
Small and small four-column parking equipment

Installation instructions for use

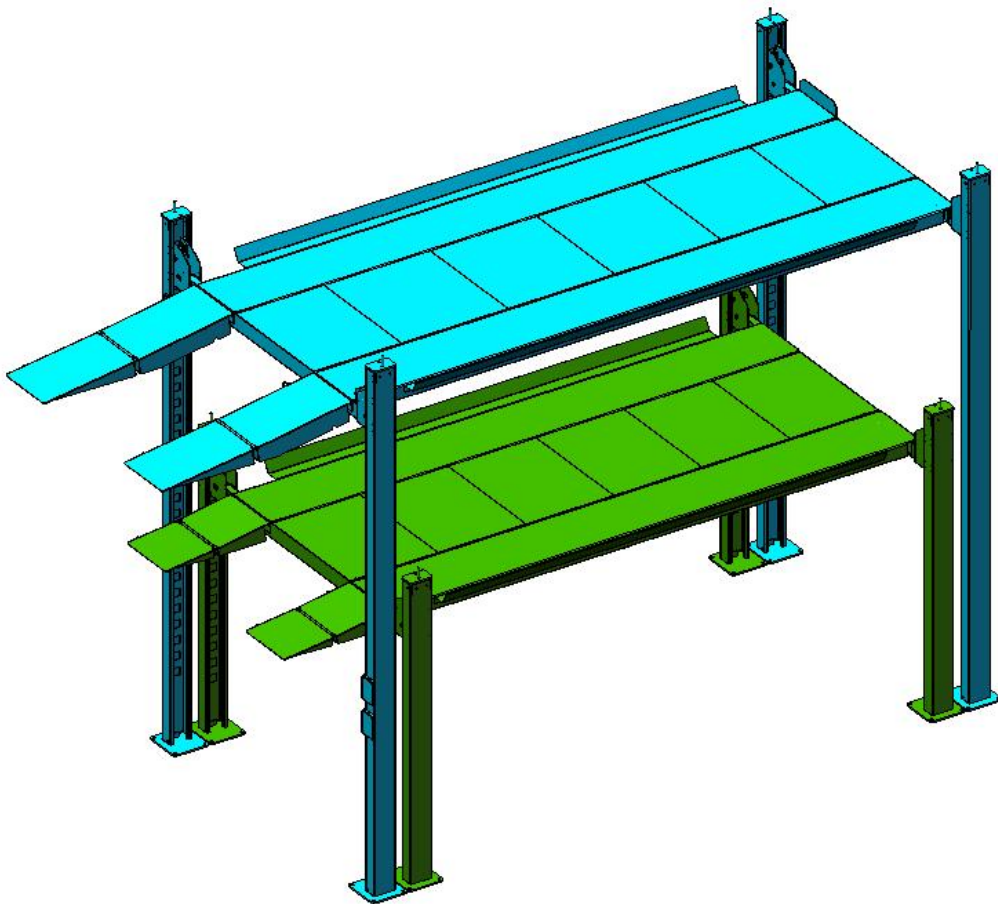


catalogue

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1. Product features and introduction

- Operation mode of electric unlock, safe and convenient;
- Flexible in use, which can be used for parking or car repair;
- Each column has a mechanical locking device and wire rope anti-breaking device, high safety;
- Car board and running board use pattern plate to prevent sliding safer;
- Using the hydraulic transmission system, the hydraulic pump output high pressure oil to push the hydraulic cylinder, the hydraulic cylinder drives the wire rope, to achieve the synchronous and steady rise or fall of the vehicle board, to achieve the purpose of accessing the car;
- Between the running plate can be selected with plastic oil plate or iron cover plate to prevent the upper car dripping oil;



model	Lift the weight	Lift the height	collection time	power	voltage
TPP501 Large four columns	2.7T	3500mm	120S	2.2kw	380V/220V

TPP501 Small four columns	2.7T	1800mm	60S	2.2kw	380V/220V
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2. Installation requirements

1. Prepare tools

Chalk, ink bucket
Meter (7.5m)



monkey
bolt driver



Active wrench (12 ")



Wrench (1 set) of strong pliers



Inner hexagon wrench (1 set) impact drill
(With M18



impact drill bit, drill length not less than 130mm)

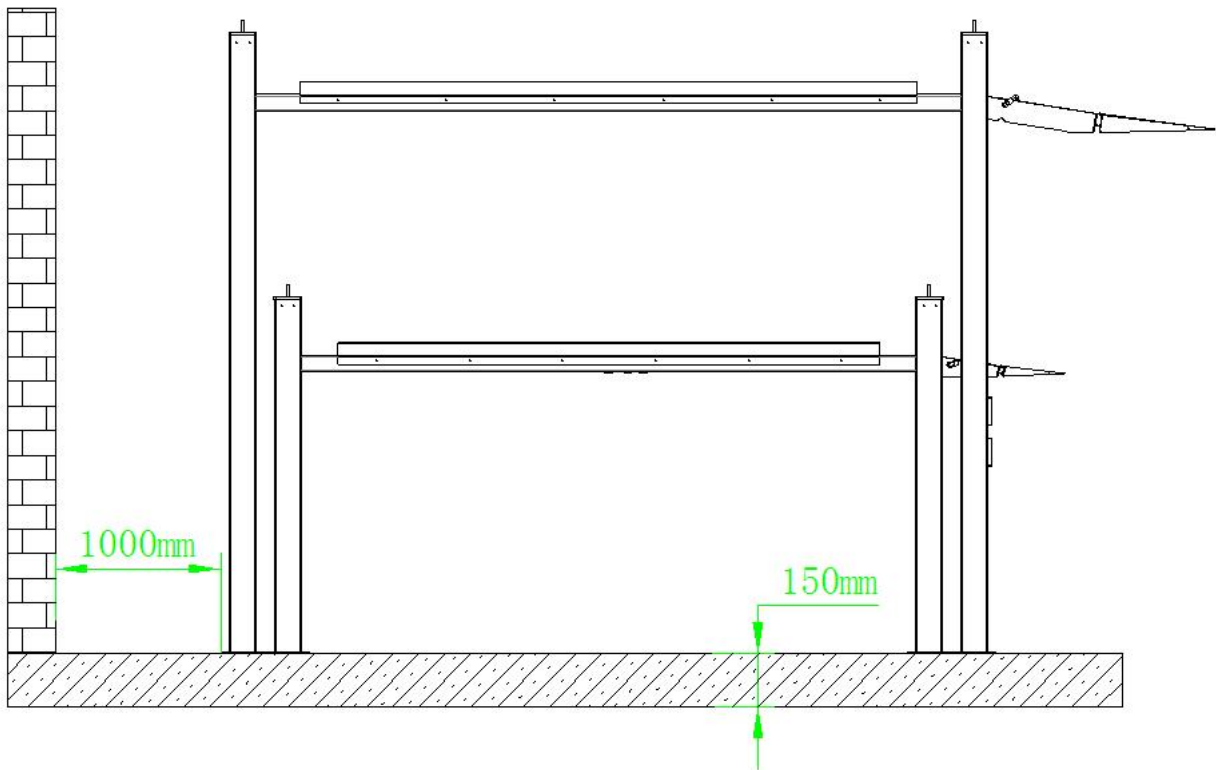


gradienter



2、 Installation environment requirements

- 1) The minimum thickness of concrete is 150mm, and the new foundation concrete must be solidified for more than 28 days;
- 2) The concrete must be in good condition, with no cracks. The strength tested is at least 3000 psi, namely 210kg / cm² ;
- 3) The ground should be flat without cracks, and the flatness is 5mm.
- 4) Space length, width and height can meet the requirements of equipment use.



