

Eoslift

W1620

**Electric
Pallet
Truck**

Instructions

Eoslift

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Esteemed users:

Welcome to purchase W16 / 20 Series Electric Pallet Truck. For your safe and correct operation, please carefully read and fully understand the operating instructions and warnings on the truck before using it, to completely acquire and master the safety operation of the truck.

The operating instructions detail specifications of the different models of electric pallet stackers. During operation and maintenance work, pay attention to the description appropriate to the electric pallet stacker.

The majority of this truck consists of recycled steel. Waste materials in conjunction with use, maintenance, cleaning or disassembly must be collected and disposed of in an environment-friendly way and in accordance with the local regulations. Such work must be carried out in areas intended for this purpose. The oil filter wastes batteries wastes and electronics wastes, if handled incorrectly, will harm the environment or human body.

All parameters mentioned herein are based on data available at the moment of printing the instructions, we reserve the right to incorporate modifications to our own products at any moment without prior notice. If you want to know the latest product parameters, please contact us.

Eoslift



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 Statement

W16/20 series electric pallet trucks, manufactured by Eoslift, are powered vehicles on the place used for a particular purpose in the factory plant, tourist attractions, amusement park specified by the Regulations on Safety Supervision Special Equipment.

Safe operating rules

1. Requirements for operator

The electric pallet truck must be operated by persons trained in operation. The operator shall be able to carry out operation demonstration of moving and controlling goods for users, and he or she is responsible for the electric pallet truck. Unauthorized persons are not allowed to operate the electric pallet truck. Do not carry or lift passengers.

2. Faults and defects

If electric pallet truck failure or defects occur, immediately notify the management personnel. If the electric pallet truck is not safe for operation (such as wheel worn or brake failed, etc.), please stop using it before it is fully repaired.

3. Hazardous area

The hazardous area usually refers to the area where the electric pallet stacker or its lifting device (e.g. forks, attachments) will pose threat to persons during their operation or lifting process. Typically, this range extends to the area where goods or vehicle accessories are lowered.

Warning

Unauthorized persons must leave the hazardous area. Whenever a situation causes possible harm to persons, the operator must give a warning. If the unauthorized persons still stays in the hazardous area after the warning is given, the operator must immediately stop the operation of the vehicle.

4. Safety devices and warning signs

Safety devices, warning signs and the above safety precautions must be heeded.

5. Passengers

Carrying or lifting of passengers is forbidden.



6. Keep distance

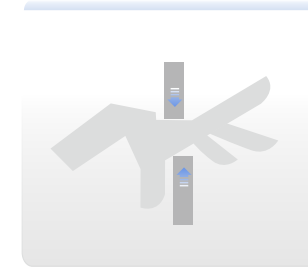
The truck should not be driven on public roads outside a specific area. Remember that the vehicle in front of you may brake suddenly. Keep a reasonable distance. At the same time, keep a safe distance with the vehicle behind when driving the electric pallet truck to prevent collision.

7. Visibility

The operator must stare at driving direction to ensure legible sight for the road condition ahead. In case that cargo carried interrupts the sight, reverse the vehicle. If it doesn't work in this way, there must be another person walking ahead of truck to give guidance and warning.

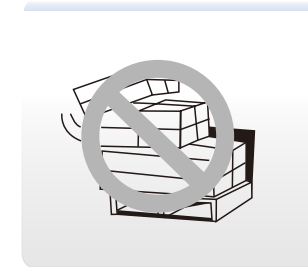
8. Operation protection

Hands and feet shall be kept far away from moving parts, such as parts connecting the truck body and fork arms as well as wheels.



9. Loose or unstable stacking of goods or overloaded cargoes prohibited

Loose or unstable stacking of goods will cause falling of goods, or even turnover.



10. Speed

Adjust the speed according to the road conditions, the line of sight and operation safety. Avoid fast acceleration, braking and turning, which will cause turnover or falling of goods.

11. Signaling

Use the signal horn to give the warning signal when make a turning.

12. Ground load

Carefully check the truck during its operation to see if the weight of truck body and loads or wheel pressure exceeds the ground load capacity.

13. Smooth travel

Drive the truck smoothly. Quick steering will be very dangerous.


14. Loaded travel/ unloaded travel

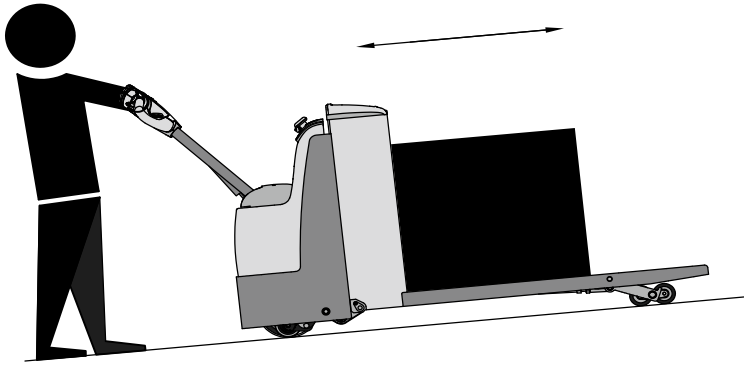
When operating loaded truck, keep the rear end of the truck pointed downhill. When operating unloaded truck, keep the rear end of the truck pointed upgrade.

Safe operating rules

15. Driving on slopes

On slopes, the truck must always be driven with the goods facing uphill.

 Note: take safety measures to the downward slip direction of the truck: when control handle is at "operation" position, please pull the handle backwards immediately and release it according to actual requirement to enable the electromagnetic brake to work automatically and control the speed and direction of truck (for downward rolling).



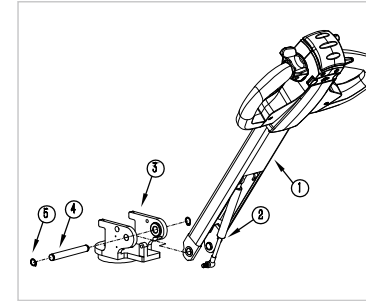
16. Parking

- ▶ The truck must be parked on a level and hard ground, engaged with a parking brake. The fork arms must be lowered to their lowest position, so that no one may accidentally trip over them. Always turn the key switch to the "OFF" position and remove the key when leaving the truck.
- ▶ If the truck is left unused for a prolonged period, ensure that its battery is fully charged, then the battery connecting wire should be disconnected.

