CsTeco

Capital System Trading EST

المواصفات الفنية

Barrier Gate

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（PB-301）Barrier Gate :

Specification

Item	Value
Brand Name	CsTeco
Product Name	Parking Lot Barrier Gate
Size	320*245*985MM
Thickness	1.5-1.8MM
Arm Lenght	45mm*100mm(Aluminum Octagonal Arm)
Working Power Supply	DC220V+10% /50Hz
Motor Power	DC Brushless 150W
Open/Close Speed	0.8-6s Adjustable
Maximum Arm length	Straight Arm 1-6m, Fence Arm 1-4.5m, Folding Arm 1-5m
Working Temperature	-40°C~80°C
Working Humidity	10%~95% No Condensation
Color	Black/ Gold/ Silver

DC Brushless BarrierGate Mechanism Manual

(Adopt DCbrushless motor, providingsmoothandstrongpowerwhilethegate is running more smoothly and saving power)

1. Prroduct overview

1) The movement is installed by side fixation mode, with a compact structure.

2) The main body of the movement is made of aluminum alloy, made by die-casting process. The integrated structure has the characteristics of small

	model	output power	voltage	Rated electricity stream	Motor amount Fixed speed	Lift the arm time	Spindle output torque	insulation grade	levels of protection
☐	D 01-0.8S	150 W	DC 24V	10A	1500r/min-1.5S	80	58.4N.m	B	IP 44
☐	D 01-1.5S	150 W	DC 24V	10A	1500r/min-3.0S	.5	87.6N.m	B	IP 44
☐	D 01-3.0S	150 W	DC 24V	10A	1500r/min-7.0S	.13S 219.0N	.m	B	IP 44

size, reliable mechanical strength and fastheat dissipation.

3) The movement adopts inclined geardeceleration drive, high efficiency, stable performance, smallpower output loss; gear carburizing heat treatment process,highprecision tooth grinding processing, impact resistance, andlongservice life.

4) DC brushless core, small heat,stabletransmission, large output torque, speed regulation throughthedriver, take-off lever buffer and deceleration, smooth and smooth.

5) The motor adopts 24V safe voltage,whichis safer than the traditional AC motor.

3.General technical specifications

1. Normal insulation resistance: the motor insulation resistance shall not be less than 100M Ω

2. Electrical strength: the conductive part of the motor should withstand 700V / S without breakdown

3. Motor temperature rise: 75K

4. Motor noise: 55dB

5. Operating temperature range and humidity: temperature-35℃ to 80℃ (please contact our technician for special customization); humidity within 90% (no condensation)

6. Altitude: within 1,000 meter

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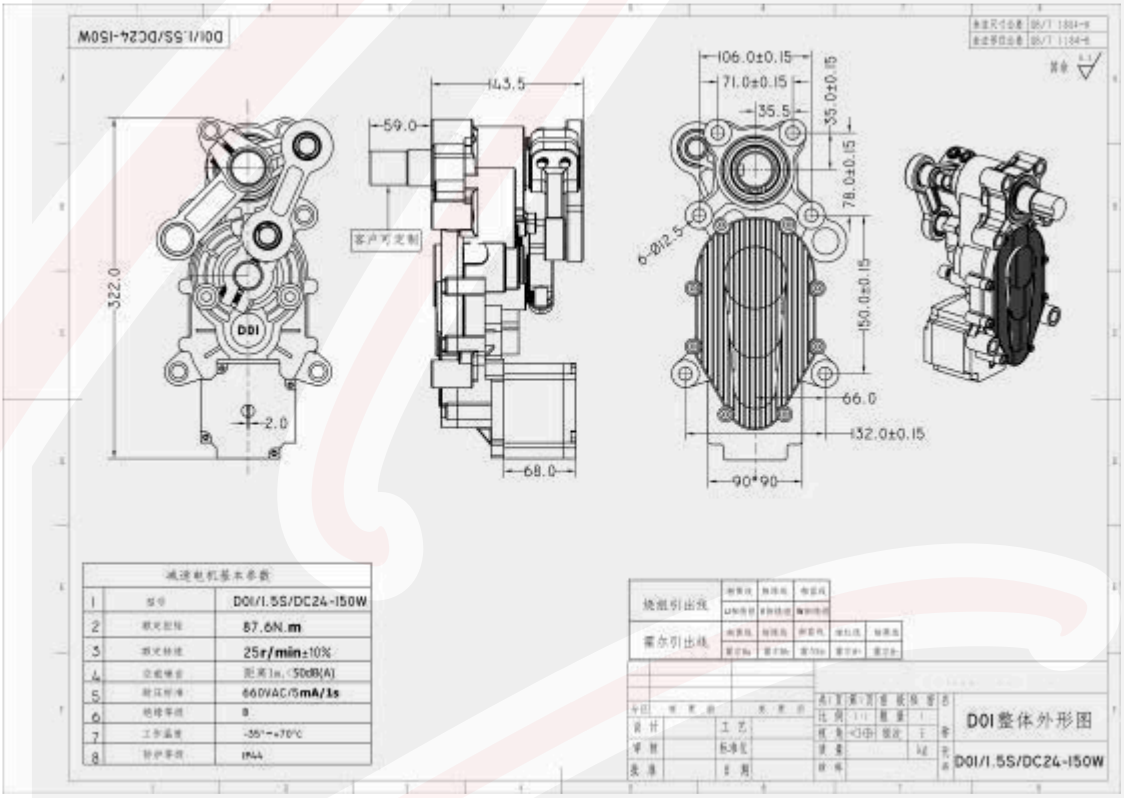
4. Overall dimension drawing



5.Install / Remove

1)Fixation ofthe movement core The movement is side-mounted, 6 nut columns (φ18X 20) on the right are embedded in the sheet metal, and the left movement is fixed by 6 internal hexagonal screws (M 10X 40).

