

Barrier Gate Operation Instruction



- Contactless detection, smooth operation
- Ground sensing to prevent smashing, prioritize traffic safety
- Built-in one movement, longer service life
- Stepless speed regulation, self-determined speed

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Preface

1. Please read the instructions carefully before installation.
2. Please strictly follow the instructions during installation and operation to avoid personal injury or property loss caused by incorrect installation and use.
3. All operations during installation must comply with the instructions and relevant national safety regulations.
4. The application functions specified in the product manual are carefully designed and manufactured. Any application beyond the specified functions may cause damage or other dangers.
5. The company shall not be liable for any damage caused by improper use of this product.
6. Do not install this product in the place where there are inflammable and explosive materials.
7. When installing, inspecting or repairing this product, the power supply must be cut off first.
8. This product must be equipped with an independent switch device and a 6A circuit breaker for protection.
9. Check whether the grounding system of the product is normal.
10. The safety devices of the electrical system must protect the safe operation of the moving mechanical system and prevent it from being squeezed or cut.
11. If the product uses a safety protection device other than the company's (such as: infrared protector, ground sense, radar, etc.), the company is not responsible for the safety and normal operation of the product.
12. Please use the spare parts provided by our company during maintenance.
13. The Company is not responsible for any problems in the use of the closed power parts if they are disassembled at will without following the correct replenishment operation.
14. Do not allow children or non-staff to enter the installation area during the installation and commissioning of the product.
15. The installer must inform the user of the method of manual operation in case of an accident.
16. Inform the user not to repair or adjust the system without authorization, please contact the relevant personnel when necessary.
17. After installation and debugging, please give this instruction manual to the user for reference in future maintenance.

Product features

The appearance is simple and elegant, fashionable and beautiful, with a new coating process, uniform color, high saturation, and high hardness coating to improve the product's corrosion resistance and weather resistance.

Whole process of movement is controlled, and the operation is more stable.

The in-position locking control technology and the initial position reset detection technology avoid the cumulative error in the movement, and the impact and jitter in the in-position are small.

High-precision integrated movement transmission overcomes the wear on the motor and gears caused by the vibration of the gate during movement, and has high reliability.

Wireless remote control controls the lifting, lowering and stopping of the lever. Supports the handwheel at the bottom of the hand-cranked motor to lift the lever during power outage.

Stepless speed regulation function: The operating speed of the gate lever can be customized according to different customer needs to meet the needs of different scenarios.



Fence barrier gate

- Contactless detection, smooth operation
- Ground sensing to prevent smashing, prioritize traffic safety
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Product Features

Supports rubber strips, ground sensing infrared (optional) priority protection, and obstacle protection to ensure the safety of passing targets.

Control of the entire movement process, more stable operation.

Position locking control technology and initial position reset detection technology to avoid cumulative errors in movement, and small impact and jitter in place.

The high-precision integrated movement transmission overcomes the vibration of the gate during movement and causes wear on the motor and gears, resulting in high reliability.

Wireless remote control controls the lifting, lowering and stopping of the lever. Supports the handwheel at the bottom of the hand-cranked motor to lift the lever during power outage.

Stepless speed regulation function: The operating speed of the gate lever can be customized according to different customer needs to meet the needs of different scenarios.



Barrier gate

- Contactless detection, smooth operation
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Product Specifications

