

User Manual

CMP300

Date: March 2022

Doc Version: 1.1

English

Thank you for choosing our product. Please read the instructions carefully before operation. Follow these instructions to ensure that the product is functioning properly. The images shown in this manual are for illustrative purposes only.



For further details, please visit our Company's website
www.zkteco.com.

Copyright © 2022 ZKTECO CO., LTD. All rights reserved.

Without the prior written consent of ZKTeco, no portion of this manual can be copied or forwarded in any way or form. All parts of this manual belong to ZKTeco and its subsidiaries (hereinafter the "Company" or "ZKTeco").

Trademark

ZKTeco is a registered trademark of ZKTeco. Other trademarks involved in this manual are owned by their respective owners.

Disclaimer

This manual contains information on the operation and maintenance of the ZKTeco equipment. The copyright in all the documents, drawings, etc. in relation to the ZKTeco supplied equipment vests in and is the property of ZKTeco. The contents hereof should not be used or shared by the receiver with any third party without express written permission of ZKTeco.

The contents of this manual must be read as a whole before starting the operation and maintenance of the supplied equipment. If any of the content(s) of the manual seems unclear or incomplete, please contact ZKTeco before starting the operation and maintenance of the said equipment.

It is an essential pre-requisite for the satisfactory operation and maintenance that the operating and maintenance personnel are fully familiar with the design and that the said personnel have received thorough training in operating and maintaining the machine/unit/equipment. It is further essential for the safe operation of the machine/unit/equipment that personnel has read, understood and followed the safety instructions contained in the manual.

In case of any conflict between terms and conditions of this manual and the contract specifications, drawings, instruction sheets or any other contract-related documents, the contract conditions/documents shall prevail. The contract specific conditions/documents shall apply in priority.

ZKTeco offers no warranty, guarantee or representation regarding the completeness of any information contained in this manual or any of the amendments made thereto. ZKTeco does not extend the warranty of any kind, including, without limitation, any warranty of design, merchantability or fitness for a particular purpose.

ZKTeco does not assume responsibility for any errors or omissions in the information or documents which are referenced by or linked to this manual. The entire risk as to the results and performance obtained from using the information is assumed by the user.

ZKTeco in no event shall be liable to the user or any third party for any incidental, consequential, indirect, special, or exemplary damages, including, without limitation, loss of business, loss of profits, business interruption, loss of business information or any pecuniary loss, arising out of, in connection with, or relating to the use of the information contained in or referenced by this manual, even if ZKTeco has been advised of the possibility of such damages.

This manual and the information contained therein may include technical, other inaccuracies or typographical errors. ZKTeco periodically changes the information herein which will be incorporated into new additions/amendments to the manual. ZKTeco reserves the right to add, delete, amend or modify the information contained in the manual from time to time in the form of circulars, letters, notes, etc. for better operation and safety of the machine/unit/equipment. The said additions or amendments are meant for improvement /better operations of the

machine/unit/equipment and such amendments shall not give any right to claim any compensation or damages under any circumstances.

ZKTeco shall in no way be responsible (i) in case the machine/unit/equipment malfunctions due to any non-compliance of the instructions contained in this manual (ii) in case of operation of the machine/unit/equipment beyond the rate limits (iii) in case of operation of the machine and equipment in conditions different from the prescribed conditions of the manual.

The product will be updated from time to time without prior notice. The latest operation procedures and relevant documents are available on <http://www.zkteco.com>.

If there is any issue related to the product, please contact us.

ZKTeco Headquarters

Address ZKTeco Industrial Park, No. 32, Industrial Road,
Tangxia Town, Dongguan, China.

Phone +86 769 - 82109991

Fax +86 755 - 89602394

For business related queries, please write to us at: sales@zkteco.com.

To know more about our global branches, visit www.zkteco.com.

About the Company

ZKTeco is one of the world's largest manufacturer of RFID and Biometric (Fingerprint, Facial, Finger-vein) readers. Product offerings include Access Control readers and panels, Near & Far-range Facial Recognition Cameras, Elevator/floor access controllers, Turnstiles, License Plate Recognition (LPR) gate controllers and Consumer products including battery-operated fingerprint and face-reader Door Locks. Our security solutions are multi-lingual and localized in over 18 different languages. At the ZKTeco state-of-the-art 700,000 square foot ISO9001-certified manufacturing facility, we control manufacturing, product design, component assembly, and logistics/shipping, all under one roof.

