

# 如何安装 TMG520/how to install TMG520

## 一、设备介绍/Device introduction

TMG520 为海外最新的海康自研道闸，本文档介绍主要介绍如何安装配置道闸  
TMG520 is the latest overseas hikvision self-developed road gate. This document mainly describes how to install and configure the road gate

## 二、配件说明/ Part description

包装：闸杆+机箱（内含配件包）

配件包：①车检器\*1 ②闸杆固定螺丝（M10）\*4 ③膨胀螺丝（M12\*180）\*4 ④底部固定压条\*2 ⑤遥控器\*2 ⑥L型钥匙\*1 ⑦说明书\*1 ⑧闸杆固定夹板\*1 ⑨备用线\*1 ⑩手自动切换L型扳手

Packaging: barrier pole + case (including accessories pack)

Accessories package: ① vehicle detection \*1 ② pole fixing screw (M10) \*4 ③ expansion screw (M12\*180) \*4 ④ bottom fixing strip \*2 ⑤ remote control \*2 ⑥ L key \*1 ⑦ manual \*1 ⑧ Brake lever fixing splint \*1 ⑨ Spare line \*1 ⑩ Hand automatic switch L-shaped wrench





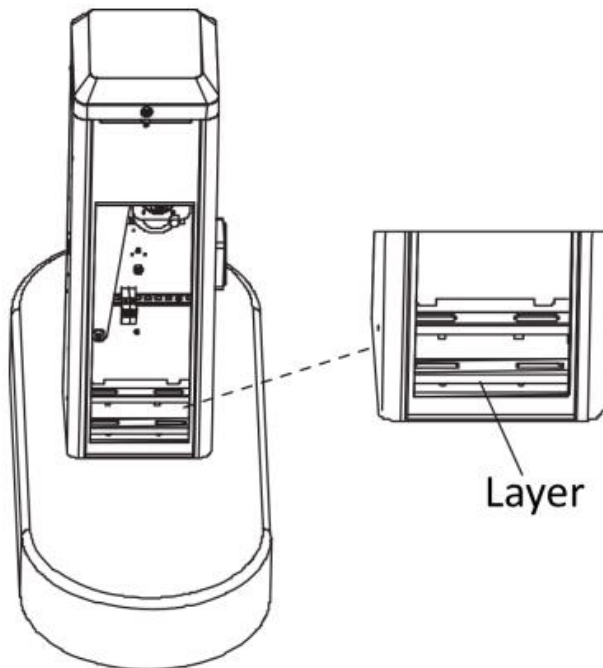
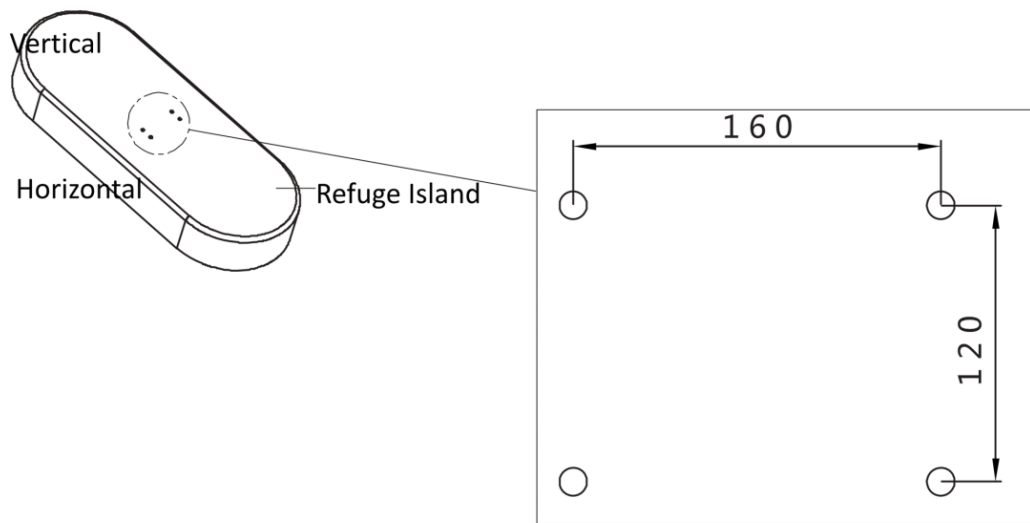
### 三、道闸安装/Barrier installation

#### 1、安装要求/ installation requirements

- ①道闸安装位置必需满足闸杆开关顺畅，注意车道宽度和高度
- ②安装地面必需水平
- ③预埋线缆，穿线管必需高于地面 50mm，防止路面积水进入线缆导致短路
- ① The installation position of the barrier must open and close smooth, and pay attention to the width and height of the lane
- ② The installation ground must be level
- ③ Buried cables must be 50mm higher than the ground to prevent road water from entering the cables and causing short circuit