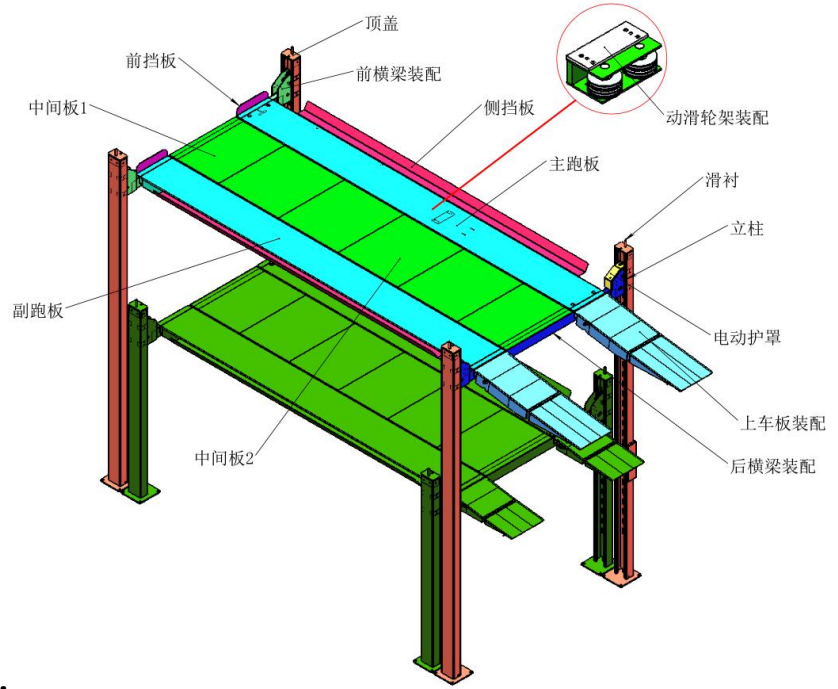
三、 Installation step (the same for four columns)

1. Check whether the package is missing before installation.

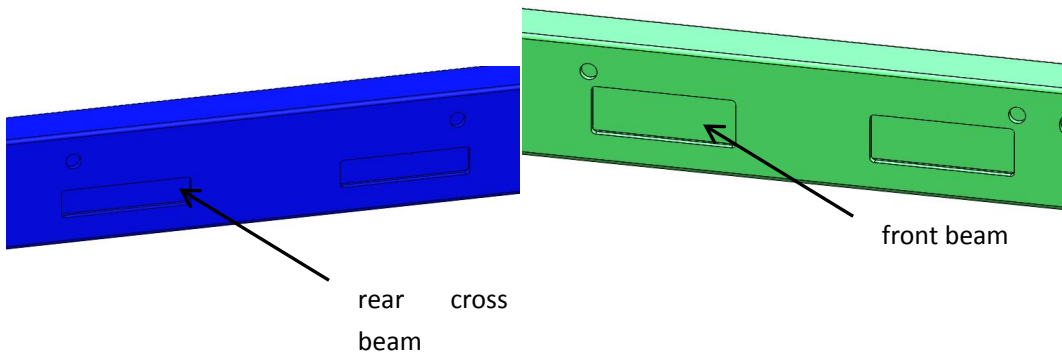
It mainly includes sheet metal parts, power units and standard parts boxes.



3. Open the outer package, remove the shelves, and then check the quantity



against the shipping list.



发货清单					
序号	名称	型号	规格	数量	备注
1	立柱	大四柱	3987	4件	3副1主
2	滑衬		4040	4件	
3	立柱顶盖			4件	2左2右
4	前横梁装配		2476	1件	
5	后横梁装配		2476	1件	
6	主跑板装配		4778	1件	
7	副跑板		4778	1件	
8	动滑轮架装配			1件	
9	中间板1		945*698	2件	
10	中间板2		945*845	4件	
11	折叠上车板装配		1530	2件	
12	侧挡板		3960	2件	
13	电动解锁护罩			4件	2左2右
14	跑板挡板			2件	
15	钢丝绳轮		Φ 120*Φ 28	6件	
16	跑板轴		Φ 25	4件	
17	动力单元			1件	
18	标准件箱			1件	
19	钢丝绳			1套	4根
20	立柱	小四柱	2287	4件	3副1主
21	滑衬		2340	4件	
22	立柱顶盖			4件	2左2右
23	前横梁装配		2476	1件	
24	后横梁装配		2476	1件	
25	主跑板装配		4198	1件	
26	副跑板		4198	1件	
27	中间板1		945*698	2件	
28	中间板2		945*698	4件	
29	折叠上车板装配		846	2件	
30	侧挡板		3480	2件	
31	电动解锁护罩			4件	2左2右
32	跑板挡板			2件	
33	钢丝绳轮		Φ 120*Φ 28	6件	
34	动力单元			1件	
35	标准件箱			1件	
36	钢丝绳			1套	4根

3. Open the standard parts packaging box and check the parts according to the part box.

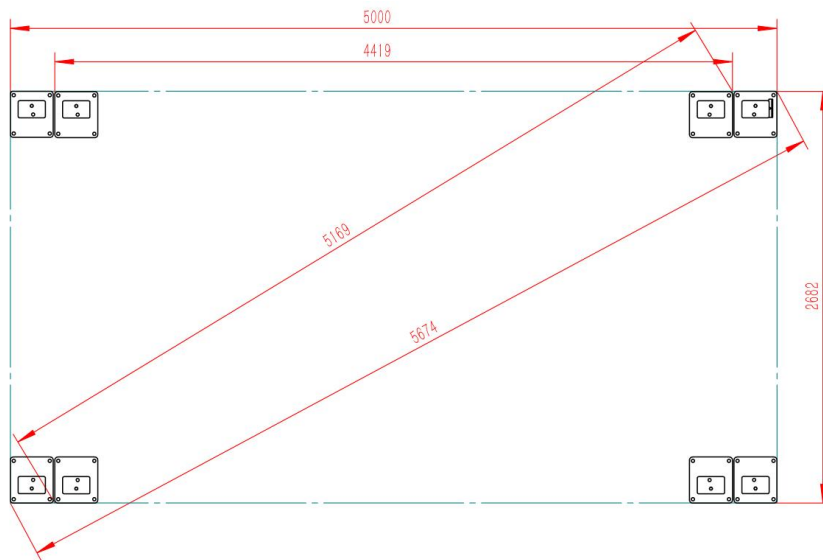
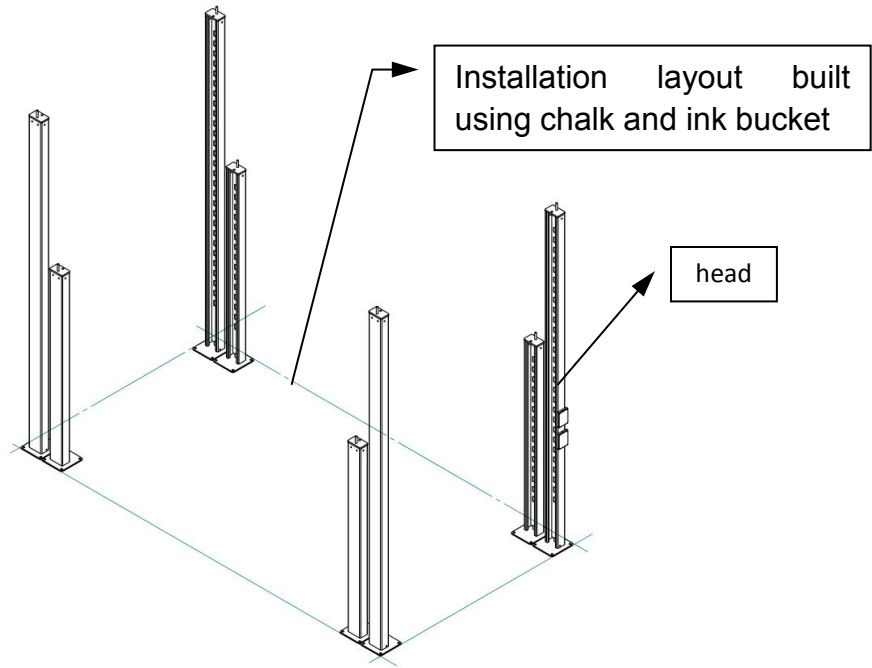


