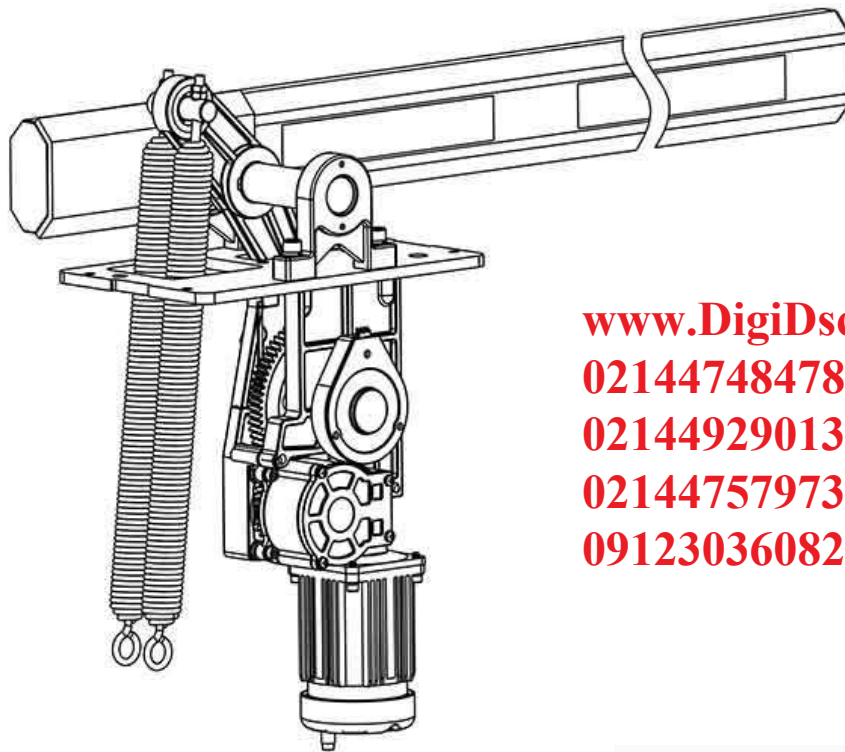




Demeter / Cyble ULTRA

ROAD BARRIER

FAST INSTALLATION MANUAL



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WARNING

⚠ AUTOMATIC BARRIERS ARE NOT FOR PEDESTRIAN!

To reduce the risk of INJURY or DEATH, read and follow all instructions.

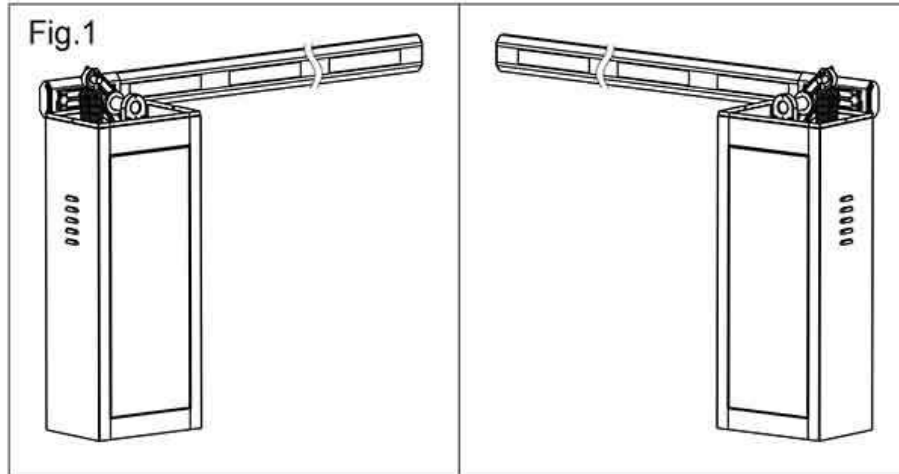
- NEVER let children operate or play with barrier control. Controller MUST be installed at least 1.5m above the ground.
- PEDESTRIANS SHOULD NOT CROSS THE PATH OF THE MOVING BARRIER.
- Automatic boom barrier is designed for vehicles ONLY. Pedestrians MUST use separate entrance.
- Installation and maintenance MUST be executed by qualified service person. Keep boom barriers properly maintained.
- Ground wire and current breaker MUST be connected.
- Power MUST be cut off when performing installation or maintenance.
- When power outage, power MUST be cut off before using the manual release under the motor to open the barrier.
- ONLY operate when the boom barrier is in sight.
- NEVER perform operating or setting without the boom installed. This WILL result in severe injury.
- NEVER dismount the boom when barrier is at close status with spring attached. This WILL result in severe injury, even death.
- DO NOT replace the original wire.

● **SAVE THESE INSTRUCTIONS.**

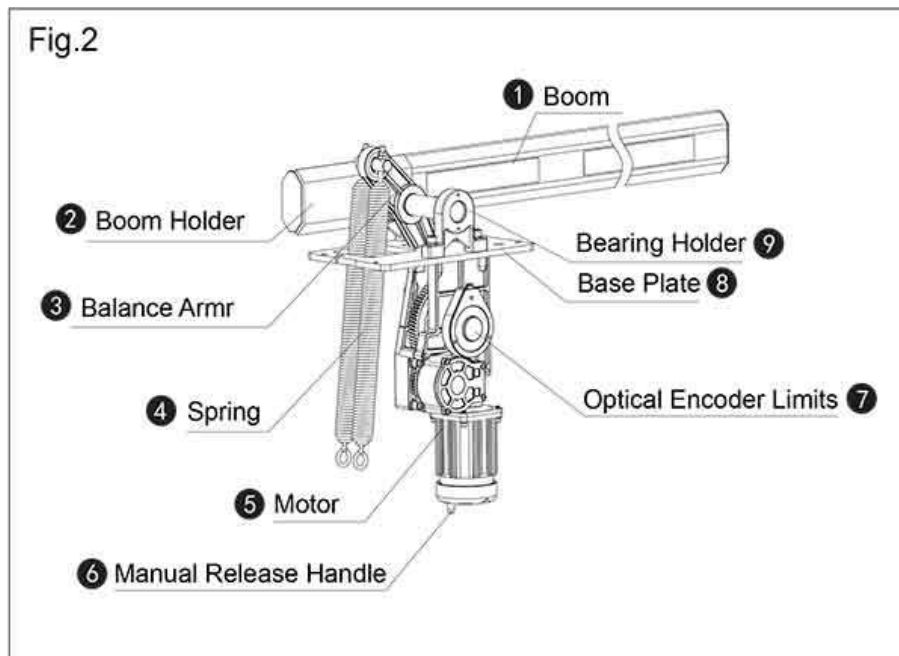
1. Direction Definition and Main Components of the Machine

A.Close to Right

B.Close to Left



C.Main Components of the Motor



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2. Features

- A. Remote control is allowed.
- B. During power outage, product can be manual operated.
- C. Control board contains various ports for parking lot management system, infrared sensor, radar, etc.
- D. Product contains multiple limit protection functions to keep a long life time.

