

## **JA6500S-E**



Full Rise Scissor Lift - Surface Mounted - Lifting Capacity: 3500 KG

## Original

# INSTALLATION, OPERATION AND MAINTENANCE MANUAL





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

## **INDEX**

1. Important safety instructions3~4
1.1 Important notices
1.2 Qualified personnel
1.3 Danger notices
1.4 Warning signs
1.5 Sound level
1.6 Training
2. Overview of the lift5
2.1 General descriptions
2.2 Technical data
2.3 Construction of the lift
3. Installation instructions6~8
3.1 Preparations before installation
3.1.1 Tools and equipments needed
3.1.2 A list for checking of parts
3.1.3 Ground conditions
3.2 Precautions for installation
3.3 Installation
3.4 Items to be checked after installation
4. Operation instructions8~11
4.1 Precautions
4.2 Descriptions of control box
4.3 Operation flow chart
4.4 Operating instructions
4.5 Emergency lowering in case of power failure
5. Trouble shooting11~12
6. Maintenance12~13

### 1. Important safety instructions

#### 1.1 Important notices

Jema Autolifte A/S will offer two-year's quality warranty of the lift, during which any quality problem will be properly solved to the user's satisfaction. However, we will not take any responsibility for whatever bad consequence that may result from improper installation and operation, overload running or improper ground conditions.

This model is specially designed for lifting motor vehicles with a max. capapcity 3500 kg. Users are not allowed to use the lift for any other purposes. Otherwise, we, as well as our distributor, will not bear any responsibility for accidents or damages of the lift. Make sure to pay careful attention to the safety label showing the lifting capacity, and never try to lift cars with a weight more than the specified lifting capacity.

Read this manual carefully before operating the lift, to avoid economic loss or personnel casualty incurred by wrong operation. Without our professional advice, users are not permitted to make any modifications of the control unit or any other mechanical unit.

#### 1.2 Qualified personnel

- 1.2.1 Only qualified staff, which has been properly trained, can operate the lift.
- 1.2.2 Electrical connection must be carried out by a certified electrician.
- 1.2.3 No unauthorized entry is allowed in the lifting area.

#### 1.3 Danger notices

- 1.3.1 Do not install the lift on an asphalt surface.
- 1.3.2 Read and understand all safety warnings before operating the lift.
- 1.3.3 Calibration of the lift must be down after reading calibration instructions.
- 1.3.4 Do not leave the controls while the lift is still moving.
- 1.3.5 Keep hands and feet away from any moving parts. Keep feet clear of the lift when lowering.
- 1.3.6 Only 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 accidents, surrounding areas of the lift must be tidy and free from irrelevant matters.
- 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 lock are engaged before any attempt to work near or under the vehicle. Never remove safety related components from the lift. Do not use the lift 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 source;
- b. Empty the oil tank;
- c. Lubricate the moving parts with hydraulic oil.

Attention: For environment protection, please dispose the disused oil in a proper way.

#### 1.4 Warning signs

All safety warning symbols appearing on the lift with the aim of drawing the operator's attention to dangerous or unsafe situations. The labels must be kept clean and must be replaced if they loosened or damaged. Read the meaning of the labels carefully and learn them by heart



Attention 1 It is not allowed to stay under the vehicle, while operating the lift.

Attention 2 Please read and understand the instruction manual before using the lift.

Attention 3 When the lift is lowered, it is not permitted to use any help post or wooden stick.

Attention 4 Do not shake the vehicle when it is on the lift.

Attention 5 It is not allowed to lift the vehicle on only one platform.

Attention 6 Only trained personnel should operate the lift.

Attention 7 Make sure the vehicle is parallel to both lifting platforms.

Attention 8 Power in the control box.

#### 1.5 Sound Level

The sound emitted from the lift should not exceed 65DB. For the sake of your health, we suggest that you install a noise detector in your working area.

#### 1.6 Training

Only qualified staff, which has been properly trained, can operate the lift. We are quite willing to provide professional training for the users when necessary.

#### 2. Overview of the lift

#### 2.1 General descriptions

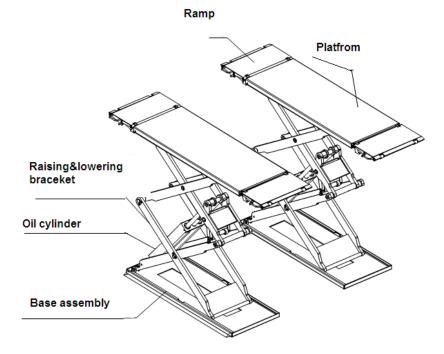
This full rise scissor lift is a low profile lift. Its four cylinder structure makes the low 110mm clearance from ground come true. This model is designed with auto leveling system. Because it is specially designed for surface mounting, users could have it installed with great convenience. Its platform extension design may not only be used as a ramp, but can also serve as an extended part of the platform for much longer vehicles. Besides this, designs like 24V working voltage of control box and limit switch, alarming buzzer, anti-surge valves, etc. emphasizes your personal security greatly.