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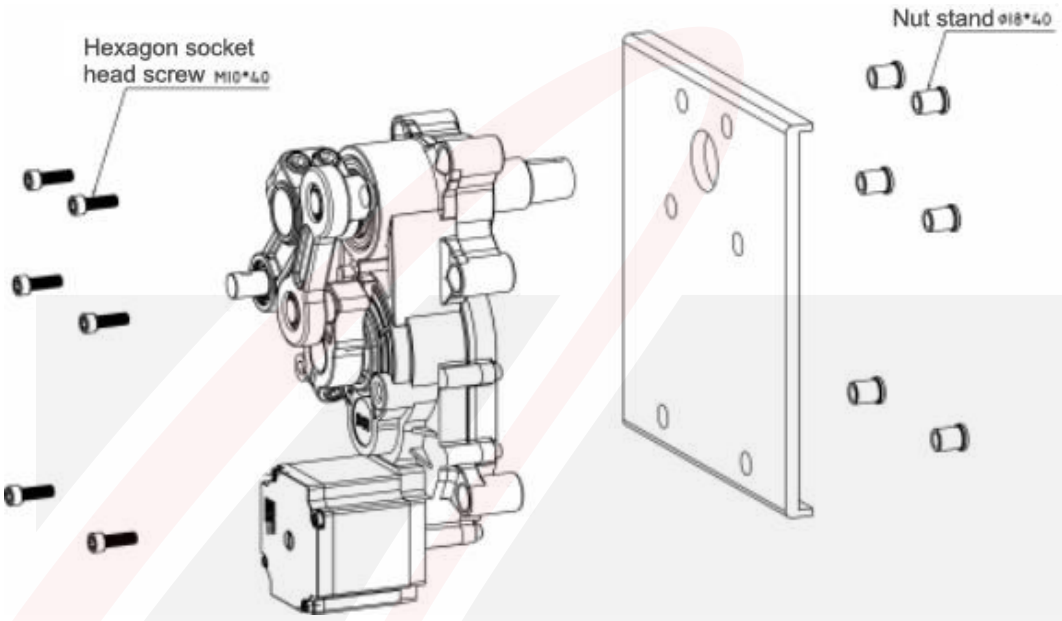


2) Left and right movement swap

This movement can realize the left and right direction without any replacement parts. For example, when the right movement is changed to the left movement, the rocker parts need to be replaced. The operation steps are as follows:

A) Remove the clamp at both ends of the connecting arm with the external clamp and remove the connecting arm

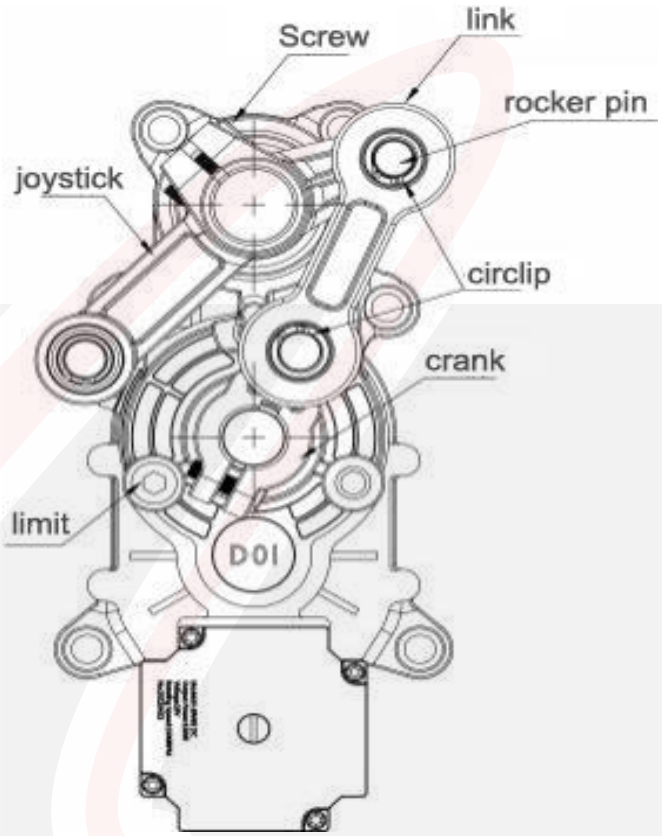
B) Release the rocker On the two screws, take out the rocker (you can open the slot with the inclined iron to take it out faster), take out the rocker pin shaft, and change the direction

Cc) Remove 1 screw on the limit and move to the right in symmetrical position and lock

D) Install the joystick of the rocker pin shaft, and install the connecting arm and clip ring

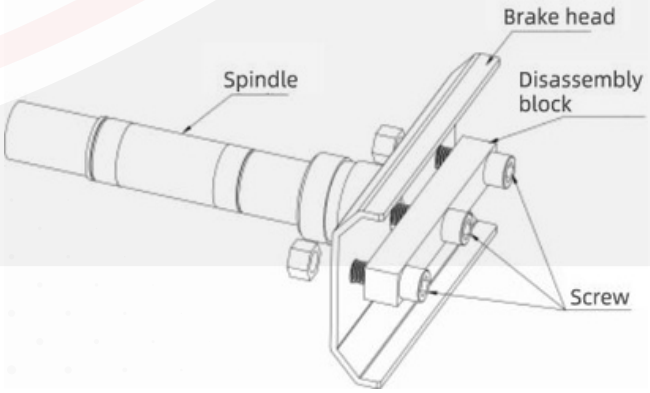
E) After adjusting the angle of the brake lever, lock the rocker screw tightly

Note: In the same way, release the rocker along with the crank screw, and then remove the connecting arm.



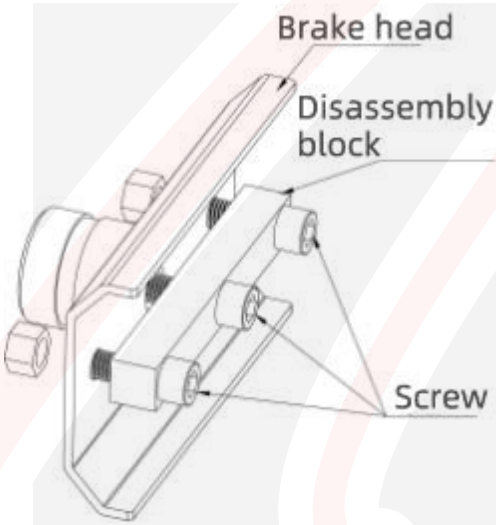
3) Gate arm head installation

When the brake arm head is installed, avoid striking as much as possible, but it is also necessary to ensure that when the spindle is equipped with through hole, the screw (M 10) and nut.(The main shaft personality is customized, need to be installed according to the actual situation, to avoid vigorously tapping)



4)Remove arm

Gate arm head is generally more difficult to remove, we recommend touse the following way of disassembly, the required materials :Inner hexagon screws M12X50 2, M14X50 1,2 M12 nuts, 1 disassembly bar.