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3. Specification

Rated Power	240W
Power Supply	220V±10% 50/60Hz
	110V±10% 50/60Hz
Working Temperature	-35 °C ~ +50 °C
Max. Boom Length with Operating Speed	6m (6s)
	4m (3s)
	3m (1.5s)

4. Installation

4.1 Cabinet Installation

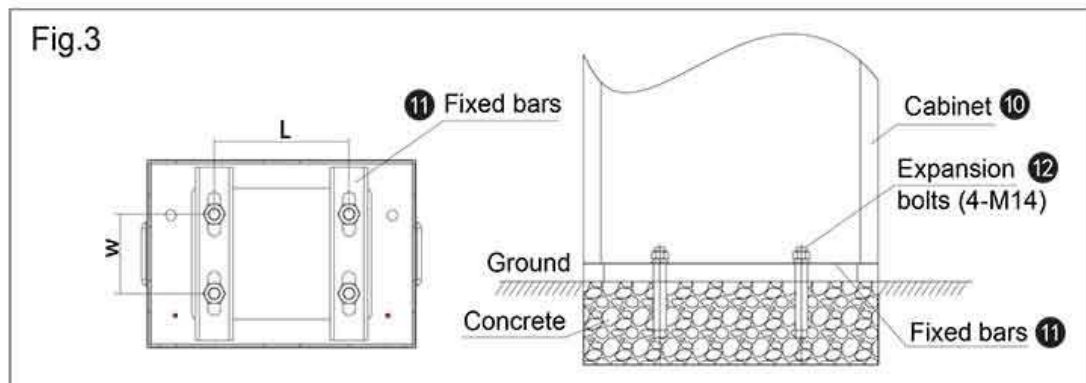
- Open the Cabinet door and take out the attachment pack.
- Place the ⑩ Cabinet at desired position.
- Place ⑪ Fixed Bars on the bottom of the Cabinet inside.
- Mark out the boreholes for ⑫ Expansion Bolts (Fig. 3: L and W) according to the Fixed Bars.
- Move away the cabinet.
- Use an electric drill with 21mm to drill the boreholes. The depth of the boreholes should be 110 ~ 120mm. Place the Expansion Bolts.
- Move the cabinet back to the desired position and place the Fixed Bars on the bottom of the cabinet inside.
- Tighten the Expansion Bolts.

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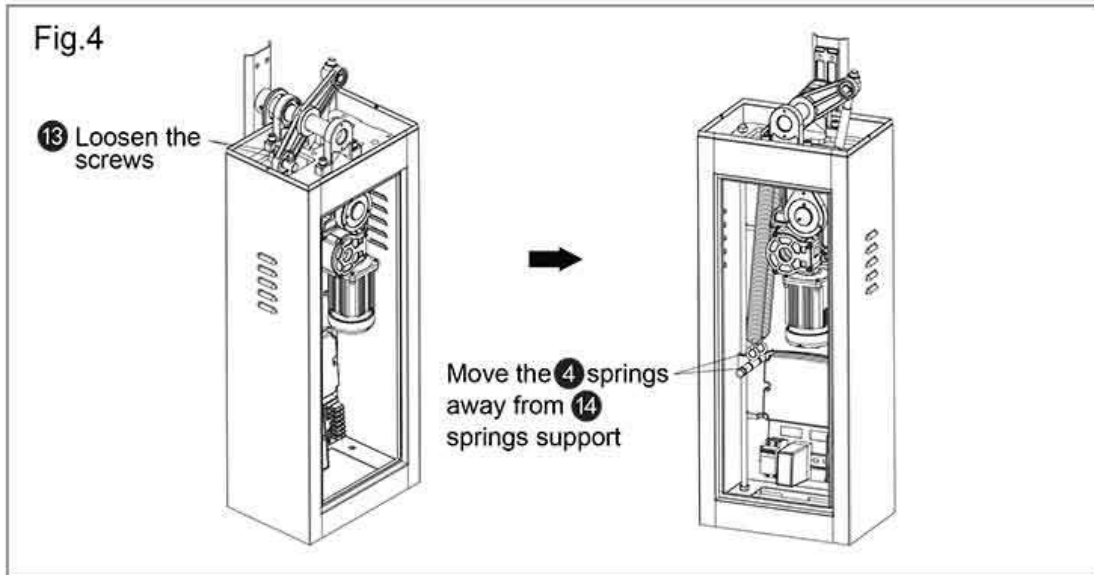
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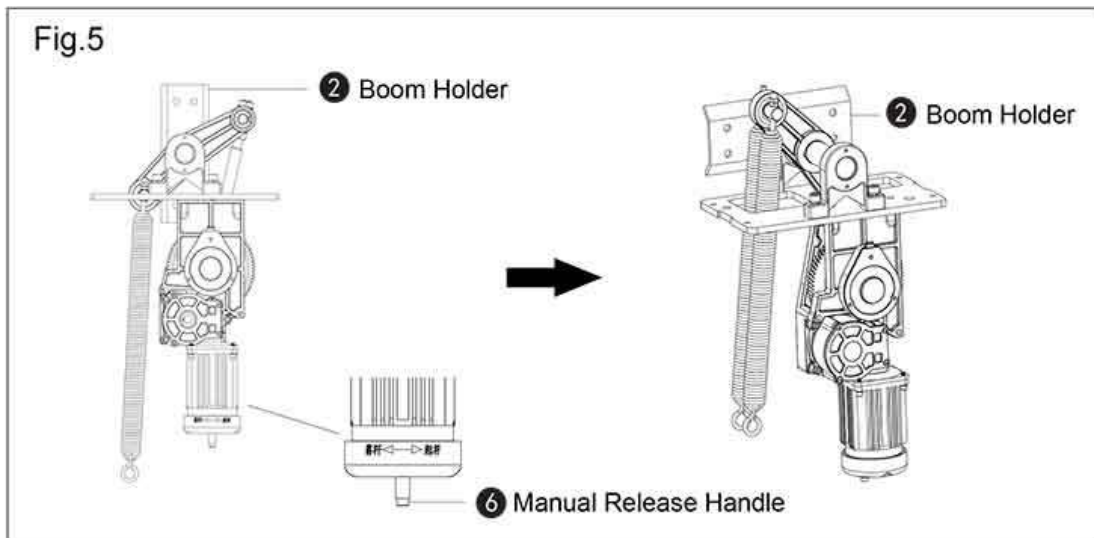


4.2 Boom Installation

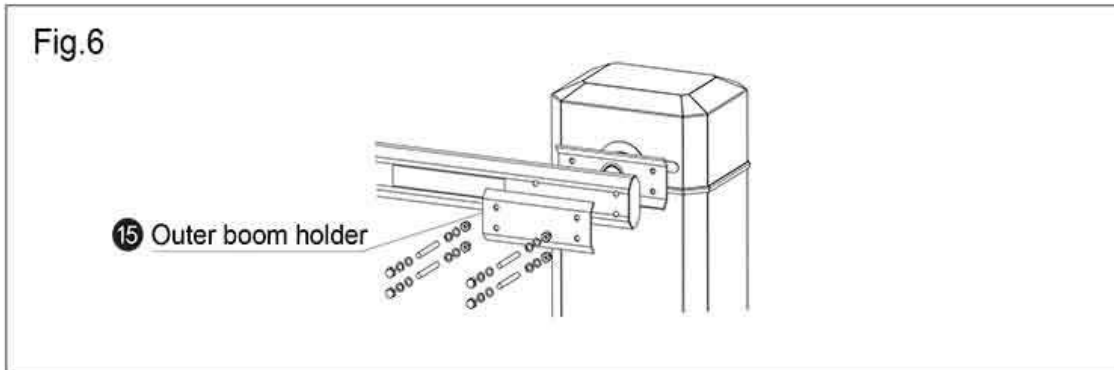
4.2.1 Loosen the 13 Screws and move the 4 spring(s) away from the 14 Spring Support. (Fig. 4)



4.2.2 Using the 6 Manual Release Handle to steer the 2 Boom holder to horizontal position.

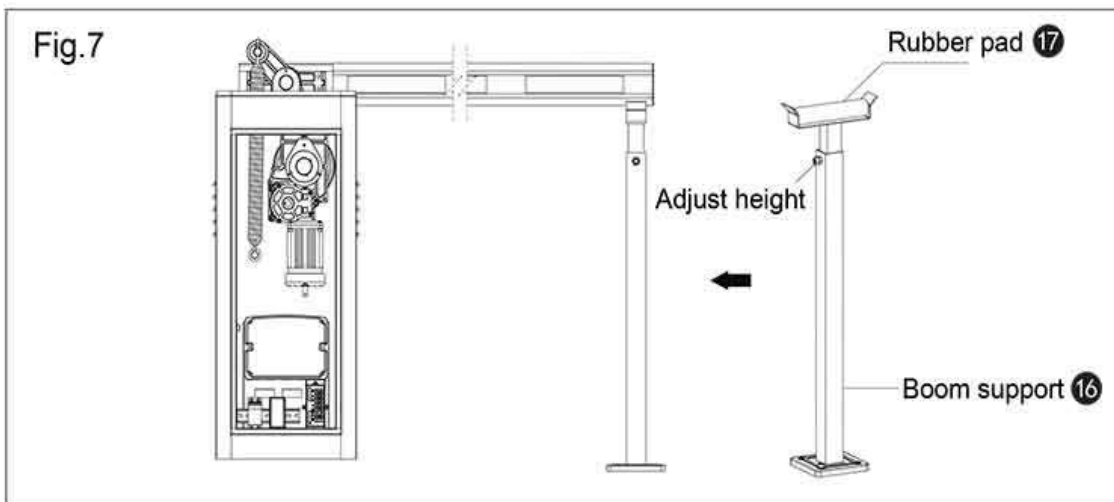


4.2.3 Install the boom and 15 Outer boom holder according to Fig. 6.



4.2.4 Fix the 16 Boom Support on the ground. Adjust the height as the 17 Rubber pad touches the boom when the boom is at horizontal position.