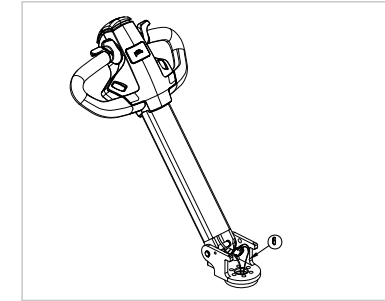
17. Repair

- ▶ The operator without professional training and special authorization, must not repair or change installation position of any part, especially the switches and safety devices of the truck.
- ▶ All original parts have been checked by the quality inspection departments. To ensure the safety and reliability of the truck, only the manufacturer's parts can be used. Replaced parts, such as oil and fuel must be disposed of in accordance with the appropriate environmental protection rules.

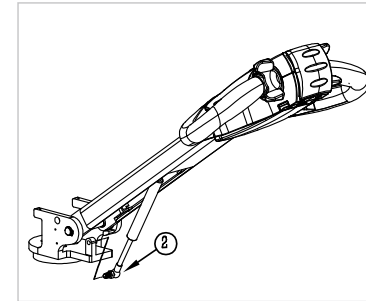
Handle assembly



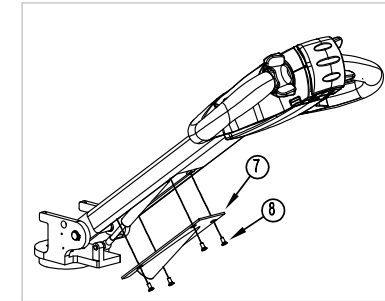
1. Screw the upper end of the gas spring 2 onto 1, then align 1 with the installation hole of 3, then insert pivot 4 and secure it with circlip 4.



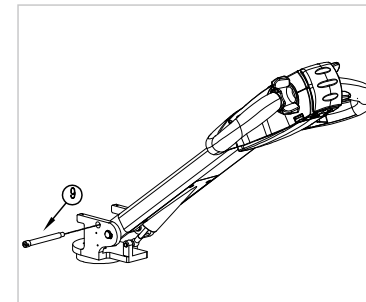
2. Insert the handle inserts and sensitive switch inserts of the harness 6.



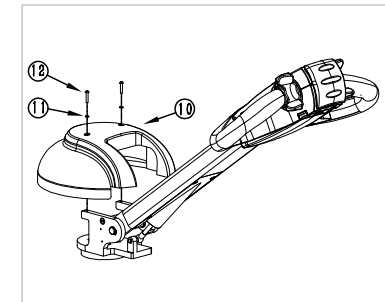
3. Properly install the lower end of gas spring 2.



4. Clamp 7 to its installation position and then tighten four screws 8.



5. Screw 9




6. Put 10 in place and align it with the screw hole, then install 11 and lock 12.

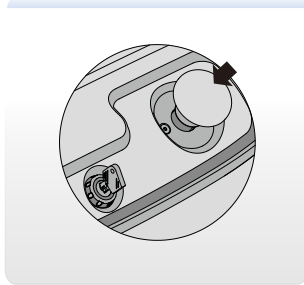
Operation guide

1. Switch

① Power off (emergency stop button)

Press the red button (emergency stop button) to cut off the power supply and turn off all electrical control functions. Turn off the power when the truck is not in operation.

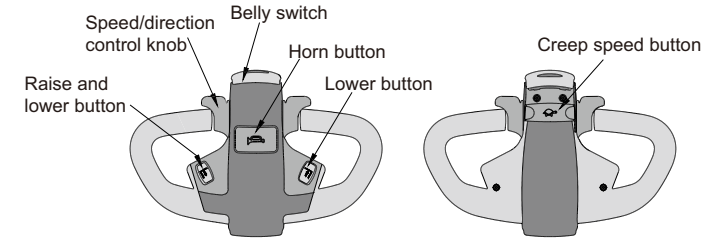
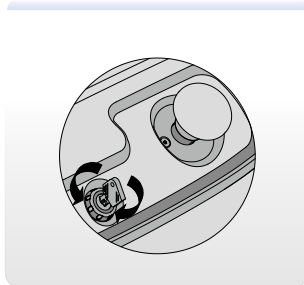
 Note: operating the key switch can not disconnect all electrical control functions. If the truck does not function properly, please stop using it immediately.



② Key switch

- ▶ When you turn this switch clockwise, it will switch on the power.
- ▶ When you turn the key switch counterclockwise, it will switch off the power.

 Note: Before leaving the truck, fully lowered its fork arms and take out the key switch.



③ Belly switch

Emergency reverse driving function: Belly switch reverses the direction of the truck upon contact with the body of the operator during the backward travel, to avoid injury to operator.

 Note: This button can not prevent all accidents.


④ Speed/direction control knob

- ▶ One knob is equipped on each side of the control handle, used for controlling the direction and speed of the vehicle.
- ▶ Gradually rotate the knob forward, the vehicle moves forward; rotate the knob backward, the vehicle moves backward. Travel speed is related to the margin of the rotation of the knob: the larger the margin, the higher the speed, but the relation is not linear.

 Note: the button will return to neutral when released, then the vehicle will be braked. To move forward, do not release the button.

⑤ Raise and lower button

Raise button and lower button is located in the front of the left side and right side of the control handle. Press the raise button to lift the fork arms; press the lower button to lower the fork arms.

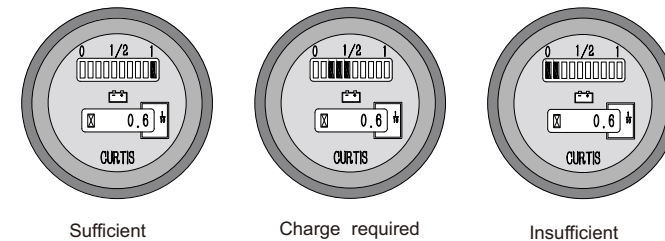
 Note: pressing the raise button and lower button simultaneously is operation against rules.

⑥ Creep speed button

When the operator simultaneously presses the creep speed button and the speed/direction control knob, the vehicle moves slowly, suitable for travel in the confined areas.

2. Battery indicator

Discharging status of battery is indicated on battery indicator with ten indicator bars for each 10% increase. On the bottom, the truck's working hour can be displayed. If the battery capacity meter indicates capacity insufficient soon after lifting system works, the lifting function will be resumed only after recharging the battery to at least 70% of the capacity.



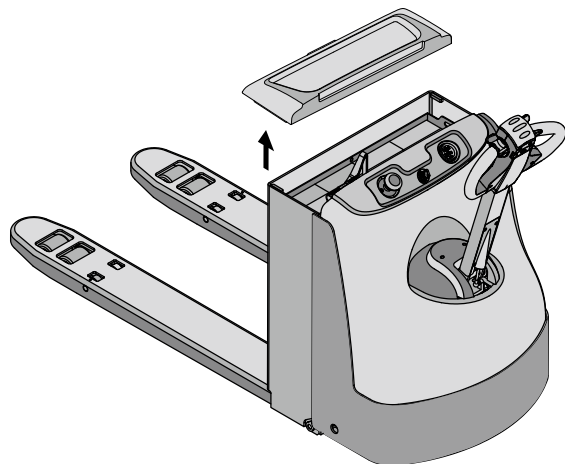
 Note: If the battery capacity meter indicates capacity insufficient soon after lifting system works, the lifting function will be resumed only after recharging the battery to at least 70% of the capacity.