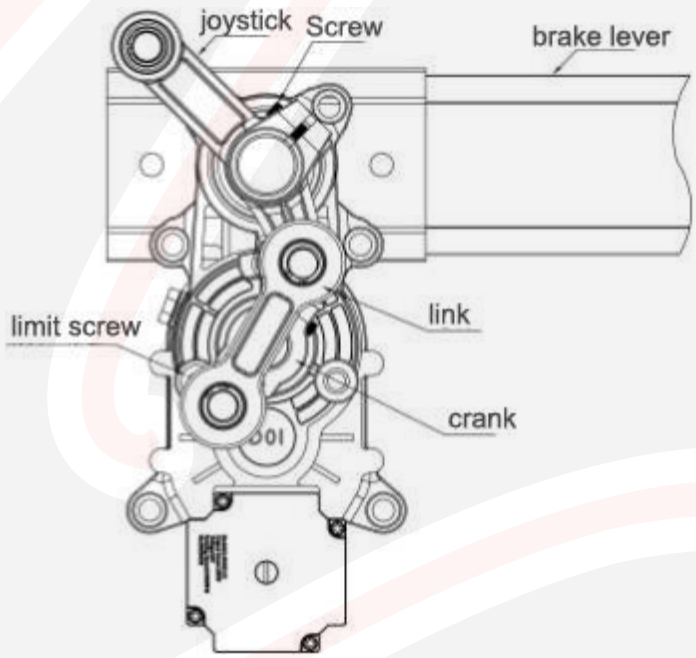
6. Commissioning

After the movement controller is energized, it is necessary to learn the horizontal and vertical position manually. It can be operated by the key on the remote control or the controller, or the table control button or ground sense signal. When learning, the horizontal and vertical are not in order, and the initial learning speed is slower than the normal operation. After the study is completed, it can be run normally, or other parameters can be further adjusted to meet the various needs of the use. The debugging of the controller parameters and the wiring mode are not explained in detail here, please refer to the Controller manual.

1) Horizontal position of the gate arm

The connecting crank coincides, and the two rotating points of the connecting arm coincide with the output shaft of the reducer, which is the horizontal position of the gate bar. If it is found that the lock arm is not horizontal and inclined, then release the two screws of the

rocker, spin the lock arm to the level, and lock the screw can be tightened.



2) Vertical position of the gate arm

The crank of the connecting arm is unfolded, and the two rotating points of the connecting arm are the three points of the output BWis of the reducer, which is the vertical position of the gate arm. The vertical position of the gate bar is adjusted as above.

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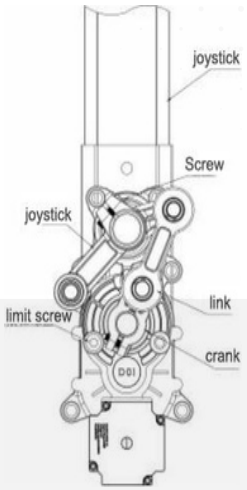

7. Optional selection of the movement and the gate arm

Movement model:D 01-0.8S,D01-1.5S, D01-3.0S											
Carbon fiber arm (φ 36)			Elliptical arm (80 * 50)			Ocagon pole (100 * 45) Gate rail (100 * 45 single layer)					
Club length	Movement model y number	advisor speed h	club length	Movement model y number	advisor speed	club length	Movement model number	advisory speed	club length	Movement model number	advisory speed
1.5 Meters	D 01-0.8S	.70S - 0.8S	2.0 Meters	D 01-0.8S	.80S - 1.0S	2.5 Meters	D 01-0.8S	.80S - 1.0S	2.5 Meters	D 01-1.5S	.02S - 2.5S
2.0 Meters	D 01-0.8S	.70S - 0.8S	2.5 Meters	D 01-0.8S	.80S - 1.0S	3.0 Meters	D 01-1.5S	1.5S - 2.0S	3.0 Meters	D 01-1.5S	.52S - 3.0S
2.5 Meters	D 01-0.8S	.70S - 0.8S	3.0 Meters	D 01-0.8S	.80S - 1.5S	3.5 Meters	D 01-1.5S	.02S - 2.5S	3.5 Meters	D 01-3.0S	3.0S - 3.5S
3.0 Meters	D 01-0.8S	.80S - 1.2S	3.5 Meters	D 01-1.5S	1.5S - 1.8S	4.0 Meters	D 01-1.5S	.52S - 3.0S	4.0 Meters	D 01-3.0S	3.5S - 4.5S
3.5 Meters	D 01-0.8S	.01S -4.0 1.5S	Meters	D 01-1.5S	1.5S - 2.0S	4.5 Meters	D 01-3.0S	3.0S - 3.5S	4.5 Meters	D 01-3.0S	4.0S - 5.0S
			4.5 Meters	D 01-1.5S	.02S - 2.5S	5.0 Meters	D 01-3.0S	3.5S - 4.0S			
			5.0 Meters	D 01-3.0S	.03S - 3.2S	5.5 Meters	D 01-3.0S	.54S - 5.0S			
						6.0 Meters	D 01-3.0S	.05S - 6.0S			

Note: The above is the main optional standard for this unit; please contact our technical personnel.