(Fig. 7)



5. Setting Springs' Balance with Boom Weight

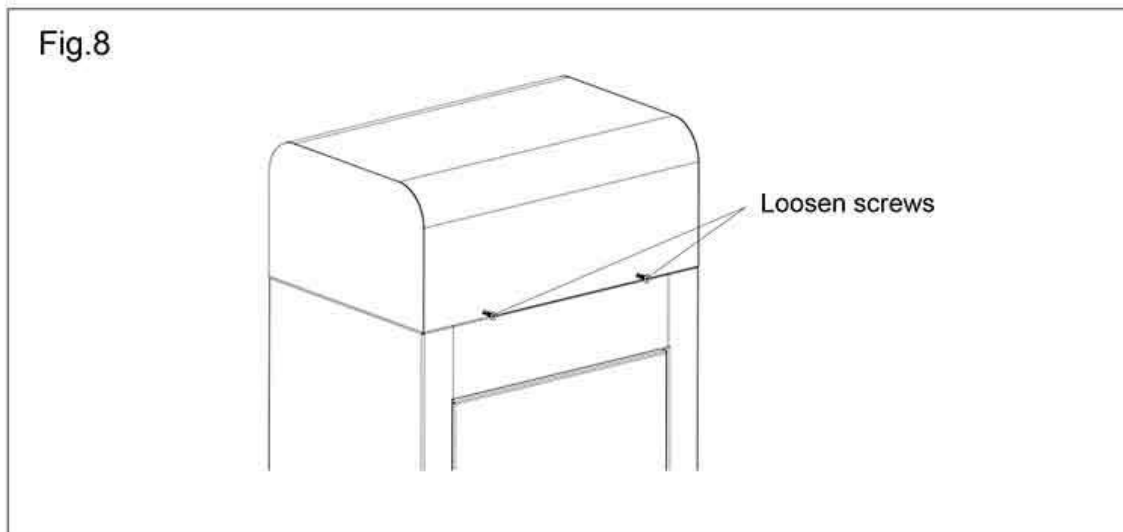
Attention: The springs are set to be balanced in factory. DO NOT change the boom length or weight if it is not necessary. If the boom length or weight must be changed (e.g.: adding a Stop Sign on the boom), the balance must be adjusted by a qualified service person.

5.1 Spring Quantity and Size

Boom Length	Quantity of spring	Spring Size
$x \leq 3m$	1	$\Phi 4$
$3m < x \leq 4m$	1	$\Phi 5$
$4m < x \leq 5m$	2	$\Phi 5$
$5m < x \leq 6m$	2	$\Phi 5 + \Phi 6$

5.2 Spring Adjustment

5.2.1 Remove the screws on the Cabinet hat, and remove the hat. (Fig. 8)



5.2.2 Based on the weight added or subtracted on the boom, adjust the 18 Spring Nut. Tighten the nut clockwise if the weight increased. Loosen the nut counter-clockwise if the weight decreased. When adjusting, all nuts should be turned at the same cycles, in order to avoid the unevenly distributed loads. (Fig. 9)

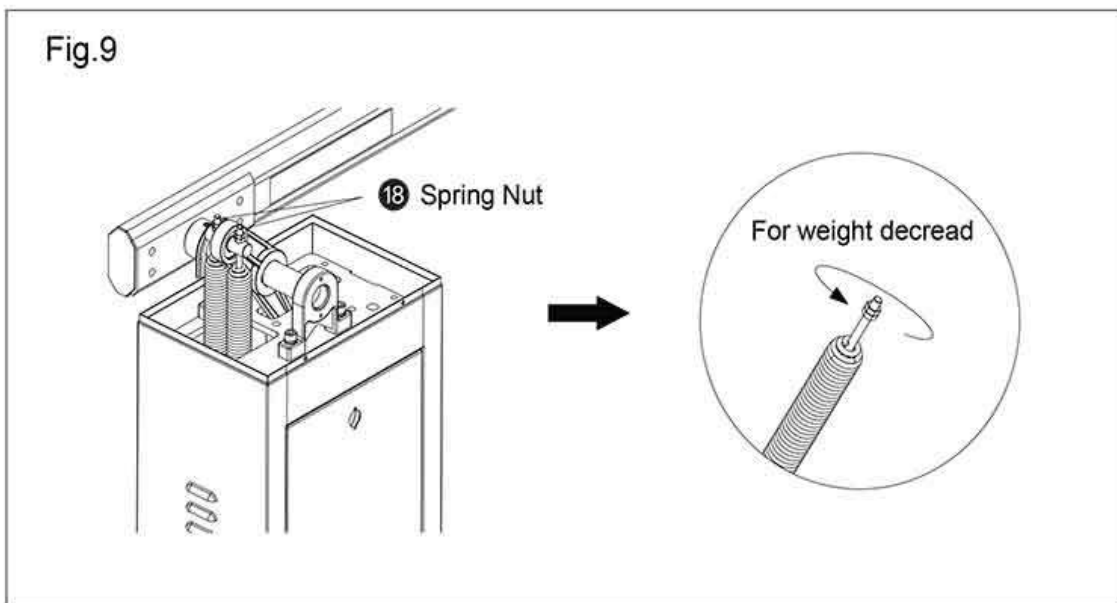
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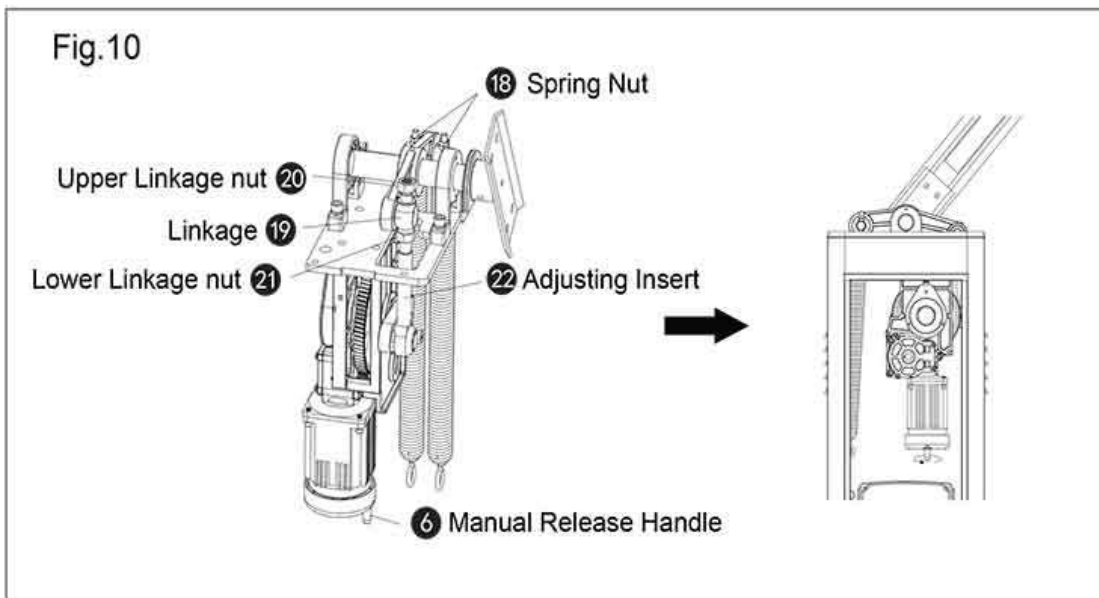
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5.2.3 Loosen the 21 Lower Linkage nut and take off the 20 Upper Linkage nut. Turn the 6 Manual Release towards Open Status to pull out the 22 Adjusting Insert. Turn the Manual Release towards Close Status, and stop when the boom is between 30° to 60°. If the boom moves towards Open Status, the 18 Spring Nut should be loosened or reduce the number of springs. If the boom moves toward Close Status, the Spring Nut should be tightened or increase the number of springs. (Fig. 10)

Tighten the Upper and Lower Linkage nuts after the adjustment.