3. Battery

① Battery cover

Opening the battery cover facilitates the checking of the charger, replacement of the battery or accessing to charging socket.

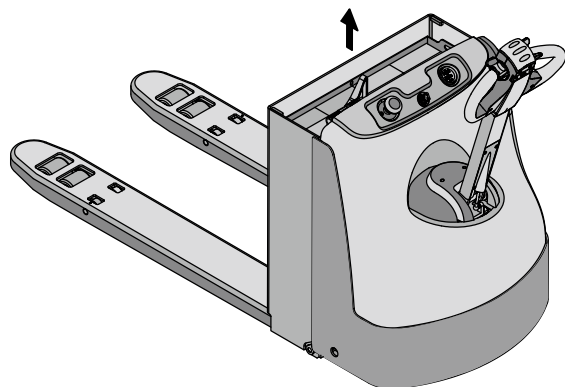
Note: Be careful to prevent fingers from being pinched!



② Battery replacement

Open the battery cover, pull the battery connectors and loosen the bolts, then lift the battery pack.

Note: After changing the battery, remember to re-tighten the bolts to prevent loosening of the battery box.



4. Vehicle check

Please check the vehicle works properly before using it, the vehicle can only be used after its safety is ensured. If abnormal or damaged parts found, please stop using it immediately and report the problem to management personnel.

① Carry out a thorough safety check before using the vehicle each time.

- ▶ Make sure the battery is fully charged, the electrolyte level is normal and its vent is smooth. No smoking and lighting of fire on site.
- ▶ Check the wheel is installed firmly.
- ▶ Check whether the fork arms are bent, cracked or worn.
- ▶ Check if the oil leaks on the bottom of the vehicle.
- ▶ Press the horn to check its sound.
- ▶ Ensure the cut-out is normal.
- ▶ Check that all controllers are normal.

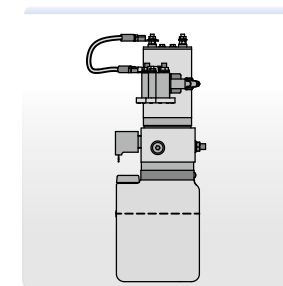
② Test the vehicle in open areas

- ▶ Test all hydraulic functions are normal.
- ▶ Check its steering.
- ▶ Drive the vehicle forward and backward slowly.
- ▶ Drive the vehicle forward and backward at full speed.
- ▶ Check the braking distance under forward and reverse travel, the distance is affected by cargo load and road conditions.
- ▶ Understand the braking distance before using the vehicle. If the distance is too long, please stop using it.

Note: If any abnormality is found in the vehicle, please stop using it immediately.

③ Check of the hydraulic oil

The hydraulic cylinder of the truck is short, so its oil consumption is low, refuel the hydraulic cylinder to 0.7L is enough. The visual oil level to reach the medium and upper part of the fuel tank is enough. If the oil level is low, unscrew the fuel tank cap to add some hydraulic oil.



④ Check the battery

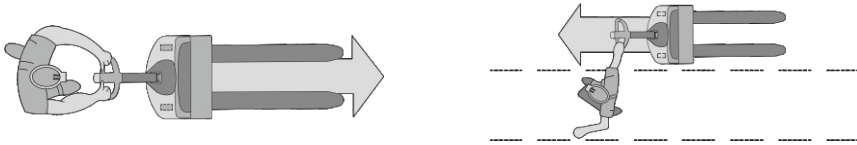
- ▶ Check that the battery cover is firmly fixed.
- ▶ Check the ratio of the battery electrolyte. See "Battery" for details.
- ▶ Check whether the battery electrodes are loose or damaged and timely adjusted or replaced.

Operation guide

5. Specific operation procedure

① Move fork arms

- ▶ When moving the fork arms, firstly operate the control handle with both hands.
- ▶ When moving direction changes, note the position of your body to prevent accidental collision.

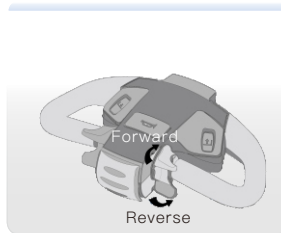


② Startup and travel

1. Startup

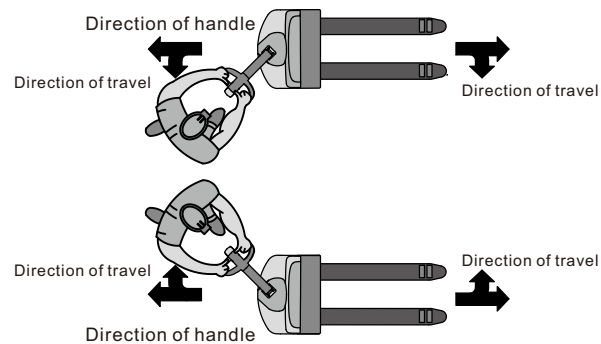
- ▶ Turn on the emergency stop switch.
- ▶ Turn on the key switch.

Turn the control handle toward the operator, then rotate the knob with your thumb.
Travel speed is related to the margin of the rotation of the knob: the larger the margin, the higher the speed.



2. Steering

Moving the control handle right or left to control the steering: moving the control handle right will turn the truck right and moving the control handle left will turn the truck left.




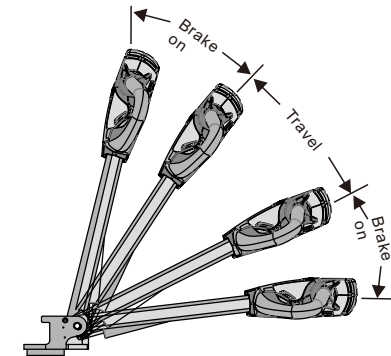
3. Deceleration

Release the knob, then the knob will automatically return to its original position and the vehicle automatically slows down.

4. Brake

- ▶ Move the control handle to vertical position or horizontal position, to brake the vehicle.
- ▶ Release the control handle, and it will automatically return to the vertical position.

 Note: check the brake function of the control handle is normal before work.



5. Raise and lower

Push raise button or the lower button until the fork arms are at the desired height.

6. Loading

When approaching goods, the truck should move slowly.