#### 2.2 Technical data

Model	Lifting capacity	Lifting time	Lifting height	Electrical requirement
JA6500S-E	3500kg	50 Sec	1850mm	380V, Tripel Phrase

Weight of JA6500S-E = 786 KG.

#### 2.3 Construction of the lift



#### 3. Installation instructions

- 3.1 Preparations before installation
- 3.1.1 Tools and equipments needed
- √ Electrical drill
- √ Open wrenches
- √ Screw drivers
- √Adjustable spanner

#### 3.1.2 List for checking of parts --- Annex 1 (Packing list)

Unfold the package and check if any parts missed as per Annex 1. Do not hesitate to contact us in case any parts are missing, but if you do not contact us and insist on installing the lift lacking of some parts, Jema Autolifte as well as our distributors will not bear any responsibility for this and will charge for any parts subsequently demanded by the buyer.

#### 3.1.3 Ground conditions

The lift should be fixed on a smooth and solid concrete ground with strength of more than 3000psi, tolerance of flatness less than 5mm and minimum thickness of 150mm. In addition, newly built concrete ground must undergo more than 28days' cure and reinforcement.

#### 3.2 Precautions for installation

- 3.2.1 Joints of oil hose must be firmly connected in order to avoid leakage.
- 3.2.2 All bolts should be firmly tightened. Because of transport screws can be loosened and therefore needs to be checked.
- 3.2.3 Do not place any vehicle on the lift in the case of trial running.

#### 3.3 Installation

**Step1, Connect oil hose** (This step is extremely important, so do refer to the diagram for of oil hose connection in **Annex 4** and understand the following instructions before proceeding)

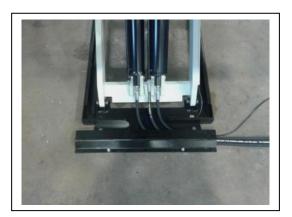
First make sure that the hose is not blocked or dirty.

Secondly installers have to indentify where the chief oil hose is to be connected, by referring to the below two pictures, and then connect the chief hose.

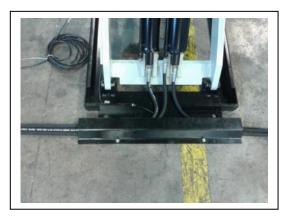
There are four main oilhoses in total, marked with four ribbons of different colours. Oil hoses with same colour should be connected to each other. Please follow the pictures below:

Finally, check if all connections are tightened.









#### Step2, Connect the wiring

A5 x 1.5mm multicore cable (3phase + N + PE) is recommended. Follow the indications on the wiring diagram. Connect the power cable to terminals L1, L2 and L3 on switch QS1 in the control box. Connect the Neutral wire to the block "N". Connect the earth wire to the block marked PE..

#### Step3, Fill with 10L hydraulic oil

Pour 10 liters of anti-grinding oil into the oil tank. The level of the oil must be 10mm to 40mm measured from the top of the tank. (users can measure it by the probe attached on the lid)

#### Step4, Leveling

Attention: Before leveling, make sure that the oil hoses are correctly connected. Otherwise, oil cylinders may not work synchronously or could be damaged.

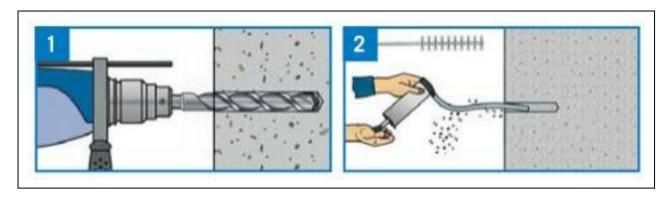
#### **Electric leveling**

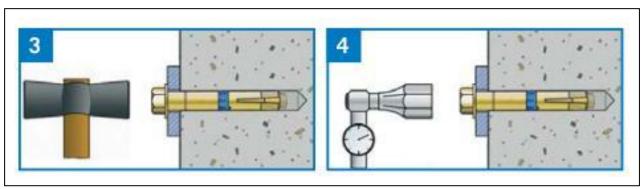
- 1. Turn on the power switch.
- 2. Raise the lift to its maximum height.
- **3.** When the platform arrive to the upper position, press the SB4 purge button (red color "O") to continue raising the lift to its mechanical stop to allow the cylinders to be purged. Keep the button depressed until all air has been released from the oil return tube (transparent nylon).
- 4. Lower the lift to its bottom position, raise and lower the empty unloaded lift to check that the platforms move in sync.
- **5.** Fill the tank to its maximum level after the purging operation.
- 6. Perform a final check by raising and lowering it with a vehicle in position to check for proper operation.