6. Operating Instructions

- A. Use remote controller to operate Automatic Boom Barrier.
- B. During power outage, turn the Manual Release towards Open Status to open the Automatic Boom Barrier. (Fig. 11)

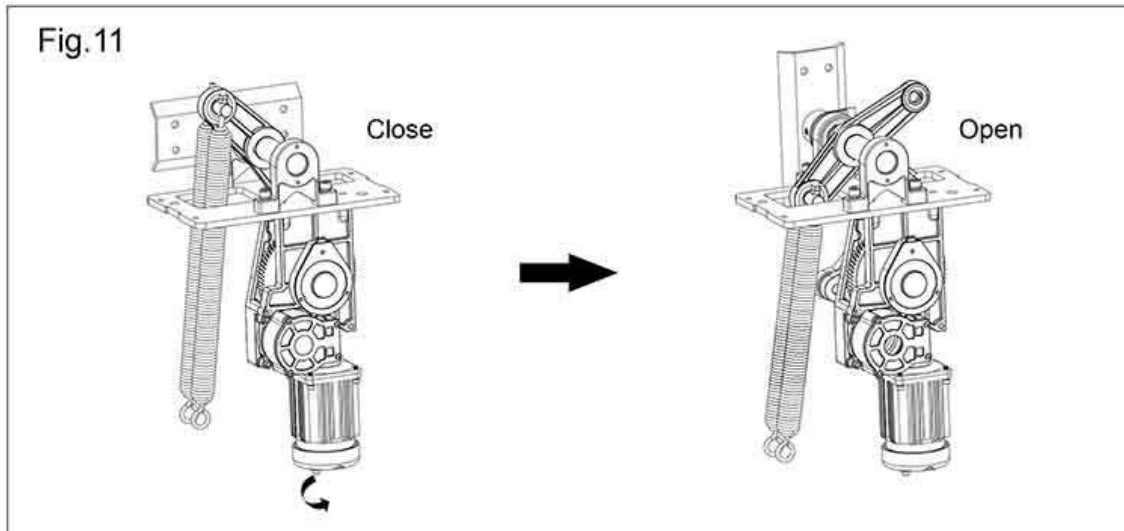
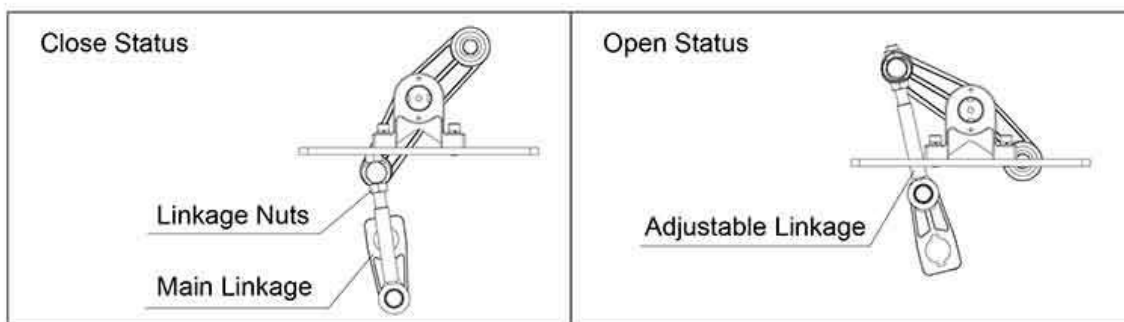
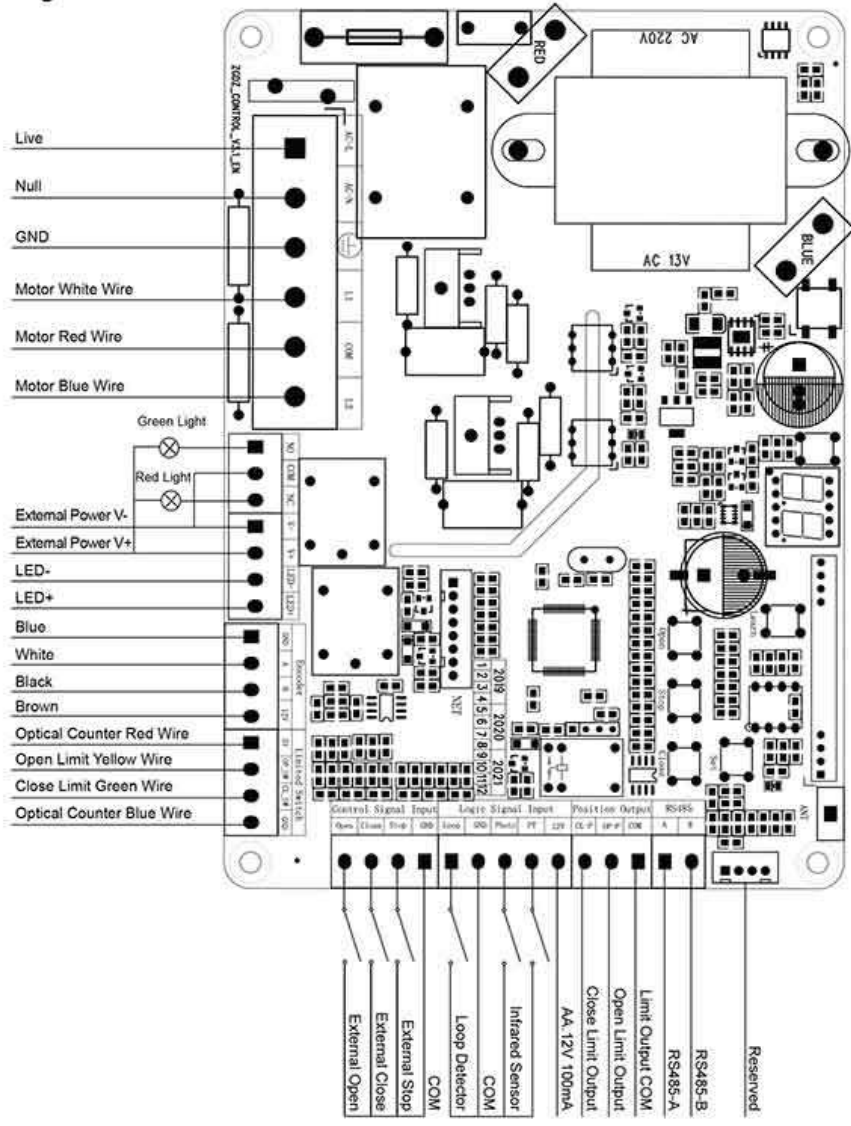