The founders of ZKTeco have been determined for independent research and development of biometric verification procedures and the productization of biometric verification SDK, which was initially widely applied in PC security and identity authentication fields. With the continuous enhancement of the development and plenty of market applications, the team has gradually constructed an identity authentication ecosystem and smart security ecosystem, which are based on biometric verification techniques. With years of experience in the industrialization of biometric verifications, ZKTeco was officially established in 2007 and now has been one of the globally leading enterprises in the biometric verification industry owning various patents and being selected as the National High-tech Enterprise for 6 consecutive years. Its products are protected by intellectual property rights.

About the Manual

This manual introduces the operations of **CMP300**.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Document Conventions

Conventions used in this manual are listed below:

GUI Conventions

For Software	
Convention	Description
Bold font	Used to identify software interface names e.g. OK , Confirm , Cancel .
>	Multi-level menus are separated by these brackets. For example, File > Create > Folder.
For Device	
Convention	Description
< >	Button or key names for devices. For example, press <OK>.
[]	Window names, menu items, data table, and field names are inside square brackets. For example, pop up the [New User] window.
/	Multi-level menus are separated by forwarding slashes. For example, [File/Create/Folder].

Symbols

Convention	Description
	This represents a note that needs to pay more attention to.
	The general information which helps in performing the operations faster.
	The information which is significant.
	Care taken to avoid danger or mistakes.
	The statement or event that warns of something or that serves as a cautionary example.

Table of Contents

1	PRODUCT INTRODUCTION.....	7
2	WHAT IS IN THE BOX	7
2.1	APPEARANCE AND DIMENSIONS.....	8
3	PRODUCT INSTALLATION	9
3.1	INSTALLATION PRECAUTIONS	9
3.2	CABLE EMBEDDING.....	9
3.3	BOOM INSTALLATION.....	10
4	TECHNICAL PARAMETERS	12
5	FUNCTIONS	13
6	MOVEMENT TRANSMISSION STRUCTURE.....	14
7	CONTROL BOARD WIRING INSTALLATION	15
8	COMMISSIONING INSTRUCTIONS.....	20
9	TROUBLESHOOTING.....	23

1 Product Introduction

The Automatic Barrier Gate CMP300 series is a modern barrier gate technology combined with the practical implementation of automated barrier gate products in the industry. This product's appearance and structure design are adapted to the market, and the industry requirements and the traffic light indication has the humanized experience. As an economical automatic barrier gate device, the user can adjust the telescopic straight boom according to the actual requirement to meet various application scenarios.

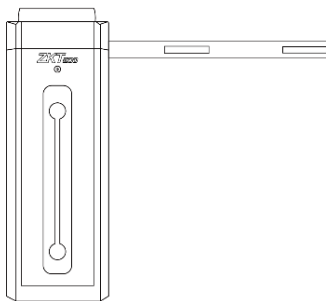
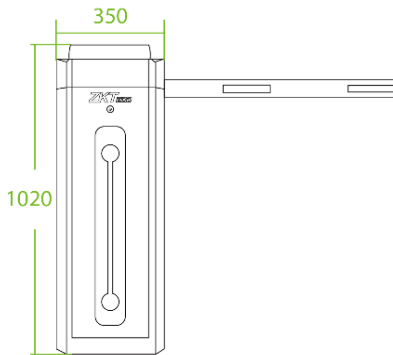
Note: The intensivity of the product is 30% "low intensivity", it is suitable for places where traffic flow and people flow are not dense.

2 What is in the box

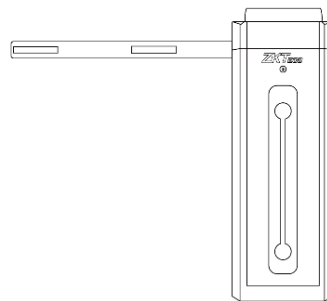
The box comes with;

- The barrier gate*1
- The boom*1
- The remote control*2
- The barrier fixed screw*4
- The boom fixed plate*1
- The boom fixed screw*2
- The key*2
- The user manual*1

