

# **Ultrafast Boom Barrier**

**User Manual** 



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# 1. Warning

Please read user manual before barrier gate installation, including safety, installation, usage, maintenance information.

For convenient reading, user manual keep the contents and installation steps in the same order. Any operation is not allowed without instruction. Wrong use may damage the product, even hurt people and property.

Please keep user manual properly for later use.

Considering the possible danger of **Barrier Gate** in installation and use, when installation, please observe the current standards and regulations strictly. In particular:

- Before installation, check whether additional equipments or materials are needed in order to met the specific needs.
- Please do not alter any parts except for those with instruction. Parts may make damages without instruction. Defuwei do not undertake any responsibility.
- Do not immerse **Barrier Gate** into water or other liquid. When installation, please make sure that no liquid leaks into controller or other opening equipment.
- Keep **Barrier Gate** away fromheat source and open fire. Otherwise it may damage the components and cause failure, and even a fire or other dangers.
- When do not use in a long term please disconnect the power source of **Barrier Gate**
- Controller of the power source must connect ground safety.
- Firstly disconnect the power source before operating brake machine.
- If switch trip or blowout, please check first and remove trouble and then turn on the switch or replace the fuse.
- For the barrier rod with anti-collision rod off unit, fender pile should be set up in the front of brake machine 1 meters (barrier roddirection) and roughly 50 centimeters taller than brake machine.Barrier rodwill be controlled in the range of 90 degrees in vertical and horizontal direction.Do not allow pedestrians to stand and items placed in order to preventinjuring people or objects in an event of vehicle collision.
- Please be sure to abide by these chapters of warning

If this manual cannot solve fault occurred, please contact our customer service department. This manual is suitable for TAB series, DAB series, MINI-H and Guard-H.



# 2. Product Introduction:

# 2.1 Main Function

- A key automatic learning function can automatically adapt to a different machine and different load.
- Optional vehiclesensorwith "automatic rod drop", "smashing car protection, and "continuous car release" function.
- Remote controlleis equipped with a manual/automatic switch and operation buttons. TAB series of high speed is only equipped with "up" and "down" buttons. DAB seriesand MINI/GuardH are equipped with "up", "down" and "stop" three buttons.
- Optional wireless remote controller, realize flexibly controlling in along distance.
- Can be connected with infrared correlation or pressure wave car smashing protected devices. In order to increase the car smashing protected performance.
- Optional RS485 or RS232 serial communication interface, simple and reliable communication protocol. Can easily realize the **Barrier Gate** remote control and state feedback.
- By dip-switch settings, a variety of operating mode and parameters are provided for the user to select, and maximize to meet the users' needs of different functions.

### Special Function of High Speed Barrier Gate:

- Automaticallyobstacle detection function: In the process of falling or elevating, barrier rodwill rise or stop and unlock immediatelywhen detecting obstacles. It prevents accidents to the largest extent. 4 levels can be adjustable to detect obstacle sensitivity by dip-switch.
- Automatically outage unlock function: When working normally with power-on, brake machine will lock barrier rodto prevent accidents or artificial rod lift in a vertical or horizontal state. When outagebarrier rodwill be unlocked automatically and be lifted up by hand.
- Barrier rod anti-collision mechanism function: minimize the collision damage of vehicle to the barrier rod



## 2.2 Electrical Feature

- high integrated system, powerful function
- anti-interference combination of hardware radar detector and software, no MCU/SCM crash
- photoelectric sensor test, non-contact, no attrition and deviation
- isolated heavy current and week current, photoelectric coupling motor control, zero conduction technology, master control board working without spark and interference
- electrical isolation of input and output signal, ensure system safety and reliability
- ◆ advanced motor with thermal protection function, automatically cut off power supply over 145<sup>°</sup>C , not burn easily
- motor with high reliability, long service life, small vibration, low noise, stable speed, instantaneous startup, reverse and stop
- lifting timeout protection, ensure barrier rodnot to exceed