4. Select the appropriate installation location:

Unless otherwise stated, our equipment is only used for indoor installation. Select the appropriate installation site according to the size of the equipment (see Annex 1). Note that there should be no obstacles such as heating devices, building supports or wires above the site of the installation equipment.

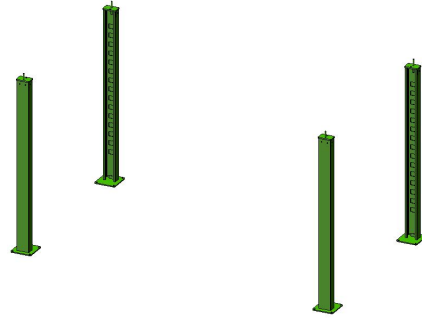
5. Determine the installation layout:

After the installation site is determined, mark the installation point of the four columns with the help of tape measure and chalk to ensure that the length of the two diagonal lines is the same. Then the 8 columns are placed in the marked place (first determine the installation position of the main column, and then discharge the other 3 successively).



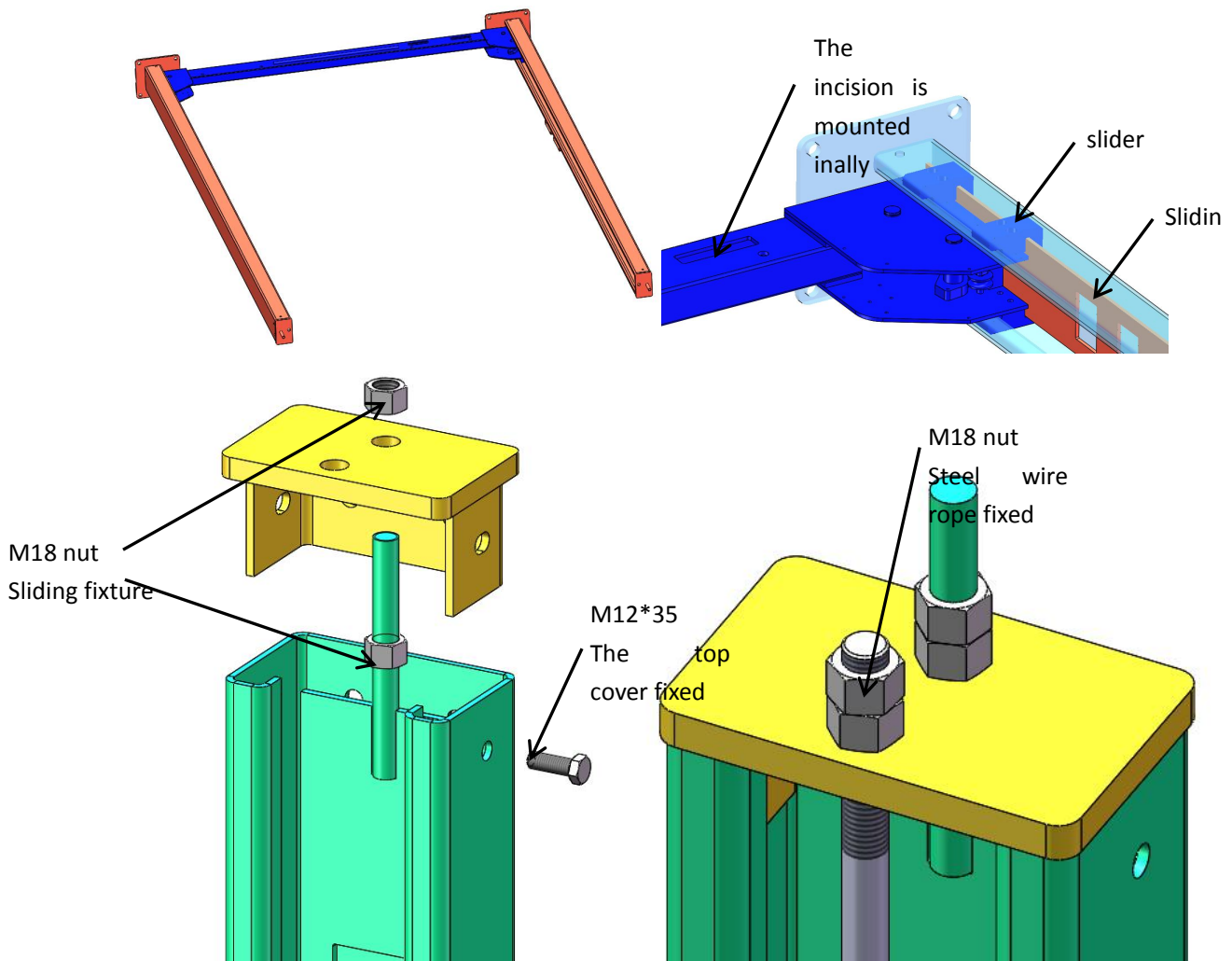
6. Place the column

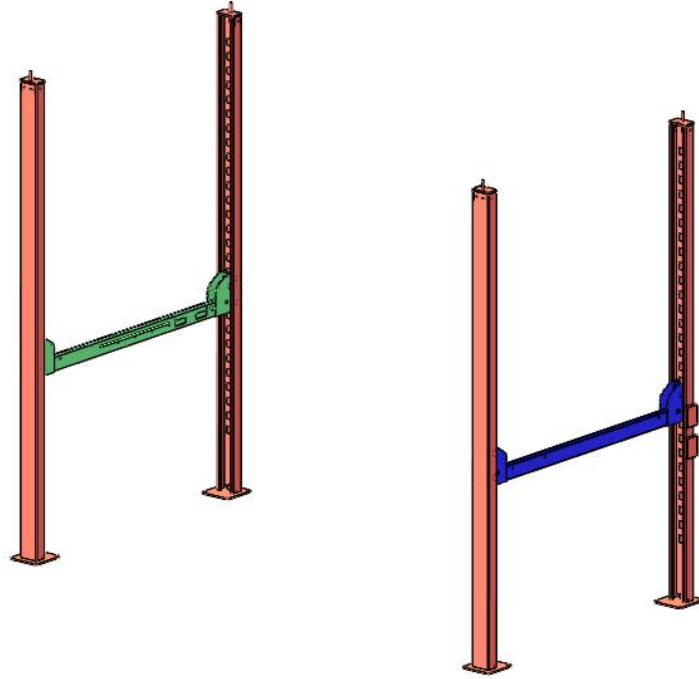
After the position of the column is determined, put the 4 columns (install the four columns first) in the corresponding position, and pay attention to the position of the power supply. The main column has control box and electrical box.