2.1 Appearance and Dimensions



Left fixed: The cabinet on the left



Right fixed: The cabinet on the right



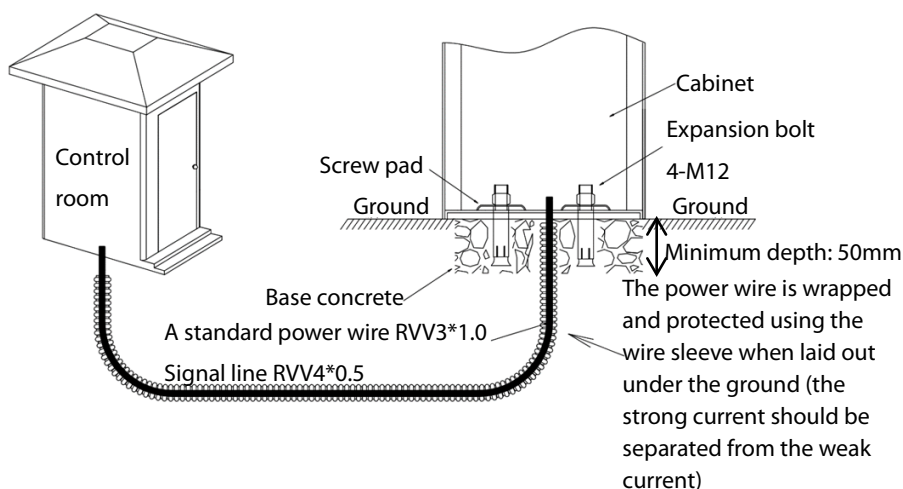
3 Product Installation

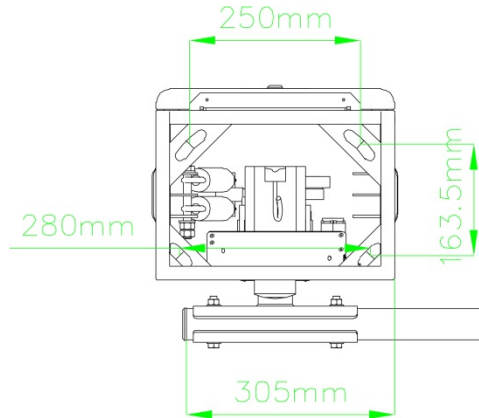
3.1 Installation Precautions

- Install the parking barrier on level ground. If the ground is not firm and steady, then a cement base is required before installation.
- The boom can be cut, but cannot be increased. Cut the boom to the required length, and then set the spring to balance and achieve the new height. Two plastic nuts that lie in the bottom of the spring is designed for adjusting the new balance.
- Do not change the wire connection inside when the power is on.
- The GND should be connected to the cabinet for secure protection.

3.2 Cable Embedding

- Prepare $\phi 25$ protective sleeve and cable in advance.
- Route the cables to be connected through the protective sleeves.
- Use a tool to open the cable board in the ground.





3.3 Boom Installation

Boom Installation Procedure

- Pull the barrier arm out from the main boom, and then fasten it with 2 screws as shown in Figure 1.

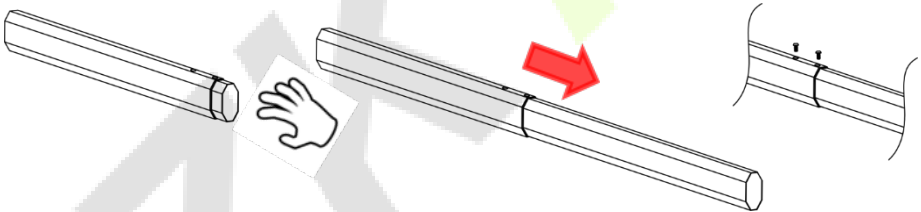


Figure 1 Connect the main boom with vice together by 2 screws

- Install the boom to the chassis (the frame), as shown in Figure 2.