#### 2、底座安装/ Foot mounting

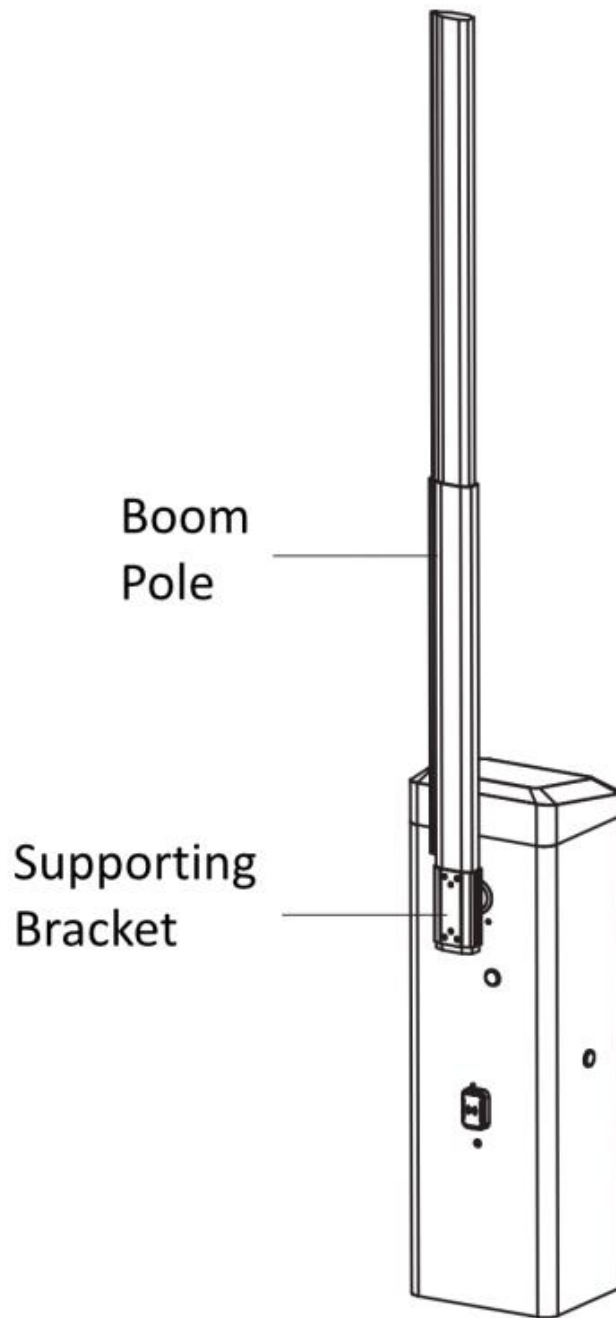
- ①在安装地面上标记如下图孔位
- ②在标记孔位上打孔
- ③将 12M 的膨胀螺丝安装在对应孔位上，拧紧螺母后退出螺母
- ④将道闸放置在安装孔位上，将底部固定压条穿过膨胀螺丝并固定
- ① Mark the hole positions on the installation ground as shown in the following figure
- ② Punch holes at the mark holes
- ③ Install 12M expansion screws in the corresponding holes, tighten the nuts, and withdraw the nuts
- ④ Place the sluice gate on the installation hole, and pass the bottom fixing strip through the expansion screw and fix it



### 3、杆子安装/Pole installation

- ①保证道闸开到位的状态下安装或者拆卸闸杆
- ②对齐夹头和闸杆孔位，并盖上夹板
- ③使用 4 个闸杆固定螺丝将闸杆固定在夹头上
- ④测试开关是否正常

- ① Ensure that the gate is opened in place to install or remove the brake rod
- ② Align the chuck and brake lever holes, and cover the splint
- ③ Use four brake lever fixing screws to fix the brake lever on the clamp
- ④ Test whether the switch is normal