7、 The beam installation

Put the two columns, the beam (incision are inside) into the column, slide to the distance column floor 1.5m~1.6m, then into the slide lining, always slide to the column at the bottom of the position (slide lining distance floor 1-2mm), let unlock block lock, then the column cover (points, wire hole inward) installation, the column stand up again.

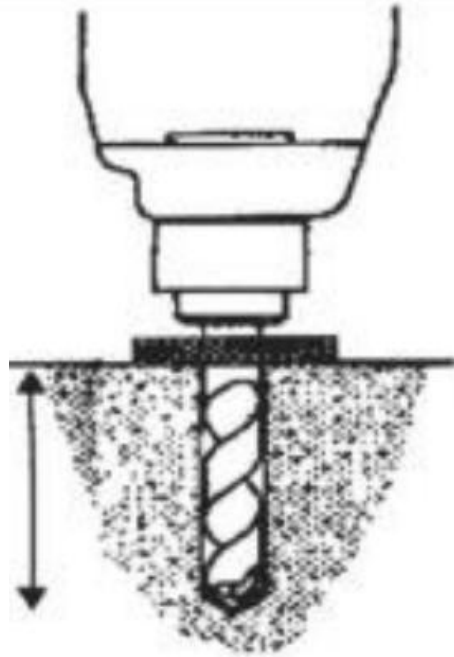




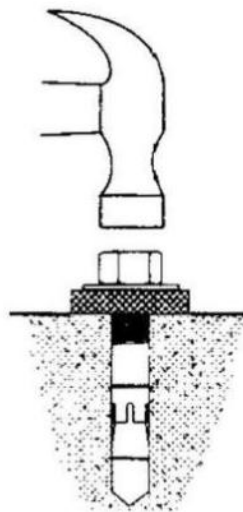
8、 Column fixed

After the position of the column is determined, fix the main column first, punch the ground directly through the mounting hole on the bottom plate of the column, and then be fixed with expansion bolts. The remaining 3 columns should not be punched and fixed first, so as to fine-tune after trial operation.

Align the bottom hole with the impact drill M18 drill directly 130mm deep hole.



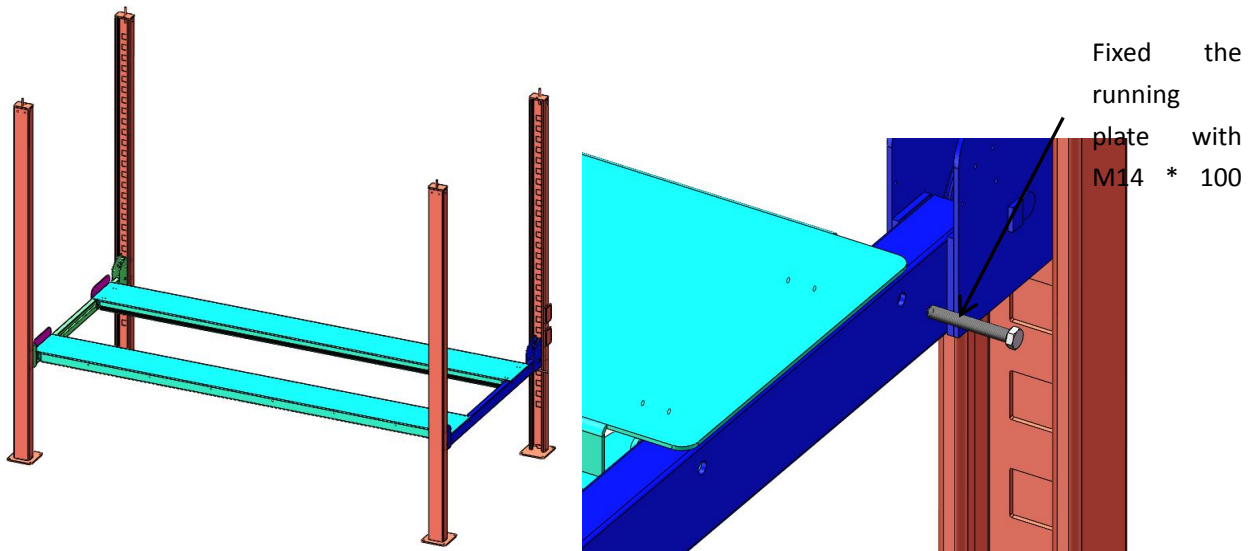
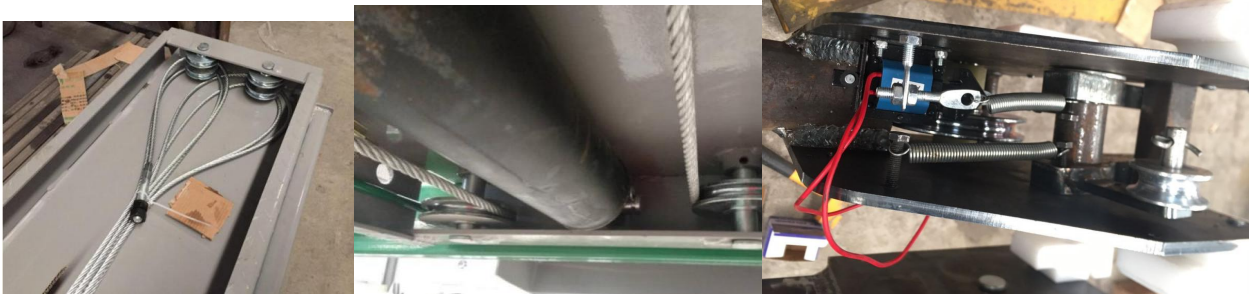
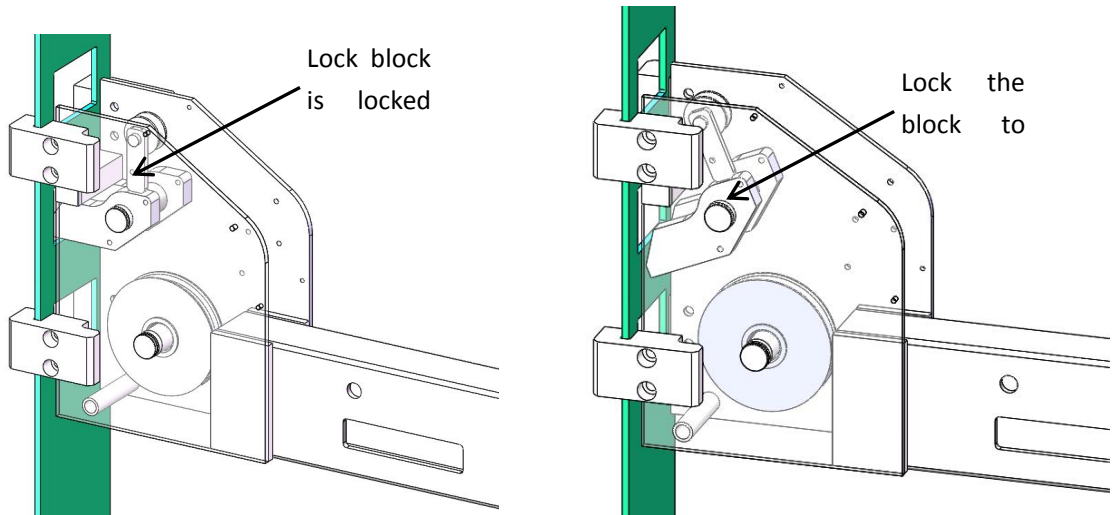
After drilling, clean up the dust, put the expansion bolt on, and hit it directly with a



