

Model No. EE-E25

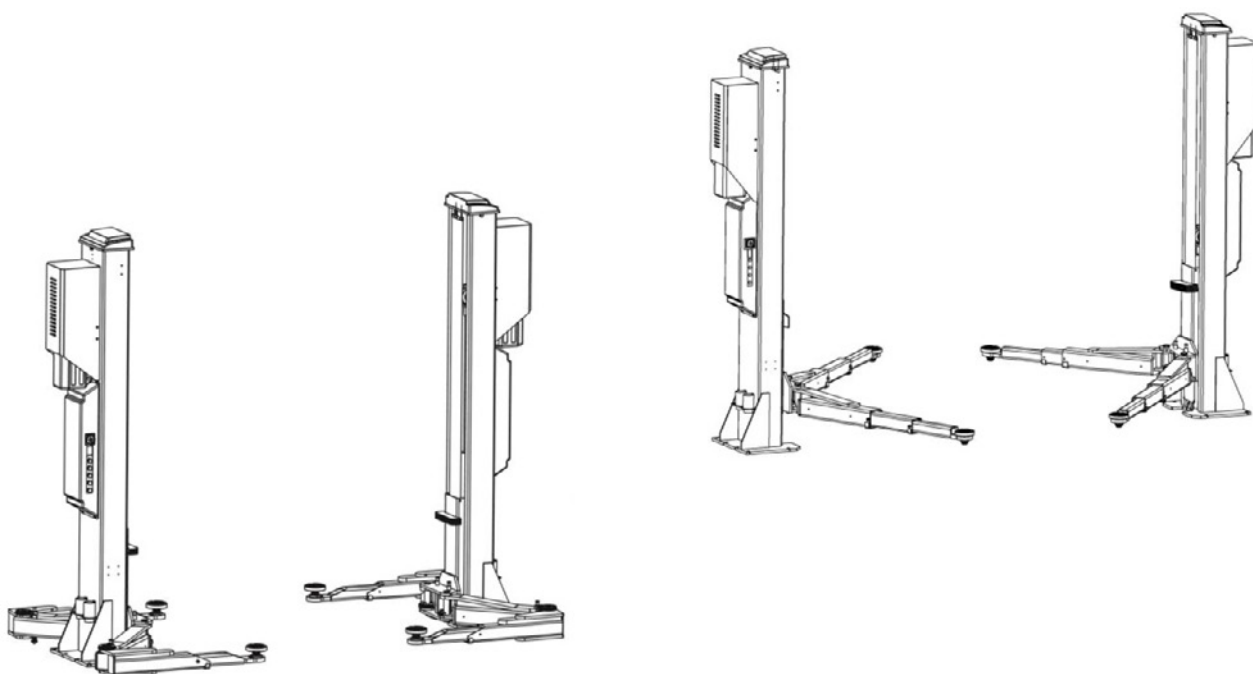
Two Post Vehicle Lift

Electrical Release

Wireless communication

Lifting Capacity 5000KG

**Installation, Operation
And Parts Manual
Translated Version**



Distributed by

Please read this entire manual carefully and completely before installation or operation of the lift.

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www.flex1one.dk

IMPORTANT NOTES

Before start up, connecting and operating products, it is absolutely essential that the operating instructions/owner's manual and, in particular the safety instructions are studied carefully. By doing so you can eliminate any uncertainties in handling products and thus associated safety risks up front; something which is in the interest of you own safety and will ultimately help avoid damage to the device. When a product is handed over to another person, not only the operating instructions but also the safety instructions and information on its designated use must be handed over to the person.

By using the product you agree the following conditions:

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Warranty

The use of non-approved hardware will result in a modification of our products and thus to the exclusion of any liability or warranty, even if such hardware has been removed again in the interim.

It is not permissible to make any changes to our products and these are not only to be used together with genuine accessories and genuine replacement parts. Otherwise any warranty claims will be invalid.

Liability

The liability of the manufacturer is limit to the amount that the customer has actually paid for this product. This exclusion of liability does not apply to damages caused through willful misconduct or gross negligence on the part of the manufacturer.

All information in this manual is believed to be correct at time of publication.

The manufacturer reserves the right to amend and alter technical data and composition without prior notice.

Please confirm at time of ordering.

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SAFETY NOTES

1.1 Operation of lifting platforms

This lift is specially designed for lifting motor vehicles. Users are not allowed to use it for any other purposes. The applicable national regulations, laws and directives must be observed.

Only users aged 18 or above who have been instructed on how to operate the lifting platform and have proven their ability to do so to the owner are to be entrusted with unsupervised operation of lifting platforms. The task of operating the lifting platforms must be granted in writing.

Before loading a vehicle onto the lift, users should study the original operation instructions and familiarize themselves with the operating procedures in several trial runs.

Lift vehicle within the rated load. Don't attempt to raise vehicles with excessive weight.

1.2 Checking of the lifting platforms

Checks are to be based on the following directives and regulations:

- Basic principles for testing lifting platforms
- The basic health and safety requirements stipulated in the directive 2006/42/EC
- Harmonized European standards
- The applicable accident prevention regulations

The checks are to be organized by the user of the lifting platform. The user is responsible for appointing an expert or qualified person to perform checking. It must be ensure that the person chosen satisfies the requirements.

The user bears special responsibility if employees of the company are appointed as experts or qualified persons.

1.2.1 Scope of checking

Regular checking essentially involves performing a visual inspection and a functional test. This includes checking the condition of the components and equipment, checking that the safety systems are complete and functioning properly and that the inspection log book is completely filled in. The scope of exceptional checking depends on the nature and extent of any structural modification or repair work.

1.2.2 Regular checking

After initial commissioning, lifting platforms are to be checked by a qualified person at intervals of not longer than one year.

A qualified person is somebody with the training and experience required to possess sufficient knowledge of lifting platforms and who is sufficiently familiar with the pertinent national regulations, accident prevention regulations and generally acknowledged rules of engineering to be able to assess the safe operating condition of lifting platforms.

1.2.3 Exceptional checking

Lifting platforms with a lift height of more than 2 meters and lifting platforms intended for use with people standing under the load bearing elements of the load are to be checked by an expert prior or reuse following structural modifications and major repairs to load bearing components.

An expert is somebody with the training and experience required to possess specialist knowledge of lifting platforms and who is sufficiently familiar with the pertinent national work safety regulations, accident prevention regulations and generally acknowledged

rules of engineering to be able to check and give an expert opinion on lifting platforms.

1.3 Important safety notices

1.3.1 Recommend for indoor use only. Do not expose the lift to rain, snow or excessive moisture.

1.3.2 Only use this lift on a surface that is stable and capable of sustaining the load. Do not install the lift on any asphalt surface.

1.3.3 Read and understand all safety warnings before operating the lift.

1.3.4 Do not leave the controls while the lift is still in motion.

1.3.5 Keep hands and feet away from any moving parts. Keep feet clear of the lift when lowering.

1.3.6 Only these properly trained personnel can operate the lift.

1.3.7 Do not wear unfit clothes such as large clothes with flounces, tires, etc., which could be caught by moving parts of the lift.

1.3.8 To prevent evitable incidents, surrounding areas of the lift must be tidy and with nothing unconcerned.

1.3.9 The lift is simply designed to lift the entire body of vehicles, with its maximum weight within the lifting capacity.

1.3.10 Always insure the safety locks are engaged before any attempt to work near or under the vehicle. Never remove safety related components from the lift. Do not use if safety related components are damaged or missing.

1.3.11 Do not rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.

1.3.12 Check at any time the parts of the lift to ensure the agility of moving parts and the performance of synchronization. Ensure regular maintenance and if anything abnormal occurs, stop using the lift immediately and contact our dealers for help.

1.3.13 Lower the lift to its lowest position and do remember to cut off the power source when service finishes.

1.3.14 Do not modify any parts of the lift without manufacturer's advice.

1.3.15 If the lift is going to be left unused for a long time, users are required to:

a. Disconnect the power;

b. Empty the oil tank;

c. Lubricate the moving parts with hydraulic oil.

WARNING: The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

1.4 Warning labels

All safety warning labels are clearly depicted on the lift to ensure that the operator is aware of and avoid the dangers of using the lift in an incorrect manner. The labels must be kept clean and they have to be replaced if detached or damaged. Please read carefully the meaning of each label and memories them for future operation.

1.5 Potential safety risks

1.5.1 Main voltage

Insulation damage and other faults may result in accessible components being live.

Safety measures:

- Only ever use the power cord provided or a tested power cord.
- Replace wires with damaged insulation.
- Do not open the operating unit.

1.5.2 Risk of injury, danger of crushing

In the event of excessive vehicle weight, incorrect mounting of the vehicle or on removing heavy object, there is a risk of the vehicle falling off or tipping up.

Safety measures:

- The lift is only ever to be employed for the intended purpose.
- Carefully study and heed all the information given in section 1.4.
- Observe the warning notices for operation.

1.6 Noise level

Noise emitted during operating the lift should be less than 70dB (A). For your health consideration, it is suggested to place a noise detector in your working area.

PACKING, STORAGE AND TRANSPORTATION

Packing, lifting, handling, transporting operations must be performed only by experienced personnel with appropriate knowledge of the lift and after reading this manual.

2.1 Storage

The packs must be kept in a covered and protected area in a temperature range of -10°C to +40°C. They must not be exposed to direct sunlight, rain or water.

Stacking the packs

We advise against stacking because the packs are not designed for this type of storage. The narrow base, heavy weight and large size of the packs make stacking difficult and potentially dangerous.

If stacking is unavoidable, use all appropriate precautions:

- never stack to more than 2 meters in height.
- never make stacks of single packs. Always stack pairs of packs in a cross pattern so that the base is bigger and the resulting stack is more stable. Once the stack is complete, restrain it using straps, ropes or other suitable methods.

A maximum of two packs can be stacked on lorries, in containers, and in railway wagons, on condition that the packs are strapped together and restrained to stop them falling.

2.2 Lifting and handling

The packs can be lifted and transported only by using lift trucks. Never attempt to hoist or transport the unit using lifting straps.

Opening the packs

When the lift is delivered make sure that it has not been damaged during transportation and that all the parts specified on the packing list are present.

Packs must be opened adopting all the precautions required to avoid injury to persons (Keep at a safe distance when cutting the straps) or damage to parts of the machine (Be careful that no parts are dropped while you are opening the packing)

Take special care with the hydraulic power unit, the control panel and the cylinder.

PRODUCTS DESCRIPTIONS

3.1 General descriptions

This is chassis supporting vehicle lift for road vehicles.

Each column has an independent control and hydraulic power unit which provides adequate power for fast lifting and make it able to control at either side. No interconnected ropes, hoses or wires between the two posts provides a free and unobstructed working space. Synchronization is automatically achieved by wireless communication technology and deviation is only allowed within a safe range.

3.2 Construction of the lift

Lift with straight arms (double telescopic)

- 1 Top cap
- 2 Hydraulic power unit
- 3 Control box
- 4 Post assembly
- 5 Swing arm
- 6 Carriage assembly
- 7 Chain
- 8 Column curtain

Lift with optional type-M foldable arms (single telescopic)

- 1 Top cap
- 2 Hydraulic power unit
- 3 Control box
- 4 Post assembly
- 5-1 Arm A assembly
- 5-2 Arm B assembly
- 6 Carriage assembly
- 7 Chain
- 8 Column curtain

3.3 Technical data

Rated capacity	5000 kg
Max height of the pick-up adapter	2000 mm(locking device disengaged)
Initial height of the pick-up adapter	110 mm(straight arm/type-M foldable arm)
Full raised time (with rated load)	Approx.50s(2.2kW/1Ph) Approx.25s(3.5kW/3Ph)
Full lowered time (with rated load)	35-45s
Hydraulic working pressure	Approx.19 MPa
Oil tank volume	8Lx2
Power	380V-3Ph-50Hz-3.5kW 400V-3Ph-50Hz-3.5kW

3.4 Dimensions

Dimensions for the straight arms

Dimensions for the optional type-M foldable arms

3.5 Safety devices descriptions

Pos.	Safety related device	Descriptions
1	Swing arm locking device	Ensure the arms are locked and avoid being swinging at raised position.
2	Mechanical locking device	Catch and support the carriages in case of hydraulic failure.
3	Max rise switch	Limit the max rise of the lifting system.
4	Feet protecting device	Double lowering control and audible warning for final portion of lowering.
5	Insulation main switch	Isolate the main power supply when it is turned off.
6	Height deviation detecting device	Detect the height deviation. In case the deviation exceeds permissible value, enforce to stop the lift and activate an audible warning which gives out at the post with higher rising height.
7	Lock detecting device	Identify the engagement and disengagement of the mechanical locking unit. The button for lowering deactivates in case any of the locks is blocked, which prevents over deviation in height due to unlocking.
	Contacting detecting device	Detect the working status of both contactors. Disconnect the power of the entire lift in case one of contactor works abnormally.
	Overload protection	Prevent the lifting system from overloading when rising from the very beginning position.
	Leakage protection	Prevent the load carrying devices from lowering too faster in case of leakage occurs in the hydraulic line.

INSTALLATION INSTRUCTIONS

4.1 Preparations before installation

4.1.1 Space requirements.

Indoor installation only. Refer to 3.4 for the dimensions of the lift. There must be sufficient space for driving and lifting vehicles and enough safety distance shall be reserved according to the regulations of the local authorities. It is advised to reserve a clearance of at least 1 meter between the lift and fixed elements (e.g. wall) in all lifting positions.