- ▶ Stop the vehicle directly in front of the goods;
- ▶ Lower the fork arms to the lowest position. Drive the truck forwards and insert the fork arms beneath the pallet;
- ▶ Lift the fork arms until the fork arms are firmly supporting the pallet and goods off the floor.

7. Unloading

When approaching goods stacking area, the truck should move slowly.

- ▶ Drive the truck to the unloading place.
- ▶ Slowly lower the fork arms until the pallet touches the floor;
- ▶ Slowly move the vehicle until it is able to separate from the pallet.

8. Parking

The truck should be parked on a level ground, with the fork arms lowered to their lowest position. Turn the key switch to the "OFF" position and take the key away.

9. Storage of vehicle for a long time

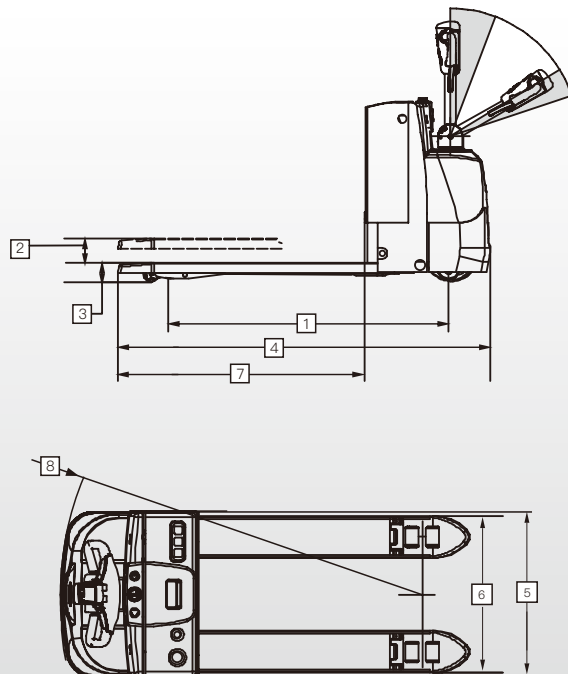
Carry out the following inspection and maintenance:

- ▶ Pull out the plugs to prevent the discharge;
- ▶ Apply anti-rust oil to exposed part, such as piston rod and wheel shaft;
- ▶ Clean the vehicle, cover it properly with the hood;
- ▶ Use the vehicle once every week, lifting it a few times to raise the fork arms to the highest position;
- ▶ Check if the electrolyte ratio and level are normal;
- ▶ Check the battery and level once per month.

Model		W16	W20
Manufacturer		Eoslift	
Power		Electric	
Operation mode		Pedestrian-controlled	
Rated capacity	kg	1600	2000
Load center	mm	600	
Overhang, front	mm	948	
Wheel-base	mm 1	1338	1386
Dead-weight	kg	520	600
Load per axle under full load, drive side / load-bearing side	kg	782/1338	931/1669
Load per axle, unladen, drive side / load-bearing side	kg	390/130	459/141
Tire, drive side / load-bearing side		PU	
Tire size, drive side	mm	φ230×75	
Tire size, load-bearing side	mm	φ85×85	
Size of shock absorbing wheel	mm	φ100×40	
Number of wheels, drive wheel /shock absorbing wheel/ load-bearing wheel		1/2/4	
Track, shock absorbing wheel	mm	528	
Track,load-bearing wheel	mm	510	
Lifting height	mm 2	120	
Handle height during operation	mm	1263/813	
Height of fork arms lowered, to ground	mm 3	85	
Overall length	mm 4	1721/1791	1769/1839
Truck body length(excluding fork arms)	mm	1001	1049
Truck body width	mm 5	720	
Fork dimensions	mm 6 7	560x1150/685x1220	
Ground clearance at center of wheel-base	mm	75	75.5
Width of aisle for right-angle stacking, pallet 1000x1200(1200 Placed over the fork arms)	mm	2321/2391	2369/2439
Width of aisle for right-angle stacking, pallet 800x1 200(1200 placed along fork arms)	mm	2192/2262	2240/2310
Turning radius	mm 8	1519	1567

Technical parameters

Model		W16	W20
Travel speed, with / without load	km/h	4/5	
Lift speed, with and without load	mm/s	30/35	30/32
Lower speed, with and without load	mm/s	45/45	
Maximum negotiable gradient, with and without load	%	5/8	5/7
Acceleration time, with / without load	s	8/6	
Drive motor power(60 minutes)	kw	AC1.2	AC1.5
Lifting motor power, 15% power	kw	0.8	
Battery voltage / rated capacity (capacity discharged in 5 hours)	V/Ah	24/160	24/210
Battery weight (±5%)	kg	180	205
Drive control mode		LAC	
Level of noise at driver's ears	dB	≤70	



Maintenance

No modifications or alterations to the parts of the stacker, especially the safety device shall be made without permission. The operating speed of the truck must not be changed.

All original parts have been checked by the quality inspection departments. To ensure the safety and reliability of the truck, only the manufacturer's parts can be used. Replaced parts, such as oil and fuel must be disposed of in accordance with the appropriate environmental protection rules.

1. Safety rules

► Maintenance personnel:

Only qualified persons specially trained by the manufacturer can carry out maintenance of the truck. The after-sales service department of manufacturer has dispatched special technicians who can be commissioned to sign on the maintenance record in the maintenance service appointed by manufacturer.

► Lifting of truck:

For lifting of the truck, the hoisting equipment should be safe and reliable (especially the hoisting position). When the truck is lifted, necessary measures should be taken to avoid slip and turnover of the truck (wedge block or wood block can be used). The hoisting equipment can only be used when the forks are fixed and connecting cable with enough strength is applied.

► Cleaning operation:

Flammable fluid is strictly forbidden in cleaning of the truck. Before cleaning work, safety measures must be taken to avoid sparks (e.g. caused by short circuit). Any operation of battery should be performed after cutting off the power of the battery. All electric elements and electronic assemblies can only be cleaned by weak wind blower or compressed air, or by non-conductive and antistatic brush.

⚠ Warning

If the truck is cleaned by water jet cleaner or high pressure cleaner, all electric elements and electronic assemblies should be covered in advance to avoid humidity which will cause faults. Cleaning the vehicle by steam nozzle is prohibited.

► Operation of electrical system:

Operation of electrical system should only be performed by trained professionals. Before any operation of electrical system, protection measures to avoid electric shock should be properly taken. During operation of battery, separate the inserts of battery apart to cut off the power of the truck.

► Operation of welding:

To avoid damage of electric and electronic assemblies, the assemblies should be removed away from the truck before welding.

► Installation:

After repair or replacement of the hydraulic components, electric elements and electronic assemblies, ensure that they are reinstalled to their original positions.