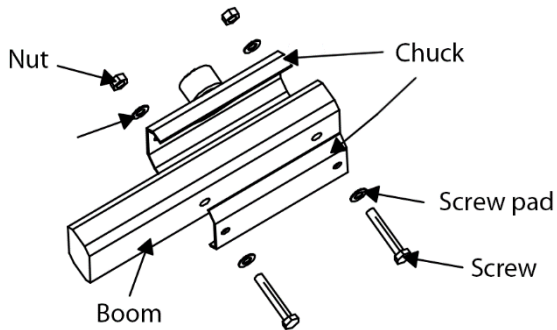


Figure 2 Installing the Boom to the Chassis

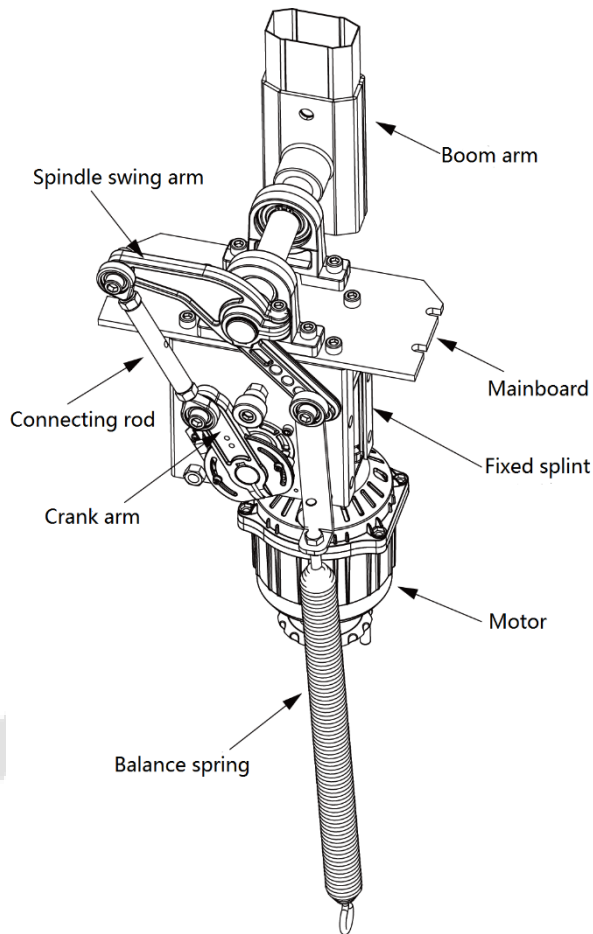
4 Technical Parameters

Power adaptability	Input voltage AC 220V/110V $\pm$ 20%, 50/60Hz
Rated power	100W
Max power	120W
Remote control distance	Open field $\leq$ 30m
Remote control frequency	430MHZ, Learning code
Chassis material	Cold gadolinium steel plate
Boom material	Aluminum
Working temperature	-25°C~+75°C
Working humidity	<90%RH (no condensation)
Protection grade	IP54
Shell size (W*D*H)	1020*350*280 (mm)
Package size (W*D*H)	1100*375*430 (mm)
Chassis net weight	45KG
Chassis gross weight	47KG
Boom type (The mainboard is the same)	Telescopic straight boom, boom length $\leq$ 4.5m, red and white color, the rise/fall speed is 3s
	Telescopic straight boom, boom length: 4.5m~6m, red and white color, the rise/fall speed is 6s

5 Functions

- The opening and closing angles are $90^{\circ} \pm 2^{\circ}$.
- Up, Down and Stop operations interfaced with standard switch input.
- **Anti-smash function:** Supports loop detector, infrared detector, and radar functions.
- **Controller timeout protection:** When the boom operation is abnormal and exceeds the rise and fall time, the boom will stop the operation automatically.
- The barrier gate can be controlled by wireless remote control and wired control buttons to meet the needs of different field applications.
- It supports traffic lights with AC voltage and DC voltage of 5V or 12V.
- Mainboard built-in fuse, secure from overvoltage.
- Supports the connection of LPR, UHF reader controller, and other devices to recognize and control the automatic door opening.