4.1.2 Foundations and connections

The user must have the following work performed before erecting the lift.

- Construction of the foundation following consultation with the manufacturer's customer service or an authorized service agent. Routing of the wiring to the installation location. The user must provide fuse protection for the connection. *Electrical system connection must be done by a qualified electrician.* Requirements for power supply cable of the installation site: at least 2.5mm² wire core for 3Ph power and 4.0mm² wire core for 1Ph power.
- Refer also to the corresponding information on the name plate and in the operation instructions. Before doing electrical connection, make sure the lift is electrically adapt to the local power supply.
- Foundations preparations (see Annex 1, floor plan).

To ensure stability and safety under load, the lift shall be installed with the base frame being in direct and firm contact with the concrete foundation. Don't attempt to fix the base frame directly onto floor with ceramic and other decorated surfaces otherwise you are at risk of putting the lift into a dangerous situation.

C30 concrete foundation with a minimum thickness of 250mm.

Surface under the baseplate: Horizontal and even (Gradients max. 0.5 %).

Newly built concrete ground must be older than 20days.

4.1.3 Tools and equipment needed for installation

Tool name	Specification	Qty
Electrical drill	With D18 drill bit.	1
Open spanner	D17-19mm	2
Adjustable spanner	bigger than D30mm	1
Cross socket screw driver	PH2	1
Quick spanner handle adapter/ Ratchet	REB-310	1
Levelling device	1mm accuracy	1
Hammer	10 pounds	1
Truck lift	Capacity more than 2000kg	1
Torque spanner	MD400	1

4.2 Installation attentions

4.2.1 Tighten all hydraulic and electrical connections.

4.2.2 Tighten all screws, nuts and bolts.

4.2.3 Do not place any vehicle on the lift in the case of trial running.

4.3 General Installation Steps

ONLY TRAINED AND QUALIFIED INSTALLERS CAN PERFORM LIFT INSTALLATION DUTIES.

Step 1: Remove the packaging, take out the carton for accessories.

Firstly, put something supporting between the two posts or suspend one of the posts by a crane and then remove the bolts from the packing frame. When the first post has been taken away, place something supporter under the second post and then remove the bolts from the packing frame.

CAUTION! The packs must be opened adopting all the precautions required to avoid injury to persons (Keep at a safe distance when cutting the straps) or damage to parts of the machine (Be careful that no parts are dropped while you are opening the packing).

1. Bolt
2. Packing racks

Step 2: Ascertain the standing position and erect the posts. (See Annex 1, Floor plan)

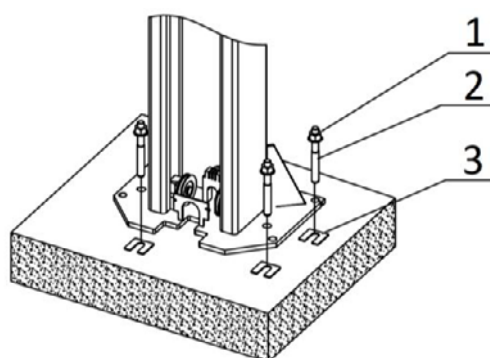
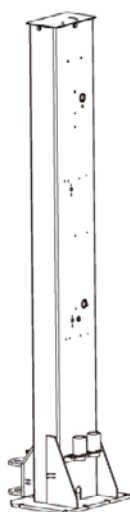
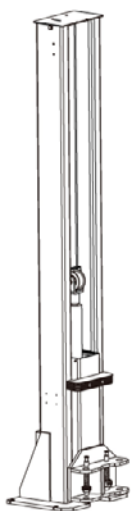
1. Refer to the following diagram, draw an outline of two base plates on the ground with chalk to ascertain mounting positions for the two posts.
2. Make the posts face to each other and use proper means to erect the post.

Step 3: Erect and secure the post.

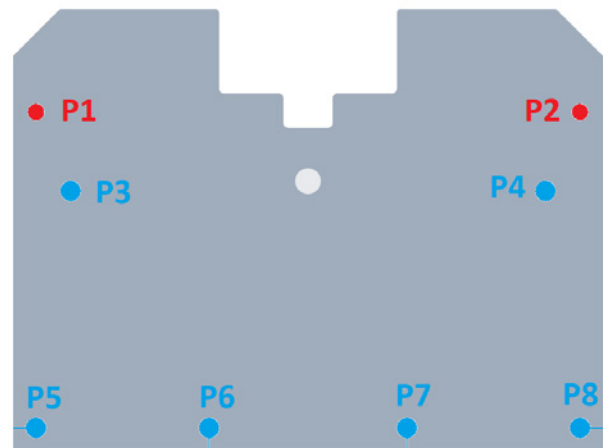
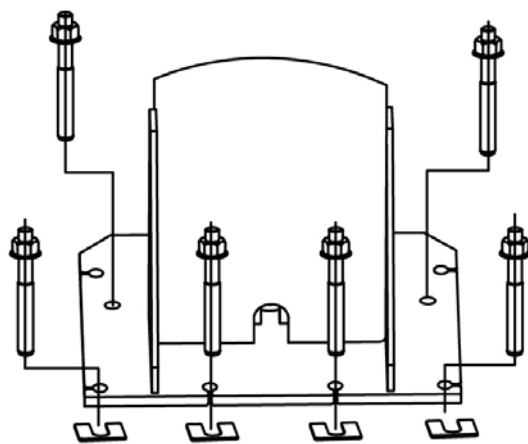
1. Check and align the position of the base plates again.
2. Use suitable means to raise the lifting carriage to the first latching position. All the mounting holes in the base plate are then accessible. Make sure the locking pawl is engaged.
3. Use the D18 drill bit. Drill the mounting holes. Remove the drilling dust from the holes.
4. Use a spirit level to check the vertical alignment of the posts. Place equalizing plates under the base plates when it necessary to assure the verticality of the post.

Caution! It is not allowed to add more than 1 equalizing plate under each anchor position of the base plate, otherwise there could be risks of slanting due to uneven load transfer to the foundation.

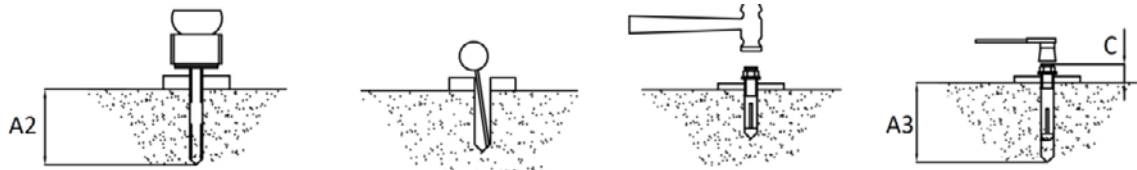
5. Tighten the nuts. **Torque: 80-100 Nm.** (63-74b.ft).



1. Nut
2. Expansion anchoring bolt
3. Equalizing plate



CAUTION !
Holes P3-P8 for Anchoring.
Holes P1,P2 not for Anchoring.



Anchoring bolt	A1 (foundation thickness)	A2 (drilling depth)	A3 (anchoring depth)	B1	B2	B3	C
M18x200	≥250mm	160mm	145mm	200mm	240mm	175mm	≤55mm

Step 4: Fix the holders for power unit and motor housing

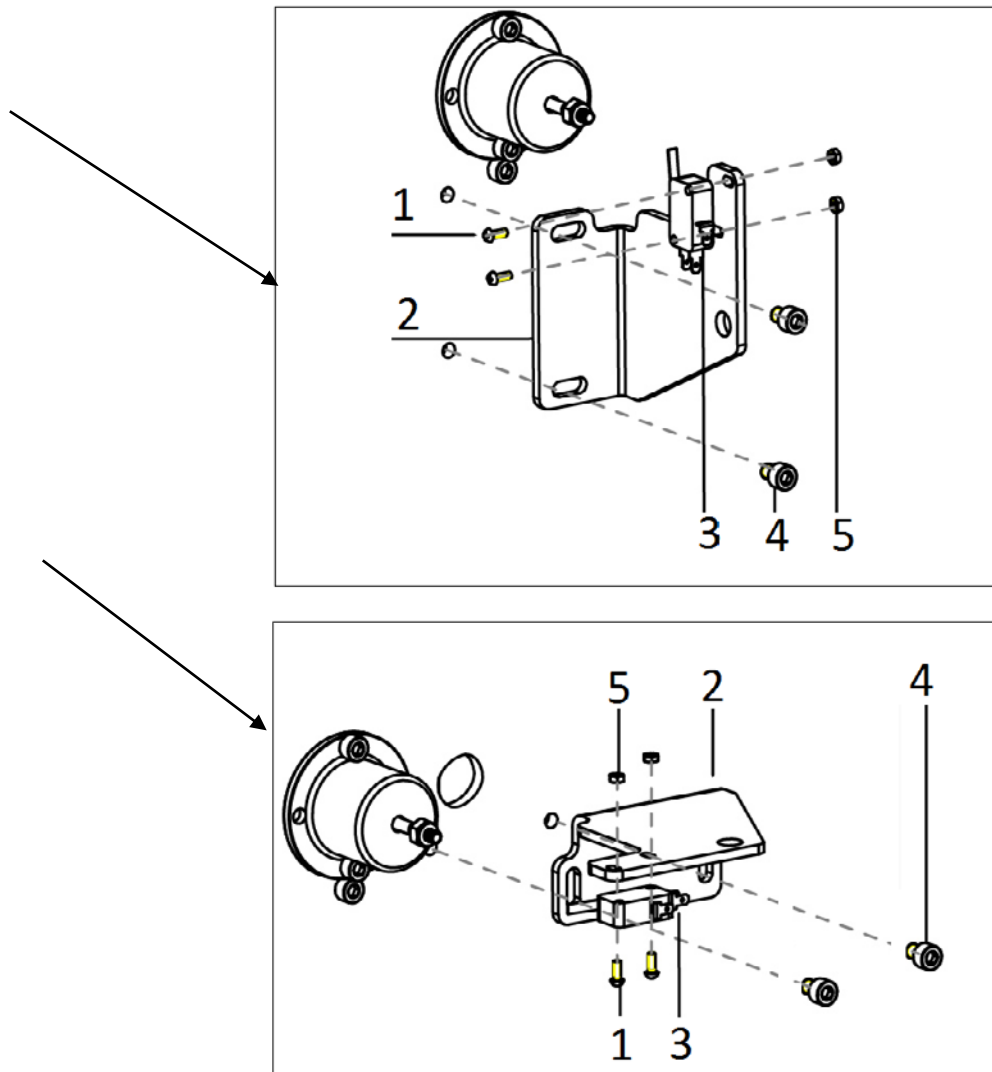
1. *Hex socket screw M10x20*
2. *Hex nut M10*
3. *Power unit holder*
4. *Motor housing holder*
5. *Hex socket button head screw M18x12*

Step 5: Fix the locking device.

Refer to the Annex 2 and connect the wires of the electromagnet to the terminals reserved in the control box

1. *Orientation block*
2. *Locking plate*
3. *Hex socket cylinder head screw M6x8*
4. *Electromagnet*
5. *Hex socket cylinder head screw M6x15*

Step 6: Install detecting device for the locking device.



1. Cross socket cap head screw M3x25
2. Holder for the micro switch
3. Micro switch
4. Hex socket cylinder head screw M6x8
5. Hex nut M3

Step 7: Install the power unit and control unit.

1. *Hex head full threaded screw M10x35*
2. *Anti-shock pad*
3. *Power unit*
4. *Flat washer M10*
5. *Spring washer M10*
6. *Hex nut M10*
7. *Control box*
8. *Hex socket cylinder head screw M6x12*

Step 8: Connect the electrical system.

Attention: ONLY qualified electricians are permitted to do the electrical connection.

Refer to electrical connection diagram before making the connection.

Read the nameplate and ensure the supply voltage is adapted to the lift.

1. Fix the limit switch onto the inside surface of the power side post.

Connect the wire of limit switch with the terminals reserved in the control box.

1. Cross socket flat head screw M5x10
2. Limit switch 8108
3. Post
4. Wire

2. Connect the wire of solenoid valve and motor wire

Before supplying power to the lift, check and ensure that the power supply has been supplied with overcurrent protection device.

1. Power unit
2. Motor wire
3. Solenoid wire
4. Control box
5. Power supply wire

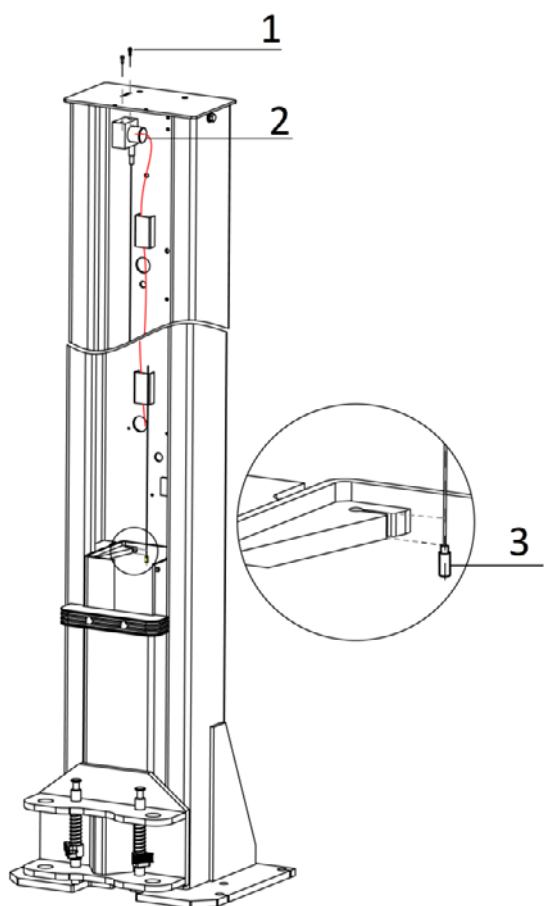
Attention: Wires of the solenoid valves shall be connected according to the color marks respectively attached. Connect the wire attached with a red mark to the solenoid valve marked with red. Connect the wire attached with a green mark to the solenoid valve marked with green. This is very important!!!