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8. Spring configuration

Specification of drawing spring: φ 3.5, φ 4.0, φ 4.5, φ 5.0, φ 6.0, φ 6.5

Carbon fiber arm (φ 36)		Elliptical arm (80 * 50)		Ocagon pole (100 * 45)		Gate rail (100 * 45 single layer)	
club length	draw spring	club length	draw spring	club length	draw spring	club length	draw spring
1.5 Meters	one	2.0 Meters	one	2.5 Meters	φ 3.5+ φ3.5	2.5 Meters	φ 4.5+ φ5.0
2.0 Meters	one	2.5 Meters	φ 3.5	3.0 Meters	φ 3.5+ φ4.0	3.0 Meters	φ 5.0+ φ5.0
2.5 m (enhanced)	φ 3.5	3.0 Meters	φ 3.5+ φ3.5	3.5 Meters	φ 4.0+ φ4.0	3.5 Meters	φ 5.0+ φ6.0
3.0 m (enhanced)	φ 3.5	3.5 Meters	φ 3.5+ φ4.0	4.0 Meters	φ 4.0+ φ4.5	4.0 Meters	φ 6.0+ φ6.0
3.5 m (enhanced)	φ 3.5+ φ3.5	4.0 Meters	φ 4.0+ φ4.0	4.5 Meters	φ 4.5+ φ4.5	4.5 Meters	φ 6.0+ φ6.5
		4.5 Meters	φ 3.5+ φ4.5	5.0 Meters	φ 4.5+ φ5.0		
		5.0 Meters	φ 4.0+ φ4.5	5.5 Meters	φ 5.0+ φ5.0		
				6.0 Meters	φ 5.0+ φ6.0		

Note: The above data is the standard part of the movement, and the actual situation is adjusted according to customer demand; add anti-smashing rubber strip, lamp strip, and increase the spring appropriately; pull
Spring φ 4.5 above do not hang a single, as far as possible hanging double spring, the purpose is to ensure the life of hanging spring bearing.

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Transparent Shell Version Control Board Manual

Reminder:The contents of this manualareapplicabletotheinstal lat ion and debugging of the 24V brush less DC barrier controller.Please read it carefully before use.

Chapter I Parmuct Installation and Commissioning Instructions

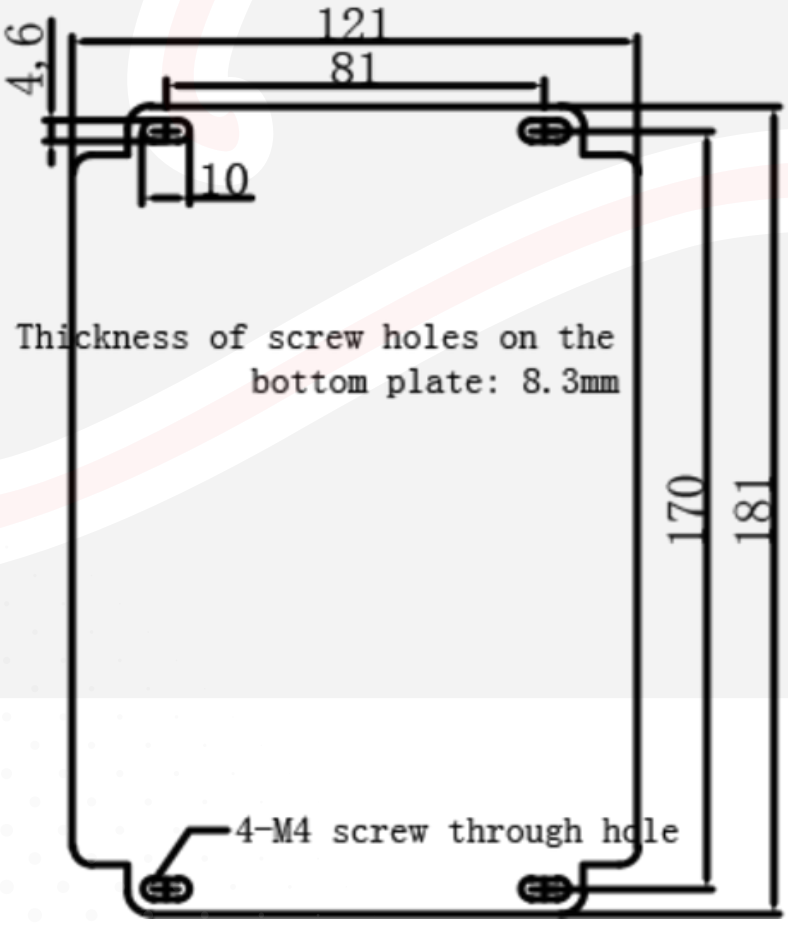
1. Parmuct requirements for the peripheral configuration of the motherboard

1. 1. Power supply: 24V / 10A

1.2 , Motor : 24V DC brushless motor

1.3 , Vehicle detector or 12V radar ground sensing

2. Product size chart



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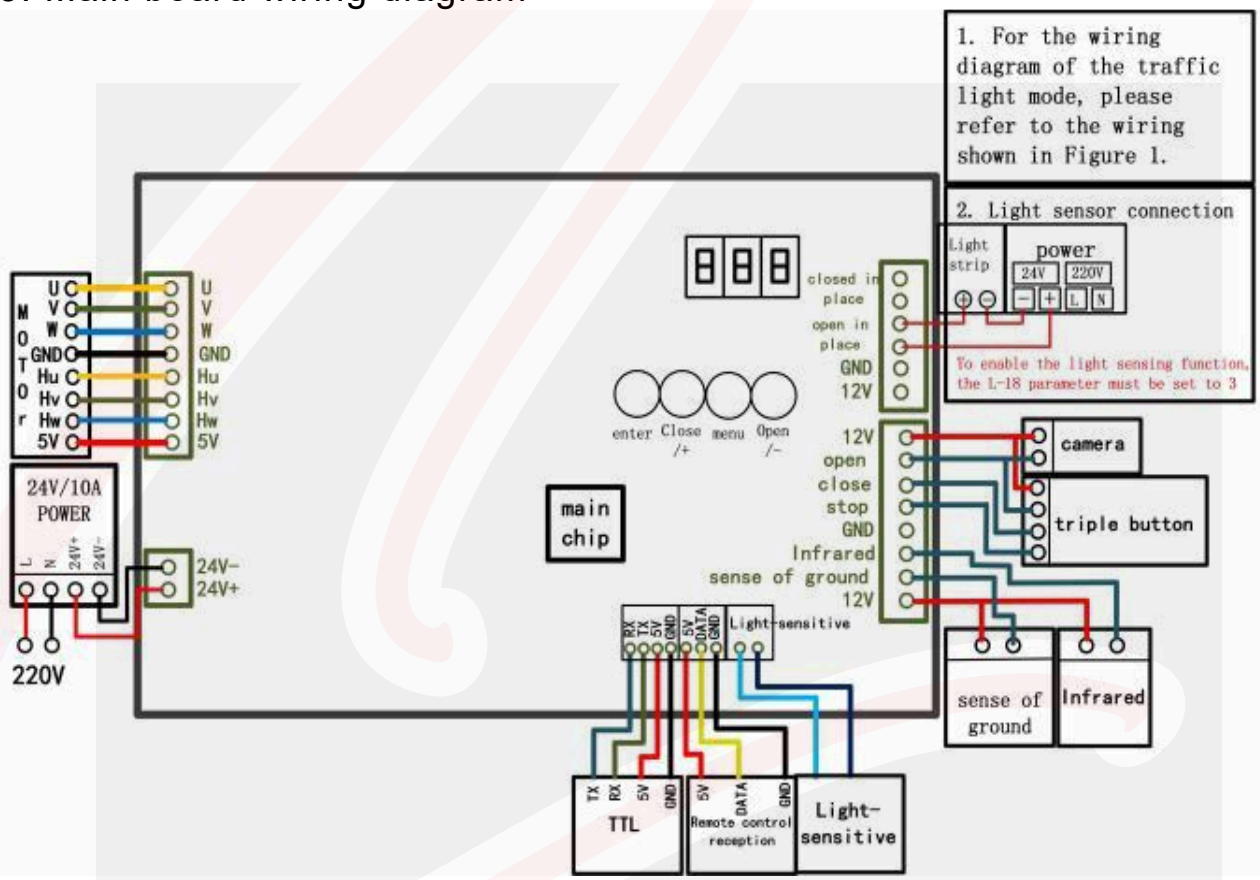
3. Main board wiring diagram