Use the lift as normal and see if the two platforms are calibrated. Otherwise please do step 3 again until it's calibrated.

#### Step 5, Mount the expansion bolt

Once the operations described in the previous sections have been carried out, the lift must be anchored to the floor following the indications given in the FLOORING REQUIREMENTS section. Using the base frame as a template, drill 12 a depth of 120mm. Clean the holes and insert the anchor bolts. Before tightening, ensure that the base frame is leveled. The frame is anchored to the ground by tightening the anchor bolts to a torque of Mo = 8 m•kp.





#### Step 6, Mount the oil hose covers.

- **1.** Make sure the hydraulic hoses located right on the floor and not calms top of each other, since it will not be possible to mount the oil hose covers if hydraulic hoses are not located properly.
- **2.** When the oil hose covers are placed correctly, attach them with bolts in the floor so the covers are fixed on the floor and protects the hydraulic oil hoses going from the lift to the control box.
- 3.4 Items to be checked after installation.

S/N	Check items	YES	NO
1	Are the two platforms adjusted at the same level?		
2	Are the oil hose tightly connected?		
3	Are all electric connections correct?		
4	Are the valves of the pump unit tight?		

## 4. Operation instructions

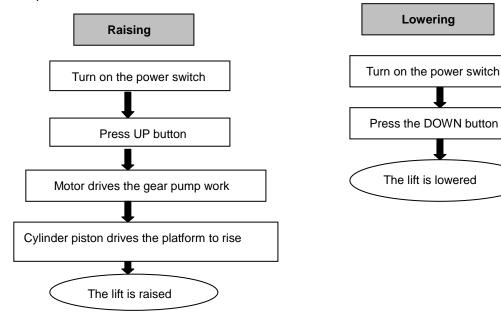
#### 4.1 Precautions

- 4.1.1 Check all the connections of the oil hose. Only when there is no leakage, the lift can start working.
- 4.1.2 The lift can not be used if its safety devices malfunction.
- 4.1.3 The lift must not rise or lower an automobile if its center of gravity is not positioned midway of the rising platforms Jema Autolifte as well as our distributors will not bear any responsibility for any consequence as a result of operating the lift in unbalance conditions.
- 4.1.4 Operators and other authorized personnel should stand in a safety area during lifting and lowering process.
- 4.1.5 When platforms are being raised to the desired height, switch off the power at once to prevent any wrong operation performed by unauthorized people.
- 4.1.6. Make sure that the safety lock of the lift is engaged before starting work under the vehicle and that nobody stays under the vehicle during the lifting and lowering process.

#### 4.2 Descriptions of control box



#### 4.3 Operation flow chart



#### 4.4 Operation instructions

#### To raise the lift

- 1. Make sure that you have read and understood the operation manual before operation.
- 2. Drive and park the vehicle midways on the two platforms.
- 3. Place the four rubber pads under the fix-points of the vehicle and ensure that the car's gravity have fallen on the rubber pads.
- 4. Press the UP button on the control box until rubber pads touch the fix-points of vehicle.
- 5. Press the UP button to lift the vehicle a bit higher from the ground and check again if the vehicle is in a safe position.
- 6. Having raised the vehicle to the required height, operators must press the "Emergency stop" button until the power indicator is off and check the stability of the vehicle again before performing maintenance or repair work.

#### To lower the lift

- 1. Switch on.
- 2. Press the DOWN I button to lower the lift. It will stop lowering approx. 200mm from the ground.
- 3. Press DOWN II button to continue lowering the platforms. Alarming buzz will be heard during this process.
- 4. Drive the vehicle away

#### 4.5 Emergency lowering in case of power failure

In the event of a power cut, the electrovalves that control the lowering operation, Y1, Y2 and Y3, cannot be opened. As a result, the platforms cannot be lowered. In such cases, the platforms can be brought down to their bottom position by opening the manual operation screws so that the vehicle can be lowered and removed from the lift.