3. Fix the rope sensor

Fix the body of the sensor to the top position of the column as shown in the following figure using two cross socket cap head screws (M5x12), and fix the end of pulled rope to hole reserved on the top of the sliding carriage using a hex socket button head screw (M5x16).

Refer to the Annex 2 and connect its wire to the terminals reserved in the control box.

Attention: Once the rope has been pulled out, don't let it go back freely, otherwise the sensor could be damaged.



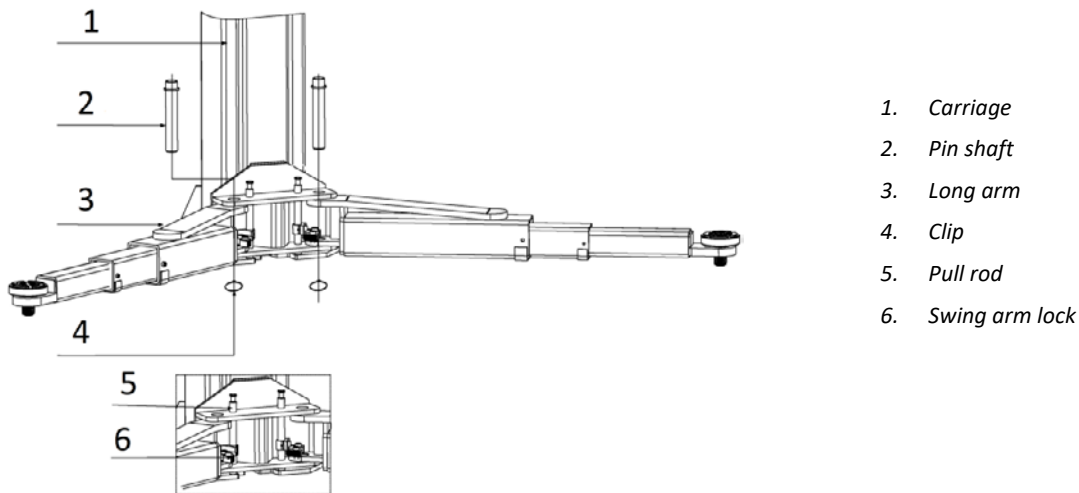
1. Cross socket cap head screw M5x12
2. Rope sensor
3. Hex socket button head screw M5x16

Step 9: Install lifting arms.

Connect the lifting arm and the carriage. The arm pin shafts must be greased at the installation.

Ensure the arm lock can engage and release effectively.

Attention: Install lifting arms ONLY after the complete assembly has been erected and anchored.



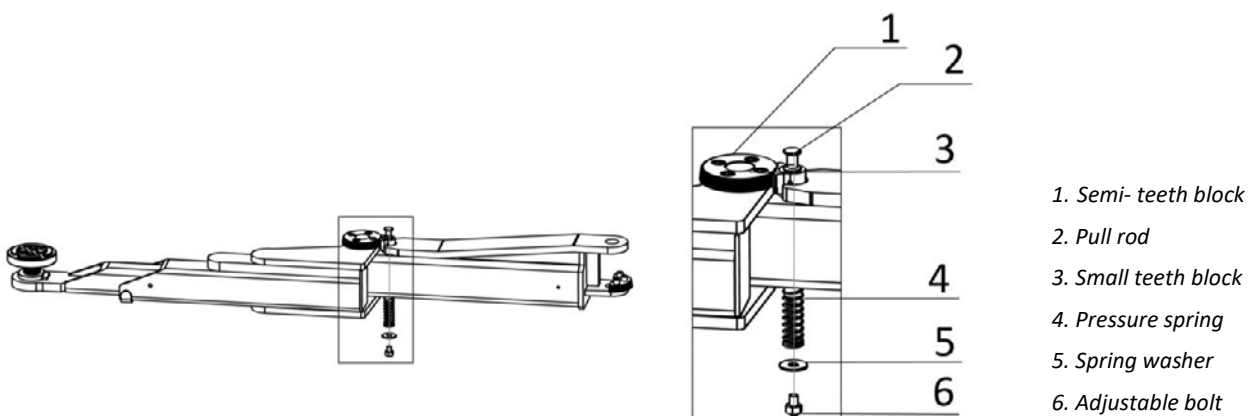
Attentions for assembling optional type-M foldable arms

Ensure the locking device at middle joint arm can engage and release effectively.

The lock may not release automatically on uneven surface.

On floor with level deviation being not more than 5mm, it can be adjusted to release automatically.

Adjust the bolt (Pos.6) at the bottom properly, making the joint arm lock engage when the arm rises and disengage when the arm lowers to the bottom.



Step 10: Fill with hydraulic oil.

CLEAN AND FRESH OIL ONLY. DON'T FILL THE TANK COMPLETELY FULL.

Lift must be fully lowered before changing or adding hydraulic oil

Prepare 14 liters of anti-abrasive hydraulic oil. It is suggested to use HM NO.46 hydraulic oil. When the average temperature of the location is below 10°C, use HM NO.32 hydraulic oil.

Respectively pour about 6 liters of hydraulic oil into both oil tanks. The level of oil shall reach the tippets volume mark of the tank.

Add more oil after running the lift for several cycles until the lift can rise to the maximum lifting height.

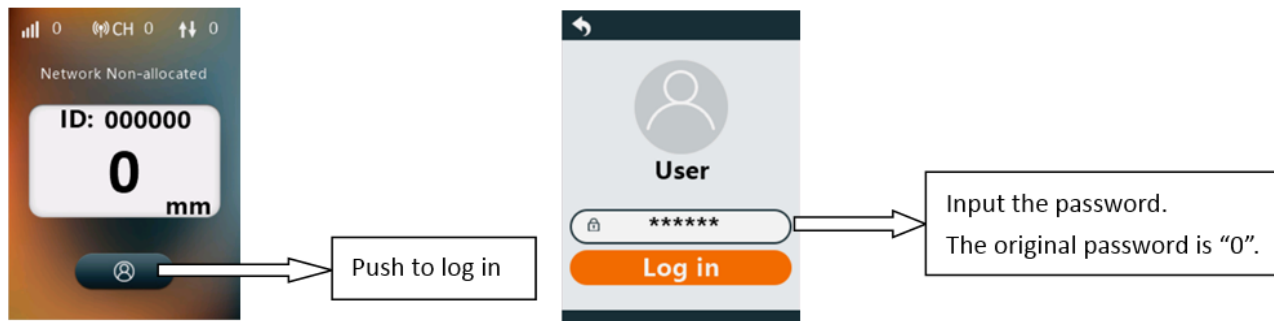
Change the oil 6 months after initial use and change once per year thereafter.

Step 11: Bleed the hydraulic line and do network connection

Refer to section 5.2 Descriptions of control system and get familiar with the control and system setting methods.

1. Log in the setting system.

Turn on the Main Switch. Push the button at the bottom of the screen, log in and reset the lifting system

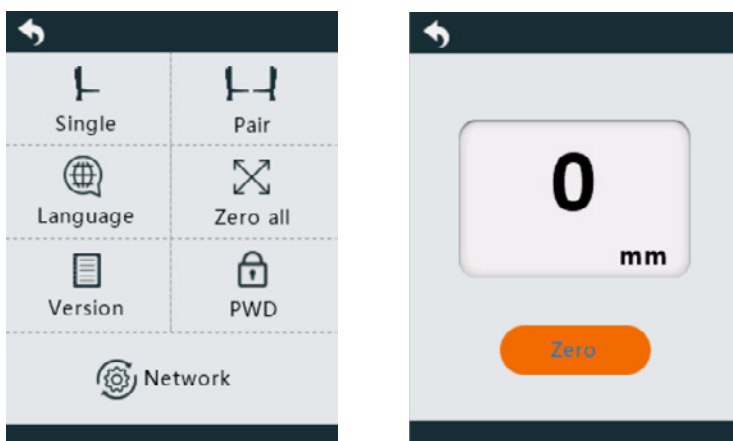


2. Bleed the hydraulic line and set “Zero” for each column in single control mode.

Enter the single control Mode. Bleed the hydraulic line by raising and lower the carriage at least for 2 complete cycles.

After bleeding, lower the carriage completely to the bottom and push the “Zero” button.

Bleed and set “Zero” to the other columns in the same way.

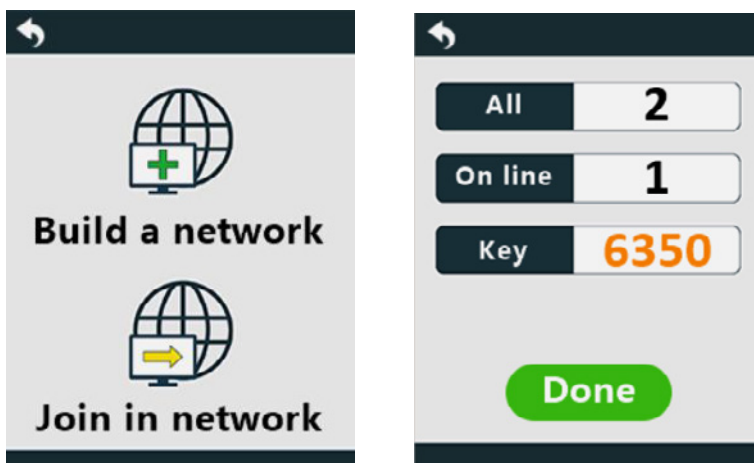


3. Pairing

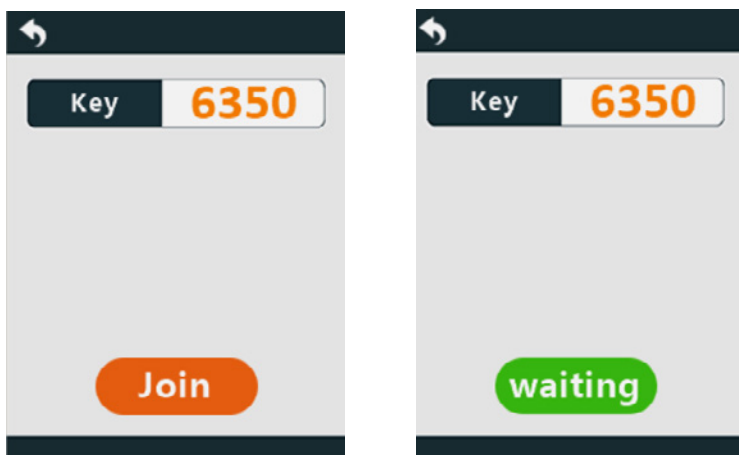
Firstly, turn on the main switch on both columns.

Push the “Network” button at the first column, build a new network and you will get a key number.

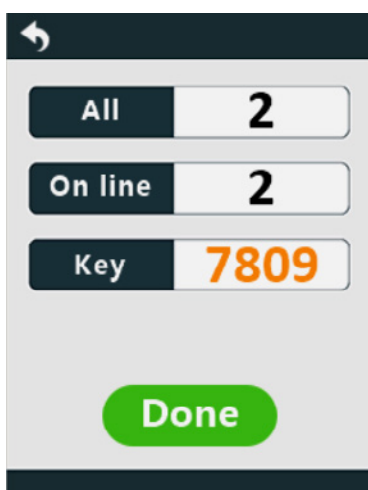
An example key number in the following is 6350. It is given randomly by the system.



Push “Join in network” button at the second column, input the same key number given by first column so as to join the network built by the first column.



Go back to the first column and push the button “Done”.



Return to the main setting page and push the button “Pair” to enter the pair control mode.