Note: al l external signal l ines on the control board are not connected with network cables. Although the network cable communication is no problem, it is easy to break the core several t imes. It is best to use BVR l ines to reduce the problems caused by l ine fai lure.

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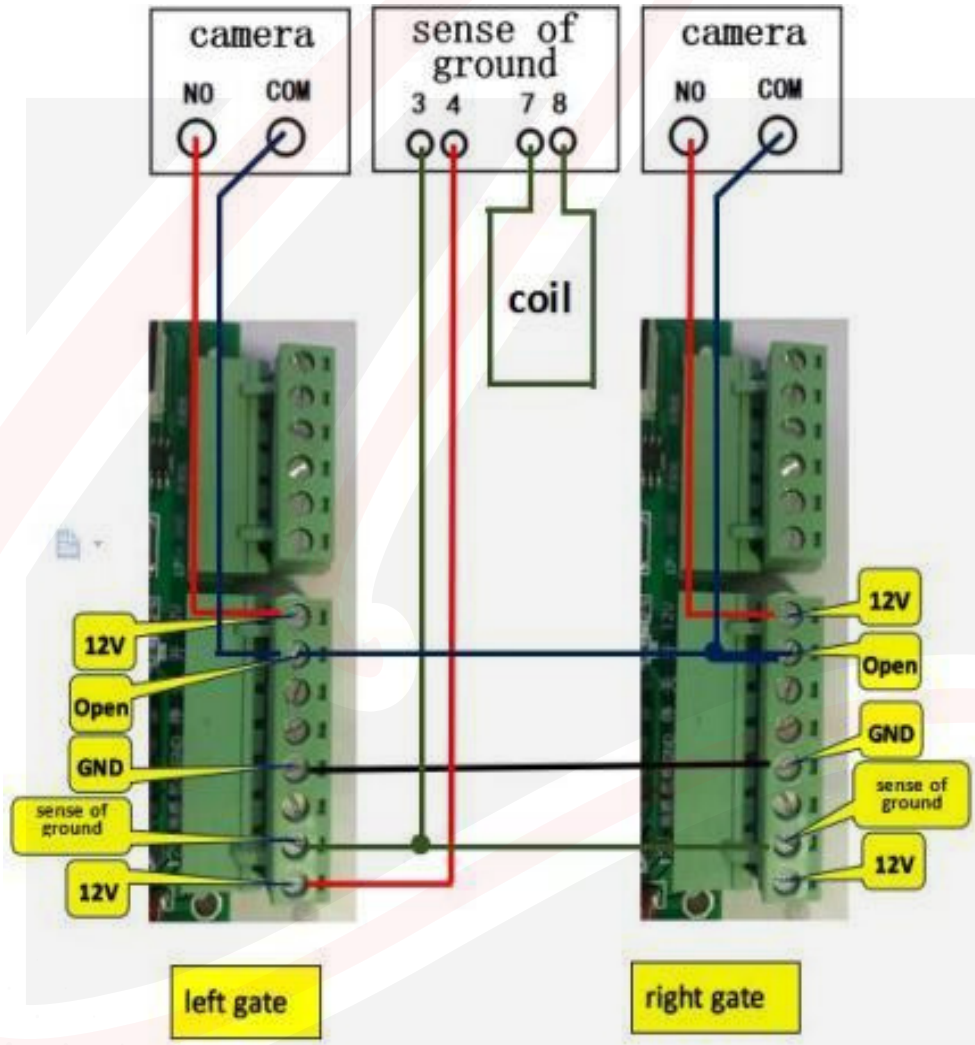
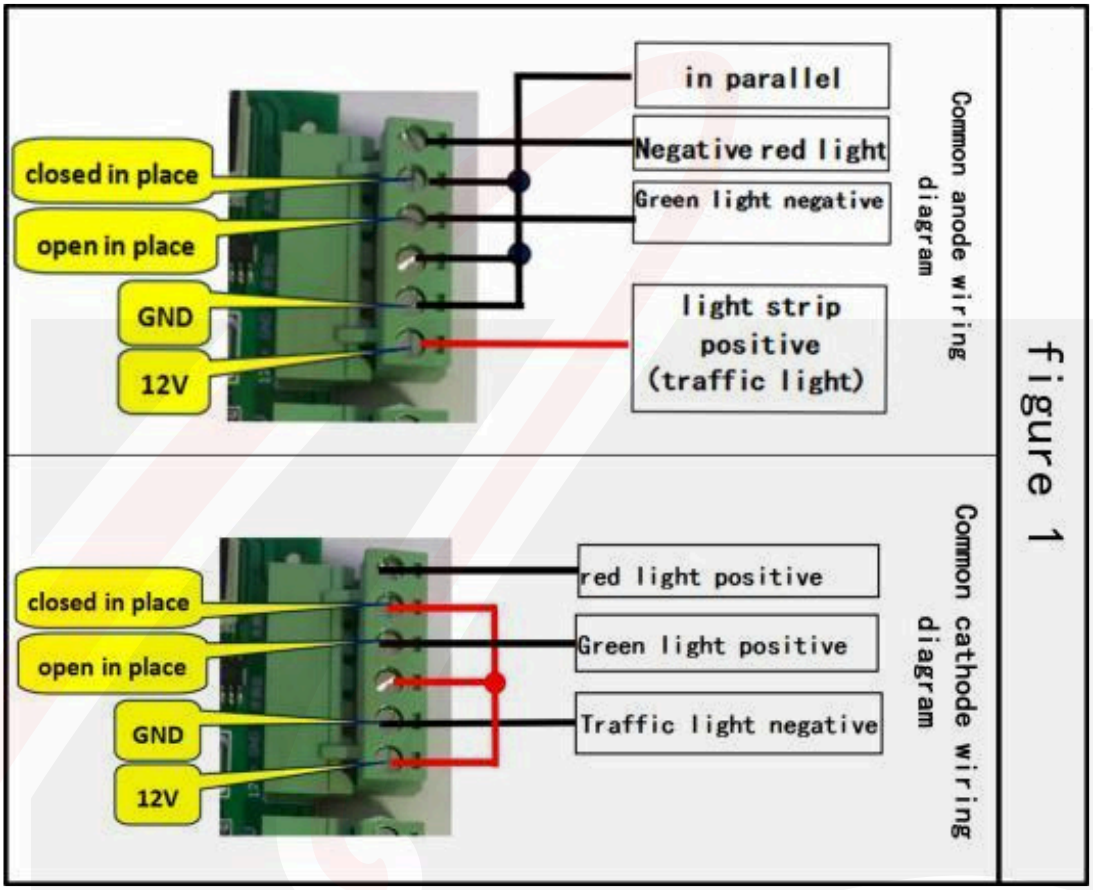
4.Open the right wiring diagram of the gate