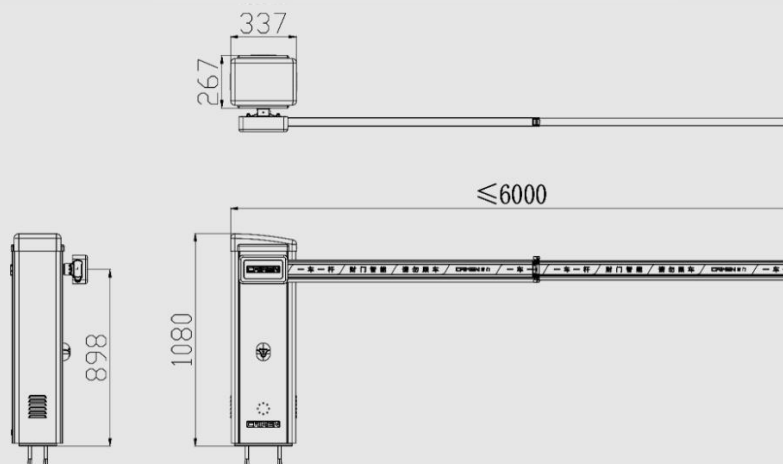
Product model	DZ001	DZ002-b	DZ002	DZ004
Support rod type	Straight rod	Telescopic rod	Fence rod	Fence rod
Operating voltage	24 V			
Rated power	160 W			
Motor power	160 W-200 W			
Operating temp	-25 °C ~ 70 °C			
Storage and transport temp	-35 °C ~ 75 °C			
Operating humidity	<90%, No condensation (at normal temperature)			
Noise requirements	<65 dB			
Color	CM-01 Gray, CM-18 Champagne Gold			
Radar	Option			
Cabinet material	1.5mm thick high strength carbon steel			
Gate rod center height	898 mm (Distance from gate lever shaft to chassis bottom)			
Cabinet size	326*243*1080 (L*W*H)			
Heavy barrier rod size	Top beam: 110x105x1.5mm; Bottom beam: 65*34*1.0mm			
Light barrier rod size	Top beam: 91x45x1.2mm; Bottom beam: 40x35x1.0mm			
Straight rod size	Straight rod: 100*50mm			
Telescopic rod size	Big rod: 101*45*1.2mm Small rod: 81*38.6*0.8 mm			

Install the required tools

					
Tape measure	Screwdriver	Electric drill	Spanner	Angle Grinder	Rotary Hammer
					
Hexagon wrench	Level	Hammer	Ink line	Marker pen	

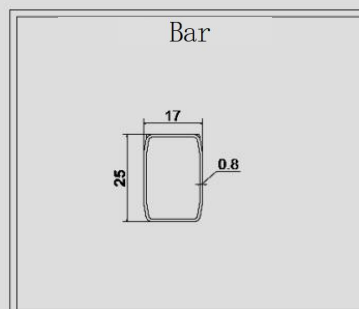
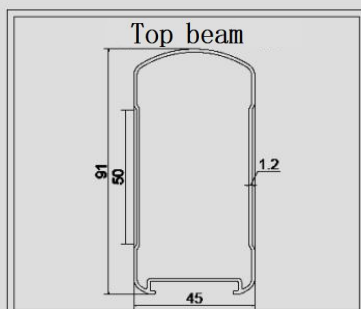
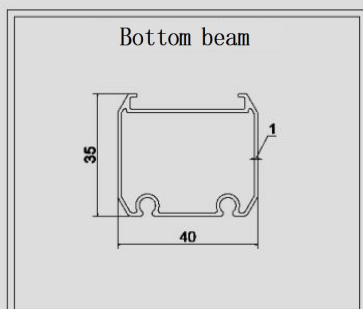
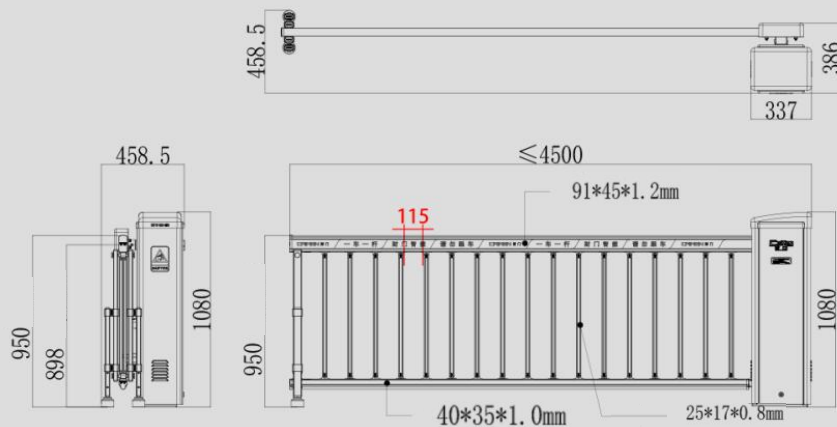
Barrier Gate-DZ001 Dimensions