4.4 Items to be checked after installation.

S/N	Check items	YES	NO
1	Screw torque of expansion bolts : 80-100Nm (63-74b.ft);	√	
2	Rising speed $\geq 20\text{mm/s}$ (7/8"/s);	√	
3	Grounding resistance: not bigger than 4Ω;	√	
4	Height difference of the two carriages $\leq 5\text{mm}$ (3/16");	√	
5	Mechanical locks are robust and synchronized when running with rated load ;	√	
6	All the control buttons work as "hold to run" ;	√	
7	The limit switch works correctly;	√	
8	The grounding wire has been connected;	√	
9	Both carriages rise and lower smoothly;	√	
10	There is no abnormal noise during running with load;	√	
11	There is no oil leakage under load.	√	
12	All expansion bolts, nuts or circlips are well tightened and secured.	√	
13	The max rise can be reached.	√	
14	All safety advices, name plate and logos are clear.	√	

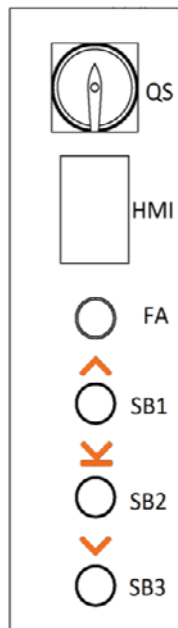
OPERATION INSTRUCTIONS

5.1 Precautions

- ONLY authorized persons are permitted in the lift area.
- Do not try to raise the vehicle with excessive length or width. Otherwise there is risk of vehicle falling from lift.
- Inspect the space above and below the load and the loading carrying devices. It shall be free of obstructions before operating.
- Before raising operation, run the lift without load for a complete cycle to ensure it is in good condition.
- Before lifting the vehicle and during all operations on the vehicle, make sure that it is properly stopped by the hand brake.
- Check the vehicle after raising a short distance to ensure that it is correctly and safely positioned.
- It is forbidden for people to stand in the field of motion during raising or lowering movement.
- The load carrying device shall be observed by the operator throughout the motion of the lift.
- Engage the safety locking mechanism before entering under the raised vehicle.
- Avoid excessive rocking of vehicle while on the lift.
- Always use safety stands when moving or installing heavy components.
- Do not climb onto the load or load carrying device when they are raised.

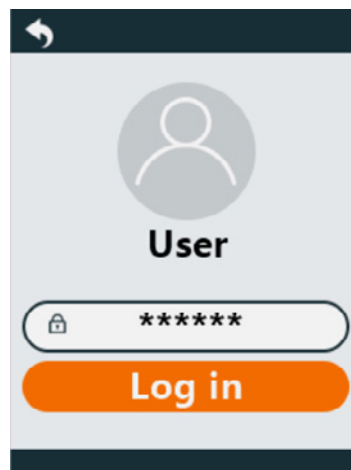
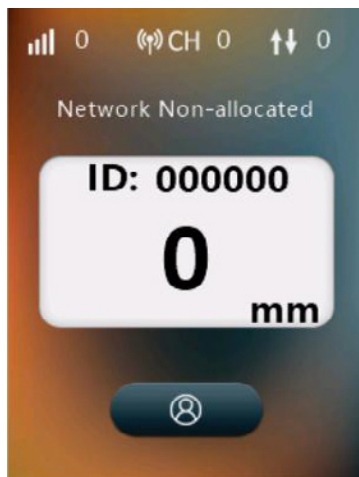
5.2 Descriptions of control system

5.2.1 Layout of the control panel

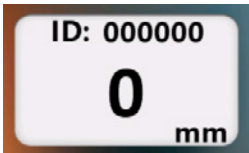
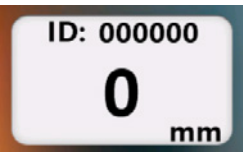
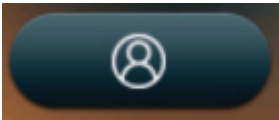
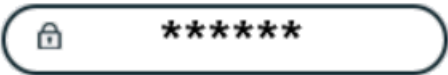
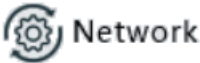


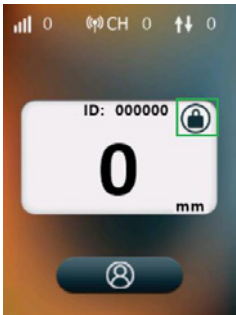
Pos.	Description	Function
QS	Main switch	Control main power.
HMI	Touch screen	Set up the communication system. Display information of the lifting system.
FA	Alarm buzzer	Audible warning for the final portion of travel down to bottom. Audible warning for excessive height deviation.
SB1	UP button	Control the rising movement.
SB2	Safety lock button	Engage the mechanical safety lock.
SB3	DOWN I and DOWN II button	On condition the mechanical locks are disengaged, the carriage can go directly down while the DOWN button is pushed. On condition the mechanical locks are engaged, the carriage will rise first to release the locks before lowering. The carriage will stop automatically at a safety distance from the floor. Reactivate it to control the final travel for lowering.

5.2.2 Layout of the touch screen



S/N	SYMBOL	Descriptions
1		The display of signal intensity. The signal is weak if the value followed by is less than 160.
2		The display of communication channel code. Two paired columns will display a same channel code.
3		The display of height deviation between two columns.

S/N	SYMBOL	Descriptions
4		ID: Identity code of the column. It is generated randomly. Two paired columns display a same ID code.
5		The display of vertical rise of the cylinder in mm. Lower the carriage completely to the bottom, push button “Zero” in single mode or “Zero all” in pair mode to clear the height value to zero for the control system. It must be attained that if you zero the height with the carriage being at a position above the bottom, you will get a negative height value.
6		Push this button to enter the page for “Log in”
7		Input the password.
8		Push this button to do network connections, such as build a network and join the network.
9		Push this button to enter into single control mode in which you can control a single column.
10		Push this button to enter into pair control mode after the network setting is done.
11		In pair control mode, lower the columns completely and push this “Zero all” button to clear the height deviation.
12		Reset the language.
13		Push this version button to get detailed edition information of the control system.

S/N	SYMBOL	Descriptions
14		Push this PWD button to reset the password.
15		Display abnormal release. In case of abnormal release, a lock-shape icon will display on the screen. Quickly identify the trouble caused by abnormal release of the locking device.

5.3 Operation instructions

To avoid personal injury and/or property damage, permit only trained personnel to operate the lift. After reviewing these instructions, get familiar with lift controls by running the lift through a few cycles before loading vehicle on lift. Always lift the vehicle using all four adapters. Never raise just one end, one corner or one side of vehicle adapters. The lift must be only used in a static position for lifting and lowering vehicles.

Only one operator is allowed to work around the vehicle lift.

Always engage the safety locking mechanism before any operation on the lifted vehicle.

Do not make any operation on the lifted vehicle at a height under the first latching position.

Never attempt to lower the lifted vehicle to the bottom when any of its wheel is removed unless you are assured that no damage will occur.

Raise the lift

Make sure vehicle is neither front nor rear heavy and center of balance should be midway between adapters and centered over the lift.

Warning: Always remember to check the engagement of all four swing arm locks and to check all four pick-up adapters for secure contact after a short rise less than 300mm. Otherwise, there could be risks of falling over.

1. Park the vehicle between two posts.
2. Adjust the lifting arms until lifting trays are under the pick-up positions of the vehicle and make sure the gravity of vehicle located over the center of four lifting arms.
3. Push the UP button on the control panel until lifting adapters have touched the pick-up positions of vehicle.
4. Keep on raising the vehicle making its wheels be off the ground a little bit and check the stability.
5. Raise the vehicle to the height excepted, push the "Safety Lock" button to engage the mechanical safety locking unit. Check again the stability and then perform maintenance or repair work underneath.

Attention: In case the LOCK button does not work, please push the UP button or DOWN button to raise or lower the carriage a little bit and push the LOCK button again to engage the mechanical locking device.

Lower the lift

When lowering the lift, pay careful attention that all personnel and objects are kept clear.

An audible warning is accompanied during the final portion of lowering travel.

1. Push the "DOWN" button on the control panel.
2. The carriage will automatically stops at a safety distance from the floor. Reactivate "DOWN" button to lower the final descending movement.
3. When it is lowered completely, position the swing arms and adapters to provide an unobstructed exit before removing vehicle from lift area.
4. Drive the vehicle away.

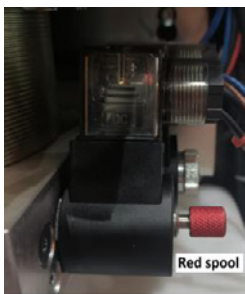
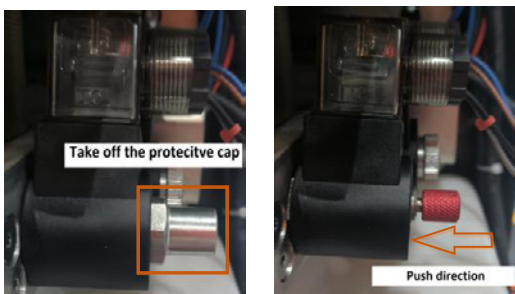
Attention: On condition the mechanical locks are disengaged, the carriage can go directly down while the DOWN button is pushed. On condition the mechanical locks are engaged, the carriage will rise first to release the locks before lowering.

TROUBLE SHOOTING

ATTENTION: If the trouble could not be fixed by yourself, please do not hesitate to contact us for help.

We will offer our service at the earliest time we can.

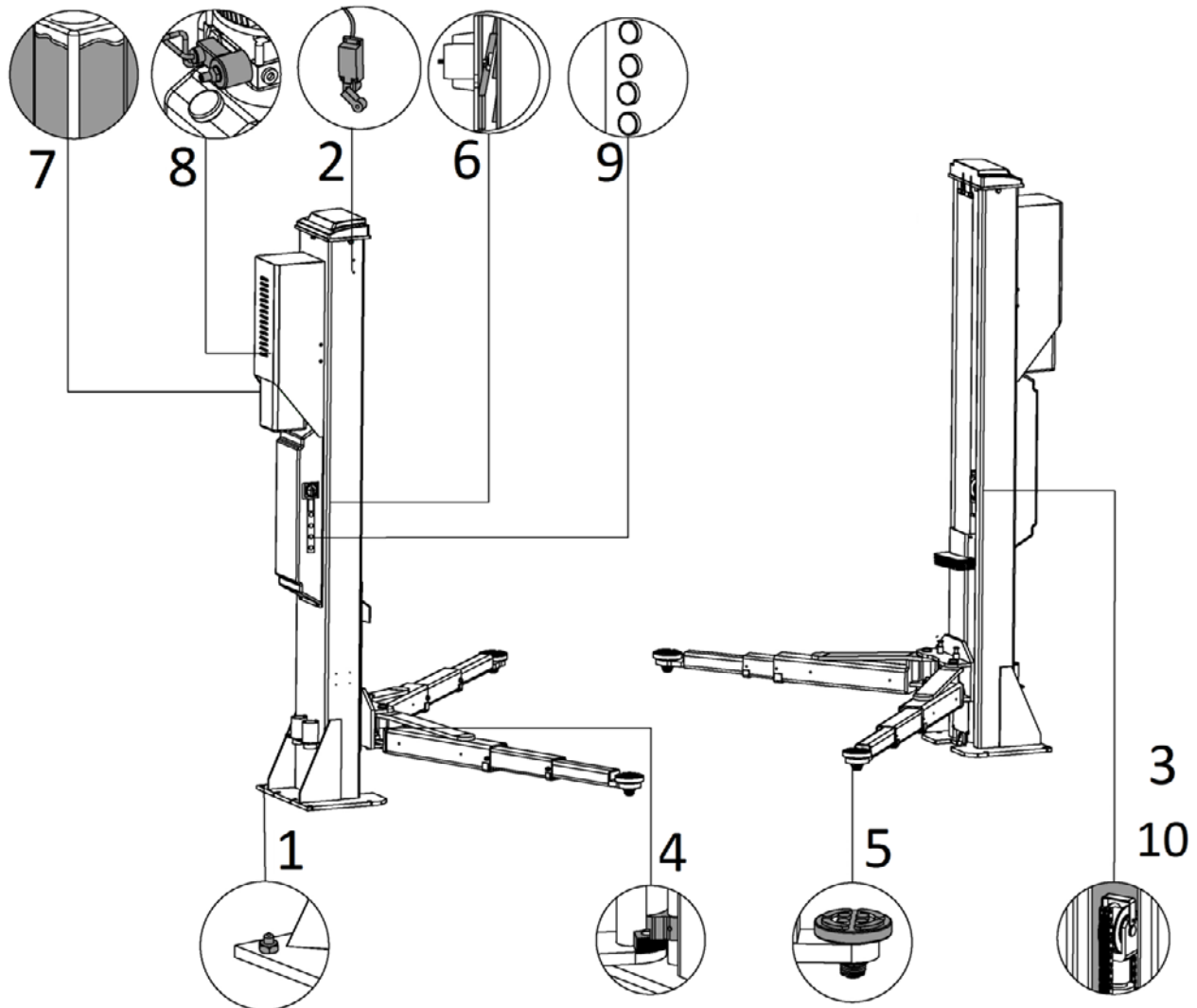
Troubles could be judged and solved much faster when more details or pictures could be provided.

TROUBLES	POSSIBLE CAUSES	SOLUTIONS
Not rise	The weight of the loaded vehicle exceeds the maximum capacity of the lift.	Reduce the load.
	The motor runs in the wrong direction.	Interchange the connection of wires U, V.
	Damaged rope displacement sensor.	Replace it.
	Abnormal interconnection network.	Restart both columns.
	Damaged gear pump. (Pos.11 in the hydraulic exploded scheme)	Replace it.
	Jammed relief valve. (Pos.3 in the hydraulic exploded scheme)	Clean or replace it.
	The red spool, attached with the unloading valve for emergency descent was not screwed tight. (Pos.9-3 in the hydraulic exploded scheme) 	①Open the control cabinet and find the emergency unloading valve. ②Take off the protective cap of the valve and see red spool of the valve. ③Push and turn clockwise the red spool until hear sound which implicate the valve is off. 
Not lower	Damaged solenoid valve (Pos.9,10 in the hydraulic exploded scheme).	Replace it.
	Loose wire connection of electromagnet (YA1,YA2 in the electrical scheme).	Inspect and ensure a good wire connection.
	Loose wire connection of micro switch (SQ2,SQ3 in the electrical exploded scheme).	Inspect and ensure a good wire connection.