(figure 1) Traffic lights common Yin, common Yang connection method



5. Gate commissioning steps:

Step 1: Gate arm and spring matching:
Stop the gate lever at about 45 degrees and check whether the arm will slowly close or open (if the spring tension is too strong (allow the lever to open slightly larger), if the brake is not enough)

Step 2 : Gate self-test learning switch limit :

1. The motherboard starts normally (display "190"), long press the motherboard "key" for 2 seconds, the gate runs to the closing direction, the motherboard shows the number is reduced, when the motor runs to the limit, the motherboard displays back to "190", and the self-check is completed.

2. After the self-inspection is completed, press the motherboard "open key" for 2 seconds. When the gate runs to the opening direction, the motherboard display number increases.

Step 3: Adjust the horizontal and vertical position of the lever:

After the arm exceeds 90 degrees (overtune the L-9 parameter); the arm is less than 90 degrees (reduce the L-9 parameter)
Close the bar above the horizontal (reduce L-6 parameters); arm below the horizontal (increase L-6)
Note: 1. Determine whether the horizontal position of the gate railing and the advertising gate is in place (the pole will stop immediately after contacting the ground motor). If the motor is still in place, the L-6 parameter should be adjusted until the motor does not rotate after the pole reaches the ground;
2. After debugging the parameters, the switch needs to be run once to see the position changes

6.Operation steps of the motherboard keys

Step 1: Long press the main board menu key until the L- 1 is displayed
Step 2: press the motherboard "key" or "key" to select the menu directory, if you need to enter this directory, press the motherboard "menu" key, you can enter.
Step 3: need to change the menu directory parameters, after entering the menu directory by "open" "off" key increase or reduce the menu parameters, change if need to change other directory parameters, press the "menu" key back to the main menu directory, press the second step to continue to change, if not change other parameters can directly press the motherboard "confirm" key to save the exit menu.

7. Parameter menu

English menu	Digital menu	Function	Default Parameter	Parameter range
L — 1	L01	Opening speed: the larger the value, the faster the speed	65	20-95
L —2	L02	Close the gate speed: the larger the value, the faster the speed	65	20-95
L —3	L03	Stability: the smaller the value, the smoother, too small may not be closed in place	12	8- 15
L —4	L04	Anti-smashing car sensitivity: the smaller the more sensitive, too small may be automatically lifted	30	15-30
L —5	L05	Strength and Menmenu: the greater the value, the greater the odd number: Letter menu Even number: Digital menu	70	70-90
L —6	L06	Horizontal adjustment: the smaller the value, the smaller the gate lever angle	20	3-255
L —7	L07	Aging test mode: 0: manual 1: automatic 1-255 is the automatic running time interval, 1 is the fastest 5 For the slowest 6 For the Half-trip run	0	0-255

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L—8	L08	Opening gate counting function: 0: with no count 1: with count 2: The port has regular open signal 0 band memory mode 4 Fleet mode (press the remote stop button after the opening, press the remote control Switching button)		0- 1-4
L —9	L09	Vertical adjustment: The smaller the value, the smaller the opening angle	20	3-255
L—L	L10	The first section of the opening deceleration stroke: the smaller the value, the smaller the opening deceleration stroke	55	0-255
L—b	L11	The first section of shutdown deceleration stroke: the smaller the value, the smaller the shutdown deceleration stroke	55	0-255

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L—c	L12	Anti-smash car strength: the greater the value of anti-smash car strength, the value is greater than 100 anti-smash cancelled	50	0- 101
L—d	L13	Positive and reverse gate movement mode: 0 / 3: left and right running direction of the same motor 1 / 2: left and right running direction of the same motor	0	0-3
L—E	L14	Operation speed of the off direction self-inspection: the larger the number, the faster the speed, only used for the off direction when the motherboard power self- inspection	25	0-49
L —F	L15	Remote-control learning and clearing	0	0-255
L—H	L16	The opening and closing deceleration stroke of the second section: the parameters are set within the first section deceleration stroke	0	0-20
L—P	L17	Power off function: what is the parameter set? the power off function works when the voltage is lower than the set parameter (battery should be added)	0	0-21