## 2.3 Mechanical Feature

- precision sinusoidal link mechanism, barrier rod realizes slow startup and move rapidly and stably without shock
- brake machine of special processed steel with senior metallic paint or molding powder, beautiful, corrosion protection and fade-proof by ultraviolet irradiation
- waterproof, moisture proofdustproof for brake machine
- barrier rod of special aluminum material, reflective film attached, visible at night
- folding or fence type barrier rod customized in height limited space and underground parking lot
- barrier rod can be installed on the left or right (right default)

## 2.4 Main Technical Parameters

TAD Series right Speed Darrier Gate								
Model	TAB-1114	TAB-1118	TAB-1109					
power source voltage	AC220V±10%	AC220V±10%	AC220V±10%					
Power source frequency	50/60Hz	50/60Hz	50/60Hz					
Motor rated power	120W	120W	120W					
Standard rod length	3m	3m	2~3m					
Noiselevel	≤60dB	≤60dB	≤60dB					
Rod lift time	1.4S	1.8S	0.9S					
Life time	≧5 million	≧5 million	≧5 million					
Rodmalfunction	≯0.01%	≯0.01%	≯0.01%					
Rod center height	900mm	900mm	900mm					
Brake machine dimension	350×350×1050mm							

#### TAB Series High Speed Barrier Gate



DAD Series Intelligen	DAB Series intelligent Barrier Gate (integrated motor and reduction box)							
Model	DAB-1400	DAB-4400						
Power source voltage	AC220V±10%	AC220V±10%						
Power source frequency	50/60Hz	50/60Hz						
Motor rated power	120W	120W						
Standard rod length	3~6m	3~6m						
Rod lift time	4S/6S	4S/6S						
Life time	≧5 million	≧5 million						
Rodmalfunction	≯0.01%	≯0.01%						
Rod center height	900mm	900mm						
Brake machine dimension	DAB-1400:310×250×1050mm;DAB-4400:350×250×1055m							

#### DAB Series Intelligent Barrier Gate (integrated motor and reduction box)

#### MINI -H/Guard-H Series Intelligent Barrier Gate (integrated motor and reduction box)

Model	MINI-H	Guard-H	
Power source voltage	AC220V±10%	AC220V±10%	
Power source frequency	50/60Hz	50/60Hz	
Motor rated power	250W	250W	
Standard rod length	3m	3m	
Rod lift time	1.5S	1.5S	
Life time	≧1 million	≧1 million	
Rod malfunction	≯0.01%	≯0.01%	
Rod center height	800mm	800mm	
Brake machine dimension	MINI-H: 325×107×975mm; DAB-4400: 320×215×970mm		

## 2.5 Service Condition

Please operate Barrier Gate as following:

♦ working temperature: TAB series: - 30 °C ~ + 70 °C

**DAB series**: - 20 °C ~ + 70 °C

**MINI/Guard-H:** - 20 °C ~ + 60 °C

- relative humidity: 20% ~ 95%
- install reliable reduction device to car coming direction, to make vehicle slow down and avoid hitting rod
- ensure device reliability and stability when equipping vehicle sensor, infrared correlation pressure waves device
- other constraint terms in contract



# 3. Installation and Test

Please note: **Barrier Gate** must be installed by qualified technician. Installation must comply with the relevant laws and regulations. Before installation, please read user manual carefully.

# 3.1 Installation Preparation

Determine the installation position of the **Barrier Gate**, pouring - 1020cm high waterproof and anti-collision concrete plinth. Lay 220V 3x1.5<sup>2</sup>mm single-phase power supply cords and 6x0.5 mm<sup>2</sup> shielding control cord in the center of **Barrier Gate** Connect cords to gatehouse for convenient control.

# 3.2 Brake Machine Installation

On the completed concrete plinth, according to brake machine base size and random distribution of plate plinth hole bits, embed four sleeve anchors and use plate plinth to install intelligent brake machine to concrete plinth. If anti-collision mechanism exists, please ensure anti-collision mechanism release side and vehicle driving way in the same direction. If adjusting barrier rod's direction, unscrew the nut and adjust brake machine to a suitable position and angle and tighten the anchor bolts.