#### 四、设备接线/Device wiring

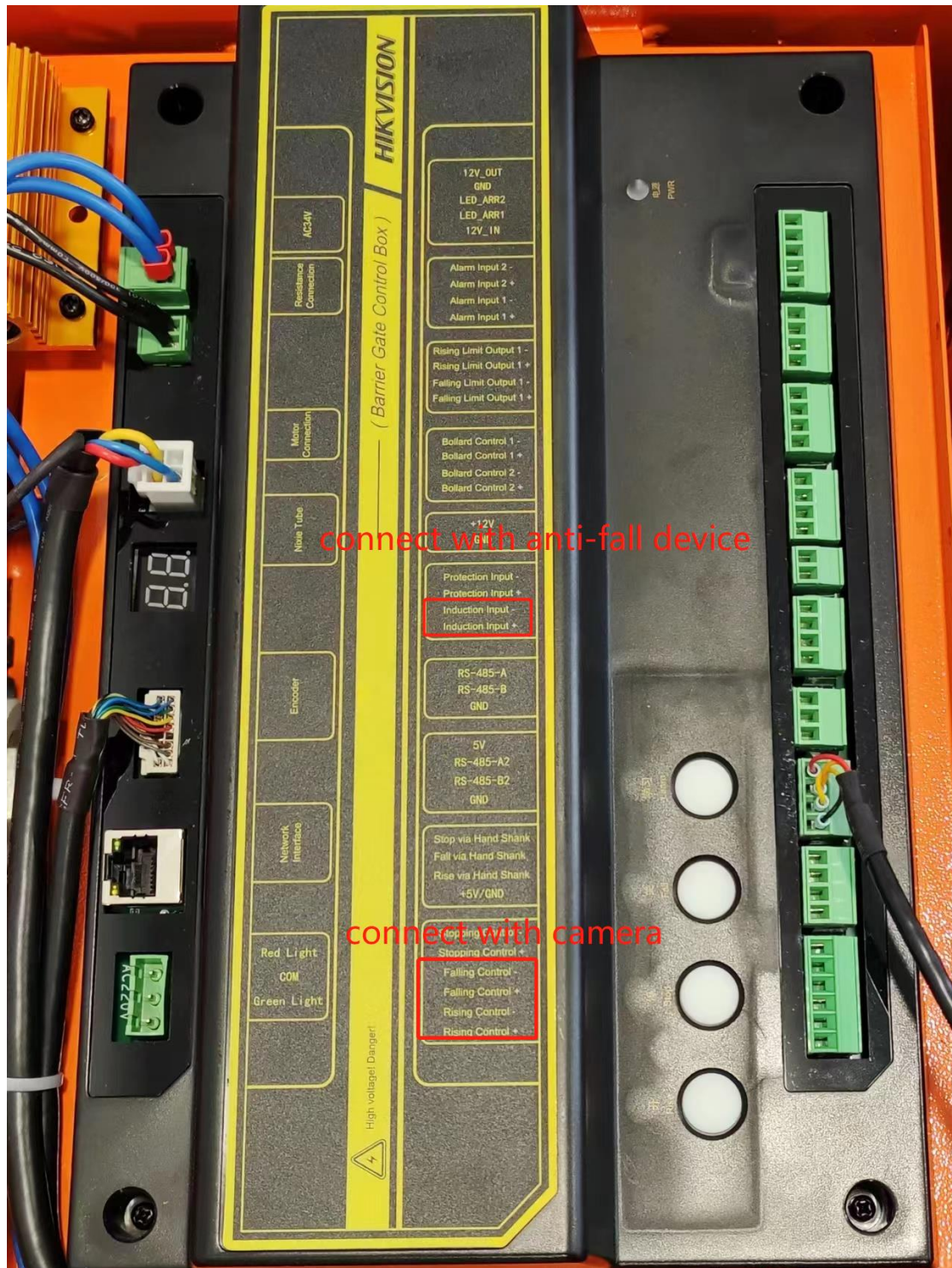
- 1、供电：将 220V (110V) 供电电源接入空开中，打开空开即可上电
- 2、防砸：将防砸信号接入道闸的 induction±接口
- 3、相机：将相机信号接入道闸的 control rising/falling±接口

1. Power supply: Connect the 220V (110V) power supply to the circuit breaker. Turn on the circuit breaker to power on

2. Anti-fall device: the anti-fall signals will be connected into the induction± interface of the control box



3. Camera: Connect the camera signal to the LED control rising/falling± interface of the channel gate



## 五、道闸调试/Barrier setting

### 1、手动自动切换\Manual and automatic switching

道闸上电时无法切换手动自动模式，需要断电

The barrier cannot switch between manual and automatic modes when powered on, so you

need to power off first.

① 将 L 型扳手插入机芯六角孔

① Insert the L-type wrench into the hexagonal hole of the movement.



