Confirm" key to save. LED will display "r.L5", press "close" key (don't loosen) till boom arm reaches fully close/horizontal position, then press "Confirm" key to save.

B.6. F0.13 (Adjust first buffer angle during opening): When LED display "F0.13", press "Confirm" key to enter. Use "▶" key to change cursor position. When cursor is flashing, press "▲" or "▼" key to modify corresponding parameter value (range :30-90°). After modification, press "Confirm" key to save. (The parameter value depends on opening speed; it's better based on opening stability).

B.7. F0.14 (Adjust first buffer angle during closing): When LED display "F0.14", press "Confirm" key to enter. Use "▶" key to change cursor position. When cursor is flashing, press "▲" or "▼" key to modify corresponding parameter value (range :30-90°). After modification, press "Confirm" key to save. (The parameter value depends on closing speed; it's better based on closing stability).

B.8. F0.16 (Set angle to close loop detector): When LED display "F0.16", press "Confirm" key to enter. Use "▶" key to change cursor position. When cursor is flashing, press "▲" or "▼" key to modify corresponding parameter value (range :0-90°). After modification, press "Confirm" key to save.

B.9. F0.25 (Adjust second buffer speed during opening): When LED display "F0.25", press "Confirm" key to enter, use "▶" key to change cursor position. When cursor is flashing, press "▲" or "▼" key to modify corresponding parameter value. After modification, press "Confirm" key to save. (The parameter will affect arm stability when it reaches fully open/vertical position, it's better based on opening stability).

B.10. F0.27 (Adjust second buffer speed during closing): When LED display "F0.27", press "Confirm" key to enter, use "▶" key to change cursor position. When cursor is flashing, press "▲" or "▼" key to modify corresponding parameter value. After modification, press "Confirm" key to save. (The parameter will affect arm stability when it reaches fully close/horizontal position, it's better based on closing stability).

B.11. F0.10 (Factory reset): When LED display "F0.10", press "Confirm" key to enter. Use "▲" key to change parameter value to "1", then press "Confirm" key to save.

B.12. Add and delete remote control

Add remote control: press "copy" key, LED displays "T.r0E", press any key of remote control, then remote control is added.

Delete remote control: press "Function" key, then press "▲" or "▼" key until display "F1", press "Confirm" key to enter menu. Press "▲" or "▼" key until display "F1.00", then press "Confirm" key to enter, press "▲" key, change the value from "0" to "1", press "Confirm" key to enter, then all remote control is deleted.

1. Installation

- Check packing list to make sure all in right way;
- According to barrier arm direction and actual situation to confirm fix place. If ground isn't concrete foundation or it is a slop, suggest to build a horizontal concrete foundation; After installation, barrier box should be perpendicular to ground;
- According to control center or security room position, reference (GB 232 electrical device installation and check before acceptance standard)'s relative rules to set power wires and signal wires (the two type wires should be set in different pipes);
- Use expansion screw (follow packing list part to confirm install number) to fix barrier gate cabinet then start to use;
- Adjust boom arm to horizontal position by hand switch to confirm boom holder fix position (this step is optional);
- Connect and check all wires to barrier main board according to wiring diagram.

Note: Should cut off power during installations.

2. Details Instruction

(1) Line pre-buried

build concrete basement if it is needed (basement size should be bigger about 100-150mm than barrier base size). Bury power wires and signal wires between barrier and control center.

(2) Fix barrier box

Choose the right place and fix barrier box by expansion screw.

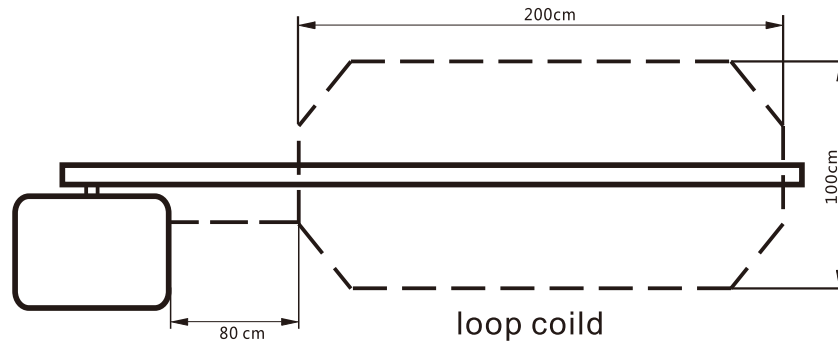
(3) Install boom

After fix barrier cabinet, install boom arm onto arm holder. Confirm boom arm in right place then fix screws. If we need to install barrier arm holder, adjust arm to horizontal position by hand switch to check holder fixing position, then fix arm holder.