► Wheels:

The quality of wheels greatly affects the stability and driving performance of the truck. Any change to wheels should be approved by the manufacturer. During replacement of wheels, the truck must be kept level as original state (wheels must be replaced by pairs, e.g. both left and right).

► Lifting chain:

If the lifting chain is not coated with lubricating oil, it will wear soon. The maintenance cycle stated in service manual refers to maintenance under the normal condition. Under worse conditions (dusts, temperature), the parts should be lubricated regularly.

► Hydraulic oil pipe:

Oil pipe must be replaced every three years. When replacing hydraulic assembly, the oil pipe of hydraulic system should be replaced at the same time.

Maintenance

2. Routine maintenance(after each shift)

- ▶ Check if the battery level is within the specified range.
- ▶ Check each post, cable terminals and protective cover of the battery.
- ▶ Ensure that the battery box is secured firmly.
- ▶ Check whether the vehicle oil leaks.
- ▶ Check the cylinder, fork arms, oil pipe and horn are normal.
- ▶ Check the brake function is normal.
- ▶ Check the wear of the wheels.

3. Professional maintenance

Complete and professional maintenance is an important part for safe operation of stacker. Failure to conduct maintenance according to stipulated time interval will cause failure of truck and potential danger to person and equipment.

⚠ Warning

The maintenance cycle stated in operating instructions refers to maintenance under the normal condition with single shift operating. Under dusty condition, temperature varying greatly or under multiple shifts operating, the maintenance cycle should be shortened.

⚠ Warning

The following additional maintenance and check should be carried out during commissioning:
In the first operation of 50-100 hours or after two months:

- ▶ Check if any nut on wheels is loose and tighten it.
- ▶ Check if any leakage occurs on the hydraulic parts and tighten it if required.
- ▶ Replace hydraulic filter.


4. Storage

If the truck is to be stored for more than 2 months, the storage environment must be anti-freezing and dry. Before storing, all proper measures should be taken. During and after storage, execute the following operation:

- ▶ During the storage period, lift the vehicle to leave its wheels completely off the ground, in order to protect the wheels and their bearings inside.
- ▶ If the truck is to be stored for more than 6 months, please contact the repair department of the manufacture to obtain additional protective measures.

4.1 Prior to storage

- ▶ Thoroughly clean the vehicle.
- ▶ Check the brake function.
- ▶ Check the oil level of the hydraulic oil and add it if necessary.
- ▶ Apply lubricating oil or grease to all parts to protect them.
- ▶ Add lubricating oil or grease to the vehicle against the detailed lubrication period table.
- ▶ Recharge battery.
- ▶ Disconnect and clean the battery, apply the electrode grease to battery electrodes.

 Note: In addition, the battery should be protected according to the requirements in the battery manual.

4.2 Measures taken during storage


Charge the battery every two months.

⚠ Warning

Regularly charging the battery is very important. Otherwise, the battery will discharge by itself, resulting in the loss of all power, then the battery will be completely scrapped.

4.3 Re-commissioning

- ▶ Thoroughly clean the vehicle.
- ▶ Add lubricating oil or grease to the vehicle against the detailed lubrication period table.
- ▶ Clean the battery, apply the electrode grease to electrode bolts, then connect the inserts.
- ▶ Recharge battery.
- ▶ Check if the oil in the gearbox contains water. If so, change the oil.
- ▶ Check if the hydraulic oil contains water. If so, change the oil.
- ▶ Start the vehicle.

 Note: If poor contact occurs on the switch in the electrical system, spray the contact cleaner onto all exposed electrical inserts until oxide layer of the connectors is removed. Carry out electromagnetic brake test several times immediately after re-commissioning.

5. Maintenance list

● =Check, adjustment X=Replacement

① Batteries

Check point	Check item	Tool	Every day (8 hours)	Weekly (50 hours)	Monthly (200 hours)	Quarterly (600 hours)	Every half year (1200 hours)
Batteries	Level of electrolyte	Visual check		●	●	●	●
	Electrolyte	Densitometer		●	●	●	●
	Battery capacity		●	●	●	●	●
	Post Loose		●	●	●	●	●
	If connecting wire loosening		●	●	●	●	●
	Is the battery surface clean			●	●	●	●
	Is a tool left on the battery		●	●	●	●	●
	If air cap tightened firmly			●	●	●	●
Far away from fire		●	●	●	●	●	

② Controller

Check point	Check item	Tool	Every day (8 hours)	Weekly (50 hours)	Monthly (200 hours)	Quarterly (600 hours)	Every half year (1200 hours)
Controller	Check connector for wearing					●	●
	Check contactor for its normal operation					●	●
	Check sensitive switch for its normal operation					●	●
	Check if the connections between the motor battery and the power supply is safe and reliable					●	●

③ Motor

Check point	Check item	Tool	Every day (8 hours)	Weekly (50 hours)	Monthly (200 hours)	Quarterly (600 hours)	Every half year (1200 hours)
Motor	Clean foreign bodies on the motor				●	●	●
	Clean or replace the bearings						●
	Check the carbon brushes and commutator for wear; if worn, replace them.				●	●	●
	Check if the connecting cable is correct and firm				●	●	●
	Brush the carbon powder over the commutator plates					●	●

④ Transmission

Check point	Check item	Tool	Every day (8 hours)	Weekly (50 hours)	Monthly (200 hours)	Quarterly (600 hours)	Every half year (1200 hours)
Transmission	Too loud noise		●	●	●	●	●
	Oil leakage		●	●	●	●	●
	Oil change						X
	Lubricating rollers			●	●	●	●
	If steering flexible		●	●	●	●	●
	Abnormal sound		●	●	●	●	●
	Rotate the handle		●	●	●	●	●

⑤ Wheel (drive wheel, balance wheel and bearing wheel)

Check point	Check item	Tool	Every day (8 hours)	Weekly (50 hours)	Monthly (200 hours)	Quarterly (600 hours)	Every half year (1200 hours)
Drive wheel, balance wheel and bearing wheel	Check wear and cracks	Visual check	●	●	●	●	●
	Tighten bolts			●	●	●	●
	Clear ropes and debris off the wheels		●	●	●	●	●

⑥ Brake system

Check point	Check item	Every day (8 hours)	Weekly (50 hours)	Monthly (200 hours)	Quarterly (600 hours)	Every half year (1200 hours)
Brake sensitive switch	Check the brake condition when the handle is in the horizontal or vertical position	●	●	●	●	●
	If the sensitive switch is loose			●	●	●

Maintenance

⑦ Hydraulic system

Check point	Check item	Tool	Every day (8 hours)	Weekly (50 hours)	Monthly (200 hours)	Quarterly (600 hours)	Every half year (1200 hours)
Hydraulic reservoir	Check the oil level, change oil if necessary.		●	●	●	●	X
	Clean suction filter						●
	Remove foreign bodies						●
Hose, hose reel and swivel joint	Check for oil leakage, loosening, deformation and damage				●	●	●
	Replace hose						X (1-2years)
Hydraulic pump	Check for oil leakage and abnormal sound		●	●	●	●	●
	Check drive gear inside the pump for wear			X	●	●	●