# 3.3 Barrier rod Installation

As shown below, use the accessories (sleeve, bolts) to install rod into groove of outer end of long shaf bracket.Use M8 bolts to tight rod and shaft bracket.

Attention: Keep rod and shaft bracket in horizontal position when installing barrier rod





**Warning:** For the barrier rod with anti-collision rod off unit, fender pile should be set up in the front of brake machine 1 meters (barrier roddirection) and roghly 50 centimeters taller than brake machine. Barrier rodwill be controlled in the range of 90 degrees in horizontal direction. Do not allow pedestrians to stand and items placed in order to prevent injuring people or objects in an event of vehicle collision.

# 3.4 Power Lines Attached

## 3.4.1 Main Power Source Connection

Disconnect air switch, connect220v AC live wire and null wire to the input end of air switch and ground wire to earth terminal in control box. Connect the output end of air switch J1 terminal blocks of host controller.

Attention: L connect live wire, N connect null wire, PE connect ground wire, distinguish between "connect null wire" and "connect ground wire".



### 3.4.2 Master Control Circuit Board Diagram

Vantage keeping you safe





### 3.4.3 Remote Control Handle Connection

Remote control handle is installed in places such as gatehouse or convenient control house. It is connected to master control board through embedded 6x0.5mm<sup>2</sup> shielded wire. J9 control input port in master control board is connected to relative control switches of remote control handle. And +12V connects to handle common terminal.

### 3.4.4 Vehicle Sensor Connection

If installing vehicle sensor, please connecting it to J9 input sensor +12V and sensor EXT directly.

### 3.4.5 Safety Device Connection

In order to strengthen the security performance of the system, output COM and AOF terminal of infrared correlation and pressure wave etc car snashing protection safety dev ice relay need be connected to J9 input safe and +12V.

### 3.4.6 Barrier rod-Signal Light Output Connection

If using signal lights output type, firstly turn on dip-switch DIP3 in master control board. When rod is rising to the vertical state, K2 is connected but K1 is disconnected. When rod is falling to the horizontal state, K1 is connected but K2 is disconnected. So, K2 AOF and K2 ACC of J101 outputon master control board connect green indicator, K1 AOF and K1 ACC to red indicator.

If using rodmovement output type, firstly turn off dip-switch DIP3 in master control board. When rod is rising the vertical state, K2 is disconnected. So,K2 AOF and K2 ACCof J101 outputon master control board connects signal of rising to vertical state, K1 AOF and K1 ACC to signal of falling to horizontal state.

#### Attention:Donotoperate signal lights and rodmovement output mode synchronously

### 3.4.7 Serial Communication RS232 and RS485 Connection

When user need control brake machine through serial port, please pay attention to ordered products model S or R suffix.S represents RS485 interface on master control board and R is RS232 interface. (Refer to appendix 1).

If it is RS232 interface, please connect J102 telecom RS232TX/RS232RX/GND to sending/receiving/SG of upperhost RS232 interface. If it is RS485 interface, please connect J102 telecom485B and485A to B and A of upper host RS485 interface.