TROUBLES	POSSIBLE CAUSES	SOLUTIONS
Not rise and not lower while an audible warning occurs	Exceeded rising height deviation.	Turn one of the column into single control mode adjust the height of its carriage until both carriages are at the same level from ground.
	Reversed wire connection of the solenoid valve (YV1,YV2 in the electrical exploded scheme).	Correct the wire connection.
	Fully jammed pressure compensation valve, which causing the system exceeding the rising height deviation. (Pos.7,8 in the hydraulic exploded scheme)	Clean or replace the valve.
Lower too slowly	Jammed pressure compensation valve. (Pos.7,8 in the hydraulic exploded scheme)	Clean or replace the valve.
	Jammed solenoid unloading valve. (Pos.9, 10 in the hydraulic exploded scheme)	Clean or replace the valve.
	Jammed restrictive valve on the oil cylinder. (Pos.6 in the hydraulic line scheme)	Clean it
Rise and lower with vibration	Loose oil sucking pipe.	Tighten the pipe.
	No grease on the sliding surface of the carriage.	Add grease.
	The two pressure compensation valve elements are reversely installed.	Interchange the installed position.
	The wires of two solenoid valve are reversely connected.	Interchange the connection of wires.

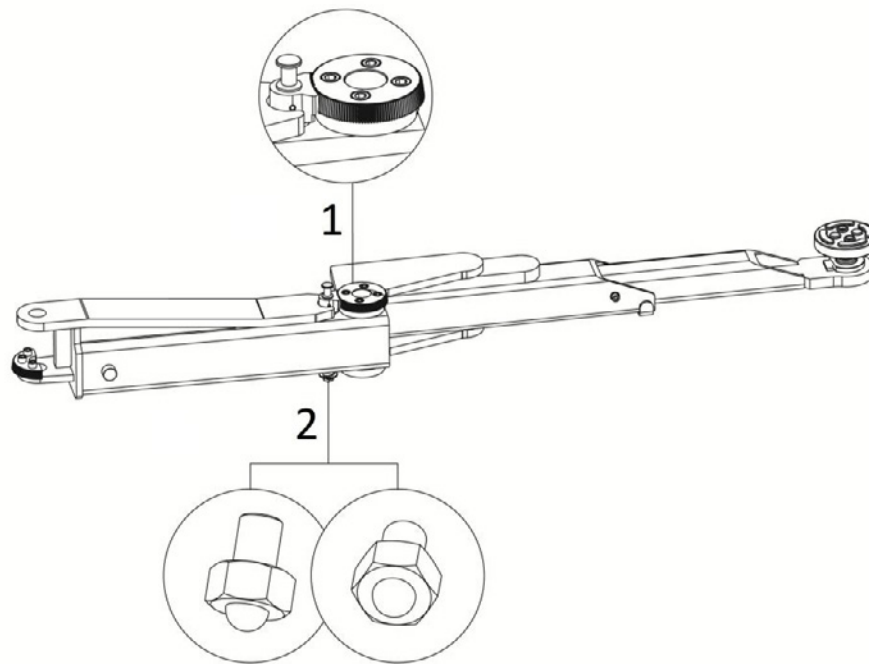
MAINTENANCE

Following are requirements for routine maintenance. Easy and low cost routine maintenance can ensure the lift work normally and safely. The plan for routine inspection and maintenance shall be worked out by referring to the following list as well as according to the regulations of the local authorities.



S/N	Components	Methods	Period
1	Expansion bolts	Check with torque spanner. Torque:80-100N.m	Every 3 months
2	Limit switch	Push the UP button and inspect and to ensure the lifting platform stops rising when the switch is activated.	Every day
3	Running path inside the post for carriages	Lubricate the path with NO.1 lithium based grease. No obstruction on the track.	Every 3 months
4	Swing arm locking units	Push the UP button to raise the lifting arms and check if four swing arms are locked into position. Add grease in case necessary.	Every day
5	Rubber contact pads	Inspect the pads and clean off any objects that may cause sliding or damage.	Every day

S/N	Components	Methods	Period
6	Mechanical safety catch	Check and assure both mechanical catches can engage and disengage simultaneously by pushing control buttons.	Every day
7	Hydraulic oil	Change the oil 6 months after initial use and once per year thereafter. Inspect the hydraulic oil and change the oil if the oil becomes black or there is dirt in the oil tank.	Every year
8	Unloading valve oil hose connectors	Inspect to ensure no leakage before using the lift.	Every day
9	Control button	Check and assure all buttons work as "hold- to -run " and work as the function indicated.	Every day
10	Chain and its pins	Lubricate the chain with NO.1 lithium based grease. It is advised to change the chains every 3 years or if any cracks occurred to the pin of the chain.	Every 3 months



S/N	Components	Methods	Period
1	Joint arm lock	Push the DOWN button to lower the arms till the bottom and check if the joint arm lock can release automatically at bottom. <u>Adjust the bolt (Pos.2) at the bottom properly, making the joint arm lock engage when the arm rises and disengage when the arm lowers to the bottom.</u>	Every day
2	Ball bearing	Clear the dirt or other solid objects sticking under the ball and check if the ball moves flexibly.	Every week

If users stick to the above maintenance requirements, the lift will always keep a good working condition and its service life could be extended.

Annex 1, Floor plan

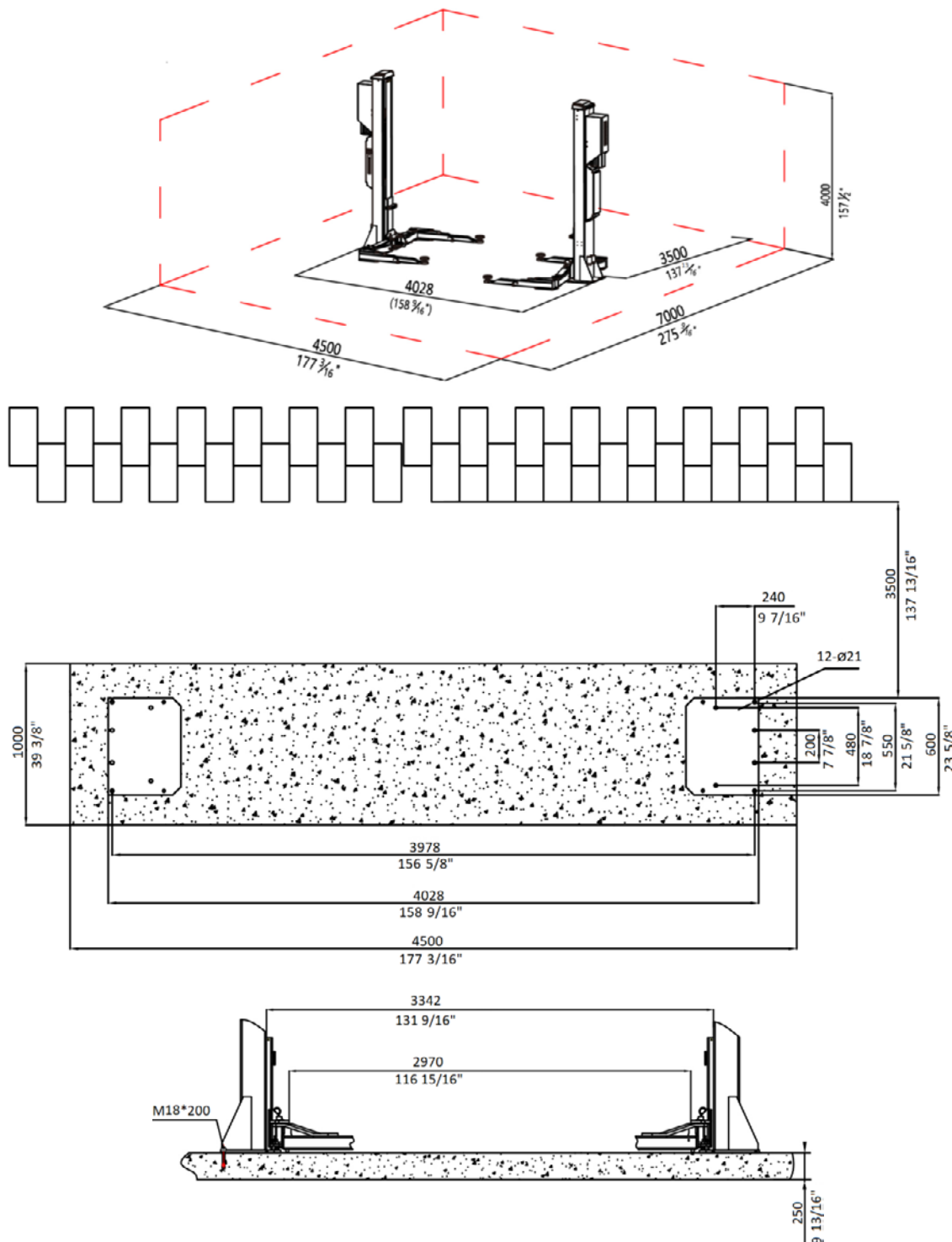
Indoor installation only. The space requirement specified in the below scheme is for reference only. There must be sufficient space for driving and lifting vehicles and enough safety distance shall be reserved according to the regulations of the local authorities. It is advised to reserve a clearance of at least 1 meter between the lift and fixed elements (e.g. wall) in all lifting positions.

C25/C30 concrete foundation with a minimum thickness of 300mm.

Surface under the base frame: Horizontal and even (Gradients max. 0.5 % or a deviation less than 5mm)

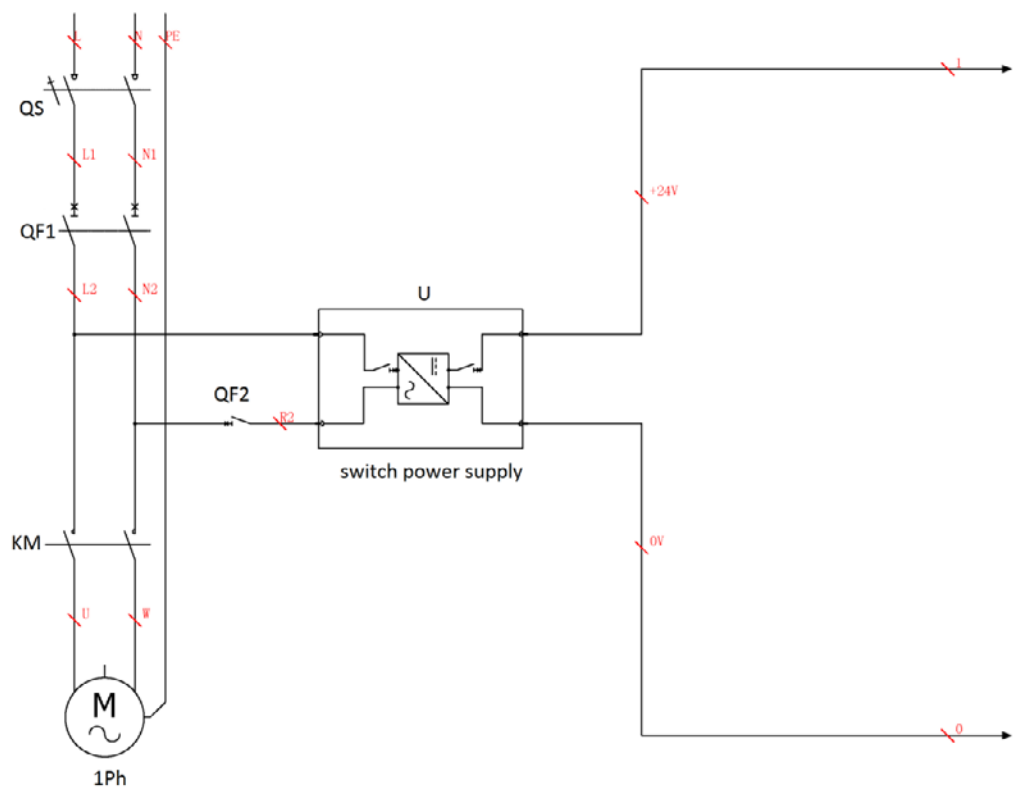
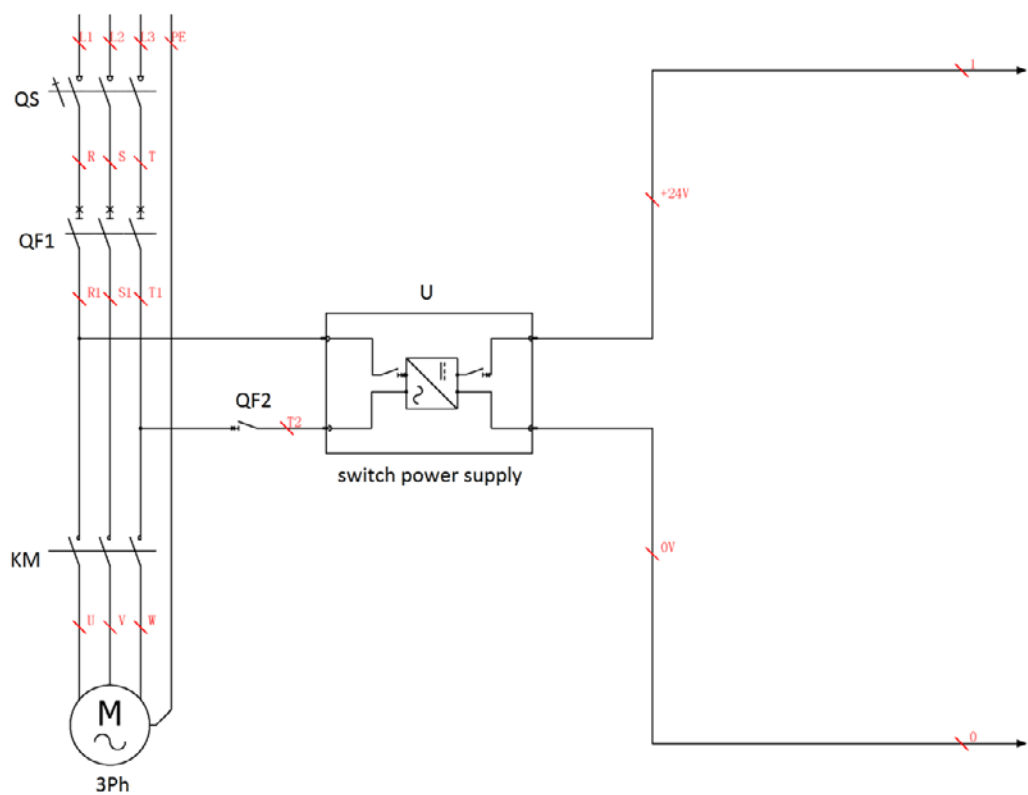
Newly built concrete ground must be older than 20days.