Fig.15



7. Control Board Diagram

Fig.12

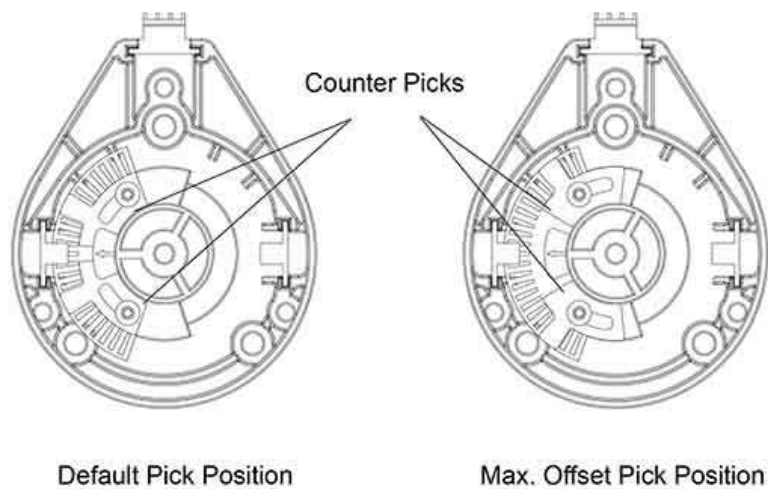


8. Limit Adjusting

Attention: Limits are set well in factory. Any change made on boom length, weight, spring force, etc. may cause deviation on the limits. To adjust the limits, please follow steps below.

8.1 Optical Counter Disk

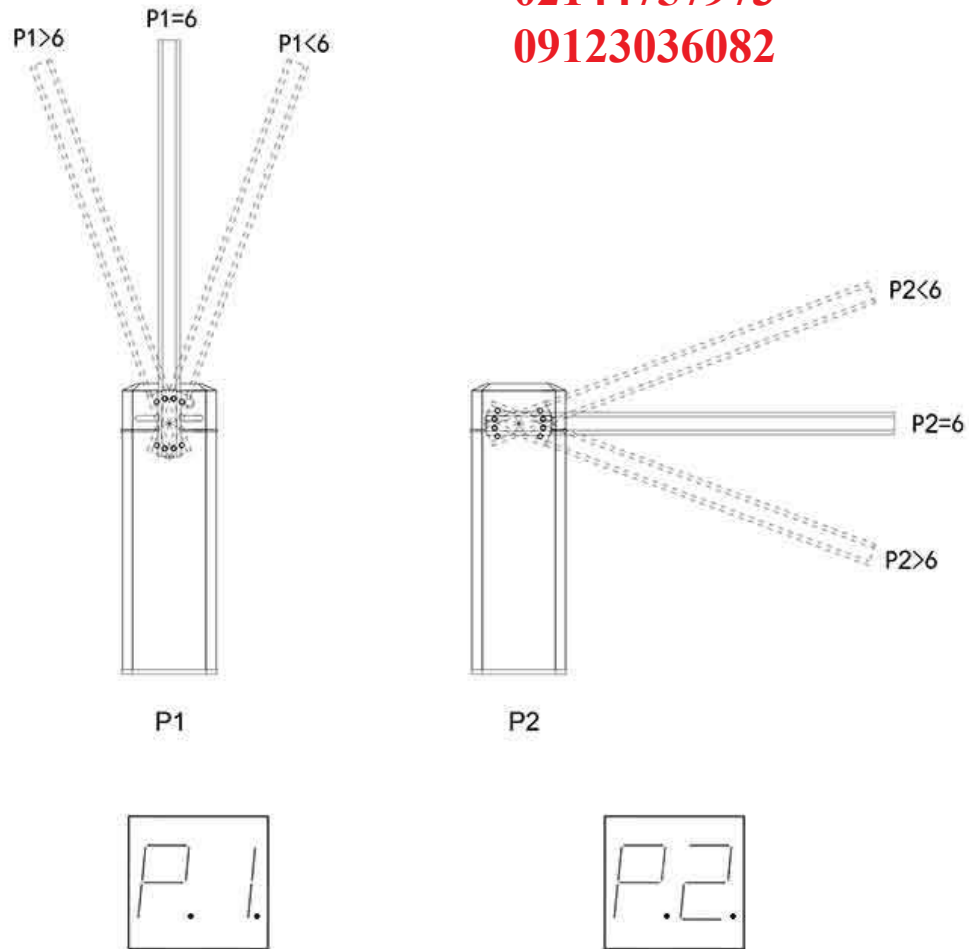
Fig.13



8.2 Open, Close Limits

For easy understanding, we assume the value of "P1" and "P2" with "6" on the Control Board means the boom at vertical and horizontal position. Fig.14 shows the boom status with the displaying value on the Control Board.

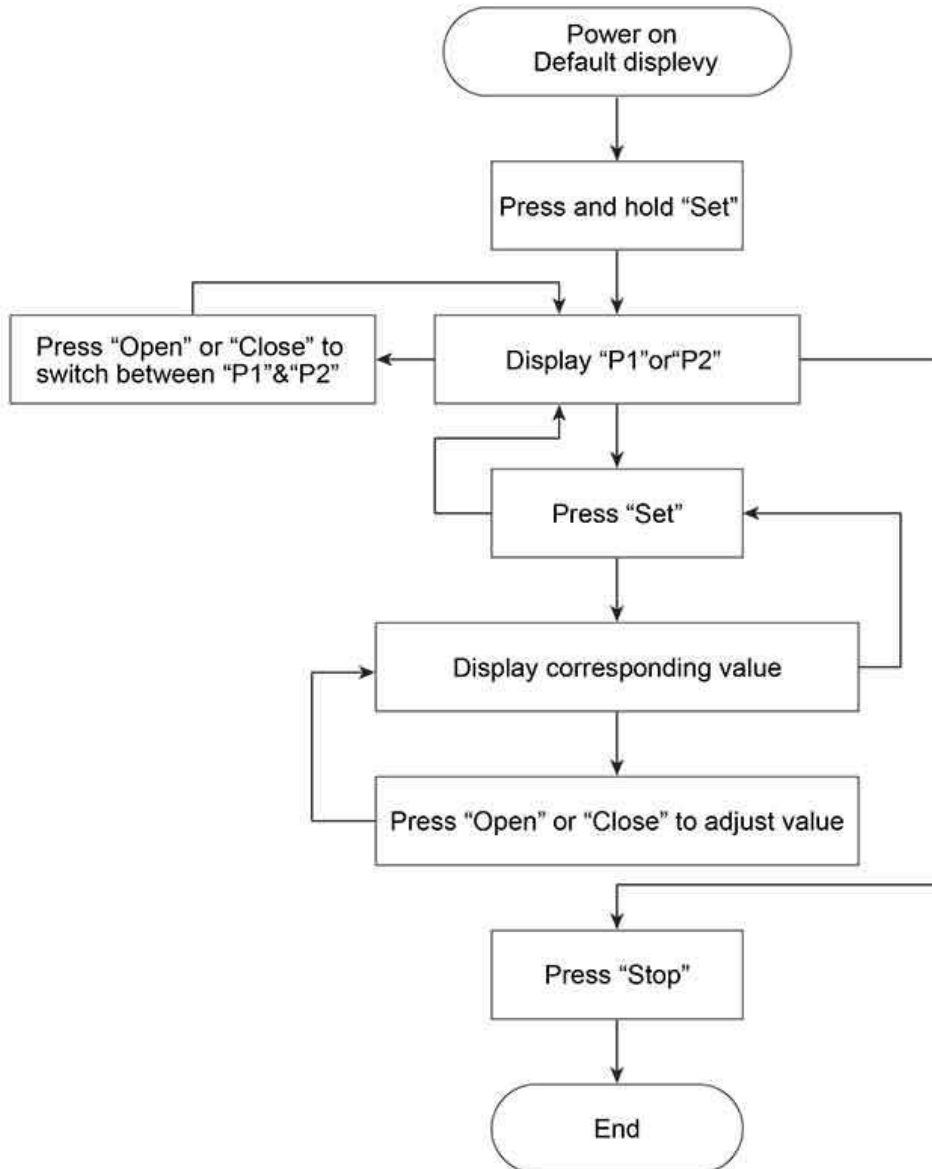
Fig.14



8.3 Limits resetting

Before adjusting, open and close the boom once to see whether the boom is vertical and horizontal to the ground. If so, no adjustment is needed. Otherwise, follow the steps below to set the value of P1 and P2.