Dimensions in mm

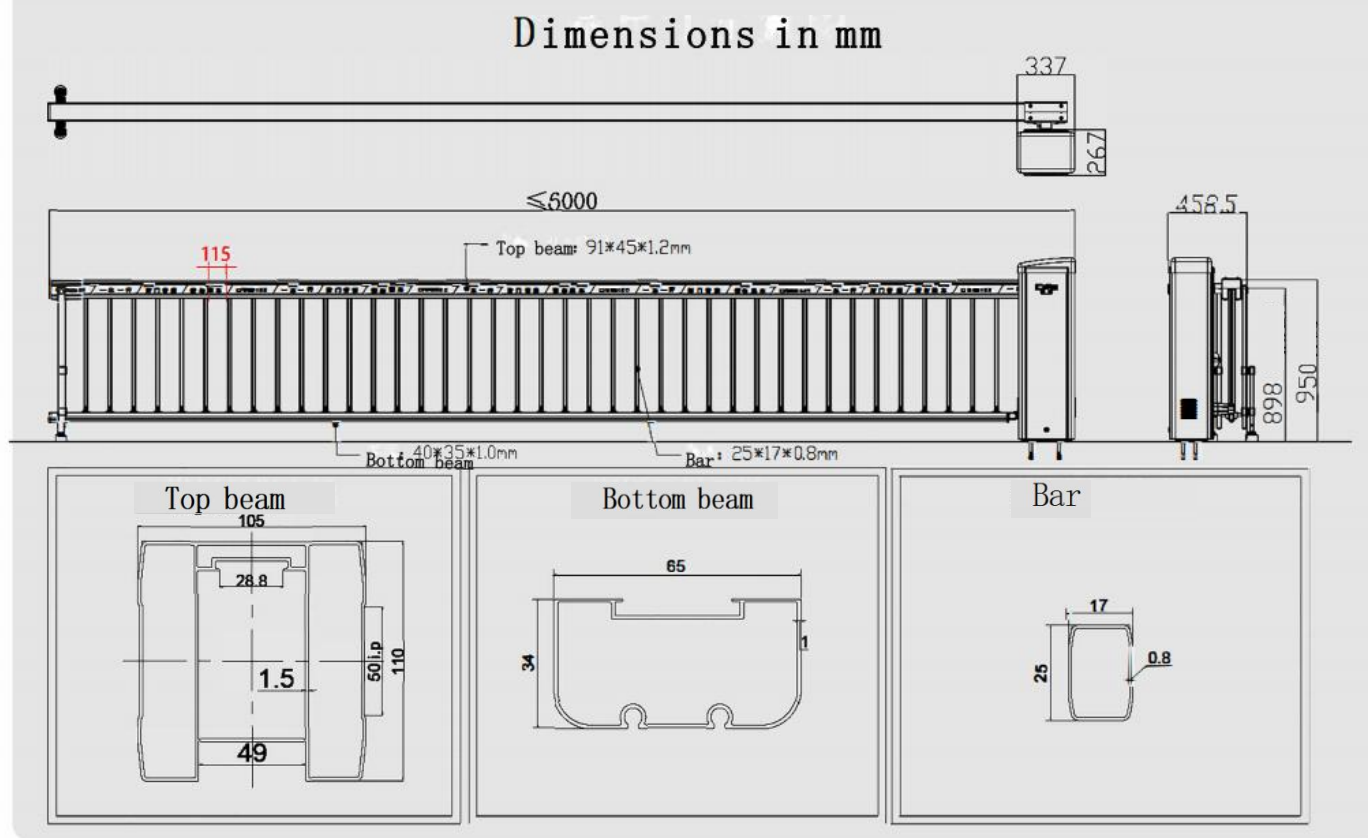


Barrier Gate-DZ002 Dimensions

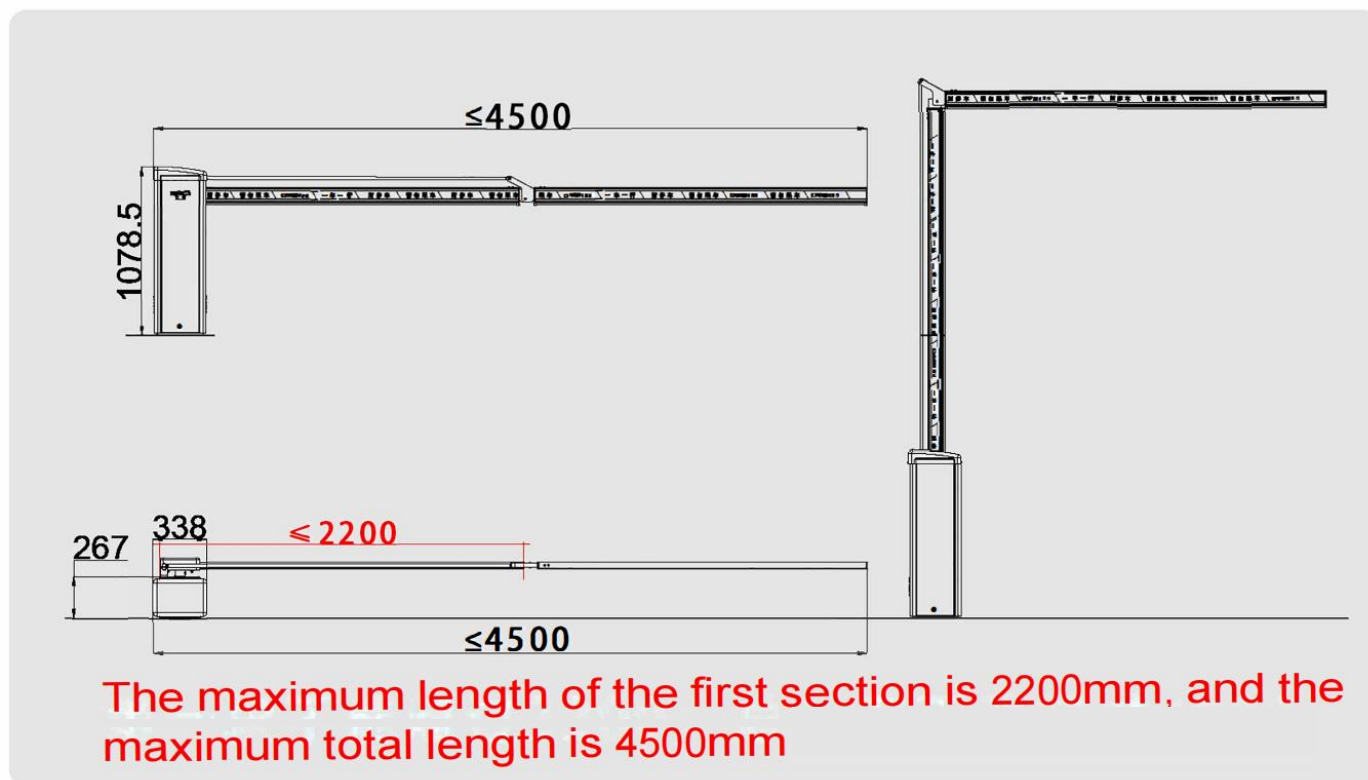
Dimensions in mm



Barrier Gate-DZ001 Dimensions



Barrier Gate-DZ001-B Dimensions



Barrier gate installation steps

1. Cable pre-buried

Pre-buried or excavated cable trenches between fixed locations of the chassis (such as control rooms or sentry booths), buried cable conduits to insert power cables and control cables used by the equipment, and then backfilled with concrete after confirming that everything is correct.

2. Install the chassis

Place the cabinet to installation location and open the cabinet door. Loosen the fixing butterfly nut. Place cabinet carefully to avoid scratching the surface. Mark the center of the cabinet bottom plate screw hole and the edge of the cabinet base. Remove the cabinet. Use a drill to drill vertically in the marked screw hole (the drill size must match the expansion bolts provided with the device). The depth must meet the expansion bolt length requirements. After drilling the bolt holes, drive the expansion bolts into the ground, install the cabinet on the expansion bolts, and tighten the fixing nuts.

3. Installation of gate rod

After the gate cabinet is firmly installed, tighten the mounting rod handle with the provided screws and determine the gate rod tilt. Install the fork rod, adjust the vertical and horizontal state, use the hand gate rod to shake the horizontal position to determine the installation position of the fork rod at the end of the gate rod and fix it firmly with the screw fork rod (no need to install if there is no fork rod).