#### Attention:Donotoperate RS232 and RS485 synchronously RS485



## 3.4.8 Master Control Board Indicators Introduction

#### Diagram3.4.8

a la	Working	State Intraduction								
s/n	indicators	State Introduction								
1	D1 remote	Light flicker: remote controller ofhost control board is								
I	control	receiving commands								
2	D2 telecom	2 telecom Light flicker: serial is sending or receiving data								
3	D3 motor Light on motor is running at full power									
3	running	Light off: motor stops								
4	D4 rod stops	Light on rod is in the default state								
4	D4 rod stops	Light flicker: rod is not in the default state								
5	D5 falling	Light on rod is in the horizontal default state								
5	Donaling	Light flicker: rod is falling								
6	D6 rising	Light on: rod is in the vertical state								
0	Donsing	Light flicker: rod is rising								
		Indicator lights up when input terminal signal inputs								
		D10: intelligent Barrier Gate as horizontal limit input, high								
		speed Barrier Gate as speed test input								
		D11: intelligent Barrier Gateas vertical limit input, high speed								
		Barrier Gate as limit input								
		D12: safety input								
	D9-D17	D13: manauto input								
8	Signal input	D14: falling input								
	olgha mpar	D15: stop input (only for intelligent)								
		D16: rising input								
		D17: external sensor connection input								
		·rising/falling/stop button priority level: rising> stop $>$ falling								
		·safety or external sensor connected signal inputs;buzzer will sound								
		once in 1s.								
		·rising/falling/stop signal inputs; buzzer will sound until signal disappears.								

### 3.4.9Buzzer & D7 Indicator Working Mode Introduction

Diagram3.4.9

	<b>°</b>			
s/n	component	Output Mode	Working	Relative Solution
			state	
1	Buzzer	Long sound	reset	Normal working
		once 1s		
2	Buzzer	Sound once,	Effective	
		button sync	rising,	
			falling stop	
			button	



3	Buzzer	1 cycle(2s)	Effective					
		short sound	sensor,					
		once	safety					
			switch					
4	buzzer	1 cycle(0.2s)	Learning					
	D7indicator	short sound	process					
		once 0.1s						
5	buzzer	Long sound	Learning					
	D7indicator	once 2s	succes					
6	buzzer	1 cycle(2s)	Motor	Intelligent	1.	check sensor failure or not		
	D7indicator	short sound	running	Barrier	2.	check timeout coefficient over		
		twice	time out	Gate		small or not		
					3.	check encounter obstacle or not		
			Usual	High	1.	check limit, speed sensor failure		
			motor	speed		or not		
			running	Barrier	2.	check encounter obstacle or not		
			speed	Gate	3.	check when rod falling, sensor,		
						safety, rising signal failure or not		
					4.	check sensitivity over low or not		
7	buzzer	1 cycle(2s)	Learning	Please ref	er to	item 6		
	D7indicator	short sound 3	failure					
		times						
8	buzzer	1 cycle(2s)	Setting	Please a	idjus	st S1 mode to the working mode		
	D7indicator	short sound 4	errors	you want, refer to content 3.6.3				
		times						

\* D7 indicator output and buzzer output synchronization in the absence of 1-3 situations, buzzer sound D7 lights on, buzzer no sound D7 lights off.

# 3.5 **Power Lines Connected Detection**

Warning: Do not connect powersource when checking powerlines

According to item 3.4, connect power source and control line, and check power lines as following:

The following operation is hot line work. Some parts are with 220V AC voltage, therefore it is very dangerous! Be careful when operating, and donot operate individuallyPlease ensure complying with the content of the "warning" section in this manual.

- First, check the 220V AC power line connection right or not.Pay special attention to "null wire" and "ground wire". According to wiring diagram, ni turn, checkwire connection ofmotor control portJ2; control input port J9, telecom and output J10. Correct immediately if errors exist.
- Pull the wires near the pressed line terminal slightly. Check each power line is pressed tightly or not. If findingsomeloosen please rewiring and tighten pressed line terminal.
- Check limit sensor connected or not. If not connected, please connect the wires and sensor.



## 3.6 Power-on Test

#### 3.6.1 First Electricity Connection

After checking without problem, do electricity connection. Close air switch, use multim eter AC voltage to test 220V working voltage normal or not and use DC voltage to test 1 2V output voltage on line terminal normal or not. If it is not normal, please power off immediately and check circuit and contact with suppliers. If it is normal, buzzer will send 1s long sound (Refer to 3.4.9 item 1). If rod does not stop in vertical or horizontal state, ro d stop indicator D4 will flicker once every 0.1 second.