⑦ Hydraulic system

Check point	Check item	Every day (8 hours)	Weekly (50 hours)	Monthly (200 hours)	Quarterly (600 hours)	Every half year (1200 hours)
Optional attachments	Performance check			●	●	●
Lifting cylinder	Check if the piston rod, screw and the stop pin are deformed and loose	●	●	●	●	●

Check point	Check item	Every day (8 hours)	Weekly (50 hours)	Monthly (200 hours)	Quarterly (600 hours)	Every half year (1200 hours)
	Check if cylinder function is normal	●	●	●	●	●
	Check for oil leakage	●	●	●	●	●
	Check the pins and bushings for wear or damage			●	●	●
Fork arms	Check the fork arm carriage for wear, crack and deformation			●	●	●
	Check the fork leg bottom and welded hook for cracks and damage			●	●	●

⑨ Other

Check point	Check item	Tool	Every day (8 hours)	Weekly (50 hours)	Monthly (200 hours)	Quarterly (600 hours)	Every half year (1200 hours)
Emergency stop switch	Check if its function is normal		●	●	●	●	●
Raise and lower button	Check if its function is normal		●	●	●	●	●
Horn	Check if its function is normal		●	●	●	●	●
Instrument	Check if its function is normal		●	●	●	●	●
Cable and wire	Worn or loose			●	●	●	●
	If wiring is poorly connected				●	●	●

Maintenance

6. Regular replacement of key safety components

In order to improve the safety for operating the vehicle, the components listed in the following table should be replaced regularly. If abnormalities found before replacement period is expired, replace the parts immediately.

Components	Service life
Hydraulic hose (lifting system)	(1-2 years)
High-pressure hose (hydraulic system)	2 years
Internal seals, rubber parts	2 years
Handle connecting wire	1 years

7. Tightening torque table of bolts

Unit: N.m				
Bolt diameter	Grade			
	4.6	5.6	6.6	8.6
6	4—5	5—7	6—8	9—12
8	10—12	12—15	14—18	22—29
10	20—25	25—31	29—39	44—58
12	35—44	44—54	49—64	76—107
14	54—69	69—88	83—98	121—162
16	88—108	108—137	27—157	189—252
18	118—147	147—186	176—216	260—347
20	167—206	206—265	245—314	369—492
22	225—284	284—343	343—431	502—669
24	294—370	370—441	441—539	638—850
27	441—519	539—686	637—784	933—1244

8. Hydraulic oil and lubricating oil or grease

Oil Name	Trademark, code	Capacity (L)	Remarks
Hydraulic oil	L—HM46	0.7	
Gear oil	GL-5 85W/90	1.5	
Yellow Vaseline	2#		Battery electrode
Lubricating grease	ZG2# or 3#		

9. Handling of vehicle

Transport

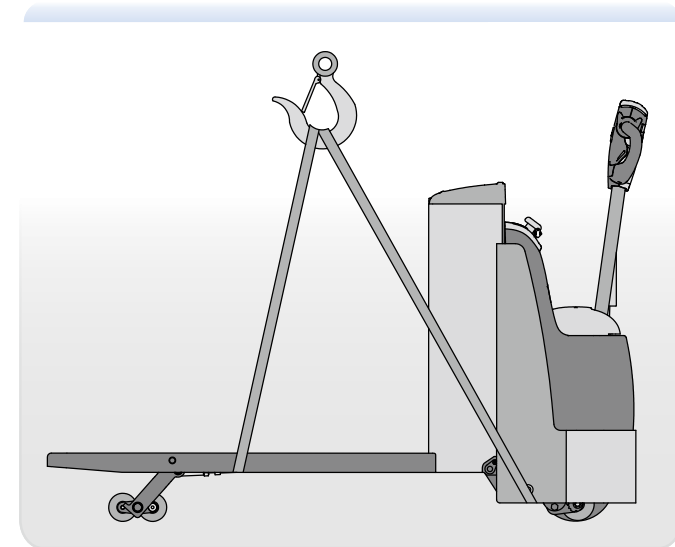
The truck is only used for material handling, can not be used as a tool for long-distance transport. The truck must be transported by ship, train or automobile.

Transport with a crane

Thread the sling through the bottom of the vehicle, then use a crane to handle the truck.

Warning

Sling and crane must have enough capacity. Never stand under the truck when lifting it.