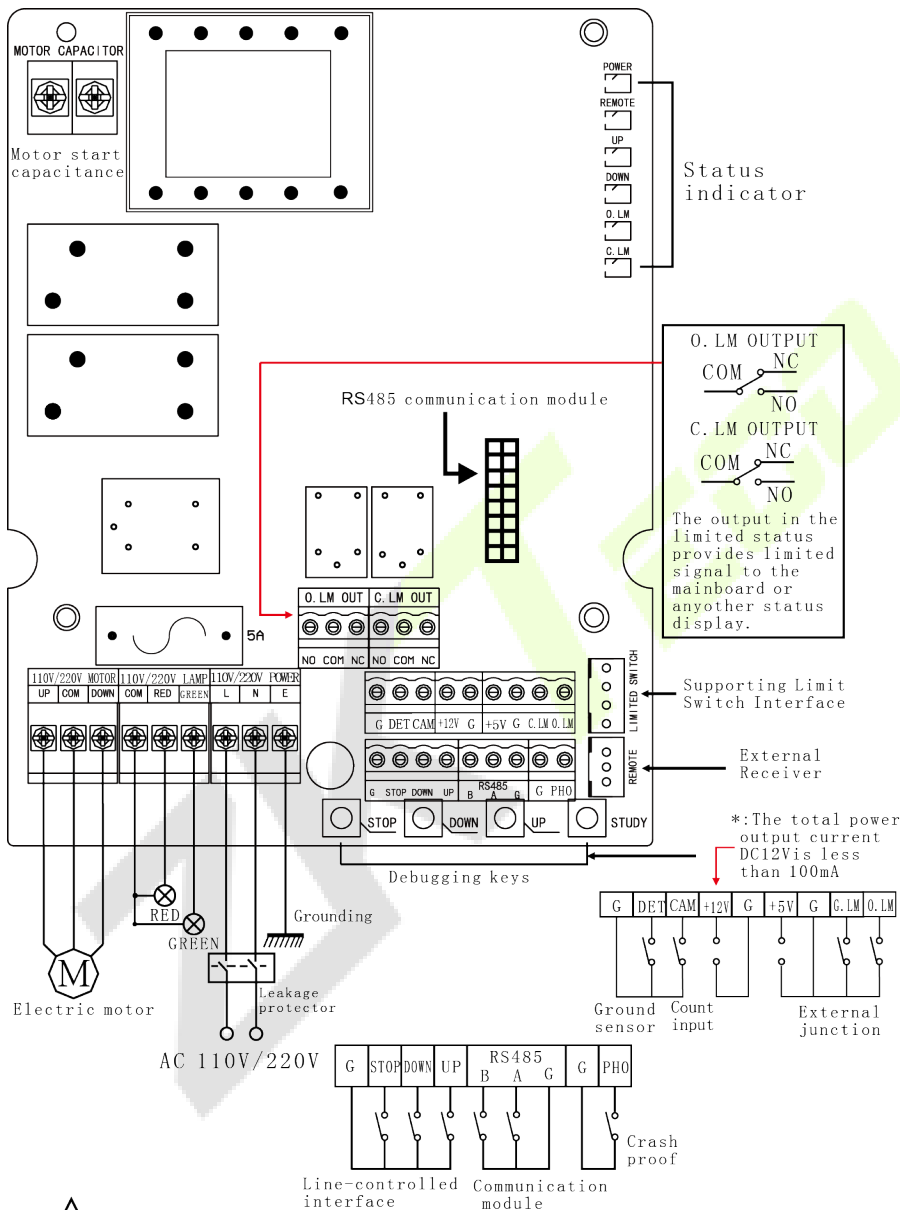
6 Movement Transmission Structure



7 Control Board Wiring Installation

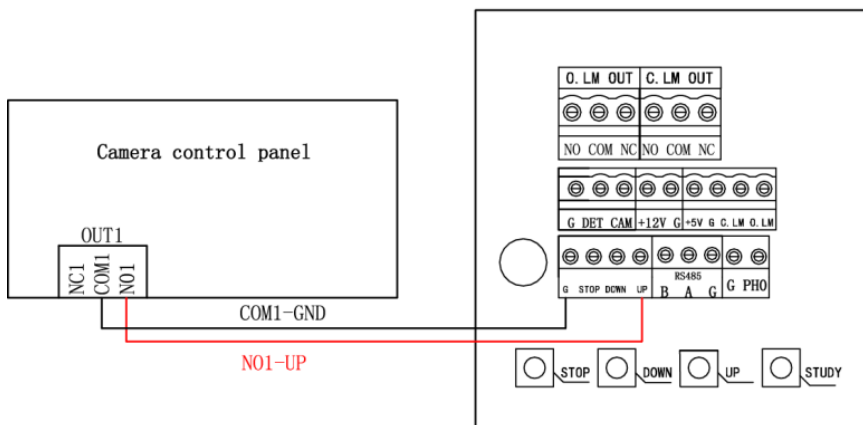
- Remove the wiring cover of the barrier gate main controller.
- Refer to the wiring diagram of the barrier gate controller and connect the lines one by one firmly. (Note: Power must be disconnected before installation or maintenance.)
- After checking and confirming reliable wiring, install the wiring cover back.
- **Install the Desktop Remote Control:** Place the Desktop Remote Control on the table in the guard room or attach it to the wall and plug-in the power.