#### For High Speed Barrier Gate:

Even in the default limit position, rod stops indicator D4 will flicker and other indicator lights out Master controller receives rising or falling command for the first time, motor will stop running. When rod is on the limit position, rod will stop and D4 indicator will not flicker but light on. So D5 and D6 indicators do. It represents master controller works normally.

Master controller has not been studied, press rising or falling button. Motor will run once and stop soon as unusual speed. Speed is unusualif D7 indicator flickers and buzzer sounds to indicate unusual speed (Refer to 3.4.9 item 6). The situation occurred represents motor action is normal

#### For Intelligent Barrier Gate:

Rod is in default limit position, rod stop D4 indicator and relative D5, D6 indicators will light on. It represents master controller works normally.

Master controller has not been studied press rising or falling button. Motor will run once and timeout D7 indicator flickers and buzzer sounds (Refer to 3.4.9 item 6). The situation occurred represents motor action is normal, too.

#### 3.6.2 Parameters Learning

For customer's convenience, products add the operation load and operation time parameter 1 earning function, to make **Barrier Gate** adapted to different motor and rod length load aut omatically.

#### Precautions

- Before parameter learning, please adjust vertical and horizontal limit switch position, adjust and learn sensitivity and install rod well. In process of learning, make **Barrier Gate** studies by itself. Do not press rising/falling/stop button without emergency situation. Any button input or safety switch signal input will interrupt learning.
- 2. Barrier Gate needs learning in following situation:
  - a. Users change inner parts or rod, especially rod length
  - b. Users adjust and balance spring again
- High speed Barrier Gate deceleration angle must be settledbefore learning. Refer to
   3.6.8chapterabout deceleration angle adjustment.
- Startup Learning



Press master controller LEARN button 3 seconds, **Barrier Gate** will be in study function automatically. And D7 indicator will flicker and buzzer will sound in same frequency (Refer to 3.4.9 item 4). If rod is not in horizontal default limit position, barrier gatewill search horizontal limit position. The learning process as following:

For Intelligent Barrier Gate: rising-falling-rising-falling-finish

For High Speed Barrier Gate: rising-wait 2s-falling-wait 2s-finish

- Learning Success: Working state D7 indicator lights on 2s, buzzer sounds 2s (Refer to diagram 3.4.9 item 7). Learning failure can be released by reset
- Learning Failure: Working state D7 indicator flickers, buzzer sounds 2s (Refer to diagram 3.4.9 item 7). Learning failure can be released by reset.

For Intelligent Barrier Gate: If not finding limit switch in learning process, learning will be in failure. And need check limit switch position, reset system and study again. For High Speed Barrier Gate: If learning unusual data, learning will be in failure. And need check sensor is normal or not, reset and study again.

Warning: In the process of learning, do not allow pedestrians to stand and vehicles to pass within the scope of rod movement in case of accidents.

#### 3.6.3 Working Mode Selection

We provide testing/manual/autorod falling three main working modes. Users can select proper working mode through adjusting MODE code switch S1 in master controller.

- **Test Mode** used to test products. Users do not operate. In this mode, Barrier Gate performs repeatedly automatically: rising rod-wait 5s -falling rod-wait 5s. High speed **Barrier Gate**will rebound encountering obstacles.
- Manual Mode "rod falling automatically when car passed away" and "car team continuous release" functions are forbidden. When S1 is set as manual mode, remote controller "man/auto" switch will be in failure.

Car team continuous release: In auto mode, **Barrier Gate** receives N times rising rod commands and allow N cars to pass away. And rod will fall down after the N car passed away. The max numberof continuous cars is 255. This function is suitable for articulated vehicles.

• Auto Mode "rod falling automatically when car passed away" and "car team continuous release" functions are allowed. Vehicle sensors must be installed if system starts up auto mode.