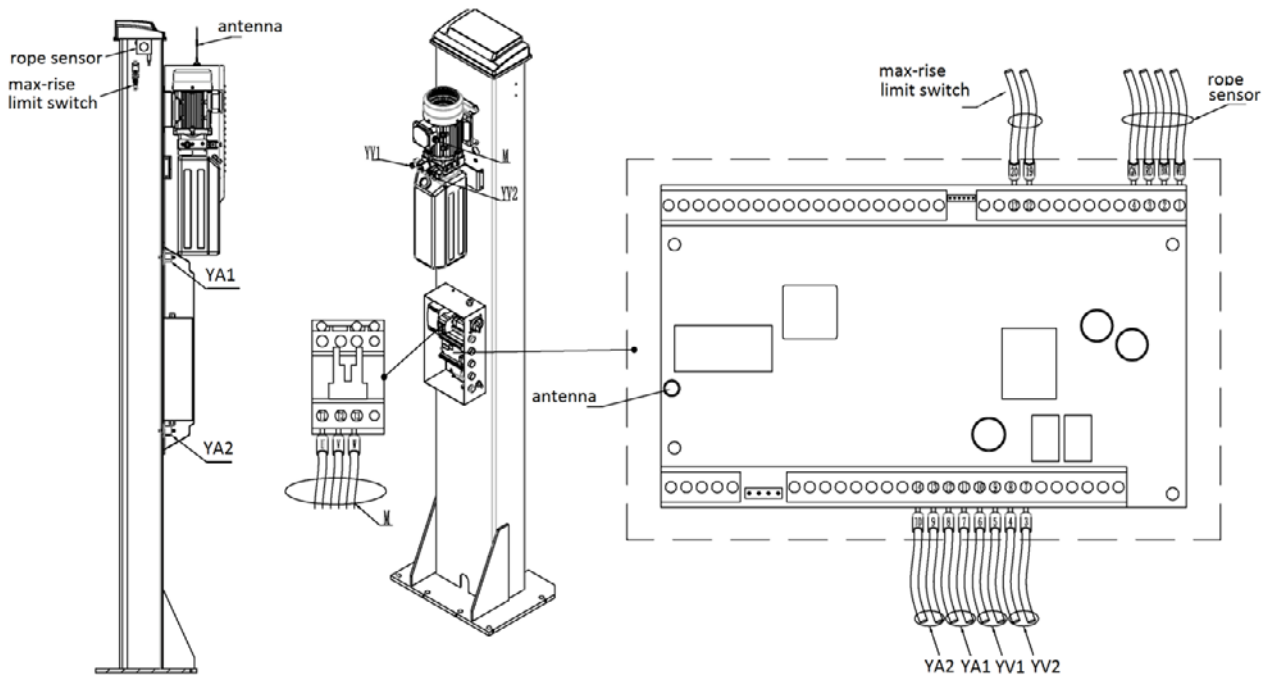
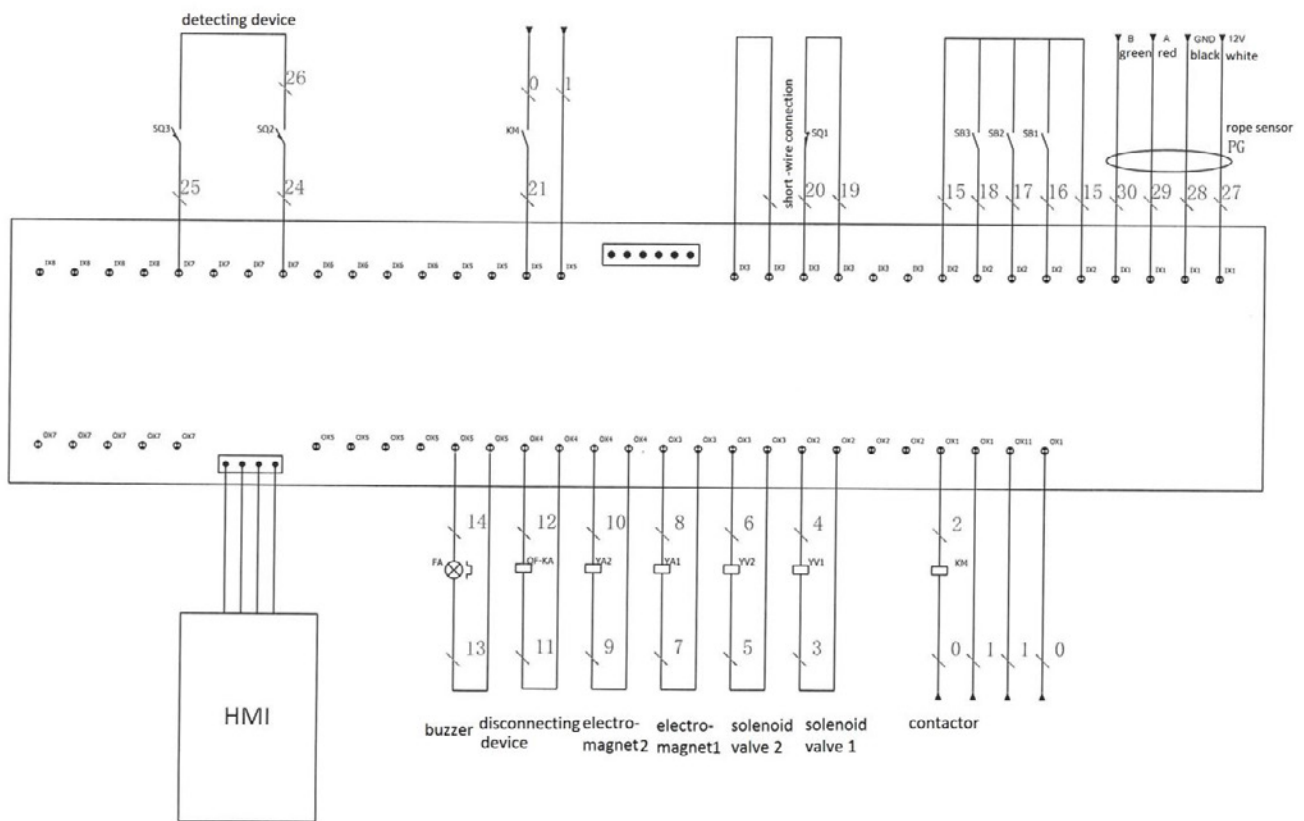
In millimeters and inches.

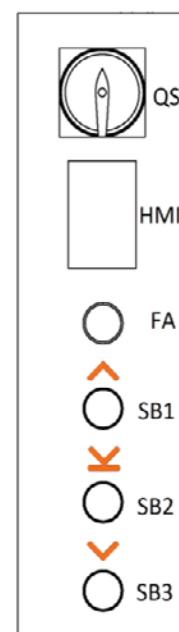
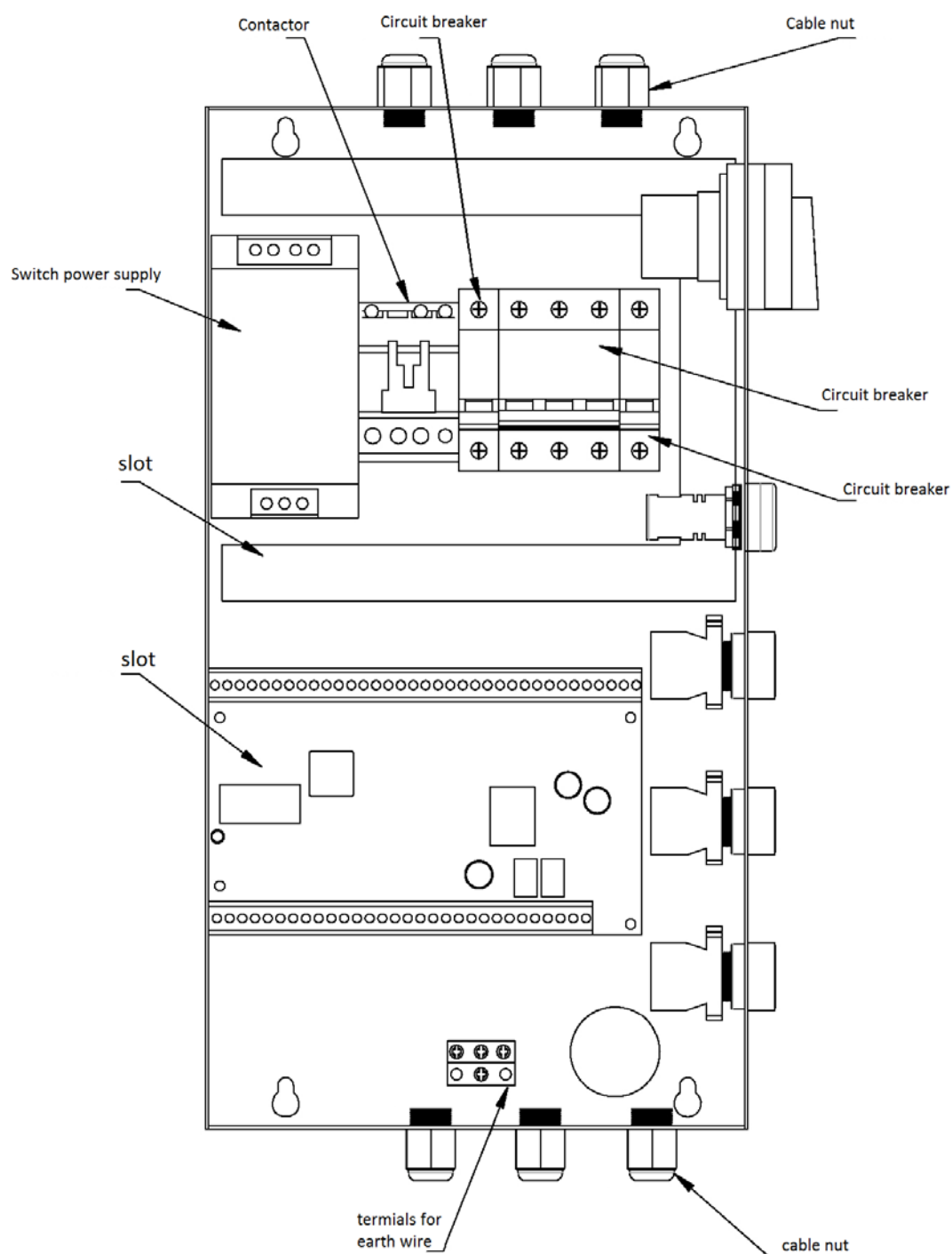


Annex 2, Electrical schemes and parts list

(Note: For the specific requirements on voltage, the actual voltage of your lift may differ with the following diagram)