Warning! Resetting should be operated by a qualified person.



9. Function Parameters

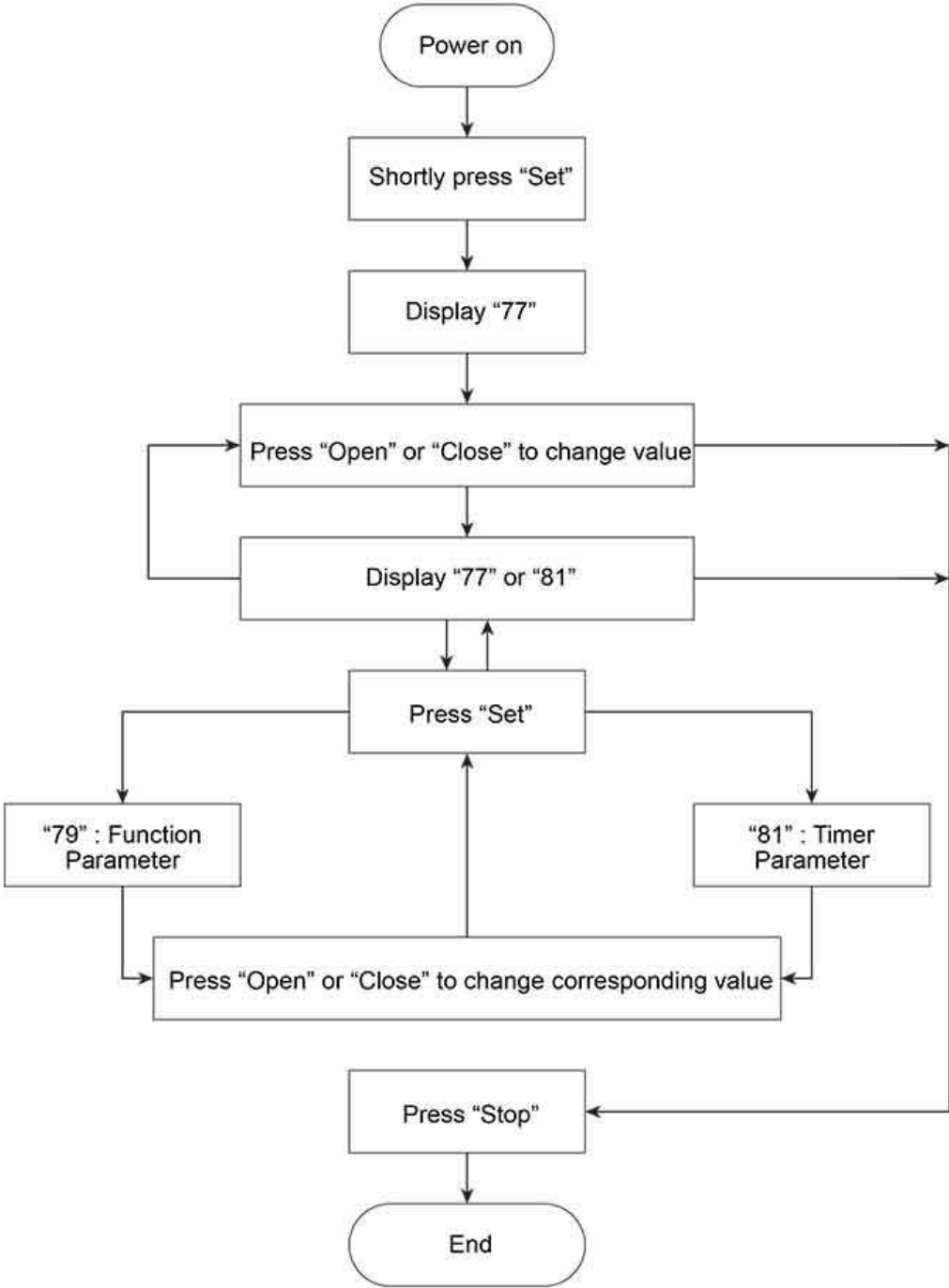
9.1 Function Definition

F0	Factory Setting (Caution!)
F1	Open Limit Micro-adjustment(for digital encoder)
F2	Close Limit Micro-adjustment(for digital encoder)
F3	Auto-Close Timer (s). Max.: 99s. Default: 00 (Means auto-close function disabled)
F4	00: Normal Mode (Default). 01: Counting Mode.
F5	00: Normal Mode (Default). 01: Stay OPEN.
F6	01: Stay Light-on when open to limit(Default). 00: Light out when open to limit
F7	01: Encoder Value (Default) 00: Operation Status.
F8	Signal Input Mode. 00: N.O. (Default). 01: N.C.
F9	Alarm or Light. 01: Light (Default) 00: Alarm.

9.2 Timer Definition

F0	Year
F1	Month
F2	Day
F3	Hour
F4	Minute
F5	Second
F6	Light-on Hour. Default: 18
F7	Light-on Minute. Default: 00
F8	Light-out Hour. Default: 06
F9	Light-out Minute. Default: 00

9.3 Parameters of Function and Time Resetting



10. Transmitter (Remote control) setting

10.1 Transmitter's code setting

Press "LEARN butTON", the "LEARN LED" light on, then, press and hold the button which you choose on the transmitter till the "LEARN LED" flashes and goes out, now, the transmitter is coded. Other transmitters can be coded as this way.

10.2 Erasing the transmitter's code

Press" LEARN BUTTON" and hold on to make the "LEARN LED" light on and till go out. Now, all codes of transmitters which had been learnt are cleared.

11. Error Codes

Code	Meaning	Solution
Err1	Optical Counter Limits	Check the Optical Counter Limits wires
Err2	Motor Nonstop Running Over Limits	1.Check the Optical Counter Limits Connecting 2.Check the Mechanical System
Err3	Motor Locked Rotor	1.Check the Mechanical System 2.Check Motor Wires Connectors
Err7	Photocell is Triggered	Remove the Object that Blocks the Photo Beam
Err8	Air Wave Sensor Triggered	Remove the Object that Block the Air Wave

12. Trouble Shooting

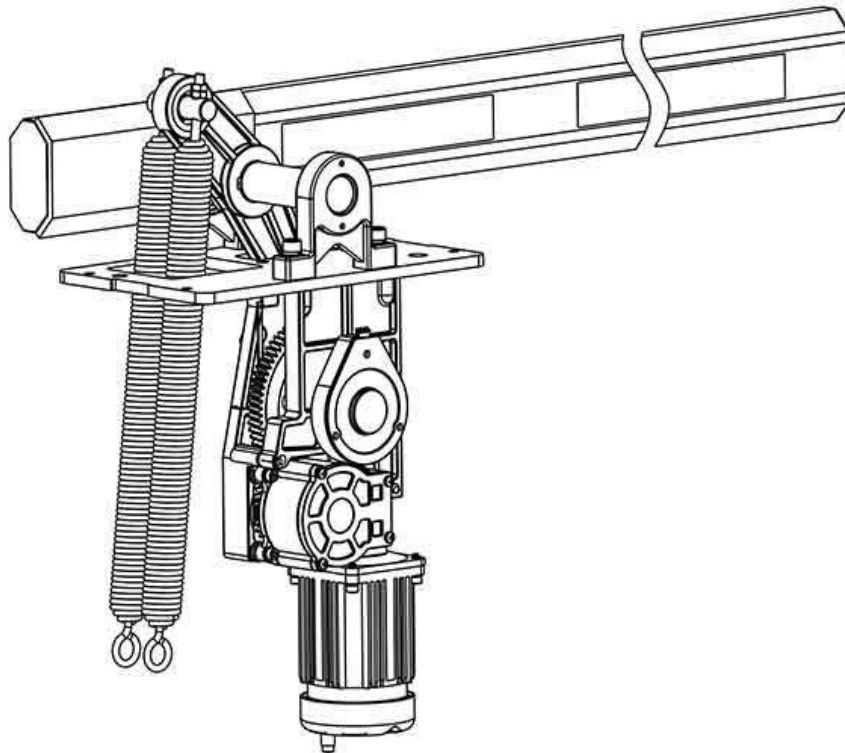
Trouble	Possible Reason	Solution
Power On, operate remote controller(transmitter), but no reaction.	Fuse blowout.	Check fuse inside control box and power supply.
	No battery or dead battery in remote controller(transmitter).	Change the batteries in transmitter.
	Frequency interference.	Press "Open" or "Close" on the Main Board to test if needed, connect a wired controller.
	External protectors' circuit malfunctioned or at working status.	Check the External Protectors or change them if need.
	Optical counter malfunction.	Change Optical counter.
	Control board malfunction.	Change control board.
Motor is functional but the boom doesn't work.	Boom starts at middle position.	Use manual release to set the boom at Open status or Close status, then use controller to start again.
	Spring force is not balance.	Readjust the balance.
	Low power voltage.	Check if the input power is at proper range.
Boom does not reach correct position when opening and closing.	Incorrect Linkage adjustment.	Refer to Fig.15 (See page 10).
	Incorrect Limits setting.	Reset.
Boom shakes at Open Limit and Close Limit.	The Lock Flat Key between Boom Main Shaft and Boom Holder is loose.	Change the Lock Flat Key.