S1 setting	0	1	2	3	4	5	6	7	8	9
value										
Rod falling	0	0	0	1	2.5	5	0	1	2.5	5
delay time(s)	Ŭ	0	v	•	2.5	>	•		2.5	5
Working mode	Test mode	Manual mode			de wit unt fui	h rod nction	-	od risi	de witl ing cou ction	

#### Diagram 3.6.3 master control board and S1 switch setting

#### Attention:



- 1. After changing mode, must press RESET button to activate system.
- 2. Rod rising count function:**Barrier Gate** keeps recording rod rising times function. Barrier Gate receives several rod rising signals. Sensor must detect the same times car passed signals. Rod will fall down.

### 3.6.4 High Speed Barrier Gate Obstacles Detection & Sensitivity Setting

TAB series high speed **Barrier Gate** keeps rod obstacle detected function. Rod will raise immediately encountering obstacles in rod falling process. Rod will stop and unlock immediately encountering obstacles in rod rising process. And indicators will flicker and buzzer will sound (Refer to Diagram 3.4.9 item 6). It can prevent accidents to the largest extent.

DIP1 and DIP2 of S3 function switch on master control board are used to set detecting obstacle sensitivity in rod movement. 4 levels can be adjusted, referring to diagram 3.6.4

		Blagramo.o.		
S3Setting	Binary Value	Level	Intelligent Barrier	High Speed Barrier
			Gate(timeout	Gate (sensitivity)
			coefficient)	
DIP1=OFF	00	0	1.1	high
DIP2=OFF				
DIP1=ON	01	1	1.2	
DIP2=OFF				Middle high
DIP1=OFF	10	2	1.3	
DIP2=ON				Middle low
DIP1=ON	11	3	1.5	
DIP2=ON				low

### 3.6.5 Intelligent Barrier Gate Timeout Coefficient Setting

Barrier Gate equips vertical and horizontal limit switch. To protect Barrier Gate running safety, timeout protection function is added. When motor actual running time is over settledprotective time, motor will stop running. D7 indicator flickers and buzzer sounds in a same frequency to point out movement timeout (Refer to diagram 3.4.9 item 6). But TAB series still work. To make **Barrier Gate** the best performance, please check limit sensor. When detected to limit position, TAB series recovers automatically.

Motor running timeout time = motor running time×timeout coefficient Motor running time comes from learning function and timeout coefficient is settled by DIP1 and DIP2 of function setting switch (Refer to diagram3.6.4).



## 3.6.6 High Speed Barrier Gate Deceleration Angle Setting

To ensure high speed **Barrier Gate** rod movement stationary, rod movement deceleration angle must be settled before testing learningDeceleration angle is the angle of rising rod and vertical direction or falling rod and horizontal direction. When rod moves to the settled deceleration angle position, motor start to decelerate and make rod moving stably. Deceleration angle is settled through DIP41 of dip-switch S2 Refer to diagram 3.6.8

Diagram3.6.8High Speed Barrier GateDeceleration Angle Setting (ON=1,	OFF=0)
--	--------

DIP4-1	0000	0001	0010	0011	0100	0101	0110	0111
Setting value	0	1	2	3	4	5	6	7
Deceleration value	5°	10°	15°	20°	25°	30°	35°	40°

## 3.6.7 Signal Lights/ Barrier rodMovementOutput Mode Selection

Turn on DIP3 of dip-switch in master control board to activate signal lights output type. Turn off DIP3 to activate rod default position output type. Refer to 3.4.6 "Barrier rod-Signal Light Output Connection" chapter

### 3.6.8 Remote Control Mode Setting

Turn on DIP4 ofdip-switch S2 in master control board and allow remote controller TAB rising/falling/stop. Turn off DIP4 to forbid remote controller.

# 3.7 End Test

When finishing each setting in 3.6, please reset systempress reset button or re-up electricity. If system needs learning again, reset system after learning.

Make sure finishing testing work!

Congratulations! Now Barrier Gate can serve for you!