② 若杆子在开到位，顺时针转动 L 型扳手为手动挡；

若杆子在关到位，逆时针转动 L 型扳手为手动挡；

If the pole is in the open limit, turn the L-type wrench clockwise to switch to manual mode;

If the pole is in the close limit, turn the L-type wrench anti-clockwise to switch to manual mode;

转动 L 型扳手使杆子在非到位状态即为手动挡；杆子在开到位和关到位即为自动挡。

Turning the L-type wrench to make the pole in a non-limit state is manual mode; the pole is

in the open or close limit, which is automatic mode.

## 2、平衡调整/Balance adjustment

新装道闸不需要调整平衡，设备出厂前已经调整过

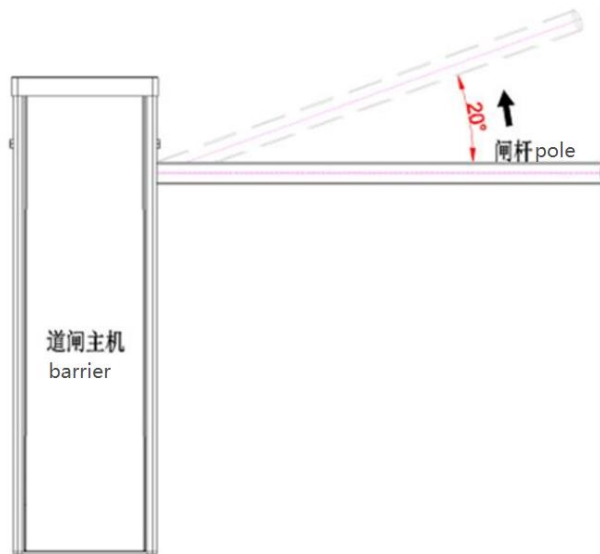
①道闸断电，使用 L 型扳手切换至手动模式

②将闸杆手动掰至与地面夹角成  $20^\circ$  后松手，若杆子能自动升至  $60\pm 5^\circ$ ，说明道闸平衡

The new barrier does not need to adjust the balance, the equipment has been adjusted before leaving the factory

① The barrier powered off, and the L-shaped wrench is used to switch to manual mode

② Manually break the pole to the ground Angle into 20 degrees, then let go, if the rod can automatically rise to  $60\pm 5$  degrees, means the barrier balance



③若杆子无法正常升起，说明弹簧太松，需要调紧弹簧；如果杆子超过平衡位置，说明弹簧太紧，需要调松弹簧；弹簧松紧通过底部的螺丝调节

③ If the pole can not rise normally, it means that the spring is too loose, and the spring needs to be tightened; If the rod exceeds the balance position, the spring is too tight, need to loosen the spring; The spring tightness is adjusted by screws at the bottom