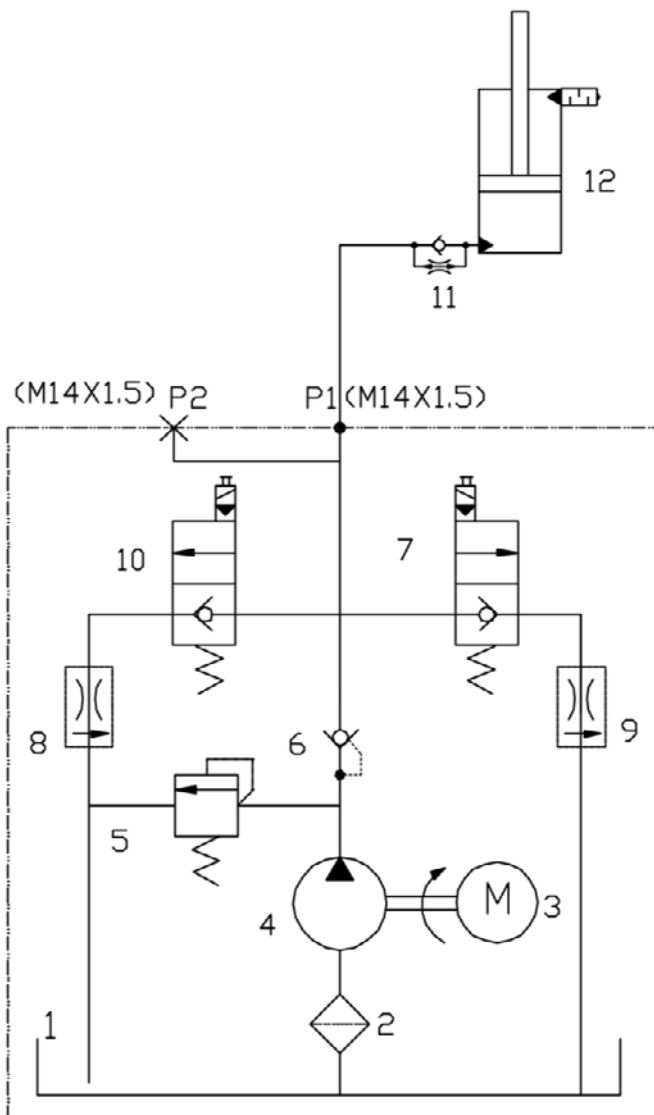




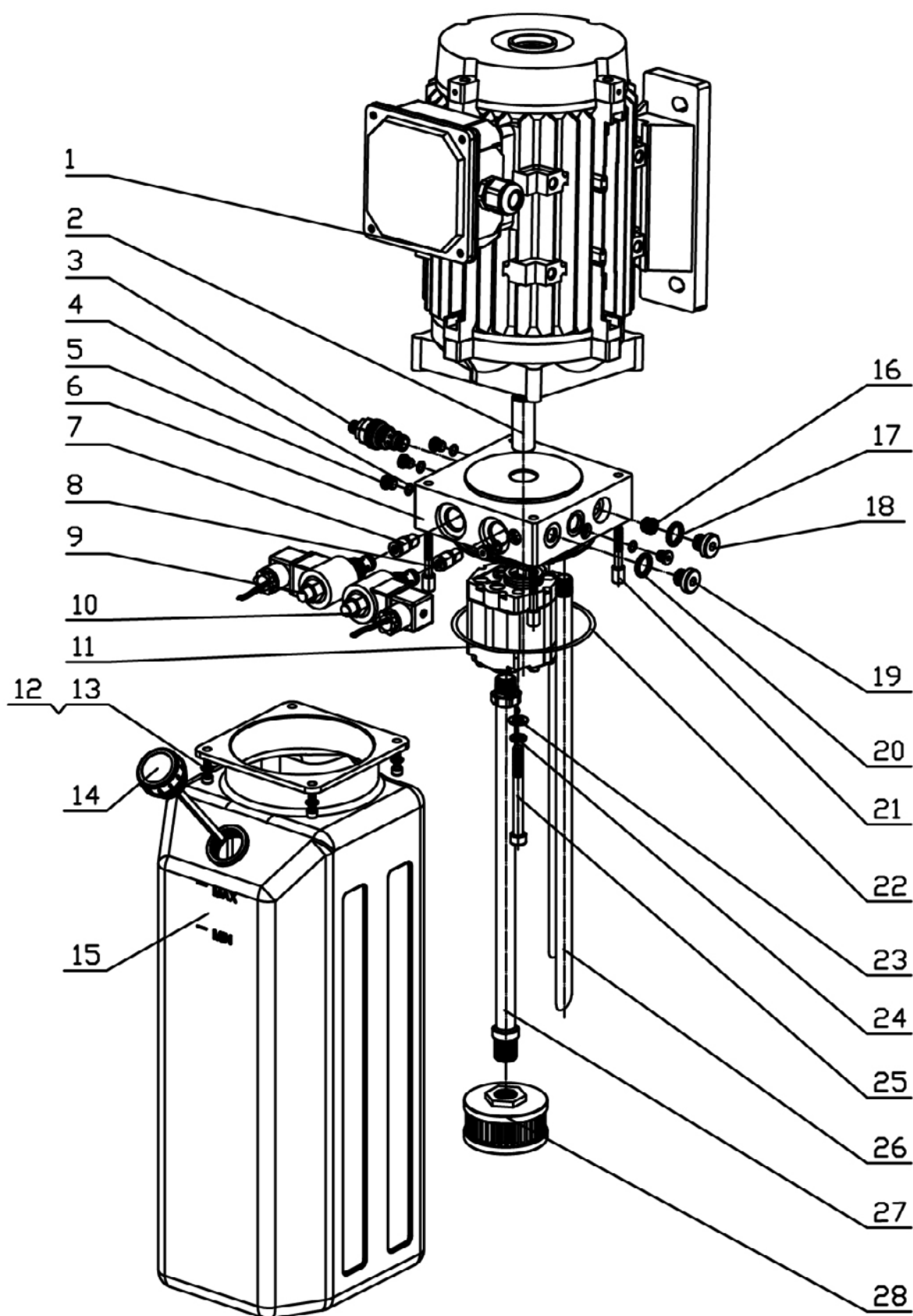


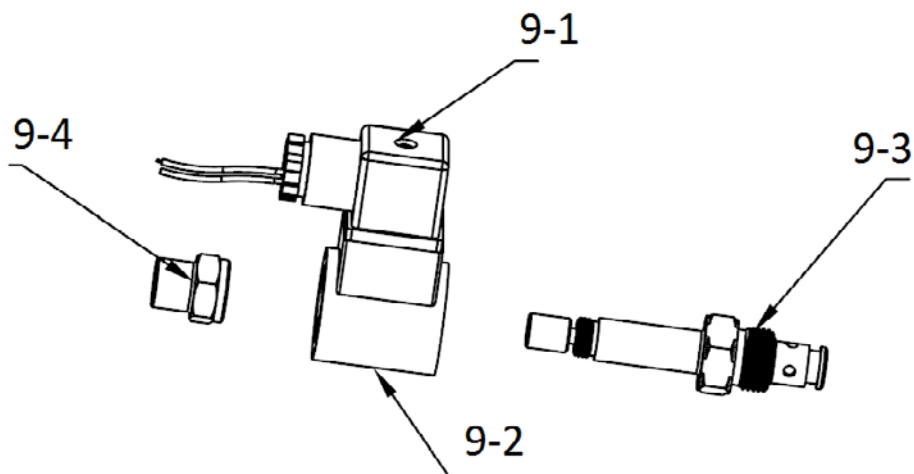
Code in the scheme	P-code	Component name	Specification	Qty
HMI	321500005	Touch screen	TJC3224K024_011R	2
QF1	320801003	Circuit breaker (3Ph)	CDB6iC25/3P (CB-60A C25)	2
	320802001	Circuit breaker (1Ph)	CDB6iC32/2P (CB-60A C32)	2
SQ1	320301011	Limit switch	TZ8108	2
QF2	320803005	Circuit breaker	CDB6iC6/1P(CB-60A C6)	2
KM	320902009	Contactor	NC1-1810Z	2
FA	321202001	Alarm	AD118-22SM/R/AC/DC/24V	2
QS	320304001	Main switch	LW26GS-20-04	2
SB1,SB2,SB3	320401042	Button	NP2-EA11 (CDLA6H-EA11)	6
U	321004142	Switch power supply (380V/400V)	DHR-120-24 320V-440VAC	2
	321103414	Switch power supply (220V)	DHR-120-24 100-120VAC/200-240VAC	2
U	321103418	Switch power supply (replace 321004142, 321103414 since Mar.1 st ,2025)	WTR-W150/24 200~500VAC	2
PG	321004119	Rope sensor	2000mm/WF50-E-02	2
YA1	330310005	Electromagnet	6254E-A14	4
-	321301027	Circuit board	433	2
-	321004145	Disconnecting device	AC/DC 24V-48V	2
SQ2,SQ3	320301026	Micro switch	CMV101D	4

Annex 3, Hydraulic schemes and parts list



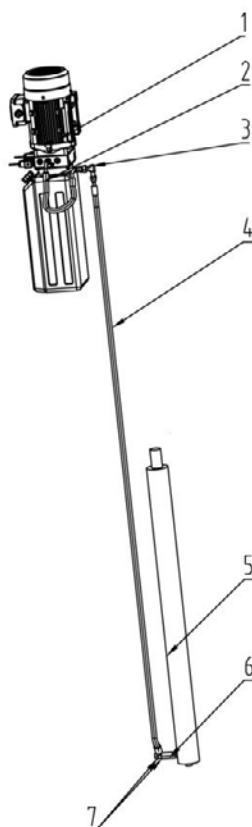
Pos.	Component name
1	Oil tank
2	Filter
3	Motor
4	Gear pump
5	Relief valve
6	Non-return valve
7	Solenoid shifting valve (unloading valve)
8	Pressure compensating valve
9	Pressure compensating valve
10	Solenoid shifting valve (unloading valve)
11	Restrictive valve
12	Hydraulic cylinder



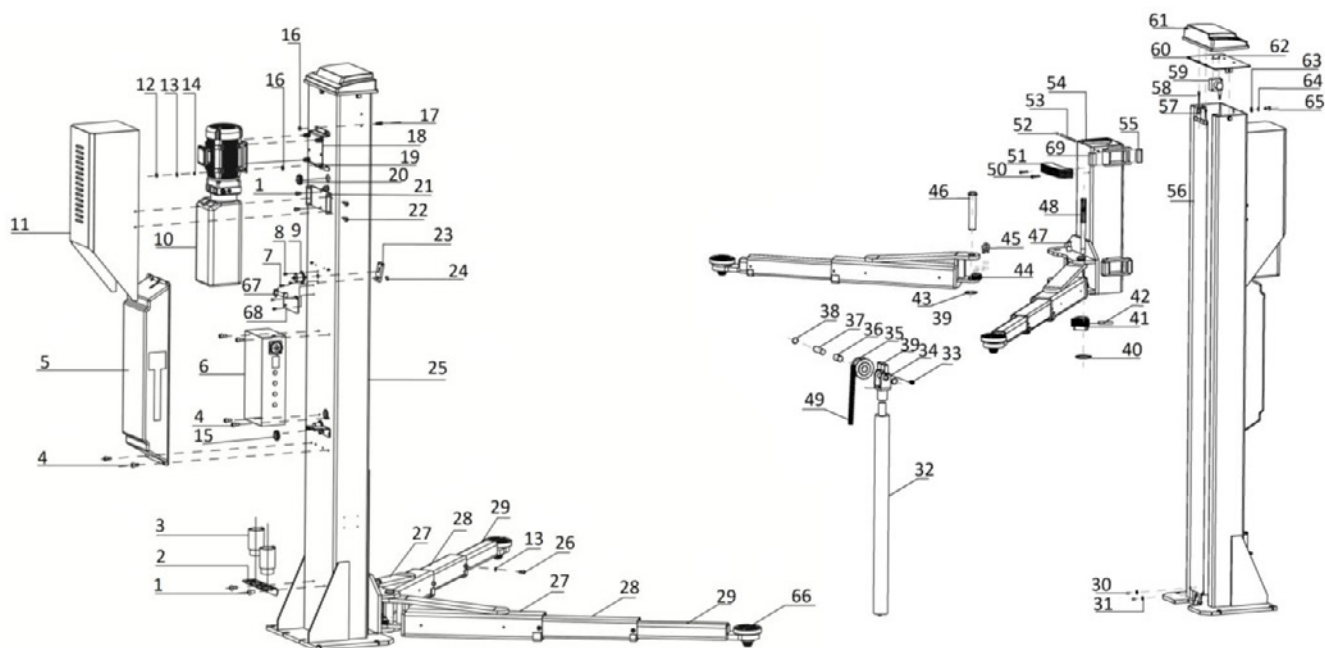


Pos.	Code	Component name	Specification	Qty
1	320204261	Motor	400V-3.5kW -3PH-50HZ-2P	1
1	320204260	Motor	380V-3.5kW -3PH-50HZ-2P	1
2	330404006	Coupling	48mm (YBZ-F2.1D4H1/1-03)	1
3	330304007	Relief valve	YF08-40	1
4	207101100	Type O seal ring	EKM,6.5*1.5	7
5	210101015	Fitting	YBZ1-PG02A	7
6	330101111	Hydraulic block	LBZ-T202BK-1	1
7	330308037	Pressure compensating valve	BL-I2.2	1
8	330308033	Pressure compensating valve	BL-I1.0	1
9,10	791150005	Solenoid valve assembly (include part No.9-1, 9-2,9-3 and 9-4)	DC24V	2
9-1	330308032	Solenoid plug	DIN43650-DC	2
9-2	330308031	Solenoid	LC2-0-C-2H,24VDC	2
9-3	330311005	Valve spool	24DC(Keta) (LSV-08-2NCP-M-2H)	2
9-4	203204102	Locking nut	FHLM-1/2-20UNF	2
11	330201012	Gear pump (3.5kW)	CBK-F242-H	1
12	202109144	Bolt	M5*18	4
13	204101003	Flat washer	M5	4
14	330502013	Breather	YBZ-BT-M30*2-B	1
15	330405066	Oil reservoir	SLYX-8L-L-BX	1
16	330302004	Non-return valve	ILCV2000-G1/4	1
17	207103019	Composite washer	M14	1
18	210101004	Hex socket fitting	G1/4	1
19	210101013	Fitting	M14*1.5	1
20	207103019	Composite washer	M14	1
21	202109145	Bolt	YBZ-E3D4H1/10-02	4
22	207101098	Type O seal ring	109*5.3	1
23	204201013	Spring washer	M8	2