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ROAD BARRIER

INSTALLATION & USER MANUAL



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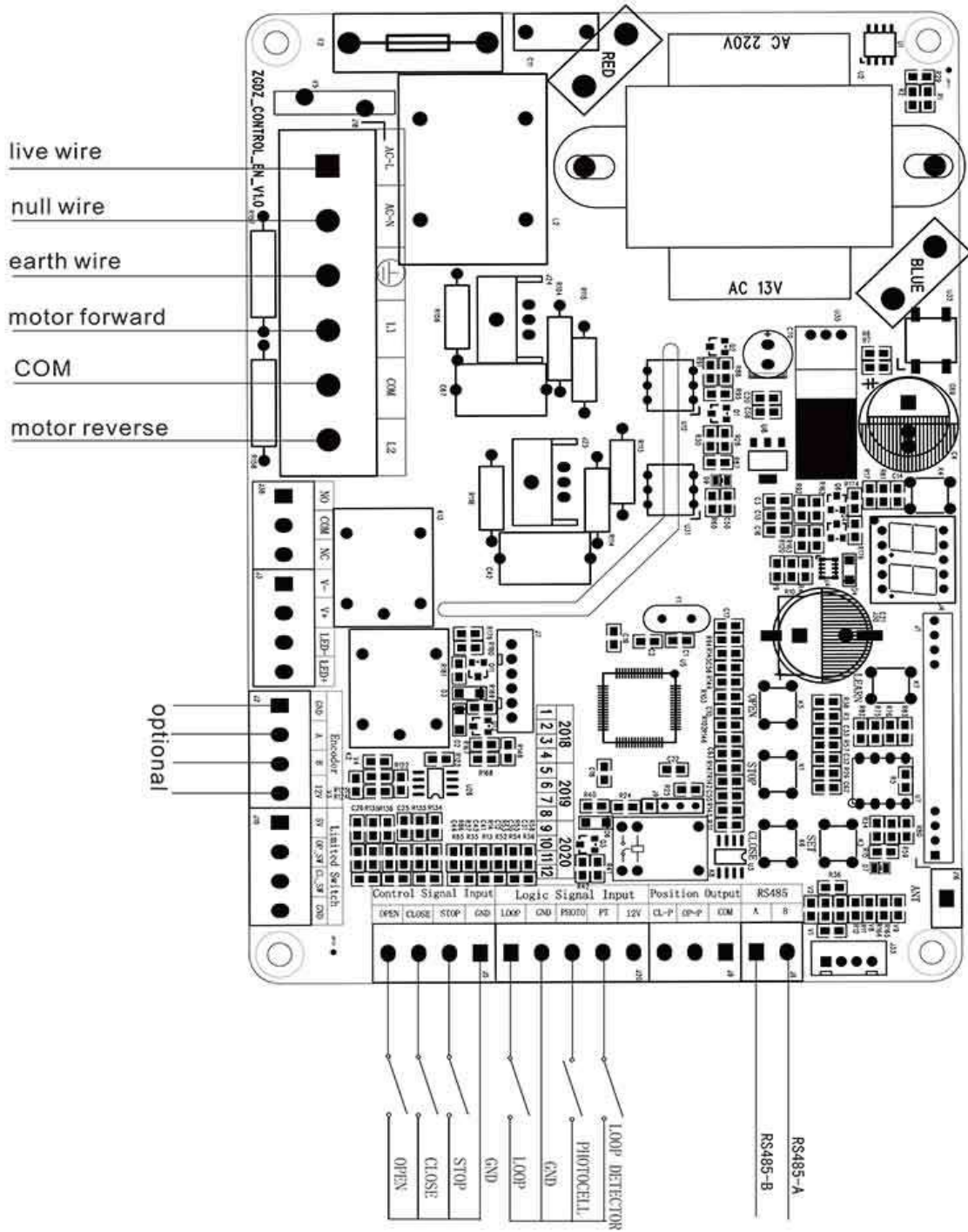




Warnings to installers and users

1. Before installation and use, please read this Manual carefully.
2. Avoid installing the product where there are vibrations, high-temperature, high-humidity, flammable, explosives, dust or corrosive gases.
3. As there is high voltage electricity inside the product, non-professionals should not arbitrarily open the lid to avoid electric shock. For debugging, look for professionals for help.
4. For loss and damage due to unauthorized changes to the original design of the product, the original manufacturer will assume no liability or responsibility.
5. An air-break switch must be connected with the power supply input connector.
6. Before power on and debugging controller, manually adjust the barrier to the middle position.
7. The power must be cut off before manually operate the barrier.
8. Make sure that the path is unobstructed when the barrier is running.
9. Safety devices such as Air-wave switch and Photocell are highly recommended. Check and test them periodically to ensure that they are effective.
10. Please properly dispose the accessories including plastic bag and screws to avoid the hazards such as mistaking and choking.
11. Please keep this Manual properly for reference.

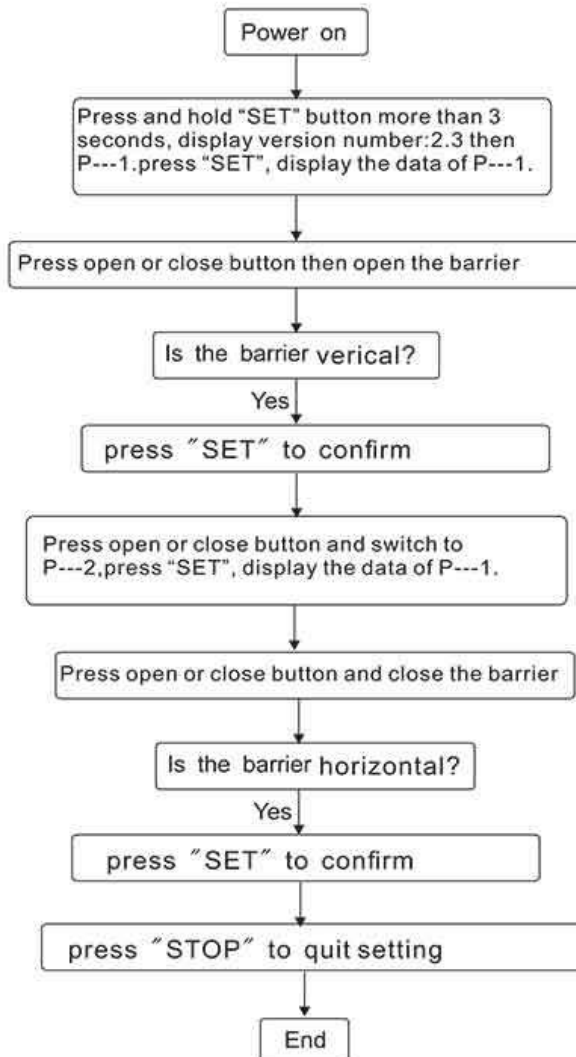
1、 General diagram



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2、Limit setting

Note: the barrier is set well in factory, if first operating, pls follow belowed instruction



set(press and hold)= enter
 set(press)=confirm
 open=plus
 close=minus
 stop=quit