④平衡调整完后，上电测试开关是否正常

④ After balance adjustment, power on test whether the switch is normal

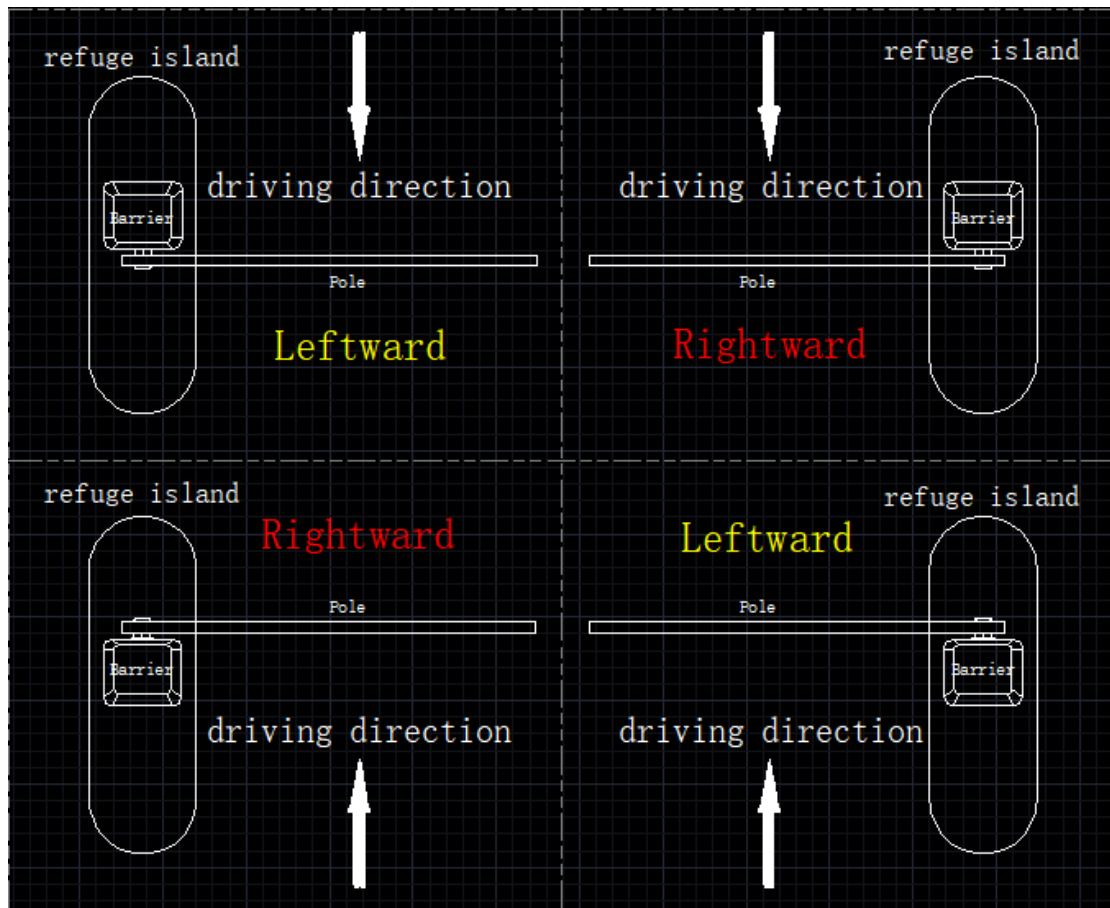
### 3、方向切换/ Direction switching

①确认当前方向\ Confirm the current direction

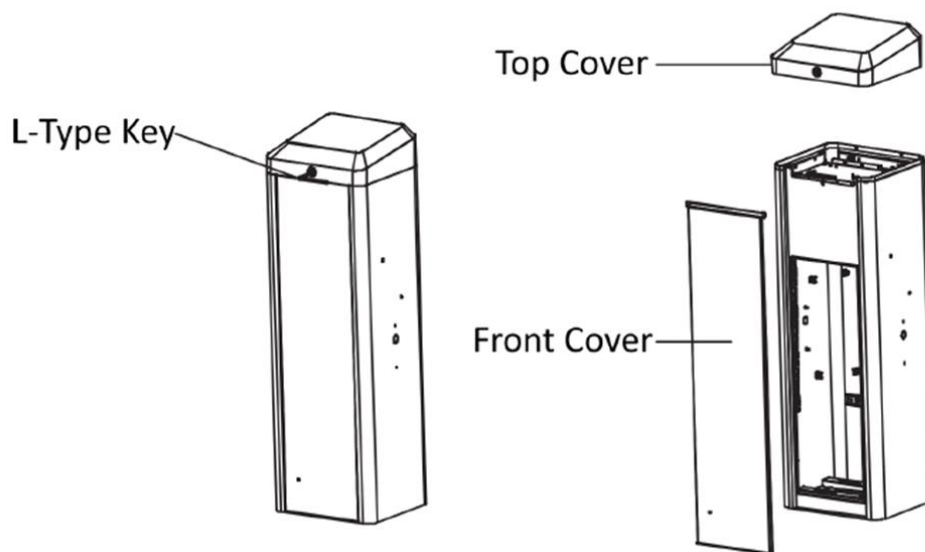
默认直杆及曲臂道闸出厂为右向闸（栅栏杆由于杆件原因，区分左右向，出场时需注意）；如果现场需要右向道闸，无需换向，道闸方向判断如下图

The default straight pole and curved pole barrier are rightward when they leave the factory (For the fence pole, the barrier distinguishes between left and right, and attention should be paid when leaving the factory); if a rightward barrier is needed on site, there is no need to change direction. The barrier direction is judged as shown in the figure below:



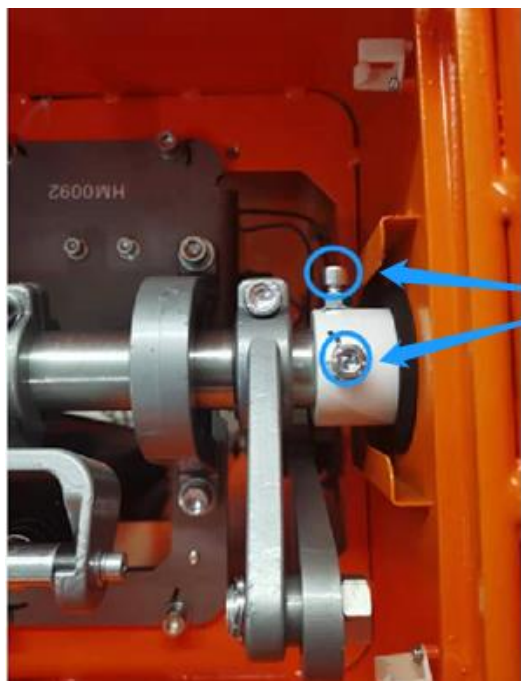


②道闸断电，移除顶盖及 logo 前面板，移除所有外部接线，如电源线、控制线等。  
 Power off the barrier, remove the top cover and the front cover which with logo, and remove all external wiring, such as power cable, control cable.