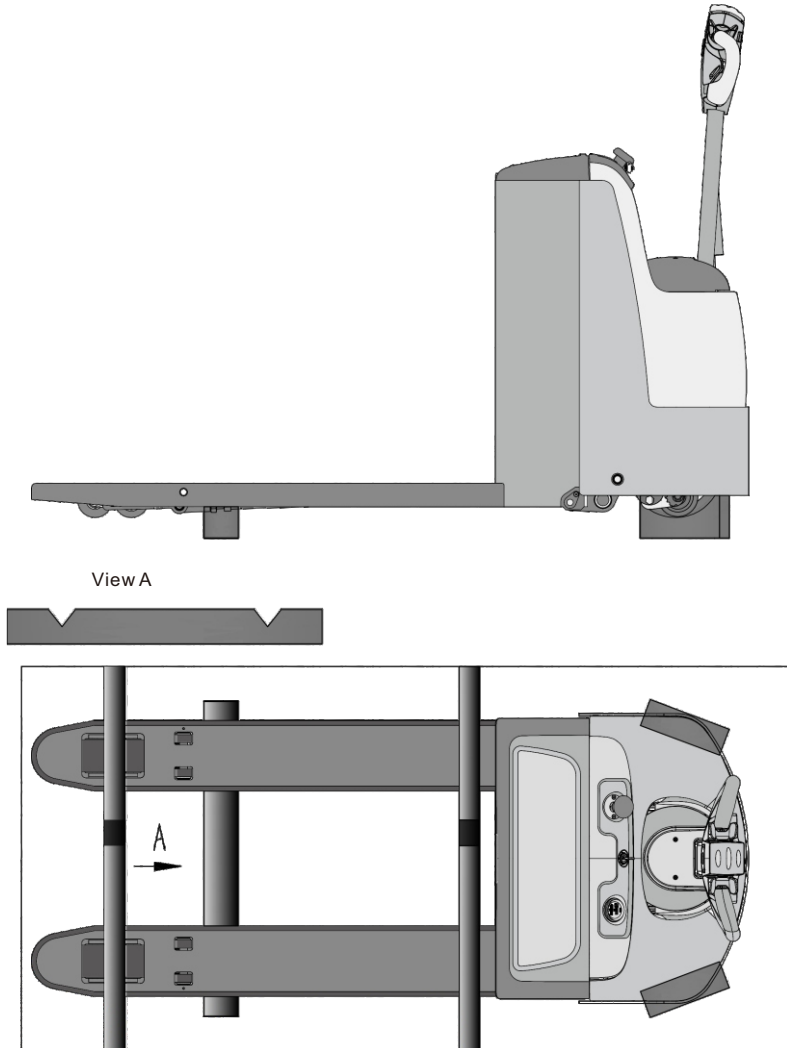


Long-distance transport

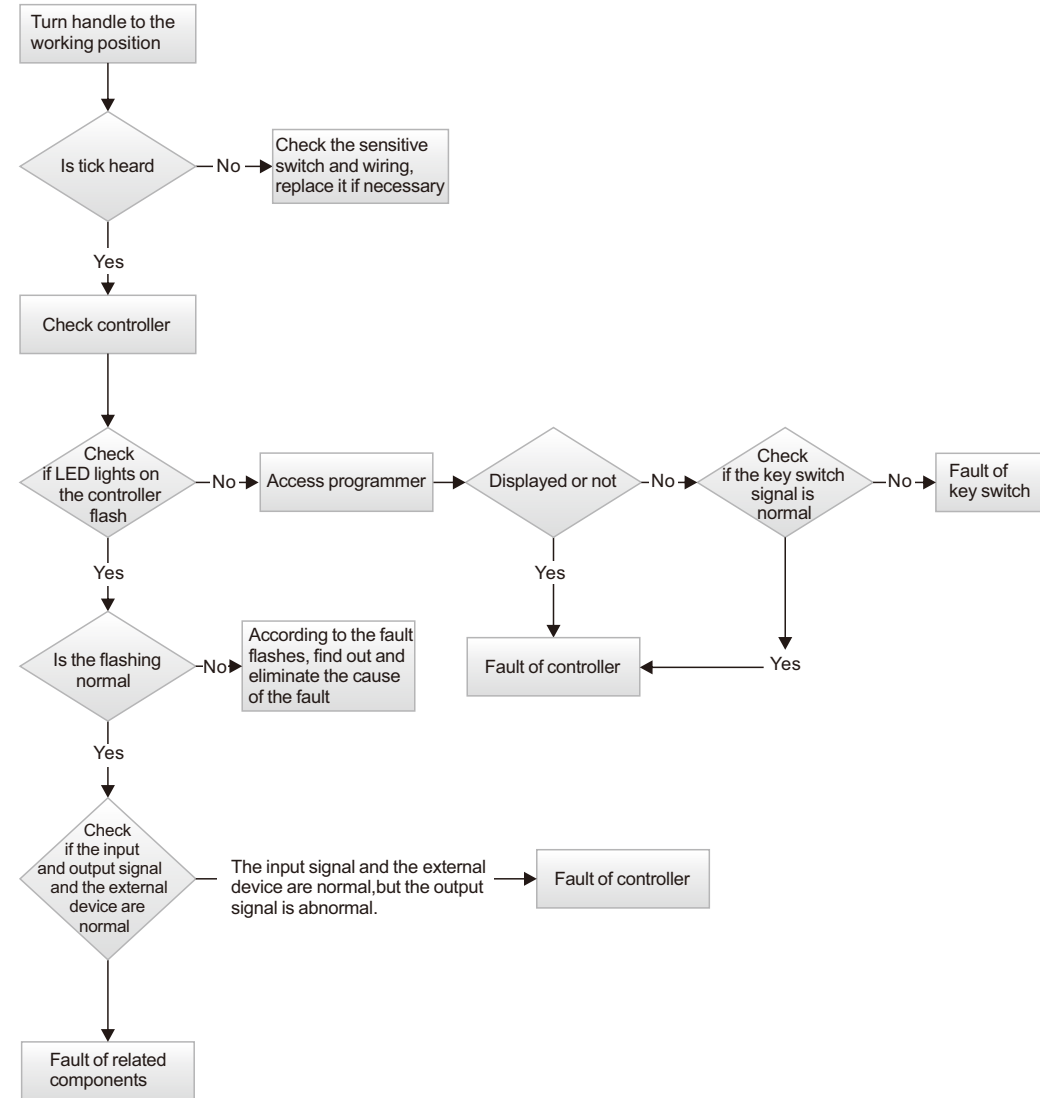
During long-distance transport, the truck must be firmly secured, placed on special pallet and fastened with strapping band to prevent loosening during transport.

Warning

Truck must be firmly secured, otherwise loosening during the handling and transport can cause body damage or even accidents!