9、 Running board installation

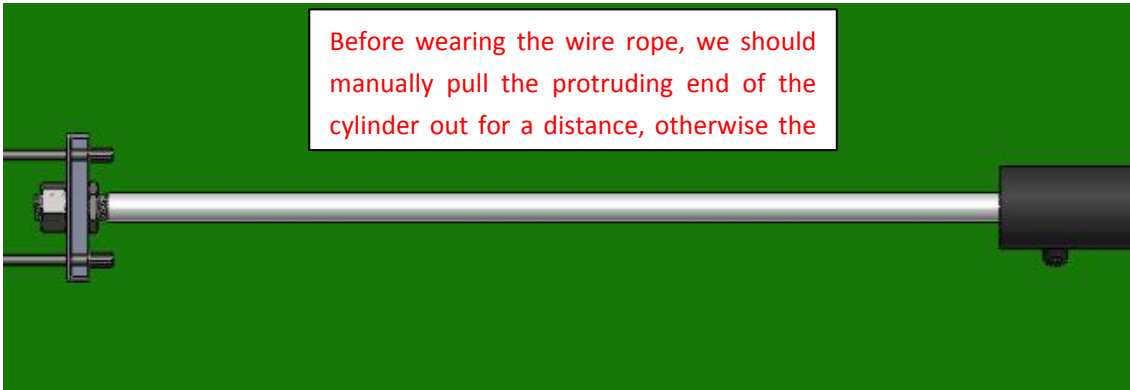
First confirm that the height of the front and rear beams is consistent, and then move the main and secondary running plates to the beam with forklifts or other lifting tools, and align the connecting holes between the running plate and the beam. Bolt the front baffle to the beam together with the running plate. **Note that the installation position of the main running board (the main running board**

with oil cylinder) should be on the side of the main column.



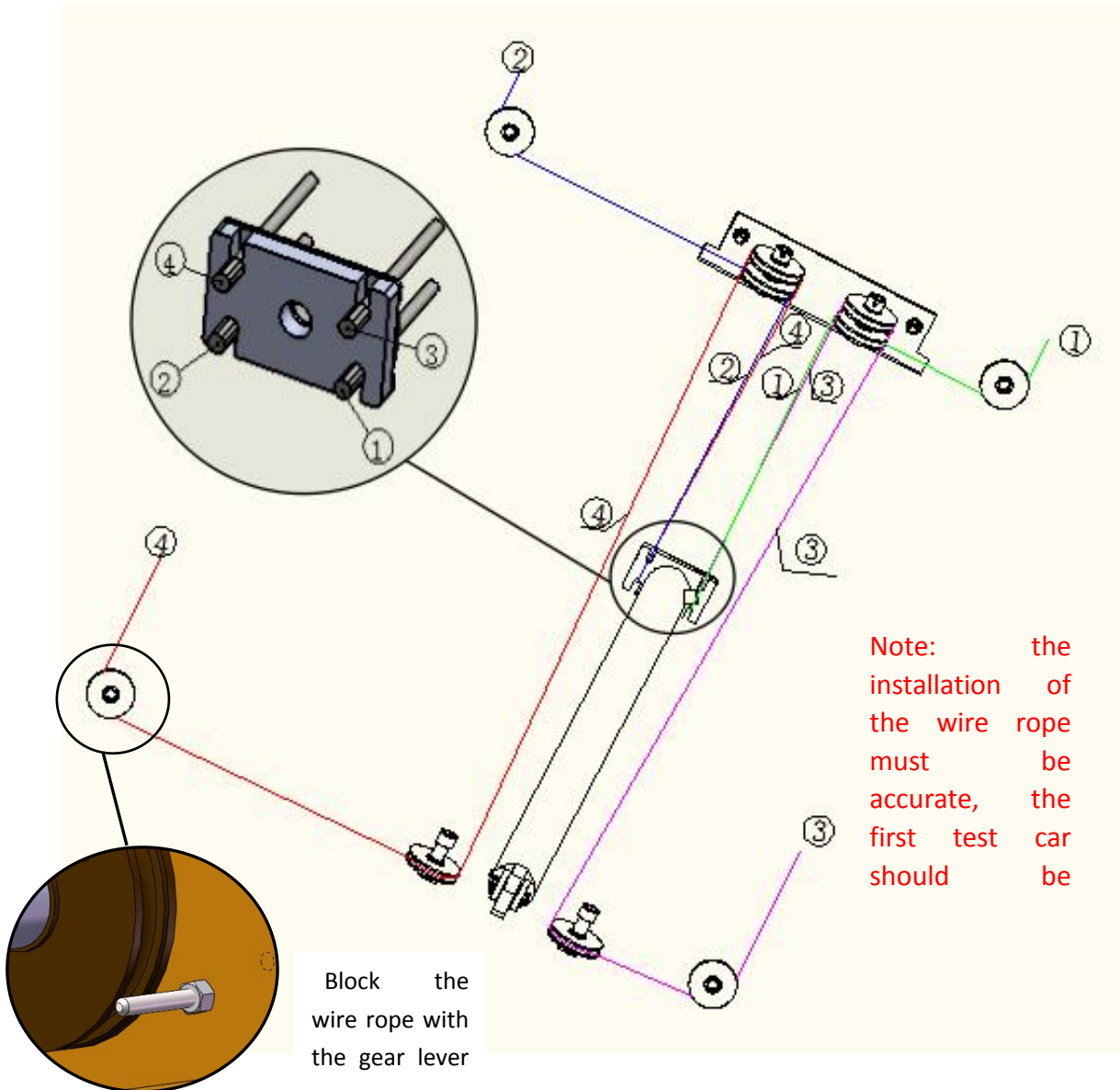
10、 Steel wire rope installation

The running plate of the wire rope has been pre-installed before leaving the factory. The customer only needs to wear the 4 wire rope to the four column roof according to the length.



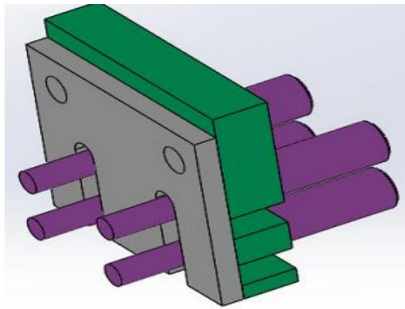
(1) Installation method of the small four-column steel wire rope