To reach the manual lowering screws, the front cover of the control post must first be removed. The screws on the three electrovalves must be loosened in this order: First the two screws A, then the screw on the electrovalve B

## 5. 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 possible time. By the way, your troubles will be judged and solved much faster if you could provide us more details or pictures of the trouble.

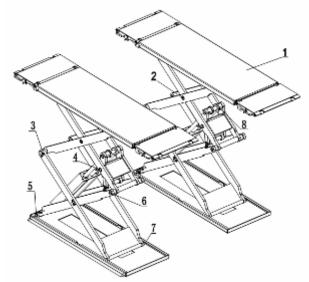
TROUBLES	CAUSE	SOLUTION			
Motor does not run and will not raise	The wire connection is loose.	Check and make sure, that the connection is tight.			
	The motor is burnt	Replace it.			
Will Hot laise	The limit switch is damaged or the wire connection is loose.	Connect it or adjust or replace the limit switch.			
	The motor run reversely.	Check the wire connection.			
	Overflow valve is loose or jammed.	Clean or adjust it.			
Motor runs but will not	The gear pump is damaged.	Replace it.			
raise	Oil level is too low.	Add oil.			
	The oil hose became loose or dropped off.	Tighten it.			
	The cushion valve became loose or jammed.	Clean or adjusts it.			
	The oil hose leaks.	Check or replace it.			
	The oil cylinder is not tightened.	Replace the seal.			
Platforms go down slowly after being raised	The single valve leaks.	Clean or replace it.			
and being raised	The overflow valve leaks.	Clean or replace it.			
	Electrical unloading valve leaks.	Clean or replace it.			
	The oil filter is jammed.	Clean or replace it.			
	Oil level is too low.	Add oil.			
Raising too slow	The overflow valve is not adjusted to the right	Adjust it.			
	The hydraulic oil is too hot (above 45°).	Change the oil.			
	The seal of the cylinder is abraded.	Replace the seal.			
	The throttle valve jammed.	Clean or replace.			
Lowering too slow	The hydraulic oil is dirty.	Change the oil.			
Lowering too slow	The anti-surge valve is jammed.	Clean it.			
	The oil hose is jammed.	Replace it.			

#### 6. Maintenance

Easy and low cost routine maintenance can ensure the lift works normally and safely. The following are requirements for routine maintenance. You may choose the frequency of routine maintenance by consulting your lift's working conditions and time.

The following parts need to be lubricated.

S/N	DESC
1	Platform slider
2	Joint shaft C
3	Joint shaft B
4	Driving rotor shaft
5	Rotor shaft of base plate
6	Joint shaft D
7	Base plate slider
8	Rotor shaft



#### 6.1. Daily checking of items before operation

The user must perform daily checks. Daily checks of the safety system are very important – the discovery of device failure before action could save your time and prevent you from great loss, injury or casualty.

- ·Check whether oil hose well connected. No leakage is allowed.
- ·Check the electric connections. Make sure that all connections are in good condition.
- ·Check if safety teeths and safety block is matching well or not.

#### 6.2. Weekly checking of items

- ·Check the flexibility of moving parts.
- ·Check the working conditions of safety parts.
- •Check the amount of oil left in the oil tank. Oil is sufficient if the carriage can be raised to highest position. Otherwise, oil is insufficient.
- ·Check whether the expansion bolts are well anchored.

#### 6.3. Monthly checking of items

- ·Check the tightness of the hydraulic system and screw the joints firmly if it leaks.
- ·Check the lubrication and abrasion circumstances of moving parts.

#### 6.4. Yearly checking of items

- ·Empty the oil tank and check the quality of the hydraulic oil.
- ·Wash and clean the oil filter.

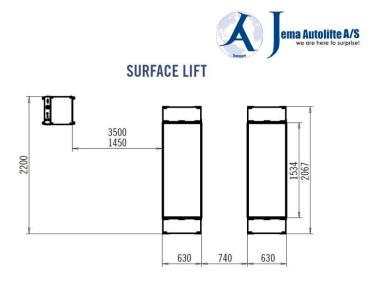
If users follow the above maintenance requirements strictly, the lift will be kept in a good working condition and accidents could be avoided to a large extent.