# 4. Maintenance

- 1. Change lubricating oil after reducer runnnig150 -300 hours for the first time. Check oil regularly and change it immediately once deteriorating. Do not add oil too much and check oil leakage. Too much oil will make high oil temperature. Oil changing after reducer running 870 -1500 hourswill slow down mechanical efficiency. Oil can be not interrupted in reducer operation. Machine will burn out in short time with oil cut. At rated power, turbine reducer's temperature should be within the scope of the middle of the window under the rotated speedunning condition. Check oil temperature firstly. Add oil to the middle of the reducer window for intelligent Barrier Gate Vortex rod oil is preferable. If not, the replacement as following: a. hyperbolic gear oil b. vehicle engine oil
- 2. Regular check Check once every three months. A. the reliability of the conductor and the plug-in connection. B. the screw and nut etc fastenerconditionand tighten the looser C. the attrition of rotating parts and inject lubricating oil. And repair or replaceserious parts.
   Precautions : Often clean dust to keep machine tidy. If technical problems occurred, please refer to System Faults & Solution. If problems can not be solved please turn to technici ans to repair and operate.

Faults	Barrier Gate	Causes	Solution	
	Туре			
Connecting power	High	·mode/parameters setting	·reset again	
source, rod not to	speed/ intelligent	errors	·rewiring in right	
answer any input signal		·input signal connection	way	
		errors	·connection test	
		<ul> <li>no wiring or joint loose</li> </ul>	·repair or replace	
		·host controller damaged	host controller	
		·fuse blows	·replace fuse	
		·startup capacitor but not to	·connect qualified	
		connect motor	capacitor	
Only rising rod, not	High	·safety switch closed, car on	·check safety	
falling rod	speed /intelligent	the sensor	switch and repair	
		·rising/stop button pressed	·loose rising/stop	
		·rod falling button wire	button	
		connection errors	·rewiring in right	
		·host controller damaged	way	
			·repair or replace	
			host controller	

# 5、System Faults & Solution



InterferenceInterferenceWayOnly falling rod, not rising rodHigh speed/intelligent-rising button wire connection -rewiring in right way-repair or replace host controller damaged -repair or replace host controllerRod falling when rising button pressed, rodspeed/intelligentHigh -opposite rising wire and -rewiring in right mormally when connection errors if rod operated normally when controller-rewiring in right wayMotor can not make rod runHigh speed/intelligent-opposite rising wire connection errors if rod operated normally when controller button pressed-rewiring in right wayMotor can not make rod runHigh speed/intelligent-spring tension not balanced -resetsensitivity -resetsensition -adjust sensor in proper position -adjust timeout protection -adjust sensor in or wire connection errors, car proper position or erwiring in right wayRod not falling in automatically mode when car driving awayHigh speed/intelligent -serial port sends rod rising -serial port sends rod rising signal's -serial port sends rod rising -resefalling button or execute falling -check switch and enable switch 	Rod can notstop	intelligent	·stop button wire connection	·rewiring in right		
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Rod not falling in automatically mode       High       •number of vehicles passed       •press falling button         when car driving away       speed/intelligent       less than rising signal's       when car passed         vserial port sends rod rising       •press falling button         or execute falling         vsafety switch inputs signals       command in serial         port         vcheck switch and         enable switch	default position		not detect effective sensor			
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directive or execute falling ·safety switch inputs signals command in serial port ·check switch and enable switch	•		•••	•		
·safety switch inputs signals command in serial port ·check switch and enable switch	when car driving away		-			
port ·check switch and enable switch				-		
· check switch and enable switch			·safety switch inputs signals			
enable switch				•		
normal						
				normal		





Example: DAB-2430-E520-220A presents DAB-400 series intelligent **Barrier Gate** model 2 brake machine, model 4 cores, 3.0s working period, using external sensor, software version Ver.5.20 and using 220V AC to supply electricity.



# Appendix 2: Installation Record

Installation Date :								
Installation Place	:							
Telephone Numbe								
Installation Personnel:								
Service Telephone Number :								
Service Records:								
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