③通过手自动切换，分别在开到位和关到位的状态下拆掉机箱内部的两个夹头螺丝。

Through manual and automatic switching, remove the two clamp screws inside the chassis in the open and close limit respectively.



卸下内部固定的两个螺丝  
remove the clamp screws

④用 L 型扳手拆掉夹头外侧螺丝，并卸下电机至控制盒接线

Use the L-type wrench to remove the screws on the outside of the clamp and remove the wiring which come from motor to the control box

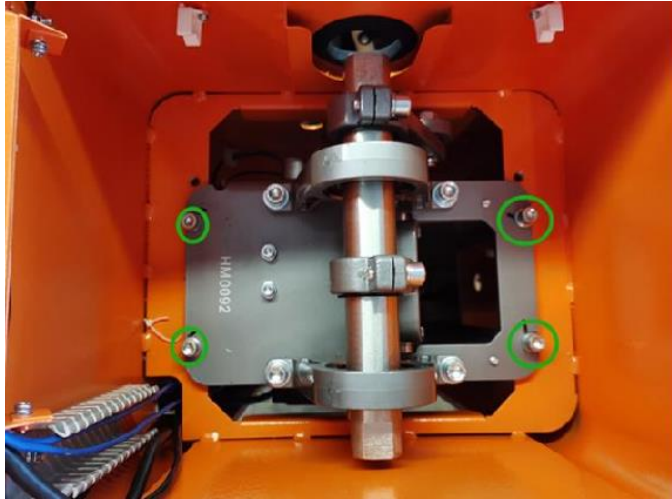


卸下夹头外部的  
固定螺丝  
Remove the  
screws

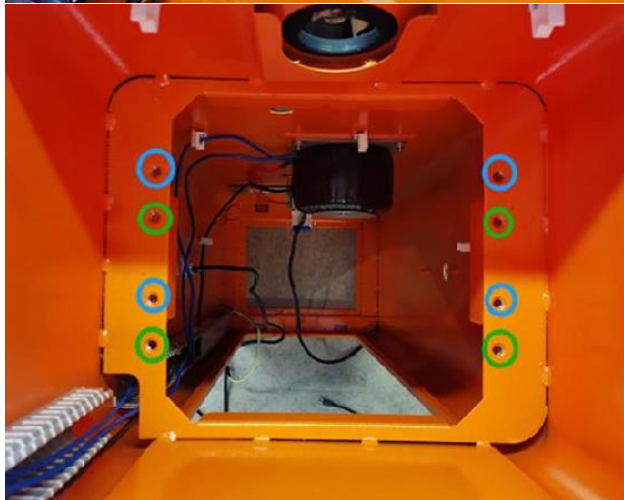
去除控制盒上电机接线  
Remove all the wiring

⑤卸下机芯固定的 4 个内六角螺丝，并将机芯取出，旋转 180 度后放回机箱，更换另一付孔位进行安装固定。下图中蓝色部分为右向道闸使用，绿色部分为左向道闸使用。

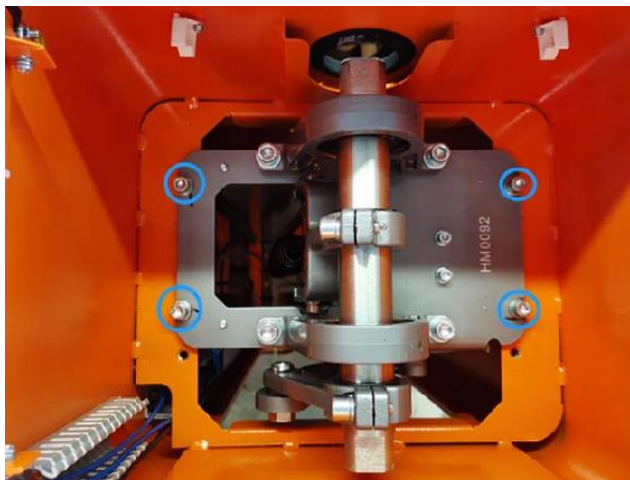
Remove the 4 hexagonal screws that fix the movement, take out the movement, rotate it 180 degrees and put it back into the chassis, and replace the other pair of holes for installation and fixing. In the figure below, the blue part is used for rightward barrier and the green part is used for leftward barrier.