## 7. ANNEX

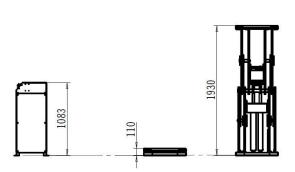
## Annex 1, Packing List of the whole lift

S/N	Name	Drawing#/Size	Description	Qty
1	Lift	6500-01	Component	1
2	Protection cover assembly	6500-A06-B02	Component	1
3	Cover plate A	6500-A9	Q235A	1
4	Cover plate B	6500A10	Q235A	1
5	Cover plate C	6500-A11	Q235A	1
6	Expansion bolt	M16*125	Standard piece	8
7	Expansion bolt	M6*50	Standard piece	12
8	Control box	6500-A12	Assembly	1

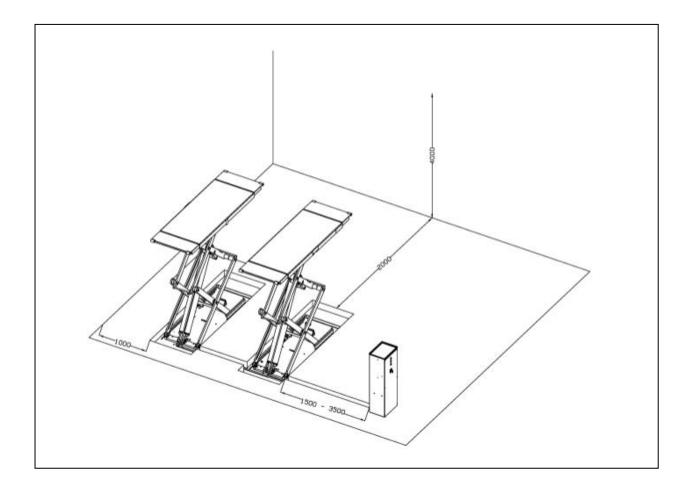
## Annex2, Overall diagram



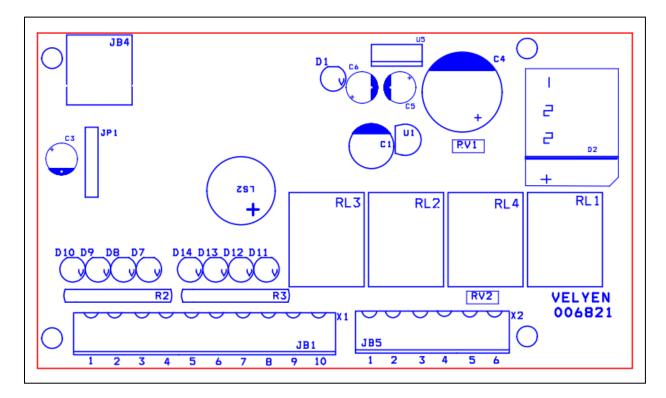
ema Autolifte A/S we are here to surprise!



## Annex3, Diagram for ground fixing

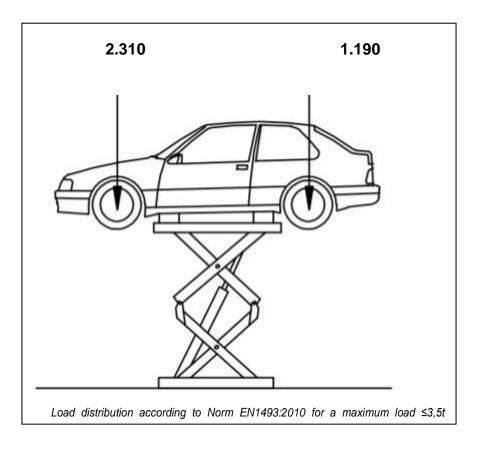


## Annex4, ELECTRONICBOARD LEDS



- D10.- Pushbutton Up
- D9.- Pushbutton Down
- D8.- Pushbutton Photocell Off/Bleed
- D7.- Pushbutton Look
- D14.- Up Limit Switch
- D13.- Safety Foot Limit Switch
- D12.- Main/Auxiliary Lift
- D11.- Safety Photocell

## Annex9, Size and weight requirements on vehicles



#### Annex 11, Approvals.

## Declaration of Conformity CE

The manufacturer;

, España

hereby declares under its sole responsibility that the product

Description: Floor mounted scissorlift

Model; JA6500S-E / 4EE0300

Serial no; Year;

Fulfils all the relevant provisions of the following European Directives 2006/42/CE

Machine Directive; 2006/95/CE

Low Voltage Equipment and Harmonized Standards and technical specifications used in (where applicable) EN 1493:2011

VehicleLifts; EN 12100-1: 2012

Safety of machinery - General principles for design - Risk assessment and risk reduction EN 60204 -1:2007

Safety of machinery. Electrical equipment of machines. General requirements

Firma/Signature:

XXXXXXXXXXXXXXXXXXXXXXX. certifies that this machine has successfully passed the EC-type test according to Standard EN 1493:2011. The technical file is available to the European Authorities for future review.

Place and date: Carlet, 05-09-2016