4. Installation of peripheral equipment

After the gate is firmly installed and debugged, connect the chassis according to the gate control board wiring diagram according to customer needs.

5. Embedded position of grounding coil

Generally, the length and width of the coil are 2 meters and 1 meter. The position of the coil is determined by the installation position of the on-site gate. Taking the vertical end of the gate rod as the starting point, the grounding coil in the exit direction accounts for $\frac{2}{3}$, and the grounding coil in the entrance direction is $\frac{2}{3}$. For example, a 1-meter-wide ground induction coil is 66.6 cm away from the gate rod exit coil in the vertical direction and 33.3 cm away from the entrance coil.

6. Cutting of cement floor for gate parking equipment

Ensure the depth is about 3cm, cut the four corners beveled, fill with national standard 0.75mm Tekron wire, and then round it. It is recommended to reinforce with waste wire skin to prevent the line from being exposed on the ground.

Gate debugging steps:

Step 1 Match the barrier rod and spring:

Stop the barrier rod at about 45 degrees to check whether the rod will slowly close or open. If it opens, it means that the spring tension is too large (a slightly larger spring tension is allowed to make the rod open slowly). If it closes, it means that the spring tension is insufficient.

Step 2: Self-test of gate learning switch limit

1. The main board starts normally (displays "190"), press and hold the "close button" of the main board for 2 seconds, the gate runs in the closing direction, and the main board display number decreases. When the motor runs to the closing limit, the main board display changes back to "190", and the closing self-test is completed.

2. After the closing self-test is completed, press and hold the "open button" of the main board for 2 seconds, the gate runs in the opening direction, and the main board display number increases. When the motor runs to the opening limit, the main board buzzer sounds for a long time, and the opening self-test is completed, and the gate can operate normally.

Step 3: Adjust the horizontal and vertical position of the barrier pole

There are currently two ways to adjust the main board

The first is to adjust the horizontal position by pressing the main board button combination mode: After closing the gate, press and hold the main board "confirmation key" and "on/off key" at the same time to adjust the barrier pole up and down. When the pole reaches the horizontal position, release the button. At this time, the main board will automatically save the current position as the horizontal position.

Vertical position adjustment: After opening the gate, press and hold the "confirmation key" and "on/off key" to adjust the barrier pole up and down. When the pole reaches the vertical position, release the button. At this time, the main board will automatically save the current position as the vertical position

The second method is parameter setting.

3. 1. After opening, the pole exceeds 90 degrees (adjust the L-9 parameter to a higher value); the pole is less than 90 degrees (adjust the L-9 parameter to a lower value).

4. 2. After closing, the pole is higher than the horizontal position (adjust the L-6 parameter to a lower value); the pole is lower than the horizontal position (adjust the L-6 parameter to a higher value).

5. Note: 1. The horizontal position of the fence pole and the advertising gate is determined to be in place (the motor stops immediately when the pole touches the ground). If the motor is still rotating after it is in place, you need to increase the L-6 parameter until the motor stops rotating after the pole reaches the ground.

6. 2. After debugging the parameters, you need to open and close the operation to see the position change.

Motherboard button operation steps

Step 1: Long press the motherboard menu button until L1 is displayed.

Step 2: Press the motherboard "Open" or "Close" button to select the menu directory. If you need to enter this directory, press the motherboard "Menu" button once to enter.

Step 3: If you need to change the parameters of the menu directory you entered, increase or decrease the parameters of this menu by pressing the "Open" and "Close" buttons after entering the menu directory. After the change is completed, if you need to change other directory parameters, press the "Menu" button once to return to the main menu directory and continue to change according to the second step. If you do not want to change other parameters, you can directly press the motherboard "Confirm" button to save and exit the menu.