L18	L18	Relay output mode when the switch is in place: 0 Traffic light mode 1 In-place detection status mode 3 Light sensing mode 5 in place relay output for 2 seconds	0	0-5
L19	L19	Deldrop time setting: setting value is the delay drop time (seconds) The function 000 means that this feature is not enabled	0	0-255
L20	L20	Setting the automatic closing time after opening: the value is set for the automatic closing time (seconds) 000	0	0-255
L21	L21	Communication machine number setting: set the value is the machine number when communication, the machine number matching communication to normal communication.	70	0-255
L22	L22	Run the reverse buffer setting: when 1 the gate lever is running, the sudden reverse buffer time is set, and each number represents 0.1 seconds		0-59
L23	L23	Light sensitivity setting: the smaller the number, the more sensitive the induction light source	50	0-255

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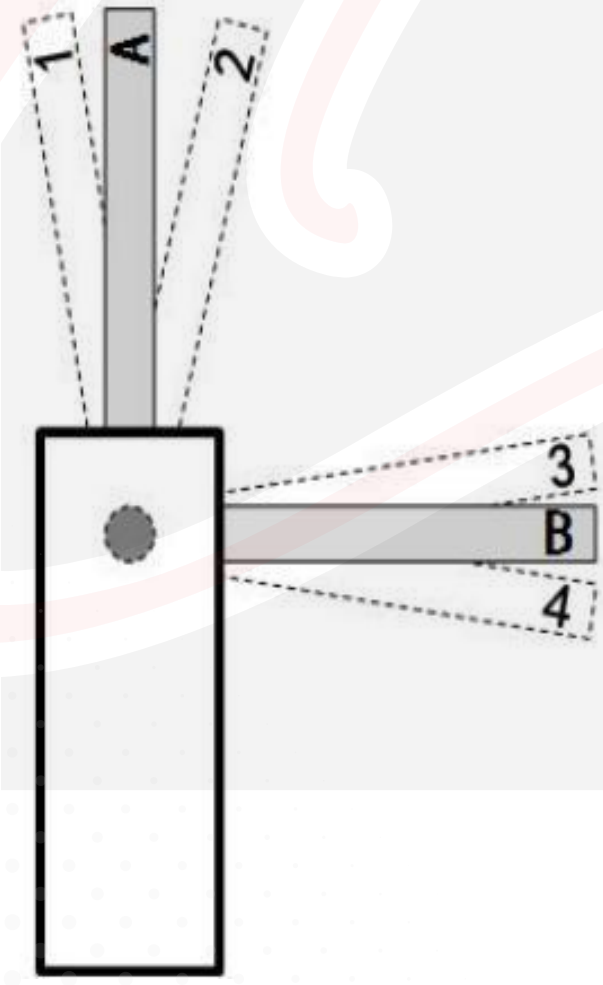
L24	L24	Running speed: the larger the number, the faster the speed, only used for the speed adjustment of the main board power on self- inspection	25	0-49
L25	L25	Open the gate in place stability: the smaller the value, the more stable, too small may not open in place	12	8- 15

8.Adjustment descript ion of the opening and c los ing of the gate arm pos it ion

1. Schematic diagram and description of each position of the gate arm
Schematic diagram of each position of the switch arm



2. Each position description of the switch arm

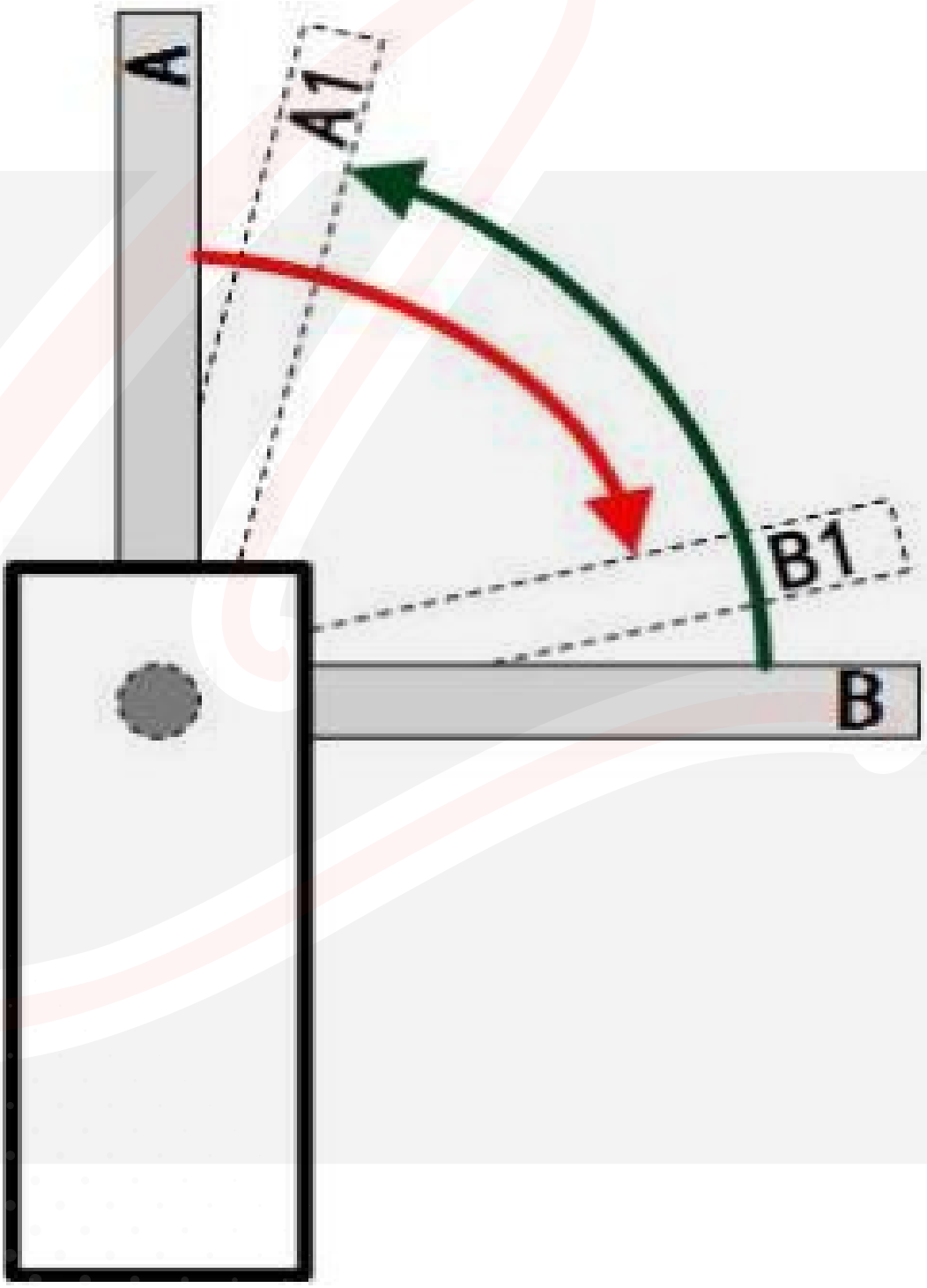
Order number	The pos it ion of the brake arm in the figure	Exp lain
1	A position	The switch arm is opened in the vertical position
2	B position	The horizontal position of the gate lever is place
3	1 Location	Gate lever in position> 90°
4	2 Location	Gate lever opening is in place at a position <90°
5	3 Location	Gate lock is in position> 0°
6	4 Location	Gate bar closing in place position <0°