将固定道闸机芯的4个内六角螺丝卸下  
Remove the screws which fixing the movement



机芯拆下后在固定支架上可以看到8个空位;  
蓝色圈对应4孔位为右向道闸使用;  
绿色圈对应4孔位为左向道闸使用。  
after removing movement, there are 8 holes, the blue parts for rightward; the green parts for leftward



将机芯旋转180°后置入机箱，并更换另一幅孔位固定  
turn the movement 180°, and fix it with different holes

⑥固定夹头，将外侧和内部固定螺丝旋回后固定。

Fix the clamp and fix it after turning back the outer and inner fixing screws.

⑦恢复电机至控制盒接线、外部接线。换向完成。

Restore the motor to the control box wiring and external wiring. The direction change is complete.

#### 4、限位学习/Limit learning

正常情况下道闸不需要进行限位学习，设备出厂前已经学习过。如果道闸没有进行过限位学习，道闸上电后会自动进入限位学习状态，先往关方向运行，再往开方向运行。

Under normal circumstances, there is no need to learn the limit of the gate. The equipment has been learned before leaving the factory. If the gate has not been limit learning, the gate will automatically enter the limit learning state after being powered on, and run first in the off direction and then in the open direction.

#### ①道闸自动学习限位

开到位状态下，长按学习键，数码管显示“H0”，再次长按学习键，数码管显示“Lr”，代表进入自动学习限位状态：道闸自动往关方向运行，直到关限位状态；然后自动往开方向运行，直到开限位状态。数码管恢复至“00”，表示道闸自动限位学习完成。

#### ① Gate automatic learning limit

Under the state of in place, long press the learning key, and the digital tube will display "H0"; Long press the learning key again, and the digital tube will display "Lr", which means entering the state of automatic learning limit: the track brake will automatically run in the direction of closing until the state of closing limit; Then automatically run in the open direction until the open limit state. The digital tube restores to "00", indicating that the automatic limit learning of the road brake is completed.

#### ②道闸手动学习开限位

步骤一：在开到位状态下，长按学习键，数码管显示“H0”，短按一次关按键，数码管显示“H1”  
长按学习键，数码管显示“OL”，表示进入开限位学习状态

步骤二：通过开按键和关按键可以调整道闸开状态下的限位位置。调整完成后短按学习键保存当前位置为开状态下的限位位置，最后退出当前菜单

#### ② Road brake manual learning to open the limit

Step 1: Under the open position state, long press the learning key, and the nixie tube displays "H0"; short press the off button once, and the nixie tube displays "H1"; Long press the learning key, and the nixie tube displays "OL", indicating entering the open limit learning state

Step 2: You can adjust the limit position in the open state by using the open button and the close button. After the adjustment is complete, press the Learning key to save the current position as the limit position in the open state, and finally exit the current menu

#### ③道闸手动学习关限位

步骤一：在关到位状态下，长按学习键，数码管显示“H0”，短按一次关按键，数码管显示“H1”  
长按学习键，数码管显示“CL”，表示进入关限位学习状态

步骤二：通过开按键和关按键可以调整道闸关状态下的限位位置。调整完成后短按学习键保存当前位置为关状态下的限位位置，最后退出当前菜单

#### ③ The limit of gate manual learning

Step 1: When the switch is in place, long press the learning key and the nixie tube displays "H0". Short press the switch button once and the nixie tube displays "H1". Long press the learning key and the nixie tube displays "CL", indicating that the switch is in the switch learning state

Step 2: The limit position of the track gate can be adjusted through the on and off buttons. After the adjustment is complete, press the Learning key to save the current position as the limit position in the off state, and finally exit the current menu

## 5、遥控器学习/remote control learning



### ①遥控器学习/remote control learning

遥控器出厂已经完成学习，现场如有更换遥控器，需要重新学习

步骤一： 按开，使道闸处于开到位的状态

步骤二： 长按学习，显示“H0”。短按关，显示到“H4”

步骤三： 长按学习，显示“PA”

步骤四： 短按遥控器不同按键两次，数码管显示“00”表示学习完成

The remote control has been learned before delivery. If you change the remote control on site, you need to learn it again

Step 1: Press open to make the gate open in place

Step 2: Press and hold to learn. H0 is displayed. Press the button to display "H4".

Step 3: Press and hold to learn. PA is displayed.