The wiring diagram of the controller is as follows:



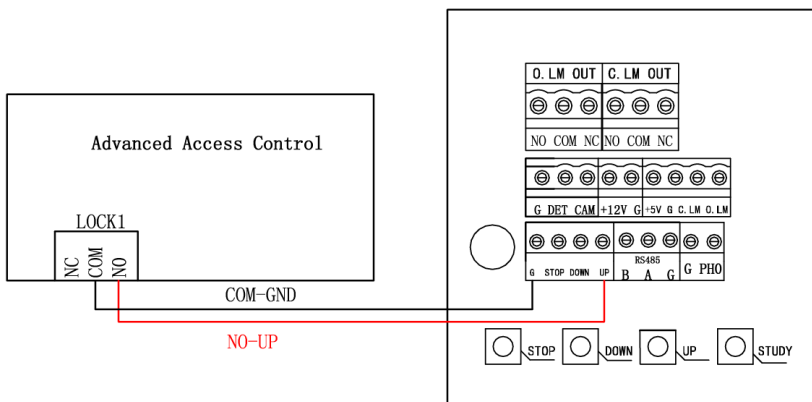
Cut off power before installation or repairation.

- **Connect to the LPR camera:**

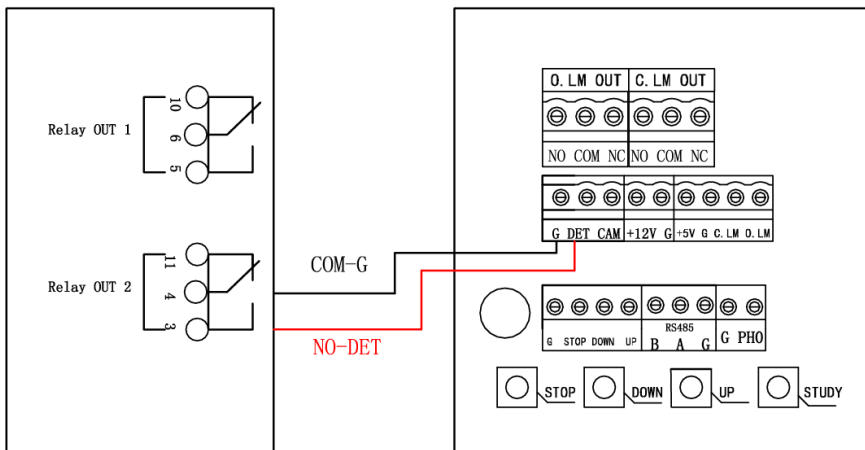


- Connection with the UHF controller.

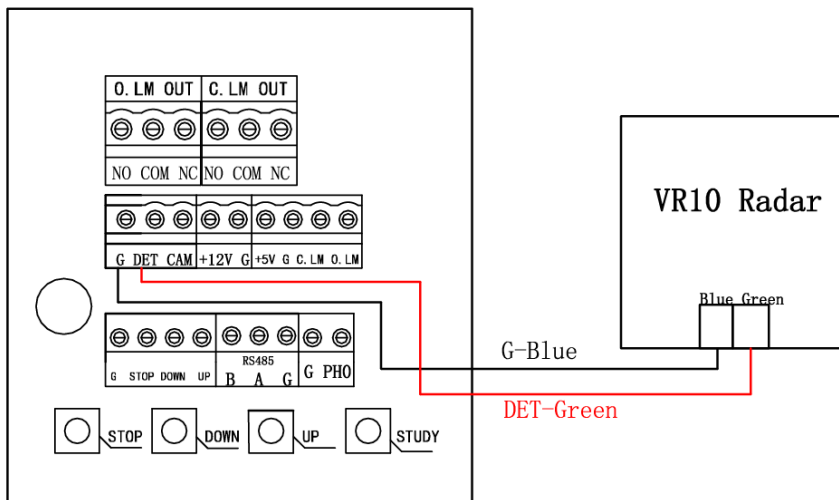
Note: The Reader1 and 2 of the inbio260 controller are corresponding to LOCK1, Reader3, and 4 are corresponding to LOCK2.