Pos.	Code	Component name	Specification	Qty
24	204101005	Flat washer	M8	2
25	202109072	Hex socket cylinder head screw	M8*85	1
26	330402016	Oil-return pipe	YBZ-E2D1/1-01(340mm)	2
27	330401024	Oil-suck pipe	YBZ-SJYG350	1
28	330403003	Filter	YBZ-E2D311/1-10	1



Pos.	Code	Component description	Specification	Qty
1	622034422	Power unit	380V/400V-3.5KW-3PH-50HZ	1
2	624008247	Rubber oil hose	L=400mm	1
3	615022014	Right angled connector	612E-A8	1
4	624002004B	Rubber oil hose	L=2265mm	1
5	615068428	Hydraulic cylinder	YG85-95-40-930	1
6	615068806	Composite connector	NPT3/8-G1/4-60mm	1
7	207103025	Composite washer	13_7X20X1_5	2

Annex 4, Mechanical schemes and parts list


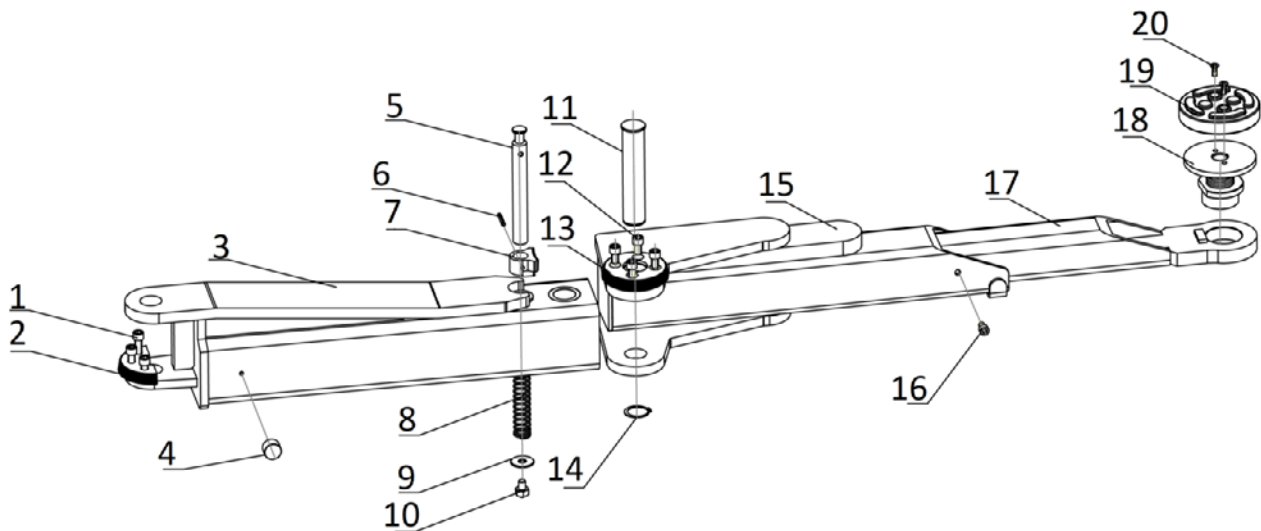
Pos.	Code	Descriptions	Specification	Qty
1	202110004	Hex socket button head screw	M8X12-GB70_2	8
2	410901744	Holder for height adapter	6254E-A1-B1-C6-V0	2
3	612013002	Height adapter	6214EKZ-A4-B5	4
4	202109019	Hex socket cylinder head screw	M6X12-GB70_1	16
5	420680132	Cover	E25-A1-B3-1	2
6		Control box assembly	E28-A15	2
7	202109020	Hex socket cylinder head screw	M6X15-GB70_1	4
8	202109017	Hex socket cylinder head screw	M6X8-GB70_1	8
9	330310005	Electromagnet	6254E-A14	4
10		Power unit assembly	3.5kW	2
11	614901871	Motor housing assembly	62B-A22-B1-1	2
12	203101006	Hex nut	M10-GB6170	14
13	204201005	Spring washer	D10-GB93	8
14	204101006	Flat washer	D10-GB95	8
15	420040020	Line protective ring	6254E-A22	2
16	420040010	Anti-shock pad	6254E-A23	8
17	202109041	Hex socket cylinder head screw	M10X20-GB70_1	6
18	410901745	Holder for power unit	6254E-A1-B1-C10-V0	2
19	201103004	Hex head full threaded bolt	M10X35-GB5783	8
20	420040030	Line protective ring	6254E-A21	4
21	410912142	Motor housing holder	62B-A22-B2-1	2
22	202110005	Hex socket button head screw	M8X20-GB70_2	8
23	615068208	Locking plate assembly	6254E-A13-V1	4
24	410040071	Orientation block	6254E-A17	4

Pos.	Code	Descriptions	Specification	Qty
25	614901992	Column assembly	E25-A1-B1-V1	2
26	202109040	Hex socket cylinder head screw	M10X16-GB70_1	8
27	614013211B	Support arm	6255E-A4-B1	4
28	614013212	Mid arm	6255E-A4-B2	4
29	614013213B	Retractable arm	6255E-A4-B3	4
30	202101027	Cross socket cap head screw	M6X8-GB818	4
31	204101004	Flat washer	D6-GB95	8
32	615068428	Cylinder	YG85/95-40-930	2
33	202109017	Hex socket cylinder head screw	M6X8-GB70_1	4
34	612013201	Chain wheel support	F12-A5-B1	2
35	410132021	Chain wheel	F12-A5-B3	2
36	205101024	Bushing	3055-SF-1X	2
37	410132011	Shaft of chain wheel	F12-A5-B2	2
38	204301011	Circlip	D30-GB894_2	4
39	410542083	Chain stop plate	F12-A5-B4	2
40	204301009	Circlip	D25-GB894_2	4
41	410901966	Small teeth block	6255E-A3-B6	4
42	206102013	Cylindrical pin	D6X40-GB879	4
43	204301013	Circlip	D38-GB894_1	4
44	410901967	Semi teeth block	6255E-A4-B5	4
45	202109085	Hex socket cylinder head screw	M12X30-GB70_1	12
46	410049031B	Pin shaft	6254E-A12	4
47	410902399B	Pull rod	6255E-A3-B4-C1-1	4
48	410150121	Compressed spring	6254E-A2-B4	4
49	208108011	Chain	LH1266-127	2
50	202109031	Hex socket cylinder head screw	M8x30	4
51	420680124	Rubber pad	62B-A3-B11	2
52	202109020	Hex socket cylinder head screw	M6X15-GB70_1	4
53	410130061	Pipe	6255E-A3-B2	2
65	614901991	Carriage	E25-A3-B1-V2	2
55	410902400	Sliding block	E25-A3-B2	12
56	615013002B	Column curtain	6255E-A5	2
57	410010051	Installation rod for column curtain	6254E-A1-B5	4
58	203101004	Hex nut	M6-GB6170	8
59	321004119	Rope sensor	2000mm/WF50-E-02	2
60	614901529	Top pate	E25-A1-B2	2
61	420130030	Top cover	6255E-A12	2
62	202109008	Hex socket cylinder head screw	M5X12-GB70_1	4
63	204101007	Flat washer	D12-GB95	6

Pos.	Code	Descriptions	Specification	Qty
64	204201006	Spring washer	D12-GB93	6
65	201102026	Hex head full threaded bolt	M12X25-GB5783	6
66	615035022	Round adapter	6214EKZ-A4-B4-V0	4
67	320301026	Micro switch	CMV101D	4
68	410911801	Installation plate	E25-A1-B10-C1-1	4
69	420010010	Sliding block	6254E-A2-B5	4

Mechanical schemes and parts list for optional type-M foldable arms

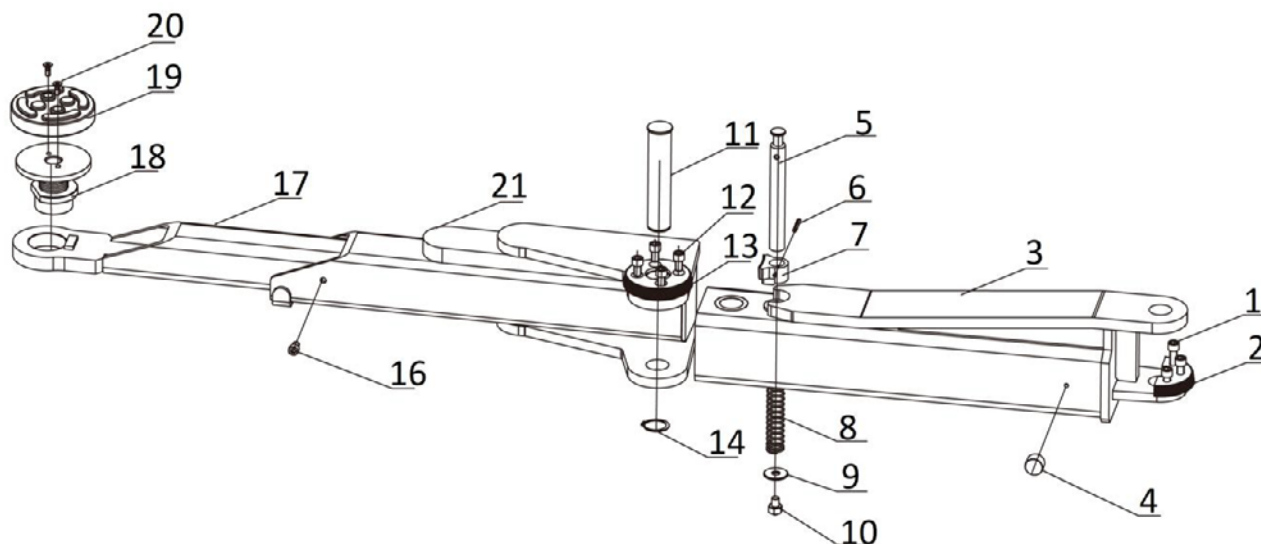
Arm A assembly



Pos.	Code	Description	Specification	Qty
1	202109085	Hex socket cylinder head screw	M12X30-GB70_1	3
2	410901967	Semi-Teeth block	6255E-A4-B5	1
3	614901751	1st section of the arm assembly	E25-A4-B1	1
4	202309001	Bottom adjustable screw	M8X22	1
5	410911700	Pull rod for joint arm	E25-A4-B6	1
6	206102013	Cylindrical pin	D6X40-GB879	1
7	410901966	Small teeth block	6255E-A3-B6	1
8	410150121	Pressure spring	6254E-A2-B4	1
9	410911710	Washer for pressure spring	E25-A4-B7	1
10	208109039	Universal ball bearing	BCHL12-M12X15-11	1
11	410911709	Shaft	E25-A4-B10	1
12	202109050	Hex socket cylinder head screw	M12X20-GB70_1	4
13	410911699	Teeth wheel	E25-A4-B5	1
14	204301013	Circlip	D38-GB894_1	1
15	614901752	2nd section of the arm assembly	E25-A4-B2	1
16	202109040	Hex socket cylinder head screw	M10X16-GB70_1	1
17	614901753	3rd section of the arm assembly	E25-A4-B3	1
18	615035037	Lifting tray (no contact pad)	6214EKZ-A4-B4	1

Pos.	Code	Description	Specification	Qty
19	420130010	Round pad	6214EKZ-A4-B4-C4	1
20	202111007	Hex socket flat head screw	M8X20-GB70_3	2
18+19+20	615035022	Lifting tray assembly	6214EKZ-A4-B4-V0	1

Arm B assembly



Pos.	Code	Description	Specification	Qty
1	202109085	Hex socket cylinder head screw	M12X30-GB70_1	3
2	410901967	Semi-Teeth block	6255E-A4-B5	1
3	614901751	1st section of the arm assembly	E25-A4-B1	1
4	202309001	Bottom adjustable screw	M8X22	1
5	410911700	Pull rod for joint arm	E25-A4-B6	1
6	206102013	Cylindrical pin	D6X40-GB879	1
7	410901966	Small teeth block	6255E-A3-B6	1
8	410150121	Pressure spring	6254E-A2-B4	1
9	410911710	Washer for pressure spring	E25-A4-B7	1
10	208109039	Universal ball bearing	BCHL12-M12X15-11	1
11	410911709	Shaft	E25-A4-B10	1
12	202109050	Hex socket cylinder head screw	M12X20-GB70_1	4
13	410911699	Teeth wheel	E25-A4-B5	1
14	204301013	Circlip	D38-GB894_1	1
16	202109040	Hex socket cylinder head screw	M10X16-GB70_1	1
17	614901753	3rd section of the arm assembly	E25-A4-B3	1
18	615035037	Lifting tray (no contact pad)	6214EKZ-A4-B4	1
19	420130010	Round pad	6214EKZ-A4-B4-C4	1
20	202111007	Hex socket flat head screw	M8X20-GB70_3	2
18+19+20	615035022	Lifting tray assembly	6214EKZ-A4-B4-V0	1
21	614901754	2nd section of the arm assembly	E25-A5-B1	1