Parameter Function Table

English Menu	Digital Menu	Function	Default Parameters	Range
L—1	L01	Gate opening speed: the larger the value, the faster the speed	65	20-95
L—2	L02	Gate closing speed: the larger the value, the faster the speed	65	20-95
L—3	L03	Smoothness of closing the gate: The smaller the value, the smoother it is; too small may cause the gate to not close properly.	12	8-15
L—4	L04	Anti-smashing car sensitivity: The smaller the more sensitive, if it is too small, it may automatically lift up	30	15-30
L—5	L05	Strength and menu: The larger the value, the greater the strength Odd number: Alphabetic menu Even number: Numeric 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 operation time interval, 1 is the fastest 5 is the slowest 6 is half-stroke operation	0	0-255
L—8	L08	Gate opening counting function: 0: without counting 1: with counting 2: the port has a normally open signal with memory mode 4 fleet mode (after the gate is opened, press the remote control stop button to open, and press the remote control close button to close)	0	0-1-4

English Menu	Digital Menu	Function	Default Parameters	Range
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 gate opening deceleration stroke: the smaller the value, the smaller the opening deceleration stroke	55	0-255
L—b	L11	The first section of the gate opening deceleration stroke: the smaller the value, the smaller the closing deceleration stroke	55	0-255
L—c	L12	Anti-smashing strength: The larger the value, the greater the anti-smashing strength. If the value is greater than 100, anti-smashing will be canceled.	50	0-101
L—d	L13	Barrier movement forward and reverse mode: 0 /3: The same motor runs left and right 1 /2: The same motor runs left and right	0	0-3
L—E	L14	Self-check running speed of closing direction: The larger the number, the faster the speed. It is only used to adjust the self-check speed of closing direction when the mainboard is powered on for self-check.	25	0-49
L—F	L15	Remote control learning and clearing	0	0-255
L—H	L16	The second stage of opening and closing deceleration stroke: the parameters are set within the first stage of deceleration stroke	0	0-20
L—P	L17	Power-off gate opening function: The parameter is set to a certain value, when the voltage is lower than the set parameter, the power-off gate opening function will take effect (additional batteries are required)	0	0-21
L18	L18	Relay output mode when the gate is opened and closed: 0 Traffic light mode. 1 In-place detection mode 3 Light sensing mode 5 In-place relay output for 2 seconds	0	0-5

English Menu	Digital Menu	Function	Default Parameters	Range
L19	L19	Ground sensing delay time setting: The set value is the delay time (seconds) 000 means this function is not enabled.	0	0-255
L20	L20	Automatic closing time setting after opening: The set value is the automatic closing time (seconds) after opening 000 means this function is not enabled	0	0-255
L21	L21	Communication machine number setting: The set value is the machine number during communication, and the machine number must match for normal communication.	70	0-255
L22	L22	Reverse buffer setting during operation: The buffer time setting when the gate suddenly reverses during operation, each number represents 0.1 second	1	0-59
		L22 parameter needs to be adjusted carefully, if it is set too high, there is a risk of smashing the car!		
L23	L23	Light sensitivity setting: The smaller the number, the more sensitive the light source	50	0-255
L24	L24	Self-check running speed of opening direction: The larger the number, the faster the speed. It is only used to adjust the self-check speed of opening direction when the mainboard is powered on for self-check.	25	0-49
L25	L25	Smoothness of opening: The smaller the value, the smoother it is, too small may cause the gate to not open properly	12	8-15

L-d After setting, the control board must be restarted for the parameters to take effect.

L22 L22 parameter needs to be adjusted carefully, if it is set too high, there is a risk of smashing the car!

Overvoltage prompt

When the supply voltage is higher than the working voltage of the mainboard, the display shows "E-8", and the buzzer sounds continuously, and the mainboard stops working.

For 24V mainboard, when the supply voltage is higher than 26.5V, it is considered as overvoltage, and the display shows "E-8", and the buzzer sounds continuously, and the mainboard stops working.

Remote control function

Remote control matching

Step 1: Long press the "Menu" button to enter the menu, select L-15 option, click the "Menu" button to display 000, then enter the remote control setting.

Step 2: Press any button on the remote control, the mainboard will beep once, and the display will change to "L-15", indicating that the remote control is successfully matched.

Step 3: Press the "Confirm" button to save, the configuration is complete.

Remote control clearing

Step 1: Long press the "Menu" button to enter the menu, select L-15 option, click the "Menu" button to display 000, then enter the remote control setting.