(4) Install another device

You can connect and debugging other devices according to wiring diagram

(5) Install loop detector



5.1. Draw loop coil shape: width is 1000mm, length depend on arm length, two sides are narrower than the arm 700mm to 1000mm, make a chamfer angle at 4 corners to prevent wires damages.

5.2. Use cutting machine to cut a groove according to the draw. Groove dimension: width 3-5mm, depth:30mm, and cut a groove to barrier gate cabinet.

5.3. Put one end of the coil with enough length into cabinet, then circle it along the groove 5 times, then twist wires and connect them to loop detector ports 7 & 8.

5.4. Test the loop sensor to sure all right. Then use cement to bury the groove.

1. Debugging Instructions

Debugging Items	Debugging Way
Boom arm is not on horizontal /vertical position	1. Loose two screws of transmission shaft, adjust the arm to horizontal position, then learn horizontal limit and lock screws back. 2. Adjust the arm to vertical position, then learn vertical limit.
Arm shake during open	1. Open speed is too fast, decrease F0.00 value. 2. Adjust open buffer speed F0.25 setting. 3. Spring force is too big, loosen spring screws to decrease spring force.
Arm shake during close	1. Close speed is fast, decrease F0.01 value. 2. Adjust close buffer speed F0.27 setting. 3. Spring force is too small, loosen spring screws to decrease spring force.

2. Problems & solving way

No	Problems	Reason	Solving way
1	Power indicator light is off, press button, no response	1. Don't connect power;	1. Connect power;
2	Power indicator light is on, but remote control doesn't work	1. Remote control code doesn't match; 2. Receiver module doesn't work; 3. Same frequency interference; 4. Didn't copy remote control;	1. Recode remote control; 2. Change receiver module; 3. Change other frequency; 4. Copy remote control;
3	Power light and working light are on, but motor doesn't work.	1. Motor wire loose;	1. Reconnect wires;
4	Limited sensor doesn't work	1. Limited sensor doesn't set well; 2. Limited sensor is broken.	1. Reset limited position; 2. Change limited sensor;
5	Remote control can't work	1. Battery is power off; 2. The remote control is broken;	1. Change battery; 2. Change remote control;
6	Controller show Er01	Input voltage is too high	1. Use a regulated power supply; 2. Delayed deceleration time.
7	Controller show Er02	Input voltage is too low;	Use a regulated power supply;
8	Controller show Er03	1. Motor damage. 2. The acceleration time is too short;	1. Change motor; 2. Delayed acceleration time.
9	Controller show Er09	Encoder isn't on right place;	1. Check encoder fixing way; 2. Open and close by main board keys.
10	Controller show Er12	Didn't set limited position;	Set limited position;
11	Controller show ErOH	Overheat protection;	Open door to cool motor or adds other cooling facilities.

Using instructions

- Do check power's voltage matches barrier gate or not. Our standard is 220V±10%, or 110V±10%;
 - Press open button, the boom will open to right position and stop.
 - Press close button, the boom will open to right position and stop.
 - Power off, just turn the handle of motor to open the boom. Power on, press close button, then the barrier can be used.
- Notes: Our barrier gates should be ground connected.

Maintenance

- Clean housing surface regularly;
- Check wiring diagram regularly, if some wires loose, fix them back;
- Keep the barrier in aeration-drying atmosphere to ensure the stability and working life;
- Check transmission shafts regularly, if loose, fix them back;
- Check spring regularly; ensure spring is in good situations.
- Check the connection between housing and ground regularly, ensure housing is well fixed.

Notices

1. Don't modify the barrier gates at will!!!
2. Please keep the barrier close when there is a gale!!!

Services items

- The warranty is 1 year
 - Provide maintenance all the life time
- Not included free maintenance under the damage of following situation
- Damages caused by wrong installation (please follow instruction)
 - Using unstable power supply which beyond product's working range or not compliance with national electricity use safety standard
 - Irresistible factors, like natural disasters
 - Incorrect usage

Packing List

NO	Name	QTY	Remake
1	Barrier Gate	1 pc	
2	Fence	1 pc	
3	Flap	1 box	
4	Expandable Screw	6 pcs	
5	Pressing Plate	4 pcs	
6	LED Screen	2 pcs	
7	Connecting Module	1 set	
8	Loop Detector	1 pc	
9	Loop Wire	40meters	
10	Bracket	1 set	optional
11	Manual Button Box	1 pc	
12	User Manual	1 pc	
13	Certificate	1 pc	
14	Crank	1 pc	
15	Manual Key	2 pcs	
16	Remote Control Key	2 pcs	

Guarantee Card

Customer:			
Address:			
Purchasing time		Model	
1. Please write your information carefully, only stamped guarantee card is valid; 2. Guarantee is 1 year; 3. Guarantee does not cover any problems cause by actions not following our user manual.			

Design and specification are subject to changes without prior notice, we reserve all the right for the final explanation.