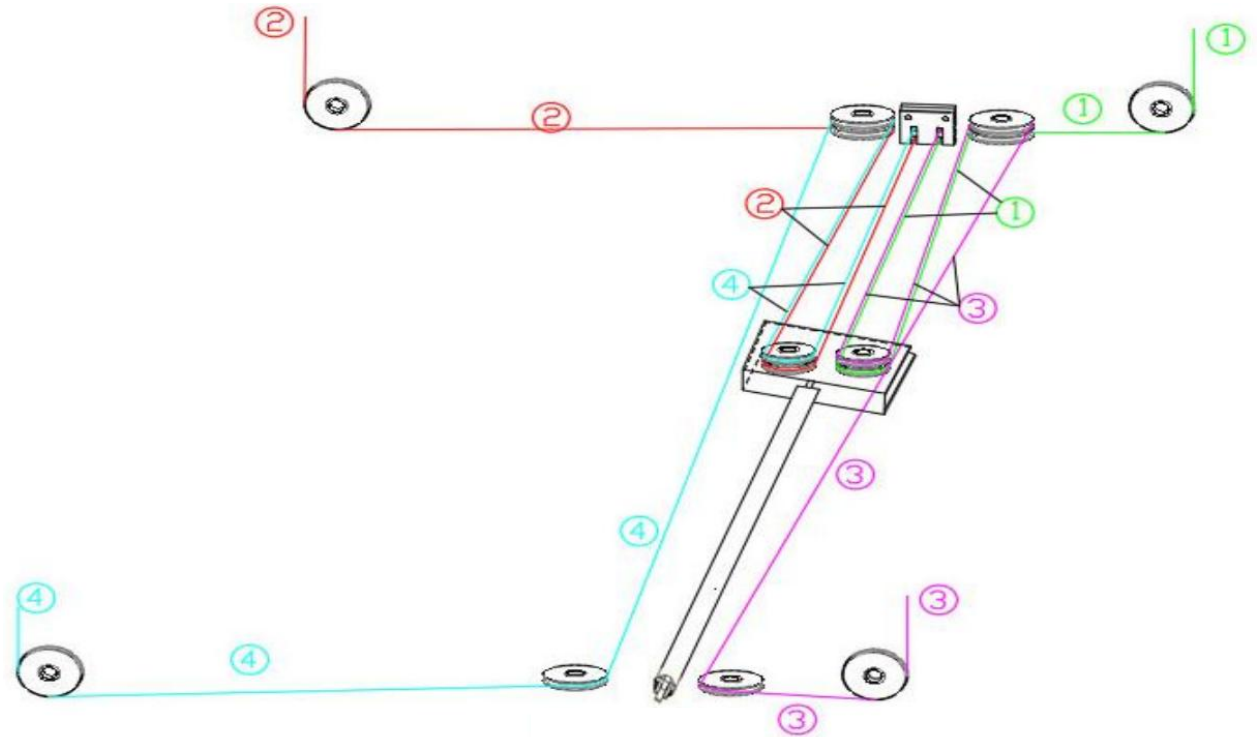




(2) Installation method of the large four-column steel wire rope

Large four-cylinder moving pulley frame





11、 Electrical installation

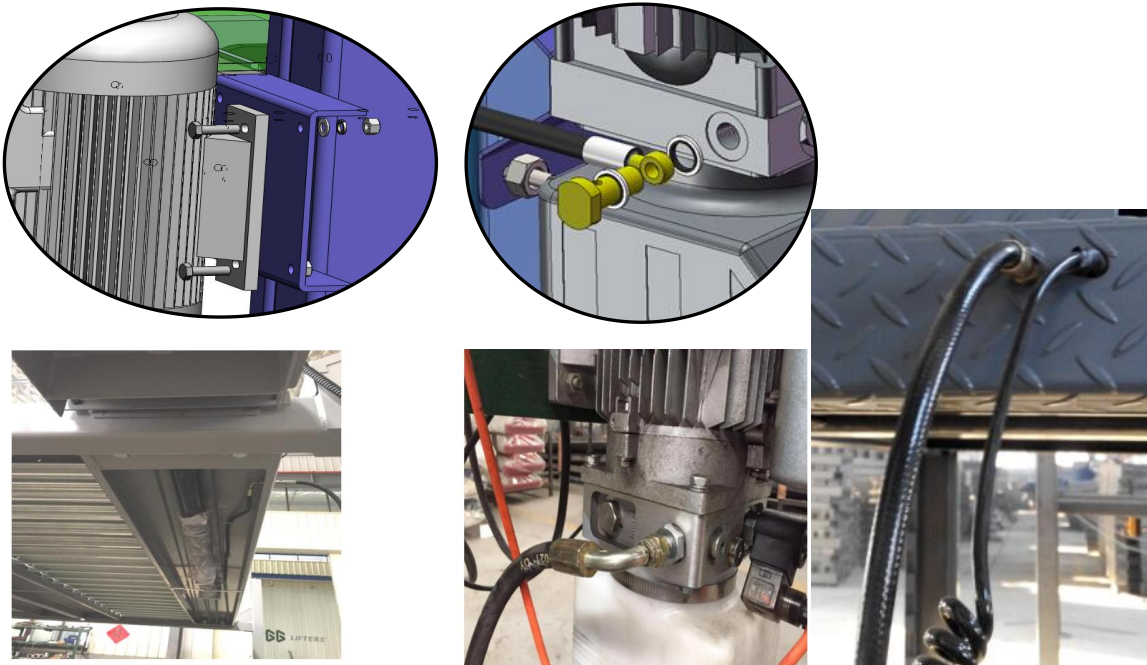
Install the control box and the electric control box on the column respectively. Electric unlock, unlock the electromagnet on the beam, parallel line, with a spring line jointly connected to the electric control box, and then install the cover shell. Install the limit switch on the main column of the size and size four columns.



12、 Power unit installation

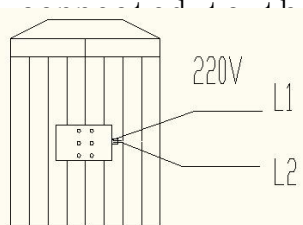
(1) The power unit is installed on the seat plate of the main column, and should be on the side with the unlock handle.

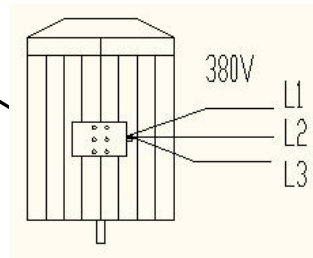
(2) There are two oil pipes of the equipment, one is connected to the oil cylinder at the bottom of the main running board, one is connected to the power unit, and then the two oil pipes are connected together by wire.



13、 Circuit connection

The electrical part of M model series is only a wire on the power unit, which can be directly connected to the external power supply.

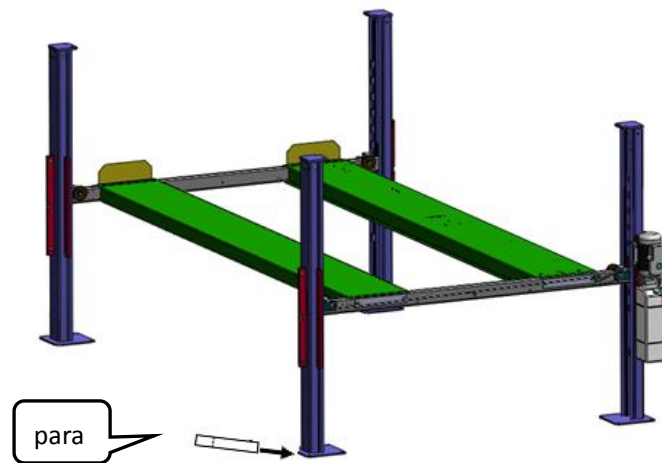




Three-phase electric equipment, connect the power supply. If the motor is running but the equipment