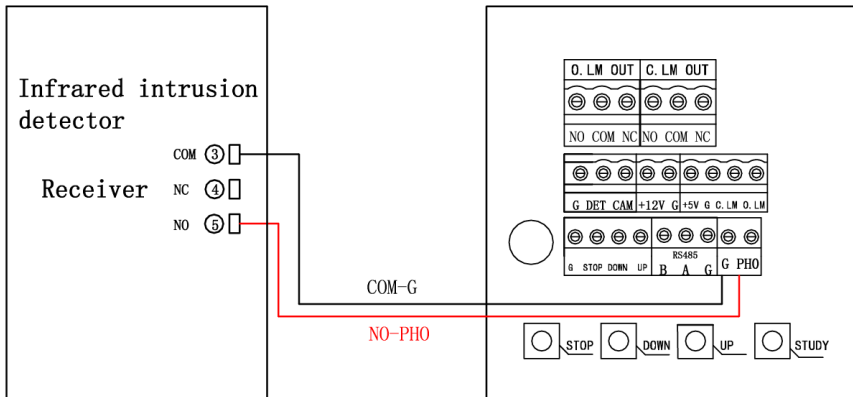
- Connection with the loop detector.



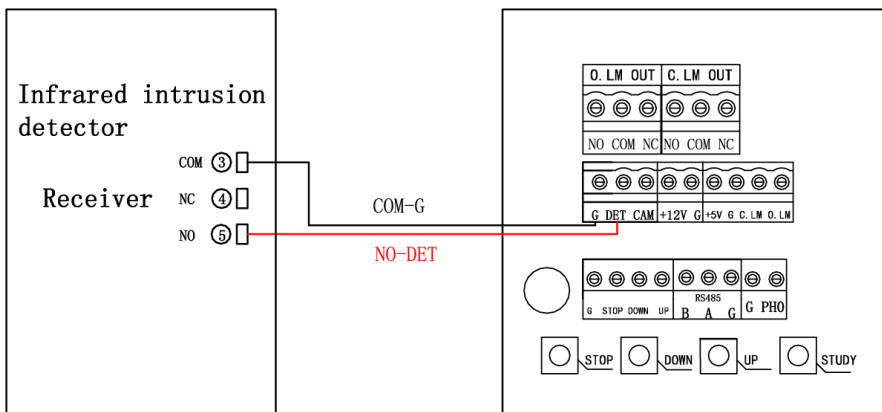
- Connection with VR10 radar



- Connection with the infrared detector
(Only Anti-smash function):



(Anti-smash and auto closing function):

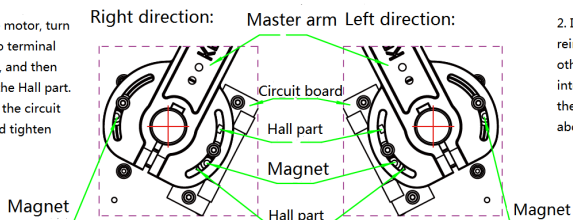


8 Commissioning Instructions

- 1) Check all the connections and make sure the connections are correct before connecting the power.
- 2) Please use the remote control or press the switch button on the mainboard to test whether the machine is running normally.
- 3) **Warning:** Be sure to install the corresponding length of the boom before the power-on test. To avoid accidents, no one is allowed to stand under the boom during testing.
- 4) In the process of boom falling, short connect the infrared detector and public interface, so that the falling boom will start rising immediately, and will stop automatically after the rising limit. This is mimic the effect of infrared detectors.
- 5) In the process of boom falling, short connect the loop detector and public interface, the falling boom is transferred to rising immediately, which will fall automatically after the rising limit and stop automatically after the falling limit. In the process of boom rising, short connect the loop detector and public interface, the boom will fall automatically after the rising limit and stop automatically after the falling limit. In the open state, short connect the loop detector and public interface; the boom will automatically fall to the limit and stop. This is imitate the effect of the loop detector.
- 6) Barrier gate Hall limit switch adjustment:

CMP300 Barrier gate Hall limit switch adjustment:

1. Manually shake the motor, turn the master arm to two terminal positions respectively, and then move the magnet to the Hall part. The indicator light on the circuit board shall prevail and tighten the magnet.