Step 2: Set the parameter to 253, the mainboard display will automatically return to the L-15 interface, indicating that the remote control is successfully cleared, press the confirm button to save and exit.

Fleet mode

Step 1: First set the mainboard L-8 parameter to 4 (refer to L-8 menu description)

Step 2: After the gate is fully opened, long press the gate remote control open button for 2 seconds to enable the fleet mode; to disable the fleet mode, just use the remote control to close the gate.

Warning: When using the remote control, be sure to install radar or ground sensing. If radar or ground sensing is not installed, the timing of closing the gate with the remote control is not well controlled, or misoperation may cause the risk of smashing the car!

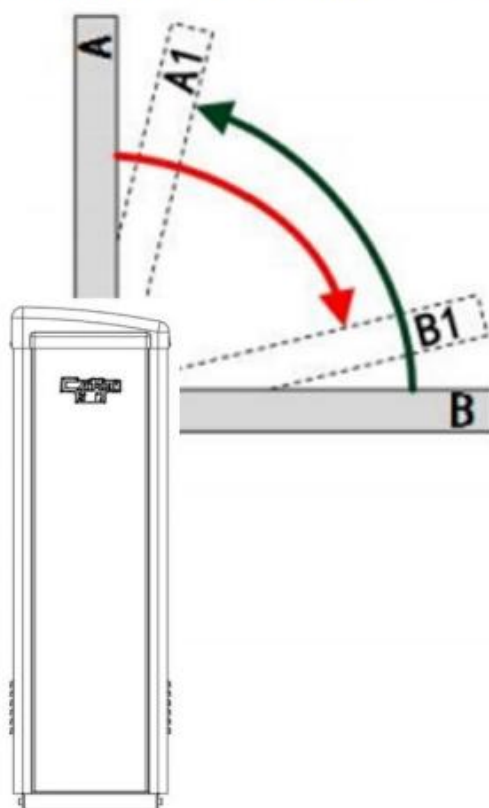
Restore factory settings

Long press the mainboard "Confirm" button and wait for the buzzer to sound three times, then release the button, all parameters will be restored to factory default values.

After restoring factory settings, the control board must be restarted for the parameters to take effect.

I . Gate Opening and Closing Speed Adjustment

1. Diagram and explanation of each interval during gate opening and closing operation



2. Diagram of each interval during gate opening and closing operation

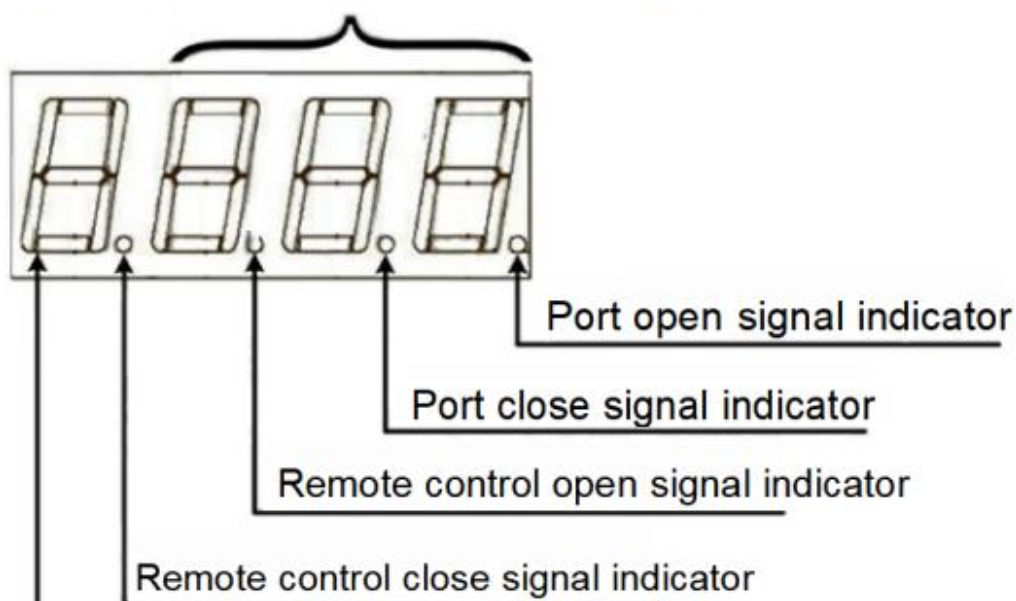
No.	Interval in the diagram	Explanation
1	B→A1 Interval	Gate opening speed interval
2	A1→A Interval	Gate opening deceleration stroke interval
3	A→B1 Interval	Gate closing speed interval
4	B1→B Interval	Gate closing deceleration stroke interval