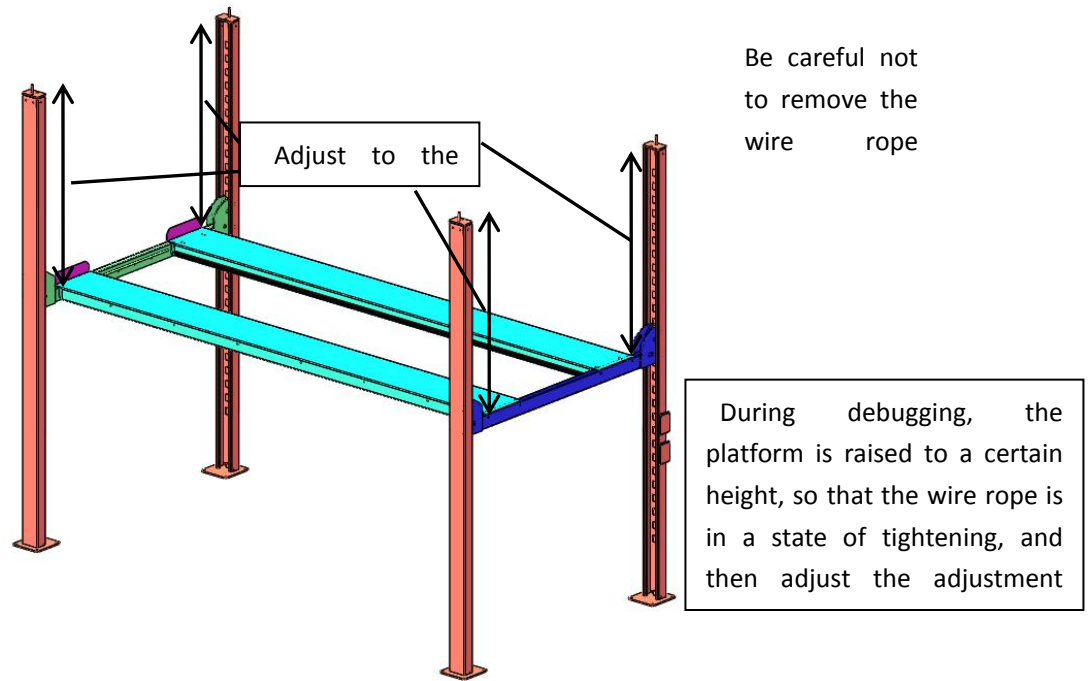
14、 fixed equipment

Before fixing the equipment, tighten all the connecting bolts between the beam and the running plate, and then measure each column with a level instrument to keep it vertical (not vertical, add cushion iron between the column and the ground). After the no-load commissioning, the column is fixed with an expansion bolt (the size error is controlled at 5mm).



4. test run

1. Before debugging, add 12 liters of 46 hydraulic oil to the power unit oil barrel, and then turn on the power supply of the equipment. Press the button box rise button to raise the equipment, and then debug the equipment as follows.



Note: After adjusting to the same height, drop the vehicle platform to see if it can reach the bottom. If not, adjust the wire rope down.

2. Adjust the unlocking part of the equipment, and tighten all the bolts and nuts on the equipment after the adjustment. Then run the device back and forth a few times to see if it works smoothly.

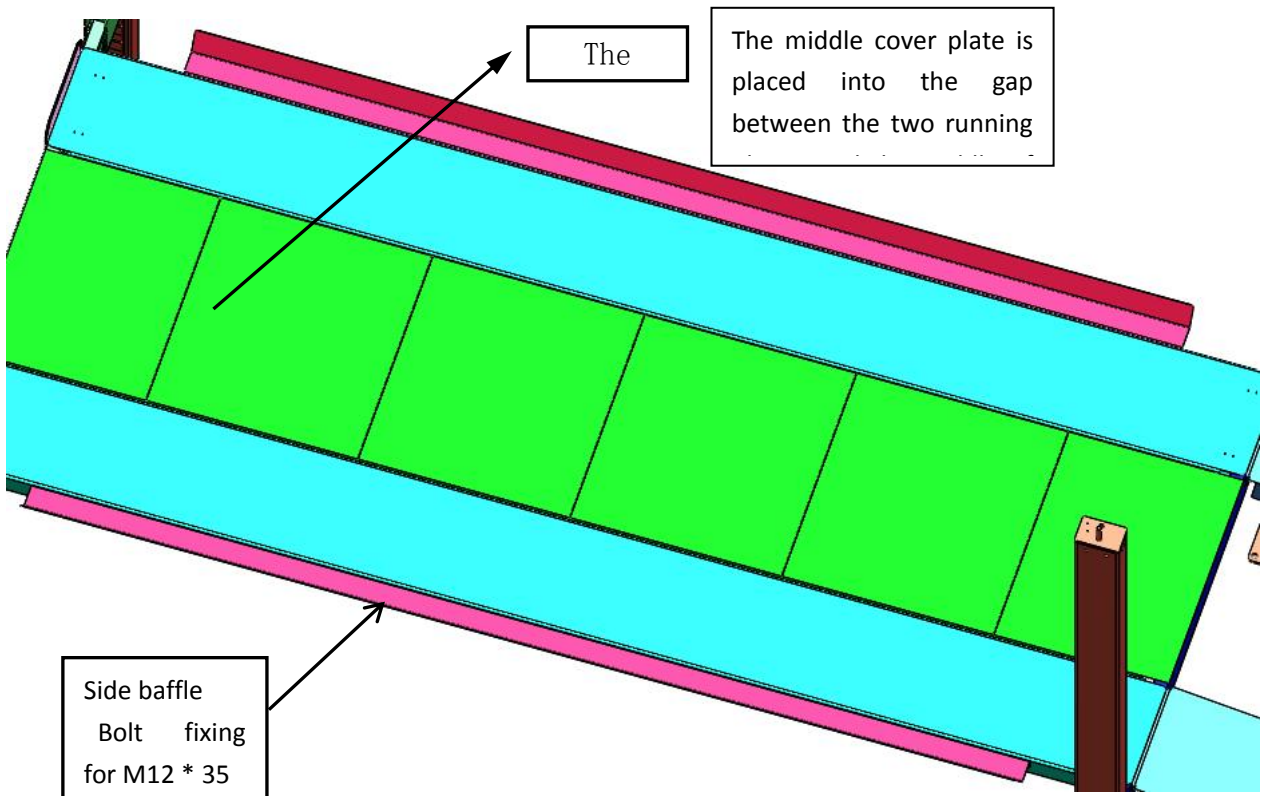
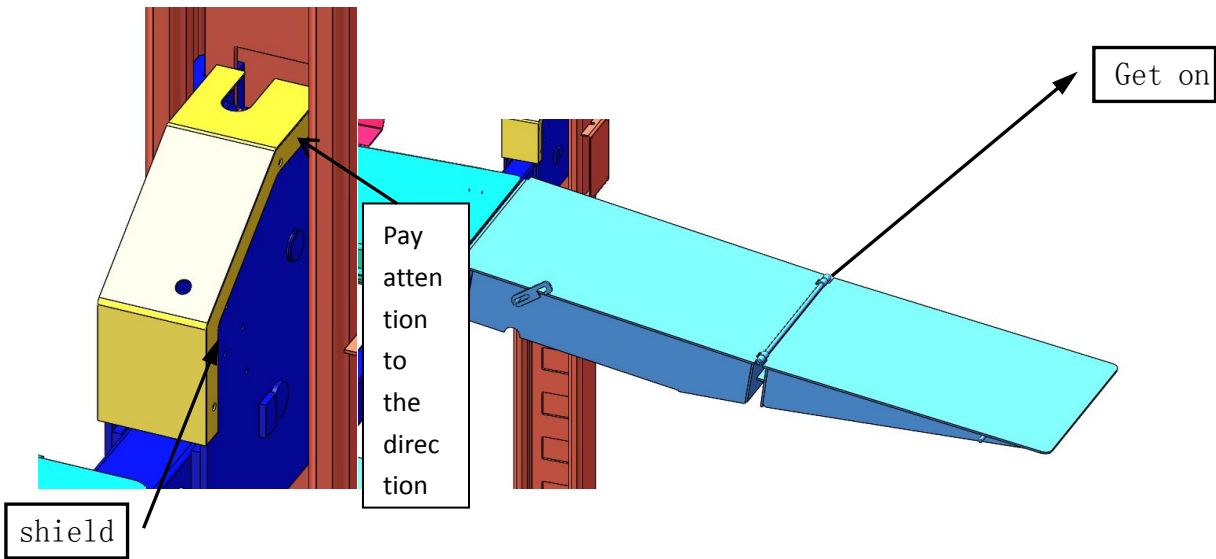
3. Specific operation steps of the equipment are as follows:

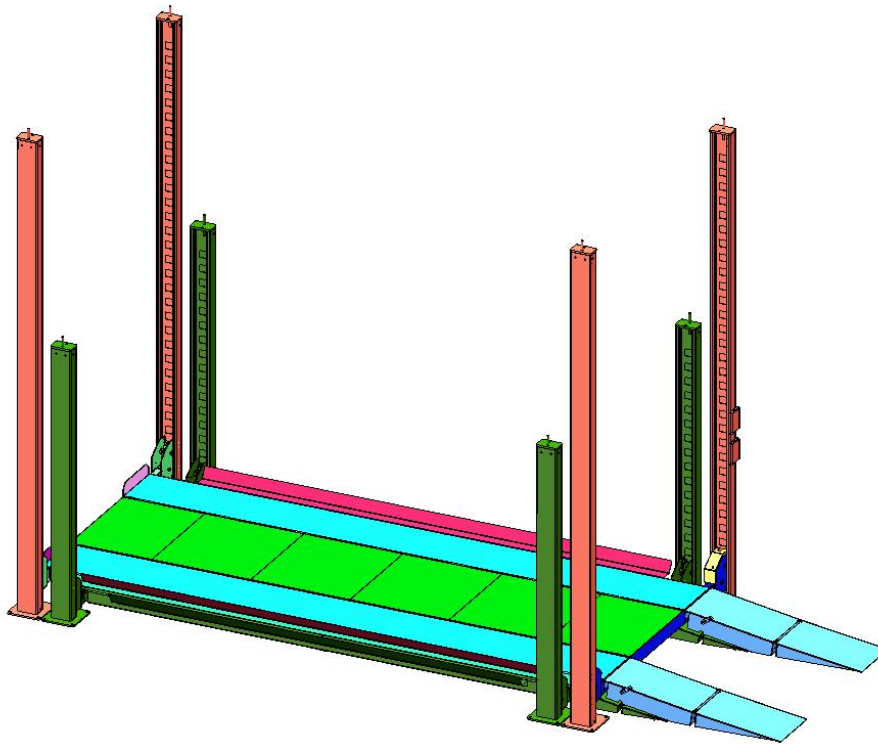
① Rising: twist the key of the control box to rise. After the desired height, press the lock button of the control box to make the equipment in the locking state (when the equipment is locked, stop immediately to prevent excessive pressure relief).

② Decline: at the initial stage of the decline, because the equipment is in a locked state, the equipment should be raised for a distance (about 4cm), the rising distance is controlled by the adjustable time relay, and then the electromagnet is completed, the solenoid valve is powered, the oil circuit is opened, and the equipment drops. Pay attention to the synchronization of the platform

decline, stop falling immediately and find the reason).

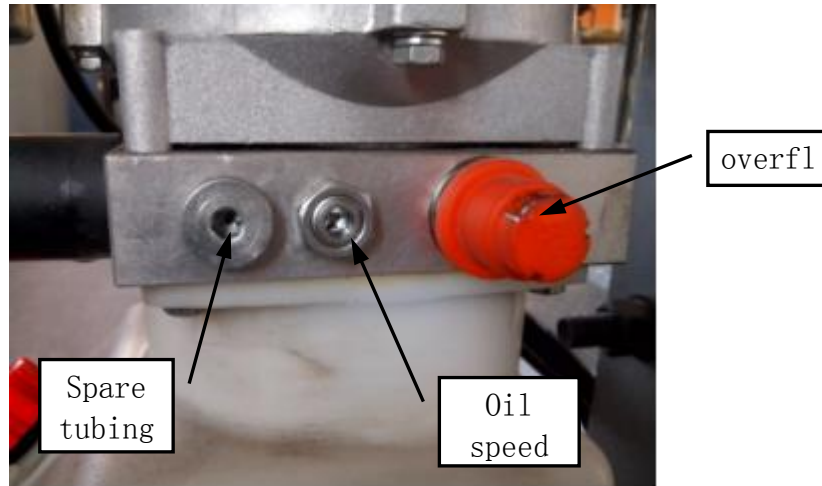
4. After the installation and debugging of the equipment is completed, check whether all the bolts are tightened again, whether the expansion bolts are fixed, and finally the cover, middle cover plate, car plate and side baffle are installed on the equipment, and the grease in the chute of the column can be used normally.





Functional description of the power unit:

- ① Oil speed adjustment screw: loosen the lock nut, and change the landing speed of the equipment (clockwise lifting speed is fast, counterclockwise).
- ② Spare tubing interface: and the opposite tubing interface is the same, different orientation, which one is convenient to choose which one, not sealed well.
- ③ Overflow valve: when the oil circuit pressure increases due to external factors, forced oil leakage will not lead to the accident due to the continuous increase of pressure. Open the red cover shell, and then open the nut inside, you can adjust the safety oil pressure value.



5. operational order

1. Save the car

- ① Ensure that there are no obstacles around the equipment and no obstacles at the bottom.
- ② Drop the vehicle platform to the ground, drive the car to the vehicle platform, pull the handbrake.
- ③ Press the power unit green button, and the device rises. Release the button and lock the device.
- ④ Drive into the lower level of the vehicle.

2. Take the car

- ① Remove the lower vehicle to ensure that there are no other obstacles below.
- ② Raise the device and complete the unlocking.
- ③ The descent speed can be adjusted to the oil speed adjustment screw of the power unit according to its own situation
- ④ Lower the platform to the ground, and drive the upper vehicle to the

equipment to complete the pickup.

- ⑤ Power off the device.

Vi. Maintenance measures

monthly:

- ◆ Check the connection of the hydraulic pipe for oil leakage.
- ◆ Check the connection of the wire rope and the wire rope wheel.
- ◆ Check the tightening of the expansion bolts.
- ◆ Check the flexibility of the action part.
- ◆ Check the condition of the safety component.

half a year:

- ◆ Tightening condition of the bolts.
- ◆ Seal of the hydraulic system, if oil leakage is found, tighten the joint part.
- ◆ Check the lubrication and wear of the pin shaft, roller, platform structure and related components, and replace them in time if any damage is found.

Vii. troubleshooting

fault phenomenon	cause	The exclusion method
Discover abnormal sound	Whether there is any	Add lubricating oil inside the
	Whether there are obstacles	Clean up the internal
The motor does not turn or rise	Poor wire contact	Check and connect the line
	The upper limit position switch is not wired	Connect the limit switch to the corresponding place
	The motor is broken and	Replace the motor
The motor is turning but not	Motor reversal	Correct the wire connection
	Insufficient hydraulic oil	Supplement hydraulic oil

	The tubing is loose and falls	Tighten the tubing
	The manual pressure relief	Tighten the manual pressure
	The load is too large to	Reduce the load
After rising and slowly unloading	Check the pipe for oil	Replace the tubing
	Poor sealing of oil cylinder	Replace seals
	Whether the wire rope is	Check whether the wire rope is
Slow rise	Oil filter bet	Clean it out or replace it
	Mix in air in oil pressure	Supplement hydraulic oil
	The oil speed adjustment	adjust
	Wear of the oil cylinder	Replace seals
	The column is not well	Replace the lubricating oil on
When descending, do not unlock the	When pressed down, the device will rise first, so that the unlock block has	There is a time relay in the electric control box, adjust the time relay to increase the