3. Vertical and horizontal adjustment method of gate arm

order Number	The brake arm is in p lace	Gate arm pos it ion adjustment method	Adjust the menu	Parameter adjustment
1	Gate lever in position> 90°	1→A	L-9	Digital adjustment
2	brake barOpen in p lace <90°	2 →A	L-9	The number is small
3	Gate lock is in place> 0°	3 →B	L-6	The number is small
4	The lock bar is closed in place at <0°	4 →B	L-6	Digital adjustment

Switch and switch speed adjustment instruct ions
I. Schematic diagram and description of each interval when the switch is in operation

1. Schematic diagram of each interval of the switch in operation



2. Description of each section during the gate operation

Order number	The bar interval in the figure	Exp lain
1	B A1 interval	Opening speed range
2	The A1 A interval	Open the gate for the deceleration travel range
3	B1 interval of A	Close speed interval
4	The B1 B interval	Close the gate and deceleration travel interval

3. The speed and stroke adjustment method of each interval

Order number	Adjustment item	Siding-to-siding block	Adjust the menu	explain
1	Shutdown speed	B1 interval of A	L-2	The bigger the numbers, the faster the speed is
2	Turn off the brake and slow down the trip	The B1 B interval	L-B	The larger the number is, the larger the deceleration Angle is
3	Close the switch in place for the speed adjustment		L-3	The bigger the numbers, the faster the speed is
4	Opening speed	B A1 interval	L-1	The bigger the numbers, the faster the speed is
5	Open the floodgate to slow down the trip	The A1 A interval	L-L	The larger the number is, the larger the deceleration Angle is
6	Opening the gate is in place for speed adjustment		L-25	The bigger the numbers, the faster the speed is

9.Remote control function

1.Remote control matching

Step 1. Long press the "Menu" key to enter the menu, select the L-F option, click the "Menu" key to display 000, and then enter the remote control settings

Step 2. press the remote control "any key" at this time the motherboard rang, display to "L-F" to match the remote control success

step 3 : press the "OK" key to save, the configuration is finished

3. Remote control clearance

Step 1. Long press the "Menu" key to enter the menu, select the L-F option, click the "Menu" key to display 000, and then enter the remote control settings

Step 2. Set the parameter to 253, and then the main board display will automatically return to the L-F interface. At this time, the remote control clearance is successful, and press the confirmation key to save and exit.

3. Fleet mode

Step 1. Set the motherboard L-8 parameter to 4 first (refer to L-8 menu description)

Step 2. After the gate is in place, press the remote stop key for 2 seconds,

and the fleet mode is on ; just close the fleet mode

10.Restore the factory settings

Long press the motherboard "OK" key to wait for the buzzer long sound three times after the release of the button, then all parameters will restore the factory default value.

Chapter 2. Frequently Asked Problems and Solutions

1. The self-inspection is not successful, and the road gate is not running normally

Solution. Check whether the left and right rotation mode of L-d motor matches the current motor (restart the main board to self-check after changing the parameters, whether the gate self-check is normal, please refer to "Chapter 14, gate self-check learning switch limit process")

2. The vertical or horizontal position of the gate arm is not in place

Solution: By adjusting the motherboard menu L-9 or L-6 parameters (refer to the menu table)

3. How to correctly judge whether the channel switch is really switched in place

Solution: a. Set the motherboard L-18 parameter to 1. If the switch is in place or the relay will act once, it means that the switch on / close is in place

b. Observe whether the motor stops when the switch lever is in place and that it is in place. If the switch lever is in place and the motor is still running, the L-6 or L-9 parameters should be changed. 4. The blocked rebound function is invalid Solution: a. Check whether the L-C parameters will open with blocked rebound (motherboard parameters greater than 100, blocked rebound function failure) In b. After the motherboard needs to enter the menu and exit, the motherboard needs to open in place and run twice, and the rebound

function is effective.
5. The gate suddenly runs in the opposite direction during its normal operation
Solution: Increase the value of the L-C encounter resistance rebound function parameter.
Chapter III Parmuct Notes and Parmuct Warranty
1. Notes :

(1) The power supply must be 24V voltage, and the load current must be above 10A
(2) If the motor wire is connected correctly and the motor wire is connected incorrectly, it cannot operate
(3) Whether the functional parameters are set correctly, which may cause abnormal gate operation.
Parmuct Warranty :
1. This parmuct can be replaced free for one year due to quality problems.
2. Parmuct faults caused by the following circumstances are not included in the warranty

1 Parmuct failure due to improper use conditions, such as unqualified power supply, and the ambient temperature exceeds the upper limit of the parmuct.
Parmuct failure or damage caused by man-made accident, misoperation or unloading process.