II . Adjustment method of speed and stroke of each interval

No.	Adjustment item	Interval	Adjustment menu	Explanation
1	Gate closing speed	A→B1 Interval	L-2	The larger the number, the faster the speed
2	Gate closing deceleration stroke	B1→B Interval	L-B	The larger the number, the larger the deceleration angle
3	Gate closing speed adjustment		L-3	The larger the number, the faster the speed
4	Gate opening speed	B→A1 Interval	L-1	The larger the number, the faster the speed
5	Gate opening deceleration stroke	A1→A Interval	L-L	The larger the number, the larger the deceleration angle
6	Gate opening speed adjustment		L-25	The larger the number, the faster the speed

LED Display Content Meaning

The last three digits are the real-time position value



The first digit indicates the gate status:

1. **H** indicates open
2. **L** indicates close
3. **P** indicates stop
4. **d** indicates ground sensing signal

The first digit indicates the gate status		
H	open	HXXX
L	close	LXXX
P	stop	PXXX
d	ground sensing	dE-L

Common problems and solutions

Self-check is not successful, gate operation is abnormal

Solution: Check whether the L-d motor left and right rotation mode matches the current motor (you can change the parameter and restart the mainboard to re-self-check, refer to "Chapter 1 4, Gate self-check learning switch limit process" for whether the gate self-check is normal)

Gate rod vertical or horizontal position is not in place

Solution: Adjust the mainboard menu L-9 or L-6 parameter (refer to the parameter table for menu function).

How to correctly determine whether the gate is truly open or closed?

Solution:

- Set the mainboard L-18 parameter to 1, if the relay operates once when the gate is fully open or closed, it means the gate is fully open/closed.
- Observe whether the motor stops when the gate rod is fully open/closed, if the motor is still running, adjust the L-6 or L-9 parameter.

Obstacle rebound function failure

Solution:

- Check whether the L-C parameter has enabled the obstacle rebound function (if the mainboard parameter is greater than 100, the obstacle rebound function is disabled)
- After the mainboard self-check is successful or after entering the menu and exiting, the mainboard needs to run twice to fully open and close, the obstacle rebound function will take effect.

The gate suddenly runs in the opposite direction during normal operation

Solution:

Increase the L-C obstacle rebound function parameter value.

Product Warranty Card

Product Model: _____
Customer Name: _____
Contact Number: _____
Delivery Address: _____
Purchase Date: _____

Warranty Terms

- I. The warranty period for this product is one year, calculated from the date of purchase, free warranty service is provided during the warranty period.
- II. The warranty does not cover the following situations:
 1. Quality problems are caused by not following the product manual for installation, use etc.
 2. Damage is caused by an unstable power supply, an exceeding of the product's specified voltage, or failure to meet national safety standards.
 3. Damage caused by natural disasters or other force majeure factors.
 4. Damage is caused by the user's arbitrary disassembly, repair, or modification.
 5. Beyond the warranty period.
 6. Please present this card or invoice for after-sales service when claiming warranty service.
- III. For warranty service, please present this card or the purchase invoice to facilitate after-sales support.

The interpretation right of this card's terms belongs to Shenzhen Caimen Intelligent Technology Co., Ltd.

Product Warranty Record

Repair date	Repair contents	Under warranty	Maintenance

Shenzhen Caimen Intelligent Technology Co., Ltd

Product Inspection Certificate

Dear user:

Thank you for choosing Caimen Intelligent Technology brand and for your support and trust in our company. We adhere to the customer-first service principle and will listen to your valuable opinions at any time.

Product Model:_____

Product Specifications:_____

Product Number:_____

Fixed Direction: Left fixed ☐ Right fixed ☐

Packer:_____

Inspector:_____



A Trusted Smart Electric Gates &
Parking System Solutions Supplier

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