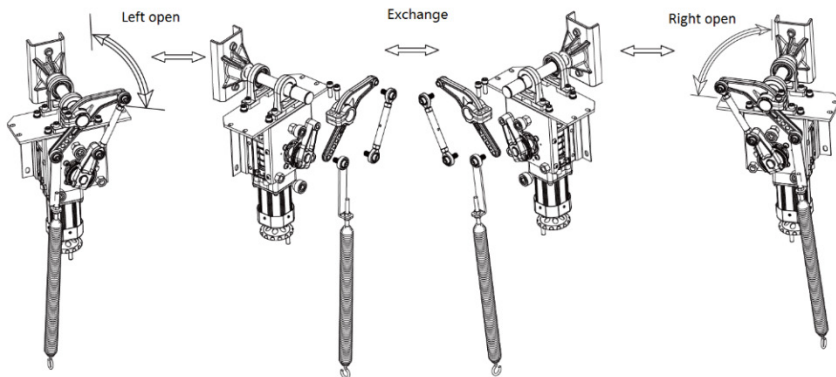
2. If switch left and right, please reinstall the circuit board on the other side and insert the wiring into the other end. Then adjust the magnet according to the above steps.

7) Left and right movement interchange method:

CMP300 Barrier gate left and right movement interchange:

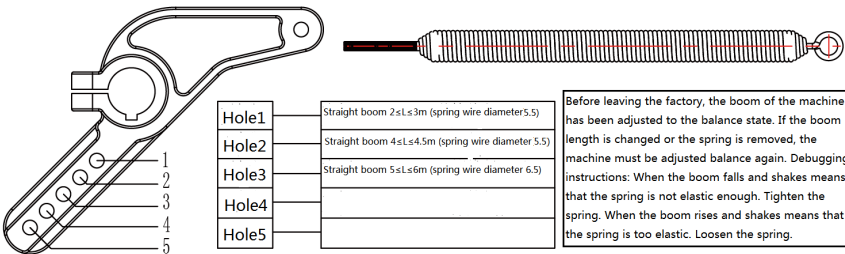


Please release the spring and remove the boom before replacing!



8) Barrier gate spring and the corresponding boom length type:

CMP300 Barrier gate spring hole selection:



Hole1	Straight boom 2≤L≤3m (spring wire diameter 5.5)
Hole2	Straight boom 4≤L≤4.5m (spring wire diameter 5.5)
Hole3	Straight boom 5≤L≤6m (spring wire diameter 6.5)
Hole4	
Hole5	

Before leaving the factory, the boom of the machine has been adjusted to the balance state. If the boom length is changed or the spring is removed, the machine must be adjusted balance again. Debugging instructions: When the boom falls and shakes means that the spring is not elastic enough. Tighten the spring. When the boom rises and shakes means that the spring is too elastic. Loosen the spring.

9) Study/Delete Remote Control Code

Study code:

- In the **Stop** state, press the "**Study**" button on the main controller until the REMOTE indicator is ON and then release it.
- Then press any button on the remote control, the REMOTE indicator turns OFF. In this process, the code of studying will be completed.

Delete code:

- To process the Code deletion, in the **STOP** state, press the **Study** button on the main controller until the REMOTE indicator is ON, continue to press the 'Study' button, and hold on until the REMOTE indicator is OFF.
- **Note:** All the codes will be deleted in this process).

Note: One barrier can only study to 20 remote controls. The matching remote control will be studied already, and there is no need to read again.

9 Troubleshooting

No.	Troubles	Fault Cause	Solution
1	The POWER indicator is not on, and the button is not responding.	1) The power supply is not connected. 2) The fuse blew off.	1) Connect the power. 2) Replace the fuse.
2	The POWER indicator is on, no response by remote control.	1) The remote control code is wrong. 2) Poor receiving module. 3) The same frequency interference exists.	1) Recode. 2) Replace the receiving module. 3) Change to other frequencies.
3	The POWER indicator is on, the boom UP and DOWN indicator is normal, the motor is not running.	1) The motor wire is open or incorrectly connected. 2) The motor is stuck.	1) Connect the motor wire. 2) Manual release motor.
4	Unable to rise or fall boom to limit.	1) The limit line is misconnected. 2) Limit switch is broken.	1) Reconnect the rising and falling limit line. 2) Replace limit switch.
5	The remote control handle is not responding.	1) The battery of the handle is low. 2) Handle broken.	1) Replace battery. 2) Replace the handle.

ZKTeco Industrial Park, No. 32, Industrial Road,

Tangxia Town, Dongguan, China.

Phone : +86 769 - 82109991

Fax : +86 755 - 89602394

www.zkteco.com