Step 4: Press different buttons of the remote control twice, and the digital tube displays "00", indicating that learning is completed

### ②遥控器清码/remote control delete

遥控器需要更换其他道闸控制时，需要对遥控器进行清码

步骤一： 按开，使道闸处于开到位的状态

步骤二： 长按学习，显示“H0”。短按关，显示到“H4”

步骤三： 长按学习，显示“PA”

步骤四： 长按停，显示“H4”表示完成清码，短按学习退出设置

When the remote control needs to be replaced by another gate control, the code of the remote control needs to be cleared

Step 1: Press open to make the gate open in place

Step 2: Press and hold to learn. H0 is displayed. Press the button to display "H4".

Step 3: Press and hold to learn. PA is displayed.

Step 4: Long press to stop. If "H4" is displayed, the code is clear. Short press to learn to exit the setting

## 6、速度调节/speed setting

### ①抬杆速度

步骤一： 按开，使道闸处于开到位的状态

步骤二： 长按学习键，显示“H0”。短按关，显示到“H2”

步骤三： 长按学习键，显示“LX”，“X”表示抬杆速度等级

步骤四： 短按开关键，“L3”表示速度最快；“L1”表示速度最慢

#### ① Speed of opening

Step 1: Press open to make the gate open in place

Step 2: Hold down the learning button. H0 is displayed. Press the button to display "H2".

Step 3: Long press the learning button, "LX" is displayed, "X" indicates the bar lifting speed level

Step 4: Press the open key, "L3" indicates the fastest speed; L1 indicates the slowest speed

### ②落杆速度

步骤一： 按开，使道闸处于开到位的状态

步骤二： 长按学习键，显示“H0”。短按关，显示到“H3”

步骤三：长按学习键，显示“LX”，“X”表示抬杆速度等级

步骤四：短按开关键，“L3”表示速度最快；“L1”表示速度最慢

## ② Speed of closing

Step 1: Press open to make the gate open in place

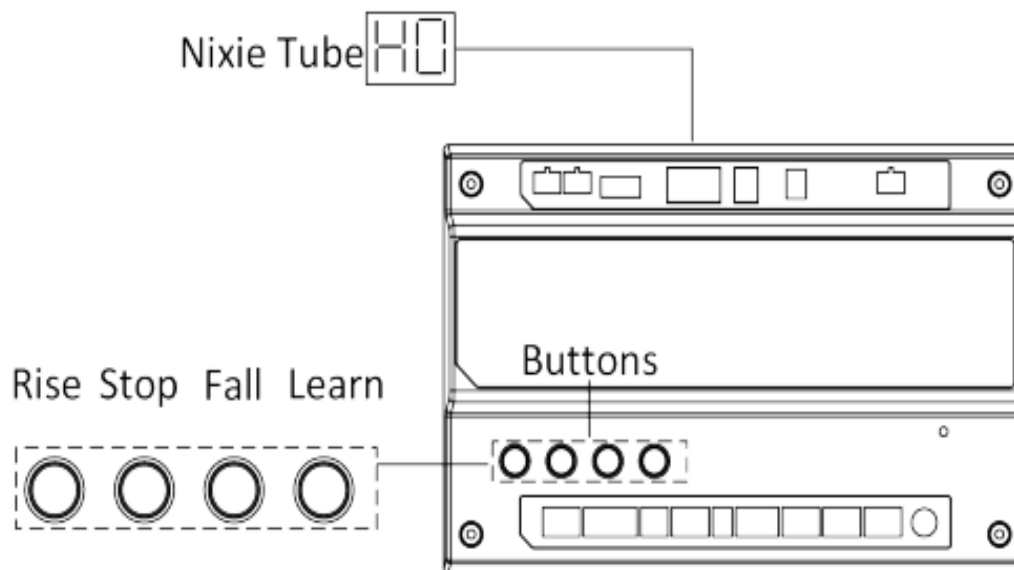
Step 2: Hold down the learning button. H0 is displayed. Press the button to display "H3".

Step 3: Long press the learning button, "LX" is displayed, "X" indicates the bar lifting speed level

Step 4: Press the open key, "L3" indicates the fastest speed; L1 indicates the slowest speed

## 7、控制盒其他设置

### ①控制盒介绍



数码管：用于显示状态、设置

开、停、关按钮：分别对应控制道闸开闸、停止动作、关闸

学习按钮：用于学习限位、设置

Nixie tube: display status and settings

Open\ stop\ close buttons: to rise/fall/stop the boom pole

Learn button: used for learning limit and setting

### ②控制盒代码

No.	Type	Display	State	Remarks
1	Status Display	"00"	Normal	
2		"XX"hexadecimal numbers except "00"	Fault state. The number is the specific fault code	
3		"Lr"	learning limit	
4		"Lc"	locking barrier	