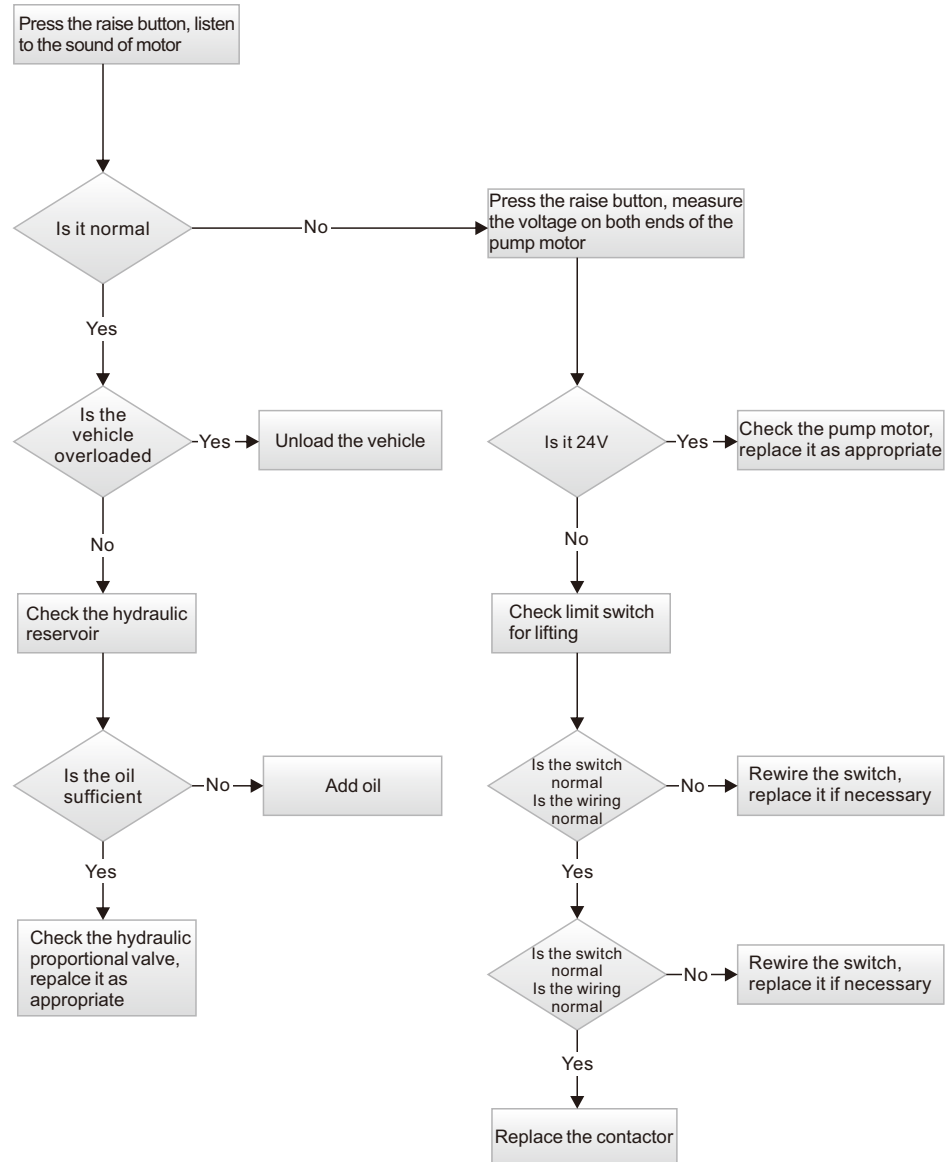
1. Unable to move forward and backward



Troubleshooting

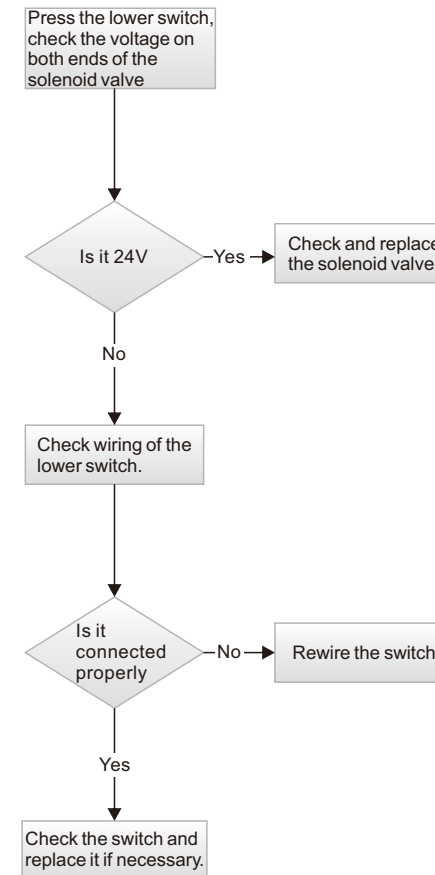
2. Unable to lift

Make sure the power switch is turned on, the battery is sufficient and the emergency stop button is pushed; then follow these steps to check the equipment:



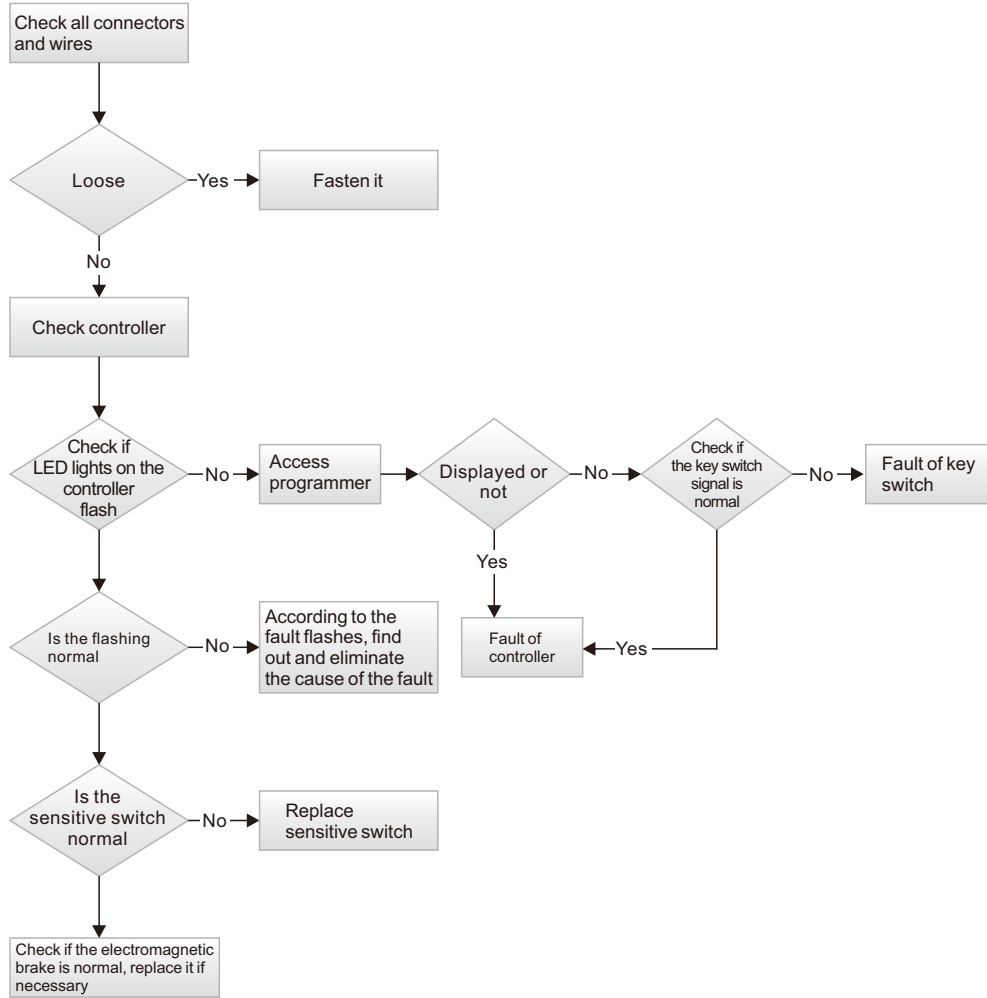
3. Unable to lower

Make sure the power switch is turned on, the battery is sufficient and the emergency stop button is pushed; then follow these steps to check the equipment:



4. Brake fault

- ▶ Brake can not be realized with control handle in the vertical and horizontal position.
- ▶ Parking can not be achieved after releasing knob.
- ▶ Parking can not be achieved after pressing the emergency stop button.



5. Fork arms lower automatically without operation