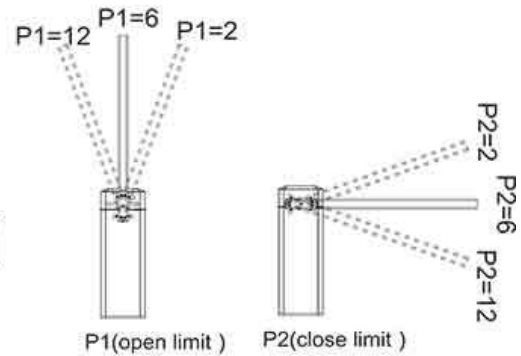
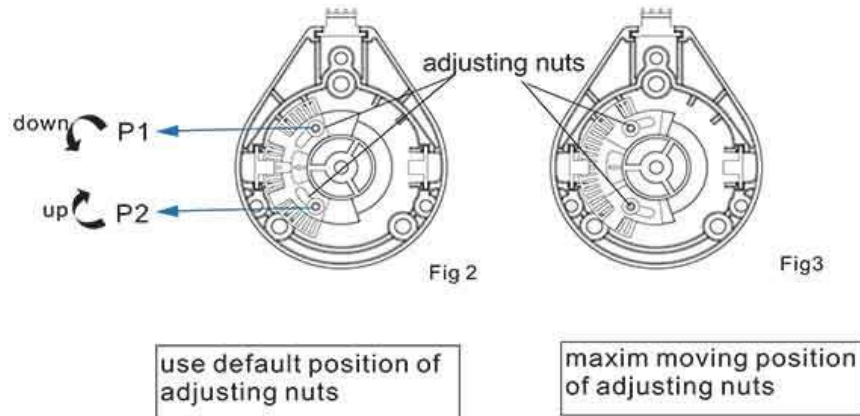


Fig1

Note: After the quick setup as above, the barrier can run normally, please operate to open and close the barrier each time, inspect if the limits setting is satisfied; if the position is off slightly, you can go to the next step limits fine-tune setting.

3、 Limit fine-tune setting

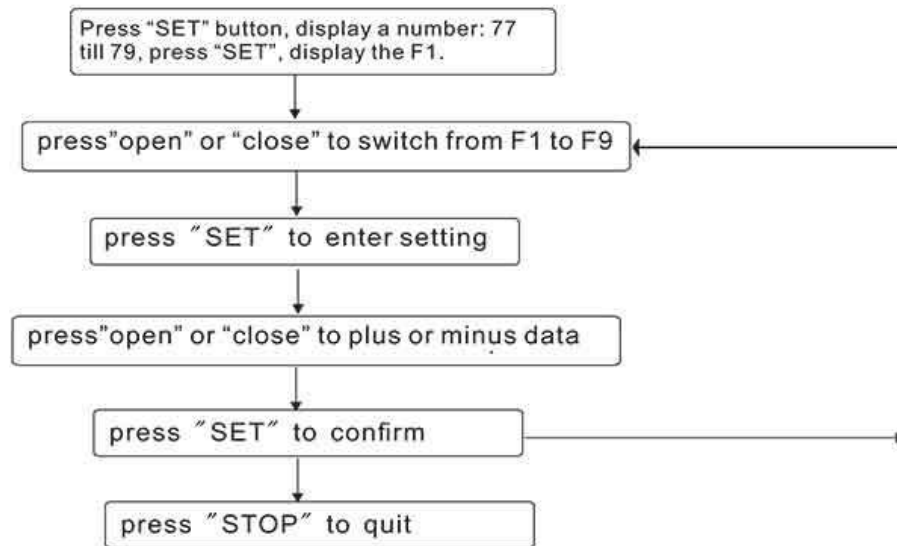


Setting:

OPEN LIMIT P1: when barrier is open, if the boom is not vertical, pls move P1 nut down half, then operate the barrier close and open to check the boom is vertical or not, if still not vertical, pls move P1 down to the end as Fig3.

CLOSE LIMIT P2: when barrier is close, if the boom is not horizontal, pls move P2 up half and watch the boom till horizontal. then operate the barrier close and open to check the boom is vertical or not, if still not vertical, pls move P1 down to the end as Fig3.

4、Parameter setting



F0	RESET (CAUTION)
F3	Auto close function(s) from 1S-99S; factory setting is 0, means off this function.
F4	counting function: 1--on, 0--off, factory setting is 0.
F5	Normal Open mode: 1--on, 0--off, factory setting is 0.
F8	0--Output signal is Normal Open, 1--Output signal is Normal Close.
F9	0--pls connect to a alarm lamp, 1--pls connect to a red/green lamp

5. Remote controller operation

a) Learning transmitter code

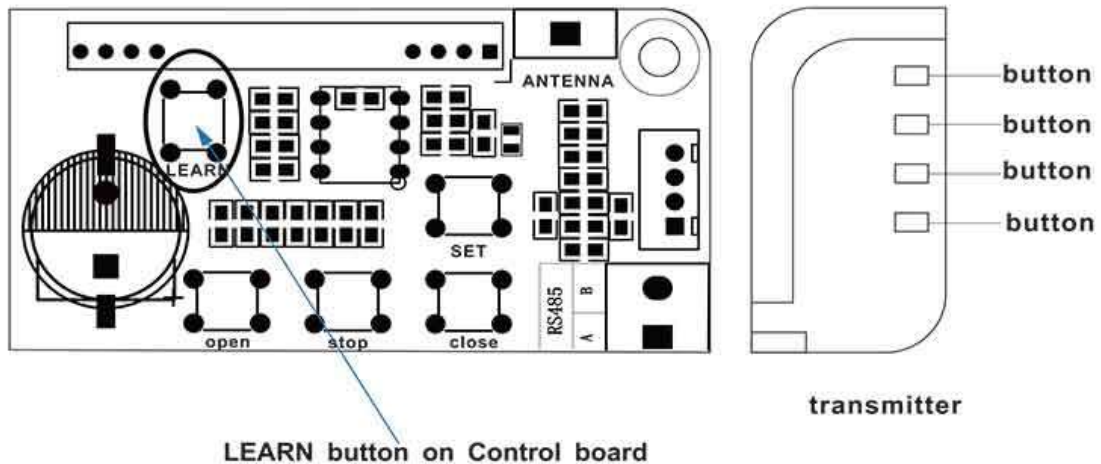
Press "LEARN" button which on the main board for one time, the LED will light, then press and hold the button you desire on the transmitter till the LED flash and off. Repeat these steps for more transmitters

- Note: 1. The original transmitters has been matched the code, and users do not need to do this.
2. New transmitters need to be set the steps as above.

b) Erasing transmitter code

If the transmitters are lost or illegally copied, please make the operation of erasing code to clear all codes that stored in the control box, after the operation, no transmitter can control the barrier.

Press and hold the "LEARN" button to light the LED till go out. Now, all stored codes of transmitters are erased.



6、 Error codes table

Code	Meaning	Solution
Err1	Encoder signal is invalid	Check the signal wires and photocell wires
Err2	Barrier operation timeout	Check the mechanical system
Err3	Motor Locked Rotor	1. Check the mechanical system 2. Check motor wires connectors
Err7	Photocell is triggered	Remove the object that block the photocell
Err8	Air wave is triggered	Remove the object that block the air wave